The body of a man killed in a shootout among gangs lies in a narrow street typical of the Spanish Quarter of Naples, Italy. © Francesco Cito/Panos Pictures

Reducing Armed Violence

THE PUBLIC HEALTH APPROACH

7

INTRODUCTION

In 1985 the US Surgeon General, C. Everett Koop, convened a landmark workshop on violence and public health. At the time, many viewed violence as a criminal problem. This conference 'signaled public health's entry into the field of violence prevention' (Mercy et al., 1993, p. 7), and set the stage for a proliferation of research and action on violence prevention. In 2002 the World Health Organization (WHO) released its *World Report on Violence and Health,* bringing the issue of violence, its effects on population health, and the role of the public health community in prevention efforts to the attention of the international community. Since the release of the report, efforts to use the public health approach to address the problem of violence have grown worldwide.

The public health approach has made a number of contributions to the understanding of violence. First and foremost, public health practitioners have highlighted and emphasized the preventable nature of violence. This shifts attention away from punishing those who have already committed violent crimes and towards intervening to prevent violence from occurring in the first place. Although perhaps an obvious contention, many approaches to violence perceive it as a common occurrence, and therefore something to be managed rather than prevented. As such, the public health approach presents a dramatically different way of thinking about the problem.

The second major contribution includes the identification of risk factors for violence. In 2002 the WHO developed a now widely used ecological model to identify potential risk factors, which offers a novel heuristic device for understanding what influences the likelihood of violence in a given situation. The ecological model underlines the embedded nature of the individual in his/her environment by identifying the various levels and types of factors that influence the individual, including an individual's family, community, and society. This model has become a prominent reference point for understanding the complexity of armed violence and identifying key risk factors that elevate an individual's propensity to become a perpetrator or a victim. A better understanding of risk factors in turn provides the basis for designing interventions targeting these factors.

This chapter considers the following questions:

- What is already known about armed violence, and how can the public health approach contribute to a better understanding of the problem?
- What is the public health approach to armed violence prevention?
- How does the social context influence armed violent behaviour?
- How does armed violence alter the social context and thereby contribute to further violence?
- How can the public health approach contribute to designing interventions to prevent armed violence?
- What does this approach add to the toolbox of policy-makers? And how can further research and refinement improve these tools?

The chapter is divided into six sections. The first section provides a definition of armed violence and discusses several types of armed violence. The second section presents a discussion of the scope and magnitude of armed violence at the global and regional levels. The third section discusses current approaches to understanding and addressing armed violence. The fourth section lays out the public health approach, explaining what it is and how it works. The fifth section focuses the discussion on how community factors influence the risk of violence in a given setting and the impact of violence on community characteristics and the possibility of future violence. The chapter finishes with an assessment of the public health approach, identifying its contributions to, as well as some of its limitations in, addressing armed violence.

The main conclusions include the following:

- The public health approach offers an additional lens for understanding the complexity of armed violence, thereby contributing to a more comprehensive approach to the problem and to possible solutions. It provides the backbone for a robust, evidence-based approach to understanding the complex, multi-causal phenomenon of armed violence and designing multifaceted and multi-level interventions to reduce the prevalence and negative impact of violent events.

The public health approach offers an additional lens for understanding the complexity of armed violence.

- Understanding and preventing armed violence require better information about violent incidents. At present, current methods of obtaining data about armed violence are insufficient. The scope and magnitude of violence is likely to be underestimated in many parts of the world, especially in areas where the national capacity for data collection and analysis remains very limited. In these areas where national surveillance is not possible, efforts should be made to boost data collection through other methods, including surveys, and by collating information obtained by government and non-governmental agencies on various aspects of armed violence.
- Context matters. The prevention of armed violence depends upon a general understanding of armed violence combined with local knowledge of the community in which the violence takes place. Effective interventions require more than just data on how many people are killed with small arms. Contextual data on who perpetrates violence, how, when, where, and against whom, is important in order to tailor interventions to community dynamics.
- While many armed violence reduction programmes are community-based, they are not focused on the community. Instead, these programmes often focus on the individual and address factors that contribute to an individual becoming a perpetrator or victim. While such programmes are necessary and important in reducing armed violence, community approaches are also necessary, wherein programmes target community relations and community-level factors, and rely on community action to address the problem of armed violence.
- While the public health approach can make positive contributions to violence prevention, solutions cannot be found using this approach alone. Public health is not an alternative to criminal justice, education, poverty reduction, or any other programme targeting violence. Instead, it offers a framework for the coordination of efforts based on evidence, analysis, and action.

ARMED VIOLENCE: DEFINITIONS AND TYPOLOGIES

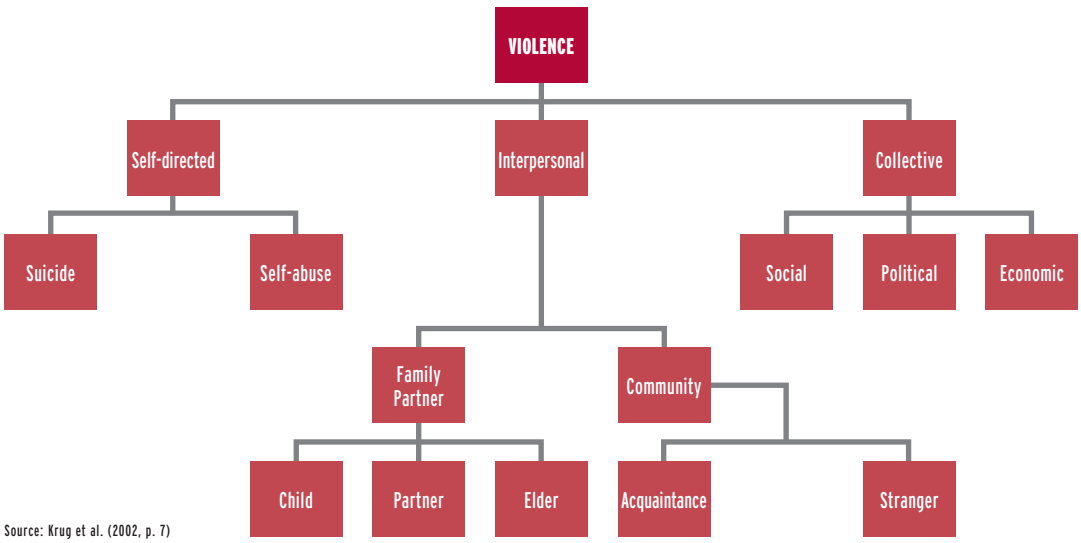
While there is no universally accepted definition of violence, WHO, at the forefront of the public health approach to preventing and reducing violence, provides a useful first cut at defining the problem. It defines violence as:

> *The intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment or deprivation* (Krug et al., 2002, p. 5).

This definition covers a broad range of acts, numerous actors, and a spectrum of outcomes. As a general definition, it suits the purposes of being inclusive and generating a rough understanding of what is meant by violence. As a definition to be used for the study of the phenomenon, it lacks the specificity required to operationalize the concept and ensure consistency across studies (Krauss, 2006, pp. 11–13). The definition simply covers too many acts, actors, and outcomes. It includes acts of suicide, child abuse, gender-based violence, crime, community clashes, and civil wars. The perpetrators and victims of these acts include young men; criminals; children; women; the elderly; communities; groups defined by their religion, ethnicity, or political party; or simply unlucky individuals. The outcomes range from minor bodily injury to grave bodily harm and death, from psychological scarring to impaired daily functioning, from economic hardship to economic devastation, and from disruption of daily life to disruption of a government's capacity to govern. While all of these acts, actors, and outcomes are important when considering the scope and magnitude of violence, they are difficult to study as a single phenomenon—violence. Instead, what becomes necessary to better understand these various violent acts and design interventions to prevent them is the delineation of these acts according to a typology of violence.

WHO has begun this process by identifying three main categories of violence: self-directed, interpersonal, and collective. Self-directed violence is any violent act an individual commits against himself or herself, and includes mutilation and suicide. Interpersonal violence is any violent act committed by an individual or small group of individuals against another individual or small group of individuals, and includes child abuse, rape, spousal abuse, fist fights, random acts of assault, and homicide. Collective violence is any organized act of violence committed by one group against another, and includes state-sponsored human rights abuses, terrorism, and civil wars. Figure 7.1 is a diagram designed by WHO to depict this typology of violence.

Figure 7.1 **WHO typology of violence**



Source: Krug et al. (2002, p. 7)

This delineation assists in understanding which actors might be involved and the scale at which the violence is taking place, i.e. directed at the individual, between individuals or small groups, or between large groups or countries, but does not aid in understanding or identifying the method, the context, or the nature of the violence—characteristics crucial to designing effective prevention strategies.

One important defining characteristic of violence is the method used to commit the violent act. It is important to distinguish between unarmed and armed violence. The importance of the tool used lies in the fact that different tools impart different levels of violence and costs of that violence. For example, a fist fight will impart costs on those involved in the fight, but these costs are often low and confined to the participants. A knife fight by contrast can produce more serious wounds that require medical attention and potentially produce long-term disabling effects, though again these effects are often confined to those involved in the incident. An exchange of gunfire, however, can produce severe and life-threatening injuries that require extensive medical attention and impose long-term costs on the victims, who can be far greater in number and include innocent bystanders, not just those engaged in the violent exchange. While various instruments have been used to injure and kill individuals and groups of people, small arms and light weapons have been responsible worldwide for a disproportionate amount of this violence, with some 63 per cent of homicides in 2000 being committed with firearms (WHO, 2001, p. 4).

Armed violence is the use of an instrument or tool to commit an act of violence. This instrument can be a knife, a stick, a broken bottle, a firearm, or any of a range of items used to intentionally inflict harm on another individual or oneself. Since a large percentage of armed violence in the world is committed with firearms, this chapter focuses where possible on small arms-related violence. The phrase 'small arms' is used to refer broadly to all types of military and commercial, hand-held, man-portable, explosively, or chemically propelled or detonated devices. This includes firearms. 'Firearms' is a term more commonly used in discussions of crime and non-conflict situations and encompasses handguns, shotguns, and assault rifles.

Guns line a wall of the firearms reference collection at the Metropolitan Police Department headquarters in Washington, DC, September 2007. Most of the guns were seized during crimes.© Jacquelyn Martin/AP Photo

Table 7.1 **Violence by context**

General context	Common types of violence[1]
In the home	Self-directed, suicide Domestic violence: intimate partner violence, family violence, child maltreatment, elder abuse Sexual violence
In a community	Sexual violence Interpersonal violence Youth violence, school violence Gang violence Violent crime, organized crime
Between communities	Sexual violence Gang violence Violent political/economic/social conflict Armed conflict Terrorism
In a country	Civil war, armed conflict Violent political/economic/social conflict Terrorism Organized crime Gang violence State-perpetrated violence
Between countries or across borders	War, armed conflict Violent political/economic/social conflict Terrorism Organized crime

Previous editions of the *Small Arms Survey* have explored urban armed violence (2007), the costs of small arms violence (2006), the role of small arms in conflict (2005) and in crime (2004), and the impact of armed violence on humanitarian assistance (2002) and development (2003). This theme chapter explores armed violence and violence prevention using a public health framework. This framework emphasizes the context within which individuals interact and within which violence takes place, and the risk factors that exist in these environments. Table 7.1 provides a categorization of violence according to general context.

While understanding the context serves to identify risk factors, potential violent offenders, and possible victims, it also suggests the level at which interventions should be targeted: family, group, community, city, etc. It also indicates the level at which data should be collected about the phenomenon, or the level at which national data should be disaggregated. National crime rates offer only marginal insight into the prevalence of violence in any given community or the distribution of different types of violence across a country. For example, the homicide rate for Caracas, Venezuela was 60 per 100,000 members of the population in 1995, but the national average was only 20.5, and was heavily influenced by the high rate in Caracas (IADB, 1999a, p. 5). At the local level (see Box 7.1), data collection about violence generates more detailed information about a specific context and the risk factors contributing to the environment of violence.

Box 7.1 **Mapping violence**

Communities facing problems of violence must answer at least three important questions before engaging in violence prevention and reduction strategies: Does violence exist in the community? What kind of violence exists? And, what is the distribution of violence—by type and frequency—in the community? Answers to these questions produce a detailed map of violence 'hot spots' and the sources of violence, e.g. knives or firearms, residents or outsiders. This information in turn enables the design of targeted intervention strategies and aids in their implementation. School violence offers one clear example where violence mapping has provided important local information on the nature, scope, and frequency of the problem and enabled the implementation of safety strategies to reduce the risk of violence to students.

Schools have mapped violence successfully in Europe, Australia, and Israel by asking students a series of questions about their experiences, their knowledge of violence, and their fears about violence in school. Schools have used this information to determine whether metal detectors are necessary to identify students carrying weapons, or monitors are needed in certain hallways or other areas at particular times, or bus stops need to be moved to ensure that students do not face risks while waiting for the bus or getting on or off one. Importantly, this process empowers school administrations and students to respond to violence in a public, collective, and targeted manner, rather than administrators ignoring the problem and students avoiding certain hallways at lunchtime.

Source: Based on Astor, Benbenishty, and Meyer (2004); Astor and Benbenishty (2006)

THE SCOPE AND MAGNITUDE OF ARMED VIOLENCE

Irrespective of the approach taken to armed violence reduction, e.g. education, crime prevention, or public health, understanding the nature, scope, and magnitude of armed violence is important for designing effective strategies and interventions to reduce armed violence and for targeting these interventions appropriately. Unfortunately, the availability of information about armed violence remains extremely limited and patchy across the globe.

While national homicide rates, a commonly used estimate of violence, are available for many countries, not all countries possess the capacity to collect this information systematically. In many parts of the world, especially low-income countries, mechanisms such as civil registration systems do not exist to record and report the births and deaths of citizens. Under-reporting poses a large challenge to data collection. A number of factors influence reporting, including the type of crime committed, police capacity to respond, corruption, and public trust in government (Soares, 2004).

The case is even graver for recording and reporting incidents of violence. Most countries do not routinely collect reliable data on violent deaths or the circumstances of these deaths (Rosenberg et al., 2006, p. 756), with only one-third of the countries outside of North America and Europe possessing the capacity to collect and utilize mortality statistics (Setel et al., 2007, p. 1569). This means that these governments do not know the extent or distribution of armed violence in their countries and cannot develop armed violence reduction strategies based on credible information.

Even in areas of the world where such civil registration mechanisms function and violence reporting exists, the resulting data is incomplete and suffers from problems of under-reporting, making cross-national comparisons difficult. The lack of data on armed violence, especially from low-income countries, has compounded this problem of data inaccuracy. Dependence on data from high-income countries to extrapolate to broader regional and global trends is cause for concern about misrepresentation of regional and global trends in armed violence. The result is a limited understanding of the full extent of armed violence in many countries and regions.

Given the difficulties in obtaining reliable and valid data on incidents of violence at the national, regional, and global levels, the current data must be viewed with caution. As methods for collecting data improve and more data becomes available, new assessments of the national, regional, and global burdens of armed violence may vary significantly and substantially from current figures. For example, the Latin America and Caribbean region is often cited as the region with the highest level of armed violence, particularly homicide. However, this assessment could be the result of better data reporting rather than higher rates of violence. The Americas region has proven much better at reporting cause of death data to WHO (33 of 35 countries have useable data) than the African region (4 of 46 have useable data) (Mathers et al., 2005, p. 173). Imbalanced reporting across regions can distort the overall picture of the distribution of violence regionally and globally. This also has implications for where donors focus their funding and whether regional factors can be taken into consideration in designing interventions.

With these caveats in mind, global and regional trends can be identified in the current data, with the understanding that these generalizations are based on an imperfect, limited dataset. These trends in armed violence are discussed here not as a definitive measure of the problem of armed violence, but as an illustration of the scope and widespread costs of armed violence, and the need for additional attention to preventive and curative measures to reduce these negative effects and high costs.

Residents gather around the body of a person killed during a shootout between police and gang members at the Complexo de Alemao slum in Rio de Janeiro, June 2007.

Global burden of armed violence

Although many violent events never make it to the nightly news, and few incidents result in large numbers of deaths, cumulatively armed violence has a tremendous impact on the health of national populations around the globe each year. In some countries considered 'at peace' the death and damage wreaked by armed violence surpasses that taking place in countries in conflict. The death tolls are significant. An estimated 196,000–270,000 non-conflict deaths result each year from armed violence, and many more are wounded as a result of this violence.[2] Estimates of conflict-related deaths and non-fatal injuries from conflict and non-conflict violence are even more difficult to develop with any confidence, though there is some evidence that the former are on the decline (Human Security Centre, 2006, p. 8).

Non-conflict deaths result from homicide, suicide, accidents, and incidents of unknown intent. The vast majority of deaths result from homicide or suicide. Globally, suicide outnumbers homicide by a rate of three to two (Krug et al., 2002, p. 10). However, if only events involving firearms are included, the ratio shifts substantially to a rate of four homicides to one suicide, with firearms being 'used in approximately six per cent of suicides worldwide and in almost 40 per cent of homicides' (Small Arms Survey, 2004, p. 175).

Despite the lack of information to generate exact estimates, many would agree that 'by any measure, violence is a major contributor to premature death, disability and injury' (Mercy et al., 1993, p. 8) in many parts of the world. Despite this grave—and valid—claim, violence should not be viewed as homogenous across countries or even within countries. Violence is 'disproportionately felt by low and middle income countries' (Rutherford et al., 2007b, p. 764). 'The estimated rate of violent deaths in [low- and middle-income countries] was 32.1 per 100,000 in 2000, compared with 14.4 per 100,000 in high-income countries' (Rosenberg et al., 2006, p. 755). This means that violence is most prevalent in those countries and populations least able to respond to the threat, pay the costs, and manage the short- and long-term impacts of violence. Even within high-violence regions and countries, wide variance exists in terms of the types of violence prevalent; the frequency of violence; and where violence is concentrated in certain countries, areas, and cities (see Box 7.2). These characteristics have a significant impact on devising strategies to reduce violence.

Regional distribution of armed violence

The difficulty in collecting reliable and regular data on armed violence and violent deaths results in an uneven understanding of the regional distribution of violence. Data is more widely available in certain regions, such as North America and Europe, followed by Latin America and the Caribbean, because there are systems in place in these regions

Box 7.2 Violence in Sri Lanka

In Sri Lanka, where a civil war has raged for several decades, a surprising mix of violence and peace exists within the country. Social relationships and economic vitality are not depressed nationwide. Instead, the levels of social cohesion and the strength of the local economy are largely dependent on the location of any given village. Villages that sit squarely in either government- or rebel-controlled territory experience far more stability than villages that sit on the borderlands between the two fighting factions. This is largely the result of the monopoly of power held by one faction, resulting in lower levels of actual fighting, and the mono-ethnic nature of the communities, producing more trust among neighbours. The low levels of insecurity enable wider mobility and opportunities for economic engagement. The planting of crops, for example, becomes possible due to more certainty about the future. By contrast, in the border areas between fighting factions, social cohesion is low and economic opportunities are extremely limited. Insecurity reduces mobility and economic activities, while frequent displacement reduces interest in investing in the future, such as by the planting of crops.

Source: Goodhand, Hulme, and Lewer (2000)

Table 7.2 **Regional armed violence rates, estimated per 100,000 people, 2004**

Region	Firearm homicide	Firearm suicide
Latin America and the Caribbean	15.47	1.12
Africa	5.90	0.59
North America	3.50	5.52
Central and Eastern Europe	3.09	1.41
Middle East	1.89	0.06
South-east Asia	1.45	0.10
Asia-Pacific	0.54	0.39
Western Europe	0.35	1.66
Worldwide	3.14	0.81

Note: These estimates are the upper threshold estimates. Additional details on the regional divisions, the derivation of these estimates, and the datasets used can be found in Small Arms Survey (2004, Appendix 6.1, 6.2, 6.3, pp. 199–204).
Source: Small Arms Survey (2004, pp. 199–200)

to collect this information. In other regions, data is collected, if at all, on a more ad hoc and unsystematic basis. There are efforts to improve the collection of information in hospitals and through crime victim surveys, but these remain in their early stages (Rosenberg et al., 2006, pp. 756–57).[3] In addition, more is known about certain types of violence, e.g. homicide, than other types, e.g. domestic violence. To date, most efforts to collect data still provide snapshots of the situation in any given location, not reliable longitudinal data that can depict clear trends over time or map the various types, frequencies, and impacts of armed violence across a region. Despite the limitations imposed by gaps in existing knowledge, some regional trends can be identified using the currently available data.

The proportion of deaths resulting from firearm homicide versus firearm suicide varies by region and country (see Table 7.2). Firearm homicides are more common in Latin America, the Caribbean, and Africa, whereas firearm suicides significantly outnumber homicides in North America and Western Europe. The rest of the world falls below the estimated average global rate of firearm homicide, 3.14 homicides per 100,000 people, with significantly lower rates in Asia and Western Europe. However, it is important to note that religious and cultural beliefs that suicide is an unacceptable practice contribute to the under-reporting of suicides in many regions.

Firearms are used in an estimated 60 per cent of all homicides in Latin America, the Caribbean, and North America, and an estimated 30 per cent of all homicides in the Middle East, Western Europe, and South-east Asia (Small Arms Survey, 2004, pp. 199–200). This suggests that firearms are a common tool of armed violence and therefore a significant concern for many countries.

Common factors contributing to armed violence

Current information on armed violence in a number of countries and settings suggests a number of common risk factors that heighten the probability of armed violence. These include age; gender; geographical location; level of economic inequality; density of population; the presence of gangs; and the availability of alcohol, drugs, and weapons.

Demographically, young men aged 15–29 are the primary perpetrators and victims of violence worldwide. Moreover, young men, more than any other group, use firearms when carrying out a crime (Small Arms Survey, 2006,

p. 297). For every young man killed through violence, there are an estimated 20–40 more young men who are injured and treated in hospitals (Sethi et al., 2006, p. 31). The homicide rates among young men are substantially higher than those among young women.

Low-income countries experience higher death rates due to violence than high-income countries. The risk of violent death for young men in low-income countries is 11.3 times greater than the risk for young men living in high-income countries (Sethi et al., 2006, p. 31).

Although no direct link between urbanization and armed violence exists, evidence suggests that the larger the city, in general, the higher the rate of armed violence (see Table 7.3). Factors that contribute to this urban–rural divide include population density, higher levels of economic inequality in urban areas, the prevalence of slum areas, and the presence of gangs.

The presence of firearms, drugs, and alcohol increases the likelihood of violence. While firearm ownership cannot be equated with firearm violence in a simple manner, the availability of firearms is a contributing factor to armed

Gang members with a 9 mm pistol in the hallway of a public housing project in Brooklyn, New York, December 2003. © Boogie

Table 7.3 **US homicide rates by city population per 100,000 people, 1985–2004**

City population	20-year mean rate
1 million +	19.04
500,000–999,999	13.86
250,000–499,999	11.31
100,000–249,999	7.21
United States overall	7.57

Source: Wilkinson and Bell (2006)

violence. In particular, firearms contribute to higher lethality rates when used in crimes (Dahlberg, 1998, p. 265). The use of alcohol and drugs by individuals also increases the risk of violence. Excessive use of alcohol contributes to higher rates of all types of violence, with a number of studies revealing high levels of alcohol consumption by both perpetrators and victims of homicide (IADB, 1999d, p. 8).

Understanding the context through better data

The lack of a comprehensive global map of armed violence is the result of problems relating to obtaining data, the quality of data produced, and the incomparability of different datasets.[4] While important to understand the global burden of violence for policy and funding reasons, a global map of armed violence, depending on its detail, may not prove particularly useful for designing national or local-level interventions. Context-specific data becomes equally important to a global map, and thus collecting this data should be a priority for armed violence reduction.

Violence data can be drawn from a variety of sources, including civil registration systems, which record births and deaths; vital statistics records; medical examiners' reports; hospital records; police crime statistics; court records; population surveys; demographic surveillance sites; population censuses; sample registration systems; victim surveys; and interviews, among others.[5] Various actors collect data, including hospital workers, non-governmental organizations, journalists, scholars, police and customs officials, and a variety of other government agencies and local organizations. The collection of data can be driven by the interests of these actors and their financial and political constraints, leading to biases in the type of data collected, how it is collected, and how it is reported. Information from these various sources adds to an overall—yet necessarily imperfect—picture of the burden of armed violence in a given area, country, or region.

Yet even with statistics on who has died and how (i.e. murder, natural causes, accident), what is missing, but is needed for designing interventions, is contextual data. Contextual data moves beyond these basic statistics to address the questions of when, where, how (e.g. knife, gun), and by whom armed violence is committed. This data contributes to a better understanding of which factors are important to armed violence in a given setting (RISK AND RESILIENCE). These factors include the demographics of the population, environmental characteristics (e.g. the presence of street lighting, use of public space), common behavioural patterns of community and non-community members (e.g. cohesive community, transitory population), the presence of high-risk materials (e.g. weapons, drugs), and the presence of high-risk groups (e.g. gangs, youth, organized crime). The identification of existing risk factors contributes to targeting violence prevention efforts at the most significant problems within a given context.

TACKLING ARMED VIOLENCE: APPROACHES TO PREVENTION

It is not only the magnitude and scope of armed violence that argue in favour of enhanced prevention and reduction efforts, but also its preventable nature. There is no simple solution or single measure that can address the complexity of armed violence. Given the fact that such violence takes place in a wide variety of contexts, strategies to address it need to be tailored to fit the situation—politically, economically, socially, and culturally. These strategies need to be multifaceted in nature and require a cross-sectoral approach.

A current challenge to effective armed violence reduction efforts is the wide range of groups and sectors (e.g. police, health, education) working on the problem, but not working together. Instead, 'each of the groups working in violence prevention has their own culture, concepts, theory, language, methods and priorities' (Rutherford et al., 2007b, p. 767), which leads to each group focusing on its own aspect of the problem. This piecemeal and ad hoc approach leads at times to misunderstandings and misinterpretation of efforts, as well as to conflicts among groups who should be working together; exacerbates the scarcity of resources; and misses opportunities for sharing information and collaborating on violence reduction initiatives.

There is no simple solution for reducing armed violence. Given the wide variation in the nature of such violence, no single approach is likely to address all types equally. Widely used approaches include mental health, safety education, conflict prevention, criminal justice, and public health, among others. Each approach has its strengths and weaknesses, and some may be used better for addressing specific types of violence or particular target audiences. The question remains one of how to promote collaboration across approaches rather than singling out the best approach. Many approaches have contributed, and will continue to contribute, to understanding armed violence and working to reduce its scope and magnitude. What is needed is a comprehensive, collaborative approach—one that looks at perpetrators and victims, violent incidents and the effects of that violence, deterrence and prevention, punishment, and treatment—in order to ensure an efficient use of resources, information, and skills, and ultimately to have the greatest impact on reducing armed violence in response to the circumstances of a specific locality.

The public health approach identifies risks to the health of a specified population, assesses them, and takes measures to reduce them.

THE PUBLIC HEALTH APPROACH

Understanding what is meant by a public health approach is important. Public health focuses on promoting the health of a population as a whole. Rather than focusing on any specific individual, public health identifies the risks of injury and disease for a population with the intent to prevent the spread of disease or reduce the propensity to injury through interventions at the individual, family, community, and societal levels. In a nutshell, the public health approach identifies risks to the health of a specified population, assesses the identified risk, and then takes measures to reduce this risk.

The field of public health originally developed as a response to the problem of communicable diseases and the dramatic impact these had on populations. Following the improved ability to prevent epidemics of disease through vaccinations, sanitation, and medical treatment, and therefore greatly reduce the burden of disease, public health practitioners expanded their efforts to include other problems that negatively affect population health. Initially, public health practitioners turned their attention to trying to reduce the burden of unintentional injury and death. Successes in this area suggested that the public health approach could be extended further to other public health concerns.

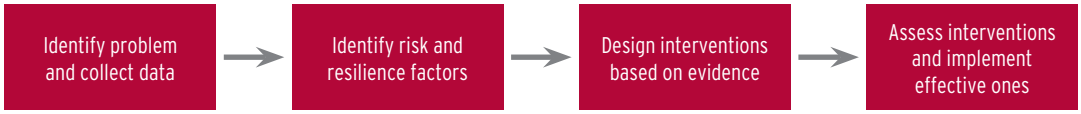
Public health officials have only shifted their focus to violence over the past two decades. In the United States, the Centers for Disease Control and Prevention identified violence as a leading public health priority in the mid-1980s (CDC, 2008), followed by the recognition by the World Health Assembly in 1996 that 'violence is a leading worldwide public health problem' (WHO, 1996) and the publication of WHO's first report on violence and health in 2002. Prior to this time, public health officials were far more concerned with communicable diseases and preventing unintentional injuries. As evidence increasingly demonstrated the widespread impact of armed violence on the health of the public (Prothrow-Stith, 2004, pp. 82–83), as opposed to viewing its impact more narrowly as the burden of the victim, public health officials have increasingly recognized the importance of addressing violence in order to promote the health of populations.

Starting in the 1980s, members of the public health community began focusing their attention on the problem of intentional violence. Using lessons learnt from successful efforts in reducing the burden of disease and reducing the prevalence of unintentional injury and death in other areas, public health practitioners suggested that a similar approach could reduce the burden of intentional violence and the harmful effects of small arms. Public health efforts have contributed to eradicating smallpox, making automobiles safer, and reducing the harmful health effects of consumer products such as cigarettes and alcohol (Hemenway, 2001; Mercy et al., 1993). In the case of automobiles, public health measures focused on improving the environment (e.g. roads), the product (e.g. seatbelts in cars), and the response (e.g. improved emergency medical care) drastically reduced the fatalities due to automobile accidents (Hemenway, 2001, p. 384). These measures did not stop the accidents from happening (prevention), but rather reduced the harm caused by the accidents (harm reduction). In addressing armed violence, both preventive and harm reduction measures will be important to reducing the burden of violence.

Some of the warnings required by law on packs of cigarettes.
© Dave Caulkin/AP Photo

The public health approach emphasizes the scientific nature of its methods for gathering and analysing data, which are based in epidemiology. Epidemiology is the study of the incidence and distribution of disease to identify risk factors in order to control the disease. One of the primary tools of epidemiology is surveillance: 'the systematic gathering, analyzing and interpreting of specific data to be used in the planning, execution and evaluation of programs' to deal with a specific problem (IADB, 1999b, p. 1). In trying to understand armed violence, this approach views the act of violence as the result of the influence of a complex set of factors at the individual, familial, community, and societal levels rather than simply the will or choice of a single individual. As such, surveillance aims to identify those factors

Figure 7.2 **The four-step public health approach**



that increase or reduce the risk of an individual becoming a perpetrator or victim of violence in order to design interventions that target high-risk groups.

The public health approach involves a four-step process of: identification, evaluation, treatment, and assessment (see Figure 7.2). The first step is to identify the problem clearly and collect valid and reliable data on its scope and magnitude. The second step entails an analysis of the data in order to identify prominent risk and resilience factors. The third step is to design interventions based on this analysis of patterned risk and resilience. The fourth step is to assess implemented interventions to determine which work, and then implement those that are most effective.

Identifying the problem clearly and in a manner enabling study and data collection is the first step in the public health model. As part of the identification process, and in preparation for collecting data, a clear definition of the problem needs to be established. This definition sets the parameters for the type of data to be collected. Data is then collected in a systematic way, often through surveillance systems in hospitals or crime victim surveys. Other methods include population surveys, media reports, and other case study research on the topic.

After data is collected, the second step is to analyse the data for patterns of identifiable risk and resilience factors (RISK AND RESILIENCE). Importantly, this step identifies commonalities among actors, instruments, and situations of violence (i.e. location, time of day) in order to produce a map of violence.

One example of using data for generating violence prevention strategies comes from the study of gang violence among teenagers in the United States. This study revealed significant differences between teenage gang members and at-risk youth (youth at risk of joining a gang). Gang members proved more likely to assault rivals (72.3 per cent), commit homicide (15.2 per cent), carry weapons in school (40.4 per cent), and sell drugs outside of school (61.7 per cent) than their non-gang teenage counterparts (16.3, 0.0, 10.2, and 16.7 per cent, respectively) (IADB, 1999c, p. 6).

Box 7.3 **Identifying violence in the home**

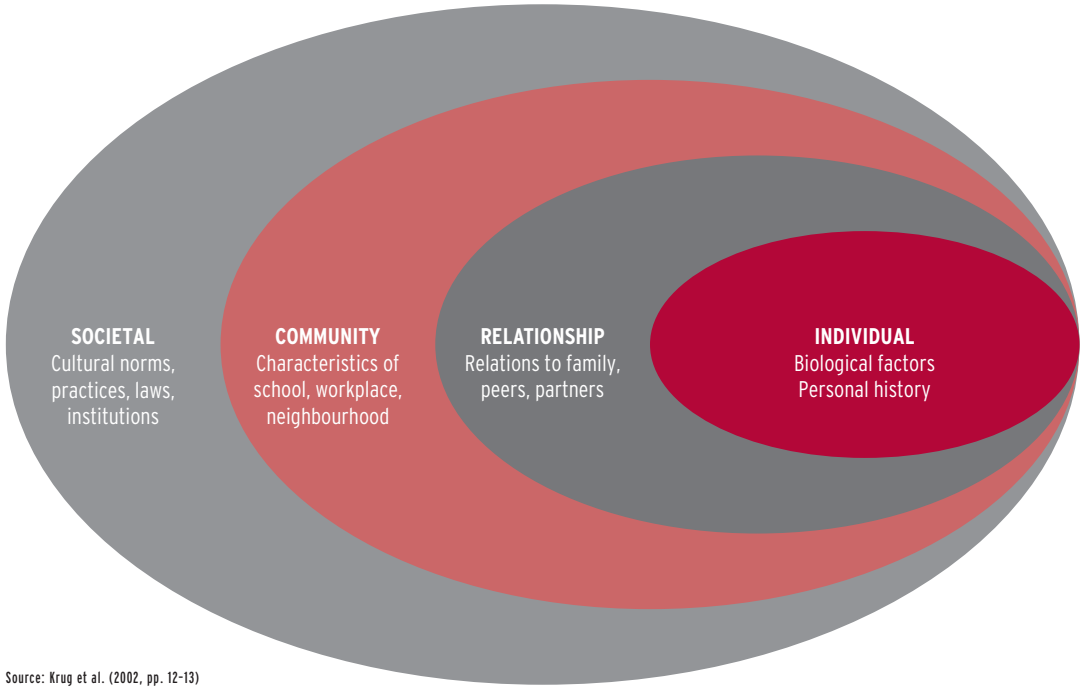
The public health approach has proved particularly good at identifying domestic violence, as injuries from this type of violence more often display themselves in the emergency rooms of medical facilities than in police stations (Moore, 1993, p. 36; Rosenberg et al., 2006, p. 756). This places public health officials in the best position to identify this violence and to provide the evidence to convince governments and donors that more attention should be paid to the problem.

Violence against women and girls is a major public health problem in many countries, but it remains a largely invisible problem. Governments have failed to respond. A common response of governments has been 'show us the data'. Yet data tends to reflect only reported cases, offering a descriptive, not definitive, assessment of the problem, and often underestimating the level of violence and its wide-reaching effects.

Recent research has highlighted the problem in stark detail. In a study in two counties of post-conflict Liberia, 'domestic violence affected about 55 percent of women' (Shiner, 2007). In Niger, rape is not illegal and domestic violence is increasingly common. In one study, 70 per cent of female respondents found it normal that men regularly beat, raped, and humiliated women. The government has not acted on the problem of domestic violence in Niger because the health care community does not collect statistics on injuries resulting from violence, and authorities deny that the problem exists.

Sources: Based on Shiner (2007); IRIN (2007b)

Figure 7.3 **The WHO ecological model**



Source: Krug et al. (2002, pp. 12–13)

Understanding these differences can aid in developing universal strategies to protect everyone at risk, e.g. deploying metal detectors in schools, and targeting strategies at gangs, e.g. hot spot policing.

A widely used model for categorizing risk factors is the ecological model put forward by WHO in its 2002 report (see Figure 7.3). This model recognizes the complexity of violence, the embedded nature of individuals in complex social networks, and the role of a wide range of factors at various levels—from the individual to the societal—that influence individual risk, resilience, and behaviour (Rosenberg et al., 2006, p. 761).

The ecological model aids in understanding the multifaceted nature of violence by acknowledging the myriad influences on behaviour at several levels. This contextual knowledge of particular communities is crucial to designing effective harm reduction and violence prevention strategies. One-size-fits-all strategies will not work. Each set of circumstances requires modifying effective interventions to fit the context.

Once patterns are identified, including clusters of risk factors and high-risk groups, the next step is to design interventions that target these risk factors or groups (RISK AND RESILIENCE). The public health approach commonly talks about three levels of intervention. At the primary level, the focus is on prevention. At the secondary level, interventions address the immediate effects of violence and seek to limit mortality. At the tertiary level, interventions aim to provide care to address the long-term effects of violence. Table 7.4 illustrates how interventions can be designed to reduce the prevalence and impact of firearm injury according to the level of intervention.

The fourth step in the public health model requires evaluating existing interventions to determine which ones are effective in preventing or reducing violence (INTERVENTIONS). This requires a detailed and scientific evaluation of the intervention. The purpose of the evaluation is to determine whether the intervention should be replicated on

Table 7.4 **Reducing firearm injury**

Level of prevention	Intent	Examples of interventions
Primary prevention (pre-injury or pre-event phase)	Prevent the initial creation of the risk	• Require background checks before gun purchase • Prohibit manufacture of certain types of firearms
	Reduce the amount of risk created	• Encourage police to use less lethal weapons • Prohibit manufacture of specific types of ammunition
	Reduce the prevalence of a risk that already exists	• Store firearms in locked boxes • Incarcerate firearm offenders
Secondary prevention (injury or event phase)	Modify the prevalence or spatial distribution of the risk	• Require registration of firearms • Improve gun tracing through better firearm labelling
	Separate, in time or space, the risk from persons to be protected	• Require waiting periods for firearm purchases • Install weapons detectors in some stadiums, high schools
	Interpose a barrier between the risk and the person to be protected	• Provide bulletproof vests for police • Offer bulletproof barriers for convenience store clerks, taxi drivers
	Modify contact surfaces and structures to reduce injury	• Redesign bullets to reduce injury severity • Redesign firearms to reduce rate of fire, muzzle velocity
	Strengthen the resistance of persons who might be injured	• Provide training and counselling for persons suffering repeated victimizations • Train people in non-lethal means of self-defence
Tertiary prevention (post-injury or post-event phase)	Rapidly detect and limit the damage	• Improve emergency medical and law enforcement response • Assure prompt incarceration of firearm offenders
	Initiate immediate and long-term reparative actions	• Improve physical rehabilitation • Improve counselling for victims of violence

Source: Adapted from Hemenway (2004, p. 13)

a regional, national, or international scale. Unfortunately, such reviews are rarely done, making it difficult to determine which interventions have been effective, which have not, and therefore which ones should be used more broadly. Most interventions continue to be developed based on fads or best guesses rather than scientific study (Waller and Sansfaçon, 2000, p. 6).

The public health approach brings a number of advantages to studying armed violence. The scientific epidemiological approach to assessing risk factors provides a rigorous method for better understanding the scope and magnitude of armed violence, as well as the primary risk factors that contribute to heightened vulnerability. This provides a

baseline for understanding armed violence within a specified context, enabling both the designation of appropriate interventions and a means by which to assess those interventions. The population-based approach and the ecological model's inclusion of community- and social-level factors provide a means by which to better study and understand how social contexts, or environmental factors, affect the risk of armed violence, as well as its social impact.

ARMED VIOLENCE IN COMMUNITIES

Armed violence has been called an epidemic. The widespread impacts of such violence, both direct and indirect, are costly and far-reaching. The gravity of the situation has prompted greater efforts to identify the causes of armed violence and the factors that contribute to its prevalence, and greater attention to preventive efforts.

One of the contributions of the public health approach's ecological model is its emphasis on the multiple, and multi-level, influences on risk, resilience, and behaviour. This model recognizes that community- and societal-level factors play an important role in constituting the environments in which people live, and therefore influence the prospects for violence within these different contexts. Unfortunately, knowledge of these contextual factors and how they influence the risk of violence remains insufficient (RISK AND RESILIENCE).

Community characteristics both offer protective measures against violence and generate conditions conducive to violent behaviour. The nature of this influence on

A Jamaica Defense Force soldier carries out a search on a resident of West Kingston, where special police squads were on the lookout for gang activity and violent crime in December 2002. © Collin Reid/AP Photo

violence depends largely on the characteristics of a population and the nature of the relationships among community members: their strength, their inclusive or exclusive nature, and the purpose for which groups organize and mobilize.

Just as community characteristics can influence the potential for violence, armed violence can alter community dynamics in important ways. Armed violence can negatively affect communities. Such negative effects include the breakdown of social networks, community disintegration, loss of social capital,[6] the dissolution of family ties, population dislocation, the generation of new forms of social organization based on violence, and the resort to self-help policies of procuring firearms or vigilantism. These changes contribute to decreasing the ability of a community to respond collectively and effectively to violence. In some situations, armed violence can generate the opposite outcome: a positive, collective community response to addressing violence, thereby reducing the impact and costs of violence on the community. Understanding these dynamics is essential to designing interventions at the community level. The following sections discuss, first, the characteristics of communities in terms of risk and resilience; second, the impact of armed violence on communities and their responses to violence; and, third, what these dynamics mean for designing armed violence reduction measures.

Risk and resilience: the permissive and protective nature of communities

It is clear that certain characteristics of communities enable violence in some situations and contribute to the defence against violence in other contexts (RISK AND RESILIENCE). The question is which characteristics contribute to risk and resilience, respectively. It is important to identify these characteristics and examine their relationship to the potential for violence in order to determine the targets of violence reduction strategies.

It would be impossible to identify all community characteristics that influence individual or group risk of experiencing armed violence. A number of community characteristics have been identified as risk and resilience factors (see Table 7.5). Risk factors are generally seen as negative community characteristics and equated with low levels

Table 7.5 Community risk and resilience factors

Risk factors	Resilience factors
• Social, political, and economic inequality	• High levels of social, political, and economic equality
• Discrimination	• Strong rule of law
• History of violence and/or crime	• Effective policing
• Existence of gangs	• Strong ties between the community and the police
• Ineffective social institutions	• Existence of inclusive community groups
• Poor rule of law	• High levels of participation in community associations
• Lack of access to social services	• Availability of social services
• Social isolation	• Strong ties among groups
• Heterogeneity	• High levels of interaction among groups
• Cultural norms enabling violence	• Cultural norms against violence
• High residential mobility	• Economic opportunities
• High unemployment	• High levels of school attendance
• Lack of economic opportunities	• Low levels of unemployment
• High population density	
• Proximity to drug trade, weapons	
• Strong cultural or ethnic identity	

Sources: Based on Buvinic, Morrison, and Shifter (1999); Rosenberg et al. (2006)

of community capacity to act collectively. For example, high levels of inequality, discrimination, unemployment, and access to small arms are widely believed to be associated with higher levels of risk for violence. In contrast, resilience factors are generally viewed as positive, protective factors that deter violence and heighten the potential for collective action. For example, the rule of law, school attendance, and access to social services are associated with resilience, and therefore a decreased likelihood of violence.

The factors listed in Table 7.5 suggest commonalities within high-risk and low-risk (e.g. high-resilience) communities. On the permissive side, these risk factors suggest a lack of overall community, divisions between individuals and groups leading to an inability or lack of desire to work together, economic desperation, the lack of any safety net or external source of security, and group ties based on narrow interests. On the protective side, these factors suggest a broader sense of cooperation among individuals and groups, a shared sense of community, and the availability of assistance for anyone in need, whether for security or economic reasons.

Although a number of factors fit into either the risk or resilience category, it is important to remember that a single factor cannot determine the likelihood of violence. No direct link can be drawn between any one risk factor and any given individual or group committing a crime or engaging in communal violence. Armed violence and the deterrence of such violence are both the result of a combination of risk and resilience factors in any given community.

Unfortunately, to date, there is no standard means of definitively calculating the probability of violence in a community based on any given combination of community characteristics. While, by definition, risk factors contribute to an environment more conducive to or permissive of violence, whereas resilience factors contribute to an environment that is less enabling of violence or provide a buffer against violence, where the balance tips to favour violence is unclear (RISK AND RESILIENCE). Those communities with more risk factors than protective (resilience) factors are more likely to experience violence, while the opposite should hold true for those communities with higher levels of protective factors. However, these assumptions are only generally indicative and cannot predict the likelihood of violence in any given community at a given time.

No community can be easily defined as good or bad, safe or unsafe.

The impact of armed violence on communities

The previous discussion suggests that the characteristics of a community influence the risk of violence in that community. There is also the flip side: how armed violence affects a community, alters its characteristics, and changes its social dynamics. The impact of armed violence depends on the characteristics of the given community, the level of violence experienced, the nature of the violence, and the geographic spread of the violence. In short, there is no easy answer. The social characteristics of a community are a combination of risk and resilience factors. As such, no community can be easily defined as good or bad, safe or unsafe.

Instead of viewing the impact of armed violence as good or bad, a better approach is to ask how armed violence impacts a community, what effects it has on social organization, how it increases or decreases levels of risk and resilience, and whether the altered nature of the affected community is protective against or permissive of future violence.

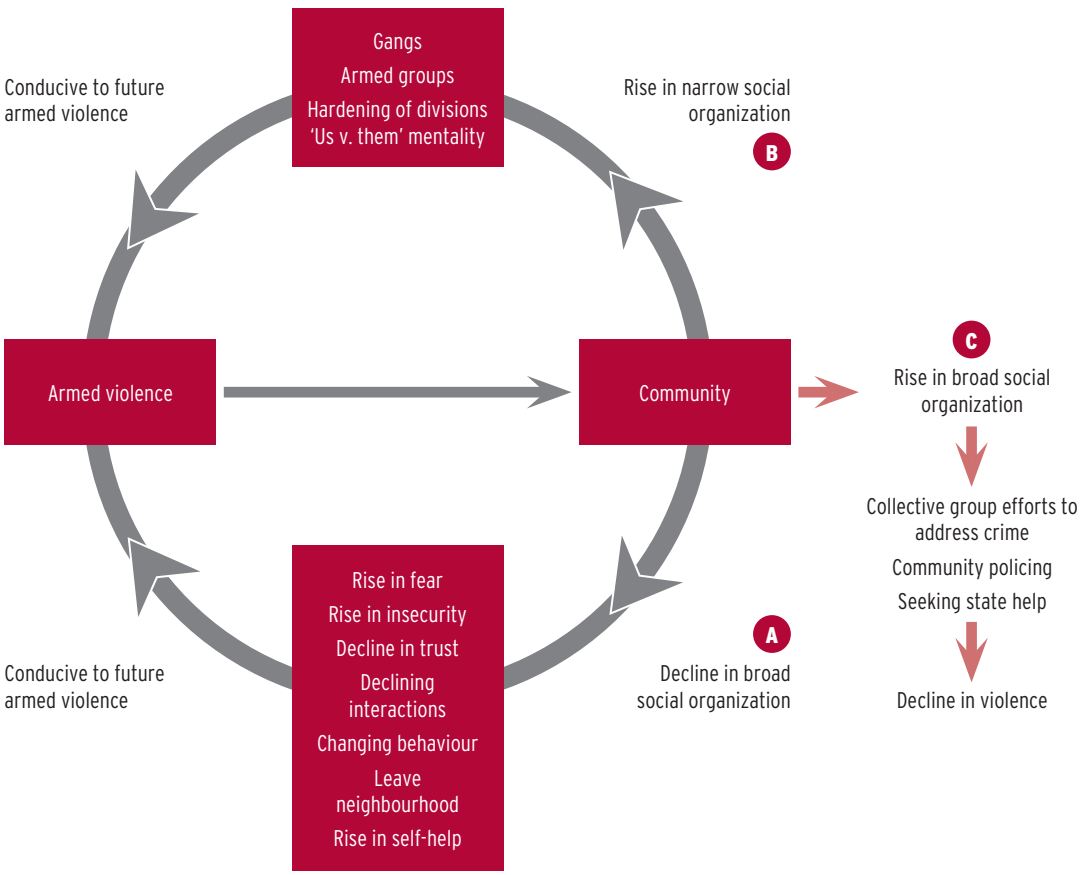
Armed violence is likely to have a larger impact on a community the more intense the violence, the longer the violence lasts, and the wider it is felt across the community. Communities that possess high levels of resilience, strong intra- and inter-community relationships, and a good relationship with security officials will be better able to cope with the damaging effects of armed violence. They can also utilize their pre-existing relationships and networks to mobilize in order to address the problem and prevent future violence. Communities that lack these strong bonds, display low levels of interaction, and have poor ties to security forces are likely to experience an even greater

decrease in any resilience factors that do exist, further reducing the ability to respond to violent attacks or engage in violence prevention efforts and increasing the atomization of the community.

Armed violence can produce at least three identifiable effects in community organization and social support (see Figure 7.4). First, armed violence can have a broad detrimental effect on social organization and community collective action. Second, despite a widespread negative effect on community cohesion, violence can increase social organization and community mobilization among certain segments of the population. In these cases, this cohesive effect is narrowly felt and results in more violence. Third, violence can provoke a broad collective response to defend against future violence, thereby increasing social organization and mobilization, with the positive outcome of decreasing levels of violence. The following provides a more detailed discussion of these dynamics.

First, armed violence can result in sharp reductions in community organization and cohesion (see A in Figure 7.4). These effects are felt by the community at large and include increased levels of fear and insecurity among community members, a decline in trust in neighbours and the state apparatus, a reduction in interactions with neighbours and outsiders, a change in behaviour in terms of outdoor activities, departure from the neighbourhood, or a turn to self-help methods for protection from violence (see Box 7.4).[7] These changes in the community reduce the ability of the community to organize and respond to the violence, thereby increasing the prospects for future violence.

Figure 7.4 **The dynamics of armed violence**



Box 7.4 Rising fear and violence in Afghanistan

Insecurity and violence reached record levels in Afghanistan in 2007 (see Table 7.6), with 2008 looking to be an equally violent year. On 17 February 2008 Kandahar experienced one of the most deadly suicide attacks since 2001, with a suicide bomb killing at least 80 people. This attack topped the November 2007 attack in Baghlan province that killed 79 people, most of whom were school children.

The negative trend of increased violence began in 2005 as the Taliban relaunched its insurgency. Bombings in 2006 were nearly double those in 2005. Suicide attacks increased six-fold between 2005 and 2006, with these attacks killing eight times as many civilians and combatants. The Taliban increased its use of suicide attacks as part of its offensive strategy. While many of these attacks targeted 'hard' targets, e.g. the police and the military, many civilians were caught in the violence. The number of conflict-related deaths doubled from 2005 to 2007.

This set the stage for 2007 to be a 'year of record violence'. The average number of violent incidents per month increased from 425 in 2006 to 550 in 2007. Although widespread across the country, violence is concentrated in the southern and eastern regions. Certain provinces, such as Kabul, Kandahar, Khost, Kunar, and Nangarhar, experienced exceptionally high numbers of security incidents in 2007 (see Figure 7.5). These are areas where the Taliban presence is strong, borders are weak, and opium production continues unabated.

Violence against students and teachers remains a significant problem, especially in the south of the country, where there is a substantial Taliban presence. The Taliban increased its attacks on schools, educators, and students three-fold in 2007. The Taliban's strategy focuses on preventing students from attending non-religious schools and encouraging these students to join the Taliban. This strategy has produced higher levels of insecurity and led to the closure of numerous schools and a number of students staying home from school to avoid the violence. Although fearful, many youths are still seeking opportunities for education, but in many cases this requires them leaving their hometowns for school in larger cities where the Taliban has less power and the youths do not have to fear being recognized and having their families reported to the Taliban back home.

Violence has also moved from the provinces into the capital city, Kabul. Residents of Kabul are now experiencing the everyday insecurity that has engulfed most of the country, and it has led to changes in behaviour. Violence threatens to reverse progress made on improving education and literacy levels in the country. Parents are keeping their children home from school or threatening to do so if the violence continues. At least 237 school children have died from violence in Afghanistan in the past three years. Officials believe this number is actually much higher, but lack the capacity to investigate and monitor events. Shops are increasingly empty and streets that once bustled with life are deserted. Citizens attempt to continue a normal life, but much has changed, and even routine shopping has become a hazard under the threat of more suicide bombings. By November 2007 violence had killed an estimated 1,400 Afghan civilians. Fear of violence has risen despite the growing police presence on the streets. Some are blaming the government, while many are simply staying at home waiting for the situation to improve.

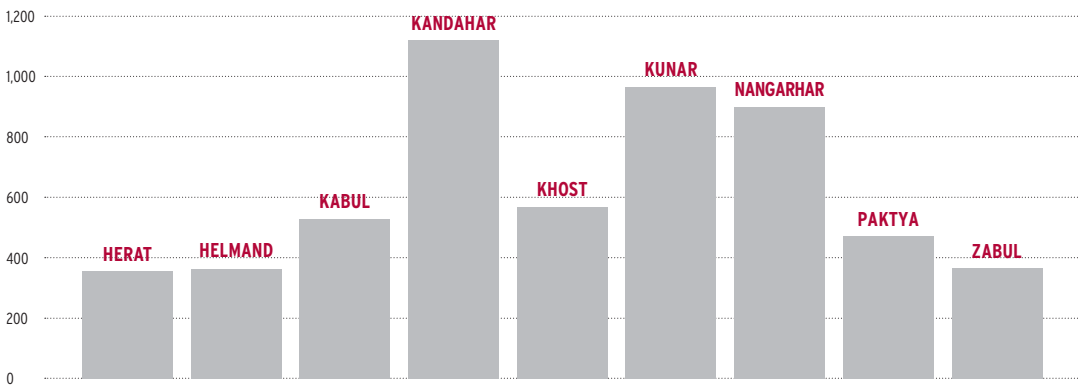
Sources: Afghanistan Conflict Monitor (2008); Amani (2007); BBC (2007; 2008); Chandrashekhar (2007); HRW (2007a; 2007b); IRIN (2007a); Shiner (2007); Straziuso (2008); Zwak (2007)

An Afghan boy stands near a drawing of a gun on the wall of his family's run-down home in the outskirts of Kabul, August 2006. © Saurabh Das/AP Photo

Table 7.6 **Selected violent incidents in Afghanistan by type, 2007**

Type of violent incident	Number of incidents
Armed criminality	429
Assassination	248
Complex attack	1,180
Hand grenade	52
Improvised explosive device (IED)	775
IED attempt	681
Kidnapping	165
Local dispute/clash	460
Military operation	555
Mine	142
Police operation	267
Rocket/mortar	489
Rocket-propelled grenade	140
Small arms fire	652
School attack	52

Figure 7.5 **Selected violent incidents in Afghanistan by province, 2007**



Source: Afghanistan Conflict Monitor (2008)

Second, armed violence can mobilize narrow sections of the community to organize (see B in Figure 7.4). This tends to produce a positive effect for those involved in the resulting organized group, but a negative effect for the community at large. This narrow increase in community organization tends to take the form of gangs, armed groups, or militias, which profit from and thrive on the existence of violence. These groups, often exclusionary and insular, can become more attractive to community members as violence increases and options for escape diminish. These

groups can offer protection, possibilities for economic gain, and opportunities for attaining positions of power—things not easily gained in the community. As these groups grow in strength through recruitment, ethnic or religious rhetoric to mobilize the population, the procurement of small arms, and the expansion of territorial control, the prospects for future violence increase.

Third, armed violence can contribute to strengthening community organization, and cohesion comes through widespread community mobilization in the face of violence (see C in Figure 7.4). This outcome, which seems less

Box 7.5 Community efforts to reduce violence

In Stockton, California, a former gang member created Mothers Against Gang Warfare (MAGW) in 1991 to respond to the high levels of gang violence in the community. MAGW strives to coordinate the efforts of groups throughout the San Joaquin county to curb gang violence. One of the primary activities of MAWG is public education about gang life, gang violence, and alternatives to gang membership. MAGW works with other community organizations, such as the Boys and Girls Club, to provide children and youth with a safe environment to spend their free time, thereby keeping them off the streets and away from gang territory. MAGW works not only to prevent youth from joining gangs, but also to convince gang members to leave their gangs. The latter requires providing gang members with opportunities outside of gang life. MAGW seeks to provide youth and former gang members with job training and opportunities, peer-to-peer counselling, and recreational activities that create positive options for youths

Source: MAGW (2008)

Children and adults from nearly two dozen organizations take part in a march against violence in June 2001 in South Central Los Angeles. © Lee Celano/AP Photo

In Manchester, United Kingdom, a group of citizens came together in 2002 to take a stand against the rising gang violence in their neighbourhood. Under the motto 'it's time to take back our community', this group works to bring alternative opportunities to youths in the surrounding neighbourhoods to discourage them from joining gangs and engaging in a violent life. Carisma (Community Alliance for Renewal) provides an umbrella for this community movement by working on a variety of fronts to combat violence through public information campaigns, peace workshops, encouraging partnerships among community organizations, and lobbying politicians for changes in gun control laws and for improving violence reduction strategies. Carisma aims to ensure that youngsters and their families can access education, health care, and housing in order to provide youth with a positive outlook and future life opportunities away from gang life.

Source: Carisma (2007)

common in violent communities, is likely the result of a high level of pre-existing sense of community prior to the violent event, enabling the community to join together to devise strategies to counter violence in an inclusive manner. This sense of community cohesion provides a network for group mobilization, for reaching out to other groups and communities in similar situations and exchanging lessons learnt, and for working collaboratively with state security forces to bring their presence to bear on the problem of violence (see Box 7.5).

Developing community interventions

'The uniqueness of communities precludes a blanket prescription for all locales' (Mercy et al., 1993, p. 21). While true, such a statement does not require reinventing the wheel for each intervention. Instead, it points to the importance of context, and the need to adopt context-specific strategies. Interventions cannot follow a simple, standardized approach, but this does not preclude the creation of a core foundation for interventions, which can then be modified according to community characteristics. How a community is defined will determine the pattern and level of risk to community members. The risk pattern of a particular city will look different from the risk pattern of a neighbourhood within that city or the risk pattern of the country as a whole. Different maps of violence will suggest different strategies for violence reduction and prevention. For example, a neighbourhood in South Central Los Angeles, well known for its gangs, will exhibit a different pattern of risk factors from Los Angeles county as a whole, suggesting gang violence reduction strategies would be appropriate in the former, but might be less appropriate or make up only one element of a strategy for addressing violence concerns in the latter.

In addition to understanding the map of violence and the risk factors of a given community, the design of interventions also depends on the level of violence and the level of community action in response to this violence (see Figure 7.6). The level of violence and the level of community action suggest what types of interventions will have the most chance of success.

Community-based action may be more difficult to achieve in communities with high levels of violence but low levels of community action (see cell 4 in Figure 7.6). In these cases, targeted policing might be a first step towards

Figure 7.6 **Community action and armed violence**

reining in the violence and providing a basis for community action. In areas with high levels of community action (see cell 1 in Figure 7.6), support to these community initiatives and coordination between these initiatives and police-based interventions should be considered. In communities with high levels of crime and gang violence (see cell 2 in Figure 7.6), efforts targeting these groups and aiming to reduce their capacity and incentives to commit crimes can produce positive results. Prevention remains a key element to reducing violence. An important part of any prevention strategy is convincing the community that there is a problem that deserves attention (Calonge, 2005, p. 4) (see cell 3 in Figure 7.6).

ASSESSING THE PUBLIC HEALTH APPROACH

Approaching armed violence reduction from an injury prevention perspective offers a new lens for understanding the factors that contribute to violence and for designing effective harm reduction and violence prevention interventions (INTERVENTIONS). The emphasis on prevention shifts the focus from punishing perpetrators to preventing the violent event from happening in the first place. By utilizing data on violent events and their circumstances, injury prevention introduces an evidence-based method for addressing the problem. Despite progress made on developing this approach and putting it into practice, it remains a relatively new approach to violence reduction.

Contributions to understanding armed violence

The public health approach contributes to the study of armed violence by broadening the view of violence from an individual, criminal experience to a social phenomenon. By expanding the lens used for understanding violence, public health presents an alternative to a sole focus on criminality and incarceration as a primarily reactive response to violence. Instead, the public health approach suggests a complementary approach to that of the criminal justice system; one that focuses on prevention over response, and the community over the individual. Importantly, the public health approach recognizes violence as a social phenomenon that can be prevented, and underlines the need for targeted preventive strategies.

As part of viewing violence as a social phenomenon, the public health approach

A former Crips gang member chats with his old high school teacher at Compton High School, one of several sites where he counsels students. California, November 2005. © Ric Francis/AP Photo

emphasizes the need to understand the context within which individuals live and make choices. This includes the recognition that multiple factors influence the decisions and behaviours of individuals. The public health approach uses the ecological model to identify these different levels of influence and the risk and resilience factors that might fit into each level. In particular, the public health approach emphasizes the importance of looking beyond the individual to an understanding of community- and societal-level factors.

The third contribution of the public health approach is its scientific methods for data collection and analysis. The approach emphasizes the need for systematic data collection to understand the nature, scope, and magnitude of armed violence. This data forms an integral part of understanding the problem of armed violence in a given population and designing violence prevention and reduction strategies to address it. Data collection also provides the best basis for assessing the effectiveness of interventions. While to date most programmes have not been rigorously reviewed, the public health approach continues to offer this possibility.

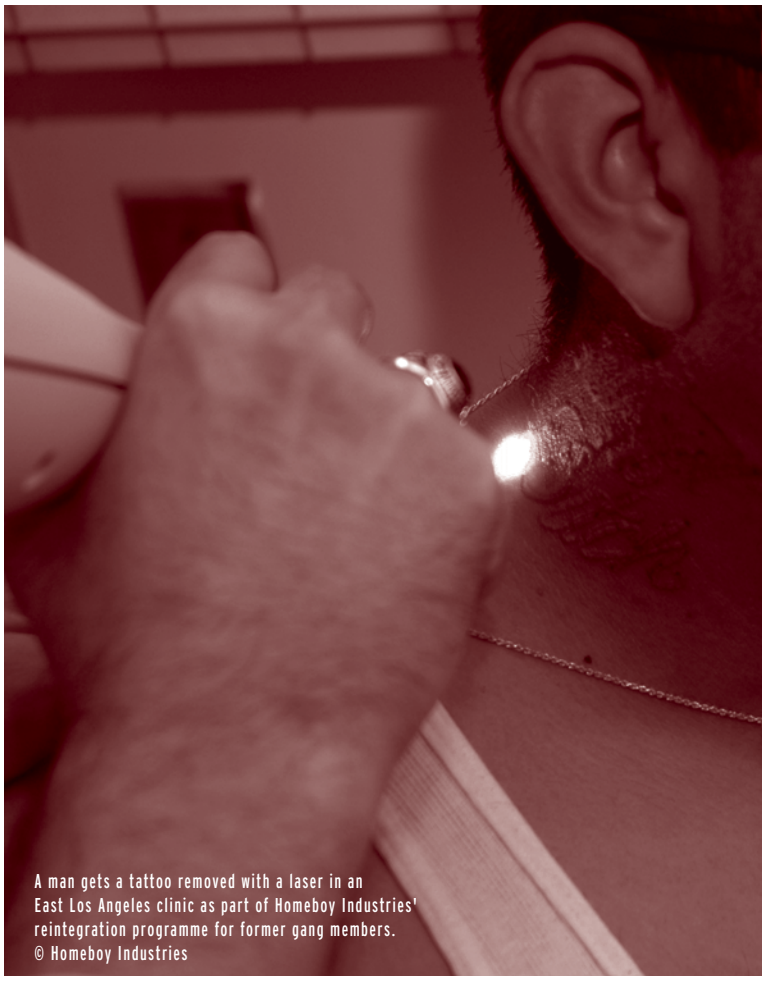
Finally, the public health approach emphasizes the need for collaboration across various government sectors, non-governmental organizations, and the citizens of affected communities. Understanding the multifaceted nature of violence underscores the need for multi-level, multivariate approaches to violence prevention (Krauss, 2006, p. 15). Public health could act as the backbone of a comprehensive approach by generating important data on violence, collating data from multiple sources, and presenting a more complete picture of violence in communities that can be used by a wide range of agencies, organizations, and communities to prevent and respond to violence.

Moving forward and looking ahead

Although the public health approach has made significant contributions, it is important to understand some of the difficulties in implementing this approach. One area requiring additional development is the data-to-policy nexus. Currently, public health practitioners have difficulty in translating their knowledge into convincing arguments for policy-makers to take action. Important in advancing the role of public health in designing interventions is the ability to determine which risk factors are most important to address in a given context. While the ecological model offers a useful heuristic device for thinking about the range of influences on violent behaviour and for identifying risk factors, moving the approach forward requires developing a better understanding of how and why these factors contribute to risk. Some argue that determining causality is not necessary and that it is sufficient to identify

common risk factors for populations (Powell et al., 1999), but such an approach can lead to the identification of an unmanageable number of risk factors, thus overwhelming policy-makers, who then face the challenge of addressing multiple risk factors with limited funds. Designing targeted interventions requires an understanding of which factors are most significant in a given context.

While the public health approach highlights the importance of community-level factors to understanding the risks of violence in a given population, many studies and interventions continue to focus on the individual. Community factors are not often captured in epidemiological surveillance (Lomas, 1998, p. 1181; Leung, Yen, and Minkler, 2004). Even when they are, there are methodological problems of trying to understand how these community factors influence levels of violence (Harpham, Grant, and Thomas, 2002, p. 110; Hawe and Shiell, 2000, p. 878), and which level, e.g. individual or community, is most appropriate for understanding the dynamics of violence (Lochner, Kawachi, and Kennedy, 1999, p. 269). More thought should be given to how to incorporate community-level factors into inquiries into violence trends, such as victimization surveys, epidemiological surveillance, and focus groups.



A man gets a tattoo removed with a laser in an East Los Angeles clinic as part of Homeboy Industries' reintegration programme for former gang members.
© Homeboy Industries

Although many public health interventions are community-based, and this is a specific intent of the public health approach to devise community-generated and community-supported interventions (Krauss, 2006, p. 8), the actual target of the interventions remains the individual. These interventions continue to address primarily individual-level risk factors, and very few address community- or societal-level risk factors. While there is a recognized need to move beyond a focus on high-risk groups to include interventions that also address the 'underlying social forces that give rise to a high incidence of violence in the population' (Kennedy et al., 1998, p. 15), few interventions have achieved this in practice. This is an area for future action.

Public health practitioners and those utilizing the public health approach should realize, acknowledge, and accept the political role they play. While public health practitioners are in a unique position to advocate for changes in policies, an increase in resources allocated to violence prevention, and improved means of protection and response (Rutherford et al., 2007b, p. 769), such advocacy is intensely political and in some societies divisive, especially when it leads to restrictions on individual freedoms, e.g. through the creation of laws restricting firearms possession.

Redesigning the ways communities function suggests social engineering, which remains an unpalatable idea in much of the world (Lomas, 1998, p. 1184), e.g. efforts to alter cultural practices, such as female genital mutilation, or long-held beliefs, such as domestic violence not being a crime. In some cases, public health interventions can provide 'scientific' cover for conservative and unacceptable social policies (Hawe and Shiell, 2000, p. 881). The individual-based approach is preferred, targeting the behaviours of individuals, rather than the community structures, such as social inequalities, discrimination, and poverty, that influence individual behaviour.

The public health approach should recognize more fully the role of individual choice, or agency, in both coping with violence and inflicting violent harm on others. Despite the existence of violence in a community, 'individual and community capacities exist' to cope with the effects of violence (Rutherford et al., 2007b, p. 767) and to design strategies to prevent further violence. The challenge is how to empower these capacities and how to enable individuals to choose to support violence prevention efforts, especially when confronted by violence on a daily basis. Acknowledging agency is also integral to understanding violent acts and the choice made in committing those acts. While critiques of the criminal justice approach to violence prevention argue against a focus on the perpetrator and assessing blame, moving too far away from agency removes an important part of the violence equation. Collaboration between the criminal justice approach and the public health approach could reinsert agency back into the equation and contribute to understanding why under similar circumstances individuals choose different means of responding to insecurity.

CONCLUSION

The public health approach provides a clear model for research, evaluation, and the design of interventions to address armed violence. This model offers a method for collecting data systematically and utilizing this data to design more effective interventions. The model is not limited to public health officials, but can also be utilized by medical

officials, police officers, judiciary officials, and any researcher of armed violence. It is a basic model of the social and natural sciences: collect data, evaluate, and respond.

While clearly a useful model, it has not been widely adopted. There have been some promising steps forward in local and national public health systems endeavouring to collect data on armed violence, but such efforts remain limited. Some police forces are also collecting data on crime and using it for developing more effective and targeted policing strategies. But still more needs to be done.

One of the largest obstacles to promoting the public health approach is the inability of public health practitioners to demonstrate clearly the value added in implementing a time- and labour-intensive and expensive approach. Although evaluation is a key part of this approach, evaluations of programmes have not been conducted in a systematic or rigorous fashion. Instead, many programmes continue to be implemented without evidence to support them and without evaluation of their impact. This leaves little in the way of persuasive evidence to convince politicians that a heavy investment in public health surveillance is warranted.

The future of the public health approach lies in the ability of practitioners to demonstrate the collaborative and comprehensive nature claimed for it by its proponents. The approach asserts the need for multifaceted, multi-level, and collaborative interventions to prevent violence. Yet there is continuing evidence of an ongoing divide between the public health and criminal justice approaches in particular, as well as a number of individual approaches being taken by the various sectors involved in violence prevention. In practice, although there has been improvement in some areas, broad cooperation across sectors remains difficult, and sectors continue to fight over turf and who has the right approach. Effective armed violence reduction will require the broad collaboration of all sectors.

This cooperation should extend to involving affected communities. Violence is a community problem, not an individual or government problem. Community context matters for designing effective interventions, but community participation and support of interventions determines whether these interventions succeed. Ignoring community input; de-emphasizing community participation; and taking a top-down, law enforcement-heavy approach are likely to reduce the effectiveness of interventions, and ultimately fail to reduce armed violence. Collaborative partnerships should exist horizontally across all sectors of government, as well as vertically between government actors and community members.

LIST OF ABBREVIATIONS

Carisma	Community Alliance for Renewal	MAGW	Mothers Against Gang Warfare
IED	Improvised explosive device	WHO	World Health Organization

ENDNOTES

1 For a list of definitions of these different types of violence, see Rutherford et al. (2007a).

2 There is no agreed upon estimate for the global burden of armed violence. This range comes from discussions in two publications: Richmond, Cheney, and Schwab (2005, pp. 348–52) and Small Arms Survey (2004, ch. 6, pp. 174–75).

3 For example, International Physicians for the Prevention of Nuclear War launched its Aiming for Prevention programme in 2001. One aspect of this programme is to improve national capacity for public health research, and includes efforts to create hospital surveillance mechanisms in a

number of African, Latin American, and South Asian countries. For more details, see <http://www.ippnw.org/Programs/AFP/index.html>. The UN Office on Drugs and Crime launched a Data for Africa programme in 2005 aimed at improving data collection on drug and crime problems in African countries. See <http://www.unodc.org/unodc/en/data-and-analysis/Data-for-Africa.html>.

4 The Small Arms Survey is undertaking a global mapping of armed violence as part of the 'measurability' objectives of the Geneva Declaration on Armed Violence and Development. Preliminary findings should be available by mid-2008. For additional information, see <http://www.geneva declaration.org>.

5 See Rosenberg et al. (2006) and Hill et al. (2007) for a discussion of some of these methods.

6 'Social capital' remains poorly defined, highly contested, and therefore difficult to use in studying armed violence. For a discussion of social capital, see Adler and Kwon (2002); Harpham, Grant, and Thomas (2002); Lederman, Loayza, and Menendez (2002); and Portes (1998).

7 For a more detailed discussion of the social impacts of small arms availability, proliferation, and use, see Lederman, Loayza, and Menendez (2002); Louise (1995); and Rosenfeld, Messner, and Baumer (2001).

BIBLIOGRAPHY

Adler, Paul and Seok-Woo Kwon. 2002. 'Social Capital: Prospects for a New Concept.' *Academy of Management Review,* Vol. 27, No. 1, pp. 17–40.

Afghanistan Conflict Monitor. 2008. Web site. Accessed 18 February 2008. <http://www.afghanconflictmonitor.org/>

Amani, Wahidullah. 2007. *Kabul: The City of Fear.* Institute for War and Peace Reporting, Afghan Recovery Report No. 267. 5 October. <http://iwpr.net/?p=arr&s=f&o=339635&apc_state=heniarr200710>

Astor, Ron and Rami Benbenishty. 2006. *Zero Tolerance for Zero Knowledge: Empowering Schools and Communities with Data and Democracy*. Urban Initiative Public Policy Brief. University of Southern California.

Astor, Ron, Rami Benbenishty, and Heather Meyer. 2004. 'Monitoring and Mapping Student Victimization in Schools.' *Theory into Practice,* Vol. 43, No. 1. Winter, pp. 39–49.

BBC (British Broadcasting Corporation). 2007. 'Children Killed in Afghan Bombing.' 24 November. <http://news.bbc.co.uk/2/hi/south_asia/7110593.stm>

——. 2008. 'Scores Killed in Afghan Bombing.' 17 February. <http://news.bbc.co.uk/2/hi/south_asia/7249138.stm>

Buvinic, Mayra, Andrew Morrison, and Michael Shifter. 1999. *Violence in Latin America and the Caribbean: A Framework for Action*. Unpublished technical study. Sustainable Development Department, Inter-American Development Bank. March. <http://www.iadb.org/publications/search.cfm?language=English&COUNTRIES=&KEYWORDS=inequality&RESCATEGORY=&TOPICS=SC>

Calonge, Ned. 2005. 'Community Interventions to Prevent Violence: Translation into Public Health Practice.' *American Journal of Preventive Medicine,* Vol. 28, pp. 4–5.

Carisma. 2007. Web site. Accessed 9 October 2007. <http://www.carisma.me.uk/>

CDC (Centers for Disease Control and Prevention). 2008. *Violence Prevention at CDC.* Accessed 6 March 2008. <http://www.cdc.gov/ncipc/dvp/prevention_at_CDC.htm>

Chandrashekhar, Vaishnavi. 2007. 'Afghan Suicide Bombing Targets Local Police.' *Christian Science Monitor* (Boston). 4 October.

Dahlberg, Linda. 1998. 'Youth Violence in the United States: Major Trends, Risk Factors, and Prevention Approaches.' *American Journal of Preventive Medicine,* Vol. 14, pp. 259–72.

Goodhand, Jonathan, David Hulme, and Nick Lewer. 2000. 'Social Capital and the Political Economy of Violence: A Case Study of Sri Lanka.' *Disasters,* Vol. 24, No. 4, pp. 390–406.

Harpham, Trudy, Emma Grant, and Elizabeth Thomas. 2002. 'Measuring Social Capital within Health Surveys: Key Issues.' *Health Policy and Planning,* Vol. 17, No. 1, pp. 106–11.

Hawe, Penelope and Alan Shiell. 2000. 'Social Capital and Health Promotion: A Review.' *Social Sciences and Medicine,* Vol. 51, pp. 871–85.

Hemenway, David. 2001. 'The Public Health Approach to Motor Vehicles, Tobacco, and Alcohol, with Applications to Firearms Policy.' *Journal of Public Health Policy,* Vol. 22, No. 4, pp. 381–402.

——. 2004. *Private Guns, Public Health*. Ann Arbor: University of Michigan Press.

Hill, Kenneth, et al. 2007. 'Interim Measures for Meeting Needs for Health Sector Data: Births, Deaths, and Causes of Death.' Who Counts? Series, No. 3. *Lancet,* Vol. 370. 17 November, pp. 1726–35.

HRW (Human Rights Watch). 2007a. 'Afghanistan: Civilians Bear Cost of Escalating Insurgent Attacks.' Press Release. 16 April.

——. 2007b. *The Human Cost: The Consequences of Insurgent Attacks in Afghanistan*. HRW Report, Vol. 19, No. 6C. April. <http://www.hrw.org/english/docs/2007/04/16/afghan15688.htm>

Human Security Centre. 2006. *Human Security Brief 2006*. Vancouver: University of British Columbia.

IADB (Inter-American Development Bank). 1999a. *How is Violence Measured?* Violence Prevention Technical Note 2. July.

——. 1999b. *Preventing Violence*. Violence Prevention Technical Note 5. July.

——. 1999c. *Controlling Violence*. Violence Prevention Technical Note 6. July.

——. 1999d. *Violence Control at the Municipal Level*. Violence Prevention Technical Note 8. July.

IRIN (Integrated Regional Information Networks). 2007a. 'Afghanistan: Children Increasingly Affected by Conflict.' 27 November. <http://www.irinnews.org/Report.aspx?ReportId=75530>

——. 2007b. 'Niger: Rape and Beatings of Women Seen as "Normal".' 6 December. <http://www.irinnews.org/Report.aspx?ReportId=75720>

Kennedy, Bruce, et al. 1998. 'Social Capital, Income Inequality, and Firearm Violent Crime.' *Social Science and Medicine,* Vol. 47, No. 1. July, pp. 7–17.

Krauss, Herbert. 2006. 'Perspectives on Violence.' *Annals of the New York Academy of Science,* Vol. 1087, pp. 4–21.

Krug, E. G., et al., eds. 2002. *World Report on Violence and Health*. Geneva: World Health Organization.

Lederman, Daniel, Norman Loayza, and Ana Menendez. 2002. 'Violent Crime: Does Social Capital Matter?' *Economic Development and Cultural Change,* Vol. 50, No. 3. April, pp. 509–39.

Leung, Margaret, Irene Yen, and Meredith Minkler. 2004. 'Community-based Participatory Research: A Promising Approach for Increasing Epidemiology's Relevance in the 21st Century.' *International Journal of Epidemiology,* Vol. 33, pp. 499–506.

Lochner, Kimberly, Ichiro Kawachi, and Bruce Kennedy. 1999. 'Social Capital: A Guide to Its Measurement.' *Health and Place,* Vol. 5, pp. 259–70.

Lomas, Jonathan. 1998. 'Social Capital and Health: Implications for Public Health and Epidemiology.' *Social Sciences and Medicine,* Vol. 47, No. 9, pp. 1181–88.

Louise, Christopher. 1995. *The Social Impacts of Light Weapons Availability and Proliferation*. UN Research Institute for Social Development Discussion Paper DP59. March. <http://www.unrisd.org/unrisd/website/document.nsf/d2a23ad2d50cb2a280256eb300385855/50aa0457c9ef4d2c80256b67005b6718/$FILE/dp59.pdf>

MAGW (Mothers Against Gang Wars). 2008. Web site. Accessed 18 February 2008. <http://home.inreach.com/gangbang/magw.htm>

Mathers, Colin, et al. 2005. 'Counting the Dead and What They Died From: An Assessment of the Global Status of Cause of Death Data.' *Bulletin of the World Health Organization,* Vol. 3, No. 83, pp. 171–77.

Mercy, James, et al. 1993. 'Public Health Policy for Preventing Violence.' *Health Affairs,* Vol. 12, No. 4. Winter, pp. 7–29.

Moore, Mark. 1993. 'Violence Prevention: Criminal Justice or Public Health?' *Health Affairs,* Vol. 12, No. 4, pp. 34–45. <http://content.healthaffairs.org/cgi/reprint/12/4/34.pdf>

OECD–DAC (Organisation for Economic Co-operation and Development–Development Assistance Committee). 2009 (forthcoming). *Guidance on Armed Violence Reduction and Development*. Paris: OECD–DAC.

Portes, Alejandro. 1998. 'Social Capital: Its Origins and Applications in Modern Sociology.' *Annual Review of Sociology,* Vol. 24, pp. 1–24.

Powell, K. E., et al. 1999. 'Public Health Models of Violence Prevention.' In Lester Kurtz and Jennifer Turpin, eds. *Encyclopedia of Violence, Peace and Conflict, Vol. 3*. San Diego: Academic Press, pp. 175–87.

Prothrow-Stith, Deborah. 2004. 'Strengthening the Collaboration between Public Health and Criminal Justice to Prevent Violence.' *Journal of Law, Medicine and Ethics,* Vol. 32, pp. 82–88.

Richmond, T. S., R. Cheney, and C. W. Schwab. 2005. 'The Global Burden of Non-conflict Related Firearm Mortality.' *Injury Prevention,* Vol. 11, pp. 348–52.

Rosenberg, Mark, et al. 2006. 'Interpersonal Violence.' In Dean Jamison et al., eds. *Disease Control Priorities in Developing Countries,* 2nd ed. New York: Oxford University Press, ch. 40. April.

Rosenfeld, Richard, Steven Messner, and Eric Baumer. 2001. 'Social Capital and Homicide.' *Social Forces,* Vol. 80, No. 1, pp. 283–309.

Rutherford, Alison, et al. 2007a. 'Violence: A Glossary.' *Journal of Epidemiology and Community Health,* Vol. 61, pp. 676–80.

——. 2007b. 'Violence: A Priority for Public Health? Part 2.' *Journal of Epidemiology and Community Health,* Vol. 61, pp. 764–70.

Setel, Philip, et al. 2007. 'A Scandal of Invisibility: Making Everyone Count by Counting Everyone.' Who Counts? Series, No. 1. *The Lancet,* Vol. 370. 3 November, pp. 1569–77. <http://www.alphagalileo.org/nontextfiles/WhoCounts1.pdf>

Sethi, Dinesh, et al. 2006. *Injuries and Violence in Europe: Why They Matter and What can Be Done*. Geneva: World Health Organization.

Shiner, Cindy. 2007. 'New Study Spotlights Sexual Violence.' AllAfrica.com NEWS. 5 December.

Small Arms Survey. 2002. *Small Arms Survey 2002: Counting the Human Cost*. Oxford: Oxford University Press.

——. 2003. *Small Arms Survey 2003: Development Denied*. Oxford: Oxford University Press.

——. 2004. *Small Arms Survey 2004: Rights at Risk*. Oxford: Oxford University Press.

——. 2005. *Small Arms Survey 2005: Weapons at War*. Oxford: Oxford University Press.

——. 2006. *Small Arms Survey 2006: Unfinished Business*. Oxford: Oxford University Press.

——. 2007. *Small Arms Survey 2007: Guns and the City*. Cambridge: Cambridge University Press.

Soares, Rodrigo. 2004. 'Crime Reporting as a Measure of Institutional Development.' *Economic Development and Cultural Change,* Vol. 52, No. 4. July, pp. 851–71.

Straziuso, Jason. 2008. 'Attacks on Afghan Students up Sharply.' Associated Press. 23 January.

Waller, Irvin and Daniel Sansfaçon. 2000. *Investing Wisely in Crime Prevention: International Experiences*. Washington, DC: US Department of Justice, Bureau of Justice Assistance. September.

Wilkinson, Deanna and Kerryn Bell. 2006. *Urban Gun Homicide and Youth Violence: Perspectives from Trends in the United States and Violent NYC Youth*. Unpublished background paper. Geneva: Small Arms Survey.

WHO (World Health Organization). 1996. *Prevention of Violence: A Public Health Priority*. WHA49.25. Resolution of the World Health Assembly, 49th session, 25 May. <http://www.who.int/violence_injury_prevention/resources/publications/en/WHA4925_eng.pdf>

——. 2001. *Small Arms and Global Health*. Geneva: WHO.

Zwak, Samar. 2007. 'Suicide Bomber Kills 9 Afghans and Italian Soldier.' Reuters. 24 November.

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Principal author

Jennifer M. Hazen