C2 Terror, war and health

The role of the public health community in responding to the health impacts of war and conflict has become increasingly important in the context of the changing nature of war and conflict. Rarely do armies wear distinctive uniforms and fight across clearly drawn battle lines. Modern wars and conflict are characterised by aerial bombardment, guerrilla tactics and acts of ‘terrorism’, substantially changing the nature of the primary victims of war (Levy and Sidel 2008). Since World War II, civilians, especially women and children, have constituted the majority of deaths in wars.

While the global health community may have limited power to curb the aggression and belligerence of political and military leaders seeking out war and conflict, it can promote informed and open public debate about the causes of war and conflict by providing timely and credible information on the expected and actual health consequences of conflict. The health community also has an important role in preventing and treating injury and disease, as well as monitoring the impact and the conduct of war within the legal framework set out by the Geneva Conventions and other instruments of international law.

Terrorism and war: defining the boundaries

At a global level, ‘terrorism’ is an ill-defined yet widely used term. Numerous definitions are contained within international law and national legislation. Coming up with an internationally accepted definition is still a work in progress. Although people may often have no trouble in recognising ‘terrorism’ when they see it, a common definition and understanding of terrorism is much harder than might be first supposed. One of the complica-
tions about the definition of terrorism is that some institutions exclude it as a phenomenon during war because terrorism during war is best classified as a war crime. However, this contention is complicated by the existence of a definition and the prohibition of terrorism within the laws of war.

At the core of most definitions is the notion that terrorism involves targeting civilians with the intention of creating fear and terror in the population. Some definitions go on to say that terrorism must also be planned so as to achieve a change in the policies or practices of governments.

Attacks by nation-states are rarely termed ‘terrorism’ even when they use tactics that deliberately target civilians. Examples of terrorism perpetrated by nation-states include the Nazi bombing of Guernica during the Spanish Civil War; the bombing of cities in Europe during World War II; the nuclear destruction of Hiroshima and Nagasaki; and the carpet-bombing of Vietnam. Other examples of state terror have occurred in almost every recent war.

By contrast, when non-state groups or individuals use violence to accomplish their ends, these acts are often labelled ‘terrorism’ whether or not they deliberately harm civilians. Indeed, US law defines ‘terrorism’ as ‘premeditated, politically motivated violence perpetrated against non-combatant targets by sub-national groups or clandestine agents’ (CULS 2006). This definition excludes acts committed by nation-states. It also excludes the threat of violence as a means of terrorism. Furthermore, economic exploitation is often backed by the implied or explicit threat of superior force. The threat may often be unacknowledged, even by its victims, who may be led to believe they are less worthy, less hard-working, or less capable, and hence deserve exploitation. The implicit or explicit

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**BOX C2.1 The risk of war**

The greater the wealth of a nation, the lower its chances of having a civil war. A country with a gross domestic product (GDP) per capita of US$250 has a 15 per cent probability of a war in the next five years, and this probability reduces by approximately half for a country with a GDP per capita of $600. Countries with per capita GDP of more than US$5,000 have less than a 1 per cent probability of having a civil war. Other factors that raise the risk of armed conflict include poor health, low status of women, large gaps between the rich and the poor, weak civil society, a lack of democracy, limited education, unemployment and access to small arms and light weapons (SIPRI 2006; deSoysa and Neumayer 2005).

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threat of use of force can be as unjust as the actual use of that force and may account for more total damage to health than implemented acts of military aggression. Economic sanctions and blockades intended to produce destabilisation may also be viewed as a weapon of war; current examples of this include Gaza and Cuba.

This chapter advocates a definition of the term ‘terrorism’ that is comprehensive and that is not based on a distinction between state and non-state actors, nor whether the scenario is characterised as war or peace. Rather, we define terrorism as ‘politically motivated violence, or the threat of violence, especially against civilians, with the intent to instil fear and cause damage to health’.

As is often noted, one person’s ‘terrorist’ is another person’s ‘freedom fighter’. Thus the political context and the causal pathway leading to an act of terrorism are salient issues. While attacks on unarmed civilians can never be justified, it is argued that violence committed in resistance to oppression, subjugation or attack is not the same as violence conducted as an act of aggression or offence. However, while it is important to understand the root causes of violence, others argue that making a distinction between different causes of violence is unhelpful and ultimately self-defeating.

### War, terrorism and the state

Preoccupation with preparation for wars is sometimes known as ‘militarism’, particularly when it is excessive or disproportionate to a perceived threat, or when it is accompanied by acts of aggression. It may lead to the subversion of efforts to promote human welfare. This preoccupation can also lead to ‘pre-emptive war’ (responding to an allegedly imminent attack) and to ‘preventive war’ (responding to an attack that is feared some time in the future).
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Militarism is a problem worldwide but is especially important in developing countries that spend substantially more on military expenditures than on health. In 1990, Ethiopia spent $16 per capita for military expenditures and only $1 per capita for health, and Sudan spent $25 per capita for military expenditures and only $1 per capita for health (Foege 2000). Militarism can also affect the social environment by encouraging violence as a means of settling disputes and infringing upon civil rights and liberties.

The actions of governments in the recent violent history of Latin America are especially worth considering in this discussion of terrorism. In Chile, for example, the military dictatorship that followed the assassination of President Salvador Allende led to a reign of terror over the population that included the arrest, torture and execution of thousands of people (Klein 2007).

In other countries, a ‘low-intensity conflict’ (LIC) was experienced in which small-scale, guerrilla-style methods were applied to avoid full military engagement. Although described as ‘low intensity’, its sustained use inflicted overwhelming damage in some countries (Braveman et al. 2000). For civilians, who are often targeted, the conflict is anything but low in intensity.

In El Salvador during the 1970s, when Catholic priests and peasants took action to improve their living and working conditions, the country’s landowners responded violently with ‘death squads’. This was followed by a military coup in 1979 that led to hundreds of unarmed unionists, moderate political opposition leaders and priests being killed and mutilated. Subsequently an armed revolutionary organisation was formed to oppose the illegitimate military government, led by the Farabundo Martí National Liberation Front (FMLN). Twelve years of civil war followed until a peace accord was signed in 1992.

During this time nearly 1.5 per cent of the Salvadorian population (70,000 people) were killed by government forces and allied death squads. Life expectancy fell to 50.7 years in the period 1980–85. Government documents confirm that civilian assassination campaigns were planned with the full knowledge of the US administrations at the time. Torture was an unofficial but systematic policy of the government, reportedly with the assistance of US military advisers.

Parts of the country were subjected to a campaign of terror which included starving civilians and subjecting them to air attacks, including with napalm. In 1980 a group of at 600 unarmed civilians, mostly women and children, were killed by the military while fleeing to Honduras. In 1981, 7,000 people were massacred while fleeing to Honduras. About a million Salvadorans (20 per cent of the population) fled the country as refugees; another 500,000 were displaced within the country.
Events in Guatemala present another example of state-sanctioned terrorism. In 1954, the elected government of Jacobo Arbenz was overthrown by a CIA-directed coup, following his attempt to nationalise the unused land of the multinational United Fruit Company, so that it could be used for domestic food production. Over the next few decades resistance to the military government was brutally repressed. Health-care workers who served the poor were among those targeted. From 1980 to 1985, over 137 violations of medical neutrality were documented by the Guatemala Health Rights Support Project. Health workers were shot, ‘disappeared’, or driven into exile. Tens of thousands of peasants were driven from their villages and subsistence farms, especially by the government’s ‘scorched earth’ strategy. Many fled to the remote jungles and mountains, further restricting opportunities for subsistence living and access to health care. By 1989, 71 per cent of rural Guatemalans lived in extreme poverty (Braveman et al. 2000).

Meanwhile a wealthy elite from within and outside the country gained control of the economy. While basic grain production failed to keep up with population growth, land was used to grow cash crops for export. Much of the US government’s ‘Food For Peace’ programme, which provided basic grains to Guatemala, was used to generate cash income for the government instead of meeting the needs of the population.

Sadly, there are many other examples of state or state-sanctioned terrorism from across the world: these include events currently taking place in Darfur and Chechnya.

Based on the limited definition of ‘terrorism’ used by the United States, the US National Counterterrorism Center reported that, during 2006, there were 14,352 terrorist attacks worldwide, which resulted in 20,573 deaths (13,340 in Iraq), with an additional 36,214 people wounded. There were nearly 300 incidents that resulted in ten or more deaths, 90 per cent of which were in the Near East and South Asia. Armed attacks and bombings caused 77 per cent of the fatalities (NCTC 2007).

Acts of violence perpetrated by individuals and non-state groups include the chemical attacks in subways in Japan in 1995 which led to twelve deaths and approximately 5,000 injuries, and the 11 September 2001 attacks which led to almost 3,000 deaths, including those of firefighters and rescue workers who rushed to the scene.

The health and social consequences of the ‘War on Terror’

Terrorism and perceived threats of terrorism can have long-lasting social, political and economic consequences: widespread fear, curtailment of civil liberties and the promotion of a dysfunctional climate of fear. Some
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Governments have also used ‘terror’ as a pretext for suppressing democracy and legitimate political opposition.

The United States’ response to the 11 September attacks is a case in point. Health-related consequences within the US have included interference with training of health personnel, diversion of resources needed for public health and medical care, and erection of barriers to health services. For example, billions of dollars have been spent on emergency preparedness and response capabilities for potential terrorist attacks. While some of these huge allocations of money have improved public health capabilities, they have also diverted attention and resources away from other more pressing public health problems (V.W. Sidel 2004).

There have been many examples of dysfunctional ‘preparedness’. For example, a campaign of mass smallpox vaccination was announced by President Bush, despite there not having been any cases of smallpox anywhere since 1981. The focus was on 500,000 military personnel, 500,000 health workers, and up to 10 million emergency responders. Many public health workers expressed concerns about the risks associated with smallpox vaccination and the cost of implementing the programme. Even when it was implemented on a much smaller scale than originally planned, it resulted in at least 145 serious adverse events and 3 deaths (CDC, MMWR 2003) as well as the neglect of other urgent public health problems (Cohen et al. 2004).

In another example, the US Department of Defense (DoD) ordered all US service members to be immunised against anthrax. Reports of adverse reactions and doubts about the effectiveness of the vaccine against inhalation anthrax led a number of service members to refuse, resulting in their demotion, dismissal or court martial. In response to a class-action lawsuit, an injunction was issued against further administration of the vaccine. When the injunction was lifted in 2005, the court ordered that the immunisations be voluntary rather than compulsory. Subsequently, a total of 1.1 million service members have been immunised at a cost of hundreds of millions of dollars.

Another consequence of US ‘preparedness’ programmes and their political use has been widespread fear through constant reference to current levels of ‘terrorism risk’ (dramatised by use of five colour codes) and the frequent mobilisation of the emergency services and National Guard. This has enabled the government to gain congressional approval for additional major funding for counterterrorism programmes (M. Sidel 2004; Siegel 2005), not to mention fuelling discrimination against people who ‘look like terrorists’ (MacFarquhar 2006).

Civil liberties have also taken a pounding. The Homeland Security Act of 2003 has undermined the system of checks and balances that limits the
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power of any one branch of government, and has greatly concentrated
target of any one branch of government, and has greatly concentrated
power in the executive branch and the presidency. Federal actions of doubt-
tful legality include the taping of telephone conversations between people
in the US and in other countries by the National Security Agency (NSA)
and the request by the NSA to telephone companies to provide records of
billions of domestic telephone calls. Further breaches of civil liberties can
be seen in an agreement with the European Union to provide thirty-four
categories of personal information to US authorities about airline passengers
on flights to the US.

For the first time since the Civil War, the US has been designated as a
military theatre of operations. This represents a radical change in the role
of the DoD and an erosion of the principle that the US military not be
used for domestic law enforcement.

Finally, international human rights conventions have been violated.
There has been torture and other forms of maltreatment of detainees in
Iraq and Afghanistan; within the US military base in Guantánamo Bay;
and in prisons in Central and Eastern Europe operated by the Central
Intelligence Agency (CIA). In addition, the US has participated in acts
of ‘extraordinary rendition’ in which detainees have been transferred to
countries with poor human rights records, where they are likely to have
been tortured or maltreated (Scheinin 2007).

Measuring and describing war and conflict

The past few years have seen a growing public health movement aimed
at ensuring a more complete assessment of the impact of war on human
health. Ugalde and colleagues (2006) argue that the long-term and indirect
effects of environmental damage and the destruction of schools, electricity
networks and sewerage systems must be measured. Most of the 3.8 million
civilian deaths that occurred in the DRC, for example, were not directly
due to warfare, but to malnutrition, infectious disease, and other indirect
effects (Roberts and Muganda 2008).

Others have highlighted the importance of measuring the long-term
effects on mental health (Murthy and Lakshminarayana 2006) and the
consequences of the damage done to social and family structures and the
breakdown of communal ties. And there are costs associated with trans-
gressions in the conduct of war – the more often the Geneva Conventions
are flouted, the more likely it is that civilians will suffer in future wars and
conflict. But the belligerents involved in a war may not want a full and proper
assessment of its impact, nor any monitoring of the conduct of war. This
section provides two case studies demonstrating the importance of sound
research and the role of academic and non-government organisations in describing the impact and conduct of war.

Counting the dead in Iraq

It is now accepted that the invasion and occupation of Iraq have been a humanitarian disaster. However, what was not readily apparent was the full extent to which the population in Iraq has been brutalised, at least not until a group of researchers from Johns Hopkins University in the US and the Al-Mustansiriya University of Iraq decided to estimate the excess mortality caused by the war.

The first piece of research was published in 2004. It consisted of a survey of 33 randomly selected clusters of thirty households across Iraq that was designed to determine the excess mortality during the 17.8 months after the 2003 invasion (Roberts et al. 2004). The study estimated an excess mortality of 98,000 people (95 per cent CI: 8,000–194,000), over half of which were reported to have been from violent causes. There was widespread vilification of these findings from many quarters.

Between May and July 2006 a second and larger survey concluded that mortality had more than doubled from a pre-invasion rate of 5.5 per 1,000 people per year to 13.3 per 1,000 people per year in the 40 months post-invasion. It was estimated that as of July 2006, there had been 654,965 (CI: 392,979–942,616) excess Iraqi deaths as a consequence of the war.

The research also found that mortality rates from violent causes had increased every year post-invasion. Gunfire accounted for about half of all violent deaths. Deaths from air strikes were less commonly reported in 2006 compared to 2003–04, but deaths from car explosions had increased. Deaths and injuries from violent causes were concentrated in adolescent to middle-aged men, some of whom would have been active combatants.

By contrast, before the invasion in 2003, virtually all deaths in Iraq were from non-violent causes.

The estimates were immediately denounced by the coalition forces, Iraq Body Count as well as other researchers and individuals amidst accusations of bad science and irresponsible medical journalism. Certainly there were methodological limitations to both surveys; however, these were carefully explained in the published papers, and conclusions drawn on the basis of conventional scientific practice. A number of potential biases could have over- or under-estimated the number of deaths. In fact, according to the UK’s Ministry of Defence’s chief scientific adviser, the second survey’s study design was described as being ‘robust’ and close to ‘best practice’, given the difficulties of data collection and verification in the present circumstances in Iraq (Bennett-Jones 2007). Significantly, it was based on primary data.
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BOX C2.2  Health and health care in Iraq

Since 2003, the country’s health sector has been in a downward spiral. Supplies of water and electricity are limited, as are medical personnel, equipment and essential drugs. Half of Iraq’s 24,000 doctors have left. As many as 185 Iraqi university professors have been assassinated. The Ministry of Health is reported to have lost more than 720 physicians to death or injury (DFI 2007).

Many Iraqis now experience poorer access to water and electricity. The country’s water and sanitation system, once the most advanced in the region, is now damaged and broken. Child malnutrition rates have jumped from 19 per cent to 28 per cent since the invasion (NCC/Oxfam 2007). A recent United Nations Assistance Mission for Iraq report estimated that 54 per cent of Iraqis were living on less than US$1 a day and almost half of all children were malnourished (UNAMI 2007).2

collected from households, a method that is superior to data collected from passive surveillance measures, which are usually incomplete, even in stable circumstances.

Apart from the tragedy of the death and destruction in Iraq, what is revealing about these studies is the criticism and denial they engendered from the scientific and media establishment because the findings were inconvenient and uncomfortable. It is to the credit of the researchers and The Lancet journal that these detractors were confronted head-on in order to defend both science and the right of the public to crucial information. The continued importance of academic attention to the Iraq War is highlighted by ongoing disagreements about the measurement of deaths and casualties.3

Others have also played an important role in highlighting the bias inherent within the mainstream Western media when it comes to reporting on the conduct and impact of war and conflict. In the same way that it has been considered necessary to establish an ‘alternative world health report’, it has been vitally important to establish a ‘watch’ on the mainstream global media. One such initiative is Media Lens, which has not just monitored and revealed cases of biased and false reporting on the war in Iraq, but has also acted as a conscience for journalists who want to report accurately and honestly.

The conduct of war in Lebanon

The people of the Middle East have suffered decades of violence. This has included wars and conflict between Israel and Lebanon that have gone on since the 1960s. In July and August 2006 this conflict broke out again, and
ended with Israel launching a 33-day attack on Lebanon, coupled with an air, sea and road blockade that lasted until 7 September.

A feature of the war was the overwhelming force with which Israel attacked Lebanon. Israeli warplanes launched some 7,000 bomb and missile strikes, supplemented by numerous artillery attacks and naval bombardment. Tens of thousands of homes were destroyed or damaged. More than 1,200 people were killed, a third of whom were children under 13 years. Thousands were injured. Over a million people were displaced (Haidar and Issa 2007).

The impact on civilian infrastructure and the environment was catastrophic. Schools, clinics, hospitals, roads and bridges were destroyed or damaged. Power plants, factories and fuel stations were also attacked. A massive oil spill affected 130 km of coastline. The burning of more than 45,000 tons of heavy fuel released noxious chemicals into the atmosphere for weeks (Haidar and Issa 2007).

Hezbollah attacks against Israel also caused death and damage, but on a smaller scale. Its rocket attacks resulted in the deaths of 43 Israeli civilians and 12 Israeli soldiers, as well as the injury of hundreds of Israeli civilians.

The scale of the impact of the war on Lebanese civilians and the apparent disregard for the Geneva Conventions called for independent verification of what had taken place. Israel contended that the high civilian fatality rate was due to Hezbollah’s practice of hiding its combatants and equipment among civilians. In September 2007, Human Rights Watch published a report of its research and investigation into the conduct of the war (HRW 2007).

According to HRW, the primary reason for the high civilian death toll was Israel’s frequent failure to abide by a fundamental obligation of the laws of war: the duty to distinguish between military targets, which can be legitimately attacked, and civilians, who cannot be subject to attack. HRW found that in the vast majority of air strikes that it investigated, there was no evidence of Hezbollah military presence, weaponry, or any other military objective that would have justified the strike. Throughout the conflict, warplanes targeted civilian vehicles and homes. Israeli officials also stated that they considered Hezbollah’s extensive political, social and welfare branches to be part of an integrated terror organisation. Civilian institutions such as schools, welfare agencies, banks, shops and health facilities were therefore targeted.

According to HRW, Hezbollah did at times fire rockets from within populated areas, allow its combatants to mix with the civilian population, and store weapons in populated civilian areas. However, such violations were not widespread.
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Israel also made extensive use of cluster munitions, particularly during the last three days of the conflict when a settlement was imminent. The way cluster bombs were used and the reliance on antiquated munitions have left about 1 million hazardous unexploded submunitions in southern Lebanon. As of 20 June 2007, the explosion of cluster munitions since the ceasefire had killed twenty-four civilians and injured many more.

The purpose of this case study is to highlight the need for methodologically sound and independent investigations into the conduct of war. Such investigations are required in many other parts of the world where international laws are being transgressed. They not only place on record the suffering of civilian populations, but they also bolster the work of international judicial bodies in holding governments to account for violations of international law and crimes against humanity. They are important for preventing further atrocities from occurring in the future and are thus an important public health intervention.

Retrospective documentation: Srebrenica

Epidemiologists and statisticians are not the only health scientists with a role to play in accurately monitoring the conduct and effects of war and terrorism. For example, a six-member international forensic scientific team, coordinated and sponsored by the Boston-based Physicians for Human Rights, conducted investigations into the mass graves in the Srebrenica region in Bosnia and Herzegovina, which then provided evidence to the International Criminal Tribunal for the former Yugoslavia.

Conclusion

There are several examples of the health community acting against weapons proliferation, in terms of both weapons of mass destruction and small arms and light weapons. Other efforts led by health workers have included the successful campaign to force the publishing company of The Lancet, Reed Elsevier, to divest from its long-standing business of hosting and organising arms fairs.

Beyond restricting the availability of weapons, action must be taken to alleviate the causes of terrorism, including poverty, illiteracy and gender inequality; as well as the practice of religious fundamentalists of all persuasions of encouraging, justifying or glorifying aggression and violence.

It is worth noting the response of the Lebanese people during the war with Israel. In spite of a history of sectarian divides, the homes of people living in relatively safe areas were opened to receive the flood of internally displaced persons from the South. Eyewitness accounts report numerous
examples of spontaneous solidarity between people with religious, political and class differences (Shearer 2006).

In addition to material support, there were many examples of psycho-social support provided to children and families having to cope with displacement, bereavement and ongoing fear (Shearer 2006; Haddad 2006). Part of this response was due to the existence of a network of NGOs with long experience in providing humanitarian relief. Within days of the first attacks, coalitions of NGOs and independent volunteers had been formed, armed not only with practical experience but also with a local knowledge and sensitivity to people’s needs and values. The existence of such resilience in the face of war has been described as a ‘social vaccine’ which protected Lebanon from descending into chaos and collapse.

Standard public health principles and implementation measures can also be applied to help address the problems described in this chapter. These include:

• surveillance, research and documentation;
• education and awareness awareness-raising;
• advocacy;
• implementation of programmes aimed at both prevention and the provision of acute and long-term care.

Those who wish to resist exploitation and oppression often face a dilemma. Should they advocate violent acts, which the powerful define as ‘terrorism’, or should they advocate non-violent methods? Mohandas Gandhi in India, Nelson Mandela in South Africa, and Martin Luther King in the United States have all argued eloquently that non-violence may be more powerful than violence in resisting oppression. In his speech accepting the 1964 Nobel Peace Prize, King said:

This award . . . is a profound recognition that nonviolence is the answer to the crucial political and moral question of our time – the need for man to overcome oppression and violence without resorting to violence and oppression. Civilisation and violence are antithetical concepts. Negroes of the United States, following the people of India, have demonstrated that nonviolence is not sterile passivity, but a powerful moral force which makes for social transformation. Sooner or later all the people of the world will have to discover a way to live together in peace.
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*Notes*

1. *Editorial comment*: In the formulation of this chapter we have endeavoured to be particularly sensitive to the strong antipathy held by some to the use of the term ‘terrorism’, which since 9/11 has been increasingly misused, and often in a discriminatory way.


3. For an overview of this issue, see the casualty monitor website: www.casualty-monitor.org/.

*References*


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