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Terrorism in the Twenty-First Century

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Terrorism is not a new phenomenon; it has long been a method of violent action by organizations and individuals attempting to achieve political goals. Indeed, terrorism is not an end but rather a modus operandi. According to Bruce Hoffman, all terrorists share one common denominator: they "live" in the future, and are convinced that they will defeat their enemies and achieve their political goals.[1]

There are perhaps hundreds of different definitions of terrorism, all of which tend to reflect the political world-view of the definer. The same act of violence can be classified differently, depending on the identities of the perpetrators. Groups that engage in identical behavior might be considered by their sympathizers as *freedom fighters*, and by their enemies as *terrorists*. For the purposes of this chapter, the working assumption is that terrorism is a modus operandi in which deliberate violence against civilians is used for the purpose of achieving political goals. In this respect, it is the intentional harming of civilians, which is at the core of terrorism, that makes this modus operandi illegitimate, even if it is meant, prima facie, to achieve justified objectives. This definition makes a distinction between an action intended to harm civilians and one intended to harm military and security personnel. The latter is defined as a guerilla or insurgency action, even though the perpetrator might use the same modus operandi (shooting, suicide bombing, or rocket fire). Thus, in seeking to achieve the same political objectives, an organization or perpetrator might carry out a "terrorist" attack on one occasion and a "guerilla" attack on another. Furthermore, even the political goal of an organization may change as it engages in acts of terrorism or guerilla warfare. Sometimes attacks are executed for the purpose of achieving social, economic, or national goals, such as a separate state or national liberation.

In yet other contexts, attacks are carried out in the service of a certain extreme ideology, such as communism, fascism, and anarchism. However, it is when terrorists are motivated by what they identify as a religious mission – when they regard themselves as the messengers of god – that the highest level of danger is introduced. When motivated by a religious purpose, such terrorist operatives do not perceive room for compromise; their objective is served only by an all-out war. At most, cease-fire agreements can be negotiated for limited time periods.

Modern Terrorism

Modern history has seen the rise of terrorist organizations, diverse in their political objectives and geographic origins. All these organizations, however, share one, unifying variable – their reliance on the use of violence against civilians to achieve their goals. The decision to embrace terrorism as their preferred modus operandi is the outcome of a rational decision-making process, based on a cost–benefit analysis that leaves terrorism outweighing any other alternative. The decision to conduct a terrorist act does not necessarily mean that the perpetrators are "abnormal" or that they suffer from severe personality disorders. Rather, a rational calculation of the costs and benefits leads them to adopt the modus operandi,[2] which they perceive as being the most effective method to achieve their political objectives and make a mark in their theater of operations.[3]

The dynamic nature of terrorism further exacerbates the threat such actors pose to security officials. Even if they achieve success in foiling terrorist plots, security agencies cannot rest on their accomplishments as terrorist organizations constantly change their tactics, organizational structure, and even their tactical objectives. As such, terrorist groups and those who work to counter them are constantly competing strategically in an attempt to stay one step ahead of each other, whether via new technologies or operational tactics. In this manner, the phenomenon of terrorism has evolved over the years, with each stage emerging more dangerous and lethal than the preceding stage.

As opposed to targeting state leaders or political rivals for assassination, modern terrorism does not necessarily aim to change a political reality through the direct removal of a leader. Instead, terrorists seek to achieve their political goals indirectly, using psychological warfare as their weapon. The anxiety that terrorism creates in the target population translates into political pressure, intended to coerce decision-makers into changing their policies according to the interests of the terrorist organization.

As the term implies, terrorism does in fact aim to "terrorize" its target population. While terrorist attacks are ordinarily limited in terms of resulting fatalities, their effect does not stop with the physically harmed crowd.[4] A message of intimidation and fear is passed to the general public through the terrorist act itself and the resulting media coverage. Video cassettes edited by terrorist organizations, false alarms of possible follow-up attacks, and other methods adopted by terrorist groups, all contribute to a general sense of anxiety and fear.

One of the most crucial elements in this campaign of psychological warfare is mass media. Terrorist groups rely on mass media to transfer their messages of fear and intimidation to the public.[5,6] This fear can be understood in two different spheres: rational fear and irrational anxiety. Rational fear is a natural response to the perceived risk of getting physically injured in a terrorist attack, no matter how remote the probability. To a certain degree, such "rational fear" is actually positive in that it encourages public vigilance and awareness of one's immediate surroundings, thus allowing citizens themselves to help in thwarting attacks.[7] A vigilant civilian is an important arm of the security apparatus.

However, modern terrorism is aimed primarily at heightening the public's fear of terrorism to a level of irrational and uncontrolled anxiety. The random nature of terrorist attacks actually personalizes the threat: anybody, including one's self or a loved one, could be the next victim. Such irrational fear translates into political pressure on leaders to fulfill terrorist demands, as people feel they must do whatever it takes to halt a terrorist campaign. This is essentially the method of modern terrorism, which has come to characterize the activities of all terrorist organizations in the second half of the twentieth century and the beginning of the twenty-first century.

Modern Terrorism at the End of the Twentieth Century

Modern terrorism became common toward the end of the twentieth century due to, among other things, advances in technology, the development of new weapons, and the activities of some governments after World War II. In the period of the cold war and nuclear deterrence, the phenomenon of state-sponsored terrorism developed as an alternative to traditional warfare. Terrorist organizations were utilized within a framework of local conflicts and used as tools to expand the global influence of a superpower, for example, the Soviets.

While terrorism sponsored by states such as Libya, Syria, Iraq, and Sudan decreased at the end of the twentieth century, other states, including Afghanistan and Pakistan, became more involved with terrorist groups.

The intervention of "big powers" in regional disputes, as in Bosnia, Kosovo, Chechnya, and the Gulf War, may have led sub-state groups and third world countries to turn to terrorism or other low intensity measures as a means of fighting for their causes in the face of disproportionate military power. In the past, political goals could be achieved only through the use of armies in a conventional war setting; today, it requires only a handful of determined individuals. By engaging in terrorist activities, these attackers can achieve the same aims without putting the burden of blame on a state sponsor. Examples can be drawn from attacks executed in Dhahran in Saudi Arabia in June 1996 and against the American military training facility in Riyadh in November 1995.

Terrorism is a form of asymmetric warfare in which a non-state actor fights a state. However, contrary to the popular understanding of the term, the balance of power between the two actors does not necessarily favor the state. Even though, prima facie, the state has stronger military, intelligence, and economic capabilities than the terrorist organization, a modern liberal-democratic state is subject to the rules of war and harboring of values, which, in effect, restrict its ability to operate and maneuver. A form of reverse asymmetry is established as a result: in a conflict portrayed as a war between David and Goliath, Goliath (the state) is bound hand and foot, while David (the sub-state actor) is exempt from all moral or legal restraints.

At the end of the twentieth century, the phenomenon of modern terrorism experienced another shift in terms of geography. Terrorist activity increased in central and south Asia, shifting focus from the traditional epicenter of the Middle

East. This shift can be largely attributed to the emergence of Wahhabist-Salafist fundamentalist terrorist groups founded by Afghan "veterans." Afghanistan had additionally become the central base for international terrorist organization training camps, headquarters, and offices, some of which had formerly been based in Lebanon.[8]

One of the most important developments in the 1990s was the creation in February 1998 of Osama Bin Laden's "World Islamic Front for Jihad against the Jews and the Crusaders."[9] Bin Laden had identified terrorism as a tool for achieving the group's goal of bringing Islamic rule to Muslim lands and "cleansing" them of Western influence and corruption. He established operational connections with Islamic fundamentalist groups in Egypt, Algeria, Yemen, Tunisia, Indonesia, Jordan, and other countries. He also inspired and instigated Islamist groups worldwide to wage war against their own governments and internationally against the United States and its allies.[10]

When Bin Laden initiated his "World Islamic Front for Jihad against the Jews and Crusaders," he issued a Fatwa (Islamic legal ruling) proclaiming it a religious duty for all Muslims to wage war on US citizens, whether military personnel or civilians, anywhere in the world. Soon after, his organization took responsibility for the violent terrorist attacks against the US embassies in Kenya and Tanzania.

One of the most important terrorist events at the end of the twentieth century was the chemical attack by the Japanese cult Aum Shinrikyo in Tokyo in 1995. Aum members released the nerve agent sarin in the Tokyo subway with the aim of inflicting mass casualties. That attack resulted in 12 deaths and a limited number of injured. The organization's earlier releases of anthrax from the roof of its headquarters building failed to cause any casualties.[11] In the wake of the sarin attack, the Japanese government initiated a severe crackdown on the doomsday cult, which was founded on a fusion of religious, spiritual, and supernatural doctrines. Amidst increasing public pressure, the government established legal restrictions against Aum Shinrikyo.

Even so, security officials and academics warned that Aum Shinrikyo's introduction of unconventional weapons into the arena of terrorism was a kind of "crossing the Rubicon," and would be followed by similar attempts at causing mass casualties. After the attack in Tokyo and the cult's attempted biological assaults, other terrorist organizations were expected to follow the lead of the Japanese group. This prediction, however, is yet to be realized.

Terrorism at the Beginning of the Twenty-First Century

Instead, on September 11, 2001, the world awakened to a new danger – global jihadi terrorism of unanticipated magnitude. The attacks represented a transformation in international terrorism, both on the scale and the motive: these attacks were motivated by religious grievances. The message conveyed to the public through the attacks was that no place is safe. No state is immune – not even a superpower like the United States.

The September 11 attacks represented a new reality in international terrorism. The world community, in the wake of these attacks, found itself seemingly in unprecedented peril. The face of international terrorism had changed. But the phenomenon of global jihadi terrorism has roots and ramifications that reach back several years.

Before 9/11, it was convenient for many states and world leaders to turn a blind eye to the unfolding threat, as long as they were not its direct victims or its central focus. Indeed, the radical Islamic movement originally focused not on attacking western targets, but on conquering the hearts and minds of Muslim communities all over the world through educational, religious, and welfare activities, known as "*dawah*" activities. These activities were based on the dogmatic radical perspectives of the movement, which praised the use of violence in "defense of Islam." Still, in most cases, the principle remained theoretical, and the call to violence never manifested itself as a concrete act of violent terrorist activity. This made it possible – and even convenient – for world leaders to underestimate the threat. The death of nearly 3,000 civilians, the collapse of the World Trade Center buildings, and the destruction of parts of the Pentagon building on September 11th, forced the international community – and especially the American people and US administration – to acknowledge the imminent threat of terrorism.[12]

Since then, members of the global jihadi network have not hesitated to utilize a method of modern terrorism that has proved more effective than any other, namely, suicide attacks.

The Suicide Attack Phenomenon

A suicide attack is an "operational method in which the very act of the attack is dependent upon the death of the perpetrator."[13] A suicide attack is carried out by a terrorist operative who activates explosives worn or carried in the form of a portable explosive device, or planted in a vehicle he is driving. The terrorist is fully aware that if he does not kill himself, the planned attack will not be successful.

The suicide attack phenomenon is spreading; more and more terrorist organizations, primarily radical Islamic in nature, are finding this modus operandi very productive. Since a bomber can choose the time and place to launch the attack, and can consider the circumstances he encounters, suicide attacks maximize potential casualties and cause extensive damage. Other techniques, such as a timer-activated bomb or even a remote-controlled explosive, can be deactivated by security forces before causing any damage. But a suicide bomber is an unusually sophisticated smart bomb – a carrier who brings the explosive device to the right location and detonates it at the right time.

Because of the high number of casualties these cause, suicide attacks generally attract wide media coverage. A suicide attack is of news interest because it demonstrates extraordinary determination and self-sacrifice on the part of the terrorists. It is extremely difficult to thwart a suicide attack once the terrorist is on his way to the target location. Even if security forces succeed in stopping him before he

reaches the intended target, he can still activate the explosive device and cause damage. Such attributes have made suicide attacks a very appealing option for jihadi organizations.

In addition, it is not only terrorist organizations that find suicide attacks appealing. The suicide attackers themselves also believe they will benefit personally by committing the "*istishad*" (martyrdom operation). Their extreme religious beliefs make them aspire to become "shahids" (martyrs), and they are thus happy to die for their cause. In fact, they believe that they will not really die at all, but will instead be guaranteed eternal life in paradise. In most cases of Muslim suicide bombers, among the perceived benefits are eternal life in paradise, the permission to see the face of Allah, and the loving kindness of 72 young virgins who will serve them in heaven. The *shahid* also takes altruistic motives into consideration: by committing a suicide attack, he earns the privilege to promise life in heaven to 70 of his relatives and friends.

All these factors create a substantial incentive for fundamentalist believers to adopt suicide attack tactics. As such, the growing phenomenon of suicide terrorism and the use of suicide attacks by global jihadi terrorists such as Al-Qaida should be considered a result of a rational decision-making process. It is a rational choice both by the terrorist organization that initiates, plans, prepares, and executes the attack; and by the perpetrators – the shahids – since, in their eyes, the benefits exceed all possible costs.

Global jihadi suicide attacks have proved to be the most effective and deadly method of modern terrorism. The only exception may be unconventional, CBRN (Chemical, Biological, Radiological, and Nuclear) terrorism.

Unconventional Terrorism

Despite some unsuccessful earlier attempts by terrorists to use unconventional weapons, the revival of international terrorism in the radical Islamic arena under the direction of Al-Qaida has renewed the threat of unconventional terrorism in the twenty-first century.

To determine what conditions must be in place for a terrorist organization to choose unconventional weapons, it is helpful to categorize the types of possible unconventional terrorism attacks. While it is customary to base such distinctions on the substance used – be it chemical, biological, nuclear, or radiological – one can also classify attacks by their intended result. One important distinction is that attacks using unconventional means can be "limited" or "unlimited" in nature.[14]

A limited unconventional attack differs from the standard terrorist bombing only in the means used. As in the case of a conventional assault, a limited unconventional attack aims to achieve political goals with both direct and indirect effects. By causing multiple casualties at the site of the attack it incites fear and anxiety among the larger public. A limited unconventional terrorist attack could be carried out by dispersing a chemical substance in an enclosed space, or by using explosives to disperse a radiological agent at a selected location. Another example of a limited

unconventional attack would be a destructive assault on a facility containing dangerous substances, such as a military or industrial facility. In all these examples, the damage is of limited scope, although potentially more serious than a conventional attack on the same target.

As opposed to limited assaults, unlimited attacks are meant to cause damage or carnage not merely in a specific public area. Rather, they are designed to cause mass casualties in large areas (a town, a city, a specific geographical area, etc.). The conceptual basis of these two categories differs: while tactical, or limited, unconventional terrorism serves as leverage in altering a political reality indirectly through the use of intimidation, unlimited unconventional terrorism strives to change the political reality directly by annihilating large populations or contaminating extensive geographical regions. This type of attack may have a severe psychological impact on public morale. It may, in fact, completely undermine the population's confidence in government institutions and their values. Even without this effect though, the unlimited unconventional attack causes grave and prolonged damage to the target area.

In general, chemical attacks are mostly limited in scope, while biological attacks can be unlimited, especially if the bioagents are contagious. Nuclear attacks are unlimited, with far-reaching ecological impact, while radiological attacks are likely to be limited in scope. "The dirty bomb," for example, is an explosive device in the immediate vicinity of radiological material. When the explosives are detonated, the radiological material is spread across the target area.

By classifying unconventional terrorist attacks as limited or unlimited, counterterrorism experts and officials are better equipped to determine whether such attacks will likely be perpetrated in the foreseeable future. In general, the launching of "limited" unconventional terrorist attacks is within the capability of many organizations, but "unlimited" unconventional terrorism is less likely in the near future. As long as conventional, or limited unconventional, terrorist attacks remain an effective tactic of modern terrorist strategy – including the spread of fear and anxiety – terrorist groups are less likely to turn to the more extreme alternative of an unlimited unconventional attack, based on their rational calculation of cost and benefit. The extra costs, or challenges, associated with an unconventional attack – such as difficulty in obtaining materials, severe global reaction and response, justifying the act to their constituency, or the possibility of harming members of the population they identify with – may not be worth the perceived benefits – especially because fear and anxiety can effectively be created in the target population without engaging in an unlimited attack, which would cause more physical destruction.

Still, it is arguable that Islamic groups now active will usher in a new era in terrorism, launching a transition from conventional to unconventional terrorism. Organizations influenced or motivated by religious doctrine – a divine commandment, decree, or doomsday cult mentality – will calculate costs and benefits differently than their counterparts; their commands are nonnegotiable, influenced by an external force. Islamic radical spokesmen have already expressed their interest in using unconventional terrorism, and several plots have already been thwarted in

Europe and the Middle East, such as Islamic radical activists planning to launch attacks using ricin toxin and other poisons.

In addition to limited and unlimited attacks, the threat of unconventional terrorism will likely manifest itself in one of the following operational forms:

Threats to Use Unconventional Means

Individuals and organizations may threaten to use unconventional weapons if their demands are not met. This category can be divided into two sub-groups.

Attacks for the Purpose of Bargaining

Terrorist organizations may seize a certain installation – a structure or vehicle – threatening to unleash an unconventional weapon, which would kill hostages if their demands are not met. The terrorist operatives or hostage-takers might hold in their hands a device, box, or bottle, claiming it contains an unconventional material that, upon activation, would cause massive damage. The terrorists could be situated in a known location and surrounded by security forces. One challenge is to verify that the device in question actually contains unconventional material that could endanger the area.

Attacks for the Purpose of Extortion

In this case, the terrorist group or individual does not physically seize a defined installation, but rather sends a message to decision-makers threatening to carry out an attack with unconventional means if their demands are not met. This type of extortion will ordinarily be accompanied by an ultimatum that defines timetables. The first challenge facing decision-makers and security personnel is to determine whether the threat is genuine and whether those making the threat are capable of using unconventional means to cause casualties and damage. The target location for the attack may be unidentified, the number and location of terrorists unknown, and the ability of security forces to respond effectively unlikely. This subgroup can be further divided. Threats of "concrete extortion attacks" include a specific and defined target, such as a certain town and military installation. Threats of "general extortion attacks" do not specifically define the planned target. In determining the extent to which a threat is genuine, yet another classification is possible: a "tangible threat" occurs when there is indication that the terrorist organization is able to obtain unconventional means or carry out an attack using these means. An "intangible threat" occurs when there is no indication that the terrorist organization is able to carry out an attack using unconventional means. The level of concreteness and tangibility of extortion threats may gradually change, depending on the characteristics of the group making the threat.

Personal Terrorism Using Unconventional Means

This category includes attacks targeting specific figures using unconventional means. These attacks do not actually take advantage of the weapon's potential for mass damage, but are used because of other favorable characteristics such as ease of transport and concealment.

Scope of Damage

While deciding whether to carry out an unconventional assault, a terrorist organization will assess the scope of damage that may potentially be caused by the attack. Such a calculation involves four primary variables: The *number of direct casualties* caused during the attack and immediately after, the *direct economic damage* caused during the attack itself, the *area of damage* – the size of the geographic space affected by the unconventional attack – and no less important, *future damage* caused by the attack. Future damage can include long-term contamination of areas, physical injuries appearing at a later stage or in future generations, indirect economic damages due to loss of revenues from tourism, export, and more. Another variable could be added to this list: the *level of fear and anxiety* among the affected population because of the use of unconventional materials.

The potential damage caused by an unconventional terror attack is a result both of a specific *blueprint* for the attack designed by the organization, and the *type and quantity of unconventional material* used in the attack, whether chemical, biological, radiological, or nuclear.

The blueprint of an attack, whether conducted via conventional means (explosives, firearms, cold arms, etc.) or unconventional means (chemical, biological, radiological, or nuclear), consists of the following factors: *type of attack* – bargaining, mass killing, suicide; *target of attack* – civilian or military, crowded location, building, vehicle; and the *location of attack* – an open space, a closed facility, etc. In the unconventional terrorist attack, special significance is also given to the *method of attack* or the manner in which the unconventional material is released, whether through spraying, attacking a manufacturing or storage installation, poisoning, or a delay mechanism.

The terrorist organization can employ three operational methods in the execution of an unlimited attack.

Dispersal of Hazardous Materials

In this scenario, a terrorist organization may use chemical or biological materials that are generally limited in nature. To ensure that the attack is essentially unlimited, the perpetrators must maximize its effect through dispersal methods and the use of a sufficient quantity of unconventional materials.

Poisoning of Water and Food Sources

To achieve an unlimited effect through attacks in which water and food sources are poisoned, the terrorist organization must pollute large water sources or reservoirs and national or regional food depots, using chemical and/or biological materials.

Attack Involving Assault on an Installation

Terrorists can attack installations containing unconventional materials, causing contamination of the immediate surroundings (particularly when the installation is holding dangerous chemical materials). The scope may reach that of an unlimited threat when the targets are nuclear installations or facilities holding dangerous biological materials, and when these facilities are in the vicinity of large population centers. The assault may itself be executed by firing from a distance, causing a technical malfunction, or launching a ground or aerial suicide attack.

The Threat of Terrorism to the Healthcare System

As the phenomenon of international and domestic terrorism continues to develop, the healthcare system faces the challenge of providing effective medical attention for the casualties of attacks, and defending against assaults on the system itself.

Some of the challenges facing the healthcare system in dealing with terrorist attacks are described here.

Number of Casualties

The growing number of terrorist attacks, their global prevalence, and their severity in terms of fatalities, all constitute a growing challenge to health systems throughout the world. The aforementioned advantages of a suicide bomber – primarily the ability to maximize casualties by controlling the time and place of the attack – mean a large number of casualties are sent to the hospital after an attack.

Types of Injuries

In an attempt to maximize the number of casualties, terrorists often add metallic objects (nails, screws, ball bearings) to the explosives used in an attack. These efforts result in multisystem injuries that can complicate medical treatment.

Swiftness of the Transfer of Casualties to Hospitals

Efforts by emergency services to rapidly transfer casualties to hospitals after an attack can be complicated by several factors: A high number of casualties, location of the attack in a crowded civilian center, and the need for precautions against follow-up attacks in the same area. As a result, significant pressure is placed on

the hospital nearest to an attack site, requiring an organized evacuation plan for victims and, if needed, for some patients to be sent to other hospitals nearby.

Treatment of Relatives

After a mass-casualty event, relatives of the victims will likely rush to the hospitals in search of loved ones. Some who have failed to locate family members will approach hospitals even when doubting that they were anywhere near the attack site. These inquiries, whether by telephone or in person, place a further burden on hospitals, following an attack.

Medication and Medical Instruments

The possibility of multiple-casualty attacks, sometimes reaching hundreds or even thousands, obligates the health system to maintain large reserves of medication, blood units, and other medical supplies. It also requires medical teams to stay on standby for long periods of time.

Some challenges are the same whether confronting conventional or unconventional terrorism. Many issues facing the healthcare system are identical whatever the mode of attack, such as summoning medical personnel for duty and handling a large influx of victims. Differences will depend on the nature of the agent of attack. However, challenges facing the health system that are specific to unconventional terrorist attacks are described below.

Rapid Detection and Identification of the Agent of Attack

In many unconventional attacks, especially those with biological weapons, healthcare staff treating victims may be exposed to dangerous materials – bacteria, viruses, toxins – within hours, or days, of the attack. Passage of time could even enhance the threat, as contagious diseases spread from the source to distant and widespread locations. It is therefore critical that emergency services rapidly identify the type of material used in the attack, both to properly treat victims and prevent the dispersion of harmful agents. Surveillance, monitoring, and rapid detection techniques are essential.

Quick Containment of the Attack Area

When harmful substances have been released, it is critical that the site of the attack be contained to prevent further dispersion. Only authorized people in protective gear should have access to the area, and contaminated individuals must be prevented from exiting. This mission is complicated by two contradictory goals: Maintaining, as much as possible, a normal lifestyle in the region of the attack, while attempting to isolate the area to prevent the spread of infectious agents.

Protection of Medical Teams

An unconventional attack, or even the suspicion of such an attack, obligates emergency and medical crews to take special precautions, including donning protective gear, before they treat casualties. Bulky outerwear presents an additional challenge to providing rapid and effective treatment.

Forestalling Panic

In cases of multiple-casualty, unconventional terrorist attacks, the possibility of widespread panic and extreme anxiety among the public needs to be taken into consideration. Staff and officials of the healthcare system play a major role in calming the public and enabling proper and organized treatment of casualties, while containing a conceivably contagious environment. As denying access to relatives could be resented, officials also need to address the possibility of disorder in the hospital grounds.

Given the current and future challenges to the healthcare system, it must be noted that hospitals and medical institutions have already been targeted in a variety of scenarios.

Direct Attack on Hospitals and Medical Institutions

Various terrorist organizations have attempted to execute attacks on hospitals in the past. For example, Hamas attempted to carry out a suicide attack in the Israeli Sheba Medical Center at Tel Hashomer in September 2002. In that same month, the Israeli Security Agency thwarted an attempt by the Islamic Jihad to poison the water in one of the hospitals in Jerusalem. In 1995, Chechen rebels seized a hospital in Budyonnovsk in southern Russia, holding more than 1,000 hostages. A direct attack on a medical institution helps terrorist groups spread fear and anxiety by sending a message that all locations are vulnerable to attack, even institutions that seek to save lives.

Sequential Conventional Attacks Against Health Systems

Attacks have been carried out simultaneously, or shortly after primary attacks, in which emergency and medical services have been targeted. Since the 1990s, Palestinian terrorist organizations have attempted to carry out secondary suicide attacks immediately following the first. The goal is to harm rescue forces and medical teams arriving at the scene of the attack, and disrupt the transfer and treatment of casualties. In this framework, two (or more) terrorists are sent on suicide missions, with the second one waiting to activate explosives until the arrival of rescue teams following the first attack.

Sequential Unconventional Attacks Against Health Systems

Considering the strategy of terrorist organizations over the past several years, officials should note the possibility that, following or during a mass conventional or

unconventional attack, a terrorist group may execute a parallel attack on a nearby hospital, seeking to further disrupt the transfer and treatment of casualties.

Cyber-Terrorism Against Medical Institutions

Medical databases of hospital activities, patient records, medications, vaccines, or blood units are also potential terrorist targets. Disruption of this information by cyber-terrorists could severely impair the organization and functioning of the healthcare system. Moreover, terrorists could attempt to hack into databases to obtain information to help plan attacks and to ascertain the storage location of toxic chemical and biological materials.

These threats place the healthcare system – both its staff and its institutions – at the forefront of the modern terrorism phenomenon. The system must be prepared to both contain and thwart terrorist attacks against its facilities – hospitals, clinics, ambulances, emergency services, staff, storage facilities, and control centers. In the event of a large-scale attack, whether conventional or unconventional, the healthcare system must be able to provide care to large numbers who are suffering from physical injury as well as shock and trauma. It must also protect medical staff and relatives of victims from exposure to harmful agents carried by victims of an unconventional attack. These challenges are all complicated by the fact that there may be no early warnings of an impending attack.

Future Trends

At the dawn of the twenty-first century, the phenomenon of terrorism has exhibited distinctive characteristics and defining trends. Terrorism, while not unique to this century, has been recognized by scholars, experts, and political leaders as a growing and dynamic threat. This recognition arises from its increasingly deadly nature (e.g., the 9/11 attacks) and from its potential to cause serious psychological and physical damage from unconventional weapons.

Previous trends in terrorism, such as the increasing number of suicide bombings, have demonstrated the ability of modern terrorist organizations to adapt and respond to new challenges, in competition with the security agencies that seek to combat them. It is in this context that global jihadi terrorism has become a growing threat, as organizations that embrace it seek to sustain themselves and widen their impact.

This chapter has underscored the fact that a terrorist attack is commonly based on a rational cost–benefit assessment. A number of attempted attacks with unconventional weapons have been unsuccessful, which helps account for the infrequent use of these weapons. Yet when unconventional assaults resulted in deaths, as with the sarin attack in Tokyo and the anthrax letters in the United States, they generated massive anxiety and disruption. Such demonstrated effectiveness could prompt a trend toward greater interest in these weapons by terrorists, especially by organizations that harbor religious or doomsday ideologies.

In attempting to create fear and anxiety in a target population, terrorist organizations will continue to employ a range of methods. In response, national and international institutions and actors must prepare for a variety of threats. The underlying reality is that the threat of terrorism will not disappear in the near future.

References

1. Hoffman B. *Inside terrorism*. New York: Columbia University Press; 1988: p. 169.
2. Post J. Terrorism on trial: the context of political crime. In: Kushner HW, ed. *Political terrorism – analyses of problems and prospects for the 21ˢᵗ Century*. Lincoln, NE: Gordian Knot Books—University of Nebraska Press; 2002. p. 46.
3. Crenshaw M. The logic of terrorism: terrorist behavior as a product of strategic choice. In: Reich W, ed. *Origins of terrorism*. Washington, DC: Woodrow Wilson Center Press, 1998; pp. 7–11, 24.
4. Ganor B. Terrorism as a strategy of psychological warfare. In: Danieli Y, Brom D, and Sills J, eds. *The trauma of terrorism*. New York: Haworth Press; 2005. pp 38–40.
5. Hinckley RH. American opinion toward terrorism: the Reagan years. *Terrorism*. 1989;12(6):394–395.
6. Schmid AP and De Graaf J, eds. *Violence as Communication*. London: Sage Publications; 1982. p. 172.
7. Ganor B. *The counter terrorism puzzle – A guide for decision makers*. Herzliya, Israel: Interdisciplinary Center Publishing House; 2005. pp. 253-255.
8. Sageman, M. *Understanding terror networks*. Philadelphia: University of Pennsylvania Press; 2004.
9. Laqueur W. *Voices of terrorism*. Canada: Reed Press; 2004. p. 410.
10. Chandler M, Gunaratna R. *Countering terrorism – can we meet the threat of global violence?* London: Reaktion Books; 2007. p. 20.
11. Stern J. Getting and using the weapons. In: Howard R, Sawyer R, eds. *Terrorism and counterterrorism – understanding the new security environment*. New York: McGraw-Hill; 2004. p. 189–191.
12. Ganor B. The democratic dilemma in counter-terrorism: efficacy vs. democracy and individual rights. In: Ganor B, Azani A, eds. *Trends in international terrorism and counterterrorism*. Herzliya, Israel: Interdisciplinary Center Publishing House; 2007. p. 9.
13. Ganor B. Suicide attacks in Israel. In: Ganor B, ed. *Countering suicide terrorism*. Herzliya, Israel: Interdisciplinary Center Publishing House; 2001, p. 134.
14. Ganor B. The feasibility of post-modern terrorism. In: *Post modern terrorism*, Ganor B, ed. Herzliya, Israel: Interdisciplinary Center Publishing House; 2005. pp. 19–21.