



## Finding the Line Between Science and Security: The Threat of Bioterrorism

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**Introduction:** Biological terrorism is a threat that is hard to comprehend, let alone prepare to defend against. During the 20<sup>th</sup> century, many countries maintained biological warfare (BW)



programs. Most of these were eliminated after the 1972 Biological Weapons Convention (the BWC), although a few continued, including the Soviet Union. A few other countries including the Democratic People's Republic of Korea (North Korea) are suspected of maintaining programs today.

The risk of Non-State Armed Groups (NSAGs) acquiring BW is not high but sufficiently alarming to warrant

strong international action. A few NSAGs tried to acquire BW in the 1990s and early 2000s, and some tried to sue them in terror attacks. While no successes have been reported so far, the prospect has galvanized global attention. Although claims of massive risks are often repeated, the actual danger is not clearly understood. Many observers refuse to categories BW as a weapon of mass destruction (WMD), noting that with BW, mass casualties probably requires massive quantities. A successful BW attack is technically difficulty, but could kill hundreds of people and endanger the health of thousands.

The United States Centers for Disease Control and Prevention (CDC) defines bioterrorism as a deliberate release of an agent (virus or bacteria) used to cause illness or death. Agents are found naturally, such as small pox, but can be manipulated by terrorists in order to strengthen the potency of an agent. A biological attack is especially dangerous because, unlike a bomb or other weapon, biological agents are miniscule, and can be transferred through water, food, a handshake, or any other small form of contact. Because of the imminent and extreme danger any biological attack can cause to large amounts of people, bioterrorism has maintained a constant presence in international peace and defense discussions. The United Nations' Disarmament and Security Committee is no different.





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**History of Bioterrorism:** Biological warfare as we know it today began around World War I, with anthrax being the first and most common agent. During the Sino-Japanese War (as well as World War II), the Japanese used and experimented with various biological weapons on Chinese forces and citizens. After World War II, biological weapons were restricted to the laboratory, as the United States and USSR had competing weapons programs during the Cold War. However, since the Convention of the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction in 1972, very few countries in the world have maintained an open and aggressive offensive biological weapon program.

In the late 1970s, during the Rhodesian Bush War, the Rhodesian Government (fighting a Civil War) poisoned waterways and food stocks. Hundreds reportedly died from anthrax and other chemicals throughout the region.

Terrorist acquisition and use of BW is technically difficult. Easy methods of for non-experts are suspect. Releasing BW into water supplies cannot work in regions that practice chlorination, for example. The most successful attack probably was the work of an American military BW expert. Shortly after September 11<sup>th</sup>, 2001, letters were sent to news agencies and politicians in the United States that contained anthrax over a five week period. Five people died and dozens were infected, as no one recognized the dangerous substance until it was often too late. To this day, the actual perpetrator, supplier, and other vital questions remain questionable, although it widely believed the attack was undertaken by Dr. Bruce Ivins, American military anthrax expert at the United States Army Medical Research Institute of Infectious Diseases in Fort Detrick, Maryland. Ivins committed suicide in 2008, shortly before he could be arrested by the FBI. The attack widely associated with Ivins remains the most deadly terrorist use of BW.

In 2012, scientists admitted to have made a virus that could kill millions if it was released in sufficient quantities. The World Health Organization immediately disallowed the publication of more research on the subject, but deadly weapons could be available for terrorists if they could somehow retrieve it. These two events further suggest that more must be done by the international community to stop the possibility of mass murder through biological terrorism.





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What has the UN done already?: In 1972, countries met at the Convention of the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction (BWC). Then President of the United States Richard Nixon made an

executive order destroying all biological weapons and ending further creation of them prior to this agreement.

The BWC lacks mandatory verification; it relies on self-interest and reciprocity among signatories for enforcement. Efforts to create a verification regime have been blocked by states suspicious it will be misused for espionage, especially the United States. Since



the first conference, there have been seven official Review Conferences and an Ad Hoc Group that came together over a dozen times since the 1980s, primarily to develop an acceptable mandatory verification system, with the latest meeting occurring in 2011.

While this agreement focuses on keeping State-level biological proliferation at bay, the threat of individual or small group biological terrorism can't be prevented as easily. In the United States in 1984, followers of a political/spiritual leader named Osho wanted to ensure he won a local election. To do this, they introduced a strain of Salmonella in to salad bars, hoping to make local citizens too sick to vote. They were successful to a degree, causing a reported 751 individuals to get sick. While no one died during this event, it's a clear example of how easily a rogue group can introduce a biological weapon in to a food supply and affect hundreds. The weaknesses in their attack were lack of access to deadly bacteria strains and lack of an effective delivery mechanism.

In 2002, during raids in Afghanistan of the al Qaeda network, US and British troops reportedly found a biological weapons laboratory, which the British Government called "quite well advanced." This was important justifying the subsequent invasion of Iraq, which was primarily justified by allegations Iraq had an active BW programme, causations later proved false by American investigators. In Algeria in 2009, another al Qaeda base reportedly was evacuated





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after a botched attempt at creating a biological weapon led to the dangerous spread of an agent. Clearly terrorist groups are attempting to create biological weapons, and if they succeed, large casualties could ensue.

**Role of the United Nations Today:** Presently, the United Nations is being criticized by many for pushing bioterrorism, which many believe is one of the gravest dangers in the world today, to the backburner. One unresolved issue is ensuring all parties are compliant. A possible addition to the agreement that would create annual Confidence Building Measures used to verify the compliance was proposed for a decade. However, powerful countries like the United States did not favor tactics that would involve intrusion by outside verifiers. At the present time, the closest thing to this idea is the Australia Group, a voluntary forum with the goal of uniting countries in ensuring biological weapons are removed or not created in the first place, under the efforts provided by the BTWC. Without the backing of the United Nations, this voluntary group only has less than 50 participants, as opposed to the 165 signees of the BTWC.

The former Secretary-General of the U.N., Kofi Annan, stated "Bioterrorism is especially underaddressed and in acute need of new thinking" in 2006. Many new initiatives were proposed in his '06 report "Uniting Against Terrorism." This report shifted the focus away from concerns of state-funded biological and chemical attacks and towards rogue groups and elements. So far, none have been seriously enacted.

**Country Positions:** The United States maintains their strong position against bioterrorism. However, the anthrax attacks in 2001 were traced to domestic sources, leading some to question whether or not the U.S. actually does still have some stockpile of biological weapons. The U.S. maintains its inventories are exclusively for research, not weaponziation. France is one of the leaders of creating more concise documentation against bioterrorism, including techniques the United States has disagreed with in the past. The Soviet Union, who was supposed to destroy their stockpiles along with the U.S. in 1975, actual did so only in the 1990s when Russia and Kazakhstan inherited the programme. Russia still maintains an unknown amount of anthrax in laboratories. There is evidence either Cold War superpower has





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weaponized BW. Because of their dense population centers, China and Great Britain have a stake in the successful disarmament of all nations and terrorists of biological weapons. As of 2011, 165 states ratified or signed the agreement made at the BWC. The majority of nonsignatories include Pacific Island States such as Micronesia and Guinea, as well as many African nations. A major issue for the international community is creating a mandatory verification system to insure treaty compliance and prevent terrorist acquisition.

From the Asian continent, only Burma and Nepal have not ratified the treaty. Neither are suspected of having offensive biological weapon facilities. According to the US Congress Office of Technology Assessment, China, North Korea, and Taiwan are all suspected to have undeclared biological weapons in 2008. Even though China has never violated the BWC, there is some evidence that the country may have some dual-use (both defensive and offensive) biological weapons currently.

India has strong biological defense operations, but it can safely be said that they have no biological weapons for offensive purposes. Pakistan has very similar infrastructure. Many states formerly controlled by the Soviet Union have biological weapon facilities left over from that time, with Kazakhstan including some of the longest lasting ones. They have been somewhat cooperative with outside countries in ensuring no proliferation of offensive biological weapons.

The Middle East is one of the biggest areas of concern, especially with the great amount of governmental unrest. Presently, with the looming Civil War, Syria is of top concern in regards to biological weapons. As recently as 2008, reports state Syria possesses offensive biological weapons. The concern is so high that Western Powers have publicly discussed and warned the Syrian government against the use of biological weapons.

Israel has not signed the BWC, and it is believed that they have developed offensive biological warfare capability, though their actual stockpile is completely unknown. Along with Israel, Iran and Iraq were considered to have biological weapons in their possession in 1995; however, Iraq's have since been dismantled or abandoned. In a similar report from 2008, it was stated that Syria, Egypt, Iran and Israel are the four main possessors of biological weapons in the region.





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Africa has a large number of non-signatories and countries that haven't ratified the treaty. African nations that have not signed the BWC include Andorra, Angola, Cameroon, Chad, Djibouti, Eritrea and South Sudan. The continued unrest in much of the region makes it one of the most dangerous in terms of possible availability and use of biological warfare against innocent victims. South Africa had an extensive program in the 80s and 90s, but has since claimed they have no offensive weapons.

Latin America is another dangerous area for the spread of biological warfare. While nearly every country has ratified the agreement to disarm bioterrorism, there are still many countries that (unwillingly) house terrorist groups. If these groups can get close enough to the main cities around Central and South America, and even the United States and Canada, with a biological weapon such as anthrax, they could cause scores of fatalities. Cuba is the only country in the region that might have strong offensive biological weapons capabilities. Aside from Cuba, countries officially either have solely defensive biological infrastructures or none at all.





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