



World Health Organization (WHO)

Description of Committee

The World Health Organization (WHO) is the authority on international health within the United Nations system. Established April 7, 1948, WHO is responsible for producing health guidelines, promoting health research, and helping countries address public health issues. Along with its member states, the agency works for the “attainment by all peoples of the highest possible level of health”¹. The organization defines health as not just the absence of physical illness, but also a state of physical, mental, and social well-being.

WHO is governed by the World Health Assembly (WHA). Composed of 193 member states and two associate members, WHA meets at the WHO headquarters in Geneva, Switzerland, each year to set policies, programs, and the annual budget for the organization. The Assembly also elects members of a 34-member Executive Board for three-year terms, as well as a Director-General for a five-year term. The current Director-General is Dr. Margaret Chan of Hong Kong. Additionally, six regional committees focus on health matters of regional significance.

To overcome global health concerns, WHO and its member states work with many partners around the world, including other United Nations agencies, donors, **non-governmental organizations (NGOs)**, WHO collaborating centers, and the private sector. They also employ thousands of public health experts around the world, including doctors, **epidemiologists**, scientists, managers, administrators, and other professionals.

Topic: Bioterrorism

Background

Bioweaponry

There are multiple types of toxins and pathogenic organisms that may be used as biological weapons. That being said, there is in existence a system of classification for these agents; they are organized into categories, labelled Category A, Category B, and Category C, according to both the rate at which each agent may spread between living organisms, as well as to the severity of the illness that each agent induces². Category A contains those agents that pose the highest risk to public health, while those in Category C present only an emerging risk. Some agents that



have been used in noted bioterrorist attacks in the past include the pathogens that induce smallpox, glanders, and anthrax³.

Historical Context

The use of bioterrorism as a means of warfare reaches far back in time, even before humans discovered that infections are carried and passed by microorganisms. In fact, some of the earliest documented occurrences of bioterrorism happened between the years of 1100 and 1600, when medieval medical belief stated that just the smell of rotting corpses could transmit infectious disease⁴. Following this theory, during the Hundred Years War in 1340, attackers of a castle in Thun l'Éveque, now located in northern France, hurled dead animal carcasses over the walls of the besieged structure, leading directly to the defendants' surrender⁵. Then, some years later in 1346, the Tartar army suffered an outbreak of the bubonic plague as it launched an attack on Kaffa on the Russian Crimean peninsula. Before retreating, the commander ordered that bodies of those who died from the plague be catapulted into the city, thus spreading the epidemic and leading to Kaffa's downfall. Those who escaped the city are believed to have brought the disease with them to Italy, unintentionally causing the second "Black Death" pandemic that subsequently spread throughout Europe⁶.

The next major incidents of bioterrorism did not occur until the eighteenth century, especially during the American French and Indian War and the American Revolution. By this time, the practice of **inoculating** individuals to give them immunity to a particular disease had been discovered⁷; as a result, British forces regularly inoculated their own troops with smallpox, before disseminating it upon both highly susceptible indigenous and colonial American populations. In one such case, British troops at Fort Pitt, Pennsylvania, reportedly gave blankets and handkerchiefs contaminated with the smallpox disease to Native Americans at a 1763 peace-making ceremony, which caused widespread infection amongst the Delaware Indians⁸. In 1775, during the American Revolution, the British also forced smallpox upon civilians in Boston and Quebec, in hopes that it would spread to the Continental soldiers. While this plan largely failed in Boston, in Quebec smallpox circulated within the Continental army, ultimately leading to a retreat by General George Washington's army. According to Washington, smallpox became "the greatest enemy of the Continental Army"⁹.

When World War I came around, the theory of disease transmission through germs, such as bacteria and viruses, was now an established fact; a German scientist by the name of Robert Koch proved, in 1870, that microorganisms spread infections by injecting anthrax spores into mice, which then contracted the disease¹⁰. During the First World War, Germans then used their advanced knowledge in bioweaponry to their advantage. They targeted livestock—horses, mules, sheep, and cattle—traded to the Allied powers, administering agents of anthrax and glanders among them, causing widespread animal epidemics that then infected humans as well. However, although the Germans continued these activities from 1915 to 1918, against the United States, Romania, Argentina, Spain, and Norway, the infected animals had only a minor impact on the war¹¹.

Roughly two decades later, beginning in 1936 and leading up to World War II, Japan revolutionized biological warfare by employing it on a massive scale against China. Japanese scientists established a separate division of the Imperial Army, infamously known as Unit 731, in occupied Manchuria, where they tested the **lethality** of certain biological agents, such as those of



the plague, typhoid, and anthrax, on human subjects¹². This operation is believed to have killed at least 10,000 people¹³. Japan continued these experiments throughout the Second World War, killing hundreds more Chinese civilians, and in addition poisoned wells, contaminated food, and even airdropped bags infested with agents of the plague onto Chinese cities¹⁴. Following Japan's defeat in the war, many of the soldiers from Unit 731 chose to reveal the details of their bioterrorist operations to the United States, in exchange for immunity to prosecution for war crimes¹⁵. This aided the United States in its arms race against the Soviets as the Cold War rose to dominate the global political arena.

Besides many crude reports of bioterrorism between 1950 and 1970, the United States and the Soviet Union worked rapidly to advance their biowarfare research. Both countries studied several different organisms and toxins, and moreover designed innovative methods of dispersing these agents using **aerosols**, bombs, and missiles¹⁶. In 1969, the United States staged a successful field test in the Pacific Ocean, where it disseminated lethal agents among caged animals on ships¹⁷. This large-scale experiment proved the potential devastating impact of biological agents. However, later that same year, President Nixon ordered the halt of national biological development, destroying all United States bioweapon stockpiles and shifting scientists' research focus to biodefense.

The Soviet Union, too, was rumored to have accumulated a large supply of biological weapons. It received extra international scrutiny after an outbreak of anthrax disease in the city of Sverdlovsk, located near a secret Soviet army laboratory, in 1979¹⁸. Despite the country's claim that the outbreak was due to contaminated meat, the United States suspected the link to the army lab, and in 1992, upon direct investigation of the area, confirmed this suspicion¹⁹. Before then, news of the Soviet's massive biological development program, including an antibiotic-resistant "superplague," had reached the West, and bioterrorism was becoming a daunting threat to several governments' national security concerns, and not just due to Cold War conflict. In 1981, for instance, the Scottish terrorist group, Dark Harvest Commando, attempted to distribute agents of the anthrax disease in England, whilst demanding that the British government decontaminate a bioweapon-testing site from World War II²⁰. Despite the group's failure to spread the illness, extremist groups in different areas of the world conducted similar attempts throughout the 1980s and 1990s, and some were relatively successful. For example, in 1984, followers of a religious cult in the U.S. state of Oregon, led by an Indian guru with the name of Rajneesh, attempted to influence a local election by contaminating local salad bars with Salmonella. This resulted in 750 cases of severe food poisoning, hospitalizing 45 of those sickened²¹. More than ten years later, the Aum Shinrikyo cult famously released toxic sarin gas in a Japanese subway, killing 12 people and harming thousands more²².

In the public sector, by 1989, the director of the United States Central Intelligence Agency declared that a minimum of ten countries had begun developing biological weapons²³. One of these countries, Iraq, joined the international surge of biological weapons development in 1985 by launching its own program as well. Initially, the developing country lacked both the scientific expertise and resources required to build a strong and sophisticated system; however, as the Soviet Union neared its demise in the latter 1980s and early 1990s, Iraq suddenly gained prowess in biowarfare development. By 1991, it had weaponized anthrax, botulinum toxin, and many other agents, much to the concern of the international community²⁴. After a long investigation, a



team from the United Nations Special Commission (UNSCOM) discovered a substantial stash of bioweapons under Iraqi control, including missiles loaded with mass disease-delivering capabilities²⁵. However, although Iraq has utilized its chemical arsenal, it has reportedly never deployed its supply of bioweapons²⁶.

At the beginning of the twenty-first century, bioterrorism emerged as a palpable threat to the United States. Following the 9/11 terrorist attacks by the Al-Qaeda, letters containing lethal doses of fine-grained anthrax spores were sent to offices of the *New York Post* and NBC News reporter Tom Brokaw in New York City, as well as to Senator Tom Daschle in Washington, D.C. While 18 people caught the disease, five of which died from it, this attack did more to disturb the collective United States population than it did bring harm to them²⁷. Nonetheless, this obtrusion to the nation's security, already impaired due to the collapse of the World Trade Center, reinvigorated medical and scientific awareness, worldwide, of nations' exposure to the risk and history of bioterrorism. The following years also saw more anthrax attacks in the United States, Chile, and Pakistan²⁸.

Most recently, the Global Terrorism Database has documented occurrences of bioterrorism in the United States and in the Philippines in the year of 2013²⁹. In the United States, these cases include letters containing ricin sent to New York City and Washington, D.C., and in the Philippines, a bomb was planted and detonated beneath a biological agent. Currently, however, in the latter half of 2014, the United Nations' most intense struggle with global biodefense is against nature, and the Ebola outbreak in West Africa³⁰.

Past Diplomatic Action

Throughout the twentieth century, global anxiety of the growing threat of bioterrorism culminated in a series of diplomatic efforts meant to curb such threats through voluntary international agreement. Efforts began in 1925, when the Geneva Protocol was passed, forbidding the use of both chemical and biological weapons in warfare³¹. Later, in 1972, the Biological and Toxin Weapons Convention (BTWC) prohibited the development, production, accumulation, acquisition, and retention of biological agents or toxins; banned weapons that had the potential to administer such organisms; and also demanded that all signatories of the Convention destroy biological agents and weapons under their control as well³². However, the United Nations is the only mechanism that bears responsibility to enforce the requirements of the convention, and as of 2001, 162 countries had signed the BTWC, yet several remained hesitant to ratify it³³. Since then, Review Conferences have been held to enforce and strengthen the BTWC, such as by publishing information to the public as a means of Confidence-Building Measures (CBMs), and by establishing an Implementation Support Unit (ISU) to assist nations in putting the Convention into effect³⁴. In addition, in 2006 the U.N. General Assembly called for many new biodefensive initiatives, including the institution of a program by biotechnology **stakeholders** to prevent the use of biological advances for terrorist purposes, and the creation of a global database to report all bioterrorist incidents³⁵. Nonetheless, bioterrorism remains regarded by many as a widely “under-addressed” issue, which begs further attention from the international community³⁶.



Global Protection Measures

Biosurveillance and Bioterrorism Response Plans

Besides diplomatic efforts to combat national bioweapon programs, certain action has also emerged to protect public health against disease outbreaks, and thus in the process guard against the threat of bioterrorism. Internationally, these activities of biodefense include both global biological surveillance and prepared outbreak response plans.

Biosurveillance is the process of collecting, analyzing, interpreting, and reporting information related to disease activity and potential threats to public health³⁷. These activities extend from basic epidemiological practices to highly advanced technological systems. However, while the data provided by global biosurveillance must serve as an essential requisite to the provision of adequate public health practices, the majority of gathered information worldwide is often delayed, insufficient, or simply absent. This can be due inferior economic and geographical conditions in some nations, such as lacking health infrastructure, facilities, and staff, as well as to weak diagnostic capabilities and reporting mechanisms, but can also be because some governments do not want their country's international reputation to diminish should they publish poor surveillance data³⁸. Even so, active outbreak response plans depend on the timely sharing of biosurveillance information to prevent and restrain epidemics. Public health response activities are medical interventions meant to control disease outbreaks, such as through investigations, verifications of diagnosis, handling of dangerous microorganisms, and case detections³⁹. The strengthening of both biosurveillance and active response systems is necessary to prepare for a bioterrorist attack, and provide sufficient public health protection should one occur.

Global Alert and Response (GAR)

The World Health Organization works through a Global Alert and Response (GAR) program to coordinate strong national and international public health systems, with the goal to combat and control epidemics and other health emergencies worldwide. Specifically, it conducts operations to monitor the spread of infections, inform the public if necessary, and protect populations from the effects of disease outbreaks⁴⁰. Along with this, WHO also operates an international surveillance network called the Global Outbreak Alert and Response Network (GOARN), which serves as a forum through which existing institutions and networks share resources in order to identify, confirm, and rapidly respond to significant disease outbreaks⁴¹. The entities partnered with GOARN come from both public and private sectors, including national scientific programs, regional technical and laboratory networks, United Nations organizations, the Red Cross, and other NGOs⁴².



IDEAS TO CONSIDER

1. The fundamental motivator for bioterrorism, like all terrorist acts, is most often of a political, economic, and/or religious nature. To truly eradicate bioterrorist threats, delegates must also address the political, economic, and/or religious disparities between their country and those of other nations. However, in order to prevent the committee from absolving into several discussions and resolutions on singular political conflicts, delegates may want to focus on collective global biodefensive measures for bioterrorism protection.
2. According to Andrew Pollack on an article in the *New York Times*, “an oily mixture resembling salad dressing that can blow up anthrax bacteria. A toxin detector made of a slice of living rat brain on an electronic chip. A drug that would kill all bacteria and another that would boost a person’s immune system to withstand any pathogen. These are all ideas, some far off and some surprisingly close at hand, that are being pursued in what could become the nation’s newest medical battle—the war against bioterrorism.” <http://www.nytimes.com/2001/10/09/health/anatomy/09BIOT.html>

GUIDING QUESTIONS

1. How different is this “war against bioterrorism” different from the ones we are used to?
2. Does bioterrorism pose a direct threat to my country?
3. Is my country prepared to fight this war?
4. Why is this topic so important currently?
5. What is the relationship between globalization and bioterrorism?
6. What is the definition for bioterrorism that can be agreed upon by the member states? (Your country’s definitions of terrorism and bioterrorism would be beneficial to include in your position paper.)
7. What is the role of the United Nations, and more specifically, the role of the World Health Organization in the context of bioterrorism?
8. Will it be possible to find the line between security and science?
9. What are the roles of non-governmental organizations (NGOs) in the context of bioterrorism? How can the resources and abilities of NGOs be maximized to counter bioterrorism threats?
10. Should member states be obligated to actively search for signs of future terrorist incidents? What means may states use to search their own citizens?
11. How can member states best work together and collaborate with each other on countering bioterrorism?



TERMS AND CONCEPTS (IN ORDER OF APPEARANCE)

Non-governmental organization (NGO): An organization that is neither a part of a government nor a conventional for-profit business. Usually set up by ordinary citizens, NGOs may be funded by governments, foundations, businesses, or private persons. NGOs are highly diverse groups of organizations engaged in a wide variety of activities, and take different forms in different parts of the world.

Epidemiology: The branch of medicine that deals with the incidence, distribution, and possible control of diseases and other factors relating to health.

Inoculate: To treat (a person or animal) with a vaccine to produce immunity against a disease.

Lethality: Of, pertaining to, or causing death; deadly; fatal.

Aerosol: A substance enclosed under pressure and able to be released as a fine spray, typically by means of a propellant gas.

Stakeholder: A person with an interest or concern in something, especially a business; denoting a type of organization or system in which all the members or participants are seen as having an interest in its success.

Additional Resources:

World Health Organization: About WHO: States WHO's mission and informs about general operations, resources, and planning. A great source for all kinds of information on WHO and its resolutions/workings.

Centers for Disease Control and Prevention: Bioterrorism: Different sections on bioterrorism, including an overview and information on specific bioterrorism agents. Also provides research and many documents on CDC training, laboratory studies, biosurveillance, communication, and response plans.

Texas Department of State Health Services: History of Bioterrorism: Thoroughly recounts the chronological history of bioterrorism occurrences, complete with extensive explanations and timelines.

Global Terrorism Database: Biological: Lists the most recent bioterrorism incidents, including the identification of the perpetrator, the location of the occurrence, the type of weapon used, etc. Delegates should keep in mind, however, that with inconsistent biosurveillance from many nations, not all incidents may be documented in this database.

World Health Organization: Programmes: Global Alert and Response (GAR): Describes, in different sections, the core functions of WHO's GAR program, specific alert and response operations, current pandemic and epidemic diseases, the Global Outbreak Alert and Response Network (GOARN), and biorisk reduction strategies.



World Health Organization: Public Health Surveillance: Explicitly defines public health surveillance, and provides related sites and links on global surveillance of infectious diseases. An attached link also gives information about WHO's method of international biosurveillance as well.

World Health Organization: Director-General: Bioterrorism and Military Health Risks: A speech from the Director-General of WHO. A great resource for insight on WHO's efforts in biodefense.

Global Biodefense: A website that reports news of global disease outbreaks, biological laboratory research, information on pathogens, defensive countermeasures, and disease detection. A comprehensive source for current information on epidemics around the world.

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