Introduction

Every year on the 7th of April, governments, nongovernmental organizations and citizens around the world take a moment to celebrate World Health Day. This day was chosen to commemorate international efforts to address public health, specifically through the creation of the World Health Organization (WHO). On this day in 1946, a handful of the Member States of the United Nations came together with the goal of creating an international institution that would monitor and improve public health around the globe. After attending the International Health Conference in 1946, 51 UN Member States and 10 other non-member states signed the Constitution of the WHO. Two years later, the World Health Organization was established; Initially signed by 61 countries, the WHO is now comprised of 194 members.¹

“The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition.” - WHO Constitution

The WHO Constitution is one of the key documents that outlines the role, functions, and goals of the organization. Within the Constitution, public health is framed not only as a human right, but also as an issue of international peace and security. Accordingly, one of the primary WHO objectives “is the attainment by all people of the highest possible level of health.”² This goal is applied to a range of public health issues, including communicable and non-communicable diseases, sexual and reproductive health, nutrition, and food security, to name a few.³ The topics that will be discussed in this committee will focus on two communicable diseases currently affecting a significant number of countries - the Zika virus and HIV/AIDS. We will turn to these later.

Structure and Operations of the WHO

The World Health Organization is a specialized UN agency, which falls under the UN Economic and Social Council (ECOSOC). In order to achieve its goals, the WHO maintains offices in 150 countries, with over half of all WHO staff “in the field.” Country-level offices are directed by 6 regional offices and a global headquarters in Geneva, Switzerland.

In Geneva, each Member State of the WHO is represented by a delegate to the World Health Assembly (WHA), the legislative body of the WHO. This assembly is the ultimate

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¹ [http://www.who.int/countries/en/](http://www.who.int/countries/en/)
² [http://www.who.int/governance/eb/who_constitution_en.pdf](http://www.who.int/governance/eb/who_constitution_en.pdf)
³ [http://www.who.int/about/en/](http://www.who.int/about/en/)
decision-making body, and every year in May delegates meet to determine the international health agenda, determine budgetary matters, and approve work programs. These decisions are then communicated to the regional offices for implementation. In all, the WHO employs roughly 8500 individuals to fulfill the mandates of the WHO Constitution and WHA directorates.

One of the principal goals of the WHO has evolved in recent years to incorporate a greater degree of capacity building efforts, which has “typically been defined as the development and strengthening of human and institutional resources” in developing countries. In the context of global health, this means a transfer of the knowledge and skills necessary for states and citizens to better resolve internal public health issues independently. This new agenda reflects an attempt by the WHO to adapt in response to international criticism, which argued that past WHO practices and policies that did not do enough to empower local individuals and governments.

The WHO publishes an annual or biennial World Health Report, which reviews the programs and results of the past year (or two). This publication is accessible online to the public and often helps governments make public health policy decisions. World Health Reports are thematic, and the 2007 report, “A safer future: global public health security in the 21st century”, specifically addresses disease outbreaks and is particularly relevant to this conference. There are numerous other UN publications that will provide insight for this committee, which will be discussed later. For now, we turn to the committee topics.

I. 2030: Achieving the Global Goal of Defeating HIV/AIDS

In the early 1980s, the world experienced the alarming spread of the HIV/AIDS epidemic around the globe. Previously, the virus had only existed in a localized context in West-central Africa for what many experts believe to have been roughly a century. HIV/AIDS, or human immunodeficiency virus and acquired immune deficiency syndrome, is a concurrence of conditions that weaken a person’s immune system through the destruction of vital cells that fight infection. As a result, those that are infected with HIV/AIDS often die from other opportunistic viruses, such as pneumonia and tuberculosis. Since its pandemic spread began in the 1980s, the US Center for Disease Control (CDC) estimates that roughly 41 million have died as a result of the virus.

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4 http://www.who.int/mediacentre/events/governance/wha/en/
5 http://www.who.int/employment/about_who/en/
6 http://www.who.int/tobacco/control/capacity_building/background/en/
7 http://www.who.int/country-cooperation/how-who-works/who-reform/en/
9 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3234451/
10 http://www.cdc.gov/hiv/basics/whatishiv.html
The global statistics on the HIV/AIDS impact are quite startling. As of 2015, epidemiologists and global health experts estimated that there are 36.7 million people currently living with HIV/AIDS, although they estimate that only 54 percent of people living with HIV/AIDS are aware of their status. Furthermore, while international efforts to slow the spread of the virus have seen some positive results, the WHO still estimates that new HIV infections in 2015 were 2.1 million globally. It should be noted, however, that the prevalence of HIV/AIDs today ranges widely between regions, with the highest infection rates being found in Sub-Saharan Africa. Of the 36.7 million people presently living with HIV/AIDS, experts estimate that 25.6 million of those people live in Sub-Saharan Africa.\(^\text{11}\)

**History of Health Response**

Many health experts believe the first documented cases of HIV occurred in the Democratic Republic of the Congo (DRC) after a virus mutated and crossed species from chimpanzees to humans in the 1920s.\(^\text{12}\) After the DRC gained independence from France in 1960, the United Nations recruited hundreds of French-speaking Haitian bureaucrats and technocrats to fill the administrative void left in government agencies in the DRC. Many believe that the virus was contracted and brought back to the Western hemisphere by these volunteers working in the DRC. By 1978 cases were emerging throughout North and South America, while also appearing in across Africa, Europe and Australia. Although experts have had difficulty estimating the number of people infected by this point, many place the range in 1980 between 100,00 and 300,000 globally.\(^\text{13}\)

On November 22, 1983, the WHO held its first meeting to assess the spread of the HIV/AIDS virus and to formulate response measures.\(^\text{14}\) By February of 1987, they formally launched the *Global Program on AIDS*, in order to “raise awareness; formulate evidence-based policies; provide technical and financial support to countries; initiate relevant social, behavioral, and biomedical research; promote participation by nongovernmental organizations and champion the rights of those living with HIV.”\(^\text{15}\) In November of the same year, AIDS is the first virus to be debated on the United Nations General Assembly floor (UNGA).\(^\text{16}\) At the conclusion of that meeting, the UNGA designated the WHO to lead global international efforts to combat the virus. The international response grew alongside the magnitude of the epidemic. In 1997, UNAIDS reports that 30 million people globally have been infected. Furthermore, AIDS becomes the leading cause of death among Americans age 25-44.\(^\text{17}\) Thus, the UN established the Joint United Nations Programme *UNAIDS* in 1996 to bolster


\(^\text{12}\) [http://www.avert.org/professionals/history-hiv-aids/overview](http://www.avert.org/professionals/history-hiv-aids/overview)

\(^\text{13}\) Ibid.


\(^\text{15}\) Ibid.

\(^\text{16}\) [http://articles.latimes.com/1987-10-22/local/me-15463_1_aids-effort](http://articles.latimes.com/1987-10-22/local/me-15463_1_aids-effort)

\(^\text{17}\) [http://www.cdc.gov/mmwr/preview/mmwrhtml/00001442.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/00001442.htm)
international efforts; this organization has monitored the spread and infection rates of AIDS, and provided policy advice and assistance for countries heavily affected by the epidemic.

**Development of Treatment Methods**

“In 1987, the first therapy for AIDS, azidothymidine (AZT), is approved for use in the United States.”\(^\text{18}\) By the mid-1990s, a range of treatment options began to emerge on the markets. A range of anti-retroviral (ART) drugs became available, which slow the weakening of the immune system caused by HIV. Furthermore, in 1994 scientists release the first treatment to prevent the transmission of HIV from pregnant women to their offspring (PMTCT).\(^\text{19}\) However, most of these early drugs often carried significant side effects, were costly, and were unavailable in many countries. Organizations and companies working at the international level often faced difficulties in maintaining drug supply chains to countries in need, resulting in arrested progress due to gaps in drug treatment regiments available for infected populations.

![HIV Prevalence Map](https://example.com/hiv-prevalence-map)

UNAIDS reported in 2002 that the average lifespan in Sub-Saharan Africa had dropped from 62 to 47 as a result of the AIDS epidemic.

Further progress began to emerge in the 2000s, both in international collaborative efforts and treatment options and results. The UN Security Council (UNSC) met in 2000 to debate the magnitude of the epidemic in Africa and it’s effects on international peace.


\(^{19}\) [http://www.scielosp.org/pdf/aiiss/v47n1/v47n1a10.pdf](http://www.scielosp.org/pdf/aiiss/v47n1/v47n1a10.pdf)
and security.\textsuperscript{20} Later in the same year, the UN Millennium Development Goals were created, including an optimistic goal of eliminating AIDS. Finally, US President George W Bush created the \textit{President's Emergency Plan for AIDS Relief} (PEPFAR), which focused on efforts to combat the virus around the world, particularly in Africa. This initiative was the largest commitment by a single country to fight HIV/AIDS to date with an initial budget request of $5.4 billion. The current US President Barack Obama has supported and built upon PEPFAR, strengthening it mission and resources.

In terms of progress in infection rates, according to the Report on the Global AIDS Epidemic released by UNAIDS in 2010, “from 2001 to 2009, the rate of new HIV infections stabilized or decreased by more than 25 per cent in at least 56 countries around the world, including 34 countries in sub-Saharan Africa.” When extending the timeframe to 2015, according to the WHO, “Between 2000 and 2015, new HIV infections have fallen by 35\%, AIDS-related deaths have fallen by 28\% with some 7.8 million lives saved as a result of international efforts that led the global achievement of the HIV targets of the Millennium Development Goals.”\textsuperscript{21} This progress can be largely attributed to the increase in the number of people receiving treatment; roughly 17 million people were on antiretroviral therapy by 2015. UNAIDS has noted “that the number of people on anti-retroviral treatment today has surpassed the number of new infections each year, and more countries are reporting that zero mother-to-child transmission of HIV is in sight.”\textsuperscript{22}

\textbf{The World Health Assembly and Future Work of the Organization}

As the designated agency of the UN to coordinate the international AIDS response, the WHO has lead policy and strategy plans globally. Within the WHO itself, policy is formulated within the World Health Assembly (WHA), which is the legislative, decision-making body of the WHO. Every five years, the WHO releases a strategy plan for combating AIDS, and in its most recent publication, \textit{the 2016-2021 Strategy Plan}, the WHO stressed that “Partnerships and linkages with other health and development issues must be emphasized in the next stage of the response”\textsuperscript{23} This practical and symbolic statement underscored the UN’s determination to bring to a close the AIDS epidemic, and to begin the process of shifting resources to other health issues.

The last two decades have shown remarkable progress in the fight to end AIDS. Yet many UN leaders still emphasize that efforts should not be diminished too quickly before the finish line is reached.\textsuperscript{24} Many minority and rural communities within countries still lack adequate support, pharmaceutical supply chain deficiencies exist, and drug-resistant strands of the virus have appeared in many cases. Similarly, key

\begin{footnotes}
\item[20] https://www.aids.gov/hiv-aids-basics/hiv-aids-101/aids-timeline/
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target groups that are more prone to acquire the virus, such as sex workers and men who have sex with men, are rarely discussed in policy plans. Nevertheless, the UN General Assembly passed an ambitious political declaration on HIV and AIDS on June 8th, 2016 that aimed to fast track the eradication AIDS by 2030.25 Central to this goal will be the actions and leadership taken by the WHO.

Questions to Consider:

How has the HIV/AIDS epidemic affected your country? What has your country done to combat the epidemic in terms of successful public policy? How has your country contributed to international efforts to combat the disease? Is your country on track to eradicate the virus by 2030? What recommendations does your country have for current WHO practices and policy that might assist in the final stages of ending the epidemic?

II. Combating the Zika Virus Using Prior Lessons Learned

Introduction

The Zika virus, a usually mild, mosquito-borne virus, was not unknown to the international health community prior to its most recent outbreak in the Western hemisphere starting in April 2015. Rather, it had been documented and studied in small, isolated outbreaks throughout the twentieth and twenty-first centuries in Africa and Asia.26 Epidemiologists have found that many rare viruses exist in regional contexts, and do not pose a significant international threat unless they spread to new regions where populations may have lower immunity rates.27 In the last year, citizens in many countries have experienced this phenomenon with the spread of the Zika virus.

Named after Zika Forest in Uganda, the virus has periodically reemerged throughout the last century in Africa and Asia, but usually with much more limited effects on those infected. However, the most recent outbreak has been much larger in scope and magnitude, spreading from Asia to Brazil and then northward into Central and North America. Again, experts attribute the rapid spread and high infection rates to the lower immunity rates found in populations in the Americas, mostly due to the lack of prior exposure to the virus. During the present ongoing outbreak, the World Health Organization has reported active cases present in over 60 countries in 2016.

The Zika virus is related to other mosquito-borne viruses, such as dengue, yellow fever, Japanese Encephalitis, and West Nile. While it is transmitted primarily through the bite of two types of mosquitos, the *Ae. aegypti* and *Ae. albopictus*, scientists have recently discovered that the virus is also spread through sexual intercourse and blood transfusions. Once a person becomes infected, symptoms usually mirror those of a mild case of dengue, including a fever, rash, or faintness; thus most who are infected are not aware of their status because of the mild nature of the symptoms. Nevertheless, recent studies have connected the Zika virus to a range of adverse effects, including rare cases of Guillain-Barre Syndrome (GBS), microcephaly and other birth defects in pregnant women. There are currently no vaccines, specific treatments, or rapid diagnosis tests that have been developed yet, and many health experts estimate that it would take a minimum of 36 months to develop a vaccine.

**Case Study: Puerto Rico**

The Puerto Rican Department of Health (PRDH) reported the first locally acquired case of the Zika virus in December 2015. On this small island nation with a population of


29 http://apps.who.int/iris/bitstream/10665/246091/1/WHO-ZIKV-SRF-16.3-eng.pdf?ua=1&ua=1


31 https://www.cdc.gov/mmwr/volumes/65/wr/mm6530e1.htm?s_cid=mm6530e1_w
roughly 3.5 million, the Zika virus has been spreading rapidly during the rainy summer months of 2016. By August 2016, San Juan had reported more than 8,000 confirmed cases of the Zika virus.\textsuperscript{32} Even more startlingly, the CDC estimates that by 2017 the figure could reach up to 20-25% of Puerto Rico's population.\textsuperscript{33}

While the Puerto Rican federal and local governments have been working exhaustively to fight the spread of the virus, it has now reached all regions of the island, increasing difficulties in containment and mitigation efforts. Furthermore, financial resources have poured into the health sector to boost the response, but limited success has been recorded thus far. In June 2016, the CDC reported that of 9,343 pregnant women tested for Zika in Puerto Rico, 672 had been found to be positive.\textsuperscript{34} As a result of these and other findings, the “CDC recommends that pregnant women in areas with evidence of active Zika virus transmission receive screening tests during the first and second trimesters of pregnancy, regardless of symptoms.”\textsuperscript{35}

**WHO Response**

The global response to the 2015-2016 Zika outbreak is being coordinated from the WHO headquarters in Geneva, Switzerland. In June, WHO released a *Zika Strategic Response Plan* for July 2016 to December 2017, which “provides the basis for coordination and collaboration among WHO and its partners so that countries' preparedness and response capacities are supported to the fullest extent possible.”\textsuperscript{36} This plan builds upon an earlier WHO framework released in February 2016, the *Zika Strategic Response Framework*, which has four key pillars: detection, prevention, care and support, and research.\textsuperscript{37}

WHO officials and personnel have encouraged governments and civil society organizations to educate citizens on vector management, which in the case of Zika is the reduction or elimination of breeding sites for mosquitoes carrying the virus. The drainage or sanitation of non-potable standing water, especially in densely populated urban areas, has proven successful in the past in combating other mosquito-borne viruses. Aerial spraying for mosquitoes has intensified in many countries, although protests have erupted over the use of some chemicals, such as the use of Naled in Puerto Rico and the US. However, the CDC has provided citizens with further information on such aerial treatments in order to reduce exposure to the chemicals.\textsuperscript{38}

\textsuperscript{34} [https://www.cdc.gov/mmwr/volumes/65/wr/mm6530e1.htm?s_cid=mm6530e1_w](https://www.cdc.gov/mmwr/volumes/65/wr/mm6530e1.htm?s_cid=mm6530e1_w)
\textsuperscript{35} [https://www.cdc.gov/mmwr/volumes/65/wr/mm6530e1.htm?s_cid=mm6530e1_w](https://www.cdc.gov/mmwr/volumes/65/wr/mm6530e1.htm?s_cid=mm6530e1_w)
\textsuperscript{36} [http://apps.who.int/iris/bitstream/10665/246091/1/WHO-ZIKV-SRF-16.3-eng.pdf](http://apps.who.int/iris/bitstream/10665/246091/1/WHO-ZIKV-SRF-16.3-eng.pdf)
\textsuperscript{38} [http://www.cdc.gov/zhk/vector/aerial-spraying.html](http://www.cdc.gov/zhk/vector/aerial-spraying.html)
Lastly, mosquito nets and spray have been distributed to pregnant women and populations living in rural areas beyond the reach of urban aerial spraying operations.

As a result of the recent studies that link the Zika virus to pregnancy complications and birth defects, the WHO has strongly underlined supporting women and girls of childbearing age as a crucial component of the Zika response. Programs and clinics that specifically treat women and girls have been boosted in many of the effected countries, and more funding has been called for to support these organizations and their efforts. Similarly, the UN has placed a strong emphasis on prevention and management of medical complications such as GBS for adults infected by Zika.39

While many countries and non-governmental organizations have donated to support Zika research and mitigation, the UN has noted that significant funding gaps still exist. WHO has estimated that $122.1 million will be needed to fully implement the Zika Strategic Response Plan.40 To facilitate the funding process, the UN Secretary-General Ban Ki-Moon established a *Multi-Partner Trust Fund (MPTF)* in May 2016 to catalyze financing of the Zika strategic plan.41 He noted that the WHO is still in need of significant financial donations in order to respond to the outbreak in the upcoming months and years while a vaccine is being developed.

**Questions to consider:**

Has the Zika virus affect your country? Have there been documented cases of locally acquired Zika or infected travelers returning home? How has your country contributed to international efforts to combat the virus? Do the mosquitos that carry the virus reside in your country, making it susceptible to the future spread of the disease? What recommendations does your country have for WHO policy for combating the outbreak in currently affected countries? Are there any lessons learned in your country from other mosquito-borne viruses that can be applied to fighting the Zika virus? Lastly, how is the fight against Zika different from other mosquito-borne viruses?