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Ebola, a Global Health Emergency

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Introduction

As of February 2015 the Ebola Virus Disease (EVD) has claimed 9,209 lives.[i] The highest concentrations of its victims are in Guinea, Liberia and Sierra Leone. The virus is so merciless that it lingers in the victim's body even after death. Tom Frieden, the Director of the US Centers for Disease Control and Prevention, drew a parallel between this outbreak and the medieval plagues; the horrific events today are reminiscent of a scene taken straight from the pages of Dante. The first cases of Ebola appeared in December 2013 in the district of Guéckédou, in Guinea. However, it took over half a year before the World Health Organization (WHO) declared the epidemic to be a "public health emergency of international concern." The international organization has faced a great deal of criticism for its response, or rather, their initial lack of response to Ebola. Within the last fifty years, there have been other outbreaks of Ebola, but this particular epidemic is certainly unprecedented. If left untreated, Ebola has a 90% rate of fatality. Furthermore, there are currently no therapeutics or vaccines that have been accepted for the treatment of EVD. The statistics in the table below outline the gravity of this epidemic:

Country	Total Cases	Total Deaths
Guinea	2693	2032
Liberia	3147	3858
Mali	7	6
Nigeria	19	8
Senegal	1	0
Sierra Leone	8155	3363
Spain	1	1
United States	4	1
TOTAL		**9,269** [ii]

This paper will examine how the World Health Organization has responded to the EVD and the consequent criticism that it has faced. It will also contextualize the current Ebola outbreak with the World Health Organization's response to the outbreak of Ebola within the past few decades. The epidemic has not only claimed thousands of lives, but it has

also highlighted the widespread discrepancy between the objectives of global health officials and their ability to contain this infectious disease.

A brief overview of the Ebola Virus Disease

There are four different species of Ebola: the Zaire, Sudan, Reston and Ivory Coast virus. The Zaire Ebola Virus is the strand that has wreaked the most devastation throughout Western Africa. This subtype inherited its name in 1976 when it broke out in the Democratic Republic of Congo (formerly Zaire) and signifies, "derives from the river". The virus is aggressive as it incapacitates the body's defences through the systematic destruction of the white blood cells, causing havoc to the immune system. Although the initial transmission occurs from animal to human, otherwise known as zoonosis, the most common spread is human to human through direct contact with bodily fluids. The incubation period ranges from 2-21 days. The infected victim has flu-like symptoms, which quickly escalates to diarrhea, vomiting and in the final stages haemorrhaging.

Although Ebola is not as contagious as other diseases such as measles or influenza, the danger lies in the length of the incubation period. It can take up to three weeks before an infected person exhibits any signs of sickness. Furthermore, the fact that the Ebola Virus persists in the victim's body even after death complicates the burial process. This has been a source of consternation as many of the Ebola aid workers have faced mounting opposition from the inhabitants, as they are unable to mourn the loss of their loved ones properly through their burial ceremonies. Burial rituals such as the washing and dressing of the body by relatives are no longer permitted. Instead, the aid workers take charge of burying the dead. The bodies are wrapped with shrouds that have been saturated in bleach, which is followed by a rigorous process of disinfecting the area. Some of the inhabitants believe that this in in fact causing the disease to spread. The International Committee of the Red Cross recently reported that aid workers in Guinea are attacked an estimated 10 times a month by the local inhabitants. The situation is rather serious as eight aid workers were killed in Guinea at the end of 2014. The feelings of distrust are exacerbated by the protective outerwear worn by the aid workers, as they are covered from head to toe in protective suits with bug-eyed goggles. As a result, they are entirely unable to forge a connection with the locals.

A look at past Ebola outbreaks

There have been a number of Ebola outbreaks in the previous decades. However, the death toll in the various episodes never exceeded 400, as the outbreaks were quickly contained. For instance, the first outbreak of EVD was in Zaire (now the Democratic Republic of Congo) in 1976. Although the outbreak was contained within a few months, 318 people were infected and 280 people died, including numerous doctors and nurses that were attending to patients. There was also an outbreak of Ebola in Sudan in 1976. There were no reported cases for the next few decades.

Year	Country	Total Cases	Total Deaths
1976	Sudan	284	151
1976	Zaire	318	280
1979	Sudan	34	22
1994	Gabon	52	31
1995	Zaire	315	254
1996	Gabon	37	21
2000-2001	Uganda	425	224
2001-2002	Republic of the Congo	122	96
2002-2003	Republic of the Congo	143	128
2003	Republic of the Congo	35	29
2004	Sudan	17	7
2007	Republic of the Congo	264	187
2007-2008	Uganda	149	37
2012	Uganda	24	17
2012	Republic of the Congo	77	36

The relative success in dealing with these outbreaks is potentially one of the reasons for which officials did not fully predict how widespread this current outbreak could be. By the end of August 2014, there were already 3052 reported deaths related to EVD in West Africa. Various health experts have sought to understand how the EVD spread so rapidly from December 2013. They conclude that it is due to weak health systems in Guinea, Sierra Leone and Liberia. As evidenced in the above chart, prior to this current pandemic, the highest number of deaths was in Zaire in 1976. However, Zaire was not a stable state and hardly possessed what could be classified as a strong health system. At the time of independence, there was not a single Congolese doctor and faint traces of a working health system. In fact, it only attained independence in 1960 and in the coming decade, the newly independent country experienced military coups and other uprisings. Therefore, how can the success of the efforts to contain this outbreak be explained? Approximately one month after the outbreak of Ebola, an International Commission was established at the behest of the Government in October 1976. Various representatives of the WHO partook in this International Commission and collaborated in the effort curtail the spread of Ebola.[iii] Although this International Commission was comprised of doctors and health experts from a myriad of organizations, including but not limited to the WHO, it was directed by the Minister of Health of Zaire. Doctors from the US Center for Disease and Control that were included in this International Commission in Zaire recently revisited their activities and published the reasons for their ability to successfully contain the spread of the virus in a medical journal.[iv] In hindsight, they maintain that the containment of Ebola was due to the attention that was given to the

commission's leadership, the seamless organization, as well as the logistics and communication.

When revisiting some of these past outbreaks, it is worth recalling the rapidity with which international responses were galvanized. For instance, regarding the outbreak in Zaire, on 8 May 1995, the Zairian government alerted the WHO to the gravity of the situation and requested international assistance. Two days later, an international scientific and technical committee comprised of experts from the Democratic Republic of the Congo, WHO, Centers for Disease Control and Prevention, the Institute of Tropical Medicine, Médecins sans Frontières, South African medical Institute, Red Cross and Institut Pasteur was established in Kikwit to determine how the epidemic could be effectively curtailed.[v]

What has been done to curtail the current epidemic?

It is relevant to note that the WHO introduced new International Health Regulations in May 2005, which were considered to be the most significant amendments to international law on public health since the mid-nineteenth century. This is where the phrase "public health emergency of international concern" that was used to describe the current outbreak of Ebola originates. More concretely, it signifies, "an extraordinary event which is determined, as provided by these Regulations i) to Constitute a public health risk to other States through the international spread of disease and (ii) to potentially require a coordinated international response.[vi] Once the World Health Organization tuned in to the gravity of the situation, the international organization advocated the following measures to address EVD: the establishment of isolation units for the infected, ensuring that adequate health education was provided in order to educate inhabitants about the symptoms of the EVD and curtailing burial activities. One of the oldest practices pertaining to public health is the isolating and quarantining of people and goods that might possibly transmit infectious diseases. The World Health Organization has faced considerably criticism for its slow-start in dealing with the outbreak of Ebola. Médecin Sans Frontière (MSF) has been one of the most vocal critics of the WHO. MSF which has an annual budget of $ 1.2 billion, had a comparative advantage as they were at the scene of the first outbreak. This is due to the fact that the organization runs a malaria control center in Géckédou. Furthermore, they recognized the symptoms as they have been fighting Ebola since 1995. Apparently, MSF tried to communicate the severity of the situation in the first few months, not only to the WHO, but to UNICEF and foreign governments as well. Unfortunately, their appeals came to no avail during these initial months of Ebola.

The WHO has shifted its stance entirely. In October 2014, during the height of the outbreak of Ebola virus disease, Margaret Chan, head of the WHO maintained that the epidemic threatened the "very survival" of societies and could potentially lead to failed states.[vii] Furthermore, Chan also maintained that this disease could pose a rather calamitous threat to international peace and security. Accordingly, in order to contain the current outbreak and to prevent future epidemics, the organization has advocated for comprehensive plans to rebuild sanitation and infrastructure in the countries that have

been most affected by EVD. The WHO, doctors who have assisted and other aid workers unanimously agree that there is a need to bolster health initiatives in these countries. Oxfam, an international development agency, similarly proposed a post-Ebola Marshall Plan that would seek to address "urgent cash shortages and crippling damage to social services like health, education, water and sanitation."[viii] For instance, a starting point could be health education initiatives regarding an awareness of the threats that can be posed by fruit bats, one of the principle carriers of the EVD. However, some medical journals address the fact that this is not such a straightforward task. Although the fruit bat is dangerous, the inhabitants should not be instructed to kill or destroy the species as they play a vital role in the ecosystem. Therefore, although some of these ideas might sound impressive on paper, they do not always translate into feasible plans.

Concluding Remarks

President Barack Obama announced on February 12, 2015 that the crux of the 2,800 American soldiers that have been stationed in West Africa since September 2014 to help with the outbreak of Ebola will soon be leaving the region. However, the statistics provided by the WHO are rather unsettling as they demonstrate that the rate of infection climbed from 124 last week to 144 this week.[ix] The following weeks and months will be rather telling.

The events surrounding this epidemic are truly tragic. It marred 2014 and the death toll is continuing to climb. Although it is far too easy to play the blame game and point the finger at the WHO or other actors who were not swift enough, the WHO has openly admitted that it was not quick enough to acknowledge the outbreak. The organization is trying to rectify its errors, as evidenced by the resolution passed by almost a dozen member countries at the end of January 2015. This resolution states that in future emergencies, the organization will not display a similarly "sluggish" response.

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Additional Readings

Joel G. Breman, Karl M. Johnson, "Ebola Then and Now," *New England Journal of Medicine* 371; 18 (October 30, 2014): 1663-1666.

David P. Fidler, "From International Sanitary Conventions to Global Health Security: The New International Health Regulations," *Chinese Journal of International Law* (2005), Vol. 4 No. 2 (325-392)

Nicholas B. King, "Security, Disease, Commerce: Ideologies of Postcolonial Global Health," *Social Studies of Science* vol. 32 no.5-6 (December 2002): 763-789.

WHO Ebola Response Team, "Ebola Virus Disease in West Africa-the First 9 Months of the Epidemic and Forward Projections," *The New England Journal of Medicine* Vol. 371, no. 16 (October 16, 2014): 1481-1495.

[i] These are the statistics as of February 10, 2015. See Source, Center for Disease Control and Prevention, 2014 Ebola Outbreak in West Africa- Case Counts http://www.cdc.gov/vhf/ebola/outbreaks/2014-west-africa/case-counts.html (last accessed February 15, 2015)

[ii] Ibid.

[iii] Bulletin of the World Health Organization, "Ebola haemorrhagic fever in Zaire in 1976," 56 (2) (1978): 271-293.

[iv] Joel G. Breman, Karl M. Johnson, "Ebola Then and Now," *New England Journal of Medicine* 371; 18 (October 30, 2014): 1663-1666.

[v] J.J. Muyembe-Tamfum et al. "Ebola Outbreak in Kikwit, Democratic Republic of the Congo: Discovery and Control Measures," *The Journal of Infectious Diseases* (1999) 179;

[vi] David P. Fidler, "From International Sanitary Conventions to Global Health Security: The New International Health Regulations," *Chinese Journal of International Law* Vol. 4 no. 2 (2005): 325-392.

[vii] Mark Doyle, Ebola Epidemic 'could lead to failed states,' warns WHO", *BBC* October 13, 2014, available at http://www.bbc.com/news/world-africa-29603818 (last accessed February 15, 2015)

[viii] Robbie Correy-Boulet, "Oxfam: Rich Countries Must Support Ebola Victims Who Have 'Gone Through Hell', *The Huffington Post*, February 15, 2015, available at http://www.huffingtonpost.com/2015/01/27/oxfam-ebola_n_6554640.html (last accessed February 15, 2015)

[ix] World Health Organization, "Ebola Situation Reports," available at http://apps.who.int/ebola/en/current-situation/ebola-situation-report (last accessed February 15, 2015)