**A True Scare**

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**Abstract**

One of the worst illnesses ever known, Ebola claimed many lives and went untreated until it reached the United States. In the last 40 years, there have been about 25 epidemics that have had a significant impact on African nations. Congo and the US helped PALM discover a vaccine to ultimately eradicate this illness, which resulted in over 14,000 fatalities. But they discovered that it was far more challenging for a variety of reasons, including the epidemics' isolated sites. Nevertheless, they succeeded in creating a vaccine that is incredibly successful and has reduced the number of ebola deaths by half. In order to improve the COVID vaccine, researchers incorporated the lessons they acquired during the ebola outbreak. As a result, COVID-19 was contained much more quickly than Ebola.

Keywords: Ebola, vaccine, PALM, COVID-19

**The Background on Ebola**

Ebola is a virus that can be deadly if not caught early. People can catch the disease by coming into contact with an infected person or animal. A fever and chills typically set in a week and a half after the virus is first transmitted to the victim. Some of the symptoms include profuse bleeding, diarrhea, appetite loss, and so forth. It may be fatal because, if left untreated, it may result in organ failure.

The illness, which is thought to be animal-borne, has been around for between 40 and 50 years, according to researchers. On the other hand, others have discovered that in the past, there have been instances of mysterious illnesses with the same causes and symptoms.

Although the disease was not formally identified until the 1970s, according to Dr. Patrick Olson, it may have killed 300,000 individuals in 430 BC. Approximately one-fifth of the Athenians were killed from this mystery sickness. The majority of his research is based on the works of Athenian historian and general Thucydides. According to the writings, the Athenians experienced high fevers, bilious vomiting, intestinal ulcerations, diarrhea, and scorching skin. Additionally, Olson discovered that they were residing close to a group of monkeys recognized for harboring the ebola virus. Additionally, there has been discussion linking ebola to the black plague, an epidemic that killed around half of Europe's population in the 1300s. But no scientific evidence has yet been discovered to support the assertion. (Holden, 1996)

The vaccine was not developed and approved til 2019. Many scientists thought that because Ebola was so uncommon, there was no need to develop a vaccine. But as all of the outbreaks started to happen more frequently, researchers discovered that the process of developing a vaccine had become considerably more difficult for a variety of reasons, including scarce vaccine supplies.

**History of Outbreaks**

Due to two significant ebola outbreaks in central Africa, further research was conducted in the 1970s as they looked for more people who had experienced similar symptoms. In all, there have been roughly forty outbreaks with roughly 15,300 fatalities. Congo and Sudan saw the first outbreak in 1976 near the Ebola river. "The outbreak lasted from June to November and involved 284 cases with a case fatality rate of 53%," according to the article "Ebola Virus Disease" (Weyer, 2015).

The question of who first identified ebola has been hotly debated. Jean-Jacques Muyembe, a Congolese microbiologist, is credited by some. A Belgian-British microbiologist named Dr. Peter Piot is recognized by others for making the finding. Nonetheless, much of the credit was given to Belgian scholars. Researchers did investigate the region where the virus had spread, but their findings were limited because there was little financing for their work. The only thing they discovered that could be connected to the pandemic was a cotton factory.

Western Afterica recorded roughly two incidents annually between 1994 and 2014. In Guinea, there was an outbreak in 2014. Half of the approximately 90 cases that were recorded during the pandemic were fatal. According to Lucille Blumberg's article on Ebola Virus Disease, "an outbreak of EVD was recognized in Guinea in March 2014, which would become the most significant outbreak of haemorrhagic fever in Africa to date" (Weyer, 2015). Then, Congo experienced the second-largest outbreak between 2018 and 2020. There were approximately 3500 reported cases and 2300 deaths. This accounts for about 6-10 percent of all deaths from the virus.

**The Public’s Reaction**

In 2014, when the viruses became public, everyone went crazy. It was covered extensively in the news, newspapers, etc.. By sharing amusing videos and other content on the subject on internet apps like Vine and Twitter, a large number of young people participated in the discourse as well. A lot of misleading material was being disseminated as a result of the virus's increased attention. The conversation expanded to include politics and other social issues, so it was about much more than simply the virus. People were quite alarmed by this, mostly because it was one of the first significant viral outbreaks and they had no idea what to anticipate.

Even though there were only two cases and fewer than fifteen known cases in the United States, Ebola was widely feared there. In the article Ebola outbreak in history tells the world, Margaret Chan writes, “ rumors and panic are spreading faster than the virus. And this costs money. Ebola sparks nearly universal fear. Fear vastly amplifies social disruption and economic losses well beyond the outbreak zones” (Chan, 2014). Other nations, however, reacted very differently. Africa had already suffered for forty years. According to several reports, the fact that the virus was receiving the attention it required and the assistance they were entitled to made them feel even more appreciative.

**Treatment Plans**

Following many outbreaks in 2018, the United States and the Congo jointly sponsored PALM, which stands for "Together, Save Lives," to aid in the search for virus therapies. The clinical trial started in November 2018 in zaire. Grobbelaar Weyer states, “The Zaire ebolavirus species (EBOV) has been associated with the highest fatality rates of the disease”. The doctors selected four distinct courses of action. After discovering that mAb-114 and REGN-EB3 were effective less than a year later, the Data and Safety Monitoring Board decided it would be prudent to terminate the experiment. Many people think that a lack of resources is the reason for the therapies' shortcomings, however research has shown that this is not the case. The biggest challenge is getting the resources to the location of the outbreaks, which are typically in small, remote villages. According to the article in The Lancet Infectious Diseases, "but rather than improving the ability to identify Ebola virus disease cases early, overcoming challenges of moving products and supplies, and training the professionals in the remote locations where outbreaks occur" (Mbaya, 2023).

Almost every country heavily affected by the ebola virus has approved the vaccine. It has been shown to have a 98 percent success rate. As a result, the death rate has decreased by half since the vaccination. Although it is still present in African nations, it is no longer regarded as a serious issue. There is essentially none of it in nations outside of Africa. Only eleven cases have ever been documented in the United States, and none have occurred since the vaccine's introduction.

**How Ebola Helped Covid**

Americans behaved similarly during the COVID-19 epidemic as they did during the ebola outbreak. The public's reaction to COVID-19 was severe because of the way that the virus was reported in news articles and on social media. However this time, the virus in question it had a far greater impact on the country than Ebola. A few of these actions included bulk purchases that left little for other people.

The medical field changed, even though the public's response did not. Many years of research by scientists were helpful. Glory George-Ufot states, “The WHO West Africa Regional Director acknowledged that the region would not be starting from scratch to tackle COVID-19 as some countries are more prepared to tackle infectious diseases with the existing systems, including the workforce used to address EVD", in the article, West Africa helps to combat the COVID-19 pandemic (George-Ufot, 2023). They discovered numerous techniques to combat the ebola virus. One of the primary strategies that emerged from the ebola outbreak was how to slow down the development of COVID-19. Masks, a lengthy period of quarantine, and isolation if you got the infection were all utilized. Additionally, instead of waiting this time, they put in more effort to create a vaccine and employed some of the same ebola vaccination procedures for COVID. They also learnt how to control and take use of media input and output.

**Conclusion**

In conclusion, one of the deadliest viruses ever discovered, Ebola, claimed the lives of nearly 15,000 people. There were about twenty-five epidemics during that period, and very little was done to assist the countries that lacked the resources to handle it on their own. It wasn't until the 2010s that nations began to take action and collaborate to find a solution, despite numerous obstacles in their path. in order to prevent as many deaths as occurred during the Ebola outbreak, those working with COVID-19 aided the world and learned from the disease.

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