## Victoria people animals who come into direct contact, such

Countries, United States



Victoria Billings12/8/17Honors Final ProjectEbola Virus Disease (EVD),
Particularly in West Africa. To begin, I am going to give a broad view of Ebola
Virus Disease and its effects and then narrow it down to how this crisis was
dominant in West Africa and what the governments of the various countries
and what the healthcare workers did to try and stop this terrible epidemic.

Some key facts to know about this disease are one- that EVD is transmitted
from wild animals to humans but is also transmitted from human to human,
two- the first outbreaks were in remote villages in Central Africa but moved
into not only rural but also urban areas, and three- EVD at the moment, has
a fatality rate of around 50% in the past the average has escalated to an
astounding 90% in past outbreaks. (Statistics from WHO)The Ebola Virus
Disease is a very severe illness which, if left untreated, often results in
death.

Ebola is thought to have begun in bats that are native to Central and West Africa, these specific fruit bats are carriers or hosts for the virus. Humans and some animals- primates, antelope, and antelope-were initially introduced to EVD through contact with bodily fluids of the bat. After being affected the humans and animals can continue to spread the virus to other people/animals who come into direct contact, such as through a wound, with their bodily fluids or materials that have touched the fluids. People remain highly infectious with the virus for as long as it is in their blood. There is a particularly long incubation period with this virus, which spans from 2 to 21 days while the average is 8 to 10, though the virus cannot be spread until the affected starts to display symptoms. (Data from WHO and the CDC)There is no proven vaccine or cure for Ebola Virus Disease. The only way health

professionals can heal patients is be treating the symptoms of the virus with good supportive clinical care, the recovery period depends heavily on the patient's individual immune response. Patients are susceptible to a relapse even after testing negative for the required months to be considered EVD free, many aspects of this virus are not understood by doctors because it is very inconsistent.

Some people who are affected with EVD do not have it present in their semen but it is in their blood, some of the affected have it present in their eye secretions but it is not found anywhere else. One patient may have a high fever while another patient's only symptom is a stomach ache.

Moreover, one who is affected with EVD could display 9 specific symptoms while another may only exhibit one. So, as you can tell the virus varies so greatly amongst each individual that it is problematic for health care professionals to pinpoint a remedy that would be sufficient among everyone that tests positive for the disease. Some background information for of the disease is crucial to understanding the control and how the governments are involved in the containment. The first case resulted in 2 instantaneous outbreaks which occurred in what is now considered Central Africa.

The smaller of the two outbreaks occurred in the Democratic Republic of Congo, and the larger outbreak occurred in a condensed village around a tributary of the Congo River, The Ebola river, hence why this disease was given this namesake. The governments of the affected areas were largely uninvolved with the outbreaks and put no efforts into education on preventative measures, they thought it would be the last of their problems

with this disease and ignored it. Now, here are over 30 confirmed outbreaks that have occurred from 1976 up until 2015, all cases after 2015 have been very separated and controlled, so they were not considered an outbreak. (Datacollected from WHO) So it is blatantly obvious that this is not a small problem, not something that would go away. The outbreaks are not only contained in Africa, they were spread to many well-developed countries including the United States through people traveling, though the fatality rate is substantially lower than in Africa. Moving on to more current cases, after health care officials believed that they had seen the worst Ebola had, they were overtaken again.

An unimaginable outbreak occurred in West Africa, something no one was prepared for. This outbreak spanned from the year 2014 to the year 2016. (Data from WHO) This was even larger and more so complex than the double 1976 outbreaks that prefaced the disease. This West African outbreak jumped between countries and spread so fast that doctors and hospitals could not keep up. In such close quarters in the overcrowded hospitals made it less than satisfactory for keeping everything sterile. Patients who were there for non-Ebola related illnesses were infected with the disease and it even spread to the nurses and doctors. The governments of the areas were overwhelmed not knowing what to do as they became severely short staffed with health professionals. The governments became panicked and recruited help from allies to send people to try to tame the outbreak.

Officials of the governments made education and prevention for the virus a key focus, they not only educated people who were affected with EVD but

also people who were not affected. Educators or outbreak control teams made the males who had been affected use condoms and use special care to make sure no bodily fluids were on the hands or anywhere that could be spread. The outbreak control teams and law officials required separate sleeping arrangements so that no fluids were transmitted during sleep, these preventative measures continued until the person who was diagnosed with EVD had tested negative for the disease forat least 9 months. The outbreak control teams went around teaching communities not only in but also around the areas of the outbreak. They educated the communities on how to reduce chances of getting the disease. They instructed the communities to be wary of contact with primates and to abstain from eating the meat if the animal is found dead or appears to be ill, and if they do eat the meat of even a seemingly healthy primate, that the meat must be cooked thoroughly making sure no red or raw portions are left. When killing/cooking the primates they must also be sure to meticulously sterilize the utensils in order to avoid possible transmission. Other measures put in place of the governments include safe very punctual burials, being sure not to leave the body out where people could come into contact with the dead body, because even after death the virus can still be transferred.

Other measures put into action were that if someone had been in contact with one who was infected, they were required to be monitored by a health evaluation team who would monitor their health for a minimum of 21 days and they would be tested twice for the disease at the end of the monitored period. Washing the body multiple times daily with water and washing with

soap in the morning, night, and mid-day was recommended for further prevention. Personal protective equipment (PPE) was required when caring for patients affected by Ebola Virus Disease. The governments of the affected countries, after implementing the various tactics to prevent the spread, was successful in ending the outbreak that began in 2014 within two years. Preventative measures are still held to a high standard of importance for all of the people living in areas of Africa that were affected and also the areas surrounding them to know and understand. The basic measures are practiced daily though the more extensive ones, such aswashing multiple times a day, are not practiced but are still taught for the chance that another outbreak could one day occur.

The government officials and various teams they sent out did a great job educating the people of West Africa on how to be safe and raised awareness on how to control the Ebola Virus Disease outbreaks. The CDC