THE FACE OF EBOLA AND HIV/AIDS EPIDEMICS WHEN IT STARTED IN AFRICA: HOW WAS IT VIEWED?

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ABSTRACT

The current public health concern over Ebola in Africa brings back some bad memories of deaths from diseases of poverty such as Tuberculosis (TB), HIV/AIDS; Ebola is the most recent addition to the list. Like all of the others, Ebola is now accelerating poverty and social hardship as a result of its negative impact on economic activities. West African countries are facing a humanitarian crisis of extraordinary proportion. Ebola and HIV/AIDS epidemics have devastated the already fragile countries, damaged by years of civil war through loss of revenue accrual from tourism, trade, and agriculture. Comparisons between the two deadly diseases surfaced in the last few months as the Ebola outbreak escalated. Both emerged from Africa and erupted into an international health crisis. And both have been a shocking reminder that mankind's battle against infectious diseases can take a sudden, terrible turn for the worse. Furthermore, these epidemics have had widespread social and economic consequences, not only in the health sector but also in education, industry and development. There is therefore an urgent need for a more aggressive public health education on both diseases, particularly for Governments, non-governmental organizations, the media, and communities to take diseases prevention and control issues to the front burner.

KEYWORDS: Tuberculosis (TB), HIV/AIDS and Ebola.

INTRODUCTION

Several years ago, a deadly virus appeared in Africa, and makes the jump from animals to humans. Decades later the virus causes an epidemic across the continent: Preying on poor sanitary conditions and public-health practices, it kills thousands and threatens millions.
A worldwide pandemic is here again and this time it is an Ebola virus disease (EVD) travelling from the forest long distances to meet humans either by road or river. The worst Ebola outbreak in history is so far-reaching and deadly that it is unlike anything since the Human immunodeficiency virus and acquired immune deficiency syndrome (HIV/AIDS) epidemic.\textsuperscript{[1]}

People in Africa are dying from the many diseases of poverty, for example Tuberculosis (TB), HIV/AIDS, and EVD is just another one to add to the list. Like all diseases of poverty, EVD is now accelerating poverty and economic hardship because of its impact on economic activity in West Africa is facing a humanitarian crisis of extraordinary proportions.

In 2014, the worst epidemic of Ebola Virus Disease (EVD) the world has ever seen is still ongoing in West Africa. There have been a total of 28,073 reported confirmed, probable, and suspected cases of EVD in Guinea, Liberia, and Sierra Leone (figure 1, table 1) up to 30 August, 2015 with 11,290 reported deaths (this total includes reported deaths among probable and suspected cases, although outcomes for many cases are unknown). Two new confirmed cases were reported in Guinea and one in Sierra Leone in the week to 30 August. The total number of confirmed cases is similar in males and females. Compared with children (people aged 14 years and under), adults aged 15 to 44 are approximately four times more likely to be affected in Guinea and Liberia, and three times more likely to be affected in Sierra Leone.

No new health worker infections were reported in the week to 30 August. Since the start of the outbreak a total of 881 confirmed health worker infections has been reported in Guinea, Liberia, and Sierra Leone; there have been 513 reported deaths (table 5). The Ebola outbreak in West Africa almost shattered the socioeconomic fabric of affected countries and revealed the state of despair, dilapidation and abandonment of the health care system in Liberia, Sierra Leone and Guinea Conakry. Ebola has killed more than 3,800 in West Africa since the outbreak began 2014, and more than 8,000 cases have been reported in Liberia, Sierra Leone and Guinea Conakry, as well as Nigeria, Mali and Senegal, according to the latest WHO figures.\textsuperscript{[2]} Also, HIV/AIDS has killed more than 30 million people worldwide since the epidemic began in the 1980s, and around 35 million people were living with the virus in 2012, according to the World Health Organization (WHO).\textsuperscript{[2]} After three decades of advocacy and research, treatment options have extended and improved the lives of those affected, and there has been a 33 percent decrease in new HIV infections since 2001.\textsuperscript{[3]}
HIV and Ebola are both incurable viruses that trigger widespread stigma. The mortality rate of both diseases is high, but neither has a vaccine with both emerging from Africa, and are fatal if left untreated. Just like the HIV/AIDS scourge, which was initially tagged an African disease and was long ignored, it was when the problem was eventually addressed as a global concern that it was arrested. The Ebola scourge has been just too similar, but more deadly. Therefore, the concern about it must equally be a global one.

**BRIEF OVERVIEW OF EBOLA (EVD)**

Ebola Virus Disease is a severe, highly infectious and often rapidly fatal illness that first appeared in 1976 almost in two simultaneous outbreaks, in Nzara, Sudan, and in Yambuku, Democratic Republic of Congo. The latter was in a village situated near the Ebola River, from which the disease takes its name. They were of two different strains, the Sudan strain and the Zaire strain.\(^4\) The natural reservoir was never identified. The third strain was discovered during necropsy in 1994 in Cote D’Ivoire, a fourth, from Uganda called the Bundibugyo strain in 2008 and a fifth strain, the Reston strain which was discovered accidentally in a military laboratory, Virginia USA also in 2008 from samples brought from the Philippines.\(^5\)

![Ebola virus virion](https://www.cdc.gov/philadelphia/P-D/HSV-07-06.jpg)

**Figure1**: "Ebola virus virion" by CDC/Cynthia Goldsmith - Public Health Image Library

The origin of this virus is not known, however fruit bats (Pteropodidae) are considered the most likely hosts based on available evidence, e.g. the absence of clinical signs in them is characteristic of a reservoir species. High lethality in monkeys, chimpanzees, and gorillas make them unlikely natural reservoirs. Evidence has implicated that wild pigs and porcupine may also be natural hosts for the virus. EVD is caused by Ebola Virus belonging to a group
of viruses responsible for Viral hemorrhagic fevers like Lassa fever, Yellow fever, Marburg and Dengue fever.\cite{2} They are called ‘hemorrhagic’ because of the distinct scary bleeding that occur during the course of the illness (figure 1). The word hemorrhagic is now left out in the case of Ebola, because the illness is not always accompanied by bleeding. The virus is a complex level four pathogens. It is an enveloped RNA virus belonging to the family Filoviridae, genus Ebolaviridae and order Mononegavirales. Genus Ebolavirus is one of three members of the Filoviridae family (filovirus), along with genus Marburgvirus and genus Cuevavirus. Genus Ebolavirus comprises five distinct species: Bundibugyo ebolavirus (BDBV), Zaire ebolavirus (EBOV), Reston ebolavirus (RESTV), Sudan ebolavirus (SUDV), Taï Forest ebolavirus (TAFV). BDBV, EBOV, and SUDV have been associated with large EVD outbreaks in Africa, whereas RESTV and TAFV have not. The RESTV species, found in the Philippines and the People’s Republic of China, can infect humans, but no illness or death in humans from this species has been reported to date. The Reston strain has not been linked with any infections in humans and is largely found in East Asia.\cite{5}

The filoviridae has two other members which are Marburg and Cuevavirus with Marburg said to be almost as vicious as Ebola. The different strains of Ebola have different mortality rates ranging between 50-90%. The deadliest of the strain is the Zaire strain which is responsible for the present outbreak. There have been several outbreaks in central and eastern Africa, but these outbreaks were all contained within a few months. The total number of cases from all the previous outbreaks were 2,387 and 1,590 deaths, according to World Health Organization in comparison with the present 2014 outbreak where over 13,703 cases and over 4,000 deaths have been recorded.\cite{6} Africa has suffered several Ebola outbreaks since 1976, but the 2014 outbreak has affected the largest population. Presently, about six African countries have been affected, including Nigeria, Liberia, Senegal, Cote D’Ivoire, Guinea and the Democratic Republic of Congo (Figure 4).\cite{5} The outbreak has almost ‘crushed’ the countries affected both economically and health wise, especially in the way it decimates their health workers. It is well likely possible that there is seropositivity in most regions of Africa even in areas where no cases have been reported yet.

Ebola, the relatively unknown virus, gained prominence due to its brutal way of killing its victims. It was, therefore, easy for anyone to hastily conclude that any infection or even contact with the deadly virus equals death. It was that bad. The unlucky victims were never given any chance to survive. This will not be the first virus to attack human society. It was
unlike HIV/AIDS, which, though deadly, it still gives its victims the opportunity to live before death.

PATHOGENESIS

The Ebola virus is an aggressive pathogen that causes a highly lethal hemorrhagic fever syndrome in humans and nonhuman primates. Ebola virus enters the body through mucous membranes, breaks in the skin, or parenterally. The pathogen infects many cell types, including monocytes, macrophages, dendritic cells, endothelial cells, fibroblasts, hepatocytes, adrenal cortical cells, and epithelial cells. Because of the difficulty of performing clinical studies under outbreak conditions, almost all data on the pathogenesis of Ebola virus diseases have been obtained from laboratory experiments employing mice, guinea pigs, and a variety of nonhuman primates. Whatever the point of entry into the body, macrophages and dendritic cells are probably the first cells to be infected. This virus cause havoc by first evading the dendritic cells and macrophages thereby confuse the immune system of the body. With its continued replication, the more powerful antibodies and cytokines are produced.
massively resulting in what is referred to as ‘cytokine storm’ characterized by the symptoms and signs of the disease.\textsuperscript{9} This host response to the virus eventually affects all organs, bursting blood vessels and causing bleeding both internally and externally and also causing severe dehydration from the vomiting and diarrhea resulting in low blood pressure and death.

**EBOLA TRANSMISSION**

Experiments in laboratory animals indicate that Ebola viruses can initiate infection via many routes, including ingestion, inhalation, or passage through breaks in the skin.\textsuperscript{10} Nonhuman primates can be infected with Ebola virus through droplet inoculation of virus into the mouth or eyes, suggesting that cases of human infection resulting from the inadvertent transfer of virus to these sites from the patient’s own contaminated hands.\textsuperscript{11,12}

Person-to-person: Person-to-person transmission occurs through direct contact of broken skin or unprotected mucous membranes with virus-containing body fluids from a person who has developed signs and symptoms of illness.\textsuperscript{13} The most infectious body fluids are blood, feces, and vomit. Ebola virus has also been detected in urine, semen, and breast milk. Saliva and tears may also harbor the virus. Thus, contact with any of these fluids can pose potential risks. At present, it is unclear whether infectious virus exists in sweat.\textsuperscript{14}

Human infection with Ebola virus can occur through contact with wild animals (e.g., hunting, butchering, and preparing meat from infected animals)\textsuperscript{12} (figure 4) Exposure to bats — Exposure to bat secretions or excretions may be a potential route for acquisition of Ebola virus. Two outbreaks of Ebola and Marburg disease in the Democratic Republic of Congo (DRC) and Uganda have involved men exposed to bats\textsuperscript{15,16} and animals, e.g. chimpanzees, gorillas, fruit bats, monkeys, forest antelope and porcupines.

Nosocomial transmission — Transmission to healthcare workers may occur when appropriate personal protective equipment is not available or is not properly used. As an example, during the outbreak in West Africa, a large number of healthcare workers developed Ebola virus disease, due in part, to shortages of personal protective equipment and/or exposure to patients with unrecognized Ebola virus disease.\textsuperscript{10}

Other routes — Other potential routes of transmission include the accidental infection of workers in any health facility treating Ebola patients, indirect Contact with environments contaminated with body fluids, health care workers when infection control precautions are
not strictly practiced, and burial ceremonies in which mourners have direct contact with the body of the deceased person can also play a role in the transmission of Ebola.

Figure 4 shows a means of Ebola transmission through eating hunted bush meat. Photo of WHO 2014.

The Path of Transmission
The early stages of the 2014 Ebola outbreak began in the village of Meliandou, Guinea, where it spread to immediate family members and caretakers. In mid-February, a hospital worker contracted the disease and spread it to other villages. By April, the outbreak threatened a much larger population. Shown is the initial transmission chain of the current Ebola virus outbreak. Family members of those infected and healthcare workers in the region are most at risk.

EBOLA SYMPTOMS
Patients with Ebola virus disease initially present with non-specific influenza-like symptoms and can progress to multiorgan failure and septic shock. The most common signs and
symptoms reported from West Africa during the 2014 outbreak include: fever (87 percent), fatigue (76 percent), vomiting (68 percent), diarrhea (66 percent), and loss of appetite (65 percent).\textsuperscript{[10]} EVD in its initial phase mimics many other febrile illnesses e.g. malaria, common cold, typhoid fever, thus a high index of suspicion has to be shown. A history of exposure to the disease between 2-21 days prior to the onset of symptoms should be established. Exposure could be in the form of contact with a person diagnosed with the disease, e.g. caring for, visiting or even a attending the burial of an infected person. (Patients at risk include; health care workers, family and friends, traditional healers, morticians, etc.), history of contact with contaminated materials used by a patient diagnosed with the disease, e.g. bed linen e.g. bedding, clothing, eating utensils, medical equipment, etc.

Important clinical symptoms of patients with Ebola virus disease are nonspecific flu-like symptoms with the abrupt onset of fever, chills, and general malaise. Other signs and symptoms include weakness, anorexia, severe headache, and pain in the muscles of the trunk and lower back.\textsuperscript{[16]} A high fever may be accompanied by relative bradycardia, as seen in typhoid fever. A nonproductive cough and pharyngitis, with the sensation of a lump or "ball" in the throat, are also frequently present.

Some patients develop a diffuse erythematous, nonpruritic maculopapular rash by day five to seven of illness. The rash usually involves the face, neck, trunk, and arms, and can desquamate.\textsuperscript{[17,18]} with gastrointestinal signs and symptoms usually develop several days after the initial presentation. These include watery diarrhea, nausea, vomiting, and abdominal pain. Bleeding is often not observed in the early phase of illness, but may manifest later in the course of disease as petechiae, ecchymosis/bruising, oozing from venipuncture sites, and/or mucosal hemorrhage. During the outbreak in West Africa, approximately 20 percent of patients have unexplained bleeding, which is most commonly manifested as blood in the stool (about 6 percent).\textsuperscript{[10]} Other findings with Ebola virus disease can present with additional findings such as hiccups, chest pain, shortness of breath, headache, confusion, seizures, and/or cerebral edema. Pregnant women may experience spontaneous miscarriages. In non-fatal cases, patients typically improve approximately 6 days after the onset of symptoms
OVERVIEW OF HUMAN IMMUNODEFICIENCY VIRUS (HIV/AIDS)

HIV/AIDS in Africa has had a short but devastating history. It all started as a rumor. In 1981, a new syndrome, the acquired immune deficiency syndrome (AIDS), was first recognized among homosexual men in the United States. By 1983, the etiological agent, the human immunodeficiency virus (HIV), had been identified. By the mid-1980’s, it became clear that the virus had spread, largely unnoticed, throughout most of the world. Most of the available epidemiological data indicate that the extensive spread of HIV started in sub-Saharan Africa in the late 1970s. By the early 1980s, HIV was found in a geographic band stretching from West Africa across to the Indian. Out of the 34 million HIV-positive people worldwide, 69% live in sub-Saharan Africa. There are roughly 23.8 million infected persons in all of Africa and more than one million adults and children die every year from HIV/AIDS in Africa alone. Since the epidemic of HIV/AIDS, more than 75 million people have contracted the illness, and over 36 million have died from an HIV-related causes. Out of this total number, 71% of the HIV/AIDS-related deaths in 2011 were people living in Africa. Because of HIV/AIDS, the average life-expectancy in sub-Saharan Africa is 54.4 years of age. In some countries in Africa, it’s below 49 years.

The HIV/AIDS epidemic has drastically slowed the economic growth and social development in Africa, because hundreds of thousands of people are unable to work or receive an education. A pregnant woman not treated with the proper drugs, has a 20-45% chance that her infant will
contract the virus from pregnancy. 59% of HIV-positive people in Africa are women, the majority of children diagnosed with HIV get the virus from their mothers.\[28\]

Figure 5 above shows the population of people living with HIV/AIDS in Africa.

Unlike the epidemics mentioned above, HIV/AIDS has been killing multitudes of people for an entire generation. In 2012 alone, it killed 1.6 million people. To put the scope of HIV/AIDS into perspective, more people have died from the disease in the last 33 years than currently live in at least the 15 most populous U.S. cities.\[25\]

Figure 6 shows the structure of HIV from CDC library 2012

HIV/AIDS PATHOGENESIS

HIV is a single stranded RNA retrovirus that causes Acquired Immunodeficiency Syndrome (AIDS)\[29, 30\], an infectious disease which is characterized by symptoms and infections caused by the breakdown or progressive failure of the human immune system leading to life-threatening opportunistic infections and cancer. The virus infects vital cells in human
immune system such as helper T cells (specifically CD4 T cells), macrophages and dendritic cells, resulting in depletion of these cells particularly the CD4 cells.\textsuperscript{31}

HIV/ AIDS can infect many cell types, mainly lymphocytes, but also macrophages, and microglia in the brain, and other neurological cells, resulting in profound asthenia, dementia and damage to the peripheral nervous system.\textsuperscript{32} Due to immunodeficiency, patients succumb to various fungi, parasites, bacteria, and/or viruses and are prone to certain tumours\textsuperscript{33}

**HIV/ AIDS TRANSMISSION**

HIV is transmitted either by exposure to the virus, oral, rectal, or vaginal mucus during sexual activity; by intravascular inoculation through transfusion of contaminated blood products; by using contaminated equipment during injection drug use; or from mother to infant during pregnancy, delivery or breastfeeding from mother to child \textit{in utero} (vertical) as well as during childbirth, and from breast milk.\textsuperscript{34} Sexual transmission accounts for more than 90\% of HIV infections in Africa.\textsuperscript{35} In Africa roughly half the people with AIDS are female. This is the single major fact that has promoted a description of AIDS as being ‘heterosexually transmitted’ in Africa. Also, transmission is through percutaneous or mucosal exposure to infected blood or body fluids. The routes of transmission include sexual contact, sharing needles and sharp equipment, mother to child. Transmissions in healthcare facilities among health workers are common and often occur following needle stick or injuries from sharp objects containing HIV infected blood.

Transmissions through unscreened blood transfusion because the cost of screening one blood donation in some poor African nations is approximately three times the entire per-capita expenditure for medical expenses, the procedure is virtually never performed and the national blood supply remains thoroughly contaminated. In some areas, the prevalence of HIV in the blood supply is estimated to be 8-10\%; since the average transfusion requires several pints of blood, a person receiving a transfusion is practically guaranteed infection.\textsuperscript{36} Also, in (African) areas where 10\% of the healthy population are infected, about the same proportion of blood donors is also likely to be infected. The spread of HIV by contaminated blood transfusions is a tremendous problem in Africa, which could be eliminated if the infrastructure and financial means existed to test blood for antibodies to HIV. In Africa today, the risk of blood recipients may be as high as one in ten, yet in many places, blood is still not screened.\textsuperscript{36,37} HIV has also been documented to have been transmitted by bite injuries.\textsuperscript{38}
The period of communicability begins early after HIV infection and is thought to last throughout the life of the infected individual.\(^{[39]}\) Infectiousness is related to viral load.

**HIV /AIDS SYMPTOMS**

The symptoms of HIV vary depending on the stage of infection. This illness at the beginning of the infection is so similar to many other viral infections such that the diagnosis of HIV infection may not be made at this time. HIV may not present any symptoms at the early stage. People who do have symptoms may mistake them for the flu. Early symptoms of HIV are symptoms may include belly cramps, nausea, or vomiting, diarrhea, enlarged lymph nodes in the neck, armpits, and groin; fever, headache, muscle aches and joint pain, skin rash, sore throat, and weight loss. These first symptoms can range from mild to severe and usually disappear on their own after 2 to 3 weeks.\(^{[22]}\) But many people don't have symptoms or they have such mild symptoms that they don't notice them at this stage. After the early symptoms go away, an infected person may not have symptoms again for many years. After a certain point, symptoms reappear and then remain. Untreated HIV infection progresses in stages. These stages are based on your symptoms and the amount of the virus in your blood.\(^{[26]}\)

Later symptoms may include: diarrhea or other bowel changes, fatigue, fever, loss of appetite or unexplained weight loss, dry cough or shortness of breath, nail changes, night sweats, swollen lymph nodes in the neck, armpits, and groin; pain when swallowing, confusion, trouble concentrating, or personality changes; tingling, numbness, and weakness in the limbs and mouth sores or a yeast infection of the mouth). Children who have HIV often have different symptoms (for example, delayed growth or an enlarged spleen) than teens or adults.

**PUBLIC VIEW OF HIV /AIDS versus EBOLA WHEN IT WAS ORIGINALLY DISCOVERED IN AFRICA**

*Disease emergence*

Ebola was actually discovered before HIV. First identified in 1976 and named after a river in the Congo, the virus has caused periodic outbreaks in Africa ever since. While a test was done to diagnose it, work on vaccines and treatments has been limited and difficult. Ebola did not become a global epidemic until 2014, when it unexpectedly mushroomed in West Africa. The rapid increase in cases — particularly in Liberia and Sierra Leone — led to the CDC's worst-case-scenario estimate that there could be as many as 1.4 million cases in those two countries alone by January, 2014.\(^{[5]}\) HIV/AIDS and Ebola have certain broad similarities: Both emerged in Africa, both are caused by viruses, and both, at least at their onset, have
extremely high mortality rates. Back in the 1980s, when HIV/AIDS was spreading to millions throughout Africa and the reason HIV spread wildly in Africa is that it’s often hard to know someone has it; it can spread silently from one patient to the next via sex or sharing needles.

**Stigma and Discrimination**

Early in the AIDS epidemic, this kind of anxiety quickly morphed into panic: HIV-infected kids were banned from schools; employees were fired simply because they were suspected of having AIDS. The question now is; Is Ebola the world’s worst infectious disease threat since AIDS in Africa? People are more concerned about the virus than other infectious diseases such as HIV\(^{[40]}\), because their views and major concerns about Ebola in Africa include widespread fear of the disease, fragile weak health care systems, limited availability of the right public health education, doctors’ and other health workers strikes in public sector hospitals, non-adherence to standard infection control protocols in hospitals, lack of personal protective equipment for health care workers and the general poor sanitation practices across the African countries.

Comparisons between the two deadly diseases surfaced in the last few months as the Ebola outbreak escalated. Both emerged from Africa and erupted into an international health crisis. And both have been a shocking reminder that mankind’s battle against infectious diseases can take a sudden, terrible turn for the worse. There were travel restrictions and stigmatization of African communities abroad. The rate at which people are dying needlessly in neighbouring Liberia, Guinea, and Sierra Leone; and reports of doctors and nurses fleeing when profusely bleeding accident victims are brought to hospitals have forced some people to go to extremes, such as in Nigeria, following the advice of a mere rumour suggesting the use of concentrated salt solution for drinking and washing as a prevention or cure for EVD.

**Direct Impact on Health Work Force**

The beginning of the AIDS epidemic was more challenging. When clusters of cases were first reported in 1981, health officials were facing a mysterious illness with no known cause but Ebola is a horrific disease that kills more than half of people infected by it. It’s unsurprising that the prospect of catching it is a scary one. Even in the midst of the current outbreak – the worst ever – the spread of the disease has not been rapid.

Also, the fear of contagion is altering people’s behavior that put them at risks, sometimes with significant economic consequences, since both created a public health emergency, social
unrest, and economic issues caused by the protracted outbreak causing socioeconomic disruption.

HIV and Ebola are both incurable viruses that have triggered widespread stigma and discrimination in sub-Saharan Africa. It stops people from getting treatment and cultural constructions of Ebola and AIDS based on beliefs around contamination, eating bush meats have played a crucial role in the spread.

Contrasts

Since the Ebola virus disease (EVD) is a serious, often fatal illness in humans with a fatality rate of up to 90%, the current knowledge is that EVD outbreaks are started when the Ebola virus is introduced when populations have close contact with the blood, secretions, organs or other bodily fluids of infected animals such as chimpanzees, gorillas, fruit bats, monkeys, forest antelope and porcupines found ill or dead or in the rain forest.[5, 6, 10] Ebola then spreads in the affected community primarily through human-to-human transmission, with infection resulting from direct contact (through broken skin or mucous membranes) with the blood, secretions, organs or other bodily fluids of infected people, and indirect contact with environments contaminated with such fluids.[41] Burial ceremonies in which mourners have direct contact with the body of the deceased person present a particularly large risk for the transmission of Ebola.[41] But AIDS has a long latency period, meaning that those infected with HIV can go years without symptoms (although still transmit it). Furthermore unlike Ebola which causes relatively rapid death, death from AIDS patients is preceded by untold suffering which the AIDS victims endure for months or even years, before finally succumbing to the disease. Other people view AIDS as disease that must surely lead to death but it will give its victims time to live, time to discover time and after that time, death comes.

In the case of Ebola, there is no time with the short incubation because it is more infectious than HIV, indeed, a patient in the throes of Ebola can have 10 billion viral particles in a fifth of a teaspoon of blood — far more than the 50,000 to 100,000 particles seen in an untreated patient with the AIDS virus.[10,34] Public anxiety and fear about the disease in Africa really began to reach the levels seen today with Ebola. There’s one more big difference that ironically makes Ebola more dreadful to many people. The scariest thing about the Ebola virus is how quickly it kills. That’s different from HIV: An HIV-infected person may not have symptoms for years. And a decade may pass before an untreated AIDS victim dies. That means infected people can silently and unknowingly spread the infection for years. Although
Ebola has not had as much of an impact as other diseases like HIV/AIDS, the current Ebola epidemic ravaging Liberia, Guinea and Sierra Leone is much larger than any other Ebola outbreak in the past because Ebola’s speed is more terrifying. If you catch Ebola, you’ll almost certainly die.

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Conclusively, Ebola outbreak is a global tragedy that is rewriting the history of public health. It has served as a wake-up call for governments and the global development community, urging a major global rethink about the importance of strengthening health systems and building resilience. Ebola and AIDS viruses have torn an already fragile society in Africa countries damaged from years of civil war to loss of revenue (tourism, trade, and agriculture).

As a result, the epidemic has had widespread social and economic consequences, not only in the health sector but also in education, industry and the wider economy. Many Africans public views that both diseases is punishment from God to turn humanity back to Him since they are both incurable. Ending the outbreak will simultaneously require raising local knowledge about the disease

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