

Guinea. The young boy died in December of 2013, and his young sister and pregnant mother died shortly thereafter. This was the first of many families that would be devastated by the outbreak. Over the next few months, the disease spread to several other southeastern regions, but it was not reported to Guinea's Ministry of Health or other authorities until March 2014. The lag in detection can be attributed to the rural, isolated location of many cases and the fact that the symptoms of Ebola mimic those of other diseases common in the region. The virus spread quickly, without restraint. By May of 2014, the outbreak had spread to Liberia and Sierra Leone, and within a year over 5,500 people had died of the disease.

On August 8, 2014, the World Health Organization (WHO) Director-General declared the West Africa outbreak a Public Health Emergency of International Concern. Led by the WHO and other health agencies, large-scale efforts aimed to control the outbreak by implementing a variety of protective measures for families and healthcare providers. Thousands of trained responders, technical experts, and medical professionals were rapidly deployed to affected countries to care for patients and help end the transmission.

By November of 2015, the WHO declared the end of Ebola virus transmission in Sierra Leone, meaning that it had been forty-two days since the last person confirmed to have Ebola tested negative for the second time. Seven months later, in June of 2016, transmission also had ended in Guinea and Liberia. However, flare-ups have occurred and are likely to continue. Thus, continued surveillance is necessary.

Epidemiology

The 2014–16 Ebola outbreak has infected 28,616 people and has claimed the lives of 11,310 in the West African countries of Sierra Leone, Guinea, and Liberia. Liberia was hit hardest by the outbreak; at the peak of transmission, during August and September 2014, Liberia was reporting between three hundred and four hundred new cases every week. In total, over 10,000 people were infected in Liberia, and nearly half of them subsequently died.³³

While Ebola primarily occurs in Western Africa, a limited number of cases were detected in Western

nations, including the United States (U.S.), Spain, the United Kingdom, and Italy. These cases generally result from an infected person from a country with high Ebola prevalence traveling to Europe or the U.S. either for Ebola treatment or other reasons, with the latter group often being unaware of their infection. During 2014, a total of twenty-six cases were reported in the U.S. and Europe, and in all but three cases the patient was infected in West Africa. Similarly, Ebola spread from Guinea to Nigeria, Senegal, and Mali by people traveling by air or land. Fortunately, the virus transmission was quickly contained in these countries, claiming the lives of only six people in Mali and eight in Nigeria.⁷

Following the control of the 2014–16 outbreak, attention turned toward treating the survivors. Though they no longer exhibit the acute symptoms of Ebola, survivors face a number of medical and psychosocial problems, including depression, muscle pain, and hearing loss. There are over 10,000 Ebola survivors, many of whom require continued clinical care.³⁴

Ebola in the U.S.

A total of four people have been diagnosed with Ebola in the U.S. The first was a man named Thomas Duncan, who had traveled to Dallas, Texas, from Liberia. He was diagnosed with Ebola on September 30, 2014, and died shortly after on October 8. The following week, two healthcare workers who cared for Duncan were diagnosed with Ebola. Both have since recovered. The final case was a medical aid worker who had returned to New York City from Guinea, where he had served with Doctors Without Borders. The patient was diagnosed on October 23, 2014, recovered, and was discharged on November 11. Thankfully, in this latter case, healthcare workers took all the proper precautions when treating the patient, and no local transmission occurred.

1928 –	Biologist Sir Alexander Fleming discovers Penicillin, the first antibiotic, after a mold called <i>Penicillium chrysogenum</i> contaminates his Petri dishes containing colonies of the bacteria <i>Staphylococcus aureus</i> .
1951 –	Malaria is eliminated from the United States after millions of homes are sprayed with insecticides to reduce transmission.
1959 –	The earliest known sample of HIV is collected from the blood of a man in the Democratic Republic of Congo (then the Belgian Congo).
1976 –	The first known outbreak of Ebola occurs in a village in the Democratic Republic of Congo (then Zaire), killing 280 individuals.
1977 –	Smallpox is eradicated, and it remains the only major disease to be eradicated.
Early 1980s –	The incidence of rare illnesses rises due to a new disease syndrome in the United States, mainly among homosexual men. The cause of these illnesses is later identified to be HIV/AIDS.
1984 –	Luc Montagnier and Robert Gallo report the cause of AIDS to be a novel virus they call human immunodeficiency virus (HIV).
1994 –	Ebola re-emerges in the Central African country of Gabon, and small outbreaks continue for two decades in Uganda, Gabon, and the Democratic Republic of Congo (then Zaire).
1999 –	The World Health Organization announces that HIV/AIDS is the fourth biggest cause of death worldwide and the number one cause of death in Africa.
2006 –	Timothy Ray Brown, who had been living with HIV for eleven years, is cured of the disease.
2013 –	A young boy in southeastern Guinea is infected with the Ebola virus, and he is believed to be the index case for the 2014–16 Ebola epidemic.
2014 – 2016	A large Ebola outbreak occurs, infecting 28,652 people and killing 11,325, primarily in the West African countries of Sierra Leone, Guinea, and Liberia.