Ebolavirus is a serious illness that causes hemorrhagic fever, which is bleeding within and from the body. It normally affects people living in or near tropical rainforests. It is introduced into the human population by close contact with the organs, sweat, blood or other bodily fluids of infected animals such as fruit bats, chimpanzees, forest antelope and porcupines. The virus then spreads among humans by direct contact with bodily fluids.

What is Ebola?

EVD was first identified in 1976 in Zaire (now the Democratic Republic of Congo, DRC) and Sudan. It was named after the Ebola River in DRC, which is close to where the outbreak occurred. There were no reported cases of Ebola after 1979 and Ebola was not identified again until 1994, when there were outbreaks in Gabon and DRC, causing 97 and 250 deaths respectively. Outbreaks have occurred with increasing frequency since.

What are the origins of EVD?

What caused the 2014 outbreak?

The outbreak of 2014 had its beginnings in a remote village near the small town of Guéckédou in Guinea, close to the border with Liberia and Sierra Leone. In December 2013, a 2-year old boy fell ill with a mysterious virus after being infected, it is thought, by blood or mucus from one of the fruit bats the family hunted for food. He died 2 days later, by which time many other people had become ill. As these people died, others fled, and in doing so spread the virus to other villages.

How was the 2014 outbreak different?

Until 2014, the outbreaks in Africa tended to be relatively small and in rural areas. The 2014 outbreak was different because it spread further and made its way into urban areas. By the end of June 2014, 759 people had died from the disease, making this the biggest Ebola outbreak to date. As of June 2015, 26,628 cases and 11,020 deaths had been reported worldwide, most of them in Liberia, Sierra Leone and Guinea. Those countries are now starting to see a slowdown in the number of infections.

How was the 2014 outbreak managed?

The inadequacies of the healthcare systems in the three most affected countries help to explain the extent of the Ebola outbreak. For example, Liberia has just one doctor for every 100,000 people, and 64% of its population are below the poverty line, and unable to access basic medical care. Dr Margaret Chan, head of the World Health Organization, stated at the time that this was the ‘greatest peacetime challenge since the end of the Second World War’. Despite this comment, it wasn’t until August 2014 that the epidemic was declared a global emergency.

What are the symptoms?

The incubation period (the time from infection with the virus to onset of symptoms) is 2-21 days. People do not become infectious until they develop symptoms. The early symptoms are sudden fever, fatigue, muscle pain, headache and sore throat. Later, infected people are likely to experience vomiting, diarrhoea, rashes, impaired kidney and liver function, and in some cases, both internal and external bleeding (e.g. oozing from the gums, blood in the stools). In time, many will experience skin haemorrhaging and multiple organ failure. The average fatality rate for EVD is about 50%.

What are the economic impacts?

The economic impacts of the 2014 outbreak will be significant, with estimates suggesting that west Africa could lose up to $25.2 billion in GDP in 2015. The costs include:

• direct costs of illness, such as government spending on healthcare facilities
• indirect costs such as lower labour productivity from workers who are ill, dying or caring for the sick
• changes in behaviour including decreased trade through disrupted transportation and restrictions on travel from the affected countries

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