



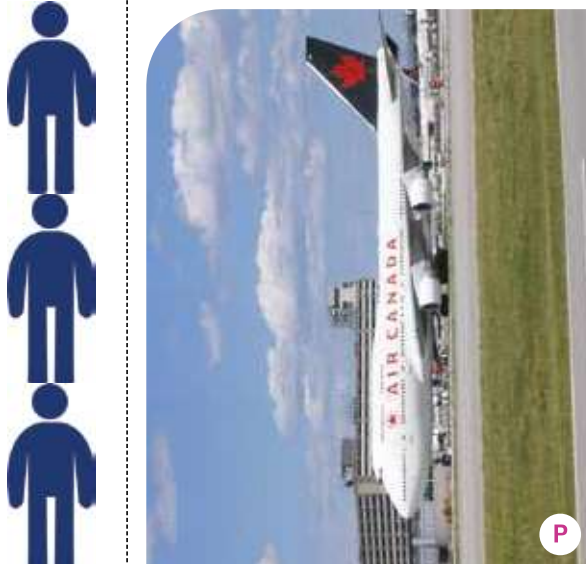
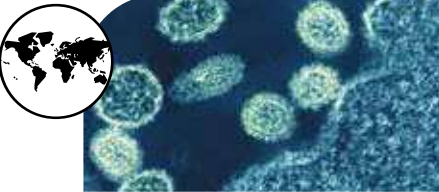



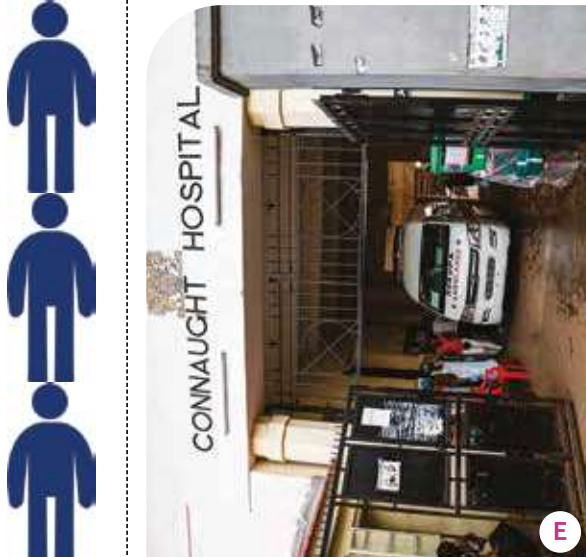




Name of disease	Animal originally affected	Other animal/ human host	How it spread further
<p><b>SARS (severe acute respiratory syndrome)</b></p>   <p>770 deaths 2002–03</p>			
<p><b>H1N1 influenza (flu)</b></p>   <p>50m deaths 1918–19</p>			



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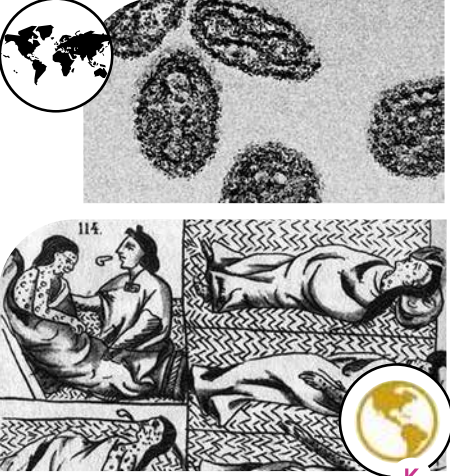









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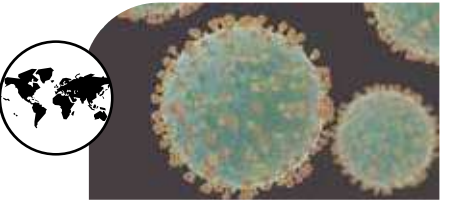

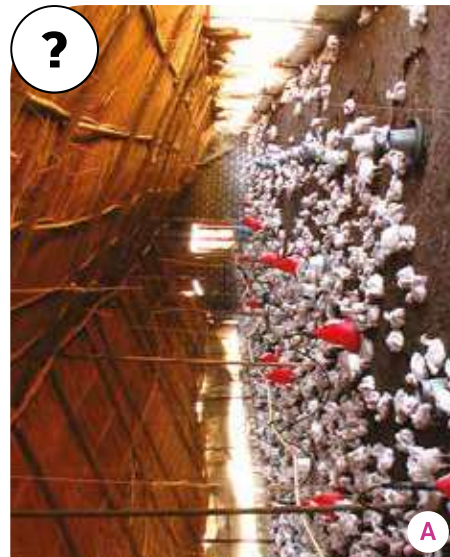

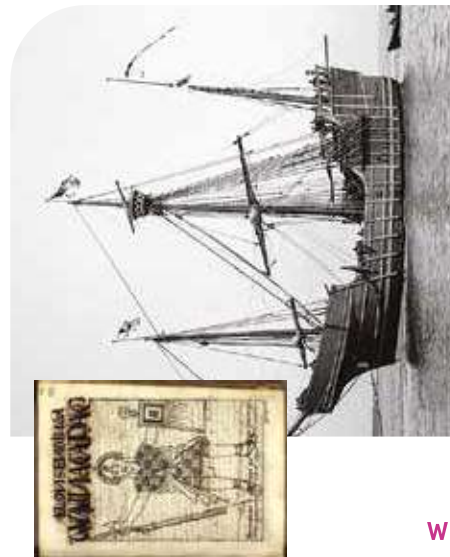
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Name of disease	Animal originally affected		Other animal/human host	How it spread further
<p><b>Smallpox</b></p>  <p>20m deaths 1520–45</p>	 <p>A</p>		 <p>O</p>	 <p>E</p>
<p><b>Bubonic plague</b></p>  <p>50m deaths 1347–51</p>	 <p>?</p> <p>R</p>		 <p>R</p>	 <p>E</p>



Name of disease	Animal originally affected	Other animal/ human host	How it spread further
<p><b>Ebola virus disease</b></p>   <p>11,300 deaths, 2014–16</p>			
<p><b>Covid-19</b></p>   <p>&gt;300,000 deaths, 2019–20...</p>			

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## H1N1 influenza (flu) 1918

The 'Spanish flu' of 1918–19 was a pandemic that affected every continent except Antarctica. It killed around 50 million people. This is more than died in the whole of the First World War. The flu had appeared in the USA, France and Britain before Spain, but the Spanish were the first to report it. They were neutral in the First World War, and the other countries were afraid it would damage morale. A leading theory is that the virus spread from pigs to humans in Haskell County, Kansas, USA, and then to an army camp. The virus, found frozen in flu victims from 1918 in Alaska, was found to contain pig and bird genes. The disease was probably carried from the USA to Europe by troops on their way to fight in France.

## Smallpox

Smallpox is thought to have started as a virus of African rodents, first transmitted to humans many thousands of years ago. It was found in the Egyptian mummy of Ramses V. It is thought to have spread to Europe during the crusades 900 years ago. Around 400 years later, soon after Columbus sailed to the Caribbean, Hernán Cortés went to the mainland of Mexico. Using the enemies of the Aztecs against them, he conquered their main city and empire for Spain. This was greatly helped by his soldiers bringing smallpox, to which the Aztecs had no immunity. Most died. The Incas of South America, including their emperor, Huayna Cupac, soon suffered a similar fate, following the attacks by Francisco Pizarro, also from Spain.

## Bubonic plague

*Ring-a-ring o' roses,  
A pocket full of posies,  
A-tishoo! A-tishoo!  
We all fall down.*

This nursery rhyme is part of folk memory in a number of cultures – something that has been passed down the generations. Many believe that it refers to the bubonic plague, spread by rats and their fleas. The plague was common in Europe, North Africa and Asia until a few centuries ago. One of the most devastating plagues spread to Europe, the Middle East and North Africa in 1347, probably in ships from the Black Sea port of Kaffa. By 1351, this plague, later known as 'The Black Death,' is estimated to have killed around 60% of people in Europe.

## SARS (severe acute respiratory syndrome)

SARS was identified in 2003. It is thought to be an animal virus, perhaps from bats, that spread to other animals (civet cats) and first infected humans in southern China in 2002. An epidemic of SARS affected 26 countries and resulted in more than 8000 cases in 2003. Other countries/areas in which human-to-human transmission occurred were Toronto in Canada, Hong Kong, Taipei, Singapore, and Hanoi in Vietnam. Most cases of human-to-human transmission occurred in hospitals that didn't have good infection control. Bringing in appropriate infection control practices brought the global outbreak to an end.

(Source: WHO)

## Ebola virus disease

Ebola virus disease (EVD), is a severe, often fatal, illness that affects humans and other primates. The virus is transmitted to people from wild animals (such as fruit bats and apes) and then spreads in the human population through direct contact with blood or other bodily fluids, and through touching contaminated surfaces and materials. The first EVD outbreaks occurred in 1976 in remote villages in Central Africa, near tropical rainforests, some by the Ebola river. The 2014–16 outbreak in West Africa caused over 11,000 deaths and spread between countries, starting in Guinea then moving across land borders to Sierra Leone and Liberia.

(Source: WHO)

## Covid-19