

Bubonic Plague

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Bubonic plague, which first appeared in the 14th century, is back in the news after a Chinese city in the country's **Inner Mongolia region** reported its first suspected case of bubonic plague. The disease killed about 12 million in India when it occurred in 1896.

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The Bubonic plague is a **bacterial infection that is transmitted by fleas and rodents. It is a zoonotic disease**, which means it can jump from animals to humans. The plague is estimated to have a **basic reproduction number, or R0, between 5 and 7**. This means that one infected person can spread the disease to 5-7 people. The ongoing Covid-19 pandemic's R0 is between 1 and 2.

The first confirmed record of a plague pandemic dates back to 541 AD, called the Plague of Justinian, where an estimated 50 million people died over two centuries. The disease usually **spreads from fleas who have bitten infected animals like mice, rats, rabbits and squirrels. It is found on all continents except Oceania**. The plague is caused by a bacterium called **Yersinia pestis** which causes two other diseases – Septicaemic plague and Pneumonic plague. If not treated in time, the bacteria can kill an adult in less than 24 hours.

Some of the symptoms of the disease include **swollen lymph nodes** which can be as large as chicken eggs, fever, chills, coughs, fatigue, muscle ache, etc. The swollen lymph nodes are called buboes, which is where the name 'Bubonic' comes from. The symptoms for this disease start occurring after an **incubation period of 1-7 days**. This disease has a case-fatality ratio of 30% to 60% among the diagnosed, if not treated on time. Septicaemic and pneumonic kinds of the plague

can reach a 100% fatality. However, the number can be brought down if patients are diagnosed and treated on time.

According to WHO data, over 1,000 to 2,000 people contract the plague every year. So far, there **hasn't been an effective vaccine** against the disease. Modern antibiotics though, have been able to prevent further complications and even death.