

## **All you need to know about the deadly Nipah Virus (NiV)**

Epidemic outbreaks have a long history of incurring economic burden on the affected community, proving to be fatal to a large population. Over the recent past, Ebola, Zika, and Lassa fever outbreaks have taken myriad lives across the globe, owing to lack of treatment or preventive measures. The most recent occurrence, marking the highlight of worldwide news is the Nipah (NiV) virus. The spread of this virus is drawing tremendous attention from the Indian government to combat the spread of this infection. The World Health Organization (WHO) has listed Nipah virus in the urgent research priority list alongside Ebola and SARS.

The Nipah virus has spread far and wide in India, killing 10 people in the Kozhikode district of Kerala. The National Virology Institute in Pune has confirmed four deaths due to Nipah Virus. This virus was first detected in Malaysia in 1998, where it was recorded to be the cause of over 100 deaths. The repercussions are projected to be devastating, especially to the state of Kerala, in case of further lack of measures in place to prevent the spread of NiV.

### **So, what is Nipah Virus (NiV)?**

Nipah virus is a deadly virus that was first identified in Kampung Sungai Nipah, Malaysia (1998) among pig farmers. Being found among the pig farmers, the virus was considered to have jumped from pigs to humans. However, through further research and infection outbreaks, it was clear that fruit bat species (Pteropodidae Family, Pteropus genus) is the natural host of the virus. Pteropus genus is widely found across South Asia, South East Asia, and Pacific regions.

This virus has the potential to infect animals as well as humans. Nipah Virus has also infected nurses providing palliative care to infected patients, indicating that the infection caused by the virus is highly communicable. So far, in majority of the cases, the virus has demonstrated a mortality rate of almost 75%.

#### **Fatality rate in South-East Asia Region from 2001-2012:**

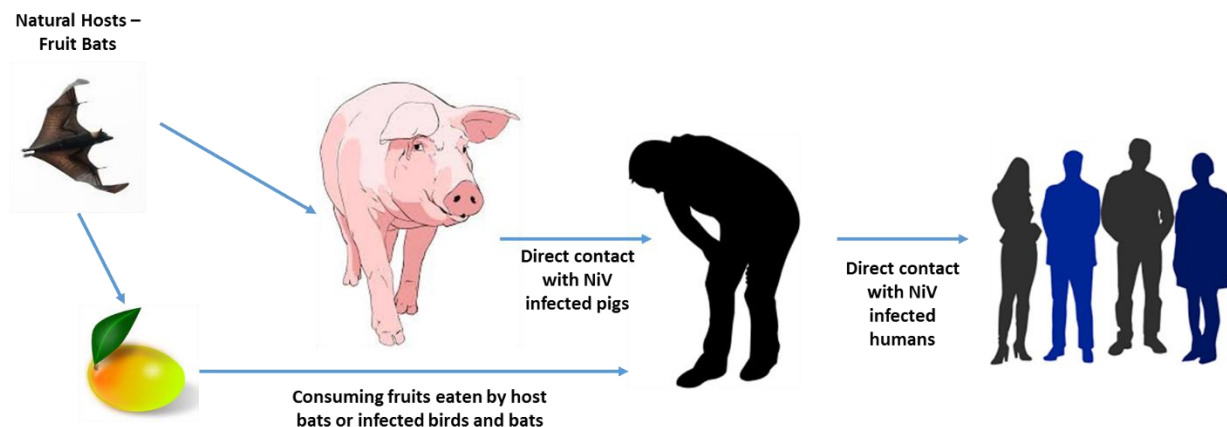
No. of cases – 280

No. of deaths – 211

Fatality rate – 75%

Symptoms of this infection include fever, headache, drowsiness, disorientation, mental confusion, respiratory flu-like symptoms, and fatal encephalitis.

## How does it spread?



There is no vaccine or treatment available for Nipah (NiV) virus. The primary treatment option includes intensive care. Prevention of the spread of this infection/virus is the only current measure to avoid more deaths.

Inadequate access to diagnostic tools and treatment further aggravates epidemic outbreaks. Healthcare companies, unless offered incentives, do not always find it feasible to invest in the development of vaccines or treatment for such diseases. An initiative and push by global organizations would effectively boost research and development of vaccines for such rare diseases. The Bill and Melinda Gates Foundation has consistently been working towards lowering the global healthcare burden by investing in development of novel medicines and vaccines. The foundation is partnering with Lucy and Larry Page, (the chief executive of Alphabet) for establishing a fund of around US\$ 12 million for researchers working on universal flu vaccines. Moreover, in 2017, governments and nonprofit organizations across the globe formed the Coalition for Epidemic Preparedness Innovations. This group has established a fund of US\$ 630 million to combat Nipah virus, Lassa fever, and Middle East Respiratory Syndrome, which are WHO-identified threats with no vaccines available for their prevention. Furthermore, by partnering with pharmaceutical companies, this group aims to rapidly develop vaccines for new viral or bacterial infections identified anywhere across the globe.

However, we need to be better equipped beforehand and not await the outbreak of epidemics to take a toll on human life.

Source - WHO