Chinese Notifiable Infectious Diseases Surveillance Report

Human infection with H7N9 virus

March 2024

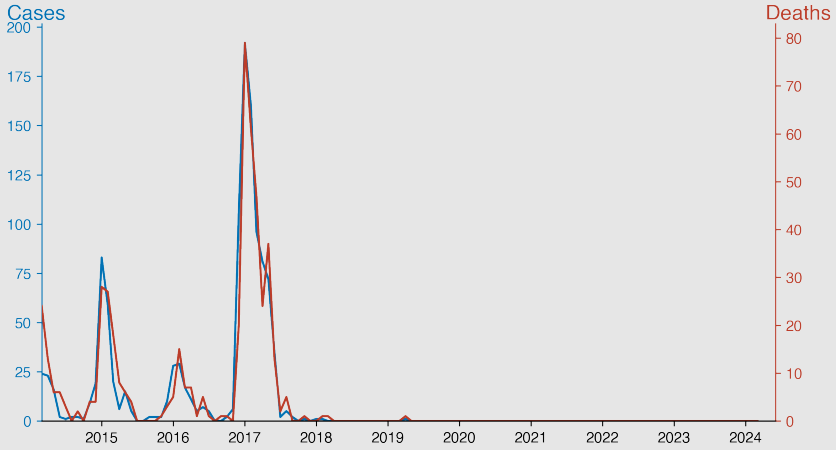
Introduction

H7N9 is a subtype of the influenza virus that has been detected in humans since 2013, primarily from direct or indirect contact with infected poultry or contaminated environments in China. Human infection yields severe respiratory illness, with a high mortality rate. While it does not typically transmit readily between humans, mutations could potentially make the virus more contagious. As of now, avian H7N9 virus poses a significant pandemic threat due to its capacity for zoonotic and possible human-to-human transmission.

Highlights

- The H7N9 virus in the Chinese mainland showed the highest level of activity between 2014 and 2017, with a peak in January 2017 (192 cases, 79 deaths).
- Since its peak, reported cases and deaths have steadily declined. By late 2018, instance of the virus dropped to zero and has remained consistently inactive through March 2024.
- Mortality rates varied over time, with the highest seen in March 2014 and January 2017.
- The disease has shown zero prevalence for over five years now (since late 2018), suggesting effective control and prevention measures in place.

Temporal Trend



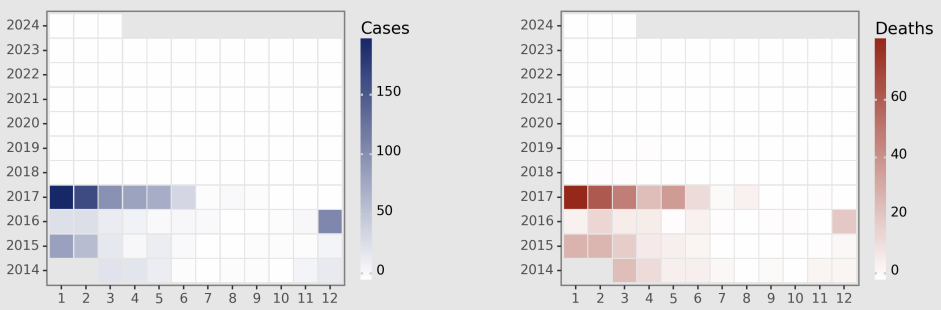
Cases Analysis

Between 2014 and 2018, there were sporadic but recurring cases of the H7N9 infection reported in the Chinese mainland. The highest number of cases occurred in January 2017 with 192 cases reported. From then, a gradual decline was witnessed, finally leading to no registered cases from July 2018 onward. Despite slight resurgences in April 2019 and a noticeable seasonal pattern (with cases peaking during the early months of the year), it appears the H7N9 transmission and infection have successfully been halted in recent years.

Deaths Analysis

The number of resultant deaths largely reflects the pattern of cases reported. The mortality count skyrocketed during the severe outbreak period, with January 2017 observing the highest death toll of 79. This demonstrates a high mortality rate corresponding with the surge in reported cases. In subsequent years, the mortality rate has markedly dwindled, with no deaths reported since April 2019. The falling mortality rate may represent an improvement in medical care or a decrease in overall disease virulence.

Distribution



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