

Chinese Notifiable Infectious Diseases Surveillance Project

Human infection with H7N9 virus

November 2023

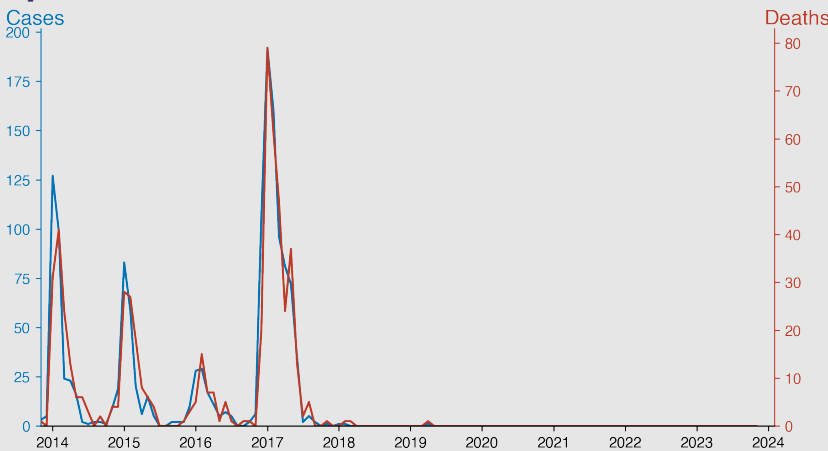
Introduction

H7N9 is a subtype of influenza virus that has been detected in birds in the past. This particular strain had not been seen in humans until it was identified in China in March 2013. Human infection with H7N9 virus can cause severe respiratory illness, including pneumonia, acute respiratory distress syndrome (ARDS), organ failure, and even death. Transmission predominantly occurs through direct contact with infected poultry or through exposure in live poultry markets. Human to human transmission is rare but possible. No vaccine is available currently.

Highlights

- The H7N9 virus outbreak in Chinese mainland peaked in January 2017, with 192 cases and 79 deaths.
- A sharp decline in cases and deaths was observed after 2017, with no cases or deaths reported since July 2021.
- As of November 2023, the data indicate over two years without new H7N9 infections, suggesting effective control measures.
- The prolonged absence of cases highlights the potential success of prevention strategies and ongoing disease surveillance initiatives.

Temporal Trend



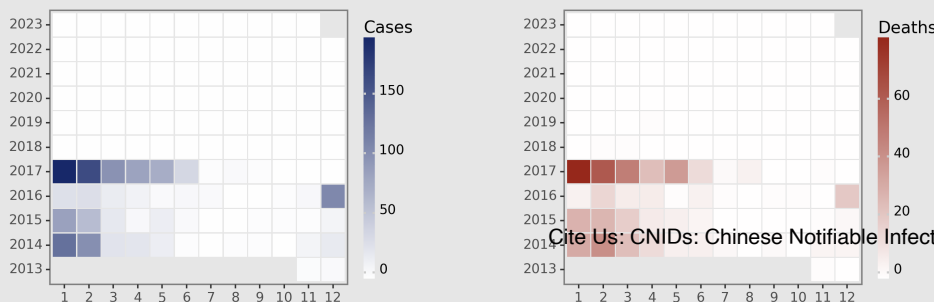
Cases Analysis

The H7N9 avian influenza outbreak in the Chinese mainland shows significant variability across months and years, peaking notably in 2014 and 2017. January and February of these years were of particular concern, with respective case counts reaching 127 and 99 in 2014, and surging to 192 and 160 in 2017. A pattern of winter-spring seasonality is evident, with cases dwindling to zero post-2017, possibly indicating successful containment measures or changes in viral circulation and surveillance efforts.

Deaths Analysis

Death tolls paralleled case counts, with the highest mortality observed in 2014 and 2017, reflective of peak case periods. February 2014 reported 41 deaths, the highest for that year, whereas January and February of 2017 observed 79 and 61 deaths, respectively. A clear decline in fatalities is seen from mid-2017 onward, reaching zero and persisting through 2023. Potential explanations include improved medical interventions, public health initiatives, and reduced virus virulence or host susceptibility.

Distribution



CNIDs

Free, Lightweight, Open-source,
Smart Surveillance for
Chinese Infectious Diseases

Cite Us: CNIDs: Chinese Notifiable Infectious Diseases Surveillance Project. <https://cnids.org>

Version: 2024-01-05 (UTC+)