

Chinese Notifiable Infectious Diseases Surveillance Report

Human infection with H7N9 virus

December 2023

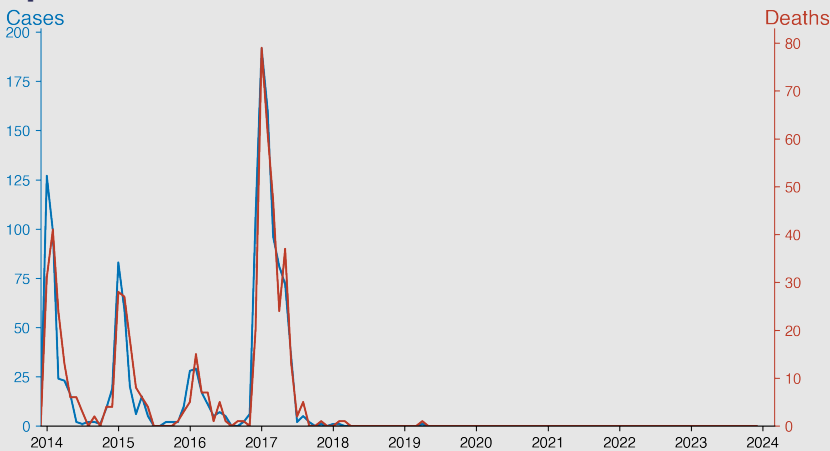
Introduction

H7N9 is a subtype of the influenza A virus, primarily affecting birds, but also capable of infecting humans. First identified in China in 2013, it can cause severe respiratory illness, including pneumonia. Human cases are usually linked to exposure to live poultry or contaminated environments. Direct avian-to-human transmission is common but person-to-person transmission is rare. There is no vaccine available currently for this specific virus strain. Its potential for pandemic status necessitates ongoing surveillance and pandemic preparedness efforts.

Highlights

- Significant H7N9 outbreak in early 2017 with January's 192 cases and 79 deaths, indicating heightened wintertime risks.
- Steep decline to zero cases and deaths from 2018, maintaining through December 2023, suggestive of effective containment or diminished virus activity.
- Intermittently high case-fatality rates, particularly during 2014 and 2017 peaks, underline the importance of ongoing disease surveillance and response mechanisms.
- The current four-year period without new cases highlights successful interventions but warrants persistent monitoring due to historical seasonal surge patterns.

Temporal Trend



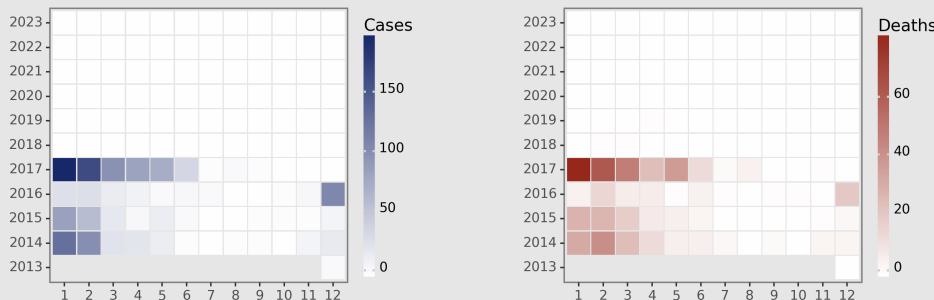
Cases Analysis

The H7N9 virus infection cases peaked in January and February of 2014 and 2017, indicating a seasonal pattern with likely spread in cooler months. There was a significant outbreak in early 2017, with 192 cases in January and 160 in February. However, cases sharply declined after this period, eventually dropping to zero from mid-2017 onwards. This could suggest effective intervention measures and surveillance or potential changes in the virus's transmission patterns.

Deaths Analysis

The overall fatality rate appears high during the reported periods, with deaths often constituting a significant proportion of cases, such as in February 2014 (41 deaths/99 cases). The highest number of deaths (79) occurred in January 2017, aligning with the peak in the number of cases and possibly indicating a particularly virulent strain. Since mid-2017, reported deaths have ceased, matching the trend in reported cases and suggesting the containment of the virus or a decrease in virulence.

Distribution



CNIDs

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

Version: 2024-01-16 (UTC+)