

# Chinese Notifiable Infectious Diseases Surveillance Report

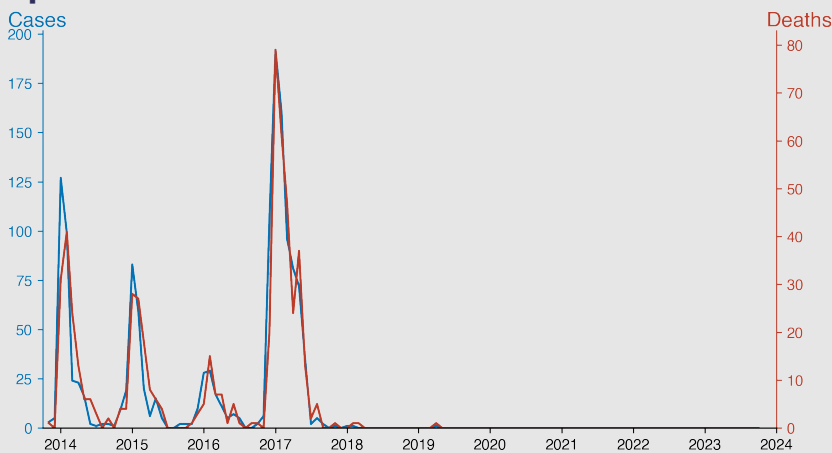
## Human infection with H7N9 virus

October 2023

### Introduction

Human infection with H7N9 virus emerged in China in 2013, concerning public health authorities due to its potential pandemic risk. This avian influenza A virus primarily affects birds, but sporadic transmission to humans has been reported, often resulting in severe respiratory illness. Infected individuals typically have exposure history to live poultry or contaminated environments. Human-to-human transmission is rare. Symptoms range from mild conjunctivitis to severe pneumonia and acute respiratory distress syndrome. Management is primarily supportive, with antiviral medications like neuraminidase inhibitors being used for treatment. Surveillance and control

### Temporal Trend



### Highlights

The H7N9 virus saw its peak in human infection cases and deaths in mainland China between January and March of 2017, with a high case-fatality rate.

- After a significant drop post-2017, no human cases or deaths have been observed since April 2023, indicating effective control or possible underreporting.
- Seasonal patterns indicate that the majority of cases occurred in the winter and early spring, consistent with other influenza viruses.
- The ongoing absence of cases may suggest successful public health interventions, such as poultry market closures and improved surveillance.

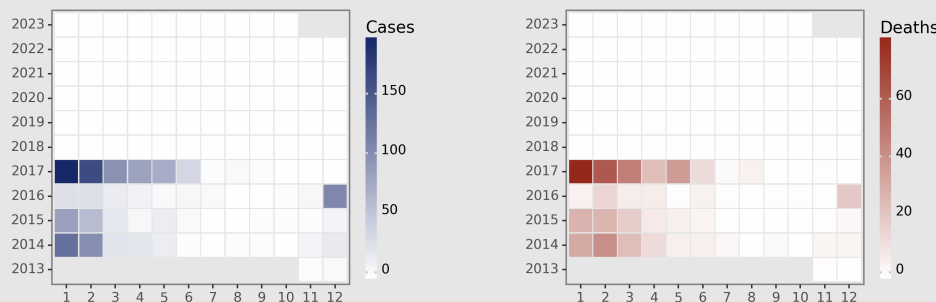
### Cases Analysis

The incidence of human H7N9 infection in mainland China features a marked seasonality with significant peaks during winter months, especially from January to April, coinciding with increased human-animal interaction and colder weather conducive to the virus's survival. Cases surged notably in early 2014, with January and February 2017 experiencing the highest recorded incidences, followed by sharp declines. Since mid-2017, reported cases have nearly ceased, which could be attributed to enhanced surveillance, improved disease control measures in poultry populations, and greater public awareness of the risks associated with live animal markets.

### Deaths Analysis

The mortality associated with the H7N9 virus followed a similar seasonal pattern as observed with the cases. The fatality rate was alarmingly high during the early years, peaking conspicuously in February 2017. Subsequently, the number of reported deaths dropped to zero and remained so from mid-2017 onwards. This drastic improvement could reflect advancements in medical management, early detection of cases, and effective response strategies. The absence of data on severe and mild cases precludes precise calculation of the case-fatality rate; however, the high number of deaths in the context of the total cases suggests a severe disease progression in confirmed cases.

### Distribution



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