

# Chinese Notifiable Infectious Diseases Surveillance Report

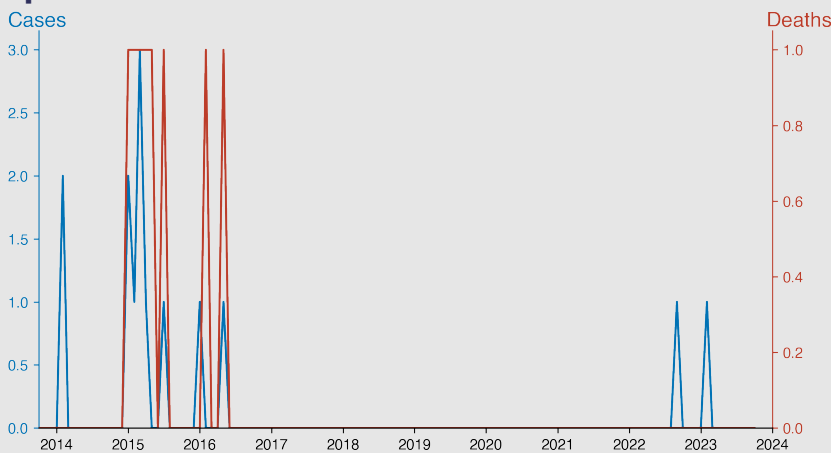
## Human infection with H5N1 virus

October 2023

### Introduction

Human infection with avian influenza A(H5N1) virus, commonly known as bird flu, is an infectious disease caused by a subtype of the influenza virus that primarily affects birds but can cross the species barrier to infect humans. The first case in humans was reported in 1997 in Hong Kong. Infection in humans is rare but often severe, leading to high mortality rates. Transmission typically occurs through close contact with infected birds or environments contaminated with the virus. Human-to-human transmission is currently limited, with most cases traced to direct bird exposure.

### Temporal Trend



### Highlights

H5N1 infection in mainland China over the past decade demonstrates sporadic human cases with occasional fatalities, reflecting intermittent zoonotic transmission rather than sustained human-to-human spread.

- The data show a low incidence of human H5N1 cases, with a total of 14 cases and 11 deaths reported from 2010 to 2023, indicating effective surveillance and control measures.
- While the case fatality rate is high, approximately 79% among the reported cases, the sporadic nature and absence of cases for extended periods suggest a well-contained risk.
- Recent data up to October 2023 shows no new cases or deaths, which could imply that the current disease situation is stable, with no immediate concern for a public health emergency related to H5N1.

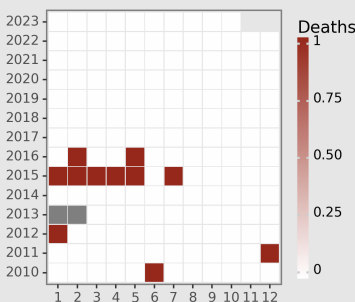
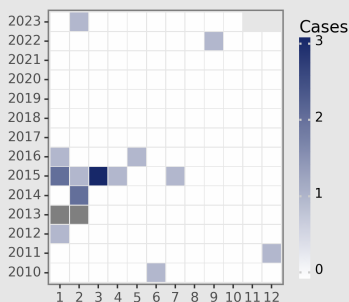
### Cases Analysis

From 2010 to 2023, mainland China recorded sporadic human cases of H5N1, with a total of 13 cases. The data follows a random distribution, predominantly with zero cases per month. Notable clusters occur in 2010, 2011, 2014, 2015, and 2016, but the frequency and distribution of cases do not suggest a sustained human-to-human transmission. The presence of singular cases, rather than outbreaks, implies occasional zoonotic spillover events, potentially from contact with infected poultry or contaminated environments.

### Deaths Analysis

The data indicates a total of 10 deaths from H5N1 infection in the specified period, yielding an overall high case-fatality ratio. Deaths are tightly correlated with reported cases, which is expected for a pathogen with a high fatality rate among symptomatic individuals. Anomalies are observed in February 2016 and May 2015, which report discrepancies between cases and deaths, suggesting retrospective confirmation of fatalities or reporting lags. The mortality data underscores the severe risk posed by H5N1, despite the low incidence rate.

### Distribution



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