Chinese Notifiable Infectious Diseases Surveillance Report

Human infection with H5N1 virus

November 2023

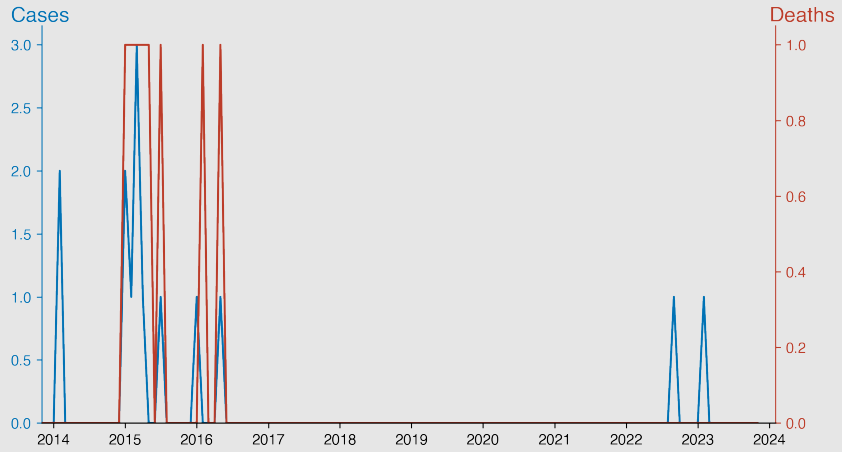
Introduction

Human infection with H5N1 virus, also known as Avian influenza or "bird flu", is a highly infectious and severe respiratory disease in birds. Humans, in rare cases, can contract this disease when exposed to infected birds or contaminated environments. First identified in humans in Hong Kong in 1997, H5N1 virus has since spread across several continents causing significant human morbidity and mortality. This zoonotic disease predominantly affects the lower respiratory tract, and is often fatal, underlining the importance of continuous surveillance and immediate response.

Highlights

- Overall low incidence of H5N1 cases and deaths in the Chinese mainland, with sporadic outbreaks throughout the years.
- The mortality rate for reported cases is high, with deaths occurring in approximately half of the cases.
- Clusters of cases in 2010 and 2015 suggest sporadic transmission with limited human-to-human spread or potentially greater contact with infected poultry.
- As of November 2023, the situation appears to be under control, with no new cases or deaths reported in the current year.

Temporal Trend



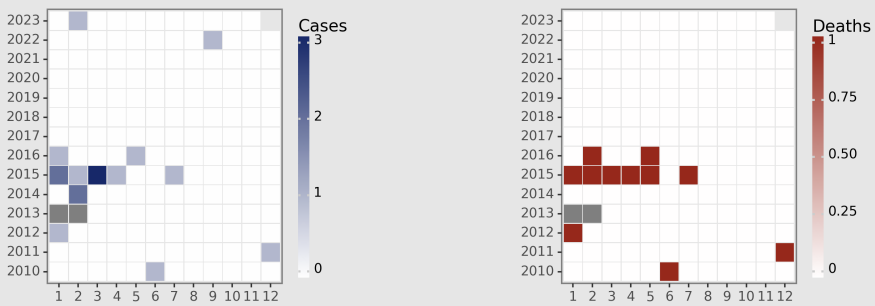
Cases Analysis

Human H5N1 infections in Chinese mainland from 2010 to 2023 are sporadic, with 14 cases recorded over 13 years. The virus exhibits non-seasonal occurrence with no sustained human-to-human transmission. Incidences are isolated, with years 2010, 2011, 2014, 2015, and 2016 reporting one or more cases. The uptick in 2015 with five cases suggests possible enhanced surveillance or a temporary increase in zoonotic spill-over events. The fatality rate appears high, given the deaths, indicating the severity of the infection among those who contract it.

Deaths Analysis

The mortality data from H5N1 infections in the Chinese mainland reveals a high case-fatality ratio, with 11 deaths among 14 cases. Deaths occurred in the years 2010, 2011, 2014, 2015, and 2016, concomitant with reported cases, except for one death in 2016 without a corresponding case that year, possibly indicating a delayed reporting of the case. The absence of deaths after 2016 could signify effective medical interventions, underreporting, or a possible decrease in virulence; however, caution is warranted given the small numbers involved and potential underdiagnosis or reporting delays.

Distribution



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Version: 2024-01-04 (UTC+)

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