Chinese Notifiable Infectious Diseases Surveillance Report

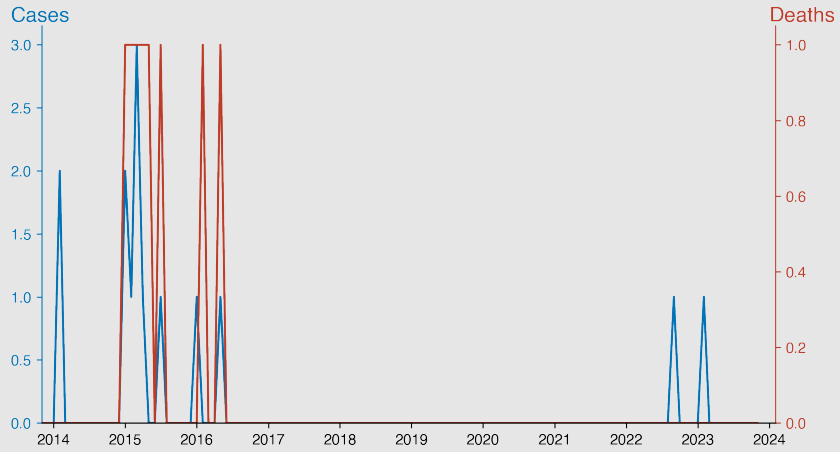
Human infection with H5N1 virus

November 2023

Introduction

Human infection with H5N1 virus, also called "bird flu," originates from contact with infected poultry or surfaces contaminated by their faeces. The virus was first discovered in humans in 1997 and has since provoked serious concern due to its potential to trigger a pandemic. While the virus does not transmit readily between humans, sporadic cases with severe respiratory illness and high mortality rate have been reported globally. Influenza viruses can change rapidly, hence continuous monitoring of these viruses and their impact on public health is essential.

Temporal Trend



Highlights

- The data indicates sporadic human cases of H5N1 virus infection in the Chinese mainland over the span of 13 years, with only 14 confirmed cases and 9 deaths.
- Peak activity occurred in 2015 with a total of 8 reported cases and 5 deaths, suggesting a temporary period of increased virus transmission to humans.
- Overall, the H5N1 virus appears to be contained with low human-to-human transmission, evidenced by the absence of sustained chains of infection throughout the years.
- The most recent case occurred in February 2023, but with no reported fatality, maintaining the sporadic nature of the infections without signs of an outbreak as of November 2023.

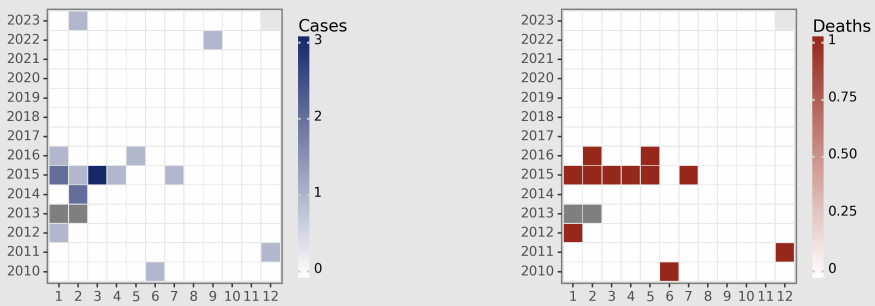
Cases Analysis

Over a 13-year span, Human H5N1 infections in Mainland China have been infrequent with a total of 14 reported cases. The cases, unrelated in time, suggest sporadic infections without sustained human-to-human transmission. Peaks in cases occurred in 2015, with a high number of 7 cases within the first seven months; however, this did not result in an ongoing trend. Isolated cases in 2016, 2022, and 2023 indicate potential continual avian-human transmission events or sporadic zoonotic spill-overs.

Deaths Analysis

The fatality rate among the reported cases is high, with 10 deaths out of 14 cases, equating to a case-fatality rate of approximately 71%. This suggests that while H5N1 infections were rare, they were often severe. Notably, in 2014 and 2016, cases did not align with deaths within the same month, possibly due to reporting delays or prolonged illness before death. The absence of fatalities post-February 2023, alongside a case report, could denote an improvement in treatment or early detection.

Distribution



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