Chinese Notifiable Infectious Diseases Surveillance Report

Human infection with H5N1 virus

December 2023

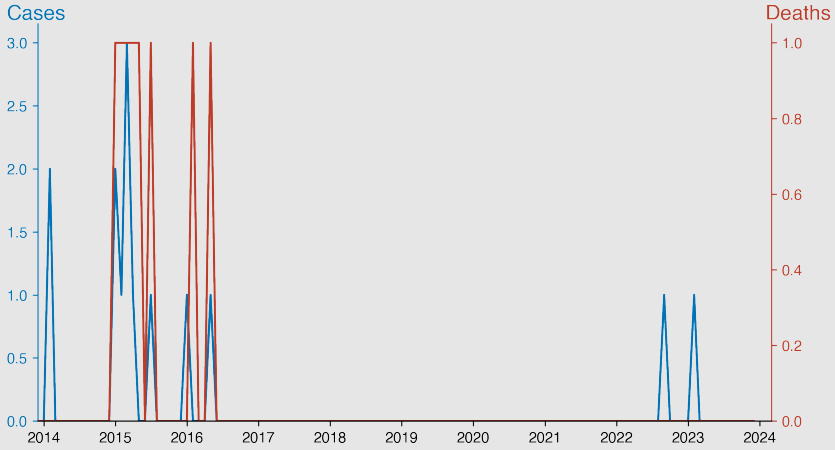
Introduction

Human infection with H5N1 virus, also known as Avian Influenza or Bird Flu, is a highly pathogenic viral infection primarily circulating in wild and domestic birds. Although it doesn't naturally infect humans, direct contact with infected birds or their droppings can lead to sporadic human infections. This zoonotic disease presents severe symptoms, including high fever and respiratory problems, carrying a high mortality rate. Human-to-human transmission is rare, but potential mutation in the future may enable efficient and sustained transmission leading to an influenza pandemic.

Highlights

- A decline in reported H5N1 human cases and deaths was observed after an initial surge in 2015, suggesting improved control measures.
- The data indicates sporadic occurrences of H5N1 with low case numbers; two instances recorded after 2015 were in September 2022 (1 case, 0 deaths) and February 2023 (1 case, 0 deaths).
- No fatalities have been recorded since May 2016, highlighting the possibility of better clinical management and/or virus attenuation.
- As of December 2023, there have been no new cases or deaths, suggesting effective surveillance and prevention strategies in the Chinese mainland.

Temporal Trend



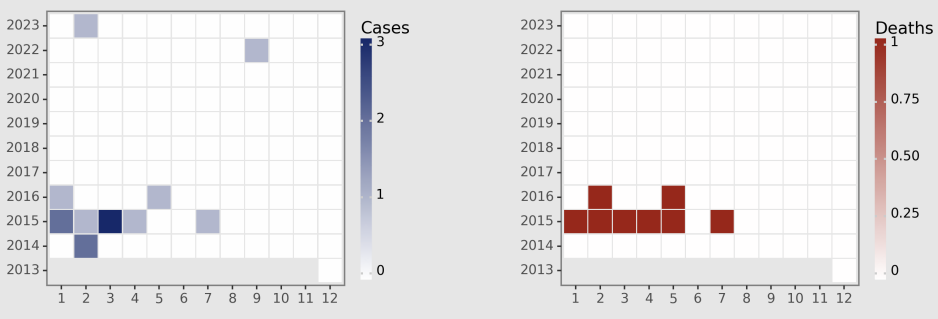
Cases Analysis

Between December 2013 and February 2023, there have been 12 reported cases of H5N1 infection in the Chinese mainland, with peaks in 2015 (7 cases) and sporadic cases thereafter. Notably, after a lull with no cases from March 2017 to August 2022, a single case reappeared in September 2022, followed by another in February 2023, indicating potential flare-ups or ongoing sporadic transmission of H5N1 avian influenza to humans.

Deaths Analysis

During the same period, a total of 7 deaths were recorded, with a case-fatality ratio of 58.3%. A cluster of deaths occurred in 2015, with 5 out of the 7 total deaths reported in these months, suggesting a particularly virulent period or strain. The lapse in reporting deaths since May 2016 up to the last case in February 2023 suggests either reduced virulence, improved clinical management, or underreporting of subsequent fatalities.

Distribution



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