Chinese Notifiable Infectious Diseases Surveillance Report

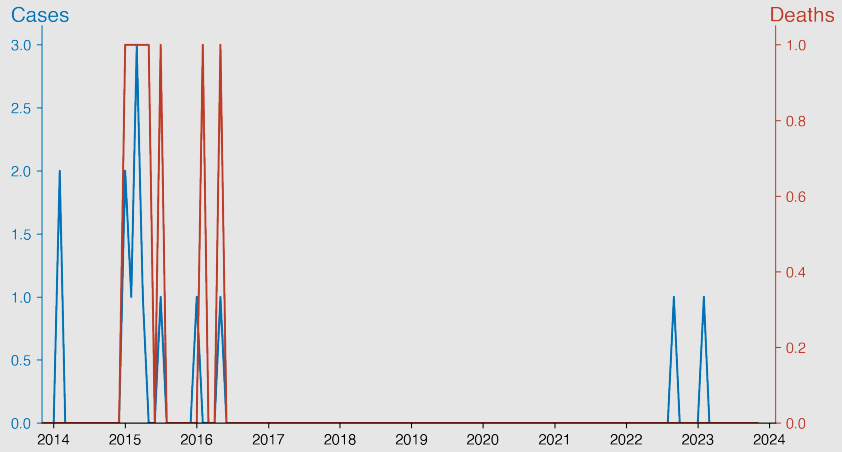
Human infection with H5N1 virus

November 2023

Introduction

H5N1 is a subtype of the influenza A virus, known to cause severe illnesses in humans. It first infected humans in 1997 in Hong Kong and has since spread across Asia and globally causing significant mortality. The primary mode of human infection is through direct or indirect contact with infected poultry or surfaces contaminated with secretions/excretions from infected birds. Though it primarily affects birds, it can jump species, sparking concern over potential pandemics due to the virus's ability to mutate. As such, H5N1 is considered a significant pandemic threat.

Temporal Trend



Highlights

The H5N1 virus displays sporadic trends of infection and associated deaths in mainland China, indicative of isolated outbreak events.
2. Case occurrence and death ratio are remarkably low, with only a few cases recorded and most years experiencing no cases nor deaths at all.
3. A significant increase in infections is noticeable in 2015, although with limited associated mortality.
4. Despite minor upticks in several years, no sustained increase in infection has been observed, and the situation is currently under control as of November 2023.

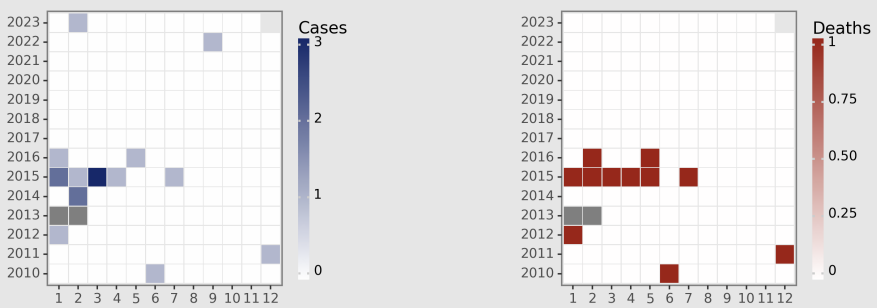
Cases Analysis

The table details human infection cases due to the H5N1 virus in mainland China from January 2010 to November 2023. The data exhibits sporadic outbreaks rather than a consistent trend. The largest number of cases is reported in March 2015, with 3 cases. The disease's episodic nature, interspersed with lengthy periods of zero reported cases, hints towards sporadic outbreaks perhaps in tandem with certain conditions or seasonal variations. Moreover, the high case fatality rate is also apparent, often pairing cases with deaths.

Deaths Analysis

Across the time span, there are intervals with notable death occurrences due to H5N1, reflecting high mortality rates. Deaths often occur in months with reported cases, implying a high case fatality rate. Specifically, the highest death count recorded in a single month is 1, occurring in various disparate months. Noticeably, there were singular instances in May 2015 where a death occurred with no newly reported cases, indicating a delayed mortality from existing cases. No discernible temporal trend for deaths emerges, alike the disease cases, suggesting sporadic rather than seasonal occurrence.

Distribution



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Version: 2023-12-27 (UTC+)

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