Chinese Notifiable Infectious Diseases Surveillance Project

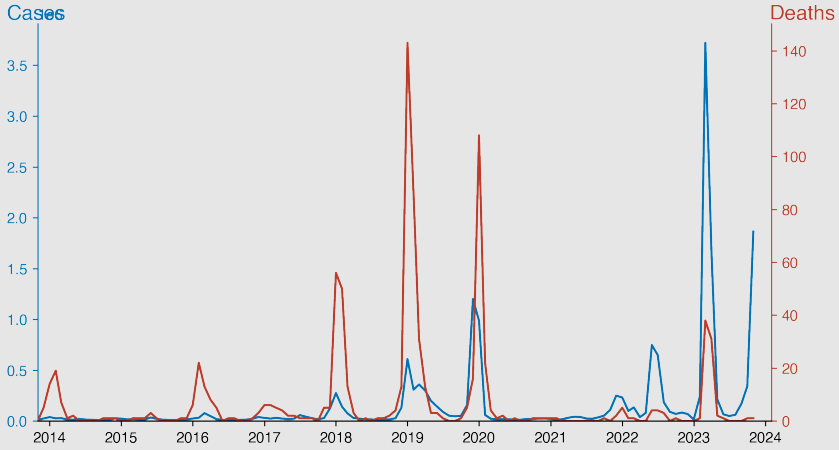
Influenza

November 2023

Introduction

Influenza, commonly known as flu, is a highly contagious viral infection affecting the respiratory system, caused by influenza viruses A and B. Symptoms can range from mild to severe, including high fever, cough, sore throat, nasal congestion, body aches, and fatigue. The virus spreads easily from person to person through respiratory droplets. While most people recover in a week or two, influenza can lead to serious complications like pneumonia, especially in young children, older adults, and individuals with certain chronic health conditions. Annual vaccination is the most effective way to prevent influenza.

Temporal Trend



Highlights

- A staggering spike in March 2023, with 3.72 million cases of Influenza, marks a major outbreak peak contrasted with historical trends.
- November 2023 reports about 1.86 million cases, indicating ongoing high transmission rates throughout the year.
- Mortality remains low with a single death in November despite the high case count, possibly reflecting a less virulent strain or better healthcare management.
- The data shows volatile annual case numbers, with significant surges seen in 2019 and 2023, hinting at the Influenza virus's potential shifts or changes in surveillance.

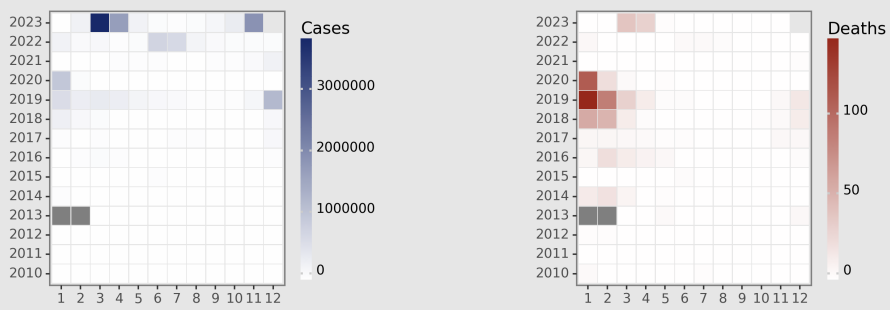
Cases Analysis

From 2010 to 2023, we observe a generally increasing trend in reported influenza cases in the Chinese mainland, with significant spikes in cases during specific periods. Notable peaks occur in December 2019 (1,199,771 cases) and unprecedentedly high numbers are reported in March 2023 (3,721,370 cases). This trend suggests heightened transmission or improved case detection over the years. Seasonal patterns are evident with higher incidences typically recorded in winter months, presumably due to increased indoor activity and favorable conditions for virus transmission.

Deaths Analysis

Although the number of influenza cases has generally risen over the examined period, the number of deaths has not always correlated with case surges. A notable peak in deaths is seen in January 2019 (143 deaths), despite much lower case numbers than in March 2023 (38 deaths), indicating that other factors, such as strain virulence, healthcare capacity, or population immunity, influence fatality rates. Overall, fatality rates are low, suggesting that while influenza is highly transmissible, it is not leading to a proportional increase in mortality within this dataset.

Distribution



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