Chinese Notifiable Infectious Diseases Surveillance Report
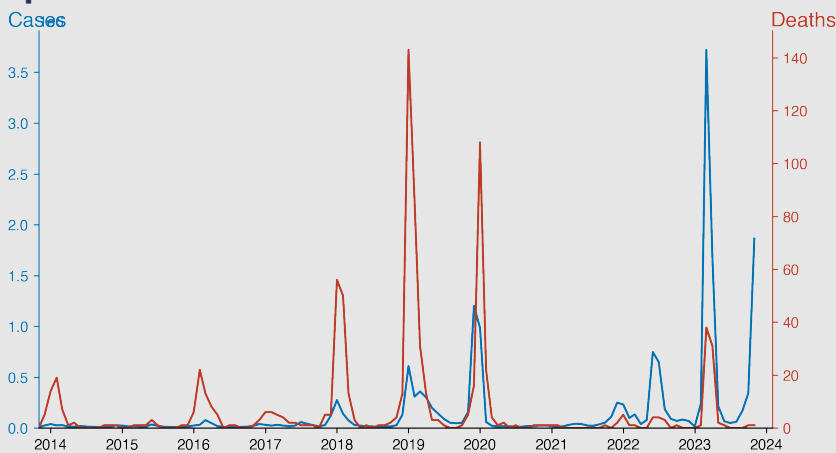
Influenza
November 2023

Introduction

Influenza, commonly known as the flu, is a highly contagious respiratory illness caused by influenza viruses. Spreading via droplets when infected people cough, sneeze, or talk, it manifests symptoms such as fever, chills, muscle aches, cough, congestion, runny nose, headaches, and fatigue. While it primarily affects the nose, throat, and lungs, severe cases can lead to complications like pneumonia and death. Regular vaccination is the most effective way to prevent influenza.

Temporal Trend

Highlights

There is a substantial increase in the number of influenza cases and deaths in mainland China from 2010 to 2023, with a sharp escalation in the year 2019.
- A clear seasonal trend is observed over the years; case counts often rise in winter months (December and January), slightly drop in spring, and reach the lowest during summer.
- The years 2019, 2020 and 2023 saw exceptionally high departure from the usual flu season (winter), with an extreme peak in March 2023.
- Despite the increase in cases, the number of deaths remains low, indicating potential improvements in healthcare response or low virulence of the circulating strains.
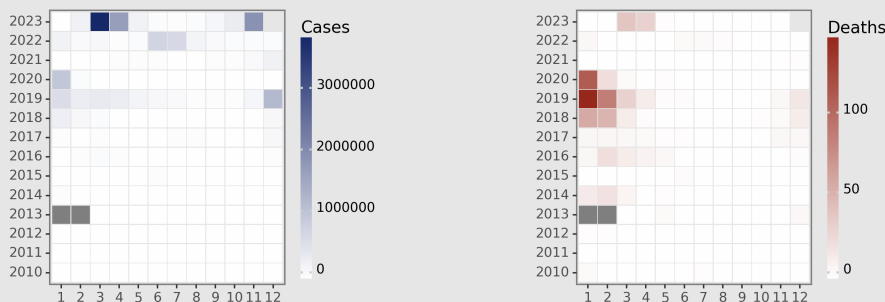
Cases Analysis

Influenza was a recurring health issue in mainland China from 2010 to 2023. There was an upward trend in the reported cases with significant peaks occurring during typically colder months (January, February, and December). This was especially noticeable in years like 2018, 2019, and 2023, which indicates a seasonal pattern of the virus. There was an unusual spike in cases in March 2023 with a sudden, dramatic increase to over 3.7 million reported cases, nearly 20x the peak seen in December 2019.

Deaths Analysis

Although the number of reported cases significantly increased over the years, the number of deaths remained relatively low. Despite the occasional increase during the colder months, deaths plateaued at a very small percentage of cases. The highest number of deaths was recorded in January 2019, with 143 deaths despite over 608,000 reported cases, which reconfirms the disparity. There was an exception in March 2023, where despite an exponential increase in cases, the deaths remained relatively controlled.

Distribution

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