

# Chinese Notifiable Infectious Diseases Surveillance Report

## Influenza

December 2023

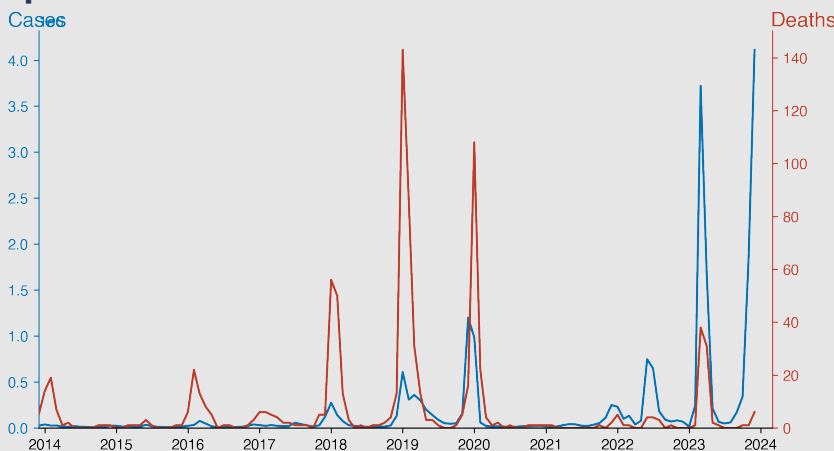
### Introduction

Influenza, commonly known as the flu, is a contagious respiratory illness caused by influenza viruses. It can lead to mild to severe illness and at times can cause death. It spreads mainly by tiny droplets when people with flu cough, sneeze or talk. Common symptoms include fever, cough, sore throat, body aches, and fatigue. There are two main types: A and B. Vaccination is the most effective way to prevent infection, although the vaccines used need to be updated annually due to frequent viral mutation.

### Highlights

1. Marked seasonality with winter peaks; December 2023 saw a record 4,113,326 cases, the highest since December 2013.
2. An increasing trend in cases over the years, with an exponential surge from January to December 2023.
3. Proportion of deaths remains low compared to case numbers, with a spike to 38 in March 2023; December 2023 had only 6 deaths despite millions of cases.
4. Case-fatality rate is consistently low, indicating low mortality despite high infection rates.

### Temporal Trend



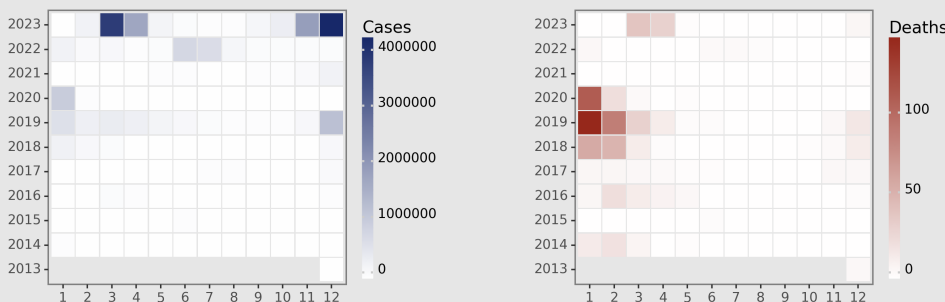
### Cases Analysis

The data from Chinese mainland indicates fluctuating influenza case numbers with significant spikes. Initially, cases were below 40,000 per month, but a marked increase began in 2016, reaching a peak of 608,511 in January 2019. Sporadic reductions occurred in 2020, with the least cases (10,894) in February 2021, possibly due to rigorous public health interventions for COVID-19. However, cases soared to millions from March 2023 onwards, suggesting potential changes in viral strains, waning immunity, or alterations in population behaviors and control measures.

### Deaths Analysis

Death reports due to influenza were consistently low, with single-digit fatalities in most months, despite the fluctuating number of cases. A noticeable increase in deaths occurred in January and February of 2018, with 56 and 50 deaths, respectively, correlating with an increased number of cases. Similarly, January 2020 saw a spike with 108 deaths during the initial phase of the COVID-19 pandemic. However, there seems to be no direct proportionality between case numbers and deaths, potentially indicating mild strains or effective clinical management for severe cases. The fatality trend decreased again post-2020, reverting to low single-digit numbers.

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