

# COVID-19 Clinical and Surveillance Data — December 9, 2022 to February 13, 2023, China

Chinese Center for Disease Control and Prevention

## 1. COVID-19 Infection Surveillance Data

### 1.1 COVID-19 Nucleic Acid Test Data

Since December 9, 2022, the number of positive nucleic acid tests and the positive rate reported from provincial-level administrative divisions (PLADs) had gradually increased, peaking on December 22, 2022 with 6.94 million positive tests and a 29.2% positive testing rate on December 25, 2022. After this peak, the number and rate of positive nucleic acid tests steadily decreased, reaching a low of 8,847 on February 13, 2023, with a rate of 1.6% (Figure 1-1).

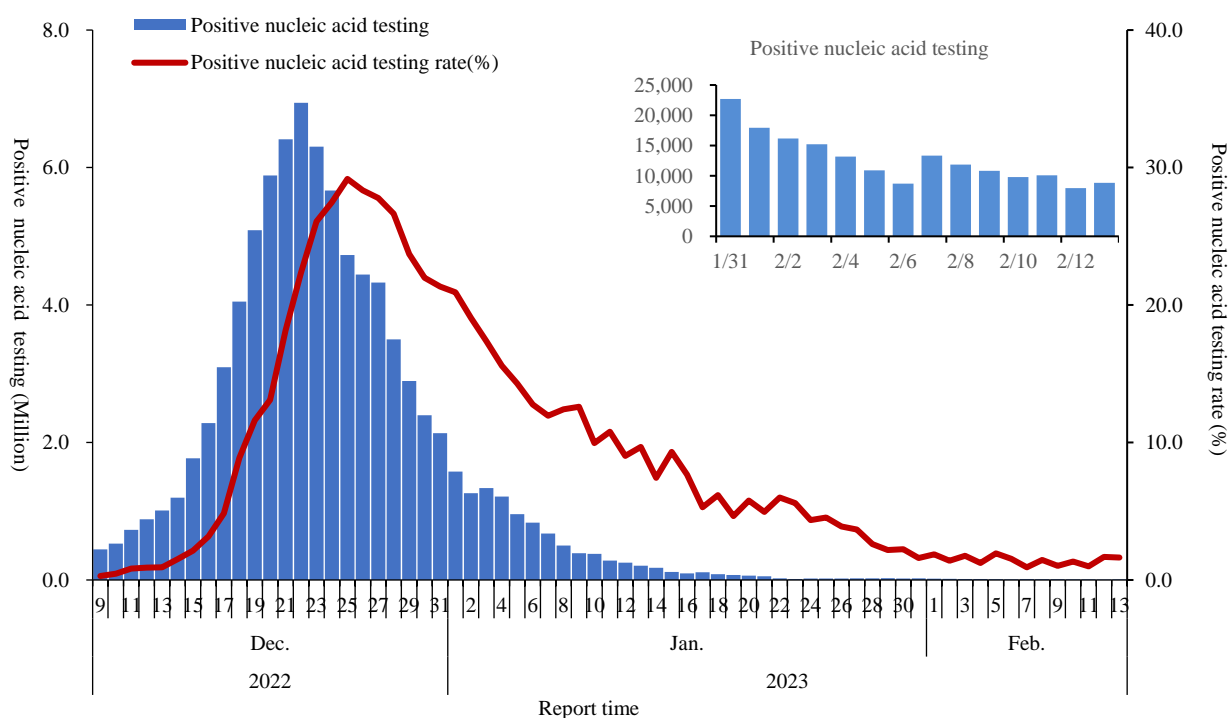


Figure 1-1 Daily number of positive nucleic acid testing and rate.  
(Data reported by PLADs in Chinese mainland)

### 1.2 COVID-19 Antigen Test Data

The number of antigen tests reported by PLADs was generally low and gradually decreased. For example, the number of antigen tests reported reached a high of 1.89 million on December 19, 2022 and dropped to 86,000 on February 13, 2023. The number of positive antigen tests and the positive rate rapidly increased after December 9, peaking on December 22, 2022 (337,000, 21.3%) before fluctuating to 397 and 0.5%, respectively, by February 13, 2023 (Figure 1-2).

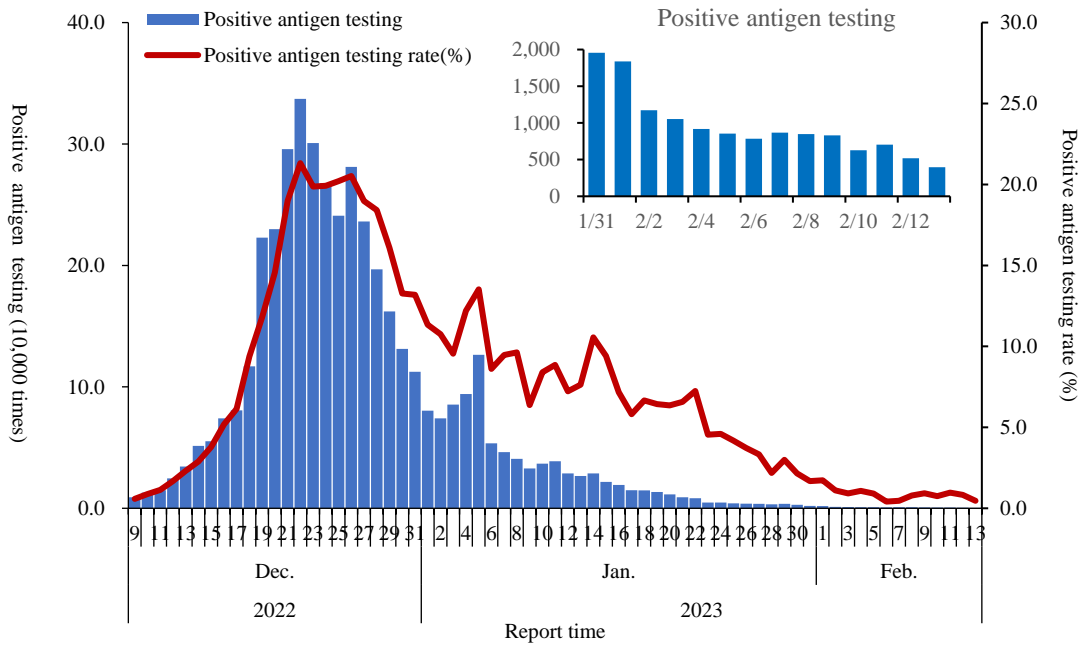


Figure 1-2 COVID-19 antigen test and positive rate.  
(All data were reported by PLADs in Chinese mainland)

## 2. Fever Clinic Diagnosis and Treatment Data

### 2.1 Fever Clinic Visit Data.

The number of fever clinic visits in Chinese mainland peaked at 2.867 million on December 23, 2022. Visits then continuously decreased until January 23, 2023 and fluctuated to 128,000 visits on February 13, 2023, representing a decrease of 95.5% from the peak (Figure 2-1).

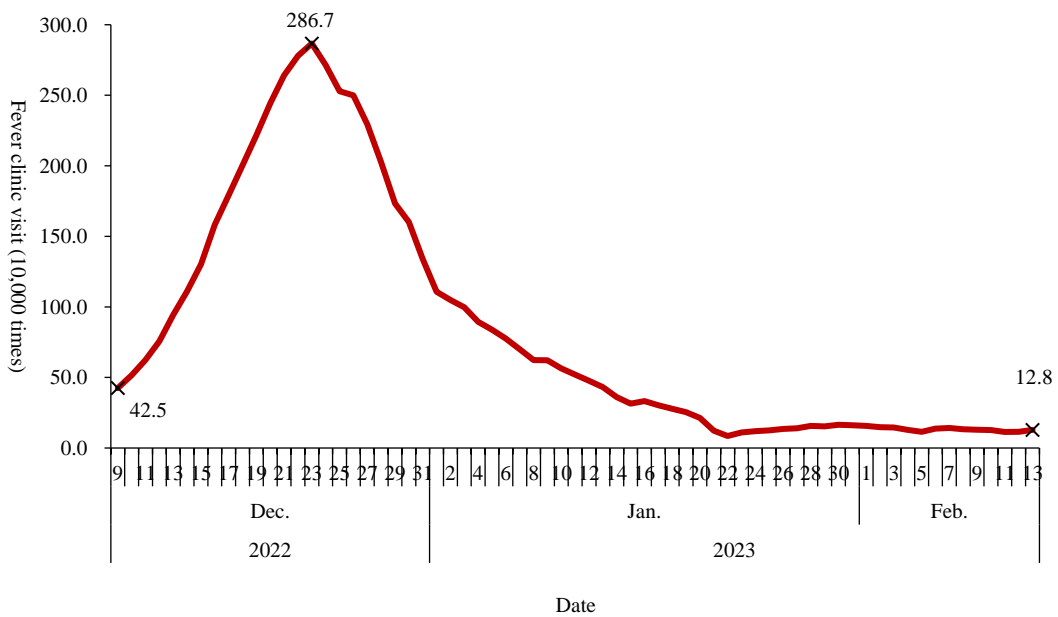


Figure 2-1 Fever clinic visit data.  
(All data were reported by PLADs in Chinese mainland)

## 2.2 Rural Area.

The number of fever clinic visits at township health centers in rural areas peaked at 922,000 on December 23, 2022. Visits then continuously decreased until January 22, 2022 and fluctuated to 50,000 visits on February 13, 2023, representing a decrease of 94.6% from the peak (Figure 2-2).

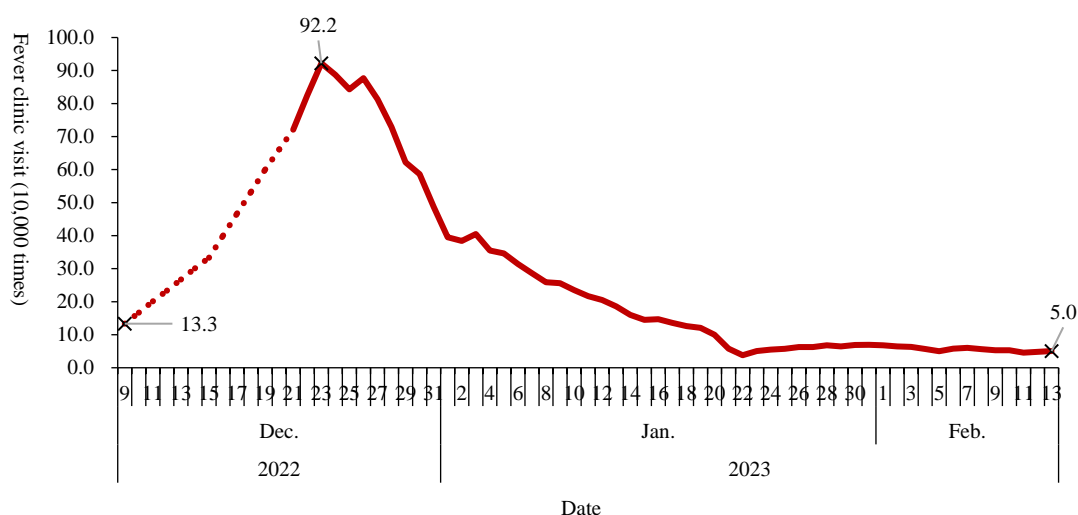


Figure 2-2 Rural fever clinic visit data.

(All data were reported by PLADs in Chinese mainland)

## 2.3 Urban Area.

The number of fever clinic visits to second level and above hospitals and urban community health service centers in urban areas peaked at 1.954 million on December 22, 2022. Visits then continuously decreased until January 22, 2022 and fluctuated to 77,000 visits on February 13, 2023, representing a decrease of 96.0% from the peak (Figure 2-3).

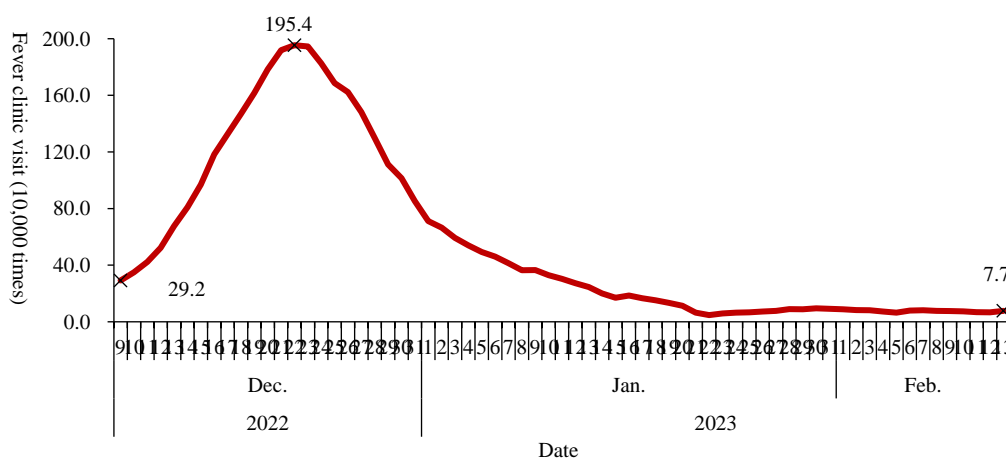


Figure 2-3 Urban fever clinic visit data.

(All data were reported by PLADs in Chinese mainland)

## 2.4 Surveillance Data of Influenza Sentinel Hospitals and Laboratories

Since December 9, 2022, surveillance of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has been conducted by influenza surveillance sentinel hospitals (824 sentinel hospitals reported data, including 546 national-level sentinel hospitals and 278 non-national-level sentinel hospitals) and national influenza surveillance network laboratories (402 laboratories reported data). From September to early December 2022, the weekly number of influenza-like illness (ILI; characterized by fever with temperature  $\geq 38^{\circ}\text{C}$  and accompanied by cough or sore throat) in sentinel hospitals remained around 100,000, and ILI% was between 2.7% and 3.6%. The ILI% began to rapidly increase since Week 50 (8.5%) and reached its peak in Week 51 (12.1%). It started to dramatically decline from Week 52. In Week 6 (February 5–12, 2023), it decreased to 1.4% (Figure 2-4).

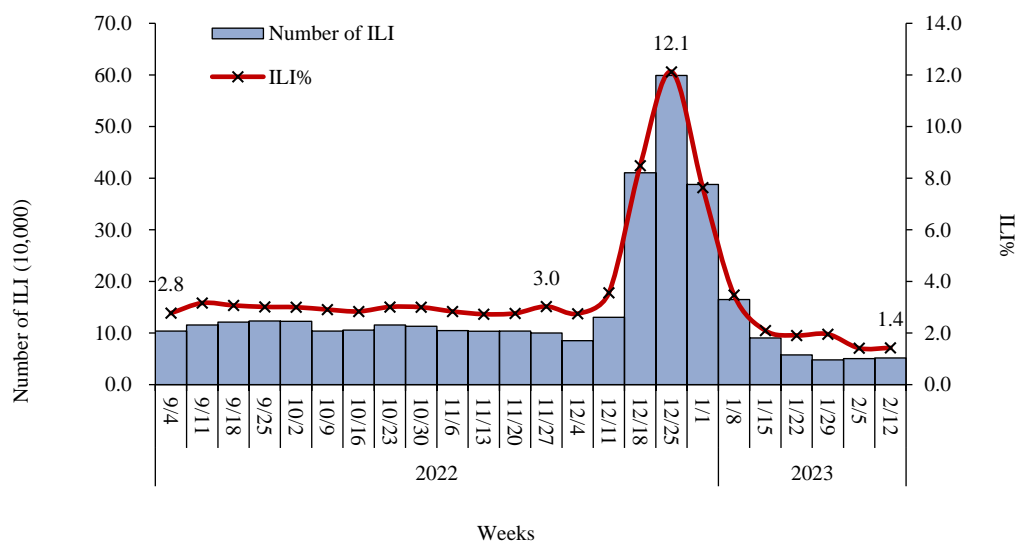


Figure 2-4 ILI and ILI% Reported by sentinel hospitals in Chinese mainland.  
(Reported data were from 824 sentinel hospitals)

Influenza surveillance network laboratories tested both SARS-CoV-2 and influenza viruses in ILI samples simultaneously. In Week 49 (December 9–15, 2022), the positive rate of SARS-CoV-2 began to increase, reaching its peak between Weeks 51 and 52, before continuing to reduce. In Week 6 (February 6–12, 2023), the positive rate of SARS-CoV-2 had reduced to 4.1%. During the same period, the positive rate of influenza virus gradually decreased to a very low level (i.e., less than 1%) in late December 2022. In Week 6 (February 6–12, 2023), it elevated to 3.4% (Figure 2-5).

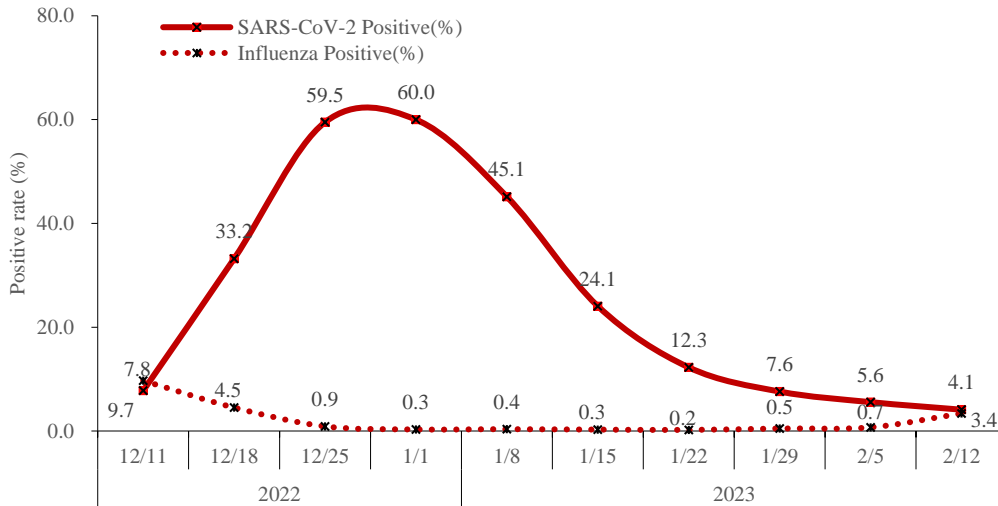


Figure 2-5 The positive rate of SARS-COV-2 and influenza virus in ILI samples from sentinel hospitals in Chinese mainland. (Reported data were from 402 laboratories)

### 3. Hospitalization Data

#### 3.1 No. of COVID-19.

The number of COVID-19 infections in hospitals nationwide peaked at 1.625 million on January 5, 2023. Infections continually decreased to 26,000 on February 13, 2023, representing a decrease of 98.4% from the peak (Figure 3-1)

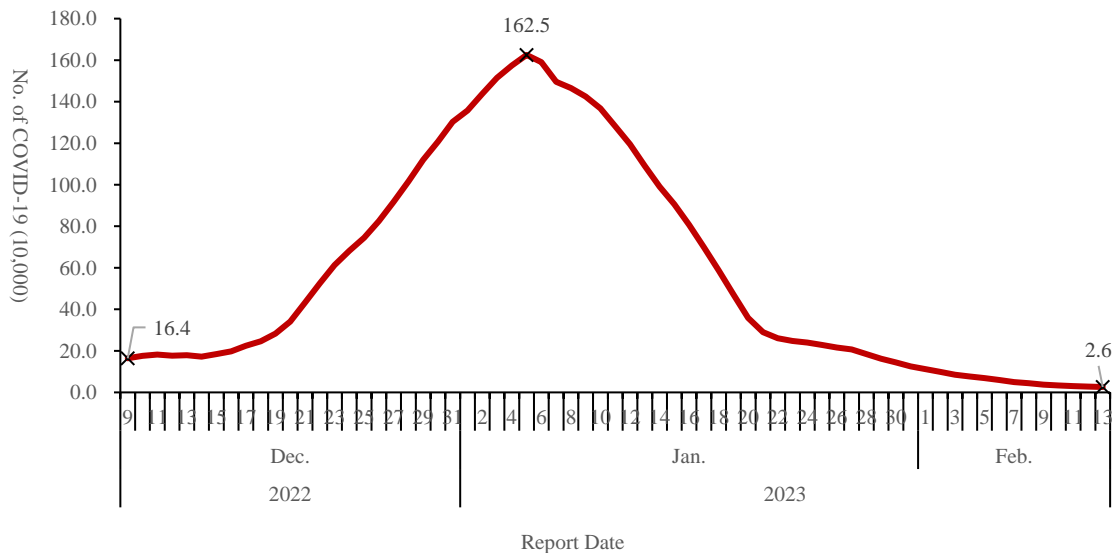


Figure 3-1 The Number of COVID-19 in Hospitals. (All data were reported by provinces in Chinese mainland)

#### 3.2 No. of Severe Cases in Hospitals.

The number of severe cases in hospitals increased by nearly 10,000 per day between

December 27, 2022 and January 3, 2023. Cases peaked at 128,000 on January 5, 2023 and then continually decreased to 97 on February 13, 2023, representing a decrease of 99.9% from the peak (Figure 3-2).

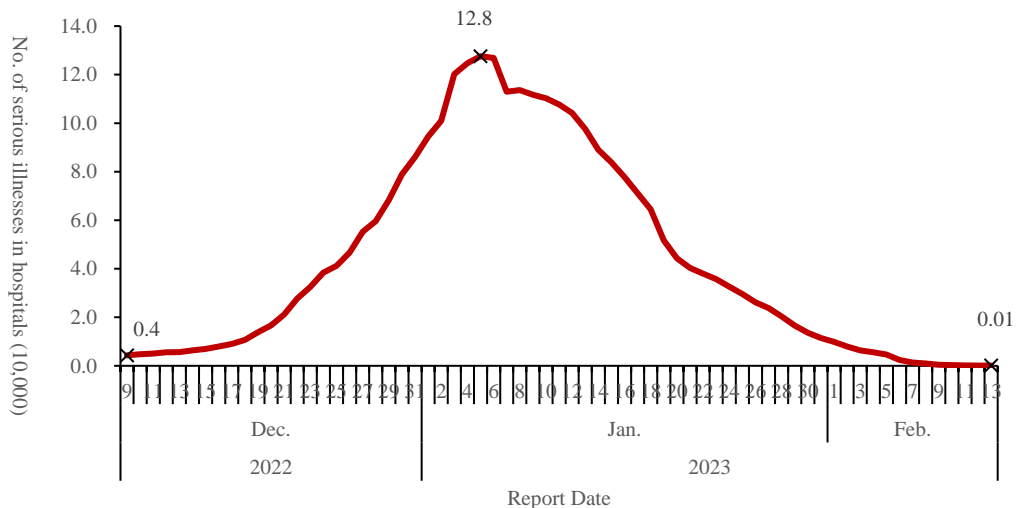


Figure 3-2 No. of severe cases in hospitals.  
(All data were reported by provinces in Chinese mainland)

### 3.3 No. of Deaths with SARS-CoV-2 in Hospitals.

The number of deaths with SARS-CoV-2 in hospitals reached a daily peak of 4,273 on January 4, 2023. Deaths continued to decline thereafter, falling back to 9 on February 13, 2023 and representing a decrease of 99.8% reduction from the peak (Figure 3-3).

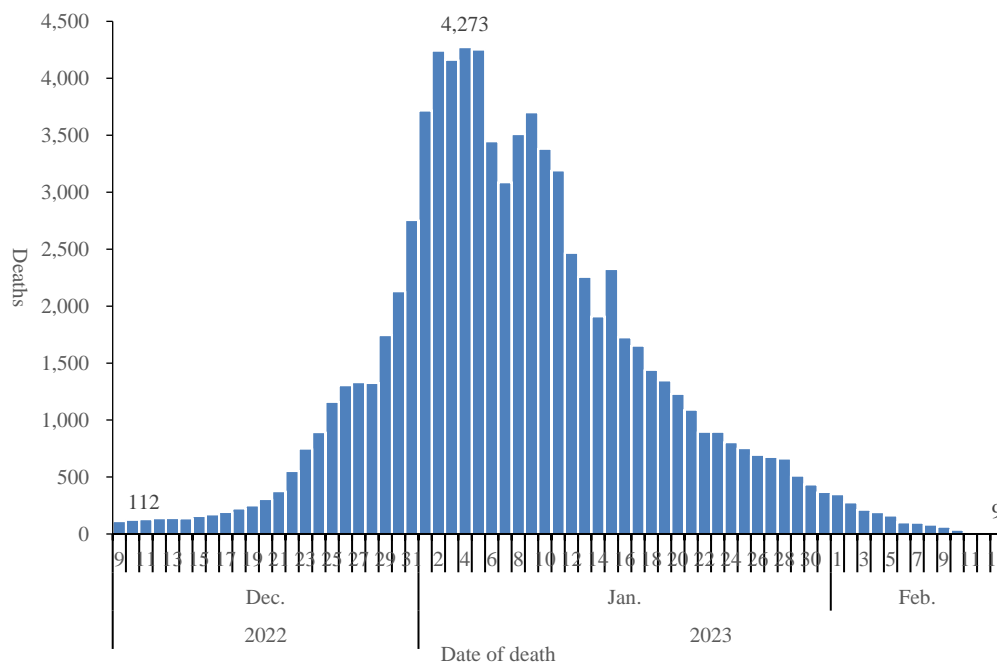


Figure 3-3 No. of deaths with SARS-CoV-2 in hospitals.  
(All data were reported by provinces in Chinese mainland)

#### 4. SARS-CoV-2 Variants Surveillance of Domestic Cases in Chinese mainland

##### 4.1. The Dynamic Trend of SARS-CoV-2 Variants from Domestic Cases in Chinese mainland

From September 26, 2022 to February 13, 2023, 25,284 valid SARS-CoV-2 genome sequences from domestic cases were reported nationwide. Seventy-eight Omicron lineages were identified with the predominant lineages being BA.5.2.48 (53.4%), BF.7.14 (24.8%) and BA.5.2.49 (14.0%). Twenty lineages had a proportion of 0.1% to 2.4%, including BA.5.2, etc. The other fifty-five lineages were minority with a proportion below 0.1% and accounting for 0.7% (Figure 4-1).

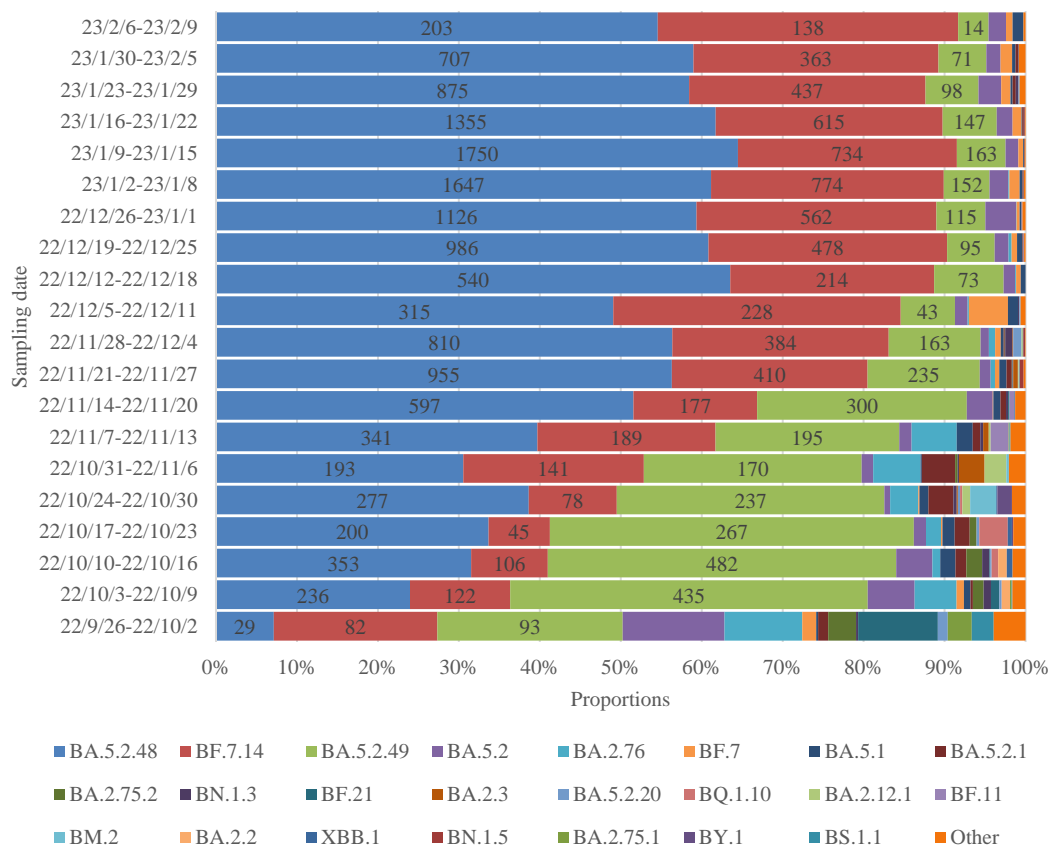


Figure 4-1 Dynamic trend of SARS-CoV-2 lineages from domestic cases in Chinese mainland by week.

Note: 1) Sampling date interval: September 26, 2022 to February 9, 2023; 2) The numbers marked in the Figure are the number of valid genome sequences of BA.5.2.48, BF.7.14 and BA.5.2.49 lineages, respectively; 3) “Other” refers to lineages with proportions of Omicron variants less than 0.1% nationwide.

#### 4.2. Genomic Surveillance of SARS-CoV-2 Variants among Domestic Cases

From December 1, 2022 to February 13, 2023, 16,583 valid SARS-CoV-2 genome sequences from domestic cases were reported nationwide; all of which were Omicron variants with a total of thirty-three lineages. The predominant lineages are BA.5.2.48 (60.5%) and BF.7.14 (28.9%) (Table 4-1). A total of fourteen domestic cases of variants of concern were found, including one case of XBB.1, one case of XBB.1.5, five cases of BQ.1.1, one case of BQ.1.1.17, four cases of BQ.1.2, and two cases of BQ.1.8.

Table 4-1 National proportions of SARS-CoV-2 variants.

(December 1, 2022 to February 13, 2023)

Omicron Lineages	Proportions (%)
BA.5.2.48	60.5
BF.7.14	28.9
BA.5.2.49	6.4
BA.5.2	2.1
BF.7	1.0
BA.5.1	0.4
BA.2.76	0.1
BA.5.2.20	0.1
BA.5.2.1	0.1
BN.1.3	0.1
Other	0.3
Total	100.0

#### 4.3. Genomic Surveillance of SARS-CoV-2 Variants among Domestic Cases in Each PLAD

Overall, BF.7 and its descendant lineages were predominant in Beijing, Tianjin, and Inner Mongolia. The proportions of BF.7 and its descendant lineages and BA.5.2 and its descendant lineages were approximately equal in Jiangsu. BA.5.2 and its descendant lineages were predominant in other PLADs (Figure 4-2).



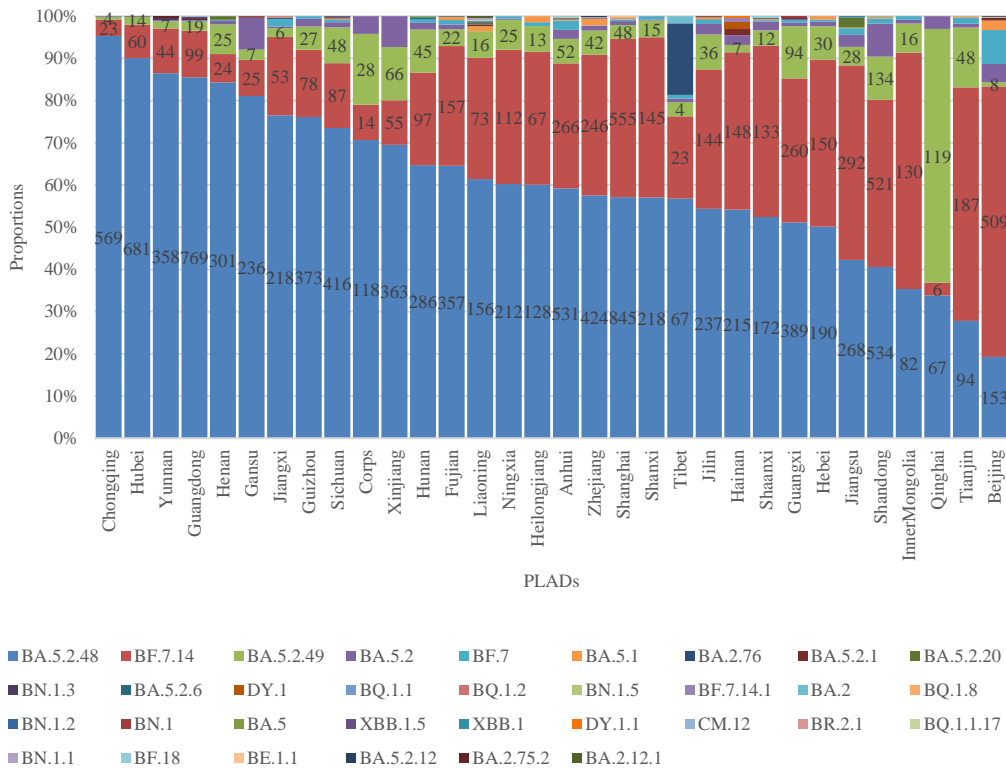


Figure 4-2 SARS-CoV-2 variants surveillance by PLADs.

Note: 1) Sampling date interval: December 1, 2022 to February 9, 2023; 2) The numbers marked in the Figure represent the number of valid genome sequences of BA.5.2.48, BF.7.14 and BA.5.2.49 lineages, respectively.

### 5. COVID-19 Vaccination Progress

The nationwide COVID-19 vaccination campaign was launched on December 15, 2020 and accelerated at the beginning of 2021. At the campaign’s peak, 100 million doses were administered in a five-day period with a maximum of 24.74 million doses administered in one day. China continues to advance COVID-19 vaccination; as of February 13, 2023, 3.49 billion doses of COVID-19 vaccine have been administered (Figure 5-1). By February 13, 2023, 93.0% of the entire, all-ages population initiated vaccination and 90.6% completed their primary series based on the whole population size reported in the seventh census of Chinese mainland (Figure 5-2).

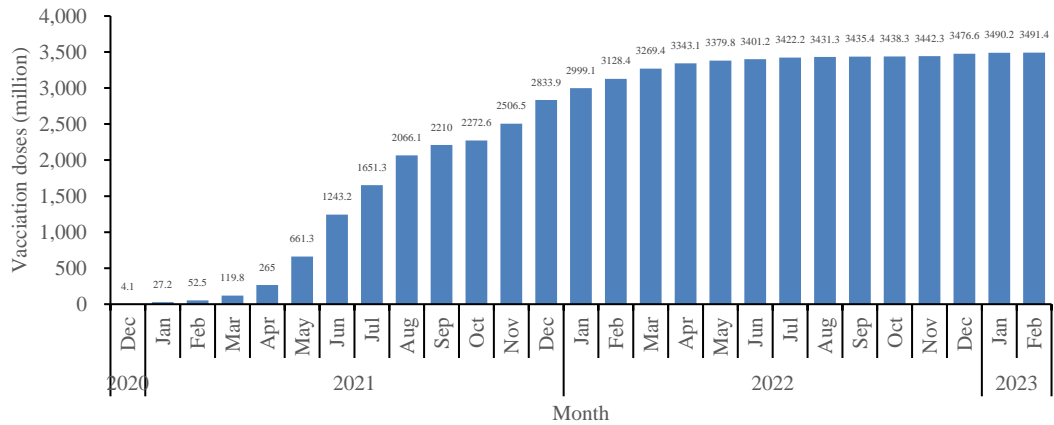


Figure 5-1 Cumulative COVID-19 vaccine doses administered in china by month.  
(All data were reported by provinces in Chinese mainland)

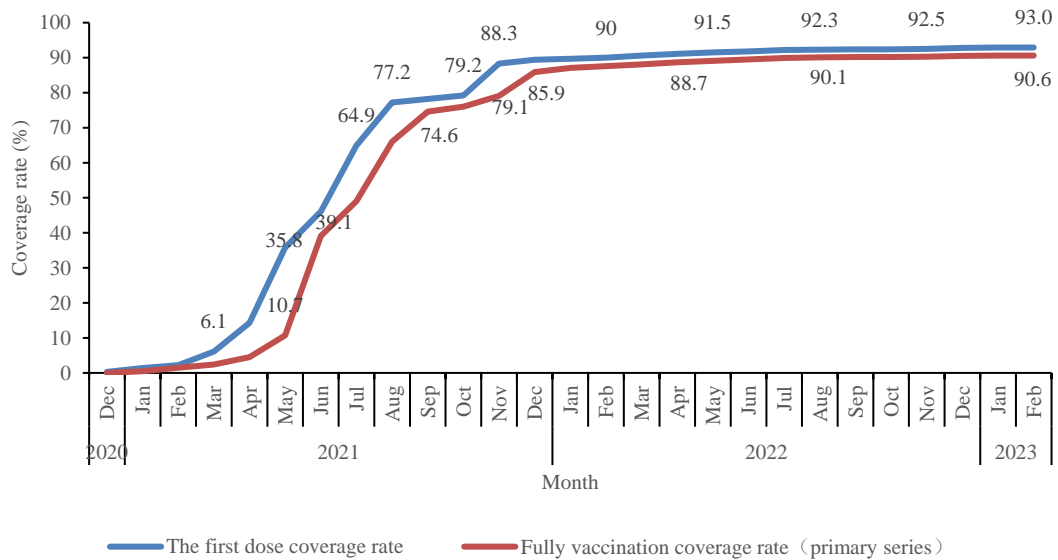


Figure 5-2 First-dose and primary series COVID-19 vaccine coverage of the entire population of Chinese mainland by Month.  
(All data were reported by PLADs in Chinese mainland)

Based on an investigation on vaccination among the elder population in early December 2022, vaccination rate of people over 60 years old reached 96.1%. In these elderly populations, 96.6% completed their full primary series, and 92.3% of minimum-interval-eligible elderly individuals received their first booster dose (Figure 5-3).

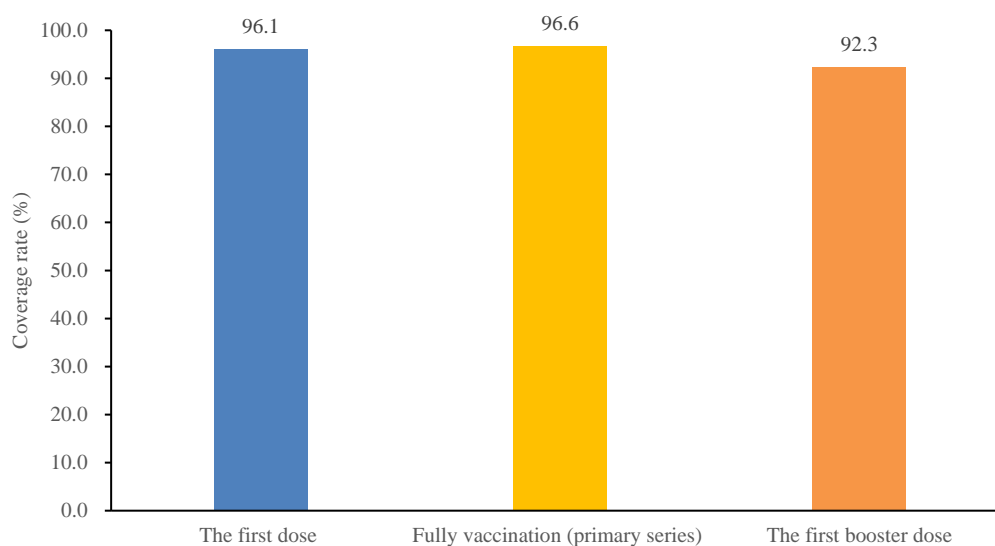


Figure 5-3 COVID-19 vaccine coverage of individuals 60 years and older: first-dose coverage, primary series coverage among interval-eligible individuals, and booster dose coverage among booster-dose-eligible individuals (based on reported population by each province).

Note: For calculating first dose coverage, the numerator was the number of people who received at least one dose of a COVID-19 vaccine approved at the time, and the denominator was the size of the registered population of elderly people (aged 60 or older) in a recent investigation targeting the elderly population.

For calculating full, primary series coverage, the numerator was the number of elderly people who received two doses of inactivated vaccine, one dose of adenovirus vectored vaccine, or three doses of recombinant protein vaccine. The denominator was the number of people who had received one dose of inactivated vaccine, one dose of adenovirus vectored vaccine, or two doses of recombinant protein vaccine with the recommended interval of 28 days (4 weeks).

For calculating first booster dose coverage, the numerator was the number of elderly people who received their first booster dose, and the denominator was the number of people who received full primary series with either two doses of inactivated vaccine or one dose of adenovirus vectored vaccine, with a three-month interval between primary series completion and booster dose administration. Individuals who received three doses of recombinant protein vaccine were not included in the denominator due to the short time between approval of that vaccine and the booster vaccination effort.

**Acknowledgement:**

Department of Medical Administration, National Health Commission of the People’s Republic of China, Department of Medical Emergency Response, National Health Commission of the People’s Republic of China, Surveillance and Alert Department, National Bureau of Disease Control and Prevention, Health and Immunization Programme Department, National Bureau of Disease Control and Prevention, Provincial Health Commission, Provincial Center for Disease Prevention and Control, Healthcare Institutes, School of Public Health, Tsinghua University, School of Public Health, Peking University.