COVID-19 Clinical and Surveillance Data— December 9, 2022 to March 2, 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 of positive nucleic acid tests steadily decreased, reaching a low of 11,339 on March 2, with a rate of 1.3% (Figure 1-1).

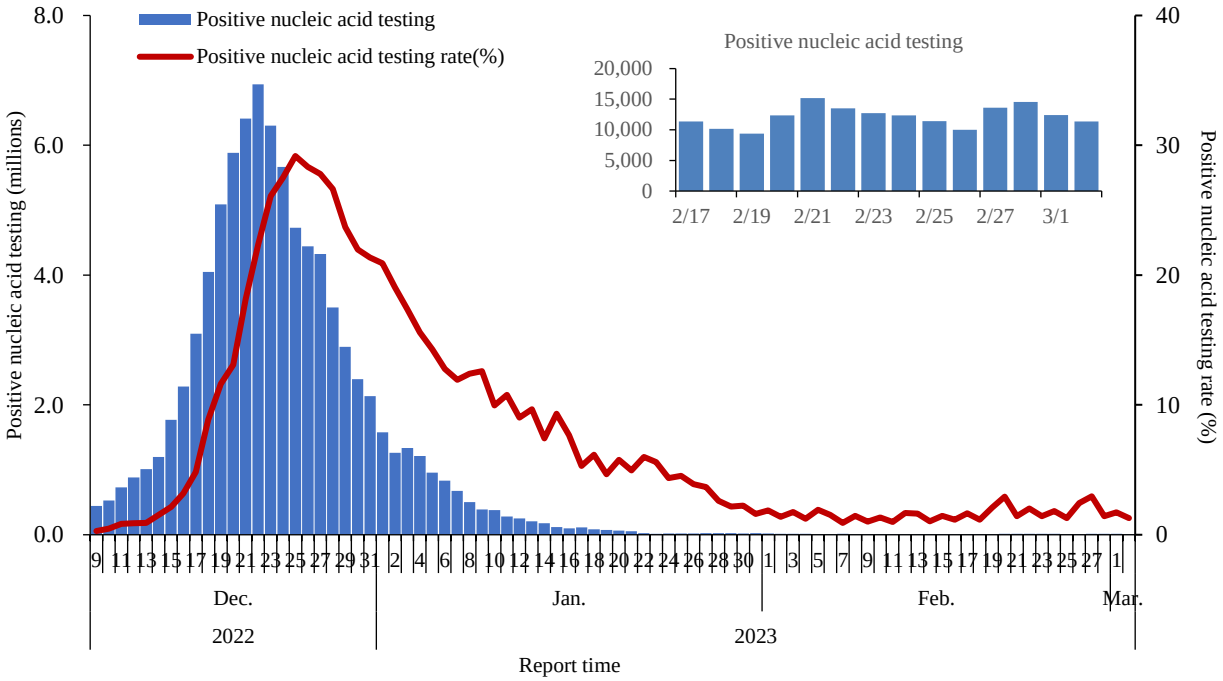

Figure 1-1 Daily Number of Positive Nucleic Acid Testing and Rate
(Data reported by PLADs in Chinese mainland)

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 66,000 on March 2, 2023. The number of positive antigen tests and the positive rate increased rapidly after December 9, peaking on December 22, 2022 (337,000, 21.3%) before fluctuating to 320 and 0.5%, respectively, by March 2, 2023 (Figure 1-2).

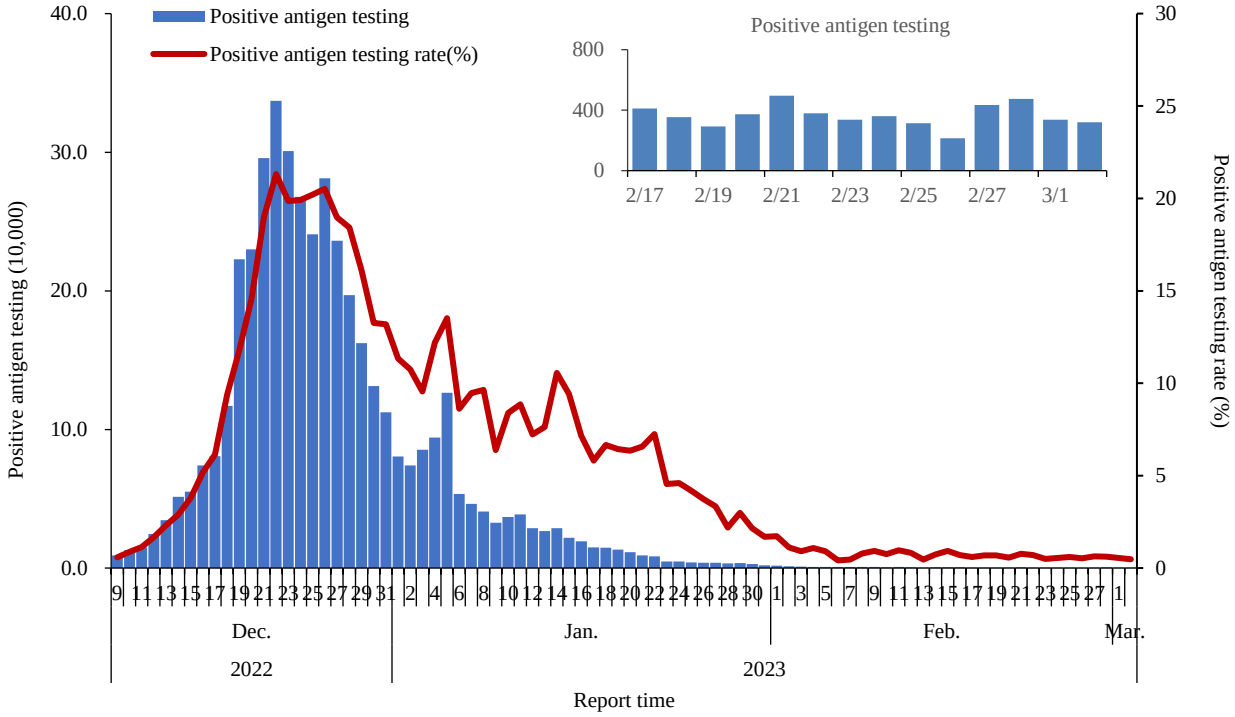

Figure 1-2 COVID-19 Antigen Test and Positive Rate
(All data were reported by PLADs in Chinese mainland)

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 continuously decreased until January 23, 2023 then fluctuated low and increased in the last week (February 24 to March 2) to 304,000 visits on March 2, 2023, representing a decrease of 89.4% from the peak (Figure 2-1).

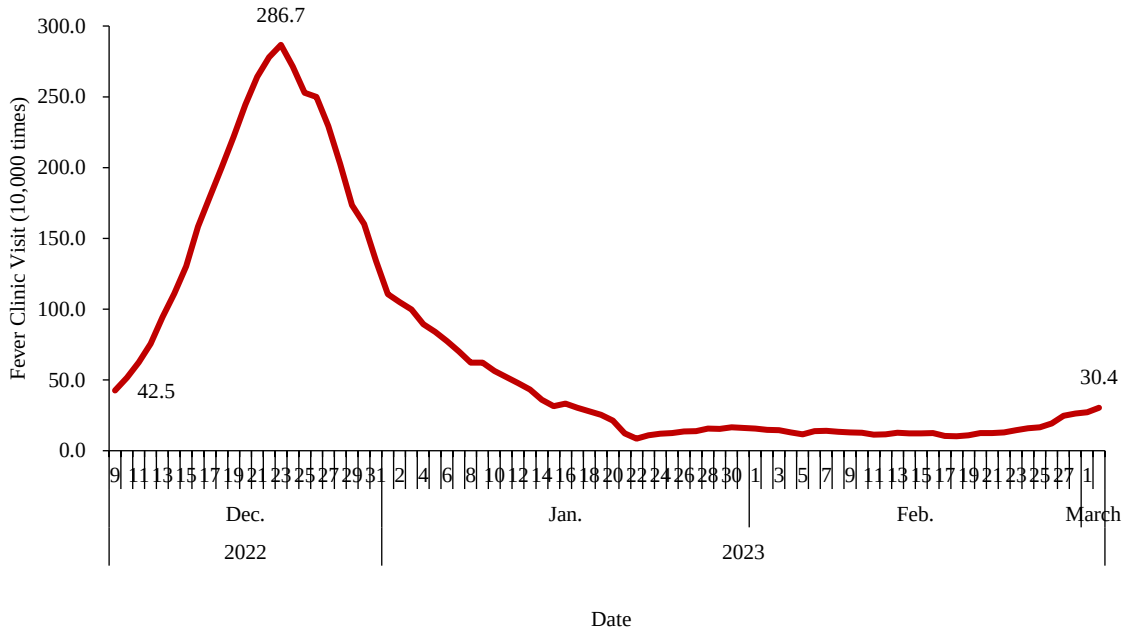

Figure 2-1 Fever Clinic Visit Data

(All data were reported by PLADs in Chinese mainland)

2.2 Rural Areas.

The number of fever clinic visits at township health centers in rural area peaked at 922,000 on December 23, 2022. Visits then continuously decreased till January 22, 2022 and fluctuated to 51,000 visits on March 2, 2023, representing a decrease of 94.5% from the peak (Figure 2-2).

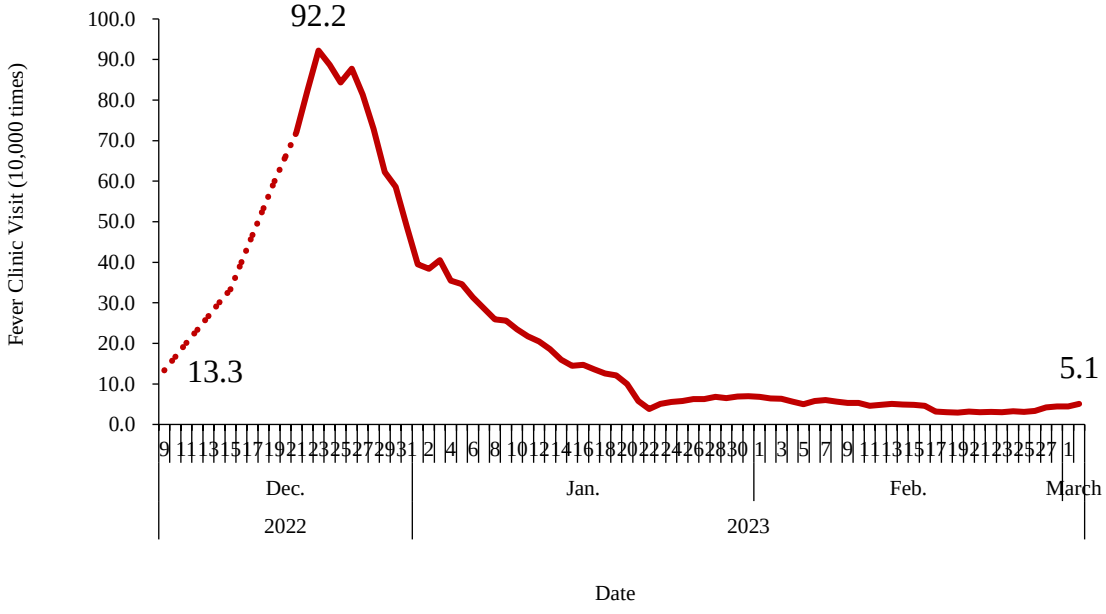

Figure 2-2 Rural Fever Clinic Visit Data

(All data were reported by PLADs in Chinese mainland)

2.3 Urban Areas.

The number of fever clinic visits to the second level and above hospitals and urban community health service centers in urban areas peaked at 1.954 million on December 22, 2022. Visits continuously decreased until January 22, 2022 and then fluctuated low and increased in the last week (February 24 to March 2) to 253,000 visits on March 2, 2023, representing a decrease of 87.1% from the peak (Figure 2-3).

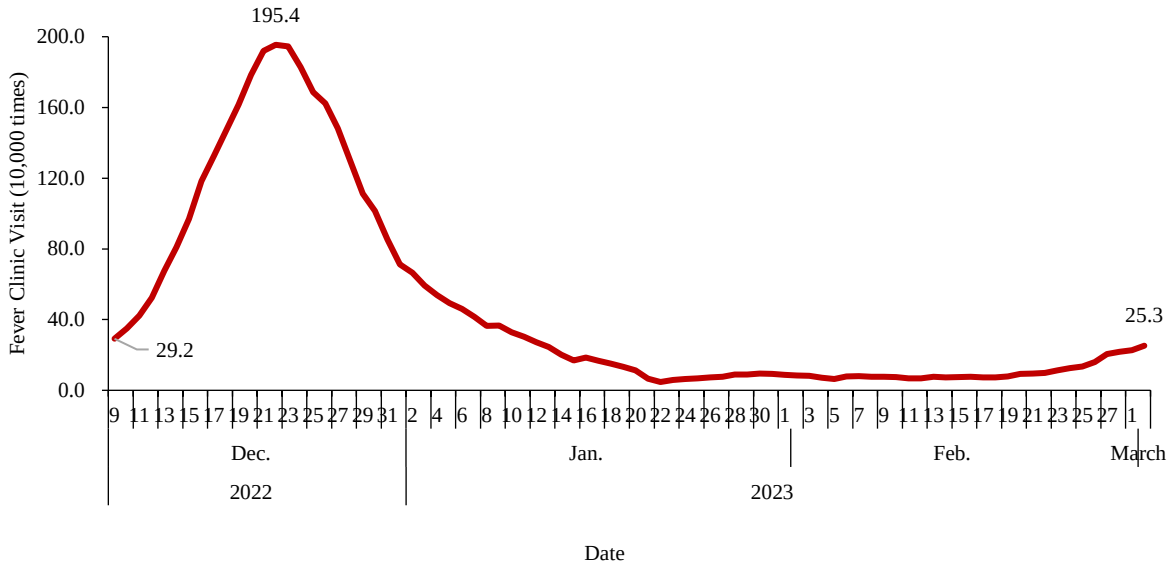

Figure 2-3 Urban Fever Clinic Visit Data

(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 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, fever with temperature ≥38℃, 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 increase rapidly from Week 50 (8.5%) and reached its peak in Week 51 (12.1%). It then started to decline dramatically from Week 52. In Week 8 (February 20-26, 2023), ILI% was 3.8% (Figure 2-4).

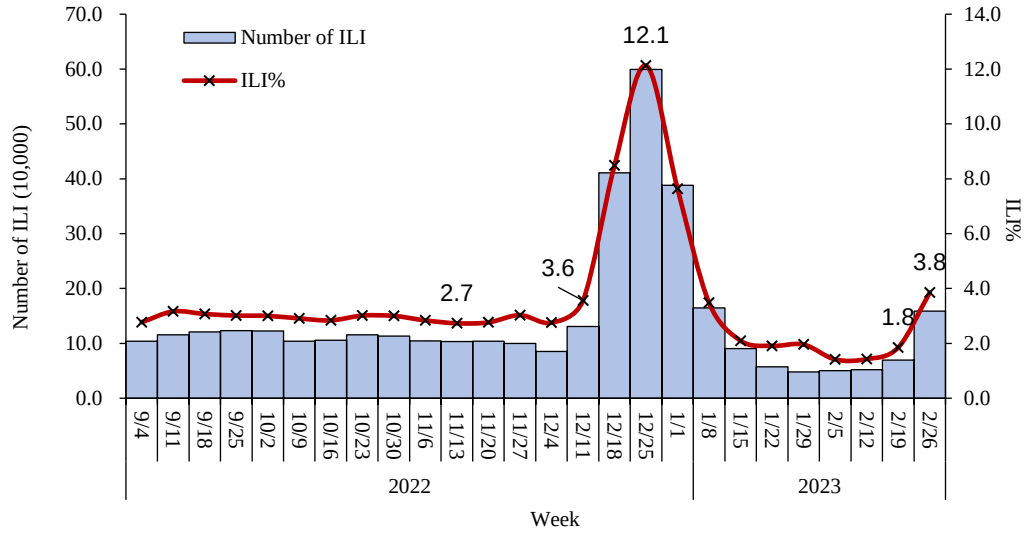

Figure 2-4 ILI and ILI% Reported by Sentinel Hospitals in Chinese mainland
(Reported data were from 824 sentinel hospitals)

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 and reached its peak between Weeks 51 and 52, then continued to reduce, remained under 5% in mid-February. In Week 8 (February 20-26, 2023), the positive rate of SARS-CoV-2 slightly increased to 5.1%. During the same period, the positive rate of influenza virus gradually decreased to a low level in late December 2022, remaining less than 1% until early February, then began to elevate. In Week 8 (February 20-26, 2023), it reached 25.1% (Figure 2-5).

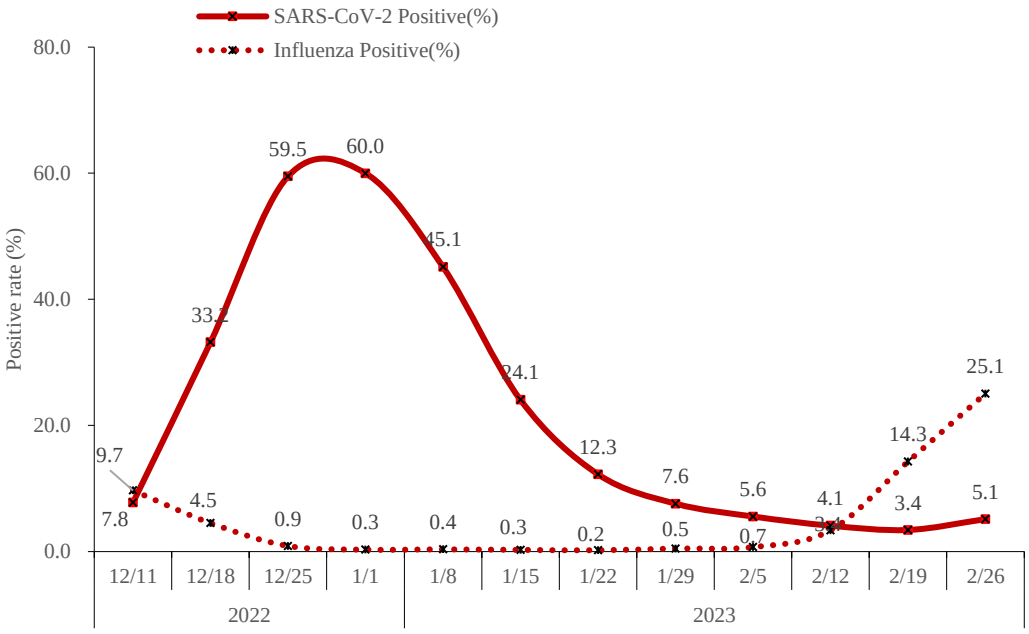

Figure 2-5 The Positive Rate of SARS-CoV-2 and Influenza Virus in ILI Samples from Sentinel Hospitals in Chinese mainland
(Reported data were from 402 laboratories)

3. Hospitalization Data

3.1 No. of COVID-19

The number of COVID-19 in hospitals nationwide peaked at 1.625 million on January 5, 2023. Infections continually decreased to 11,000 on March 2, 2023, representing a decrease of 99.3% from the peak (Figure 3-1).

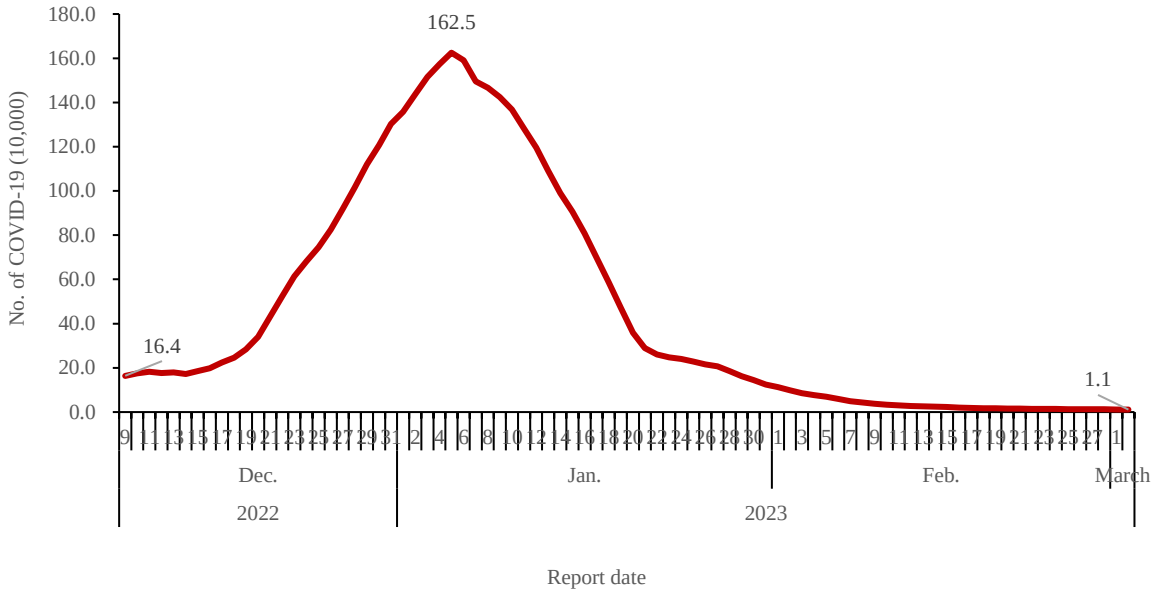

Figure 3-1 The Number of COVID-19 in Hospitals
(All data were reported by provinces in Chinese mainland)

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 8 (0 severe cases of SARS-CoV-2, and 8 cases with comorbidities and SARS-CoV-2) on March 2, 2023, representing a decrease of 99.9% from the peak (Figure 3-2).

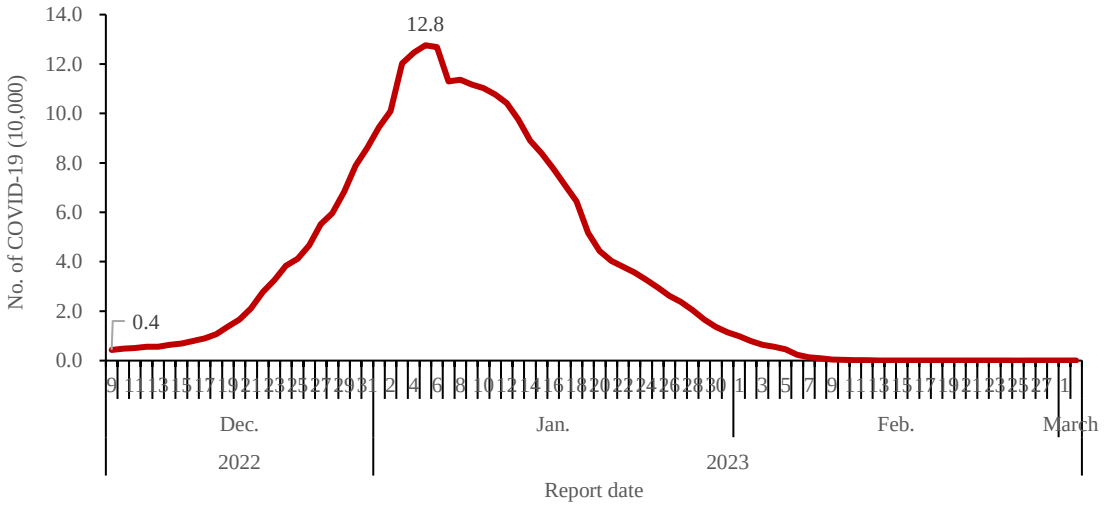

Figure 3-2 No. of severe cases in hospitals
(All data were reported by provinces in Chinese mainland)

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

The number of death cases in hospitals increased and peaked at 4,273 on January 4, 2023, and then continually decreased to 0 on March 2, 2023. From February 24 to March 2, 0 deaths associated with SARS-CoV-2 were reported by medical institutions, including 0 deaths of respiratory failure caused by SARS-CoV-2, and 0 deaths of underlying comorbidities with SARS-CoV-2 infection.

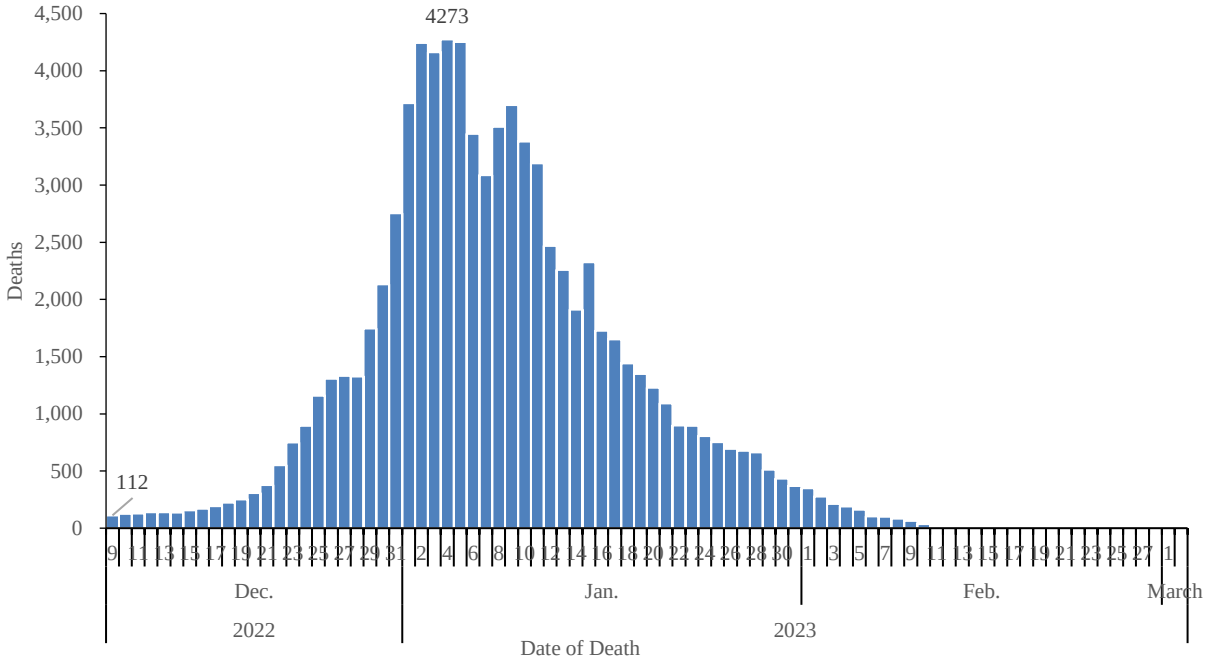

Figure 3-3 No. of Deaths with SARS-CoV-2 in Hospitals
(All data were reported by provinces in Chinese mainland)

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 March 2, 2023, 29,248 valid SARS-CoV-2 genome sequences from domestic cases were reported nationwide. Of these, 88 Omicron lineages were identified with the predominant lineages being BA.5.2.48 (54.0%), BF.7.14 (25.6%) and BA.5.2.49 (12.8%). A total of 19 lineages had a proportion of 0.1% to 2.4%, including BA.5.2, etc. The other 66 lineages were minority with the proportion below 0.1%, accounting for 0.8% (Figure 4-1).

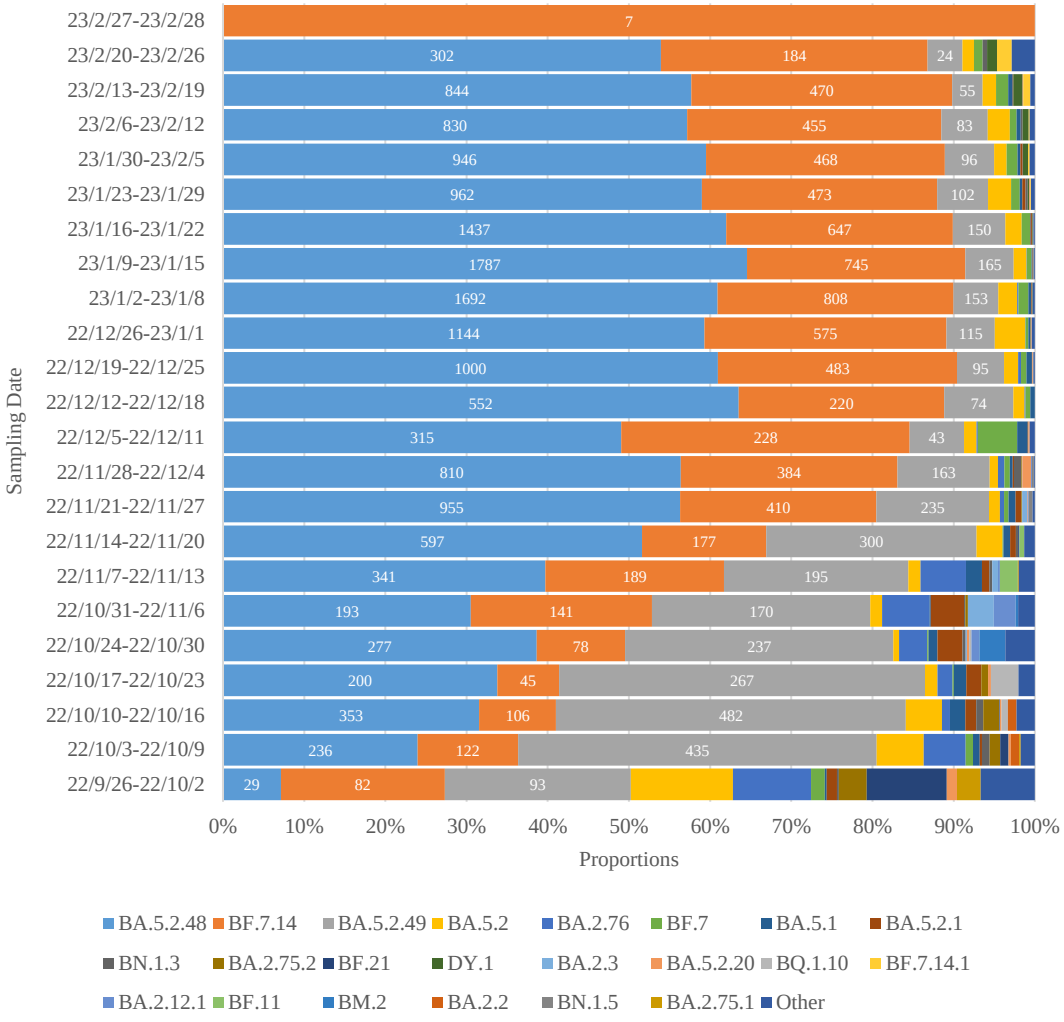

Figure 4-1 Dynamic Trend of SARS-CoV-2 Lineages from Domestic Cases in Chinese Mainland by Week

Note: 1) Sampling date interval: September 26, 2022 to February 28, 2023; 2) The numbers marked in the figure were the number of valid genome sequences of BA.5.2.48, BF.7.14 and BA.5.2.49 lineages respectively; 3) "Other" referred to the lineages with the 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 March 2, 2023, 20,551 valid SARS-CoV-2 genome sequences from domestic cases were reported nationwide, all of which were Omicron variants with a total of 44 lineages. The predominant lineages are BA.5.2.48 (60.0%) and BF.7.14 (29.2%) (Table 4-1). A total of 30 domestic cases of variants of concern were found, including 1 case of XBB.1, 11 cases of XBB.1.5, 1 case of XBB.1.9, 4 cases of BQ.1, 5 cases of BQ.1.1, 1 case of BQ.1.1.17, 4 cases of BQ.1.2, and 2 cases of BQ.1.8.

Table 4-1 National Proportions of SARS-CoV-2 Variants

(December 1, 2022 to March 2, 2023)

Omicron Lineages	Proportions (%)
BA.5.2.48	60.0
BF.7.14	29.2
BA.5.2.49	6.1
BA.5.2	2.1
BF.7	1.0
BA.5.1	0.4
DY.1	0.2
BA.2.76	0.1
BA.5.2.1	0.1
BA.5.2.20	0.1
BN.1.3	0.1
XBB.1.5	0.1
Other	0.4
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, Inner Mongolia, and Tianjin. BA.5.2 and its descendant lineages were predominant in other PLADs (Figure 4-2).

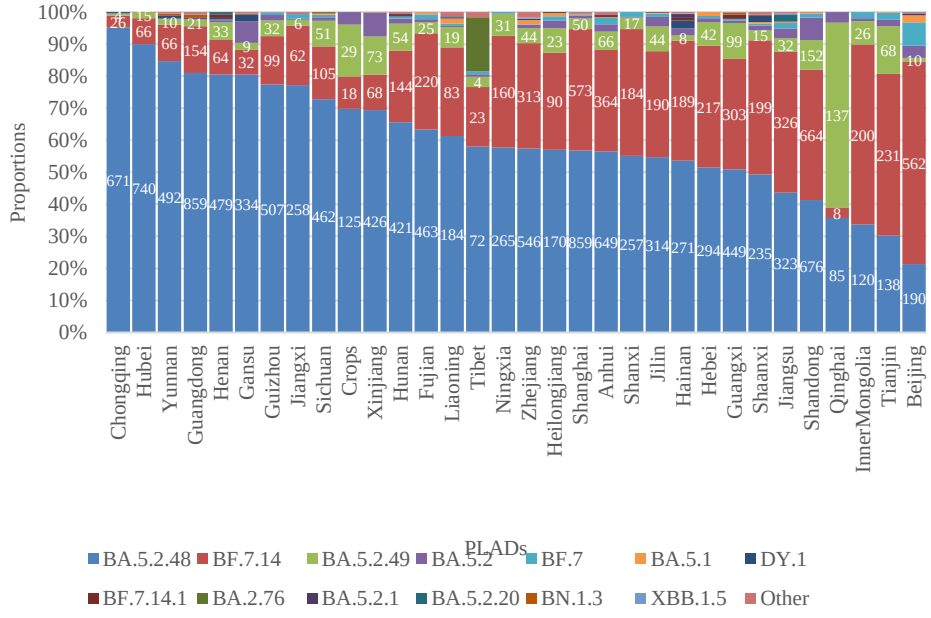

Figure 4-2 SARS-CoV-2 Variants Surveillance by PLADs

Notes: 1) Sampling date interval: December 1, 2022 to February 28, 2023; 2) The numbers marked in the figure represented the number of valid genome sequences of BA.5.2.48, BF.7.14, and BA.5.2.49 lineages respectively; 3) "Other" referred to the lineages with the proportions of Omicron variants less than 0.1% nationwide.

5. COVID-19 Vaccination Progress

As of March 2, 2023, 3.49 billion doses of COVID-19 vaccine have been administered in China's mainland (Figure 5-1). Since the start of the vaccination campaign, 1.31 billion people received at least one dose, 1.28 billion people completed a primary series, and 827.41million people received their first booster dose (booster doses are recommended only for adults 18 years and older). Therefore, based on the population size in the Seventh Census of Mainland China, 93.0% of the entire, all-ages population initiated vaccination, and 90.6% completed their primary series (Figure 5-2). Among the 60-years and older population, 680.01 million doses of COVID-19 vaccine have been administered, 241.69 million people received at least one dose, 230.33 million completed primary series, and 192.89 million received their first booster dose.

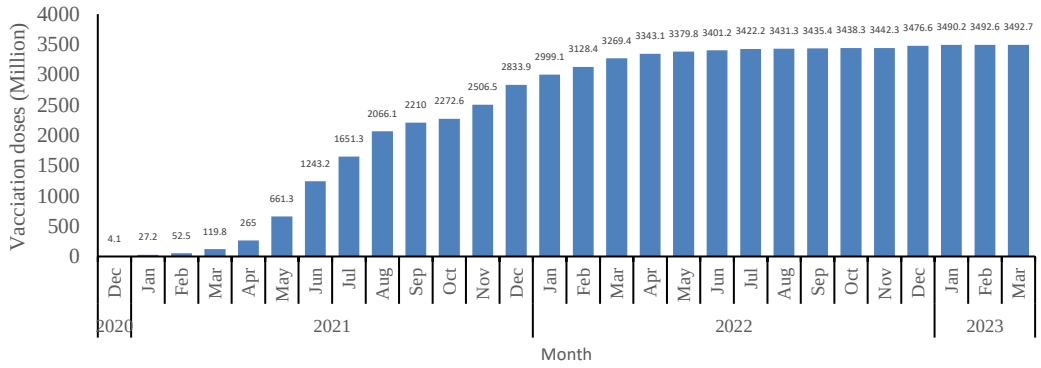

Figure 5-1 Cumulative COVID-19 Vaccine Doses Administered in China by Month.
(All data were reported by provinces in Chinese mainland)

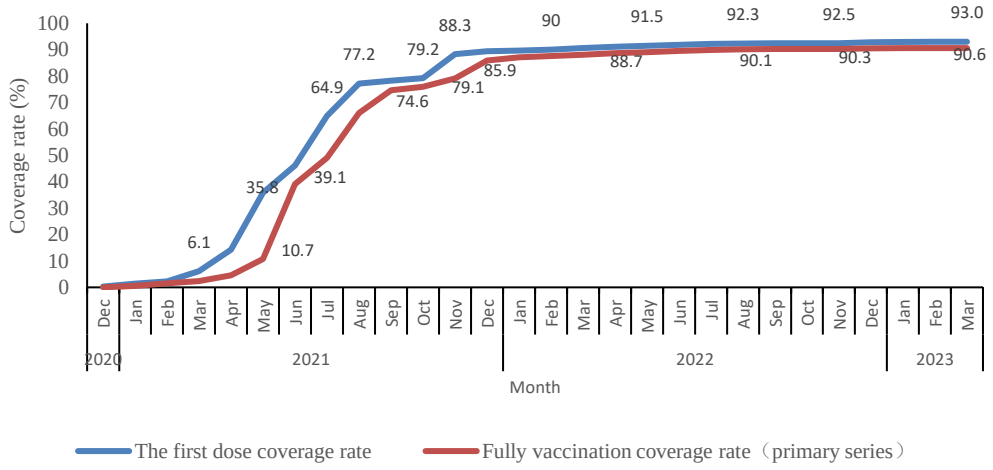

Figure 5-2 First-dose and primary series COVID-19 vaccine coverage of the entire population of Chinese mainland, by Month.
(All data were reported by PLADs in Chinese mainland)

Based on an investigation on vaccination among 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 92.4% of minimum-interval-eligible elderly individuals received their first booster dose (Figure 5-3).

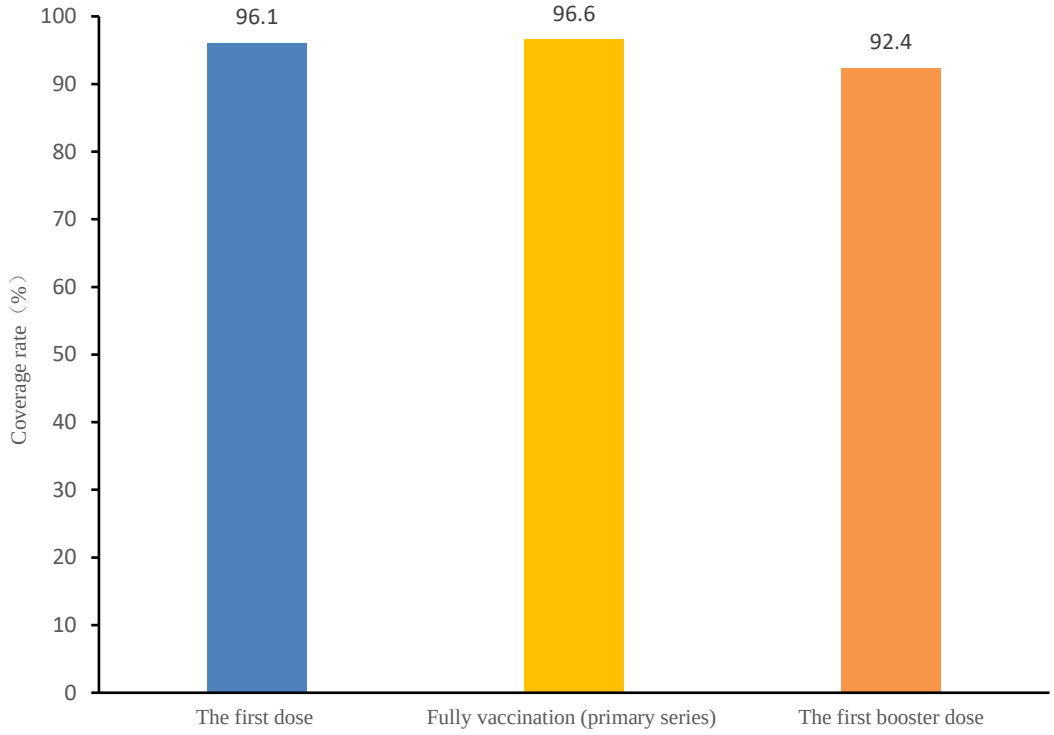

Figure 5-3 COVID-19 Vaccine Coverage of Individuals 60 Years and Older: First-Dose Coverage, Primary Series Coverage Among Interval-eligible Individuals, and Booster Dose Coverage Among Booster-Dose-Eligible Individuals (based on reported population by each province).

Notes: For calculating first dose coverage, the numerator was the number of people who had 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.

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