中文版

COVID-19 Clinical and Surveillance Data — December 9, 2022 to January 23, 2023, China

Chinese Center for Disease Control and Prevention

Since the occurrence of COVID-19, the China government has adhered to the strategy of “people first, life first”, adhered to the combination of strategic stability and measure flexibility, and constantly optimized and adjusted the prevention and control measures for protecting the lives and health of the people to the greatest extent. Since January 8, 2023, based on the evaluation of the virus mutation, prevention, and control situation, according to the Infectious Diseases Prevention and Control Law, COVID-19 disease has been under Category B management in China.

In order to prepare for the new stage of prevention and control of the infection of SARS-CoV-2 virus under Category B management, China’s National Health Commission (NHC) and the National Bureau of Disease Control and Prevention (NBDCP) have urgently established multiple new surveillance systems for specific purposes. Firstly, surveillance of infection including the community-based monitoring of nucleic acid and antigen testing, and sentinel community surveillance of nucleic acid and antigen testing. Secondly, for surveilling clinic visits and hospitalizations, including daily visits in all fever clinics (consulting rooms), mild to severe infections, and fatalities from the virus in all hospitals, and outpatient clinics (emergency) surveillance in sentinel hospitals. Thirdly, for surveilling the virus mutations in the SARS-CoV-2 virus, sentinel hospitals were selected to collect samples from patients for testing and genetic sequencing analysis. In addition, the vaccination surveillance system has been continued in China.

The newly abovementioned surveillance systems were unified and deployed, the data was and collected and reported by all provincial-level administrative divisions (PLADs) to be integrated at the national level. This data was/is mainly used to evaluate the overall trend situation of the epidemic, and the clinical and epidemiological characteristics of the disease need to be further investigated and analyzed, which is ongoing.

Based on the results from multiple surveillance systems, the recent wave of COVID-19 in China has already peaked in late December 2022 and declined continually. A similar trend in each PLADs, urban and rural areas was observed. The number of outpatients, inpatients, severe hospitalizations, and hospital deaths have declined consistently. The virus spread decreased to a lower level in late January 2023, and the pressure on the medical system was further relieved. During the Spring Festival, the spread of the SARS-CoV-2 virus did not rebound significantly. The recent wave of the epidemic of COVID-19 in China has ended, and no new mutant strains of SARS-CoV-2 have been identified.

The analysis of the surveillance data of COVID-19 infections in Chinese mainland from Dec. 2022 to Jan. 2023. Unless otherwise specified, all data was reported by PLADs in Chinese mainland.

COVID-19 Infection Surveillance Data

1.1 COVID-19 Nucleic Acid Test Data

Since December 8, 2022, the screening strategy of infection with SARS-CoV-2 virus in Chinese mainland has been changed from all population-based to those who request to be tested and the groups at risk. The results of nucleic acid testing are still readily available from the information platform developed previously.

However, the number of nucleic acid tests have declined steadily due to personal willingness of testing decreased. The number of tests have decreased from a peak of 150 million tests on December 9, 2022, to 7.54 million on January 1, 2023, and to the minimum of 280,000 tests performed on January 23, 2023.

Since December 9, 2022, the number of positive nucleic acid tests and the positive rate reported from PLADs had increased gradually, with the highest number of positive tests (6.94 million) on 22 December and the highest positive testing rate (29.2%) on December 25, 2022. After this peak, the number and rate of positive nucleic acid tests has decreased steadily with the lowest number of 15,000 and the rate of 5.5% on January 23, 2023.

The peak time is inconsistent across the PLADs, but all PLADs showed highest positive testing rates before December 28, 2022. The epidemic peak of positive COVID-19 infections in Beijing and Tianjin was December 14 and 19, 2022 respectively, and 15 PLADs including Sichuan, Chongqing, and Hubei peaked between December 21 and 24, 2022, and 15 PLADs (Hunan, Zhejiang and Guangxi, etc.) peaked between December 26 and 28, 2022. After this peak, the positive rate in all PLADs has decreased steadily with varied speeds, and the positive nucleic acid test rates dropped to less than 10% in more than 70% of the PLADs on January 23, 2023. (Figure 1-1, Figure 1-2).

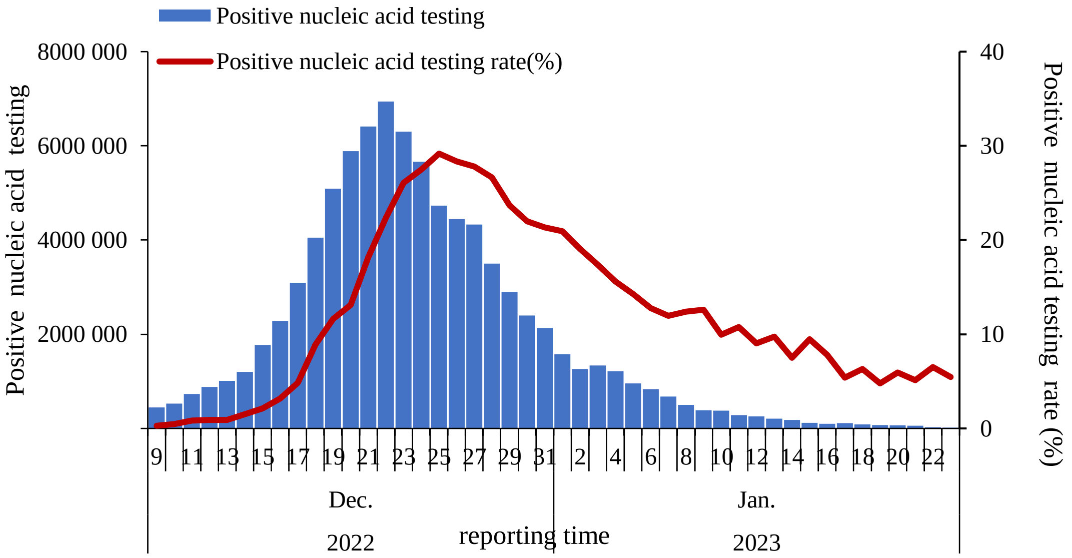
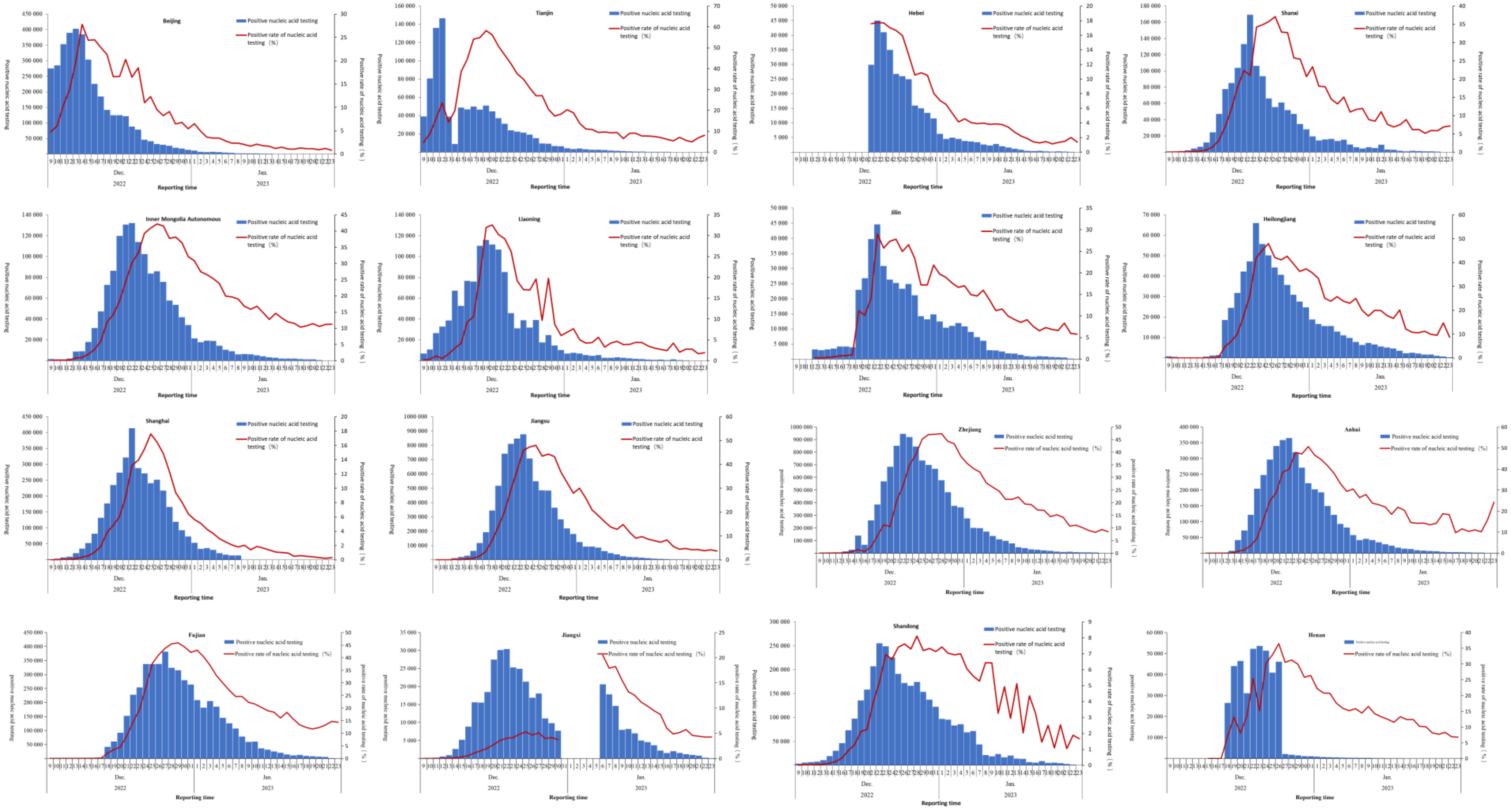
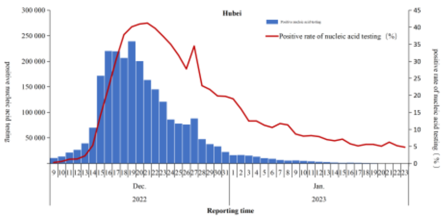
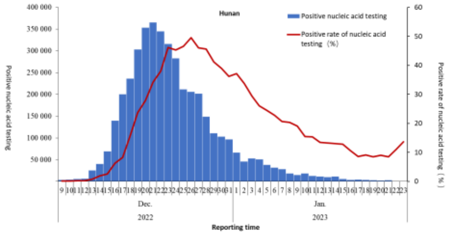


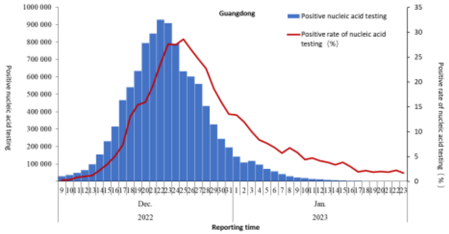
Figure 1-1 Daily number of positive nucleic acid testing and rate in Chinese mainland.

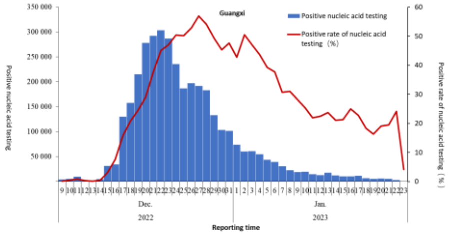
(Dec. 9, 2022－Jan. 23, 2023)

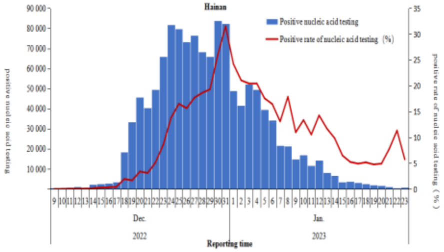

Beijing
Tianjin
Hebei
Shanxi
Inner Mongolia Autonomous
Liaoning
Jilin
Heilongjiang
Shanghai
Jiangsu
Zhejiang
Anhui
Fujian
Jiangxi
Shandong
Henan
Positive nucleic acid testing
Positive rate of nucleic acid testing (%)
Reporting time
Dec.
Jan.
2022
2023

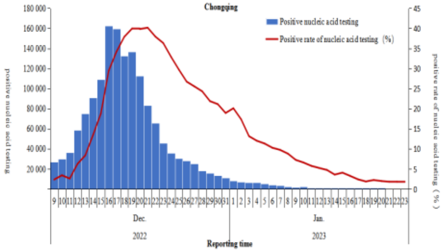

Hubei
Positive rate of nucleic acid testing（%）
positive nucleic acid testing
positive rate of nucleic acid testing（%）
300 000 250 000 200 000 150 000 100 000 50 000
45 40 35 30 25 20 15 10 5 0
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec. 2022
Jan. 2023
Reporting time

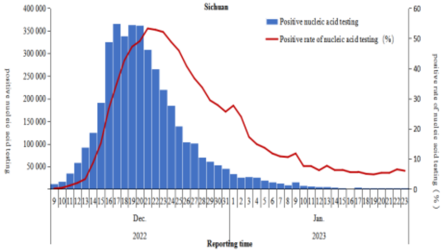

Hunan
Positive nucleic acid testing
Positive rate of nucleic acid testing（%）
Positive nucleic acid testing
Positive rate of nucleic acid testing
400 000 350 000 300 000 250 000 200 000 150 000 100 000 50 000
60 50 40 30 20 10 0
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec. 2022
Jan. 2023
Reporting time

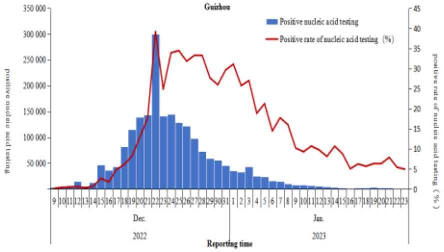

Guangdong
Positive nucleic acid testing
Positive rate of nucleic acid testing（%）
Positive nucleic acid testing
Positive rate of nucleic acid testing（%）
1000 000 900 000 800 000 700 000 600 000 500 000 400 000 300 000 200 000 100 000
35 30 25 20 15 10 5 0
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec. 2022
Jan. 2023
Reporting time

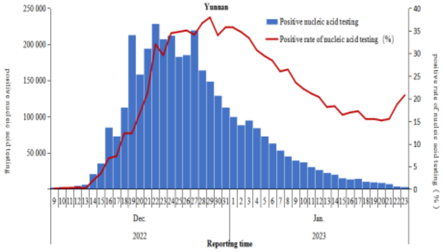

Guangxi
Positive nucleic acid testing
Positive rate of nucleic acid testing（%）
Positive nucleic acid testing
Positive rate of nucleic acid testing
350 000 300 000 250 000 200 000 150 000 100 000 50 000
60 50 40 30 20 10 0
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec. 2022
Jan. 2023
Reporting time

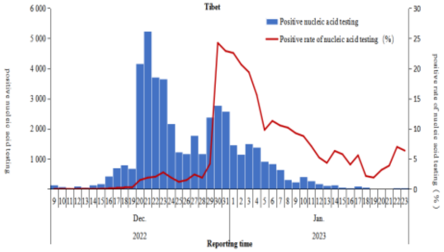

Hainan
Positive nucleic acid testing
Positive rate of nucleic acid testing（%）
positive nucleic acid testing
positive rate of nucleic acid testing（%）
90 000 80 000 70 000 60 000 50 000 40 000 30 000 20 000 10 000
35 30 25 20 15 10 5 0
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec. 2022
Jan. 2023
Reporting time

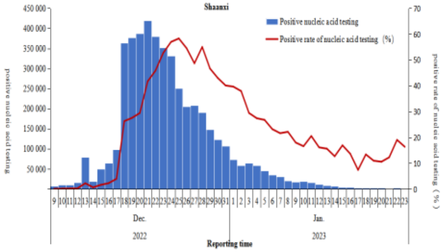

Chongqing
Positive nucleic acid testing
Positive rate of nucleic acid testing（%）
positive nucleic acid testing
positive rate of nucleic acid testing（%）
180 000 160 000 140 000 120 000 100 000 80 000 60 000 40 000 20 000
45 40 35 30 25 20 15 10 5 0
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec. 2022
Jan. 2023
Reporting time

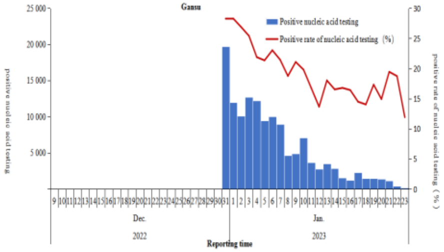

Sichuan
Positive nucleic acid testing
Positive rate of nucleic acid testing（%）
positive nucleic acid testing
positive rate of nucleic acid testing（%）
400 000 350 000 300 000 250 000 200 000 150 000 100 000 50 000
60 50 40 30 20 10 0
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec. 2022
Jan. 2023
Reporting time


Guizhou
Positive nucleic acid testing
Positive rate of nucleic acid testing（%）
positive nucleic acid testing
positive rate of nucleic acid testing（%）
350 000 300 000 250 000 200 000 150 000 100 000 50 000
45 40 35 30 25 20 15 10 5 0
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec. 2022
Jan. 2023
Reporting time


Yunnan
Positive nucleic acid testing
Positive rate of nucleic acid testing（%）
positive nucleic acid testing
positive rate of nucleic acid testing（%）
250 000 200 000 150 000 100 000 50 000
40 35 30 25 20 15 10 5 0
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec. 2022
Jan. 2023
Reporting time


Tibet
Positive nucleic acid testing
Positive rate of nucleic acid testing（%）
positive nucleic acid testing
positive rate of nucleic acid testing（%）
6 000 5 000 4 000 3 000 2 000 1 000
30 25 20 15 10 5 0
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec. 2022
Jan. 2023
Reporting time


Shaanxi
Positive nucleic acid testing
Positive rate of nucleic acid testing（%）
positive nucleic acid testing
positive rate of nucleic acid testing（%）
450 000 400 000 350 000 300 000 250 000 200 000 150 000 100 000 50 000
70 60 50 40 30 20 10 0
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec. 2022
Jan. 2023
Reporting time


Gansu
Positive nucleic acid testing
Positive rate of nucleic acid testing（%）
positive nucleic acid testing
positive rate of nucleic acid testing（%）
25 000 20 000 15 000 10 000 5 000
30 25 20 15 10 5 0
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec. 2022
Jan. 2023
Reporting time

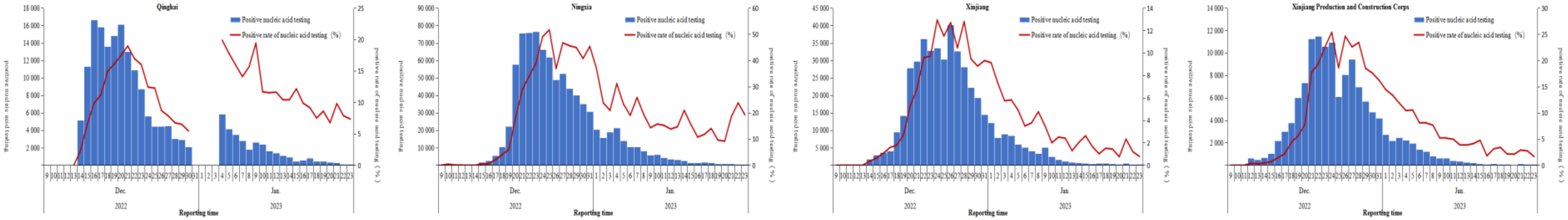


Figure 1-2 Provincial COVID-19 positive nucleic acid testing and positive rate.

1.2 COVID-19 Antigen Test Data

Since early December 2022, an APP for COVID-19 antigen testing registration has been developed in some PLADs, and those who conduct at-home antigen testing can voluntarily upload their results.

The number of antigen tests reported by PLADs was generally low and gradually decreased. For example, the number of tests reported reached a high of 1.89 million on 19 December 2022 and dropped to a low of 105,000 on 23 January2023.

The number of positive antigen tests and the positive rate increased rapidly after 9 December to the peak on 22 December (337,000, 21.3%) and then decreased to 4,773 and 4.5%, respectively, by 23 January 2023.

Recently, the positive rate of nucleic acid and antigen testing has slightly increased in some PLADs, probably due to more people with symptoms or at risk of exposure being tested and fewer general people participating in testing. However, the increasing movement of people during the Chinese New Year may have increased the risk of infection in some uninfected people. (Figure 1-3, Figure 1-4).

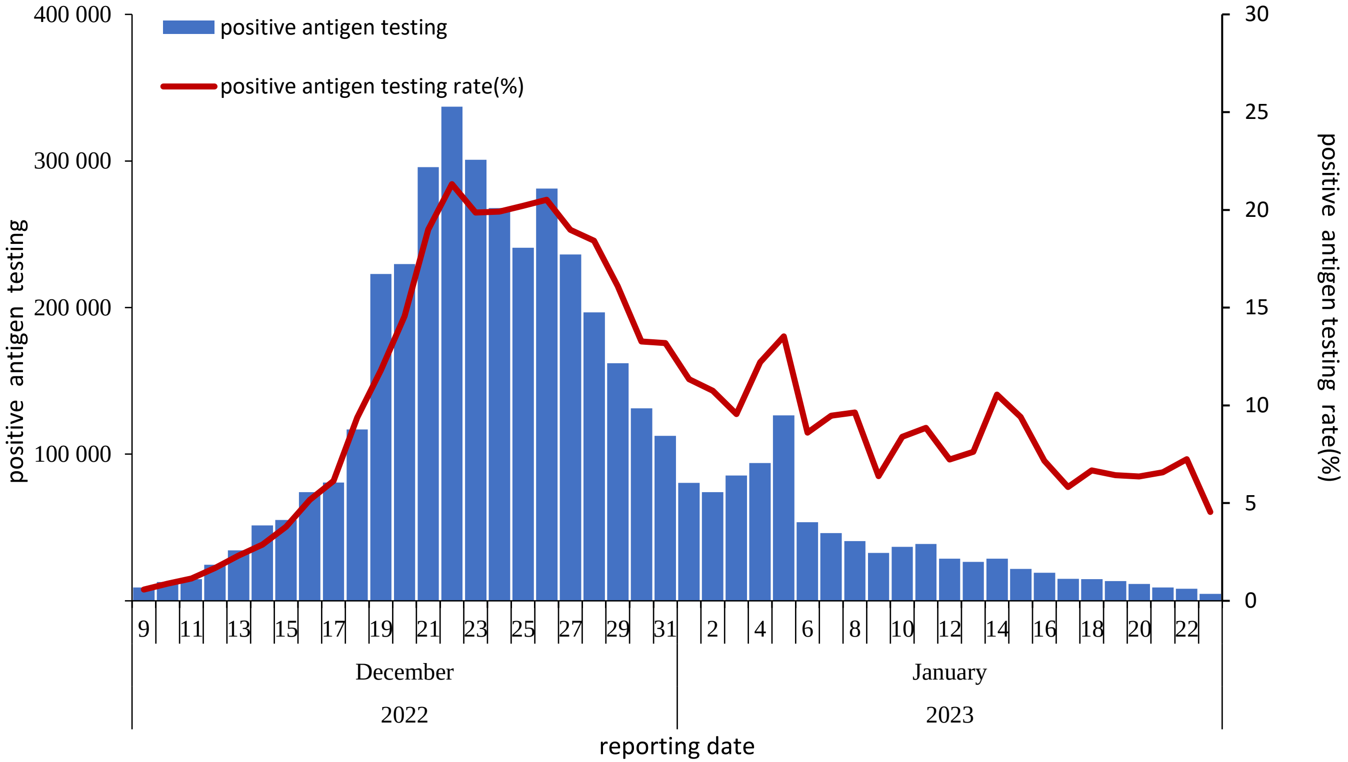
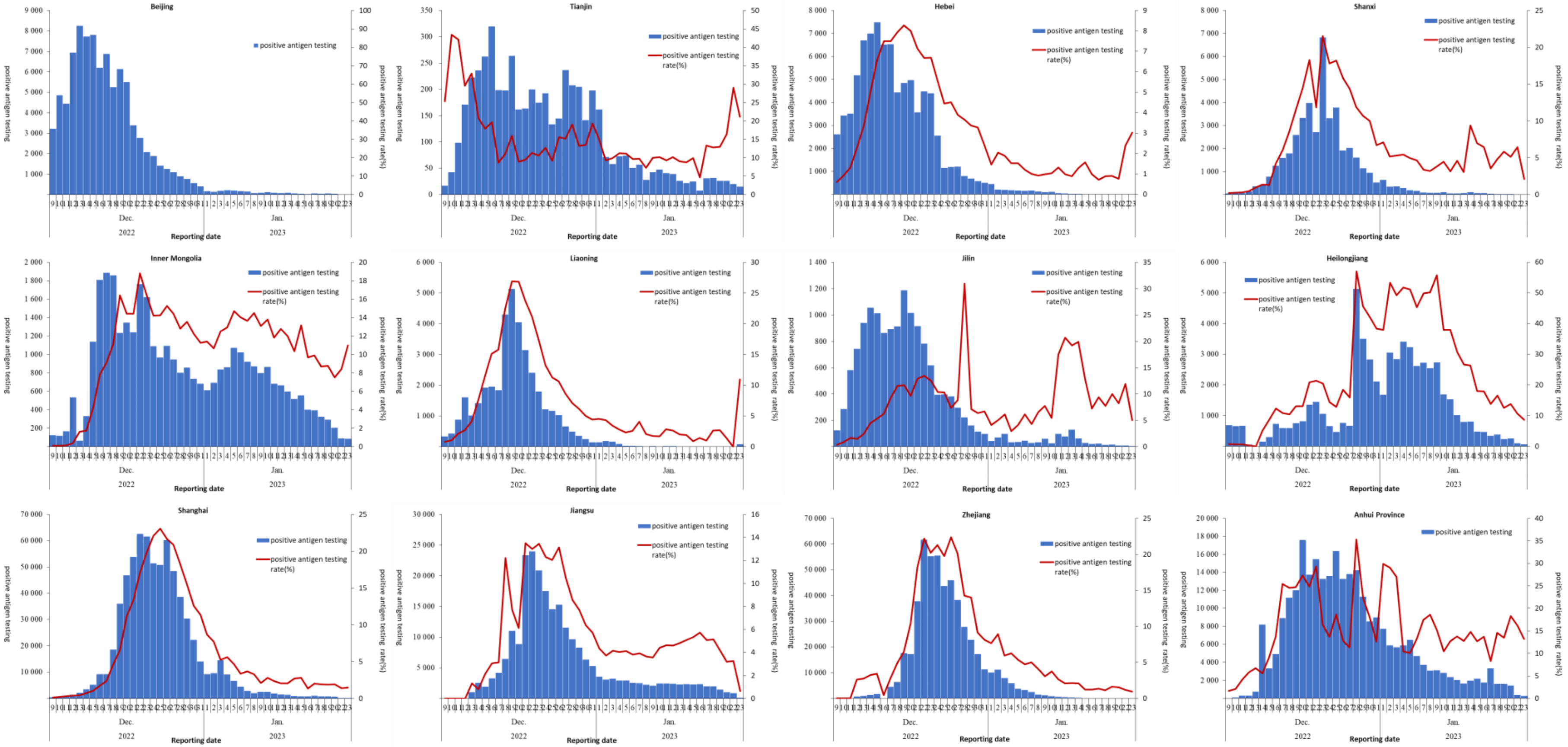


Figure 1-3 COVID-19 antigen test and positive rate.


Beijing
9 000
8 000
7 000
6 000
5 000
4 000
3 000
2 000
1 000
100
90
80
70
60
50
40
30
20
10
0
positive antigen testing
positive antigen testing
positive antigen testing rate(%)
Tianjin
350
300
250
200
150
100
50
0
50
45
40
35
30
25
20
15
10
5
0
positive antigen testing
positive antigen testing rate(%)
Hebei
8 000
7 000
6 000
5 000
4 000
3 000
2 000
1 000
9
8
7
6
5
4
3
2
1
0
positive antigen testing
positive antigen testing rate(%)
Shanxi
8 000
7 000
6 000
5 000
4 000
3 000
2 000
1 000
25
20
15
10
5
0
positive antigen testing
positive antigen testing rate(%)
Inner Mongolia
2 000
1 800
1 600
1 400
1 200
1 000
800
600
400
200
20
18
16
14
12
10
8
6
4
2
0
positive antigen testing
positive antigen testing rate(%)
Liaoning
6 000
5 000
4 000
3 000
2 000
1 000
30
25
20
15
10
5
0
positive antigen testing
positive antigen testing rate(%)
Jilin
1 400
1 200
1 000
800
600
400
200
35
30
25
20
15
10
5
0
positive antigen testing
positive antigen testing rate(%)
Heilongjiang
6 000
5 000
4 000
3 000
2 000
1 000
60
50
40
30
20
10
0
positive antigen testing
positive antigen testing rate(%)
Shanghai
70 000
60 000
50 000
40 000
30 000
20 000
10 000
25
20
15
10
5
0
positive antigen testing
positive antigen testing rate(%)
Jiangsu
30 000
25 000
20 000
15 000
10 000
5 000
0
16
14
12
10
8
6
4
2
0
positive antigen testing
positive antigen testing rate(%)
Zhejiang
70 000
60 000
50 000
40 000
30 000
20 000
10 000
25
20
15
10
5
0
positive antigen testing
positive antigen testing rate(%)
Anhui Province
20 000
18 000
16 000
14 000
12 000
10 000
8 000
6 000
4 000
2 000
40
35
30
25
20
15
10
5
0
positive antigen testing
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec.
2022
Jan.
2023
Reporting date
positive antigen testing
positive antigen testing rate(%)

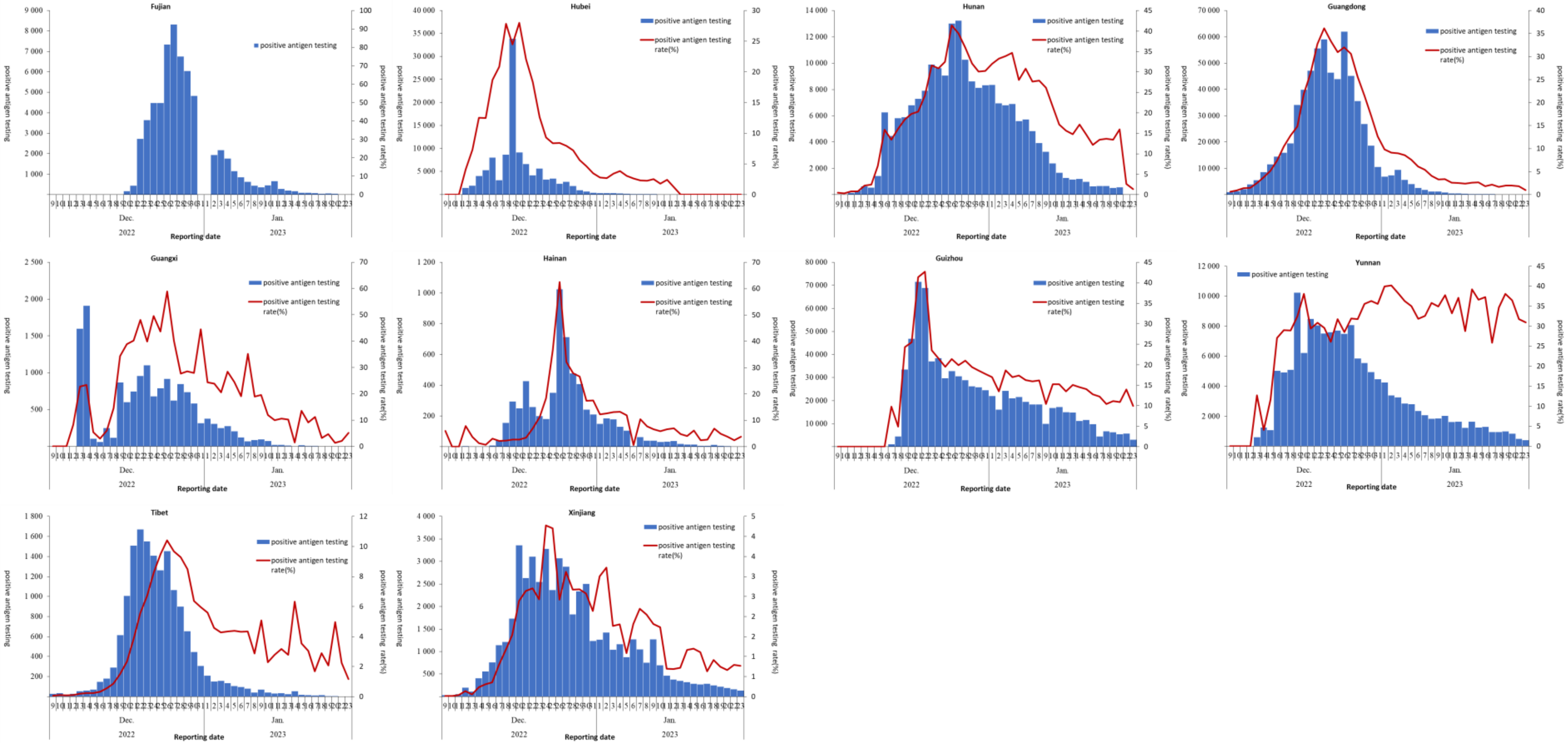


Figure 1-4 COVID-19 antigen test and positive rate of each PLADs.

1.3 Sentinel community-based surveillance

Since December 16, 2022, sentinel community-based infection surveillance has been carried out in Chinese mainland. The multi-stage stratified cluster sampling method was adopted to select communities at all provincial capitals, one large city, and one county from each PLADs (autonomous region and municipality) and Xinjiang Construction Corps. The minimum sampling unit was the household, at least 2,000 households (no less than 5,000 people) were required at the selected community in each provincial capital city. 1,500 households were selected (no less than 3,000 people) in each large city, and 1000 households (no less than 2500 people) in each county. All ≈420,000 family members in the selected households are the target cohorts for periodically collecting their nucleic acid or antigen testing results of COVID-19.

The sentinel population was surveyed twice weekly (for a total of eight rounds) from December 16 to January 12, 2023, and once a week from January 13, 2023. The daily average newly positive rate (Refers to the average daily positive rate of new nucleic acid or antigen tests during the current survey period) decreased from 4.13% in the first round (December 16 – 19, 2022) to 0.13% in the ninth round (January 13 – 20, 2023), and increased to 6.3% in the second round (December 20 – 22, 2022). The positive rate of daily increase in urban areas decreased from 6.89% in the second round to 0.13% in the ninth round. The daily positive rate in rural areas decreased from a maximum of 4.79% in the second round to 0.12% in the ninth round. (Figure 1 – 5, 1 – 6, 1 – 7）. The results suggest that the infection level in the sentinel community population has dropped to a low level, and the trend in urban and rural areas are similar.

The fluctuating results in some regions maybe due to factors such as the implementation of local work, population changes in sentinel communities, and the frequency of antigens carried out by residents. Since a subject may take an antigen or nucleic acid test multiple times during each survey period, it can cause duplicated results; hence cumulative infections could not be determined.

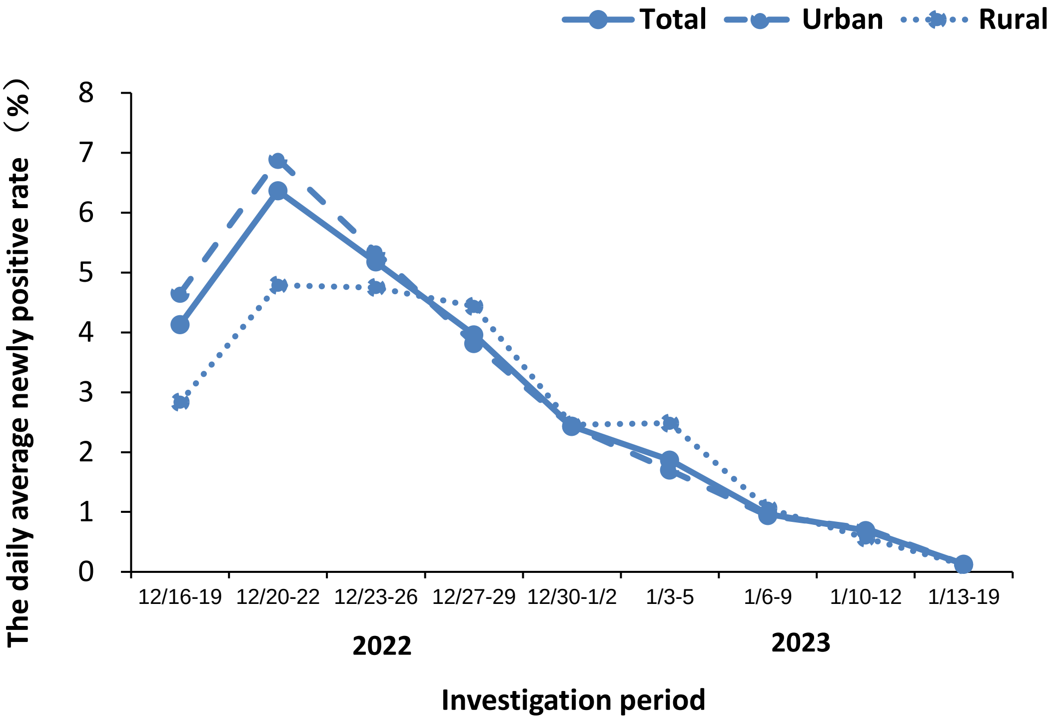


Figure.1-5 Trends of the average daily positive rate in each surveillance round.（%）

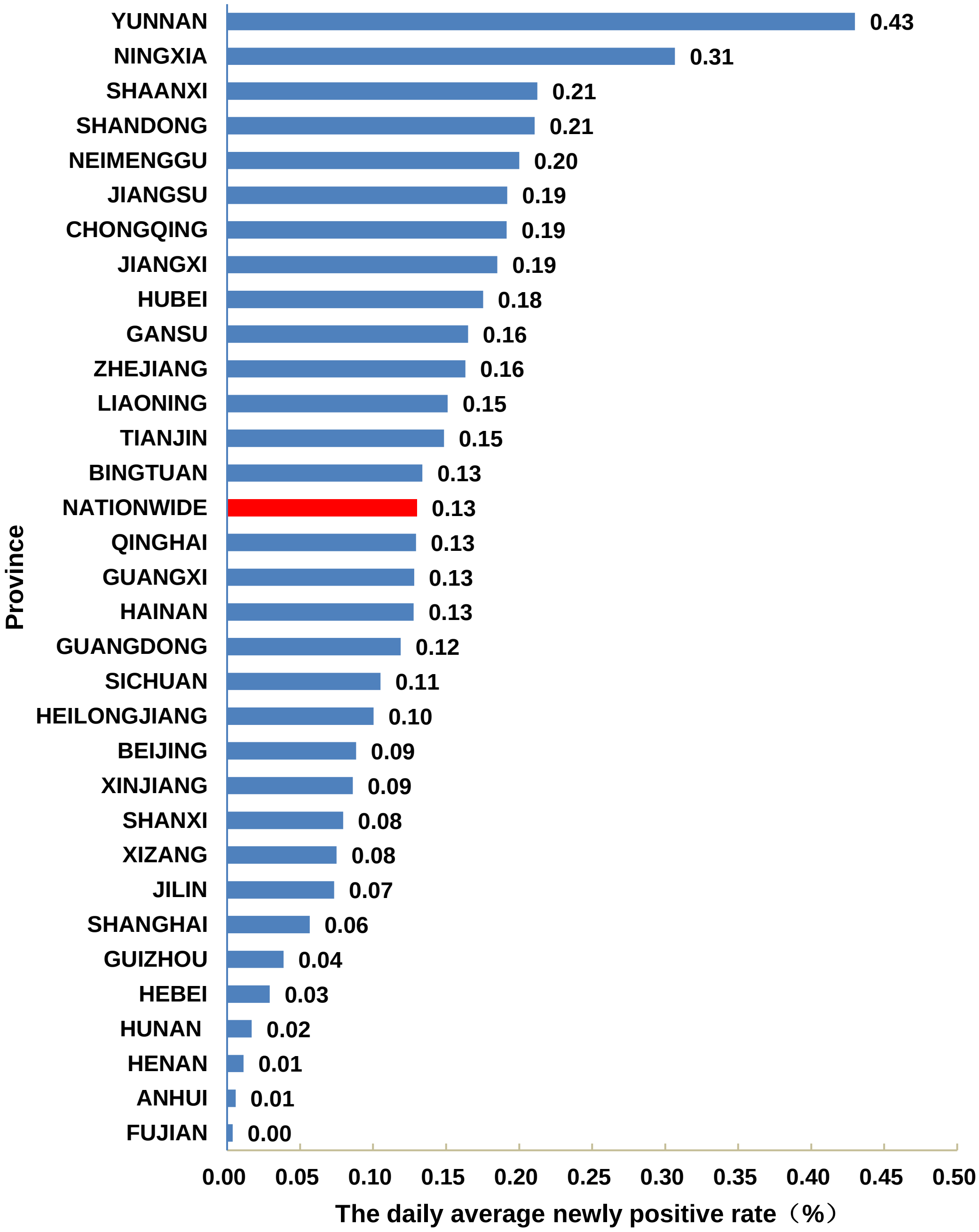


Figure.1-6 The daily average newly positive rate in community sentinel population by PLADs in the ninth round investigation (13－19 January 2023).

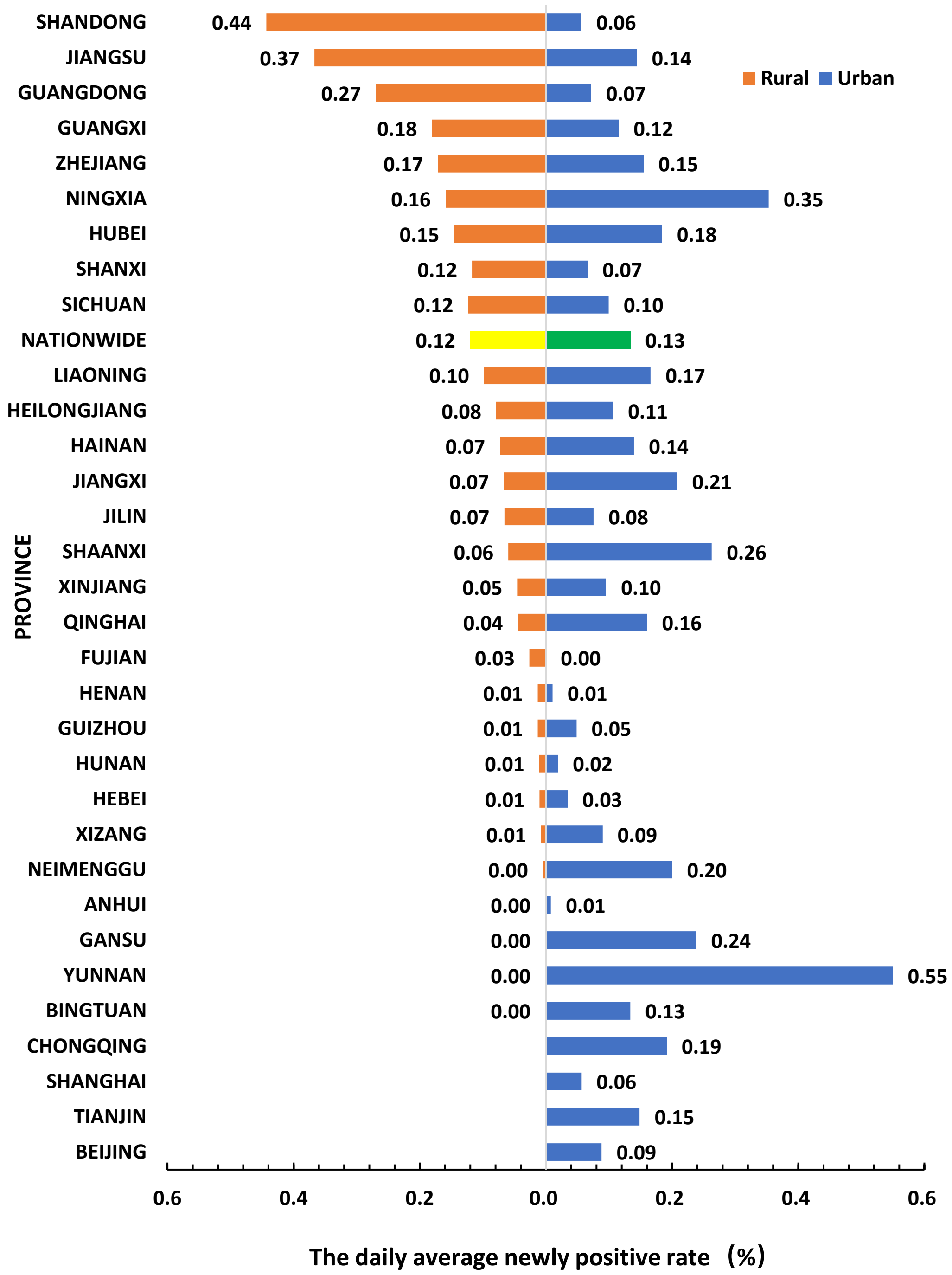


Figure.1-7 The daily average newly positive rate in urban and rural community sentinel population by PLADs in the ninth round investigation (13-19 January 2023).

2. Fever Clinic Diagnosis and Treatment Data

2.1 Fever Clinic Visit Data. The number of fever clinic visits in Chinese mainland peaked (2.867 million) on December 23, 2022 and then decreased continuously to 110,000 visits on January 23 with a decrease of 96.2%.

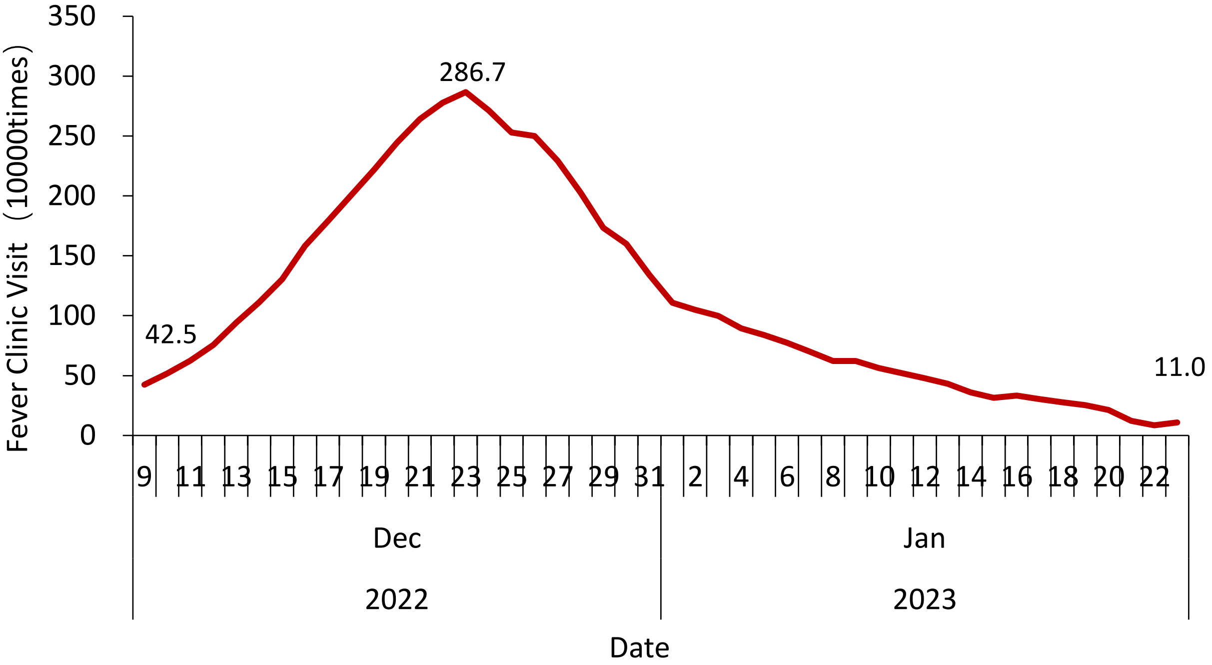


Figure. 2-1 Fever clinic visit data.

2.2 Rural area. The number of fever clinic visits at township health centers in rural area peaked (0.922 million) on December 23, and then decreased continuously to 50,000 visits on January 23 with a decrease of 94.6%.

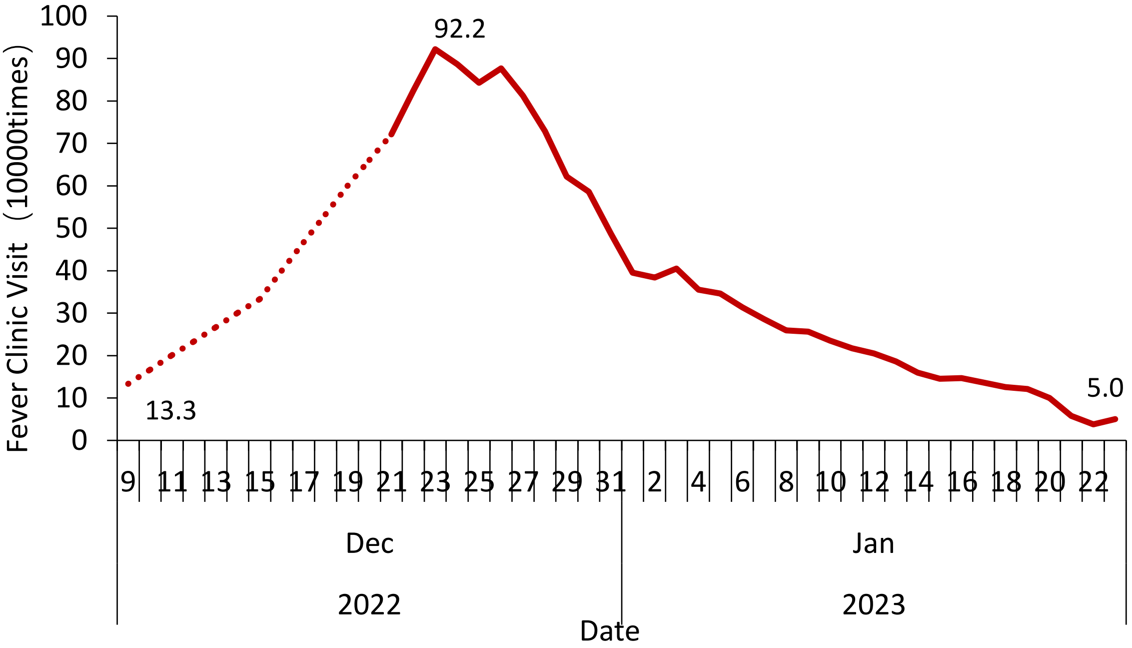


Figure. 2-2 Rural fever clinic visit data.

2.3 Urban area. The number of fever clinic visits to the second level and above hospitals and urban community health service centers in urban area peaked (1.954 million) on December 22, and then decreased continuously to 59,000 visits on January 23 with a decrease of 97.0%. The urban area trends are similar in each PLADs.

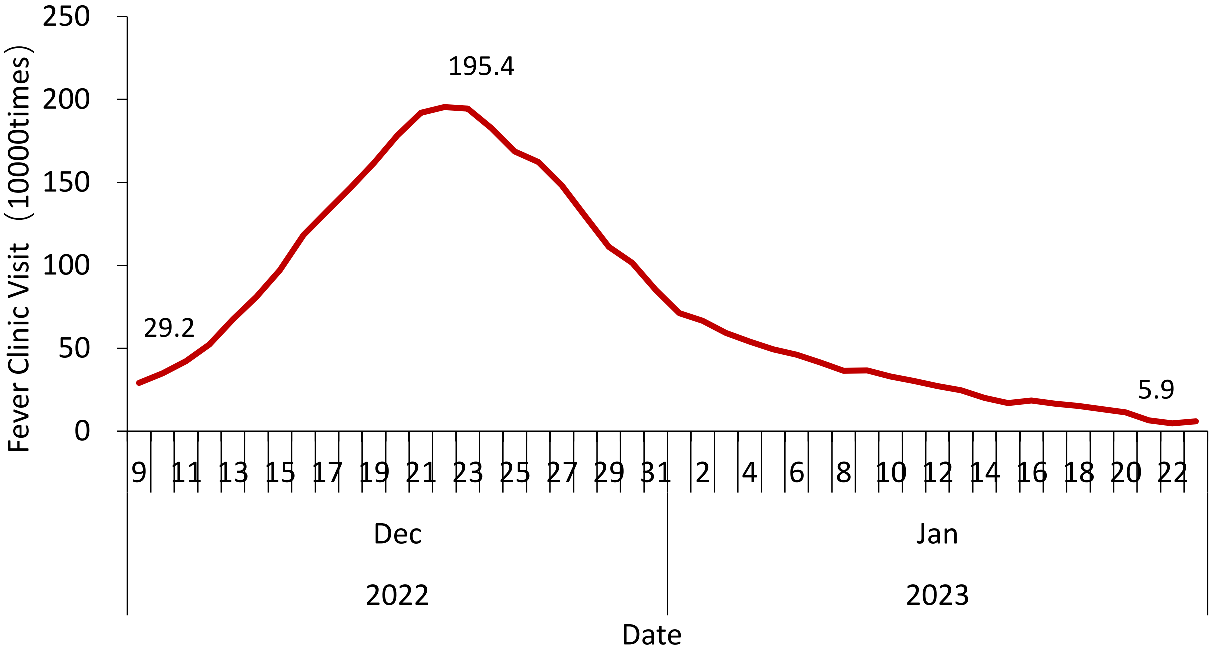
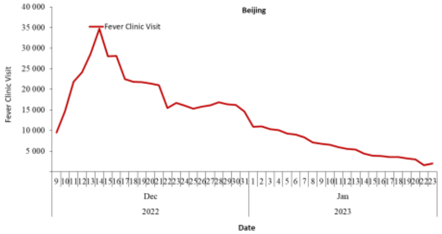
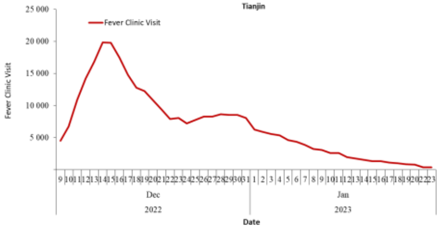
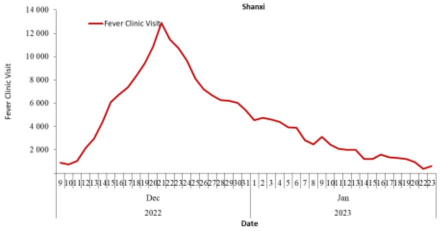


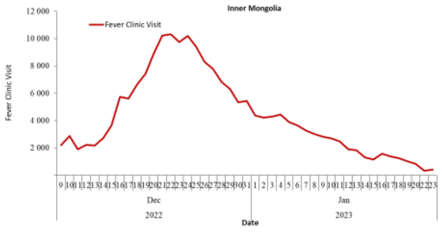
Figure. 2-3 Urban fever clinic visit data.

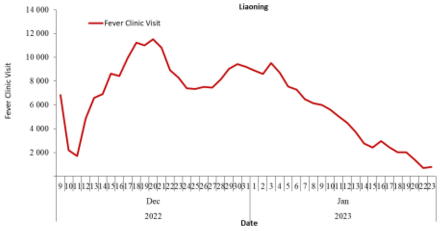

Beijing
Fever Clinic Visit
Fever Clinic Visit
40 000
35 000
30 000
25 000
20 000
15 000
10 000
5 000
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec
2022
Jan
2023
Date


Tianjin
Fever Clinic Visit
Fever Clinic Visit
25 000
20 000
15 000
10 000
5 000
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec
2022
Jan
2023
Date


Hebei
Fever Clinic Visit
Fever Clinic Visit
30 000
25 000
20 000
15 000
10 000
5 000
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec
2022
Jan
2023
Date


Shanxi
Fever Clinic Visit
Fever Clinic Visit
14 000
12 000
10 000
8 000
6 000
4 000
2 000
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec
2022
Jan
2023
Date


Inner Mongolia
Fever Clinic Visit
Fever Clinic Visit
12 000
10 000
8 000
6 000
4 000
2 000
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec
2022
Jan
2023
Date


Liaoning
Fever Clinic Visit
Fever Clinic Visit
14 000
12 000
10 000
8 000
6 000
4 000
2 000
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
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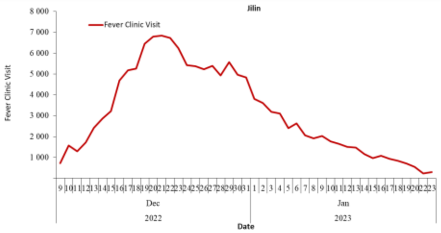
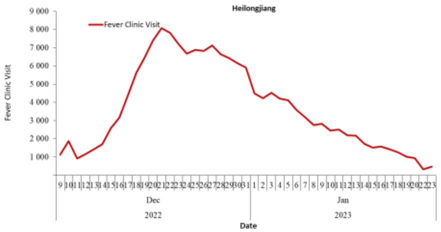
2022
Jan
2023
Date


Jilin
Fever Clinic Visit
Fever Clinic Visit
8 000
7 000
6 000
5 000
4 000
3 000
2 000
1 000
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec
2022
Jan
2023
Date


Heilongjiang
Fever Clinic Visit
Fever Clinic Visit
9 000
8 000
7 000
6 000
5 000
4 000
3 000
2 000
1 000
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
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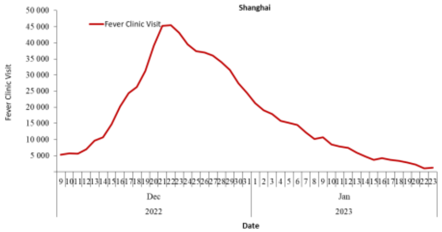
2022
Jan
2023
Date


Shanghai
Fever Clinic Visit
Fever Clinic Visit
50 000
45 000
40 000
35 000
30 000
25 000
20 000
15 000
10 000
5 000
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
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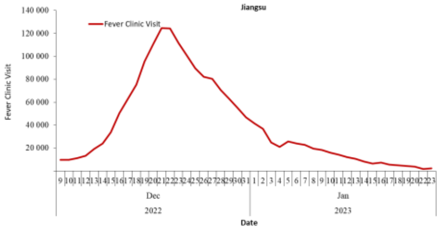
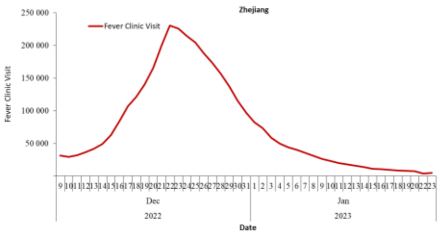
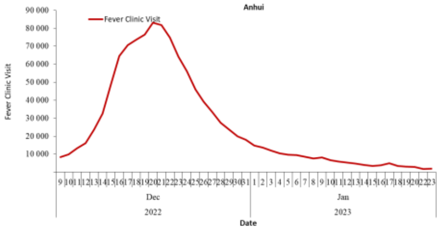
2022
Jan
2023
Date


Jiangsu
Fever Clinic Visit
Fever Clinic Visit
140 000
120 000
100 000
80 000
60 000
40 000
20 000
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec
2022
Jan
2023
Date


Zhejiang
Fever Clinic Visit
Fever Clinic Visit
250 000
200 000
150 000
100 000
50 000
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec
2022
Jan
2023
Date


Anhui
Fever Clinic Visit
Fever Clinic Visit
90 000
80 000
70 000
60 000
50 000
40 000
30 000
20 000
10 000
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
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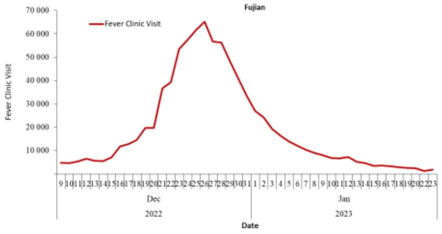
2022
Jan
2023
Date


Fujian
Fever Clinic Visit
Fever Clinic Visit
70 000
60 000
50 000
40 000
30 000
20 000
10 000
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
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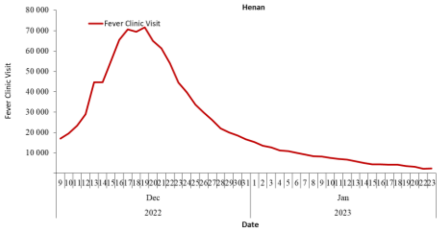
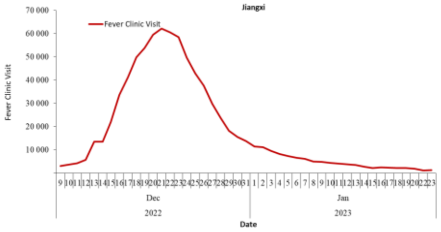
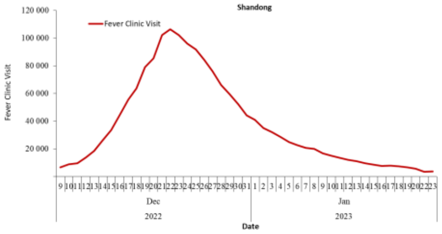
2022
Jan
2023
Date


Henan
Fever Clinic Visit
Fever Clinic Visit
80 000
70 000
60 000
50 000
40 000
30 000
20 000
10 000
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec
2022
Jan
2023
Date


Jiangxi
Fever Clinic Visit
Fever Clinic Visit
70 000
60 000
50 000
40 000
30 000
20 000
10 000
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec
2022
Jan
2023
Date


Shandong
Fever Clinic Visit
Fever Clinic Visit
120 000
100 000
80 000
60 000
40 000
20 000
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec
2022
Jan
2023
Date

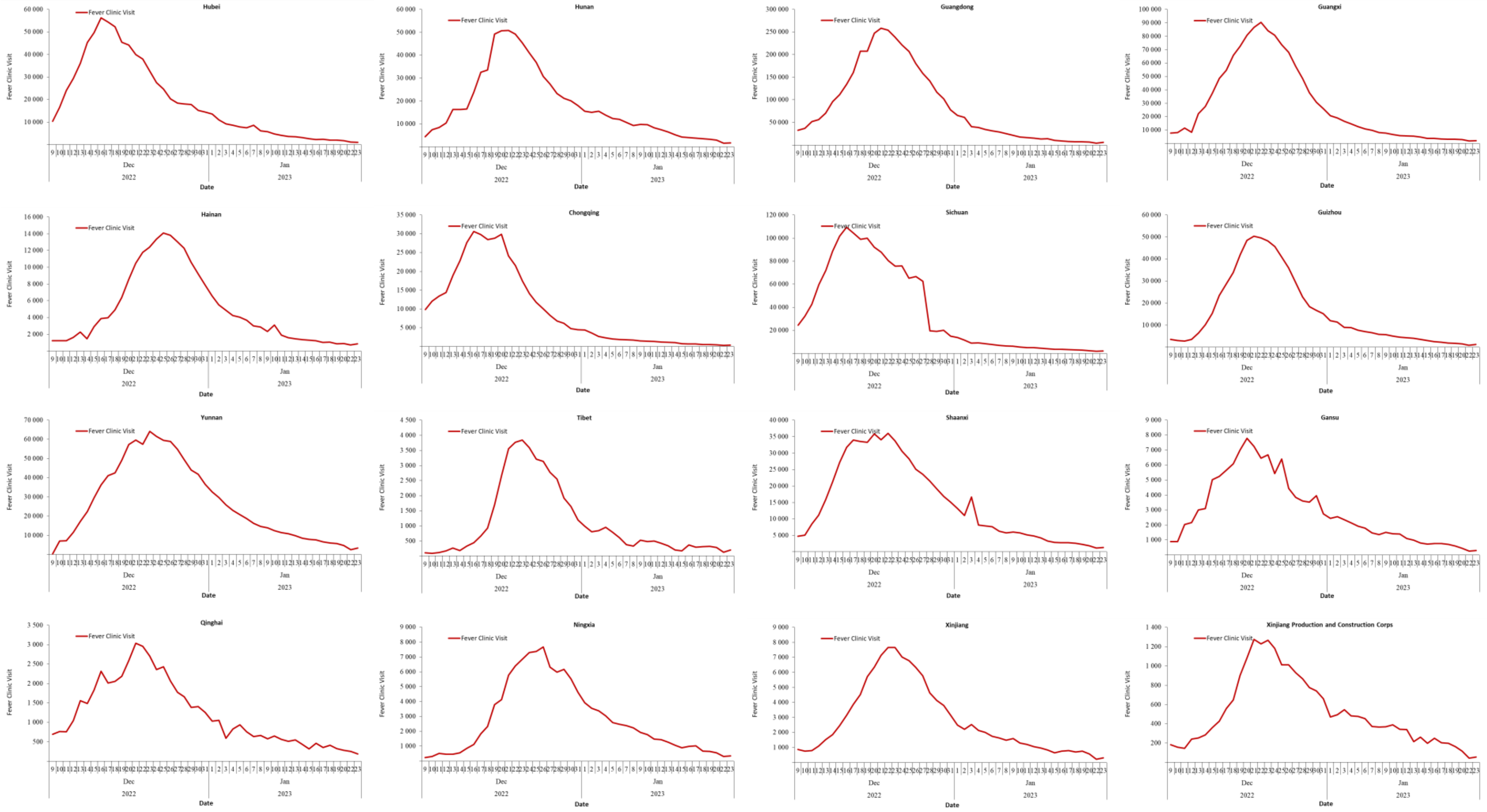


Figure. 2-4 Provincial fever clinic visit data.

2.5 Surveillance Data of Influenza Sentinel Hospitals and Laboratories

Since December 12, 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 Illnesses (ILI, fever with temperature ≥38℃, accompanied by cough or sore throat) in sentinel hospitals remained at around 100,000, and ILI% was between 2.7% to 3.6%. Number of ILI cases increased rapidly since week 50, it reached a maximum of 600,000 by week 51 (December 19-25).

The ILI% had risen rapidly since 50 weeks (8.5%) and reached the epidemic peak in week 51(12.1%), it started to decline dramatically since Week 52. In week 3, 2023 (January 16 - 22), it had reduced to 2.0% (Figure 2-5).

Further data analysis of different regions showed that the peak time of ILI% of different regions was very close. The ILI% in the southwest, and central region peaked in week 50 (11.8% and 9.2%, respectively), the ILI% in the northwest, south, east, north, and northeast region peaked in week 51(11.3%, 15.3%, 13.7%, 5.6%, and 11.2%, respectively), then it continued to decline (Figure 2-6). At present, the ILI% has fallen to the level observed prior to this epidemic, or even lower.

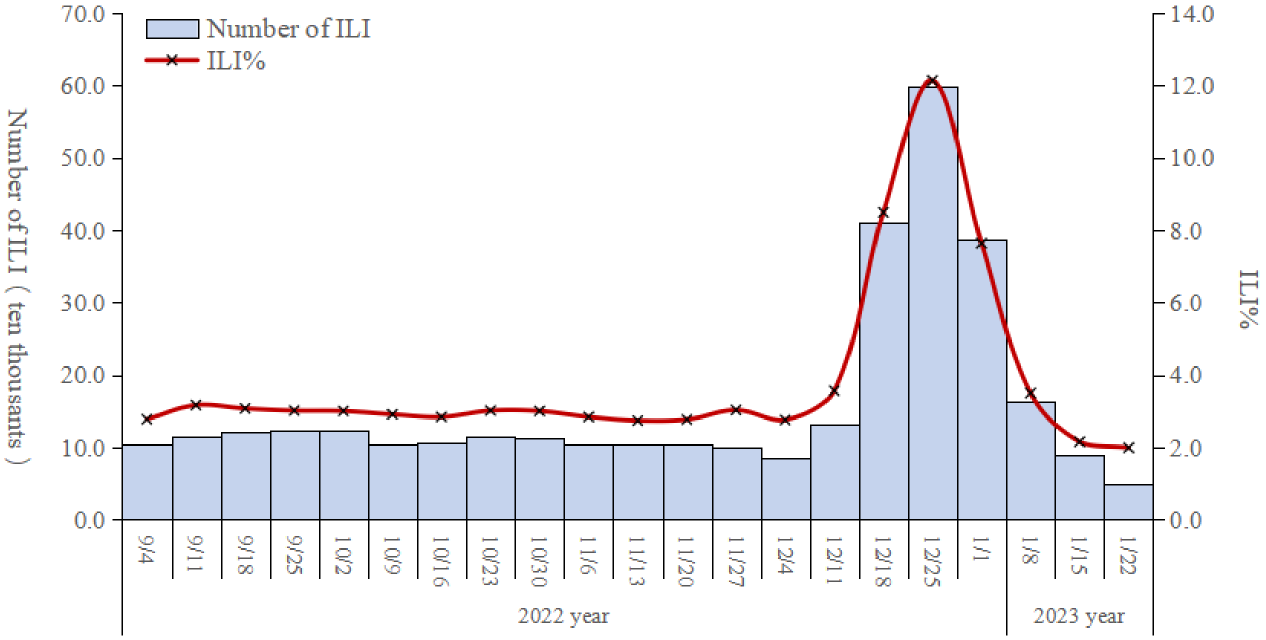
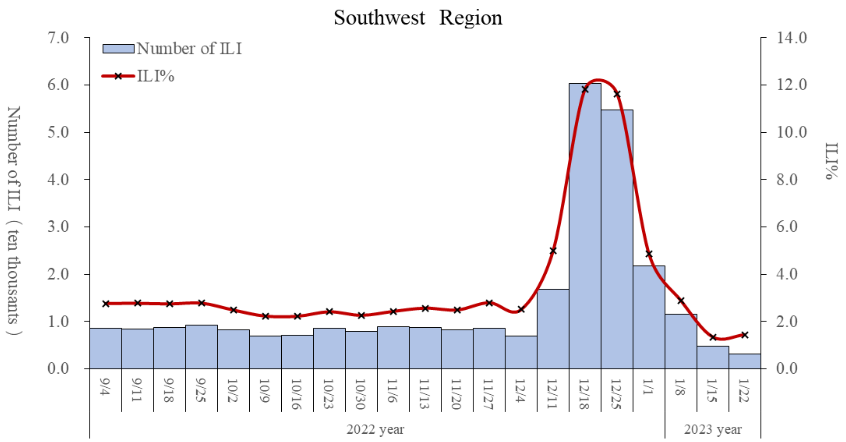
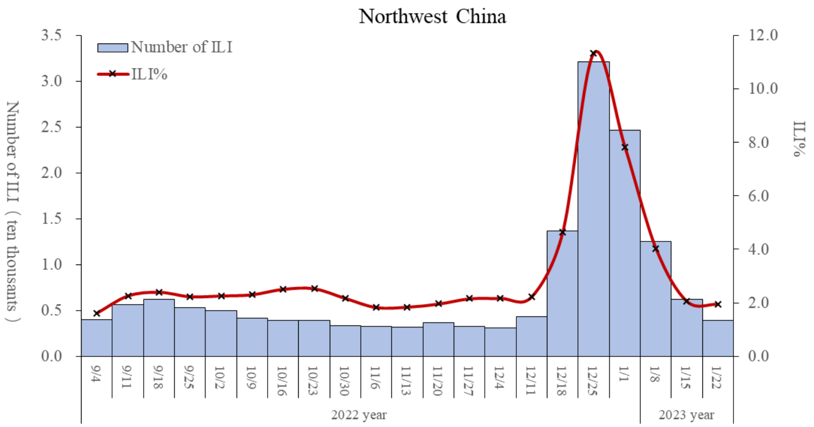
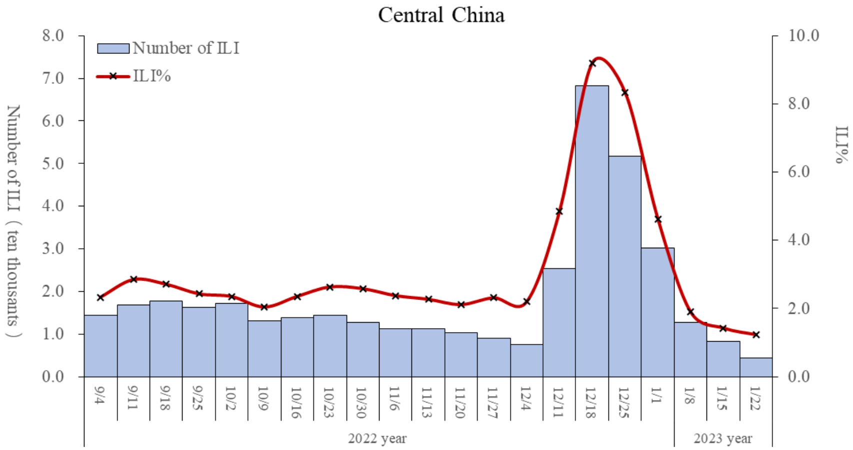
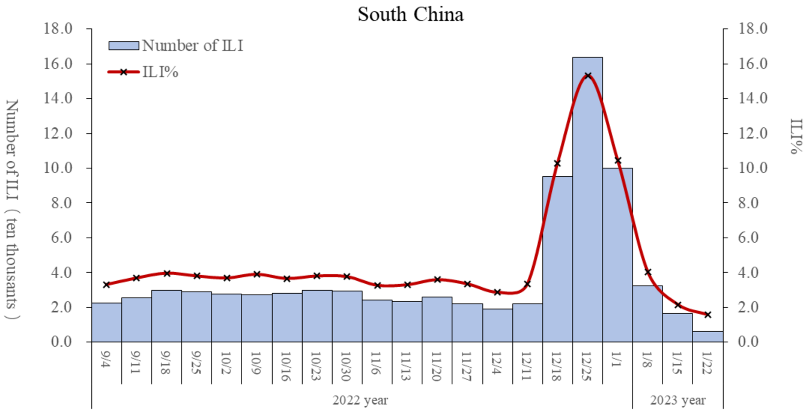


Figure. 2-5 ILI and ILI% reported by sentinel hospitals in Chinese mainland.
(from 824 sentinel hospitals reported data)


Southwest Region


Northwest China


Central China


South China

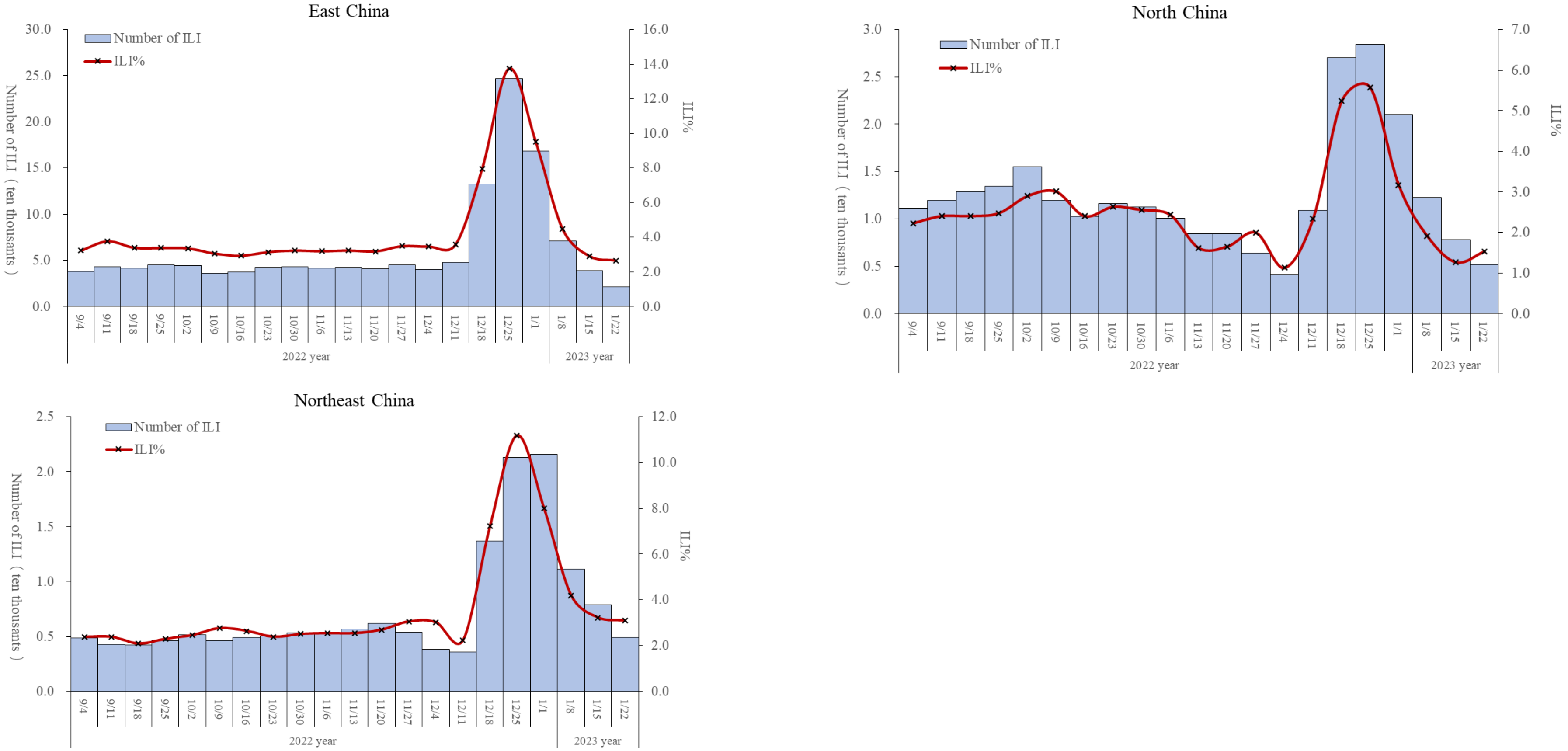


Figure. 2-6 ILI and ILI% reported by sentinel hospitals in regions of Chinese mainland.

(from 824 sentinel hospitals reported data)

Influenza surveillance network laboratories tested both SARS-CoV-2 and influenza viruses in ILI samples simultaneously. From week 49 (December 9, 2022), the positive rate of SARS-CoV-2 began to increase and reached peak between week 51 and 52, then started to decline with fluctuation. While during the same period, the positive rate of influenza virus gradually decreased to a very low level in late December, 2022 (Figure 2-7). Further data analysis of different regions showed the peak time of the positive rate of SARS-CoV-2 in different regions was very close. The SARS-CoV-2 positive rate in central, southwest, northwest, north and northeast region peaked in week 51(73.2%, 72.5%, 58.3%, 44.4% and 38.4%, respectively), the SARS-CoV-2 positive rate in the east and south region peaked in week 52 (73.0% and 68.4%, respectively), the positive rate began to decline since then (Figure 2-8).

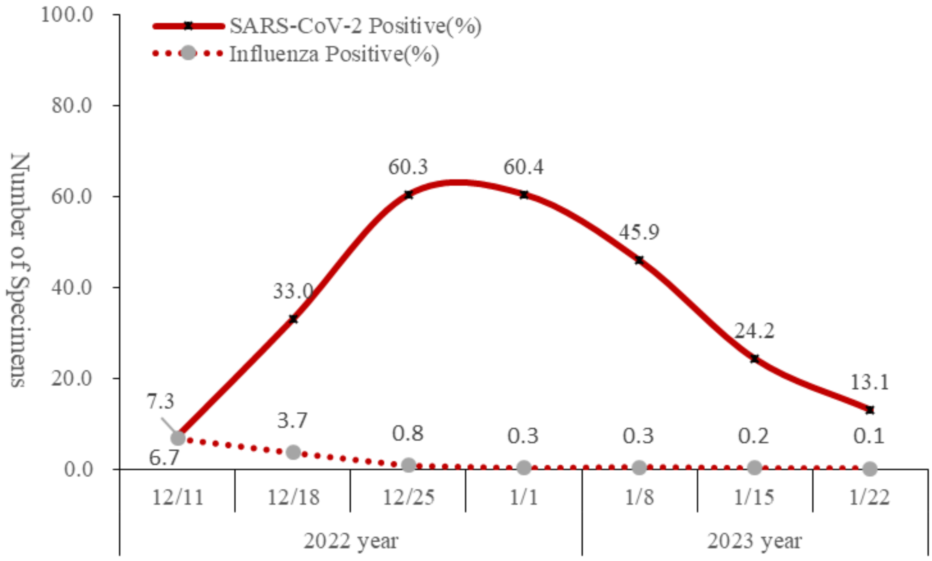
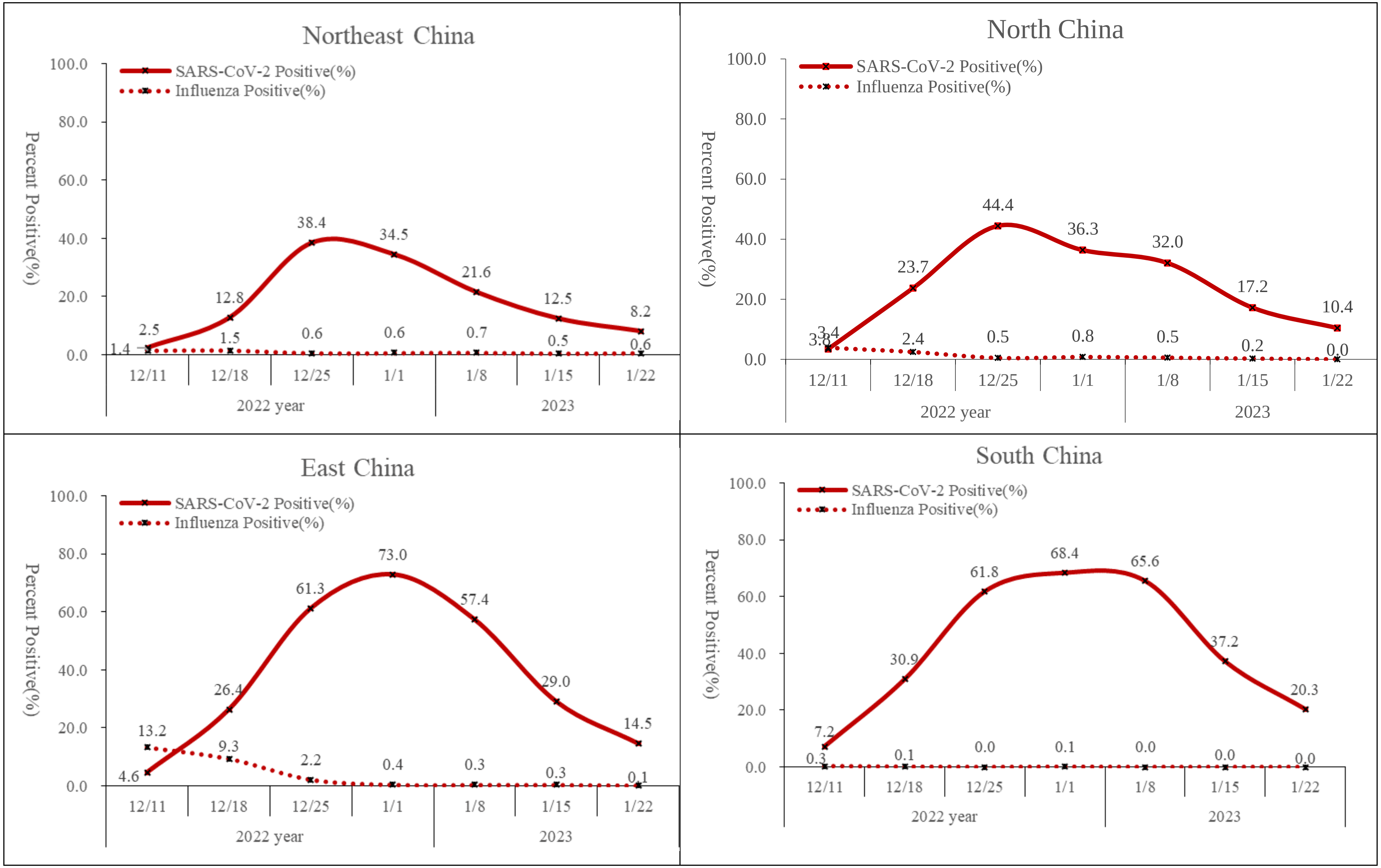


Figure 2-7 The positive rate of SARS-CoV-2 and influenza virus in ILI samples from sentinel hospitals in Chinese mainland.

(from 402 laboratories reported data)


Northeast China
100.0
80.0
60.0
40.0
20.0
0.0
Percent Positive(%)
SARS-CoV-2 Positive(%)
Influenza Positive(%)
2.5
12.8
38.4
34.5
21.6
12.5
8.2
1.4
1.5
0.6
0.6
0.7
0.5
0.6
12/11
12/18
12/25
1/1
1/8
1/15
1/22
2022 year
2023
North China
100.0
80.0
60.0
40.0
20.0
0.0
Percent Positive(%)
SARS-CoV-2 Positive(%)
Influenza Positive(%)
3.4
23.7
44.4
36.3
32.0
17.2
10.4
3.8
2.4
0.5
0.8
0.5
0.2
0.0
12/11
12/18
12/25
1/1
1/8
1/15
1/22
2022 year
2023
East China
100.0
80.0
60.0
40.0
20.0
0.0
Percent Positive(%)
SARS-CoV-2 Positive(%)
Influenza Positive(%)
4.6
26.4
61.3
73.0
57.4
29.0
14.5
13.2
9.3
2.2
0.4
0.3
0.3
0.1
12/11
12/18
12/25
1/1
1/8
1/15
1/22
2022 year
2023
South China
100.0
80.0
60.0
40.0
20.0
0.0
Percent Positive(%)
SARS-CoV-2 Positive(%)
Influenza Positive(%)
7.2
30.9
61.8
68.4
65.6
37.2
20.3
0.3
0.1
0.0
0.1
0.0
0.0
0.0
12/11
12/18
12/25
1/1
1/8
1/15
1/22
2022 year
2023

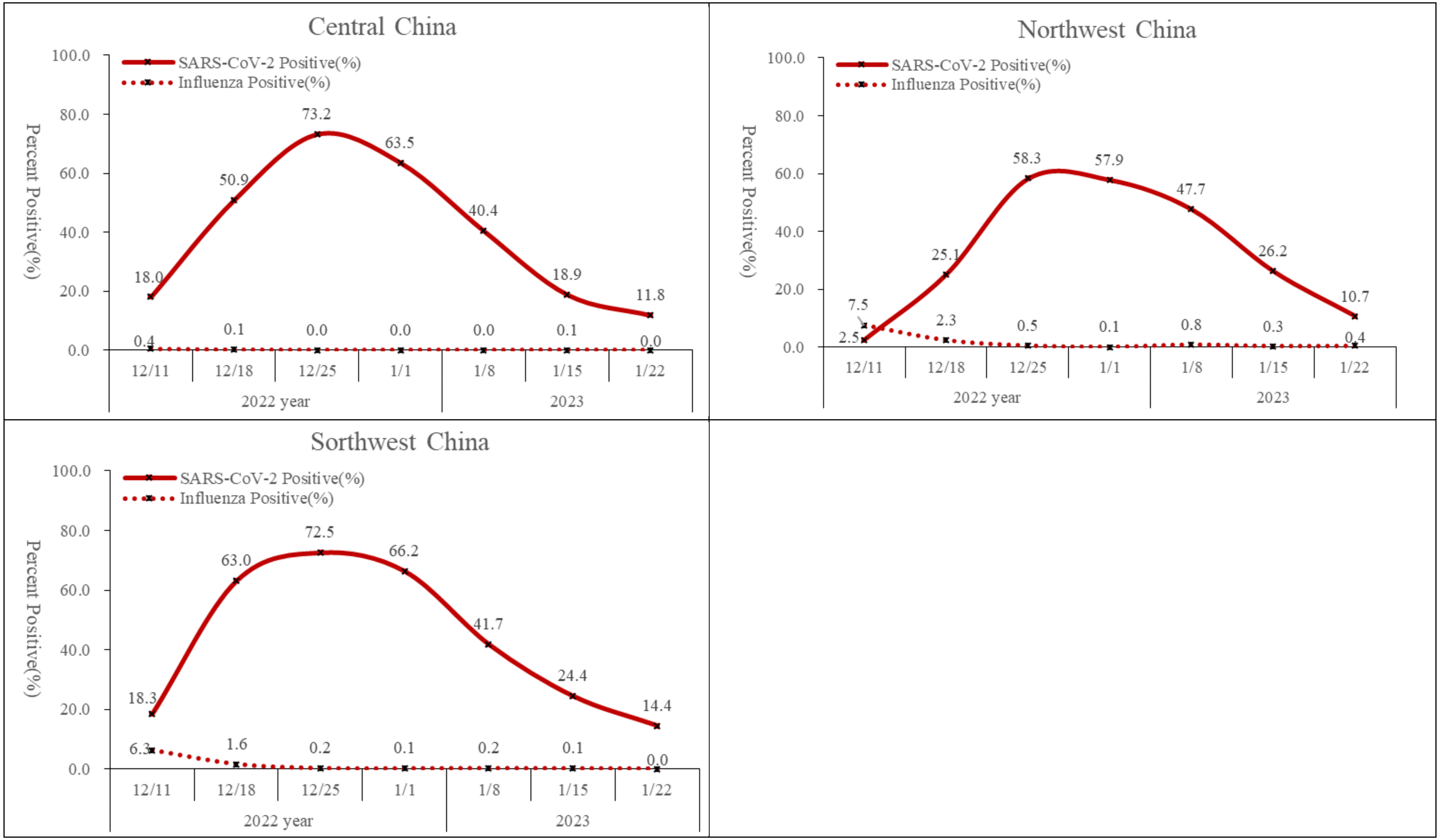


Figure 2-8 The positive rate of SARS-CoV-2 and influenza virus in ILI samples from sentinel hospitals in regions of Chinese mainland. (402 laboratories reported data)

3. Hospitalization Data

3.1 No. of COVID-19 The number of COVID-19 in hospitals nationwide peaked (1.625 million) on January 5, 2023, and then decrease continually to 248,000 on January 23, 2023, with an 84.8% reduction from the peak.

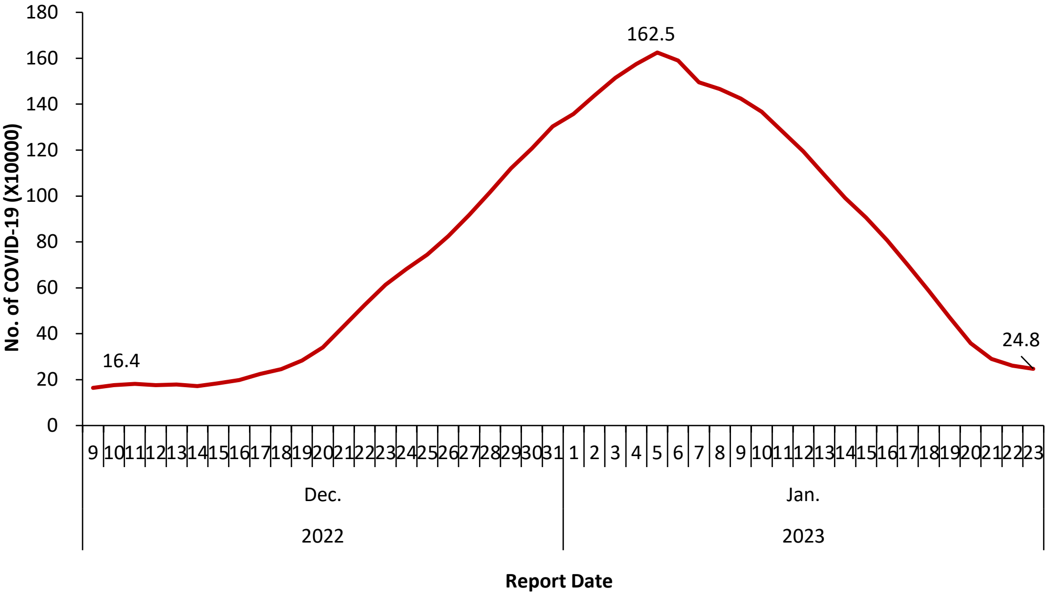
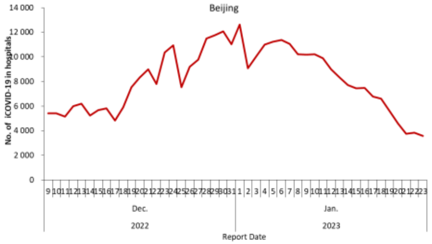
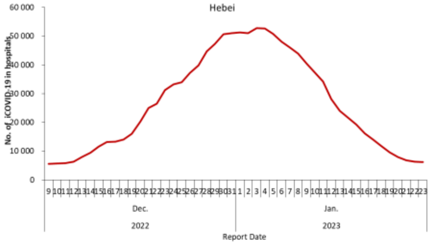
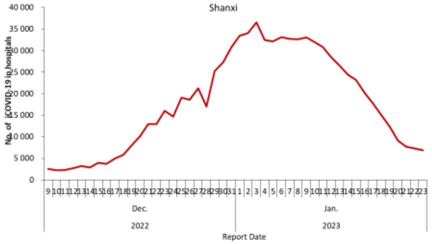


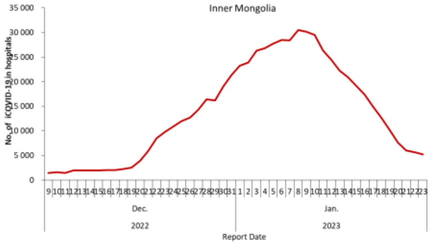
Figure 3-1 The number of COVID-19 in hospitals nationwide.

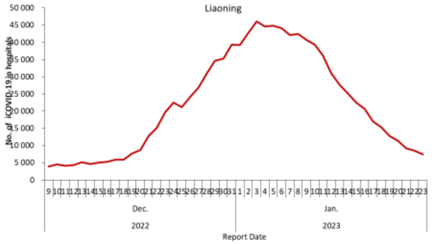

Beijing
14 000
12 000
10 000
8 000
6 000
4 000
2 000
0
No. of COVID-19 in hospitals
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec.
2022
Jan.
2023
Report Date

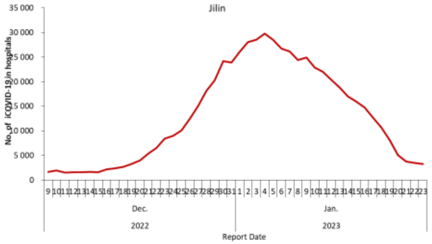

Tianjin
3 500
3 000
2 500
2 000
1 500
1 000
500
0
No. of COVID-19 in hospitals
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec.
2022
Jan.
2023
Report Date

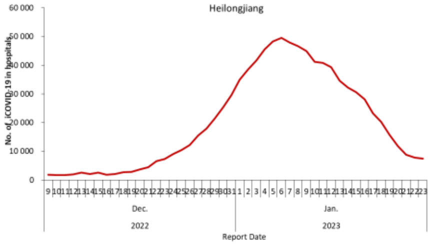

Hebei
60 000
50 000
40 000
30 000
20 000
10 000
0
No. of COVID-19 in hospitals
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec.
2022
Jan.
2023
Report Date


Shanxi
40 000
35 000
30 000
25 000
20 000
15 000
10 000
5 000
0
No. of COVID-19 in hospitals
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec.
2022
Jan.
2023
Report Date

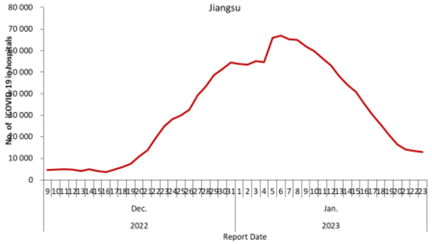

Inner Mongolia
35 000
30 000
25 000
20 000
15 000
10 000
5 000
0
No. of COVID-19 in hospitals
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec.
2022
Jan.
2023
Report Date


Liaoning
50 000
45 000
40 000
35 000
30 000
25 000
20 000
15 000
10 000
5 000
0
No. of COVID-19 in hospitals
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec.
2022
Jan.
2023
Report Date

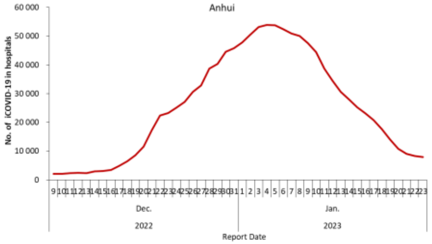

Jilin
35 000
30 000
25 000
20 000
15 000
10 000
5 000
0
No. of COVID-19 in hospitals
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec.
2022
Jan.
2023
Report Date

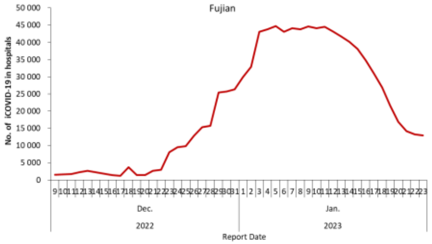

Heilongjiang
60 000
50 000
40 000
30 000
20 000
10 000
0
No. of COVID-19 in hospitals
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec.
2022
Jan.
2023
Report Date

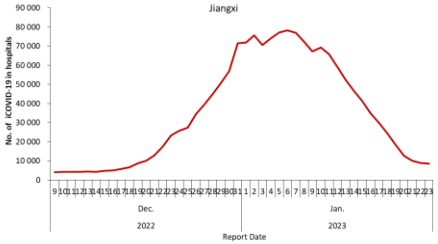

Shanghai
18 000
16 000
14 000
12 000
10 000
8 000
6 000
4 000
2 000
0
No. of COVID-19 in hospitals
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec.
2022
Jan.
2023
Report Date


Jiangsu
80 000
70 000
60 000
50 000
40 000
30 000
20 000
10 000
0
No. of COVID-19 in hospitals
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec.
2022
Jan.
2023
Report Date

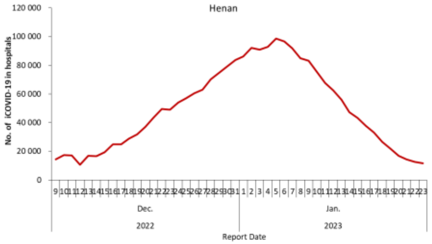

Zhejiang
70 000
60 000
50 000
40 000
30 000
20 000
10 000
0
No. of COVID-19 in hospitals
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec.
2022
Jan.
2023
Report Date


Anhui
60 000
50 000
40 000
30 000
20 000
10 000
0
No. of COVID-19 in hospitals
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec.
2022
Jan.
2023
Report Date


Fujian
50 000
45 000
40 000
35 000
30 000
25 000
20 000
15 000
10 000
5 000
0
No. of COVID-19 in hospitals
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec.
2022
Jan.
2023
Report Date


Jiangxi
90 000
80 000
70 000
60 000
50 000
40 000
30 000
20 000
10 000
0
No. of COVID-19 in hospitals
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec.
2022
Jan.
2023
Report Date


Shandong
70 000
60 000
50 000
40 000
30 000
20 000
10 000
0
No. of COVID-19 in hospitals
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec.
2022
Jan.
2023
Report Date


Henan
120 000
100 000
80 000
60 000
40 000
20 000
0
No. of COVID-19 in hospitals
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec.
2022
Jan.
2023
Report Date

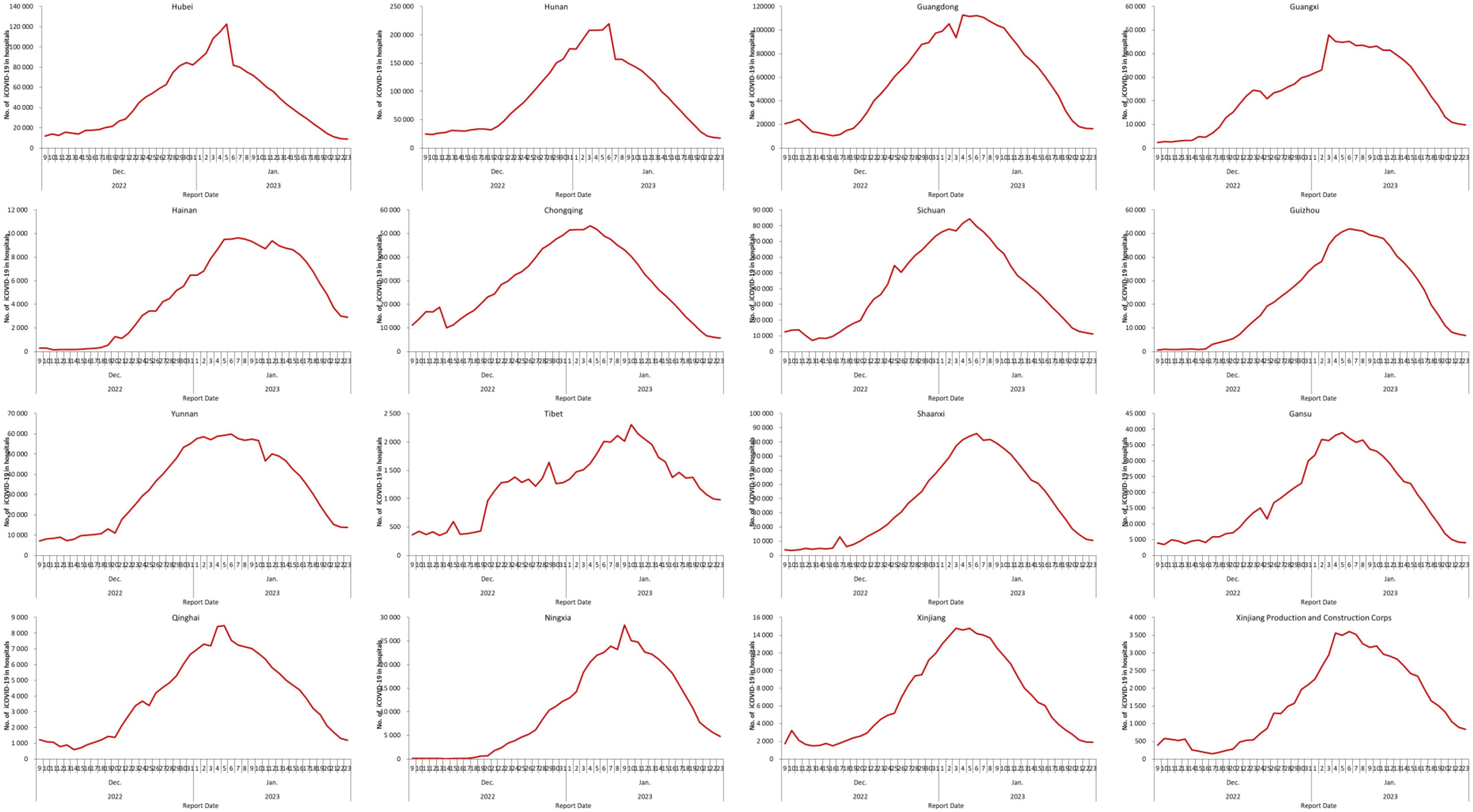


Figure 3-2 The number of COVID-19 in hospitals in different PLADs.

3.2 No. of serious illnesses in hospitals. The number of serious illnesses in hospitals increased by nearly 10,000 per day between December 27 and January 3, peaked at 127,594 on January 5, and then decrease continually to 35,694 on January 23 with 72.0% reduction from the peak.

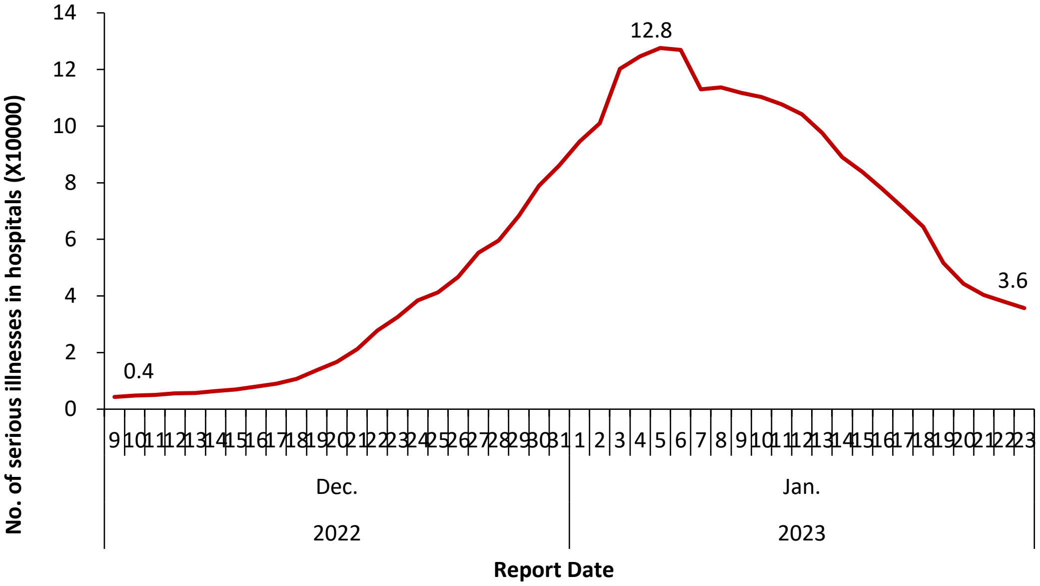
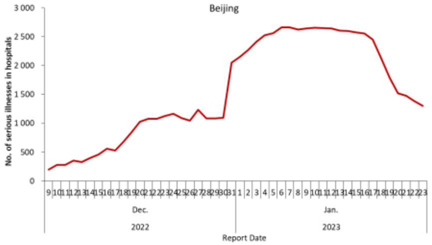
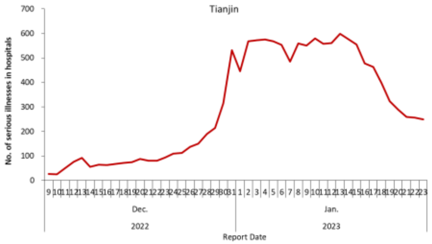


Figure 3-3 No. of serious illnesses in hospitals nationwide.


Beijing
3 000
2 500
2 000
1 500
1 000
500
0
No. of serious illnesses in hospitals
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec.
2022
Jan.
2023
Report Date


Tianjin
700
600
500
400
300
200
100
0
No. of serious illnesses in hospitals
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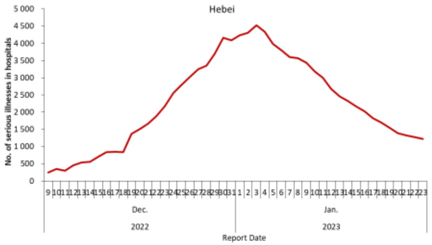
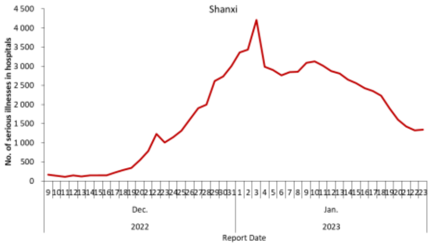
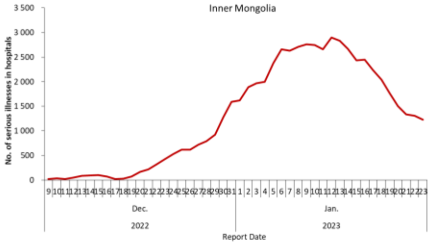
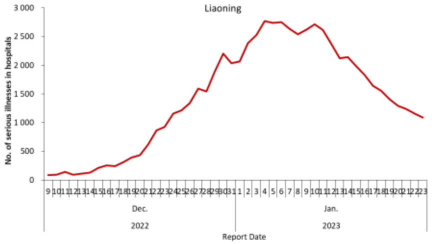
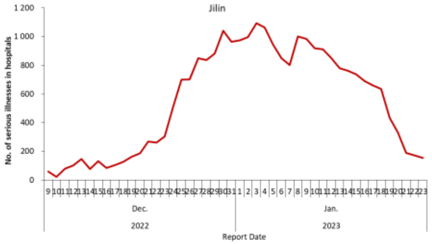
Dec.
2022
Jan.
2023
Report Date

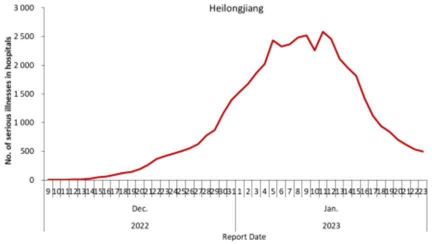

Hebei
5 000
4 500
4 000
3 500
3 000
2 500
2 000
1 500
1 000
500
0
No. of serious illnesses in hospitals
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec.
2022
Jan.
2023
Report Date


Shanxi
4 500
4 000
3 500
3 000
2 500
2 000
1 500
1 000
500
0
No. of serious illnesses in hospitals
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec.
2022
Jan.
2023
Report Date


Inner Mongolia
3 500
3 000
2 500
2 000
1 500
1 000
500
0
No. of serious illnesses in hospitals
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec.
2022
Jan.
2023
Report Date


Liaoning
3 000
2 500
2 000
1 500
1 000
500
0
No. of serious illnesses in hospitals
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec.
2022
Jan.
2023
Report Date


Jilin
1 200
1 000
800
600
400
200
0
No. of serious illnesses in hospitals
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec.
2022
Jan.
2023
Report Date


Heilongjiang
3 000
2 500
2 000
1 500
1 000
500
0
No. of serious illnesses in hospitals
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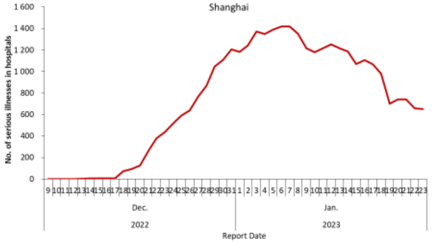
Dec.
2022
Jan.
2023
Report Date


Shanghai
1 600
1 400
1 200
1 000
800
600
400
200
0
No. of serious illnesses in hospitals
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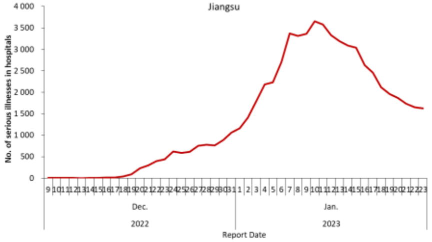
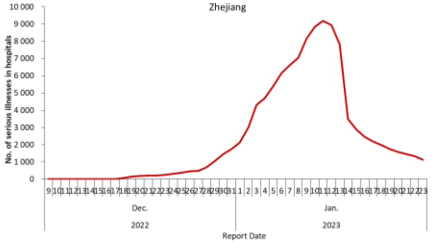
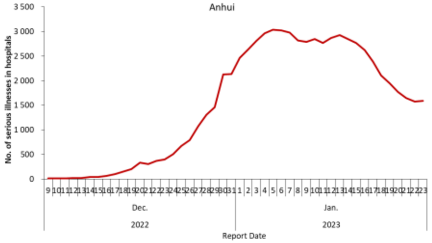
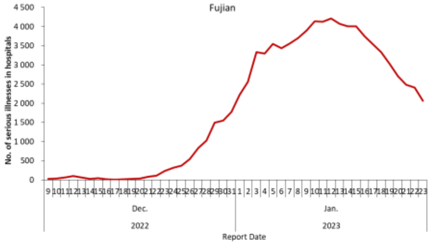
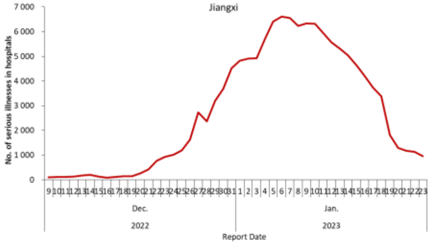
Dec.
2022
Jan.
2023
Report Date


Jiangsu
4 000
3 500
3 000
2 500
2 000
1 500
1 000
500
0
No. of serious illnesses in hospitals
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec.
2022
Jan.
2023
Report Date

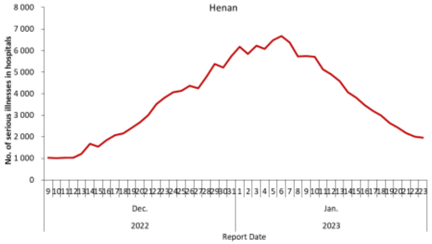

Zhejiang
10 000
9 000
8 000
7 000
6 000
5 000
4 000
3 000
2 000
1 000
0
No. of serious illnesses in hospitals
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec.
2022
Jan.
2023
Report Date


Anhui
3 500
3 000
2 500
2 000
1 500
1 000
500
0
No. of serious illnesses in hospitals
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec.
2022
Jan.
2023
Report Date


Fujian
4 500
4 000
3 500
3 000
2 500
2 000
1 500
1 000
500
0
No. of serious illnesses in hospitals
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec.
2022
Jan.
2023
Report Date


Jiangxi
7 000
6 000
5 000
4 000
3 000
2 000
1 000
0
No. of serious illnesses in hospitals
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec.
2022
Jan.
2023
Report Date


Shandong
4 500
4 000
3 500
3 000
2 500
2 000
1 500
1 000
500
0
No. of serious illnesses in hospitals
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec.
2022
Jan.
2023
Report Date


Henan
8 000
7 000
6 000
5 000
4 000
3 000
2 000
1 000
0
No. of serious illnesses in hospitals
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Dec.
2022
Jan.
2023
Report Date

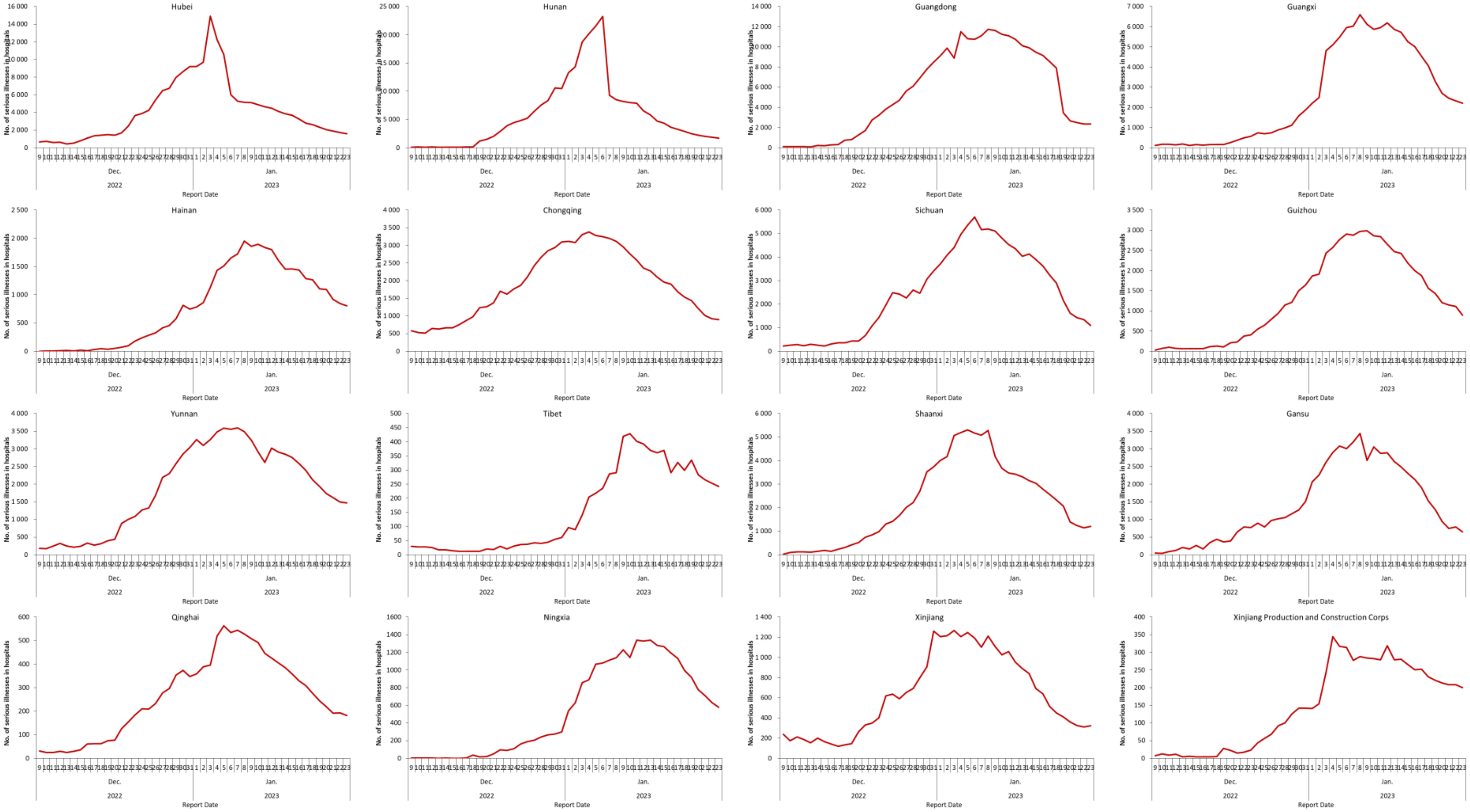


Figure 3-4 No. of serious illnesses in hospitals in different PLADs.

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 and continued to decline thereafter, falling back to 896 on 23 January, with an 79.0% reduction from the peak number (Figure 3-5).

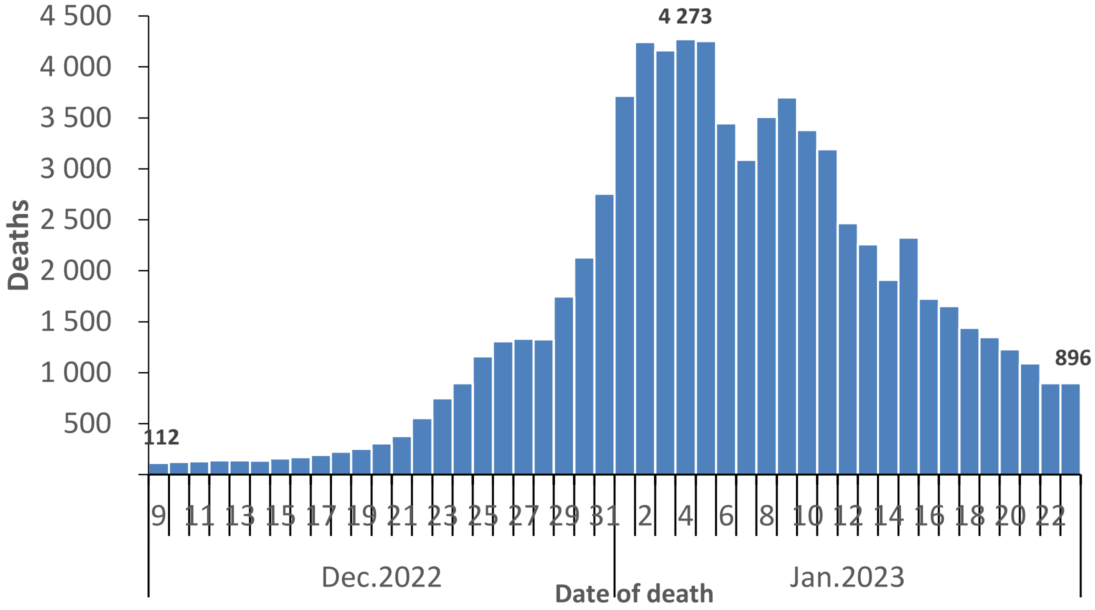


Figure 3-5 No. of deaths with SARS-CoV-2 in hospitals.

4.SARS-CoV-2 variants surveillance of domestic cases in Chinese mainland

China consistently continues to carry out virus mutation surveillance since early of 2020. After December 12, 2022, the criteria for data collection were as follows: 31 PLADs and Xinjiang Construction Corps selected three sentinel hospital in three different regions. At the same time, the surveillance of SARS-CoV-2 variants of inbound people will be carried out at land, water and airport ports.

4.1. The dynamic trend of SARS-CoV-2 variant from domestic cases in Chinese mainland

From Sep 26, 2022 to Jan 23, 2023, 18906 valid SARS-CoV-2 genome sequences from domestic cases were reported nationwide, with a total of 69 Omicron sub-lineages. The predominant lineages are BA.5.2 (70.8%) and BF.7 (23.4%), followed by other 13 lineages with the proportion of 1.3%~0.1%, including BA.2.76, etc.; the other 54 lineages were minority with the proportion below 0.1%, accounting for 1.1% (Figure 4-1).

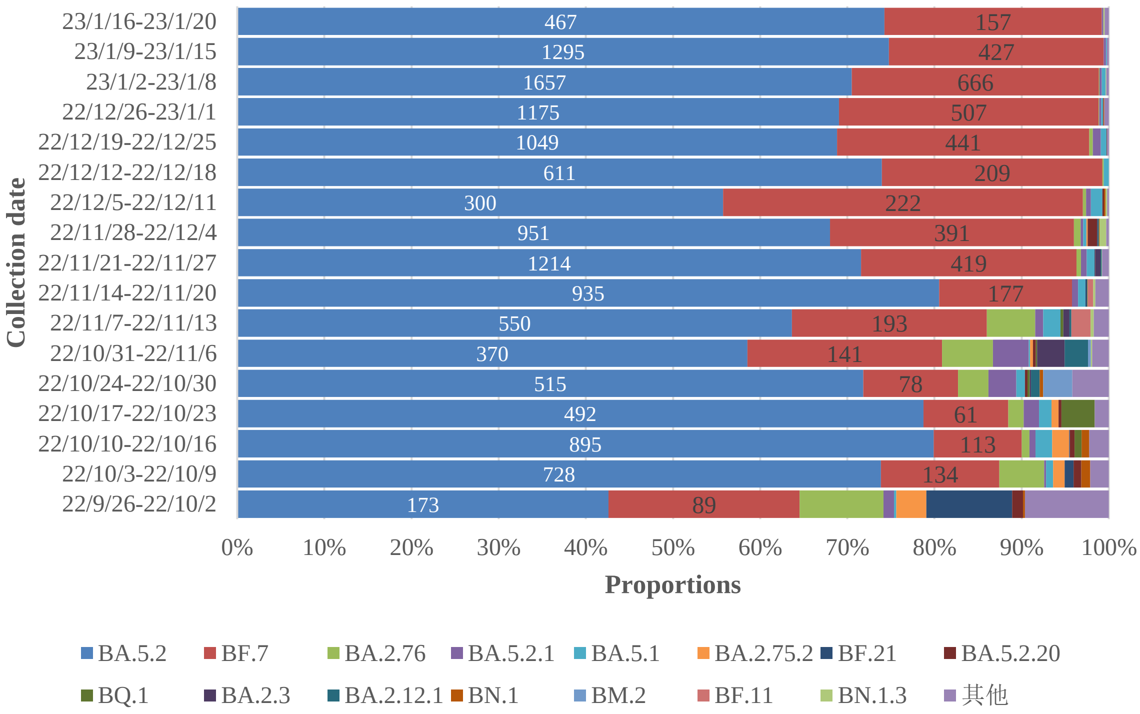


Figure 4-1 Dynamic trend of SARS-CoV-2 lineages from domestic cases in Chinese mainland by weekly.

Notes: 1. Collection date interval: Sep 26, 2022 to Jan 20, 2023; 2. The data derived from the valid genome sequences of SARS-CoV-2 of domestic cases submitted by PLADs with a deadline date Jan 23, 2023; 3. The marked numbers in the figure were the number of valid genome sequences of BA.5.2 and BF.7 lineages respectively; 4. "Other" referred to the lineages with the proportions of Omicron variants less than 0.1% nationwide. As of Jan 20, 2023, the proportions of 54 lineages were less than 0.1% (1.13% in total).

4.2. Genomic surveillance of SARS-CoV-2 variants among domestic cases in each PLADs from December 1, 2022 to January 23 2023

From Dec 1, 2022 to Jan 23, 2023, 10165 valid SARS-CoV-2 genome sequences from domestic cases were reported nationwide, all of which were Omicron variants with a total of 24 lineages. The main epidemic strains are BA.5.2 (70.2%) and BF.7 (28.3%) (Table 4-1). A total of 11 cases of concern subvariant mutants were found, including 1 case of XBB.1, 1 case of BQ.1.17, 4 cases of BQ. 1.1, 3, 3 cases of BQ.1.2 and 2 cases of BQ.1.8.

Table 4-1 National proportions of SARS-CoV-2 variants (Dec 1, 2022 to Jan 23, 2023).

Omicron lineages	Proportion (%)
BA.5.2	70.2
BF.7	28.3
BA.5.1	0.4
BA.5.2.1	0.3
BA.2.76	0.2
BA.5.2.20	0.2
BN.1.3	0.1
Other	0.3
Total	100.0

From Dec 1, 2022 to Jan 23, 2023, overall, BF.7 lineage was the dominant variants in Beijing and Tianjin City， The prevalence rates of BF.7 and BA.5.2 in Jiangsu and Inner Mongolia are basically the same, BA.5.2 lineage was the dominant variants in other PLADs.

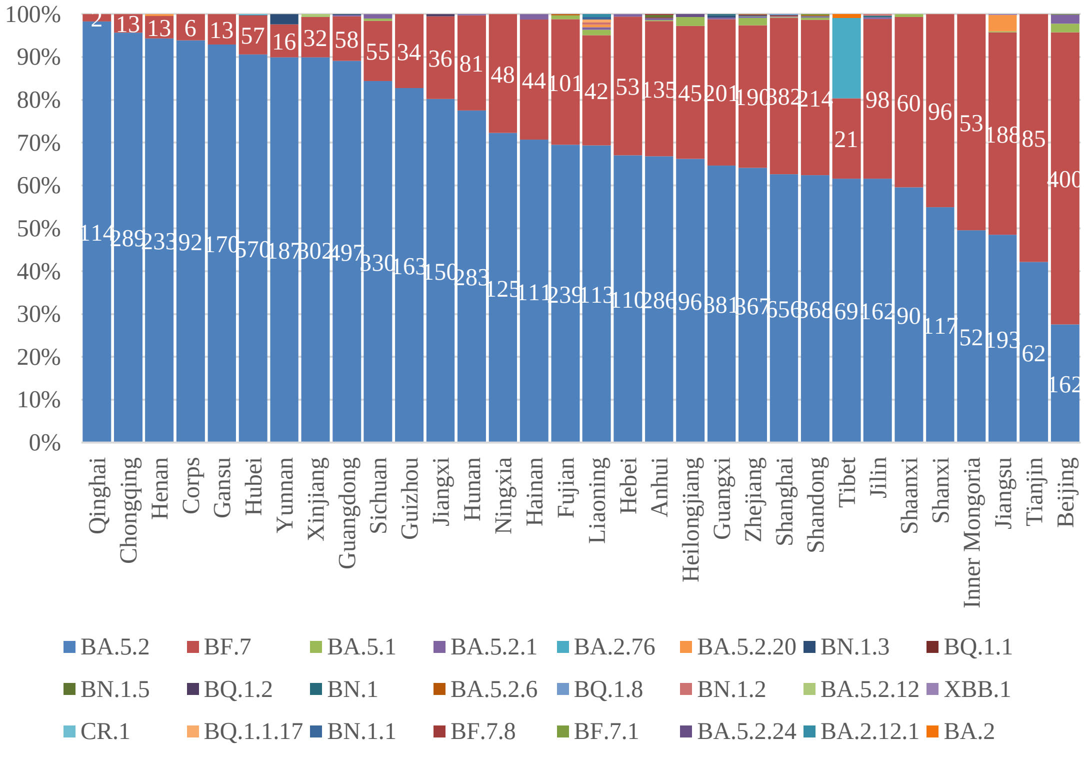


Figure 4-2 SARS-CoV-2 variants surveillance by PLADs.

Notes: 1. Collection date interval: Dec 1, 2022 to Jan 20, 2023; 2. The data derived from the valid genome sequences of SARS-CoV-2 of domestic cases submitted by PLADs with a deadline date Jan 23, 2023; 3. The marked numbers in the figure are the number of valid genome sequences of BA.5.2 and BF.7 lineages respectively.

4.3. Prevalence of BF 7.14 in China

According to the latest data from Pango nomenclature, BF.7 containing four characteristic amino acid mutation sites: ORF7a:H47Y, ORF1b:L238F, S:C1243F, ORF1a:V274L and a characteristic nucleotide mutation site C29632T was named BF.7.14. Among the domestic cases, the BF.7.14 subvariants accounted for 96.65%, suggesting that the main prevalent sub-lineage of BF.7 was BF.7.14. In the imported cases, BF.7.14 subvariants accounted for 37.37%. Among the imported cases, the earliest reported BF.7.14 imported case was from Belarus on September 25, 2022. Among the local cases, the earliest reported BF.7.14 domestic cases were from Inner Mongolia Autonomous Region on September 27, 2022 (Figure 4-3).

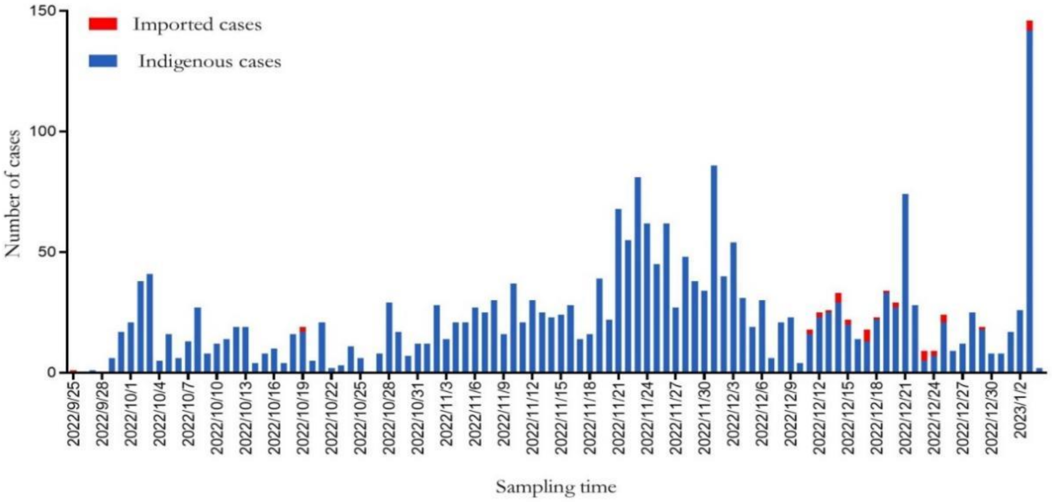


Figure 4-3 Distribution of domestic and imported cases in BF.7.14 lineage.

4.4. Prevalence of BA.5.2.48 in China

According to the latest data from Pango nomenclature, BA.5.2 containing four more characteristic nucleotide acid mutations sites (C2710T, C8626T, C16887T and T17208C) was named BA.5.2.48. The BA.5.2.48 subvariants accounted for 60% of BA.5.2 in domestic cases and 6.2% in imported cases in China. The earliest domestic case of BA.5.2.48 was reported in Guangdong PLADs on July 13, 2022. The earliest reported BA.5.2.48 imported case was a case that entered the country from Russia on 15 August 2022 (Figure 4-4).

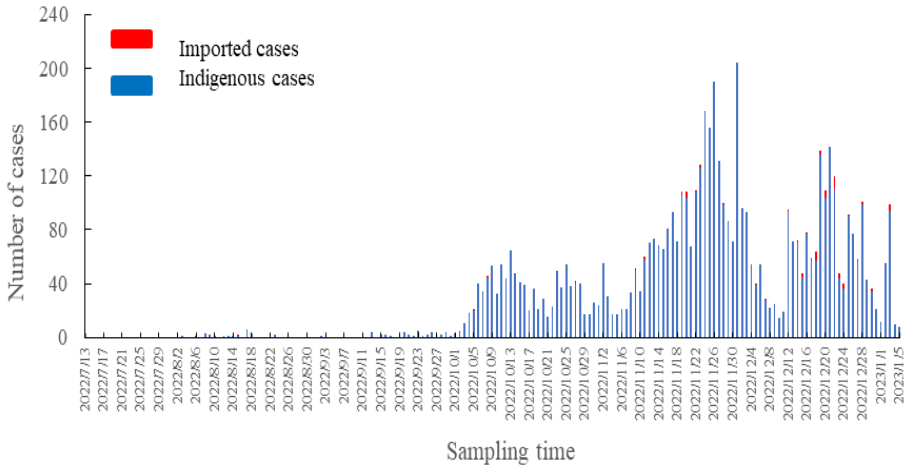


Figure 4-4 Distribution of domestic and imported cases in BA.5.2 lineage.

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; up to January 20, 2023, 3.49 billion doses of COVID-19 vaccine have been administered (Figure 5-1). By January 20, 2023, 92.9% of the entire, all-ages population initiated vaccination and 90.5% completed their primary series based on the whole population size reported in the seventh census of Chinese mainland (Figure 5-2).

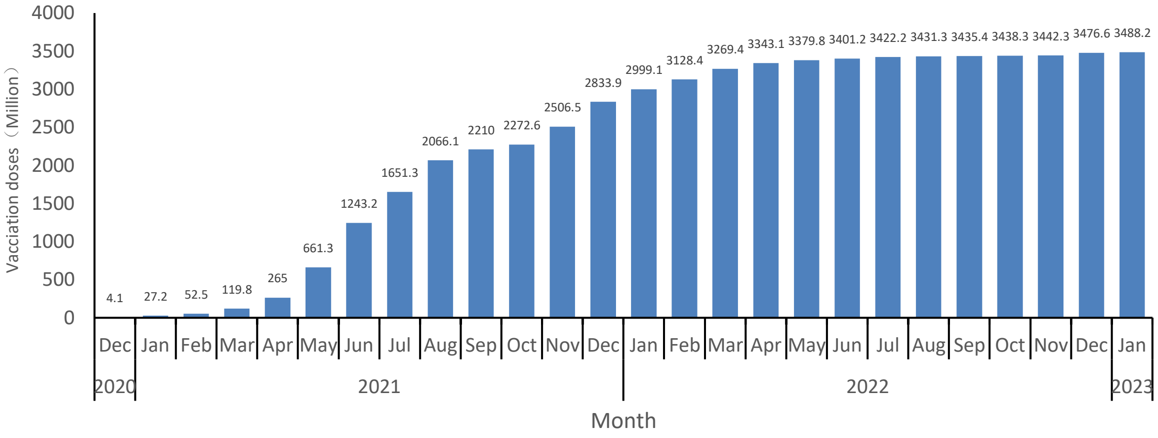


Figure 5-1 Cumulative COVID-19 vaccine doses administered in China by month.

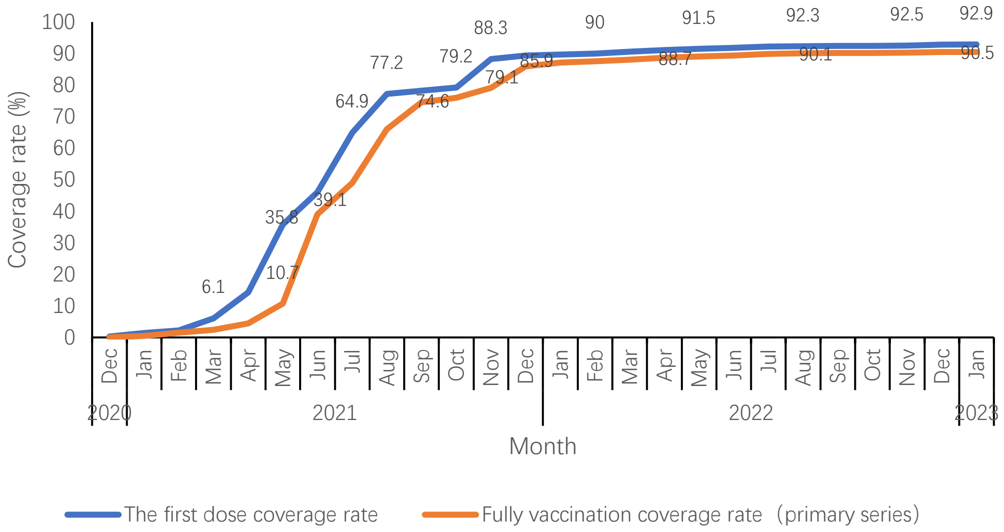


Figure 5-2 First-dose and primary series COVID-19 vaccine coverage of the entire (all ages) population of Chinese mainland by month.

Based on an investigation on vaccination among elder population, vaccination rate of people over 60 years old reached 96.0%. In these elderly populations, 96% completed their full primary series and 92% of minimum-interval-eligible elderly individuals received their first booster dose (Figure 5-3).

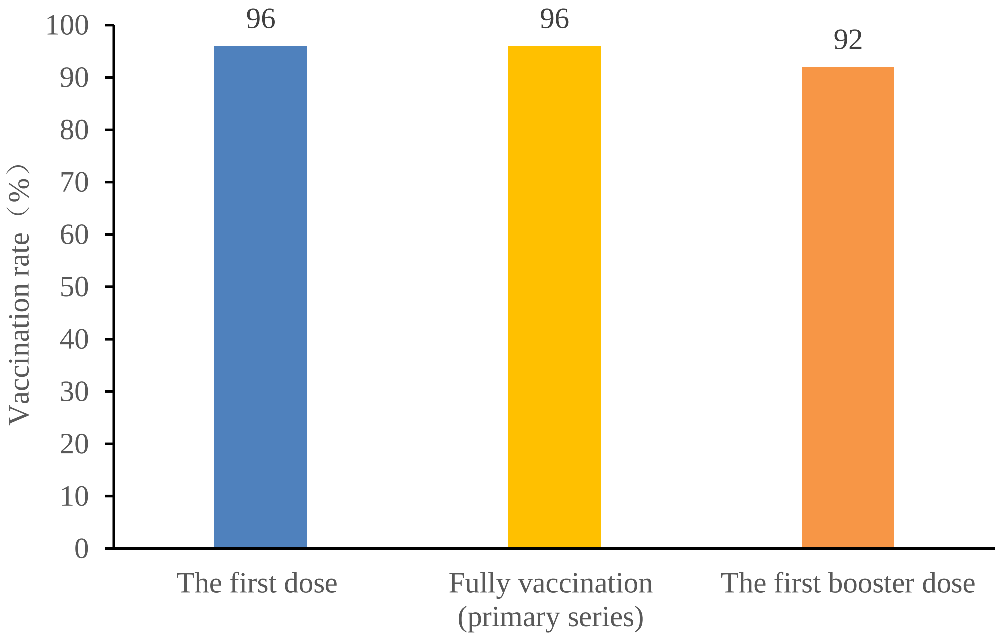


Figure 5-3. COVID-19 vaccine coverage of individuals 60 years and older: first-dose coverage, primary series coverage among interval-eligible individuals, and booster dose coverage among booster-dose-eligible individuals (based on reported population by each province).

Notes: For calculating first dose coverage, the numerator was the number of people who 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 (⩾60 years) in a recent investigation targeting on elder population.

For calculating full, primary series coverage, the numerator was the number of elderly people who received either 2 doses of inactivated vaccine, 1 dose of adenovirus vectored vaccine, or 3 doses of recombinant protein vaccine. The denominator was the number of people who had received either 1 dose of inactivated vaccine, 1 dose of adenovirus vectored vaccine, or 2 doses of recombinant protein vaccine with the recommended intervals 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 2 doses of inactivated vaccine or 1 dose of adenovirus vectored vaccine, with an interval between primary series completion and booster dose administration of 3 months. (Individuals who received 3 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.