

Chinese Weekly Influenza Surveillance Report

October 30 to November 12, 2023 (Week 45)

(All data are preliminary and may change as more reports are received)

Summary

- Influenza detections were increasing in southern and northern provinces, predominated by A(H3N2), and followed by B/Victoria. There were 127 ILI outbreaks reported in week 45.
- Among influenza viruses antigenically characterized by CNIC since April 3, 2023, 1820(97.3%) influenza A(H1N1)pdm09 viruses were characterized as A/Victoria/4897/2022-like; 717(50.8%) influenza A(H3N2) viruses were characterized as A/Darwin/9/2021(egg)-like, 725(51.4%) influenza A(H3N2) viruses were characterized as A/Darwin/6/2021(cell)-like; 120(94.5%) influenza B/Victoria viruses were characterized as B/Austria/1359417/2021-like.
- Among the influenza viruses tested by CNIC for antiviral resistance analysis since April 3, 2023, all but 4 influenza A(H1N1)pdm09 were sensitive to neuraminidase inhibitors, all A(H3N2) and B viruses were sensitive to neuraminidase inhibitors; all A(H1N1)pdm09, A(H3N2) and B viruses were sensitive to endonuclease inhibitors.

Surveillance of outpatient or emergency visits for Influenza-like Illness (ILI)

During week 45, the percentage of outpatient or emergency visits for ILI (ILI%) at national sentinel hospitals in southern provinces was 5.5%, lower than the last week (5.7%), and higher than the same week of $2020 \sim 2022(3.6\%)$, 3.4% and 3.1%). (Figure 1)



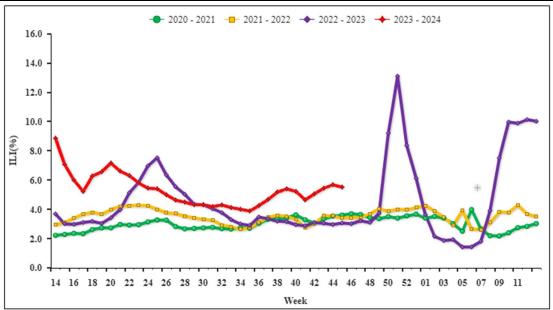


Figure 1. Percentage of Visits for ILI at Sentinel Hospitals in Southern Provinces

Note: Analysis in this part was based on data from sentinel hospitals belong to national influenza surveillance network.

During week 45, ILI% at national sentinel hospitals in northern provinces was 5.0%, higher than the last week (4.6%), and higher than the same week of 2020~2022(2.5%, 2.7% and 2.1%). (Figure 2)

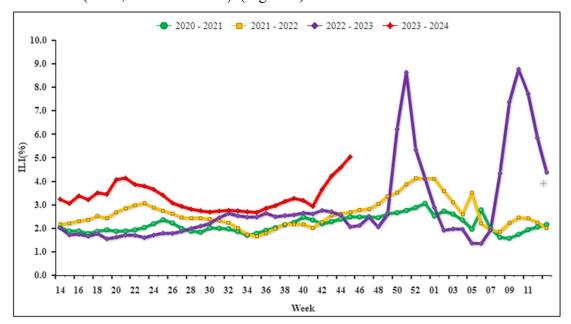


Figure 2. Percentage of Visits for ILI at Sentinel Hospitals in Northern Provinces

Note: Analysis in this part was based on data from sentinel hospitals belong to national influenza surveillance network.



Virologic Surveillance

During week 45, influenza network laboratories tested 11440 specimens, there were 2435 positive detections for influenza. The number and proportion of influenza types and subtypes detected in southern and northern provinces were shown in Table 1.

Table 1 Laboratory Detections of ILI Specimens (Week 45, 2023)

| | Week 45 | | |
|-------------------------------|--------------------|--------------------|-------------|
| | Southern provinces | Northern provinces | Total |
| No. of specimens tested | 5528 | 5912 | 11440 |
| No. of positive specimens (%) | 1484(26.8%) | 951(16.1%) | 2435(21.3%) |
| Influenza A | 1240(83.6%) | 907(95.4%) | 2147(88.2%) |
| A(H3N2) | 1223(98.6%) | 891(98.2%) | 2114(98.5%) |
| A(H1N1)pdm09 | 17(1.4%) | 16(1.8%) | 33(1.5%) |
| A (subtype not determined) | 0 | 0 | 0 |
| Influenza B | 244(16.4%) | 44(4.6%) | 288(11.8%) |
| B (lineage not determined) | 0 | 6(13.6%) | 6(2.1%) |
| Victoria | 244(100%) | 38(86.4%) | 282(97.9%) |
| Yamagata | 0 | 0 | 0 |



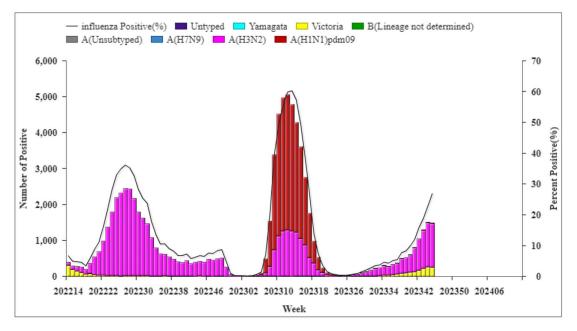


Figure 3. Influenza Positive Tests Reported by Southern Network Laboratories (Week 14, 2022–Week 13, 2024)

Note: Analysis in this part was based on the test results of network laboratories. If it were not consistent with the results of CNIC confirmation, the results of CNIC confirmation were used.

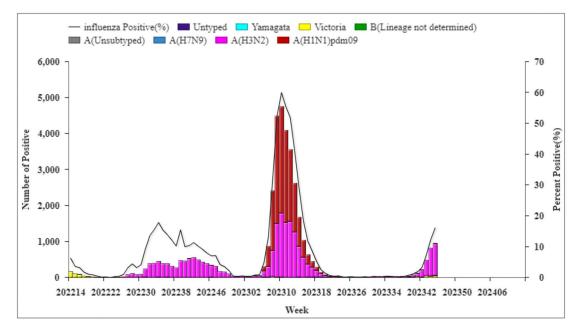


Figure 4. Influenza Positive Tests Reported by Northern Network Laboratories (Week 14, 2022–Week 13, 2024)

Note: Analysis in this part was based on the result of network laboratories. If it were not consistent with the results of CNIC confirmation, the results of CNIC confirmation were used.

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Antigenic Characterization

Since April 3, 2023, 1820(97.3%) influenza A(H1N1)pdm09 viruses were characterized as A/Victoria/4897/2022-like; 717(50.8%) influenza A(H3N2) viruses were characterized as A/Darwin/9/2021(egg)-like, 725(51.4%) influenza A(H3N2) viruses were characterized as A/Darwin/6/2021(cell)-like; 120(94.5%) influenza B/Victoria viruses were characterized as B/Austria/1359417/2021-like.

Antiviral Resistance

Since April 3, 2023, among the influenza viruses tested by CNIC for antiviral resistance, all but 4 influenza A(H1N1)pdm09 were sensitive to neuraminidase inhibitors, all A(H3N2) and B viruses were sensitive to neuraminidase inhibitors; all A(H1N1)pdm09, A(H3N2) and B viruses were sensitive to endonuclease inhibitors.

Outbreak Surveillance

During week 45, there were 127 ILI outbreaks reported nationwide. Among them, 105 were A(H3N2), 3 were B (lineage not determined), 7 were mixed, 5 were negative for flu, 7 had not obtained the testing results.