

Chinese Influenza Weekly Report

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

Summary

- During week 46, influenza activity level was still very low but with a slight upward trend, A(H3N2) and B-Victoria lineage viruses were detected in mainland China.
- Among influenza viruses antigenically characterized by CNIC since April 1st, 2019, 1588(98.1%) influenza A(H1N1)pdm09 viruses were characterized as A/Brisbane/02/2018-like; 184(24.3%) influenza A(H3N2) viruses were characterized as A/Kansas/14/2017 (EGG)-like, 280(38.7%) influenza A(H3N2) viruses were characterized as A/Kansas/14/2017 (CELL)-like; 625(40.1%) influenza B/Victoria viruses were characterized as B/Colorado/06/2017-like; 16(94.1%) influenza B/Yamagata viruses were characterized as B/Phuket/3073/2013-like.
- Among the influenza viruses tested by CNIC for antiviral resistance analysis since April 1st, 2019, all influenza A(H1N1)pdm09 and A(H3N2) viruses were resistant to adamantane; All influenza A(H3N2) and B viruses were sensitive to neuraminidase inhibitors. All but 1 influenza A(H1N1)pdm09 were sensitive to neuraminidase inhibitors.

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

During week 46 (Nov 11th 2019 –Nov 17th 2019), the percentage of outpatient or emergency visits for ILI (ILI%) at national sentinel hospitals in southern provinces was 3.2%, higher than the last week (3.1%), higher than the same week of 2016-2018 (3.1%, 2.9% and 2.8%). (Figure 1)

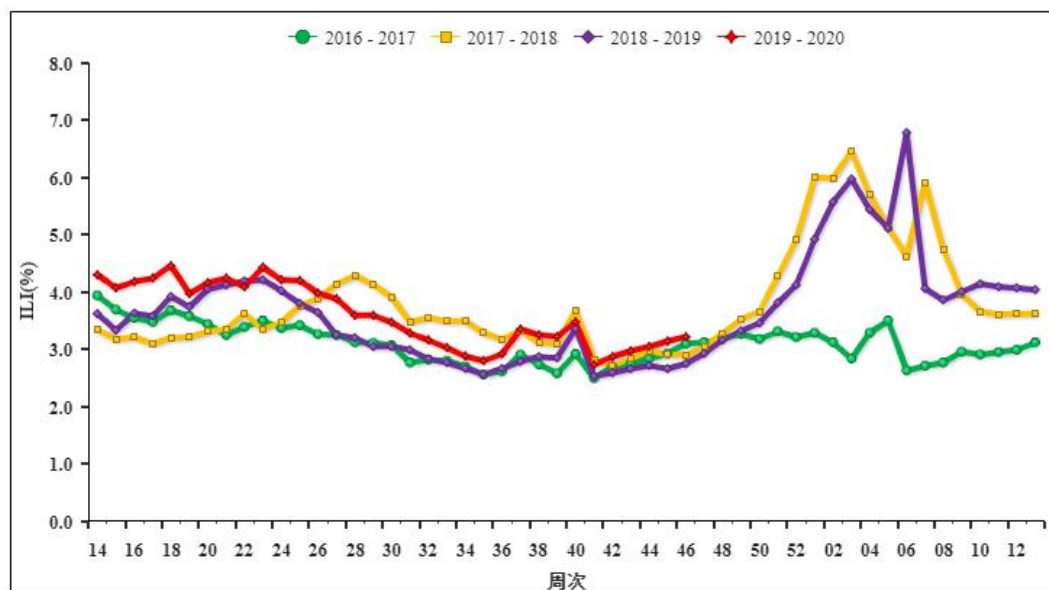


Figure 1. Percentage of Visits for ILI at Sentinel Hospitals in South China (2016-2020)

During week 46, ILI% at national sentinel hospitals in northern provinces was 2.6%, higher than the last week (2.5%), lower than the same week of 2016 and 2017 (2.9% and 3.2%), same as the same week of 2018 (2.6%). (Figure 2)

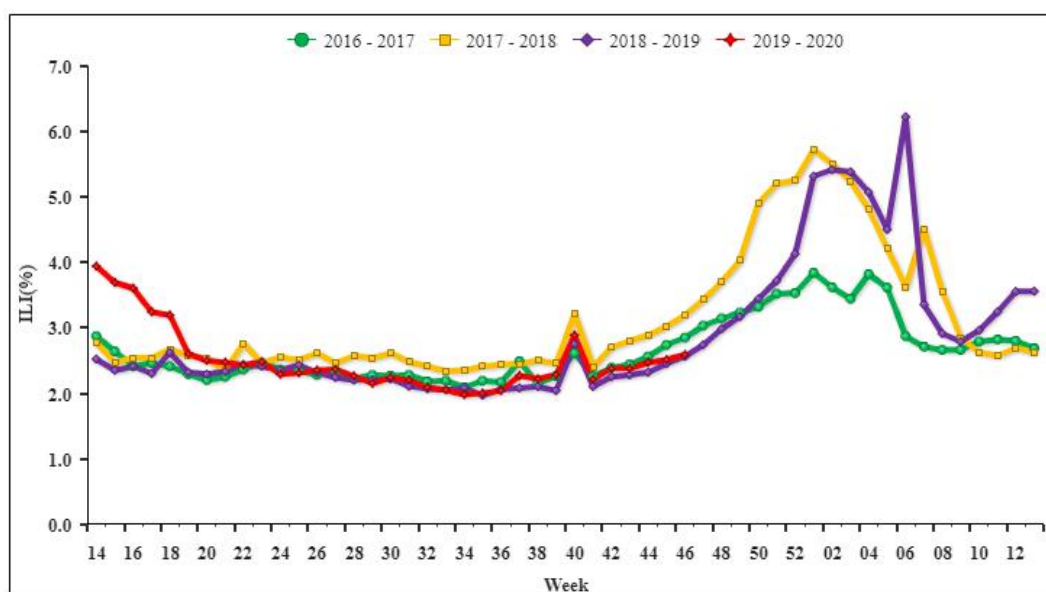


Figure 2. Percentage of Visits for ILI at Sentinel Hospitals in North China (2016-2020)

Virologic Surveillance

During week 46, influenza network laboratories tested 7763 specimens, of which 404 (5.2%) were positive for influenza, influenza A and influenza B viruses were 312 (77.2%) and 92 (22.8%), respectively (Table 1). During week 46, the percentage of specimens that were tested positive for influenza in south China was 8.5%, which was lower than the previous week (9.1%) (Figure 3). During week 46, the percentage of specimens that were tested positive for influenza in north China was 2.3%, which was higher than the previous week (2.0%). (Figure 4).

Table 1 Laboratory Detections of ILI Specimens (Week 46, 2019)

	Week 46		
	South China	North China	Total
No. of specimens tested	3631	4132	7763
No. of positive specimens (%)	307(8.5%)	97(2.3%)	404(5.2%)
Influenza A	217(70.7%)	95(97.9%)	312(77.2%)
A(H3N2)	208(95.9%)	84(88.4%)	292(93.6%)
A(H1N1)pdm09	9(4.1%)	11(11.6%)	20(6.4%)

A (subtype not determined)	0(0)	0(0)	0(0)
Influenza B	90(29.3%)	2(2.1%)	92(22.8%)
B (lineage not determined)	0(0)	0(0)	0(0)
Victoria	87(96.7%)	2(100.0%)	89(96.7%)
Yamagata	3(3.3%)	0(0)	3(3.3%)

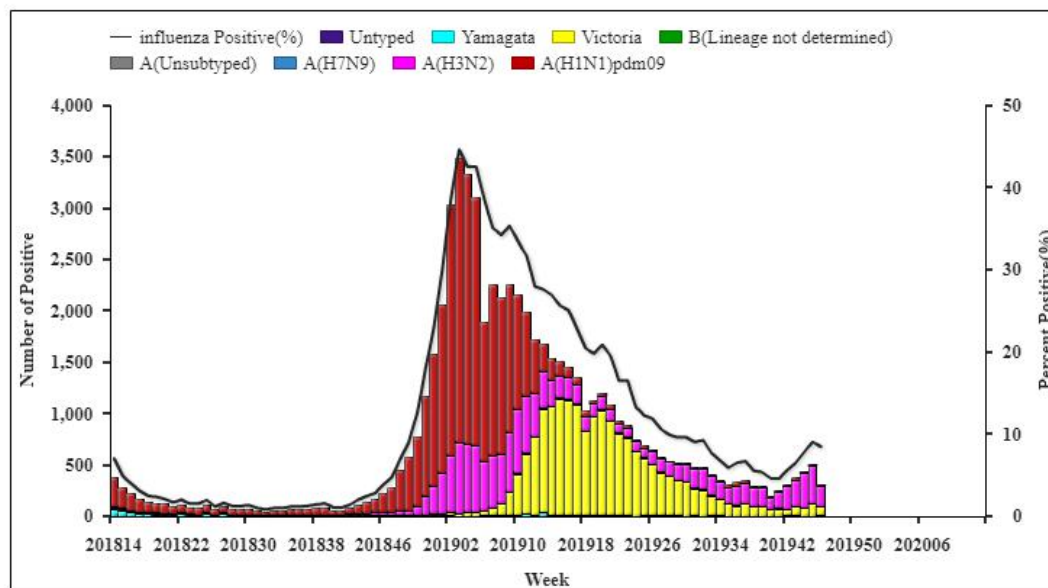
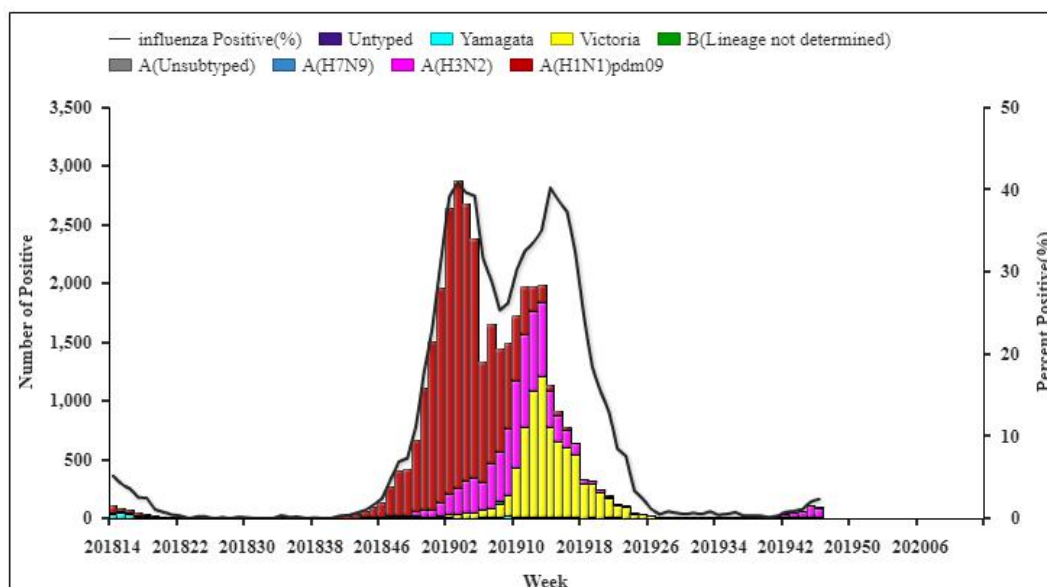


Figure 3. Influenza Positive Tests Reported by Southern Network Laboratories (Week 14, 2018–Week 46, 2019)

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, 2018–Week 46, 2019)**

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.

Antigenic Characterization

Since April 1st, 2019, 1588(98.1%) influenza A(H1N1)pdm09 viruses were characterized as A/Brisbane/02/2018-like; 184(24.3%) influenza A(H3N2) viruses were characterized as A/Kansas/14/2017 (EGG)-like, 280(38.7%) influenza A(H3N2) viruses were characterized as A/Kansas/14/2017 (CELL)-like; 625(40.1%) influenza B/Victoria viruses were characterized as B/Colorado/06/2017-like; 16(94.1%) influenza B/Yamagata viruses were characterized as B/Phuket/3073/2013-like.

Antiviral Resistance

Since April 1st, 2019, among the influenza viruses tested by CNIC for antiviral resistance, all influenza A(H1N1)pdm09 and A(H3N2) viruses were resistant to adamantane; All influenza A(H3N2) and B viruses were sensitive to neuraminidase inhibitors. All but 1 influenza A(H1N1)pdm09 were sensitive to neuraminidase inhibitors.

Outbreak Surveillance

During week 46(Nov 11th 2019-Nov 17th 2019), There were fifty-seven outbreaks reported nationwide, twenty-seven of them were A(H3N2), seven of them were B(Victoria), three of them were A(lineage not determined), two of them were B(lineage not determined), three of them were mixed, four of them were flu negative, eleven of them had not been obtained the testing results.

H7N9 Case Report

During week 46, no new human infection with novel reassortant influenza A(H7N9) virus was reported.