Chinese Influenza Weekly Report

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

Summary

- During week 24, influenza activity level continued to decrease in mainland China with B-Victoria lineage virus most frequently detected, followed by influenza A(H3N2) viruses, and the influenza activity returned to inter-seasonal level in most northern provinces.
- Among influenza viruses antigenically characterized by CNIC since October1st, 2018, 1994(97.5%) influenza A(H1N1)pdm09 viruses were characterized as A/Michigan/45/2015-like; 388(72.0%) influenza A(H3N2) viruses were characterized as A/Singapore/INFIMH-16-0019/2016 (EGG)-like, 514(95.4%) influenza A(H3N2) viruses were characterized as A/Singapore/INFIMH-16-0019/2016 (CELL)-like; 223(43.0%) influenza B/Victoria viruses were characterized as B/Colorado/06/2017-like; 49(100.0%) influenza B/Yamagata viruses were characterized as B/Phuket/3073/2013-like.
- Among the influenza viruses tested by CNIC for antiviral resistance analysis since October 1st, 2018, all influenza A(H1N1)pdm09 and A(H3N2) viruses were resistant to adamantine; All influenza A(H3N2) and B viruses were sensitive to neuraminidase inhibitors.All but 12influenza A(H1N1)pdm09were sensitive to neuraminidase inhibitors.

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

During week 24 (June 10th 2019 –June 16th 2019), the percentage of outpatient or emergency visits for ILI (ILI%) at national sentinel hospitals in southern provinces was 4.2%, lower than the last week(4.5%), higher than the same week of 2016-2018 (3.4%, 3.5%, 4.0%). (Figure 1)

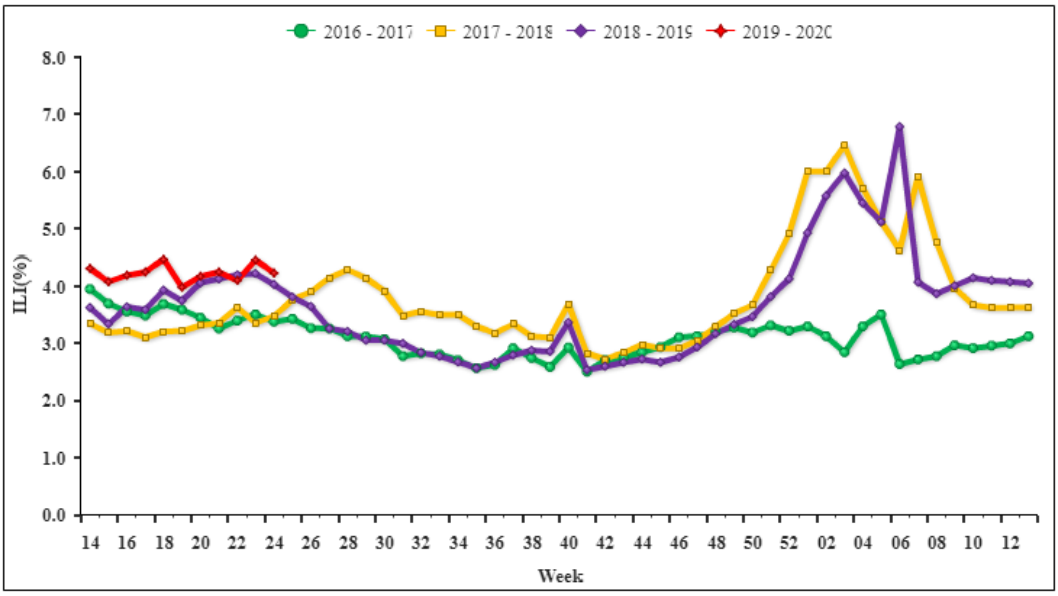

Figure 1. Percentage of Visits for ILI at Sentinel Hospitalsin South China (2016-2020)

During week 24, ILI% at national sentinel hospitals in northern provinces was 2.3%, lower than the last week(2.5%), lower than the same week of 2016-2018 (2.4%, 2.6%, 2.4%). (Figure 2)

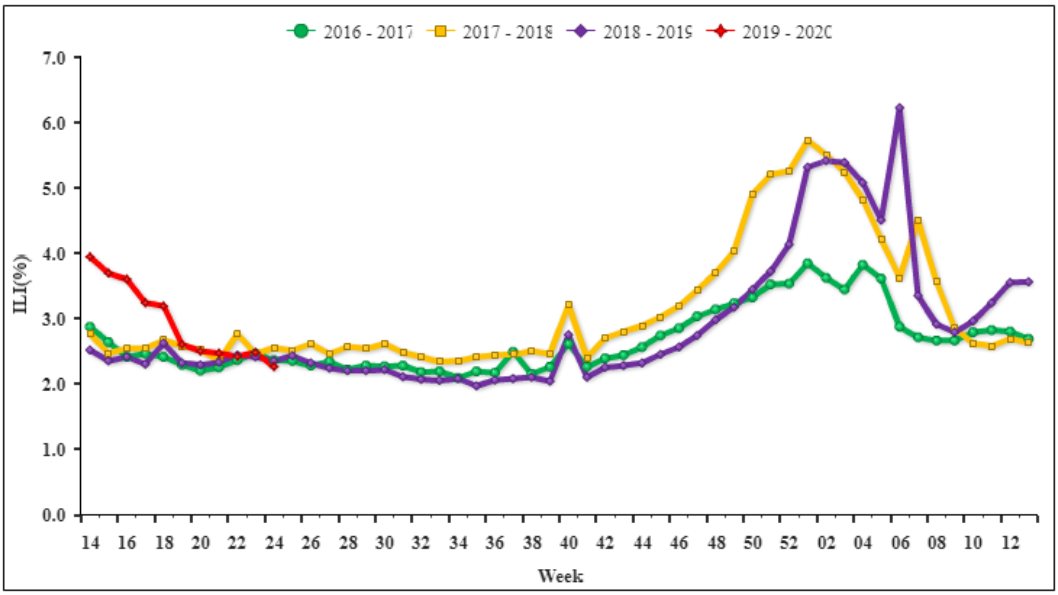

Figure 2. Percentage of Visits for ILI at Sentinel Hospitals in North China (2016-2020)

Virologic Surveillance

During week 24, influenza network laboratories tested 4306 specimens, of which 438(10.2%) were positive for influenza, influenza A and influenza B viruses were 53(12.1%) and 385(87.9%), respectively (Table 1). During week 24, the percentage of specimens that were tested positive for influenza in south China was 12.0%, which was lower than the previous week (16.2%)(Figure 3). During week 24, the percentage of specimens that were tested positive for influenza in north China was 4.1%, which was lower than the previous week (7.2%). (Figure 4).

Table 1 Laboratory Detections of ILI Specimens (Week 24, 2019)

	Week 24		
	South China	**North China**	**Total**
No. of specimens tested	**3304**	**1002**	**4306**
No. of positive specimens (%)	**397(12.0%)**	**41(4.1%)**	**438(10.2%)**
Influenza A	**45(11.3%)**	**8(19.5%)**	**53(12.1%)**
A(H3N2)	42(93.3%)	8(100%)	50(94.3%)
A(H1N1)pdm09	3(6.7%)	0(0)	3(5.7%)

A (subtype not determined)	0(0)	0(0)	0(0)
Influenza B	**352(88.7%)**	**33(80.5%)**	**385(87.9%)**
B (lineage not determined)	6(1.7%)	0(0)	6(1.6%)
Victoria	346(98.3%)	33(100%)	379(98.4%)
Yamagata	0(0)	0(0)	0(0)

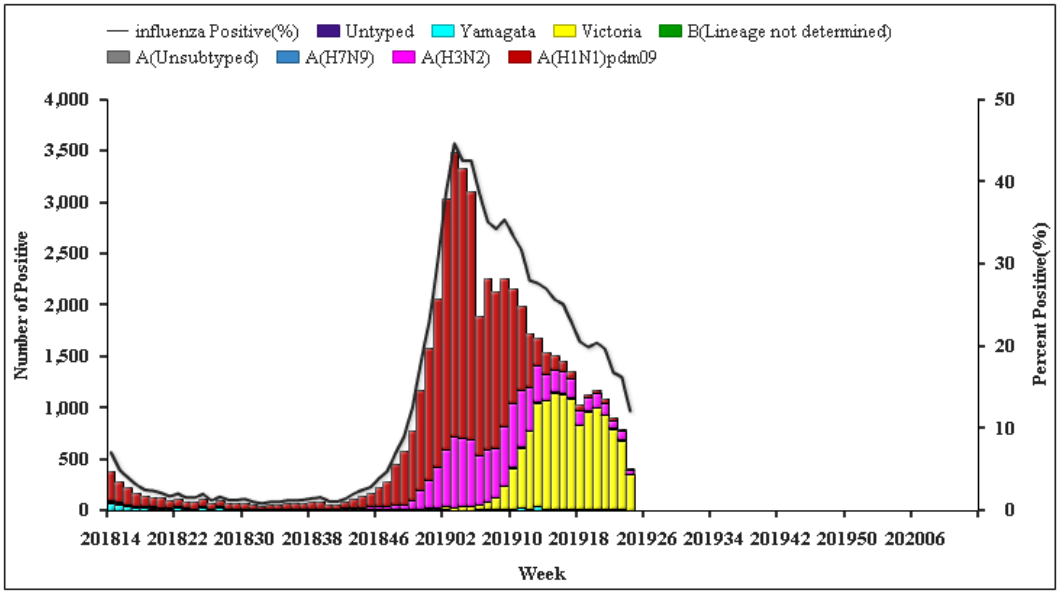

Figure 3. Influenza Positive Tests Reported by Southern Network Laboratories (Week 14, 2018–Week 24, 2019)

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.

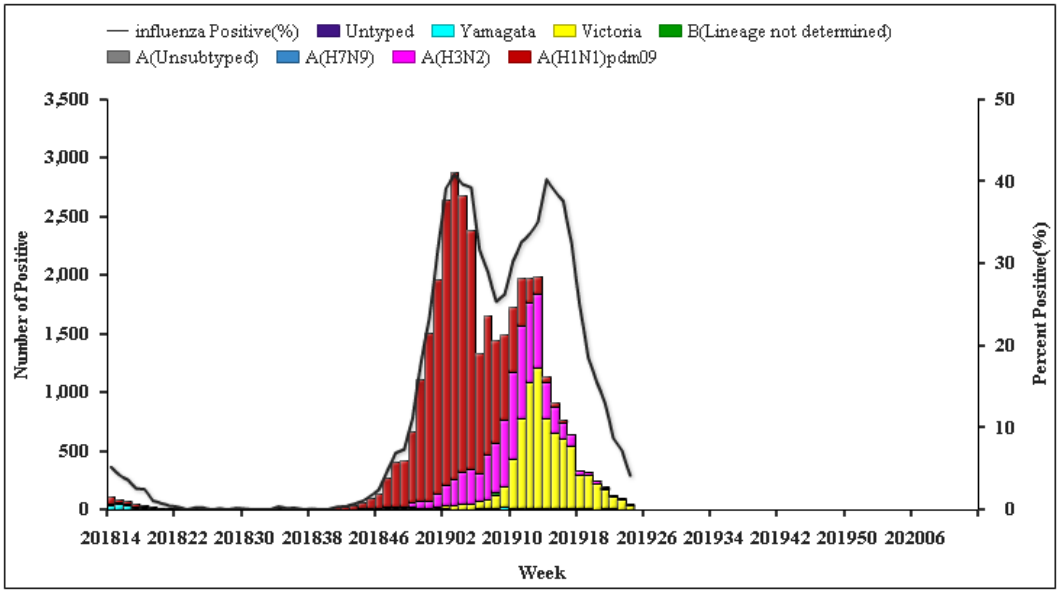

Figure 4. Influenza Positive Tests Reported by Northern Network Laboratories (Week 14, 2018–Week 24, 2019)

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 October1st, 2018, 1994(97.5%) influenza A(H1N1)pdm09 viruses were characterized as A/Michigan/45/2015-like; 388(72.0%) influenza A(H3N2) viruses were characterized as A/Singapore/INFIMH-16-0019/2016 (EGG)-like, 514(95.4%) influenza A(H3N2) viruses were characterized as A/Singapore/INFIMH-16-0019/2016 (CELL)-like; 223(43.0%) influenza B/Victoria viruses were characterized as B/Colorado/06/2017-like; 49(100.0%) influenza B/Yamagata viruses were characterized as B/Phuket/3073/2013-like.

Antiviral Resistance

Since October1st, 2018, among the influenza viruses tested by CNIC for antiviral resistance, all influenza A(H1N1)pdm09 and A(H3N2) viruses were resistant to adamantine; All influenza A(H3N2) and B viruses were sensitive to neuraminidase inhibitors. All but 12 influenza A(H1N1)pdm09 were sensitive to neuraminidase inhibitors.

Outbreak Surveillance

During week 24(Jun10th2019–Jun 16th2019), there were twenty outbreaksreported nationwide, seven of them were B(Victoria), six of them were B (lineage not determined), one of them was A(H3N2) , one of them was A (lineage not determined), five of them had not been obtained the results.

H7N9 Case Report

During week 24, no new human infection with novel reassortant influenza A(H7N9) virus was reported.