

## Chinese Influenza Weekly Report

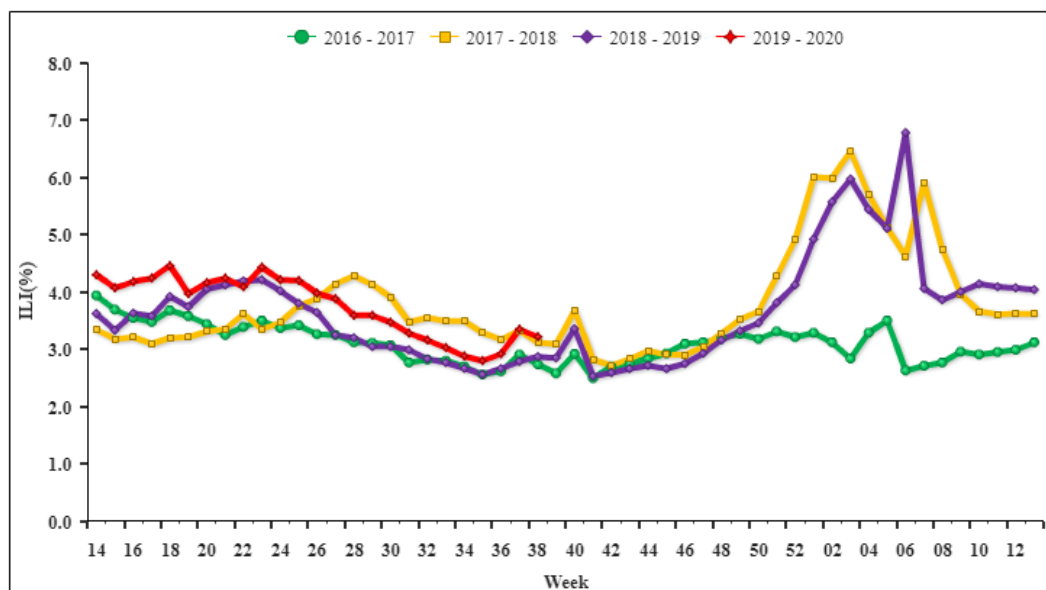
(All data are preliminary and may change as more reports are received)

### Summary

- During week 38, influenza activity remained at inter-seasonal level in mainland China. A small number of A(H3N2), B-Victoria lineage and A(H1N1)pdm09 viruses were detected in southern provinces, few influenza viruses could be detected sporadically in northern provinces.
- Among influenza viruses antigenically characterized by CNIC since October 1<sup>st</sup>, 2018, 2193(97.6%) influenza A(H1N1)pdm09 viruses were characterized as A/Michigan/45/2015-like; 750(78.5%) influenza A(H3N2) viruses were characterized as A/Singapore/INFIMH-16-0019/2016 (EGG)-like, 927(97.0%) influenza A(H3N2) viruses were characterized as A/Singapore/INFIMH-16-0019/2016 (CELL)-like; 630(43.8%) influenza B/Victoria viruses were characterized as B/Colorado/06/2017-like; 58(98.3%) 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 1<sup>st</sup>, 2018, 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 12 influenza A(H1N1)pdm09 were sensitive to neuraminidase inhibitors.

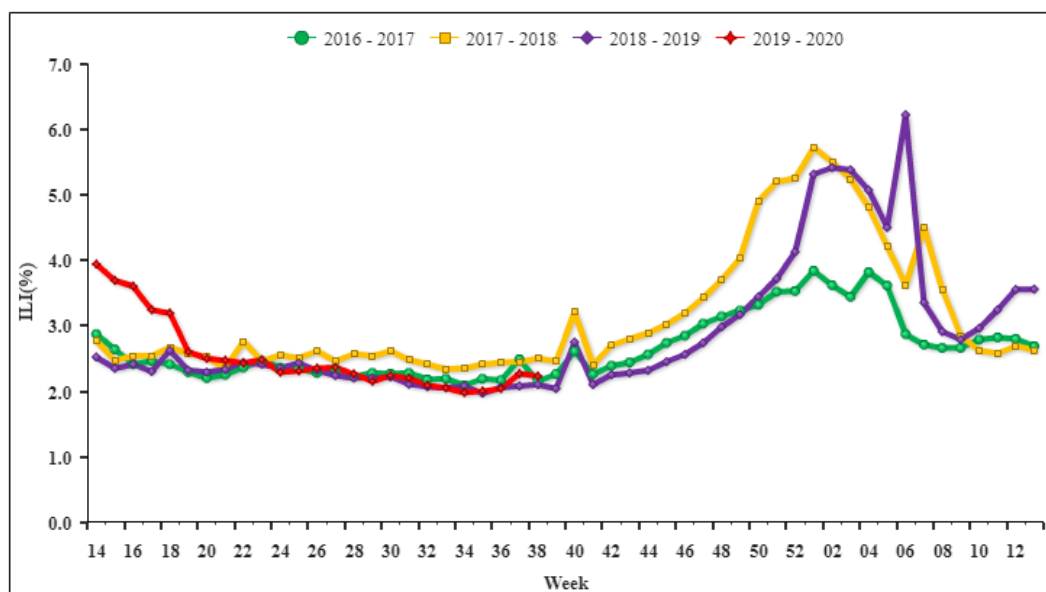
### Surveillance of outpatient or emergency visits for Influenza-like Illness (ILI)

During week 38 (Sep 16<sup>th</sup> 2019 –Sep 22<sup>nd</sup> 2019), the percentage of outpatient or emergency visits for ILI (ILI%) at national sentinel hospitals in southern provinces was 3.2%, lower than the last week (3.4%), higher than the same week of 2016-2018 (2.7%, 3.1% and 2.9%). (Figure 1)



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

During week 38, ILI% at national sentinel hospitals in northern provinces was 2.2%, lower than the last week and the same week of 2017 (2.3% and 2.5%), same as the same week of 2016 (2.2%), higher than the same week of 2018 (2.1%). (Figure 2)



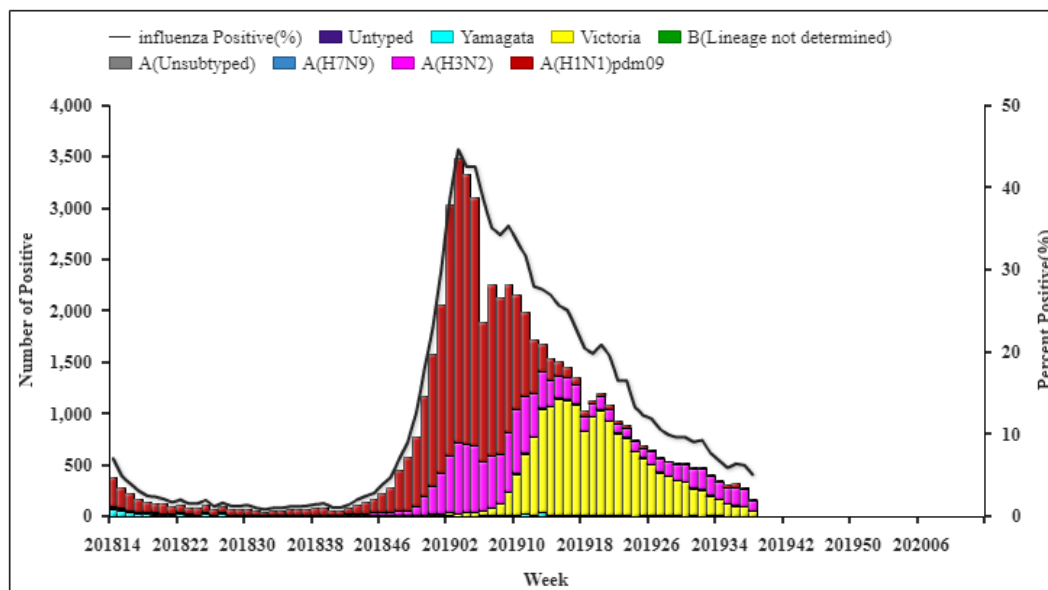
**Figure 2. Percentage of Visits for ILI at Sentinel Hospitals in North China (2016-2020)**

During week 38, influenza network laboratories tested 4189 specimens, of which 164 (3.9%) were positive for influenza, influenza A and influenza B viruses were 114 (69.5%) and 50 (30.5%), respectively (Table 1). During week 38, the percentage of specimens that were tested positive for influenza in south China was 5.1%, which was lower than the previous week (6.2%) (Figure 3). During week 38, the percentage of specimens that were tested positive for influenza in north China was 0.4%, which was same as the previous week (0.4%). (Figure 4).

**Table 1 Laboratory Detections of ILI Specimens (Week 38, 2019)**

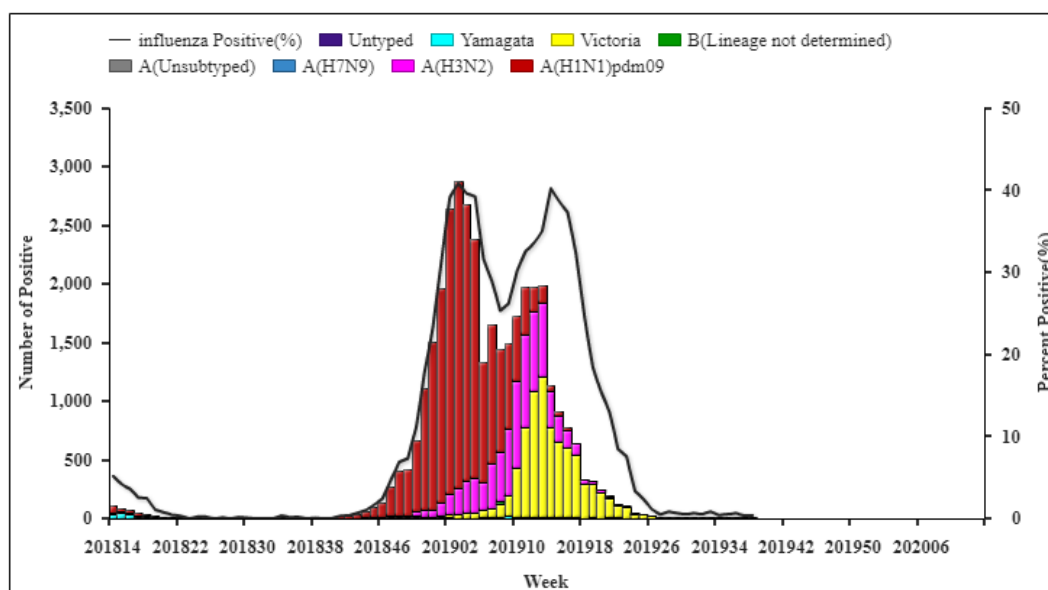
	Week 38		
	South China	North China	Total
<b>No. of specimens tested</b>	<b>3150</b>	<b>1039</b>	<b>4189</b>
<b>No. of positive specimens (%)</b>	<b>160(5.1%)</b>	<b>4(0.4%)</b>	<b>164(3.9%)</b>
<b>Influenza A</b>	<b>110(68.8%)</b>	<b>4(100.0%)</b>	<b>114(69.5%)</b>
A(H3N2)	99(90.0%)	3(75.0%)	102(89.5%)
A(H1N1)pdm09	11(10.0%)	1(25.0%)	12(10.5%)

A (subtype not determined)	0(0)	0(0)	0(0)
<b>Influenza B</b>	<b>50(31.3%)</b>	<b>0(0)</b>	<b>50(30.5%)</b>
B (lineage not determined)	0(0)	0(0)	0(0)
Victoria	50(100.0%)	0(0)	50(100.0%)
Yamagata	0(0)	0(0)	0(0)



**Figure 3. Influenza Positive Tests Reported by Southern Network Laboratories (Week 14, 2018–Week 38, 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 38, 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 October 1<sup>st</sup>, 2018, 2193(97.6%) influenza A(H1N1)pdm09 viruses were characterized as A/Michigan/45/2015-like; 731(78.7%) influenza A(H3N2) viruses were characterized as A/Singapore/INFIMH-16-0019/2016 (EGG)-like, 901(97%) influenza A(H3N2) viruses were characterized as A/Singapore/INFIMH-16-0019/2016 (CELL)-like; 623(44.8%) influenza B/Victoria viruses were characterized as B/Colorado/06/2017-like; 58(98.3%) influenza B/Yamagata viruses were characterized as B/Phuket/3073/2013-like.

##### **Antiviral Resistance**

Since October 1<sup>st</sup>, 2018, 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 12 influenza A(H1N1)pdm09 were sensitive to neuraminidase inhibitors.

##### **Outbreak Surveillance**

During week 38 (Sep 16<sup>th</sup> 2019-Sep 22<sup>th</sup> 2019), there were ten outbreaks reported nationwide, three of them were A(H3N2), one of them was B(Victoria), two of them were B (lineage not determined), three of them had not been obtained the testing results, one of them was flu negative.

##### **H7N9 Case Report**

During week 38, no new human infection with novel reassortant influenza A(H7N9) virus was reported.