

## Chinese Influenza Weekly Report

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

### Summary

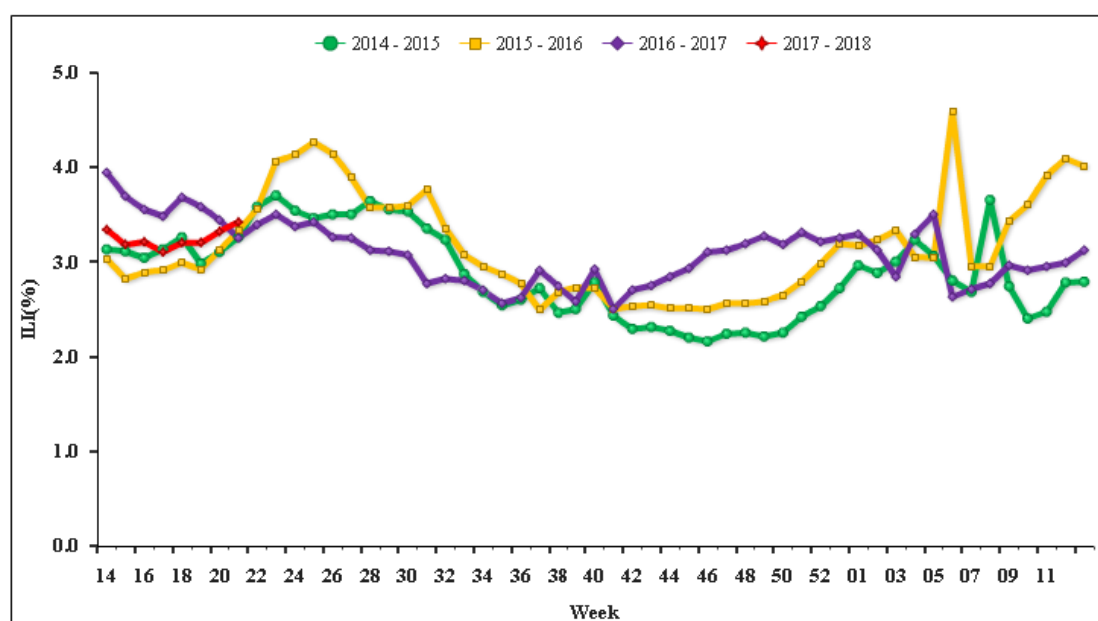
- During week 21, influenza activity continued to decline in mainland China, with co-circulation of influenza A(H1N1)pdm09 and B(Victoria) viruses in southern China, but very few A(H1N1)pdm09 viruses were detected in northern China.
- Among influenza viruses antigenically characterized by CNIC since September, 2016, 675(100%) influenza A(H1N1)pdm09 viruses were characterized as A/California/7/2009-like; 654(98.8%) influenza A(H1N1)pdm09 viruses were characterized as A/Michigan/45/2015-like; 272(37.5%) influenza A(H3N2) viruses were characterized as A/Hong Kong/4801/2014 (H3N2)(EGG)-like; 706(97.4%) influenza A(H3N2) viruses were characterized as A/Hong Kong/4801/2014 (H3N2)(CELL)-like; 361(99.7%) influenza B/Victoria viruses were characterized as B/Brisbane/60/2008-like; 89(94.7%) influenza B/Yamagata viruses were characterized as B/Phuket/3073/2013-like.
- Among the influenza viruses tested by CNIC for antiviral resistance analysis since September, 2016, all influenza A(H1N1)pdm09 and all influenza A(H3N2) viruses were resistant to adamantane; All influenza A(H1N1)pdm09 and all influenza H3N2 and B viruses were sensitive to neuraminidase inhibitors.

## Outbreak Surveillance

During week 21(May22- May28, 2017), there were 28 outbreaks reported nationwide,3 of them were A(H1N1),6 of them were A(H3N2), 12 of them were B , 1 of them was untyped,4 of them were mixed,2 of them were negative.

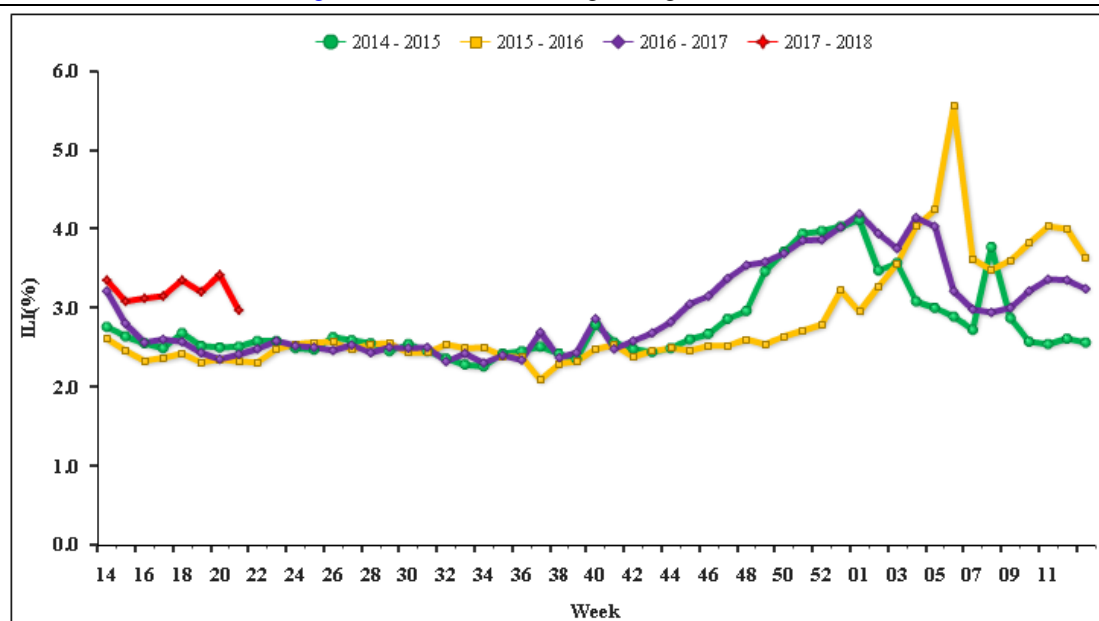
## Surveillance of outpatient or emergency visits for Influenza-like Illness (ILI)

During week 21, the percentage of outpatient or emergency visits for ILI (ILI %) at national sentinel hospitals in south China was 3.4% ,higher than the last week, and the same week of 2014、2015and 2016 (all 3.3%).(Figure 1)



**Figure 1. Percentage of Visits for ILI at Sentinel Hospitals in South China (2014-2018)**

During week 21, ILI% at national sentinel hospitals in north China was 3.0%, lower than the last week (3.4%) ,higher than the same week of 2014、2015 and 2016 (2.5%、2.3%、2.4% ).(Figure 2)



**Figure 2. Percentage of Visits for ILI at Sentinel Hospitals in North China (2014-2018)**

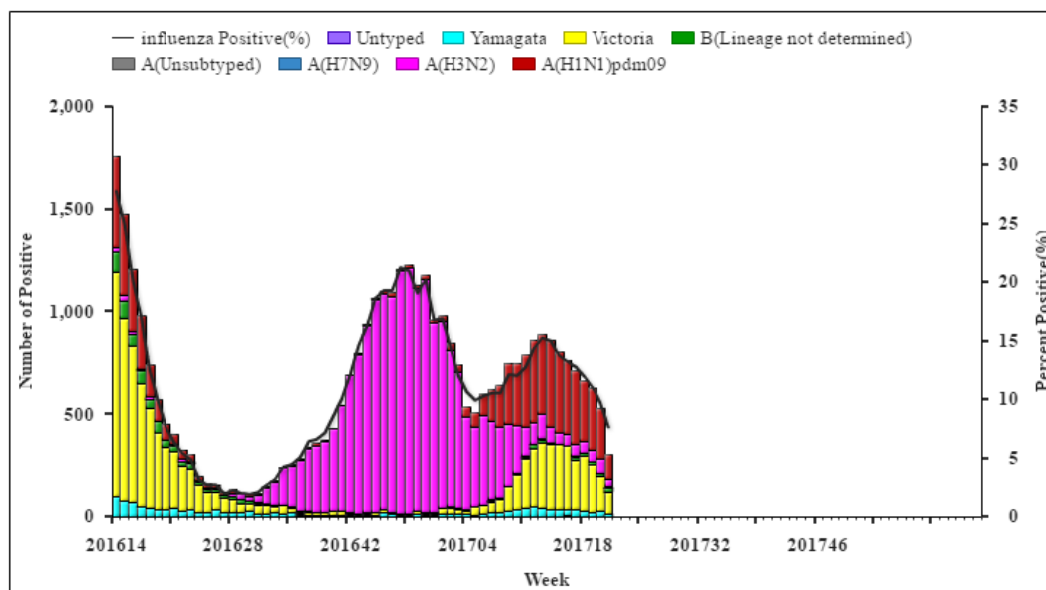
### Virologic Surveillance

During week 21, influenza network laboratories tested 5301 specimens, of which 322(6.1%) were positive for influenza, influenza A and influenza B viruses were 177(55.0%) and 145(45.0%), respectively (Table 1). During week 21, the percentage of specimens that were tested positive for influenza in south China was 7.6%, which was lower than the previous week (9.7%) (Figure 3). During week 21, the percentage of specimens that were tested positive for influenza in north China was 1.8%, which was lower than the previous week (3.2%). (Figure 4).

**Table 1 Laboratory Detections of ILI Specimens (Week 21, 2017)**

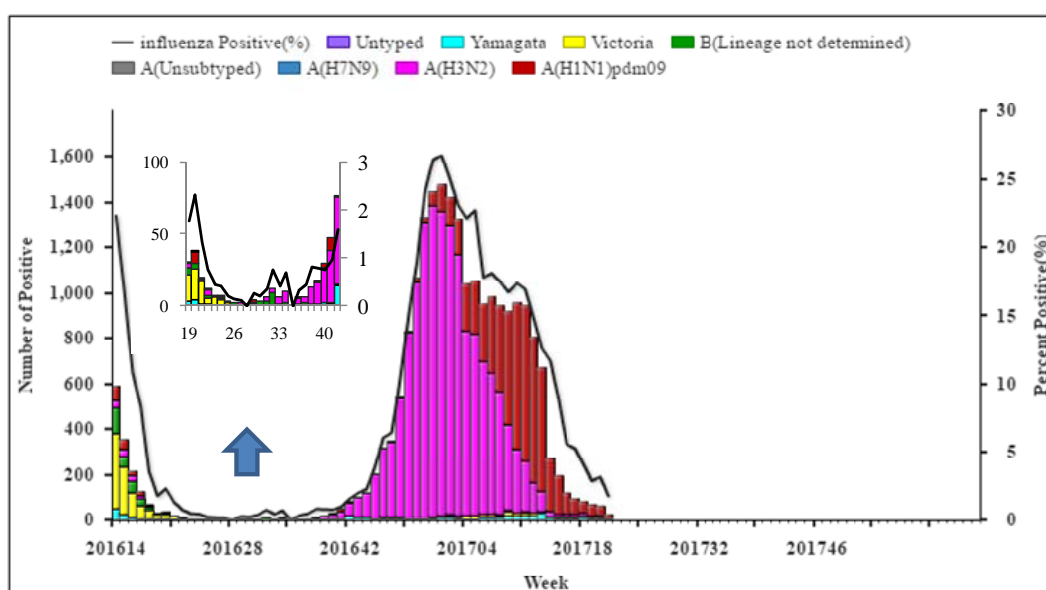
	Week 21		
	South China	North China	Total
<b>No. of specimens tested</b>	<b>3930</b>	<b>1371</b>	<b>5301</b>
<b>No. of positive specimens (%)</b>	<b>298(7.6%)</b>	<b>24(1.8%)</b>	<b>322(6.1%)</b>
<b>Influenza A</b>	<b>160(53.7%)</b>	<b>17(70.8%)</b>	<b>177(55.0%)</b>
A(H3N2)	41(25.6%)	0(0)	41(23.2%)
A(H1N1)pdm09	115(71.9%)	17(100%)	132(74.6%)

A (subtype not determined)	4(2.5%)	0(0)	4(2.3%)
<b>Influenza B</b>	<b>138(46.3%)</b>	<b>7(29.2%)</b>	<b>145(45.0%)</b>
B (lineage not determined)	18(13.0%)	0(0)	18(12.4%)
Victoria	108(78.3%)	5(71.4%)	113(77.9%)
Yamagata	12(8.7%)	2(28.6%)	14(9.7%)



**Figure 3. Influenza Positive Tests Reported by Southern Network Laboratories (Week 14, 2016–Week 21, 2017)**

**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, 2016–Week 21, 2017)**

**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 September 1<sup>st</sup>, 2016, all of the 675 A(H1N1)pdm09 viruses tested were characterized as A/California/7/2009-like; 654(98.8%) of the 662 A(H1N1)pdm09 viruses tested were characterized as A/Michigan/45/2015-like; 345(41.8%) of the 826 A(H3N2) influenza viruses tested were characterized as A/Hong Kong/4801/2014 (H3N2)(EGG)-like, 807(97.7%) of the 826 A(H3N2) influenza viruses tested were characterized as A/Hong Kong/4801/2014 (H3N2)(CELL)-like; 378(99.7%) of the 379 influenza B/Victoria lineage viruses tested were characterized as B/Brisbane/60/2008-like; 180(90.5%) of the 199 influenza B/Yamagata lineage viruses tested were characterized as B/Phuket/3073/2013-like.

**Antiviral Resistance**

Since September 1<sup>st</sup>, 2016, among the influenza viruses tested by CNIC for antiviral resistance, all influenza A(H1N1)pdm09 and all influenza A(H3N2) viruses were resistant to adamantane; All influenza A(H1N1)pdm09 and all influenza A(H3N2) and B viruses were sensitive to neuraminidase inhibitors.