Chinese Influenza Weekly Report

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

Summary

- During week 28, influenza activity in mainland China was at the level of non-epidemic season. There was very few influenza A and B virus detected in southern China.
- Among influenza viruses antigenically characterized by CNIC since March, 2016, 228（99.6%） influenza A(H1N1)pdm09 viruses were characterized as A/California/7/2009-like; 25（80.6%） influenza A(H3N2) viruses were characterized as A/Switzerland/9715293/2013 (H3N2)(EGG)-like,31（100%）influenza A(H3N2) viruses were characterized as A/Switzerland/9715293/2013 (H3N2)(CELL)-like; 153（98.7%） influenza B/Yamagata viruses were characterized asB/Phuket/3073/2013-like. 511（82.2%）influenza B/Victoria viruses were characterized as B/Brisbane/60/2008-like.
- Among the influenza viruses tested by CNIC for antiviral resistance analysis since March, 2016, all influenza A(H1N1)pdm09 and all influenza A(H3N2) viruses were resistant to adamantine; all influenza H3N2 and B viruses were sensitive to neuraminidase inhibitors. All but 4 influenza A(H1N1)pdm09 viruses were sensitive to neuraminidase inhibitors.

Outbreak Surveillance

During week 28 (July 11–17, 2016), there were no outbreak reported nationwide.

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

During week 28, the percentage of outpatient or emergency visits for ILI (ILI %) at national sentinel hospitals in south China was 3.1%, lower than last week（3.3%）, the same week of 2014 and 2015（both 3.6%）. (Figure 1)

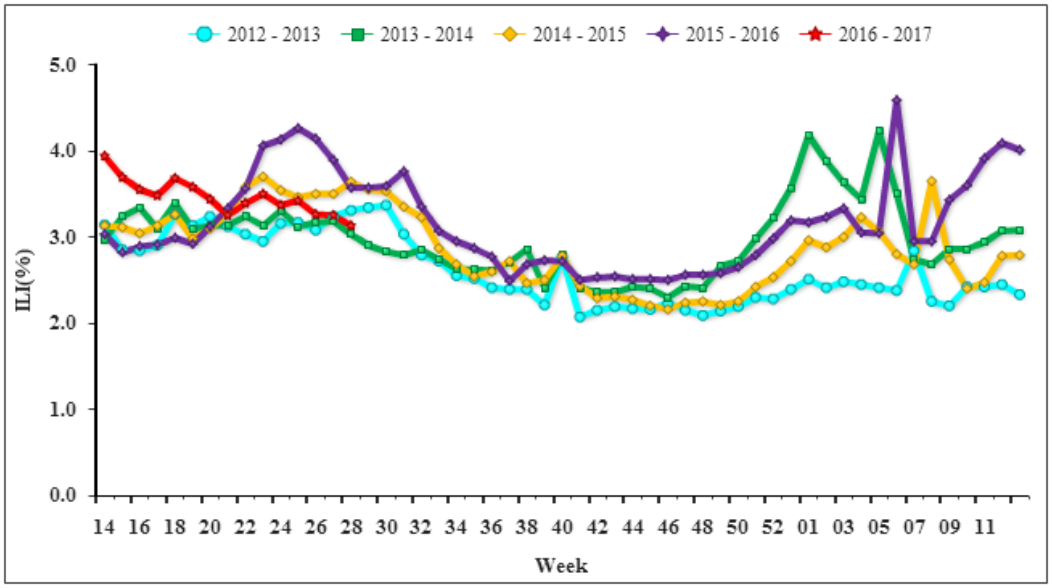

Figure 1. Percentage of Visits for ILI at Sentinel Hospitals in South China (2012-2016)

During week 28, ILI% at national sentinel hospitals in north China was 2.5%, lower than last week and the same week of 2014（both 2.6%）, same as the same week of 2015（2.5%）. (Figure 2)

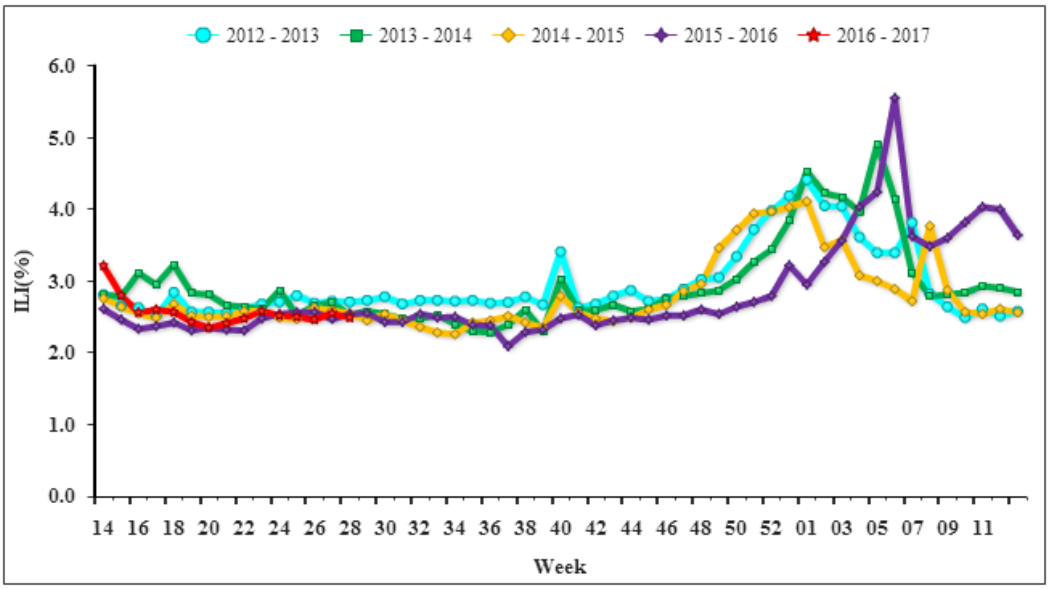

Figure 2. Percentage of Visits for ILI at Sentinel Hospitals in North China (2012-2016)

Virologic Surveillance

During week 28, influenza network laboratories tested 3846 specimens, of which 72 （1.9%） were positive for influenza, influenza A and influenza B virus were 13 （18.1%） and 59（81.9%）, respectively (Table 1). During week 28, the percentage of specimens that were tested positive for influenza in south China was 2.3%, which was same as the previous week （2.3%） (Figure 3). During week 28, there was no positive specimen tested for influenza in north China, which was low than the previous week （0.2%）(Figure 4).

Table 1 Laboratory Detections of ILI Specimens (Week 28, 2016)

	Week 28		
	South China	**North China**	**Total**
No. of specimens tested	**3081**	**765**	**3846**
No. of positive specimens (%)	**72(2.3%)**	**0(0)**	**72(1.9%)**
Influenza A	**13(18.1%)**	**0(0)**	**13(18.1%)**
A(H3N2)	8(61.5%)	0(0)	8(61.5%)
A(H1N1)pdm09	4(30.8%)	0(0)	4(30.8%)
A (subtype not determined)	1(7.7%)	0(0)	1(7.7%)
Influenza B	**59(81.9%)**	**0(0)**	**59(81.9%)**
B (lineage not determined)	19(32.2%)	0(0)	19(32.2%)
Victoria	31(52.5%)	0(0)	31(52.5%)
Yamagata	9(15.3%)	0(0)	9(15.3%)

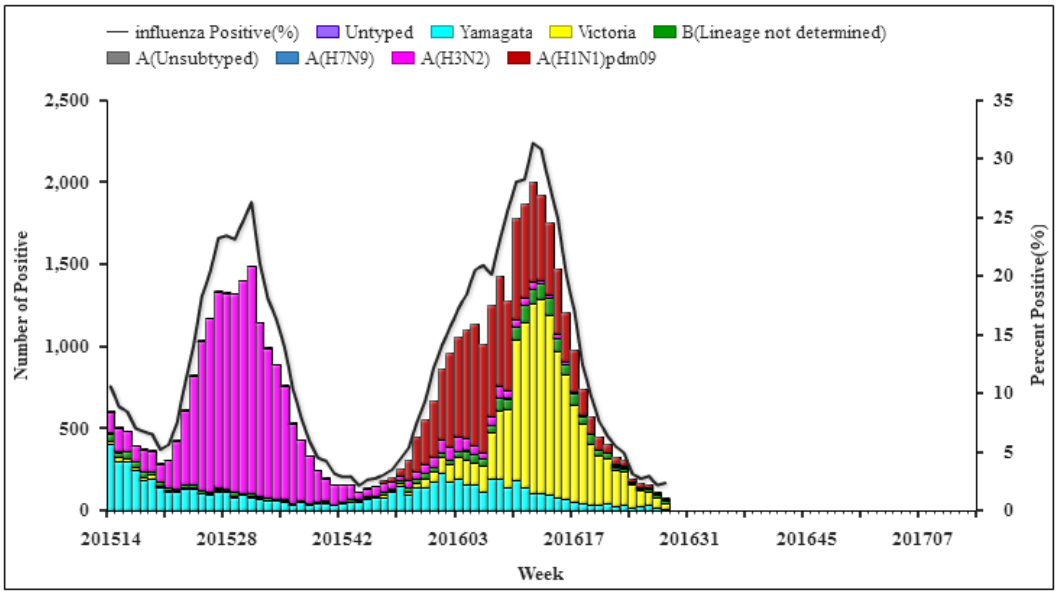

Figure 3. Influenza Positive Tests Reported by Southern Network Laboratories (Week 14, 2015–Week 28, 2016)

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.

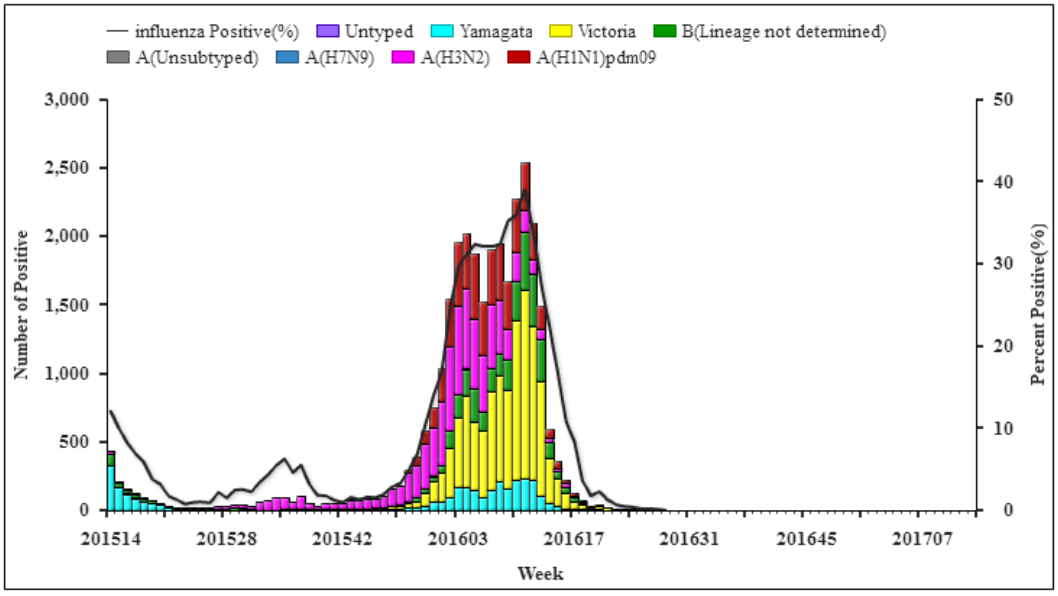

Figure 4. Influenza Positive Tests Reported by Northern Network Laboratories (Week 14, 2015–Week 28, 2016)

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 March 1st, 2016, 228（99.6%）of the 229 A(H1N1)pdm09 viruses tested were characterized as A/California/7/2009-like;25（80.6%） of the 31 A(H3N2) influenza viruses tested were characterized as A/Switzerland/9715293/2013 (H3N2)(EGG)-like, all of the 31 A(H3N2) influenza viruses tested were characterized as A/Switzerland/9715293/2013 (H3N2)(CELL)-like; 153（98.7%）of the 155 influenza B/Yamagata lineage viruses tested were characterized as B/Phuket/3073/2013-like; 511（82.2%）of the 622 influenza B/Victoria lineage viruses tested have been characterized as B/Brisbane/60/2008-like.

Antiviral Resistance

Since March 1st, 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 adamantine ; all influenza A(H3N2) and B viruses were sensitive to neuraminidase inhibitors. All but 4 influenza A(H1N1)pdm09 viruses were sensitive to neuraminidase inhibitors.