Chinese Influenza Weekly Report

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

Summary

- During week 18, 2014, the peak of the influenza activity passed, and overall influenza activity was at low level. Influenza positivity rate continued to decline，and the influenza B was circulating in both south and north China.
- Among influenza viruses antigenically characterized by CNIC since October, 2013, 947(99.89%) influenza A(H1N1)pdm09 viruses were characterized as A/California/7/2009-like; 645(99.85%) influenza A(H3N2) viruses were characterized as A/Victoria/361/2011(H3N2)-like; 888(97.69%) influenza B/Yamagata viruses were characterized as B/Massachusetts/2/2012-like. 26 (83.87%) influenza B/Victoria viruses were characterized as B/Brisbane/60/2008-like.
- Among the influenza viruses tested by CNIC for antiviral resistance analysis since October, 2013, all influenza A(H1N1)pdm09 and all influenza A(H3N2) viruses were resistant to adamantine; all but 24 influenza A(H1N1)pdm09 viruses were sensitive to neuraminidase inhibitors; all but 2 influenza B viruses were sensitive to neuraminidase inhibitors; all influenza A(H3N2) viruses were sensitive to neuraminidase inhibitors.

Outbreak Surveillance

During week 18 (April 28 – May 4, 2014), 7 outbreaks were reported nationwide. Three of them were A(H3) outbreak, 2 were B outbreaks, and etiology of 2 outbreaks were not determined yet.

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

During week 18, the percentage of outpatient or emergency visits for ILI (ILI%) at national sentinel hospitals in south China was 3.2%, higher than the last week (3.1%) , lower than the same week of 2012 and 2013 (both 3.4%), higher than the same week of 2010 and 2011 (2.9%, 2.8%) (Figure 1).

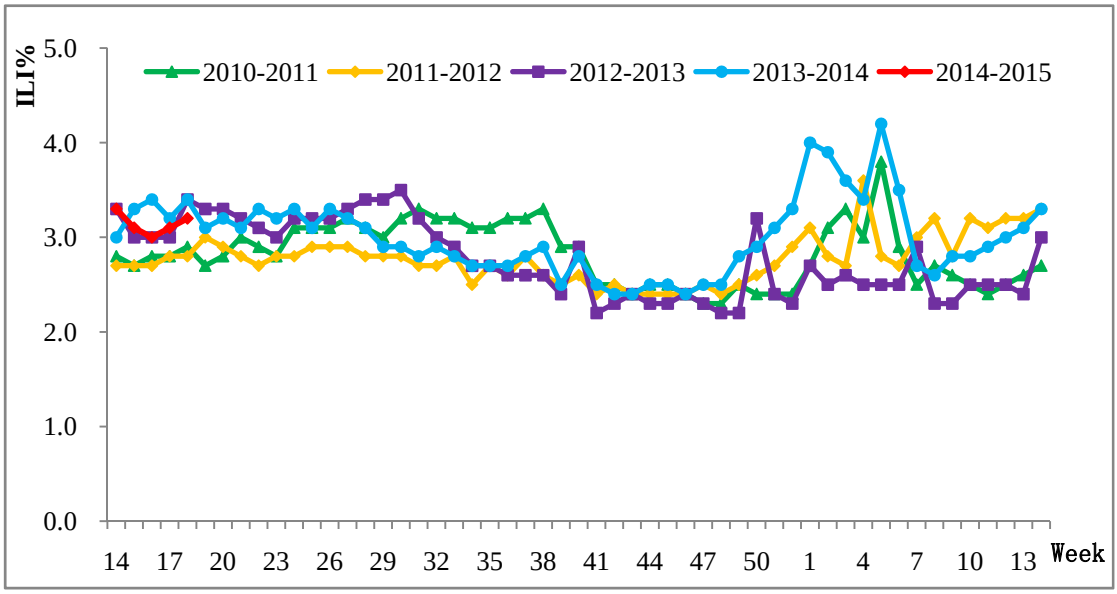

Figure 1. Percentage of Visits for ILI at Sentinel Hospitals in South China (2010-2015)

During week 18, ILI% at national sentinel hospitals in north China was 2.7%, higher than the last week (2.6%) , higher than the same week of 2011 (2.3%), lower than the same week of 2010, 2012 and 2013 (range:2.9%－3.3%) (Figure 2).

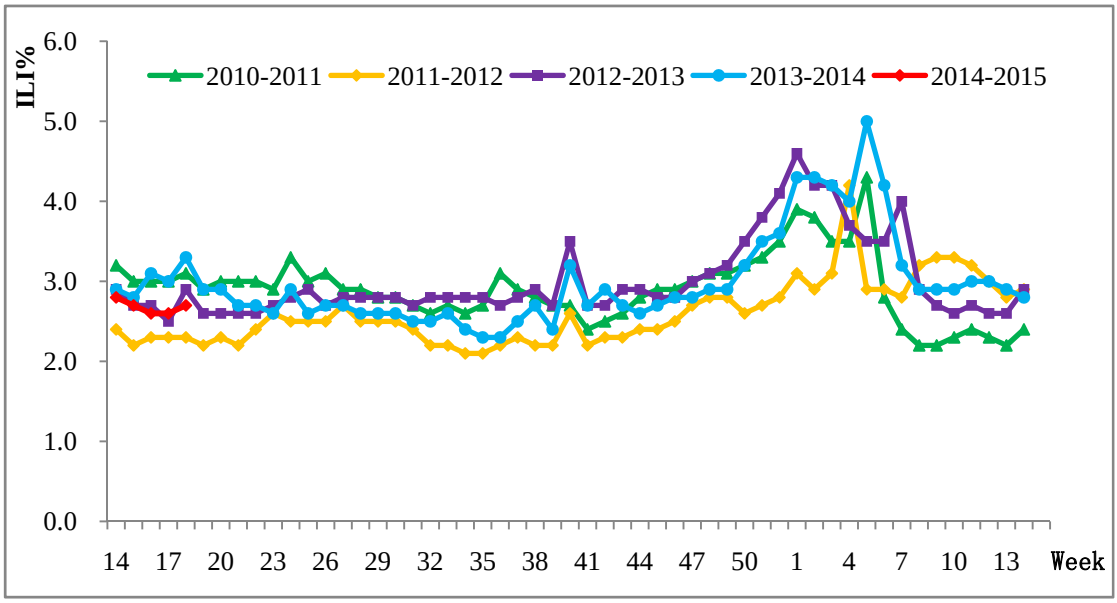

Figure 2. Percentage of Visits for ILI at Sentinel Hospitals in North China (2010-2015)

Virologic Surveillance

During week 18, influenza network laboratories tested 4232 specimens, of which 214(5.1%) were positive for influenza, influenza B and influenza A virus were 123(57.5%) and 91(42.5%)，respectively (Table 1). During week 18, the percentage of specimens that were tested positive for influenza in south China was 5.1%, which was lower than the previous week (5.8%) (Figure 3). During week 18, the percentage of specimens that were tested positive for influenza in north China was 4.7%, which was lower than the previous week (5.6%) (Figure 4).

Table 1 Laboratory Detections of ILI Specimens (Week 18, 2014)

	Week 18		
	South China	**North China**	**Total**
No. of specimens tested	**3617**	**615**	**4232**
No. of positive specimens (%)	**185(5.1%)**	**29(4.7%)**	**214(5.1%)**
Influenza A	**78(42.2%)**	**13(44.8%)**	**91(42.5%)**
A(H1N1)	0(0)	0(0)	0(0)
A(H3N2)	57(73.1%)	13(100%)	70(76.9%)
A(H1N1)pdm09	19(24.4%)	0(0)	19(20.9%)

A (subtype not determined)	2(2.6%)	0(0)	2(2.2%)
Influenza B	**107(57.8%)**	**16(55.2%)**	**123(57.5%)**
B (lineage not determined)	106(99.1%)	16(100%)	122(99.2%)
Yamagata	1(0.9%)	0(0)	1(0.8%)

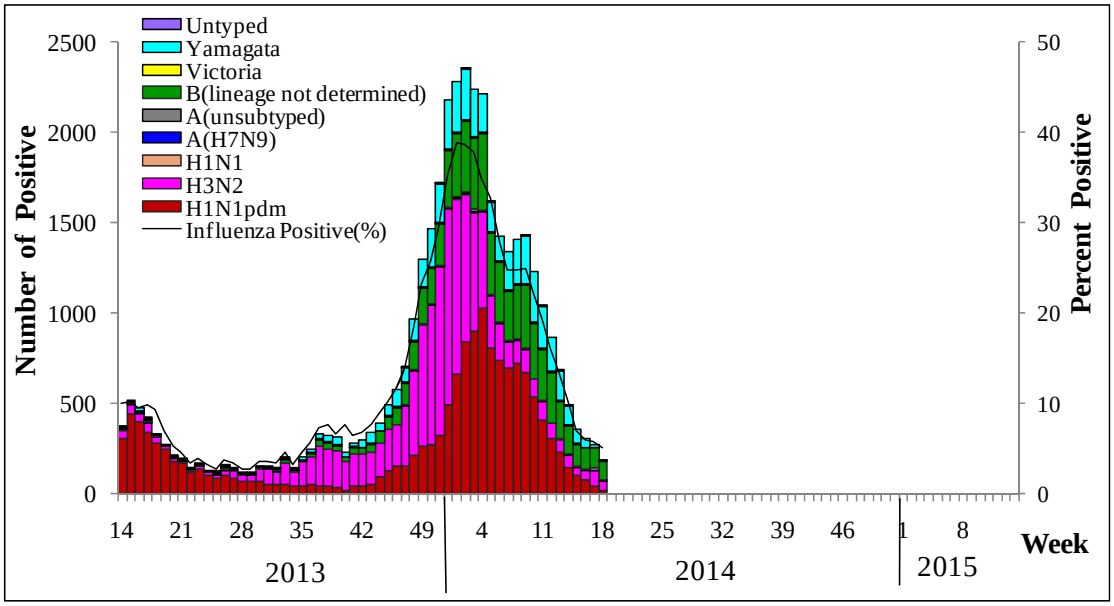

Figure 3. Influenza Positive Tests Reported by Southern Network Laboratories (Week 14, 2013 –Week 18, 2014)

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.

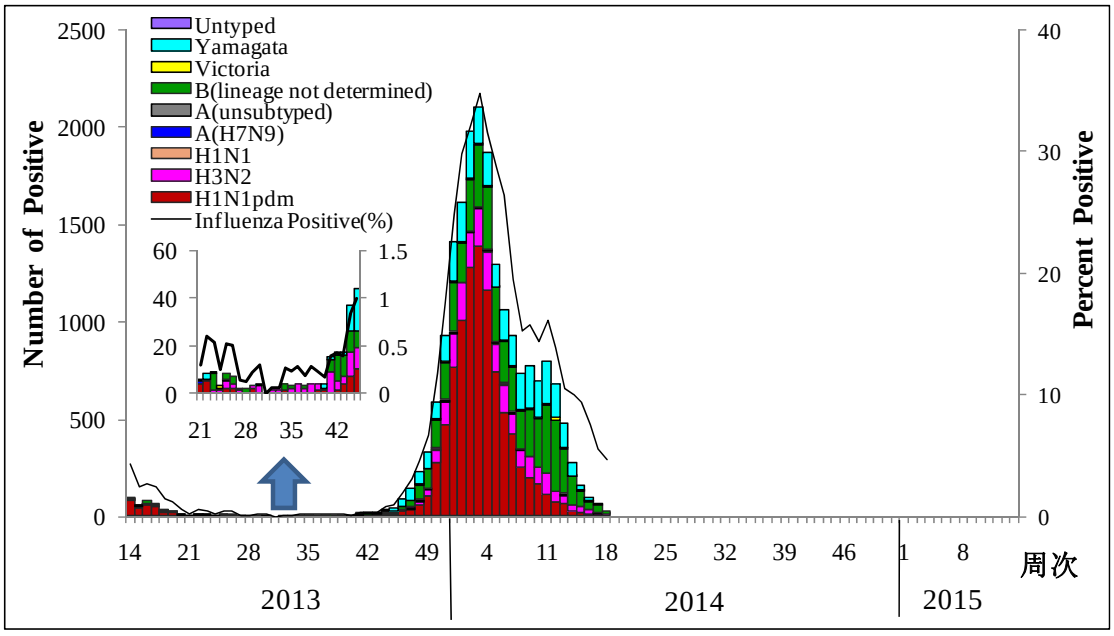

Figure 4. Influenza Positive Tests Reported by Northern Network Laboratories

(Week 14, 2013–Week 18, 2014)

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 1st, 2013, 947(99.89%) of the 948 A(H1N1)pdm09 viruses tested were characterized as A/California/7/2009-like; 649(99.85%) of the 650 H3N2 influenza viruses tested were characterized as A/Victoria/361/2011-like; 888(97.69%) of the 909 influenza B/Yamagata lineage viruses tested were characterized as B/Massachusetts/2/2012-like; 26(83.87%) of the 31 influenza B/Victoria lineage viruses tested have been characterized as B/Brisbane/60/2008-like.

Antiviral Resistance

Since October 1st, 2013, 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 but 24 influenza A(H1N1)pdm09 viruses were sensitive to neuraminidase inhibitors; all but 2 influenza B viruses were sensitive to neuraminidase inhibitors; all influenza A(H3N2) viruses were sensitive to neuraminidase inhibitors.