Chinese Influenza Weekly Report

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

Summary

- During week 37, 2014, the influenza activity in south China was at low level, influenza A(H3N2) viruses were predominantly reported. Influenza activity in north China was at inter-seasonal level, with a small amount of influenza A(H3N2) viruses identified.
- Among influenza viruses antigenically characterized by CNIC since October, 2013, 1258(99. 9%) influenza A(H1N1)pdm09 viruses were characterized as A/California/7/2009-like; 1303(99.5%) influenza A(H3N2) viruses were characterized as A/Victoria/361/2011(H3N2)-like; 1424(95.5%) influenza B/Yamagata viruses were characterized as B/Massachusetts/2/2012-like. 51 (72.9%) 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 26 influenza A(H1N1)pdm09 viruses were sensitive to neuraminidase inhibitors; all but 2 influenza B viruses were sensitive to neuraminidase inhibitors; all but 1 influenza A(H3N2) viruses were sensitive to neuraminidase inhibitors.

Outbreak Surveillance

During week 37(Sep8–Sep14, 2014), no ILI outbreak was reported nationwide.

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

During week 37, the percentage of outpatient or emergency visits for ILI (ILI%) at national sentinel hospitals in south China was 2.9%, higher than the last week (2.8%), higher than the same week of 2011－2013 (range:2.6%－2.8%), lower than the same week of 2010 (3.2%) (Figure 1).

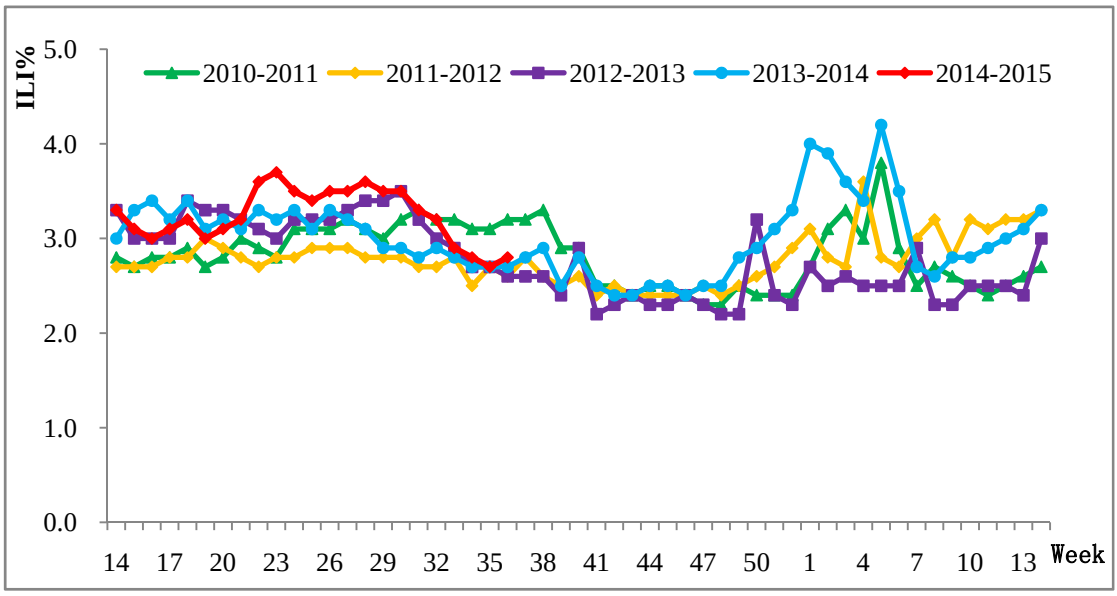

Figure 1. Percentage of Visits for ILI at Sentinel Hospitals in South China (2010-2015)

During week 37, ILI% at national sentinel hospitals in north China was 2.5%, same as the last week (2.5%), higher than the same week of 2011 and 2013 (2.3% and 2.3%), lower than the same week of 2010 and 2012 (2.9% and 2.8%) (Figure 2).

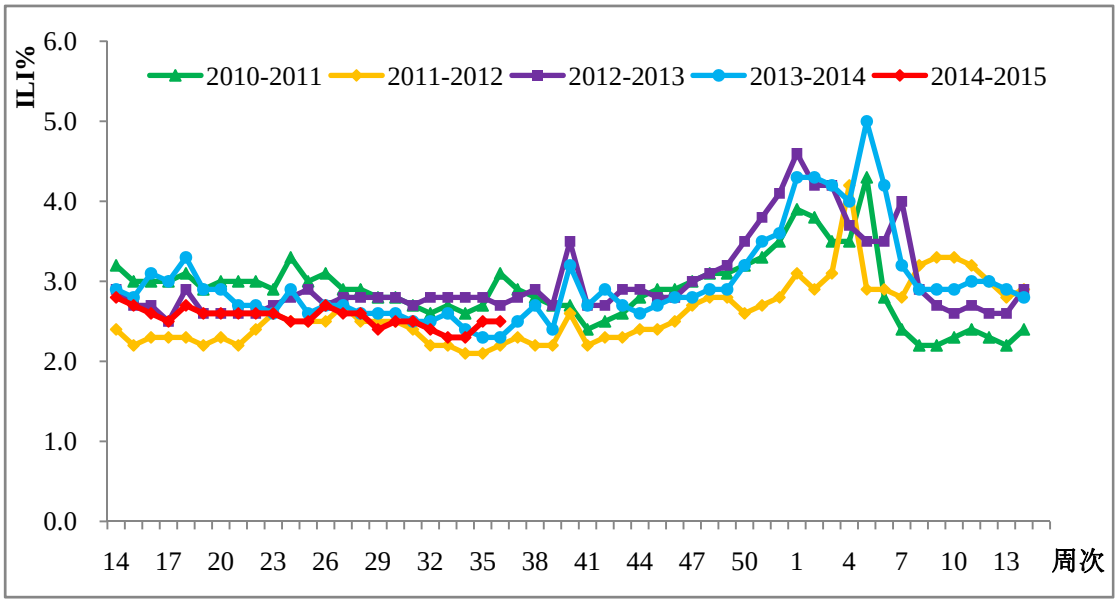

Figure 2. Percentage of Visits for ILI at Sentinel Hospitals in North China (2010-2015)

Virologic Surveillance

During week 37, influenza network laboratories tested 3082 specimens, of which 305 (9.9%) were positive for influenza, influenza A and influenza B virus were 263 (86.2%) and 42 (13.8 %)，respectively (Table 1). During week 37, the percentage of specimens that were tested positive for influenza in south China was 11.5%, which was lower than the previous week (13.7%) (Figure 3). During week 37, the percentage of specimens that were tested positive for influenza in north China was 2.6%, which was higher than the previous week (2.3%) (Figure 4).

Table 1 Laboratory Detections of ILI Specimens (Week 37, 2014)

	Week 37		
	South China	**North China**	**Total**
No. of specimens tested	**2535**	**547**	**3082**
No. of positive specimens (%)	**291(11.5%)**	**14(2.6%)**	**305(9.9%)**
Influenza A	**250(85.9%)**	**13(92.9%)**	**263(86.2%)**
A(H1N1)	0(0)	0(0)	0(0)
A(H3N2)	240(96.0%)	11(84.6%)	251(95.4%)
A(H1N1)pdm09	9(3.6%)	2(15.4%)	11(4.2%)
A (subtype not determined)	1(0.4%)	0(0)	1(0.4%)
Influenza B	**41(14.1%)**	**1(7.1%)**	**42(13.8%)**
B (lineage not determined)	41(100%)	1(100%)	42(100%)

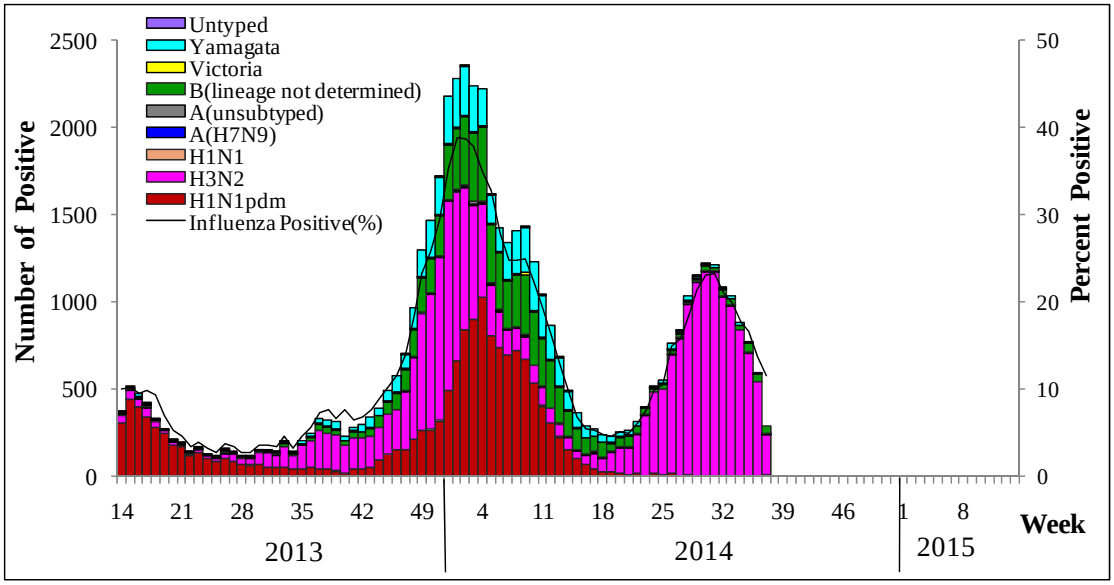

Figure 3. Influenza Positive Tests Reported by Southern Network Laboratories (Week 14, 2013 –Week 37, 2014)

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.

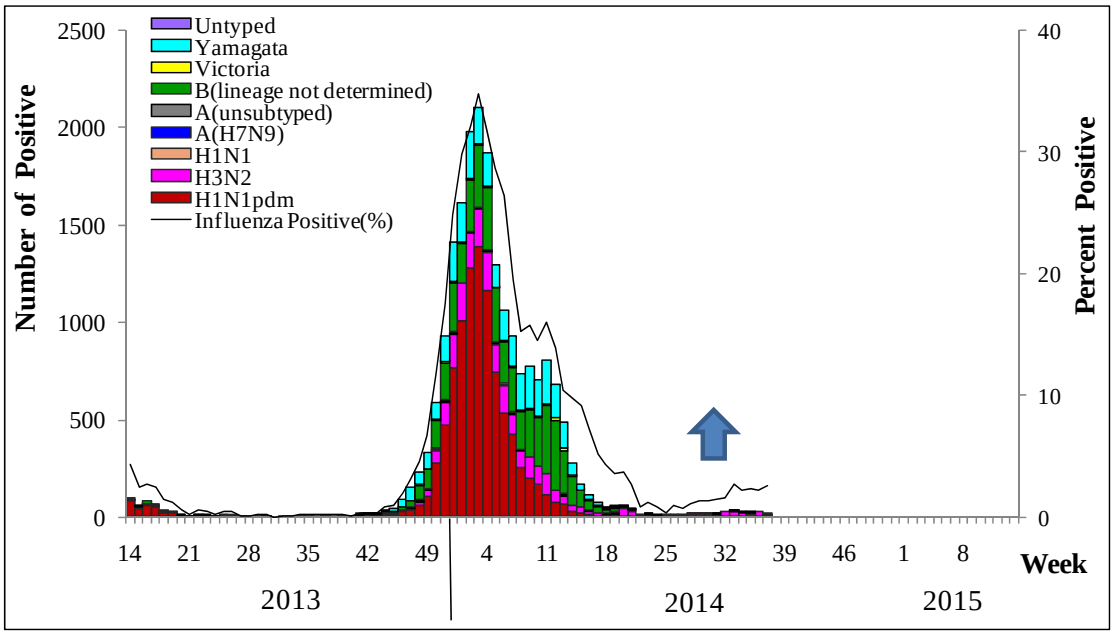

Figure 4. Influenza Positive Tests Reported by Northern Network Laboratories (Week 14, 2013–Week 37, 2014)

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, 1258(99.9%) of the 1259 A(H1N1)pdm09 viruses tested were characterized as A/California/7/2009-like; 1303(99.5%) of the 1310 H3N2 influenza viruses tested were characterized as A/Victoria/361/2011-like; 1424(95.5%) of the 1491 influenza B/Yamagata lineage viruses tested were characterized as B/Massachusetts/2/2012-like; 51(72.9%) of the 70 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 26 influenza A(H1N1)pdm09 viruses were sensitive to neuraminidase inhibitors; all but 2 influenza B viruses were sensitive to neuraminidase inhibitors; all but 1 influenza A(H3N2) viruses were sensitive to neuraminidase inhibitors.