Chinese Influenza Weekly Report

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

Summary

- During week 50, 2014, the influenza activity was at low level in south China. In north China, the influenza activity was increasing and at inner-seasonal levels, A(H3N2) viruses were predominantly reported in north China.
- Among influenza viruses antigenically characterized by CNIC since October, 2014, 14(100%) influenza A(H1N1)pdm09 viruses were characterized as A/California/7/2009-like; 1(0.9%) influenza A(H3N2) viruses were characterized as A/Texas/50/2012 (H3N2)(EGG)-like; 37(86%) influenza B/Yamagata viruses were characterized as B/Massachusetts/2/2012-like. 1 (100%) 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, 2014, all influenza A(H1N1)pdm09 and all influenza A(H3N2) viruses were resistant to adamantine; All influenza A(H1N1)pdm09 and all influenza A(H3N2) and all influenza B viruses were sensitive to neuraminidase inhibitors.

Outbreak Surveillance

During week 50 (Dec 8–Dec 14, 2014), fifty one ILI outbreaks were reported nationwide. Thirty five of them were A(H3) outbreaks, etiology of twelve outbreaks was not determined yet, three were B outbreaks, one was A subtype not determined.

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

During week 50, the percentage of outpatient or emergency visits for ILI (ILI%) at national sentinel hospitals in south China was 2.3%, same as the last week(2.3%), lower than the same week of 2010-2013(2.4%, 2.6%, 3.2% and 2.9%).(Figure 1).

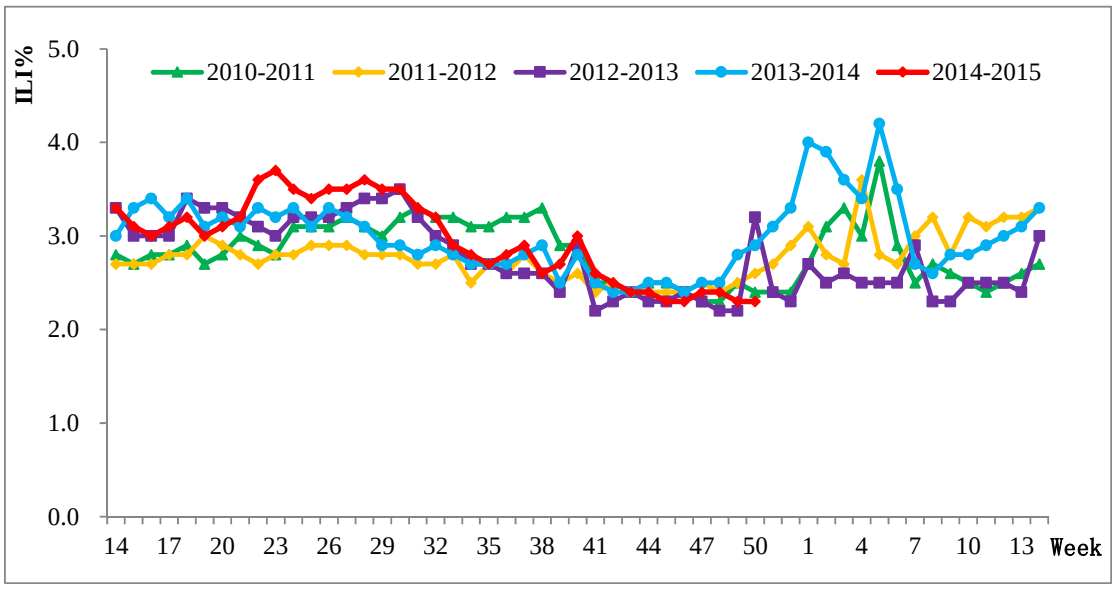

Figure 1. Percentage of Visits for ILI at Sentinel Hospitalsin South China (2010-2015)

During week 50 ILI% at national sentinel hospitals in north China was 3.9%, higher than the last week and the same week of 2010-2013(3.6%, 3.2%, 2.6%, 3.5% and 3.2%) (Figure 2).

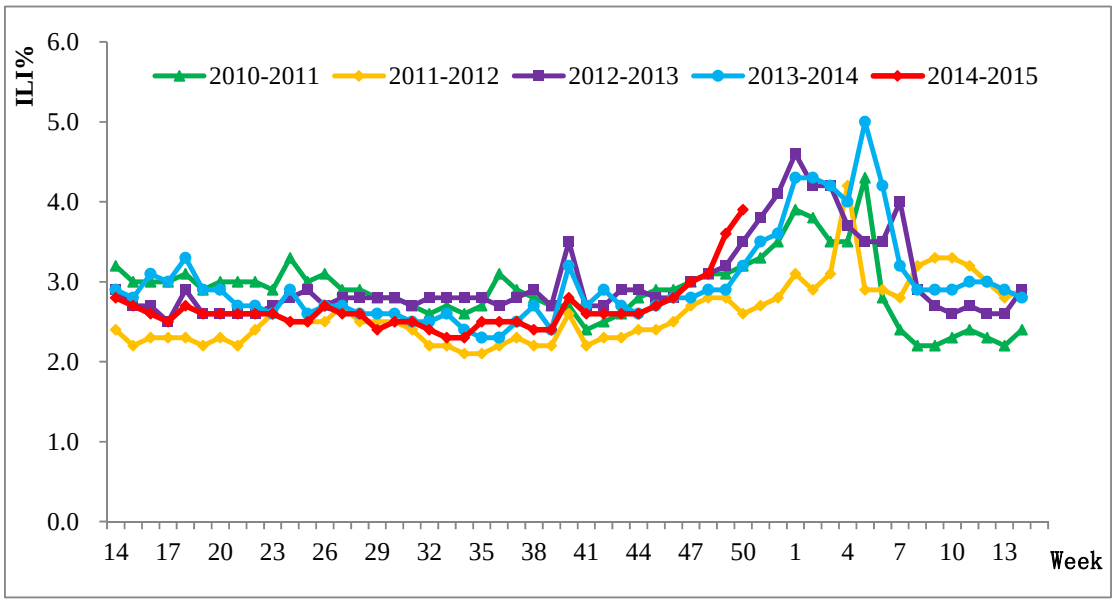

Figure 2. Percentage of Visits for ILI at Sentinel Hospitals in North China (2010-2015)

Virologic Surveillance

During week 50, influenza network laboratories tested 5362 specimens, of which 868(16.2%) were positive for influenza, influenza A and influenza B virus were796(91.7%) and 72(8.3%)，respectively(Table 1). During week 50, the percentage of specimens that were tested positive for influenza in south China was5.0%, which was higher than the previous week (4.1%) (Figure 3). During week 50, the percentage of specimens that were tested positive for influenza in north China was28.5%, which was higher than the previous week (24.5%) (Figure 4).

Table 1Laboratory Detections of ILI Specimens (Week 50, 2014)

	Week 50		
	South China	**North China**	**Total**
No. of specimens tested	**2810**	**2552**	**5362**
No. of positive specimens (%)	**140(5.0%)**	**728(28.5%)**	**868(16.2%)**
Influenza A	**74(52.9%)**	**722(99.2%)**	**796(91.7%)**
A(H3N2)	61(82.4%)	716(99.2%)	777(97.6%)
A(H1N1)pdm09	11(14.9%)	5(0.7%)	16(2.0%)
A (subtype not determined)	2(2.8%)	1(0.1%)	3(0.4%)

Influenza B	**66(47.1%)**	**6(0.8%)**	**72(8.3%)**
B (lineage not determined)	16(24.2%)	2(33.3%)	18(25.0%)
Yamagata	50(75.8%)	4(66.7%)	54(75.0%)

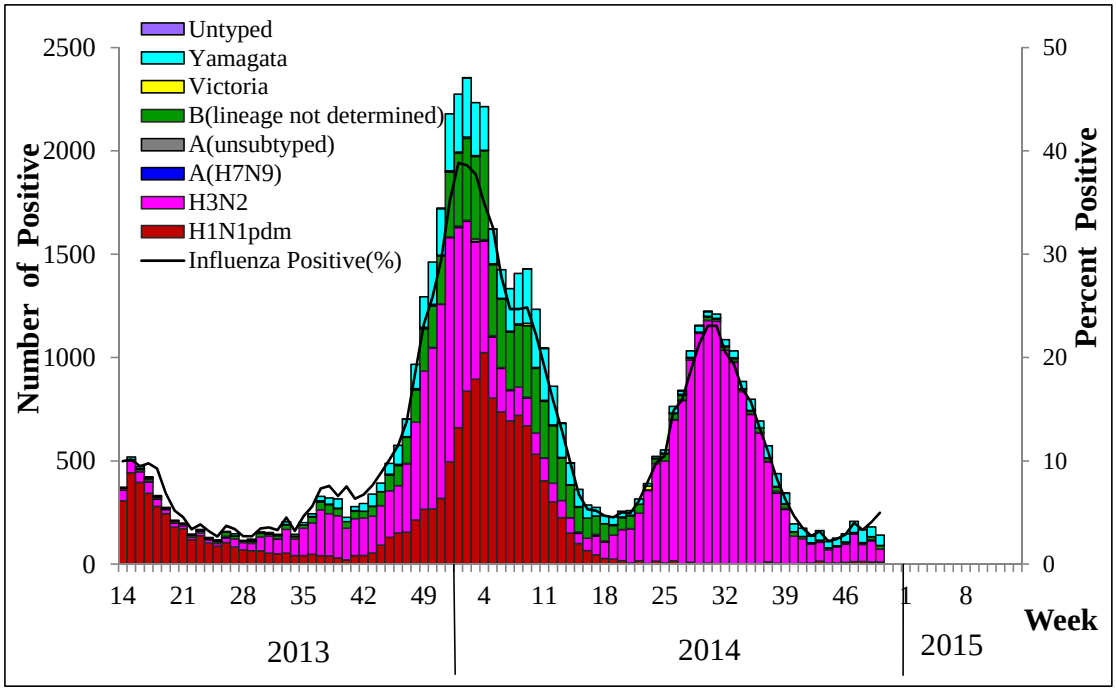

Figure 3. Influenza Positive Tests Reported by Southern Network Laboratories (Week 14, 2013–Week 50, 2014)

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

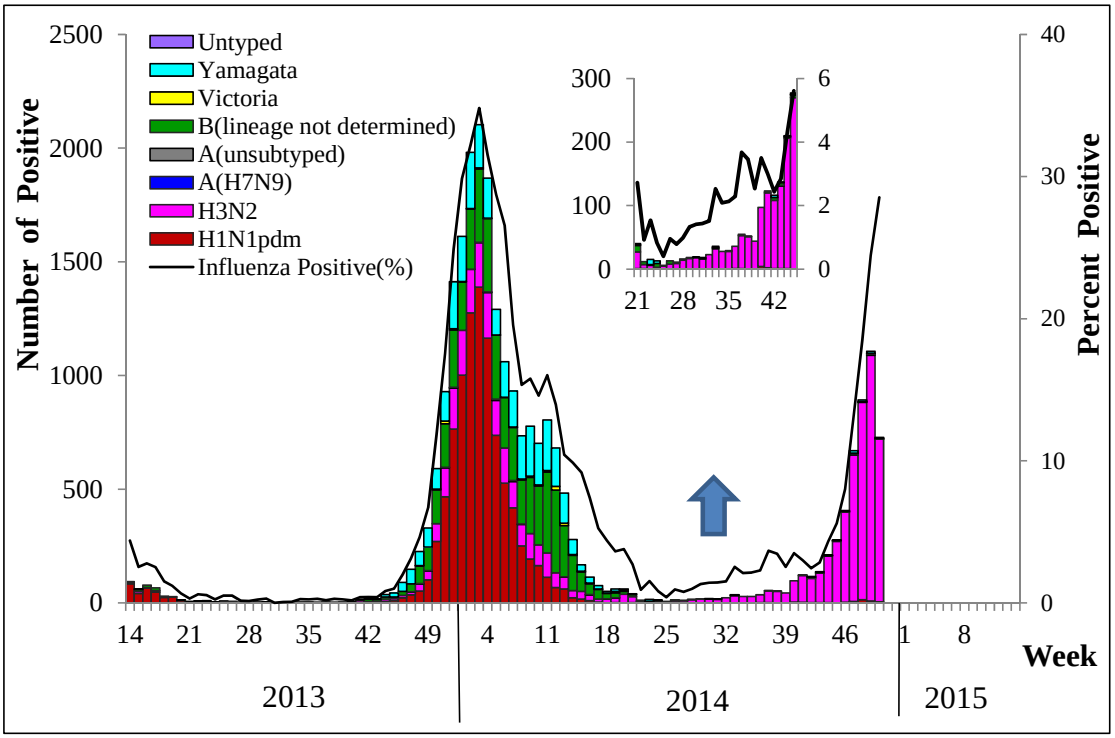

Figure 4. Influenza Positive Tests Reported by Northern Network Laboratories (Week 14, 2013–Week 50, 2014)

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, 2014, 14(100%) of the 14 A(H1N1)pdm09 viruses tested were characterized as A/California/7/2009-like; 1(0.9%) of the 111 A(H3N2) influenza viruses tested were characterized as A/Texas/50/2012 (H3N2)(EGG)-like; 37(86%) of the 43 influenza B/Yamagata lineage viruses tested were characterized as B/Massachusetts/2/2012-like; 1(100%) of the 1 influenza B/Victoria lineage viruses tested have been characterized as B/Brisbane/60/2008-like.

Antiviral Resistance

Since October 1st, 2014, 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(H1N1)pdm09 and all influenza A(H3N2) and all influenza B viruses were sensitive to neuraminidase inhibitors.