

Chinese Influenza Weekly Report

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

Summary

- During week 21, influenza activity level both in north China and south China was low. Influenza B viruses and influenza A(H3N2) viruses were mainly detected.
- Among influenza viruses antigenically characterized by CNIC since October, 2014, 53 (96.4%) influenza A(H1N1)pdm09 viruses were characterized as A/California/7/2009-like; 99 (8.3%) influenza A(H3N2) viruses were characterized as A/Texas/50/2012 (H3N2)(EGG)-like; 549(98.9%) influenza B/Yamagata viruses were characterized as B/Massachusetts/2/2012-like. 19 (44.2%) influenza B/Victoria viruses were characterized as B/Brisbane/60/2008-like.
- Among the influenza viruses tested by CNIC for antiviral resistance analysis since October, 2014, all influenza A(H1N1)pdm09 and all influenza A(H3N2) viruses were resistant to adamantane; all but 4 influenza A(H3N2) viruses were sensitive to neuraminidase inhibitors, all but 2 influenza B viruses were sensitive to neuraminidase inhibitors, all influenza A(H1N1)pdm09 viruses were sensitive to neuraminidase inhibitors.

Outbreak Surveillance

During week 21 (May 18–24, 2015), 19 ILI outbreaks were reported nationwide. 7 of them were B outbreaks, 4 were A(H3N2) outbreaks, 2 were mixed outbreaks, 1 was negative outbreak, 5 were not determined yet.

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 3.3%, higher than the last week and the same week of 2011–2013 (3.1%、2.7%、3.1% and 3.1%), same as the week of 2014 (3.3%). (Figure 1)

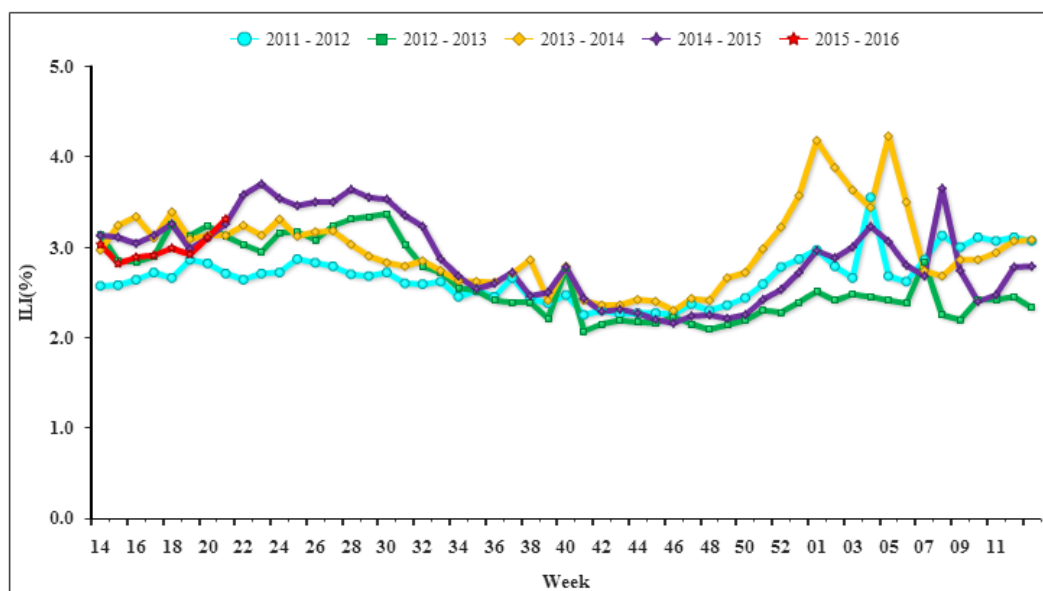


Figure 1. Percentage of Visits for ILI at Sentinel Hospitals in South China (2011-2016)

During week 21, ILI% at national sentinel hospitals in north China was 2.3%, same as the week of 2011 (2.3%), lower than the last week and the same week of 2012–2014 (2.4%、2.6%、2.7% and 2.5%). (Figure 2)

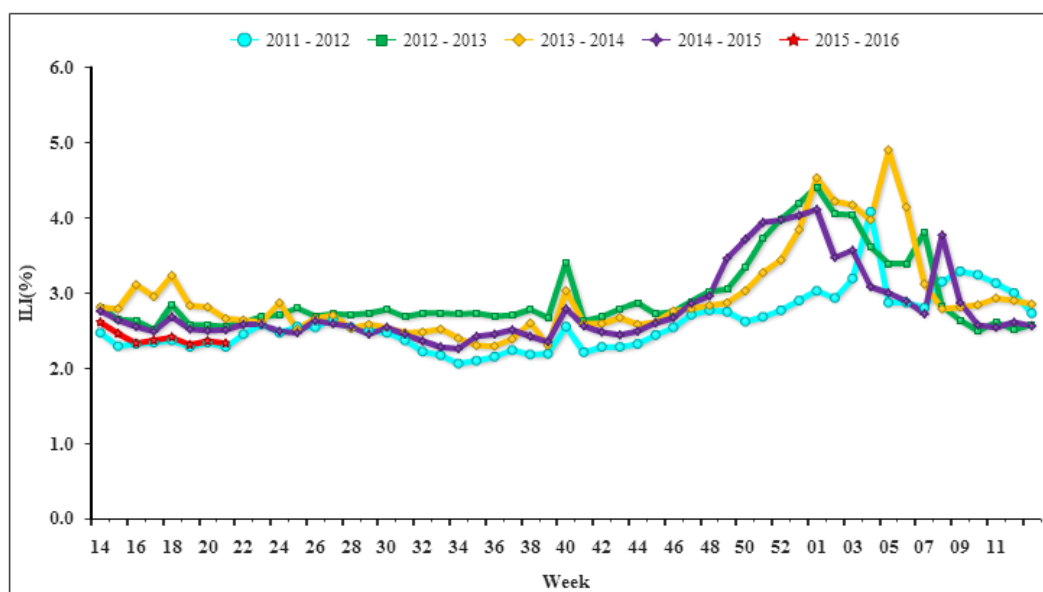


Figure 2. Percentage of Visits for ILI at Sentinel Hospitals in North China (2011-2016)

Virologic Surveillance

During week 21, influenza network laboratories tested 3598 specimens, of which 178(4.9%) were positive for influenza, influenza A and influenza B virus were 99(55.6%) and 79(44.4%), respectively(Table 1). During week 21, the percentage of specimens that were tested positive for influenza in south China was 5.7%, which was higher than the previous week (4.9%) (Figure 3). During week 21, the percentage of specimens that were tested positive for influenza in north China was 1.4%, which was lower than the previous week (3.8%) (Figure 4).

Table 1 Laboratory Detections of ILI Specimens (Week 21, 2015)

	Week 21		
	South China	North China	Total
No. of specimens tested	2967	631	3598
No. of positive specimens (%)	169(5.7%)	9(1.4%)	178(4.9%)
Influenza A	99(58.6%)	0(0)	99(55.6%)
A(H3N2)	91(91.9%)	0(0)	91(91.9%)
A(H1N1)pdm09	5(5.1%)	0(0)	5(5.1%)

A (subtype not determined)	3(3.0%)	0(0)	3(3.0%)
Influenza B	70(41.4%)	9(100%)	79(44.4%)
B (lineage not determined)	32(45.7%)	4(44.4%)	36(45.6%)
Victoria	5(7.1%)	0(0)	5(6.3%)
Yamagata	33(47.1%)	5(55.6%)	38(48.1%)

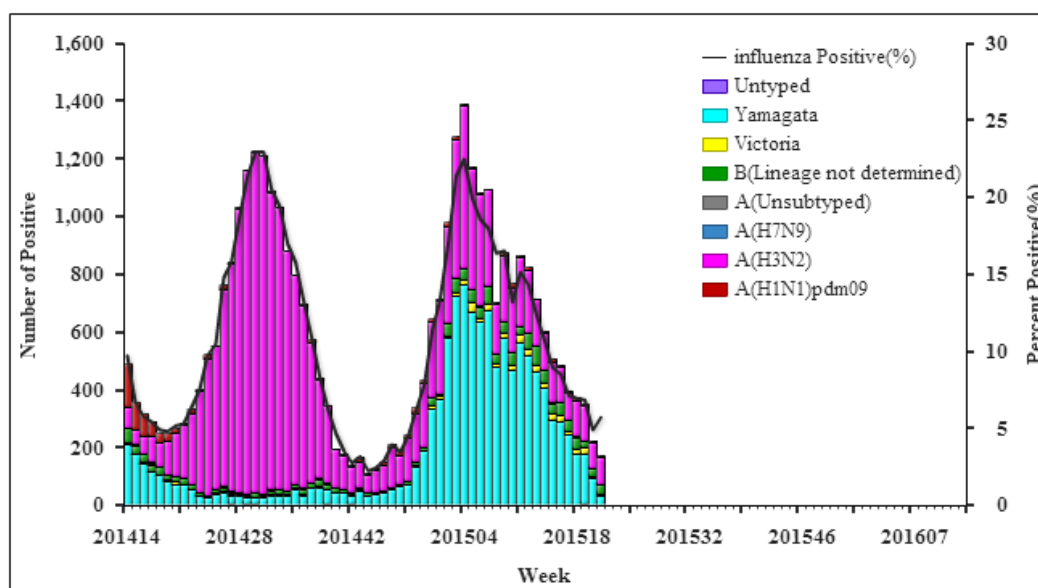


Figure 3. Influenza Positive Tests Reported by Southern Network Laboratories (Week 14, 2014–Week 21, 2015)

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.

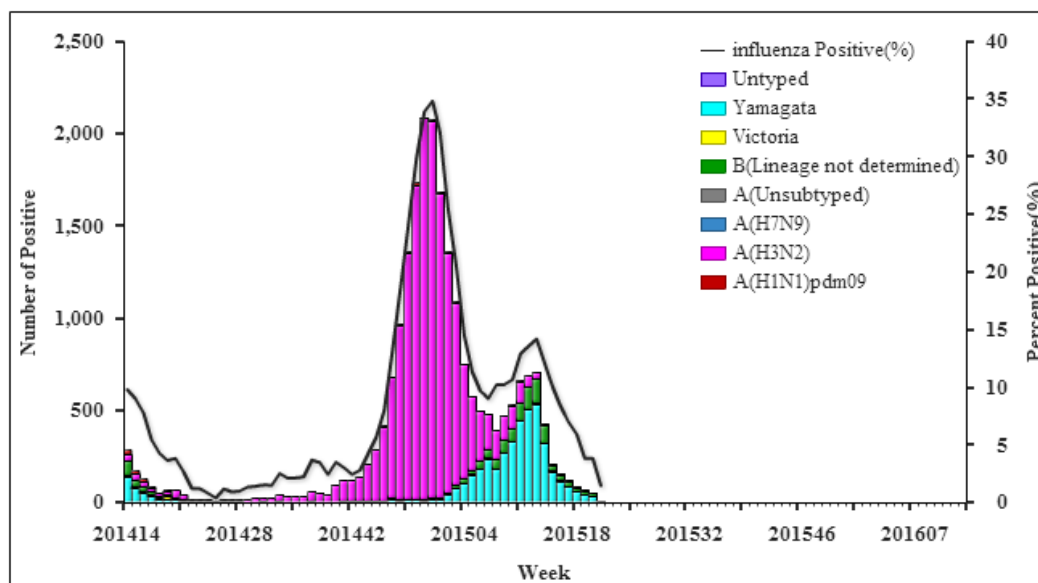


Figure 4. Influenza Positive Tests Reported by Northern Network Laboratories (Week 14, 2014–Week 21, 2015)

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, 53 (96.4%) of the 55 A(H1N1)pdm09 viruses tested were characterized as A/California/7/2009-like; 99 (8.3%) of the 1186 A(H3N2) influenza viruses tested were characterized as A/Texas/50/2012 (H3N2)(EGG)-like; 549 (98.9%) of the 555 influenza B/Yamagata lineage viruses tested were characterized as B/Massachusetts/2/2012-like; 19 (44.2%) of the 43 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 adamantane; all but 4 influenza A(H3N2) viruses were sensitive to neuraminidase inhibitors, all but 2 influenza B viruses were sensitive to neuraminidase inhibitors, all influenza A(H1N1)pdm09 viruses were sensitive to neuraminidase inhibitors.