

Chinese Influenza Weekly Report

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

Summary

- During week 23, influenza activity in south China was low with influenza B detections predominating. In north China, there was almost no influenza activity detected.
- Among influenza viruses antigenically characterized by CNIC since October, 2015, 656(97.0%) influenza A(H1N1)pdm09 viruses were characterized as A/California/7/2009-like; 139(51.9%) influenza A(H3N2) viruses were characterized as A/Switzerland/9715293/2013 (H3N2)(EGG)-like, 232(86.6%) influenza A(H3N2) viruses were characterized as A/Switzerland/9715293/2013 (H3N2)(CELL)-like; 499(98.8%) influenza B/Yamagata viruses were characterized as B/Phuket/3073/2013-like. 508(69.8%) 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, 2015, all influenza A(H1N1)pdm09 and all influenza A(H3N2) viruses were resistant to adamantane; all influenza H3N2 and B viruses were sensitive to neuraminidase inhibitors. All but 2 influenza A(H1N1)pdm09 viruses were sensitive to neuraminidase inhibitors.

Outbreak Surveillance

During week 23 (June 7–12, 2016), there were 6 outbreaks reported nationwide, 4 of them were B, 1 of them was other respiratory viruses, 1 of them was untyped.

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

During week 23, the percentage of outpatient or emergency visits for ILI (ILI %) at national sentinel hospitals in south China was 3.5%, higher than last week 3.4%, lower than the same week of 2014 and 2015 (3.7% and 4.1%). (Figure 1)

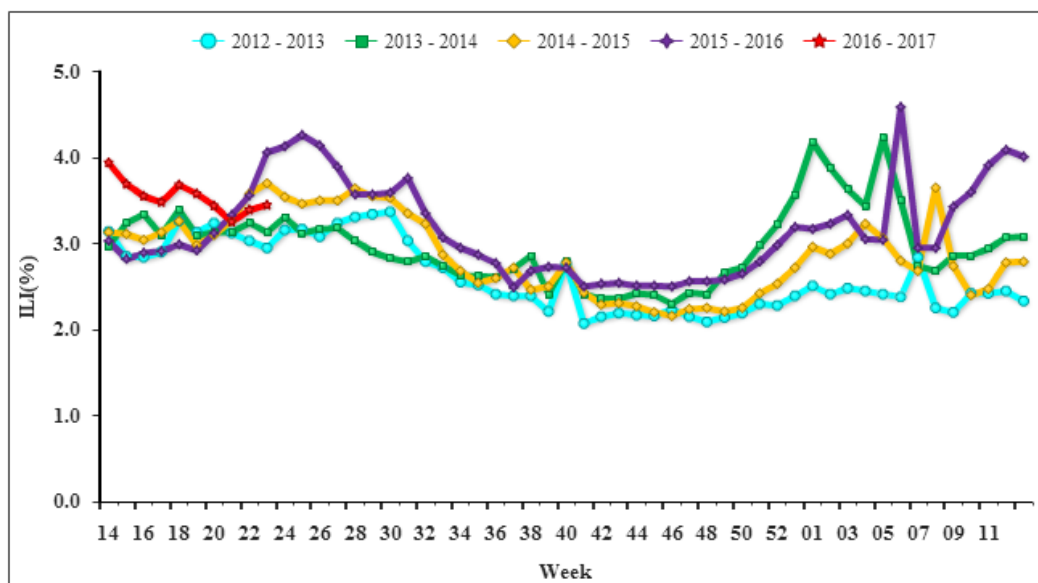


Figure 1. Percentage of Visits for ILI at Sentinel Hospitals in South China (2012-2016)

During week 23, ILI% at national sentinel hospitals in north China was 2.6%, higher than last week and the same week of 2015 (2.5% and 2.5%), same as the same week of 2014 (2.6%) ., (Figure 2)

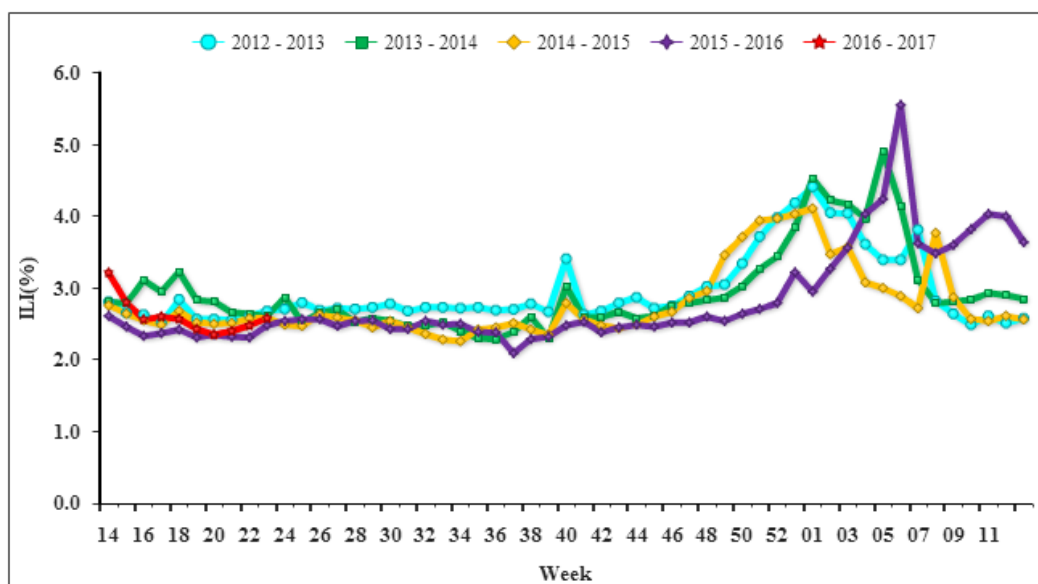


Figure 2. Percentage of Visits for ILI at Sentinel Hospitals in North China (2012-2016)

Virologic Surveillance

During week 23, influenza network laboratories tested 3247 specimens, of which 107(3.3%) were positive for influenza, influenza A and influenza B virus were 19(17.8%) and 88(82.2%), respectively (Table 1). During week 23, the percentage of specimens that were tested positive for influenza in south China was 3.9%, which was lower than the previous week (6.1%) (Figure 3). During week 23, the percentage of specimens that were tested positive for influenza in north China was 0.6%, which was lower than the previous week (0.7%)(Figure 4).

Table 1 Laboratory Detections of ILI Specimens (Week 23, 2016)

	Week 23		
	South China	North China	Total
No. of specimens tested	2628	619	3247
No. of positive specimens (%)	103(3.9%)	4(0.6%)	107(3.3%)
Influenza A	19(18.4%)	0(0)	19(17.8%)
A(H3N2)	5(26.3%)	0(0)	5(26.3%)
A(H1N1)pdm09	14(73.7%)	0(0)	14(73.7%)
A (subtype not determined)	0(0)	0(0)	0(0)
Influenza B	84(81.6%)	4(100%)	88(82.2%)
B (lineage not determined)	17(20.2%)	1(25.0%)	18(20.5%)
Victoria	58(69.0%)	3(75.0%)	61(69.3%)
Yamagata	9(10.7%)	0(0)	9(10.2%)

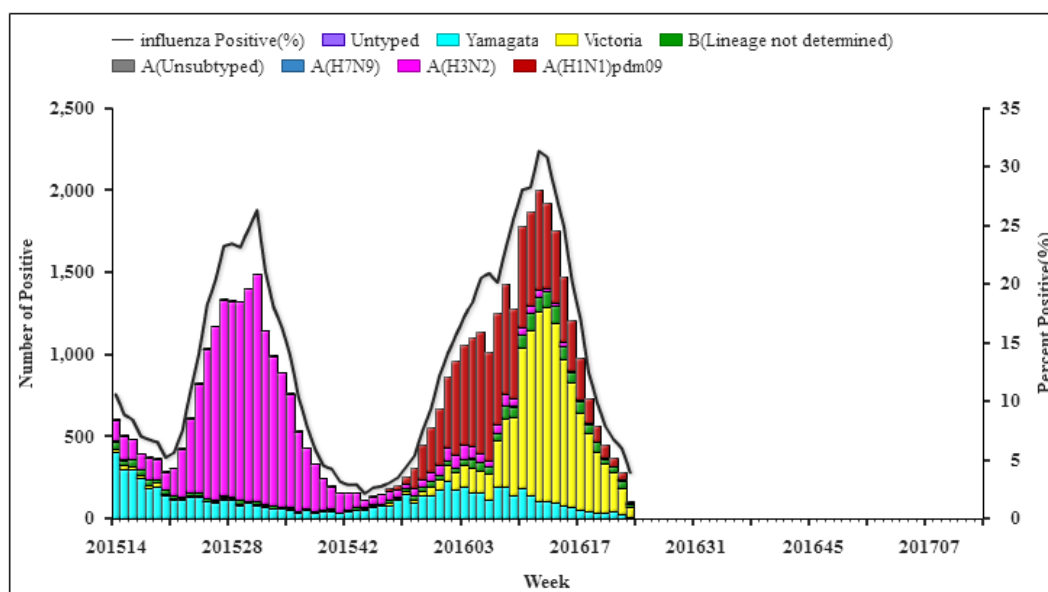


Figure 3. Influenza Positive Tests Reported by Southern Network Laboratories (Week 14, 2015–Week 23, 2016)

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.

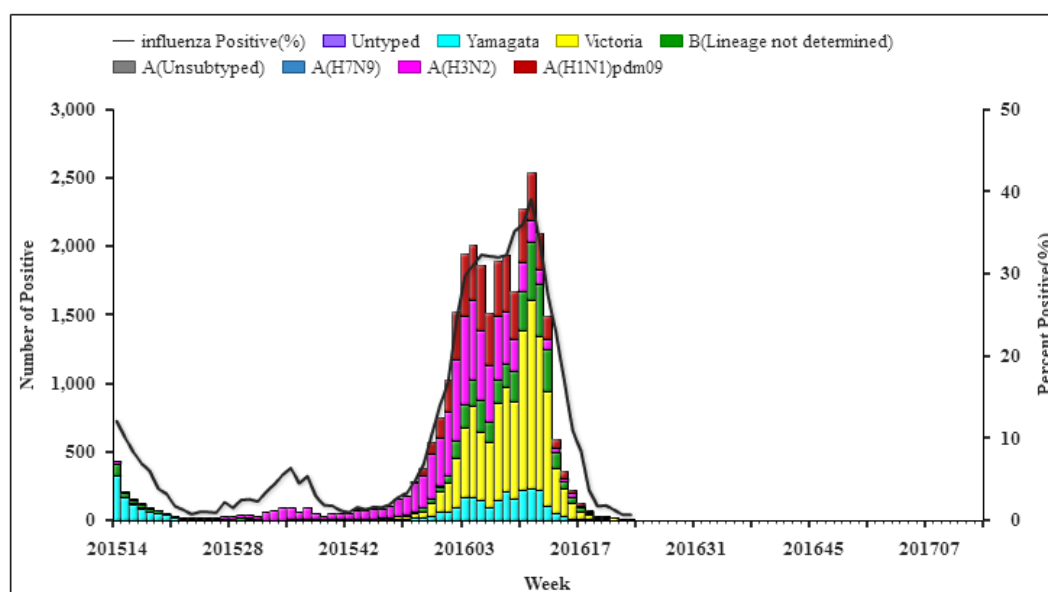


Figure 4. Influenza Positive Tests Reported by Northern Network Laboratories (Week 14, 2015–Week 23, 2016)

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 October 1st, 2015, 656(97.0%) of the 676 A(H1N1)pdm09 viruses tested were characterized as A/California/7/2009-like; 139(51.9%) of the 268 A(H3N2) influenza viruses tested were characterized as A/Switzerland/9715293/2013 (H3N2)(EGG)-like, 232(86.6%) of the 268 A(H3N2) influenza viruses tested were characterized as A/Switzerland/9715293/2013 (H3N2)(CELL)-like; 499(98.8%) of the 505 influenza B/Yamagata lineage viruses tested were characterized as B/Phuket/3073/2013-like; 508(69.8%) of the 728 influenza B/Victoria lineage viruses tested have been characterized as B/Brisbane/60/2008-like.

Antiviral Resistance

Since October 1st, 2015, 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 influenza A(H3N2) and B viruses were sensitive to neuraminidase inhibitors. All but 2 influenza A(H1N1)pdm09 viruses were sensitive to neuraminidase inhibitors.