

## Chinese Influenza Weekly Report

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

### Summary

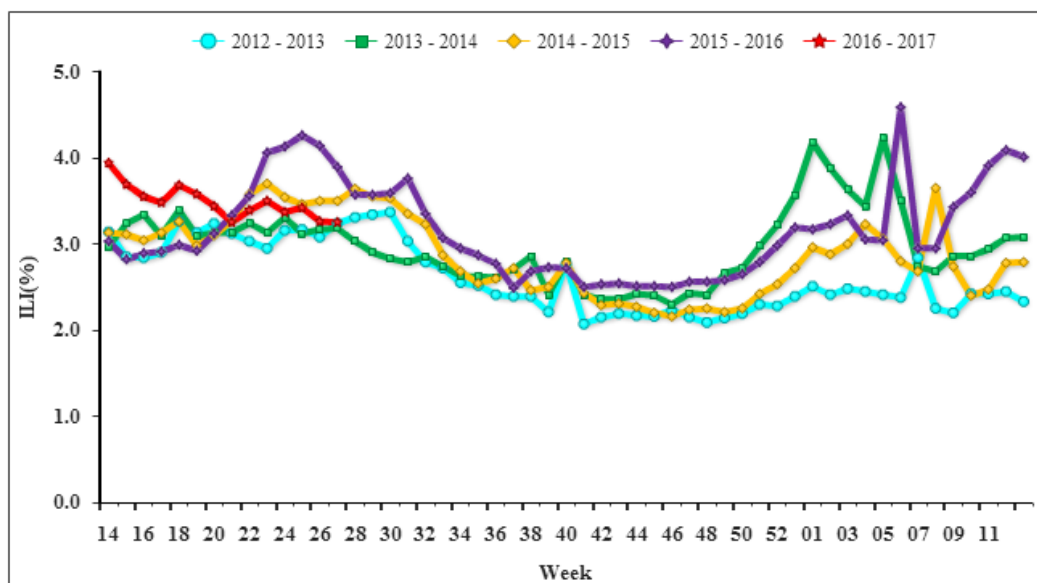
- During week 27, influenza activity in mainland China was at the level of non-epidemic season. There was very few influenza B virus detected in southern China.
- Among influenza viruses antigenically characterized by CNIC since March, 2016, 228 (99.6%) influenza A(H1N1)pdm09 viruses were characterized as A/California/7/2009-like; 25 (80.6%) influenza A(H3N2) viruses were characterized as A/Switzerland/9715293/2013 (H3N2)(EGG)-like, 31 (100%) influenza A(H3N2) viruses were characterized as A/Switzerland/9715293/2013 (H3N2)(CELL)-like; 153 (98.7%) influenza B/Yamagata viruses were characterized as B/Phuket/3073/2013-like. 511 (82.2%) influenza B/Victoria viruses were characterized as B/Brisbane/60/2008-like.
- Among the influenza viruses tested by CNIC for antiviral resistance analysis since March, 2016, 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 4 influenza A(H1N1)pdm09 viruses were sensitive to neuraminidase inhibitors.

### Outbreak Surveillance

During week 27 (July 4–10, 2016), there were no outbreak reported nationwide .

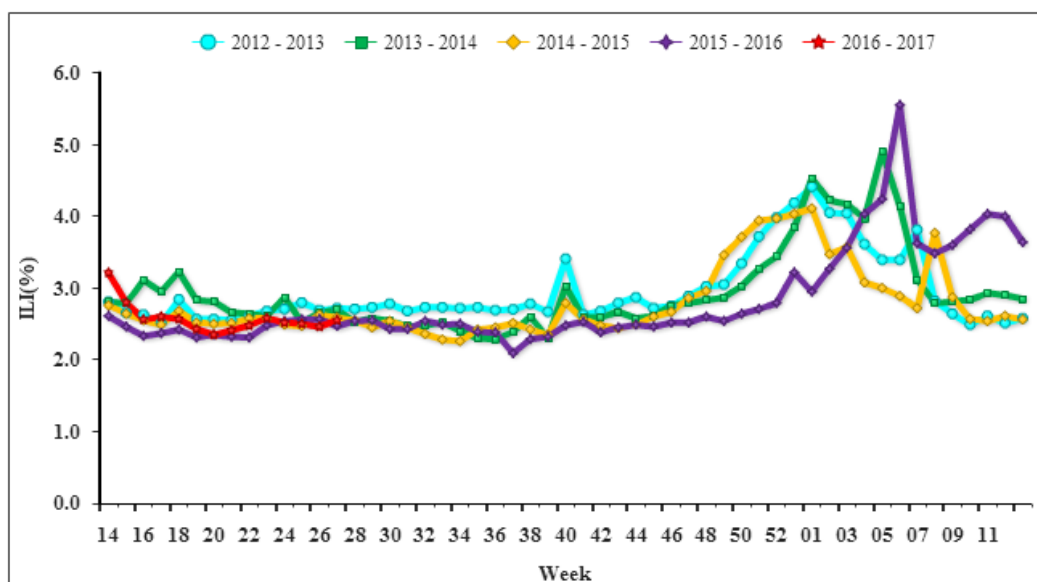
### Surveillance of outpatient or emergency visits for Influenza-like Illness (ILI)

During week 27, the percentage of outpatient or emergency visits for ILI (ILI %) at national sentinel hospitals in southern China was 3.3% , same as last week (3.3%) , lower than the same week of 2014 and 2015 (3.5% and 3.9%) . (Figure 1)



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

During week 27, ILI% at national sentinel hospitals in northern China was 2.6%, higher than last week and the same week of 2015 (both 2.5%), same as the same week of 2014 (2.6%). (Figure 2)



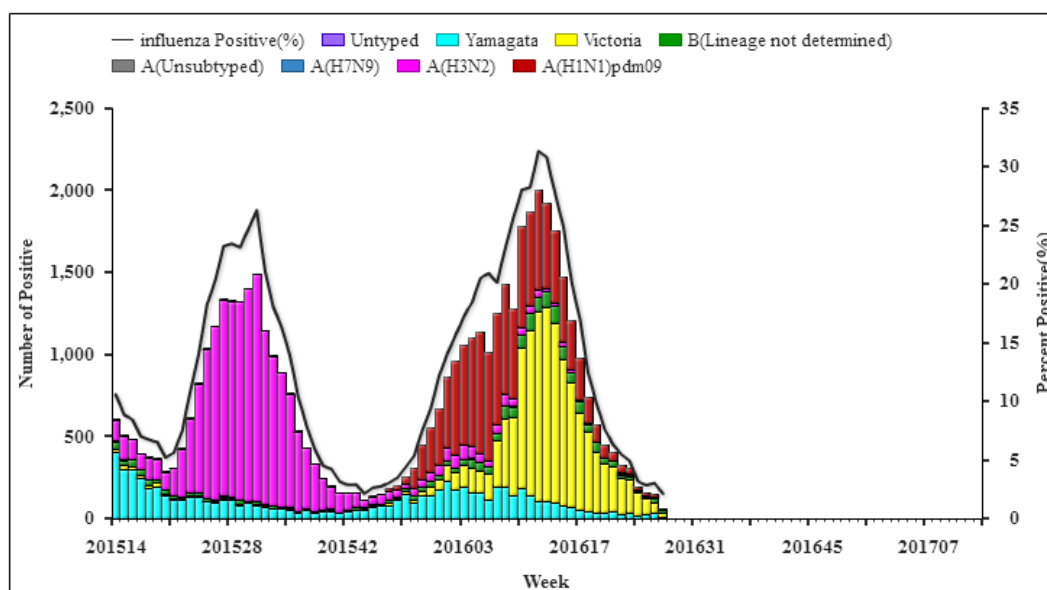
**Figure 2. Percentage of Visits for ILI at Sentinel Hospitals in North China (2012-2016)**

## Virologic Surveillance

During week 27, influenza network laboratories tested 3248 specimens, of which 57 (1.8%) were positive for influenza, influenza A and influenza B virus were 6 (10.5%) and 51 (89.5%), respectively (Table 1). During week 27, the percentage of specimens that were tested positive for influenza in south China was 2.1%, which was lower than the previous week (3.1%) (Figure 3). During week 27, the percentage of specimens that were tested positive for influenza in north China was 0%, which was lower than the previous week (0.2%) (Figure 4).

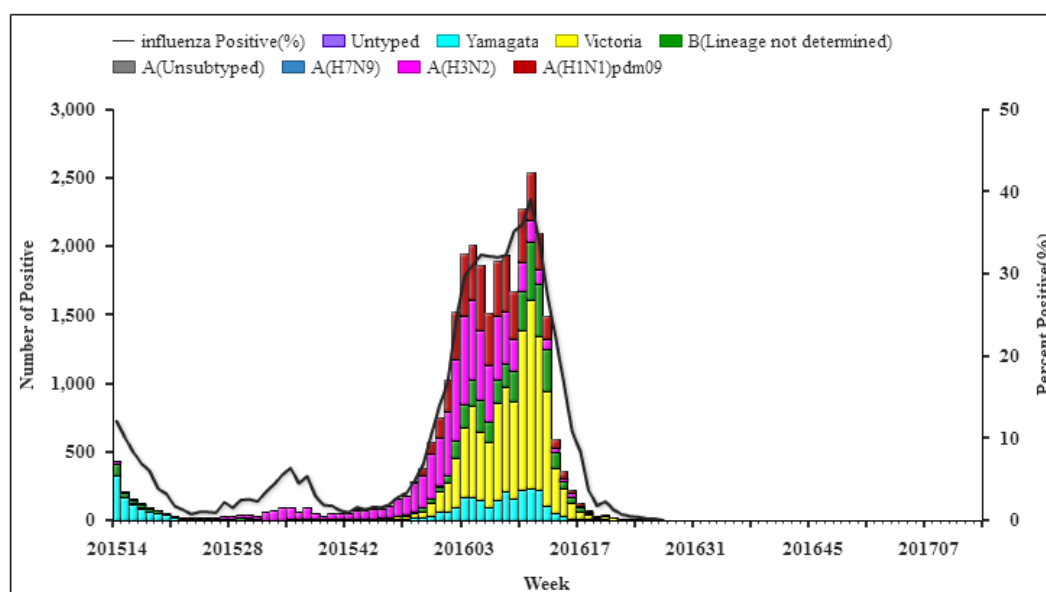
**Table 1 Laboratory Detections of ILI Specimens (Week 27, 2016)**

|                                      | Week 27          |             |                  |
|--------------------------------------|------------------|-------------|------------------|
|                                      | South China      | North China | Total            |
| <b>No. of specimens tested</b>       | <b>2687</b>      | <b>561</b>  | <b>3248</b>      |
| <b>No. of positive specimens (%)</b> | <b>57(2.1%)</b>  | <b>0(0)</b> | <b>57(1.8%)</b>  |
| <b>Influenza A</b>                   | <b>6(10.5%)</b>  | <b>0(0)</b> | <b>6(10.5%)</b>  |
| A(H3N2)                              | 0(0)             | 0(0)        | 0(0)             |
| A(H1N1)pdm09                         | 5(83.3%)         | 0(0)        | 5(83.3%)         |
| A (subtype not determined)           | 1(16.7%)         | 0(0)        | 1(16.7%)         |
| <b>Influenza B</b>                   | <b>51(89.5%)</b> | <b>0(0)</b> | <b>51(89.5%)</b> |
| B (lineage not determined)           | 16(31.4%)        | 0(0)        | 16(31.4%)        |
| Victoria                             | 28(54.9%)        | 0(0)        | 28(54.9%)        |
| Yamagata                             | 7(13.7%)         | 0(0)        | 7(13.7%)         |



**Figure 3. Influenza Positive Tests Reported by Southern Network Laboratories (Week 14, 2015–Week 27, 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 27, 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 March 1<sup>st</sup>, 2016, 228 (99.6%) of the 229 A(H1N1)pdm09 viruses tested were characterized as A/California/7/2009-like; 25 (80.6%) of the 31 A(H3N2) influenza viruses tested were characterized as A/Switzerland/9715293/2013 (H3N2)(EGG)-like, all of the 31 A(H3N2) influenza viruses tested were characterized as A/Switzerland/9715293/2013 (H3N2)(CELL)-like; 153 (98.7%) of the 155 influenza B/Yamagata lineage viruses tested were characterized as B/Phuket/3073/2013-like; 511 (82.2%) of the 622 influenza B/Victoria lineage viruses tested have been characterized as B/Brisbane/60/2008-like.

### **Antiviral Resistance**

Since March 1<sup>st</sup>, 2016, 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 4 influenza A(H1N1)pdm09 viruses were sensitive to neuraminidase inhibitors.