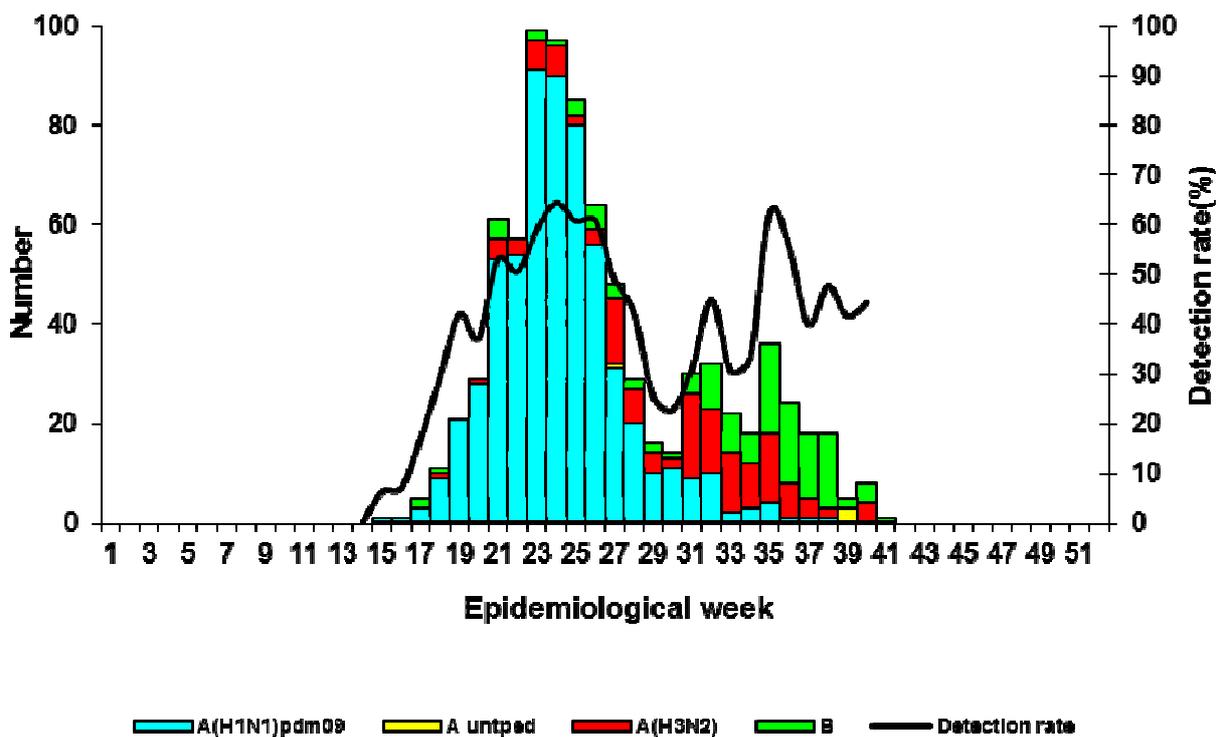


### Influenza

In 2013, active influenza virus transmission was first noted in mid-April and peaked in early June. The influenza season started in epidemiological week 17 (week ending 28 April) when the influenza detection rate rose above 10% and it peaked in epidemiological week 24 (week ending 16 June) with a detection rate of 64.4%. Influenza A(H1N1) pdm09 predominated at the start of the season, with an increase in both influenza A(H3N2) and influenza B cases later in the season. The number of positive detections for influenza A(H3N2) and B increased from epidemiological week 31 (week ending 4 August) and peaked in week 35 (week ending 1 September). Since week 39 (week ending

29 September), fewer than 5 detections have been made per week in patients presenting with influenza-like illness (ILI) (Figure 1).

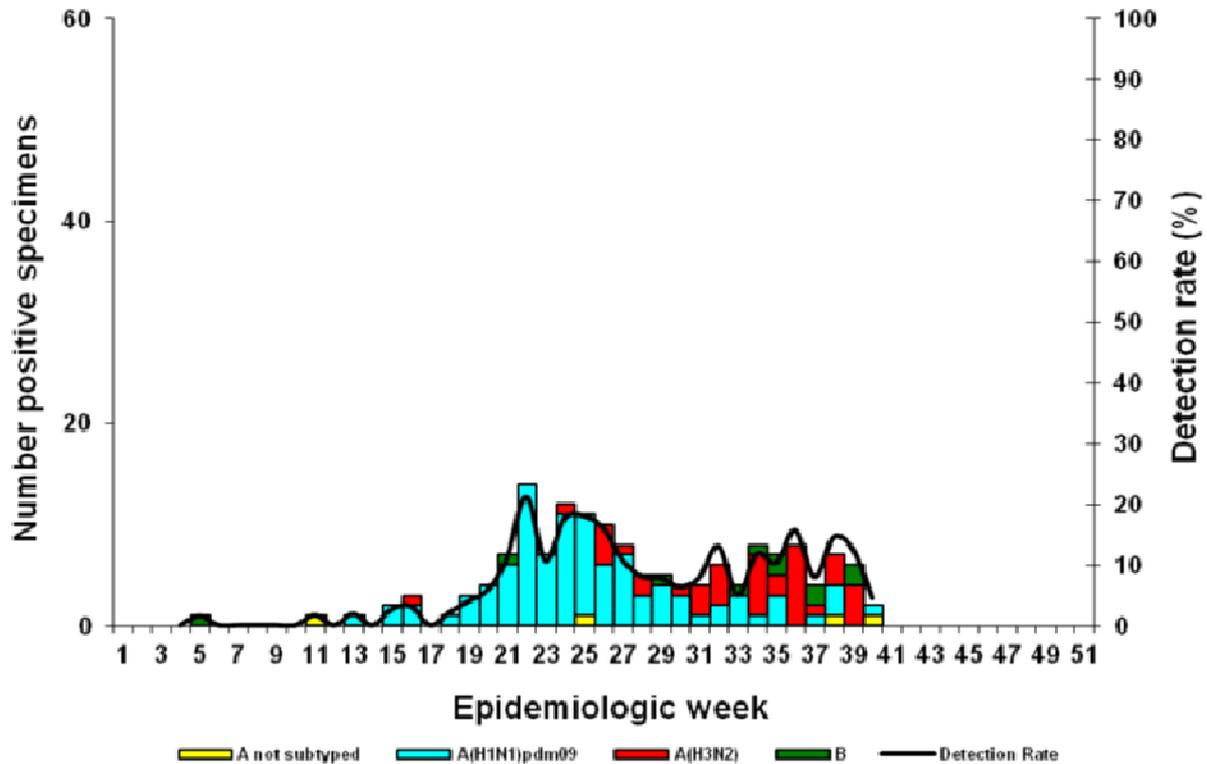
For the period 1 January 2013 to 13 October 2013, a total of 852 influenza detections has been made from 844 patients presenting with ILI. Of the 847 influenza-positive samples that have been subtyped, 591 (70%) have been identified as influenza A(H1N1)pdm09, 135 (16%) as influenza A(H3N2), and 122 (14%) as influenza B (Figure1). Influenza has been detected in all nine provinces of South Africa.



**Figure 1. Number of positive samples by influenza types and subtypes, and detection rate by week. Viral watch surveillance programme, 2013**

For the period 1 January 2013 to 6 October 2013, 2 566 patients admitted with severe respiratory illness (SARI) were enrolled at the five sentinel sites. Of these, 2 505 (98%) have been tested and 155 (6%) were positive for influenza virus. Of the 155 influenza-positive samples, 99 (64%) were

influenza A(H1N1)pdm09, 41 (26%) were influenza A(H3N2), 11 (7%) were influenza B and four (2%) were influenza A untyped. There was one mixed infection of influenza A(H1N1)pdm09 and A(H3N2) (Figure2).



**Figure 2. Number of positive samples by influenza types and subtypes and influenza detection rate by week, SARI surveillance, 2013**

### Antiviral testing and genetic drift of 2013 influenza viruses

The influenza A(H1N1)pdm09 strains dominated the season and the majority of viruses were in genetic lineage 6. All viruses showed good antigenic reactivity to antisera raised against the A/California/7/2009 vaccine strain. Genetic drift has occurred in influenza A and B strains from the vaccine strains. In contrast to 2012 when both influenza B lineages co-circulated, the influenza B/Yamagata-like viruses circulated in 2013. All the B/Yamagata-like virus isolates showed normal reactivity with antisera raised against the B/Wisconsin/1/2010 vaccine strain. Circulating influenza A(H3N2) viruses mainly belonged to lineage 3C. Three A(H3N2) isolates typed showed low reactivity to antisera raised against the A/Victoria/361/2011 vaccine strain. One isolate from a participant with influenza-like illness showed phenotypic resistance to the neuraminidase inhibitors oseltamivir and zanamivir.

### Recommended composition of influenza virus vaccine for use in the 2014 southern hemisphere influenza season

The WHO has recommended that trivalent vaccines for use in the 2014 southern hemisphere influenza season contain the following:

- an A/California/7/2009 (H1N1)pdm09-like virus\*
- an A/Texas/50/2012 (H3N2)-like virus\*\*
- a B/Massachusetts/2/2012-like virus

**Source:** Centre for Respiratory Diseases and Meningitis, NICD-NHLS