

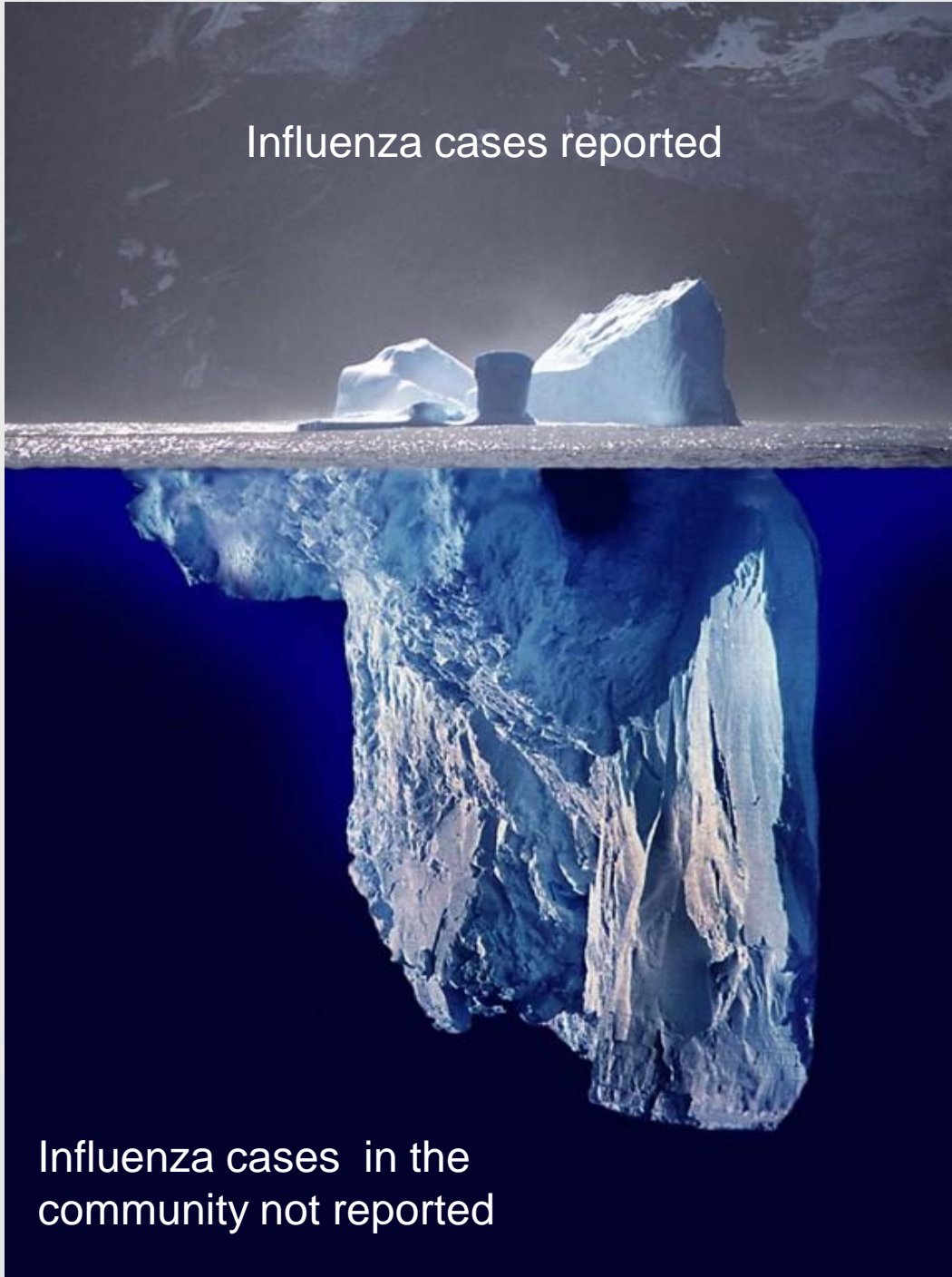
2015 Influenza Season Review

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Outline

- NSW ED and hospital influenza surveillance overview
- Other indicators of influenza activity
- Influenza vaccine efficacy and changes in 2016

Influenza cases reported

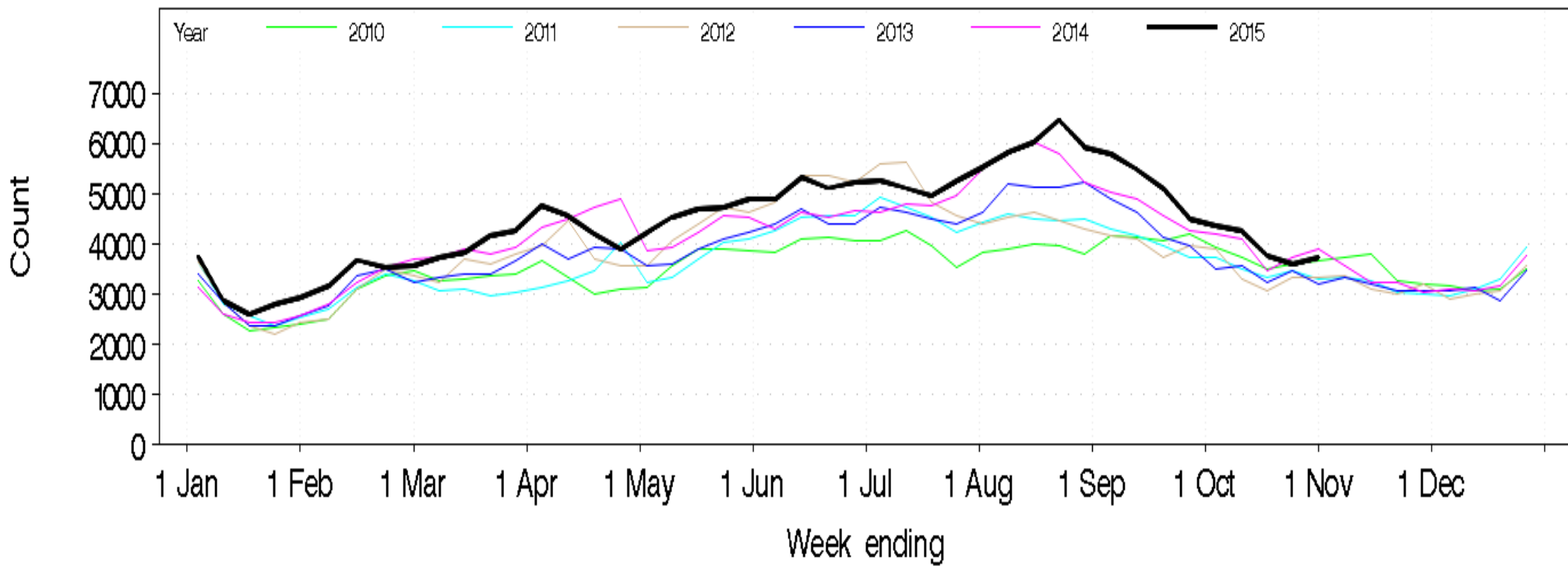


Influenza cases in the
community not reported



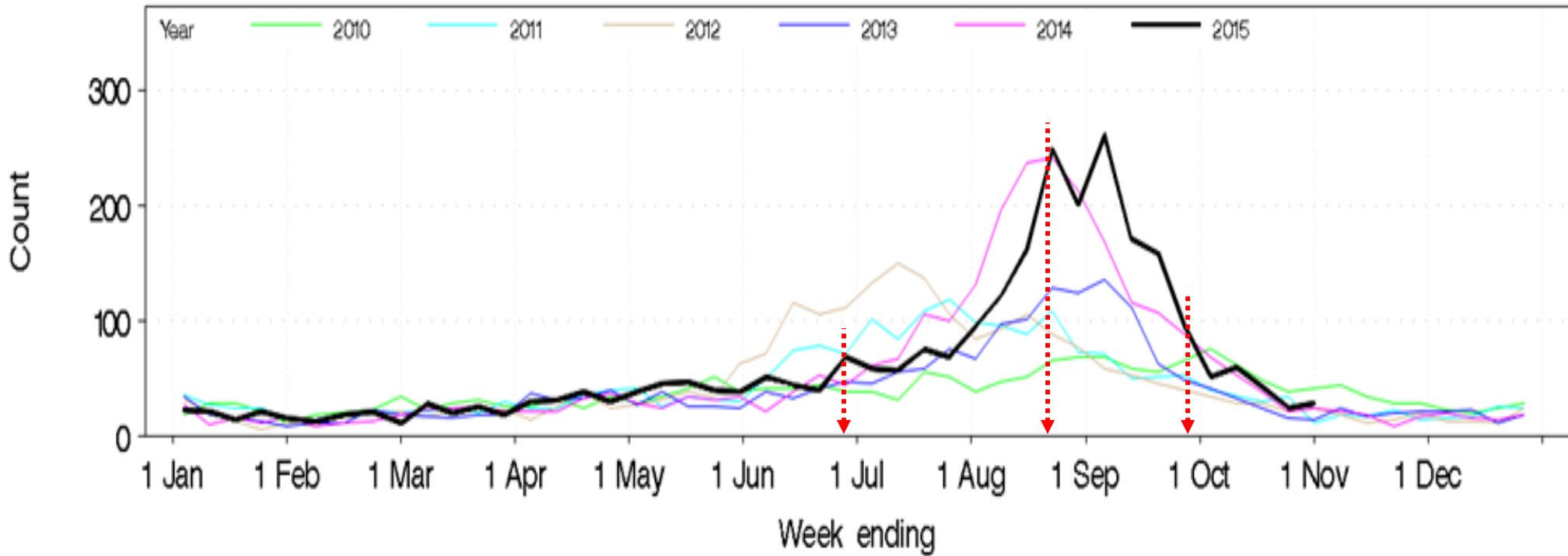
Health

Emergency Department syndromic surveillance – respiratory illness



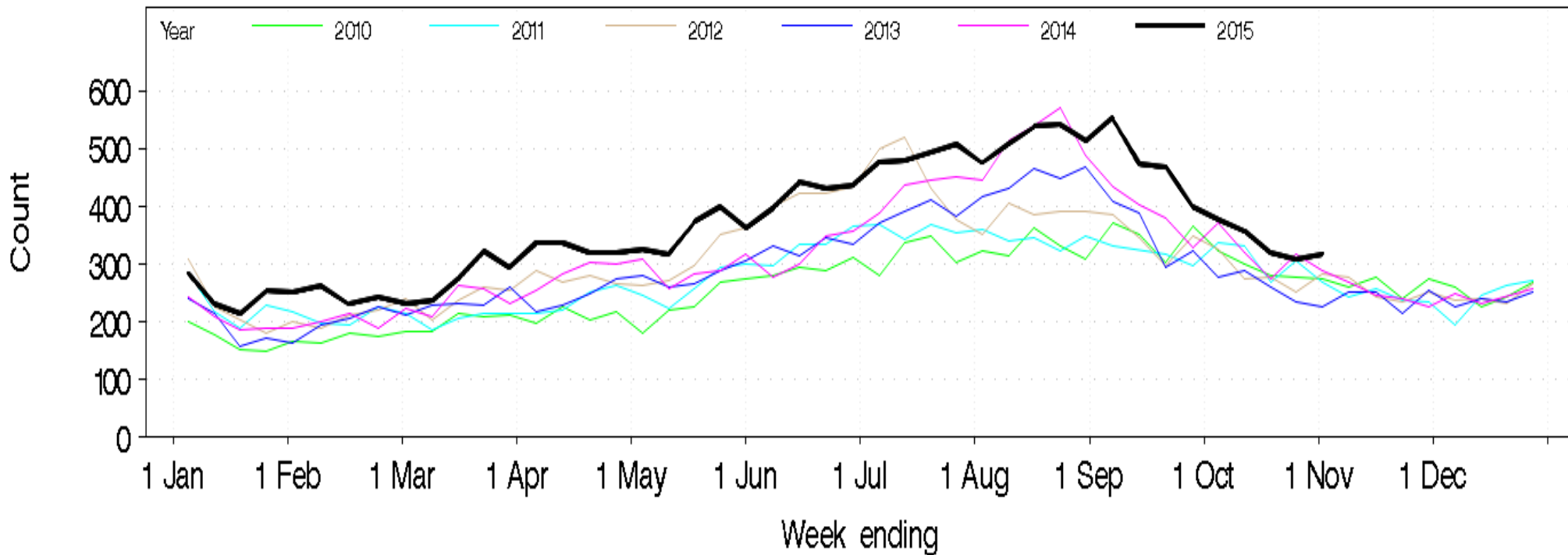
Total weekly counts of Emergency Department presentations for **any respiratory illness**, for 2015 (black line), compared with each of the five previous years (coloured lines), persons of all ages, for 59 NSW hospitals.

EDs – Influenza-like illness



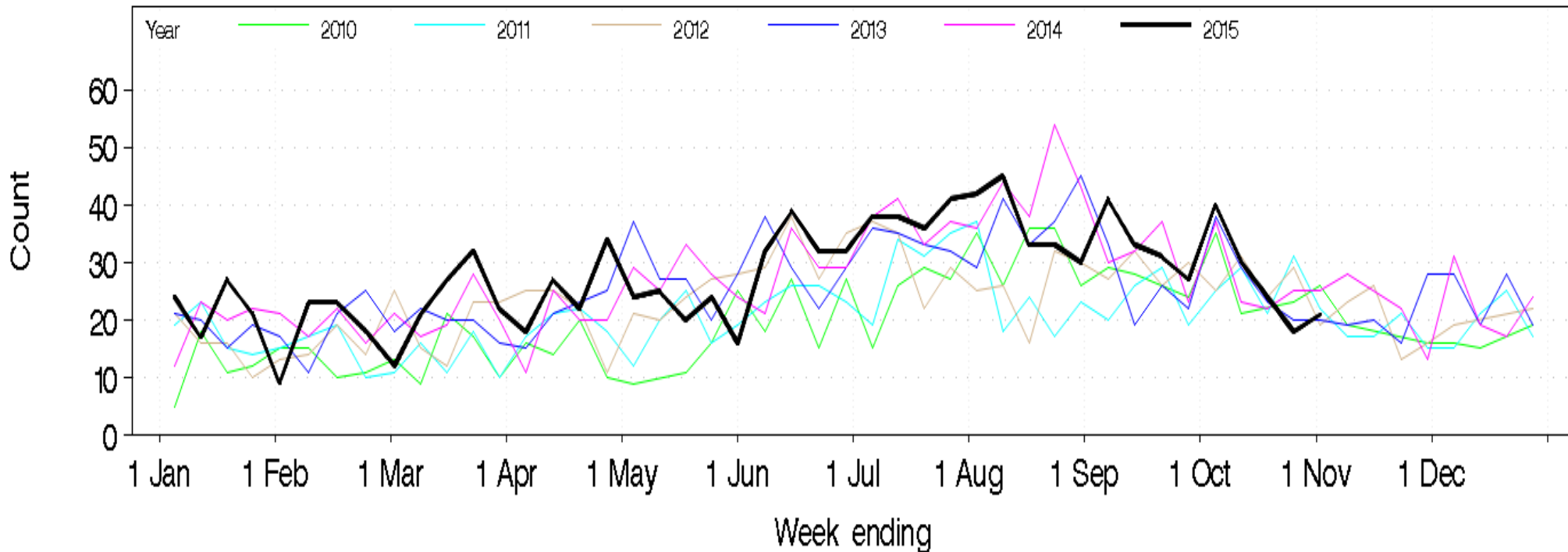
Total weekly counts of Emergency Department presentations for **influenza-like illness**, for 2015 (black line), compared with each of the five previous years (coloured lines), persons of all ages, for 59 NSW hospitals.

EDs - admissions



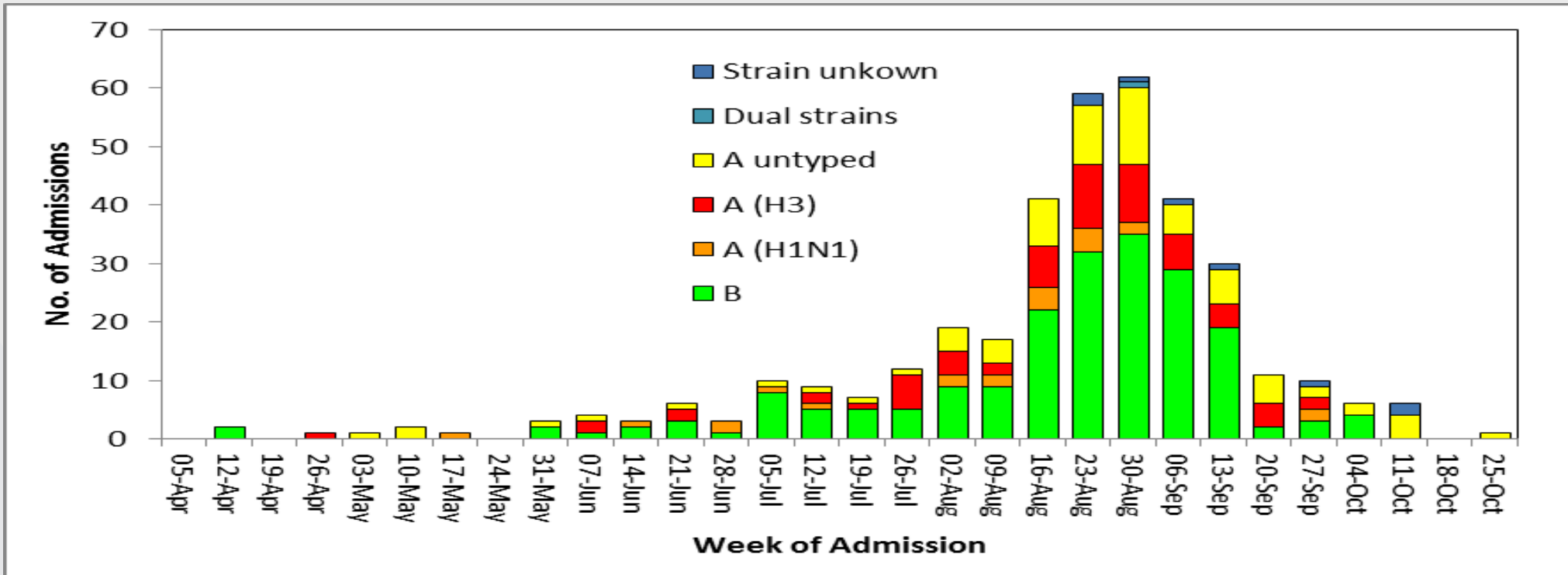
Total weekly counts of ED presentations for **pneumonia or influenza-like illness admitted to ward (not critical care)**, for 2015 (black line), compared with each of the five previous years (coloured lines), persons of all ages, for 59 NSW hospitals.

EDs – critical care admissions



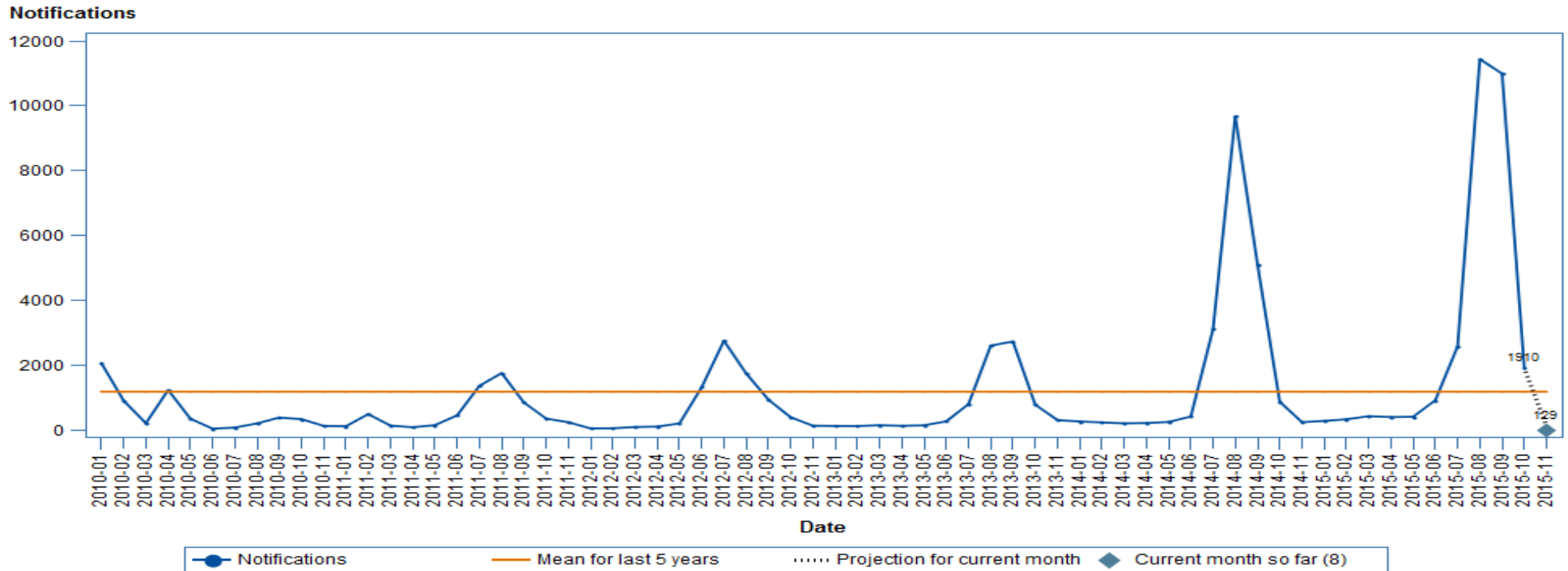
Total weekly counts of ED presentations for **pneumonia or influenza-like illness admitted to critical care ward**, for 2015 (black line), compared with each of the five previous years (coloured lines), persons of all ages, for 59 NSW hospitals.

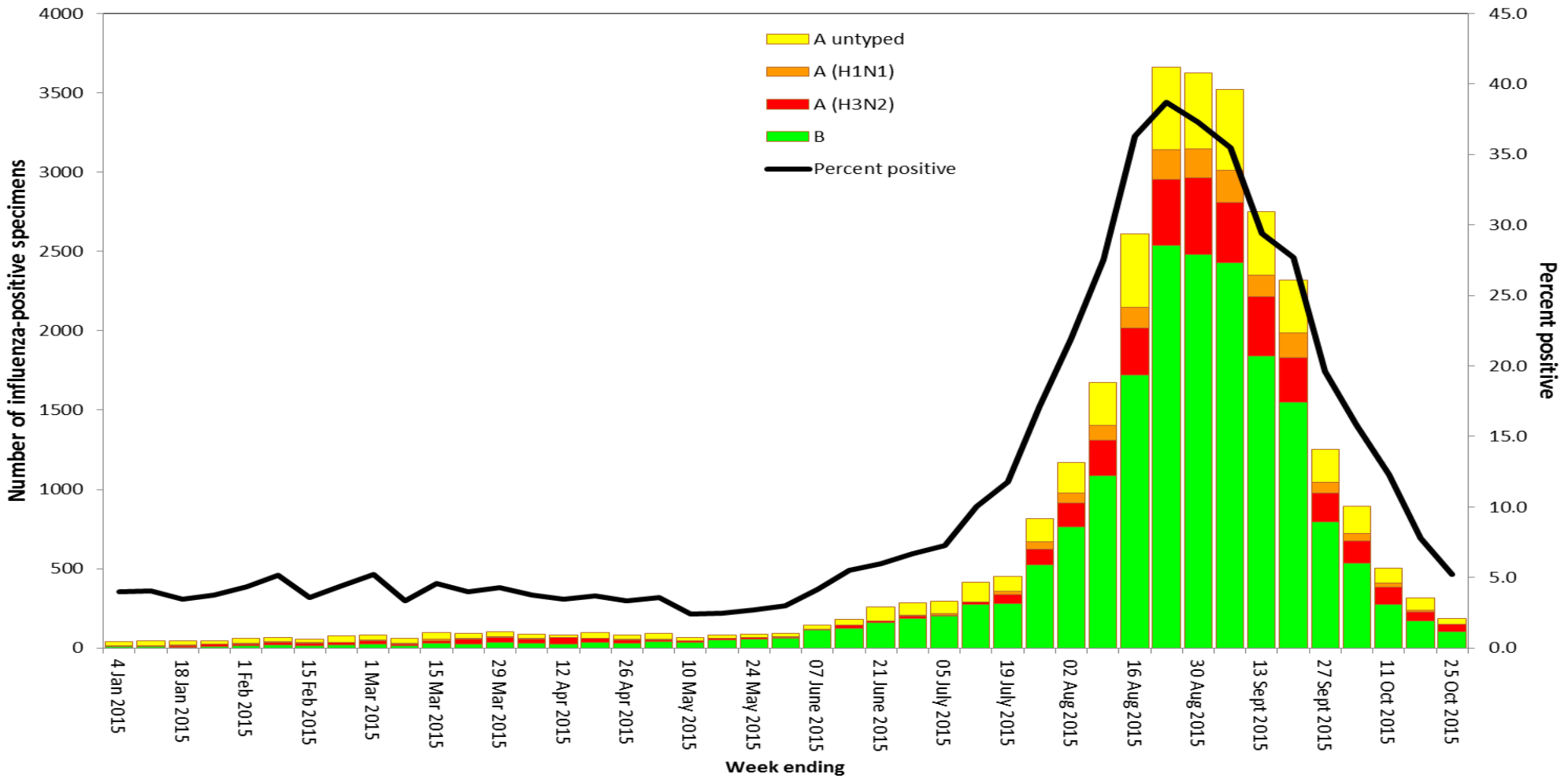
FluCAN – sentinel hospital surveillance



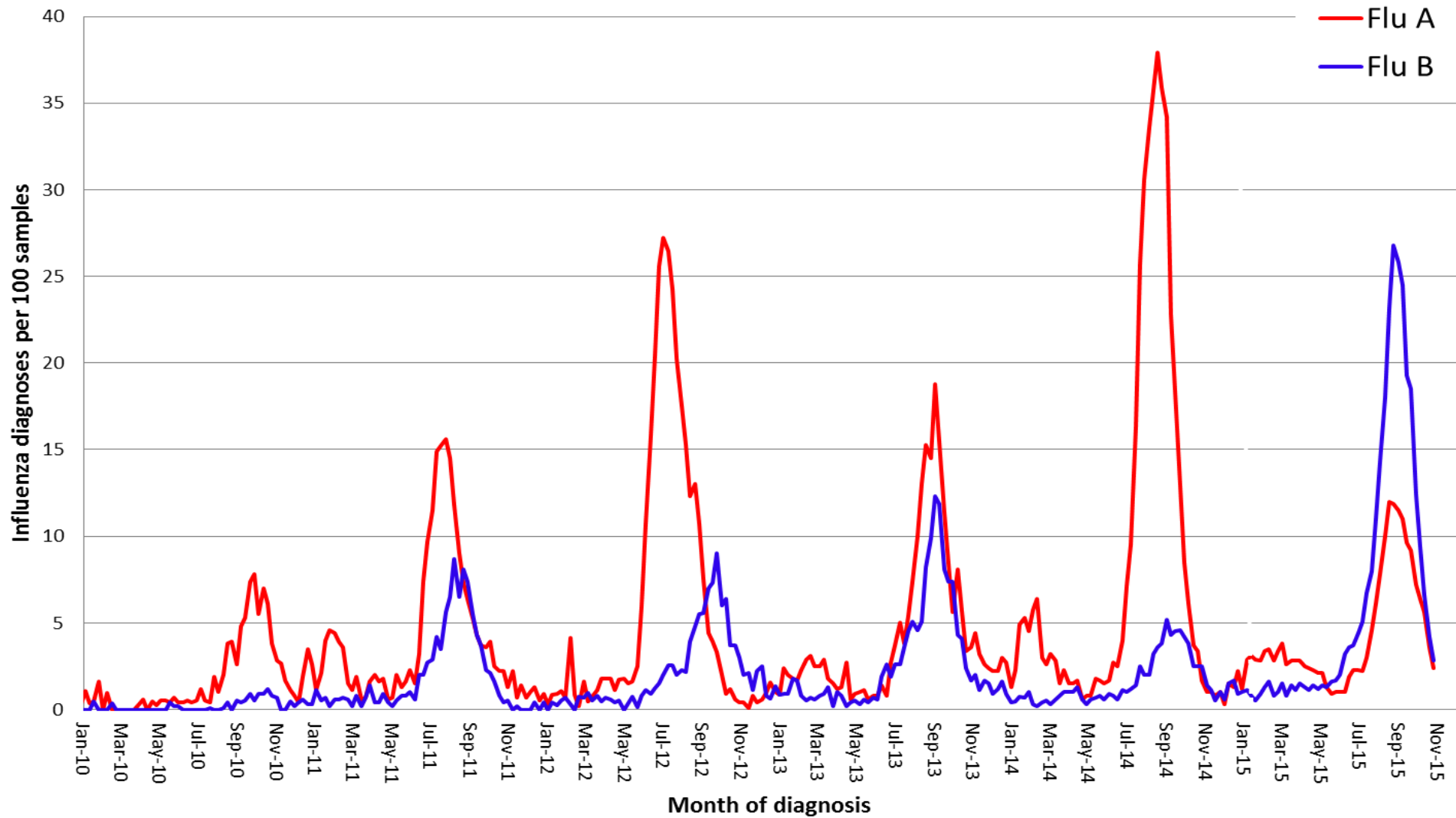
* Flu B = 54% (vs 66% in the community)

Influenza laboratory notifications





All Flu A strains circulating were well-matched to vaccine strains
Two Flu B strains circulating were well-matched to vaccine strains *



Health

Season summary

- Commenced in late June and peaked in late August
- High activity levels in the community – similar to 2014
- Influenza B viruses predominated 2:1
 - Four strains circulating – 2 Flu A and 2 Flu B
 - Good match to vaccine strains; B-Victoria only in the 4-valent vaccine
- Hospital surveillance
 - moderate impact year; high ED activity but less severe hospitalisations than in 2014 (when A/H3N2 predominated)

Influenza B background

- Just in humans (....and seals) unlike A strains
- Grouped by lineage
 - Current: B-Yamagata, B-Victoria
- Have not caused pandemics
 - Slower mutation rate
- Less severe than Flu A? *



Flu vaccines used in 2015

- **Trivalent inactivated vaccines (TIV)**
 - Covered three flu strains (2 influenza A and 1 influenza B)
 - Two strain changes from 2014: A/H3N2 and B-Yamagata
 - Funded under the National Immunisation program (NIP)
- **Quadrivalent inactivated vaccine (QIV)**
 - Covered the same 3 strains as TIV plus a second B strain
 - Added B-Victoria; strain used in 2014 TIV
 - Turned out to be as commonly reported as B-Yamagata

Flu vaccines for 2016

- All quadrivalent vaccines in the National Immunisation Program
 - Fluarix Tetra® (GSK) for eligible people aged ≥ 3 years
 - FluQuadri® Junior (Sanofi) for 6 months to < 3 years.
- QIV also for NSW Health healthcare workers
- Flu strains covered in the 2016 QIV vaccine
 - same B strains as in the 2015 QIV
 - new A/H3N2 strain; same A/H1N1 strain

Flu vaccine effectiveness

- Influenza vaccine effectiveness (VE)
 - ~60% in adults (range 45 - 85%) Lower for ≥ 65 years *
 - depends on strain match
- Hospitalisations
 - ↓ risk of hospitalisation for flu (50%): 2014 FluCAN
 - ↓ people ≥ 50 years (61%), with diabetes (79%) or COPD (52%)
 - ↓ risk of flu-related paediatric ICU admission in winter (74%)
 - ↓ risk for infants of women vaccinated during pregnancy (92%)
- Cardiac events
 - ↓ incident AMI (29%)
 - ↓ cardiac events in people with heart disease (36%)
- 2016 Winter Flu Campaign * – increased focus on vaccination

More information

- NSW Health Flu website and surveillance reports:
 - www.health.nsw.gov.au/Infectious/Influenza/
 - www.health.nsw.gov.au/Infectious/Influenza/Pages/reports.aspx
- NSW Health Flu vaccines information:
 - www.health.nsw.gov.au/immunisation/Pages/seasonal_flu_vaccination.aspx
- Immunise Australia Program – Flu website
 - www.immunise.health.gov.au/internet/immunise/publishing.nsf/Content/immunise-influenza