**Total Notifications** | 15793
---|---
**Influenza A** | 11977
  **A(H1N1)pdm09†** | 33
  **H3N2** | 1804
  **Un-subtyped** | 10140
**Influenza B** | 3816
**Number of Confirmed Influenza Hospitalisations (Queensland Public Hospitals Only)** | 1420

Subtype counts/proportions may be subject to change
†World Health Organisation (WHO) standard abbreviation for the influenza strain associated with the 2009 pandemic, also known as A/California/7/2009 (H1N1)

| Influenza vaccine virus composition for Australia 2012 | A (H1N1): an A/California/7/2009 (H1N1) - like strain, 15 µg HA per dose
A (H3N2): an A/Perth/16/2009 (H3N2) - like strain, 15 µg HA per dose
B: a B/Brisbane/60/2008 - like strain, 15 µg HA per dose |
|---|---|

**Influenza Notifications**

Year to date (YTD) there have been 15793 notifications of influenza in Queensland. Subtype is recorded for 1837 of the 11977 notifications of influenza A, comprising 33 A(H1N1)pdm09 and 1804 H3N2. Twenty-four percent (3816) of notifications have been influenza B.

**Figure 1: Influenza notification counts in Queensland by type and week of onset and percentage of positive influenza tests (public laboratory system only) by week, from 1st January 2012 to 23rd September 2012. Data extracted from NOCS 24/09/2012 and AUSLAB 24/09/2012.**

*Un-typed notifications have been excluded.

Figure 1 shows Queensland notifications for influenza A and B by week of onset. An increasing trend is apparent from around week 19 (week beginning Monday 7th May) with a peak in week 33 (week beginning Monday 13th August).
Review of data by region (Figure 2) indicates a sustained downward trend in notification numbers in all areas of the state since week 33. The season profile in the tropical region shows a less well defined peak that the southern or central regions.

Figure 1 also shows the percentage of positive influenza tests, performed in the public laboratory sector in Queensland, by week of testing for the YTD 2012. The number of positive tests can be influenced by many factors including the amount of testing done. However, the percentage of positive tests may be an indicator of disease frequency in the population and would be expected to change as the influenza season progresses. The increasing trend shown in Figure 1, from around week 23 (week beginning 4th June), is consistent with an evolving influenza season. The percentage positive has decreased from a peak of 34% during week 33 to 14% during the most recent week (week 38). The laboratory test data presented in Figure 1 should be interpreted with caution as they may not be representative of influenza testing across all laboratory sectors. In addition, there may be some inaccuracies associated with the extraction of data from the laboratory information system (AUSLAB).

The recent week’s data may be incomplete for both notifications and AUSLAB and will usually be an underestimate in data presented by date of disease onset.

The 2012 YTD notification count (15793) is approximately 2.2 times the five year mean (7273) for the same period. However, it is important to note that the profile of influenza notifications is not the same each year, especially with regard to the start and peak of the season. Comparison of YTD data, or counts during a particular week, across years may be misleading. In addition, there have been changes to diagnostic methods and test requesting practices in recent years, which may influence counts.

![Figure 2: Influenza notification counts by region 1st January 2012 to 23rd September 2012. Data extracted from NOCS 24/09/2012.](image)

Figure 3 shows the 2012 YTD influenza notifications by age group and gender. The highest influenza notification rate has been in the 1-4 age group (811.8 per 100,000 population) and the lowest rate in the 50-59 age group (210.9 per 100,000 population). The median age was 27 years and the age range was <1 to 102 years. Overall, there were slightly more notifications in females (54%) than males (46%).
Figure 3: Influenza notification counts and crude rates (per 100,000) in Queensland by age group and gender from 1st January 2012 to 23rd September 2012. Data extracted from NOCS 24/09/2012. (2010 Population Data were used for rates.

**Influenza Hospitalisations**

Figure 4 shows the number of laboratory confirmed influenza admissions to public hospitals in Queensland, by week and admission type, detected through the EpiLog system. YTD 2012 there have been 1420 admissions, including 148 to intensive care units (ICU). EpiLog data should be timely. Admissions show a sustained downward trend beginning in week 34. Hospitalisations are considered a proxy measure of illness severity, with the most severely affected of all notified cases (Figure 1) requiring hospital care.

Figure 4: Admission of laboratory confirmed influenza cases, to Queensland public hospitals, by week and type of admission, with admission from 1st January 2012 to 23rd September 2012. Data extracted from EpiLog 24/09/2012.

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1 EpiLog is a web based application developed by Queensland Health, which generates admission records for confirmed influenza cases through interfaces with the inpatient information and public laboratory databases. Records can also be generated manually.

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Communicable Disease Surveillance, Prevention & Control | Communicable Diseases Unit | Chief Health Officer Branch | Health Service & Clinical Innovation Division

Data presented in this report were the most accurate available at the time of extraction. Surveillance datasets are subject to change. Please direct any enquiries to EPI@health.qld.gov.au

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Figure 5: Laboratory confirmed influenza admission counts, in Queensland public hospitals, by age group and gender, with admission from 1st January 2012 to 23rd September 2012. Data extracted from EpiLog 24/09/2012.

Figure 5 shows the age and gender distribution of the YTD confirmed influenza admissions to public hospitals, as detected by the EpiLog system. Overall, the highest number of hospitalisations (236) occurred in the 80+ year age group, with 42% male and 58% female. The median age of hospitalised cases was 51 years and the range was <1 to 102.

Figure 6 shows the geographical distribution of the 2012 YTD hospitalisations by Hospital & Health Services (HHS). The weekly notification counts by HHS, together with the YTD totals, are shown in Table 1.
Figure 7 shows the number of inpatients in public hospitals, with laboratory confirmed influenza, during each week since 1st January 2012. The data are a function of admissions as well as lengths of stay. This is distinct from the data in Figure 4 which shows new admissions during each week. The occupancy over the previous four weeks shows a decreasing trend, which is consistent with other data sources indicating the influenza activity is decreasing. Detailed analysis of length of stay has not been undertaken at this stage.

**Australian Sentinel Practices Research Network (ASPREN)**

ASPREN is a national syndromic surveillance program co-ordinated by the Discipline of General Practice at the University of Adelaide and The Royal Australian College of General Practitioners. One of the conditions under surveillance is influenza like illness (ILI).

General practitioners (GP) participating in the ASPREN program contribute data on the proportion of consultations which are ILI related. Currently there are 43 Queensland GPs registered with ASPREN, although weekly participation rate may vary. YTD 2012 GP participation has ranged from 30 - 63 % during the 2012 season.

The number of ILI presentations per 1000 GP consultations has shown a sustained decreasing trend over the last five weeks. During the most recent week there were 11.3 ILI presentations per 1000 GP consultations.

**Table 1:** Influenza notifications by week of onset and Hospital & Health Service (HHS) Queensland, 2012 (as on 23rd September 2012). *Data extracted from NOCS 24/09/2012.*

| Hospital & Health Service | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| Torres Strait-Northern Peninsula | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cape York | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 1 | 1 | 7 | 7 | 0 | 3 | 0 | 0 | 1 | 0 | 0 |
| Cairns and Hinterland | 1 | 1 | 1 | 4 | 0 | 1 | 1 | 2 | 2 | 5 | 5 | 2 | 2 | 2 | 0 | 3 | 4 | 3 | 5 | 7 | 1 | 6 | 7 | 8 | 6 | 10 | 11 |
| Mount Isa | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 7 | 1 | 3 | 8 | 8 | 4 | 12 | 13 |
| Townsville | 1 | 1 | 1 | 1 | 1 | 2 | 0 | 7 | 3 | 8 | 8 | 9 | 3 | 5 | 5 | 5 | 6 | 7 | 8 | 7 | 7 | 13 | 13 | 24 | 29 | 51 | 53 |
| Mackay | 1 | 2 | 1 | 1 | 1 | 1 | 0 | 2 | 1 | 0 | 2 | 1 | 1 | 1 | 0 | 2 | 0 | 7 | 1 | 1 | 2 | 0 | 1 | 4 | 3 | 3 |
| Central Queensland | 0 | 3 | 0 | 2 | 0 | 0 | 1 | 1 | 4 | 0 | 3 | 0 | 2 | 0 | 1 | 0 | 1 | 0 | 0 | 2 | 3 | 2 | 2 | 3 | 0 | 5 |
| Central West | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Wide Bay | 1 | 3 | 3 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 0 | 2 | 1 | 0 | 2 | 5 | 0 | 1 | 2 | 0 | 1 | 2 | 3 | 2 | 6 |
| Sunshine Coast | 0 | 4 | 2 | 1 | 6 | 1 | 4 | 2 | 0 | 6 | 3 | 3 | 4 | 6 | 1 | 3 | 0 | 2 | 5 | 3 | 3 | 7 | 7 | 3 | 13 | 15 |
| Metro North | 10 | 4 | 3 | 6 | 7 | 5 | 9 | 6 | 12 | 10 | 6 | 19 | 9 | 17 | 6 | 11 | 7 | 9 | 12 | 14 | 31 | 69 | 71 | 75 | 96 | 131 |
| Metro South | 2 | 4 | 6 | 16 | 22 | 5 | 4 | 8 | 7 | 5 | 4 | 8 | 8 | 3 | 12 | 9 | 6 | 4 | 8 | 7 | 13 | 13 | 27 | 33 | 57 | 100 |
| Darling Downs | 3 | 1 | 0 | 1 | 2 | 2 | 2 | 3 | 1 | 3 | 1 | 0 | 2 | 1 | 1 | 0 | 1 | 1 | 5 | 1 | 13 | 13 | 16 | 17 | 43 | 38 |
| West Moreton | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 3 | 2 | 1 | 1 | 0 | 1 | 4 | 3 | 9 | 13 |
| South West | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 0 | 4 | 11 |
| Gold Coast | 1 | 0 | 2 | 1 | 0 | 4 | 3 | 3 | 4 | 1 | 1 | 4 | 0 | 0 | 2 | 3 | 5 | 1 | 6 | 10 | 7 | 4 | 10 | 12 | 29 | 38 |

**Queensland (Total)**

|     | 21 | 24 | 19 | 24 | 21 | 23 | 28 | 37 | 37 | 41 | 31 | 50 | 37 | 32 | 36 | 46 | 34 | 46 | 69 | 47 | 94 | 143 | 180 | 197 | 336 | 437 |

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Data presented in this report were the most accurate available at the time of extraction. Surveillance datasets are subject to change. Please direct any enquiries to EPI@health.qld.gov.au.