Guide to interpreting notifiable infections disease data for Western Australia

1. Data Source
The data summarised in the graphs and tables are sourced from the WA Notifiable Infectious Diseases Database (WANIDD) maintained by the Communicable Disease Control Directorate, Public Health and Clinical Services Division, Department of Health WA. This database contains information on notifiable infectious diseases (including venereal diseases) that have been reported to the Department of Health, as mandated by the Health Act 1911 and subsequent amendments. For more information, go to procedure for notification of communicable diseases.

2. Data extraction and reporting
Notifiable disease data are exported using the “optimal date of onset”, with the exception of the following diseases: hepatitis B (includes both newly acquired cases and cases of unspecified duration), hepatitis C (includes both newly acquired cases and cases of unspecified duration), leprosy, non-infectious syphilis and tuberculosis, which are extracted by “date of receipt” of the notification. The “optimal date of onset” is derived from the ‘true’ date of onset of illness provided by the notifying doctor or obtained during case follow-up, or if this is not available the date of specimen collection for laboratory notified cases, and when neither of these dates is available, the date of notification by the doctor or laboratory, or the date of receipt of notification, whichever is earliest.

Data are aggregated by year, quarter or month, depending on the frequency of notification. The graphs present data up to the most recent complete month or quarter prior to the export date. The tables present data up to the date of export, with a lag of one week.

3. Inclusion criteria
Disease reports include all notifiable infectious diseases diagnosed in Western Australia, including both WA residents, and interstate or overseas visitors.

Data are available for all infectious diseases and related conditions that are currently notifiable in WA, with the exception of HIV/AIDS, intussusception and methicillin resistant Staphylococcus aureus [MRSA].

4. Timeliness, accuracy and completeness
Data are current and accurate as at the displayed "Data exported on" date. The number of cases reported is subject to change, as notifications may be received late, or rejected after further investigation and data cleaning.

Completeness of case ascertainment for notifiable diseases varies, depending on: the characteristics of the particular disease, which determines the extent to which infected persons seek medical attention and are tested; whether doctors request specimen collection and testing; the availability of sensitive diagnostic methods; and the completeness of notification by treating
doctors and diagnostic laboratories. Ascertainment is less likely to be complete for more common and less serious infections (e.g. influenza, chlamydia, Campylobacter gastroenteritis).

5. Case definitions for notifiable infectious diseases
For current national case definitions see Australian National Notifiable Diseases Case Definitions.

Additionally, several diseases are notifiable in WA but not nationally. These include: acute rheumatic fever, chancroid, melioidosis, paratyphoid fever, typhus (rickettsial infection), rotavirus infection, schistosomiasis, Vibrio parahaemolyticus infection and yersiniosis. Case definitions for these diseases are listed under the relevant disease caption within the infectious diseases A-Z for health professionals.

In WA, “Arboviral encephalitis” is notifiable, and includes several flavivirus infections (Murray Valley encephalitis virus, Kunjin/West Nile virus, Japanese encephalitis virus) that are listed individually in the national case definitions.

6. Data interpretation
Caution should be exercised in interpreting trends in notification data, due to changes over time in case definitions, laboratory diagnostic tests and notification requirements. One should also be aware that the most recent time periods reported in tables (where presented) may contain incomplete data for that period.

Diagnosis and notification in WA does not mean the disease was acquired in WA. A significant number of cases of many diseases, and in some instances, all cases, are acquired overseas. For instance, there is no local transmission of malaria and dengue fever in WA as appropriate mosquito vectors do not occur, and all notified cases are acquired outside the state. For other diseases, such as measles and hepatitis A, most cases are acquired overseas, but limited local transmission may occur from imported cases.

If necessary, appropriate assistance should be sought in interpreting notifiable infectious disease data.

7. Citation of the WA Notifiable infectious disease data
Acknowledgement of the Communicable Disease Control Directorate, Department of Health Western Australia, should accompany any use of these data.

Suggested citation: Communicable Disease Control Directorate, Department of Health Western Australia, Notification of infectious diseases and related conditions, available at health.wa.gov.au: accessed [include date].

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