Vaccine Preventable Diseases in Australia, 2005 to 2007

5th national surveillance report on the epidemiology of vaccine preventable diseases
Communicable Diseases Intelligence

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National Centre for Immunisation Research and Surveillance of Vaccine Preventable Diseases
Methods – Data sources and limitations (1)

- **Notifications**: National Notifiable Diseases Surveillance System
  - Updated data period: January 2006 to December 2007 (2 years)
  - By the ‘date of diagnosis’
    - the earliest date among the dates of onset, specimen collection, notification, or receipt of notification
  - Notified case as per national notifiable diseases case definitions
  - Possible under-reporting and variations due to
    - different reporting requirements and mechanisms in different jurisdictions
    - different thresholds for diagnostic testing
Methods – Data sources and limitations (2)

- **Hospitalisations**: AIHW National Hospital Morbidity Database
  - Updated data period: July 2005 to June 2007 (2 years)
  - By the ‘date of separation’ of each episode of hospitalisation
    - exception: by ‘date of admission’ for seasonal trends graphs
  - Separation diagnosis coded according to ICD-10-AM
  - ‘Any recorded diagnosis’ for most analyses;
    ‘Principal diagnosis’ for specified analyses
  - Proxy ICD code or combinations used for some diseases of interest
    - e.g. for invasive *Haemophilus influenzae* type b or pneumococcal diseases
  - Note: one record for each hospitalisation episode
    - re-admission or inter-hospital transfer would generate additional records
  - Potential variations in access to hospitals and admission policies
Methods – Data sources and limitations (3)

- **Deaths**: AIHW National Mortality Database
  - Updated data period: January 2005 to December 2006 (2 years)
  - By the ‘date of registration’ rather than by date of death
  - Data from Registrars of Births, Deaths and Marriages in each state and territory, via the Australian Bureau of Statistics
  - Underlying cause of death coded according to ICD-10
  - ‘Underlying cause of death’ only
    - the single disease that initiated the train of morbid events leading directly to death
    - deaths where the disease of interest was a contributing cause of death are not included

- **Rate denominator**
  - Corresponding mid-year ABS estimated population

- Case definitions: please refer to individual disease chapters of the report
- Note: Data from these three sources are not linked
  - limited information on hospitalisation and death in notification data
    - described in the report text but not on graphs or tables
3.1 Diphtheria

Figure
Figure 6.1.1: Diphtheria, 1917 to 2007*
