

# Communicable Diseases Surveillance

## Highlights

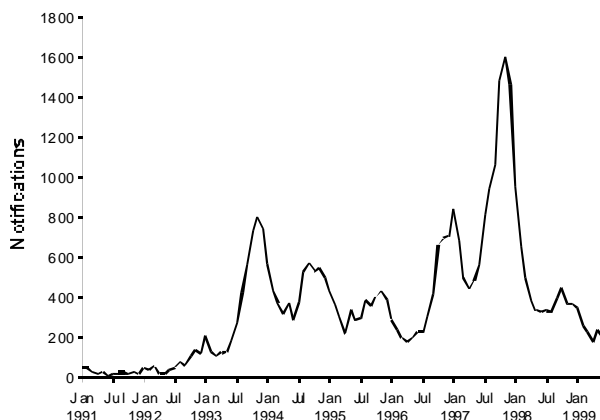
Communicable Diseases Surveillance consists of data from various sources. The National Notifiable Diseases Surveillance System (NNDSS) is conducted under the auspices of the Communicable Diseases Network Australia New Zealand. The *CDI* Virology and Serology Laboratory Reporting Scheme (LabVISE) is a sentinel surveillance scheme. The Australian Sentinel Practice Research Network (ASPREN) is a general practitioner-based sentinel surveillance scheme. In this report, data from the NNDSS are referred to as 'notifications' or 'cases', whereas those from ASPREN are referred to as 'consultations' or 'encounters' while data from the LabVISE scheme are referred to as 'laboratory reports'.

### Vaccine preventable diseases

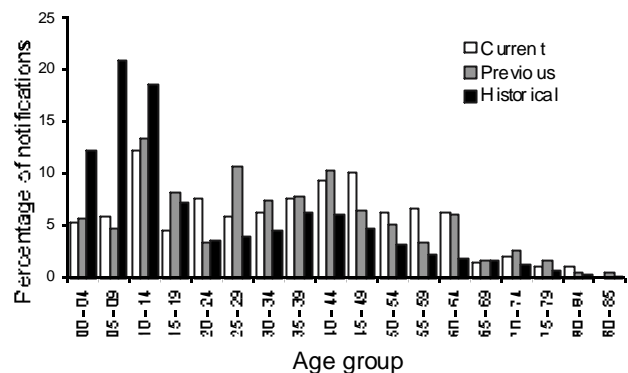
#### Pertussis

The 289 notifications of pertussis infection in this reporting period represent a further fall compared to historical figures which are high because of the large epidemic that occurred from mid 1996 to early 1998. When examined by month of onset, April is historically the month with the lowest number of cases. The number of pertussis cases with onset in April 1999 is the lowest since April 1993 (Figure 1). The male to female ratio for the current reporting period is 1:1.2 and most cases are in the 10-14 age group (12%) although there is a broad spread of age distribution with considerable activity across the range. Most notifications in this reporting period are from Queensland (122) and 55% of these are in the 20 to 49 year age groups. Figure 2 shows a comparative age distribution for the current and previous 4 week reporting periods and 5 years of historical data from 1 July 1994 to 30 June 1999.

**Figure 1. Notifications of pertussis, Australia, 1991 to 1999, by month of onset**



**Figure 2. Notifications of pertussis, Australia, by age group, current and previous reporting periods and 5 years' historical data to 30 June 1999**



#### Measles and rubella

Small numbers of notifications continue to occur although they continue to be low compared to historical data.

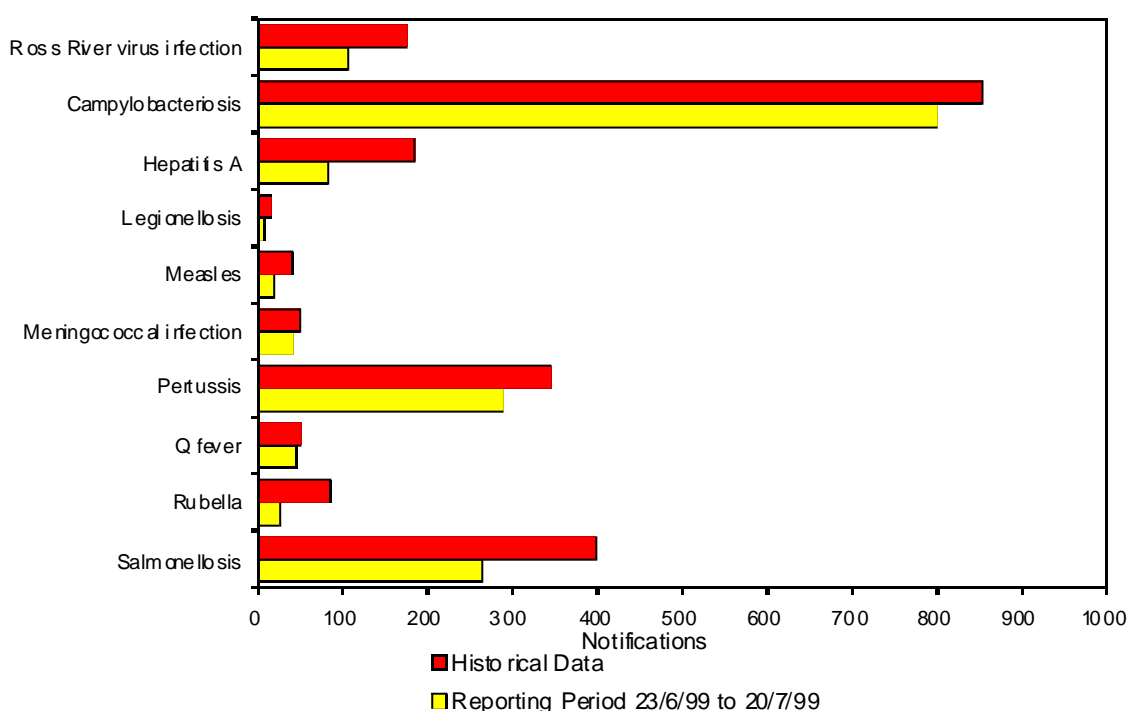
# Tables

There were 4,907 notifications to the National Notifiable Diseases Surveillance System (NNDSS) in the four week period, 23 June to 20 July 1999 (Tables 1 and 2). The numbers of reports for selected diseases have been compared with historical data for corresponding periods in the previous three years (Figure 3).

There were 1,946 reports received by the *CDI/Virology and Serology Laboratory Reporting Scheme (LabVISE)* in the four week period, 17 June to 14 July 1999 (Tables 3 and 4).

The Australian Sentinel Practice Research Network (ASPREN) data for weeks 25 to 28, ending 18 July 1999, are included in this issue of *CDI* (Table 5).

**Figure 3. Selected National Notifiable Diseases Surveillance System reports, and historical data<sup>1</sup>**



1. The historical data are the averages of the number of notifications in the corresponding 4 week periods of the last 3 years and the 2 week periods immediately preceding and following those.

**Table 1. Notifications of diseases preventable by vaccines recommended by the NHMRC for routine childhood immunisation, received by State and Territory health authorities in the period 23 June to 20 July 1999**

| Disease <sup>1,2</sup>                |     |     |    |     |    |     |     |    | This period 1999 | This period 1998 | Year to date 1999 | Year to date 1998 |
|---------------------------------------|-----|-----|----|-----|----|-----|-----|----|------------------|------------------|-------------------|-------------------|
|                                       | ACT | NSW | NT | Qld | SA | Tas | Vic | WA |                  |                  |                   |                   |
| Diphtheria                            | 0   | 0   | 0  | 0   | 0  | 0   | 0   | 0  | 0                | 0                | 0                 | 0                 |
| <i>H. influenzae</i> type b infection | 0   | 2   | 1  | 2   | 0  | 0   | 0   | 0  | 5                | 3                | 24                | 18                |
| Measles                               | 1   | 3   | 0  | 11  | 0  | 0   | 4   | 0  | 19               | 28               | 180               | 211               |
| Mumps                                 | 3   | 1   | 0  | 2   | 1  | 1   | 7   | 1  | 16               | 8                | 93                | 88                |
| Pertussis                             | 3   | 48  | 0  | 122 | 20 | 27  | 61  | 8  | 289              | 313              | 1,876             | 4,029             |
| Rubella <sup>3</sup>                  | 3   | 2   | 1  | 15  | 0  | 0   | 6   | 0  | 27               | 55               | 221               | 431               |
| Tetanus                               | 0   | 0   | 0  | 1   | 0  | 0   | 0   | 0  | 1                | 0                | 1                 | 3                 |

NN. Not Notifiable

- No notification of poliomyelitis has been received since 1978.
- Totals comprise data from all States and Territories. Cumulative figures are subject to retrospective revision, so there may be

discrepancies between the number of new notifications and the increment in the cumulative figure from the previous period.

- Includes congenital rubella.

**Table 2. Notifications of diseases received by State and Territory health authorities in the period 23 June to 20 July 1999**

| Disease <sup>1,2,3,4</sup>               | ACT | NSW | NT | Qld | SA  | Tas | Vic | WA  | This period 1999 | This period 1998 | Year to date 1999 | Year to date 1998 |
|--|-----|-----|----|-----|-----|-----|-----|-----|------------------|------------------|-------------------|-------------------|
| Arbovirus infection (NEC)                | 0   | 0   | 1  | 1   | 0   | 0   | 1   | 0   | 3                | 4                | 89                | 62                |
| Barmah Forest virus infection            | 0   | 11  | 0  | 19  | 0   | 0   | 0   | 1   | 31               | 25               | 444               | 376               |
| Brucellosis                              | 0   | 0   | 0  | 3   | 0   | 0   | 1   | 0   | 4                | 4                | 15                | 24                |
| Campylobacteriosis <sup>5</sup>          | 21  | -   | 18 | 202 | 142 | 38  | 278 | 101 | 800              | 932              | 6,842             | 6,256             |
| Chancroid                                | 0   | 0   | 0  | 0   | 0   | 0   | 0   | 0   | 0                | 0                | 0                 | 1                 |
| Chlamydial infection (NEC) <sup>6</sup>  | 25  | NN  | 62 | 337 | 77  | 28  | 88  | 132 | 749              | 853              | 6,316             | 5,900             |
| Cholera                                  | 0   | 0   | 0  | 0   | 0   | 0   | 0   | 0   | 0                | 0                | 2                 | 3                 |
| Dengue                                   | 0   | 0   | 0  | 1   | 1   | 0   | 0   | 0   | 2                | 55               | 155               | 340               |
| Donovanosis                              | 0   | NN  | 1  | 0   | NN  | 0   | 0   | 0   | 1                | 3                | 10                | 22                |
| Gonococcal infection <sup>7</sup>        | 2   | 52  | 65 | 67  | 12  | 0   | 54  | 71  | 323              | 424              | 3,089             | 2,914             |
| Haemolytic uraemic syndrome <sup>8</sup> | NN  | 0   | 0  | 0   | 0   | 0   | NN  | 0   | 0                | 1                | 11                | 7                 |
| Hepatitis A                              | 0   | 18  | 9  | 18  | 7   | 1   | 11  | 19  | 83               | 233              | 914               | 1,798             |
| Hepatitis B incident                     | 0   | 1   | 1  | 3   | 2   | 0   | 5   | 1   | 13               | 28               | 165               | 155               |
| Hepatitis B unspecified <sup>9</sup>     | 4   | 143 | 0  | 52  | 0   | 5   | 184 | 37  | 425              | 567              | 3,745             | 4,080             |
| Hepatitis C incident                     | 0   | 0   | 0  | -   | 5   | 0   | 4   | 2   | 11               | 17               | 166               | 152               |
| Hepatitis C unspecified <sup>9</sup>     | 22  | 367 | 19 | 235 | 90  | 21  | 499 | 56  | 1,309            | 1,770            | 10,628            | 11,986            |
| Hepatitis (NEC) <sup>10</sup>            | 1   | 1   | 0  | 2   | 0   | 0   | 0   | NN  | 4                | 0                | 10                | 9                 |
| Hydatid infection                        | 0   | 0   | 0  | 2   | 1   | 0   | 1   | 0   | 4                | 5                | 20                | 20                |
| Legionellosis                            | 0   | 2   | 0  | 2   | 1   | 0   | 2   | 1   | 8                | 29               | 162               | 153               |
| Leprosy                                  | 0   | 0   | 0  | 1   | 0   | 0   | 0   | 0   | 1                | 0                | 1                 | 2                 |
| Leptospirosis                            | 0   | 6   | 0  | 11  | 0   | 0   | 0   | 0   | 17               | 13               | 257               | 91                |
| Listeriosis                              | 0   | 1   | 0  | 2   | 0   | 1   | 0   | 1   | 5                | 5                | 27                | 34                |
| Malaria                                  | 1   | 3   | 3  | 26  | 2   | 0   | 2   | 0   | 37               | 99               | 401               | 480               |
| Meningococcal infection                  | 2   | 13  | 0  | 12  | 2   | 0   | 9   | 4   | 42               | 50               | 240               | 183               |
| Ornithosis                               | 0   | NN  | 0  | 0   | 0   | 0   | 5   | 0   | 5                | 4                | 48                | 22                |
| QFever                                   | 0   | 7   | 0  | 32  | 2   | 0   | 5   | 0   | 46               | 49               | 283               | 309               |
| Ross River virus infection               | 0   | 25  | 4  | 51  | 0   | 4   | 4   | 18  | 106              | 80               | 3,839             | 2,295             |
| Salmonellosis (NEC)                      | 6   | 51  | 15 | 98  | 19  | 4   | 48  | 23  | 264              | 647              | 5,062             | 5,168             |
| Shigellosis <sup>5</sup>                 | 0   | -   | 4  | 8   | 2   | 1   | 5   | 8   | 28               | 31               | 346               | 365               |
| SLTEC, VTEC <sup>11</sup>                | NN  | 0   | 0  | NN  | 2   | 0   | NN  | NN  | 2                | 1                | 15                | 8                 |
| Syphilis <sup>12</sup>                   | 0   | 18  | 11 | 85  | 1   | 1   | 2   | 7   | 125              | 132              | 1,060             | 771               |
| TIP <sup>13</sup>                        | 0   | 0   | 0  | 0   | 0   | 0   | 0   | 0   | 0                | 0                | 0                 | 0                 |
| Tuberculosis                             | 1   | 44  | 3  | 5   | 5   | 2   | 23  | 6   | 89               | 114              | 801               | 720               |
| Typhoid <sup>14</sup>                    | 0   | 2   | 0  | 1   | 0   | 0   | 0   | 1   | 4                | 2                | 43                | 48                |
| Yersiniosis (NEC) <sup>5</sup>           | 0   | -   | 0  | 7   | 1   | 0   | 1   | 0   | 9                | 8                | 94                | 146               |

1. Diseases preventable by routine childhood immunisation are presented in Table 1.

2. For HIV and AIDS, see Tables 8 and 9.

3. Totals comprise data from all States and Territories. Cumulative figures are subject to retrospective revision so there may be discrepancies between the number of new notifications and the increment in the cumulative figure from the previous period.

4. No notifications have been received during 1999 for the following rare diseases: lymphogranuloma venereum, plague, rabies, yellow fever, or other viral haemorrhagic fevers.

5. Not reported for NSW because it is only notifiable as 'foodborne disease' or 'gastroenteritis in an institution'.

6. WA: genital only.

7. NT, Qld, SA and Vic: includes gonococcal neonatal ophthalmia.

8. Nationally reportable from August 1998.

9. Unspecified numbers should be interpreted with some caution as the magnitude may be a reflection of the numbers of testings being carried out.

10. Includes hepatitis D and E.

11. Infections with *Shiga*-like toxin (verotoxin) producing *E. Coli* (SLTEC/VTEC) became nationally reportable in August 1998.

12. Includes congenital syphilis.

13. Thrombotic thrombocytopenic purpura became nationally reportable in August 1998.

14. NSW, Qld: includes paratyphoid.

NN Not Notifiable.

NEC Not Elsewhere Classified.

- Elsewhere Classified.

Table 3. Virology and serology laboratory reports by State or Territory<sup>1</sup> for the reporting period 17 June to 14 July 1999, and total reports for the year

|                                     | State or Territory <sup>1</sup> |     |    |     |     |     |     |    | Total this period | Total reported in CD/in 1999 |
|-------------------------------------|---------------------------------|-----|----|-----|-----|-----|-----|----|-------------------|------------------------------|
|                                     | ACT                             | NSW | NT | Qld | SA  | Tas | Vic | WA |                   |                              |
| <b>Measles, mumps, rubella</b>      |                                 |     |    |     |     |     |     |    |                   |                              |
| Measles virus                       |                                 |     |    |     |     |     | 3   |    | 3                 | 146                          |
| Mumps virus                         |                                 |     |    |     |     |     |     | 2  | 2                 | 39                           |
| Rubella virus                       | 1                               |     |    | 10  |     | 1   | 1   |    | 13                | 69                           |
| <b>Hepatitis viruses</b>            |                                 |     |    |     |     |     |     |    |                   |                              |
| Hepatitis A virus                   |                                 |     | 4  | 5   | 9   |     |     | 6  | 24                | 253                          |
| Hepatitis D virus                   |                                 |     |    |     | 1   |     |     |    | 1                 | 3                            |
| <b>Arboviruses</b>                  |                                 |     |    |     |     |     |     |    |                   |                              |
| Ross River virus                    |                                 | 2   |    | 14  | 2   |     | 3   | 10 | 31                | 1,214                        |
| Barmah Forest virus                 |                                 | 2   |    | 8   |     |     |     | 2  | 12                | 141                          |
| Japanese encephalitis virus         |                                 |     |    |     |     |     |     | 1  | 1                 | 1                            |
| Flavivirus (unspecified)            |                                 |     |    |     |     |     | 1   |    | 1                 | 14                           |
| <b>Adenoviruses</b>                 |                                 |     |    |     |     |     |     |    |                   |                              |
| Adenovirus type 1                   |                                 |     |    |     |     |     | 1   |    | 1                 | 17                           |
| Adenovirus type 2                   |                                 |     |    |     |     |     | 3   |    | 3                 | 11                           |
| Adenovirus type 4                   |                                 |     |    |     |     |     | 1   |    | 1                 | 8                            |
| Adenovirus type 37                  |                                 |     |    |     |     |     | 1   |    | 1                 | 13                           |
| Adenovirus type 40                  |                                 |     |    |     |     |     |     | 5  | 5                 | 43                           |
| Adenovirus not typed/pending        |                                 | 8   | 1  | 3   | 29  |     | 25  | 7  | 73                | 716                          |
| <b>Herpes viruses</b>               |                                 |     |    |     |     |     |     |    |                   |                              |
| Cytomegalovirus                     |                                 | 17  | 1  | 9   | 20  | 1   | 22  | 1  | 71                | 713                          |
| Varicella-zostervirus               |                                 | 6   | 1  | 26  | 29  |     | 24  | 12 | 98                | 1,031                        |
| Epstein-Barr virus                  |                                 | 4   | 2  | 54  | 107 | 1   | 18  | 8  | 194               | 1,573                        |
| <b>Other DNA viruses</b>            |                                 |     |    |     |     |     |     |    |                   |                              |
| Papovavirus group                   |                                 |     |    |     |     |     | 1   | 1  | 2                 | 12                           |
| Molluscum contagiosum               |                                 |     |    |     |     |     |     | 1  | 1                 | 11                           |
| Parvovirus                          |                                 |     |    | 11  | 2   | 3   | 17  | 5  | 38                | 265                          |
| <b>Picornavirus family</b>          |                                 |     |    |     |     |     |     |    |                   |                              |
| Coxsackievirus A9                   |                                 |     |    |     |     |     | 1   |    | 1                 | 4                            |
| Coxsackievirus A16                  |                                 |     |    |     |     |     | 2   |    | 2                 | 4                            |
| Coxsackievirus B5                   |                                 |     |    |     |     |     | 1   |    | 1                 | 3                            |
| Echovirus type 11                   |                                 | 14  |    |     |     |     | 1   |    | 15                | 58                           |
| Poliovirus type 3 (uncharacterised) |                                 |     |    |     |     |     | 1   |    | 1                 | 4                            |
| Rhinovirus (all types)              |                                 | 9   |    |     | 3   |     | 5   | 13 | 30                | 231                          |
| Enterovirus not typed/pending       |                                 |     | 1  |     |     | 1   | 3   | 47 | 52                | 492                          |
| <b>Ortho/Paramyxoviruses</b>        |                                 |     |    |     |     |     |     |    |                   |                              |
| Influenza A virus                   |                                 | 94  |    | 23  | 74  |     | 57  | 2  | 250               | 649                          |
| Influenza A virus H3N2              |                                 |     |    |     |     |     | 9   | 1  | 10                | 17                           |
| Influenza B virus                   |                                 | 7   |    | 1   | 5   |     | 1   | 1  | 15                | 86                           |
| Parainfluenza virus type 1          |                                 |     |    | 1   | 4   |     |     |    | 5                 | 29                           |
| Parainfluenza virus type 2          |                                 |     |    |     | 10  |     | 9   | 2  | 21                | 76                           |
| Parainfluenza virus type 3          |                                 | 8   |    | 4   | 8   |     | 7   | 4  | 31                | 373                          |
| Respiratory syncytial virus         |                                 | 198 |    | 52  | 45  | 4   | 58  | 11 | 368               | 1,169                        |
| <b>Other RNA viruses</b>            |                                 |     |    |     |     |     |     |    |                   |                              |
| HTLV-1                              |                                 |     | 1  |     |     |     |     |    | 1                 | 9                            |
| Rotavirus                           |                                 | 87  |    |     | 38  | 9   | 25  | 9  | 168               | 720                          |
| Astrovirus                          |                                 |     |    |     |     |     | 2   |    | 2                 | 4                            |
| Norwalk agent                       |                                 |     |    |     |     |     | 6   |    | 6                 | 55                           |

**Table 3. Virology and serology laboratory reports by State or Territory<sup>1</sup> for the reporting period 17 June to 14 July 1999, and total reports for the year (continued)**

|  | State or Territory <sup>1</sup> |     |    |     |     |     |     |     | Total this period | Total reported in CDI/in 1999 |
|--|---------------------------------|-----|----|-----|-----|-----|-----|-----|-------------------|-------------------------------|
|  | ACT                             | NSW | NT | Qld | SA  | Tas | Vic | WA  |                   |                               |
| <b>Other</b>                           |                                 |     |    |     |     |     |     |     |                   |                               |
| <i>Chlamydia trachomatis</i> not typed |                                 | 10  | 15 | 74  | 53  | 1   | 19  | 39  | 211               | 1,757                         |
| <i>Chlamydia psittaci</i>              |                                 |     |    |     |     |     | 11  | 1   | 12                | 59                            |
| <i>Chlamydia</i> species               |                                 |     |    | 1   |     |     |     |     | 1                 | 9                             |
| <i>Mycoplasma pneumoniae</i>           |                                 | 11  |    | 28  | 5   |     | 28  | 4   | 76                | 735                           |
| <i>Coxiella burnetii</i> (Q fever)     |                                 | 1   |    | 8   |     |     | 5   | 1   | 15                | 106                           |
| <i>Bordetella pertussis</i>            |                                 | 1   |    | 46  |     |     | 22  | 4   | 73                | 428                           |
| <i>Legionella pneumophila</i>          |                                 |     |    |     |     |     |     | 1   | 1                 | 9                             |
| <i>Legionella longbeachae</i>          |                                 |     |    |     | 2   |     |     |     | 2                 | 27                            |
| <b>TOTAL</b>                           | 1                               | 479 | 26 | 378 | 446 | 21  | 394 | 201 | 1,946             | 13,406                        |

1. State or Territory of postcode, if reported, otherwise State or Territory of reporting laboratory.

**Table 4. Virology and serology laboratory reports by contributing laboratories for the reporting period 17 June to 14 July 1999**

| State or Territory | Laboratory  | Reports <sup>1</sup> |
|--------------------|---|----------------------|
| New South Wales    | Institute of Clinical Pathology & Medical Research, Westmead  | 132                  |
|                    | New Children's Hospital, Westmead                             | 122                  |
|                    | South West Area Pathology Service, Liverpool                  | 202                  |
| Queensland         | Queensland Medical Laboratory, West End                       | 415                  |
|                    | Townsville General Hospital                                   | 12                   |
| South Australia    | Institute of Medical and Veterinary Science, Adelaide         | 445                  |
| Tasmania           | Northern Tasmanian Pathology Service, Launceston              | 16                   |
| Victoria           | Monash Medical Centre, Melbourne                              | 105                  |
|                    | Royal Children's Hospital, Melbourne                          | 152                  |
|                    | Victorian Infectious Diseases Reference Laboratory, Fairfield | 136                  |
| Western Australia  | PathCentre Virology, Perth                                    | 209                  |
| <b>TOTAL</b>       |   | 1,946                |

1. Due to computer processing problems figures from the Institute of Clinical Pathology & Medical Research, Westmead have been under reported since February 1999. Reports of influenza from Westmead have been manually corrected in this report; numbers for other organisms remain under reported. It is anticipated that the reporting system will be corrected for the next issue.

**Table 5. Australian Sentinel Practice Research Network reports, weeks 25 to 28, 1999**

| Week number                 | 25             |            | 26             |            | 27             |            | 28             |            |
|-----------------------------|----------------|------------|----------------|------------|----------------|------------|----------------|------------|
| Week ending on              | 27 June 1999   |            | 4 July 1999    |            | 11 July 1999   |            | 18 July 1999   |            |
| Doctors reporting           | 49             |            | 47             |            | 49             |            | 48             |            |
| Total encounters            | 6,457          |            | 6,087          |            | 6,496          |            | 6,289          |            |
| Condition                   | Rate per 1,000 |            | Rate per 1,000 |            | Rate per 1,000 |            | Rate per 1,000 |            |
|                             | Reports        | encounters | Reports        | encounters | Reports        | encounters | Reports        | encounters |
| Influenza                   | 67             | 10.4       | 78             | 12.8       | 91             | 14.0       | 87             | 13.8       |
| Rubella                     | 0              | 0.0        | 1              | 0.2        | 2              | 0.3        | 0              | 0.0        |
| Measles                     | 1              | 0.2        | 0              | 0.0        | 0              | 0.0        | 1              | 0.2        |
| Chickenpox                  | 10             | 1.5        | 4              | 0.7        | 7              | 1.1        | 13             | 2.1        |
| New diagnosis of asthma     | 14             | 2.2        | 9              | 1.5        | 13             | 2.0        | 12             | 1.9        |
| Post operative wound sepsis | 3              | 0.5        | 10             | 1.6        | 11             | 1.7        | 10             | 1.6        |
| Gastroenteritis             | 67             | 10.4       | 40             | 6.6        | 52             | 8.0        | 60             | 9.5        |

The NNDSS is conducted under the auspices of the Communicable Diseases Network Australia New Zealand. The system coordinates the national surveillance of more than 40 communicable diseases or disease groups endorsed by the National Health and Medical Research Council (NHMRC). Notifications of these diseases are made to State and Territory health authorities under the provisions of their respective public health legislations. De-identified core unit data are supplied fortnightly for collation, analysis and dissemination. For further information, see CDI 1999;23:55.

LabVISE is a sentinel reporting scheme. Twenty-one laboratories contribute data on the laboratory identification of viruses and other organisms. Data are collated and published in Communicable Diseases Intelligence every four weeks. These data should be interpreted with caution as the number and type of reports received is subject to a number of biases. For further information, see CDI 1999;23:58.

ASPEN currently comprises about 100 general practitioners from throughout the country. Up to 9,000 consultations are reported each week, with special attention to 12 conditions chosen for sentinel surveillance in 1999. CDI reports the consultation rates for seven of these. For further information, including case definitions, see CDI 1999;23:55-56.

## Additional Reports

### National Influenza Surveillance, 1999

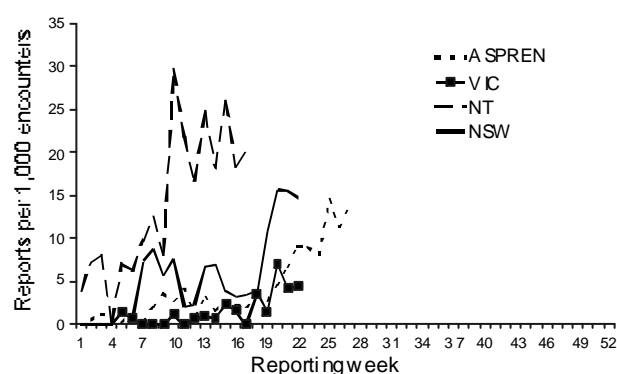
Three types of data are included in National Influenza Surveillance, 1999. These are sentinel general practitioner surveillance conducted by the Australian Sentinel Practice Research Network, Department of Human Services (Victoria), Department of Health (New South Wales) and the Tropical Influenza Surveillance Scheme, Territory Health (Northern Territory); laboratory surveillance data from the Communicable Diseases Intelligence Virology and Serology Laboratory Reporting Scheme, LabVISE, and the World Health Organization Collaborating Centre for Influenza Reference and Research; and absenteeism surveillance conducted by Australia Post. For further information about these schemes, see CDI 1999; 23:56.

#### Sentinel general practitioner surveillance

An increase in consultation rates for influenza-like illness reported by the ASPREN, NSW and Victorian schemes was apparent in April. Rates for influenza-like illness recorded by ASPREN were lower this year than for the same period in 1998. In contrast, the consultation rates for

influenza activity reported by the Tropical Influenza

**Figure 4. Sentinel general practitioner influenza consultation rates, 1999, by scheme and week**

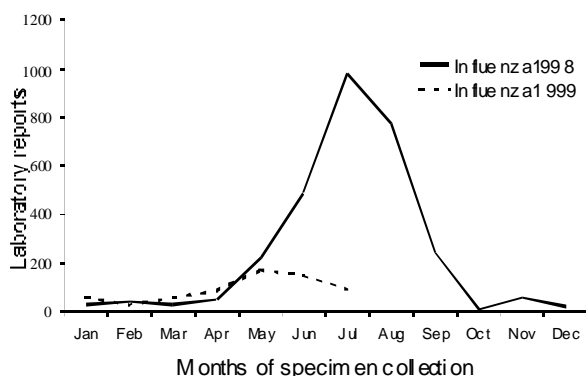


Surveillance Scheme showed higher rates from March to June than for the same period in 1998. Victorian rates were similar to those recorded for the corresponding period in 1998.

**Laboratory surveillance**

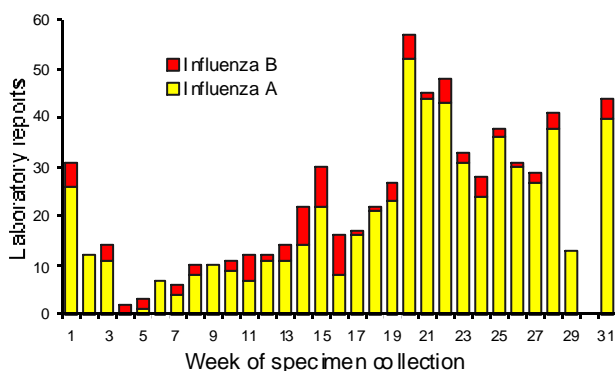
Figure 5 shows the number of laboratory reports for 1998 and 1999. Data for 1999 is provided only for January to July. For the year to date there have been 735 laboratory reports of influenza.

**Figure 5. Laboratory reports of influenza, 1998-99, by month of specimen collection**



To July 1999, there have been 649 (88.3%) reports of influenza A of which 17 were H3N2 and 2 were H1N1 (Figure 6). There were 86 (11.7%) reports of influenza B. To date there has been no lodging of influenza reports in week 30.

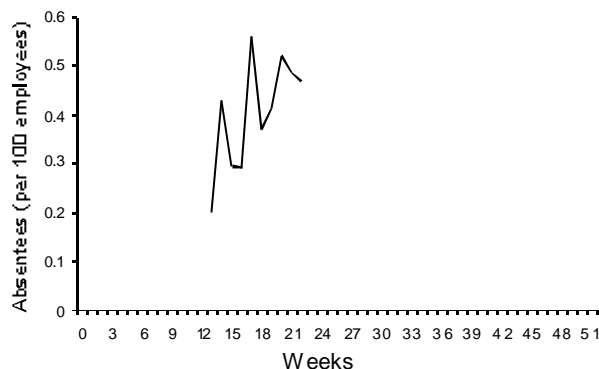
**Figure 6. Laboratory reports of influenza, 1999, by type and by week of specimen collection**



**Absenteeism surveillance**

Australia Post reports employees absent if they are not at work for three or more consecutive days in one week. The average rates for May were 0.45% which is higher than for May 1998 (0.28%) (Figure 7). There are no changes in the reports of absenteeism since the previous report.

**Figure 7. Absenteeism rates in Australia Post, 1999**



*Sentinel Chicken Surveillance Programme*

Sentinel chicken flocks are used to monitor flavivirus activity in Australia. The main viruses of concern are Murray Valley encephalitis (MVE) and Kunjin which cause the potentially fatal disease Australian encephalitis in humans. Currently 26 flocks are maintained in the north of Western Australia, seven in the Northern Territory, nine in New South Wales and ten in Victoria. The flocks in Western Australia and the Northern Territory are tested year round but those in New South Wales and Victoria are tested only from November to March, during the main risk season.

Results are coordinated by the Arbovirus Laboratory in Perth and reported bimonthly. For more information see CDI 1999;23:57-58

AK Broom,<sup>1</sup> JS Mackenzie,<sup>2</sup> L Melville,<sup>3</sup> DW Smith<sup>4</sup> and PI Whelan<sup>5</sup>

1. Department of Microbiology, The University of Western Australia
2. Department of Microbiology, The University of Queensland
3. Berrimah Agricultural Research Centre, Northern Territory
4. PathCentre, Western Australia
5. Department of Health and Community Services, Northern Territory

**May/June 1999**

Sentinel chicken serology was carried out for 24 of the 27 flocks in Western Australia in May and June 1999. There were again a large number of seroconversions to flaviviruses in the Kimberley, Pilbara and Gascoyne flocks during this period. Twenty-five of the total 34 seroconversions occurred in May 1999. The number of chickens positive for flavivirus antibodies by ELISA and the virus (or viruses) they were infected with is shown in Table 6.

Serum samples from six of the seven Northern Territory sentinel chicken flocks were tested in our laboratory in May and June 1999. There were seroconversions to flaviviruses at Howard Springs and Leanyer (Darwin area) and from Beatrice Hill Farm and Tennant Creek. The number of

**Table 6. Flavivirus seroconversions in Western Australian sentinel chicken flocks in May and June, 1999**

| Location         | May 1999 |     |         | June 1999 |
|------------------|----------|-----|---------|-----------|
|                  | MVE      | KUN | MVE/KUN | MVE       |
| <b>Kimberley</b> |          |     |         |           |
| Kalumburu        |          | 1   | 1       |           |
| Wyndham          | 1        |     |         |           |
| Kununurra        | 1        |     |         |           |
| Fitzroy Crossing | 4        |     |         |           |
| Lombadina        | 1        | 1   |         |           |
| Derby*           | 2        |     |         |           |
| Broome*          | 2        |     |         |           |
| <b>Pilbara</b>   |          |     |         |           |
| Port Hedland     |          |     |         | 1         |
| Karratha         |          | 1   |         | 1         |
| Harding Dam*     |          |     |         | 3         |
| Tom Price        | 1        |     |         |           |
| Paraburdoo       | 2        |     |         | 1         |
| Newman*          |          |     | 1       |           |
| Exmouth          | 3        |     |         | 3         |
| <b>Gascoyne</b>  |          |     |         |           |
| Camarvon         | 3        |     |         |           |

\* 2 flocks of 12 chickens at these sites  
MVE Antibodies to Murray Valley encephalitis virus detected by ELISA  
KUN Antibodies to Kunjin virus detected by ELISA  
MVE/KUN Antibodies to both MVE and KUN viruses detected by ELISA  
FLAVI Antibodies to a flavivirus only (not MVE or KUN) detected by ELISA

chickens positive for flavivirus antibodies by ELISA and the virus (or viruses) they were infected with is shown in Table 7. Seroconversions to MVE virus from Tennant Creek in May have not yet been confirmed.

Details of the locations of all chicken flocks are given in CDI 1999;23:57-58

**Table 7. Flavivirus seroconversions in the Northern Territory sentinel chicken flocks in May and June, 1999**

| Location       | May 1999 |     | June 1999 |     |         |       |
|----------------|----------|-----|-----------|-----|---------|-------|
|                | MVE      | KUN | MVE       | KUN | MVE/KUN | FLAVI |
| Howard Springs | 1        |     |           |     |         |       |
| Leanyer        |          | 1   |           | 1   | 1       | 1     |
| Beatrice Hill  | 3        |     | 2         |     |         |       |
| Tennant Creek  | 2        |     |           |     |         |       |

MVE Antibodies to Murray Valley encephalitis virus detected by ELISA  
KUN Antibodies to Kunjin virus detected by ELISA  
MVE/KUN Antibodies to both MVE and KUN viruses detected by ELISA  
FLAVI Antibodies to a flavivirus only (not MVE or KUN) detected by ELISA

### HIV and AIDS Surveillance

National surveillance for HIV disease is coordinated by the National Centre in HIV Epidemiology and Clinical Research (NCHECR), in collaboration with State and Territory health authorities and the Commonwealth of Australia. Cases of HIV infection are notified to the National HIV Database on the first occasion of diagnosis in Australia, by either the diagnosing laboratory (ACT, New South Wales, Tasmania, Victoria) or by a combination of laboratory and doctor sources (Northern Territory, Queensland, South Australia, Western Australia). Cases of AIDS are notified through the State and Territory health authorities to the National AIDS Registry. Diagnoses of both HIV infection and AIDS are notified with the person's date of birth and name code, to minimise duplicate notifications while maintaining confidentiality.

Tabulations of diagnoses of HIV infection and AIDS are based on data available three months after the end of the reporting interval indicated, to allow for reporting delay and to incorporate newly available information. More detailed information on diagnoses of HIV infection and AIDS is published in the quarterly Australian HIV Surveillance Report, and annually in HIV/AIDS and related diseases in Australia Annual Surveillance Report. The reports are available from the National Centre in HIV Epidemiology and Clinical Research, 376 Victoria Street, Darlinghurst NSW 2010. Telephone: (02) 9332 4648; Facsimile: (02) 9332 1837; <http://www.med.unsw.edu.au/nchechr>.

HIV and AIDS diagnoses and deaths following AIDS reported for 1 to 31 March 1999, as reported to 30 June 1999, are included in this issue of CDI (Tables 8 and 9).

**Table 8. New diagnoses of HIV infection, new diagnoses of AIDS and deaths following AIDS occurring in the period 1 to 31 March 1999, by sex and State or Territory of diagnosis**

|                |                    |     |     |    |     |    |     |     |    | Totals for Australia |                  |                   |                   |
|----------------|--------------------|-----|-----|----|-----|----|-----|-----|----|----------------------|------------------|-------------------|-------------------|
|                |                    | ACT | NSW | NT | Qld | SA | Tas | Vic | WA | This period 1999     | This period 1998 | Year to date 1999 | Year to date 1998 |
| HIV diagnoses  | Female             | 0   | 3   | 0  | 2   | 0  | 0   | 1   | 2  | 8                    | 10               | 18                | 20                |
|                | Male               | 0   | 35  | 1  | 9   | 1  | 0   | 10  | 3  | 59                   | 66               | 138               | 184               |
|                | Sex not reported   | 0   | 0   | 0  | 0   | 0  | 0   | 1   | 0  | 1                    | 0                | 2                 | 2                 |
|                | Total <sup>1</sup> | 0   | 38  | 1  | 11  | 1  | 0   | 12  | 5  | 68                   | 76               | 158               | 206               |
| AIDS diagnoses | Female             | 0   | 1   | 0  | 0   | 0  | 0   | 0   | 0  | 1                    | 1                | 2                 | 3                 |
|                | Male               | 0   | 5   | 0  | 1   | 0  | 0   | 0   | 0  | 6                    | 20               | 20                | 72                |
|                | Total <sup>1</sup> | 0   | 6   | 0  | 1   | 0  | 0   | 0   | 0  | 7                    | 21               | 22                | 75                |
| AIDS deaths    | Female             | 0   | 0   | 0  | 0   | 0  | 0   | 0   | 0  | 0                    | 2                | 2                 | 3                 |
|                | Male               | 0   | 0   | 0  | 0   | 0  | 0   | 4   | 0  | 4                    | 8                | 25                | 34                |
|                | Total <sup>1</sup> | 0   | 0   | 0  | 0   | 0  | 0   | 4   | 0  | 4                    | 10               | 26                | 37                |

1. Persons whose sex was reported as transgender are included in the totals.

**Table 9. Cumulative diagnoses of HIV infection, AIDS and deaths following AIDS since the introduction of HIV antibody testing to 30 June 1999, by sex and State or Territory**

|                |                    | State or Territory |        |     |       |     |     |       |     | Australia |
|----------------|--------------------|--------------------|--------|-----|-------|-----|-----|-------|-----|-----------|
|                |                    | ACT                | NSW    | NT  | Qld   | SA  | Tas | Vic   | WA  |           |
| HIV diagnoses  | Female             | 23                 | 587    | 8   | 134   | 57  | 5   | 202   | 107 | 1,123     |
|                | Male               | 188                | 10,569 | 105 | 1,888 | 652 | 77  | 3,775 | 878 | 18,132    |
|                | Sex not reported   | 0                  | 258    | 0   | 0     | 0   | 0   | 26    | 0   | 284       |
|                | Total <sup>1</sup> | 211                | 11,433 | 113 | 2,029 | 709 | 82  | 4,016 | 988 | 19,581    |
| AIDS diagnoses | Female             | 8                  | 171    | 0   | 46    | 21  | 3   | 67    | 26  | 342       |
|                | Male               | 85                 | 4,526  | 34  | 792   | 327 | 44  | 1,586 | 344 | 7,738     |
|                | Total <sup>1</sup> | 93                 | 4,709  | 34  | 840   | 348 | 47  | 1,660 | 372 | 8,103     |
| AIDS deaths    | Female             | 2                  | 113    | 0   | 30    | 15  | 2   | 47    | 16  | 225       |
|                | Male               | 63                 | 3,126  | 24  | 554   | 225 | 28  | 1,246 | 245 | 5,511     |
|                | Total <sup>1</sup> | 65                 | 3,247  | 24  | 586   | 240 | 30  | 1,299 | 262 | 5,753     |

1. Persons whose sex was reported as transgender are included in the totals.

## Childhood Immunisation Coverage

Tables 10 and 11 provide the latest quarterly report on childhood immunisation coverage from the Australian Childhood Immunisation Register (ACIR).

The data show the percentage of children fully immunised at age 12 months for the cohort born between 1 January

and 31 March 1998 and at 24 months of age for the cohort born between 1 January and 31 March 1997, according to the Australian Standard Vaccination Schedule.

A full description of the methodology used can be found in *CDI 1998;22:36-37*.

**Table 10. Percentage of children immunised at 1 year of age, preliminary results by disease and State for the birth cohort 1 January to 31 March 1998; assessment date 30 June 1999**

| Vaccine  | State or Territory |             |             |             |             |             |             |             | Australia   |
|--|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|  | ACT                | NSW         | NT          | Qld         | SA          | Tas         | Vic         | WA          |             |
| Total number of children                         | 1,070              | 21,453      | 982         | 12,233      | 4,697       | 1,541       | 14,848      | 6,195       | 63,019      |
| Diphtheria, Tetanus, Pertussis (%)               | 89.5               | 85.3        | 79.7        | 89.4        | 89.7        | 88.3        | 89.1        | 87.4        | 87.6        |
| Poliomyelitis (%)                                | 89.3               | 85.0        | 79.1        | 88.8        | 89.6        | 88.3        | 89.3        | 87.2        | 87.3        |
| Haemophilus influenzae type b (%)                | 89.2               | 84.7        | 84.9        | 89.7        | 89.1        | 88.0        | 88.8        | 87.1        | 87.4        |
| <b>Fully Immunised (%)</b>                       | <b>88.7</b>        | <b>83.5</b> | <b>77.3</b> | <b>88.0</b> | <b>88.6</b> | <b>87.7</b> | <b>87.9</b> | <b>85.9</b> | <b>86.1</b> |
| Change in fully immunised since last quarter (%) | +1.0               | +0.8        | +2.7        | +1.5        | +1.1        | +0.5        | +1.4        | +1.5        | +1.2        |

**Table 11. Proportion of children immunised at 2 years of age, preliminary results by disease and State for the birth cohort 1 January to 31 March 1997; assessment date 30 June 1999<sup>1</sup>**

| Vaccine  | State or Territory |             |                 |             |             |             |             |             | Australia   |
|--|--------------------|-------------|-----------------|-------------|-------------|-------------|-------------|-------------|-------------|
|  | ACT                | NSW         | NT <sup>1</sup> | Qld         | SA          | Tas         | Vic         | WA          |             |
| Total number of children                         | 1051               | 22,006      | 946             | 11,888      | 4,628       | 1,558       | 15,454      | 6,475       | 64,006      |
| Diphtheria, Tetanus, Pertussis (%)               | 86.2               | 81.3        | 67.7            | 85.5        | 83.2        | 83.6        | 83.6        | 82.0        | 82.8        |
| Poliomyelitis (%)                                | 88.9               | 85.6        | 79.9            | 91.0        | 88.4        | 89.5        | 89.3        | 85.3        | 87.7        |
| Haemophilus influenzae type b (%)                | 85.4               | 81.3        | 77.2            | 85.8        | 81.3        | 83.3        | 83.6        | 82.2        | 82.8        |
| Measles, Mumps, Rubella (%)                      | 89.7               | 85.9        | 81.8            | 90.9        | 88.0        | 89.0        | 88.6        | 86.7        | 87.8        |
| <b>Fully Immunised (%)<sup>2</sup></b>           | <b>81.4</b>        | <b>70.4</b> | <b>57.8</b>     | <b>80.3</b> | <b>71.6</b> | <b>74.8</b> | <b>74.7</b> | <b>70.5</b> | <b>73.5</b> |
| Change in fully immunised since last quarter (%) | +3.7               | +3.5        | +3.2            | +2.8        | +3.5        | +3.2        | +2.7        | +4.5        | +3.2        |

1. The 12 months age data for this cohort was published in *CDI 1998;22:233*.

2. These data relating to 2 year old children should be considered as preliminary. The proportions shown as "fully immunised" appear low when compared with the proportions for individual vaccines. This is at least partly due to poor identification of children on immunisation encounter forms.

Acknowledgment: These figures were provided by the Health Insurance Commission (HIC), to specifications provided by the Commonwealth Department of Health and Aged Care. For further information on these figures or data on the Australian Childhood Immunisation Register please contact the Immunisation Section of the HIC: Telephone 02 6124 6607.