

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

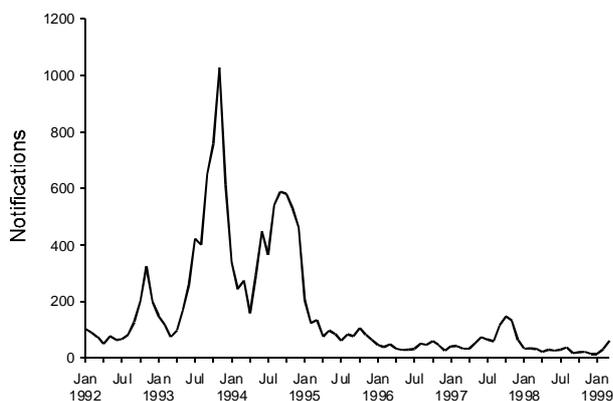
Pertussis notifications remain lower than those seen in the epidemic period of late 1997 and early 1998. The number of notifications with onset in February is the lowest for any month since July 1997. For the current reporting period, the male to female ratio is 1:1.36 and the majority of cases are in the 0 to 4 (13%), 10 to 14 (11%) and 15 to 19 (11%) age groups.

Measles

The number of measles notifications is higher than for the same period of last year, reflecting the outbreak in Victoria which started on 11 February 1999 (Figure 1). Current figures at 7 May 1999 are:

- 74 cases have been reported to the Victorian Department of Human Services;
- 28 of these have been hospitalised;
- 63 cases are in the 18 to 30 year age groups;

Figure 1. Notifications of measles, Australia, 1992 to 1999, by month of onset



- 5 cases of vaccine failure have been identified (all had received one dose of a measles-only vaccine);
- 7 cases are in children aged 8 years or under, all unimmunised.

The frequency of laboratory confirmed cases appears to be decreasing with now only isolated chains of transmission, mainly occurring outside of metropolitan Melbourne (personal communication, Dr Stephen Lambert, Victorian Department of Human Services).

Arbovirus infections

Ross River Virus infection notifications are higher than for the same period of last year with a total of 765 received for this period. The highest numbers are from the Statistical Divisions of Brisbane (292 notifications) and Moreton, Queensland (122).

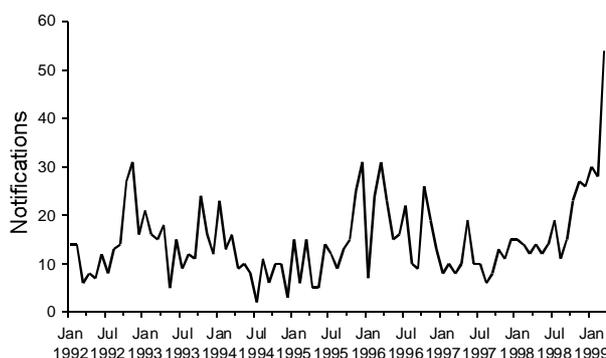
For the current reporting period the male to female ratio is 1:1.1 and the age distribution follows a bell shaped curve with a flattened peak at the three age groups from 35 to 49 (107 to 110 cases each).

Zoonoses

Large numbers of notifications of leptospirosis continue to be received particularly from the Statistical Division (SD) of Far North Queensland (Figure 2).

In the 1997 Annual Report of the National Notifiable Diseases Surveillance System, a total of 126 cases of leptospirosis were reported for Australia with the highest reporting SD being Far North Queensland with 19 cases. In 1998, Far North Queensland reported 62 cases out of an Australian total of 192 and for the year to date for 1999, Far North Queensland has reported 82 cases (Australian total 149). In this reporting period, 37 of the Australian total of 51 notifications have been received from Far North

Figure 2. Notifications of leptospirosis, Australia, 1992 to 1999, by month of onset



Queensland. For the current reporting period all but 3 notifications are in males and 71% are from the 20 to 44 year age groups.

It is likely that the high numbers are associated with the prolonged and heavy wet season in Far North Queensland this year. The floods that followed Cyclone Rona in the Innisfail-Ingham area have probably also contributed (personal communication, Dr Jeffrey Hanna, Tropical Public Health Unit, Cairns). An association between heavy rainfall and floods and an increased incidence of leptospirosis is well recognised.¹

It presents a difficult public health problem as the prevailing conditions clearly cannot be controlled and leptospirosis infection can result in severe disease.² While education of at-risk workers is a possible intervention there

is no guarantee that such intervention would change behaviour.

The 1997 population estimates for the Statistical Divisions mentioned in this report are:

Brisbane	1,548,346
Moreton	639,024
Far North Queensland	215,518

References

1. Trevejo, RT, Rigau-Perez JG, et al. Epidemic leptospirosis associated with pulmonary hemorrhage-Nicaragua, 1995. *J Inf Dis* 1998;178:1457-63.
2. Simpson, FG, Green KA, et al. Leptospirosis associated with severe pulmonary haemorrhage in Far North Queensland. *Med J Aust* 1998;169:151-3.

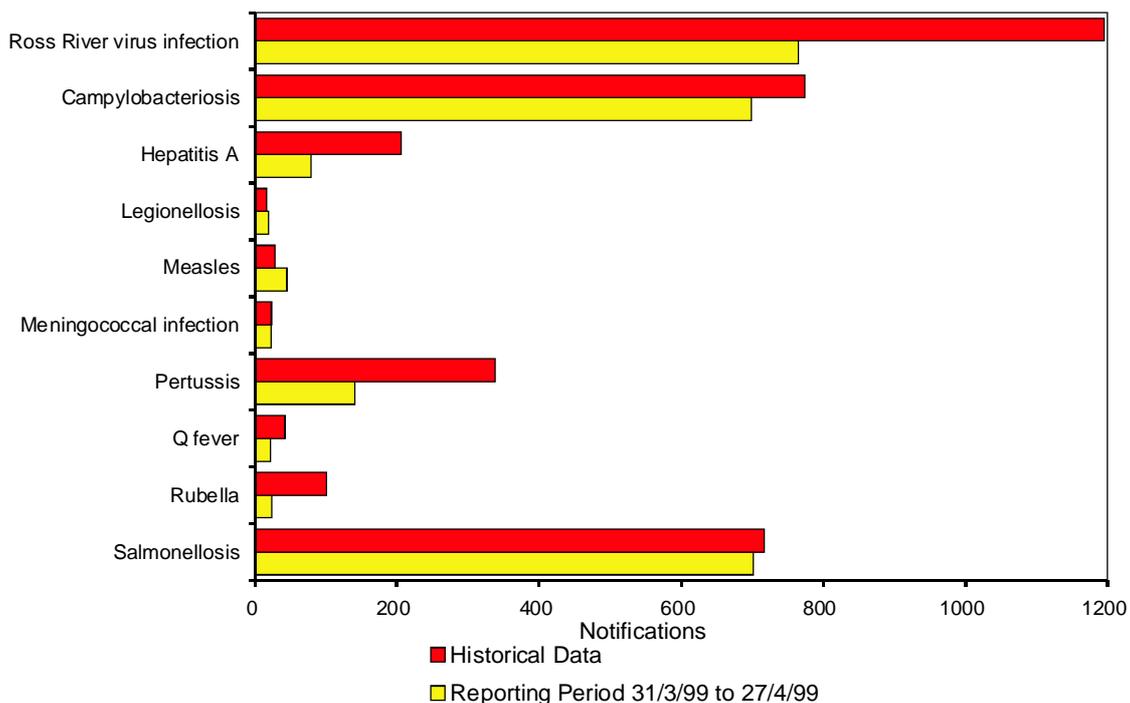
Tables

There were 5,560 notifications to the National Notifiable Diseases Surveillance System (NNDSS) in the four week period, 31 March to 27 April 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 1,403 reports received by the *CDI* Virology and Serology Laboratory Reporting Scheme (LabVISE) in the four week period, 25 March to 21 April 1999 (Tables 3 and 4).

The Australian Sentinel Practice Research Network (ASPREN) data for weeks 13 to 16, ending 25 April 1999, are included in this issue of *CDI* (Table 5).

Figure 3. Selected National Notifiable Diseases Surveillance System reports, and historical data¹



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.