

6. Invasive meningococcal disease

Surveillance objectives

The objectives of invasive meningococcal disease surveillance are to:

- Ensure appropriate management of cases;
- Ensure prompt identification of all relevant contacts and the institution of appropriate public health responses;
- Ensure the prompt identification of outbreaks of invasive meningococcal disease and the rapid institution of control measures;
- Monitor the epidemiology of invasive meningococcal disease in terms of time, person, place and serogroup;
- Monitor the effectiveness of current control measures, including the impact of the invasive meningococcal serogroup C vaccine program, and to provide an evidence base for further review of guidelines.

Summary of notifications

There were 89 cases of confirmed and probable invasive meningococcal disease notified in 2005, an 11 per cent increase on the 80 cases notified in 2004. A slight majority of cases were in males (53 per cent); the remainder were in females. Cases were aged from two months to 95 years, although nine per cent were aged less than one year and nearly one quarter were aged less than five years (figure 21). An additional quarter of total cases were in the 15–24 years age group; the median age of notified cases was 18 years.

Notification rates fluctuated between the regions but there was no generalised differential between metropolitan and rural/regional areas (figure 22). Rates were highest in the Barwon South-Western and Hume regions.

There were 62 notified cases (70 per cent) of serogroup B. Seven cases (eight per cent) were confirmed as serogroup C and there were three each of serogroups W135 and Y. Five cases

of laboratory confirmed (serogroup not specified) and seven probable cases (diagnosed on the basis of clinical evidence) were also notified. There was one case of serogroup A disease (acquired overseas) that was the first notified since at least 1990. Serogroup B cases (median: 17 years) were generally younger than serogroup C cases (median: 32 years); 65 per cent of serogroup B cases were aged less than

Figure 21: Notified cases and notification rates of invasive meningococcal disease by age group, Victoria, 2005

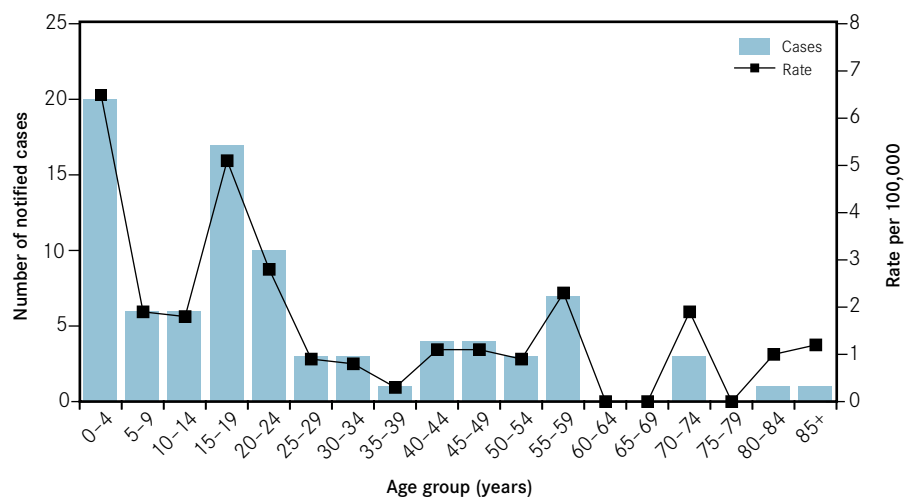
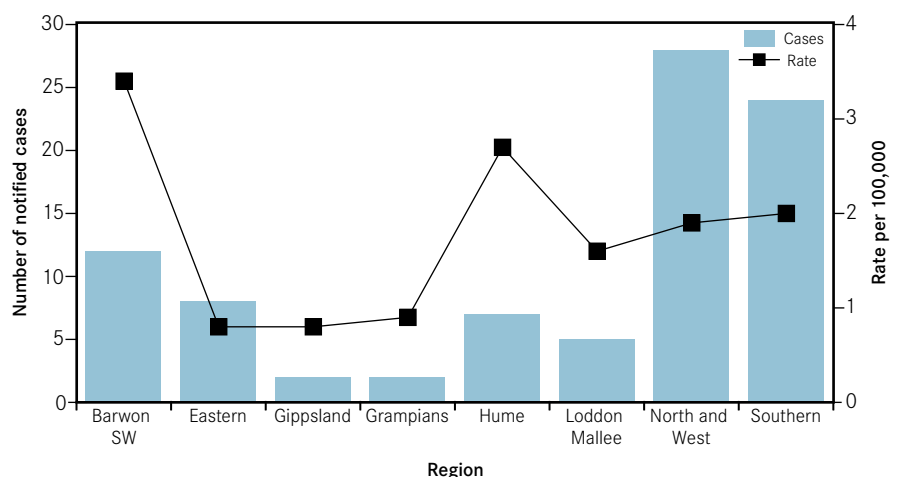


Figure 22: Notified cases and notification rates of invasive meningococcal disease by region, Victoria, 2005



20 years compared to 14 per cent of serogroup C cases.

There were six deaths, corresponding to a case fatality rate of seven per cent. Four cases were due to serogroup B disease, one case was serogroup W135 and one case was diagnosed on the basis of clinical evidence only.

Risk factors

Risk factor data were not routinely collected.

Outbreak and other investigations

Three clusters were investigated in 2005; each involved two cases and all occurred during August and were serogroup B. The first occurred in two children aged two and three years who attended the same family day care centre with illness onsets seven days apart. The second cluster occurred in two children aged eight and ten years from the same primary school with onsets three days apart. The third cluster involved two females aged 17 and 44 years with same date of onset who had both attended a family reunion six days earlier. Cases and contacts in each cluster were managed in accordance with the *Guidelines for the early clinical and public health management of meningococcal disease in Australia*.

Comment

Since the introduction of the National Meningococcal C Immunisation Program in 2003, the number of notified cases of serogroup C disease has decreased dramatically from a peak of 88 in 2002 to 47 in 2003, 13 in 2004 and seven in 2005, a reduction of 92 per cent. During this time, there has been no discernable increase in notified cases of other serogroups, although evidence – if any – of serogroup replacement may take some time to develop. Meningococcal C vaccine is available through the National Immunisation Program for all children at 12 months of age. Vaccines that protect against serogroup B disease are not currently available in Australia.