

Communicable Diseases Prevention Unit, Public Health Services

Special Focus Report

Pertussis (Whooping cough) 21 July 2024



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Pertussis (Whooping cough)

Pertussis (commonly known as whooping cough) is caused by the bacteria *Bordetella pertussis*. Pertussis affects people of all ages, but it can be especially serious in babies. Pertussis can cause uncontrollable coughing and breathing difficulties that are life threatening. The bacteria are spread from people while infectious, usually during coughing or sneezing.

Immunisation provides good protection against infection and risk of severe disease, especially in the short-term. The most effective way to protect young babies who are too young to be vaccinated is to receive the pertussis vaccine during pregnancy. Additional information about pertussis and how it is prevented can be found on at www.health.tas.gov.au/whooping-cough.

Pertussis activity typically follows a seasonal trend, with higher activity in the Spring and Summer months. Epidemics of pertussis usually occur every few years as immunity wanes. The last epidemic in Tasmania occurred mid-2018 until early 2020 (Figure 1). Since early 2024, there has been an increase in pertussis notifications in Tasmania, consistent with the start of an epidemic period (Figure 2). This trend has been observed in other states and territories.

1250 1000 Number of notifications 750 500 250 0 2018 2012 2013 2015 2016 2017 2019 2020 Year

Figure 1. Pertussis notifications by year, Tasmania, 01-Jan-09 to 21-Jul-24

Source: Tasmanian Notifiable Disease Surveillance System (TNDSS). Data for 2024 is from 1 January to 21 July 2024 Note: Changes in health-seeking behaviour and testing practices should be considered when comparing notifications of pertussis across multiple years.

School aged children 5-11 years, and 12-17 years, represent the age groups with the highest number of notifications, which is similar to previous epidemic years (Table 1). As of 21 July 2024, there have been no cases in infants <6 months this year-to-date. The decrease in the number of notifications in recent weeks may be due to school holidays and reduced mixing of school-aged children.

18 16 14 Number of notifications 12 10 2 'n'o' Mar Mar Nat 31 Mar Arc. Mar 28 381 OTAR

Week ending

Figure 2. Pertussis notifications by week, Tasmania, 01-Jan-24 to 21-Jul-24

Source: Tasmanian Notifiable Disease Surveillance System (TNDSS).

Table 1. Notification of pertussis, 01-Jan-24 to 21-Jul-24

| | | Year-to-date Number (%) | Rate* |
|-------------------|---|----------------------------|-------|
| Number of cases | Total cases | 114 (100%) | 19.9 |
| Sex | Female | 68 (60%) | 23.5 |
| | Male | 46 (40%) | 16.2 |
| Age-group (years) | 0-4 | 8 (7%) | 27.7 |
| | 5-11 | 49 (43%) | 110.2 |
| | 12-17 | 29 (26%) | 70.7 |
| | 18-24 | 6 (5%) | 14.1 |
| | 25-54 | 15 (13%) | 6.9 |
| | 55 years and over | 7 (6%) | 3.5 |
| Region | South | 92 (81%) | 30.9 |
| | Northwest | 12 (11%) | 11.2 |
| | North | 10 (9%) | 5.9 |
| Indigenous status | Aboriginal and/or Torres Strait Islander | 16 (14%) | 53.0 |
| | Non-Indigenous | 89 (78%) | 17.7 |
| | Missing/Not stated | 9 (8%) | N/A |

Confirmed and probable cases. * Notification rate per 100,000 population. Sources: Tasmanian Notifiable Disease Surveillance System (TNDSS), Australian Bureau of Statistics estimated resident population (Jun 2023).

Appendix

Surveillance systems used in this report are described below.

Tasmanian Notifiable Disease Surveillance System (TNDSS)

Pertussis is a notifiable in Tasmania under the *Public Health Act* (1997). Consequently, all pathology laboratories in Tasmania are required to notify cases that meet the nationally agreed case definition to Public Health Services. Notifications are received regularly from public and private laboratories and clinicians in Tasmania. Data are correct at the time of reporting but are subject to change due to late notifications.

Population under surveillance: Tasmanian residents or overseas visitors diagnosed in Tasmania who meet laboratory criteria for a confirmed or probable case of pertussis. Access <u>CDNA surveillance</u> case definitions | Australian Government Department of Health and Aged Care.

Notes on interpretation: Data are reported by calculated onset date, the earliest of symptom onset date, specimen date or notification date. Notification data are heavily influenced by factors including health-seeking behaviours and testing practices. Changes in surveillance indicators may reflect changes in testing practices and not actual disease incidence in the community. As such, care is required in comparing notifications over time, including between years.



Department of **Health** GPO Box 125 Hobart TAS 7001

1300 135 513

www.health.tas.gov.au