

This report summarises pertussis notifications for the 12-month period ending May 2019 (a cumulative summary). It includes the distribution of cases by time, age, prioritised ethnicity and DHB. Data contained within this monthly report are based on information recorded on EpiSurv by public health service staff as at 10 June 2019. Changes made to EpiSurv data after this date will not be reflected in this report. The results presented may be further updated and should be regarded as provisional. Cases still under investigation are not included in this report.

- Pertussis notifications have now returned to expected levels.
- No significant change in notifications compared with the previous month.
- A significant decrease in pertussis notifications for the current month compared with the same month in 2018.

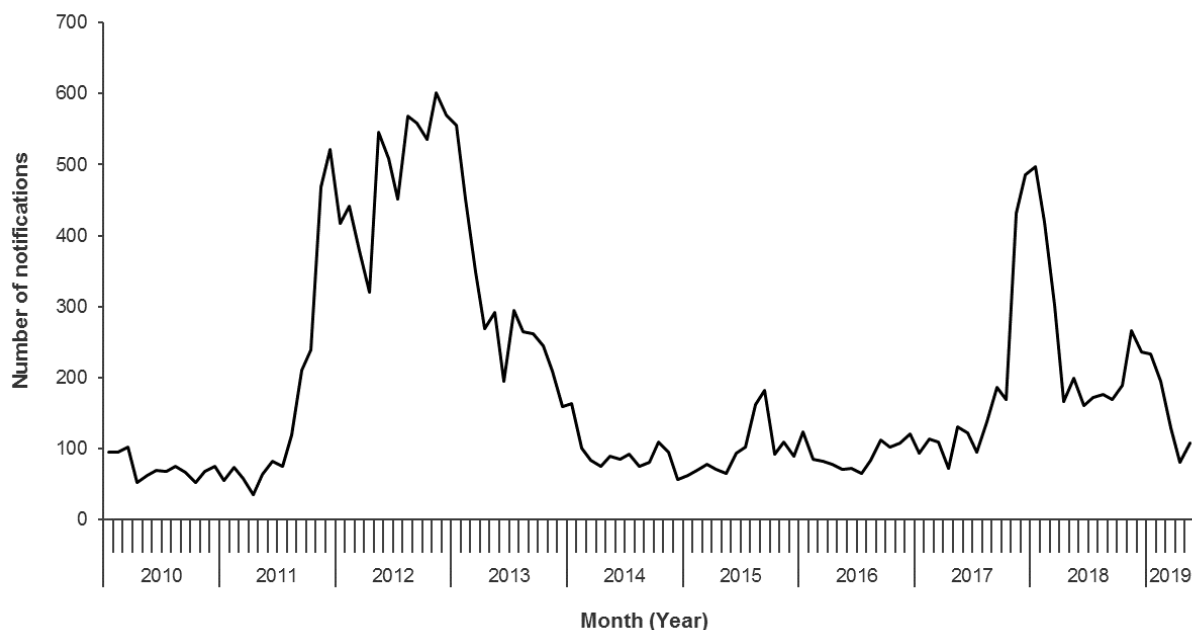
Summary

- In the past month, 107 cases of pertussis were notified. This included 58 confirmed, 46 probable, and three suspect cases. Fourteen (13.1%) cases were aged < 1 year and seven of these cases were hospitalised. Of all 107 cases, 14 cases were hospitalised and no deaths were reported.
- For the 12-month period ending May 2019:
 - there was a total of 2110 confirmed, probable and suspect cases of pertussis notified (43.2 cases per 100,000). Of the 2110 cases, 152 cases (7.2%) were aged < 1 year, of which 78 (51.3%) were hospitalised (Table 1). Of all 2110 cases, 207 cases (9.8%) were hospitalised;
 - the highest reported pertussis rates were among those aged < 1 year and 1–4 years (252.4 and 105.6 per 100,000, respectively). Pacific and Māori had the highest notification rates among those aged < 1 year (570.7 and 366.1 per 100,000 respectively), while the highest rate among children aged 1–4 years was in European or Other (122.9 per 100,000) (Figure 2);
 - the highest numbers of pertussis cases were reported by Capital and Coast (250 cases), Waikato (244 cases) and Waitemata (239 cases) DHBs (Table 2). The DHB with the highest rate was West Coast (343.6 per 100,000, 112 cases), followed by Nelson Marlborough (130.8 per 100,000, 197 cases) and Wairarapa (92.3 per 100,000, 42 cases) DHBs.
- From the beginning of the current national outbreak period (commencing 16 October 2017) to the end of May 2019, there was a total of 4697 cases (2939 confirmed, 1636 probable, and 122 suspect cases).

Trends in pertussis notifications

Figure 1 shows pertussis notifications by calendar month, since January 2010. A four- to five-year cycle can be seen with large peaks in the number of notifications in 2011/12 and at the end of 2017/early 2018.

Figure 1: Number of pertussis notifications by month and year, January 2010–May 2019



Note: Includes confirmed, probable, and suspect cases only. Cases still under investigation are excluded.

Age

The number of pertussis notifications, rates and hospitalisations by age group are shown in Table 1.

Table 1: Number of (confirmed, probable and suspect) pertussis notifications, rates and hospitalisations by age group

Age group (years)	Total			Hospitalised		
	May	Last 12 months	Rate ¹	May	Last 12 months	Percent ²
<1	14	152	252.4	7	78	51.3
1–4	9	260	105.6	0	26	10.0
5–9	7	259	79.1	0	3	1.2
10–14	7	214	68.8	0	5	2.3
15–19	11	140	44.6	0	2	1.4
20+	59	1085	29.9	7	93	8.6
All ages	107	2110	43.2	14	207	9.8

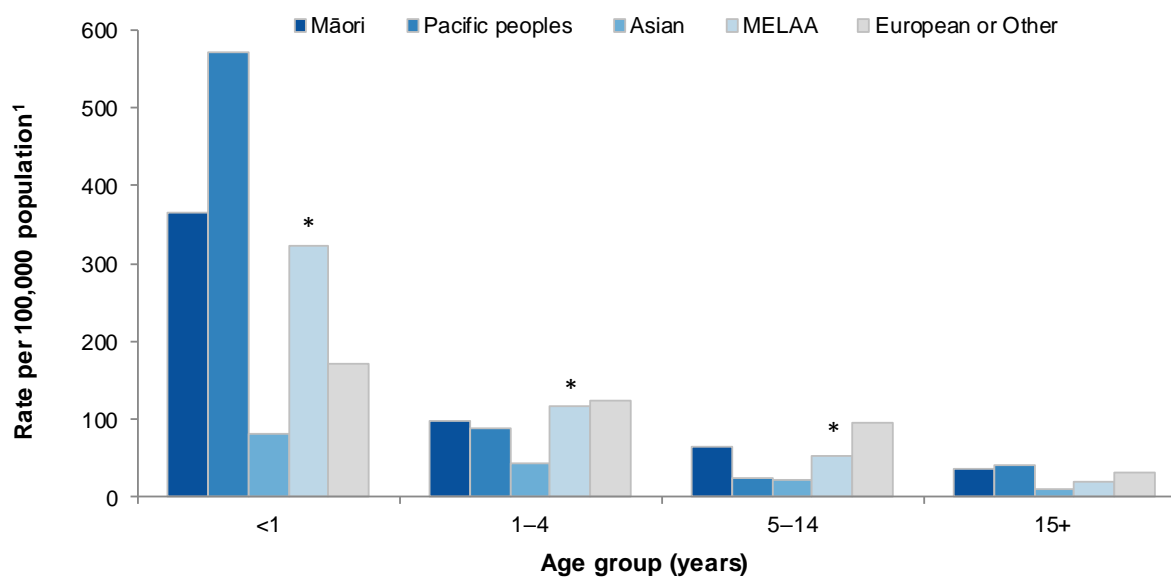
¹ Annual rate for the 12 months ending May 2019 per 100,000 population, calculated using 2018 mid-year population estimates.

² Percentage of notified cases in the last 12 months that were hospitalised.

Ethnicity

Pertussis rates by age group and ethnicity are shown in Figure 2.

Figure 2: Pertussis rates by age group and ethnicity



MELAA: Middle Eastern/Latin American/African.

¹ Annual rate for the 12 months ending May 2019.

* Rate based on fewer than five cases.

Notes:

- Includes confirmed, probable and suspect cases only. Cases still under investigation are excluded.
- Ethnicity is prioritised. Rates are based on the proportion of people in each ethnic group from the 2013 Census applied to the 2018 mid-year population estimates.

District health board

The numbers and rates of pertussis notifications by DHB are shown in Table 2 below.

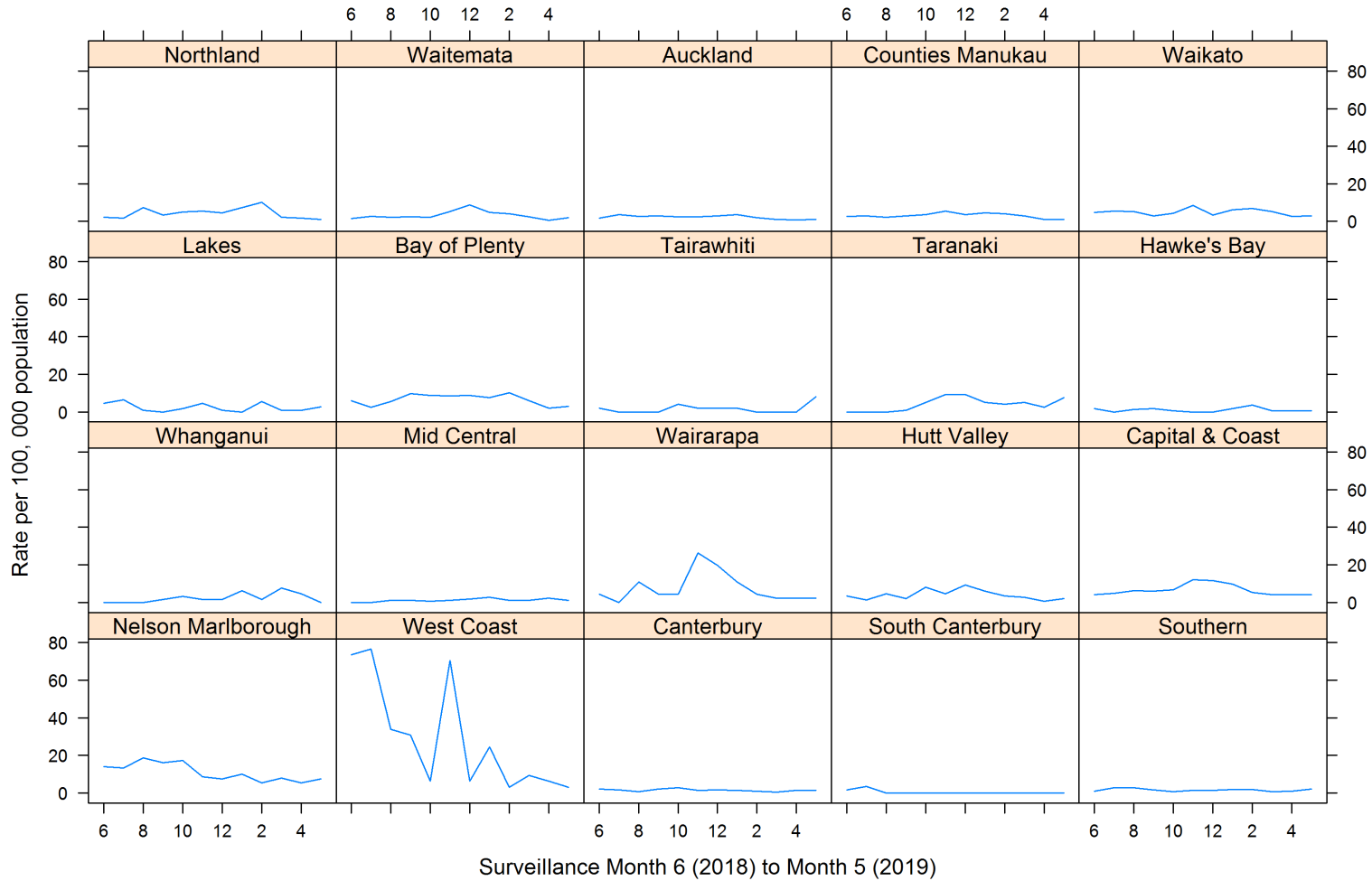
Table 2: Number of (confirmed, probable and suspect) pertussis notifications, rate and hospitalisations by district health board

District health board	Total			Hospitalised			Age <1 year		
	May	Last 12 months	Rate ¹	May	Last 12 months	Percent ²	May	Last 12 months	Rate ¹
Northland	2	93	51.9	1	11	11.8	0	13	565.2
Waitemata	12	239	38.5	2	32	13.4	2	15	184.4
Auckland	5	145	27.0	3	22	15.2	0	9	157.0
Counties Manukau	6	207	37.1	2	72	34.8	1	33	389.5
Waikato	12	244	58.6	1	23	9.4	1	17	302.3
Lakes	3	32	29.2	0	0	0.0	0	1	65.8
Bay of Plenty	7	186	78.5	2	6	3.2	3	13	413.7
Tairāwhiti	4	10	20.4	1	1	10.0	1	1	139.3
Taranaki	9	58	48.4	1	4	6.9	1	3	189.2
Hawke's Bay	1	21	12.7	0	3	14.3	1	6	272.7
Whanganui	0	18	27.7	0	0	0.0	0	0	0.0
MidCentral	2	25	13.9	0	4	16.0	0	3	134.3
Hutt Valley	3	72	48.2	0	7	9.7	0	4	202.0
Capital & Coast	13	250	78.7	0	4	1.6	1	10	282.0
Wairarapa	1	42	92.3	0	4	9.5	0	4	743.5
Nelson Marlborough	11	197	130.8	1	6	3.0	1	11	694.4
West Coast	1	112	343.6	0	3	2.7	0	3	854.7
Canterbury	8	96	17.0	0	3	3.1	1	3	46.0
South Canterbury	0	3	5.0	0	0	0.0	0	0	0.0
Southern	7	60	18.2	0	2	3.3	1	3	83.3
Overall	107	2110	43.2	14	207	9.8	14	152	252.4

¹ Annual rate for the 12 months ending May 2019 per 100,000 population, calculated using 2018 mid-year population estimates.

² Percentage of notified cases in the last 12 months that were hospitalised.

Figure 3: Pertussis rates per 100,000 population by DHB, June 2018–May 2019



Note: Includes confirmed, probable and suspect cases only. Rate calculated using 2018 mid-year population estimates.

This report is available at: <http://www.surv.esr.cri.nz/surveillance/PertussisRpt.php>