

This report summarises pertussis notifications for the 12-month period ending January 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 11 February 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.

- A national pertussis outbreak is ongoing.
- A significant decrease in notifications compared with the previous month.
- A significant decrease in pertussis notifications for the current month compared with the same month in 2018.

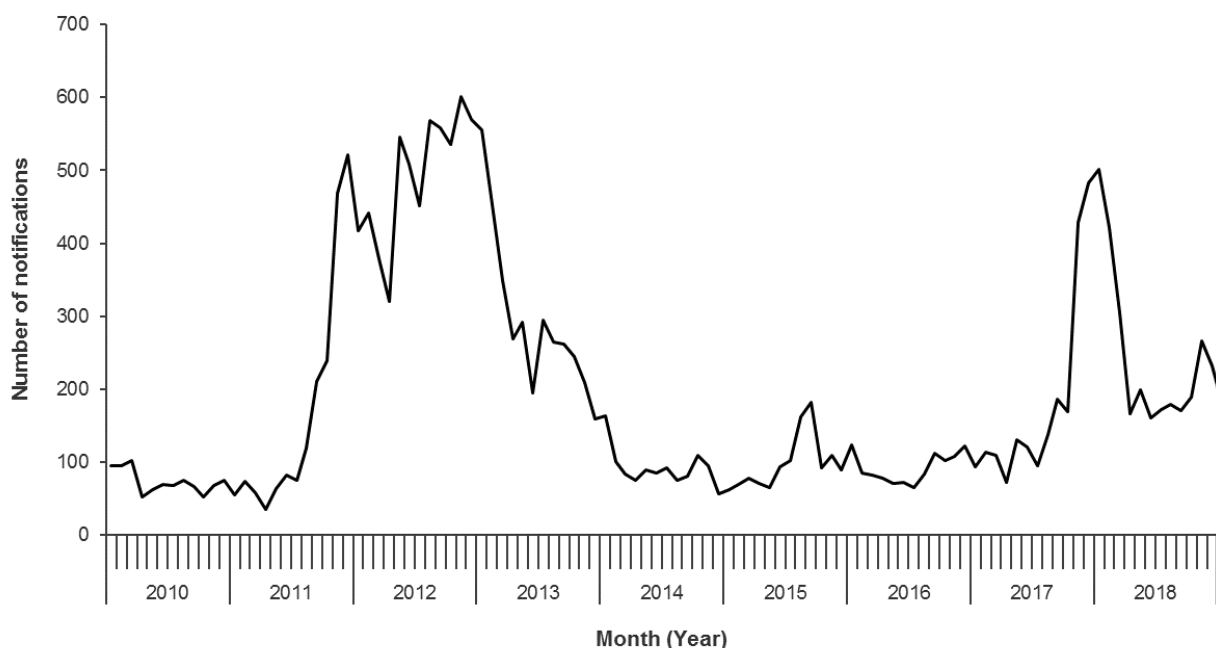
Summary

- In the past month, 178 cases of pertussis were notified. This included 136 confirmed, 38 probable, and four suspect cases. Eleven (6.2%) cases were aged < 1 year and four of these cases were hospitalised. Of all 178 cases, 19 cases were hospitalised and no deaths were reported.
- For the 12-month period ending January 2019:
 - there was a total of 2635 confirmed, probable and suspect cases of pertussis notified (53.9 cases per 100,000). Of the 2635 cases, 165 cases (6.3%) were aged < 1 year, of which 84 (50.9%) were hospitalised (Table 1). Of all 2635 cases, 208 cases (7.9%) were hospitalised;
 - the highest reported pertussis rates were among those aged < 1 year and 1–4 years (274.0 and 132.4 per 100,000, respectively). Pacific and Māori had the highest notification rates among those aged < 1 year (552.9 and 417.5 per 100,000 respectively), while the highest rate among children aged 1–4 years was in European or Other (169.6 per 100,000) followed by Māori (115.6 per 100,000) (Figure 2);
 - the highest numbers of pertussis cases were reported by Nelson Marlborough (313 cases), Waikato (276 cases) and Bay of Plenty (271 cases) DHBs (Table 2). The DHB with the highest rate was West Coast (469.3 per 100,000, 153 cases), followed by Nelson Marlborough (207.8 per 100,000) and Wairarapa (123.1 per 100,000, 56 cases) DHBs.
- From the beginning of the current national outbreak period (commencing 16 October 2017) to the end of January 2019, there was a total of 4194 cases (2641 confirmed, 1442 probable, and 111 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–January 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		
	January	Last 12 months	Rate ¹	January	Last 12 months	Percent ²
<1	11	165	274.0	4	84	50.9
1–4	25	326	132.4	2	25	7.7
5–9	22	367	112.2	1	5	1.4
10–14	16	275	88.4	1	3	1.1
15–19	5	169	53.8	0	3	1.8
20+	99	1333	36.8	11	88	6.6
All ages	178	2635	53.9	19	208	7.9

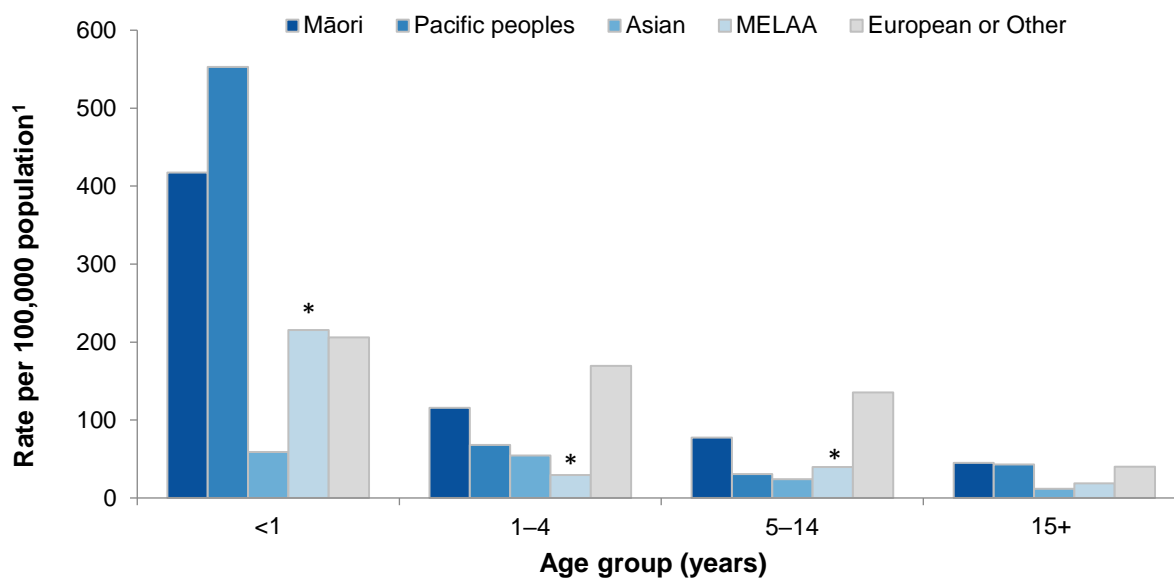
¹ Annual rate for the 12-months ending January 2019 per 100,000 population, calculated using 2018 mid-year population estimates.

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 January 2019

* Rate based on fewer than five cases.

Note: 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.

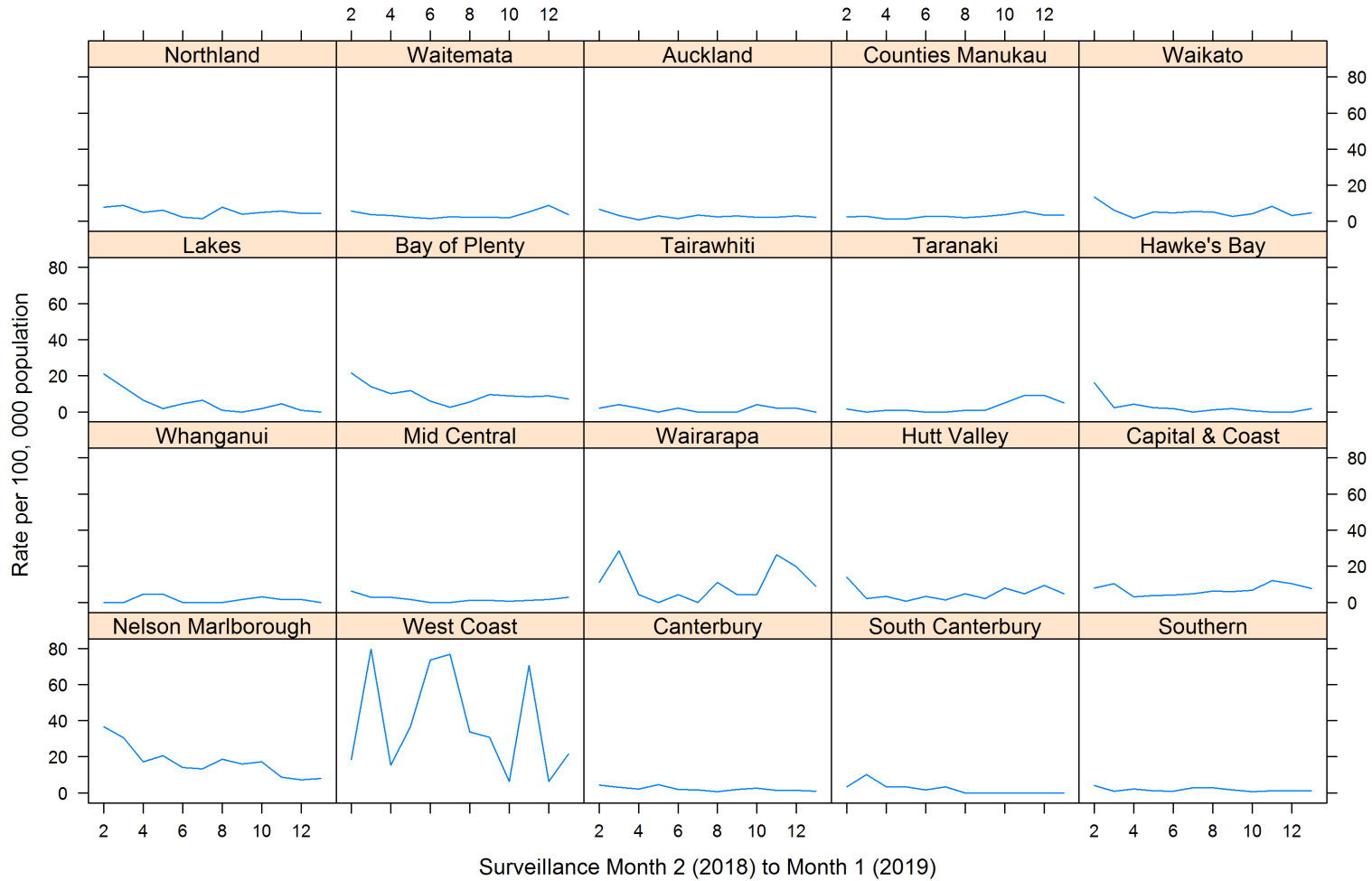
Table 2: Number of (confirmed, probable and suspect) pertussis notifications, rate and hospitalisations by district health board

District health board	Total			Hospitalised			Age <1 year		
	January	Last 12 months	Rate ¹	January	Last 12 months	Percent ²	January	Last 12 months	Rate ¹
Northland	8	113	63.1	0	7	6.2	2	15	652.2
Waitemata	23	269	43.4	4	34	12.6	1	14	172.1
Auckland	13	187	34.8	2	25	13.4	0	8	139.5
Counties Manukau	20	195	34.9	6	64	32.8	3	30	354.1
Waikato	20	276	66.3	1	22	8.0	1	17	302.3
Lakes	0	68	62.0	0	1	1.5	0	1	65.8
Bay of Plenty	17	271	114.3	0	6	2.2	2	11	350.1
Tairāwhiti	0	9	18.3	0	0	0.0	0	0	0.0
Taranaki	6	40	33.4	1	3	7.5	0	0	0.0
Hawke's Bay	3	54	32.6	1	2	3.7	0	3	136.4
Whanganui	0	11	16.9	0	1	9.1	0	1	117.4
MidCentral	5	39	21.8	1	8	20.5	1	9	402.9
Hutt Valley	7	87	58.2	1	5	5.7	1	3	151.5
Capital & Coast	24	263	82.8	0	4	1.5	0	12	338.4
Wairarapa	4	56	123.1	0	2	3.6	0	4	743.5
Nelson Marlborough	12	313	207.8	1	6	1.9	0	19	1199.5
West Coast	7	153	469.3	1	5	3.3	0	4	1139.6
Canterbury	5	149	26.5	0	9	6.0	0	11	168.6
South Canterbury	0	15	25.0	0	3	20.0	0	1	152.2
Southern	4	67	20.3	0	1	1.5	0	2	55.5
Overall	178	2635	53.9	19	208	7.9	11	165	274.0

¹ Annual rate for the 12 months ending January 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, February 2018–January 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>