
MONTHLY NOTIFIABLE DISEASE SURVEILLANCE REPORT

Data contained within this monthly report is based on information recorded on EpiSurv by Public Health Service (PHS) staff at 19 December 2016. Changes made to EpiSurv data after this date will not be reflected in this report. The results presented may be updated and should be regarded as provisional.

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1. Key notifiable disease trends

Campylobacteriosis: 1103 cases of campylobacteriosis (835 confirmed, 263 probable and 5 under investigation) were notified in November 2016 compared to 779 cases notified during the same month of the previous year (Figure 1). For the 12 month period ending 30 November 2016, the highest rates were reported in Hawke's Bay (827.4 cases per 100,000 population, 296 cases), South Canterbury (261.1 per 100,000, 18 cases) and Taranaki (196.7 per 100,000, 28 cases) DHBs, compared to a national rate of 161.4 per 100,000. Seventy-three people were hospitalised. Cases ranged in age from 3 months to 97 years, and the highest number of cases was reported in the 70 years and over age group (167 cases). One finalised *Campylobacter* outbreak was created in November (2 cases).

Chikungunya fever: Two cases of chikungunya fever (1 confirmed and 1 probable) were notified in November. Twenty-seven cases have been notified in the year to date compared to 48 at the same time in the previous year. Cases were in the 30–39 years and 70 years and over age groups and were from Auckland and Counties Manukau DHBs, respectively. Both cases reported overseas travel to India during the incubation period for the disease.

Cryptosporidiosis: 95 cases of cryptosporidiosis (94 confirmed and 1 probable) were notified in November 2016 compared to 66 cases notified during the same month of the previous year. The 12-month rate in November (22.8 cases per 100,000 population) was higher than at the same time in the previous year (15.0 per 100,000). The highest 12-month rates were reported in Northland (64.2 per 100,000, 8 cases) and Wairarapa (46.3 per 100,000, 1 case) DHBs. Cases ranged in age from 10 months to 94 years, with the highest numbers of cases in the 1–4 years (26 cases) and 30–39 years (20 cases) age groups. Among the cases for which risk factor information was recorded, 50.0% (24/48) had attended school, preschool or childcare, 46.9% (23/49) had contact with farm animals, and 33.3% (17/51) had contact with other symptomatic people during the incubation period for the disease. Five finalised *Cryptosporidium* outbreaks (46 cases total) and one interim outbreak (case numbers yet to be determined) were created in November.

Hepatitis NOS: One confirmed case of hepatitis NOS (hepatitis E) was notified in November 2016. The case was a male in the 20–29 years age group from Auckland DHB. The case reported overseas travel to India during the incubation period for the disease.

Leptospirosis: Fifteen cases of leptospirosis (11 confirmed and 4 under investigation) were notified in November compared to seven cases notified during the same month of the previous year. The highest number of cases was reported from Hawke's Bay and Southern DHBs (4 cases each). Cases were reported in the 50–59 years (7 cases), 40–49 years (4 cases), 20–29 years and 60–69 years (2 cases each) age groups. Occupational exposure risk factor information was recorded for all cases, ten were farmers or farm workers and two worked in the meat processing industry. Of the cases that did not have a high risk occupation, one had exposure to streams, rivers, lakes, and another had exposure to farm or wild animals in the 20 days before illness. One case had no other risk factor information recorded. The *Leptospira* species was recorded for five cases; *L. Ballum*, *L. Canicola* and *L. Hardjo*, *L. Hardjo*, *L. Tarrasovi* and *L. Pomona* (1 case each).

Meningococcal disease: 12 confirmed cases of meningococcal disease were notified in November 2016 compared to four cases notified during the same month of the previous year. Cases were reported from Waitemata (3 cases), Canterbury and Bay of Plenty (2 cases each), Waikato, Wairarapa, Capital & Coast, Nelson Marlborough and Southern (1 case each) DHBs. Cases were reported in the 1–4 years (4 cases), 20–29 years (3 cases), less than 1 year (2 cases), 15–19 years, 40–49 years and 60–69 years (1 case each) age groups. All cases were hospitalised and no deaths were reported. All cases were laboratory confirmed and the group was determined for 11 cases: group B (7 cases, including 3 NZ B:P1.7-2,4), group W and group C (2 cases each). One finalised *Neisseria meningitidis* outbreak was created in November (2 cases).

Ross River virus infection: One case of Ross River virus infection was notified in November 2016. After further investigation, the case has since been found not to meet the case criteria.

Shigellosis: 18 cases of shigellosis (16 confirmed, 1 probable and 1 under investigation) were notified in November compared with eight cases notified during the same month of the previous year. The 12-month rate in November (3.4 cases per 100,000 population) was slightly higher than at the same time in the previous year (2.5 per 100,000). The highest number of cases was reported from Waitemata DHB (6 cases). The serotype involved was recorded for 94.4% (17/18) of cases: *S. flexneri* 1b and 2a (5 cases each), *S. flexneri* 6 biotype Boyd 88 (4 cases), *S. sonnei* biotype a, *S. sonnei* biotype g and *S. flexneri* (1 case each). Information on overseas travel during the incubation period was recorded for 83.3% (15/18) of cases, of which 93.3% (14/15) of cases recorded overseas travel during the incubation period for the disease. Countries visited included: Samoa (6 cases), India (5 cases), Australia and Tonga (2 cases each), Indonesia, Malaysia and Nepal (1 case each). Some cases reported overseas travel to more than one country. One case who did not travel during the incubation period for the disease reported household contact with a symptomatic person, a visitor from Samoa.

Tetanus: One confirmed case of tetanus was notified in November 2016. The case was a female in the 60–69 years age group from Waikato DHB.

VTEC/STEC infection: 37 cases of VTEC/STEC infection (34 confirmed and 3 under investigation) were notified in November compared to 27 cases confirmed during the same month of the previous year (Figure 2). After further investigation, three cases have since been found not to meet the case criteria. The 12-month rate in November (9.7 cases per 100,000 population) was notably higher than at the same time in the previous year (6.7 per 100,000). The highest number of cases was reported from Southern DHB (8 cases) followed by Waitemata (5 cases) and Counties Manukau (4 cases) DHBs. Cases ranged in age from 5 months to 89 years, with the highest number of cases in the 1–4 years age group (7 cases). Six cases were hospitalised. Thirty-three cases have been confirmed by the Enteric Reference Laboratory as being infected with VTEC/STEC, and of these the serotype was identified as *Escherichia coli* O157:H7 (8 cases) and non-O157 (16 cases). Nine cases have verocytotoxin detected but a serotype has not yet been identified. Of the cases for which risk factor information was recorded, 60.0% (15/25) had contact with animals, 19.0% (4/21) had contact with children in nappies, 15.4% (4/26) had recreational contact with water, and 14.8% (4/27) were overseas during the incubation period for the disease. The increase in notifications for DHBs in the Auckland region may be due to a change in laboratory methods in July 2015; all faecal specimens are now screened for VTEC/STEC using PCR. Two finalised VTEC/STEC outbreaks (4 cases total) and one interim outbreak (case numbers yet to be determined) were created in November.

Yersiniosis: 116 cases of yersiniosis (110 confirmed and 6 under investigation) were notified in November 2016 compared to the same number of cases notified in the same month of the previous year. After further investigation, three cases have since been found not to meet the case criteria. The 12-month rate in November (18.1 per 100,000 population) was higher than at the same time in the previous year (13.7 per

100,000). The highest numbers of cases were reported from Canterbury (28 cases) and Bay of Plenty (23 cases) DHBs. Cases ranged in age from 5 months to 90 years, with the highest number of cases in the 20–29 years age group (20 cases). Six cases were hospitalised. The *Yersinia* species involved was identified by ESR for 91.2% (103/113) cases; *Y. enterocolitica* (99 cases) and *Y. pseudotuberculosis* (4 cases). The most common *Y. enterocolitica* biotypes reported were biotype 2 (59 cases) and 1A (22 cases). Among the cases for which risk factor information was recorded, 59.3% (32/54) had consumed food from a food premises, 25.0% (14/56) had recreational contact with water, 16.7% (9/54) had contact with faecal matter or vomit, and 16.4% (10/61) attended school, preschool or childcare during the incubation period for the disease. One interim *Yersinia* outbreak was created in November (case numbers yet to be determined).

2. Outbreaks

During November 2016, a total of 48 outbreaks (22 final and 26 interim) were created in EpiSurv (Table 1 and Table 2). Thirty-three (68.8%) were outbreaks of acute gastroenteritis (12 finalised and 21 interim) involving 409 cases in total. This compares with 32 acute gastroenteritis outbreaks involving 543 cases in total created during the same month of the previous year. Of the 33 acute gastroenteritis outbreaks, the pathogens were recorded as: norovirus (10 outbreaks) and norovirus/*Clostridium difficile* (one outbreak). The most commonly reported mode of transmission in acute gastroenteritis outbreaks (27.3%, 9/33) was person-to-person (7 primary and 2 secondary). Of the outbreaks that had an exposure setting recorded (63.6%, 21/33) the most commonly reported settings were long term care facilities (7 outbreaks) and childcare centres (3 outbreaks).

Table 1. Summary of final outbreaks created in EpiSurv during November 2016

Organism/Toxin/Illness	DHB(s) where exposure occurred	Number of outbreaks	Total number of cases
<i>Campylobacter</i> ²	Counties Manukau	1	2
<i>Clostridium difficile</i> ¹	Bay of Plenty	1	11
<i>Cryptosporidium</i> ^{1, 2}	Northland, Auckland, Taranaki, Lakes, Capital & Coast	5	46
<i>Giardia</i> ^{1, 2}	Auckland, Lakes, Capital & Coast	3	25
Gastroenteritis	Waitemata, Auckland, Bay of Plenty, MidCentral	6	45
Histamine (scombroid) fish poisoning	Auckland	1	4
<i>Neisseria meningitidis</i>	Canterbury	1	2
Norovirus ¹	Counties Manukau, Bay of Plenty, Wairarapa, Nelson Marlborough, Canterbury	6	241
<i>Salmonella</i> ¹	Counties Manukau	1	2
VTEC/STEC infection ^{1, 2}	Counties Manukau	2	4
Total		22	344

¹ Outbreak involved more than one pathogen therefore individual pathogen outbreak numbers may not sum to group totals.

² Includes outbreak reported to PHSS prior to November 2016: *Cryptosporidium*, *Giardia*, and VTEC/*Campylobacter* (one each) reported in October.

Table 2. Summary of interim outbreaks created in EpiSurv during November 2016

Organism/Toxin/Illness	DHB(s) where exposure occurred	Number of outbreaks	Total number of cases
<i>Cryptosporidium</i>	MidCentral	1	3
Gastroenteritis ²	Waitemata, Auckland, Counties Manukau, Waikato Bay of Plenty, Taranaki, Hawke's Bay, Capital & Coast	16	12
Influenza virus ²	Capital & Coast	1	-
Norovirus	Capital & Coast, Nelson Marlborough, Southern	5	111
Varicella zoster virus ²	Northland	1	-
VTEC/STEC infection ¹	Southern	1	2
<i>Yersinia</i>	Bay of Plenty	1	19
Total		26	147

¹ Includes outbreak reported to PHSs prior to November 2016: *Cryptosporidium* and VTEC/STEC infection (one each) reported in October.

² Interim outbreak(s) where total number of cases had not been completed.

3. Deaths from notifiable diseases

Two deaths, where the primary cause of death was a notifiable disease, were reported in November 2016 (Table 3).

Table 3. Summary of deaths from notifiable diseases reported during November 2016

Disease	District health board	Age group (years)
Invasive pneumococcal disease	Lakes	70+
Invasive pneumococcal disease	Canterbury	50–59

4. Trends in selected diseases to November 2016

Figure 1. Campylobacteriosis notifications by month, January 2009–November 2016

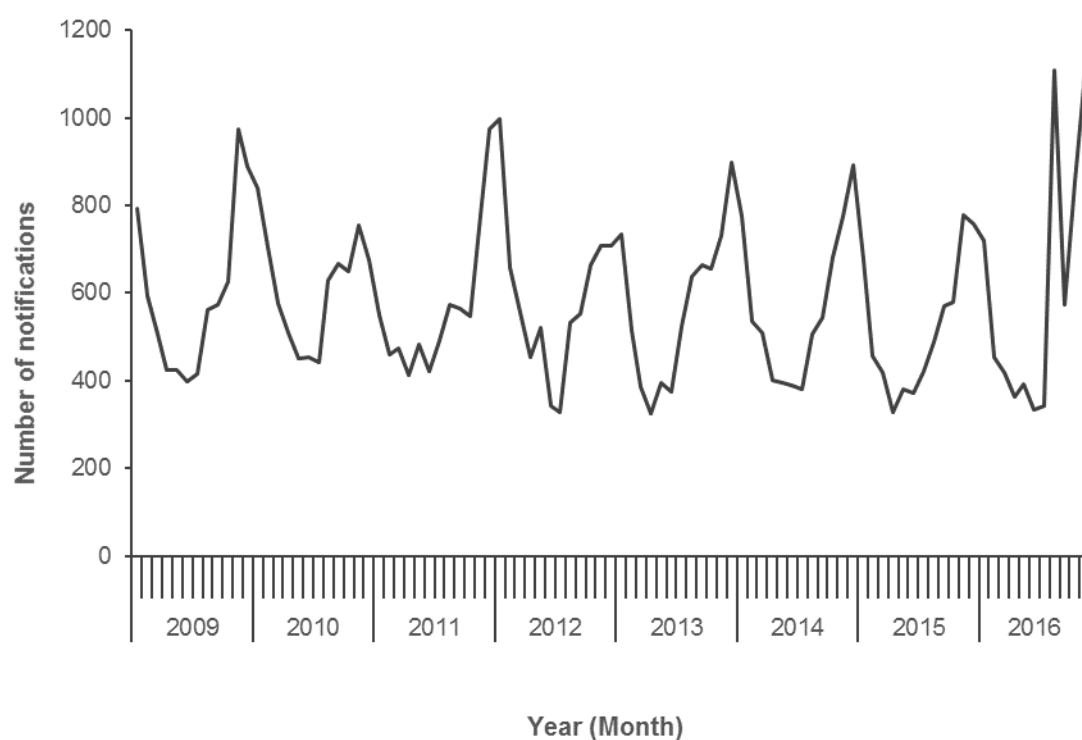
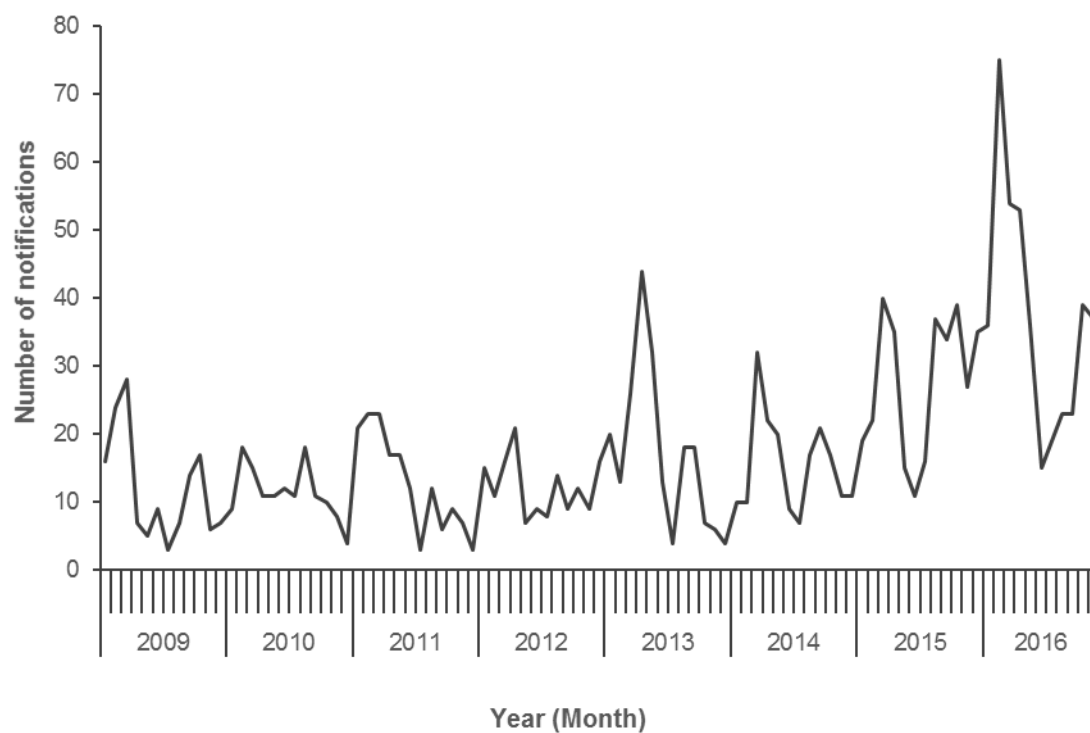


Figure 2. VTEC/STEC notifications by month, January 2009–November 2016



5. Data tables

National Notifiable Disease Surveillance Data November 2016

Disease	Current Year - 2016 ¹			Previous Year - 2015		
	November 2016 Cases	Cumulative total since 1 January	Current 12 Month Rate ²	November 2015 Cases	Cumulative total since 1 January	Current 12 Month Rate ²
Campylobacteriosis	1103	6662	161.4	779	5462	138.3
Cryptosporidiosis	95	1014	22.8	66	664	15
Dengue fever	13	186	4.2	6	119	2.9
Gastroenteritis ³	41	492	12.1	50	437	10.7
Giardiasis	129	1513	35.4	139	1398	33.1
Haemophilus influenzae type b	1	4	0.1	0	3	0.1
Hepatitis A	3	30	0.7	5	44	1
Hepatitis B ⁴	6	31	0.7	2	32	0.7
Hepatitis C ⁴	3	31	0.7	5	34	0.7
Invasive pneumococcal disease	42	443	10.4	47	413	9.9
Legionellosis	35	234	6.2	42	197	4.7
Leptospirosis	15	88	2	7	61	1.5
Listeriosis	4	34	0.8	3	22	0.5
Malaria	0	25	0.7	1	32	0.7
Measles	1	104	2.3	0	9	0.2
Meningococcal disease	12	72	1.7	4	59	1.3
Mumps	4	15	0.3	0	12	0.3
Paratyphoid fever	1	31	0.7	3	31	0.7
Pertussis	116	990	23.5	109	1080	24.7
Rheumatic fever ⁵	4	139	3.2	9	106	2.5
Rickettsial disease	0	6	0.1	0	8	0.2
Rubella	0	3	0.1	0	0	0
Salmonellosis	83	1025	24	72	972	23.1
Shigellosis	18	153	3.4	8	107	2.5
Tuberculosis disease	34	271	6.5	26	263	6.4
Typhoid fever	3	37	1	9	36	0.9
Viral Haemorrhagic Fever	0	1	0	0	0	0
VTEC/STEC infection	37	410	9.7	27	295	6.7
Yersiniosis	116	791	18.1	116	593	13.7

¹ These data are provisional.

² Rate is based on the cumulative total for the current year (12 months up to and including November 2016) or the previous year (12 months up to and including November 2015), expressed as cases per 100,000. This includes cases still under investigation.

³ Cases of gastroenteritis from a common source or foodborne intoxication.

⁴ Only acute cases of this disease are currently notifiable.

⁵ Numbers are based on report date. This may not be a good indicator of newly incident cases as a high proportion of notifications have substantial reporting delays.

Notifiable Disease Surveillance Data by District Health Board November 2016

Disease		Cases ¹ and current rate ² for November 2016 by District Health Board ³																			
		Northland	Waitemata	Auckland	Counties Manukau	Waikato	Lakes	Bay of Plenty	Tairāhiti	Taranaki	Hawke's Bay	Whanganui	MidCentral	Hutt Valley	Capital and Coast	Wairarapa	Nelson Marlborough	West Coast	Canterbury	South Canterbury	Southern
Campylobacteriosis	Cases	26	88	66	80	63	19	25	12	28	296	18	54	34	52	10	19	12	96	18	87
	Rate	179.4	134.3	103.3	99.9	144.9	126.9	113.8	149.8	196.7	827.4	167.7	163.3	125.7	135.5	166.7	122.9	174.3	143.3	261.1	174.8
Cryptosporidiosis	Cases	8	10	8	7	5	0	1	2	6	3	2	7	0	6	1	0	0	16	4	9
	Rate	64.2	24.5	19.4	18.6	31.7	20	6.8	27.4	38	15	35.1	29.6	9	21.6	46.3	15.9	6.1	17.3	27.3	19.4
Dengue fever	Cases	0	1	3	2	1	0	2	0	0	2	0	0	1	0	0	0	0	1	0	0
	Rate	0.6	3.5	5.1	7.5	3.6	1	7.2	6.3	2.6	5.6	0	1.7	4.2	6.3	2.3	5.5	0	2.5	1.7	3.2
Gastroenteritis	Cases	5	4	7	0	0	0	4	0	0	1	0	2	2	4	0	0	0	12	0	0
	Rate	7.7	10.1	22.9	9.6	2.6	12.4	17.2	2.1	6.9	1.9	19.2	30.2	21.5	25.9	20.8	2.1	9.2	8.9	1.7	5.1
Giardiasis	Cases	3	8	12	18	16	2	3	6	6	8	1	7	0	11	0	6	0	12	3	7
	Rate	34.5	33.2	38.6	35.1	34.3	47.7	32.5	147.7	34.5	45.5	25.6	22.7	22.9	42.8	23.1	37.3	24.5	32.3	30.7	28
Haemophilus influenzae type b	Cases	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	Rate	0	0	0.2	0.2	0	0	0	2.1	0	0.6	0	0	0	0	0	0	0	0	0	0
Hepatitis A	Cases	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
	Rate	1.2	0.7	1.2	1	0	0	0.5	0	0.9	0	0	0	0.7	1.3	0	2.8	3.1	0.4	0	0.6
Hepatitis B	Cases	0	2	2	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	Rate	0.6	0.5	1.6	0.8	0.8	0	0.5	0	1.7	1.2	0	0.6	0	1	2.3	0	0	0.4	0	0.6
Hepatitis C	Cases	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0
	Rate	0.6	0.2	0	0	0	1	0	0	1.7	0.6	0	0	2.1	0.7	2.3	3.5	0	1.5	5.1	1.3
Invasive pneumococcal	Cases	4	5	5	7	3	2	4	1	0	1	0	0	0	1	1	2	0	3	0	3
	Rate	20.2	9.7	11.6	16.7	9	20	15.3	14.8	2.6	8.1	8	5.2	5.6	7.6	6.9	6.2	0	7.4	17.1	7.6
Legionellosis	Cases	6	3	3	0	2	1	1	0	2	0	0	0	1	0	0	7	0	7	0	2
	Rate	16.6	6.6	5.7	5.8	4.9	2.9	11.7	0	2.6	3.1	1.6	5.2	6.9	4	6.9	6.9	6.1	7.2	3.4	5.4
Leptospirosis	Cases	2	0	0	0	1	0	1	1	0	4	0	0	0	0	0	1	1	0	0	4
	Rate	8.9	0.5	0.2	1.2	4.9	1	1.8	2.1	3.5	7.5	1.6	2.9	0	0.3	0	2.1	6.1	0.8	0	2.5
Listeriosis	Cases	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	1	0	0
	Rate	0	0.7	1.2	0.8	0.8	0	1.8	2.1	0	1.2	1.6	0	2.8	0.3	0	2.1	0	0.4	0	1
Malaria	Cases	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rate	0.6	0.9	2.2	0.4	0.3	0	0.9	0	0	0.6	0	0.6	1.4	0	2.3	0.7	0	0.6	0	0
Measles	Cases	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rate	3.6	0.3	0.4	1.2	14.6	0	0	0	0	0	0	12.2	0.7	1.7	0	2.1	0	0.2	0	0.3
Meningococcal disease	Cases	0	3	0	0	1	0	2	0	0	0	0	0	0	1	1	1	0	2	0	1
	Rate	1.8	1	1	2.3	2	1	3.2	0	0	0.6	0	0.6	0	3	2.3	0.7	0	0.6	0	6.1
Mumps	Cases	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	Rate	0	1.2	0.2	0.8	0	0	0	0	0	0.6	0	0	0	0	0	0.7	3.1	0	0	0.3
Paratyphoid fever	Cases	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	Rate	0	0.3	1.8	1	0	1	0.5	0	0.9	1.9	0	0	0.7	1	2.3	0	0	1	0	0.6
Pertussis	Cases	2	4	4	3	15	11	7	1	12	1	0	11	0	6	0	7	0	23	2	7
	Rate	4.8	13.9	11.8	10.2	36.4	37.2	22.1	4.2	67.3	9.3	12.8	17.4	15.3	31.2	2.3	32.5	6.1	55.5	15.4	15.6
Q fever	Cases	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rheumatic fever ⁴	Cases	0	1	0	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0
	Rate	2.4	3.1	5.3	9.2	1.5	4.8	3.6	4.2	0.9	5.6	0	2.3	2.1	2.3	0	0	0	0.6	0	0.3
Rickettsial disease	Cases	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rate	0	0.5	0	0.2	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rubella	Cases	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rate	0	0.2	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0.2	0	0
Salmonellosis	Cases	2	4	6	6	14	1	1	1	5	6	0	4	2	6	1	4	1	10	0	9
	Rate	19	20.3	21.4	13.6	27.4	22.9	17.6	120.3	22.4	24.3	16	26.7	22.9	24.2	25.5	22.1	18.3	26.8	35.8	36.3
Shigellosis	Cases	0	6	2	4	1	0	2	0	0	0	0	0	2	1	0	0	0	0	0	0
	Rate	1.8	6.6	5.1	6.1	4.1	0	4.1	8.4	0	0.6	1.6	0	2.1	2.7	0	1.4	0	1.7	0	1.9
Tuberculosis disease	Cases	1	4	8	5	1	0	0	0	1	1	0	0	1	5	0	1	0	2	1	3
	Rate	1.2	6.3	11.6	11.5	7.4	5.7	5	2.1	2.6	8.1	3.2	4.6	3.5	6.6	2.3	3.5	3.1	5.7	5.1	2.5
Typhoid fever	Cases	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rate	0	0.3	3.1	2.9	0.8	1	0.9	0	0	0	0	0	0	0.3	0	1.4	0	0.2	0	0.6
Viral Haemorrhagic Fever	Cases	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rate	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VTEC/STEC infection	Cases	4	5	2	5	3	2	1	0	0	2	0	0	0	0	1	1	0	0	3	8
	Rate	30.3	17.2	9.6	14.2	11.3	5.7	9.9	0	12.1	5.6	6.4	2.9	2.8	0.7	2.3	4.8	3.1	3.2	11.9	9.9
Yersiniosis	Cases	5	10	9	2	7	2	23	2	2	4	1	3	5	6	0	0	1	28	1	5
	Rate	15.4	17.9	17.8	10.4	12.5	21	19	12.7	5.2	12.5	9.6	8.1	22.9	28.6	11.6	5.5	24.5	35.2	27.3	17.8

¹ These data are provisional.

² Current rate is based on the cumulative total for the 12 months up to and including November 2016 expressed as cases per 100,000. This includes cases still under investigation.

³ Further data are available from the local Medical Officer of Health.

⁴ Rates are based on report date. This may not be a good indicator of newly incident cases as a high proportion of notifications have substantial reporting delays.

Notifiable Disease Surveillance Data by District Health Board November 2016

		Cases ¹ and current rate ² for November 2016 by District Health Board ³																			
		Northland	Waitemata	Auckland	Counties Manukau	Waikato	Lakes	Bay of Plenty	Tairāwhiti	Taranaki	Hawke's Bay	Whanganui	MidCentral	Hutt Valley	Capital and Coast	Wairarapa	Nelson Marlborough	West Coast	Canterbury	South Canterbury	Southern
Disease	Cases	26	88	66	80	63	19	25	12	28	296	18	54	34	52	10	19	12	96	18	87
	Rate	179.4	134.3	103.3	99.9	144.9	126.9	113.8	149.8	196.7	827.4	167.7	163.3	125.7	135.5	166.7	122.9	174.3	143.3	261.1	174.8
Campylobacteriosis	Cases	8	10	8	7	5	0	1	2	6	3	2	7	0	6	1	0	0	16	4	9
	Rate	64.2	24.5	19.4	18.6	31.7	20	6.8	27.4	38	15	35.1	29.6	9	21.6	46.3	15.9	6.1	17.3	27.3	19.4
Cryptosporidiosis	Cases	0	1	3	2	1	0	2	0	0	2	0	0	1	0	0	0	0	1	0	0
	Rate	0.6	3.5	5.1	7.5	3.6	1	7.2	6.3	2.6	5.6	0	1.7	4.2	6.3	2.3	5.5	0	2.5	1.7	3.2
Dengue fever	Cases	5	4	7	0	0	0	4	0	0	1	0	2	2	4	0	0	0	12	0	0
	Rate	7.7	10.1	22.9	9.6	2.6	12.4	17.2	2.1	6.9	1.9	19.2	30.2	21.5	25.9	20.8	2.1	9.2	8.9	1.7	5.1
Gastroenteritis	Cases	3	8	12	18	16	2	3	6	6	8	1	7	0	11	0	6	0	12	3	7
	Rate	34.5	33.2	38.6	35.1	34.3	47.7	32.5	147.7	34.5	45.5	25.6	22.7	22.9	42.8	23.1	37.3	24.5	32.3	30.7	28
Giardiasis	Cases	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	Rate	0	0	0.2	0.2	0	0	0	2.1	0	0.6	0	0	0	0	0	0	0	0	0	0
Haemophilus influenzae type b	Cases	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
	Rate	1.2	0.7	1.2	1	0	0	0.5	0	0.9	0	0	0	0.7	1.3	0	2.8	3.1	0.4	0	0.6
Hepatitis A	Cases	0	2	2	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	Rate	0.6	0.5	1.6	0.8	0.8	0	0.5	0	1.7	1.2	0	0.6	0	1	2.3	0	0	0.4	0	0.6
Hepatitis B	Cases	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0
	Rate	0.6	0.2	0	0	0	1	0	0	1.7	0.6	0	0	2.1	0.7	2.3	3.5	0	1.5	5.1	1.3
Hepatitis C	Cases	4	5	5	7	3	2	4	1	0	1	0	0	0	1	1	2	0	3	0	3
	Rate	20.2	9.7	11.6	16.7	9	20	15.3	14.8	2.6	8.1	8	5.2	5.6	7.6	6.9	6.2	0	7.4	17.1	7.6
Invasive pneumococcal disease	Cases	6	3	3	0	2	1	1	0	2	0	0	0	1	0	0	7	0	7	0	2
	Rate	16.6	6.6	5.7	5.8	4.9	2.9	11.7	0	2.6	3.1	1.6	5.2	6.9	4	6.9	6.9	6.1	7.2	3.4	5.4
Legionellosis	Cases	2	0	0	0	1	0	1	1	0	4	0	0	0	0	0	1	1	0	0	4
	Rate	8.9	0.5	0.2	1.2	4.9	1	1.8	2.1	3.5	7.5	1.6	2.9	0	0.3	0	2.1	6.1	0.8	0	2.5
Leptospirosis	Cases	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	1	0	0
	Rate	0	0.7	1.2	0.8	0.8	0	1.8	2.1	0	1.2	1.6	0	2.8	0.3	0	2.1	0	0.4	0	1
Listeriosis	Cases	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Malaria	Cases	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rate	0.6	0.9	2.2	0.4	0.3	0	0.9	0	0	0.6	0	0.6	1.4	0	2.3	0.7	0	0.6	0	0
Measles	Cases	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rate	3.6	0.3	0.4	1.2	14.6	0	0	0	0	0	0	12.2	0.7	1.7	0	2.1	0	0.2	0	0.3
Meningococcal disease	Cases	0	3	0	0	1	0	2	0	0	0	0	0	0	1	1	1	0	2	0	1
	Rate	1.8	1	1	2.3	2	1	3.2	0	0	0.6	0	0.6	0	3	2.3	0.7	0	0.6	0	6.1
Mumps	Cases	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	Rate	0	1.2	0.2	0.8	0	0	0	0	0	0.6	0	0	0	0	0	0.7	3.1	0	0	0.3
Paratyphoid fever	Cases	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	Rate	0	0.3	1.8	1	0	1	0.5	0	0.9	1.9	0	0	0.7	1	2.3	0	0	1	0	0.6
Pertussis	Cases	2	4	4	3	15	11	7	1	12	1	0	11	0	6	0	7	0	23	2	7
	Rate	4.8	13.9	11.8	10.2	36.4	37.2	22.1	4.2	67.3	9.3	12.8	17.4	15.3	31.2	2.3	32.5	6.1	55.5	15.4	15.6
Q fever	Cases	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rheumatic fever ⁴	Cases	0	1	0	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0
	Rate	2.4	3.1	5.3	9.2	1.5	4.8	3.6	4.2	0.9	5.6	0	2.3	2.1	2.3	0	0	0	0.6	0	0.3
Rickettsial disease	Cases	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rate	0	0.5	0	0.2	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rubella	Cases	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rate	0	0.2	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0.2	0	0
Salmonellosis	Cases	2	4	6	6	14	1	1	1	5	6	0	4	2	6	1	4	1	10	0	9
	Rate	19	20.3	21.4	13.6	27.4	22.9	17.6	120.3	22.4	24.3	16	26.7	22.9	24.2	25.5	22.1	18.3	26.8	35.8	36.3
Shigellosis	Cases	0	6	2	4	1	0	2	0	0	0	0	0	2	1	0	0	0	0	0	0
	Rate	1.8	6.6	5.1	6.1	4.1	0	4.1	8.4	0	0.6	1.6	0	2.1	2.7	0	1.4	0	1.7	0	1.9
Tuberculosis disease	Cases	1	4	8	5	1	0	0	0	1	1	0	0	1	5	0	1	0	2	1	3
	Rate	1.2	6.3	11.6	11.5	7.4	5.7	5	2.1	2.6	8.1	3.2	4.6	3.5	6.6	2.3	3.5	3.1	5.7	5.1	2.5
Typhoid fever	Cases	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rate	0	0.3	3.1	2.9	0.8	1	0.9	0	0	0	0	0	0	0.3	0	1.4	0	0.2	0	0.6
Viral Haemorrhagic Fever	Cases	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rate	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VTEC/STEC infection	Cases	4	5	2	5	3	2	1	0	0	2	0	0	0	0	1	1	0	0	3	8
	Rate	30.3	17.2	9.6	14.2	11.3	5.7	9.9	0	12.1	5.6	6.4	2.9	2.8	0.7	2.3	4.8	3.1	3.2	11.9	9.9
Yersiniosis	Cases	5	10	9	2	7	2	23	2	2	4	1	3	5	6	0	0	1	28	1	5
	Rate	15.4	17.9	17.8	10.4	12.5	21	19	12.7	5.2	12.5	9.6	8.1	22.9	28.6	11.6	5.5	24.5	35.2	27.3	17.8

¹ These data are provisional.

² Current rate is based on the cumulative total for the 12 months up to and including November 2016 expressed as cases per 100,000. This includes cases still under investigation.

³ Further data are available from the local Medical Officer of Health.

⁴ Rates are based on report date. This may not be a good indicator of newly incident cases as a high proportion of notifications have substantial reporting delays.

National Notifiable Disease Surveillance Data November 2016

Disease	Current Year - 2016 ¹			Previous Year - 2015		
	November 2016 Cases	Cumulative total since 1 January	Current 12 Month Rate ²	November 2015 Cases	Cumulative total since 1 January	Current 12 Month Rate ²
Campylobacteriosis	1103	6662	161.4	779	5462	138.3
Cryptosporidiosis	95	1014	22.8	66	664	15
Dengue fever	13	186	4.2	6	119	2.9
Gastroenteritis ³	41	492	12.1	50	437	10.7
Giardiasis	129	1513	35.4	139	1398	33.1
Haemophilus influenzae type b	1	4	0.1	0	3	0.1
Hepatitis A	3	30	0.7	5	44	1
Hepatitis B ⁴	6	31	0.7	2	32	0.7
Hepatitis C ⁴	3	31	0.7	5	34	0.7
Invasive pneumococcal disease	42	443	10.4	47	413	9.9
Legionellosis	35	234	6.2	42	197	4.7
Leptospirosis	15	88	2	7	61	1.5
Listeriosis	4	34	0.8	3	22	0.5
Malaria	0	25	0.7	1	32	0.7
Measles	1	104	2.3	0	9	0.2
Meningococcal disease	12	72	1.7	4	59	1.3
Mumps	4	15	0.3	0	12	0.3
Paratyphoid fever	1	31	0.7	3	31	0.7
Pertussis	116	990	23.5	109	1080	24.7
Rheumatic fever ⁵	4	139	3.2	9	106	2.5
Rickettsial disease	0	6	0.1	0	8	0.2
Rubella	0	3	0.1	0	0	0
Salmonellosis	83	1025	24	72	972	23.1
Shigellosis	18	153	3.4	8	107	2.5
Tuberculosis disease	34	271	6.5	26	263	6.4
Typhoid fever	3	37	1	9	36	0.9
Viral Haemorrhagic Fever	0	1	0	0	0	0
VTEC/STEC infection	37	410	9.7	27	295	6.7
Yersiniosis	116	791	18.1	116	593	13.7

¹ These data are provisional.

² Rate is based on the cumulative total for the current year (12 months up to and including November 2016) or the previous year (12 months up to and including November 2015), expressed as cases per 100,000. This includes cases still under investigation.

³ Cases of gastroenteritis from a common source or foodborne intoxication.

⁴ Only acute cases of this disease are currently notifiable.

⁵ Numbers are based on report date. This may not be a good indicator of newly incident cases as a high proportion of notifications have substantial reporting delays.

Other notifiable infectious disease reported in November: Chikungunya fever (2), Hepatitis NOS (1), Ross River virus infection (1), Tetanus (1).

National Notifiable Disease Surveillance Data – Monthly totals for November 2016 and preceding 11 Months¹

Disease	Nov 2016	Oct 2016	Sep 2016	Aug 2016	Jul 2016	Jun 2016	May 2016	Apr 2016	Mar 2016	Feb 2016	Jan 2016	Dec 2015
Campylobacteriosis	1103	855	572	1109	342	334	391	364	418	454	720	756
Cryptosporidiosis	95	202	213	129	51	48	77	65	51	42	41	32
Dengue fever	13	10	12	12	14	21	19	8	21	41	15	6
Gastroenteritis ²	41	37	54	62	53	43	34	43	50	41	34	66
Giardiasis	129	142	128	129	95	121	129	144	182	181	133	112
Haemophilus influenzae type b	1	1	0	1	0	0	0	0	0	0	1	0
Hepatitis A	3	1	3	1	5	1	7	1	4	2	2	3
Hepatitis B ³	6	3	4	1	5	1	3	3	1	4	0	2
Hepatitis C ³	3	1	3	4	2	0	2	4	4	3	5	1
Invasive pneumococcal disease	42	41	69	49	60	48	45	28	24	13	24	34
Legionellosis	35	15	23	14	7	15	18	23	23	21	40	50
Leptospirosis	15	7	7	10	11	6	10	9	5	5	3	2
Listeriosis	4	2	1	3	1	3	4	5	6	2	3	4
Malaria	0	2	0	3	2	3	4	1	3	4	3	6
Measles	1	1	1	3	5	32	41	14	0	5	1	1
Meningococcal disease	12	7	7	12	10	4	8	2	3	1	6	5
Mumps	4	5	3	1	0	0	0	1	1	0	0	1
Paratyphoid fever	1	4	1	4	1	3	1	5	5	4	2	3
Pertussis	116	103	113	83	67	72	70	77	81	84	124	88
Rheumatic fever ⁴	4	10	16	17	11	15	23	15	9	9	10	6
Rickettsial disease	0	1	0	0	0	1	1	1	0	0	2	0
Rubella	0	0	0	0	0	0	1	0	1	1	0	0
Salmonellosis	83	92	92	99	57	67	81	107	102	133	112	79
Shigellosis	18	15	17	21	8	12	10	11	9	15	17	4
Tuberculosis disease	34	27	22	16	20	27	28	25	22	27	23	30
Typhoid fever	3	3	1	2	1	4	2	5	4	5	7	7
Viral Haemorrhagic Fever	0	0	0	0	0	0	0	0	0	0	1	0
VTEC/STEC infection	37	39	23	23	19	15	36	53	54	75	36	35
Yersiniosis	116	110	80	79	60	54	68	77	46	39	62	41

¹ These data are provisional.

² Cases of gastroenteritis from a common source or foodborne intoxication.

³ Only acute cases of this disease are currently notifiable.

⁴ Numbers are based on report date. This may not be a good indicator of newly incident cases as a high proportion of notifications have substantial reporting delays.