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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 25 January 2017. 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: 796 cases of campylobacteriosis (789 confirmed, 3 probable and 4 under investigation) were notified in December 2016 compared to 756 cases notified during the same month of the previous year. After further investigation, one case has since been found not to meet the case criteria. The highest rates were reported in Hawke's Bay (830.5 cases per 100,000 population, 37 cases), South Canterbury (256.0 per 100,000, 13 cases) and Taranaki (203.6 per 100,000, 38 cases) DHBs, compared to a national rate of 162.3 per 100,000. Fifty-six people were hospitalised. Cases ranged in age from 1 month to 97 years, and the highest numbers of cases were reported in the 20–29 years (127 cases) and 50–59 years (110 cases) age groups. Two finalised *Campylobacter* outbreaks (8 cases total) and one interim outbreak (case numbers yet to be determined) were created in December.

Chikungunya fever: One confirmed case of chikungunya fever was notified in December 2016. Twenty-eight cases have been notified in the year compared to 48 in the previous year. The case was a female in the 70 years and over age group from Bay of Plenty DHB. The case reported overseas travel to India during the incubation period for the disease.

Cryptosporidiosis: 48 confirmed cases of cryptosporidiosis were notified in December 2016 compared to 32 cases notified during the same month of the previous year. The 12-month rate for the period ending 31 December (23.1 cases per 100,000 population) was higher than at the same time in the previous year (15.1 per 100,000). Cases notified in December ranged in age from 10 months to 85 years, with the highest numbers of cases in the 1–4 years (17 cases) and 30–39 years (10 cases) age groups. Among the cases for which risk factor information was recorded, 56.5% (13/23) had recreational contact with water, 47.8% (11/23) had contact with other symptomatic people, and 35.0% (7/20) had attended school, preschool or childcare during the incubation period for the disease. One finalised *Cryptosporidium* outbreak (2 cases) and two interim outbreaks (case numbers yet to be determined) were created in December.

Haemophilus influenzae serotype b disease: Seven cases of *H. influenzae* serotype b disease were notified in December 2016. After further investigation, all cases have since been found not to meet the case criteria.

Hepatitis NOS: One confirmed case of hepatitis NOS (hepatitis D) was notified in December 2016. The case was a male in the 40–49 years age group from Counties Manukau DHB and was known to have chronic Hepatitis B.

Listeriosis: One confirmed case of perinatal listeriosis and two cases of non-perinatal listeriosis (1 confirmed and 1 under investigation) were notified in December 2016. The mother in the perinatal case was in the 30–39 years age group and was from Canterbury DHB. Intrauterine death occurred and the foetus was delivered at 24 weeks. The non-perinatal cases were in the 30–39 years and 70 years and over age groups, and were from Capital & Coast and Nelson Marlborough DHBs, respectively. Risk factor information was recorded for one non-perinatal case; the case had an underlying illness. The serotype was identified for the perinatal case and the confirmed non-perinatal case as *L. monocytogenes* serotype O1/2.

Meningococcal disease: Four confirmed cases of meningococcal disease were notified in December 2016 compared to five cases notified during the same month of the previous year (Figure 1). Cases were reported from Auckland, Hawke's Bay, MidCentral and Capital & Coast DHBs (1 case each). Cases were in the less than 1 year, 1–4 years, 40–49 years and 70 years and over age groups (1 case each). All cases were hospitalised and no deaths were reported. All cases were laboratory confirmed and the group was determined for all cases: group B (4 cases, including 2 NZ B:P1.7-2,4).

Pertussis: 124 cases of pertussis (68 confirmed, 51 probable and 5 under investigation) were notified in December 2016 compared to 88 cases 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 for the period ending 31 December (24.0 cases per 100,000) was lower than at the same time in the previous year (25.4 per 100,000). Twelve cases were hospitalised and no deaths were reported. Sixty percent (72/121) of cases were laboratory-confirmed (11 by culture, 57 by PCR, and 4 by culture and PCR). The highest number of cases was reported from Capital & Coast (30 cases), followed by Canterbury (27 cases) and Southern (16 cases) DHBs. Cases ranged in age from 23 days to 91 years, with 12.4% (15/121) under 5 years of age (including 5 cases aged less than 1 year). The highest numbers of cases were in the 10–14 years (22 cases) and 5–9 years (17 cases) age groups. Two finalised *B. pertussis* outbreaks (8 cases total) and one interim outbreak (case numbers yet to be determined) were created in December.

Shigellosis: 21 confirmed cases of shigellosis were notified in December compared with four cases notified during the same month of the previous year (Figure 2). The 12-month rate for the period ending 31 December (3.8 cases per 100,000 population) was higher than at the same time in the previous year (2.4 per 100,000). The highest numbers of cases were reported from Auckland (6 cases) and Waitemata (5 cases) DHBs. The serotype involved was recorded for all cases: *S. sonnei* biotype g (11 cases), *S. flexneri* 6 biotype Boyd 88 (5 cases), *S. flexneri* 1b (2 cases), *S. sonnei*, *S. sonnei* biotype a and *S. sonnei* biotype f (1 case each). Information on overseas travel during the incubation period was recorded for 85.7% (18/21) of cases, of which 44.4% (8/18) of cases recorded overseas travel during the incubation period for the disease. Countries visited included: Samoa (2 cases), Indonesia, Nicaragua, Philippines, Tonga and Viet Nam (1 case each). One case reported overseas travel to more than one country (North America nfd, Mexico and Cuba). One finalised *Shigella* outbreak was created in December (5 cases).

VTEC/STEC infection: 20 cases of VTEC/STEC infection (19 confirmed and 1 under investigation) were notified in December compared to 35 cases confirmed during the same month of the previous year (Figure 2). After further investigation, one case has since been found not to meet the case criteria. The 12-month rate for the period ending 31 December (9.2 cases per 100,000 population) was higher than for the same period in the previous year (7.2 per 100,000). The highest numbers of cases were reported from Counties Manukau (5 cases) and Waitemata (4 cases) DHBs. Cases ranged in age from 12 months to 86 years, with the highest number of cases in the 1–4 years and 60–69 years age groups (4 cases each). Three cases were hospitalised. Fifteen 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 (4 cases) and non-O157 (8 cases). Three cases have verocytotoxin detected but a serotype has not yet been identified. Of the cases for which risk factor information was recorded, 84.6% (11/13) had contact with animals, 23.1% (3/13) had recreational contact with water, 21.4% (3/14) had contact with a person with similar symptoms, and 14.3% (1/7) had contact with children in nappies during the incubation period for the disease. One finalised VTEC/STEC outbreak was created in December (2 cases).

Yersiniosis: 70 cases of yersiniosis (68 confirmed and 2 under investigation) were notified in December 2016 compared to 41 cases notified in the same month of the previous year. After further investigation, one case has since been found to not meet the case criteria. The 12-month rate for the period ending 31 December (18.7 per 100,000 population) was higher than at the same time in the previous year (13.8 per 100,000). The highest number of cases was reported from Auckland DHB (11 cases). Cases ranged in age from 6 months

to 81 years, with the highest numbers of cases in the 50–59 years (14 cases) and 1–4 years (13 cases) age groups. Eight cases were hospitalised. The *Yersinia* species involved was identified by ESR for 87.0% (60/69) cases; *Y. enterocolitica* (59 cases) and *Y. pseudotuberculosis* (1 case). The most common *Y. enterocolitica* biotypes reported were biotype 2 (38 cases) and 1A (12 cases). Among the cases for which risk factor information was recorded, 59.4% (19/32) had consumed food from a food premises, 28.1% (9/32) had recreational contact with water, 23.3% (7/30) had contact with faecal matter or vomit, and 12.9% (4/31) attended school, preschool or childcare during the incubation period for the disease.

2. Outbreaks

During December 2016, a total of 51 outbreaks (26 final and 25 interim) were created in EpiSurv (Table 1 and Table 2). Thirty-four (66.7%) were outbreaks of acute gastroenteritis (17 finalised and 17 interim) involving 288 cases in total. This compares with 36 acute gastroenteritis outbreaks involving 687 cases in total created during the same month of the previous year. Of the 34 acute gastroenteritis outbreaks, the pathogens were recorded as: norovirus (7 outbreaks) and *Staphylococcus* (one outbreak). The most commonly reported mode of transmission in acute gastroenteritis outbreaks (47.1%, 16/34) was person-to-person (13 primary and 3 secondary). Of the outbreaks that had an exposure setting recorded (79.4%, 27/34) the most commonly reported settings were long term care facilities (10 outbreaks) and childcare centres (6 outbreaks).

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

Organism/Toxin/Illness	DHB(s) where exposure occurred	Number of outbreaks	Total number of cases
Bordetella pertussis	Taranaki, Southern	2	8
Campylobacter[1]	Southern, Nelson Marlborough	2	8
Cryptosporidium	Auckland	1	2
Gastroenteritis	Waitemata, Auckland, Counties Manukau, Waikato, Hawke's Bay, Canterbury, Southern	10	132
Giardia[1]	Waitemata, Bay of Plenty, Nelson Marlborough	3	11
Norovirus	Auckland, Bay of Plenty, Taranaki, Wairarapa, Canterbury	6	114
Shigella	Counties Manukau	1	5
Staphylococcus	West Coast	1	8
VTEC/STEC	Counties Manukau	1	2
Total		**26**	**285**

[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 December 2016: gastroenteritis and *Shigella* (one each) reported in November.

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

Organism/Toxin/Illness	DHB(s) where exposure occurred	Number of outbreaks	Total number of cases
Bordetella pertussis	Capital & Coast	1	3
Campylobacter[2]	Hutt Valley, Canterbury	2	2
Cryptosporidium	Auckland, Canterbury	2	11
Gastroenteritis[1, 2]	Northland, Waikato, Hutt Valley, Capital & Coast Canterbury, Southern	16	14
Giardia[2]	Southern	1	-
Mycobacterium tuberculosis[1]	Hawke's Bay	1	13
Norovirus	Wairarapa	1	20
Salmonella[3]	Southern	1	3
Total		**25**	**66**

[1] Includes outbreak reported to PHSs prior to December 2016: gastroenteritis and *M. tuberculosis* (one each) reported in November.
[2] Interim outbreak(s) where total number of cases had not been completed.
[3] Includes outbreak with an overseas exposure transmission (Philippines).

3. Deaths from notifiable diseases

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

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

Disease	District health board	Age group (years)
Invasive pneumococcal disease	Auckland	50–59
Invasive pneumococcal disease	Canterbury	50–59
Listeriosis – perinatal	Canterbury	n/a

4. Trends in selected diseases to December 2016

Figure 1. Meningococcal disease notifications by month, January 2009–December 2016

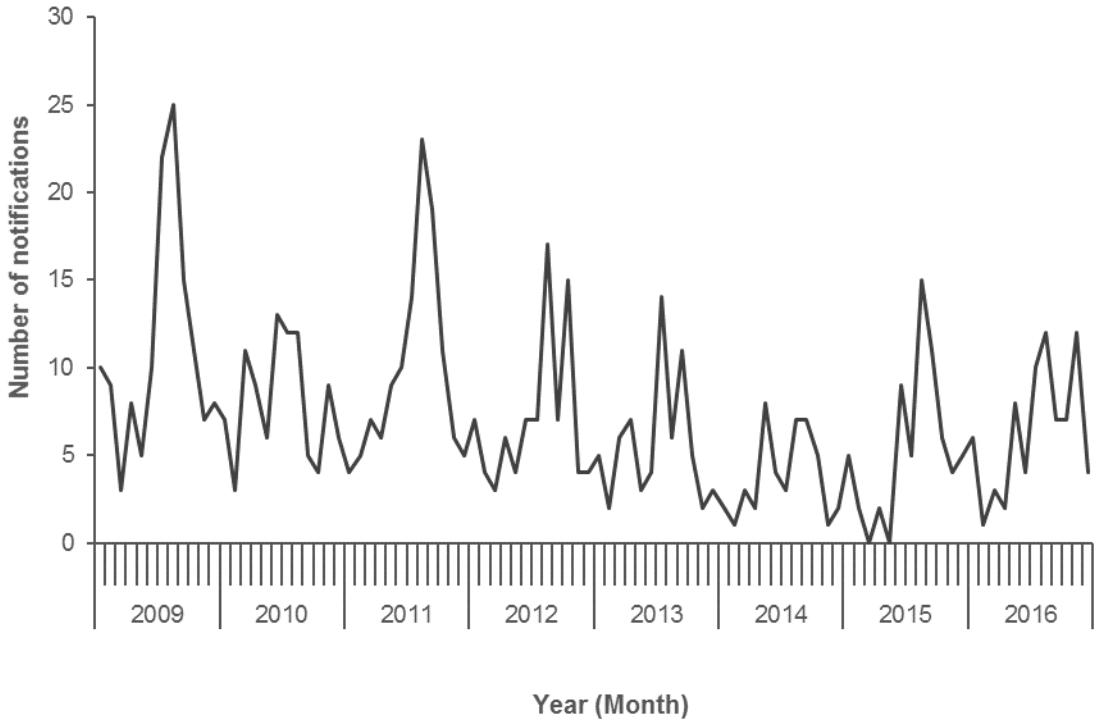
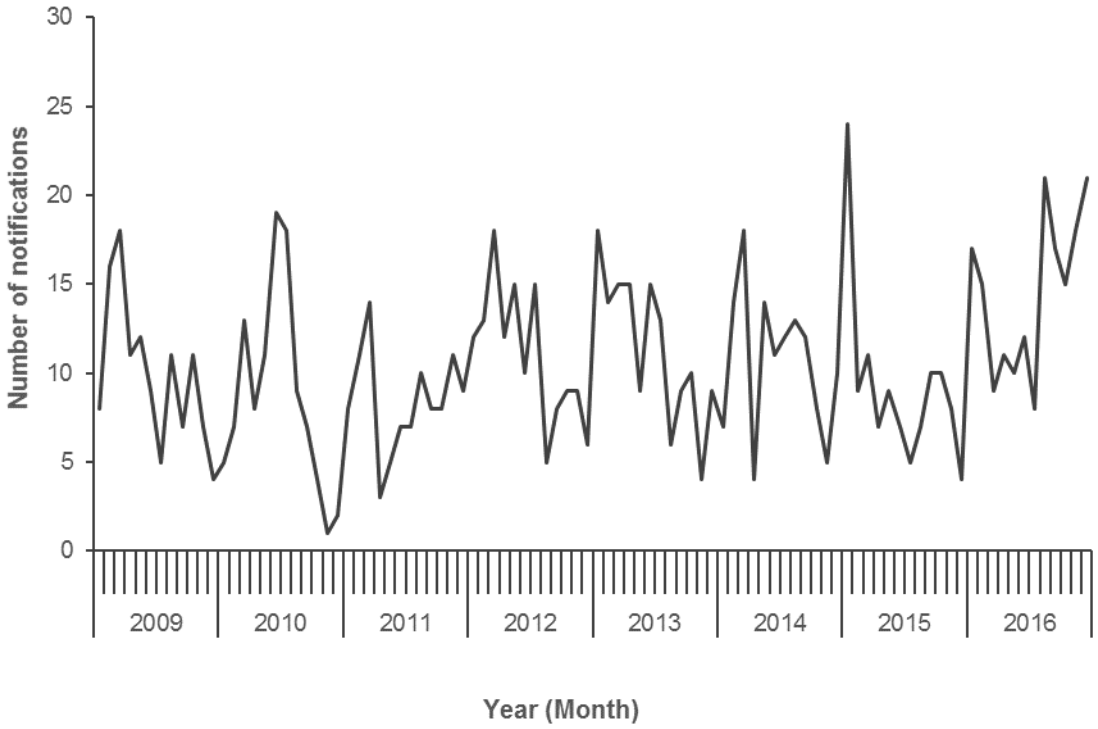


Figure 2. Shigellosis notifications by month, January 2009–December 2016



5. Data tables

National Notifiable Disease Surveillance Data December 2016

Disease	Current Year - 2016[1]			Previous Year - 2015		
	December 2016 Cases	Cumulative total since 1 January	Current 12 Month Rate[2]	December 2015 Cases	Cumulative total since 1 January	Current 12 Month Rate[2]
Campylobacteriosis	796	7457	162.3	756	6218	135.3
Cryptosporidiosis	48	1061	23.1	32	696	15.1
Dengue fever	7	193	4.2	6	125	2.7
Gastroenteritis[3]	33	524	11.4	66	503	10.9
Giardiasis	100	1615	35.1	112	1510	32.9
Haemophilus influenzae type b	7	10	0.2	0	3	0.1
Hepatitis A	4	34	0.7	3	47	1
Hepatitis B[4]	6	37	0.8	2	34	0.7
Hepatitis C[4]	4	34	0.7	1	35	0.8
Invasive pneumococcal disease	35	477	10.4	34	447	9.7
Legionellosis	21	253	5.5	50	247	5.4
Leptospirosis	8	93	2	2	63	1.4
Listeriosis	3	37	0.8	4	26	0.6
Malaria	1	26	0.6	6	38	0.8
Measles	0	103	2.2	1	10	0.2
Meningococcal disease	4	76	1.7	5	64	1.4
Mumps	10	23	0.5	1	13	0.3
Paratyphoid fever	1	32	0.7	3	34	0.7
Pertussis	124	1102	24	88	1168	25.4
Rheumatic fever[5]	3	142	3.1	6	112	2.4
Rickettsial disease	0	6	0.1	0	8	0.2
Rubella	0	3	0.1	0	0	0
Salmonellosis	72	1097	23.9	79	1051	22.9
Shigellosis	21	174	3.8	4	111	2.4
Tuberculosis disease	34	302	6.6	30	293	6.4
Typhoid fever	1	38	0.8	7	43	0.9
Viral Haemorrhagic Fever	0	1	0	0	0	0
VTEC/STEC infection	20	422	9.2	35	330	7.2
Yersiniosis	70	858	18.7	41	634	13.8

[1] These data are provisional.

[2] Rate is based on the cumulative total for the current year (12 months up to and including December 2016) or the previous year (12 months up to and including December 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 December: Chikungunya fever (1) , Hepatitis NOS (1).

Notifiable Disease Surveillance Data by District Health Board December 2016

Disease		Cases[1] and current rate[2] for December 2016 by District Health Board[3]																			
		Northland	Waitemata	Auckland	Counties Manukau	Waikato	Lakes	Bay of Plenty	Tairawhiti	Taranaki	Hawke's Bay	Whanganui	MidCentral	Hutt Valley	Capital and Coast	Wairarapa	Nelson Marlborough	West Coast	Canterbury	South Canterbury	Southern
Campylobacteriosis	Cases	28	95	69	51	61	12	24	10	38	37	10	42	32	53	10	20	10	97	13	84
	Rate	171.7	134.3	106.1	97	144.4	124	111.1	156.1	203.6	830.5	162.9	170.8	135.4	137.2	169	119.5	177.4	144.8	256	180.3
Cryptosporidiosis	Cases	1	8	12	1	0	1	2	0	0	0	0	4	0	0	0	1	0	17	0	1
	Rate	63	25.2	20.6	18	31.2	21	7.2	25.3	38	15	31.9	32	9	20.6	46.3	15.9	6.1	20	27.3	18.8
Dengue fever	Cases	1	3	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	0	0
	Rate	1.2	4	4.9	7.5	3.1	1	6.8	6.3	3.5	5.6	0	1.7	4.2	6	2.3	5.5	0	2.7	1.7	3.2
Gastroenteritis	Cases	3	2	4	1	0	0	0	0	0	0	2	0	2	5	2	0	4	3	0	5
	Rate	9.5	9.7	20.6	8.8	2	11.5	12.6	2.1	6.9	1.9	22.4	25	20.1	24.6	20.8	2.1	24.5	8.7	0	6.1
Giardiasis	Cases	3	19	9	9	7	3	4	7	1	6	2	3	1	7	1	3	1	8	0	6
	Rate	33.9	33.9	36.7	35.5	33.8	45.8	32.1	158.2	34.5	48	28.8	22.7	22.9	41.5	25.5	33.8	21.4	31.7	27.3	28.7
Haemophilus influenzae type b	Cases	0	1	0	3	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0
	Rate	0	0.2	0.2	0.8	0	0	0.5	0	0	0.6	0	0	0	0	0	0	0	0.4	0	0
Hepatitis A	Cases	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	Rate	1.2	1.2	1.2	0.8	0	0	0	0	0.9	0	0	0	0.7	1.7	0	2.8	3.1	0.2	0	0.6
Hepatitis B	Cases	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
	Rate	0.6	0.5	1.8	1.3	0.8	0	0.5	0	1.7	0.6	0	0	0	1	2.3	0	0	0.8	0	0.6
Hepatitis C	Cases	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	2	0	0
	Rate	0.6	0	0	0	0	1	0	0	2.6	0.6	0	0	2.1	0.3	2.3	4.1	0	1.9	5.1	1.3
Invasive pneumococcal	Cases	2	3	2	5	1	2	1	0	0	1	0	0	1	3	0	2	0	8	1	3
	Rate	19	9.6	11.2	16.5	7.7	21	14.9	14.8	2.6	8.1	8	5.2	6.3	8.6	6.9	6.2	0	8.4	18.8	8
Legionellosis	Cases	1	3	2	0	3	0	4	0	1	0	0	0	0	0	0	2	1	4	0	0
	Rate	14.3	5.6	5.3	4.4	4.1	1.9	11.3	0	3.5	2.5	1.6	2.3	6.3	3.7	6.9	8.3	9.2	7.2	3.4	4.5
Leptospirosis	Cases	0	0	0	0	3	0	1	0	1	1	1	0	0	0	0	0	0	0	0	1
	Rate	8.9	0.5	0.2	1	5.6	1	2.3	2.1	4.3	8.1	3.2	2.3	0	0.3	0	2.1	3.1	0.4	0	2.9
Listeriosis	Cases	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0
	Rate	0	0.7	1	0.8	0.8	0	1.8	2.1	0	1.2	0	0	2.8	0.7	0	2.1	0	0.6	0	0.6
Malaria	Cases	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rate	0.6	0.9	1.8	0	0.5	0	0.9	0	0	0.6	0	0.6	0	0	2.3	0.7	0	0.6	0	0
Measles	Cases	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rate	3.6	0.3	0.4	1.2	14.3	0	0	0	0	0	0	12.2	0.7	1.7	0	2.1	0	0	0	0.3
Meningococcal disease	Cases	0	0	1	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0
	Rate	1.2	0.9	1	2.3	2	1	3.2	0	0	1.2	0	1.2	0	2.7	2.3	0.7	0	0.6	0	6.1
Mumps	Cases	0	2	1	3	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0
	Rate	0	1.2	0.4	1.2	0	1.9	0	0	0	0.6	0	0	0	0.7	0	0.7	3.1	0	0	0.3
Paratyphoid fever	Cases	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Rate	0	0.3	1.8	0.8	0	0	0.5	0	0.9	1.9	0	0	0.7	0.7	2.3	0	0	1	0	1
Pertussis	Cases	2	10	3	6	2	6	3	0	9	1	2	3	0	30	0	4	0	27	0	16
	Rate	5.9	14.6	11.2	9.6	33.5	42	23	4.2	73.3	10	16	15.7	12.5	40.5	2.3	28.3	6.1	53.6	13.7	20.1
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	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rate	2.4	2.8	5.5	9	1.5	4.8	3.6	4.2	0.9	5	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	7	5	5	6	10	0	4	0	2	3	1	3	0	3	2	2	1	7	3	8
	Rate	22.6	19.8	21	14.4	29.4	21.9	18.5	109.7	23.3	23.7	17.6	26.1	22.2	22.6	27.8	20.7	21.4	25.9	37.5	34.4
Shigellosis	Cases	1	5	6	3	0	0	0	0	0	2	0	0	1	1	0	0	0	1	0	1
	Rate	2.4	7.3	6.3	6.5	4.1	0	3.6	8.4	0	1.9	1.6	0	2.8	2.7	0	1.4	0	1.9	0	2.2
Tuberculosis disease	Cases	0	3	6	7	2	0	0	0	1	3	0	0	0	5	2	1	0	4	0	0
	Rate	1.2	5.7	12	11.9	6.7	5.7	5	2.1	2.6	10	3.2	4.1	2.8	7.3	6.9	3.5	3.1	5.7	3.4	2.2
Typhoid fever	Cases	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rate	0	0.5	2.4	2.5	0.8	1	0.9	0	0	0	0	0	0	0.3	0	0.7	0	0.2	0	0.3
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	1	5	1	5	0	1	0	0	1	0	0	0	0	0	0	2	0	1	1	2
	Rate	27.3	16	9.2	12.5	11	6.7	9.5	0	12.1	5.6	6.4	2.9	2.8	0.7	2.3	6.2	3.1	3	11.9	9.9
Yersiniosis	Cases	1	6	11	5	6	3	8	1	1	1	0	1	3	9	0	1	0	9	0	4
	Rate	16	18.2	19.8	10.5	13.6	23.9	22.6	12.7	6	11.8	9.6	8.1	20.8	29.2	11.6	6.2	18.3	35.4	25.6	17.5

[1] These data are provisional.

[2] Current rate is based on the cumulative total for the 12 months up to and including December 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 December 2016

Disease		Cases[1] and current rate[2] for December 2016 by District Health Board[3]																			
		Northland	Waitemata	Auckland	Counties Manukau	Waikato	Lakes	Bay of Plenty	Tairawhiti	Taranaki	Hawke's Bay	Whanganui	MidCentral	Hutt Valley	Capital and Coast	Wairarapa	Nelson Marlborough	West Coast	Canterbury	South Canterbury	Southern
Campylobacteriosis	Cases	28	95	69	51	61	12	24	10	38	37	10	42	32	53	10	20	10	97	13	84
	Rate	171.7	134.3	106.1	97	144.4	124	111.1	156.1	203.6	830.5	162.9	170.8	135.4	137.2	169	119.5	177.4	144.8	256	180.3
Cryptosporidiosis	Cases	1	8	12	1	0	1	2	0	0	0	0	4	0	0	0	1	0	17	0	1
	Rate	63	25.2	20.6	18	31.2	21	7.2	25.3	38	15	31.9	32	9	20.6	46.3	15.9	6.1	20	27.3	18.8
Dengue fever	Cases	1	3	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	0	0
	Rate	1.2	4	4.9	7.5	3.1	1	6.8	6.3	3.5	5.6	0	1.7	4.2	6	2.3	5.5	0	2.7	1.7	3.2
Gastroenteritis	Cases	3	2	4	1	0	0	0	0	0	0	2	0	2	5	2	0	4	3	0	5
	Rate	9.5	9.7	20.6	8.8	2	11.5	12.6	2.1	6.9	1.9	22.4	25	20.1	24.6	20.8	2.1	24.5	8.7	0	6.1
Giardiasis	Cases	3	19	9	9	7	3	4	7	1	6	2	3	1	7	1	3	1	8	0	6
	Rate	33.9	33.9	36.7	35.5	33.8	45.8	32.1	158.2	34.5	48	28.8	22.7	22.9	41.5	25.5	33.8	21.4	31.7	27.3	28.7
Haemophilus influenzae type b	Cases	0	1	0	3	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0
	Rate	0	0.2	0.2	0.8	0	0	0.5	0	0	0.6	0	0	0	0	0	0	0	0.4	0	0
Hepatitis A	Cases	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	Rate	1.2	1.2	1.2	0.8	0	0	0	0	0.9	0	0	0	0.7	1.7	0	2.8	3.1	0.2	0	0.6
Hepatitis B	Cases	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
	Rate	0.6	0.5	1.8	1.3	0.8	0	0.5	0	1.7	0.6	0	0	0	1	2.3	0	0	0.8	0	0.6
Hepatitis C	Cases	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	2	0	0
	Rate	0.6	0	0	0	0	1	0	0	2.6	0.6	0	0	2.1	0.3	2.3	4.1	0	1.9	5.1	1.3
Invasive pneumococcal disease	Cases	2	3	2	5	1	2	1	0	0	1	0	0	1	3	0	2	0	8	1	3
	Rate	19	9.6	11.2	16.5	7.7	21	14.9	14.8	2.6	8.1	8	5.2	6.3	8.6	6.9	6.2	0	8.4	18.8	8
Legionellosis	Cases	1	3	2	0	3	0	4	0	1	0	0	0	0	0	0	2	1	4	0	0
	Rate	14.3	5.6	5.3	4.4	4.1	1.9	11.3	0	3.5	2.5	1.6	2.3	6.3	3.7	6.9	8.3	9.2	7.2	3.4	4.5
Leptospirosis	Cases	0	0	0	0	3	0	1	0	1	1	1	0	0	0	0	0	0	0	0	1
	Rate	8.9	0.5	0.2	1	5.6	1	2.3	2.1	4.3	8.1	3.2	2.3	0	0.3	0	2.1	3.1	0.4	0	2.9
Listeriosis	Cases	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0
	Rate	0	0.7	1	0.8	0.8	0	1.8	2.1	0	1.2	0	0	2.8	0.7	0	2.1	0	0.6	0	0.6
Malaria	Cases	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rate	0.6	0.9	1.8	0	0.5	0	0.9	0	0	0.6	0	0.6	0	0	2.3	0.7	0	0.6	0	0
Measles	Cases	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rate	3.6	0.3	0.4	1.2	14.3	0	0	0	0	0	0	12.2	0.7	1.7	0	2.1	0	0	0	0.3
Meningococcal disease	Cases	0	0	1	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0
	Rate	1.2	0.9	1	2.3	2	1	3.2	0	0	1.2	0	1.2	0	2.7	2.3	0.7	0	0.6	0	6.1
Mumps	Cases	0	2	1	3	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0
	Rate	0	1.2	0.4	1.2	0	1.9	0	0	0	0.6	0	0	0	0.7	0	0.7	3.1	0	0	0.3
Paratyphoid fever	Cases	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Rate	0	0.3	1.8	0.8	0	0	0.5	0	0.9	1.9	0	0	0.7	0.7	2.3	0	0	1	0	1
Pertussis	Cases	2	10	3	6	2	6	3	0	9	1	2	3	0	30	0	4	0	27	0	16
	Rate	5.9	14.6	11.2	9.6	33.5	42	23	4.2	73.3	10	16	15.7	12.5	40.5	2.3	28.3	6.1	53.6	13.7	20.1
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	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rate	2.4	2.8	5.5	9	1.5	4.8	3.6	4.2	0.9	5	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	7	5	5	6	10	0	4	0	2	3	1	3	0	3	2	2	1	7	3	8
	Rate	22.6	19.8	21	14.4	29.4	21.9	18.5	109.7	23.3	23.7	17.6	26.1	22.2	22.6	27.8	20.7	21.4	25.9	37.5	34.4
Shigellosis	Cases	1	5	6	3	0	0	0	0	0	2	0	0	1	1	0	0	0	1	0	1
	Rate	2.4	7.3	6.3	6.5	4.1	0	3.6	8.4	0	1.9	1.6	0	2.8	2.7	0	1.4	0	1.9	0	2.2
Tuberculosis disease	Cases	0	3	6	7	2	0	0	0	1	3	0	0	0	5	2	1	0	4	0	0
	Rate	1.2	5.7	12	11.9	6.7	5.7	5	2.1	2.6	10	3.2	4.1	2.8	7.3	6.9	3.5	3.1	5.7	3.4	2.2
Typhoid fever	Cases	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rate	0	0.5	2.4	2.5	0.8	1	0.9	0	0	0	0	0	0	0.3	0	0.7	0	0.2	0	0.3
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	1	5	1	5	0	1	0	0	1	0	0	0	0	0	0	2	0	1	1	2
	Rate	27.3	16	9.2	12.5	11	6.7	9.5	0	12.1	5.6	6.4	2.9	2.8	0.7	2.3	6.2	3.1	3	11.9	9.9
Yersiniosis	Cases	1	6	11	5	6	3	8	1	1	1	0	1	3	9	0	1	0	9	0	4
	Rate	16	18.2	19.8	10.5	13.6	23.9	22.6	12.7	6	11.8	9.6	8.1	20.8	29.2	11.6	6.2	18.3	35.4	25.6	17.5

[1] These data are provisional.

[2] Current rate is based on the cumulative total for the 12 months up to and including December 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 December 2016

Disease	Current Year - 2016[1]			Previous Year - 2015		
	December 2016 Cases	Cumulative total since 1 January	Current 12 Month Rate[2]	December 2015 Cases	Cumulative total since 1 January	Current 12 Month Rate[2]
Campylobacteriosis	796	7457	162.3	756	6218	135.3
Cryptosporidiosis	48	1061	23.1	32	696	15.1
Dengue fever	7	193	4.2	6	125	2.7
Gastroenteritis[3]	33	524	11.4	66	503	10.9
Giardiasis	100	1615	35.1	112	1510	32.9
Haemophilus influenzae type b	7	10	0.2	0	3	0.1
Hepatitis A	4	34	0.7	3	47	1
Hepatitis B[4]	6	37	0.8	2	34	0.7
Hepatitis C[4]	4	34	0.7	1	35	0.8
Invasive pneumococcal disease	35	477	10.4	34	447	9.7
Legionellosis	21	253	5.5	50	247	5.4
Leptospirosis	8	93	2	2	63	1.4
Listeriosis	3	37	0.8	4	26	0.6
Malaria	1	26	0.6	6	38	0.8
Measles	0	103	2.2	1	10	0.2
Meningococcal disease	4	76	1.7	5	64	1.4
Mumps	10	23	0.5	1	13	0.3
Paratyphoid fever	1	32	0.7	3	34	0.7
Pertussis	124	1102	24	88	1168	25.4
Rheumatic fever[5]	3	142	3.1	6	112	2.4
Rickettsial disease	0	6	0.1	0	8	0.2
Rubella	0	3	0.1	0	0	0
Salmonellosis	72	1097	23.9	79	1051	22.9
Shigellosis	21	174	3.8	4	111	2.4
Tuberculosis disease	34	302	6.6	30	293	6.4
Typhoid fever	1	38	0.8	7	43	0.9
Viral Haemorrhagic Fever	0	1	0	0	0	0
VTEC/STEC infection	20	422	9.2	35	330	7.2
Yersiniosis	70	858	18.7	41	634	13.8

[1] These data are provisional.

[2] Rate is based on the cumulative total for the current year (12 months up to and including December 2016) or the previous year (12 months up to and including December 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

Other notifiable infectious disease reported in December: Chikungunya fever (1) , Hepatitis NOS (1).

EpiSurv data as at 11/01/2017 12:00:00 a.m.

National Notifiable Disease Surveillance Data - Monthly totals for December 2016 and preceding 11 Months[1]

Disease	Dec 2016	Nov 2016	Oct 2016	Sep 2016	Aug 2016	Jul 2016	Jun 2016	May 2016	Apr 2016	Mar 2016	Feb 2016	Jan 2016
Campylobacteriosis	796	1103	855	572	1108	342	334	391	364	418	454	720
Cryptosporidiosis	48	94	202	213	129	51	48	77	65	51	42	41
Dengue fever	7	13	10	12	12	14	21	19	8	21	41	15
Gastroenteritis[2]	33	40	37	54	62	53	43	34	43	50	41	34
Giardiasis	100	130	142	128	129	96	121	129	144	182	181	133
Haemophilus influenzae type b	7	1	0	0	1	0	0	0	0	0	0	1
Hepatitis A	4	3	1	3	1	5	1	7	1	4	2	2
Hepatitis B[3]	6	6	3	4	1	5	1	3	3	1	4	0
Hepatitis C[3]	4	3	1	2	4	2	0	2	4	4	3	5
Invasive pneumococcal disease	35	41	41	69	49	60	48	45	28	24	13	24
Legionellosis	21	34	15	23	13	7	15	18	23	23	21	40
Leptospirosis	8	15	7	7	10	11	6	9	8	5	4	3
Listeriosis	3	4	2	1	3	1	3	4	5	6	2	3
Malaria	1	0	2	0	3	2	3	4	1	3	4	3
Measles	0	0	1	1	3	5	32	41	14	0	5	1
Meningococcal disease	4	12	7	7	12	10	4	8	2	3	1	6
Mumps	10	2	5	3	1	0	0	0	1	1	0	0
Paratyphoid fever	1	1	4	1	4	1	3	1	5	5	4	2
Pertussis	124	109	101	111	83	66	72	70	77	81	84	124
Rheumatic fever[4]	3	4	10	16	17	11	15	23	15	9	9	10
Rickettsial disease	0	0	1	0	0	0	1	1	1	0	0	2
Rubella	0	0	0	0	0	0	0	1	0	1	1	0
Salmonellosis	72	83	92	92	99	57	67	81	107	102	133	112
Shigellosis	21	18	15	17	21	8	12	10	11	9	15	17
Tuberculosis disease	34	35	26	22	12	20	27	28	26	22	27	23
Typhoid fever	1	3	3	1	2	1	4	2	5	4	5	7
Viral Haemorrhagic Fever	0	0	0	0	0	0	0	0	0	0	0	1
VTEC/STEC infection	20	32	38	23	23	19	15	34	53	55	74	36
Yersiniosis	70	113	110	80	79	60	54	68	77	46	39	62

[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.

EpiSurv data as at 11/01/2017 12:00:00 a.m.