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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 12 February 2018. 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

Chikungunya fever: Two cases of chikungunya fever (1 confirmed and 1 under investigation) were notified in January 2018. The cases were in the 30–39 years and 50–59 years age group and had travelled to Cambodia, Thailand and Vietnam during the incubation period. One case reported travel to more than one country.

Dengue Fever: 112 cases of dengue fever (102 confirmed, 4 probable, and 6 cases still under investigation) were notified in January 2018 compared to nine cases notified in January 2017 (Figure 1). All confirmed and probable cases had been overseas during the incubation period. The countries visited included Samoa (89 cases), Fiji (9 cases), Tonga (4 cases), Philippines (3 cases), Australia and Myanmar (1 case each). Two cases reported overseas travel to more than one country.

Mumps: 105 cases of mumps (43 confirmed, 37 probable, and 25 under investigation) were notified in January 2018 compared with 11 cases notified in January 2017 (Figure 2). The 12-month rate for the period ending 31 January was 30.6 cases per 100,000 population. The highest numbers of cases were reported from Auckland (29 cases), Counties Manukau, and Waitemata (26 cases each), DHBs. The highest numbers of cases were in the 20–29 years (37 cases) and 15–19 years (14 cases) age groups. Eleven cases were recorded as being vaccinated against mumps, of which seven cases had received two doses of the vaccine and three cases had received just one dose. One further cases had been vaccinated, but no dose information was available and nine cases were recorded as non-vaccinated. Vaccination status was unknown for 85 cases.

Paratyphoid fever: Four confirmed cases of paratyphoid fever were notified in January 2018 compared to zero cases notified in January 2017. The cases were reported from Waitemata, Counties Manukau, Capital & Coast, and Canterbury, , (1 case each) DHB. Cases ranged in age from 17 to 29 years, with the highest numbers of cases in the 20–29 years (3 cases) age groups. No cases were hospitalised. The *Salmonella* Paratyphi serotypes involved were identified by the Enteric Reference Laboratory for all cases: *S*. Paratyphi A (3 cases) and *S*. Paratyphi B (1 case). Information on overseas travel during the incubation period was recorded for 75.0% (3/4). Countries visited included: India (2 cases) and Argentina (1 case).

Pertussis: 507 cases of pertussis (310 confirmed, 158 probable, 6 suspected, and 33 still under investigation) were notified in January 2018 compared to 93 cases in January 2017 (Figure 3). The 12-month rate for the period ending 31 January (54.7 cases per 100,000) was higher than for the same period in the previous year (22.7 per 100,000). Thirty-six cases were hospitalised and no deaths were reported. Fifty-seven percent (291/507) of cases were laboratory-confirmed (15 by culture, 268 by PCR, and 8 by culture and PCR). The highest number of cases was reported from Nelson Marlborough DHB (72 cases), followed by Waikato (70 cases), and Bay of Plenty (55 cases) DHBs. Cases ranged in age from 19 days to 93 years, with 19.9% (101/507) under five years of age (including 30 cases aged less than 1 year). The highest numbers of cases were in the 1–4 years, 40–49 years (71 cases each), and 5–9 years (65 cases) age groups.

Shigellosis: 40 cases of shigellosis (37 confirmed and 3 probable) were notified in January 2018 compared with 21 cases notified in January 2017. The 12-month rate for the period ending 31 January (5.7 cases per 100,000 population) was higher than at the same time in the previous year (3.8 per 100,000). The highest number of cases was reported from Waitemata and Auckland (9 cases each) DHBs. The serotype involved was recorded for 82.5% (33/40) of cases: *S*. flexneri biotype 1b (10 cases), *S*. sonnei biotype a (8 cases), *S*. sonnei biotype g (7 cases), *S*. flexneri 6 biotype Boyd 88 (4 cases), *S.* flexneri 2a (2 cases), and *S*. boydii 2, *S.* dysenteriae 13 (1 case each). Fifty-two percent of cases (21/40) had been overseasduring the incubation period. Countries visited included: Samoa, Tonga (4 cases each), India (3 cases), Australia, Kenya, Philippines (2 cases each), Cambodia, Cuba, Indonesia, Pakistan, Peru, United Arab Emirates, United Kingdom, United states of America and Vietnam (1 case each). Three cases reported overseas travel to more than one country.

STEC infection: 96 cases of STEC infection (72 confirmed and 24 under investigation) were notified in January 2018 compared to 25 cases notified in January 2017 (Figure 4). The 12-month rate for the period ending 31 January 2018 (13.3 cases per 100,000 population) was higher than at the same time period in the previous year (8.7 cases per 100,000 population). The highest numbers of cases were reported from Auckland (19 cases) and Waitemata (14 cases) DHBs. Cases ranged in age from 6 months to 89 years, with the highest number of cases in the 20–29 years and 70 years and over (17 cases each) age groups. Eighteen cases were hospitalised. Thirty-six cases have been confirmed by the Enteric Reference Laboratory as being infected with STEC, and of these the serotype was identified as *Escherichia coli* O157:H7 (24 cases) and non-O157 (12 cases). A further 35 cases were confirmed via PCR testing. Of the cases for which risk factor information was recorded, 73.9% (34/46) had contact with animals, 39.5% (17/43) had recreational contact with water, and 23.3% (10/43) had contact with children in nappies. Two final STEC outbreak (19 cases) were created in January.

Yersiniosis: 104 cases of yersiniosis (101 confirmed, and 3 under investigation) were notified in January 2018 compared to 68 cases notified in January 2017. The highest numbers of cases were reported from Canterbury (27 cases), Waitemata (14 cases), and Capital & Coast (11 cases) DHBs. Cases ranged in age from five months to 91 years, with the highest number of cases in the 1–4 years (21 cases) and 50–59 years (19 cases) age groups. Seven cases were hospitalised. The *Yersinia* species involved was identified by ESR for 81.7% (85/104) cases. The most common *Y*. enterocolitica biotypes reported were biotype 2/3 serotype O:9 (57 cases), biotype 4 serotype O:3 (16 cases), biotype 1A (9 cases) and biotype 2/3 serotype O:5, 27 (3 cases). Among the cases for which risk factor information was recorded, 41.4% (12/29) had consumed food from a food premises and 21.2% (7/33) had recreational contact with water during the incubation period.

2. Outbreaks

During January 2018, a total of 31 outbreaks (12 final and 19 interim) were created in EpiSurv (Table 1 and Table 2). Twenty (64.5%) were outbreaks of acute gastroenteritis (8 finalised and 12 interim) involving 202 cases in total. This compares with 31 acute gastroenteritis outbreaks involving 496 cases in total created during the same month of the previous year. Of the 20 acute gastroenteritis outbreaks, the pathogens were recorded as norovirus (7 outbreaks) and norovirus / STEC (1 outbreak). The most commonly reported mode of transmission in acute gastroenteritis outbreaks (50.0%, 10/20) was person-to-person (9 primary and 1 secondary). Of the outbreaks that had an exposure setting recorded (55.0%, 11/20) the most commonly reported setting were long term care facilities (9 outbreaks).

Table 1. Summary of final outbreaks created in EpiSurv during January 2018

Organism/Toxin/Illness	DHB(s) where exposure occurred	Number of outbreaks	Total number of cases
Gastroenteritis	Nelson Marlborough, Southern	2	14
Giardia	Bay of Plenty	1	2
Norovirus[1]	Auckland, Bay of Plenty, MidCentral, Nelson Marlborough	6	124
Salmonella[2]	South Canterbury, Southern	2	6
STEC[1]	Auckland, Counties Manukau	2	19
Total		**12**	**149**

[1] Includes outbreaks with more than one pathogen, therefore totals may not add up.

[2] Includes outbreak reported to PHSs prior to January 2018: *Salmonella* (1) reported in December.

Table 2. Summary of interim outbreaks created in EpiSurv during January 2018

Organism/Toxin/Illness	DHB(s) where exposure occurred	Number of outbreaks	Total number of cases[1]
Campylobacter	Northland, Tairawhiti	2	-
Gastroenteritis	Auckland, Canterbury, Hawke's Bay, Hutt Valley, Tairawhiti, Waikato, Waitemata	10	54
Giardia	MidCentral	1	3
Hepatitis A virus	Waitemata	1	4
Norovirus	Nelson Marlborough, West Coast	2	10
Salmonella	Counties Manukau	2	4
Streptococcus pneumoniae[2]	West Coast	1	5
Total		**19**	**80**

[1] Interim outbreak(s) where total number of cases had not been completed.

[2] Includes outbreak reported to PHSs prior to January 2018: *S. pneumoniae* (1) reported in December.

3. Deaths from notifiable diseases

One death, where the primary cause of death was a notifiable disease, was reported in January 2018 (Table 3).

Table 3. Summary of deaths from notifiable diseases reported during January 2018

Disease	District health board	Age group (years)
Invasive pneumococcal disease	Northland	70+

4. Trends in selected diseases to January 2018

Figure 1. Dengue fever virus notifications by month, January 2010–January 2018

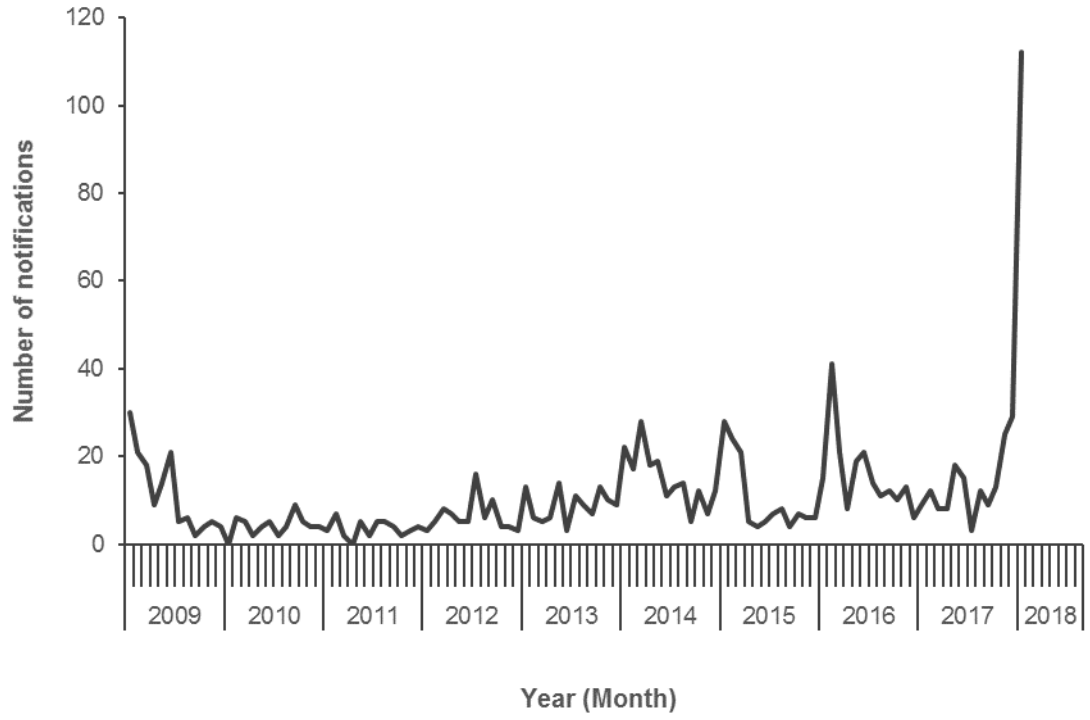


Figure 2. Mumps virus notifications by month, January 2010– January 2018

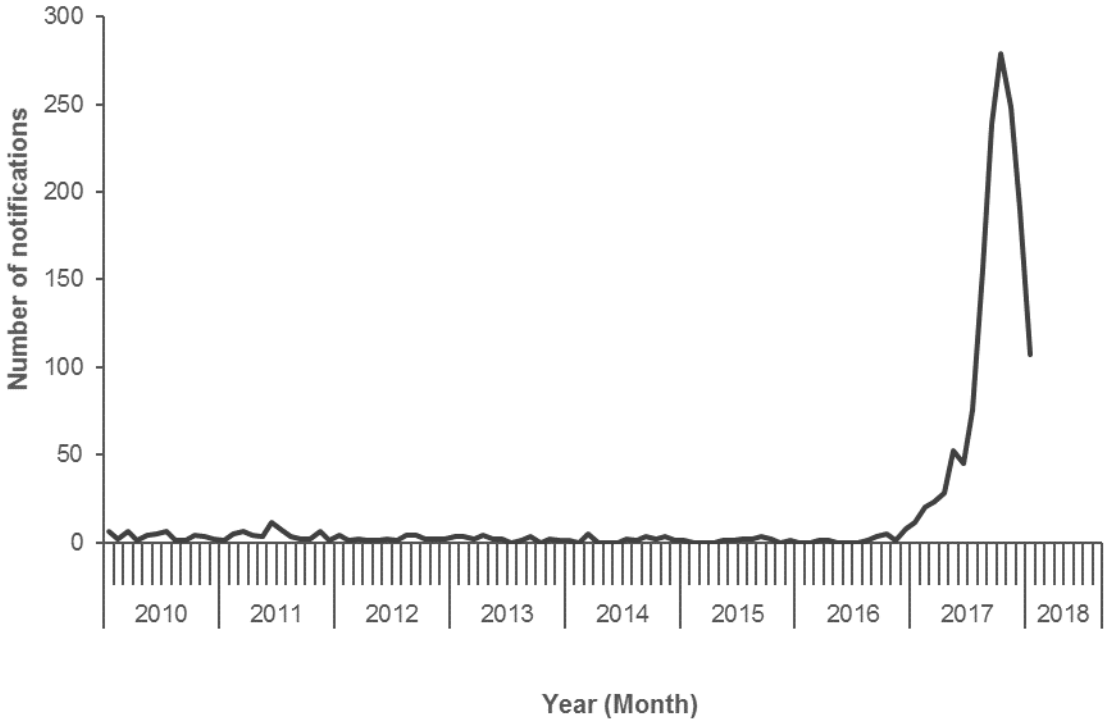


Figure 3. Pertussis notifications by month, January 2010– January 2018

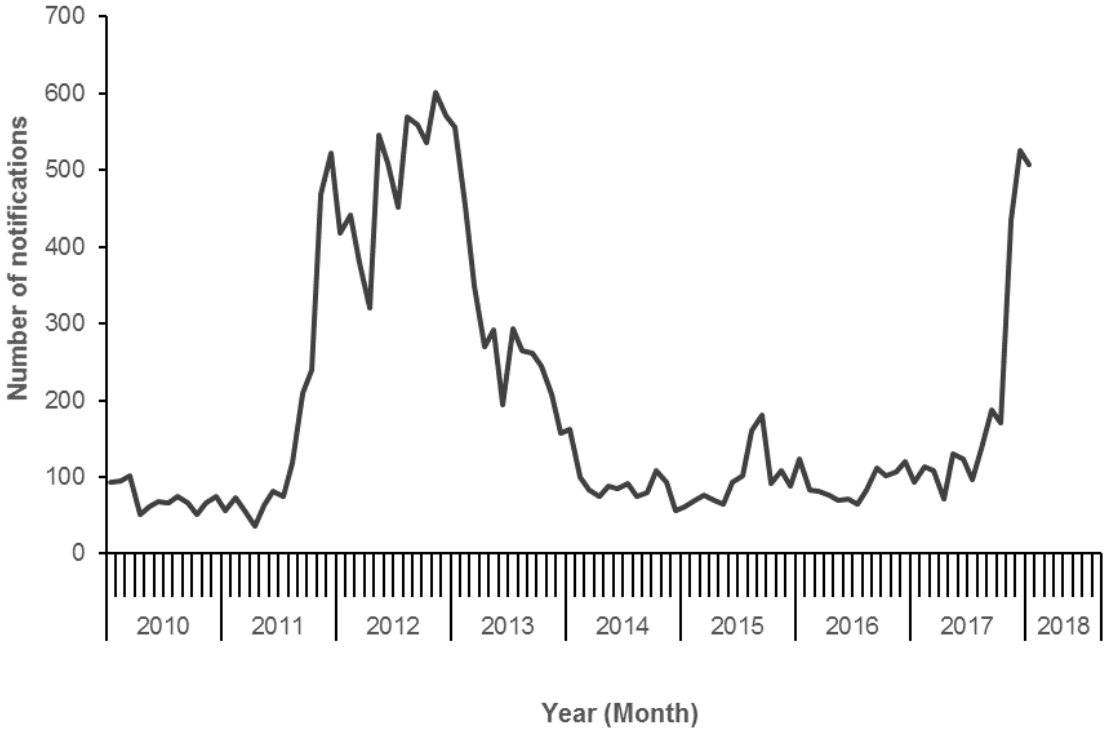
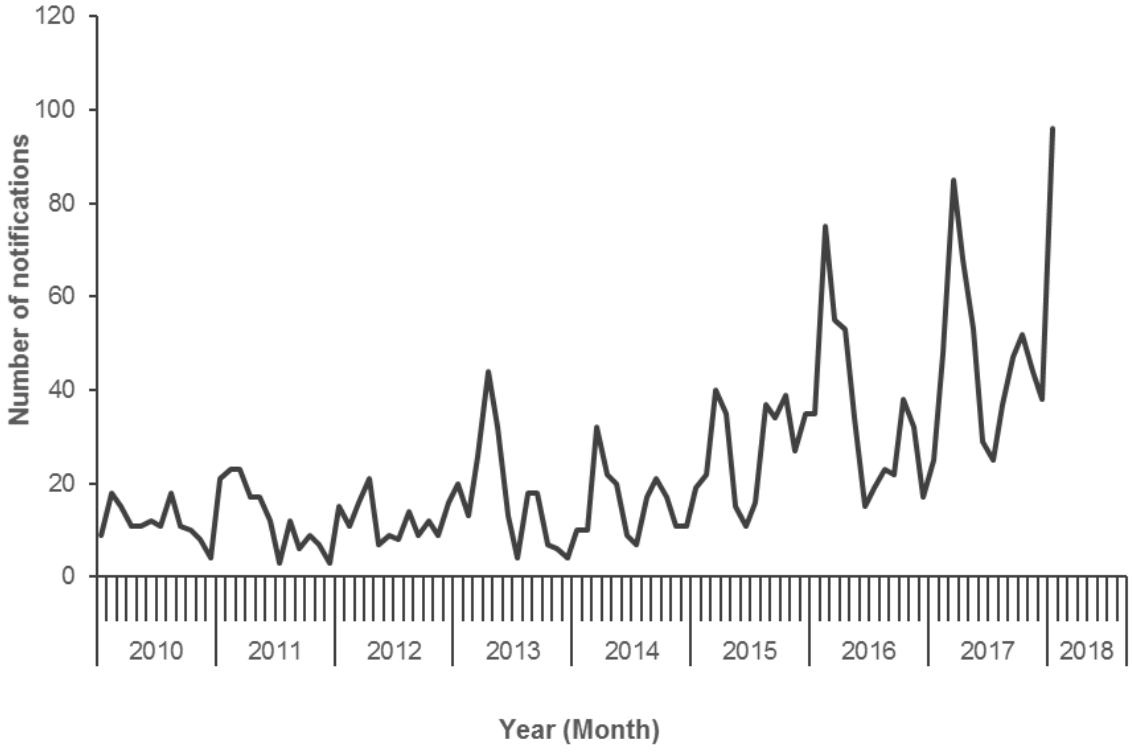


Figure 4. STEC notifications by month, January 2010– January 2018



5. Data tables

National Notifiable Disease Surveillance Data January 2018						
	Current Year - 2018[1]			Previous Year - 2017		
Disease	January 2018 Cases	Cumulative total since 1 January	Current 12 Month Rate[2]	January 2017 Cases	Cumulative total since 1 January	Current 12 Month Rate[2]
Campylobacteriosis	727	727	137	644	644	157.2
Cryptosporidiosis	74	74	25.4	49	49	22.8
Dengue fever	112	112	5.5	9	9	3.9
Gastroenteritis[3]	22	22	6.6	29	29	10.8
Giardiasis	149	149	35.1	114	114	34
Haemophilus influenzae type b	1	1	0.1	0	0	0
Hepatitis A	6	6	1.2	7	7	0.9
Hepatitis B[4]	9	9	0.7	2	2	0.8
Hepatitis C[4]	6	6	0.5	2	2	0.6
Invasive pneumococcal disease	36	36	10.9	34	34	10.5
Legionellosis	37	37	4.7	31	31	5.1
Leptospirosis	5	5	3	11	11	2
Listeriosis	1	1	0.4	1	1	0.7
Malaria	6	6	0.9	5	5	0.6
Measles	2	2	0.3	1	1	2.2
Meningococcal disease	4	4	2.3	5	5	1.6
Mumps	104	104	29.9	11	11	0.7
Paratyphoid fever	5	5	1.1	0	0	0.6
Pertussis	507	507	53.4	93	93	22.6
Rheumatic fever[5]	16	16	3.4	10	10	2.9
Salmonellosis	112	112	23.4	110	110	23.2
Shigellosis	40	40	5.5	21	21	3.8
Tuberculosis disease	28	28	6.4	34	34	6.5
Typhoid fever	6	6	1.3	5	5	0.8
VTEC/STEC infection	95	95	12.9	25	25	8.7
Yersiniosis	104	104	19.9	68	68	18.4

[1] These data are provisional.

[2] Rate is based on the cumulative total for the current year (12 months up to and including January 2018) or the previous year (12 months up to and including January 2017), 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 January: Chikungunya fever (2) , Hepatitis NOS (1) , Hydatid disease (1) ,

Notifiable Disease Surveillance Data by District Health Board January 2018

Disease		Cases[1] and current rate[2] for January 2018 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	36	91	61	55	60	15	30	14	26	35	13	19	34	47	2	20	5	78	17	69
	Rate	151.7	130.4	104.3	86.5	136.5	146.5	97.5	119.6	199	172.7	151.3	150.1	114.9	111	175.3	139.1	193.8	151.4	256.7	233.1
Cryptosporidiosis	Cases	5	7	6	16	1	0	5	1	2	2	0	7	2	7	2	2	0	5	1	3
	Rate	33.1	18.3	16.2	27.4	29.4	18.4	16	53.6	22	13.4	25	36.8	5.4	12.8	49.4	53.1	15.4	26.3	63.8	44.4
Dengue fever	Cases	2	24	17	47	7	0	1	0	2	0	0	0	0	7	0	0	0	4	0	1
	Rate	2.3	6.8	9.2	16.5	3.7	2.8	2.2	2.1	4.2	1.2	3.1	2.3	2	4.8	0	2	0	3.4	1.7	0.9
Gastroenteritis	Cases	1	2	2	1	0	1	2	0	0	0	0	0	3	8	0	0	1	1	0	0
	Rate	8	3.8	9.7	3.7	2	7.4	3.9	2.1	0	1.2	25	19.3	14.9	17.3	2.2	0.7	18.5	6.2	1.7	3.4
Giardiasis	Cases	3	23	25	10	10	2	8	5	4	4	1	4	5	9	2	4	0	18	2	10
	Rate	44.5	31.5	43.7	32.7	40.9	43.3	45.7	76.3	22	39.7	31.2	19.8	18.3	36.5	69.7	32.3	15.4	28.5	41.9	29.6
Haemophilus influenzae type b	Cases	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rate	0.6	0	0.2	0	0.2	0	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0.3
Hepatitis A	Cases	0	1	2	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	Rate	1.7	1.3	1.5	3.5	1.5	0	0	0	0	0	0	2.3	0	0.6	0	0.7	0	0.7	0	0.6
Hepatitis B	Cases	0	1	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
	Rate	0.6	0.7	0.8	1.1	1	0	0	2.1	0	1.2	0	0	0	0.6	0	1.3	0	0.7	0	1.5
Hepatitis C	Cases	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	3	0	1
	Rate	1.1	0.3	0.6	0	0	0	0	0	4.2	0	0	0.6	0	0.6	0	2	0	0.7	0	1.2
Invasive pneumococcal	Cases	2	6	2	5	2	2	1	1	2	3	0	0	2	1	0	0	2	2	0	3
	Rate	14.3	8.6	7.4	14.3	10.8	17.5	18.1	12.4	11	15.3	15.6	9.1	8.8	10.9	18	9.4	21.5	7.3	6.7	10.8
Legionellosis	Cases	3	6	4	6	0	1	2	0	1	0	0	0	1	1	0	0	0	10	0	2
	Rate	10.8	3.5	2.3	4	1.2	5.5	7.8	0	2.5	0.6	0	1.1	4.1	1	0	6	12.3	13.2	5	6.2
Leptospirosis	Cases	0	0	0	0	1	0	0	0	0	2	1	1	0	0	0	0	0	0	0	0
	Rate	4	1.2	0.2	0	13	1.8	2.2	2.1	3.4	9.2	12.5	5.7	1.4	0	6.7	4	6.2	1.8	5	2.2
Listeriosis	Cases	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rate	1.1	0.2	0.6	0.9	0.2	0	0.9	0	0	0.6	1.6	0.6	0	0	0	1.3	0	0.2	1.7	0
Malaria	Cases	0	0	1	1	0	0	0	0	0	1	0	0	2	1	0	0	0	0	0	0
	Rate	1.7	0.8	1.5	0.9	0.5	0.9	0	0	1.7	1.2	0	0	2	1.9	0	1.3	0	0.5	0	0.3
Measles	Cases	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
	Rate	0	0.5	0	0	0	0	0.9	0	0	0	0	4	0.7	0	0	0	0	0.4	1.7	0
Meningococcal disease	Cases	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
	Rate	2.9	2.1	1.5	3.5	2.2	2.8	3.9	2.1	0.8	3.1	4.7	1.1	1.4	2.6	2.2	0	9.2	2.2	0	2.2
Mumps	Cases	3	25	29	26	5	0	1	1	1	0	0	1	0	1	0	4	0	2	0	5
	Rate	17.7	52.3	64.9	90.9	20.1	1.8	2.6	2.1	8.5	1.8	10.9	6.8	5.4	7.4	0	11.4	0	4	0	16.3
Paratyphoid fever	Cases	0	2	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
	Rate	0	1.8	2.3	0.9	0.2	0	0.9	4.1	0.8	6.1	0	1.1	0	1.3	0	0.7	0	0.4	0	0
Pertussis	Cases	12	28	35	44	70	16	55	5	3	25	2	13	15	22	14	72	6	34	4	32
	Rate	47.9	36	38.6	29.1	62.9	54.4	78.1	43.3	42.3	76.9	34.3	26.6	43.9	55.3	56.2	215.1	49.2	47.3	36.9	78
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	5	2	5	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	1
	Rate	6.3	2.5	4.6	9.7	5.1	2.8	2.2	6.2	0	2.4	1.6	1.1	4.1	1.9	0	0.7	0	0.7	0	0.9
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	0.4	0.2	0	0	0	0	0	0	0	0	0.7	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Salmonellosis	Cases	6	11	13	12	10	0	4	0	1	3	2	3	0	4	3	2	1	14	3	20
	Rate	34.2	17.7	22.9	13.5	26.2	19.4	16	41.2	22	18.3	17.2	20.4	13.5	24	31.5	19.5	18.5	34.6	40.3	34.5
Shigellosis	Cases	0	9	9	7	2	0	2	0	2	0	0	0	4	2	0	0	0	1	0	2
	Rate	4.6	6.6	12.6	10.8	1.7	3.7	2.2	2.1	3.4	6.7	3.1	1.1	4.7	5.4	0	0.7	3.1	2.5	0	4.9
Tuberculosis disease	Cases	0	2	4	5	4	1	2	0	0	0	1	1	0	2	0	1	0	4	1	0
	Rate	1.7	5.9	11.3	10.4	7.8	3.7	4.7	2.1	2.5	6.1	1.6	5.1	8.8	5.4	9	3.4	0	6	1.7	2.5
Typhoid fever	Cases	0	0	1	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rate	0	1	3.6	4.6	0.5	1.8	0	0	0	0.6	0	0.6	0	0	0	0.7	0	0.4	0	1.2
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VTEC/STEC infection	Cases	10	13	19	10	6	2	1	0	2	2	1	0	2	8	0	6	0	1	0	12
	Rate	45.6	14.9	10.7	11.9	9.5	12	10.3	2.1	10.2	7.9	9.4	2.8	2.7	5.8	2.2	8.7	6.2	4.4	18.5	43.5
Yersiniosis	Cases	0	14	7	9	3	5	8	0	0	1	1	2	5	11	3	1	0	27	0	7
	Rate	11.4	20.1	20.2	13.5	14.2	22.1	25.4	16.5	21.2	20.1	17.2	10.2	27	28.1	38.2	5.4	3.1	30.6	23.5	18.2

[1] These data are provisional.

[2] Current rate is based on the cumulative total for the 12 months up to and including January 2018 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.