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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 as at 4 October 2012. 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

- *Barmah Forest virus infection*: One (still under investigation) case of Barmah Forest virus infection was notified in September 2012. The case was a female in the 70+ years age group from Auckland DHB and was in Australia during the incubation period.
- *Cryptosporidiosis*: 172 cases of cryptosporidiosis were notified in September 2012 compared to 136 cases notified during the same month of the previous year (Figure 1). The cases ranged in age from one month to 71 years, with the highest numbers of cases in the 1-4 years (69 cases) and in the 5-9 years (25 cases) age groups. The highest numbers of cases were reported in Waikato (67 cases), Canterbury (17 cases), and South Canterbury (15 cases) DHBs. Among the cases where risk factor information was recorded, 87.3% (89/102) had contact with farm animals, 60.3% (35/58) had contact with sick animals, 58.2% (39/67) had consumed untreated water, and 53.3% (48/90) had attended school, preschool or childcare. Seventeen *cryptosporidiosis* outbreaks were reported in September including five finalised outbreaks (18 cases) and 12 interim outbreaks (case numbers not yet established).
- *Dengue fever*: 10 cases of dengue fever were notified in September 2012, compared to four cases during the same month of last year. All of the cases had travelled overseas during the incubation period, and the countries visited were Thailand (3), and Cambodia, Cook Islands, Fiji, India, Solomon Islands, Tonga and Viet Nam (1 case each).
- *Leptospirosis*: 18 cases of leptospirosis were notified in September 2012 (7 confirmed and 11 under investigation), compared to three cases notified in the same month of the previous year. The following section relates to the seven confirmed cases only. These cases were from Northland, Auckland, Counties Manukau, Waikato, Whanganui, West Coast and Canterbury (1 case each). High risk occupations were recorded for four cases. All four cases were farmers or farm workers. Two other cases reported animal/outdoor exposures as a risk factor: one case was hunting and had direct contact with urine from wild animals, and the other was white water rafting in China. *Leptospira* species and serovars were recorded for six cases: *Leptospira borgpetersenii* sv Ballum (2), *L. borgpetersenii* sv Hardjo, *L. borgpetersenii* sv Tarassovi, *L. interrogans* sv Canicola and *L. interrogans* sv Pomona (1 each).
- *Listeriosis*: Four cases of listeriosis (3 non-perinatal and 1 perinatal) were notified in September 2012. For the perinatal case, the foetus died at 22 weeks gestation. The mother was from the MELAA (Middle Eastern Latin American African) ethnic group and was in the 20-29 years age group, from Waitemata DHB. The non-perinatal cases were from Auckland, Counties Manukau and

Waikato (1 case each) DHBs and were distributed by age group as follows: 50-59 years (1) and 70+ years (2). Two of the three cases were reported to have underlying illness and/or were on immunosuppressive medication.

- *Pertussis*: 583 cases of pertussis were notified in September 2012, compared with 592 cases notified the previous month and 210 cases in the same month of the previous year (Figure 2). Twenty-nine cases were hospitalised and no deaths were reported. There were 116 (19.9%) cases laboratory-confirmed by isolation of *Bordetella pertussis* from the nasopharynx. A further 106 (18.2%) cases were laboratory-confirmed by PCR. The highest number of cases was from Canterbury DHB (104), followed by Capital and Coast (83) and Waikato (51) DHBs. The cases ranged in age from one month to 86 years, with 21.1% (123/583 cases) under 5 years old (including 36 cases aged less than 1 year). The highest numbers of cases occurred in the 1-4 years (87), 40-49 years (84), 10-14 years (73), and 5-9 years (72) age groups. The vaccination status was recorded for 339 (58.1%) cases. Of these, 112 were reported as not vaccinated, 26 received one dose of vaccine, 12 received two doses of vaccine, 122 received three or more doses (including 18 who had received all five doses), and 67 were reported as being vaccinated but no dose information was available. Of the cases where the relevant information was recorded, 47.3% (200/423) attended school, pre-school or childcare, and 42.4% (109/257) had contact with a laboratory-confirmed pertussis case. Fourteen *B. pertussis* outbreaks involving 46 cases in total were reported in September.
- *Taeniasis*: One confirmed case of taeniasis was notified in September 2012. The case was a male in the 40-49 years age group from Capital and Coast DHB and was in Ethiopia during the incubation period.
- *VTEC/STEC infection*: 13 cases of VTEC/STEC infection were notified in September 2012, four of these cases have since been made “not a case” after further investigation. This compares with six cases notified in the same month of the previous year. The remaining nine cases were from the following DHBs: Canterbury (3), Waikato and Taranaki (2 cases each), and Auckland and Waitemata (1 case each). The highest number of cases occurred in the 1-4 years age group (4 cases). Four cases were hospitalised. The serotype/organism was confirmed by the enteric reference laboratory for six cases as *Escherichia coli* O157:H7. Among the cases for which risk factor was recorded, 100.0% (7/7) cases had contact with animals, 42.9% (3/7) attended school, pre-school or childcare, and contact with manure 50.0% (3/6).

## 2. Outbreaks

Finalised outbreak reports: 43 outbreak reports were created and finalised in EpiSurv during September 2012 (Table 1).

**Table 1. Summary of finalised outbreaks created in EpiSurv during September 2012**

Organism/Toxin/Illness	DHB(s) where exposure occurred	Number of outbreaks	Total number of cases
<i>Bordetella pertussis</i> <sup>1</sup>	Waikato, MidCentral, Southern	12	43
<i>Campylobacter</i>	Waikato, Bay of Plenty, MidCentral	4	17
<i>Clostridium difficile</i>	Canterbury	1	8
<i>Clostridium perfringens</i>	Canterbury	1	7
<i>Cryptosporidium</i> <sup>1,2</sup>	Waitemata, Waikato, West Coast	5	18
Gastroenteritis <sup>1</sup>	MidCentral, Hutt Valley	2	13
<i>Giardia</i> <sup>1</sup>	Auckland	2	6
Norovirus <sup>1</sup>	Waitemata, Taranaki, Hutt Valley, Nelson Marlborough, Canterbury	12	258
Rotavirus	Canterbury	1	5
<i>Salmonella</i> <sup>1,2</sup>	Auckland, Waikato	3	6
<b>Total</b>		<b>43</b>	<b>381</b>

<sup>1</sup>Includes outbreaks reported to PHSs prior to September 2012: *Giardia* (1) reported in June and *Cryptosporidium* (1) reported in July. *B. pertussis* (4), *Giardia* (1), gastroenteritis (1), norovirus (1), and *Salmonella* (1) all reported in August.

<sup>2</sup> One *Cryptosporidium* (Waitemata) and one *Salmonella* (Auckland) outbreak had an overseas exposure location (Singapore and Indonesia, respectively).

Interim outbreak reports: 46 interim outbreaks were created in EpiSurv during September 2012 (Table 2). The status of the outbreak and cases involved are subject to change, as more data becomes available.

**Table 2. Summary of interim outbreaks created in EpiSurv during September 2012**

Organism/Toxin/Illness	DHB(s) where exposure occurred	Number of outbreaks	Total number of cases
<i>Bordetella pertussis</i> <sup>1</sup>	Taranaki, Southern	2	3
<i>Cryptosporidium</i> <sup>1</sup>	Waikato	12	-
Gastroenteritis <sup>1</sup>	Northland, Waitemata, Auckland, Counties Manukau, Waikato, Lakes, Bay of Plenty, Taranaki, MidCentral, Capital and Coast, Canterbury, Southern	21	42
<i>Giardia</i> <sup>1</sup>	Waitemata, Waikato	2	-
Influenza A(H3N2)	Nelson Marlborough	1	3
Norovirus <sup>1</sup>	Northland, Counties Manukau, Tairāwhiti, Canterbury	4	18
Rotavirus <sup>1</sup>	Waikato, Capital and Coast	3	-
<i>Salmonella</i> <sup>1</sup>	Waikato	1	-
<b>Total</b>		<b>46</b>	<b>72</b>

<sup>1</sup>Interim outbreak where total number of cases had not been completed.

### 3. Deaths from notifiable diseases

Six deaths, where the primary cause of death was a notifiable disease, were reported in September 2012 (Table 3).

**Table 3. Summary of deaths from notifiable diseases reported during September 2012**

<b>Disease</b>	<b>District Health Board</b>	<b>Age group (years)</b>
Invasive pneumococcal disease	Auckland	1-4 years
Invasive pneumococcal disease	Canterbury	15-19 years
Invasive pneumococcal disease	Waikato	70+ years
Invasive pneumococcal disease	Wairarapa	70+ years
Listeriosis – perinatal	Waitemata	N/A
Meningococcal disease	Capital and Coast	10-14 years

#### 4. Trends in selected diseases to September 2012

Figure 1: Cryptosporidiosis notifications by month, January 2007 – September 2012

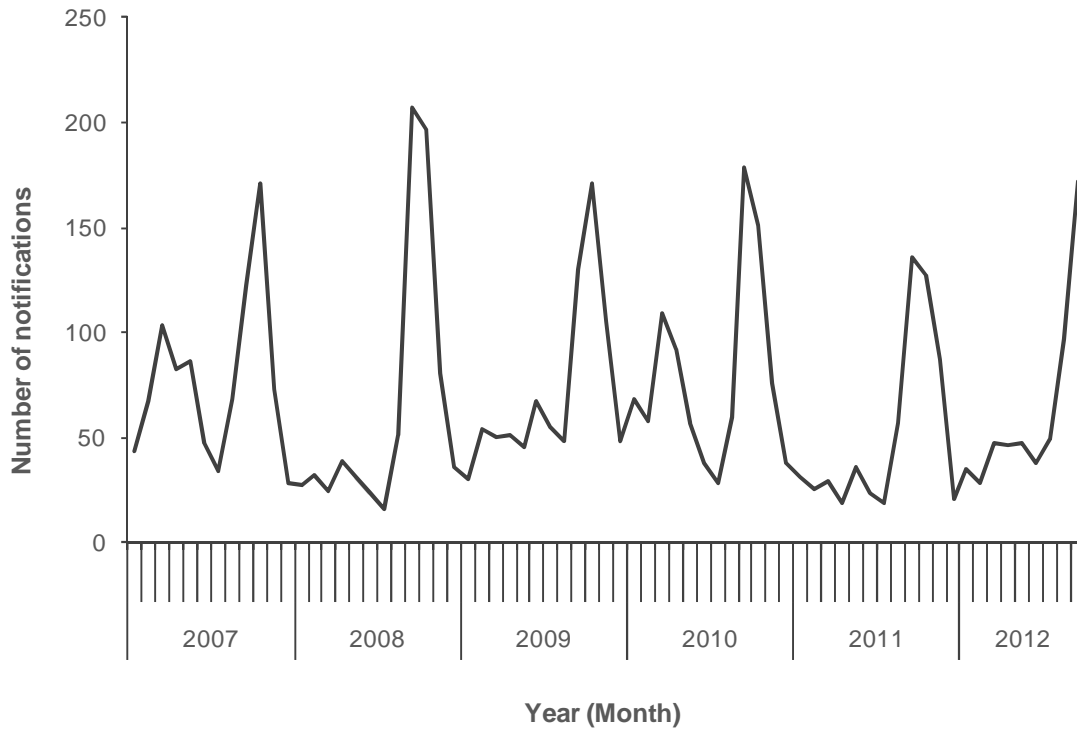
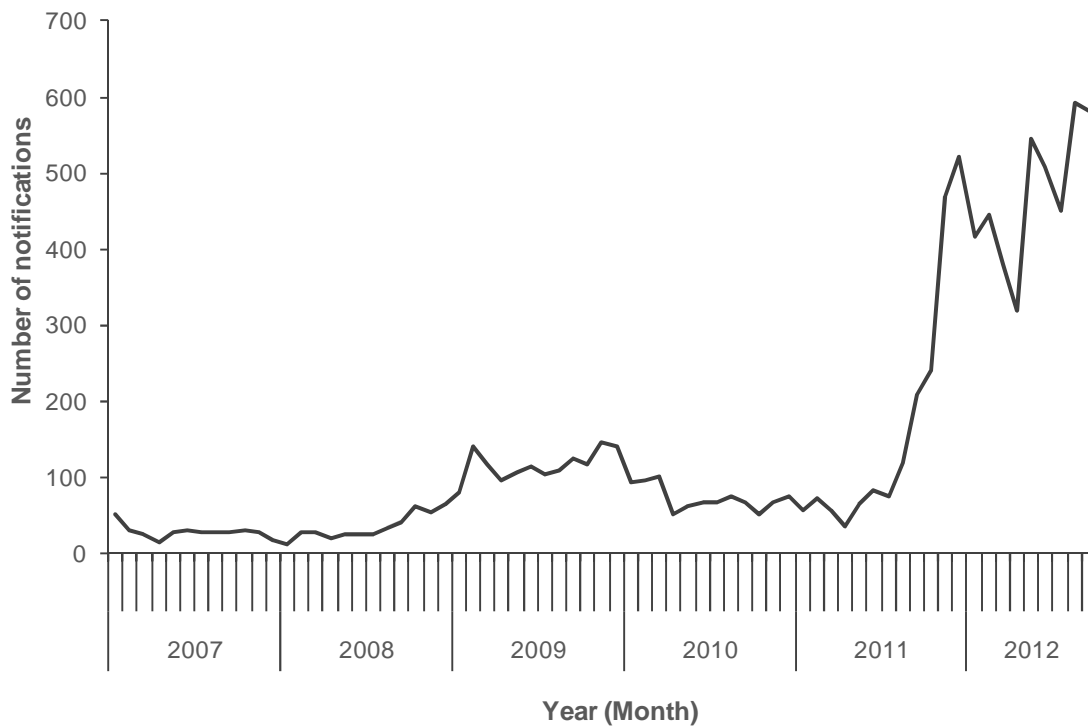


Figure 2: Pertussis notifications by month, January 2007 – September 2012



## 5. Data tables

### National Notifiable Disease Surveillance Data September 2012

Disease	Current Year - 2012 <sup>1</sup>			Previous Year - 2011		
	September 2012 Cases	Cumulative total since 1 January	Current 12 Month Rate <sup>2</sup>	September 2011 Cases	Cumulative total since 1 January	Current 12 Month Rate <sup>2</sup>
Campylobacteriosis	555	4950	163.8	565	4425	147.6
Cryptosporidiosis	172	559	18.0	136	375	14.5
Dengue fever	10	65	1.7	4	33	1.0
Gastroenteritis <sup>3</sup>	53	452	14.0	69	467	14.0
Giardiasis	102	1335	39.2	147	1542	44.5
Haemophilus influenzae type b	3	8	0.2	0	6	0.2
Hepatitis A	5	76	1.9	3	20	0.6
Hepatitis B <sup>4</sup>	7	33	0.8	4	47	1.4
Hepatitis C <sup>4</sup>	2	29	0.8	6	21	0.6
Invasive pneumococcal disease	68	390	11.6	71	429	11.9
Lead absorption	21	236	6.4	21	182	5.5
Legionellosis	7	100	3.5	10	102	4.0
Leptospirosis	18	115	3.1	3	48	1.5
Listeriosis	4	18	0.6	0	18	0.5
Malaria	3	28	0.9	7	41	1.0
Measles	1	70	8.6	85	287	6.6
Meningococcal disease	6	61	1.9	19	97	2.6
Mumps	7	24	0.7	2	42	1.2
Paratyphoid fever	1	15	0.4	1	10	0.2
Pertussis	583	4241	124.2	210	767	21.8
Rheumatic fever	11	165	4.6	16	127	3.8
Rickettsial disease	0	3	0.1	0	4	0.1
Rubella	0	3	0.1	1	20	0.5
Salmonellosis	85	810	23.2	77	842	25.8
Shigellosis	8	108	3.1	8	73	1.8
Tuberculosis disease	23	219	6.6	22	237	7.1
Typhoid fever	2	30	1.0	1	33	0.9
VTEC/STEC infection	13	113	3.0	6	134	3.5
Yersiniosis	45	385	11.5	48	393	11.6

<sup>1</sup> These data are provisional

<sup>2</sup> Rate is based on the cumulative total for the current year (12 months up to and including September 2012) or the previous year (12 months up to and including September 2011), expressed as cases per 100 000

<sup>3</sup> Cases of gastroenteritis from a common source or foodborne intoxication

<sup>4</sup> Only acute cases of this disease are currently notifiable

Other notifiable infectious disease reported in September: Barmah Forest virus infection (1) , Chemical poisoning from the environment (1) , Taeniasis (1) , Tetanus (1)

## Notifiable Disease Surveillance Data by District Health Board September 2012

		Cases <sup>1</sup> and current rate <sup>2</sup> for September 2012 by District Health Board <sup>3</sup>																			
Disease		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
Campylobacteriosis	Cases	6	49	33	32	66	14	32	6	23	26	13	22	16	30	5	31	10	75	23	43
	Rate	153.0	154.3	117.8	103.4	200.7	156.3	132.1	111.6	197.5	208.6	141.1	123.0	123.9	154.1	207.0	205.1	227.5	219.0	312.2	212.4
Cryptosporidiosis	Cases	10	7	0	4	67	4	8	0	9	7	3	4	2	2	3	1	1	17	15	8
	Rate	24.7	9.2	6.4	6.0	43.0	22.3	10.9	2.1	20.0	22.5	7.9	14.9	28.4	34.3	39.4	10.0	21.2	14.1	74.5	20.2
Dengue fever	Cases	0	1	4	2	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
	Rate	1.3	2.2	3.9	1.8	0.5	1.0	0.9	2.1	0.0	0.0	0.0	3.0	2.1	2.4	0.0	0.0	3.0	1.0	0.0	2.0
Gastroenteritis	Cases	0	7	13	6	2	2	1	0	0	0	0	5	6	8	0	0	0	3	0	0
	Rate	0.0	14.7	19.1	7.4	12.0	16.5	17.0	0.0	13.7	1.3	17.4	47.5	31.1	30.9	2.5	6.4	15.2	9.0	3.5	2.6
Giardiasis	Cases	5	8	16	15	6	2	4	1	3	2	0	1	6	11	1	0	1	12	0	8
	Rate	31.0	40.7	56.9	25.2	42.4	43.7	46.3	12.9	30.0	37.2	14.3	19.6	33.9	46.5	54.2	60.0	36.4	38.6	31.9	37.9
Haemophilus influenzae type b	Cases	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rate	0.0	0.7	0.0	0.0	0.3	1.9	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.0
Hepatitis A	Cases	0	2	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rate	0.6	6.0	3.9	3.0	1.1	0.0	0.9	0.0	0.0	1.3	0.0	0.0	0.7	1.4	0.0	0.7	0.0	0.2	0.0	0.0
Hepatitis B	Cases	0	2	1	0	2	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0
	Rate	1.3	1.5	0.9	0.6	0.5	1.9	1.9	2.1	1.8	0.6	0.0	1.2	0.7	0.3	0.0	0.7	0.0	0.2	0.0	0.7
Hepatitis C	Cases	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	Rate	0.0	0.0	0.2	0.6	0.0	0.0	0.0	0.0	1.8	1.3	0.0	0.0	0.0	1.0	0.0	2.1	0.0	1.2	3.5	3.9
Invasive pneumococcal	Cases	5	6	8	6	6	2	6	1	3	1	1	0	2	2	1	5	0	8	1	4
	Rate	18.3	8.8	12.9	13.0	12.0	15.5	16.5	8.6	10.0	10.9	7.9	7.7	9.7	11.2	22.2	16.4	0.0	9.4	12.4	11.1
Lead absorption	Cases	1	0	1	2	3	0	1	0	2	0	1	2	0	1	1	1	0	2	1	2
	Rate	1.3	6.0	14.9	8.2	3.3	4.9	2.4	8.6	7.3	3.9	22.2	6.5	13.1	5.1	9.9	2.1	9.1	2.2	8.9	4.9
Legionellosis	Cases	0	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	4	0	0
	Rate	3.2	3.3	4.4	2.0	1.9	0.0	0.9	0.0	0.9	1.3	0.0	1.8	1.4	1.7	0.0	4.3	6.1	12.1	1.8	3.3
Leptospirosis	Cases	3	0	1	1	1	0	0	0	2	2	2	0	0	0	0	2	2	1	0	1
	Rate	3.8	0.4	0.4	0.4	7.1	0.0	3.3	10.7	5.5	14.1	12.7	6.5	0.7	0.3	7.4	3.6	21.2	2.4	8.9	1.6
Listeriosis	Cases	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rate	0.6	0.7	0.4	1.0	0.8	0.0	0.9	0.0	0.9	2.6	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.2	0.0	0.7
Malaria	Cases	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	Rate	1.9	0.9	2.6	1.4	0.5	1.0	0.0	0.0	0.0	1.3	0.0	0.6	0.7	0.3	0.0	0.7	0.0	0.6	0.0	0.0
Measles	Cases	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	Rate	5.7	11.9	30.2	18.0	1.9	4.9	3.3	6.4	1.8	1.3	0.0	0.6	0.7	4.4	0.0	0.7	3.0	2.6	5.3	5.9
Meningococcal disease	Cases	0	1	1	0	0	2	0	0	0	0	0	0	0	1	0	0	0	1	0	0
	Rate	3.2	1.8	1.3	1.0	2.2	3.9	2.8	4.3	7.3	1.3	0.0	1.8	0.7	2.7	2.5	0.0	0.0	1.4	5.3	1.3
Mumps	Cases	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	2	1	1
	Rate	0.0	0.2	0.2	0.8	0.8	0.0	0.5	0.0	1.8	0.0	1.6	0.0	0.7	0.7	2.5	3.6	0.0	1.8	1.8	0.3
Paratyphoid fever	Cases	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rate	0.0	0.4	1.1	0.4	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.6	0.0	1.0
Pertussis	Cases	9	20	32	15	13	19	9	22	5	30	32	32	83	9	48	13	104	5	32	
	Rate	43.0	41.4	47.7	52.6	66.9	76.7	59.0	276.8	73.7	93.7	190.2	81.4	266.4	232.5	133.1	669.8	785.8	218.2	85.1	54.5
Rheumatic fever	Cases	2	0	0	4	2	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0
	Rate	8.9	3.3	2.8	15.8	5.4	8.7	1.9	21.5	1.8	4.5	0.0	2.4	4.2	4.1	0.0	0.7	0.0	0.6	0.0	0.0
Rickettsial disease	Cases	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rate	0.6	0.4	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Salmonellosis	Cases	3	2	7	9	8	1	2	0	2	4	0	4	1	2	0	6	4	11	2	17
	Rate	19.0	20.9	22.6	13.6	29.9	26.2	17.5	12.9	19.1	15.4	9.5	18.4	19.4	17.3	9.9	33.6	33.4	26.9	47.9	47.0
Shigellosis	Cases	0	2	1	2	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1
	Rate	1.3	5.5	6.4	4.0	1.6	1.0	3.8	2.1	4.6	1.6	1.2	0.0	3.4	0.0	0.0	0.0	2.4	1.8	2.3	2.3
Tuberculosis disease	Cases	0	5	5	4	1	0	0	0	1	3	0	1	0	0	1	0	0	1	0	1
	Rate	0.6	7.1	14.0	9.2	5.2	4.9	6.1	4.3	1.8	14.1	1.6	5.3	4.2	7.1	2.5	7.9	3.0	4.4	0.0	2.0
Typhoid fever	Cases	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	Rate	0.0	1.3	3.1	2.2	0.0	0.0	0.9	2.1	0.0	0.6	0.0	0.0	0.7	0.3	0.0	0.0	0.0	0.6	0.0	0.3
VTEC/STEC infection	Cases	1	2	1	0	2	0	0	0	2	0	0	0	0	0	0	0	0	4	0	1
	Rate	7.6	2.2	1.1	1.4	5.2	2.9	7.6	2.1	9.1	2.6	0.0	1.2	0.7	0.0	0.0	2.1	6.1	3.6	8.9	3.9
Yersiniosis	Cases	1	6	7	3	4	1	2	1	3	0	0	0	3	2	1	0	1	8	2	0
	Rate	8.9	15.9	14.5	11.2	13.6	8.7	8.0	12.9	13.7	7.7	4.8	1.8	14.5	17.0	9.9	2.1	9.1	12.5	16.0	4.9

<sup>1</sup> These data are provisional

<sup>2</sup> Current rate is based on the cumulative total for the 12 months up to and including September 2012 expressed as cases per 100 000

<sup>3</sup> Further data are available from the local Medical Officer of Health