

Communicable Diseases Report, NSW, May and June 2012

Communicable Diseases Branch **NSW Department of Health**

For updated information, including data and facts on specific diseases, visit www.health.nsw.gov.au and click on **Public Health** and then **Infectious Diseases**. The communicable diseases site is available at: <http://www.health.nsw.gov.au/publichealth/infectious/index.asp>.

Figure 1 and Tables 1 and 2 show notifications of communicable diseases received in May and June 2012 in New South Wales (NSW).

Enteric infections

Outbreaks of suspected foodborne disease

In March, NSW Health were notified of a complaint regarding a banquet at a Sydney restaurant (restaurant A). Eighteen people from a group of 24 who dined at the restaurant developed gastrointestinal symptoms following the meal. An epidemiological investigation was conducted after four of these people who became ill returned stool samples which tested positive for *Salmonella* (*Salmonella* Typhimurium MLVA 3-9-9-12-523: STm strain A). All those people who became ill had consumed the same dessert, a Bombe Alaska, containing raw egg meringue. NSW Food Authority officers inspected restaurant A and requested that it cease serving this dessert as it contained raw egg. The eggs used at restaurant A were purchased from an egg farm (egg farm A). This farm was inspected in April 2012. This egg farm also supplied another 10 businesses and sold eggs directly to the public.

Salmonella (STm strain A) was previously uncommon in NSW, but from January to March 2012 it was one of the most commonly reported types among cases with salmonellosis in south west Sydney. STm strain A was also identified in three case-patients who had complained of illness after a party at an unrelated restaurant in Sydney in January 2012. At the time, that investigation did not identify an association between illness and any particular food item. However, a profiterole cake consumed at the

party had been supplied by a bakery in the area (bakery A). Bakery A was listed as one of the wholesale customers of egg farm A. The NSW Food Authority inspected bakery A in May 2012 and the same STm strain A was identified on re-usable piping bags, machine nozzles and from a bowl of freshly whipped cream.

NSW Health and OzFoodNet epidemiologists then interviewed additional confirmed cases of STm strain A (27 case-patients) and of another closely related strain (MLVA 3-9-8-12-523: STm strain B) (30 case-patients) that had been notified between January and April to determine whether they had consumed food prepared by either restaurant A or bakery A, from any of the other businesses that egg farm A supplied, or whether they had bought eggs directly from egg farm A. Despite the delay from the time of their illness to being interviewed, 46% (30/65) case-patients reported consuming eggs from either restaurant A or bakery A in their incubation period and a further case reported purchasing eggs directly from the farm. The NSW Food Authority are working with farm A to reduce the possibility of contamination of eggs occurring in the future.

Respiratory infections

Influenza

Influenza activity increased markedly in May and June 2012, consistent with an early start to the winter influenza season. Increased activity was measured by: increased notifications of laboratory-confirmed cases; an increased proportion of respiratory tests positive for influenza; outbreaks of influenza in aged-care facilities; and increased numbers of people presenting to 59 of the state's largest emergency departments with influenza-like illness and pneumonia, especially people aged over 65 years.

Overall, activity was well above that seen in the past 2 years for this time of year but remained below the peak levels seen during the influenza pandemic in 2009 and the severe influenza season in 2007.

Laboratory testing data for influenza showed that the most common influenza strain circulating was the new A/Victoria/361/2011-like strain, although influenza B viruses continued to circulate at low levels. No influenza antiviral resistance was reported.

The WHO Collaborating Centre on Influenza has advised that current influenza vaccines are likely to induce

significant protection against the new H3N2 strain, and that the current B strain is well matched to the vaccine strain.

For a more detailed report on respiratory activity in NSW see: http://www.health.nsw.gov.au/PublicHealth/Infectious/influenza_reports.asp

Vaccine-preventable diseases

Meningococcal disease

Twelve cases of meningococcal disease were notified in NSW in May and June 2012 (six in May and six in June), an increase from nine for the same period in 2011. The age of the case-patients ranged from 2 months to 65 years and included five children aged under 5 years. There were no deaths notified in this period. Seven cases were due to serogroup B (for which there is no vaccine), one was due to serogroup Y, two were unable to be typed, and for two there was insufficient specimen collected.

Of the nine cases notified during the same period in 2011, five were due to serogroup B, one to serogroup Y and the remaining three were of an undetermined serogroup.

It is recommended that a single dose of the vaccine for meningococcal C disease be given to all children at the age of 12 months as well as to people at high risk of the disease.¹

Measles

Fifteen cases of measles were notified in NSW in May and June 2012. This was an increase from six cases reported for the same period in 2011.

One case of measles notified during this period was epidemiologically linked to a previously reported cluster that commenced in April and was associated with a young adult returning home from Thailand while infectious (total case-patients, $n = 4$).

A cluster of six cases notified during May and June were linked to the emergency department of the Children's Hospital at Westmead and subsequently at a high school formal. The average age of case-patients was 11 years (range: 7 months to 32 years). Of the six case-patients, three were too young to be vaccinated, two were unsure of their vaccination status and one reported receiving only one measles-containing vaccine. Cases in this cluster were notified across metropolitan Sydney.

A second cluster of six cases notified during May and June were reported primarily in under-immunised teenage students at a high school in the Sydney South West Local Health District. The case-patients were aged between 13 and 19 years. Of the six case-patients, three were not

vaccinated, two were unsure of their vaccination status and one reported receiving only one measles-containing vaccine.

A further two sporadic measles cases were also notified during this period. The first case was an unvaccinated 1-year old infant who acquired their infection in China. The second case was a 7-month old infant (who was too young to be vaccinated) whose source of infection remains unknown (measles virus genotype B3). While the measles virus genotype B3 has been the predominant genotype identified in African countries in recent years, and to a lesser degree in other continents,² it has not been identified during the past decade in NSW. Given the high sensitivity of measles surveillance in NSW and the lack of previously identified measles virus genotype B3, this suggests the infant's infection was transmitted from an unknown person who acquired their infection overseas. No further transmission was identified from either of these sporadic cases.

While a public health investigation did not identify a direct epidemiological link between the Thailand cluster or the two clusters reported during May and June, the clusters were found to have the same measles virus genotype and sequence of D8. In the absence of an epidemiological linkage between the clusters, the genotype information indicates that it is likely that there have been further undiagnosed (and therefore un-notified) cases of measles in the community.

Under-immunised high school students and infants too young to be vaccinated have been at the greatest risk of disease in these measles clusters. Two doses of measles-mumps-rubella (MMR) vaccine at 12 months and at 4 years of age are recommended for all children.

Pertussis (whooping cough)

During May and June 2012, 962 cases of pertussis were notified in NSW. This is a decrease from the 2036 cases notified for the same period in 2011.

NSW Health recently announced a refocused strategy to help prevent severe disease and death from pertussis by offering free vaccination to new mothers in maternity units or at their GP within 2 weeks of giving birth.³ The program will continue until more definitive evidence becomes available about the effectiveness of vaccinating adults to protect new babies. NSW Health is collaborating with the National Centre for Immunisation Research and Surveillance in a study to assess the effectiveness of this strategy.

Direct protection for young infants remains available through free vaccination that is administered at 2, 4 and 6 months of age. The first dose can be provided as early as 6 weeks of age. There is also a booster dose at 3½ to 4 years of age.

Sexually transmissible infections/bloodborne viruses

HIV infections

In 2011, 330 people were newly diagnosed with HIV infection in NSW, an increased number than in 2010 ($n=307$), but similar to the previous 3-year average of 320. Of those newly diagnosed in 2011, 309 (94%) were male and the median age at diagnosis was 35 years. The probable risk exposure category of most of the case-patients was reported to be homosexual contact ($n=277$, 84%), with the exposure category of the others reported to be: heterosexual contact ($n=42$, 13%), injecting drug use ($n=8$, 2.4%) and other/unknown source ($n=3$, 0.9%).

The median age of homosexually-acquired HIV case-patients was 34 years and more than half of these people ($n=163$, 59%) were Australian-born. Three-quarters (73%) of homosexually-acquired infections were thought to be acquired in Australia, while 14% were reported to have been acquired overseas. There was an increase in both the number and proportion of homosexually-acquired HIV infections notified in 2011 ($n=277$, 84%) compared to 2010 ($n=235$, 77%).

Of the 42 heterosexually-acquired cases, 26 (67%) were male and 16 (43%) were female. The median age was 40 years. Fifteen case-patients (36%) were born in Australia, 12 (29%) were born in high HIV prevalence countries,⁴ 14 (33%) were born in countries not classified as having a high prevalence of HIV infection and there was one (2.4%) case-patient for whom the country of birth was not stated.

Of the eight case-patients whose likely risk exposure was injecting drug use, four were men and four were women. The median age of this group was 41 years.

Promoting safe sex practices, particularly among men with homosexual exposures, remains important in the prevention of HIV infection.

A summary of 2011 HIV surveillance data has been published on the NSW Health website at http://www.health.nsw.gov.au/resources/publichealth/infectious/diseases/hiv_aids/new_diagnoses_hiv_infection_2011.pdf and http://www.health.nsw.gov.au/resources/publichealth/infectious/diseases/hiv_aids/hiv_surveillance_data_2011.pdf.

References

1. National Health and Medical Research Council. The Australian Immunisation Handbook. 9th ed. Canberra: Australian Government Department of Health and Ageing; 2008.
2. Rota PA, Brown K, Mankertz A, Santibanez S, Shulga S, Muller CP et al. Global distribution of measles genotypes and measles molecular epidemiology. *J Infect Dis* 2011; 204(Supplement 1): S514–23. doi:10.1093/infdis/jir118
3. NSW Health. New Strategy To Control Whooping Cough Spread In NSW. [Internet]. Available at: http://www.health.nsw.gov.au/news/2012/20120622_00.html (Cited 9 July 2012).
4. Joint United Nations Programme on HIV/AIDS (UNAIDS). Report on the global AIDS epidemic 2010. UNAIDS; 2010. Available at: <http://www.unaids.org>

Figure 1. Reports of selected communicable diseases, NSW, Jan 2004 to June 2012, by month of onset

Preliminary data: case counts in recent months may increase because of reporting delays.

Laboratory-confirmed cases only, except for measles, meningococcal disease and pertussis.

BFV = Barmah Forest virus infections, RRV = Ross River virus infections,

lab conf = laboratory confirmed,

Men Gp C and Gp B = meningococcal disease due to serogroup C and serogroup B infection,

other/unk = other or unknown serogroups.

NB: Multiple series in graphs are stacked, except gastroenteritis outbreaks.

NB: Outbreaks are more likely to be reported by nursing homes and hospitals than by other institutions.

NSW Population	
Male	50%
<5 y	7%
5–24 y	27%
25–64 y	53%
65+ y	13%
Rural	46%

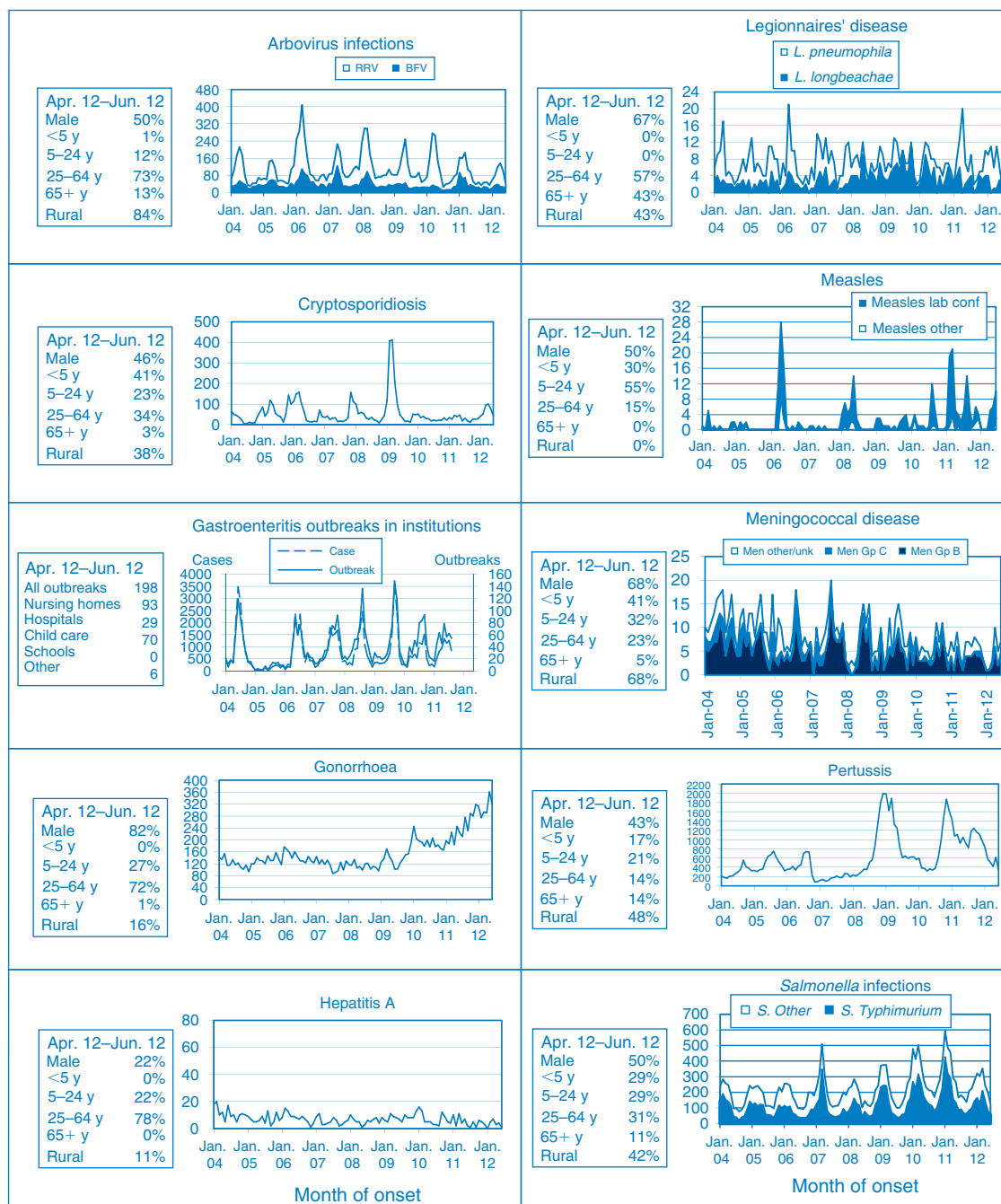


Table 1. Reports of scheduled medical conditions received in May 2012 by Local Health District, NSW

Condition	Local Health District											Justice Health	Total				
	Murrumbidgee	Southern NSW	Western NSW	Far West	Hunter New England	Northern NSW	Mid North Coast	Central Coast	Northern Sydney	South Eastern Sydney	Illawarra Shoalhaven			Sydney	South Western Sydney	Nepean Blue Mountains	
Bloodborne and sexually transmitted																	
Chancroid ^a	54	27	74	12	348	98	57	95	142	364	124	207	212	178	22	2109	9425
Chlamydia (genital) ^a	1	2	1	3	32	5	4	4	26	113	11	93	35	42	2	383	1673
Gonorrhoea ^a	4	3	5	3	6	1	2	4	15	27	7	48	33	54	5	219	1003
Hepatitis B – acute viral ^a	8	8	15	8	25	15	4	24	8	29	11	37	29	34	12	276	1427
Hepatitis C – acute viral ^a																4	18
Hepatitis D – unspecified ^a																6	3
Lymphogranuloma venereum	2	2	2		3			1	5	20	2	10	9			57	283
Syphilis																	
Vectorborne																	
Barmah Forest virus ^a	1	1			12	11	4	1	1		4					35	160
Ross River virus ^a	27	2	12	1	28	18	6	4			5	3	2		1	114	389
Arboviral infection (other) ^a		2	1		2	4	1	2	9	3		7	4			38	149
Malaria ^a	1								1	1	1		1	3		8	25
Zoonoses																	
Anthrax ^a																	
Brucellosis ^a														1		1	2
Leptospirosis ^a	1	1				2					1					5	
Lysavirus ^a																	
Psittacosis ^a																2	8
Q fever ^a				1	1	6	1				1					10	59
Respiratory and other																	
Blood lead level ^a	7	1	10	12	14	2			4	1	1	3	3	2		61	182
Influenza ^a	2	1	3		8	19		1	36	36	1	18	32	44		209	536
Invasive pneumococcal infection ^a	2		2		10	2	1	4	7	7	8	5	1	7		61	158
Legionella longbeachae infection ^a								1								1	12
Legionella pneumophila infection ^a					1	1						1		4		7	39
Legionnaires' disease (other) ^a																1	5
Leprosy																	
Meningococcal infection (invasive) ^a	1		1				1		2	2	1	4	1	3		6	22
Tuberculosis										9						20	120
Vaccine-preventable																	
Adverse event after immunisation	8	4			4	3	2		1			1	2	1		26	80
H. influenzae b infection (invasive) ^a																	
Measles									1					5		7	12
Mumps ^a						1			8	5		3	2	3		22	52
Pertussis	25	27	37		63	30	22	15	58	37	53	19	51	88		617	3175
Rubella ^a									1							1	6
Tetanus																	
Enteric																	
Botulism																	
Cholera ^a													1			1	1
Cryptosporidiosis ^a	3	4	1		13	10	4	4	16	15	4	9	5	9		100	398
Giardiasis ^a	3	5	11		19	2	4	9	36	51	16	18	20	14	1	227	1067
Haemolytic uraemic syndrome																	
Hepatitis A ^a						1				3		1		2		7	19
Hepatitis E ^a																	3
Listeriosis ^a													1			2	16
Rotavirus ^a	5		4		13	2	1		1	9		1	2	12		55	284
Salmonellosis ^a	14	6	8	2	23	20	9	8	32	26	9	23	31	22	4	242	1517
Shigellosis ^a			1				1		1	1			3	1		9	62
Typhoid ^a	1				1		1			1			1	1		6	25
Verotoxin-producing E. coli ^a		1				2										3	10
Miscellaneous																	
Creutzfeldt-Jakob disease																	1
Meningococcal conjunctivitis																	

^aLaboratory-confirmed cases only. ^bIncludes cases with unknown postcode.
 NB: Data are current and accurate as at the preparation date. The number of cases reported is, however, subject to change, as cases may be entered at a later date or retracted upon further investigation.
 Data is reported as of Local Health District.
 Source: Notifiable Conditions Information Management System, Centre for Health Protection, NSW Ministry of Health.

Table 2. Reports of scheduled medical conditions received in June 2012 by Local Health District, NSW

Condition	Murrumbidgee	Southern NSW	Western NSW	Far West	Hunter New England	Northern NSW	Mid North Coast	Local Health District	South Eastern Sydney	Illawarra Shoalhaven	Sydney	South Western Sydney	Western Sydney	Nepean Blue Mountains	Justice Health	Total For June ^b	Total Year to date ^b
Bloodborne and sexually transmitted																	
Chancroid ^a	56	28	59	17	208	71	45	75	158	81	150	121	141	50	9	1533	10 958
Chlamydia (genital) ^a	6	1	3	9	18	5	3	5	19	7	70	30	27	9	—	331	2004
Gonorrhoea ^a	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	12
Hepatitis B – acute viral ^a	1	—	2	1	3	1	6	6	24	11	29	36	33	2	3	182	1185
Hepatitis B – other ^a	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	22
Hepatitis C – acute viral ^a	6	8	8	7	17	18	10	16	14	12	26	35	25	15	19	251	1678
Hepatitis C – other ^a	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3
Hepatitis D – unspecified ^a	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	7
Lymphogranuloma venereum	1	1	2	1	—	—	1	3	1	2	—	—	—	—	—	32	315
Syphilis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Vectorborne																	
Barmah Forest virus ^a	—	—	—	—	2	10	5	2	1	2	—	—	—	—	—	23	183
Ross River virus ^a	7	—	—	1	9	7	1	1	—	1	1	3	—	—	—	32	421
Arboviral infection (other) ^a	—	1	—	—	1	2	—	—	3	1	—	3	1	—	—	16	165
Malaria ^a	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	1	26
Zoonoses																	
Anthrax ^a	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Brucellosis ^a	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Leptospirosis ^a	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	15
Lyssavirus ^a	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Psittacosis ^a	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Q fever ^a	1	—	—	—	3	1	1	—	1	1	—	—	—	—	—	7	66
Respiratory and other																	
Blood lead level ^a	23	1	13	3	7	—	—	1	—	2	—	—	3	—	—	58	240
Influenza ^a	3	12	12	1	87	121	20	20	222	14	97	200	274	54	—	1326	1862
Invasive pneumococcal infection ^a	4	4	4	1	6	—	1	2	9	5	2	7	6	5	—	64	222
<i>Legionella longbeachae</i> infection ^a	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	2	14
<i>Legionella pneumophila</i> infection ^a	1	—	—	—	—	—	—	—	—	—	1	—	—	—	—	3	42
Legionnaires' disease (other) ^a	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	1	6
Leprosy	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
Meningococcal infection (invasive) ^a	—	—	—	—	1	—	1	—	—	3	—	—	1	—	—	6	28
Tuberculosis	—	—	—	—	—	—	—	—	4	1	3	2	2	—	—	16	136
Vaccine-preventable																	
Adverse event after immunisation	1	—	1	—	2	—	—	—	3	4	—	—	6	—	—	17	97
<i>H. influenzae b</i> infection (invasive) ^a	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Measles	—	—	—	—	—	—	—	—	1	—	—	6	1	—	—	8	20
Mumps ^a	—	—	—	—	—	—	—	—	3	—	—	1	1	—	—	13	65
Pertussis	19	37	26	—	22	20	15	18	27	41	9	40	21	26	—	345	3520
Rubella ^a	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1	7
Tetanus	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enteric																	
Botulism	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cholera ^a	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Cryptosporidiosis ^a	1	1	1	—	3	—	1	5	11	—	3	2	3	—	—	42	440
Giardiasis ^a	2	1	6	—	23	2	2	9	28	8	16	8	9	9	—	141	12 108
Haemolytic uraemic syndrome	—	—	1	—	—	—	—	—	2	—	—	—	1	—	—	4	6
Hepatitis A ^a	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	1	20
Hepatitis E ^a	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	1	4
Listeriosis ^a	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	3	19
Rotavirus ^a	1	—	—	—	14	5	1	2	4	1	7	1	4	6	—	57	341
Salmonellosis ^a	8	1	6	2	18	8	3	2	20	8	17	17	11	5	—	139	1656
Shigellosis ^a	1	—	—	—	—	1	—	—	—	—	1	—	—	—	—	5	67
Typhoid ^a	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	2	27
Verotoxin-producing <i>E. coli</i> ^a	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10
Miscellaneous																	
Creutzfeldt–Jakob disease	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Meningococcal conjunctivitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

^aLaboratory-confirmed cases only. ^bIncludes cases with unknown postcode.

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