COMMUNICABLE DISEASES REPORT, NSW, FOR JANUARY AND FEBRUARY 2005

For updated information, visit www.health.nsw.gov.au and click on Infectious Diseases.

TRENDS

Tables 2 and 3 and Figure 1 show reports of communicable diseases received through to the end of February 2005 in NSW. Notably, relatively few cases of Ross River virus and Barmah Forest virus infections were reported over the summer, but the usual summer increase in cryptosporidiosis cases did appear. Twenty-five cases of meningococcal disease were reported in the first two months of 2005 (12 in January and 13 in February). Of these, 14 were reported to be due to serogroup B infection and five to serogroup C infection. Two individuals died; both cases had been reported in January.

Enteric disease

An increase in infections due to *Salmonella enterica* subspecies enterica serovar Typhimurium phage type 170 (STM170) over the summer period was identified in NSW with 198 cases reported from mid-October to the end of February. This included 60 cases in February. STM170 was the most commonly reported *Salmonella* serotype in NSW in 2003 (n=240) and 2004 (n=348). For the last quarter of 2004 there was a 74 per cent increase in the number of cases reported compared to the same period in 2003. STM170 accounted for 47% of all *S*. Typhimurium notifications in the period from October 2004 to February 2005.

NSW Health's public health units, the Communicable Diseases Branch and the NSW Food Authority investigated this increase. This involved a review of the literature for similar outbreaks, a review of past laboratory reports of non-human isolates of STM170 bacteria, extensive interviews with cases about all foods eaten and other exposures in the three days before onset of illness, and an assessment of food handling procedures by selected food retailers. Despite these measures a source of the infection could not be established. A statewide case-control study comparing dietary risk factors of the cases with those of a group of randomly selected controls is underway.

In February, an increase in infections due to *Salmonella* Typhimurium phage type 197 was identified. Fifteen cases were reported. Case interviews conducted by three public health units found that the majority of the patients were born in Lebanon and/or were Arabic speaking. Detailed interviews with the cases are continuing in an attempt to identify a common source of infection.

Legionnaires' disease outbreak in Wollongong

The South Eastern Sydney/Illawarra Public Health Unit reported a Legionnaires' disease outbreak in Wollongong in February. The first case, a man in his 70s, was notified to the local public health unit by a diagnostic laboratory on 10 January. On interview the patient reported headaches and fever starting on 31 December 2004. He reported frequent visits to the Wollongong central business district in the two to 10 days before the onset of his symptoms.

Legionnaires' disease is a bacterial infection characterised by symptoms of malaise, muscle aches and anorexia, followed by fever, chills, dry cough and pneumonia. Gastrointestinal symptoms may occur. The case fatality rate is up to 39 per cent of hospitalised patients, and may be higher among people with underlying diseases. Known risk factors include male gender, smoking, increasing age, immune suppression and chronic diseases.[1]

Legionella pneumophila bacteria can thrive in certain aqueous environments, such as untreated air conditioning cooling towers, hot water systems and decorative fountains. Legionnaires' disease is transmitted from these environments when people breath in contaminated aerosols. Person-to-person transmission has not been reported. The incubation period is between two and 10 days.[1]

A large outbreak of legionnaires' disease occurred in Wollongong in 1987, when at least 44 cases and nine deaths were identified.[2] As a consequence, the current outbreak caused understandable community concern.

The public health unit notified the local council that a case had been reported with a potential epidemiological link to the city centre and as a precaution the council brought forward its routine cooling tower inspection and sampling program. Subsequently a second case, a man in his 30s, was notified on the 27 January. He had become ill on 30 December. The man reported also visiting the city centre during the incubation period. The public health unit sent an alert to general practitioners, emergency departments and diagnostic laboratories in the area, informing them of the two cases, asking them to consider the diagnosis of Legionnaires' disease in patients with pneumonia, and to collect urine samples for Legionella antigen testing, sera for antibody testing and sputum samples for bacterial examination. A media release was issued to alert the public and other professionals were informed.

The council inspections and testing identified the presence of Legionella pneumophila serogroup 1 bacteria in the cooling towers of three buildings in the central business district. These towers were cleaned and disinfected by 11 February. As a precaution, building owners voluntarily arranged for the remaining cooling towers in the city centre to be cleaned at about the same time.

A second alert was sent out to local general practitioners, emergency departments and diagnostic laboratories on 10

February and daily media statements were initiated. The public health unit established an 1800 hotline to keep the public and health workers informed and to identify further concerns.

By mid-March, a total of 14 cases of Legionnaires' disease had been reported. Of these, 12 were initially diagnosed by detection of urinary antigen and two by a fourfold rise in antibody titres to *Legionella pneumophila* serogroup 1. Nine people were hospitalised. There were no fatalities. Indeed, a notable factor in this outbreak was the mild nature of the symptoms. The area public health unit, assisted by two members of the NSW Public Health Officer Training Program, interviewed every patient in person, using a detailed questionnaire developed for the outbreak, and mapped their movements for each of the 10 days before they became ill. The people affected were aged from 18 to 88 years, and 86% were male. Mapping of their movements revealed the Wollongong city centre as the only common exposure for all cases. However, three people reported only limited links to the city centre.

This outbreak highlights the importance for building owners to ensure that any cooling towers are well maintained through regular inspection and disinfection. For guidance on control measures see: www.health.nsw.gov.au/pubs/2004/pdf/legionnaires_disease.pdf.

References

1. Heymann DL, editor. *Control of communicable diseases manual*. 18th ed. Washington, DC: American Public Health Association, 2004: 292–5
2. Christopher PJ, Noonan LM, Chiew R. Epidemic of legionnaires' disease in Wollongong. *Med J Aust* 1987; 147: 127–8.

QUARTERLY REPORT: AUSTRALIAN CHILDHOOD IMMUNISATION REGISTER

Table 1 compares the percentages of fully immunicsed indigenous and non-indigenous children in New South Wales aged 12 months to less than 15 months in each area health service, reported by all service providers. The data for indigenous children are reported for the first time.

These data refer to children whose age has been calculated 90 days before data extraction. The information in the report has been extracted from the Australian Childhood Immunisation Register and may be underestimated by approximately three per cent, due to children being vaccinated late or to service providers failing to forward information to the register.

TABLE 1

PERCENTAGE OF INDIGENOUS AND NON-INDIGENOUS CHILDREN IN NSW AGED 12 MONTHS TO LESS THAN 15 MONTHS WHO ARE FULLY IMMUNISED

Area Health Service	31/03/2005 Non-indigenous	31/03/2005 Indigenous
Great Southern	93	91
Great Western	92	87
Hunter / New England	93	87
North Coast	86	84
Northern Sydney / Central Coast	90	100
South Eastern Sydney / Illawarra	90	88
South Western Sydney	90	91
Western Sydney	91	85
NSW	91	89
AUSTRALIA	91	86

FIGURE 1

REPORTS OF SELECTED COMMUNICABLE DISEASES, NSW, JAN 1999 TO FEB 2005, 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+ = 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 from other institutions

NSW population	
Male	50%
<5	7%
5–24	28%
25–64	52%
65+	13%
Rural*	42%

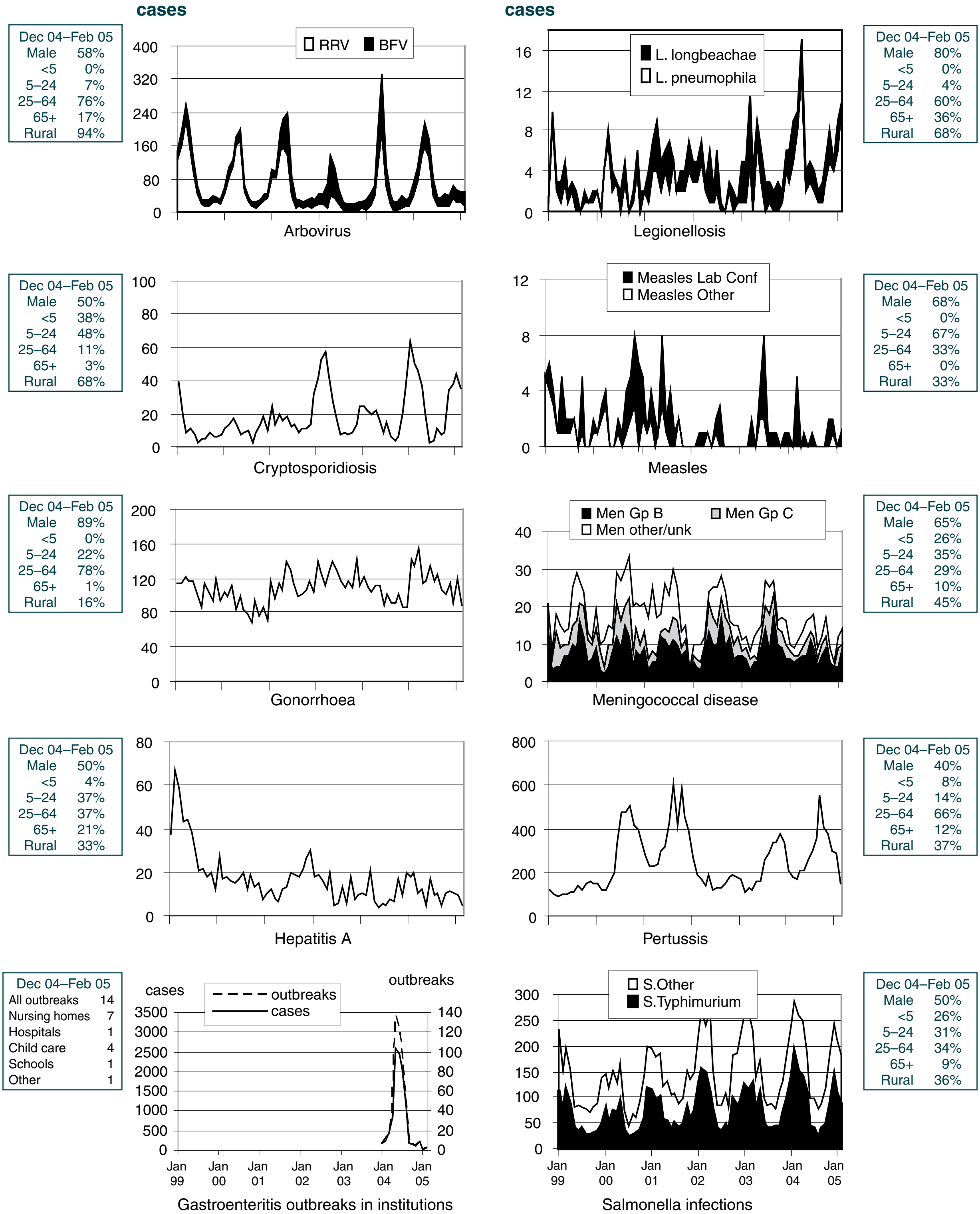

TABLE 2 REPORTS OF NOTIFIABLE CONDITIONS RECEIVED IN JANUARY 2005 BY AREA HEALTH SERVICES

Condition	Area Health Service (2005) CSA	NSA	WSA	WEN	SWS	CCA	HUN	ILL	SES	NRA	MNC	NEA	MAC	MWA	FWA	GMA	SA	CHS	Total for Jan†	To date†
Blood-borne and sexually transmitted																				
Chancroid*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlamydia (genital)*	78	93	78	10	72	30	85	32	154	43	32	32	6	18	-	17	15	6	813	813
Gonorrhoea*	24	13	5	1	2	1	8	3	31	7	3	2	3	-	-	1	-	-	105	105
Hepatitis B—acute viral*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hepatitis B—other*	43	34	46	5	76	3	8	5	30	4	3	3	-	4	-	3	-	4	272	272
Hepatitis C—acute viral*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hepatitis C—other*	37	25	31	17	58	25	28	17	60	14	19	3	4	10	-	10	15	22	399	399
Hepatitis D—unspecified*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Syphilis	18	7	6	-	10	1	1	-	16	2	1	-	-	2	-	-	-	1	65	65
Vector-borne																				
Barmah Forest virus*	-	-	-	-	-	-	3	1	-	13	12	1	-	-	1	1	-	-	32	32
Ross River virus*	-	1	-	-	1	1	3	-	-	4	8	7	-	2	-	-	2	-	29	29
Arboviral infection (other)*	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	2	2
Malaria*	3	-	1	-	2	-	1	-	1	-	-	-	-	-	-	1	-	-	9	9
Zoonoses																				
Anthrax*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brucellosis*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Leptospirosis*	-	-	-	-	-	-	-	-	-	2	-	2	-	1	-	-	-	-	6	6
Lyssavirus*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Psittacosis*	-	1	-	1	-	-	3	1	-	-	-	3	-	-	-	3	-	-	12	12
Q fever*	-	-	-	-	-	-	5	-	-	-	-	8	2	-	-	-	-	-	15	15
Respiratory and other																				
Blood lead level*	2	-	-	1	3	-	1	-	-	-	-	-	-	-	-	-	1	-	8	8
Influenza*	-	6	16	2	8	2	-	3	43	1	-	-	13	2	-	-	2	-	98	98
Invasive pneumococcal infection*	5	9	4	2	3	2	9	3	3	1	3	-	3	-	-	1	1	-	49	49
Legionella longbeachae infection*	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	2	2
Legionella pneumophila infection*	-	-	1	-	-	-	-	2	-	-	-	-	-	-	-	1	-	-	4	4
Legionnaires- disease (other)*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Leprosy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Meningococcal infection (invasive)*	-	2	1	-	1	2	2	1	-	-	-	-	1	-	-	-	-	-	10	10
Tuberculosis	11	6	6	-	5	1	-	1	2	-	-	-	-	-	-	-	-	-	33	33
Vaccine-preventable																				
Adverse event after immunisation**	-	-	-	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	3	3
H. *Influenzae b* infection (invasive)*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Measles	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	1
Mumps*	1	7	1	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	11	11
Pertussis	27	43	36	20	27	12	16	8	54	9	21	7	27	4	-	8	3	-	322	322
Rubella*	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Tetanus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Enteric																				
Botulism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cholera*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cryptosporidiosis*	1	1	3	1	2	1	6	1	3	4	3	5	-	1	-	6	-	-	38	38
Giardiasis*	7	23	9	1	3	5	11	7	14	2	-	3	2	1	-	2	1	-	91	91
Haemolytic uraemic syndrome	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
HepatitisA*	-	-	1	1	3	-	-	-	-	2	-	2	1	1	-	1	-	-	12	12
HepatitisE*	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	1
Listeriosis*	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Salmonellosis*	20	22	22	10	32	11	15	5	28	22	9	8	-	3	-	15	4	-	227	227
Shigellosis*	-	1	-	-	1	-	-	-	2	3	-	-	1	-	-	-	-	-	8	8
Typhoid and paratyphoid*	1	-	1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4
Verotoxin producing *E. coli**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous																				
Creutzfeldt-Jakob disease	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Meningococcal conjunctivitis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* lab-confirmed cases only † includes cases with unknown postcode ** HIV and AIDS data are reported separately in the Public Health Bulletin quarterly

** AEFIs notified by the school vaccination teams during the National Meningococcal C Program are not included in these figures. These notifications are reviewed regularly by a panel of experts and the results will be published quarterly in the Public Health Bulletin in 2004

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TABLE 3 REPORTS OF NOTIFIABLE CONDITIONS RECEIVED IN FEBRUARY 2005 BY AREA HEALTH SERVICES

Condition	Area Health Service (2005) CSA	NSA	WSA	WEN	SWS	CCA	HUN	ILL	SES	NRA	MNC	NEA	MAC	MWA	FWA	GMA	SA	CHS	Total for Feb†	To date†
Blood-borne and sexually transmitted																				
Chancroid*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlamydia (genital)*	115	96	89	17	69	39	74	51	210	36	22	23	6	28	6	29	24	5	948	1772
Gonorrhoea*	29	10	13	2	9	1	5	2	48	4	-	-	1	-	-	-	2	1	128	2033
Hepatitis B—acute viral*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hepatitis B—other*	51	27	47	8	37	5	1	7	39	4	1	4	2	1	-	2	2	1	240	514
Hepatitis C—acute viral*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hepatitis C—other*	56	21	32	26	40	37	28	36	38	32	24	14	4	13	-	5	9	19	443	853
Hepatitis D—unspecified*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Syphilis	19	9	11	-	16	-	-	-	22	3	1	1	2	1	-	1	-	-	86	151
Vector-borne																				
Barmah Forest virus*	-	-	-	-	-	-	4	1	-	10	15	3	-	-	-	-	2	-	35	66
Ross River virus*	-	-	-	-	1	1	-	-	-	4	4	1	2	1	1	2	-	-	17	45
Arboviral infection (other)*	2	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	-	4	6
Malaria*	-	1	-	-	-	-	4	-	2	2	-	-	-	-	-	-	-	-	9	18
Zoonoses																				
Anthrax*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brucellosis*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Leptospirosis*	-	-	-	-	-	-	-	-	-	1	1	1	-	-	-	1	-	-	4	10
Lyssavirus*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Psittacosis*	-	-	-	-	1	-	-	1	-	-	-	1	-	-	-	1	-	-	4	16
Q fever*	-	-	-	-	-	-	2	-	-	-	3	2	-	-	-	-	-	-	7	22
Respiratory and other																				
Blood lead level*	1	1	-	-	1	-	5	-	-	1	1	-	-	-	-	-	-	-	10	18
Influenza*	3	5	23	1	23	1	-	4	48	-	-	-	7	-	-	5	-	-	121	219
Invasive pneumococcal infection*	4	3	2	1	3	-	6	3	-	3	1	1	-	-	-	1	2	-	30	81
Legionella longbeachae infection*	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	3
Legionella pneumophila infection*	1	-	2	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	15	18
Legionnaires- disease (other)*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Leprosy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Meningococcal infection (invasive)*	1	-	6	1	2	1	1	-	-	-	-	1	-	1	-	1	-	-	16	26
Tuberculosis	3	-	10	-	3	1	2	2	10	1	3	-	-	-	-	-	-	-	35	69
Vaccine-preventable																				
Adverse event after immunisation**	-	1	1	-	-	-	1	-	1	-	-	2	-	-	-	-	-	-	6	9
H. *Influenzae b* infection (invasive)*	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2
Measles	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	2
Mumps*	2	6	1	-	4	-	1	-	2	-	-	-	1	-	-	-	-	-	17	28
Pertussis	20	37	49	20	23	10	36	12	47	13	6	4	5	5	-	3	1	1	292	614
Rubella*	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	2	3
Tetanus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Enteric																				
Botulism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cholera*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cryptosporidiosis*	-	-	6	2	1	-	6	5	7	8	3	3	2	3	-	3	-	-	49	87
Giardiasis*	13	24	16	6	8	6	12	7	21	3	4	3	2	4	-	4	2	-	136	229
Haemolytic uraemic syndrome	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	2	3
HepatitisA*	1	1	2	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	5	17
HepatitisE*	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	4
Listeriosis*	-	-	-	-	-	-	1	1	1	-	-	-	-	-	-	-	1	-	4	5
Salmonellosis*	30	31	27	14	24	14	13	5	41	22	6	5	1	6	1	2	1	-	245	473
Shigellosis*	2	1	-	-	-	-	1	-	3	4	1	1	1	-	-	-	-	-	14	22
Typhoid and paratyphoid*	3	-	-	-	1	1	-	-	2	-	1	-	-	-	-	-	-	-	8	12
Verotoxin producing *E. coli**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous																				
Creutzfeldt-Jakob disease	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Meningococcal conjunctivitis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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