

Communicable Diseases Report, NSW, May and June 2010

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 3 and Tables 1 and 2 show reports of communicable diseases received through to the end of May and June 2010 in New South Wales (NSW).

Enteric infections

Typhoid

Three cases of typhoid fever were reported in NSW in May and June 2010. All cases reported a history of overseas travel to India during their exposure period. Eighteen cases have been reported in NSW so far this year. For the same period in 2009, 22 cases were reported.

Typhoid is caused by the bacteria *Salmonella Typhi* and is transmitted by the faecal-oral route, primarily by ingesting food or water contaminated by faeces or urine. The symptoms of typhoid fever may include fever, headache, general discomfort and lack of appetite; a dry cough and constipation or diarrhoea may also occur. Typhoid infections in NSW are usually acquired while people are travelling overseas to countries where they may ingest contaminated water or food.

Outbreaks of foodborne disease

Seven outbreaks of suspected foodborne disease were reported in May and June 2010. Data from public health investigations are available on four of these outbreaks which affected 35 people. *Salmonella* was the cause of three of the four outbreaks which were associated with foods including chicken curry, chicken kebab, hummus, tabouli, and chicken in cheese sauce. *Campylobacter jejuni* was the cause of the fourth outbreak, suspected to be associated with undercooked chicken.

Outbreaks of gastroenteritis in institutional settings

Eighty-four outbreaks of gastroenteritis in institutions were reported in May and June 2010, affecting 1275 people. Of these, 40 outbreaks occurred in aged-care facilities, 30 in child-care centres, nine in hospitals, two in schools, two in residential facilities and one at a naval base. Eighty-three outbreaks appear to have been caused by person-to-person spread of a viral illness and one was foodborne.

Viral gastroenteritis tends to peak in winter months, with up to 15 outbreaks per week reported in peak months.

Gastroenteritis in the community

The number of patients presenting with gastrointestinal illness to emergency departments in NSW increased slightly but remains within the usual range for this time of year (includes data from 56 NSW emergency departments) (Figure 1).

Respiratory infections

Legionnaires' disease

Seven cases of Legionnaires' disease caused by *L. pneumophila* were reported in NSW in May and June 2010. No common links between cases were identified through local public health unit investigations. Four cases occurred in residents of metropolitan Sydney and three in residents of regional NSW. To date this year, 40 cases of Legionnaires' disease (18 caused by *L. pneumophila*) have been reported in NSW. For the same period in 2009, 20 legionellosis cases (seven caused by *L. pneumophila*) were reported. For the same period in 2009, 52 cases were reported.

Influenza

The number of patients presenting with influenza-like illness in NSW remained low (includes information from 56 NSW emergency departments) (Figure 2).

Seasonal influenza vaccination for young children

The Australian Chief Medical Officer, Professor Jim Bishop, has advised that children aged from 6 months to less than 5 years of age can now be vaccinated against influenza using Vaxigrip® or Influxac® seasonal influenza vaccine. Seasonal influenza vaccination in this age group had been halted following reports of an increase in the rate of febrile convulsions in the 24 hours after vaccination with 2010 seasonal influenza vaccines.

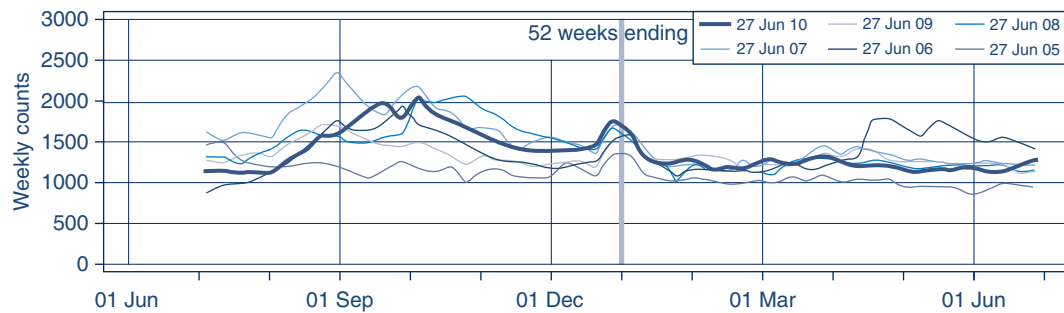


Figure 1. Total weekly counts of emergency department visits for gastrointestinal illness, for the 12 months to 27 June 2010 (thick line), compared with each of the 5 previous years (coloured lines) (includes data from 56 NSW emergency departments).

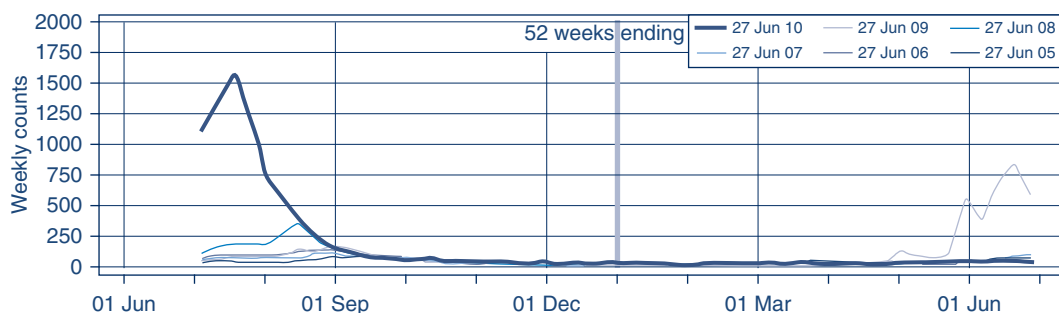


Figure 2. Total weekly counts of emergency department visits for influenza-like illness, for the 12 months to 27 June 2010 (thick line), compared with each of the 5 previous years (coloured lines) (includes data from 56 NSW emergency departments).

Epidemiological investigations have confirmed that the increase in rates of febrile convulsions has only been documented for the 2010 Fluvax[®] and Fluvax[®] Junior seasonal influenza vaccines. Investigations from New Zealand (where Vaxigrip[®] has been widely used during the 2010 influenza season) did not demonstrate any increase in rates of febrile convulsions; the analysis of Australian data for Inluvac[®] also does not demonstrate any increase in rates of febrile convulsions.

As a result of these investigations it is recommended that children aged from 6 months to less than 5 years of age may be vaccinated with Vaxigrip[®] or Inluvac[®] following a discussion of the risks and benefits of these vaccines with parents and guardians. This includes both children at risk of medical complications of influenza and healthy children. Vaccination of children in this age group with Fluvax[®] and Fluvax[®] Junior is not recommended due to the identified increase risk of febrile convulsions.

Further information can be found on the Australian Department of Health website: <http://www.health.gov.au/>

Vaccine-preventable diseases

Measles

Two cases of measles were reported in adults who had recently returned from overseas travel to Italy and Sri Lanka. One case was unimmunised and the other had an unknown

vaccination history. There have been no reports of secondary transmission associated with these cases.

Eight cases of measles have been reported in NSW this year (seven of these had travelled overseas and one was a contact of a known case). In 2009, nine cases were reported in NSW for the corresponding period.

As previously reported, most cases of measles in NSW are seen in travellers who return with the infection from countries where measles is endemic and who are exposed to a known case. Many people who were born since 1966 and before the mid-80s are not immune to measles because they have neither acquired the measles infection nor received two doses of a measles vaccine. Measles vaccine is now routinely given to infants at 12 months and at 4 years, and this confers long-lasting immunity.

Meningococcal disease

Eight cases of meningococcal disease were reported in NSW in May and June 2010. The ages of the affected people ranged from 0 to 82 years (five were aged less than 5 years, one was aged 25–30 years and two were aged over 50 years). Five cases were female. Of the eight cases, four were due to serogroup B, one (an elderly woman with unknown vaccination status) was due to serogroup C, and for three clinically diagnosed cases the serogroup was unknown. For the same period in 2009, 16 cases were

reported. Twenty-nine cases and three deaths due to meningococcal disease have been reported so far in 2010. Forty-two cases were reported between January and June 2009.

A free vaccine is available for infants at 12 months of age. Consequently, serogroup C meningococcal disease is now mainly seen in adults and in unimmunised children. In NSW in 2009, 80% of cases of meningococcal disease (where serogroup was known) were caused by serogroup B, for which there is no vaccine.

Haemophilus influenzae type b invasive infection

Two cases of *Haemophilus influenzae* type b invasive infection (Hib) were reported in NSW in May and June 2010 (one an infant and one a child aged 3 years). Both cases were fully vaccinated for age; one case resided in regional NSW and the other in metropolitan Sydney. No other cases have been reported this year in NSW.

For the same period in 2009, two cases of Hib were reported in children aged less than 5 years and four cases in children aged over 5 years.

Since the introduction of a vaccine in 1993, invasive Hib infection has become rare. Hib disease is caused by

infection with *Haemophilus influenzae* type b bacteria. Infection can cause meningitis, epiglottitis (severe swelling of the epiglottis at the back of the throat) and pneumonia. These conditions can develop quickly, and meningitis and epiglottitis can be fatal.

Sexually transmissible infections

Lymphogranuloma venereum

Six cases of lymphogranuloma venereum were reported in metropolitan Sydney in May and June 2010. The infections were acquired locally and all cases were men aged between 32 and 52 years. Sixteen cases have been reported to date in 2010. In 2009, three cases were reported.

Lymphogranuloma venereum is a rare sexually transmitted chlamydial infection that spreads through unprotected vaginal, anal or oral sexual contact, especially if there is trauma to the skin or mucous membranes. Men who have sex with men, especially those who have unprotected anal sex, are at greatest risk. The bacteria that cause lymphogranuloma venereum are rare types of chlamydia, however lymphogranuloma venereum infection is a more aggressive disease than common chlamydia infections. The infection is treated with an extended course of antibiotics.

Figure 3. Reports of selected communicable diseases, NSW, January 2004 to June 2010, 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 infection; 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 & 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%

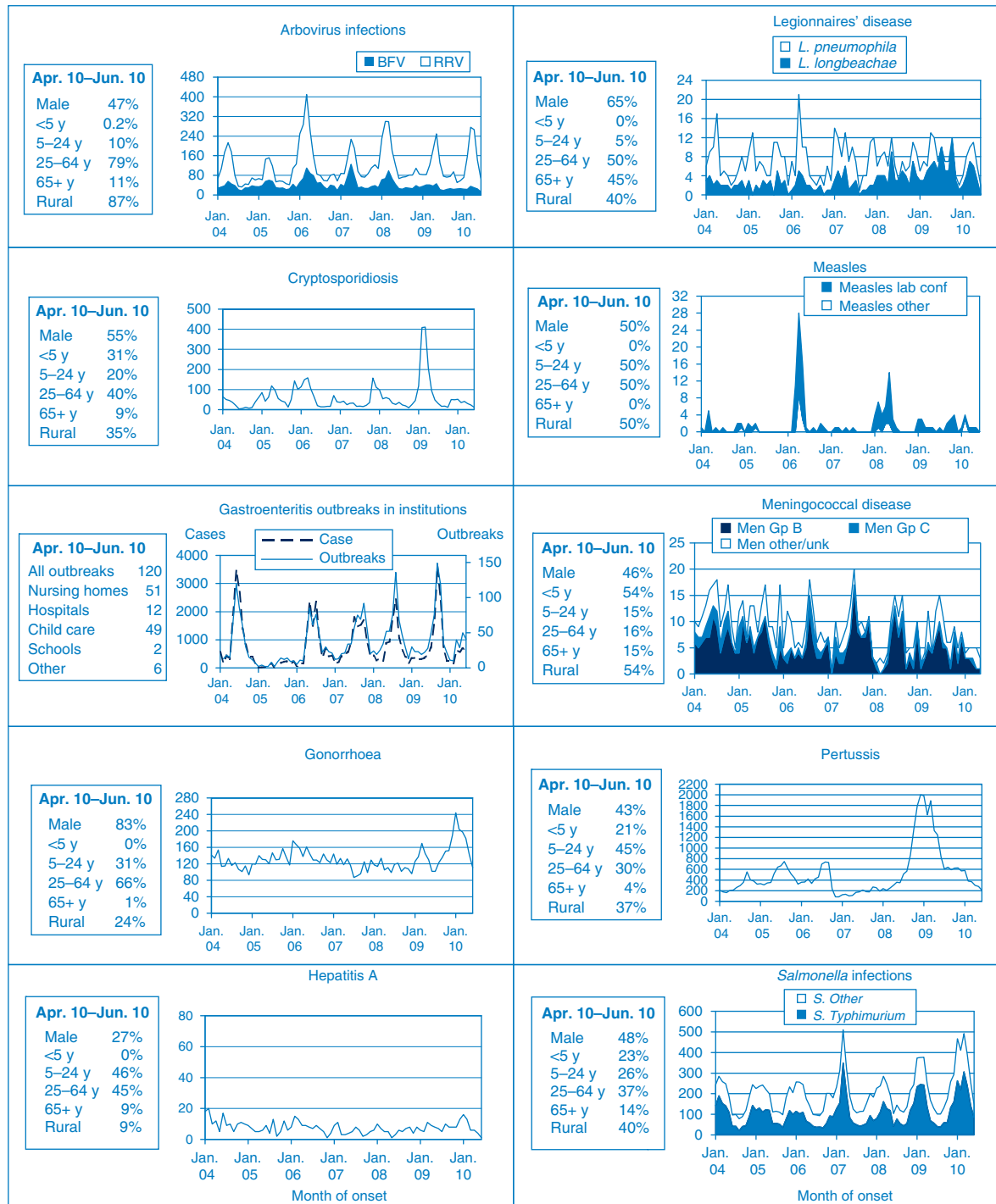


Table 1. Reports of notifiable conditions received in May 2010 by area health services

Condition	Area Health Service (2010)														Total Year to date ^b				
	Greater Southern		Greater Western		Hunter New England		North Coast		Northern Sydney Central Coast		South Eastern Sydney Illawarra		Sydney South West			For May ^b			
	GMA	SA	FWA	MAC	MWA	HUN	NEA	MNC	NRA	CCA	NSA	ILL	SES	CSA	SWS	WEN	WSA	JHS	
Bloodborne and sexually transmitted																			
Chancroid ^a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlamydia (genital) ^a	55	35	10	35	41	165	42	29	61	63	125	97	258	101	111	60	146	16	1452
Gonorrhoea ^a	-	-	-	-	3	12	1	7	6	2	12	2	61	16	6	4	13	-	146
Hepatitis B – acute viral ^a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hepatitis B – other ^a	3	1	1	2	3	6	1	3	2	6	29	3	37	26	39	9	41	10	222
Hepatitis C – acute viral ^a	1	-	-	1	-	-	-	1	-	-	-	-	-	-	3	-	-	-	6
Hepatitis C – other ^a	16	12	1	7	16	31	7	10	26	15	17	12	40	53	34	21	17	24	361
Hepatitis D – unspecified ^a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lymphogranuloma venereum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Syphilis	-	-	-	-	-	3	-	1	-	-	1	1	22	4	1	3	4	-	41
Vectorborne																			
Barmah Forest virus ^a	1	4	-	-	2	8	1	4	10	1	-	-	-	-	-	-	-	-	32
Ross River virus ^a	26	25	15	5	16	10	9	3	30	10	6	2	2	1	4	13	6	-	183
Arboviral infection (other) ^a	-	-	-	-	1	1	-	-	1	1	1	2	2	1	-	-	-	-	11
Malaria ^a	-	-	-	-	-	-	-	-	2	-	-	1	-	3	2	-	-	-	9
Zoonoses																			
Anthrax ^a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brucellosis ^a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Leptospirosis ^a	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1
Lyssavirus ^a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Psittacosis ^a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Q fever ^a	-	-	-	-	1	1	-	-	2	-	-	2	-	-	-	-	-	-	6
57																			
Respiratory and other																			
Blood lead level ^a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Invasive pneumococcal infection ^a	-	-	-	-	1	6	-	-	3	1	6	1	7	4	3	2	4	-	38
Legionella longbeachae infection ^a	-	-	-	-	-	-	-	-	-	1	-	3	1	4	2	2	-	-	8
Legionella pneumophila infection ^a	2	-	-	-	-	-	-	-	-	-	-	1	1	1	1	-	1	-	4
Legionnaires' disease (other) ^a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Leprosy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Meningococcal infection (invasive) ^a	-	-	-	-	-	-	-	-	1	1	-	-	-	-	1	-	-	-	5
Tuberculosis	-	-	-	-	-	2	-	-	-	-	-	2	7	3	2	1	-	-	17
131																			
Vaccine-preventable																			
Adverse event after immunisation	-	-	-	-	1	1	1	-	-	-	2	-	1	-	1	-	-	-	7
H. influenzae b infection (invasive) ^a	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	-	-	-	2
Measles	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	2
Mumps ^a	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
Pertussis	23	9	2	7	13	19	-	12	3	7	34	16	41	12	25	17	44	284	
Rubella ^a	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Tetanus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
Enteric																			
Botulism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cholera ^a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cryptosporidiosis ^a	4	-	-	6	1	1	1	5	1	-	7	11	37	3	2	2	1	1	24
Giardiasis ^a	12	7	-	6	6	20	8	5	1	5	37	11	41	10	3	10	13	1	182
Haemolytic uraemic syndrome	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Hepatitis A ^a	-	-	-	-	1	-	-	-	-	-	1	-	2	-	-	-	-	-	5
Hepatitis E ^a	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	2
Listeriosis ^a	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	7
Rotavirus ^a	1	1	1	1	1	5	-	1	4	6	8	3	6	-	-	4	5	-	18
Salmonellosis ^a	8	5	2	2	2	21	11	7	32	10	44	11	37	35	51	16	37	46	265
Shigellosis ^a	-	-	-	-	-	-	-	-	1	-	2	-	1	-	-	1	-	-	332
Typhoid ^a	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	1	-	-	5
Verotoxin producing E. coli ^a	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	-	-	-	3
8																			
Miscellaneous																			
Creutzfeldt-Jakob disease	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Meningococcal conjunctivitis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

^alaboratory-confirmed cases only ^bincludes cases with unknown postcode
^cNR: 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. Historical area health service configurations are included for continuity/comparison purposes and to highlight regional differences. See www.health.nsw.gov.au/publichealth/infectious/index.asp for up-to-date information.
^dNR: Influenza data are reported separately, see www.health.nsw.gov.au/publichealth/infectious/index.asp for up-to-date information.
^eNR: From 1 January 2005, Hunter New England, AHS also comprises Great Lakes, Gloucester and Greater Taree LGAs (LGA, Local Government Area). Sydney West also comprises Greater Lithgow LGA.
^fNR: HIV and AIDS data are reported separately in the Public Health Bulletin.
GMA: Greater Murray Area; MAC: Macquarie Area; NEA: New England Area; FWA: Far West Area; WSA: Western Sydney Area; CSA: Central Sydney Area; MNC: North Coast Area; HUN: Hunter Area; NEA: Northern Rivers Area; NRA: Northern Rivers Area; WEN: Wentworth Area; SES: South Eastern Sydney Area; CCA: Central Coast Area; MWA: Mid Western Area; SWS: South Western Sydney Area; JHS: Justice Health Service; NSA: Northern Sydney Area; SA: Southern Area; ILL: Illawarra Area; SES: South Eastern Sydney Area; MNC: North Coast Area; WSA: Western Sydney Area; JHS: Justice Health Service.

Table 2. Reports of notifiable conditions received in June 2010 by area health services

Condition	Area Health Service (2010)												Total Year to date ^b								
	Greater Southern			Greater Western			Hunter New England		Northern Sydney Central Coast			South Eastern Sydney Illawarra			Sydney South West			For June ^b			
	GMA	SA	FWA	MAC	MWA	HUN	HUN	NEA	MNC	NRA	CCA	NSA	ILL	SES	CSA	SWS	WEN	WSA	JHS		
Bloodborne and sexually transmitted																					
Chancroid ^a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlamydia (genital) ^a	64	40	23	19	43	247	30	30	50	42	75	102	85	197	5	3	56	118	8	1211	8827
Gonorrhoea ^a	2	-	2	-	1	18	1	1	2	8	3	13	4	76	-	-	2	16	-	148	1149
Hepatitis B - acute viral ^a	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	2	18
Hepatitis B - other ^a	1	1	4	1	2	1	-	-	8	2	2	15	5	25	2	2	8	50	1	133	1414
Hepatitis C - acute viral ^a	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	2	25
Hepatitis C - other ^a	8	15	5	11	14	39	1	1	5	20	14	11	23	44	19	19	14	18	-	283	2362
Hepatitis D - unspecified ^a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Lymphogranuloma venereum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Syphilis	-	-	-	2	1	3	-	-	-	-	-	-	-	10	2	-	-	10	-	28	312
Vectorborne																					
Barmah Forest virus ^a	-	1	-	-	1	2	2	2	1	5	1	1	1	-	1	-	-	-	-	16	155
Ross River virus ^a	9	10	2	1	4	12	4	7	8	8	8	1	1	1	1	-	5	3	-	77	845
Arboviral infection (other) ^a	-	-	-	-	-	-	-	-	3	-	-	-	1	1	-	-	-	-	-	6	48
Malaria ^a	2	1	-	-	-	-	-	1	-	-	-	2	-	2	2	-	-	3	-	13	44
Zoonoses																					
Anthrax ^a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Brucellosis ^a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Leptospirosis ^a	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	9
Lysavirus ^a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Psittacosis ^a	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	2	-
Q fever ^a	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	2	59
Respiratory and other																					
Blood lead level ^a	4	-	-	1	1	4	-	-	-	-	-	-	-	-	-	-	2	-	-	11	72
Invasive pneumococcal infection ^a	1	-	1	-	2	5	-	3	4	3	3	6	3	12	2	3	1	8	-	54	202
<i>Legionella longbeachae</i> infection ^a	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	2	26
<i>Legionella pneumophila</i> infection ^a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	21
Legionnaires' disease (other) ^a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Leprosy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Meningococcal infection (invasive) ^a	-	-	-	-	-	1	-	-	-	-	2	1	-	1	1	1	1	-	-	3	28
Tuberculosis	-	-	-	-	-	-	-	-	-	-	-	1	-	1	1	1	1	-	-	6	137
Vaccine-preventable																					
Adverse event after immunisation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	2	99
<i>H. influenzae b</i> infection (invasive) ^a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Measles	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
Mumps ^a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
Pertussis	22	1	5	3	6	19	3	7	3	4	48	12	34	34	9	7	30	55	-	268	2260
Rubella ^a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
Tetanus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Enteric																					
Botulism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cholera ^a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cryptosporidiosis ^a	3	5	-	-	7	10	1	6	19	2	6	1	5	34	2	1	9	19	-	20	205
Giardiasis ^a	-	-	-	-	-	-	-	-	1	1	1	19	5	34	2	-	9	19	-	124	1270
Haemolytic uraemic syndrome	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Hepatitis A ^a	-	-	-	-	-	-	-	-	-	-	-	1	-	1	1	1	-	-	-	3	53
Hepatitis E ^a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
Listeriosis ^a	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	19
Rotavirus ^a	2	2	-	-	-	10	-	3	2	3	2	14	1	8	-	3	9	-	-	54	319
Salmonellosis ^a	5	1	1	1	4	17	10	4	12	53	26	26	7	20	-	5	13	14	-	192	2253
Shigellosis ^a	-	-	-	-	-	-	-	-	-	-	-	5	-	1	-	-	-	-	-	6	42
Typhoid ^a	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	2	25
Verotoxin producing <i>E. coli</i> ^a	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	9
Miscellaneous																					
Creutzfeldt-Jakob disease	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	6
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. Historical area health service configurations are included for continuity/comparison purposes and to highlight regional differences. NB: Influenza data are reported separately, see www.health.nsw.gov.au/publichealth/infectious/index.asp for up-to-date information. NB: From 1 January 2005, Hunter New England AHS also comprises Great Lakes, Gloucester and Greater Taree LGAs (LGA, Local Government Area), Sydney West also comprises Greater Lithgow LGA. NB: HIV and AIDS data are reported separately in the Public Health Bulletin quarterly. GMA, Greater Murray Area; MAC, Macquarie Area; NEA, New England Area; NSA, Northern Sydney Area; CSA, Central Sydney Area; WSA, Western Sydney Area; FWA, Far West Area; HUN, Hunter Area; SES, South Eastern Sydney Area; CCA, Central Coast Area; MWA, Mid Western Area; SA, Southern Area; ILL, Illawarra Area; MNC, North Coast Area; NRA, Northern Rivers Area; WEN, Wentworth Area; JHS, Justice Health Service.