COMMUNICABLE DISEASES REPORT, NSW: JULY 2002

TRENDS

The seasonal variation in **arbovirus infections** (which peak in autumn), **invasive pneumococcal disease** and **meningococcal disease** (both of which peak in winter) are reflected in Figure 1. In contrast to previous years when **Ross River virus** has predominated, most of the mosquito-borne arbovirus infections notified this year have been **Barmah Forest virus**, which has been most common in the coastal areas to the north of Sydney (Table 5).

QUARTERLY REPORT: AUSTRALIAN CHILDHOOD IMMUNISATION REGISTER

Table 1 details the percentage of fully immunised children aged 12 months to less than 15 months in each Area Health Service, reported by all service providers.

These data refer to five different cohorts of children whose age has been calculated 90 days before data extraction. The information contained in each of the reports has been extracted from the Australian Childhood Immunisation Register (ACIR) and may not reflect actual coverage due to under-reporting.

Table 2 details the percentage of fully immunised Aboriginal and Torres Strait Islander children in New South Wales for the same cohort and is reported for the first time.

INFLUENZA SEASON BEGINS

Influenza epidemics occur each winter in NSW. Rates of illness can be around 30 per cent of the population in some communities. People with underlying chest, heart, or metabolic diseases—and the elderly—are at risk of the potentially fatal complications of influenza.

The two main types of influenza are A and B. Type A tends to cause more widespread outbreaks and has been the dominant strain in recent years. Immunisation is available for anyone who wants to avoid infection, and is encouraged in people at risk of complications as well as in health care workers. The vaccine provides protection against three strains of influenza for up to a year.

The NSW Department of Health monitors influenza through weekly surveys of sentinel general practitioners and the major laboratories. In 2001 the epidemic peaked in late July and August. In 2002, laboratory diagnoses of influenza began to increase in May and have increased through June. The majority of influenza strains have been type B. Some of these have been shown to be the strain known as B/Hong Kong. While the current vaccine is likely to protect against other strains of influenza circulating in Australia, it is likely to provide reduced protection against B/Hong Kong.

TABLE 1

PERCENTAGE OF FULLY IMMUNISED CHILDREN AGED 12 TO LESS THAN 15 MONTHS BY AREA HEALTH SERVICE

Area Health Service	30 June 01	30 Sept 01	31 Dec 01	31 Mar 02	30 June 02
Central Coast	94	93	94	92	90
Central Sydney	91	89	87	88	89
Hunter	94	96	93	94	94
Illawarra	92	93	91	93	89
Northern Sydney	90	89	89	90	89
South Eastern Sydney	89	89	89	90	89
South Western Sydney	92	90	89	90	90
Wentworth	92	92	91	92	90
Western Sydney	89	90	89	90	90
Far West	87	92	94	92	90
Greater Murray	93	93	93	93	92
Macquarie	93	92	95	92	93
Mid North Coast	91	91	88	90	90
Mid Western	90	92	92	92	91
New England	92	92	94	94	92
Northern Rivers	86	86	84	80	84
Southern	91	91	89	93	90
NSW	**91**	**91**	**90**	**91**	**90**
Australia	**92**	**91**	**90**	**91**	**90**

TABLE 2

PERCENTAGE OF FULLY IMMUNISED ABORIGINAL & TORRES STRAIT ISLANDER CHILDREN AGED 12 TO LESS THAN 15 MONTHS

	30 June 02
NSW	87
Australia	85

In early June, an outbreak of influenza was reported, which involved an estimated 150 students at a 900-student boarding school in Northern Sydney. Some students tested positive for influenza B. It is not yet known if these cases are due to the Hong Kong strain. This pattern of influenza is not unusual for NSW. The NSW Department of Health will continue to monitor influenza throughout the winter.

PNEUMONIA OUTBREAK IN THE BLUE MOUNTAINS

A team including the Wentworth Public Health Unit and the Communicable Diseases Branch of the NSW Department of Health is investigating an apparent outbreak of psittacosis in the Blue Mountains, west of Sydney.

A review of the medical records of patients presenting to local hospitals has shown that, compared with previous years, there has been a substantial increase in cases of pneumonia among the local residents since mid-March 2002. Approximately 80 cases of pneumonia have been identified in people aged 15–75 years, who live in the Blue Mountains and who are without underlying chronic lung disease or heart failure, through active surveillance of physician and hospital records from 1 March to 18 June 2002. These people have been asked to provide convalescent serology for testing for a range of infections, including psittacosis.

Preliminary serological testing on 21 cases using Chlamydia genus IgG and IgA enzyme-linked immune assay (EIA) followed by micro immunofluorescence shows presumptive evidence of psittacosis in 16 cases. Testing for other pathogens is ongoing but none have been detected to date. Further laboratory tests have been arranged for the other cases identified.

Many of the individuals who are cases have reported spending time gardening. Further epidemiological and environmental studies are underway. A case-control study is being performed to better identify risk factors and inform prevention strategies.

In the meantime, the local public health unit has issued precautionary warnings that people in the area should avoid contact with birds, and use face masks when working with materials that may be contaminated with bird droppings—especially when pruning or clipping plants, lawn mowing, or handling garden mulch.

QUARTERLY REPORT: HIV NOTIFICATIONS TO END OF MARCH 2002

To the end of March 2002, the cumulative total for the number of NSW residents diagnosed with HIV infection was 12,484 (Table 3). The number of new diagnoses of HIV in NSW has plateaued over the past few years; as of 30 June 2002, the number of HIV diagnoses in NSW for 2001 was 348, compared with 358 in 2000. On 31 December 2001, the estimated number of people living with HIV infection in NSW was 9073; of these, an estimated 1563 people have been diagnosed with AIDS.

There were 81 new diagnoses of HIV for the first quarter (Jan–Mar) of 2002. However, the most recent HIV data may contain duplications. Of the 81 cases diagnosed between 1 January and 31 March 2002, 75 (93 per cent) were males, three (four per cent) were females, two (one per cent) were transgender, and the gender of one (<1%) was unknown (Table 4). All cases notified were aged 20 years or more at the time of diagnosis; 30 per cent were aged between 20–29 years; and 44 per cent were aged between 30–39 years. An analysis of associated risk factors shows that male-to-male sexual contact (with or without a history of injecting drug use) was reported for over three-quarters of cases and heterosexual contact (as the only risk factor) was reported for 12 per cent. Only two (two per cent) cases reported injecting drug use (one of these individuals also reported male-to-male sexual contact). Exposure to risk factors remains undetermined or unknown for 10 per cent of cases notified in the first quarter of 2002. This is considerably lower than the proportion of notifications (15 per cent) with undetermined or unknown information about risk factors for the period 1991–2000, which reflects improved HIV surveillance in NSW.

AIDS diagnoses and AIDS deaths

The cumulative total for the number of AIDS diagnoses and AIDS deaths in NSW to 31 March 2002 was 4898 and 3335 respectively (Table 3). The number of diagnoses of AIDS and AIDS deaths continues to decline significantly in NSW, with only 10 AIDS diagnoses and five AIDS deaths in the first quarter of 2002.

TABLE 3

NOTIFICATION OF HIV, AIDS, AND AIDS DEATHS REPORTED BY YEAR, NSW, 1981–MARCH 2002

Year	HIV	AIDS	AIDS Deaths
1981	1	1	1
1982	1	1	0
1983	1	3	1
1984	202	30	6
1985	988	91	46
1986	1107	160	108
1987	1637	250	143
1988	1143	312	138
1989	982	346	235
1990	815	417	313
1991	807	435	334
1992	705	415	304
1993	596	464	363
1994	504	520	405
1995	536	454	339
1996	455	348	255
1997	423	194	108
1998	410	165	68
1999	384	105	61
2000	358	115	69
2001	348	62	33
Jan–Mar 2002	81	10	5
Total	**12484**	**4898**	**3335**

TABLE 4

CHARACTERISTICS OF NSW RESIDENTS REPORTED WITH HIV INFECTION, AIDS, OR WHO HAVE DIED FROM AIDS, 1981 TO 31 MARCH 2002

Characteristic	All cases 1981–2001						1991–2000						Jan–Mar 2002					
	HIV		AIDS		AIDS deaths		HIV		AIDS		AIDS deaths		HIV		AIDS		AIDS deaths	
	N	%	*N*	%	*N*	%	*N*	%	*N*	%	*N*	%	*N*	%	*N*	%	*N*	%
Gender																		
Male	11540	92.4	4680	95.5	3212	96.3	5072	92.0	3108	94.8	2249	96.2	75	92.6	9	90.0	5	100.0
Female	654	5.3	206	4.2	116	3.5	367	6.6	160	4.9	84	3.6	3	3.7	0	0.0	0	0.0
Other	290	2.3	12	0.3	7	0.2	87	1.5	9	0.3	6	0.3	3	3.7	1	10.0	0	0.0
Age																		
0–2	8	0.1	8	0.2	4	0.1	4	0.1	8	0.2	4	0.2	0	0.0	0	0.0	0	0.0
3–12	36	0.3	12	0.3	9	0.3	9	0.2	6	0.2	5	0.2	0	0.0	0	0.0	0	0.0
13–19	201	1.6	15	0.3	11	0.3	63	1.1	5	0.2	6	0.3	0	0.0	0	0.0	0	0.0
20–29	3945	31.6	815	16.7	579	17.4	1571	28.4	485	14.8	395	16.9	24	29.6	0	0.0	0	0.0
30–39	4783	38.3	2035	41.6	1359	40.8	2167	39.2	1375	42.0	957	40.9	36	44.4	4	40.0	1	20.0
40–49	2361	18.9	1381	28.2	953	28.6	1086	19.7	954	29.1	680	29.1	13	16.1	2	20.0	4	80.0
50–59	759	6.1	475	9.7	305	9.2	396	7.1	341	10.4	215	9.2	6	7.4	3	30.0	0	0.0
60+	266	2.1	157	3.2	115	3.5	136	2.5	103	3.1	77	3.3	1	1.2	1	10.0	0	0.0
Not reported	125	1.0	0	0.0	0	0.0	93	1.7	0	0.0	0	0.0	1	1.2	0	0.0	0	0.0
Exposure																		
Male homosexual–bisexual	7340	58.8	3963	81.0	2768	83.0	3567	64.6	2569	78.4	1904	81.4	61	75.3	6	60.0	5	100.0
Male homosexual–bisexual & IDU	279	2.2	182	3.7	128	3.8	180	3.3	129	3.9	100	4.3	1	1.2	0	0.0	0	0.0
Injecting drug use (IDU)	419	3.4	46	0.9	20	0.6	213	3.9	40	1.2	19	0.8	1	1.2	1	10.0	0	0.0
Heterosexual	887	7.1	354	7.2	182	5.5	686	12.4	308	9.4	162	6.9	10	12.4	3	30.0	0	0.0
Haemophila–Coagulation disorders	112	0.9	51	1.0	45	1.4	7	0.1	24	0.7	28	1.2	0	0.0	0	0.0	0	0.0
Blood-tissue recipient/ NSI*	117	0.9	106	2.2	91	2.7	28	0.5	44	1.3	44	1.9	0	0.0	0	0.0	0	0.0
Vertical	14	0.1	15	0.3	8	0.2	12	0.2	13	0.4	7	0.3	0	0.0	0	0.0	0	0.0
Not stated–Unknown	3316	26.6	181	3.7	93	2.8	833	15.1	150	4.6	75	3.2	8	9.9	0	0.0	0	0.0
Residence																		
Greater Sydney **	7066	56.7	4087	83.4	2787	83.6	4263	77.2	2746	83.8	1965	84.0	78	96.3	9	90.0	5	100.0
Rest of New South Wales	797	6.4	657	13.4	418	12.5	549	9.9	502	15.3	346	14.8	3	3.7	1	10.0	0	0.0
Unknown	4621	36.9	154	3.2	130	3.9	714	12.9	29	0.9	28	1.2	0	0.0	0	0.0	0	0.0
Total	12484	100.0	4898	100.0	3335	100.0	5526	100.0	3277	100.0	2339	100.0	81	100.0	10	100.0	5	100.0

HIV data to 31 March, 2002 source: NSW HIV database, CDB, NSW Department of Health, Recent HIV data may contain incomplete risk factor information and duplicates
AIDS data to 31 March, 2002 source: National Centre for HIV Epidemiology and Clinical Research
* Needle-stick injury
** Greater Sydney area health services include Central Sydney, North Sydney, Western Sydney, Wentworth, South West Sydney, and South East Sydney

FIGURE 1

REPORTS OF SELECTED COMMUNICABLE DISEASES, NSW, JAN 1997 TO MAY 2002, BY MONTH OF ONSET

These are preliminary data: case counts for recent months may increase because of reporting delays. Laboratory-confirmed cases, except for measles, meningococcal disease and pertussis.

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

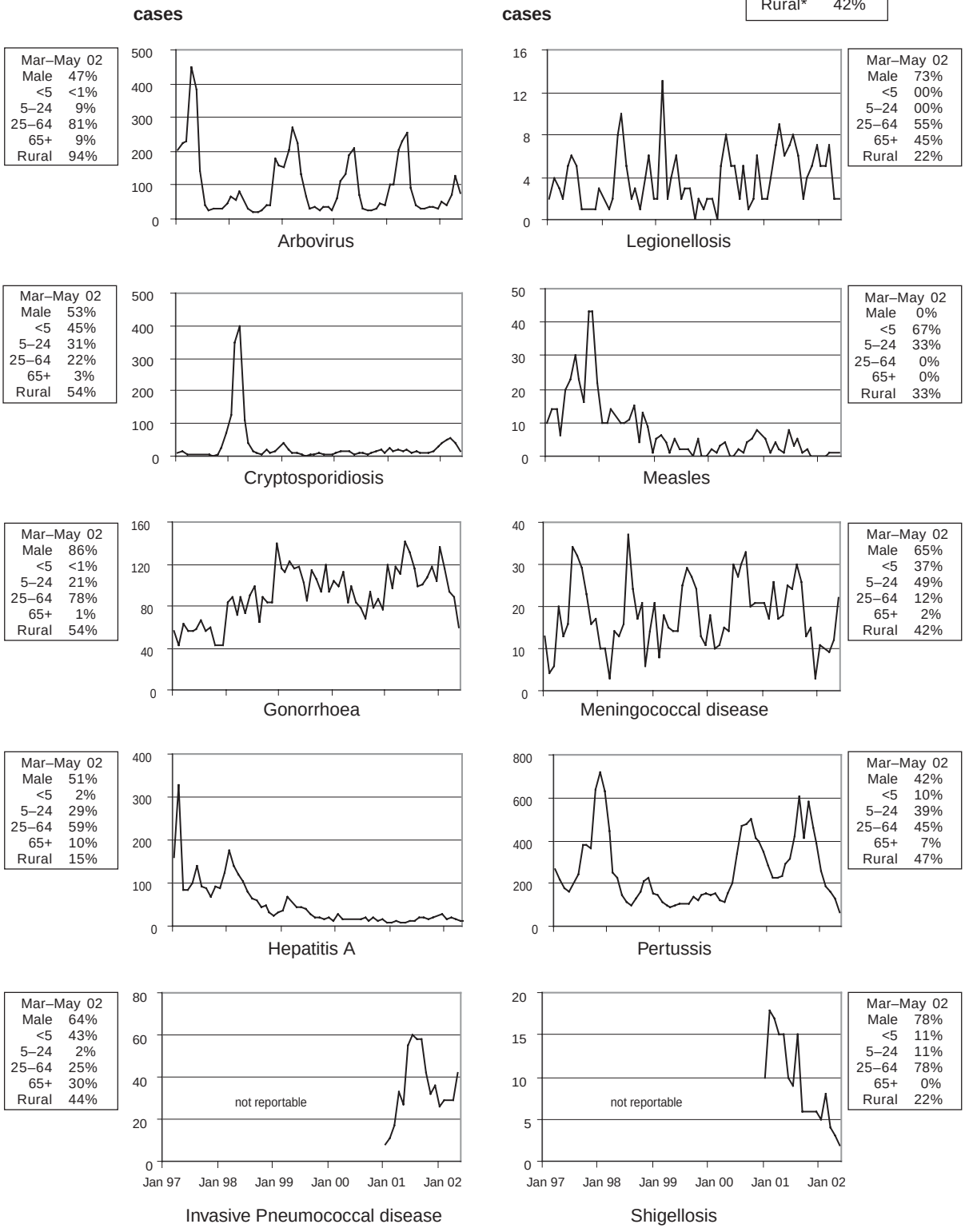

TABLE 5 REPORTS OF NOTIFIABLE CONDITIONS RECEIVED IN MAY 2002 BY AREA HEALTH SERVICES

Condition	Area Health Service																	Total for May†	To date†
	CSA	NSA	WSA	WEN	SWS	CCA	HUN	ILL	SES	NRA	MNC	NEA	MAC	MWA	FWA	GMA	SA	CHS	
Blood-borne and sexually transmitted																			
Chancroid*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlamydia (genital)*	11	48	40	18	-	17	38	10	93	22	9	19	7	16	5	12	10	-	380	2,025
Gonorrhoea*	-	4	9	-	-	1	1	3	50	2	1	5	2	1	-	-	1	-	82	536
Hepatitis B - acute viral*	-	-	-	-	-	-	-	1	1	1	-	-	1	-	-	-	-	-	4	31
Hepatitis B - other*	50	33	76	3	2	8	9	5	58	3	2	4	-	2	4	3	3	-	266	1,526
Hepatitis C - acute viral*	-	-	-	-	-	-	1	-	-	-	1	-	-	1	-	-	-	-	3	51
Hepatitis C - other*	91	35	46	35	2	41	57	26	113	28	33	11	10	20	1	21	13	4	590	3,067
Hepatitis D - unspecified*	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	4
Syphilis	14	2	7	1	1	1	1	-	21	3	4	4	1	-	-	-	1	-	61	322
Vector-borne																			
Barmah Forest virus*	-	1	-	1	-	8	32	1	-	4	35	1	-	-	-	-	2	-	85	224
Ross River virus*	-	-	-	-	-	-	3	3	1	4	5	6	5	-	5	4	7	-	43	121
Arboviral infection (Other)*	1	2	-	-	-	-	2	-	1	2	-	-	-	-	-	-	1	-	10	40
Malaria*	-	3	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	5	62
Zoonoses																			
Anthrax*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brucellosis*	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Leptospirosis*	-	-	-	-	-	-	1	1	-	1	1	-	1	-	-	-	1	-	6	20
Lyssavirus*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Psittacosis*	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	2	8
Q fever*	-	-	-	-	-	-	2	-	-	5	3	2	3	1	-	-	7	-	23	98
Respiratory and other																			
Blood lead level*	-	-	-	-	-	-	3	14	2	-	-	-	2	1	-	-	-	-	22	132
Influenza*	-	4	3	-	-	-	-	-	17	-	-	-	-	-	-	-	-	-	24	48
Invasive pneumococcal infection*	3	9	6	4	-	7	6	3	10	-	-	-	1	3	-	1	-	-	53	167
Legionella longbeachae infection*	-	-	2	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	4	11
Legionella pneumophila infection*	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	14
Legionnaires- disease (Other)*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Leprosy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Meningococcal infection (invasive)	-	1	4	2	3	-	4	2	2	-	-	2	1	-	-	-	1	-	22	62
Tuberculosis	6	-	-	1	1	1	1	1	6	1	1	-	-	-	-	-	-	-	19	169
Vaccine-preventable																			
Adverse event after immunisation	2	-	1	-	-	3	1	1	6	-	-	-	-	1	-	-	-	-	16	72
H.influenzae b infection (invasive)*	-	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	2	6
Measles	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1	3
Mumps*	-	-	-	-	1	-	-	-	2	-	-	-	-	-	-	-	-	-	3	12
Pertussis	15	20	14	3	17	5	16	5	19	5	7	3	7	-	1	12	3	-	152	1,134
Rubella*	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	13
Tetanus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Faecal-oral																			
Botulism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cholera*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cryptosporidiosis*	3	1	4	1	-	-	1	4	7	4	1	4	-	-	-	2	1	-	33	221
Food borne illness (not otherwise specified)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20
Gastroenteritis (in an institution)	38	-	-	30	-	-	7	-	-	-	-	-	-	-	-	-	-	-	75	331
Giardiasis*	-	14	11	7	3	1	2	5	7	1	1	8	6	1	1	7	1	-	76	409
Haemolytic uraemic syndrome	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	2
Hepatitis A*	2	4	-	1	1	-	-	-	7	-	2	1	-	-	-	-	-	-	18	92
Hepatitis E*	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	1
Listeriosis*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	5
Salmonellosis (not otherwise specified)*	21	22	16	16	54	5	22	3	23	29	12	4	1	1	8	5	5	-	249	1,220
Shigellosis*	-	1	-	-	2	-	-	-	1	-	-	-	-	-	-	-	-	-	4	27
Typhoid and paratyphoid*	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	19
Verotoxin producing *E. coli**	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2

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

CSA = Central Sydney Area
NSA = Northern Sydney Area
WSA = Western Sydney Area
WEN = Wentworth Area
SWS = South Western Sydney Area
CCA = Central Coast Area
HUN = Hunter Area
ILL = Illawarra Area
SES = South Eastern Sydney Area
NRA = Northern Rivers Area
MNC = North Coast Area
NEA = New England Area
MAC = Macquarie Area
MWA = Mid Western Area
FWA = Far West Area
GMA = Greater Murray Area
SA = Southern Area
CHS = Corrections Health Service