

NSW PUBLIC HEALTH BULLETIN

Year in Review 2008

Year in review: communicable disease surveillance, NSW, 2008

**Communicable Diseases Branch,
NSW Department of Health**

In this issue, we present our annual review of notifiable diseases reported in New South Wales (NSW) residents. For greater depth of detail, refer to Tables 2–6, which show disease-specific data reported by: year of onset; month of onset; area health service (AHS); and age group and sex.

Trends

Among the 53 573 notifications of medical conditions by doctors, hospital staff and laboratory staff in NSW residents in 2008, highlights included:

Conditions most frequently reported

- Chlamydia: 14 043 cases (201 per 100 000 population), with the highest crude rates by geographical area in the Greater Western (Broken Hill region), South Eastern Sydney Illawarra (Randwick region), Sydney South West (Camperdown region) and Hunter New England (Tamworth region) AHSs.
- Pertussis: 8756 cases (126 per 100 000 population), with the highest crude rates in the North Coast (Lismore region), Sydney West (Penrith and Parramatta regions), South Eastern Sydney Illawarra (Wollongong region) and Greater Western (Dubbo region) AHSs.
- Hepatitis C: 3916 cases (56 per 100 000 population), with the highest crude rates in the Greater Western (Broken Hill and Dubbo regions), North Coast (Lismore region) and Sydney South West (Camperdown region) AHSs.
- Hepatitis B: 2638 cases (38 per 100 000 population) with the highest crude rates in the Sydney South West (Camperdown and Liverpool regions) and Sydney West (Parramatta region) AHSs.
- *Salmonella* infection: 2263 cases (32 per 100 000 population) with the highest crude rates in the

North Coast (Lismore region) and Northern Sydney Central Coast (Gosford and Hornsby regions) AHSs.

Conditions with the most meaningful declines in the number of notifications compared with previous years

- Hepatitis A: cases have more than halved in number since 2002 (69 cases in 2008 compared with 149 in 2002 and 421 in 1999). This may be due in part to the introduction of a commercial vaccine in the 1990s. Travel to countries where Hepatitis A is endemic was the most commonly reported risk factor for disease acquisition in 2008.
- Hepatitis C: cases have decreased by over 50% in number in the last 10 years (3916 cases in 2008 compared with 8598 cases in 1999). The cause of this decline is unclear. It may reflect a real decrease in transmission related to prevention programs, or it may reflect a decrease in hepatitis C testing.
- Meningococcal serogroup C disease: notifications continue to decline (nine cases reported for 2008), largely due to the introduction of meningococcal C vaccination in late 2003.
- Meningococcal serogroup B disease: notifications have decreased steadily over the past few years. In 2008, there were 49 cases reported, compared with 103 in 2002. The reason for this decrease is unclear.
- Rubella: notifications have decreased from 191 cases in 2000 to 17 cases in 2008. This may be due to higher rates of immunisation over the past decade.

Conditions with the most meaningful increases in the number of notifications compared with previous years

- Pertussis has shown the greatest increase in the number of infections, up from 2100 in 2007 to 8756 in 2008;

Table 1. The five most commonly reported notifiable diseases by age group, NSW, 2008

Age group	Rate/100 000
Children under 5 years	
1. Pertussis	264
2. <i>Salmonella</i> infection	120
3. Giardiasis	100
4. Influenza	55
5. Cryptosporidiosis	38
Children and young adults (5–24 years)	
1. Chlamydia*#	437
2. Pertussis	187
3. <i>Salmonella</i> infection	34
4. Hepatitis C	24
5. Hepatitis B	22
Adults (25–44 years)	
1. Chlamydia*	265
2. Hepatitis C	105
3. Pertussis	92
4. Hepatitis B	72
5. Gonorrhoea	39
Adults (45–64 years)	
1. Pertussis	91
2. Hepatitis C	71
3. Hepatitis B	38
4. Chlamydia*	37
5. Influenza	23
Older adults (≥65 years)	
1. Pertussis	70
2. Influenza	36
3. <i>Salmonella</i> infection	25
4. Arboviral infection	22
5. Pneumococcal disease	21
Totals	
1. Chlamydia*	201
2. Pertussis	126
3. Hepatitis C	56
4. Hepatitis B	38
5. <i>Salmonella</i> infection	32

*refers to *Chlamydia trachomatis* infections.

#where a case is reported in a child under 16 years of age, the relevant public health unit contacts the treating doctor outlining his/her obligation to notify the Department of Community Services.

Source: NSW Notifiable Diseases Database.

- this reflects a large, statewide outbreak that continues in 2009, as well as improved diagnostic technology.
- Chlamydia has been reported at the highest rate since it became a notifiable disease in 1998 (14 043 cases in 2008), reflecting a long-standing trend of increases in notifications of this disease.
- The number of Ross River virus notifications increased from 844 in 2007 to 1155 in 2008. This is consistent

with past cyclical fluctuations in Ross River virus activity.

- The number of *Salmonella* infections showed a small decline compared with the previous year (2263 in 2008 compared with 2555 in 2007), but numbers remain high compared with the 10-year average.
- The number of verotoxigenic *Escherichia coli* infections remained higher than usual, with 17 cases reported in 2008, compared with an average of four cases per year for the 10-year period prior to 2007. All cases were investigated and no epidemiological links were identified.
- The number of cases of infectious syphilis remained at comparatively high levels in 2008, reflecting an outbreak among men who have sex with men residing in inner-Sydney.

Conditions least frequently reported

There were no reported cases of anthrax, avian influenza, botulism, chancroid, diphtheria, lyssavirus, plague, polio, severe acute respiratory syndrome (SARS), smallpox, typhus, viral haemorrhagic fever or yellow fever in NSW in 2008. One case of tetanus was reported.

Top five notifiable diseases

Rates for the most commonly reported notifiable diseases for each age group and geographical area of residence at the time of notification are presented in Figure 1 and Table 1. These lists indicate the relative importance of notifiable diseases only and should not be used to indicate the spread of all infectious diseases in NSW. It should also be noted that these rates are heavily influenced by testing practices and, in many instances, do not necessarily indicate the true or relative incidence in the community. Finally, these lists do not include institutional gastrointestinal outbreaks because comprehensive demographic data are not collected for such outbreaks.

Geographical distribution of notifiable diseases

- *Chlamydia trachomatis* infection was the most commonly reported infection across NSW, with the highest rates observed in rural areas, followed by regional and metropolitan areas.
- The rate of pertussis infections was highest in rural areas, particularly in northern NSW, followed by metropolitan and regional areas.
- Rates of hepatitis C infection were comparable across rural, regional and metropolitan areas. Most of these cases represent chronic infection rather than acute hepatitis C acquisition and as such may not accurately reflect the recent spread of hepatitis C in the community.
- Arboviral infections were more commonly reported in people residing in rural and regional areas than in metropolitan areas.
- Tuberculosis was most frequently reported in metropolitan areas, and was rare in rural regions.

Table 2. Disease notifications by year of onset of illness^a, NSW, 1991–2008

Condition	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008		
Adverse event after immunisation	9	31	23	40	28	56	70	95	16	42	111	178	219	187	107	71	234	248		
Anthrax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0		
Arboviral infection	408	343	656	381	539	1227	1806	783	1220	980	1191	665	1023	1152	1090	1917	1500	1851		
Barma Forest virus ^b	6	6	25	39	271	172	185	134	249	197	401	396	451	405	450	644	573	533		
Ross River virus ^b	297	324	599	331	236	1031	1598	583	952	750	717	183	493	703	584	1221	844	1155		
Other ^b	105	13	32	11	32	24	23	66	19	33	73	86	79	44	56	52	83	163		
Blood lead level ≥ 15 µg/dL ^b	Not notifiable until December 1996								710	874	691	984	513	516	338	303	234	298	292	260
Botulism	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	
Brucellosis ^b	2	2	4	4	2	1	3	3	2	1	1	2	3	7	3	10	4	2		
Chancroid ^b	Not notifiable until December 1998								1	0	0	0	0	0	0	0	0	0	0	
Chlamydia trachomatis infection									2469	3511	4500	5823	7788	10035	11288	12059	12461	14043		
Congenital chlamydia ^b									14	18	16	15	23	28	46	39	31	39		
Chlamydia – other ^b									2455	3493	4484	5808	7765	10007	11242	12020	12430	14004		
Cholera ^b	1	0	1	0	1	3	1	1	2	0	1	1	0	1	0	3	2	2		
Creutzfeldt-Jakob disease ^b	Not notifiable until April 2004														6	8	10	7	6	
Cryptosporidiosis ^b	Not notifiable until December 1996								157	1130	121	134	195	306	203	357	849	779	545	484
Foodborne illness (NOS) ^e	2765	253	106	213	270	211	255	201	151	147	56	41	1071	550	309	507	763	667		
Gastroenteritis (institutional)	158	406	443	296	1359	554	939	738	673	697	775	1752	3583	12784	1395	10641	10488	10135		
Giardiasis ^b	Not notifiable until August 1998								1091	979	967	863	1028	1235	1449	1725	1946	1783		
Gonorrhoea ^b	392	491	382	357	428	522	636	1054	1291	1060	1364	1526	1329	1443	1580	1738	1383	1332		
Haemolytic uraemic syndrome	Not notifiable until December 1996								3	6	11	9	2	7	5	9	11	11	17	
Haemophilus influenzae serotype b	212	217	124	61	29	13	17	11	13	8	7	10	6	5	7	11	7	9		
Hib epiglottitis ^b	15	57	32	21	6	2	5	1	2	2	1	1	0	3	0	1	1	1		
Hib meningitis ^b	48	103	53	17	11	4	3	3	3	1	1	1	0	0	2	0	2	2		
Hib septicaemia ^b	11	26	24	12	8	3	1	4	6	4	2	3	1	2	4	6	2	3		
Hib infection NOS ^b	138	31	15	11	4	4	8	3	2	1	3	5	5	0	1	4	2	3		
Hepatitis A ^b	1119	901	579	585	614	958	1426	927	421	201	197	149	124	137	83	95	65	69		
Hepatitis B	1492	3169	3603	3983	4007	3504	3167	2957	3508	3972	4555	3546	2845	2811	2744	2513	2637	2638		
Hepatitis B – acute viral ^b	409	112	95	74	61	43	53	58	77	100	94	88	74	53	56	53	56	46		
Hepatitis B – other ^b	1083	3057	3508	3909	3946	3461	3114	2899	3431	3872	4461	3458	2771	2758	2688	2460	2581	2592		
Hepatitis C	850	3895	5896	7818	6878	6999	6926	7206	8598	8295	8650	6692	5246	4916	4365	4397	4210	3916		
Hepatitis C – acute viral ^b	22	26	22	16	32	18	19	112	111	222	295	152	127	59	43	55	65	24		
Hepatitis C – other ^b	828	3869	5874	7802	6846	6981	6907	7094	8487	8073	8355	6540	5119	4857	4322	4342	4145	3892		
Hepatitis D ^b	0	8	12	19	19	9	11	3	14	12	11	9	12	14	15	15	11	14		
Hepatitis E ^b	0	0	1	2	0	3	6	4	7	9	6	6	8	7	10	8	14			
HIV infection ^b	824	693	589	503	536	449	423	404	377	350	341	394	412	403	391	367	390	322		
Influenza													244	1012	861	1011	1414	617	1918	1813
Influenza – Type A ^b	Not notifiable until December 2000												216	770	767	797	1055	421	1488	744
Influenza – Type B ^b	Not notifiable until December 2000												27	241	55	161	280	150	180	971
Influenza – Type A & B ^b	Not available until December 2003														26	65	37	43	81	
Influenza – Type NOS ^b	Not notifiable until December 2000														1	1	9	207	17	
Legionellosis	37	104	66	60	75	74	33	46	41	41	68	44	60	80	89	78	105	89		
<i>L. longbeachae</i> ^b	0	14	13	8	16	30	9	19	12	12	29	21	37	27	24	22	29	51		
<i>L. pneumophila</i> ^b	16	80	34	30	35	34	18	22	22	26	38	22	23	51	64	55	74	37		
Legionnaires' disease – other	21	10	19	22	24	10	6	5	7	3	1	1	0	2	1	1	2	1		
Leprosy	1	7	5	3	3	2	0	0	1	2	4	0	2	5	1	1	4	4		
Leptospirosis ^b	28	21	16	14	6	33	33	50	56	54	66	39	39	40	35	17	9	17		
Listeriosis ^b	11	13	12	10	14	22	23	28	22	18	12	11	28	30	25	26	22	34		
Lymphogranuloma venereum (LGV) ^b	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	0	1	0		
Malaria ^b	171	110	174	184	96	204	173	158	174	233	157	105	121	101	206	140	98	116		
Measles	495	805	2348	1484	596	191	273	119	32	36	31	8	18	12	5	60	4	39		
Measles – laboratory confirmed	19	76	460	302	138	35	98	19	13	22	18	6	14	11	4	48	4	34		
Measles – other	476	729	1888	1182	458	156	175	100	19	14	13	2	4	1	1	12	0	5		
Meningococcal disease	128	121	153	142	113	161	218	186	221	253	234	216	202	149	140	107	112	81		
Meningococcal – serogroup B ^b	0	3	7	7	23	36	53	55	95	93	90	105	100	81	73	54	76	49		
Meningococcal – serogroup C ^b	0	4	6	9	8	35	55	55	60	64	38	54	45	24	16	13	10	9		
Meningococcal – serogroup W135 ^b	0	0	0	0	1	0	2	4	4	4	2	2	2	5	8	5	2	5		
Meningococcal – serogroup Y ^b	0	0	1	1	0	1	0	7	1	7	2	2	5	3	3	1	5	4		
Meningococcal – other	128	114	139	125	81	89	108	65	61	85	102	53	50	36	40	34	19	14		
Mumps ^b	8	23	13	11	14	27	29	39	33	92	28	29	35	65	111	155	323	77		
Paratyphoid ^{b,d}	20	8	9	11	12	15	5	9	5	14	11	13	22	10	0	0	0	0		
Pertussis	49	217	1534	1405	1369	1156	4246	2309	1416	3692	4439	2011	2772	3568	5811	4921	2100	8756		
Pneumococcal disease (invasive) ^b	Not notifiable until December 2000												444	862	802	906	641	565	523	548
Psittacosis ^b	Not notifiable until December 2000												38	155	87	81	121	94	35	41
Q fever ^b	167	213	403	267	201	287	258	236	164	132	144	310	288	223	143	176	205	164		
Rubella	60	324	1186	233	2376	636	153	78	46	191	58	35	24	18	10	37	9	17		
Congenital rubella ^b	1	0	2	4	1	5	0	0	1	0	0	0	1	1	0	0	1	0		
Rubella – other ^b	59	324	1184	229	2375	631	153	78	45	191	58	35	23	17	10	37	8	17		
Sal																				

Table 3. Disease notifications by month of onset of illness^a, NSW, 2008

Condition	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
Adverse event after immunisation	12	38	65	29	28	12	11	10	23	10	8	2	248
Anthrax	0	0	0	0	0	0	0	0	0	0	0	0	0
Arboviral infection	238	312	310	181	132	84	86	89	92	98	125	104	1851
Barmah Forest virus ^b	59	66	96	65	44	26	24	30	28	26	38	31	533
Ross River virus ^b	168	233	199	113	76	41	49	44	53	55	71	53	1155
Other ^b	11	13	15	3	12	17	13	15	11	17	16	20	163
Blood lead level ≥15 µg/dL^b	22	15	16	25	51	15	11	16	25	27	17	20	260
Botulism	0	0	0	0	0	0	0	0	0	0	0	0	0
Brucellosis^b	0	0	0	1	0	0	0	1	0	0	0	0	2
Chancroid^b	0	0	0	0	0	0	0	0	0	0	0	0	0
Chlamydia trachomatis infection	1160	1309	1145	1239	1235	1095	1225	1161	1155	1160	1125	1034	14043
Congenital chlamydia ^b	1	3	3	6	2	2	4	3	3	3	3	6	39
Chlamydia – other ^b	1159	1306	1142	1233	1233	1093	1221	1158	1152	1157	1122	1028	14004
Cholera^b	0	0	0	0	0	0	0	0	0	2	0	0	2
Creutzfeldt-Jakob disease^b	0	0	0	1	0	0	1	0	1	0	1	2	6
Cryptosporidiosis^b	98	54	60	54	32	26	36	24	19	9	26	46	484
Foodborne illness (NOS)^e	44	79	86	74	46	100	17	43	17	11	75	75	667
Gastroenteritis (institutional)	436	273	338	493	886	937	1820	2639	1095	629	425	164	10135
Giardiasis^b	159	198	188	158	186	136	147	152	129	106	106	118	1783
Gonorrhoea^b	116	113	132	105	110	99	119	122	102	111	107	96	1332
Haemolytic uraemic syndrome	0	1	1	3	1	1	1	1	1	0	2	5	17
Haemophilus influenzae serotype b	0	1	0	1	4	1	0	1	1	0	0	0	9
Hib epiglottitis ^b	0	0	0	0	1	0	0	0	0	0	0	0	1
Hib meningitis ^b	0	0	0	0	2	0	0	0	0	0	0	0	2
Hib septicaemia ^b	0	1	0	1	0	0	0	0	1	0	0	0	3
Hib infection NOS ^b	0	0	0	0	1	1	0	1	0	0	0	0	3
Hepatitis A^b	10	7	5	5	1	3	6	5	7	8	4	8	69
Hepatitis B	215	207	203	229	215	182	215	227	212	256	242	235	2638
Hepatitis B – acute viral ^b	0	2	3	6	4	3	3	5	6	5	2	7	46
Hepatitis B – other ^b	215	205	200	223	211	179	212	222	206	251	240	228	2592
Hepatitis C	297	311	287	259	295	339	331	301	374	381	376	365	3916
Hepatitis C – acute viral ^b	0	2	2	0	2	1	3	1	4	2	5	2	24
Hepatitis C – other ^b	297	309	285	259	293	338	328	300	370	379	371	363	3892
Hepatitis D^b	0	1	1	1	4	1	0	2	1	2	1	0	14
Hepatitis E^b	2	2	1	0	1	0	2	1	1	1	3	0	14
HIV infection^b	31	31	33	22	26	34	27	20	18	29	26	25	322
Influenza	14	26	50	38	74	71	232	423	442	225	128	90	1813
Influenza – Type A ^b	7	14	30	23	42	29	74	110	143	129	82	61	744
Influenza – Type B ^b	4	8	12	10	24	37	147	305	287	83	35	19	971
Influenza – Type A & B ^b	2	2	2	2	6	4	11	8	12	13	10	9	81
Influenza – Type NOS ^b	1	2	6	3	2	1	0	0	0	0	1	1	17
Legionellosis	6	9	9	6	12	6	3	7	5	6	10	10	89
<i>L. longbeachae^b</i>	4	4	4	2	9	3	3	5	4	2	6	5	51
<i>L. pneumophila^b</i>	2	4	5	4	3	3	0	2	1	4	4	5	37
Legionnaires' disease – other	0	1	0	0	0	0	0	0	0	0	0	0	1
Leprosy	1	1	0	0	1	0	0	0	0	0	0	0	4
Leptospirosis^b	2	0	2	3	1	2	3	1	0	1	1	1	17
Listeriosis^b	9	3	4	2	3	1	5	0	3	2	0	2	34
Lymphogranuloma venereum (LGV)^b	0	0	0	0	0	0	0	0	0	0	1	0	1
Malaria^b	7	10	10	12	10	10	17	9	5	6	9	11	116
Measles	4	7	4	6	14	3	1	0	0	0	0	0	39
Measles – laboratory confirmed	4	6	4	4	12	3	1	0	0	0	0	0	34
Measles – other	0	1	0	2	2	0	0	0	0	0	0	0	5
Meningococcal disease	3	2	3	3	4	11	15	11	15	4	5	5	81
Meningococcal – serogroup B ^b	3	1	0	1	2	8	12	7	10	1	3	1	49
Meningococcal – serogroup C ^b	0	1	0	0	1	1	1	1	2	0	1	1	9
Meningococcal – serogroup W135 ^b	0	0	0	0	0	1	0	0	1	2	1	0	5
Meningococcal – serogroup Y ^b	0	0	1	1	0	0	0	1	0	0	0	1	4
Meningococcal – other	0	0	2	1	1	1	2	2	2	1	0	2	14
Mumps^b	27	13	8	2	5	3	3	2	6	2	4	2	77
Pertussis	232	204	245	295	351	350	512	564	872	1340	1790	2001	8756
Pneumococcal disease (invasive)^b	16	18	26	38	52	70	66	80	72	34	42	34	548
Psittacosis^b	1	2	4	4	6	5	2	7	3	2	1	4	41
Q fever^b	12	15	17	10	10	5	14	22	10	14	18	17	164
Rubella	0	0	0	1	2	2	2	2	2	3	1	2	17
Congenital rubella ^b	0	0	0	0	0	0	0	0	0	0	0	0	0
Rubella – other ^b	0	0	0	1	2	2	2	2	2	3	1	2	17
Salmonella infection^{b,d}	226	239	285	248	192	104	145	120	110	136	215	243	2263
Shigellosis^b	6	9	7	7	5	6	6	10	16	10	15	12	109
Syphilis	70	98	92	91	88	79	83	79	81	105	81	87	1034
Congenital syphilis	0	0	0	0	1	0	0	1	0	0	0	0	2
Infectious syphilis ^{b,c}	28	49	40	36	35	39	30	31	30	35	31	32	416
Syphilis – other ^b	42	49	52	55	52	40	53	47	51	70	50	55	616
Tetanus	1	0	0	0	0	0	0	0	0	0	0	0	1
Tuberculosis^b	62	44	41	52	31	29	46	40	55	32	30	26	488
Typhoid^b	3	4	3	3	8	1	1	4	2	5	4	5	43
Verotoxin-producing <i>Escherichia coli</i> infections^b	3	2	1	1	1	1	1	0	1	0	2	6	19

^aYear of onset: the earlier of patient reported onset date, specimen date or date of notification. ^bLaboratory-confirmed cases only. ^cIncludes Syphilis primary, Syphilis secondary, Syphilis <1-year duration and Syphilis newly acquired. ^dIncludes all paratyphoid cases. ^eFoodborne illness cases are only those notified as part of an outbreak. NOS: not otherwise specified. No case of the following diseases have been notified since 1991: Plague^b, Diphtheria^b, Granuloma inguinale^b, Lysavirus^b, Poliomyelitis^b, Rabies, Smallpox, Typhus^b, Viral haemorrhagic fever, Yellow fever.

Table 4. Disease notifications by area health service of residence (including breakdown by 2005 AHS boundaries), crude rates per 100 000 population, NSW, 2008

Condition	Greater Southern ^f		Greater Western ^f		Hunter New England ^f		North Coast ^f		
	Albury	Goulburn	Broken Hill	Dubbo	Bathurst	Newcastle	Tamworth	Port Macquarie	Lismore
Adverse event after immunisation	5.6	6.2	4.4	3.9	10.4	2.4	2.8	0.7	3.5
Anthrax	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Arboviral infection	65.5	21.8	150.8	122.2	24.8	57.7	67.3	75.3	131.5
Barmah Forest virus ^b	3.4	6.7	22.2	8.7	0.6	19.8	11.8	41.4	66.4
Ross River virus ^b	61.8	13.3	128.6	112.6	23.1	36.7	52.7	32.5	61.9
Other ^b	0.4	1.9	0.0	1.0	1.2	1.2	2.8	1.4	3.1
Blood lead level ≥5 µg/dL^b	4.1	1.0	33.3	77.0	6.3	6.3	1.7	0.3	2.4
Botulism	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Brucellosis^b	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0
Chancroid^b	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chlamydia trachomatis infection	184.6	146.7	399.1	229.0	193.1	260.5	276.3	148.1	228.5
Congenital chlamydia ^b	1.5	0.0	0.0	0.0	0.6	1.4	1.1	0.0	0.0
Chlamydia – other ^b	183.1	146.7	399.1	229.0	192.5	259.1	275.2	148.1	228.5
Cholera^b	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Creutzfeldt-Jakob disease^b	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0
Cryptosporidiosis^b	6.0	1.4	0.0	5.8	11.0	5.6	11.2	4.5	9.4
Foodborne illness (NOS)^e	20.6	0.0	0.0	0.0	0.0	14.8	0.0	26.7	0.0
Gastroenteritis (institutional)	72.6	90.2	59.9	85.6	207.5	225.7	22.4	13.3	84.2
Giardiasis^b	15.0	18.0	11.1	35.6	20.8	29.0	18.5	10.3	4.2
Gonorrhoea^b	4.1	2.9	6.7	9.6	1.7	17.4	4.5	4.8	11.1
Haemolytic uraemic syndrome	0.0	0.5	0.0	1.0	0.0	0.3	0.0	0.7	0.0
Haemophilus influenzae serotype b	0.0	0.0	0.0	0.0	0.6	0.2	0.0	0.0	0.0
Hib epiglottitis ^b	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hib meningitis ^b	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0
Hib septicaemia ^b	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0
Hib infection NOS ^b	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hepatitis A^b	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.4
Hepatitis B	8.6	13.8	46.6	9.6	2.9	9.9	7.9	5.5	6.3
Hepatitis B – acute viral ^b	0.4	1.4	6.7	2.9	0.6	0.9	0.0	0.0	0.7
Hepatitis B – other ^b	8.2	12.3	39.9	6.7	2.3	9.0	7.9	5.5	5.6
Hepatitis C	52.8	49.8	82.0	59.7	47.3	56.3	37.6	49.6	74.4
Hepatitis C – acute viral ^b	0.8	0.5	0.0	3.9	0.0	1.0	0.0	0.3	0.0
Hepatitis C – other ^b	52.1	49.4	82.0	55.8	47.3	55.3	37.6	49.3	74.4
Hepatitis D^b	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
Hepatitis E^b	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HIV infection^b	1.1	1.4	0.0	1.0	1.2	1.7	1.7	2.7	1.4
Influenza	31.5	36.1	11.1	20.2	17.3	30.5	29.7	16.8	66.8
Influenza – Type A ^b	13.5	18.0	4.4	8.7	9.2	8.9	11.2	5.1	20.2
Influenza – Type B ^b	17.2	17.1	6.7	11.6	6.3	21.7	17.9	9.6	40.4
Influenza – Type A & B ^b	0.0	1.0	0.0	0.0	1.7	0.0	0.6	2.1	2.1
Influenza – Type NOS ^b	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
Legionellosis	1.1	1.4	0.0	0.0	2.3	1.5	1.7	1.0	1.1
<i>L. longbeachae^b</i>	0.8	1.0	0.0	0.0	1.7	1.0	1.1	0.7	0.7
<i>L. pneumophila^b</i>	0.4	0.5	0.0	0.0	0.6	0.5	0.6	0.3	0.4
Legionnaires' disease – other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Leprosy	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Leptospirosis^b	0.0	1.0	0.0	3.9	0.0	0.9	0.0	0.3	1.0
Listeriosis^b	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Lymphogranuloma venereum (LGV)^b	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Malaria^b	1.1	1.9	0.0	1.0	0.0	0.9	1.1	1.7	0.4
Measles	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Measles – laboratory confirmed	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Measles – other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Meningococcal disease	1.9	1.9	0.0	2.9	1.2	1.0	1.1	0.0	1.1
Meningococcal – serogroup B ^b	1.1	1.0	0.0	1.9	0.6	1.0	1.1	0.0	0.4
Meningococcal – serogroup C ^b	0.4	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.4
Meningococcal – serogroup W135 ^b	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Meningococcal – serogroup Y ^b	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Meningococcal – other	0.4	0.5	0.0	0.0	0.6	0.0	0.0	0.0	0.4
Mumps^b	0.0	0.0	0.0	1.9	0.6	0.2	0.0	0.0	0.4
Pertussis	114.6	96.8	119.7	177.1	74.9	82.4	47.6	73.6	295.0
Pneumococcal disease (invasive)^b	8.2	8.1	15.5	10.6	13.3	10.9	5.6	3.8	6.6
Psittacosis^b	1.9	0.0	0.0	2.9	2.9	1.0	0.0	1.0	0.4
Q fever^b	4.9	6.2	20.0	15.4	1.2	2.1	16.8	7.5	9.4
Rubella	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Congenital rubella ^b	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rubella – other ^b	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salmonella infection^{b,d}	28.1	23.7	33.3	27.9	20.8	33.6	37.0	30.8	48.4
Shigellosis^b	0.4	0.5	0.0	0.0	1.2	0.0	0.6	0.7	1.4
Syphilis	2.6	5.7	73.2	6.7	2.3	4.1	4.5	5.1	8.7
Congenital syphilis	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Infectious syphilis ^{b,c}	1.5	0.5	2.2	1.0	0.0	1.0	1.1	0.3	2.4
Syphilis – other ^b	1.1	5.2	71.0	5.8	2.3	3.1	3.4	4.8	6.3
Tetanus	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0
Tuberculosis^b	3.4	1.0	0.0	0.0	0.0	2.2	0.6	2.7	1.4
Typhoid^b	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7
Verotoxin-producing <i>Escherichia coli</i> infections^b	0.4	0.0	0.0	1.0	0.0	1.0	1.7	0.0	0.4

^aYear of onset: the earlier of patient reported onset date, specimen date or date of notification. ^bLaboratory-confirmed cases only. ^cIncludes Syphilis primary, Syphilis secondary, Syphilis <1-year duration and Syphilis newly acquired. ^dIncludes all paratyphoid cases. ^eFoodborne illness cases are only those notified as part of an outbreak. ^fAHS further divided into the geographical region covered by their component Public Health Unit. NOS: not otherwise specified. No case of the following diseases have been notified since 1991: Plague^b, Diphtheria^b, Granuloma inguinale^b, Lyssavirus^b, Poliomyelitis^b, Rabies, Smallpox, Typhus^b, Viral haemorrhagic fever, Yellow fever.

Table 4. (Continued)

Condition	Northern Sydney Central Coast ^f		South Eastern Sydney Illawarra ^f		Sydney South West ^f		Sydney West ^f		Justice Health
	Gosford	Hornsby	Wollongong	Randwick	Camperdown	Liverpool	Penrith	Parramatta	
Adverse event after immunisation	4.8	2.3	4.2	3.0	2.3	2.9	5.6	4.5	0.0
Anthrax	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Arboviral infection	17.5	5.8	13.5	5.6	4.9	1.9	9.7	6.7	0.0
Barmah Forest virus ^b	4.8	0.6	2.7	0.2	0.8	0.0	0.6	0.3	0.0
Ross River virus ^b	11.7	2.1	9.3	1.3	2.1	1.1	6.9	2.7	0.0
Other ^b	1.0	3.1	1.6	4.0	2.1	0.8	2.2	3.7	0.0
Blood lead level ≥15 µg/dL^b	1.0	0.6	1.3	1.8	1.7	3.3	5.0	1.5	0.0
Botulism	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Brucellosis^b	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Chancroid^b	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chlamydia trachomatis infection	198.6	143.4	174.3	300.8	279.9	127.9	148.3	140.7	1913.0
Congenital chlamydia ^b	0.3	0.3	0.5	0.2	0.8	0.6	0.0	1.0	0.0
Chlamydia – other ^b	198.3	143.2	173.8	300.6	279.2	127.3	148.3	139.6	1913.0
Cholera^b	0.0	0.0	0.0	0.0	0.2	0.0	0.3	0.0	0.0
Creutzfeldt-Jakob disease^b	0.3	0.1	0.3	0.0	0.0	0.1	0.0	0.0	0.0
Cryptosporidiosis^b	7.6	9.0	3.7	12.3	3.0	3.5	10.3	7.3	0.0
Foodborne illness (NOS)^e	21.6	0.0	20.1	0.0	15.4	0.0	64.5	0.0	175.0
Gastroenteritis (institutional)	211.9	199.1	103.2	115.7	305.3	49.2	192.9	172.7	0.0
Giardiasis^b	25.7	40.2	23.6	41.2	23.9	14.3	31.2	24.6	25.0
Gonorrhoea^b	8.3	15.7	8.5	55.4	47.0	10.1	10.6	13.3	62.5
Haemolytic uraemic syndrome	0.0	0.3	0.3	0.0	0.4	0.5	0.3	0.1	0.0
Haemophilus influenzae serotype b	0.6	0.0	0.0	0.1	0.2	0.1	0.6	0.0	0.0
Hib epiglottitis ^b	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hib meningitis ^b	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Hib septicaemia ^b	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.0	0.0
Hib infection NOS ^b	0.3	0.0	0.0	0.0	0.2	0.0	0.3	0.0	0.0
Hepatitis A^b	0.6	2.0	1.6	0.7	1.5	1.2	0.3	2.3	0.0
Hepatitis B	9.2	36.0	14.6	48.6	83.1	66.0	12.2	69.5	587.5
Hepatitis B – acute viral ^b	0.0	0.5	0.5	0.7	1.3	0.5	0.3	0.3	12.5
Hepatitis B – other ^b	9.2	35.5	14.0	47.9	81.8	65.5	11.8	69.2	575.0
Hepatitis C	56.5	21.2	46.0	49.4	60.0	52.0	43.0	35.6	7250.0
Hepatitis C – acute viral ^b	0.0	0.0	0.3	0.1	0.0	0.1	0.0	0.3	62.5
Hepatitis C – other ^b	56.5	21.2	45.8	49.3	60.0	51.8	43.0	35.3	7188.0
Hepatitis D^b	0.0	0.0	0.0	0.2	0.0	0.4	0.3	0.5	37.5
Hepatitis E^b	0.0	0.1	0.3	0.1	0.4	0.4	0.3	0.6	0.0
HIV infection^b	1.9	3.1	0.8	14.1	14.1	2.0	2.2	3.5	0.0
Influenza	9.8	12.3	23.5	19.4	16.0	16.8	42.7	47.0	37.5
Influenza – Type A ^b	3.5	5.1	11.6	6.7	9.8	6.4	22.1	20.4	25.0
Influenza – Type B ^b	6.0	6.8	10.6	11.2	6.0	10.3	12.5	24.6	12.5
Influenza – Type A & B ^b	0.0	0.4	1.3	1.6	0.2	0.0	8.1	1.9	0.0
Influenza – Type NOS ^b	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Legionellosis	1.0	0.9	1.6	1.0	0.8	1.1	2.2	2.2	0.0
<i>L. longbeachae</i> ^b	0.6	0.6	1.1	0.5	0.6	0.2	1.6	0.9	0.0
<i>L. pneumophila</i> ^b	0.3	0.3	0.5	0.4	0.2	0.8	0.6	1.3	0.0
Legionnaire's disease – other	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Leprosy	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.3	0.0
Leptospirosis^b	0.0	0.0	0.3	0.0	0.2	0.0	0.0	0.0	0.0
Listeriosis^b	0.3	0.4	0.5	0.6	1.1	0.6	0.6	0.8	0.0
Lymphogranuloma venereum (LGV)^b	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
Malaria^b	0.6	2.1	2.7	1.2	3.0	0.6	1.6	2.9	0.0
Measles	0.0	0.4	0.3	0.5	0.8	2.1	0.9	0.6	0.0
Measles – laboratory confirmed	0.0	0.4	0.3	0.5	0.6	1.8	0.9	0.5	0.0
Measles – other	0.0	0.0	0.0	0.0	0.2	0.4	0.0	0.1	0.0
Meningococcal disease	1.0	1.1	1.9	1.2	0.4	1.3	2.5	0.8	0.0
Meningococcal – serogroup B ^b	0.6	0.5	1.1	0.6	0.4	0.8	1.6	0.4	0.0
Meningococcal – serogroup C ^b	0.0	0.3	0.3	0.1	0.0	0.1	0.0	0.1	0.0
Meningococcal – serogroup W135 ^b	0.0	0.0	0.0	0.2	0.0	0.1	0.3	0.0	0.0
Meningococcal – serogroup Y ^b	0.0	0.0	0.5	0.1	0.0	0.1	0.0	0.0	0.0
Meningococcal – other	0.3	0.4	0.0	0.1	0.0	0.1	0.6	0.3	0.0
Mumps^b	0.6	1.0	1.1	3.5	1.9	0.8	0.3	1.3	0.0
Pertussis	125.6	123.6	187.0	121.9	83.7	68.0	195.0	191.0	25.0
Pneumococcal disease (invasive)^b	9.8	6.7	7.1	6.3	7.5	6.9	8.1	9.7	0.0
Psittacosis^b	0.3	0.1	0.0	0.2	0.2	0.6	2.2	0.1	0.0
Q fever^b	1.3	0.0	2.9	0.2	0.0	0.0	0.0	0.3	12.5
Rubella	0.3	0.7	0.0	0.2	0.6	0.4	0.0	0.1	0.0
Congenital rubella ^b	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rubella – other ^b	0.3	0.7	0.0	0.2	0.6	0.4	0.0	0.1	0.0
Salmonella infection^{b,d}	44.1	42.3	25.4	32.2	31.2	25.9	29.6	28.8	0.0
Shigellosis^b	0.3	1.5	1.3	5.2	3.2	1.2	0.0	1.0	0.0
Syphilis	7.9	7.5	7.9	35.4	38.7	15.1	9.4	13.3	187.5
Congenital syphilis	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0
Infectious syphilis ^{b,c}	1.3	3.0	1.6	24.3	19.7	2.1	2.2	3.2	12.5
Syphilis – other ^b	6.7	4.6	6.4	10.9	19.0	13.0	7.2	10.0	175.0
Tetanus	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tuberculosis^b	1.6	6.5	1.9	8.5	13.9	10.5	4.4	17.4	0.0
Typhoid^b	0.0	0.3	0.0	0.6	1.5	1.2	0.0	2.1	0.0
Verotoxin-producing <i>Escherichia coli</i> infections^b	0.3	0.1	0.0	0.1	0.4	0.1	0.3	0.0	0.0

^aYear of onset: the earlier of patient reported onset date, specimen date or date of notification. ^bLaboratory-confirmed cases only. ^cIncludes Syphilis primary, Syphilis secondary, Syphilis <1-year duration and Syphilis newly acquired. ^dIncludes all paratyphoid cases. ^eFoodborne illness cases are only those notified as part of an outbreak. ^fAHS further divided into the geographical region covered by their component Public Health Unit. NOS: not otherwise specified. No case of the following diseases have been notified since 1991: Plague^b, Diphtheria^b, Granuloma inguinale^b, Lyssavirus^b, Poliomyelitis^b, Rabies, Smallpox, Typhus^b, Viral haemorrhagic fever, Yellow fever.

Table 5. Disease notifications by area health service of residence (including breakdown by 2005 AHS boundaries) of case, NSW, 2008

Condition	Greater Southern ^f		Greater Western ^f			Hunter New England ^f		North Coast ^f	
	Albury	Goulburn	Broken Hill	Dubbo	Bathurst	Newcastle	Tamworth	Port Macquarie	Lismore
Adverse event after immunisation	15	13	2	4	18	14	5	2	10
Anthrax	0	0	0	0	0	0	0	0	0
Arboviral infection	175	46	68	127	43	338	120	220	378
Barmah Forest virus ^b	9	14	10	9	1	116	21	121	191
Ross River virus ^b	165	28	58	117	40	215	94	95	178
Other ^b	1	4	0	1	2	7	5	4	9
Blood lead level ≥15 µg/dL ^b	11	2	15	80	11	37	3	1	7
Botulism	0	0	0	0	0	0	0	0	0
Brucellosis ^b	0	0	0	0	0	0	1	0	0
Chancroid ^b	0	0	0	0	0	0	0	0	0
Chlamydia trachomatis infection	493	309	180	238	335	1527	493	433	657
Congenital chlamydia ^b	4	0	0	0	1	8	2	0	0
Chlamydia – other ^b	489	309	180	238	334	1519	491	433	657
Cholera ^b	0	0	0	0	0	0	0	0	0
Creutzfeldt-Jakob disease ^b	0	0	0	0	0	2	0	0	0
Cryptosporidiosis ^b	16	3	0	6	19	33	20	13	27
Foodborne illness (NOS) ^e	55	0	0	0	0	87	0	78	0
Gastroenteritis (institutional)	194	190	27	89	360	1323	40	39	242
Giardiasis ^b	40	38	5	37	36	170	33	30	12
Gonorrhoea ^b	11	6	3	10	3	102	8	14	32
Haemolytic uraemic syndrome	0	1	0	1	0	2	0	2	0
Haemophilus influenzae serotype b	0	0	0	0	1	1	0	0	0
Hib epiglottitis ^b	0	0	0	0	0	0	0	0	0
Hib meningitis ^b	0	0	0	0	1	0	0	0	0
Hib septicaemia ^b	0	0	0	0	0	1	0	0	0
Hib infection NOS ^b	0	0	0	0	0	0	0	0	0
Hepatitis A ^b	0	0	0	0	0	1	0	0	1
Hepatitis B	23	29	21	10	5	58	14	16	18
Hepatitis B – acute viral ^b	1	3	3	3	1	5	0	0	2
Hepatitis B – other ^b	22	26	18	7	4	53	14	16	16
Hepatitis C	141	105	37	62	82	330	67	145	214
Hepatitis C – acute viral ^b	2	1	0	4	0	6	0	1	0
Hepatitis C – other ^b	139	104	37	58	82	324	67	144	214
Hepatitis D ^b	0	0	0	1	0	0	0	0	0
Hepatitis E ^b	0	0	0	0	0	0	0	0	0
HIV infection ^b	3	3	0	1	2	10	3	8	4
Influenza	84	76	5	21	30	179	53	49	192
Influenza – Type A ^b	36	38	2	9	16	52	20	15	58
Influenza – Type B ^b	46	36	3	12	11	127	32	28	116
Influenza – Type A & B ^b	0	2	0	0	3	0	1	6	6
Influenza – Type NOS ^b	2	0	0	0	0	0	0	0	12
Legionellosis	3	3	0	0	4	9	3	3	3
L. longbeachae ^b	2	2	0	0	3	6	2	2	2
L. pneumophila ^b	1	1	0	0	1	3	1	1	1
Legionnaires' disease – other	0	0	0	0	0	0	0	0	0
Leprosy	0	0	0	0	0	0	0	0	0
Leptospirosis ^b	0	2	0	4	0	5	0	1	3
Listeriosis ^b	0	3	0	0	0	0	0	0	1
Lymphogranuloma venereum (LGV) ^b	0	0	0	0	0	0	0	0	0
Malaria ^b	3	4	0	1	0	5	2	5	1
Measles	0	1	0	0	0	0	0	0	0
Measles – laboratory confirmed	0	1	0	0	0	0	0	0	0
Measles – other	0	0	0	0	0	0	0	0	0
Meningococcal disease	5	4	0	3	2	6	2	0	3
Meningococcal – serogroup B ^b	3	2	0	2	1	6	2	0	1
Meningococcal – serogroup C ^b	1	0	0	1	0	0	0	0	1
Meningococcal – serogroup W135 ^b	0	1	0	0	0	0	0	0	0
Meningococcal – serogroup Y ^b	0	0	0	0	0	0	0	0	0
Meningococcal – other	1	1	0	0	1	0	0	0	1
Mumps ^b	0	0	0	2	1	1	0	0	1
Pertussis	306	204	54	184	130	483	85	215	848
Pneumococcal disease (invasive) ^b	22	17	7	11	23	64	10	11	19
Psittacosis ^b	5	0	0	3	5	6	0	3	1
Q fever ^b	13	13	9	16	2	12	30	22	27
Rubella	1	0	0	0	0	0	0	0	0
Congenital rubella ^b	0	0	0	0	0	0	0	0	0
Rubella – other ^b	1	0	0	0	0	0	0	0	0
Salmonella infection ^{b,d}	75	50	15	29	36	197	66	90	139
Shigellosis ^b	1	1	0	0	2	0	1	2	4
Syphilis	7	12	33	7	4	24	8	15	25
Congenital syphilis	0	0	0	0	0	0	0	0	0
Infectious syphilis ^c	4	1	1	1	0	6	2	1	7
Syphilis – other ^b	3	11	32	6	4	18	6	14	18
Tetanus	0	0	0	0	0	0	0	1	0
Tuberculosis ^b	9	2	0	0	0	13	1	8	4
Typhoid ^b	0	0	0	0	0	0	0	0	2
Verotoxin-producing Escherichia coli infections ^b	1	0	0	1	0	6	3	0	1

^aYear of onset: the earlier of patient reported onset date, specimen date or date of notification. ^bLaboratory-confirmed cases only. ^cIncludes Syphilis primary, Syphilis secondary, Syphilis <1-year duration and Syphilis newly acquired. ^dIncludes all paratyphoid cases. ^eFoodborne illness cases are only those notified as part of an outbreak. ^fAHS further divided into the geographical region covered by their component Public Health Unit. ^gRate is based on a denominator of 8000 persons. ^hIncludes cases with unknown Public Health Unit. NOS:not otherwise specified. No case of the following diseases have been notified since 1991: Plague^b, Diphtheria^b, Granuloma inguinale^b, Lysssavirus^b, Poliomyelitis^b, Rabies, Smallpox, Typhus^b, Viral haemorrhagic fever, Yellow fever.

Table 5. (Continued)

Condition	Northern Sydney Central Coast ^c		South Eastern Sydney Illawarra ^f		Sydney South West ^f		Sydney West ^f		Justice Health	Total
	Gosford	Hornsby	Wollongong	Randwick	Camperdown	Liverpool	Penrith	Parramatta		
Adverse event after immunisation	15	19	16	25	12	24	18	35	0	248
Anthrax	0	0	0	0	0	0	0	0	0	0
Arboviral infection	55	47	51	46	26	16	31	52	0	1851
Barmah Forest virus ^b	15	5	10	2	4	0	2	2	0	533
Ross River virus ^b	37	17	35	11	11	9	22	21	0	1155
Other ^b	3	25	6	33	11	7	7	29	0	163
Blood lead level ≥ 15 µg/dL^b	3	5	5	15	9	28	16	12	0	260
Botulism	0	0	0	0	0	0	0	0	0	0
Brucellosis^b	0	0	0	0	0	1	0	0	0	2
Chancroid^b	0	0	0	0	0	0	0	0	0	0
Chlamydia trachomatis infection	626	1163	659	2476	1489	1076	476	1099	153	14043
Congenital chlamydia ^b	1	2	2	2	4	5	0	8	0	39
Chlamydia – other ^b	625	1161	657	2474	1485	1071	476	1091	153	14004
Cholera^b	0	0	0	0	1	0	1	0	0	2
Creutzfeldt-Jakob disease^b	1	1	1	0	0	1	0	0	0	6
Cryptosporidiosis^b	24	73	14	101	16	29	33	57	0	484
Foodborne illness (NOS)^e	68	0	76	0	82	0	207	0	14	667
Gastroenteritis (institutional)	668	1615	390	952	1624	414	619	1349	0	10135
Giardiasis^b	81	326	89	339	127	120	100	192	2	1783
Gonorrhoea^b	26	127	32	456	250	85	34	104	5	1332
Haemolytic uraemic syndrome	0	2	1	0	2	4	1	1	0	17
Haemophilus influenzae serotype b	2	0	0	1	1	1	2	0	0	9
Hib epiglottitis ^b	1	0	0	0	0	0	0	0	0	1
Hib meningitis ^b	0	0	0	1	0	0	0	0	0	2
Hib septicaemia ^b	0	0	0	0	0	1	1	0	0	3
Hib infection NOS ^b	1	0	0	0	1	0	1	0	0	3
Hepatitis A^b	2	16	6	6	8	10	1	18	0	69
Hepatitis B	29	292	55	400	442	555	39	543	47	2638
Hepatitis B – acute viral ^b	0	4	2	6	7	4	1	2	1	46
Hepatitis B – other ^b	29	288	53	394	435	551	38	541	46	2592
Hepatitis C	178	172	174	407	319	437	138	278	580	3916
Hepatitis C – acute viral ^b	0	0	1	1	0	1	0	2	5	24
Hepatitis C – other ^b	178	172	173	406	319	436	138	276	575	3892
Hepatitis D^b	0	0	0	2	0	3	1	4	3	14
Hepatitis E^b	0	1	1	1	2	3	1	5	0	14
HIV infection^b	6	25	3	116	75	17	7	27	0	322
Influenza	31	100	89	160	85	141	137	367	3	1813
Influenza – Type A ^b	11	41	44	55	52	54	71	159	2	744
Influenza – Type B ^b	19	55	40	92	32	87	40	192	1	971
Influenza – Type A & B ^b	0	3	5	13	1	0	26	15	0	81
Influenza – Type NOS ^b	1	1	0	0	0	0	0	1	0	17
Legionellosis	3	7	6	8	4	9	7	17	0	89
<i>L. longbeachae^b</i>	2	5	4	4	3	2	5	7	0	51
<i>L. pneumophila^b</i>	1	2	2	3	1	7	2	10	0	37
Legionnaires' disease – other	0	0	0	1	0	0	0	0	0	1
Leprosy	0	0	0	0	1	1	0	2	0	4
Leptospirosis^b	0	0	1	0	1	0	0	0	0	17
Listeriosis^b	1	3	2	5	6	5	2	6	0	34
Lymphogranuloma venereum (LGV)^b	0	0	0	0	1	0	0	0	0	1
Malaria^b	2	17	10	10	16	5	5	23	0	116
Measles	0	3	1	4	4	18	3	5	0	39
Measles – laboratory confirmed	0	3	1	4	3	15	3	4	0	34
Measles – other	0	0	0	0	1	3	0	1	0	5
Meningococcal disease	3	9	7	10	2	11	8	6	0	81
Meningococcal – serogroup B ^b	2	4	4	5	2	7	5	3	0	49
Meningococcal – serogroup C ^b	0	2	1	1	0	1	0	1	0	9
Meningococcal – serogroup W135 ^b	0	0	0	2	0	1	1	0	0	5
Meningococcal – serogroup Y ^b	0	0	2	1	0	1	0	0	0	4
Meningococcal – other	1	3	0	1	0	1	2	2	0	14
Mumps^b	2	8	4	29	10	7	1	10	0	77
Pertussis	396	1002	707	1003	445	572	626	1492	2	8756
Pneumococcal disease (invasive)^b	31	54	27	52	40	58	26	76	0	548
Psittacosis^b	1	1	0	2	1	5	7	1	0	41
Q fever^b	4	0	11	2	0	0	0	2	1	164
Rubella	1	6	0	2	3	3	0	1	0	17
Rubella – congenital	0	0	0	0	0	0	0	0	0	0
Rubella – other ^b	1	6	0	2	3	3	0	1	0	17
Salmonella infection^{b,d}	139	343	96	265	166	218	95	225	0	2263
Shigellosis^b	1	12	5	43	17	10	0	8	0	109
Syphilis	25	61	30	291	206	127	30	104	15	1034
Congenital syphilis	0	0	0	1	0	0	0	1	0	2
Infectious syphilis ^{b,c}	4	24	6	200	105	18	7	25	1	416
Syphilis – other ^b	21	37	24	90	101	109	23	78	14	616
Tetanus	0	0	0	0	0	0	0	0	0	1
Tuberculosis^b	5	53	7	70	74	88	14	136	0	488
Typhoid^b	0	2	0	5	8	10	0	16	0	43
Verotoxin-producing <i>Escherichia coli</i> infections^b	1	1	0	1	2	1	1	0	0	19

^aYear of onset: the earlier of patient reported onset date, specimen date or date of notification. ^bLaboratory-confirmed cases only. ^cIncludes Syphilis primary, Syphilis secondary, Syphilis <1-year duration and Syphilis newly acquired. ^dIncludes all paratyphoid cases. ^eFoodborne illness cases are only those notified as part of an outbreak. ^fAHS further divided into the geographical region covered by their component Public Health Unit. ^gRate is based on a denominator of 8000 persons. ^hIncludes cases with unknown Public Health Unit. NOS:not otherwise specified. No case of the following diseases have been notified since 1991: Plague^b, Diphtheria^b, Granuloma inguinale^b, Lyssavirus^b, Poliomyelitis^b, Rabies, Smallpox, Typhus^b, Viral haemorrhagic fever, Yellow fever.

- Higher rates of bloodborne diseases and sexually transmissible infections (e.g. chlamydia, syphilis and hepatitis B and C) were reported for Justice Health compared with the rest of NSW. This is likely to be related to testing for these diseases on entry into correctional facilities. Within the prison population, hepatitis C was the most commonly reported infection, likely related to risk factors among people who are incarcerated.

Age distribution of notifiable diseases

- Gastrointestinal and respiratory diseases were most commonly reported in children aged under 5 years. This may be partly due to high testing rates for these diseases in children.
- Pertussis notifications were highest in the group aged 5–24 years, affected both sexes equally, and were also high in females aged 25–44 years, perhaps reflecting increased testing and/or infection of women of child-bearing age.

- Pertussis was also the most commonly reported notifiable disease in adults aged 65 years and older.
- Chlamydia was most common in the group aged 5–24 years, with females accounting for twice as many notifications as males. This is likely to be partly due to higher screening rates for chlamydia in women.

Outbreaks and threats

Several notable disease outbreaks and threats were reported in 2008 in NSW. These included:

- An outbreak of pertussis which first appeared in northern NSW. The highest age-specific incidence was seen in children aged under 1 year.³
- There were five strains of influenza circulating in 2008, with an epidemic of influenza B. An earlier peak of influenza than seen in previous years may have been due to the influx of overseas travellers for World Youth Day in July.

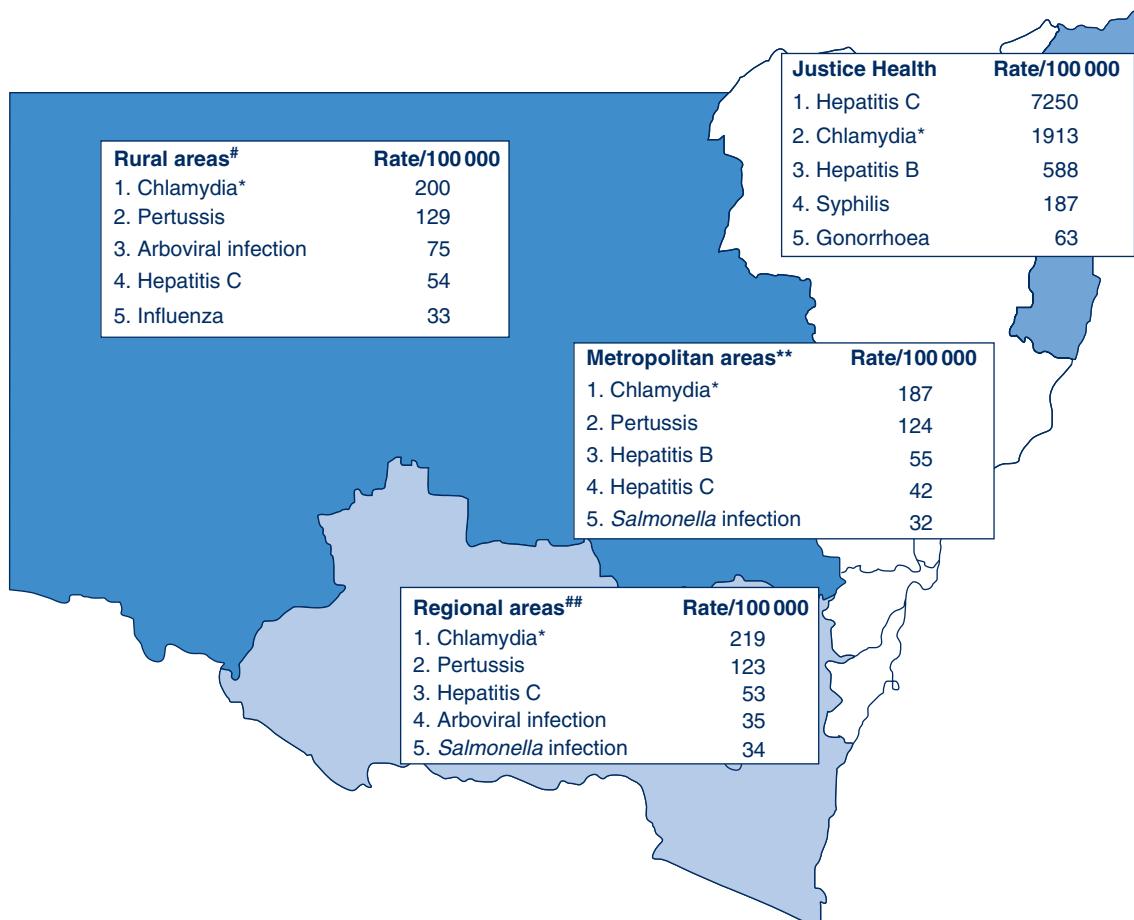


Figure 1. The five most commonly reported notifiable diseases by geographical area of residence at the time of notification in NSW, 2008. #Includes Greater Southern, Greater Western, Hunter New England (Tamworth region) and North Coast Area Health Services. ##Includes Northern Sydney Central Coast (Gosford region), South Eastern Sydney Illawarra (Wollongong region) and Hunter New England (Newcastle region) Area Health Services. *Refers to notifications of *Chlamydia trachomatis*. **Includes Northern Sydney Central Coast (Hornsby region), South Eastern Sydney Illawarra (Randwick region), Sydney South West and Sydney West Area Health Services. Source: NSW Notifiable Diseases Database.

Table 6. Disease notifications by age group and sex of case, NSW, 2008

Condition	0–4 years		5–24 years		25–44 years		45–64 years		≥65 years		Total		Total ^e
	F	M	F	M	F	M	F	M	F	M	F	M	
Adverse event after immunisation	23	27	142	4	15	1	21	5	8	0	209	37	248
Anthrax	0	0	0	0	0	0	0	0	0	0	0	0	0
Arboviral infection	3	4	117	95	360	336	342	377	104	109	926	921	1851
Barmah Forest virus ^b	0	0	22	29	95	86	106	128	30	36	253	279	533
Ross River virus ^b	2	4	75	56	232	217	218	212	70	66	597	555	1155
Other ^b	1	0	20	10	33	33	18	37	4	7	76	87	163
Blood lead level ≥15 µg/dL^b	9	16	3	35	4	112	4	62	1	12	21	237	260
Botulism	0	0	0	0	0	0	0	0	0	0	0	0	0
Brucellosis^b	0	0	0	0	0	1	0	1	0	0	0	2	2
Chancroid^b	0	0	0	0	0	0	0	0	0	0	0	0	0
Chlamydia trachomatis infection	32	26	5438	2612	2380	2850	204	433	7	24	8061	5945	14043
Congenital chlamydia ^b	17	17	1	1	1	2	0	0	0	0	19	20	39
Chlamydia – other ^b	15	9	5437	2611	2379	2848	204	433	7	24	8042	5925	14004
Cholera^b	0	0	0	0	0	0	0	2	0	0	0	2	2
Creutzfeldt-Jakob disease^b	0	0	0	0	0	0	1	2	0	3	1	5	6
Cryptosporidiosis^b	73	100	68	72	74	48	19	13	9	7	243	240	484
Giardiasis^b	173	285	159	191	338	252	147	129	60	46	877	903	1783
Gonorrhoea^b	0	1	105	257	109	651	23	169	3	12	240	1090	1332
Haemolytic uraemic syndrome	6	1	1	4	1	0	2	0	1	1	11	6	17
Haemophilus influenzae serotype b	1	0	0	3	0	1	0	0	2	2	3	6	9
Hib epiglottitis ^b	0	0	0	1	0	0	0	0	0	0	0	1	1
Hib meningitis ^b	1	0	0	1	0	0	0	0	0	0	1	1	2
Hib septicaemia ^b	0	0	0	0	0	0	0	0	0	1	2	1	3
Hib infection NOS ^b	0	0	0	1	0	1	0	0	0	1	0	1	3
Hepatitis A^b	1	1	12	18	9	15	3	3	5	2	30	39	69
Hepatitis B	4	6	187	219	650	766	255	411	55	61	1151	1463	2638
Hepatitis B – acute viral ^b	0	0	8	3	1	22	2	5	1	4	12	34	46
Hepatitis B – other ^b	4	6	179	216	649	744	253	406	54	57	1139	1429	2592
Hepatitis C	11	10	221	215	738	1340	420	813	67	61	1457	2439	3916
Hepatitis C – acute viral ^b	1	0	3	2	10	6	2	0	0	0	16	8	24
Hepatitis C – other ^b	10	10	218	213	728	1334	418	813	67	61	1441	2431	3892
Hepatitis D^b	0	0	0	1	0	7	2	4	0	0	2	12	14
Hepatitis E^b	0	0	2	4	1	4	0	2	1	0	4	10	14
HIV infection^b	0	0	8	29	20	192	3	64	1	5	32	290	322
Influenza	113	139	195	198	229	184	243	160	162	181	943	863	1813
Influenza – Type A ^b	27	39	69	66	102	76	121	84	75	80	395	345	744
Influenza – Type B ^b	84	100	122	123	114	100	102	61	74	88	496	473	971
Influenza – Type A & B ^b	2	0	4	7	11	8	15	9	13	12	45	36	81
Influenza – Type NOS ^b	0	0	0	2	2	0	5	6	0	1	7	9	17
Legionellosis	0	0	0	0	3	7	15	24	13	27	31	58	89
L. longbeachae ^b	0	0	0	0	2	3	8	14	7	17	17	34	51
L. pneumophila ^b	0	0	0	0	1	4	7	10	5	10	13	24	37
Legionnaires' disease – other	0	0	0	0	0	0	0	0	1	0	1	0	1
Leprosy	0	0	1	0	0	2	0	0	0	1	1	3	4
Leptospirosis^b	0	0	1	2	0	5	0	8	0	1	1	16	17
Listeriosis^b	2	2	1	1	5	3	3	5	5	7	16	18	34
Lymphogranuloma venereum (LGV)^b	0	0	0	0	0	0	0	1	0	0	0	1	1
Malaria^b	1	2	12	24	11	33	6	22	1	3	31	84	116
Measles	2	7	7	9	6	8	0	0	0	0	15	24	39
Measles – laboratory confirmed	2	6	7	6	6	7	0	0	0	0	15	19	34
Measles – other	0	1	0	3	0	1	0	0	0	0	0	5	5
Meningococcal disease	12	14	15	15	4	6	8	2	3	2	42	39	81
Meningococcal – serogroup B ^b	11	8	10	8	3	4	4	1	0	0	28	21	49
Meningococcal – serogroup C ^b	0	1	2	2	0	0	1	1	2	0	5	4	9
Meningococcal – serogroup W135 ^b	1	2	0	1	0	0	0	0	1	0	2	3	5
Meningococcal – serogroup Y ^b	0	0	2	1	0	0	0	0	0	1	2	2	4
Meningococcal – other	0	3	1	3	1	2	3	0	0	1	5	9	14
Mumps^b	2	4	9	13	19	23	6	1	0	0	36	41	77
Pertussis	611	595	1770	1682	1132	685	938	657	399	270	4850	3889	8756
Pneumococcal disease (invasive)^b	39	57	16	14	27	47	58	85	108	96	248	299	548
Psittacosis^b	0	0	2	0	5	1	12	14	4	3	23	18	41
Q fever^b	0	0	5	9	16	42	19	57	4	12	44	120	164
Rubella	1	1	2	1	4	6	0	2	0	0	7	10	17
Congenital rubella^b	0	0	0	0	0	0	0	0	0	0	0	0	0
Rubella – other ^b	1	1	2	1	4	6	0	2	0	0	7	10	17
Salmonella infection^{b,d}	261	286	302	330	246	235	174	178	136	102	1119	1131	2263
Shigellosis^b	3	7	9	6	10	47	7	18	1	1	30	79	109
Syphilis	3	1	21	46	113	395	58	240	52	104	247	786	1034
Congenital syphilis	1	1	0	0	0	0	0	0	0	0	1	1	2
Infectious syphilis ^{b,c}	0	0	7	27	11	264	3	95	1	8	22	394	416
Syphilis – other ^b	2	0	14	19	102	131	55	145	51	96	224	391	616
Tetanus	0	0	0	0	0	0	0	0	1	0	1	0	1
Tuberculosis^b	1	1	49	69	90	100	46	58	29	45	215	273	488
Typhoid^b	4	4	10	6	7	9	3	0	0	0	24	19	43
Verotoxin-producing Escherichia coli infections^b	3	1	4	2	1	0	1	3	3	1	12	7	19

^aYear of onset: the earlier of patient reported onset date, specimen date or date of notification. ^bLaboratory-confirmed cases only. ^cIncludes Syphilis primary, Syphilis secondary, Syphilis <1-year duration and Syphilis newly acquired. ^dIncludes all paratyphoid cases. ^eIncludes cases with unknown age and sex and people who identify as transgender. NOS: not otherwise specified. F: female. M: male. Institutional gastrointestinal outbreaks and foodborne illness are excluded from the table as complete demographic data is not routinely collected.

- There were a number of discrete foodborne salmonella outbreaks, several of which were traced back to raw egg products in a range of foods.³
- There were several clusters of measles cases from January 2008, with 38 cases reported between January and June, compared with four cases reported in the same period in 2007.^{1,2} One was associated with an English language school, one was associated with an under-immunised population in the Blue Mountains, and one was associated with transmission in an emergency department.

Conclusions

Controlling the spread of communicable diseases remains a priority for NSW. Vaccine-preventable diseases and sexually transmissible infections are of particular concern. This is exemplified by the re-emergence of infectious syphilis amongst men who have sex with men and the high rates of chlamydia in young adults.

The transmission of vaccine-preventable diseases, including measles and pertussis, also increased in NSW in 2008

compared with previous years. This highlights the challenge of increasing vaccination rates among adolescents and young adults, as well as the importance of promoting and maintaining high vaccination rates in infants.

We thank all those general and specialist medical practices, laboratories, hospitals, schools, child-care centres, and others who have notified diseases of public health significance to their local public health units for investigation and control.

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