Communicable diseases surveillance

Tables

National Notifiable Diseases Surveillance System

A summary of diseases currently being reported by each jurisdiction is provided in Table 1. There were 54,806 notifications to the National Notifiable Diseases Surveillance System (NNDSS) with a notification received date between 1 April and 30 June 2012 (Table 2). The notification rate of diseases per 100,000 population for each state or territory is presented in Table 3.

Table 1: Reporting of notifiable diseases by jurisdiction

Disease	Data received from:
Bloodborne diseases	
Hepatitis (NEC)	All jurisdictions
Hepatitis B (newly acquired)	All jurisdictions
Hepatitis B (unspecified)	All jurisdictions
Hepatitis C (newly acquired)	All jurisdictions except Queensland
Hepatitis C (unspecified)	All jurisdictions
Hepatitis D	All jurisdictions
Gastrointestinal diseases	
Botulism	All jurisdictions
Campylobacteriosis	All jurisdictions except New South Wales
Cryptosporidiosis	All jurisdictions
Haemolytic uraemic syndrome	All jurisdictions
Hepatitis A	All jurisdictions
Hepatitis E	All jurisdictions
Listeriosis	All jurisdictions
STEC, VTEC*	All jurisdictions
Salmonellosis	All jurisdictions
Shigellosis	All jurisdictions
Typhoid	All jurisdictions
Quarantinable diseases	
Cholera	All jurisdictions
Highly pathogenic avian influenza in humans	All jurisdictions
Plague	All jurisdictions
Rabies	All jurisdictions
Severe acute respiratory syndrome	All jurisdictions
Smallpox	All jurisdictions
Viral haemorrhagic fever	All jurisdictions
Yellow fever	All jurisdictions
Sexually transmissible infections	
Chlamydial infection	All jurisdictions
Donovanosis	All jurisdictions
Gonococcal infection	All jurisdictions
Syphilis - congenital	All jurisdictions
Syphilis <2 years duration	All jurisdictions
Syphilis >2 years or unspecified duration	All jurisdictions except South Australia

Table 1: Reporting of notifiable diseases by jurisdiction, *continued*

Disease	Data received from:
Vaccine preventable diseases	
Diphtheria	All jurisdictions
Haemophilus influenzae type b	All jurisdictions
Influenza (laboratory confirmed)	All jurisdictions
Measles	All jurisdictions
Mumps	All jurisdictions
Pertussis	All jurisdictions
Pneumococcal disease (invasive)	All jurisdictions
Poliomyelitis	All jurisdictions
Rubella	All jurisdictions
Rubella - congenital	All jurisdictions
Tetanus	All jurisdictions
Varicella zoster (chickenpox)	All jurisdictions except New South Wales
Varicella zoster (shingles)	All jurisdictions except New South Wales
Varicella zoster (unspecified)	All jurisdictions except New South Wales
Vectorborne diseases	
Arbovirus infection (NEC)	All jurisdictions
Barmah Forest virus infection	All jurisdictions
Dengue virus infection	All jurisdictions
Japanese encephalitis virus infection	All jurisdictions
Kunjin virus infection	All jurisdictions
Malaria	All jurisdictions
Murray Valley encephalitis virus infection	All jurisdictions
Ross River virus infection	All jurisdictions
Zoonoses	
Anthrax	All jurisdictions
Australian bat lyssavirus	All jurisdictions
Brucellosis	All jurisdictions
Leptospirosis	All jurisdictions
Lyssavirus (NEC)	All jurisdictions
Ornithosis	All jurisdictions
Q fever	All jurisdictions
Tularaemia	All jurisdictions
Other bacterial infections	
Legionellosis	All jurisdictions
Leprosy	All jurisdictions
Meningococcal infection	All jurisdictions
Tuberculosis	All jurisdictions

* Infections with Shiga-like toxin (verotoxin) producing *Escherichia coli* (STEC/VTEC).

NEC Not elsewhere classified.

Table 2: Notifications of diseases received by state and territory health authorities, 1 April to 30 June 2012, by date of diagnosis

Disease	State or territory								Total 2nd quarter 2012	Total 1st quarter 2012	Total 2nd quarter 2011	Last 5 years mean 2nd quarter	Ratio	Year to date 2012	Last 5 years YTD mean
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA							
Bloodborne diseases															
Hepatitis (NEC)	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0	0.0
Hepatitis B (newly acquired)*	0	6	3	9	2	1	10	3	34	51	45	62.0	0.5	85	125.6
Hepatitis B (unspecified)†	35	570	42	179	89	17	468	195	1,595	1,664	1,621	1,659.4	1.0	3,259	3,385.6
Hepatitis C (newly acquired)*,‡	2	8	0	NN	16	3	41	25	95	102	97	98.4	1.0	197	195.8
Hepatitis C (unspecified)†	37	797	33	555	89	61	508	225	2,305	2,588	2,462	2,704.6	0.9	4,893	5,488.2
Hepatitis D	0	1	0	0	0	0	4	1	6	6	12	10.4	0.6	12	19.8
Gastrointestinal diseases															
Botulism	0	0	0	0	0	0	0	0	0	0	1	0.2	0.0	0	0.6
Campylobacteriosis§	108	NN	39	939	442	164	1,217	359	3,268	4,797	4,023	3,713.4	0.9	8,065	8,254.4
Cryptosporidiosis	6	235	71	364	43	12	161	26	918	1,446	470	623.2	1.5	2,364	1,803.2
Haemolytic uraemic syndrome	0	4	0	1	0	0	0	0	5	5	1	3.6	1.4	10	8.8
Hepatitis A	0	9	1	6	0	0	14	6	36	45	32	74.6	0.5	81	143.8
Hepatitis E	1	3	0	1	0	0	3	0	8	15	9	9.4	0.9	23	22.0
Listeriosis	0	10	0	1	1	1	7	1	21	26	19	14.6	1.4	47	39.8
STEC, VTEC‖	2	5	0	2	12	1	1	0	23	36	16	16.4	1.4	59	49.2
Salmonellosis	62	575	119	617	223	47	556	264	2,463	3,956	2,601	2,401.8	1.0	6,419	6,101.2
Shigellosis	2	22	16	21	16	1	26	13	117	191	100	142.0	0.8	308	325.8
Typhoid	0	11	1	1	1	0	6	0	20	56	24	23.6	0.8	76	63.0
Quarantinable diseases															
Cholera	0	1	0	1	2	0	0	0	4	0	4	1.2	3.3	4	2.2
Highly pathogenic avian influenza in humans	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0	0.0
Plague	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0	0.0
Rabies	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0	0.0
Severe acute respiratory syndrome	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0	0.0
Smallpox	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0	0.0
Viral haemorrhagic fever	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0	0.0
Yellow fever	0	0	0	0	0	0	0	0	0	0	2	0.0	0.0	0	0.0

Table 2 *continued*: Notifications of diseases received by state and territory health authorities, 1 April to 30 June 2012, by date of diagnosis

Disease	State or territory								Total 2nd quarter 2012	Total 1st quarter 2012	Total 2nd quarter 2011	Last 5 years mean 2nd quarter	Ratio	Year to date 2012	Last 5 years YTD mean
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA							
Sexually transmissible infections															
Chlamydial infection¶,**	319	5,158	675	4,610	1,231	439	4,992	2,924	20,348	22,480	20,211	16,801.8	1.2	42,828	33,469.4
Donovanosis	0	0	0	0	0	0	0	0	0	0	0	0.4	0.0	0	1.0
Gonococcal infection**	22	1,037	369	670	175	6	649	521	3,449	3,612	3,080	2,430.6	1.4	7,061	4,723.6
Syphilis – congenital**	0	0	0	1	0	0	0	0	1	0	0	1.2	0.8	1	2.8
Syphilis < 2 years duration**	2	98	6	88	27	5	122	20	368	360	300	340.2	1.1	728	682.6
Syphilis > 2 years or unspecified duration**	5	40	16	57	NN	8	127	22	275	308	299	329.2	0.8	583	661.2
Vaccine preventable diseases															
Diphtheria	0	0	0	0	0	0	0	0	0	0	4	0.8	0.0	0	0.8
Haemophilus influenzae type b	0	0	0	1	1	1	0	1	4	3	5	6.8	0.6	7	11.0
Influenza (laboratory confirmed)	133	2,399	150	1,704	1,399	59	802	694	7,340	1,265	4,124	4,269.6	1.7	8,605	5,146.8
Measles	0	22	0	3	0	0	5	1	31	9	30	16.6	1.9	40	58.2
Mumps	0	49	0	6	2	0	5	5	67	39	38	51.0	1.3	106	111.4
Pertussis	91	1,359	87	1,593	224	268	950	755	5,327	7,198	8,020	4,825.6	1.1	12,525	10,280.8
Pneumococcal disease (invasive)	5	184	23	81	36	12	99	61	501	231	550	437.8	1.1	732	646.2
Poliomyelitis	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0	0.0
Rubella	1	2	0	3	0	0	1	1	8	13	14	11.4	0.7	21	23.4
Rubella – congenital	0	0	0	0	0	1	0	0	1	0	0	0.4	2.5	1	0.4
Tetanus	0	0	0	0	0	0	0	0	0	1	2	0.6	0.0	1	2.2
Varicella zoster (chickenpox)††	3	NN	34	59	98	9	178	72	453	399	406	364.4	1.2	852	699.0
Varicella zoster (shingles)††	13	NN	38	16	432	64	256	284	1,103	1,069	900	645.4	1.7	2,172	1,351.0
Varicella zoster (unspecified)††	29	NN	1	1,066	36	23	651	245	2,051	2,078	1,775	1,398.0	1.5	4,129	2,856.8
Vectorborne diseases															
Arbovirus infection (NEC)	0	0	0	2	1	0	0	0	3	3	6	3.0	1.0	6	7.6
Barmah Forest virus infection	0	78	15	192	4	0	9	34	332	451	395	436.2	0.8	783	1,059.8
Dengue virus infection	5	65	10	85	14	3	87	143	412	689	122	153.0	2.7	1,101	510.0
Japanese encephalitis virus infection	0	0	0	0	0	0	0	0	0	1	0	0.0	0.0	1	0.0
Kunjin virus infection‡‡	0	0	0	0	0	0	0	0	0	0	1	0.4	0.0	0	1.0
Malaria	0	16	1	25	0	0	19	9	70	72	89	120.8	0.6	142	243.2
Murray Valley encephalitis virus infection‡‡	0	0	0	0	0	0	0	0	0	1	7	2.0	0.0	1	4.2
Ross River virus infection	5	217	62	553	59	3	107	204	1,210	2,293	990	1,367.0	0.9	3,503	3,412.2

Table 2 *continued*: Notifications of diseases received by state and territory health authorities, 1 April to 30 June 2012, by date of diagnosis

Disease	State or territory								Total 2nd quarter 2012	Total 1st quarter 2012	Total 2nd quarter 2011	Last 5 years mean 2nd quarter	Ratio	Year to date 2012	Last 5 years YTD mean
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA							
Zoonoses															
Anthrax	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0	0.4
Australian bat lyssavirus	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0	0.0
Brucellosis	0	1	0	0	0	0	0	0	1	7	11	8.6	0.1	8	17.8
Leptospirosis	0	9	0	35	0	0	2	0	46	45	51	39.8	1.2	91	101.0
Lyssavirus (NEC)	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0	0.0
Ornithosis	0	3	0	0	0	0	10	0	13	11	17	20.4	0.6	24	40.2
Q fever	0	22	1	45	3	0	3	1	75	102	77	88.0	0.9	177	183.8
Tularaemia	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0	1.0
Other bacterial infections															
Legionellosis	0	25	0	14	9	2	22	14	86	95	103	89.0	1.0	181	158.4
Leprosy	0	0	0	0	0	0	1	0	1	0	3	2.4	0.4	1	4.8
Meningococcal infection§§	0	23	3	12	13	2	9	6	68	32	57	59.8	1.1	100	107.2
Tuberculosis	5	69	7	35	17	2	74	35	244	288	280	267.6	0.9	532	555.4
Total	893	13,133	1,823	13,653	4,717	1,215	12,202	7,170	54,806	58,139	53,506			112,945	

* Newly acquired hepatitis includes cases where the infection was determined to be acquired within 24 months prior to diagnosis.

† Unspecified hepatitis and syphilis includes cases where the duration of infection could not be determined.

‡ In Queensland, includes incident hepatitis cases.

§ Not notifiable in New South Wales.

‖ Infections with Shiga-like toxin (verotoxin) producing *Escherichia coli* (STEC/VTEC).

¶ Includes *Chlamydia trachomatis* identified from cervical, rectal, urine, urethral, throat and eye samples, except for South Australia, which reports only genital tract specimens. The Northern Territory and Western Australia, exclude ocular infections.

** In the national case definitions for chlamydial, gonococcal and syphilis infections the mode of transmission cannot be inferred from the site of infection. Transmission (especially in children) may be by a non-sexual mode (e.g. perinatal infections, epidemic gonococcal conjunctivitis).

†† Ratio of current quarter total to the mean of last 5 years for the same quarter. Ratios for varicella zoster (chickenpox), varicella zoster (shingles) and varicella zoster (unspecified) are based on 4 years of data.

‡‡ In the Australian Capital Territory, Murray Valley encephalitis virus infection and Kunjin virus infection are combined under Murray Valley encephalitis virus infection.

§§ Only invasive meningococcal disease is nationally notifiable. However, New South Wales, the Australian Capital Territory and South Australia also report conjunctival cases.

NN Not notifiable.

NEC Not elsewhere classified.

NDP No data provided.

Table 3: Notification rates of diseases, 1 April to 30 June 2012, by state or territory. (Annualised rate per 100,000 population)

Disease	State or territory								Aust
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	
Bloodborne diseases									
Hepatitis (NEC)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hepatitis B (newly acquired)*	0.0	0.3	5.2	0.8	0.5	0.8	0.7	0.5	0.6
Hepatitis B (unspecified)†	38.3	31.2	72.9	15.6	21.5	13.3	33.3	33.2	28.2
Hepatitis C (newly acquired)*	2.2	0.4	0.0	NN	3.9	2.4	2.9	4.3	2.1
Hepatitis C (unspecified)†,‡	40.5	43.7	57.3	48.5	21.5	47.8	36.1	38.3	40.8
Hepatitis D	0.0	0.1	0.0	0.0	0.0	0.0	0.3	0.2	0.1
Gastrointestinal diseases									
Botulism	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Campylobacteriosis§	118.2	NN	67.7	82.0	106.7	128.5	86.6	61.1	85.3
Cryptosporidiosis	6.6	12.9	123.3	31.8	10.4	9.4	11.5	4.4	16.2
Haemolytic uraemic syndrome	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Hepatitis A	0.0	0.5	1.7	0.5	0.0	0.0	1.0	1.0	0.6
Hepatitis E	1.1	0.2	0.0	0.1	0.0	0.0	0.2	0.0	0.1
Listeriosis	0.0	0.5	0.0	0.1	0.2	0.8	0.5	0.2	0.4
STEC,VTEC‖	2.2	0.3	0.0	0.2	2.9	0.8	0.1	0.0	0.4
Salmonellosis	67.8	31.5	206.6	53.9	53.9	36.8	39.6	44.9	43.6
Shigellosis	2.2	1.2	27.8	1.8	3.9	0.8	1.9	2.2	2.1
Typhoid fever	0.0	0.6	1.7	0.1	0.2	0.0	0.4	0.0	0.4
Quarantinable diseases									
Cholera	0.0	0.1	0.0	0.1	0.5	0.0	0.0	0.0	0.1
Human pathogenic avian influenza in humans	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Plague	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rabies	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Severe acute respiratory syndrome	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Smallpox	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Viral haemorrhagic fever	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow fever	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sexually transmitted infections									
Chlamydial infection¶,**	349.0	282.5	1,172.0	402.6	297.3	344.0	355.2	497.8	359.9
Donovanosis	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gonococcal infection**	24.1	56.8	640.7	58.5	42.3	4.7	46.2	88.7	61.0
Syphilis – congenital**	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Syphilis < 2 years duration**	2.2	5.4	10.4	7.7	6.5	3.9	8.7	3.4	6.5
Syphilis > 2 years or unspecified duration†,**	5.5	2.2	27.8	5.0	NN	6.3	9.0	3.7	5.2
Vaccine preventable diseases									
Diphtheria	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Haemophilus influenzae type b	0.0	0.0	0.0	0.1	0.2	0.8	0.0	0.2	0.1
Influenza (laboratory confirmed)	145.5	131.4	260.5	148.8	337.9	46.2	57.1	118.2	129.8
Measles	0.0	1.2	0.0	0.3	0.0	0.0	0.4	0.2	0.5
Mumps	0.0	2.7	0.0	0.5	0.5	0.0	0.4	0.9	1.2
Pertussis	99.6	74.4	151.1	139.1	54.1	210.0	67.6	128.5	94.2
Pneumococcal disease (invasive)	5.5	10.1	39.9	7.1	8.7	9.4	7.0	10.4	8.9
Poliomyelitis	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rubella	1.1	0.1	0.0	0.3	0.0	0.0	0.1	0.2	0.1
Rubella – congenital	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0
Tetanus	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 3 *continued*: Notification rates of diseases, 1 April to 30 June 2012, by state or territory. (Annualised rate per 100,000 population)

Disease	State or territory								Aust
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	
Varicella zoster (chickenpox)	3.3	NN	59.0	5.2	23.7	7.1	12.7	12.3	11.8
Varicella zoster (shingles)	14.2	NN	66.0	1.4	104.3	50.1	18.2	48.4	28.8
Varicella zoster (unspecified)	31.7	NN	1.7	93.1	8.7	18.0	46.3	41.7	53.6
Vectorborne diseases									
Arbovirus infection (NEC)	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.1
Barmah Forest virus infection	0.0	4.3	26.0	16.8	1.0	0.0	0.6	5.8	5.9
Dengue virus infection	5.5	3.6	17.4	7.4	3.4	2.4	6.2	24.3	7.3
Japanese encephalitis virus infection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kunjin virus infection††	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Malaria	0.0	0.9	1.7	2.2	0.0	0.0	1.4	1.5	1.2
Murray Valley encephalitis virus infection††	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ross River virus infection	5.5	11.9	107.7	48.3	14.2	2.4	7.6	34.7	21.4
Zoonoses									
Anthrax	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Australia bat lyssavirus	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Brucellosis	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Leptospirosis	0.0	0.5	0.0	3.1	0.0	0.0	0.1	0.0	0.8
Lyssavirus (NEC)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ornithosis	0.0	0.2	0.0	0.0	0.0	0.0	0.7	0.0	0.2
Q fever	0.0	1.2	1.7	3.9	0.7	0.0	0.2	0.2	1.3
Tularaemia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other bacterial diseases									
Legionellosis	0.0	1.4	0.0	1.2	2.2	1.6	1.6	2.4	1.5
Leprosy	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Meningococcal infection‡‡	0.0	1.3	5.2	1.0	3.1	1.6	0.6	1.0	1.2
Tuberculosis	5.5	3.8	12.2	3.1	4.1	1.6	5.3	6.0	4.3

* Newly acquired hepatitis includes cases where the infection was determined to be acquired within 24 months prior to diagnosis.

† Unspecified hepatitis and syphilis includes cases where the duration of infection could not be determined.

‡ In Queensland, includes incident hepatitis C cases.

§ Not notifiable in New South Wales.

|| Infection with Shiga toxin/verotoxin-producing *Escherichia coli* (STEC/VTEC).

¶ Includes *Chlamydia trachomatis* identified from cervical, rectal, urine, urethral, throat and eye samples, except for South Australia, which reports only genital tract specimens; the Northern Territory and Western Australia exclude ocular infections.

** In the national case definitions for chlamydial, gonococcal and syphilis infections the mode of transmission cannot be inferred from the site of infection. Transmission (especially in children) may be by a non-sexual mode (e.g. perinatal infections, epidemic gonococcal conjunctivitis).

†† In the Australian Capital Territory, Murray Valley encephalitis virus infection and Kunjin virus infection are combined under Murray Valley encephalitis virus infection.

‡‡ Only invasive meningococcal disease is nationally notifiable. However, New South Wales, the Australian Capital Territory and South Australia also report conjunctival cases.

NEC Not elsewhere classified.

NN Not notifiable.

NDP No data provided.

Additional reports

Australian childhood immunisation coverage

Tables 1, 2 and 3 provide the latest quarterly report on childhood immunisation coverage from the Australian Childhood Immunisation Register (ACIR).

The data show the percentage of children 'fully immunised' at 12 months, 24 months and 60 months, for 3-month birth cohorts of children at the stated ages between January and March 2012. 'Fully immunised' refers to vaccines on the National Immunisation Program Schedule, but excludes rotavirus, pneumococcal conjugate, varicella, and meningococcal C conjugate vaccines, and is outlined in more detail below.

'Fully immunised' at 12 months of age is defined as a child having a record on the ACIR of three doses of a diphtheria (D), tetanus (T) and pertussis-containing (P) vaccine, 3 doses of polio vaccine, 2 or 3 doses of PRP-OMP containing Haemophilus influenzae *type b (Hib) vaccine or 3 doses of any other* Haemophilus influenzae *type b (Hib) vaccine, and 2 or 3 doses of Comvax hepatitis B vaccine or 3 doses of all other hepatitis B vaccines. 'Fully immunised' at 24 months of age is defined as a child having a record on the ACIR of 3 or 4 doses of a DTP-containing vaccine, 3 doses of polio vaccine, 3 or 4 doses of PRP-OMP Hib vaccine or 4 doses of any other Hib vaccine, 3 or 4 doses of Comvax hepatitis B vaccine or 4 doses of all other hepatitis B vaccines, and 1 dose of a measles, mumps and rubella-containing (MMR) vaccine. 'Fully immunised' at 60 months of age is defined as a child having a record on the ACIR of 4 or 5 doses of a DTP-containing vaccine, 4 doses of polio vaccine, and 2 doses of an MMR-containing vaccine.*

A full description of the basic methodology used can be found in CDI 1998;22(3):36-37.

The National Centre for Immunisation Research and Surveillance of Vaccine Preventable Diseases (NCIRS) provides commentary on the trends in ACIR data. For further information please contact NCIRS at: telephone +61 2 9845 1435, email: brynleyh.hull@health.nsw.gov.au

The percentage of children 'fully immunised' by 12 months of age for Australia increased marginally from the previous quarter by 0.5 of a percentage point to 91.9% (Table 1). Important changes in coverage were seen only in the Northern Territory with coverage for DTP, polio, Hib vaccine and hepatitis B vaccine (Hep B) increasing by almost 2 percentage points. Coverage for DTP-containing vaccine, polio and 'fully immunised' for the Northern Territory are at their highest recorded levels for this age group.

The percentage of children 'fully immunised' by 24 months of age for Australia decreased marginally from the previous quarter by 0.4 of a percentage point to 92.3% (Table 2). Coverage for DTP-containing vaccine, polio, Hib vaccine and 'fully immunised' for the Northern Territory are at their highest recorded levels for this age group.

The percentage of children 'fully immunised' by 60 months of age for Australia increased from the previous quarter by 0.4 of a percentage point to 90.1% (Table 3). This continues the upward trend in coverage for this age milestone. Important changes in coverage were seen only in South Australia with coverage for DTP-containing vaccine, polio, and MMR vaccine increasing by almost 2 percentage points.

The Figure shows the trends in vaccination coverage from the first ACIR-derived published coverage estimates in 1997 to the current estimates. There is a clear trend of increasing vaccination coverage

Table 1. Percentage of children immunised at 12 months of age, preliminary results by disease and state or territory for the birth cohort 1 January to 31 March 2011; assessment date 30 June 2012

	State or territory								
Vaccine	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Aust
Total number of children	1,367	24,468	954	15,791	4,845	1,597	17,870	8,263	75,155
Diphtheria, tetanus, pertussis (%)	93.6	92.1	94.3	92.0	92.9	93.4	93.3	90.7	92.4
Poliomyelitis (%)	93.6	92.1	94.3	92.0	92.9	93.3	93.2	90.7	92.3
Haemophilus influenzae type b (%)	93.7	92.0	94.4	91.9	92.7	93.2	93.1	90.6	92.2
Hepatitis B (%)	93.2	91.9	94.2	91.8	92.7	93.2	92.8	90.3	92.0
Fully immunised (%)	93.1	91.7	94.2	91.7	92.6	93.1	92.7	90.1	91.9
Change in fully immunised since last quarter (%)	+0.5	+0.6	+1.9	+0.3	+0.7	+0.2	+0.7	+0.1	+0.5

Table 2. Percentage of children immunised at 24 months of age, preliminary results by disease and state or territory for the birth cohort 1 January to 31 March 2010; assessment date 30 June 2012*

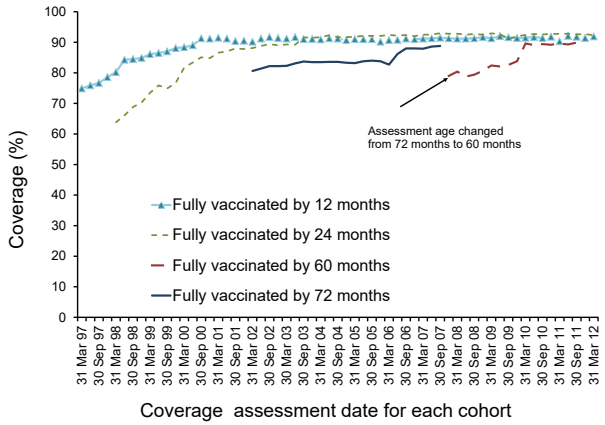
	State or territory								
Vaccine	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Aust
Total number of children	1,339	24,421	922	16,109	4,955	1,525	18,235	8,231	75,737
Diphtheria, tetanus, pertussis (%)	95.1	94.5	97.3	94.3	94.1	95.1	95.1	93.0	94.5
Poliomyelitis (%)	95.0	94.4	97.3	94.3	94.1	95.0	95.0	92.9	94.4
Haemophilus influenzae type b (%)	95.2	94.9	97.3	94.4	94.4	95.7	95.2	93.4	94.7
Measles, mumps, rubella (%)	94.3	93.7	96.2	93.9	93.7	95.0	94.4	92.4	93.9
Hepatitis B (%)	94.3	94.0	97.2	93.9	93.8	94.9	94.7	92.4	94.0
Fully immunised (%)	92.8	92.1	95.7	92.6	92.2	93.6	93.0	90.1	92.3
Change in fully immunised since last quarter (%)	-0.8	-0.3	+1.3	-0.6	-0.3	-0.1	-0.4	-0.6	-0.4

* The 12 months age data for this cohort were published in *Commun Dis Intell* 2011;35(1):49.

Table 3. Percentage of children immunised at 60 months of age, preliminary results by disease and state or territory for the birth cohort 1 January to 31 March 2007; assessment date 30 June 2012

	State or territory								
Vaccine	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Aust
Total number of children	1,213	24,652	903	16,167	5,087	1,623	18,448	8,237	76,330
Diphtheria, tetanus, pertussis (%)	92.1	91.1	90.5	91.5	89.4	91.1	92.1	88.0	91.0
Poliomyelitis (%)	91.8	91.1	90.6	91.4	89.4	91.1	92.0	88.0	90.9
Measles, mumps, rubella (%)	91.2	91.0	90.4	91.4	89.0	91.3	92.0	88.1	90.9
Fully immunised (%)	90.9	90.6	90.4	91.0	88.8	90.8	91.6	87.6	90.5
Change in fully immunised since last quarter (%)	-0.3	+0.4	-0.4	+0.4	+1.9	-0.2	+0.2	+0.4	+0.4

Figure: Trends in vaccination coverage, Australia, 1997 to 31 March 2012, by age cohorts



over time for children aged 12 months, 24 months and 60 months (from December 2007). Coverage at 60 months of age is close to the coverage levels attained at 12 and 24 months.

Australian Sentinel Practices Research Network

The Australian Sentinel Practices Research Network (ASPREN) is a national surveillance system that is funded by the Australian Government Department of Health and Ageing, owned and operated by the Royal Australian College of General Practitioners and directed through the Discipline of General Practice at the University of Adelaide.

The network consists of general practitioners who report presentations on a number of defined medical conditions each week. ASPREN was established in 1991 to provide a rapid monitoring scheme for infectious diseases that can alert public health officials of epidemics in their early stages as well as play a role in the evaluation of public health campaigns and research of conditions commonly seen in general practice. Electronic, web-based data collection was established in 2006.

In June 2010, ASPREN's laboratory influenza-like illness (ILI) testing was implemented, allowing for viral

testing of 25% of ILI patients for a range of respiratory viruses including influenza A, influenza B and influenza A H1N1(2009).

The list of conditions is reviewed annually by the ASPREN management committee. In 2011, 4 conditions are being monitored. They include ILI, gastroenteritis and varicella infections (chickenpox and shingles). Definitions of these conditions are described in Surveillance systems reported in CDI, *published in* Commun Dis Intell *2012;36(1):122.*

Reporting period 1 April to 30 June 2012

Sentinel practices contributing to ASPREN were located in all 8 jurisdictions in Australia. A total of 166 general practitioners contributed data to ASPREN in the 2nd quarter of 2012. Each week an average of 141 general practitioners provided information to ASPREN at an average of 13,081 (range 10,926–14,671) consultations per week and an average of 192 (range 92–312) notifications per week.

ILI rates reported from 1 April to 30 June 2012 averaged 9 cases per 1,000 consultations (range 3–19 cases per 1,000 consultations). This was higher compared with rates in the same reporting period in 2011, which averaged 7 cases per 1,000 consultations (range 4–13 cases per 1000 consultations) (Figure 1).

ILI swab testing continued during 2012. The most commonly reported virus during this reporting period was rhinovirus (15% of all swabs collected), with the second most common virus being influenza A (untyped) (14% of all swabs).

From the beginning of 2012 to the end of week 26, 42 cases of influenza had been detected, the majority of these being influenza A (untyped) (14% of all swabs), influenza B (7% of all swabs) and the remainder influenza A(H1N1)2009 (0.2% of all swabs) (Figure 2).

Figure 1: Consultation rates for influenza-like illness, ASPREN, 2011 and 2012, by year and week of report

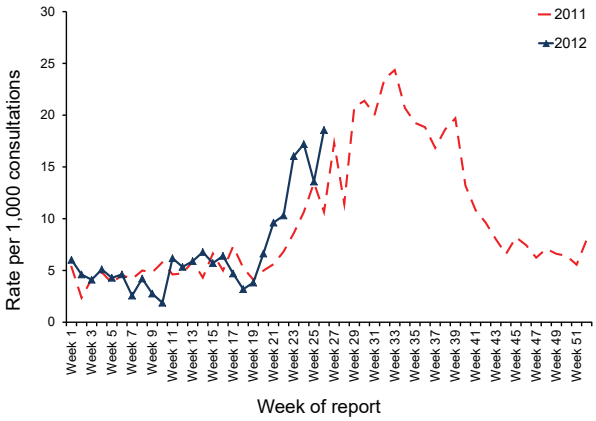
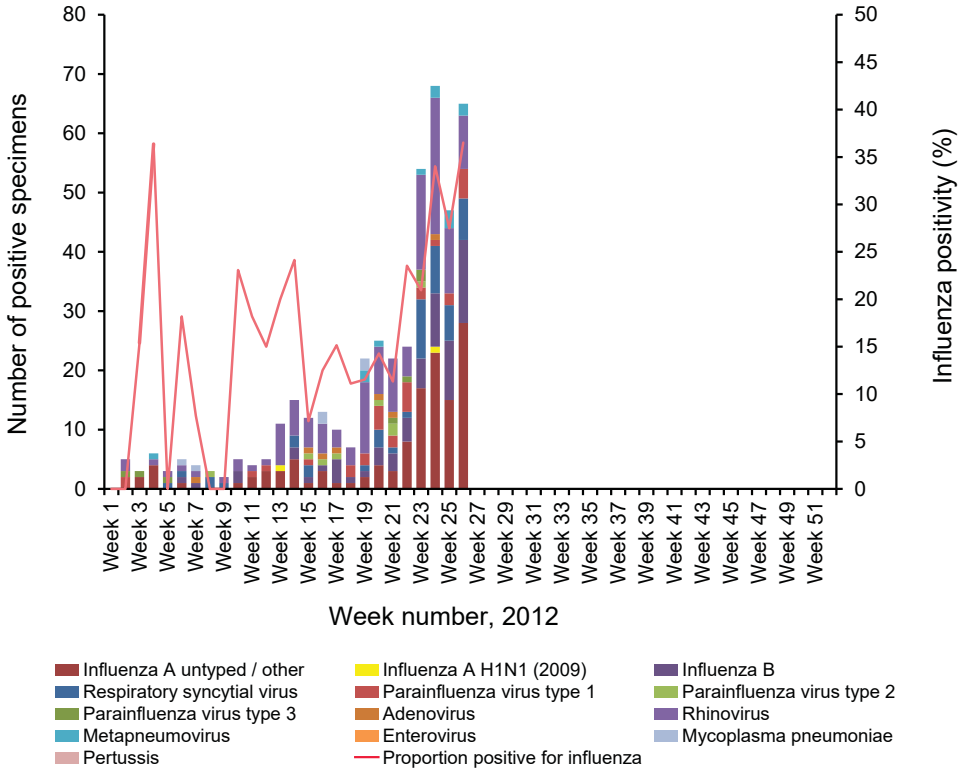


Figure 2: Influenza-like illness swab testing results, ASPREN, 1 January to 30 June 2012, by week of report



During this reporting period, consultation rates for gastroenteritis averaged 4 cases per 1,000 consultations (range 3-6 cases per 1,000, Figure 3). This was similar to rates in the same reporting period in 2011 where the average was 5 cases per 1,000 consultations (range 3-6 cases per 1,000).

Varicella infections were reported at a slightly lower rate for the second quarter of 2012 compared with the same period in 2011. From 1 April to 30 June 2012, recorded rates for chickenpox averaged 0.15 cases per 1,000 consultations (range 0–0.48 cases per 1,000 consultations, Figure 4).

In the 2nd quarter of 2012, reported rates for shingles averaged 0.8 cases per 1,000 consultations (range 0.56–1.23 cases per 1,000 consultations, Figure 5), slightly higher compared with the same reporting period in 2011, where the average shingles rate was 0.6 cases per 1,000 consultations (range 0.19–0.96 cases per 1,000 consultations).

Figure 3: Consultation rates for gastroenteritis, ASPREN, 2011 and 2012, by year and week of report

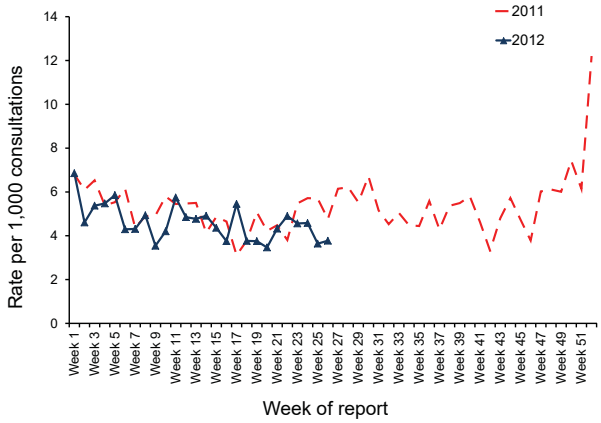


Figure 4: Consultation rates for chickenpox, ASPREN, 2011 and 2012, by year and week of report

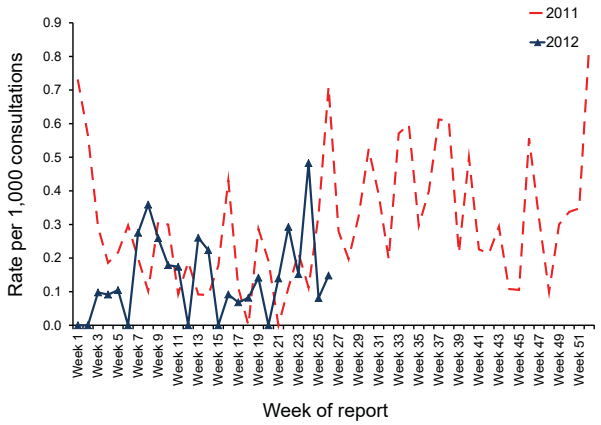
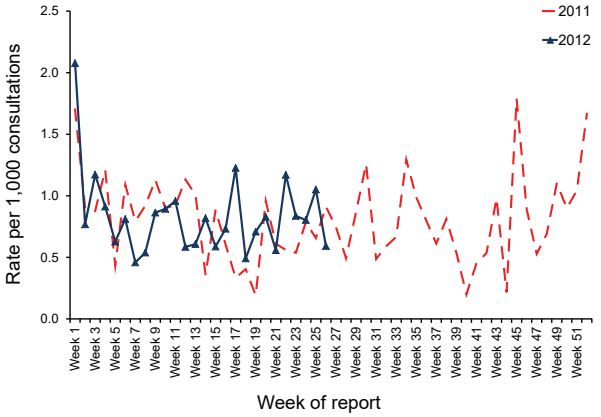


Figure 5: Consultation rates for shingles, ASPREN, 2011 and 2012, by year and week of report



Gonococcal surveillance

Dr Monica M Lahra, The Prince of Wales Hospital, Randwick, NSW, 2031 for the Australian Gonococcal Surveillance Programme

The Australian Gonococcal Surveillance Programme (AGSP) reference laboratories in the states and territories report data on sensitivity to an agreed 'core' group of antimicrobial agents quarterly. The antibiotics routinely surveyed are penicillin, ceftriaxone, ciprofloxacin and spectinomycin, which are current or potential agents used for the treatment of gonorrhoea. Azithromycin testing is now performed by all states and territories as it has a role as part of a dual therapy regimen in the treatment of gonorrhoea. When in vitro *resistance to a recommended agent is demonstrated in 5% or more of isolates from a general population, it is usual to remove that agent from the list of recommended treatments.*[1] *Additional data are also provided on other antibiotics from time to time. At present all laboratories also test isolates for the presence of high level (plasmid-mediated) resistance to the tetracyclines, known as TRNG. Tetracyclines are however not a recommended therapy for gonorrhoea in Australia. These data are reported in the AGSP Annual Report. Comparability of data is achieved by means of a standardised system of testing and a program-specific quality assurance process. Because of the substantial geographic differences in susceptibility patterns in Australia, regional as well as aggregated data are presented. From the 2nd quarter of 2012 these data will be presented quarterly in tabulated form (Table 1), as well as in the AGSP annual report. Data for the 1st quarter of 2012 has been included in this report (Table 2) to complete presentation of the AGSP quarterly data in this format for 2012. For more information see* Commun Dis Intell *2012;36(1):121.*

Reporting period 1 April to 30 June 2012

Penicillin resistant *Neisseria gonorrhoeae* are defined as those isolates with an MIC to penicillin equal to or greater than 1.0 mg/L. Total penicillin resistance includes penicillinase producing *Neisseria gonorrhoea* (PPNG) and chromosomally mediated resistance to penicillin (CMRP).

Quinolone resistant *N. gonorrhoeae* are defined as those isolates with an MIC to ciprofloxacin equal to or greater than 0.06 mg/L, and azithromycin resistance as those isolates with an MIC to azithromycin equal to or greater than 1.0 mg/L. In the Northern Territory there continues to be low levels of penicillin and ciprofloxacin resistance.

Isolates with ceftriaxone MIC values in the range 0.06–0.125 mg/L are reported as having decreased susceptibility. There has not been an isolate reported in Australia with an MIC >0.125 mg/L. The Figure presents AGSP data for the 1st and 2nd quarters for 2011 and 2012, by ceftriaxone MIC value for the first time to enable monitoring of shift in MIC values *N. gonorrhoeae* MIC values over time, in addition to reporting the proportion in the category of decreased susceptibility. A decrease in the proportion of isolates with a ceftriaxone MIC value of ≤ 0.008 mg/L is evident in 2012 compared with 2011, with increases in the higher MIC values demonstrating a right shift over these periods, which will continue to be monitored.

Reference

1. Management of sexually transmitted diseases. World Health Organization 1997; Document WHO/GPA/TEM94.1 Rev.1 p 37.

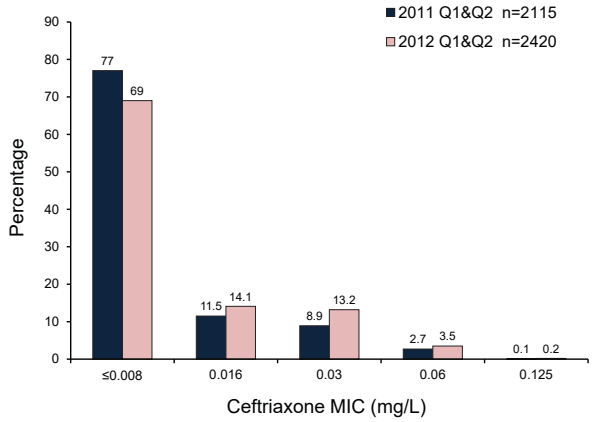
Table 1: Gonococcal isolates showing decreased susceptibility to ceftriaxone and resistance to ciprofloxacin, azithromycin and penicillin, Australia, 1 January to 31 March 2012, by state or territory

State or territory	Number of isolates tested	Decreased susceptibility: Ceftriaxone		Resistance: Ciprofloxacin		Resistance: Azithromycin		Resistance: Penicillin	
		n	%	n	%	n	%	n	%
Australian Capital Territory	13	0	0.0	8	61.5	0	0.0	3	23.1
New South Wales	447	17	3.8	121	27.1	4	0.9	119	26.6
Northern Territory	77	0	0.0	1	1.3	1	1.3	1	1.3
Queensland	205	3	1.5	35	17.1	2	1.0	44	21.5
South Australia	27	0	0.0	8	29.6	8	29.6	12	44.4
Tasmania	1	1	100.0	1	100.0	0	0.0	0	0.0
Victoria	312	21	6.7	166	53.2	14	4.5	178	57.1
Western Australia	130	2	1.5	29	22.3	1	0.8	21	16.2
Australia	1,212	44	3.6	369	30.4	30	2.5	378	31.2

Table 2: Gonococcal isolates showing decreased susceptibility to ceftriaxone and resistance to ciprofloxacin, azithromycin and penicillin, Australia, 1 April to 30 June 2012, by state or territory

State or territory	Number of isolates tested	Decreased susceptibility: Ceftriaxone		Resistance: Ciprofloxacin		Resistance: Azithromycin		Resistance: Penicillin	
		n	%	n	%	n	%	n	%
Australian Capital Territory	9	0	0.0	4	44.4	0	0.0	3	33.3
New South Wales	421	16	3.8	115	27.3	0	0.0	105	24.9
Northern Territory	82	0	0.0	0	0.0	0	0.0	1	1.2
Queensland	174	8	4.6	26	14.9	2	1.1	48	27.6
South Australia	44	0	0.0	7	15.9	0	0.0	7	15.9
Tasmania	4	0	0.0	1	25.0	0	0.0	3	75.0
Victoria	355	21	5.9	149	42.0	108	30.4	202	56.9
Western Australia	119	1	0.8	30	25.2	1	0.8	26	21.8
Australia	1,208	46	3.8	332	27.5	111	9.2	395	32.7

Figure: Distribution of ceftriaxone MIC values in gonococcal isolates tested at the Australian Gonococcal Surveillance Programme, 1 January 2011 to 30 June 2012



Meningococcal surveillance

Dr Monica M Lahra, The Prince of Wales Hospital, Randwick, NSW, 2031 for the Australian Meningococcal Surveillance Programme

The reference laboratories of the Australian Meningococcal Surveillance Programme report data on the number of cases confirmed by laboratory testing using culture and by non-culture based techniques. Culture positive cases, where Neisseria meningitidis *is grown from a normally sterile site or skin lesions, and non-culture based diagnoses, derived from results of nucleic acid amplification assays (NAA) and serological techniques, are defined as invasive meningococcal disease (IMD) according to Public Health Laboratory Network definitions. Data contained in quarterly reports are restricted to a description of the numbers of cases by jurisdiction and serogroup, where known. Some minor corrections to data in the Table may be made in subsequent reports if additional data are received. A full analysis of laboratory confirmed cases of IMD in each calendar year is contained in the annual reports of the Programme is published in Communicable Diseases Intelligence. For more information see* Commun Dis Intell *2012;36(1):121.*

Laboratory confirmed cases of invasive meningococcal disease for the period 1 July to 30 September 2012 are included in this issue of Communicable Diseases Intelligence *(Table).*

Table: Number of laboratory confirmed cases of invasive meningococcal disease, Australia, 1 July to 30 September 2012, by serogroup and state or territory

State or territory	Year	Serogroup													
		A		B		C		Y		W135		ND		All	
		Q3	YTD	Q3	YTD	Q3	YTD	Q3	YTD	Q3	YTD	Q3	YTD	Q3	YTD
Australian Capital Territory	2012	0	0	0	1	0	0	0	0	0	0	0	0	0	1
	2011	0	0	0	5	0	0	0	0	0	0	0	0	0	5
New South Wales	2012	0	0	16	36	1	1	3	4	2	2	3	8	25	51
	2011	0	0	12	27	0	0	1	6	2	4	3	13	18	50
Northern Territory	2012	0	0	0	2	0	1	0	0	0	0	0	1	0	4
	2011	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Queensland	2012	0	0	15	35	1	2	3	3	2	3	3	3	24	46
	2011	0	0	26	43	0	3	1	3	0	0	0	3	27	52
South Australia	2012	0	0	10	17	0	1	0	0	0	0	0	0	10	18
	2011	0	0	5	11	0	1	0	0	0	2	1	1	6	15
Tasmania	2012	0	0	2	3	0	0	1	1	0	0	0	1	3	5
	2011	0	0	4	6	0	1	0	0	1	3	0	0	5	10
Victoria	2012	0	0	8	21	0	0	2	4	0	0	0	0	10	25
	2011	0	0	11	35	0	0	1	1	1	1	0	3	13	40
Western Australia	2012	0	0	4	11	1	2	0	1	0	0	0	1	5	15
	2011	0	0	4	12	0	0	0	1	0	0	0	0	4	13
Total	2012	0	0	55	126	3	7	9	13	4	5	6	14	77	165
	2011	0	0	62	140	0	5	3	11	4	10	4	20	73	186