

# 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 50,978 notifications to the National Notifiable Diseases Surveillance System (NNDSS) with a notification received date between 1 January and 31 March 2009 (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:
<b>Bloodborne diseases</b>	
Hepatitis (NEC)	All jurisdictions
Hepatitis B (incident)	All jurisdictions
Hepatitis B (unspecified)	All jurisdictions
Hepatitis C (incident)	All jurisdictions except Queensland
Hepatitis C (unspecified)	All jurisdictions
Hepatitis D	All jurisdictions
<b>Gastrointestinal diseases</b>	
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
Salmonellosis	All jurisdictions
Shigellosis	All jurisdictions
STEC, VTEC	All jurisdictions
Typhoid	All jurisdictions
<b>Quarantinable diseases</b>	
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
<b>Sexually transmissible infections</b>	
Chlamydial infection	All jurisdictions
Donovanosis	All jurisdictions
Gonococcal infection	All jurisdictions
Syphilis <2 years duration	All jurisdictions
Syphilis >2 years or unspecified duration	All jurisdictions except South Australia where data is not collected.
Syphilis - congenital	All jurisdictions

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

Disease	Data received from:
<b>Vaccine preventable diseases</b>	
Diphtheria	All jurisdictions
<i>Haemophilus influenzae</i> 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
<b>Vectorborne diseases</b>	
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
<b>Zoonoses</b>	
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
<b>Other bacterial infections</b>	
Legionellosis	All jurisdictions
Leprosy	All jurisdictions
Meningococcal infection	All jurisdictions
Tuberculosis	All jurisdictions

\* Notifiable in South Australia as of 1 May 2008.

† Flavivirus (NEC) replaced Arbovirus (NEC) from 1 January 2004. Arbovirus (NEC) replaced Flavivirus (NEC) from 2008.

NEC Not elsewhere classified.

Table 2: Notifications of diseases received by state and territory health authorities, 1 January to 31 March 2009, by date of diagnosis\*

Disease	State or territory								Total 1st quarter 2009 <sup>†</sup>	Total 4th quarter 2008	Total 1st quarter 2008	Last 5 years mean 1st quarter	Year to date 2009	Last 5 years YTD mean	Ratio <sup>‡</sup>
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA							
<b>Bloodborne diseases</b>															
Hepatitis (NEC)	0	0	0	0	0	0	0	0	0	1	0	0.4	0	0.4	0.0
Hepatitis B (incident)	0	8	2	10	2	2	16	0	40	50	56	70.2	40	70.2	0.6
Hepatitis B (unspecified)	37	848	44	263	94	16	515	192	2,009	1,742	1,550	1,576.6	2,009	1,576.6	1.3
Hepatitis C (incident)	2	8	1	NN	4	10	40	2	67	111	84	94.0	67	94.0	0.7
Hepatitis C (unspecified)	46	1,273	46	760	130	68	608	294	3,225	2,846	2,727	3,084.0	3,225	3,084.0	1.0
Hepatitis D	0	3	0	6	0	0	1	0	10	6	12	8.6	10	8.6	1.2
<b>Gastrointestinal diseases</b>															
Botulism	0	0	0	1	0	0	0	0	1	0	0	0.6	1	0.6	1.7
Campylobacteriosis <sup>§</sup>	96	NN	69	1,276	411	136	1,453	586	4,027	4,081	4,647	4,336.0	4,027	4,336.0	0.9
Cryptosporidiosis	71	937	69	1,048	39	8	567	121	2,860	452	756	1,036.0	2,860	1,036.0	2.8
Haemolytic uraemic syndrome	0	1	0	0	2	0	0	0	3	11	8	5.4	3	5.4	0.6
Hepatitis A	1	22	0	9	4	0	26	7	69	48	85	85.2	69	85.2	0.8
Hepatitis E	0	8	0	3	0	0	4	1	16	9	15	11.4	16	11.4	1.4
Listeriosis	1	7	0	5	4	2	8	2	29	9	28	19.6	29	19.6	1.5
Salmonellosis	0	9	0	12	24	0	5	3	53	40	31	22.8	53	22.8	2.3
Shigellosis	105	1,124	125	1,040	168	56	491	282	3,391	2,132	2,889	2,975.6	3,391	2,975.6	1.1
STEC, VTEC <sup>  </sup>	3	56	30	27	18	1	35	48	218	206	240	190.8	218	190.8	1.1
Typhoid	1	14	0	5	0	1	14	2	37	24	35	29.2	37	29.2	1.3
<b>Quarantinable diseases</b>															
Cholera	0	2	0	0	0	0	0	0	2	4	0	0.8	2	0.8	2.5
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	0	0.0	0	0.0	0.0

Table 2: Notifications of diseases received by state and territory health authorities, 1 January to 31 March 2009, by date of diagnosis,\* continued

Disease	State or territory								Total 1st quarter 2009 <sup>†</sup>	Total 4th quarter 2008	Total 1st quarter 2008	Last 5 years mean 1st quarter	Year to date 2009	Last 5 years YTD mean	Ratio <sup>‡</sup>
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA							
<b>Sexually transmissible infections</b>															
Chlamydial infection <sup>¶</sup>	231	3,737	567	4,196	894	337	3,437	2,200	15,599	14,256	14,474	11,947.2	15,599	11,947.2	1.3
Donovanosis	0	0	0	0	0	0	0	0	0	0	1	2.0	0	2.0	0.0
Gonococcal infection	14	432	377	448	128	4	429	385	2,217	1,834	1,951	2,045.0	2,217	2,045.0	1.1
Syphilis (all)	13	379	39	84	6	4	218	50	793	780	810	671.8	793	671.8	1.2
Syphilis < two years duration	2	136	10	37	6	0	101	25	317	291	347	231.4	317	231.4	1.4
Syphilis >two years or unspecified duration	11	243	29	47	NDP	4	117	25	476	489	463	440.4	476	440.4	1.1
Syphilis - congenital	0	0	2	0	0	0	0	0	2	3	0	2.6	2	2.6	0.8
<b>Vaccine preventable diseases</b>															
Diphtheria	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0.0	0.0
<i>Haemophilus influenzae</i> type b	0	4	0	2	0	0	1	1	8	5	5	4.0	8	4.0	2.0
Influenza (laboratory confirmed)	12	239	16	97	15	2	33	57	471	1,562	433	290.0	471	290.0	1.6
Measles	1	7	1	31	1	2	33	2	78	1	33	14.2	78	14.2	5.5
Mumps	0	8	2	7	5	1	27	6	56	36	141	61.0	56	61.0	0.9
Pertussis	118	5,376	79	1,231	681	136	688	184	8,493	7,425	1,542	1,675.0	8,493	1,675.0	5.1
Pneumococcal disease (invasive)	7	60	12	31	18	2	54	21	205	353	206	243.2	205	243.2	0.8
Poliomyelitis	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0.0	0.0
Rubella	0	1	0	2	1	0	3	1	8	10	5	6.4	8	6.4	1.3
Rubella - congenital	0	0	0	0	0	0	0	0	0	0	0	0.2	0	0.2	0.0
Tetanus	0	2	0	0	0	0	1	0	3	0	3	1.2	3	1.2	2.5
Varicella zoster (chickenpox)	0	NN	20	34	85	8	79	84	310	767	271	269.0	310	269.0	1.5
Varicella zoster (shingles)	3	NN	21	68	246	29	148	135	650	754	552	401.0	650	401.0	2.7
Varicella zoster (unspecified)	16	NN	0	990	76	24	409	244	1,759	1,383	957	970.0	1,759	970.0	3.0
<b>Vectorborne diseases</b>															
Arbovirus infection (NEC)	0	0	0	13	0	0	1	0	14	12	7	16.2	14	16.2	0.9
Barmah Forest virus infection	0	117	51	304	12	1	8	75	568	424	823	538.8	568	538.8	1.1
Dengue virus infection	7	58	12	881	8	1	10	36	1,013	211	159	127.8	1,013	127.8	7.9
Japanese encephalitis virus infection	0	0	0	0	0	0	0	0	0	0	0	0.2	0	0.2	0.0
Kunjin virus infection	0	0	1	1	0	0	0	0	2	0	0	1.2	2	1.2	1.7
Malaria	1	26	2	57	3	3	22	19	133	129	124	191.4	133	191.4	0.7
Murray Valley encephalitis virus infection	0	0	1	0	0	0	0	1	2	0	1	0.8	2	0.8	2.5
Ross River virus infection	0	168	197	720	68	10	31	445	1,639	937	2,780	2,138.0	1,639	2,138.0	0.8

Table 2: Notifications of diseases received by state and territory health authorities, 1 January to 31 March 2009, by date of diagnosis,\* continued

Disease	State or territory								Total 1st quarter 2009 <sup>†</sup>	Total 4th quarter 2008	Total 1st quarter 2008	Last 5 years mean 1st quarter	Year to date 2009	Last 5 years YTD mean	Ratio <sup>‡</sup>
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA							
<b>Zoonoses</b>															
Anthrax	0	0	0	0	0	0	0	0	0	0	0	0.4	0	0.4	0.0
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	6	1	0	0	1	9	12	8	11.0	9	11.0	0.8
Leptospirosis	1	4	3	57	0	0	0	1	66	23	43	50.0	66	50.0	1.3
Lyssavirus (NEC)	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0.0	0.0
Ornithosis	0	5	0	0	1	0	10	0	16	19	23	40.6	16	40.6	0.4
Q fever	0	48	1	46	2	0	1	0	98	99	111	103.6	98	103.6	0.9
Tularaemia	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0.0	0.0
<b>Other bacterial infections</b>															
Legionellosis	1	19	2	14	7	0	9	12	64	76	62	82.0	64	82.0	0.8
Leprosy	0	0	0	0	0	0	1	0	1	3	3	3.2	1	3.2	0.3
Meningococcal infection**	0	16	2	11	4	1	9	4	47	64	42	65.8	47	65.8	0.7
Tuberculosis	3	94	5	49	18	2	104	33	308	362	289	266.4	308	266.4	1.2
Total	791	15,124	1,799	14,028	3,180	876	9,549	5,631	50,978	43,792	39,255	35,279.0	50,978	35,279.0	1.4

\* Date of diagnosis = true onset date, or where not available, the earliest of (i) specimen date, (ii) notification date, or (iii) notification receive date. Hepatitis B and C unspecified were analysed by the notification receive date.

† Totals comprise data from all states and territories. Cumulative figures are subject to retrospective revision so there may be discrepancies between the number of new notifications and the increment in the cumulative figure from the previous period.

‡ Ratio = ratio of current quarter total to the mean of last 5 years for the same quarter. Note: Ratios for syphilis <2 years; syphilis >2 years or unspecified duration based on 5 years data.

§ Not reported for New South Wales where it is only notifiable as 'foodborne disease' or 'gastroenteritis in an institution'.

|| Infections 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 Queensland, which exclude ocular specimens; and Western Australia, which excludes ocular and perinatal infections.

\*\* 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 January to 31 March 2009, by state or territory. (Annualised rate per 100,000 population)**

Disease*	State or territory								Aust
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	
<b>Bloodborne diseases</b>									
Hepatitis (NEC)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hepatitis B (incident)	0.0	0.5	3.6	0.9	0.5	1.6	1.2	0.0	0.7
Hepatitis B (unspecified)	43.0	48.7	80.0	24.6	23.5	12.8	38.9	35.5	37.6
Hepatitis C (incident)	2.3	0.5	1.8	0.0	1.0	8.0	3.0	0.4	1.6
Hepatitis C (unspecified)	53.5	73.1	83.7	71.0	32.5	54.6	45.9	54.4	60.4
Hepatitis D	0.0	0.2	0.0	0.6	0.0	0.0	0.1	0.0	0.2
<b>Gastrointestinal diseases</b>									
Botulism	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Campylobacteriosis <sup>†</sup>	111.6	0.0	125.5	119.3	102.6	109.2	109.7	108.4	111.8
Cryptosporidiosis	82.5	53.8	125.5	98.0	9.7	6.4	42.8	22.4	53.5
Haemolytic uraemic syndrome	0.0	0.1	0.0	0.0	0.5	0.0	0.0	0.0	0.1
Hepatitis A	1.2	1.3	0.0	0.8	1.0	0.0	2.0	1.3	1.3
Hepatitis E	0.0	0.5	0.0	0.3	0.0	0.0	0.3	0.2	0.3
Listeriosis	1.2	0.4	0.0	0.5	1.0	1.6	0.6	0.4	0.5
Salmonellosis	0.0	0.5	0.0	1.1	6.0	0.0	0.4	0.6	1.0
Shigellosis	122.0	64.5	227.3	97.2	42.0	45.0	37.1	52.1	63.5
STEC, VTEC <sup>‡</sup>	3.5	3.2	54.6	2.5	4.5	0.8	2.6	8.9	4.1
Typhoid	1.2	0.8	0.0	0.5	0.0	0.8	1.1	0.4	0.7
<b>Quarantinable diseases</b>									
Cholera	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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	0.0	0.0	0.0	0.0
<b>Sexually transmissible infections</b>									
Chlamydial infection <sup>§</sup>	268.4	214.5	1,031.2	392.2	223.2	270.6	259.5	406.8	292.0
Donovanosis	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gonococcal infection	16.3	24.8	685.6	41.9	32.0	3.2	32.4	71.2	41.5
Syphilis (all)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Syphilis <2 years duration	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0
Syphilis >2 years or unspecified duration	2.3	7.8	18.2	3.5	1.5	0.0	7.6	4.6	5.9
Syphilis - congenital	12.8	14.0	52.7	4.4	0.0	3.2	8.8	4.6	9.6
<b>Vaccine preventable diseases</b>									
Diphtheria	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>Haemophilus influenzae</i> type b	0.0	0.2	0.0	0.2	0.0	0.0	0.1	0.2	0.1
Influenza (laboratory confirmed)	13.9	13.7	29.1	9.1	3.7	1.6	2.5	10.5	8.8
Measles	1.2	0.4	1.8	2.9	0.2	1.6	2.5	0.4	1.5
Mumps	0.0	0.5	3.6	0.7	1.2	0.8	2.0	1.1	1.0
Pertussis	137.1	308.6	143.7	115.1	170.1	109.2	51.9	34.0	159.0
Pneumococcal disease (invasive)	8.1	3.4	21.8	2.9	4.5	1.6	4.1	3.9	3.8

**Table 3: Notification rates of diseases, 1 January to 31 March 2009, by state or territory. (Annualised rate per 100,000 population), continued**

Disease*	State or territory								Aust
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	
<b>Vaccine preventable diseases, continued</b>									
Poliomyelitis	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rubella	0.0	0.1	0.0	0.2	0.2	0.0	0.2	0.2	0.1
Rubella - congenital	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tetanus	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Varicella zoster (chickenpox)	0.0	0.0	36.4	3.2	21.2	6.4	6.0	15.5	8.6
Varicella zoster (shingles)	3.5	0.0	38.2	6.4	61.4	23.3	11.2	25.0	18.1
Varicella zoster (unspecified)	18.6	0.0	0.0	92.5	19.0	19.3	30.9	45.1	48.8
<b>Vectorborne diseases</b>									
Arbovirus infection (NEC)	0.0	0.0	0.0	1.2	0.0	0.0	0.1	0.0	0.3
Barmah Forest virus infection	0.0	6.7	92.7	28.4	3.0	0.8	0.6	13.9	10.6
Dengue virus infection	8.1	3.3	21.8	82.3	2.0	0.8	0.8	6.7	19.0
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	1.8	0.1	0.0	0.0	0.0	0.0	0.0
Malaria	1.2	1.5	3.6	5.3	0.7	2.4	1.7	3.5	2.5
Murray Valley encephalitis virus infection	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.2	0.0
Ross River virus infection	0.0	9.6	358.3	67.3	17.0	8.0	2.3	82.3	30.7
<b>Zoonoses</b>									
Anthrax	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Australian 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	0.6	0.2	0.0	0.0	0.2	0.2
Leptospirosis	1.2	0.2	5.5	5.3	0.0	0.0	0.0	0.2	1.2
Lyssavirus (NEC)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ornithosis	0.0	0.3	0.0	0.0	0.2	0.0	0.8	0.0	0.3
Q fever	0.0	2.8	1.8	4.3	0.5	0.0	0.1	0.0	1.8
Tularaemia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Other bacterial infections</b>									
Legionellosis	1.2	1.1	3.6	1.3	1.7	0.0	0.7	2.2	1.2
Leprosy	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Meningococcal infection <sup>  </sup>	0.0	0.9	3.6	1.0	1.0	0.8	0.7	0.7	0.9
Tuberculosis	3.5	5.4	9.1	4.6	4.5	1.6	7.9	6.1	5.8

\* Rates are subject to retrospective revision.

† Not reported for New South Wales where it is only notifiable as 'foodborne disease' or 'gastroenteritis in an institution'.

‡ Infections 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 Queensland, which exclude ocular specimens; and Western Australia, which excludes ocular and perinatal infections.

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NEC Not elsewhere classified.

NDP No data provided.

## Laboratory Serology and Virology Reporting Scheme

There were 8,456 reports received by the Virology and Serology Laboratory Reporting Scheme (LabVISE) in the reporting period, 1 January to 31 March 2009 (Tables 4 and 5).

**Table 4: Virology and serology laboratory reports, 1 January to 31 March 2009, by state or territory,\* and total reports for the year<sup>†</sup>**

	State or territory								This period 2009	This period 2008	Year to date 2009	Year to date 2008
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA				
<b>Measles, mumps, rubella</b>												
Measles virus	–	4	–	10	2	–	23	–	39	13	39	13
Mumps virus	–	–	1	1	3	–	6	1	12	19	12	19
Rubella virus	–	–	–	2	2	–	–	–	4	6	4	6
<b>Hepatitis viruses</b>												
Hepatitis A virus	–	1	–	5	2	–	–	–	8	23	8	23
Hepatitis D virus	–	–	–	–	6	–	1	–	7	9	7	9
Hepatitis E virus	–	–	–	2	–	–	1	–	3	2	3	2
<b>Arboviruses</b>												
Ross River virus	–	5	1	280	109	2	1	2	400	796	400	796
Barmah Forest virus	–	7	–	79	19	–	1	–	106	250	106	250
Flavivirus (unspecified)	–	9	–	140	–	–	–	–	149	30	149	30
<b>Adenoviruses</b>												
Adenovirus not typed/pending	1	54	–	163	182	–	5	–	405	349	405	349
<b>Herpesviruses</b>												
Cytomegalovirus	5	58	–	161	116	6	13	–	359	366	359	366
Varicella-zoster virus	1	63	2	468	185	3	10	–	752	760	752	760
Epstein-Barr virus	–	13	–	303	287	5	4	–	612	655	612	655
<b>Other DNA viruses</b>												
Parvovirus	–	4	–	39	9	–	14	–	66	80	66	80
<b>Picornavirus family</b>												
Coxsackievirus A9	–	5	–	–	–	–	–	–	5	1	5	1
Coxsackievirus A16	–	3	–	–	–	–	–	–	3	–	3	–
Echovirus type 4	–	1	–	–	–	–	–	–	1	1	1	1
Echovirus type 9	–	1	–	–	–	–	–	–	1	4	1	4
Echovirus type 30	–	7	–	–	–	–	–	–	7	–	7	–
Rhinovirus (all types)	–	24	–	–	–	–	–	–	24	38	24	38
Enterovirus not typed/pending	–	27	–	5	3	2	1	–	38	111	38	111
Picornavirus not typed	–	–	–	–	–	3	1	–	4	1	4	1
<b>Ortho/paramyxoviruses</b>												
Influenza A virus	–	25	–	43	16	–	2	–	86	49	86	49
Influenza B virus	1	17	–	10	7	–	–	–	35	22	35	22
Parainfluenza virus type 1	–	2	–	–	1	–	–	–	3	63	3	63
Parainfluenza virus type 2	–	4	–	8	2	–	–	–	14	10	14	10
Parainfluenza virus type 3	–	19	–	2	20	–	3	–	44	7	44	7
Respiratory syncytial virus	–	108	–	82	54	–	6	1	251	205	251	205

**Table 4: Virology and serology laboratory reports, 1 January to 31 March 2009, by state or territory,\* and total reports for the year,† continued**

	State or territory								This period 2009	This period 2008	Year to date 2009	Year to date 2008
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA				
<b>Other RNA viruses</b>												
HTLV-1	–	–	–	–	83	–	–	–	83	4	83	4
Rotavirus	–	7	–	–	53	3	–	–	63	109	63	109
Norwalk agent	–	16	–	–	–	–	–	–	16	17	16	17
<b>Other</b>												
<i>Chlamydia trachomatis</i> not typed	3	338	1	1,448	555	11	22	1	2,379	2,357	2,379	2,357
<i>Chlamydia pneumoniae</i>	–	–	–	1	–	–	1	–	2	–	2	–
<i>Chlamydia psittaci</i>	–	1	–	2	–	–	20	–	23	22	23	22
<i>Chlamydia</i> spp typing pending	–	2	–	–	–	–	–	–	2	–	2	–
<i>Chlamydia</i> species	–	2	–	–	–	–	3	–	5	2	5	2
<i>Mycoplasma pneumoniae</i>	–	6	–	128	50	3	66	–	253	207	253	207
<i>Mycoplasma hominis</i>	–	2	–	–	–	–	–	–	2	2	2	2
<i>Coxiella burnetii</i> (Q fever)	–	2	–	12	17	–	–	–	61	80	61	80
<i>Rickettsia prowazeki</i>	–	–	–	–	1	–	–	–	1	–	1	–
<i>Rickettsia</i> - spotted fever group	–	1	–	20	1	–	2	–	38	28	38	28
<i>Streptococcus</i> group A	–	4	–	172	–	–	1	1	178	272	178	272
<i>Brucella abortus</i>	–	–	–	–	1	–	–	–	1	–	1	–
<i>Brucella</i> species	–	–	–	4	–	–	–	–	4	8	4	8
<i>Bordetella pertussis</i>	1	532	–	338	488	2	1	–	1,362	198	1,362	198
<i>Legionella pneumophila</i>	–	2	–	3	–	–	1	–	6	7	6	7
<i>Legionella longbeachae</i>	–	–	–	–	1	–	2	–	3	4	3	4
<i>Legionella</i> species	–	–	–	3	–	–	2	–	5	1	5	1
<i>Cryptococcus</i> species	–	4	–	2	4	–	–	–	10	7	10	7
<i>Leptospira</i> species	–	–	–	16	2	–	–	–	18	30	18	30
<i>Treponema pallidum</i>	1	66	1	227	172	–	21	–	488	565	488	565
<i>Toxoplasma gondii</i>	–	1	–	4	1	1	–	–	7	1	7	1
<i>Echinococcus granulosus</i>	–	–	–	–	8	–	–	–	8	7	8	7
<b>Total</b>	<b>13</b>	<b>1,447</b>	<b>6</b>	<b>4,183</b>	<b>2,462</b>	<b>41</b>	<b>234</b>	<b>6</b>	<b>8,456</b>	<b>7,798</b>	<b>8,456</b>	<b>7,798</b>

\* State or territory of postcode, if reported, otherwise state or territory of reporting laboratory.

† Data presented are for reports with reports dates in the current period.

– No data received this period.

**Table 5: Virology and serology reports, 1 January to 31 March 2009,\* by laboratory**

State or territory	Laboratory	January 2009	February 2009	March 2009	Total this period
Australian Capital Territory	The Canberra Hospital	–	–	–	–
New South Wales	Institute of Clinical Pathology and Medical Research, Westmead	263	292	357	912
	New Children's Hospital, Westmead	46	48	68	162
	Repatriation General Hospital, Concord	–	–	–	–
	Royal Prince Alfred Hospital, Camperdown	8	28	20	56
	South West Area Pathology Service, Liverpool	32	42	55	129
Queensland	Queensland Medical Laboratory, West End	1,631	1,253	1,522	4,406
	Townsville General Hospital	–	–	–	–
South Australia	Institute of Medical and Veterinary Science, Adelaide	724	830	907	2,461
Tasmania	Northern Tasmanian Pathology Service, Launceston	12	16	6	34
	Royal Hobart Hospital, Hobart	–	–	–	–
Victoria	Australian Rickettsial Reference Laboratory	21	19	24	64
	Monash Medical Centre, Melbourne	3	5	12	20
	Royal Children's Hospital, Melbourne	–	–	–	–
	Victorian Infectious Diseases Reference Laboratory, Fairfield	83	44	85	212
Western Australia	PathWest Virology, Perth	–	–	–	–
	Princess Margaret Hospital, Perth	–	–	–	–
	Western Diagnostic Pathology	–	–	–	–
Total		2,823	2,577	3,056	8,456

\* The complete list of laboratories reporting for the 12 months, January to December 2009, will appear in every report regardless of whether reports were received in this reporting period. Reports are not always received from all laboratories.

– No data received this period.

## Additional reports

### Australian Sentinel Practice Research Network

The Australian Sentinel Practices Research Network (ASPREN) is a national surveillance system that is 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 data collection was established in 2006 and currently, further development of ASPREN is in progress to create an automatic reporting system.

The list of conditions is reviewed annually by the ASPREN management committee and an annual report is published. In 2009, four conditions are being monitored. They include influenza like illness, gastroenteritis and varicella infections (chickenpox and shingles). Definitions of these conditions are described in Surveillance systems reported in CDI, published in Commun Dis Intell 2008;32:135.

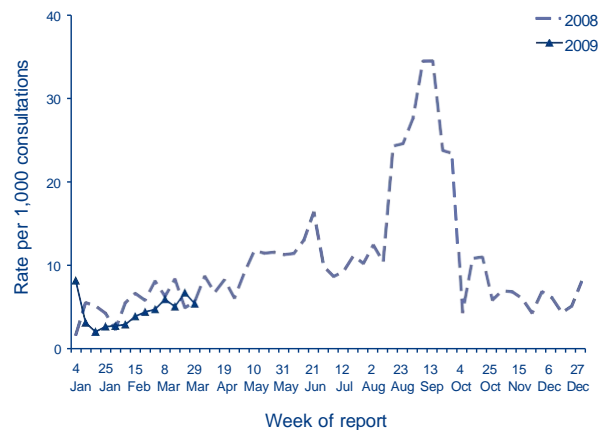
Data on influenza-like illness, gastroenteritis, chickenpox and shingles from 1 January to 31 March 2009 compared with 2007, are shown as the rate per 1,000 consultations in Figures 1, 2, 3 and 4, respectively.

#### Reporting period 1 January to 31 March 2009

Sentinel practices contributing to ASPREN were located in all jurisdictions other than the Northern Territory. A total of 100 general practitioners contributed data to ASPREN in the 1st quarter of 2009. Each week an average of 73 general practitioners provided information to ASPREN at an average of 6,735 (range 3,764 to 7,400) consultations per week.

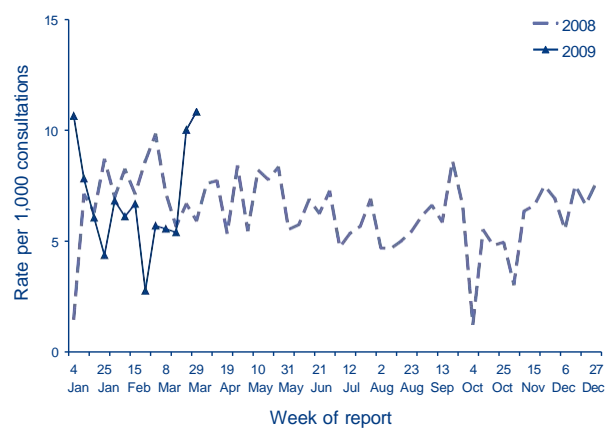
ILI rates reported from 1 January to 31 March 2009 were lower (2–8 cases per 1,000) compared with the same reporting period in 2007 (4–11 cases per 1,000 consultations (Figure 1).

**Figure 1: Consultation rates for influenza-like illness, ASPREN, 1 January 2008 to 31 March 2009, by week of report**



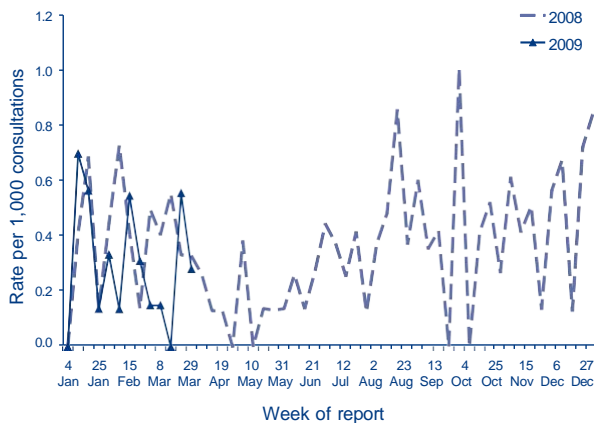
During this reporting period, consultation rates for gastroenteritis ranged from 3 to 11 cases per 1,000 consultations. Rates of gastroenteritis at the end of the 1st quarter of 2009 were approximately double compared with the same period in 2007 (Figure 2).

**Figure 2: Consultation rates for gastroenteritis, ASPREN, 1 January 2008 to 31 March 2009, by week of report**



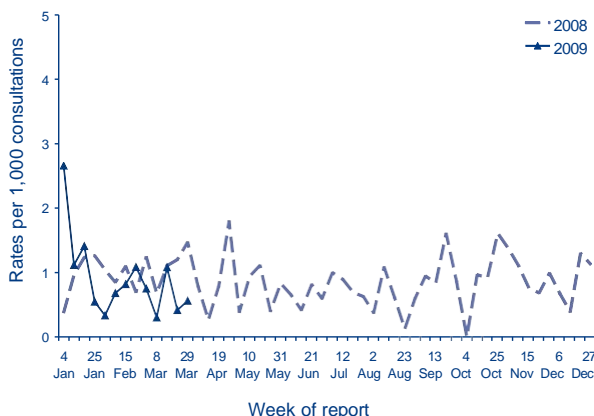
Varicella infections were reported at a similar rate for the 1st quarter of 2009 compared with the same period in 2008. From 1 January to 31 March 2009, recorded rates for chickenpox were between 0 and 1 case per 1,000 consultations (Figure 3).

**Figure 3: Consultation rates for chickenpox, ASPREN, 1 January 2008 to 31 March 2009, by week of report**



In the first quarter of 2009, reported rates for shingles were between less than 1 to 2.7 cases per 1,000 consultations (Figure 4).

**Figure 4: Consultation rates for shingles, ASPREN, 1 January 2008 to 31 March 2009, by week of report**



## 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 of age for the cohort born between 1 October and 31 December 2007, at 24 months of age for the cohort born between 1 October and 31 December 2006, and at 5 years of age for the cohort born between 1 October and 31 December 2002 according to the National Immunisation Program Schedule.

However from March 2002 to December 2007, coverage for vaccines due at 4 years of age was assessed at the 6-year milestone age.

For information about the Australian Childhood Immunisation Register see *Surveillance systems reported in CDI*, published in *Commun Dis Intell* 2008;32:134–135 and for a full description of the methodology used by the Register see *Commun Dis Intell* 1998;22:36–37.

Commentary on the trends in ACIR data is provided by the National Centre for Immunisation Research and Surveillance of Vaccine Preventable Diseases (NCIRS). For further information please contact the NCIRS at telephone: +61 2 9845 1435, Email: [brynleyb@chw.edu.au](mailto:brynleyb@chw.edu.au)

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

Immunisation coverage for children 'fully immunised' at 12 months of age for Australia increased slightly by 0.4 of a percentage point to 91.7% (Table 1). There were no important changes in coverage for any individual vaccines due at 12 months of age or by jurisdiction.

Immunisation coverage for children 'fully immunised' at 24 months of age for Australia decreased slightly by 0.2 of a percentage point to 92.5 (Table 2). There were no important changes in coverage for any individual vaccines due at 24 months of age or by jurisdiction.

Immunisation coverage for children 'fully immunised' at 5 years of age for Australia increased for the 2nd consecutive quarter, by 1.3 percentage points, to 80.7% (Table 3). This increase nationally appears to be driven by important increases in coverage for all individual vaccines due at 4 years of age in the 2 largest populated jurisdictions, New South Wales (3.4 percentage points), and Victoria (1.8 percentage point). Various jurisdictional-specific strategies and local efforts including data quality improvements through data cleaning may have had an effect.

**Table 1: Percentage of children immunised at 1 year of age, preliminary results by disease and state or territory for the birth cohort 1 October to 31 December 2007; assessment date 31 March 2009**

Vaccine	State or territory								Aust
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	
Total number of children	1,194	23,966	922	14,795	4,830	1,621	17,779	7,471	72,578
Diphtheria, tetanus, pertussis (%)	95.0	92.5	90.4	91.6	91.9	92.2	92.9	89.6	92.1
Poliomyelitis (%)	95.0	92.5	90.4	91.5	91.8	92.2	92.9	89.6	92.1
<i>Haemophilus influenzae</i> type b (%)	96.6	95.2	93.8	94.1	94.3	94.6	95.4	93.2	94.7
Hepatitis B (%)	96.6	95.1	94.3	93.9	94.1	94.6	95.2	93.3	94.6
Fully immunised (%)	94.8	92.2	90.0	91.2	91.5	92.2	92.4	89.1	91.7
Change in fully immunised since last quarter (%)	+1.1	+0.8	-0.2	+0.4	-0.3	+0.2	+0.6	-0.9	+0.4

**Table 2: Percentage of children immunised at 2 years of age, preliminary results by disease and state or territory for the birth cohort 1 October to 31 December 2006; assessment date 31 March 2009\***

Vaccine	State or territory								Aust
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	
Total number of children	1,111	23,522	896	14,375	4,663	1,613	17,539	7,266	70,985
Diphtheria, tetanus, pertussis (%)	96.0	94.7	96.1	94.5	94.0	95.0	95.7	93.8	94.8
Poliomyelitis (%)	96.1	94.6	96.1	94.5	94.0	94.9	95.7	93.7	94.8
<i>Haemophilus influenzae</i> type b (%)	95.9	94.8	94.5	93.8	92.8	95.0	94.6	93.6	94.3
Measles, mumps, rubella (%)	95.1	93.4	95.0	93.5	93.4	94.5	94.7	92.8	93.8
Hepatitis B (%)	96.3	95.5	97.2	95.4	94.9	96.0	96.3	94.4	95.5
Fully immunised (%)	93.9	92.3	93.8	92.2	91.9	93.4	93.6	90.9	92.5
Change in fully immunised since last quarter (%)	-0.6	-0.4	+0.8	0.0	-0.8	-1.3	-0.2	+1.0	-0.2

\* The 12 months age data for this cohort was published in *Commun Dis Intell* 2008;32:289.

**Table 3: Percentage of children immunised at 5 years of age,\* preliminary results by disease and state or territory for the birth cohort 1 October to 31 December 2003; assessment date 31 March 2009**

Vaccine	State or territory								Aust
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	
Total number of children	1,144	22,083	817	13,781	4,526	1,539	16,487	6,759	67,136
Diphtheria, tetanus, pertussis (%)	85.7	79.2	82.6	81.8	76.2	83.2	86.3	79.6	81.6
Poliomyelitis (%)	85.2	79.1	82.5	81.6	76.0	83.2	86.2	79.6	81.4
Measles, mumps, rubella (%)	85.1	78.8	82.6	81.4	75.9	82.6	86.0	79.4	81.2
Fully immunised (%)	84.4	78.4	81.9	80.9	75.4	82.2	85.6	78.6	80.7
Change in fully immunised since last quarter (%)	-0.8	+3.4	-2.9	-0.6	-0.0	+1.4	+1.8	-1.6	+1.3

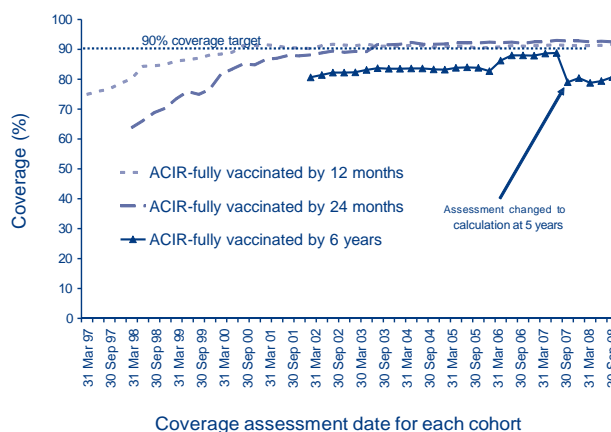
Due to a calculation error by ACIR, the coverage estimates for the past 5 quarters for the 5-year age group have been incorrect. Assessment was made at 66 months rather than 60 months, which inflated the estimates. The age of assessment for vaccines due at 4 years of age makes a critical difference to coverage estimates for these vaccines. Corrected tables are published in the erratum at the end of the section.

Figure 5 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 over time for children aged 12 months, 24 months and 6 years (5 years from March 2008), although cover-

age for vaccines due at 4 years decreases significantly due to the above-mentioned change in assessment age. It should also be noted that, currently, coverage for the vaccines added to the NIP since 2003 (varicella at 18 months, meningococcal C conjugate at 12 months and pneumococcal conjugate at 2, 4, and 6 months) are not included in the 12 or 24 months coverage data respectively.

**Figure 5: Trends in vaccination coverage, Australia, 1997 to 31 December 2008, by age cohorts**



## Meningococcal surveillance

*John Tapsall, 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 laboratory confirmed cases confirmed either by culture or by non-culture based techniques. Culture positive cases, where a *Neisseria meningitidis* is grown from a normally sterile site or skin, and non-culture based diagnoses, derived from results of nucleic acid amplification assays and serological techniques, are defined as invasive meningococcal disease (IMD) according to Public Health Laboratory Network definitions. Data contained in the quarterly reports are restricted to a description of the number of cases per jurisdiction, and serogroup, where known. A full analysis of laboratory confirmed cases of IMD is contained in the annual reports of the Programme, published in *Communicable Diseases Intelligence*. For more information see *Commun Dis Intell* 2008;32:135.

Laboratory confirmed cases of invasive meningococcal disease for the period 1 January to 31 March 2009, are included in this issue of *Communicable Diseases Intelligence* (Table 4).

**Table 4: Number of laboratory confirmed cases of invasive meningococcal disease, Australia, 1 January to 31 March 2009, by serogroup and state or territory**

State or territory	Year	Serogroup													
		A		B		C		Y		W135		ND		All	
		Q1	YTD	Q1	YTD	Q1	YTD	Q1	YTD	Q1	YTD	Q1	YTD	Q1	YTD
Australian Capital Territory	09														0
	08														0
New South Wales	09			12		3				1				16	
	08			4		1		1						6	
Northern Territory	09			2		1								3	
	08					1								1	
Queensland	09			11										11	
	08			16		2								18	
South Australia	09			4										4	
	08			2										2	
Tasmania	09													0	
	08													0	
Victoria	09			5		1						2		8	
	08			4										4	
Western Australia	09			2		2								4	
	08			3								1		4	
Total	09	0		36		7		0		1		2		46	
	08			30		4		1				1		36	

## Gonococcal surveillance

John Tapsall, *The Prince of Wales Hospital, Randwick NSW 2031 for the Australian Gonococcal Surveillance Programme.*

The Australian Gonococcal Surveillance Programme (AGSP) reference laboratories in the various states and territories report data on sensitivity to an agreed 'core' group of antimicrobial agents quarterly. The antibiotics currently routinely surveyed are penicillin, ceftriaxone, ciprofloxacin and spectinomycin, all of which are administered as single dose regimens and currently used in Australia to treat gonorrhoea. When *in vitro* resistance to a recommended agent is demonstrated in 5 per cent or more of isolates from a general population, it is usual to remove that agent from the list of recommended treatment.<sup>1</sup> 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. 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. For more information see *Commun Dis Intell* 2008;32:134.

### Reporting period 1 January to 31 March 2009

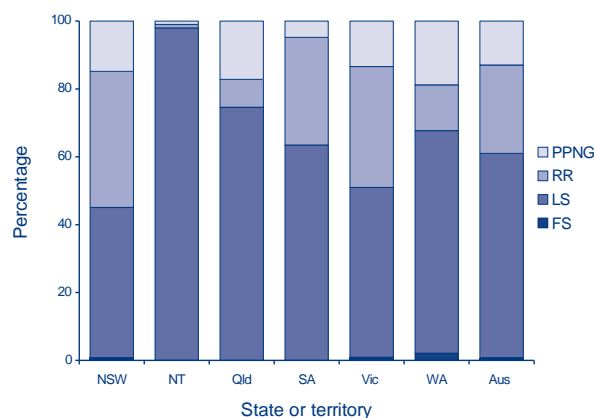
The AGSP laboratories received a total of 875 isolates in this quarter, of which 856 underwent susceptibility testing. This number was 76 more than the 799 isolates reported in this period in 2008. About 27% of this total was from New South Wales, 25% from Victoria, 16% from Queensland, 12% each from Western Australia and the Northern Territory and 7% from South Australia. Small numbers of isolates were also received from Tasmania and the Australian Capital Territory.

### Penicillins

In this quarter, 336 (39%) of all isolates examined were penicillin resistant by one or more mechanisms. One hundred and eleven (13%) were penicillinase producing *Neisseria gonorrhoeae* (PPNG) and 223 (26%) penicillin resistant by chromosomal mechanisms, (CMRP). The proportion of all strains resistant to the penicillins by any mechanism ranged from 2% in the Northern Territory to 56% in New South Wales. In this quarter in 2008, 45% of isolates were penicillin resistant by any mechanism and in 2007, 39%. The decrease in penicillin resistant strains to 2007 proportions was the result of decreased numbers of gonococci with chromosomally mediated resistance.

Figure 6 shows the proportions of gonococci fully sensitive (MIC  $\leq$  0.03 mg/L), less sensitive (MIC 0.06–0.5 mg/L), relatively resistant (MIC  $\geq$  1 mg/L) or else PPNG, aggregated for Australia and by state or territory. A high proportion of those strains classified as PPNG or else resistant by chromosomal mechanisms fail to respond to treatment with penicillins (penicillin, amoxycillin, ampicillin) and early generation cephalosporins.

**Figure 6: Categorisation of gonococci isolated in Australia, 1 January to 31 March 2009, by penicillin susceptibility and region**



- FS Fully sensitive to penicillin, MIC  $\leq$ 0.03 mg/L.  
 LS Less sensitive to penicillin, MIC 0.06–0.5 mg/L.  
 RR Relatively resistant to penicillin, MIC  $\geq$ 1 mg/L.  
 PPNG Penicillinase producing *Neisseria gonorrhoeae*.

The highest number of PPNG and CMRP were found in New South Wales where there were 97 CMRP (41%) and 36 PPNG (15%). Victoria had 77 (36%) CMRP and 29 (13%) PPNG. Queensland had higher numbers of PPNG, 23 (17%), but fewer CMRP, 11 (8%). Western Australia also had higher numbers of PPNG 18 (19%) than CMRP, 13 (14%). One CMRP and 1 PPNG strain were found in the Northern Territory. Two CMRP and 1 PPNG were found in the Australian Capital Territory and 2 CMRP and no PPNG were reported from Tasmania. Of note was the decrease in penicillin resistant strains in South Australia in this quarter. This was a decrease to 36.5%, comprising 20 CMRP (31.75%) and 3 PPNG (4.75%). Corresponding proportions in 2008 were 5% PPNG and 70.7% CMRP.

### Ceftriaxone

Ten isolates with decreased susceptibility to ceftriaxone (MIC range 0.06–0.12 mg/L) were detected nationally, five in New South Wales, three in Queensland and two in South Australia. This is compared with eight nationally in the first quarter of 2008.

## Spectinomycin

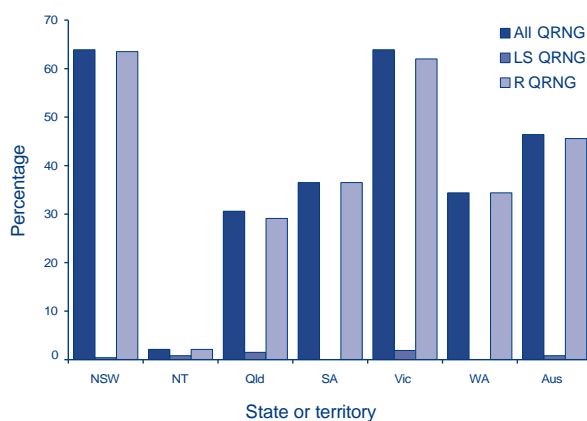
All isolates were susceptible to this injectable agent. This antibiotic is no longer available in Australia.

## Quinolone antibiotics

The total number (397) and proportion (46%) of quinolone resistant *N. gonorrhoeae* (QRNG) was lower than data reported in recent quarters that reported high levels of resistance to this group of antibiotics (Figure 7). In the equivalent period in 2008, there were 415 (53%) QRNG. All but seven of the 397 QRNG detected in this quarter had ciprofloxacin MICs of 1 mg/L or more and 340 had ciprofloxacin MICs of 4 mg/L or more. QRNG are defined as those isolates with an MIC to ciprofloxacin equal to or greater than 0.06 mg/L. QRNG are further subdivided into less sensitive (ciprofloxacin MICs 0.06–0.5 mg/L) or resistant (MIC  $\geq$  1 mg/L) groups.

QRNG were present in all jurisdictions. The highest number of QRNG was found in New South Wales (152) and this represented 64% of all isolates. One hundred and thirty-eight QRNG in Victoria also represented a high (64%) proportion of all isolates in that state. In Queensland, there were 41 (31%) QRNG, and 33 (34%) in Western Australia. The 23 (37%) QRNG in South Australia was a marked decrease in number compared with the 83 (84%) QRNG in the same quarter in 2008, and parallels the decrease in penicillin resistance also noted in that jurisdiction in this quarter. Six QRNG were detected in the Australian Capital Territory and two in Tasmania. A single QRNG was detected in the Northern Territory.

**Figure 7: The distribution of quinolone resistant isolates of *Neisseria gonorrhoeae* in Australia, 1 January to 31 March 2009, by state or territory**



LS QRNG Ciprofloxacin MICs 0.06–0.5 mg/L.

R QRNG Ciprofloxacin MICs  $\geq$  1 mg/L.

## High level tetracycline resistance

Nationally, the number (157) and proportion (18%) of high level tetracycline resistance (TRNG) detected increased when compared with the 2008 data (135 TRNG, 17%). TRNG were found in all states and territories except Tasmania, and elsewhere represented between 2% (South Australia) and 33% of isolates (Western Australia).

## Reference

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

## HIV and AIDS surveillance

*National surveillance for HIV disease is coordinated by the National Centre in HIV Epidemiology and Clinical Research (NCHECR), in collaboration with State and Territory health authorities and the Commonwealth of Australia. Cases of HIV infection are notified to the National HIV Database on the first occasion of diagnosis in Australia, by either the diagnosing laboratory (Australian Capital Territory, New South Wales, Tasmania, Victoria) or by a combination of laboratory and doctor sources (Northern Territory, Queensland, South Australia, Western Australia). Cases of AIDS are notified through the state and territory health authorities to the National AIDS Registry. Diagnoses of both HIV infection and AIDS are notified with the person's date of birth and name code, to minimise duplicate notifications while maintaining confidentiality.*

*Tabulations of diagnoses of HIV infection and AIDS are based on data available 3 months after the end of the reporting interval indicated, to allow for reporting delay and to incorporate newly available information. More detailed information on diagnoses of HIV infection and AIDS is published in the quarterly Australian HIV Surveillance Report, and annually in 'HIV/AIDS, viral hepatitis and sexually transmissible infections in Australia, annual surveillance report'. The reports are available from the National Centre in HIV Epidemiology and Clinical Research, 376 Victoria Street, Darlinghurst NSW 2010. Internet: <http://www.med.unsw.edu.au/nchechr>. Telephone: +61 2 9332 4648. Facsimile: +61 2 9332 1837. For more information see Commun Dis Intell 2009;33:83.*

*HIV and AIDS diagnoses and deaths following AIDS reported for 1 April to 30 June 2008, as reported to 30 September 2008, and for 1 July to 30 September 2008, as reported to 30 December 2008, are included in this issue of Communicable Diseases Intelligence (Tables 5, 6, 7 and 8).*

**Table 5: New diagnoses of HIV infection, new diagnoses of AIDS and deaths following AIDS occurring in the period 1 April to 30 June 2008, by sex and state or territory of diagnosis**

	Sex	State or territory								Totals for Australia			
		ACT	NSW	NT	Qld	SA	Tas	Vic	WA	This period 2008	This period 2007	YTD 2008	YTD 2007
HIV diagnoses	Female	1	11	1	13	3	0	14	8	51	32	78	64
	Male	0	83	3	49	7	1	65	16	224	231	464	483
	Not reported	0	0	0	0	0	0	0	0	0	0	0	0
	Total*	1	94	4	62	10	1	79	24	275	263	542	547
AIDS diagnoses	Female	0	0	0	0	0	0	1	0	1	4	3	7
	Male	0	2	0	3	0	0	10	2	17	40	53	75
	Total*	0	2	0	3	0	0	11	2	18	45	56	83
AIDS deaths	Female	0	2	0	0	0	0	0	0	2	4	11	8
	Male	0	0	1	0	0	0	3	0	4	8	42	81
	Total*	0	2	1	0	0	0	3	0	6	12	53	90

\* Totals include people whose sex was reported as transgender.

**Table 6: Cumulative diagnoses of HIV infection, AIDS, and deaths following AIDS since the introduction of HIV antibody testing to 30 June 2008, and reported by 30 September 2008, by sex and state or territory**

	Sex	State or territory								Australia
		ACT	NSW	NT	Qld	SA	Tas	Vic	WA	
HIV diagnoses	Female	33	948	24	317	116	13	420	232	2,103
	Male	273	14,001	142	2,990	996	115	5,634	1,304	25,455
	Not reported	0	230	0	0	0	0	22	0	252
	Total*	306	15,207	166	3,316	1,113	128	6,098	1,543	27,867
AIDS diagnoses	Female	10	264	4	73	32	4	118	42	547
	Male	94	5,522	46	1,065	413	55	2,078	438	9,711
	Total*	104	5,804	50	1,140	446	59	2,209	482	10,294
AIDS deaths	Female	7	141	1	43	20	2	64	29	307
	Male	73	3,601	31	677	280	33	1,432	299	6,426
	Total*	80	3,753	32	722	300	35	1,505	329	6,756

\* Totals include people whose sex was reported as transgender.

**Table 7: New diagnoses of HIV infection, new diagnoses of AIDS and deaths following AIDS occurring in the period 1 July to 30 September 2008, by sex and state or territory of diagnosis**

	Sex	State or territory								Totals for Australia			
		ACT	NSW	NT	Qld	SA	Tas	Vic	WA	This period 2008	This period 2007	YTD 2008	YTD 2007
HIV diagnoses	Female	0	10	1	6	0	0	8	5	30	36	107	101
	Male	1	71	1	43	12	0	61	12	201	210	667	696
	Not reported	0	0	0	0	0	0	0	0	0	0	0	0
	Total*	1	81	2	49	12	0	69	17	231	247	774	798
AIDS diagnoses	Female	0	0	0	0	0	0	1	0	1	3	4	10
	Male	0	0	0	5	1	0	10	2	18	33	73	108
	Total*	0	0	0	5	1	0	11	2	19	36	77	119
AIDS deaths	Female	0	0	0	0	0	0	0	0	0	3	3	7
	Male	0	1	0	0	0	1	4	0	6	10	18	33
	Total*	0	1	0	0	0	1	4	0	6	13	21	40

\* Totals include people whose sex was reported as transgender.

**Table 8: Cumulative diagnoses of HIV infection, AIDS, and deaths following AIDS since the introduction of HIV antibody testing to 30 September 2008, and reported by 31 December 2008, by sex and state or territory**

	Sex	State or territory								Australia
		ACT	NSW	NT	Qld	SA	Tas	Vic	WA	
HIV diagnoses	Female	34	958	25	323	116	13	426	237	2,132
	Male	274	14,078	143	3,033	1,008	115	5,694	1,316	25,661
	Not reported	0	228	0	0	0	0	22	0	250
	Total*	308	15,294	168	3,365	1,125	128	6,164	1,560	28,112
AIDS diagnoses	Female	10	265	4	74	32	4	119	42	550
	Male	94	5,524	46	1,076	414	55	2,093	439	9,741
	Total*	104	5,807	50	1,152	447	59	2,225	483	10,327
AIDS deaths	Female	7	141	1	43	20	2	64	29	307
	Male	73	3,601	31	677	280	33	1,432	299	6,426
	Total*	80	3,753	32	722	300	35	1,505	329	6,756

\* Totals include people whose sex was reported as transgender.