Additional reports

Australian Sentinel Practice Research Network

The Research and Health Promotion Unit of the Royal Australian College of General Practitioners operates the Australian Sentinel Practice Research Network (ASPREN). ASPREN is a network of general practitioners who report presentations of defined medical conditions each week. The aim of ASPREN is to provide an indicator of the burden of disease in the primary health setting and to detect trends in consultation rates.

There are currently about 66 general practitioners participating in the network from all States and Territories. Seventy-five per cent of these are in metropolitan areas and the remainder are rural based. Between 4,000 and 6,000 consultations are recorded each week.

The list of conditions is reviewed annually by the ASPREN management committee and an annual report is published.

In 2002, 10 conditions are being monitored, six of which are related to communicable diseases. These include influenza, gastroenteritis and acute cough. Definitions of these conditions were published in Commun Dis Intell 2002;26:57.

Data from 1 January to 31 December 2002 are shown as the rate per 1,000 consultations by week in Figures 6, 7 and 8.

Figure 6. Consultation rates for influenza-like illness, ASPREN, 1 January to 31 December 2002, by week of report

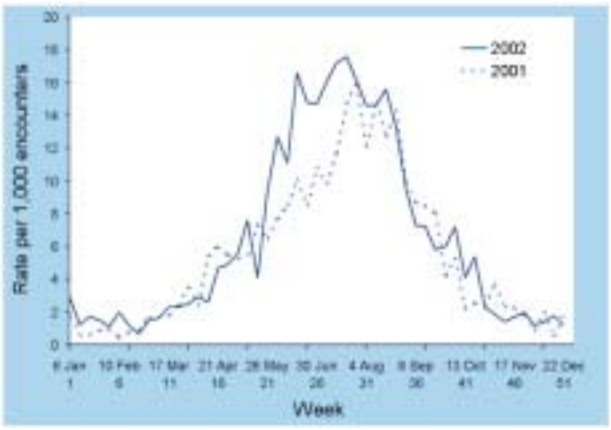


Figure 7. Consultation rates for gastroenteritis, ASPREN, 1 January to 31 December 2002, by week of report

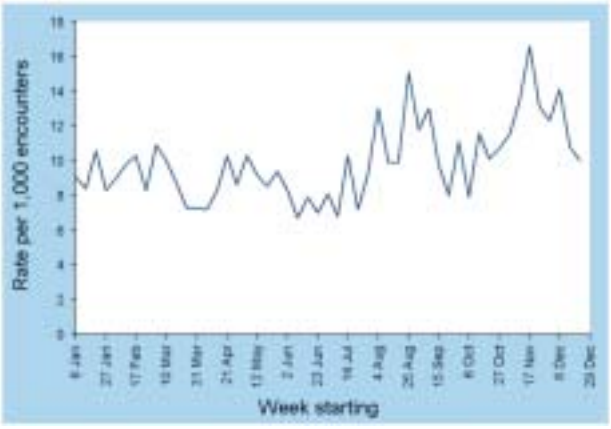
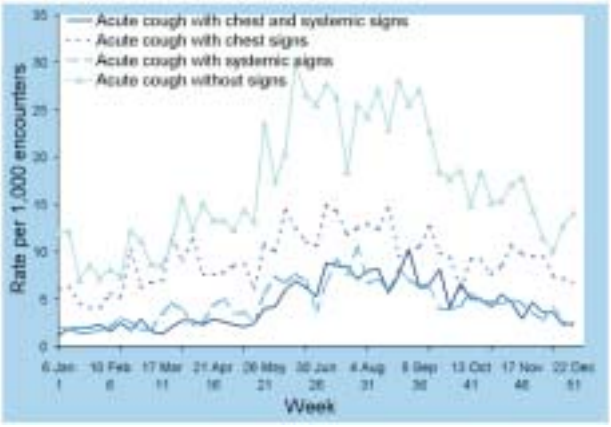


Figure 8. Consultation rates for acute cough, ASPREN, 1 January to 31 December 2002, by week of report



Gonococcal surveillance

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

The Australian Gonococcal Surveillance Programme 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.[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. 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 *2002;26:57.*

Reporting period 1 July to 30 September 2002

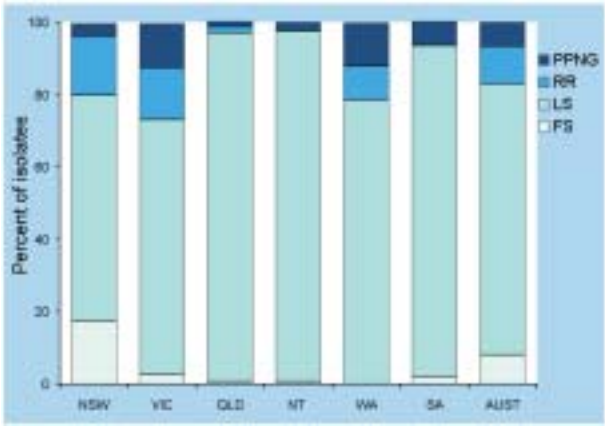
The Australian Gonococcal Surveillance Programme (AGSP) laboratories examined a total of 893 isolates in this quarter and another 20 strains were non-viable, little different from the 913 viable strains in 2001, but substantially more than the 794 examined in the same period in 2000. About 41 per cent of this total was from New South Wales, 17 per cent from Victoria, 13 per cent from Queensland, 15 per cent from the Northern Territory, 9 per cent from Western Australia and 5 per cent from South Australia. Isolates from other centres were few.

Penicillins

Figure 9 shows the proportions of gonococci fully sensitive (MIC ≤0.03 mg/L), less sensitive (MIC 0.06 – 0.5 mg/L), relatively resistant (MIC ≥1 mg/L) or else penicillinase producing (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.

In this quarter about 17 per cent of all isolates were penicillin resistant by one or more mechanisms — 7 per cent PPNG and 10 per cent by chromosomal mechanisms (CMRNG). The proportion of penicillin resistant strains ranged from 2.4 per cent in the Northern Territory to 26 per cent in Victoria.

Figure 9. Categorisation of gonococci isolated in Australia, 1 July to 30 September 2002, by penicillin susceptibility and region



FS Fully sensitive to penicillin, MIC ≤0.03 mg/L.
LS Less sensitive to penicillin, MIC 0.06 — 0.5 mg/L.
RR Relatively resistant to penicillin, MIC ≥1 mg/L.
PPNG Penicillinase producing *Neisseria gonorrhoeae.*

This proportion is a decrease from the 26 per cent penicillin resistance seen in gonococci in the third quarter of 2001. The number of PPNG isolated across Australia (n=59) continued to decline slowly. Sixty-six PPNG were detected in the equivalent quarter of 2001 and 70 in 2000. The highest proportion of PPNG was found in isolates from Victoria and Western Australia (12%). PPNG were present in all jurisdictions including 3 (2.4%) in the Northern Territory.

More isolates were resistant to the penicillins by separate chromosomal mechanisms (n=93). This is however, a substantial decrease in CMRNG compared to the same period in 2001 when 173 CMRNG were detected. CMRNG were concentrated in New South Wales (16%), Victoria (14%) and Western Australia (9%). CMRNG were not detected in the Northern Territory or South Australia.

Ceftriaxone

Low numbers of isolates with decreased susceptibility to ceftriaxone were present in Victoria, New South Wales and Queensland. The persistence of these isolates in Australia and their presence in nearby countries[2,3,4] suggests that continued monitoring is warranted. A Japanese report recorded treatment failure with cefixime (an oral third generation cephalosporin not available in Australia), but not ceftriaxone, with infections caused by gonococci with slightly raised ceftriaxone MICs.[5]

Spectinomycin

All isolates were susceptible to this injectable agent.

Quinolone antibiotics

Quinolone resistant *N. gonorrhoeae* (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 1 mg/L) groups.

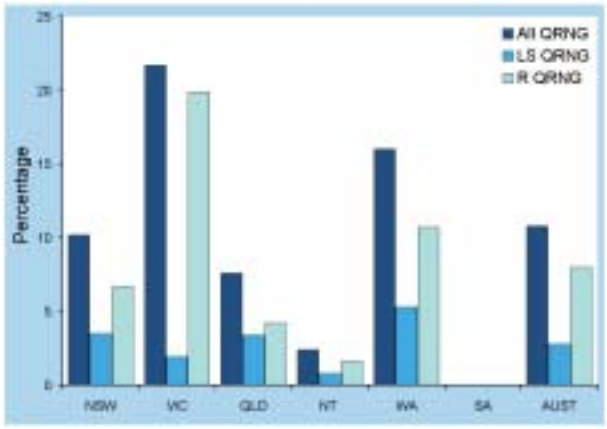
The total number (n=96) and proportion (11%) of QRNG were substantially less than those for the September quarter in 2001 (n=151, 17%). QRNG were again widely distributed, although none were detected in South Australia. High rates were maintained in Victoria (22%) and Western Australia (16%). Rates in New South Wales (10%) and Queensland (8%) declined. Three QRNG were detected in the Northern Territory.

In this quarter most of the QRNG (71 out of 96) exhibited higher levels of resistance as measured by MICs (Figure 10). This continues a trend of increasing MIC in QRNG.

High level tetracycline resistance

The number (n=95) and proportion (11%) of tetracycline resistance (TRNG) detected rose slightly in this quarter from the corresponding data in the September quarter of 2001. TRNG represented 20 per cent of isolates from Queensland, 14 per cent from Western Australia, 11 per cent from Victoria, 10 per cent from New South Wales, 4 per cent from South Australia and 2 per cent from the Northern Territory.

Figure 10. Distribution of *N. gonorrhoeae* displaying quinolone resistance, Australia, 1 July to 30 September 2002



LS QRNG Ciprofloxacin MICs 0.06 — 0.5 mg/L

R QRNG Ciprofloxacin MICs ≥1 mg/L

References

1. World Health Organization Guidelines for the management of sexually transmitted infections. World Health Organization; Document WHO/HIV_AIDS/(2001).01;WHO/RHR/o1.10 2001:1–5.

2. World Health Organization Western Pacific Region Gonococcal Antimicrobial Surveillance Programme. Surveillance of antibiotic susceptibility of *Neisseria gonorrhoeae* in the WHO Western Pacific Region, 2000. *Commun Dis Intell* 2001;25:274–276.

3. Muratani T, Akasaka S, Kobayashi T, Yamada Y, Inatomi H, Takahashi K, *et al*. Outbreak of cefozopran (penicillin, oral cephems and aztreonam) — resistant *Neisseria gonorrhoeae* in Japan. *Antimicrob Agents Chemother* 2001;45:3603–3606.

4. World Health Organization Western Pacific Region Gonococcal Antimicrobial Surveillance Programme. Surveillance of antibiotic susceptibility of *Neisseria gonorrhoeae* in the WHO Western Pacific Region, 2001. *Commun Dis Intell* 2002;26:541-545.

5. Akasaka S, Muratani T, Kobayashi T, Yamada Y, Inatomi H, Takahashi K, Matsumoto T. Gonococcal urethritis and cervicitis caused by CZRNG (cefozopran-resistant *Neisseria gonorrhoeae*) — clinical failure of cases treated with expanded spectrum cephems, fluoroquinolones and minocycline. Abstracts. Thirteenth International Pathogenic *Neisseria* Conference, Oslo September 2002:327. Available from: www.neisseria.org/IPNC.

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 three 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/nchecr. Telephone: +61 2 9332 4648. Facsimile: +61 2 9332 1837. For more information see Commun Dis Intell *2002;26:57.*

HIV and AIDS diagnoses and deaths following AIDS reported for 1 July to 30 September 2002, as reported to 31 December 2002, are included in this issue of Communicable Diseases Intelligence (Tables 7 and 8).

Table 7. New diagnoses of HIV infection, new diagnoses of AIDS and deaths following AIDS occurring in the period 1 July to 30 September 2002, by sex and state or territory of diagnosis

		State or territory								Totals for Australia			
		ACT	NSW	NT	Qld	SA	Tas	Vic	WA	This period 2002	This period 2001	Year to date 2002	Year to date 2001
HIV diagnoses	Female	0	5	2	0	0	1	6	2	16	24	63	71
	Male	2	88	0	33	9	2	35	7	176	188	502	514
	Sex not reported	0	0	0	0	0	0	0	0	0	0	0	1
	Total[1]	2	93	2	33	9	3	43	9	194	212	570	587
AIDS diagnoses	Female	0	0	0	0	0	1	1	0	2	7	9	14
	Male	2	12	0	4	1	0	9	0	28	49	108	119
	Total[1]	2	12	0	4	1	1	10	0	30	56	118	134
AIDS deaths	Female	0	0	0	0	0	0	0	1	1	5	3	9
	Male	0	6	0	3	2	0	3	0	14	27	41	56
	Total[1]	0	6	0	3	2	0	3	1	15	32	44	65

1. Persons whose sex was reported as transgender are included in the totals.

Table 8. Cumulative diagnoses of HIV infection, AIDS and deaths following AIDS since the introduction of HIV antibody testing to 30 September 2002 and reported by 31 December 2002, by sex and state or territory

		State or territory								
		ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Australia
HIV diagnoses	Female	28	688	14	185	77	7	270	144	1,413
	Male	235	11,823	115	2,227	749	86	4,336	1,006	20,577
	Sex not reported	0	235	0	0	0	0	24	0	259
	Total[1]	263	12,771	129	2,419	826	93	4,648	1,156	22,305
AIDS diagnoses	Female	9	208	0	53	29	4	82	31	416
	Male	90	4,872	38	909	373	46	1,761	387	8,476
	Total[1]	99	5,093	38	964	402	50	1,852	420	8,918
AIDS deaths	Female	4	122	0	36	18	2	57	20	259
	Male	71	3,363	25	600	246	30	1,322	267	5,924
	Total[1]	75	3,494	25	638	264	32	1,386	288	6,202

1. Persons whose sex was reported as transgender are included in the totals.

Childhood immunisation coverage

Tables 9, 10 and 11 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 July and 30 September 2001, at 24 months of age for the cohort born between 1 July and 30 September 2000, and at 6 years of age for the cohort born between 1 July and 30 September 1996 according to the Australian Standard Vaccination Schedule.

A full description of the methodology used can be found in 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 1256, Email: brynleyh@chw.edu.au.

Immunisation coverage for children 'fully immunised' by 12 months of age for Australia has increased from the last quarter by 0.5 percentage points to 91.7 per cent (Table 9). The change in 'fully immunised' coverage varied by state and territory but all jurisdictions experienced an increase in coverage, except for Western Australia (-0.5%) and the Northern Territory (-0.9%). South Australia (+1.4%) and Victoria (+1.1%) experienced the greatest increases in coverage. The remaining states experienced smaller increases in coverage over the quarter. Coverage is hovering around the 91 to 93 per cent level in almost all jurisdictions with the highest level in South Australia (93.2%) and the lowest in Western Australia (89.9%). There were no significant changes in coverage across any jurisdiction for any individual vaccine.

The second consecutive quarterly increase in coverage at 12 months of age for almost all jurisdictions and for most vaccines is encouraging and further indicates that coverage has not reached a plateau as first thought. Every jurisdiction has coverage greater than 90 per cent for all individual vaccines and three jurisdictions have greater than 92 per cent for 'fully immunised' coverage. The highest coverage for an individual vaccine at 12 months of age is for hepatitis B vaccine. National coverage is greater than 95 per cent and six jurisdictions have reached over 95 per cent coverage — New South Wales (95.2%), the Northern Territory (95.9%), Queensland (95.3%), South Australia (96.2%), Victoria (95.2%) and Tasmania (95.3%).

Coverage measured by 'fully immunised' at 24 months for Australia increased from the last quarter by 1.6 percentage points to 89.4 per cent (Table 10). Coverage increased from the previous quarter in five jurisdictions but the increases were all quite small, except in Tasmania (+2.8%) and Western Australia (+2.4%). Despite the increases, only three jurisdictions achieved greater than 90 per cent coverage for 'fully immunised' at 24 months of age, (Tasmania, Queensland and Victoria). Coverage for individual vaccines by 24 months for Australia, however, is much greater. Coverage for OPV is 94.8 per cent and 94.0 per cent for Hib suggesting that at least part of the lower figure for fully immunised may relate to data issues. As with the last quarterly coverage report, the most important changes in coverage at 24 months occurred for Hib vaccine. There were decreases in Hib coverage at 24 months of age in all jurisdictions except for the Australian Capital Territory. The decreases were not dramatic but have occurred for a second consecutive quarter.

Table 9. Percentage of children immunised at 1 year of age, preliminary results by disease and State or Territory for the birth cohort 1 July to 30 September 2001; assessment date 31 December 2002

	State or territory								
Vaccine	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Australia
Total number of children	1,018	21,687	845	12,751	4,507	1,412	15,556	6,196	63,972
Diphtheria, tetanus, pertussis (%)	93.3	92.6	91.5	92.8	93.9	93.6	93.1	90.7	92.7
Poliomyelitis (%)	93.0	92.5	91.1	92.8	93.9	93.6	93.0	90.6	92.6
Haemophilus influenzae type b (%)	93.9	94.7	95.7	95.0	95.9	95.5	95.3	94.1	94.9
Hepatitis B	94.9	95.2	95.9	95.3	96.2	95.3	95.2	93.9	95.1
Fully immunised (%)	91.0	91.4	90.4	91.8	93.2	93.0	92.4	89.9	91.7
Change in fully immunised since last quarter (%)	+0.2	+0.4	-0.9	+0.4	+1.4	+0.1	+1.1	-0.5	+0.5

Table 11 shows immunisation coverage estimates for 'fully immunised' and for individual vaccines by 6 years of age for Australia and by state or territory. These are the third set of officially published ACIR figures of immunisation coverage estimates for this age group. 'Fully immunised' coverage at 6 years of age for Australia increased from the last quarter by 1.5 percentage points to 82.2 per cent. The greatest increase in coverage occurred in the Northern Territory (+10.8%) and New South Wales (+2.4%). All jurisdictions experienced increases in 'fully immunised' coverage for this age group. National coverage by individual vaccine also increased from the last quarter for all vaccines for this age group but there was some small variation in the changes in coverage by jurisdiction. The recent report published by NCIRS shows that true levels of coverage at 6 years of age are probably higher than reported here as late immunisation is still common.[1]

Figure 11 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. The recent increase in coverage over the past three quarters for all age groups is encouraging and indicates that in part the various initiatives and efforts that are taking place at present are probably having some impact on parents' decisions to immunise and immunisation providers' decisions to notify to the ACIR. However, the increase may also be a consequence of children in these recent cohorts being on the new schedule where receipt of only 2 doses of Hib vaccine is considered full immunisation for Hib at 12 months, according to the ACIR coverage algorithm. The greatest increase in coverage for individual vaccines at 12 months was for the Hib vaccine, an overall increase of 1.2 per cent compared with 0.7 per cent for both diphtheria-tetanus-pertusis and oral polio vaccine.

Figure 11. Trends in vaccination coverage, Australia, 1997 to 2002, by age cohorts

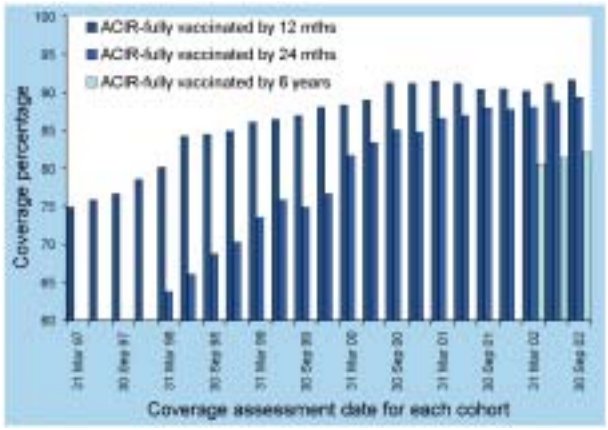


Table 10. Proportion of children immunised at 2 years of age, preliminary results by disease and State or Territory for the birth cohort 1 July to 30 September 2000; assessment date 31 December 2002[1]

Vaccine	State or territory								
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Australia
Total number of children	1,043	21,942	788	12,593	4,437	1,494	15,376	6,293	63,966
Diphtheria, tetanus, pertussis (%)	89.3	90.8	86.4	92.0	91.4	93.4	92.0	91.2	91.4
Poliomyelitis (%)	94.4	94.4	96.1	94.6	95.6	96.3	95.5	94.1	94.8
Haemophilus influenzae type b (%)	94.3	93.6	93.0	94.0	94.1	95.2	94.6	93.2	94.0
Measles, mumps, rubella (%)	94.5	93.6	94.7	94.2	94.5	95.5	94.7	93.8	94.2
Hepatitis B (%)	-	-	-	-	-	-	-	-	-
Fully immunised (%)[2]	87.4	88.5	85.0	90.3	89.5	92.4	90.2	88.7	89.4
Change in fully immunised since last quarter (%)	-1.1	+1.6	-0.9	+1.5	+2.0	+2.8	+1.4	+2.4	+1.6

1. The 12 months age data for this cohort was published in *Commun Dis Intell* 2002;26:88.
2. These data relating to 2 year-old children should be considered as preliminary. The proportions shown as 'fully immunised' appear low when compared with the proportions for individual vaccines. This is at least partly due to poor identification of children on immunisation encounter forms.

Table 11. Proportion of children immunised at 6 years of age, preliminary results by disease and State or Territory for the birth cohort 1 July to 30 September 1996; assessment date 31 December 2002

Vaccine	State or Territory								
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Australia
Total number of children	1,126	22,832	16,214	13,382	4,842	6,770	1,702	789	67,657
Diphtheria, tetanus, pertussis (%)	84.6	84.2	86.0	84.7	84.0	81.5	84.0	84.5	84.5
Poliomyelitis (%)	84.7	84.2	86.3	85.0	84.1	81.9	84.5	85.7	84.7
Haemophilus influenzae type b (%)	-	-	-	-	-	-	-	-	-
Measles, mumps, rubella (%)	83.3	82.4	85.9	84.5	83.3	81.3	83.0	85.9	83.7
Hepatitis B (%)	-	-	-	-	-	-	-	-	-
Fully immunised (%)[1]	81.9	80.8	84.8	82.9	81.8	79.6	81.6	82.8	82.2
Change in fully immunised since last quarter (%)	+0.6	+2.4	+10.8	+0.3	-0.0	+1.8	+1.5	+1.3	+1.5

1. These data relating to 6 year-old children should be considered as preliminary. The proportions shown as 'fully immunised' appear low when compared with the proportions for individual vaccines. This is at least partly due to poor identification of children on immunisation encounter forms.

References

1. National Centre for Immunisation Research and Surveillance. Immunisation coverage: Australia 2001. Report. Canberra: Department of Health and Aged Care, 2001. Available from: http://www.health.gov.au/pubhlth/immunise/report.pdf

Acknowledgment: These figures were provided by the Health Insurance Commission, to specifications provided by the Commonwealth Department of Health and Ageing. For further information on these figures or data on the Australian Childhood Immunisation Register please contact the Immunisation Section of the Health Insurance Commission: Telephone: +61 2 6124 6607.

National Enteric Pathogens Surveillance System

The National Enteric Pathogens Surveillance System (NEPSS) collects, analyses and disseminates data on human enteric bacterial infections diagnosed in Australia. These pathogens include Salmonella, E. coli, Vibrio, Yersinia, Plesiomonas, Aeromonas and Campylobacter. Communicable Diseases Intelligence quarterly reports include only Salmonella.

Data are based on reports to NEPSS from Australian laboratories of laboratory-confirmed human infection with Salmonella. Salmonella are identified to the level of serovar and, if applicable, phage-type. Infections apparently acquired overseas are included. Multiple isolations of a single Salmonella serovar/phage-type from one or more body sites during the same episode of illness are counted once only. The date of the case is the date the primary diagnostic laboratory isolated a Salmonella from the clinical sample.

Note that the historical quarterly mean counts should be interpreted with caution, and are affected by surveillance artefacts such as newly recognised (such as S. Typhimurium 197 and S. Typhimurium U290) and incompletely typed Salmonella.

Reported by Joan Powling (NEPSS Co-ordinator) and Mark Veitch (Public Health Physician), Microbiological Diagnostic Unit — Public Health Laboratory, Department of Microbiology and Immunology, University of Melbourne. NEPSS can be contacted at the above address or by telephone: +61 3 8344 5701, facsimile: +61 3 9625 2689. For more information see Commun Dis Intell 2002;26:57.

Reports to the National Enteric Pathogens Surveillance System of Salmonella infection for the period 1 October to 31 December 2002 are included in Tables 12 and 13. Data include cases reported and entered by 30 January 2003. Counts are preliminary, and subject to adjustment after completion of typing and reporting of further cases to NEPSS.

Acknowledgement: Thanks to contributing laboratories and scientists.

Table 12. Reports to the National Enteric Pathogens Surveillance System of *Salmonella* isolated from humans during the period 1 October to 31 December 2002, as reported to 30 January 2003

	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Aust
Total all *Salmonella* for quarter	22	527	45	411	105	47	223	170	1,550
Total contributing *Salmonella* types	12	92	27	101	39	10	68	70	207

Table 13. Top 25 *Salmonella* types identified in Australian States and Territories, 1 October to 31 December 2002

National rank	*Salmonella* type	State or territory								Total 4th quarter 2002	Last 10 years mean 4th quarter	Year to date 2002	Year to date 2001
		ACT	NSW	NT	Qld	SA	Tas	Vic	WA				
1	*S.* Typhimurium 135	3	68	1	15	0	1	18	14	120	119	646	636
2	*S.* Typhimurium 170	2	54	0	33	0	0	17	1	107	20	419	148
3	*S.* Typhimurium 9	2	28	0	4	6	8	31	2	81	119	585	399
4	*S.* Potsdam	4	25	0	10	4	13	17	1	74	13	130	60
5	*S.* Saintpaul	0	16	8	28	1	0	8	11	72	65	385	289
6	*S.* Typhimurium 197	4	42	0	7	0	1	6	0	60	<1	108	8
7	*S.* Birkenhead	0	17	0	32	2	0	1	0	52	55	246	253
8	*S.* Montevideo	0	40	0	1	0	0	2	3	46	5	105	27
9	*S.* Chester	0	6	0	17	5	1	0	14	43	33	174	166
10	*S.* Typhimurium 126	0	5	0	4	7	2	12	1	31	23	203	313
11	*S.* Infantis	0	11	1	1	2	0	13	2	30	27	115	123
12	*S.* Muenchen	0	6	2	10	3	1	0	8	30	27	131	125
13	*S.* Virchow 8	0	6	0	20	0	0	1	1	28	24	273	245
14	*S.* Waycross	0	9	0	15	0	0	0	0	24	14	106	54
15	*S.* Agona	0	8	1	8	0	0	3	3	23	14	88	56
16	*S.* Hvittingfoss	0	7	1	14	0	0	1	0	23	12	154	89
17	*S.* Typhimurium U290	0	10	0	0	0	0	7	5	22	2	99	26
18	*S.* Typhimurium 99	0	0	0	0	22	0	0	0	22	1	33	40
19	*S.* Mississippi	0	1	0	1	0	17	1	0	20	13	93	124
20	*S.* Kottbus	0	9	0	3	1	0	5	1	19	8	51	26
21	*S.* subsp I ser 16;l,v:-	0	6	1	8	2	0	0	1	18	6	48	17
22	*S.* Enteritidis 4b	0	6	0	0	0	0	3	9	18	1	67	13
23	*S.* Enteritidis 4	0	5	0	5	2	0	2	3	17	48	40	90
24	*S.* Anatum	0	1	1	8	1	0	3	3	17	16	84	58
25	*S.* Stanley	1	4	0	5	1	0	1	5	17	10	59	107