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 to the end of September 2002 are shown as the rate per 1,000 consultations by week in Figures 7 to 9.

Figure 7. Consultation rates for influenza-like illness, ASPREN, 1 January to 30 September 2002 and 2001, by week of report.

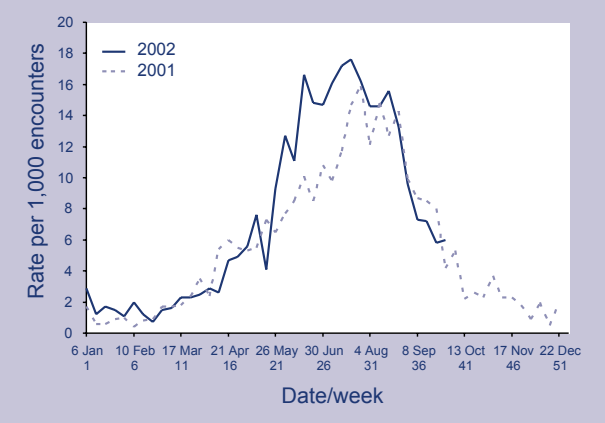


Figure 8. Consultation rates for gastroenteritis, ASPREN, 1 January to 30 September 2002, by week of report

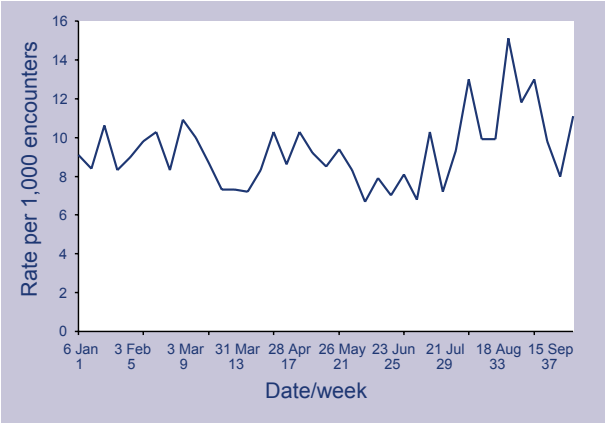
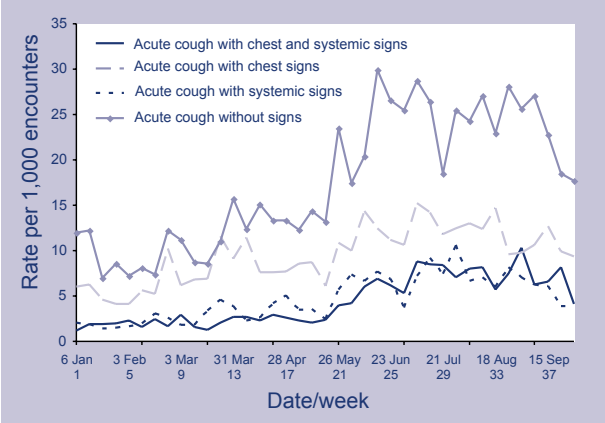


Figure 9. Consultation rates for acute cough, ASPREN, 1 January to 30 September 2002, by week of report



Gonococcal surveillance

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

The Australian Gonococcal Surveillance Programme (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.[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;26:61*.

Reporting period 1 April to 30 June 2002

The Australian Gonococcal Surveillance Programme (AGSP) laboratories examined a total of 1,000 isolates in this quarter, an increase on the 858 recorded in the same period in 2001. About 40 per cent of this total was from New South Wales, 20 per cent from Victoria, 14 per cent from Queensland, 13 per cent from the Northern Territory, 10 per cent from Western Australia and 2 per cent from South Australia. Isolates from other centres were few. The progressive total of gonococci examined by the AGSP to 30 June is about 10 per cent higher than in 2001.

Penicillins

Figure 10 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 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 17.7 per cent of all isolates were penicillin resistant by one or more mechanisms — 7.7 per cent PPNG and 10 per cent by chromosomal mechanisms (CMRNG). The proportion of penicillin resistant strains ranged from nil in South Australia to 24 per cent in New South Wales.

Figure 10. Categorisation of gonococci isolated in Australia, 1 April to 30 June 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*

The number of PPNG isolated across Australia (n=77) was higher in this quarter than in the corresponding period in 2001 (n=58). The highest proportion of PPNG was found in isolates from Victoria (13.6%) and Western Australia (13.2%). PPNG were present in all jurisdictions except South Australia including 5 (3.7%) in the Northern Territory. Data on geographic acquisition were available in 26 cases only, mostly from New South Wales and Western Australia. Local acquisition was prominent in both these States.

More isolates were resistant to the penicillins by separate chromosomal mechanisms (n=100, 10%). These CMRNG were especially prominent in New South Wales (71 CMRNG 17.4% of all isolates there), and Western Australia (9.2%). A single CMRNG was detected in the Northern Territory.

Ceftriaxone

Low numbers of isolates with decreased susceptibility to ceftriaxone (n=6, 1.5%) were present in New South Wales, but none were found elsewhere in Australia in this quarter. Treatment failure with cefixime, an oral third generation cephalosporin not available in Australia, has now been reported in Japan.[2]

Spectinomycin

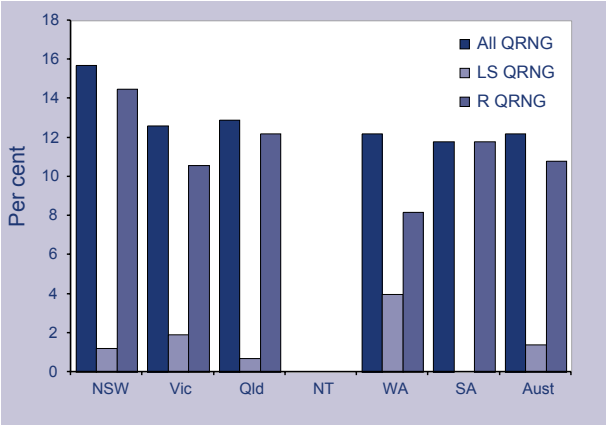
All isolates were susceptible to this injectable agent.

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) categories.

The total number (n=122) of all QRNG was lower than in the corresponding period in 2001 (n=165), but similar in distribution to that seen in recent quarters (Figure 11). QRNG made up 12.2 per cent of all strains examined nationally and this proportion was lower than in 2001 (19%). QRNG were again widely distributed and represented between 12 per cent and 16 per cent in most jurisdictions. The exception was the Northern Territory where no QRNG were detected. In all jurisdictions, the high level resistance category of QRNG (MIC ciprofloxacin ≥ 1 mg/L) predominated. Nationally, 108 of the 122 QRNG were in this category.

Figure 11. Distribution in Australia of *N. gonorrhoeae* displaying quinolone resistance, 1 April to 30 June 2002



LS QRNG Ciprofloxacin MICs 0.06 – 0.5 mg/L
R QRNG Ciprofloxacin MICs ≥ 1 mg/L

High level tetracycline resistance

The number (122) and proportion (12.2%) of high level tetracycline resistance (TRNG) detected was double that of the same period in 2001. TRNG represented between 10 per cent and 15 per cent of isolates in Queensland, Victoria, New South Wales, and Western Australia and 4 per cent in the Northern Territory.

Reference

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

2. WHO Western Pacific Gonococcal Antimicrobial Surveillance Programme. Surveillance of antibiotic resistance in *Neisseria gonorrhoeae* in the WHO Western Pacific Region, 2001. *Commun Dis Intell* 2002;26:541–545.

Australian Paediatric Surveillance Unit

The Australian Paediatric Surveillance Unit (APSU) conducts nationally based active surveillance of rare diseases of childhood, including specified communicable diseases and complications of rare communicable diseases in children. The primary objectives of the APSU are to document the number of Australian children under 15 years newly diagnosed with specified conditions, their geographic distribution, clinical features, current management and outcome. Contributors to the APSU are clinicians known to be working in paediatrics and child health in Australia. In 2001, over 1,000 clinicians participated in the surveillance of 15 conditions through the APSU, with an overall response rate of 98 per cent. For further information please contact the APSU on telephone: +61 2 9845 2200, e-mail: apsu@chw.edu.au.

The results for January to December 2001 are shown in Table 6.

Reporting period January to December 2001

About the APSU communicable diseases studies

Acute flaccid paralysis

Heath Kelly, Bruce Thorley, Kerri Anne Brussen, Jayne Antony, Elizabeth Elliott, Anne Morris

Acute flaccid paralysis (AFP) surveillance in children <15 commenced through the APSU in 1995. To the end of 2001 there were 232 confirmed cases of AFP. Based on these data, the estimated incidence was 0.9 (95% CI 0.8-1.1) per 100,000 children.

Congenital cytomegalovirus infection

William Rawlinson, Daniel Trincado, Gillian Scott, Sian Munro, Pamela Palasanthiran, Mark Ferson, David Smith, Geoff Higgins, Michael Catton, Alistair McGregor, Dominic Dwyer, Alisson Kesson

Congenital cytomegalovirus (CMV) surveillance in children <12 months of age commenced through the APSU in 1999. Between January 1999 and December 2001 there were 16 confirmed cases of CMV. The estimated incidence was 2.1 (95% CI 1.2-3.5) per 100,000 live births.

Congenital rubella

Margaret Burgess, Jill Forrest

Surveillance of newly diagnosed congenital rubella in children and adolescents aged <16 years commenced in 1993. Forty-two children with congenital rubella were identified through the APSU between May 1993 and December 2001. Twenty-seven of these children were born in Australia, 21 of which had defects attributable to congenital rubella. The estimated incidence of congenital rubella was 1.2 (95% CI 00.8-1.7) per 100,000 live births.

HIV infection, AIDS and perinatal exposure to HIV

Ann McDonald, John Kaldor, Michelle Good, John Ziegler

Between January 1997 and December 2001, 97 children with perinatally acquired HIV infection were reported through the APSU (72%), the National HIV/AIDS surveillance program (18%) or both sources (10%). The estimated incidence was 7.8 (95% CI 6.3-9.5) per 100,000 live births.

Table 6. Confirmed cases of communicable diseases reported to the Australian Paediatric Surveillance Unit January to December 2001*

Condition	Current reporting period 2001	Previous reporting period 2000
Acute flaccid paralysis	44	38
Congenital cytomegalovirus	6	10
Congenital rubella	0	0
Perinatal exposure to HIV	24	15
Neonatal herpes simplex virus infection	11	8

* Surveillance data are provisional and subject to revision

Neonatal herpes simplex virus infection

Cheryl Anne Jones, David Isaacs, Peter McIntyre, Tony Cunningham, Suzanne Garland

There were 43 confirmed cases of neonatal herpes simplex virus infection in infants <28 days of age between January 1997 and December 2001. The estimated incidence was 3.4 (95% CI 2.5-4.6) per 100,000 live births.

Hospitalised pertussis in infancy

Peter McIntyre, Elizabeth Elliott, Anne Morris, Greta Ridley, John Massie, Julie McEniery, Geoff Knight

Between January and December 2001, children <12 months of age admitted to hospital with pertussis were reported to the APSU. There were 140 confirmed cases of hospitalised pertussis in 2001. The estimated incidence was 56/100,000 (95%CI 47-66) per 100,000 live births.

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;26:59.*

HIV and AIDS diagnoses and deaths following AIDS reported for 1 April to 30 June 2002, as reported to 30 September 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 April to 30 June 2002, by sex and State or Territory of diagnosis

	Sex	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Totals for Australia			
										This period 2002	This period 2001	Year to date 2002	Year to date 2001
HIV diagnoses	Female	0	6	1	0	1	0	5	3	16	22	45	47
	Male	1	70	0	27	1	0	42	4	145	155	316	326
	Not reported	0	0	0	0	0	0	0	0	0	1	0	1
	Total[1]	1	76	1	27	2	0	47	7	161	178	364	375
AIDS diagnoses	Female	0	0	0	0	0	0	0	0	0	3	7	7
	Male	0	11	0	4	3	0	7	1	26	36	71	69
	Total[1]	0	11	0	4	3	0	7	1	26	39	79	77
AIDS deaths	Female	0	0	0	0	0	0	0	0	0	1	2	3
	Male	0	8	0	3	0	0	1	0	12	15	25	29
	Total[1]	0	8	0	3	0	0	1	0	12	16	27	32

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 31 March 2002, by sex and State or Territory

	Sex	State or Territory								Australia
		ACT	NSW	NT	QLD	SA	TAS	VIC	WA	
HIV diagnoses	Female	28	685	12	185	77	5	264	142	**1,398**
	Male	233	11,728	113	2,201	739	84	4,302	994	**20,394**
	Not reported	0	237	0	0	0	0	24	0	**261**
	Total[1]	261	12,675	125	2,393	816	89	4,606	1,142	**22,107**
AIDS diagnoses	Female	9	208	0	53	29	3	81	31	**414**
	Male	88	4,853	38	900	372	45	1,746	387	**8,429**
	Total[1]	97	5,074	38	955	401	48	1,836	420	**8,869**
AIDS deaths	Female	4	122	0	35	18	2	57	19	**257**
	Male	71	3,356	25	596	244	30	1,319	267	**5,908**
	Total[1]	75	3,487	25	633	262	32	1,383	287	**6,184**

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 age 12 months for the cohort born between 1 April to 30 June 2001; at 24 months of age for the cohort born between 1 April to 30 June 2000; and at 6 years of age for the cohort born between 1 April to 30 June 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, E-mail: brynleyh@chw.edu.au.

Immunisation coverage for 'fully immunised' children at 12 months for Australia has increased from the last quarter by 1.0 percentage point to 91.2 per cent (Table 9). The change in 'fully immunised' coverage varied by state and territory but all jurisdictions experienced an increase in coverage. The Northern Territory (+2.8%) and Western Australia (+1.8%) experienced the greatest increases in coverage. All other states experienced not insignificant increases in coverage over the quarter. Coverage is hovering around the 91 per cent level in almost all jurisdictions with the highest level in Tasmania (92.9%) and the lowest in Western Australia (90.3%). The most dramatic changes in coverage were evident in the Northern Territory where increases of more than 2 per cent occurred for almost all vaccines.The continued increase in coverage at 12 months of age for all jurisdictions and for all vaccines is very encouraging and indicates that coverage has perhaps not reached a plateau as first thought. For the first time, every jurisdiction has coverage greater than 90 per cent for 'fully immunised' and for all individual vaccines. The highest coverage for an individual vaccine at 12 months of age is for hepatitis B vaccine. National coverage for hepatitis B is almost 95 per cent and five jurisdictions have reached over 95 per cent coverage — New South Wales (95.2%), the Northern Territory (96.9%), Queensland (95.1%), South Australia (95.2%) and Tasmania (96.4%).

Coverage measured by 'fully immunised' at 24 months for Australia increased from the last quarter by 0.7 percentage points to 88.8 per cent (Table 10). Coverage increased from the previous quarter in all jurisdictions except for New South Wales and the Australian Capital Territory with the greatest increases in the Northern Territory (+2.2%) and Western Australia (+2.1%). However, only two jurisdictions

(Tasmania and South Australia) have achieved greater than 90 per cent coverage for 'fully immunised' at 24 months of age. Coverage for individual vaccines by 24 months for Australia, however, is much greater. Coverage for OPV is 94.7 per cent and 94.3 per cent for Hib suggesting that at least part of the lower figure for fully immunised may relate to data issues. At the jurisdiction level, the most important changes in coverage occurred for the Hib vaccine. There were decreases in Hib coverage at 24 months of age in all jurisdictions. The decreases were not dramatic with the greatest decrease in the Australian Capital Territory (-1.9%), but are of concern as they were universal.

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

Vaccine	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Australia
Number of children	953	21,034	913	12,716	4,293	1,385	14,799	5,993	**62,086**
Diphtheria, tetanus, pertussis (%)	92.3	92.3	92.4	92.6	92.8	93.4	92.7	91.8	**92.5**
Poliomyelitis (%)	92.4	92.2	92.1	92.4	92.8	93.3	92.7	91.6	**92.4**
Haemophilus influenzae type b (%)	94.2	94.4	96.8	94.7	95.0	96.4	94.9	94.5	**94.7**
Hepatitis B (%)	94.5	95.2	96.9	95.1	95.2	96.4	94.4	94.0	**94.9**
Fully immunised (%)	90.8	91.0	91.3	91.4	91.8	92.9	91.3	90.3	**91.2**
Change in fully immunised since last quarter (%)	-1.0	+1.1	+2.7	+0.8	+0.9	+1.2	+0.6	+1.8	**+1.0**

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

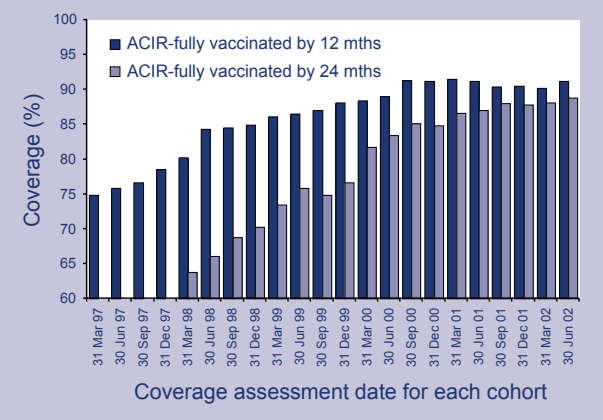
Vaccine	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Australia
Number of children	1,114	21,839	905	12,417	4,461	1,473	15,264	6,168	**63,641**
Diphtheria, tetanus, pertussis (%)	89.4	90.1	88.2	91.9	91.4	93.7	91.6	89.5	**90.9**
Poliomyelitis (%)	93.1	94.1	96.1	94.7	95.5	96.1	95.5	94.1	**94.7**
Haemophilus influenzae type b (%)	92.8	94.0	94.8	94.5	95.0	95.5	94.7	93.2	**94.3**
Measles, mumps, rubella (%)	91.6	93.1	95.6	94.2	94.8	95.2	94.2	93.3	**93.8**
Hepatitis B (%)	-	-	-	-	-	-	-	-	**-**
Fully immunised (%)[2]	87.2	87.7	87.4	89.9	90.0	92.8	89.5	87.1	**88.8**
Change in fully immunised since last quarter (%)	-1.3	+0.8	+1.5	+1.1	+2.5	+3.2	+0.7	+0.8	**+1.0**

1. The 12 months age data for this cohort were published in *Commun Dis Intell* 2001;25:307.
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 shows immunisation coverage estimates for individual vaccines and for 'fully immunised' children at 6 years of age for Australia and by state or territory. These are the second 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 0.8 percentage points to 81.4 per cent. The greatest increases in coverage occurred in the Northern Territory (+11.3%) and Tasmania (+4.8%) whilst two jurisdictions experienced small decreases in 'fully immunised' coverage for this age group, Queensland (-0.5%) and South Australia (-0.1%). National coverage by individual vaccine also increased from the last quarter for all vaccines for this age group but there were wide variations in the changes in coverage by jurisdiction. Both the Northern Territory and Tasmania experienced large increases in coverage for DTP, OPV and MMR coverage at 6 years of age, whilst coverage for these three vaccines decreased in Queensland and South Australia. The recent report published by NCIRS shows that true levels of coverage at 6 years of age are actually higher than reported here as late immunisation is still common (NCIRS, 2001).

Figure 12 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 and 24 months. However, the rate of increase in coverage is slowing with the curve beginning to flatten out and turn downward slightly for estimates at 12 months of age.

Figure 12. Trends in vaccination coverage, Australia, 1997 to 2002, by age cohorts



Reference

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

Acknowledgement: The Table figures were provided by the Health Insurance Commission (HIC), 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 HIC: Telephone: +61 2 6124 6607.

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

Vaccine	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Australia
Number of children	1,023	22,081	15,740	13,011	4,758	6,759	1,549	822	**65,743**
Diphtheria, tetanus, pertussis (%)	85.5	83.4	85.8	83.9	84.5	81.8	85.9	85.2	**84.1**
Poliomyelitis (%)	85.4	83.4	86.3	84.4	84.8	82.1	86.1	86.7	**84.4**
Haemophilus influenzae type b (%)	–	–	–	–	–	–	–	–	**–**
Measles, mumps, rubella (%)	84.4	81.0	86.0	83.6	83.0	81.5	85.2	85.9	**83.1**
Hepatitis B(%)	–	–	–	–	–	–	–	–	**–**
Fully immunised (%)[1]	83.5	79.1	84.4	82.1	81.7	79.3	84.5	83.3	**81.4**
Change in fully immunised since last quarter (%)	+2.2	+0.8	+11.3	-0.5	-0.1	+4.8	+1.1	+1.0	**+0.8**

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.

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. For further information please contact NEPSS at the above address or on Telephone: +61 3 8344 5701, Facsimile: +61 3 9625 2689.

Reports to the National Enteric Pathogens Surveillance System of Salmonella infection for the period 1 July to 30 September 2002 are summarised in Tables 12 and 13. Data include cases reported and entered by 20 October 2002. Counts are preliminary, and subject to adjustment after completion of typing and reporting of further cases to NEPSS.

1 July to 30 September 2002

The total number of reports to NEPSS of human *Salmonella* infection fell to 1,035 in the third quarter of 2002, 43 per cent less than the second quarter of 2002. This third quarter nadir is typical of the seasonal variation seen in human salmonellosis in Australia.

During the third quarter of 2002, the 25 most common *Salmonella* types in Australia accounted for 620 (60 percent) of all reported human infections.

S. Typhimurium phage type 135, *S.* Typhimurium phage type 9, *S.* Saintpaul, *S.* Typhimurium phage type 170, and *S.* Typhimurium phage type 126 were the most common salmonellae in both the second and third quarters of 2002, although the counts of all 5 serovars and phage types fell in the third quarter.

The most notable increase in reports was for was *S.* Enteritidis phage type 4b. This phage type was first reported to NEPSS in 2001, and infections are typically associated with travel to Bali.

In contrast, *S.* Virchow phage type 8, *S.* Bovismorbificans phage type 24, and *S.* Typhimurium phage type 8 were common in the second quarter, but rare in the third quarter.

We thank contributing laboratories, scientists, 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. For further information please contact NEPSS at the above address or on Telephone: +61 3 8344 5701, Facsimile: +61 3 9625 2689.

Table 11. Reports to the National Enteric Pathogens Surveillance System of *Salmonella* isolated from humans during the period 1 July to 30 September 2002, as reported to 20 October 2002

Vaccine	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Australia
Total all *Salmonella* for quarter	9	254	32	296	93	19	211	121	**1,035**
Total contributing *Salmonella* types	8	87	22	93	52	12	69	51	**207**

Table 12. Top 25 *Salmonella* types identified in Australian States and Territories, 1 July to 30 September 2002

National rank	*Salmonella* type	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Total 2nd quarter 2002	Last 10 years mean 2nd quarter	Year to date 2002	Year to date 2001	Total 2001
1	*S.* Typhimurium 135	2	28	0	7	4	6	24	11	82	68	531	470	636
2	*S.* Typhimurium 9	0	17	0	9	6	1	19	10	62	74	511	308	399
3	*S.* Saintpaul	0	6	2	32	2	1	10	5	58	40	320	210	289
4	*S.* Typhimurium 170	1	18	0	14	0	1	20	0	54	11	319	63	148
5	*S.* Typhimurium 126	0	3	0	4	6	0	15	6	34	16	177	220	313
6	*S.* Enteritidis 4b	0	12	0	0	0	1	9	11	33	<1	47	3	13
7	*S.* Birkenhead	0	10	0	16	1	0	2	0	29	20	200	180	253
8	*S.* Infantis	0	9	2	4	0	0	4	5	24	18	87	92	123
9	*S.* Chester	0	6	0	7	2	0	1	7	23	20	131	124	166
10	*S.* Typhimurium 197	1	12	0	6	0	0	4	0	23	<1	47	5	8
11	*S.* Hvittingfoss	0	3	0	7	0	0	9	1	20	6	133	64	89
12	*S.* Typhimurium U290	0	4	1	1	0	0	12	2	20	<1	76	8	26
13	*S.* Virchow 8	0	3	0	16	0	0	0	0	19	13	249	188	245
14	*S.* Aberdeen	0	0	0	16	0	1	1	0	18	10	118	73	88
15	*S.* Muenchen	0	2	2	2	3	2	3	0	14	16	103	98	125
16	*S.* Anatum	0	3	2	5	0	0	1	3	14	12	66	52	58
17	*S.* Agona	1	5	2	1	1	1	2	0	13	15	66	37	56
18	*S.* Havana	0	1	0	3	5	0	0	3	12	10	30	34	46
19	*S.* Singapore	0	5	0	5	0	0	1	0	11	8	46	41	64
20	*S.* Enteritidis 26	0	3	0	5	0	0	3	0	11	4	36	11	24
21	*S.* Waycross	0	4	0	6	0	0	0	0	10	8	85	40	54
22	*S.* Stanley	1	1	0	3	1	0	2	2	10	12	42	80	107
23	*S.* Typhimurium 141	0	2	0	1	2	0	0	4	9	6	24	25	27
24	*S.* Enteritidis 6a	0	3	0	0	1	0	3	2	9	2	22	19	34
25	*S.* Mgulani	0	1	0	7	0	0	0	0	8	4	57	37	66