

INFECTIOUS DISEASES

TABLE 4

**INFECTIOUS DISEASE
NOTIFICATIONS, NSW**
Notifications to the end of October, 1991

CONDITION	Number of Cases Notified			
	Period		Cumulative	
	October 1990	October 1991	October 1990	October 1991
AIDS	*40	*14	*285	*214
Arboviral Infection	3	2	253	525
Brucellosis	—	—	5	2
Cholera	—	—	—	—
Diphtheria	—	—	—	—
Foodborne illness (NOS)	291	61	2240	2507
Gastroenteritis (instit.)	N/A	—	N/A	35
Gonorrhoea	29	12	314	311
H influenzae epiglottitis	N/A	—	N/A	13
H influenzae infection (NOS)	—	4	10	104
H influenzae B — meningitis	—	8	10	44
H influenzae B — septicaemia	—	1	2	8
Hepatitis, acute viral (NOS)	—	—	2	262
Hepatitis A	3	59	25	800
Hepatitis B — acute	—	—	6	17
Hepatitis B — carrier	—	—	—	22
Hepatitis B — unspecified	38	15	356	886
Hepatitis C	9	18	29	340
HIV infection	89	15	662	605
Hydatid disease	—	—	2	7
Legionnaires' disease	—	1	23	24
Leprosy	—	—	7	—
Leptospirosis	5	—	37	29
Listeriosis	N/A	—	N/A	6
Malaria	24	2	155	105
Measles	63	—	239	268
Meningococcal infection (NOS)	6	1	57	39
Meningococcal meningitis	—	2	17	37
Meningococcal septicaemia	—	—	5	11
Mumps	N/A	—	N/A	4
Mycobacterial infection (NOS)	34	—	440	120
Mycobacterial tuberculosis	—	4	—	175
Mycobacterial — atypical	—	—	14	48
Pertussis	3	—	129	35
Plague	—	—	—	—
Poliomyelitis	—	—	—	—
Q Fever	14	4	113	173
Rubella	N/A	1	N/A	35
Salmonella infection (NOS)	75	17	1192	972
Syphilis	20	19	291	430
Tetanus	—	—	—	2
Typhoid & paratyphoid	2	2	31	42
Typhus	—	—	—	—
Viral haemorrhagic fevers	—	—	—	—
Yellow fever	—	—	—	—

* Data January-September only
(NOS) Not otherwise specified

NOTIFICATIONS

HUMAN IMMUNODEFICIENCY VIRUS INFECTION

The 8.6 per cent reduction in HIV notifications for the period January to October 1991 compared with the corresponding period in 1990 reflects better matching of duplicate tests by the reference laboratories. In addition, no notifications were received from Royal Prince Alfred Hospital for October.

TABLE 5

**NSW HIV ALL POSITIVE TESTS
TO OCTOBER 31, 1991**

TABLE OF RISK BY GENDER					
RISK Frequency	GENDER				Total
	F	M	T	U	
Drug injector	42	145	0	15	202
Haemophilia	0	61	0	0	61
Heterosexual	69	117	1	3	190
Heterosexual + IDU	14	15	0	1	30
Homo/bisexual + IDU	—	72	0	4	76
Homo/bisexual	—	3787	1	130	3918
Homosexual + trans	—	2	0	0	2
Other	0	1	0	0	1
Specified NEC	10	33	0	17	60
Transfusion	37	45	0	1	83
Transfusion + IDU	1	1	1	0	3
Unknown	222	3606	1	1807	5636
Vertical	7	8	0	4	19
Total	402	7893	4	1982	10,281

TABLE 6

**NSW HIV ALL POSITIVE TESTS
TO OCTOBER 31, 1991**

TABLE OF AGE GROUP BY GENDER					
AGE GROUP Frequency	GENDER				Total
	F	M	T	U	
01 (less than)	5	19	0	1	25
01-04	2	1	0	1	4
05-14	3	31	0	1	35
15-24	74	1045	2	34	1155
25-34	113	2609	0	97	2819
35-44	46	1782	2	60	1890
45-54	16	544	0	14	574
55-64	15	134	0	3	152
65 & over	8	35	0	0	43
Error	1	3	0	0	4
Missing	119	1690	0	1771	3580
Total	402	7893	4	1982	10,281

MENINGOCOCCAL INFECTIONS

Although total notifications for meningococcal infections have increased 14 per cent in the period January to October 1991 over the same period for 1990, notifications for meningococcal meningitis have increased 118 per cent. This is primarily due to change in the classification of cases; many cases which previously would have been reported as meningococcal infection are now classified as meningococcal meningitis. Six PHUs reported cases of meningococcal meningitis in October. No clusters were identified. Active surveillance has been undertaken statewide, similar to the survey undertaken in 1990 (*Public Health Bulletin 1991; 2:8-10*) and will continue in the Central Coast Area.

TETANUS

Two cases of tetanus have been reported in NSW in 1991 (*Public Health Bulletin* 1991; 2:3, 13). They were a 74-year-old female and 49-year-old male.

The 74-year-old woman presented to a local hospital on January 21 with dysphagia, dyspnoea, cyanosis and mild trismus. A provisional diagnosis of tetanus was made, the differential diagnosis being a dystonic reaction to phenothiazines. The source of exposure was not known but thought to be via chronic leg ulcers. A single dose of tetanus toxoid had been given 15 years earlier. The woman was intubated immediately and transferred by air ambulance to a teaching hospital. She was admitted to ICU where she remained for eight weeks and then spent a further nine days in a general ward. She was then transferred to a private hospital where she has remained for nine months' rehabilitation.

The 49-year-old man presented to hospital on May 8 with dysphagia, dyspnoea, bronchospasm and mild trismus. A provisional diagnosis of tetanus was made. There was a history of a dog scratch one week before the date of onset. Previous tetanus immunisation status was unknown. After three days in ICU, ventilation via a tracheostomy was required. He was extubated after five weeks and discharged nine days later (a total of 50 days in hospital). Eight weeks later, at outpatient follow-up, residual mild bilateral arm and leg weakness were noted.

MEASLES

No notifications of measles have been received for the month of October 1991. Cases of measles were reported to the Central & Southern Sydney Public Health Unit in September. The infection was imported from New Zealand. Following the notification of measles in a boy aged 13 years, investigation revealed contact with a 15-year-old male and his 12-year-old sister attending the same school, who had been diagnosed with measles two weeks previously. The index case was identified as the 11-year-old male cousin of these siblings, who had been visiting from New Zealand. New Zealand is currently experiencing a major measles outbreak. Children planning to travel to New Zealand are advised to have their measles immunisation status reviewed.

Three cases of SSPE have been identified at Prince of Wales Hospital in the past two months, in males respectively aged 29 years, 11 years and 8 years. As mentioned in the *Public Health Bulletin* 2;1991:108, SSPE is a late complication of measles.

SYPHILIS

The Orana & Far West Region continues to report the highest notification rate for syphilis in NSW. Compared with the overall 1991 NSW rate of 9.1/100,000/year (a 47.7 per cent increase over 1990), the Orana & Far West Region reports a rate of 133.4/100,000/year. It is expected that reporting of STDs from Orana & Far West will improve further with the commencement of diagnostic and treatment services being offered to regional communities by the Sexual Health Service based in Dubbo on an outreach basis, the likely recruitment of extra staff for STD services, and the start of a STD risk factor prevalence study in the new year.

ARBOVIRAL INFECTION

For the period January to October 1991, 525 notifications of arboviral disease were received. Ross River disease (epidemic polyarthritis) accounted for 379 (72 per cent) of these; 240 Ross River notifications were laboratory confirmed. One Dengue and three Barmah Forest cases were also confirmed. The remaining 142 notified arboviral disease cases were unspecified.

The two notifications of arboviral infection in October 1991 were late notifications from the Orana & Far West Region. At the time of writing, no notifications had been received for the 1991-92 arboviral season.

LEGIONNAIRES' DISEASE

Two Public Health Units have been involved in investigations of legionnaires' disease. Inquiries of different cases have implicated cruise ship travel (*L pneumophila* type 4) and potting mix (*L longbeachae*). Neither investigation was conclusive, but PHUs are requested to ask specifically about these environmental exposures when investigating cases of legionnaires' disease.

INFECTIOUS DISEASES NOTIFICATIONS 1985-1990

Summary data on 22 notifiable conditions for the years 1985-90 are given in Table 7. Notification processes have changed markedly since 1989, and apparent trends revealed by the data must be interpreted with great caution.

TABLE 7

INFECTIOUS DISEASES IN NSW
NUMBER OF CASES NOTIFIED 1985 TO 1990

Disease	1985	1986	1987	1988	1989	1990
AIDS	81	157	245	289	265	318
Arboviral infection	76	231	84	136	389	289
Cholera	—	—	1	1	—	1
Gonorrhoea	1855	1399	875	746	603	403
Hepatitis A	200	280	180	89	63	36
Hepatitis B	548	529	417	388	465	426
Hepatitis C	N/A	N/A	N/A	N/A	N/A	41
Hepatitis unspecified	68	74	43	15	21	13
HIV infection	2417	1855	2001	1108	848	659
Legionnaires' disease	16	25	82	26	52	27
Leprosy	16	13	10	7	12	7
Leptospirosis	43	23	19	36	58	49
Malaria	132	179	89	84	91	193
Measles	46	140	246	43	76	388
Meningococcal infection	21	12	23	18	58	84
Pertussis	303	227	43	25	202	149
Polio myelitis	—	—	—	—	—	—
Q. Fever	33	95	150	232	138	156
Salmonella infection	1002	831	835	1048	1333	1486
Syphilis	1560	1450	1271	1158	315	333
Tuberculosis	387	360	402	406	515	584
Typhoid & paratyphoid	23	26	38	25	19	44

TABLE 8

INFECTIOUS DISEASE NOTIFICATIONS
BY HEALTH AREA AND REGION
For October, 1991

CONDITION	CSA	SSA	ESA	SWS	WSA	WEN	NSA	CCA	ILL	NCR	NER	OFR	CWR	SWR	SER	U/K	TOTAL
Arboviral infection (NOS)	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	2
Foodborne illness (NOS)	-	8	9	3	4	8	-	2	-	3	5	7	-	12	-	-	61
Gonorrhoea	2	1	5	-	2	-	-	-	-	-	2	-	-	-	-	-	12
H. influenzae meningitis	-	-	-	1	-	-	1	-	1	-	-	-	2	-	1	-	8
H. influenzae septicaemia	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1
H. influenzae infection (NOS)	1	-	2	-	-	-	-	-	-	-	-	-	-	1	-	-	4
Hepatitis A	8	2	24	-	6	-	11	6	-	-	1	-	-	-	1	-	59
Hepatitis B — Unspecified	1	-	1	1	7	2	2	-	-	-	1	-	-	-	-	-	15
Hepatitis C	2	-	-	6	1	-	5	4	-	-	-	-	-	-	-	-	18
HIV infection	-	-	3	1	-	-	1	-	-	-	-	-	-	-	-	10	15
Legionnaires' disease	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1
Malaria	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	2
Meningococcal meningitis	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	2
Meningococcal infection (NOS)	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1
Mycobacterial tuberculosis	-	-	1	2	1	-	-	-	-	-	-	-	-	-	-	-	4
Q fever	-	-	-	-	-	-	-	-	-	-	2	2	-	-	-	-	4
Rubella	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Salmonella infection (NOS)	2	-	1	-	10	2	1	-	1	-	-	-	-	-	-	-	17
Syphilis	3	3	-	-	5	1	1	-	-	-	3	3	-	-	-	-	19
Typhoid & paratyphoid	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2

TABLE 9

INFECTIOUS DISEASE NOTIFICATIONS
BY HEALTH AREA AND REGION
For January 1 to October 31, 1991

CONDITION	CSA	SSA	ESA	SWS	WSA	WEN	NSA	CCA	ILL	HUN	NCR	NER	OFR	CWR	SWR	SER	OTH	U/K	TOTAL
AIDS	33	8	97	4	17	9	19	6	3	6	9	-	-	1	-	-	-	2	214
Arboviral infection (NOS)	1	-	9	-	1	-	4	-	1	10	27	212	209	4	35	5	7	-	525
Brucellosis	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Foodborne illness (NOS)	187	346	592	157	234	147	1	37	17	99	302	138	96	25	110	2	17	-	2507
Gastroenteritis (instit.)	-	-	5	10	6	4	2	-	-	-	-	7	1	-	-	-	-	-	35
Gonorrhoea	28	8	128	32	19	1	6	1	11	4	16	6	37	3	8	2	1	-	311
H. influenzae epiglottitis	1	-	-	3	3	1	2	-	-	-	-	-	-	1	-	2	-	-	13
H. influenzae meningitis	2	3	-	9	2	1	8	-	2	9	-	2	-	2	2	2	-	-	44
H. influenzae septicaemia	-	2	-	1	-	1	3	-	-	1	-	-	-	-	-	-	-	-	8
H. influenzae infection (NOS)	13	19	11	5	11	11	1	3	9	2	-	1	5	2	10	1	-	-	104
Hepatitis A	96	40	421	29	26	1	115	10	4	17	10	12	5	-	2	11	1	-	800
Hepatitis B — Acute	11	4	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	17
Hepatitis B — Carrier	9	11	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	22
Hepatitis B — Unspecified	119	74	77	194	114	12	97	-	5	34	40	41	46	1	3	28	2	-	887
Hepatitis C	100	45	1	24	24	3	52	6	4	29	30	16	-	2	2	1	1	-	340
Hepatitis, acute viral (NOS)	-	-	-	5	192	11	1	3	8	2	-	1	26	-	6	7	-	-	262
HIV infection	36	14	139	17	22	10	34	5	2	14	8	1	2	2	1	2	6	290	605
Hydatid disease	3	1	1	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	7
Legionnaires' disease	-	-	-	5	7	3	4	-	-	2	1	-	-	-	1	-	1	-	24
Leptospirosis	1	-	-	-	-	-	-	-	-	9	3	4	5	-	4	-	3	-	29
Listeria	2	1	-	-	-	-	2	-	-	1	-	-	-	-	-	-	-	-	6
Malaria	7	5	6	4	10	3	44	3	4	5	3	3	-	-	4	3	1	-	105
Measles	66	6	12	14	20	5	31	9	10	62	17	2	4	-	1	9	-	-	268
Meningococcal meningitis	2	3	-	11	1	-	1	1	1	7	1	4	2	2	-	1	-	-	37
Meningococcal septicaemia	1	1	-	-	1	-	-	1	-	-	4	2	-	-	-	1	-	-	11
Meningococcal infection (NOS)	-	-	6	3	3	1	4	4	5	-	2	6	1	1	2	1	-	-	39
Mumps	-	-	-	-	2	-	1	-	-	-	-	-	-	-	1	-	-	-	4
Mycobacterial atypical	23	22	-	-	1	-	-	-	-	-	-	-	-	-	-	-	2	-	48
Mycobacterial tuberculosis	26	19	46	30	12	1	7	2	8	15	6	-	1	-	-	1	1	-	175
Mycobacterial infection (NOS)	-	-	-	1	29	8	47	1	14	-	3	6	1	4	3	3	-	-	120
Pertussis	-	2	5	4	4	1	1	-	-	1	3	2	8	-	3	1	-	-	35
Q Fever	-	1	-	1	1	-	-	-	-	5	19	52	87	3	3	1	-	-	173
Rubella	1	2	10	-	8	1	6	1	1	1	2	-	-	-	2	-	-	-	35
Salmonella infection (NOS)	71	102	80	129	137	65	73	1	42	17	63	62	60	19	22	11	18	-	972
Syphilis	41	16	38	55	35	8	28	-	6	16	64	21	80	3	15	1	3	-	430
Tetanus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	2
Typhoid & paratyphoid	10	6	12	-	2	-	2	-	1	3	-	5	-	-	-	-	1	-	42

Abbreviations used in this Bulletin:

CSA Central Sydney Health Area, SSA Southern Sydney Health Area, ESA Eastern Sydney Health Area, SWS South Western Sydney Health Area, WSA Western Sydney Health Area, WEN Wentworth Health Area, NSA Northern Sydney Health Area, CCA Central Coast Health Area, ILL Illawarra Health Area, HUN Hunter Health Area, NCR North Coast Health Region, NER New England Health Region, OFR Orana & Far West Health Region, CWR Central West Health Region, SWR South West Health Region, SER South East Health Region, OTH Interstate/Overseas, U/K Unknown, NOS Not Otherwise Stated

Please note that the data contained in this Bulletin are provisional and subject to change because of late reports or changes in case classification. Data are tabulated where possible by area of residence and by the disease onset date and not simply the date of notification or receipt of such notification.

QUALITY OF NOTIFICATION DATA

An assessment of the completeness of notification has been undertaken. Four data fields were examined: age, sex, disease name and occupation/school attended. These variables were chosen for the following reasons: age and sex are basic epidemiological variables; disease name is obviously essential, and only the nominated notifiable diseases were included in the assessment; and occupation (or school attended) is the only risk factor presently requested in routine notifications. The completeness of notification varies considerably among Areas and Regions (Table 10). Notifiers are urged to improve the completeness of the data supplied to Public Health Units, and PHUs are encouraged to seek missing data.

Efforts are being made to increase the quality of data entered onto the Infectious Diseases Database System.

TABLE 10

PERCENTAGE OF DATA ENTERED IN A SAMPLE OF FIELDS ON THE INFECTIOUS DISEASES DATABASE, BY AREA/REGION, OCTOBER 1991.

	Age	Sex	Disease name	Occupation School attended
Central Sydney	93.4	96.1	86.8	0
Southern Sydney	93.3	97.3	89.5	0
Eastern Sydney	82.8	88.8	73.8	8.8
South Western Sydney	89.3	93.6	88.3	74.6
Western Sydney	85.7	89.4	98.1	0.4
Wentworth	94.8	97.3	97.3	0.3
Northern Sydney	86.6	96.3	100	4.2
Central Coast	94.2	95.8	87.4	15.7
Illawarra	86.8	98.1	48.6	8.2
Hunter	95.6	98.9	79.3	13.4
North Coast	94.5	92.1	90.1	25.6
New England	95.7	92.1	90.1	25.6
Orana & Far West	92.5	98.8	88.2	17.1
Central West	52	56	96	13.3
South West	97.5	99.3	84.5	0.4
South East	96.1	99.0	98.1	63.1

HEPATITIS B VACCINE

Hepatitis B vaccine is available free of charge to neonates at high risk of hepatitis B acquisition as defined in NSW Health Department Circular 91/105; siblings (up to the age of five years) of neonates at high risk of acquiring hepatitis B; and household contacts of a hepatitis B carrier.

Long-term immunity will occur in about 95 per cent of hepatitis B vaccine recipients but only if the vaccination course is completed. The second dose should be given at 1-2 months and the third dose at 6 months.

Hospitals, local government council clinics, medical practitioners and community health centres may order hepatitis B vaccine from the State Vaccine Centre, Canterbury Hospital (ph: (02) 718 4171)

INFECTIOUS DISEASE DATASETS AVAILABLE

The infectious diseases datasets for 1989 and 1990 are available for analysis. Any researchers interested in obtaining access to the data should submit a detailed study protocol to the Chief Health Officer.

CHANGING SUSCEPTIBILITY TO PENICILLINS OF *N. GONORRHOEAE*

The antibiotic susceptibility of gonococci in Sydney (and other parts of Australia) has been continuously monitored for more than a decade and many changes in the prevailing patterns of gonococcal sensitivity to antibiotics have been noted. Dr J.W. Tapsall, of the Microbiology Department, Prince of Wales Hospital, says that recently there has been a significant decline in the number of penicillinase-producing *N. gonorrhoeae* (PPNG) isolated in Sydney. The current pattern (see Table 11) shows that PPNG now represent 6 per cent of isolates in Sydney, whereas they accounted for more than 40 per cent of local strains several years ago. Also of interest is the increasing proportion of strains fully sensitive to the penicillins. However, strains relatively resistant to penicillin by mechanisms other than penicillinase production are also numerous.

The reasons for the change in antibiotic sensitivity in gonococci are complex, and are by no means solely influenced by antibiotic usage. Other factors include changes in outer membrane porin proteins as part of the organism's response to developing host resistance and changes in plasmid distribution and type. Other extrinsic factors would also appear to be operating, including a decreased number of imported PPNG infections and administrative removal of foci of transmission. (These data are gathered through the cooperation of many private and public sector pathology laboratories who submit isolates of gonococci for examination.)

TABLE 11

PENICILLIN SENSITIVITY OF SYDNEY ISOLATES TO JUNE 30, 1991

		Category %			
		Less Sensitive	Rel Resistant	PPNG	
Period	No.	Sensitive			
January-March	155	17.5	56	15.5	11
April-June	115	22.6	62.7	8.7	6
Sensitive MIC < , = 0.03mg/L					
Less sensitive MIC 0.06-0.5mg/L					
Relatively resistant MIC > , = 1.0mg/L					
PPNG, penicillinase-producing <i>N. gonorrhoeae</i>					

PUBLIC HEALTH BULLETIN EDITORIAL STAFF

The Bulletin's editorial advisory panel is as follows:

Dr Sue Morey, Chief Health Officer, NSW Health Department; Professor Stephen Leeder, Professor of Community Medicine, University of Sydney; Professor Geoffrey Berry, Professor of Epidemiology & Biostatistics, University of Sydney; Dr Christine Bennett, Associate Director, Services Planning, Service & Capital Planning Branch, NSW Health Department; Dr Michael Frommer, Epidemiologist, Epidemiology & Health Services Evaluation Branch; Jane Hall, Director, NSW Centre for Health Economics, Research and Evaluation, Department of Community Medicine, Westmead Hospital; and Michael Ward, Manager, Health Promotion Unit, NSW Health Department.

The editor is Dr George Rubin, Director, Epidemiology & Health Services Evaluation Branch, NSW Health Department. Please send your articles, news, comments or letters to him at Locked Bag 961, North Sydney NSW 2059 or fax (02) 391 9232. Suggestions for improving the content of the Bulletin are welcome.

Design — Health Public Affairs Unit, NSW Health Department.