NFECTIOUS DISEASE



TABLE 1

INFECTIOUS DISEASE NOTIFICATIONS FOR NSW, 1995 BY SELECTED MONTH OF ONSET RECEIVED BY AUGUST 31, 1995

Condition	May	Jun	Jul	Aug	Total
Adverse event after					
immunisation	4	4	3	1	12
AIDS	32	28	12	3	75
Arboviral infection	80	24	12	9	125
Brucellosis	1	-	-	-	1
Cholera	-	-	1	-	1
Foodborne illness (NOS)	6	9	12	4	31
Gastroenteritis (instit)	37	12	184	147	380
Gonorrhoea infection	42	32	12	11	97
H. influenzae meningitis	-	2	2	-	4
H. influenzae septicaemia	1	-	-	1	2
Hepatitis A – acute viral	51	32	16	9	108
Hepatitis B – acute viral	5	5	3	-	13
Hepatitis B – chronic/carrier	55	47	26	13	141
Hepatitis B – unspecified	411	369	235	103	1,118
Hepatitis C – acute viral	13	7	4	1	25
Hepatitis C – unspecified	817	689	441	172	2,119
Hepatitis D – unspecified	1	2	-	-	3
Hepatitis, acute viral (NOS)	-	-	1	-	1
HIV infection	47	32	32	27	138
Hydatid disease	-	5	1	-	6
Legionnaires' disease	7	6	5	2	20
Leptospirosis	-	-	1	-	1
Malaria	17	1	3	1	22
Measles	62	42	28	36	168
Meningococcal infection (NOS)	1	-	-	-	1
Meningococcal meningitis	4	12	10	6	32
Meningococcal septicaemia	1	3	2	3	9
Mumps	1	2	2	1	6
Mycobacterial atypical	25	13	-	-	38
Mycobacterial infection (NOS)	18	15	10	3	46
Mycobacterial tuberculosis	29	21	14	11	75
Pertussis	145	122	102	49	408
Q fever	15	18	15	5	53
Rubella	49	35	55	58	197
Salmonella (NOS)	104	48	61	22	235
Syphilis infection	93	60	62	24	239
Tuberculosis – non-active	7	11	5	5	28
Typhoid and paratyphoid	1	-	1	-	2

NOTIFICATION TRENDS

Figure 1 shows that there were relatively high levels of notifications in July 1995 for gastroenteritis, pertussis and rubella.

The pattern of gastroenteritis notifications was discussed in the August issue of the *NSW Public Health Bulletin*. Notifications have continued at a high level, with 147 in August, all from the Northern Sydney, Western Sydney and Wentworth Areas. In addition, the Hunter Area Public Health Unit advised that several diagnoses of Norwalk virus were made from an outbreak in a hospital ward.

Rubella and pertussis notifications are discussed below.

Table 1 shows that notifications of meningococcal meningitis have increased in recent months, with four cases in May 1995, 12 in June, 10 in July and six in August. The cases were sporadic and the notifications came from almost all Public Health Units (PHUs). This reflects a typical seasonal pattern of meningococcal disease, with higher levels in spring and late winter.

Measles notifications in July 1995 were below the historical average (Figure 1). However, Table 2 shows that cumulative notifications have been higher for 1995 than for the same period in 1994. Measles notifications peak each year during spring and therefore notifications for the year until August reflect only the period of low activity. Measles notifications so far this year have been a mixture of sporadic cases and small local outbreaks.

INCREASE IN RUBELLA NOTIFICATIONS

Several PHUs have reported high rubella notification rates in recent months. The highest notification rate was from the North Coast (PHU), with 22.6/100,000 so far this year, followed by Hunter Area PHU with 11.8/100,000. The overall Statewide rate was 5.4/100,000. Rubella notifications usually peak in late spring in NSW. Figure 2 shows that notifications for August this year were the second highest recorded for the month of August since laboratory notification began late in 1991. So far this year 332 cases have been notified, compared with 232 for the whole of 1994.

Rubella is a mild febrile viral disease with a diffuse rash sometimes resembling that of measles or scarlet fever. It is highly infectious, and is transmitted by nasopharyngeal secretions, either via droplets or direct contact. Children usually present few or no constitutional symptoms but adults may have a low-grade fever, headache, tiredness, nasal discharge and conjunctivitis. Up to half of infections occur without a rash.

Rubella is notifiable by laboratories, but not doctors or hospitals. School principals and directors of child care centres are required to inform their local PHU if they become aware of cases in their institutions. As the clinical symptoms are non-specific, laboratory confirmation is required for a notification. Since a laboratory test would be requested only in a minority of cases of rubella, only a small proportion of cases is notified.

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TABLE 2

SUMMARY OF NSW INFECTIOUS DISEASE NOTIFICATIONS AUGUST 1995

Condition	Number of cases notified Period Cumulative								
	August 1994	August 1995	August 1994	August 1995					
Adverse reaction	4	1	29	21					
AIDS	47	1	362	185					
Arboviral infection	5	9	355	475					
Brucellosis	2	-	2	1					
Cholera	-	-	-	1					
Diphtheria	-	-	-	-					
Foodborne illness (NOS)	4	4	139	293					
Gastroenteritis (instit.)	39	147	200	430					
Gonorrhoea	33	11	251	241					
H influenzae epiglottitis	-	-	18	3					
H influenzae B – meningitis	2	-	12	7					
H influenzae B – septicaemia	1	1	10	5					
H influenzae infection (NOS)	-	-	8	2					
Hepatitis A	44	9	375	333					
Hepatitis B	415	116	2,976	2,954					
Hepatitis C	909	173	6,119	5,092					
Hepatitis D	-	-	14	11					
Hepatitis, acute viral (NOS)	-	-	2	1					
HIV infection	37	27	303	320					
Hydatid disease	2	-	12	10					
Legionnaires' disease	4	2	50	56					
Leprosy	1	-	3	1					
Leptospirosis	2	-	13	4					
Listeriosis	1	-	5	/					
ivialaria	1/	20	145	124					
Ivieasies	40	30	387	424					
Maningococcal meningitis	10	0	24	40					
Maningococcal septicaemia	2	5	25	10					
Mumps	2	-	10	10					
Musebasterial tubersulesis	1	11	202	211					
Mycobacterial uberculosis	20	11	205	211					
Mycobacterial infection (NOS)	55	3	26	67					
Portussis	178	10	0.91	700					
Plaque	120	45	301	700					
Poliomvelitis		_	-	_					
O fever	15	5	182	119					
Bubella	12	58	128	332					
Salmonella infection (NOS)	62	22	762	804					
Syphilis	114	24	735	547					
Tetanus			2	_					
Typhoid and paratyphoid	3	-	25	29					
Typhus	-	-							
Viral haemorrhagic fevers	_	-	-	_					
Yellow fever	-	-	-	-					
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Infectious diseases

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Rubella is important because of its ability to produce congenital abnormalities if a pregnant woman is infected at less than 20 weeks gestation. Congenital rubella syndrome may include foetal death, malformations of major organ systems, deafness or mental retardation. Twelve cases of congenital rubella syndrome were reported in Australia in 1994.

The emphasis is therefore on the prevention of congenital rubella. Initially this focused on immunisation of adolescent females with measles-mumps-rubella (MMR) vaccine, through the schoolgirl rubella program. In 1989 a further recommendation for immunisation of all children at 12 months of age was implemented, and from 1995 the schoolgirl immunisation program was extended to include adolescent males. Most cases occur in the unimmunised, notably adolescent and adult males, and children 6-10 years of age. Seventy-four per cent (247) of the 332 notifications received so far in 1995 referred to adolescent or adult males, and 13 per cent (42) to women of child-bearing age.

The pool of unimmunised people has been reduced every year since the introduction of the new immunisation recommendations in 1989 and 1995 mentioned above. This should lead to a progressive reduction in the magnitude of epidemics. The NSW Health Department and several PHUs have recently produced media releases recommending that:

- women who are intending to become pregnant should have their level of immunity checked;
- pregnant women should avoid contact with suspected cases of rubella and seek medical advice if contact occurs;
- people known or suspected of having rubella should avoid school and work, and especially avoid contact with pregnant women, for at least four days after the onset of rash; and
- parents should ensure that their children are immunised with MMR at 12 months of age and again in early adolescence, as recommended by the National Health and Medical Research Council.

PERTUSSIS (WHOOPING COUGH) IN ADULTS

The pertussis notification rate was higher than average for the month of July (Figure 1). The North Coast PHU reported the highest notification rate for the period January 1 to August 31, 1995 (48 cases per 100,000, compared with the Statewide rate of 11/100,000). Forty per cent of 1995 notifications were of people aged 20 years or more, and two of the notifications were of people aged >75 vears. Vaccine efficacy wanes over a few years, so immunised adolescents and adults provide a significant reservoir for pertussis. Pertussis in adults often takes the form of a mild atypical respiratory illness and is therefore often diagnosed late, after other tests have been negative in the face of persisting symptoms. Erythromycin prophylaxis is effective only if given within three weeks of exposure, therefore late diagnosis severely limits the effectiveness of public health follow-up. Doctors are encouraged to consider a diagnosis of pertussis in adults with a persistent cough and to report cases to their local PHU.



INFLUENZA SURVEILLANCE

Influenza-like illness (ILI) activity in August 1995 was lower than during the peaks in June and July (Figure 3). Laboratory reports of influenza A and B persisted at a low level.

The ILI consultation rate reported by NSW General Practitioner Sentinel Network for the fourth week of August was 1.5 per cent. This included data from about 75 doctors and 10,000 consultations a week. The weekly rates decreased from mid-July. ILI rates peaked earlier in 1995 than in 1994. In 1995 the peak rate was 3.9 per cent in the second week of June, while in 1994 it was 3.7 per cent in the second week of August.

Figure 4 shows the school absenteeism rate for the last week of August was relatively low (5.8 per cent). The rate remained stable during August. Reports were received by five PHUs, covering 14 schools with 11,500 pupils.

For August 1995, 30 influenza A and 24 influenza B notifications were made by the serology departments of The Prince of Wales and Westmead hospitals. Virology reports received from the Institute of Clinical Pathology at Westmead, Prince of Wales Hospital, Royal Alexandra Hospital for Children and Liverpool Hospital totalled 4 isolates of influenza A, 14 of influenza B, 111 of respiratory



syncytial virus, 7 of parainfluenza 3, 17 of rhinovirus and 3 of adenovirus. The number of both serology and virology reports was much lower than those for July 1995.

Two PHUs have recently released reports on influenza immunisation.

- A retrospective study of influenza vaccine uptake conducted in 37 nursing homes in Hunter area showed that in 1994, 78 per cent of nursing home residents and 7 per cent of nursing staff had been immunised for influenza. Residents' and nursing staff's opposition to immunisation was the most likely barriers to influenza uptake (M. Rae, personal communication).
- Based on sentinel general practice data, the Illawarra PHU reported that 80 per cent of influenza immunisations in 1994 were given to people aged >65 years and others at high risk. Less than 4 per cent of ILI consultations occurred in this group¹.

1. Lovegrove D. Sentinel reporting on influenza-like illness in the Illawarra, New South Wales. *Communicable Diseases Intelligence* 1995; 19(17):420-2.

PUBLIC HEALTH EDITORIAL STAFF

The editor of the Public Health Bulletin is Dr Michael Frommer, Director, Research and Development, NSW Health Department. Dr Lynne Madden is production manager.

The Bulletin aims to provide its readers with population health data and information to motivate effective public health action. Articles, news and comments should be 1,000 words or less in length and include a summary of the key points to be made in the first paragraph. References should be set out using the Vancouver style, the full text of which can be found in *British Medical Journal* 1988; 296:401-5. Please submit items in hard copy and on diskette, preferably using WordPerfect, to the editor, NSW Public Health Bulletin, Locked Mail Bag 961, North Sydney 2059. Facsimile (02) 391 9029.

Please contact your local Public Health Unit to obtain copies of the NSW Public Health Bulletin.

TABLE 3

INFECTIOUS DISEASE CUMULATIVE NOTIFICATIONS FOR NSW, 1995 **RECEIVED BY AUGUST 31, 1995**

Condition	CCA	CSA	CW	ESA I	HUN	ILL	NC	ND	NSA	SE	SSA	SW	SWS	WEN	WNS	WSA	U/K	Total
AIDS	2	42	-	62	7	1	16	-	24	-	10	-	6	6	-	9	-	185
Arboviral infection	6	4	-	7	10	24	188	42	5	151	3	12	1	2	18	2	-	475
Brucellosis	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Cholera	-	-	-	1	-	-	-	-	-	-		-	-	-	-	-	-	1
Gonorrhoea infection	2	41	6	95	3	9	14	6	12	5	13	-	14	3	9	9	-	241
Hepatitis B – acute viral	-	3	1	9	-	_	3	2	-	1	1	-	3	-	8	4	10	35
Hepatitis B – chronic/carrier	15	-	11	171	-	-	6	10	3	-	10	-	_	6	7	75	-	314
Hepatitis B – unspecified	18	269	8	43	57	60	45	8	369	18	361	14	963	13	5	354	-	2,605
Hepatitis C – acute viral	1	-	1	5	-	-	-	-		1	-	_	-	2	33	1	-	44
Hepatitis C – unspecified	138	495	219	784	293	303	554	130	377	152	308	150	588	93	15	448	-	5,048
Hepatitis D – unspecified	-	-	_	1	-	-	4	1	1	-	1	-	3	-	-	-	-	11
Hepatitis, acute viral (NOS)	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-		-	1
HIV infection	7	54	1	116	10	8	6	-	15	-	15	2	17	6	-	15	6	320
Hydatid disease	-	-	1	1	-	_	1.	-	1	-	-	2	3	-	-	1	-	10
Legionnaires' disease	1	2	-	5	9	5	1	2	8	-	-	-	3	2	1	17	-	56
Leprosy	-	1	-	-	-	-	-	-	—	—	_	-	-	-	-	-	-	1
Leptospirosis	-	-	-	· -	1	-	1	2	-	-	-	1.1	1	-	-	-	-	4
Malaria	3	5	_	7	8	4	8	1	20	1	3	3	4	3	-	10	-	80
Meningococcal infection (NOS)	1	-	-	1	1	-	2	-		-	2	1	1	-	1	-	-	10
Meningococcal meningitis	5	1	4	3	8	3	3	2	6	2	2	-	4	1	-	2	-	46
Meningococcal septicaemia	-	3	-	-	5	-	1	1	2	-	1		2	1	-	-	-	16
Mycobacterial atypical	7	28	-	51	12	6	10	6	28	1	18	3	27	5	6	8	-	21/
Mycobacterial infection (NOS)	3	5	-	-	7	-	4	-	9	-	4	-	26	2	-	7	-	6/
Mycobacterial tuberculosis	3	21	2	13	5	4	3	2	26	1	24	3	51	2	3	48	-	211
Q fever	-	1	7	-	9	2	36	27	-	-	-	1	1		34	1	-	119
Syphilis infection	5	54	9	105	12	10	52	29	24	5	36	3	86	9	74	34	-	547

TABLE 4

VACCINE PREVENTABLE AND RELATED CONDITIONS, CUMULATIVE NOTIFICATIONS FOR NSW, 1995 BY PUBLIC HEALTH UNIT, RECEIVED BY AUGUST 31, 1995

Condition	CCA	CSA	CW	ESA	HUN	ILL	NC	ND	NSA	SE	SSA	SW	SWS	WEN	WNS	WSA	Total
Adverse event after immunisation H. influenzae epiglottitis H. influenzae infection (NOS)		-	1 1	1	1	-	3 1 1	2	=	2	2	5		4	-	2 - -	21 3 2
H. influenzae meningitis H. influenzae septicaemia	2	1	_	_	-	_	3	_	1	-	1	-	1	_	_	2	75
Measles Mumps	13	23	10	53 1	40	53 2	32 2	38	12 1	5	32	9	29	37	Ē	38	424
Pertussis Rubella	22 2	18 7	9 1	21 23	33 62	54 2	204 95	8 25	63 51	17	30 15	35 3	43 16	63	11	69 23	700 332

TABLE 5

FOODBORNE INFECTIOUS DISEASE CUMULATIVE NOTIFICATIONS FOR 1995 BY PUBLIC HEALTH UNIT, RECEIVED BY AUGUST 31, 1995

Condition	CCA	CSA	CW	ESA	HUN	ILL	NC	ND	NSA	SE	SSA	SW	SWS	WEN	WN	WSA	Total
Foodborne illness (NOS)	16	9	-	-	162	-	3	1	4	-	1	8	49		20	20	293
Gastroenteritis (instit)	-	33	-	-	18	-	45	-	109	1	-	-		174	2	48	430
Hepatitis A – acute viral	8	51	32	89	15	7	18	-	31	_	22	10	25	3	3	19	333
Listeriosis	-	1	1	1	-	-	-	1	1	1	-	-	-	-	-	1	7
Salmonella (NOS)	18	41	15	56	59	39	92	53	89	32	71	21	67	37	29	85	804
Typhoid and paratyphoid	-	1	-	8	-	-	3	-	3	-	5		4	1	-	4	29
Vibrio infection (non cholera)	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1

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, NC North Coast Public Health Unit, ND Northern District Public Health Unit, WN Western New South Wales Public Health Unit, CW Central West Public Health Unit, SW South West Public Health Unit, SE South East Public Health Unit, 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.