

INFECTIOUS DISEASES

MEASLES

During the first seven months of 1993 all Area Health Services and Regions except South Eastern Region, representing 97 per cent of the NSW population, have received notifications for measles.

The annual notification rate for the State is 9.3 per 100,000 population. Orana and Far West Region has received notifications at a rate of 40.3 per 100,000 population.

Measles notifications peaked in epiweeks 6 to 10 and again in epiweeks 17 and 18, with a further peak in weeks 23 to 27. Twenty-seven notifications from Western Sydney were received between epiweeks 23 and 27, for a rate of 45.9 per 100,000 population.

Only 15 of 320 notifications (5 per cent) for NSW were laboratory confirmed.

WHOOPIING COUGH

During the first seven months of 1993 all Area Health Services and Regions except South Eastern Region, representing 97 per cent of the NSW population, have received notifications for whooping cough.

The annual notification rate for the State is 6.4 per 100,000 population. Central West Region has received notifications at a rate of 17.3 per 100,000 population. Northern Sydney Area has received notifications at a rate of 10.7 per 100,000 population.

RUBELLA

During 1993 all Area Health Services and Regions with the exception of Orana and Far West, representing 98 per cent of the NSW population, have received notifications for rubella.

Notifications for rubella have continued to decrease since the first four weeks of the year. Forty-one per cent of the year's notifications were for January. The notification rate for the State for 1993 is 4.5 per 100,000 population.

TUBERCULOSIS

An improvement in tuberculosis notifications has occurred following the first meeting of the tuberculosis coordinators last month.

One hundred and twenty-four notifications have been received for the first six months of the year, for a rate of 1.05 per 100,000 population. There would still be substantial delayed reporting for tuberculosis due to prolonged laboratory procedures in confirming cases. Public Health Units and Chest Clinic staff are encouraged to register provisional notifications of tuberculosis. The Hunter Area Health Service has received notifications at a rate of 1.2 per 100,000 population.

LEGIONNAIRES' DISEASE

A total of 38 notifications for Legionnaires' disease has been received for 1993, for a rate of 1.1 notifications per 100,000 population. This compares with a rate of 2.4 notifications per 100,000 population for the same period in 1992.

FOOT LACERATION LEADS TO TETANUS

A 61-year-old male presented to the Emergency Department of Sutherland Hospital on May 21 with an infected laceration of his left foot. The laceration had been infected two weeks previously (on May 6) by a gardening tool. The man had been treated at Sutherland Hospital Accident and Emergency Department that day, and the wound had been toileted and sutured and tetanus toxoid administered. On examination on May 21, he was found to have dysphagia, difficulty opening his mouth (lockjaw), painful lower back muscles and a history of fever and sweats for the past two days, although he was afebrile at examination. A diagnosis of tetanus was made and was subsequently confirmed by a positive wound culture for *Clostridium tetani*.

TABLE 4

SUMMARY OF NSW INFECTIOUS DISEASE NOTIFICATIONS
JULY 1993

Condition	Number of cases notified			
	Period		Cumulative	
	July 1992	July 1993	July 1992	July 1993
Adverse reaction	—	—	24	16
AIDS	20	4	199	131
Arboviral infection	11	—	305	565
Brucellosis	—	—	1	2
Cholera	—	—	—	—
Diphtheria	—	—	—	—
Foodborne illness (NOS)	8	1	138	83
Gastroenteritis (instit.)	40	—	212	186
Gonorrhoea	55	1	179	185
H influenzae epiglottitis	4	—	28	24
H influenzae B - meningitis	9	4	62	36
H influenzae B - septicaemia	6	1	20	15
H influenzae infection (NOS)	2	—	17	6
Hepatitis A	65	8	664	327
Hepatitis B	293	31	1944	1696
Hepatitis C	406	47	2401	2482
Hepatitis D	—	—	5	5
Hepatitis, acute viral (NOS)	1	2	12	6
HIV infection	62	29	463	321
Hydatid disease	—	—	5	1
Legionnaires' disease	8	—	80	38
Leprosy	—	—	4	—
Leptospirosis	1	—	16	10
Listeriosis	—	1	8	6
Malaria*	13	16	94	142
Measles	23	22	240	320
Meningococcal meningitis	17	1	38	24
Meningococcal septicaemia	2	2	6	16
Meningococcal infection (NOS)	2	—	6	6
Mumps	1	—	17	1
Mycobacterial tuberculosis	20	2	271	124
Mycobacterial - atypical	25	—	267	119
Mycobacterial infection (NOS)	—	—	22	38
Pertussis	13	2	85	220
Plague	—	—	—	—
Poliomyelitis	—	—	—	—
Q fever	21	1	113	170
Rubella	5	1	34	155
Salmonella infection (NOS)	51	1	575	522
Syphilis	101	7	599	325
Tetanus	—	—	1	3
Typhoid and paratyphoid	5	—	22	13
Typhus	—	—	—	—
Viral haemorrhagic fevers	—	—	—	—
Yellow fever	—	—	—	—

* from Malaria Register

TABLE 5

**INFECTIOUS DISEASE NOTIFICATIONS
BY SELECTED MONTH OF ONSET FOR 1993**

Condition	Month			
	Apr	May	Jun	Total
Adverse event after immunisation	5	1	4	10
AIDS	13	16	8	37
Arboviral infection	59	26	17	102
Brucellosis	1	1	—	2
Foodborne illness (NOS)	18	19	12	49
Gastroenteritis (instit.)	—	64	83	147
Gonorrhoea	42	24	16	82
H influenzae epiglottitis	4	6	5	15
H influenzae meningitis	9	4	3	16
H influenzae septicaemia	3	3	1	7
Hepatitis A – acute viral	47	66	33	146
Hepatitis B – acute viral	6	9	1	16
Hepatitis B – unspecified	254	279	249	782
Hepatitis C – acute viral	2	—	1	3
Hepatitis C – unspecified	396	440	402	1238
Hepatitis D – unspecified	2	1	1	4
Hepatitis, acute viral (NOS)	1	1	1	3
HIV infection	46	70	50	166
Hydatid disease	—	—	1	1
Legionnaires' disease	13	6	1	20
Leptospirosis	1	1	—	2
Listeriosis	—	—	1	1
Measles	29	40	53	122
Meningococcal meningitis	7	4	6	17
Meningococcal septicaemia	4	4	2	10
Meningococcal infection (NOS)	2	—	1	3
Mumps	—	1	—	1
Mycobacterial – atypical	19	8	4	31
Mycobacterial tuberculosis	19	13	16	48
Mycobacterial infection (NOS)	10	6	8	24
Pertussis	33	25	18	76
Q fever	30	30	21	81
Rubella	13	17	11	41
Salmonella bovis moribificans	1	1	1	3
Salmonella typhimurium	30	22	18	70
Salmonella (NOS)	54	53	29	136
Syphilis	52	45	43	140
Tetanus	—	1	—	1
Typhoid and paratyphoid	2	—	—	2
Total	1227	1307	1121	3655

The patient was given tetanus antitoxin, human tetanus immunoglobulin, intravenous penicillin (two million units) and transferred to the Intensive Care Unit where he is in a serious but stable condition. He was fully conscious and orientated and had experienced no generalised muscular spasms, seizures or episthotonus. He has experienced painful muscular spasms of his left leg, pain and difficulty moving, and chest tightness. His chest x-ray, which was clear on admission, shows basal atelectasis from decreased chest excursion secondary to muscular pain. He is being managed with Midazolam and Pethidine infusions and continues intravenous penicillin therapy (one million ivv, six hourly).

Public health implications

On interview by the Public Health Unit on May 27, the man could not confirm that he had ever had a primary series of tetanus immunisation. Previous to the tetanus toxoid he received at Sutherland Hospital on May 6, he stated that he had had one tetanus toxoid about five years previously. The man was born in the United Arab Emirates where widespread immunisation of children was probably not available at the time of his birth in 1932. More thorough questioning at the time of his initial Emergency Department visit may have identified the deficient immunisation history in which case he could have been given tetanus immunoglobulin as specified in the NSW Health Department Circular No 93/13.

Public Health Unit action

The patient's wife was questioned as to her immunisation status and gave a history of deficient immunisation for tetanus. She has been advised to consult her doctor for primary tetanus immunisation.

Recommendations

This case identifies two important areas where adequate education may have prevented this case of tetanus and may prevent cases in future. First, many elderly people

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TABLE 6

**VACCINE PREVENTABLE DISEASE NOTIFICATIONS
BY PUBLIC HEALTH UNIT
CUMULATIVE 1993**

Condition	PHU																Total
	CSA	SSA	ESA	SWS	WSA	WEN	NSA	CCA	ILL	HUN	NCR	NER	OFR	CWR	SWR	SER	U/K
Measles	40	29	5	46	71	20	11	10	12	20	17	3	33	2	1	—	320
Mumps	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1
Pertussis	9	7	8	28	29	23	46	3	9	10	13	4	11	17	3	—	220
Rubella	5	12	10	15	18	14	21	3	2	17	17	10	—	2	3	6	155
Tetanus	—	1	—	—	—	—	—	—	—	—	1	—	1	—	—	—	3

TABLE 7

**RARELY NOTIFIED INFECTIOUS DISEASES
BY PUBLIC HEALTH UNIT
CUMULATIVE 1993**

Condition	PHU																Total
	CSA	SSA	ESA	SWS	WSA	WEN	NSA	CCA	ILL	HUN	NCR	NER	OFR	CWR	SWR	SER	U/K
Brucellosis	1	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	2
Leptospirosis	—	—	—	—	—	—	—	—	—	1	3	1	1	—	4	—	10
Listeriosis	2	—	—	2	1	—	—	—	—	1	—	—	—	—	—	—	6

Infectious diseases

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have deficient tetanus immunisation and are at risk from tetanus, particularly if they engage in gardening which is a common pursuit for the elderly. Widespread tetanus immunisation in Australia began in the 1940s and triple antigen (diphtheria, tetanus, pertussis) became available in 1953. A health education program for adults, targeting those born before the 1940s and/or those born in countries without widespread immunisation programs, is recommended. Second, health care workers in emergency departments of public hospitals and general practitioners should be made aware of these high-risk groups so thorough immunisation history of the elderly and/or overseas-born patient is undertaken. Particular attention should be directed to whether a completed primary series of tetanus immunisation has been received when such patients present with tetanus-prone wounds.

ANTIBIOTIC SENSITIVITY OF GONOCOCCI — SYDNEY APRIL-JUNE 1993

The antibiotic sensitivity of 165 strains of *Neisseria*

gonorrhoeae was examined by the Gonococcal Reference Laboratory in the second quarter of 1993. Little change in the pattern of gonococcal infection or in the antibiotic sensitivity of isolates was noted in this quarter.

The total number of strains isolated is about the same as in the preceding three months and in the corresponding period in 1992. The preponderance of isolates in male patients (male:female 10.8:1) continues and two subtypes of gonococci account for most isolates in males.

Overall resistance to penicillin is 14 per cent; about one-third of the strains are fully sensitive to the penicillins. All isolates remained sensitive to Ceftriaxone and Spectinomycin and a small proportion showed a decreased sensitivity to Ciprofloxacin. However, none of the isolates had levels of resistance which would compromise treatment with the higher doses of quinolones now recommended. Three strains have high-level resistance to the tetracyclines. Two of these were Papua New Guinea. One patient was infected locally and another in Bali, with the source of acquisition of the remaining isolates unknown.

HIV/AIDS SURVEILLANCE

HIV surveillance is conducted through HIV reference laboratories and the Blood Transfusion Service. This is a very effective surveillance system, as all HIV positive screening tests carried out in NSW are subject to confirmatory testing by one of these laboratories. Therefore, under-reporting of diagnosed cases is almost zero and there is very little reporting delay. This must be kept in mind when comparing HIV and AIDS notifications, as AIDS surveillance, being based on the notification of clinical diagnoses by doctors and hospital chief executive officers, is subject to under-reporting and considerable reporting delay.

Results tabulated here represent new diagnoses for the periods specified, but the actual time of infection is often not known and may be several years before diagnosis. Since the beginning of 1992 about 30 per cent of reported HIV diagnoses occurred when the patient had symptoms of advanced HIV disease.

The distribution of cases across NSW in Table 8 shows that, as for AIDS notifications, the epidemic is concentrated in Sydney, with ESA, CSA and NSA accounting for 77 per cent of NSW notifications where the postcode of residence is known.

NON-NOTIFIABLE STDs

Table 9 shows relatively high levels of reported new infections of genital herpes and genital warts compared with other non-notifiable STDs. Symptomatic infections are only a small proportion of total infections for both herpes simplex virus (HSV) and human papilloma virus (HPV). Actual seroprevalence has been frequently shown to be at least several times the number of medical consultations for new infections. The strong associations between HPV and cervical cancer, and HSV-2 and HIV infection, further highlight the significant public health importance of these two incurable viral STDs.

INFLUENZA SURVEILLANCE

Data from the NSW sentinel GP network show that the activity of influenza-like illness (ILI) during July reached a high for the year so far of 2 per cent of consultations. However, this is considerably lower than the 1992 peak of 13 per cent. During July sentinel GP data were received from seven PHUs. Of those, NER reported the highest rate of ILI with 4.4 per cent. The next highest was SWS with 2.7 per cent.

Data on school absentee rates were received from WSA, CWR and SER PHUs for July. The only increase noted here was immediately before and after the school holidays, which is probably not related to influenza. The ESA laboratory surveillance system has reported isolates of influenza A and B during June and July, with influenza B predominating.

FIGURE 2

INFLUENZA-LIKE ILLNESS NSW 1993



TABLE 8

INFECTIOUS DISEASE NOTIFICATIONS
BY HEALTH UNIT
CUMULATIVE 1993

Condition	PHU																	Total
	CSA	SSA	ESA	SWS	WSA	WEN	NSA	CCA	ILL	HUN	NCR	NER	OFR	CWR	SWR	SER	OTH	
Adverse event after immunisation	1	2	1	—	4	—	1	—	—	2	—	—	—	5	—	—	—	16
AIDS	23	1	57	6	5	1	12	—	2	1	12	1	2	3	5	—	—	131
Arboviral infection	1	1	1	1	1	3	3	1	1	23	48	19	100	13	345	4	—	565
Foodborne illness (NOS)	6	2	—	17	23	12	—	2	5	—	—	1	10	—	5	—	—	83
Gastroenteritis (instit.)	50	2	—	9	13	3	—	—	—	39	—	16	2	20	32	—	—	186
Gonorrhoea	28	8	73	9	9	3	11	4	3	6	8	6	7	6	1	3	—	185
H. Influenzae epiglottitis	1	4	1	—	—	2	4	1	2	2	1	2	—	—	2	2	—	24
H. Influenzae meningitis	3	2	—	4	3	3	2	2	6	1	3	3	1	2	—	1	—	36
H. Influenzae septicaemia	—	3	—	7	—	—	—	—	1	2	—	2	—	—	—	—	—	15
H. Influenzae infection (NOS)	—	—	1	—	1	1	—	2	—	—	—	—	1	—	—	—	—	6
Hepatitis A — acute viral	31	10	28	30	89	14	26	8	9	7	33	26	6	4	3	3	—	327
Hepatitis B — acute viral	2	1	2	—	5	1	—	—	—	—	23	2	—	—	1	2	—	39
Hepatitis B — unspecified	273	185	10	511	251	23	245	20	17	36	32	19	12	8	9	6	—	1657
Hepatitis C — acute viral	—	—	—	—	—	—	—	1	1	—	1	3	—	—	—	2	—	8
Hepatitis C — unspecified	371	172	331	268	256	48	270	133	68	222	171	37	16	36	44	31	—	2474
Hepatitis D — unspecified	2	1	1	—	—	—	—	—	—	1	—	—	—	—	—	—	—	5
Hepatitis, acute viral (NOS)	1	—	1	—	—	—	—	—	—	1	—	1	—	2	—	—	—	6
HIV infection	49	8	122	10	7	4	25	5	4	10	5	1	—	—	2	1	68	321
Hydatid disease	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Legionnaires' disease	4	1	—	11	13	—	2	1	1	1	1	—	1	—	1	1	—	38
Malaria	8	12	12	8	14	6	27	3	8	9	5	10	—	1	2	6	11	142
Meningococcal meningitis	—	2	—	6	1	—	1	2	1	2	4	—	1	—	1	3	—	24
Meningococcal septicaemia	3	5	—	1	—	1	—	—	1	1	1	1	1	—	—	1	—	16
Meningococcal infection (NOS)	—	—	1	—	—	—	—	1	—	1	1	—	1	1	—	—	—	6
Mycobacterial atypical	24	5	7	4	20	2	10	—	4	21	13	4	1	—	4	—	—	119
Mycobacterial tuberculosis	14	15	11	20	15	5	15	8	1	12	2	2	2	2	—	—	—	124
Mycobacterial infection (NOS)	7	2	1	—	1	—	14	3	5	—	2	—	1	—	2	—	—	38
Q fever	—	—	1	—	3	—	1	—	—	13	34	45	62	7	1	3	—	170
Salmonella bovis morificans	—	3	—	—	1	—	2	—	—	10	—	—	—	—	1	—	—	17
Salmonella typhimurium	16	21	12	14	9	7	14	2	—	21	5	5	12	—	5	5	—	148
Salmonella (NOS)	17	35	34	27	15	2	37	23	6	52	38	29	20	5	10	7	—	357
Syphilis	31	11	39	102	10	3	17	4	4	5	28	15	49	2	4	1	—	325
Tuberculosis — non active	—	—	—	1	—	—	—	—	—	—	—	—	—	8	—	—	—	9
Typhoid and paratyphoid	1	1	4	—	—	2	2	—	—	1	2	—	—	—	—	—	—	13

TABLE 9

NOTIFICATIONS OF NON-NOTIFIABLE SEXUALLY TRANSMITTED
DISEASES JANUARY-JULY 1993
(Diagnoses from sexual health centres unless otherwise stated in footnote)

AHS Infection		CSA + SSA ¹	ESA ²	SWS ²	WSA ³ + WEN	NSA ²	CCA ²	ILL ⁴	HUN ¹	NCR ²	NER ¹	OFR ²	CWR ⁵	SWR ⁶	SER ⁷
Chlamydia trachomatis	Male	2	47	3	13	1	—	2	8	2	2	12	—	5	—
	Female	2	37	3	7	1	—	2	16	2	7	8	—	16	—
	Total	4	84	6	20	2	—	4	24	4	9	20	—	21	2
Donovanosis	Male	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Female	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—
*Genital herpes	Male	7	172	2	17	10	2	1	13	2	2	—	—	1	—
	Female	2	110	2	10	3	3	3	17	3	3	2	—	10	—
	Total	9	282	4	27	13	5	4	30	5	5	2	—	11	2
*Genital warts	Male	34	390	1	90	15	17	23	70	28	9	15	—	—	—
	Female	32	169	1	34	15	10	11	23	17	13	12	—	—	—
	Total	66	559	2	124	30	27	34	93	45	22	27	—	—	11
Nongonococcal urethritis	Male	9	415	8	181	9	8	20	45	13	1	7	—	1	—
	Female	—	—	3	1	4	5	—	—	4	—	—	—	—	—
	Total	9	415	11	182	13	13	20	45	17	1	7	—	1	—
Lymphogranuloma venereum	Male	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Female	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—

* First diagnosis; 1. 01/01/93-31/05/93; 2. 01/01/93-30/06/93; 3. 01/04/93-30/04/93; 4. 01/01/93-31/03/93; 5. No SHC in Region; 6. No SHC in Region. Laboratory data 01/01/93-30/06/93; 7. No SHC in Region. Data from GP network 01/01/93-18/07/93.