

MEASLES

During the first eight months of 1993 all Area Health Services and Regions received notifications for measles.

The annual notification rate for the State is 11.2/100,000 population. Orana and Far West Region has received notifications at a rate of 38.5/100,000 population. Western Sector Public Health Unit reported 69 notifications for August (these notifications do not appear on IDSS at the time of publication) – for a rate of 92.1/100,000 population.

Measles notifications peaked in epiweeks 6 to 10 and again in epiweeks 17 and 18. The increase in notifications that began in week 23 continues unabated.

Only 36 of 440 notifications (8 per cent) for NSW were laboratory confirmed. Of the 58 notifications registered on IDSS for August, five (9 per cent) were laboratory confirmed.

WHOOPIING COUGH

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

The annual notification rate for the State is 8.1/100,000 population. Central West Region has received notifications at a rate of 18.7/100,000 population. Northern Sydney Area has received notifications at a rate of 11.9/100,000 population.

RUBELLA

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

Notifications have continued at low levels. Thirty-six per cent of the year's notifications were for January. The notification rate for the State for 1993 remains at 4.5/100,000 population.

TUBERCULOSIS

One hundred and seventy-five notifications were received for the first eight months of the year, for a rate of 4.4/100,000 population. Western Sydney Area Health Service has a notification rate of 8.1/100,000 population. The Hunter Area Health Service has received notifications at a rate of 3.4/100,000 population.

TABLE 1

SITE OF INFECTION, FOR 1993 NOTIFICATIONS

Site	Number	Percentage
Respiratory	94	54
Miliary	4	2
Primary	4	2
Genitourinary	6	3
Meningitis	4	2
Bone	3	2
Gastrointestinal	2	1
Other/unspecified	58	33

A total of 89 out of 111 (80 per cent) finalised notifications have laboratory confirmed *Mycobacterium tuberculosis*.

INFLUENZA SURVEILLANCE

The incidence of influenza-like illness (ILI) in NSW continued to increase gradually into the first half of August. The State average for ILI from the NSW Sentinel GP Surveillance System was 2.1 per cent of consultations for mid-August (six PHUs). Three PHUs reported rates of about 4 per cent during August. They were South Western Sydney, New England and Western Sydney/Wentworth. School absentee rates for July/August were received from three PHUs. Although there have been sporadic reports of high absentee rates from ILI, there is no Statewide increase. Seventy confirmed cases have been reported from the Eastern Sydney Laboratory Surveillance Program, 65 per cent of which were influenza A. Demand for influenza vaccine has been disappointingly low this year, and stocks are plentiful.

LABORATORY-BASED INFLUENZA SURVEILLANCE: MAY-AUGUST 1993

The main purpose of laboratory-based influenza surveillance is to provide corroborative evidence to support trends in influenza-like illness (ILI) reported through clinical surveillance. Passive and active influenza surveillance is conducted with the assistance of laboratories involved in the Eastern Sydney Laboratory Surveillance Program. Serological diagnoses are reported by private pathology services and serology laboratories attached to the Prince of Wales Hospital and the Royal Alexandra Hospital for Children. Influenza isolates are reported by virology laboratories at the Prince Henry Hospital and the Royal Alexandra Hospital for Children. Active respiratory viral surveillance is carried out by one doctor in the Eastern Sydney General Practice Network and by Paediatric Casualty staff at The Prince of Wales Children's Hospital. Diagnoses made on viral isolation or on the basis of a fourfold or greater rise in titre are considered 'definite', while single high titres with consistent clinical notes are considered 'probable'.

Since the beginning of May 1993, 60 reports have been received by the laboratory surveillance program. Most have been based on single elevated titres of antibodies to influenza A or B. Details were available on 45 reports provided by laboratories at the Prince Henry/Prince of Wales hospitals and the Royal Alexandra Hospital for Children. Nine reports based on single high titres had notes on the request form which indicated they were either inconsistent with influenza or a more likely alternative diagnosis was available, leaving 36 definite or probable diagnoses.

Seven isolations were reported: four children with influenza A (upper respiratory tract infection [URTI], croup and bronchitis); an adult with influenza A (ILI); and two children with influenza B (URTI and acute respiratory deterioration following a bone marrow transplant). Three influenza A diagnoses were made on the basis of rises in titre: a 10-month-old girl with acute respiratory deterioration showed a rise in titre from <8 to 32; a 67-year-old man with atypical pneumonia showed a rise from 16 to 256; and a rise from 16 to ≥256 in a 54-year-old woman with an acute infectious exacerbation of chronic lung disease. The remaining 13 influenza A and 13 influenza B reports based on single high titres were from patients with a typical

TABLE 2

INFECTIOUS 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	
Adverse event after immunisation	1	2	1	-	5	-	1	-	-	2	-	1	-	5	-	-	-	18
AIDS	26	1	66	10	7	5	19	-	2	2	17	1	2	3	6	-	-	167
Arboviral Infection	1	1	1	1	1	3	3	1	1	24	50	26	101	13	345	4	-	576
Foodborne Illness (NOS)	6	3	-	17	23	10	-	2	6	-	-	2	11	-	5	-	-	85
Gastroenteritis (Instit)	60	6	-	9	13	3	-	-	-	39	-	16	2	20	32	-	-	200
Gonorrhea	35	9	80	10	12	3	13	4	3	6	9	6	8	6	1	3	-	208
H. influenzae epiglottitis	2	6	1	-	-	2	4	1	2	2	1	2	1	-	2	3	-	29
H. influenzae meningitis	3	3	-	7	3	3	2	2	6	1	3	3	1	3	1	1	-	42
H. influenzae septicaemia	1	3	1	7	1	-	-	-	1	2	-	2	-	-	-	-	-	18
H. influenzae infection (NOS)	-	-	2	-	2	1	2	2	-	-	-	-	1	-	-	-	-	10
Hepatitis A - Acute viral	36	16	29	36	94	16	33	9	10	10	39	36	6	4	4	3	-	381
Hepatitis B - Acute viral	5	2	18	-	5	1	-	-	-	-	25	3	-	-	2	2	-	63
Hepatitis B - Unspecified	315	229	-	651	324	27	306	22	18	51	37	24	15	10	15	8	-	2052
Hepatitis C - Acute viral	1	-	-	-	2	-	-	1	1	-	1	3	1	-	-	3	-	13
Hepatitis C - Unspecified	444	214	415	343	326	67	336	152	107	265	220	52	19	41	66	41	-	3108
Hepatitis D - Unspecified	2	1	1	-	-	-	-	-	-	1	-	1	-	-	-	-	-	6
Hepatitis acute viral (NOS)	-	-	1	-	-	-	-	-	-	1	-	1	-	2	-	-	-	5
HIV infection	54	10	142	15	11	7	28	7	3	12	8	1	1	-	2	1	80	382
Legionnaires' disease	4	1	-	11	13	-	3	1	2	1	1	-	1	-	1	1	-	40
Meningococcal meningitis	-	2	-	7	6	1	2	2	2	2	5	2	1	1	1	5	-	39
Meningococcal septicaemia	3	5	1	1	2	3	2	-	2	1	1	1	1	-	-	1	-	24
Meningococcal infection (NOS)	-	-	1	-	-	-	-	1	1	1	-	-	2	1	-	-	-	7
Mycobacterial atypical	31	8	7	8	22	3	17	1	5	25	17	7	1	1	4	1	-	158
Mycobacterial tuberculosis	21	24	13	22	33	6	22	8	4	11	2	2	2	4	-	1	-	175
Mycobacterial infection (NOS)	6	1	1	1	1	-	8	4	6	1	2	-	1	-	2	-	-	34
Q fever	-	-	1	-	3	-	1	-	1	18	47	70	68	9	4	6	-	228
Salmonella (NOS)	19	41	41	33	18	3	42	25	8	58	43	33	22	5	10	7	-	408
Salmonella bovis moribificans	-	3	-	-	2	-	2	-	-	10	-	-	-	-	1	-	-	18
Salmonella typhimurium	17	23	14	17	13	10	17	2	1	21	7	5	13	-	8	5	-	173
Syphilis	50	19	52	117	14	5	21	5	6	5	33	24	56	3	7	3	-	420
Typhoid and paratyphoid	1	1	4	-	-	2	2	-	-	1	2	-	-	1	-	-	-	14

pneumonia, ILI or acute exacerbations of chronic respiratory disease. It is noteworthy that eight of the ten definite cases (six influenza A, two influenza B) occurred in August, suggesting a late winter appearance of influenza in Sydney this year.

BUG BREAKFAST REPORT

The infectious disease seminar on August 6 considered the issue of the pertussis immunisation schedule. The National Health and Medical Research Council (NHMRC) recommends four doses as part of the diphtheria, tetanus and pertussis vaccine – at two, four, six and 18 months of age. The number of doses has been a controversial matter because of a higher incidence of minor reactions from the pertussis component and a perception that pertussis vaccine may cause brain damage. However, the National Encephalopathy Study in the UK in 1976-79 and recent reanalysis of the results have shown the risk of brain damage to be immeasurably small or zero.

Pertussis epidemics occur in three- to four-year cycles in most countries and Australia experienced its latest epidemic in the 1992-93 summer. That epidemics still occur demonstrates that vaccine-induced immunity is not sufficient to prevent the build-up of a susceptible population and consequent epidemics.

Data were presented which provide evidence to support a significant waning of vaccine-induced immunity by the time Australian children reach school age. It was concluded that there are substantial potential benefits from the addition of a preschool booster to the recommended schedule. This would complement the new legislation in NSW, requiring immunisation records to be provided on enrolment at school and day care facilities from 1994, by providing an opportunity for a booster at a time when parents will be

focused on their children's immunisation status. However, the problem of waning immunity will still exist and pertussis may not be 'finished off' until component vaccines become widely available, which are less reactive than the current whole cell vaccine, and can therefore be given as adult boosters.

HEPATITIS A AMONG CRUISE SHIP PASSENGERS

The Public Health Network and other State Health departments were involved in June in investigating an outbreak of hepatitis A among people who had been passengers on a Pacific cruise.

Active surveillance detected 10 cases – seven in NSW and three in Victoria. There were about 1,500 passengers and 500 crew on the cruise. Passengers came from all States of Australia and from New Zealand. An outbreak of diarrhoeal disease occurred during the first three days of the cruise.

Quick action was required to limit secondary transmission to other household members, sexual contacts and other high-risk contacts if cases were foodhandlers or attended child day care centres. A letter and a copy of Hepatitis A – Fact Sheet was sent to all passengers alerting them to the risk of exposure to hepatitis A and the risk of transmitting the disease to other contacts. No cases of secondary transmission related to this outbreak have been notified.

One very encouraging outcome of the investigation was the ability of the Public Health Network to detect the outbreak and quickly respond. The cooperation between State Health departments was also very effective.

Readers are alerted to NSW Health Department Information Bulletin No 93/32: Hepatitis A Immunisation, which was released on September 8.

TABLE 3

SUMMARY OF NSW INFECTIOUS DISEASE NOTIFICATIONS
AUGUST 1993

Condition	Number of cases notified			
	Period		Cumulative	
	Aug 1992	Aug 1993	Aug 1992	Aug 1993
Adverse reaction	4	2	28	18
AIDS	23	12	222	167
Arboviral infection	7	2	312	576
Brucellosis	—	1	1	5
Cholera	—	—	—	—
Diphtheria	—	—	—	—
Foodborne illness (NOS)	14	2	152	85
Gastroenteritis (instit.)	160	—	372	200
Gonorrhoea	43	5	222	208
H influenzae epiglottitis	5	2	33	29
H influenzae B – meningitis	10	4	72	42
H influenzae B – septicaemia	—	2	20	18
H influenzae infection (NOS)	5	—	23	10
Hepatitis A	66	18	330	381
Hepatitis B	289	114	2233	2115
Hepatitis C	409	120	2810	3121
Hepatitis D	—	—	5	6
Hepatitis, acute viral (NOS)	—	—	12	5
HIV infection	48	34	511	382
Hydatid disease	—	—	5	1
Legionnaires' disease	4	—	84	40
Leprosy	—	—	5	1
Leptospirosis	1	—	18	10
Listeriosis	—	—	9	6
Malaria*	10	N/A	104	N/A
Measles	24	58	264	440
Meningococcal meningitis	13	11	51	39
Meningococcal septicaemia	3	7	9	24
Meningococcal infection (NOS)	2	—	8	7
Mumps	1	—	18	1
Mycobacterial tuberculosis	28	6	299	175
Mycobacterial – atypical	25	—	392	158
Mycobacterial infection (NOS)	2	—	24	34
Pertussis	12	14	97	319
Plague	—	—	—	—
Poliomyelitis	—	—	—	—
Q fever	26	16	139	228
Rubella	16	10	50	179
Salmonella infection (NOS)	62	14	637	599
Syphilis	91	26	698	420
Tetanus	—	1	1	5
Typhoid and paratyphoid	3	—	25	14
Typhus	—	—	—	—
Viral haemorrhagic fevers	—	—	—	—
Yellow fever	—	—	—	—

* from Malaria Register

TABLE 4

INFECTIOUS DISEASE NOTIFICATIONS
BY SELECTED MONTH OF ONSET FOR 1993

Condition	Month			
	May	Jun	Jul	Total
Adverse event after immunisation	1	4	—	5
AIDS	16	16	16	48
Arboviral infection	26	17	8	51
Brucellosis	2	—	1	3
Foodborne illness (NOS)	18	12	3	33
Gastroenteritis (instit.)	64	83	14	161
Gonorrhoea	24	17	18	59
H influenzae epiglottitis	6	5	3	14
H influenzae meningitis	4	3	6	13
H influenzae septicaemia	3	1	2	6
H influenzae infection (NOS)	—	2	2	4
Hepatitis A – acute viral	66	37	40	143
Hepatitis B – acute viral	10	5	9	24
Hepatitis B – unspecified	276	273	299	848
Hepatitis C – acute viral	1	1	3	5
Hepatitis C – unspecified	446	465	477	1388
Hepatitis D – unspecified	1	1	1	3
Hepatitis, acute viral (NOS)	1	1	1	3
HIV infection	1	—	1	2
Hydatid disease	—	1	—	1
Legionnaires' disease	6	2	1	9
Leptospirosis	1	—	1	2
Listeriosis	—	1	1	2
Measles	39	61	75	175
Meningococcal meningitis	4	7	4	15
Meningococcal septicaemia	4	2	3	9
Meningococcal infection (NOS)	—	—	2	2
Mumps	1	—	—	1
Mycobacterial – atypical	22	15	3	40
Mycobacterial tuberculosis	24	27	17	68
Mycobacterial infection (NOS)	4	9	2	15
Pertussis	28	40	62	130
Q fever	33	32	29	94
Rubella	18	14	11	43
Salmonella (NOS)	53	33	36	122
Salmonella bovis moribificans	1	1	—	2
Salmonella typhimurium	25	24	14	63
Syphilis	47	57	58	162
Tetanus	2	—	—	2
Total	1282	1272	1227	3781

TABLE 5

VACCINE PREVENTABLE DISEASE NOTIFICATIONS
BY PUBLIC HEALTH UNIT, CUMULATIVE 1993

Condition	CSA	SSA	ESA	SWS	WSA	WEN	NSA	CCA	ILL	HUN	NCR	NER	OFR	CWR	SWR	SER	U/K	Total
Measles	48	41	9	53	114	29	24	10	17	25	18	6	36	3	3	4	–	440
Mumps	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Pertussis	12	12	20	46	38	25	58	5	16	17	22	12	12	21	3	–	–	319
Rubella	5	13	11	16	20	16	22	4	2	18	20	19	–	3	4	6	–	179
Tetanus	–	1	–	–	–	–	–	–	–	–	2	–	1	–	–	1	–	5

TABLE 6

RARELY NOTIFIED INFECTIOUS DISEASES
BY PUBLIC HEALTH UNIT, CUMULATIVE 1993

Condition	CSA	SSA	ESA	SWS	WSA	WEN	NSA	CCA	ILL	HUN	NCR	NER	OFR	CWR	SWR	SER	U/K	Total
Brucellosis	1	1	—	—	1	1	1	—	—	—	—	—	—	—	—	—	—	5
Hydatid disease	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Leprosy	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1
Leptospirosis	—	—	—	—	—	—	—	—	—	1	4	1	1	—	3	—	—	10
Listeriosis	2	—	—	2	1	—	—	—	—	1	—	—	—	—	—	—	—	6