

INFECTIOUS DISEASES

TRENDS

The seasonal increase in **meningococcal infection** began early in NSW this year (Figure 3), with more cases (23) in July than in any other month in the previous twelve months. Reports of meningococcal disease continued to surge in August (23, [Table 6]). Many of these were related to a cluster of cases in the Penrith area (see below). Clinicians are reminded that penicillin should be given by injection at first suspicion of meningococcal diseases (even before transporting the patient to hospital for definitive diagnosis).

There were also more reports of **hepatitis A** than expected (64 reports in August), with cases prominent in the South Eastern Sydney (16), Central Coast (11), Western Sydney (7), Illawarra (7), Central Sydney (6) and Mid Western (4) Areas (Table 6).

Reports of vaccine-preventable disease (*Haemophilus influenzae* type b infection, measles, pertussis and rubella) remained lower than historical levels (Figure 2). Reports from the Eastern Sydney Laboratory Surveillance Program (Figure 4) indicate that **respiratory syncytial virus** (RSV) activity has waned since peaking around June, and **rotavirus** activity has not reached the peak seen in previous years.

Influenza surveillance

Influenza activity declined at the end of August and beginning of September, as expected for this time of year.

Reports from the NSW Sentinel GP Surveillance Scheme¹ show the average consultation rate for influenza-like illness (ILI) in the last week of August was 1.5 per cent (Figure 5), slightly lower than the historical average. Southern NSW was the only area reporting a consultation rate above 2 per cent. The average school absentee rate² has continued at levels similar to previous years (Figure 6).

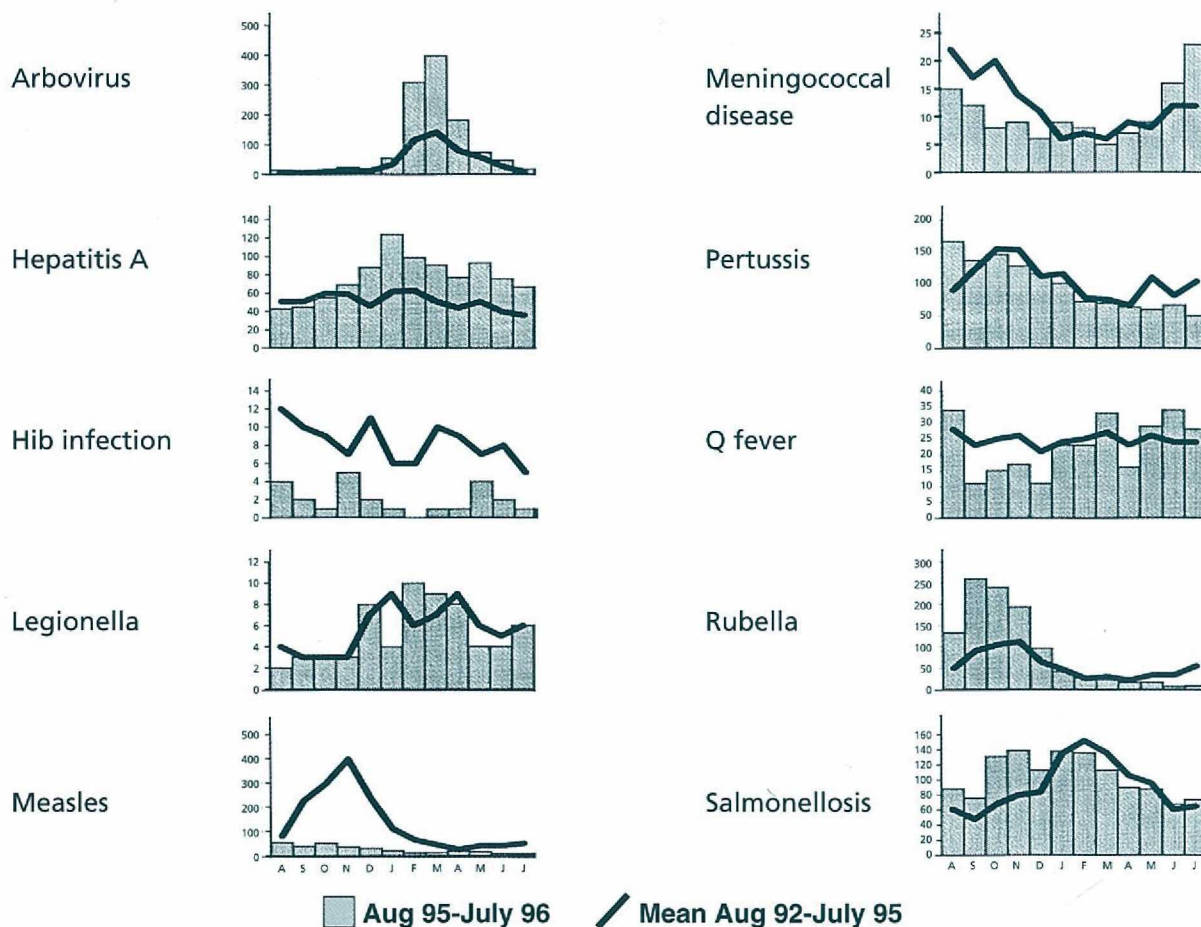
Reports from Westmead, Prince of Wales and Liverpool hospital laboratories indicate that during the last week of August and first week of September the number of diagnoses of influenza A was lower (3 serological, 13 virological diagnoses) than for the preceding two weeks (14 serological, 20 virological). There were no diagnoses of influenza B in either period.

1. Including about 6,000 consultations a week to 50 doctors reported to five Public Health Units.

2. Monitored from 10 schools including about 9,000 students, reported to four Public Health Units.

FIGURE 2

REPORTS OF SELECTED INFECTIOUS DISEASES, NSW, 12 MONTHS TO JULY 1996
BY MONTH OF ONSET (WITH HISTORICAL COMPARISON)



Invasive meningococcal disease outbreak in western Sydney

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The Western Sector Public Health Unit (WSPHU) was notified of 14 cases of invasive meningococcal disease (IMD) between August 3 and September 11, 1996.

The cases presented to the emergency departments of four hospitals in western Sydney, with 11 presenting to one emergency department.

Of the 14 cases, eight were males, ages ranged from 2-66 years (eight were aged 14-21 years), 10 lived in the Penrith area, and eight were associated (directly or indirectly) with attendance at a single nightclub in Penrith. The first three

cases all attended the nightclub on July 31, 1996. In five subsequent cases, household or other close contacts also went to the nightclub, at least three of them on the night of July 31. Staff estimated about 500 people attended the nightclub that night (Figure 3).

Neisseria meningitidis serogroup C was isolated from 11 cases (a further three cases were diagnosed on clinical grounds alone). Meningococcal isolates from 10 of the 11 cases were phenotypically similar (serotype 2a subtype P1.5).

Symptoms of IMD include sudden onset of fever, headache, stiff neck, nausea, weakness, drowsiness and a purpuric rash. The organism is spread directly from person to person by droplets or discharge from the nose or throat of a carrier. Up to 20 per cent of people in some communities can carry meningococci in their nasopharynx. The incubation period (time between infection and illness) is usually 3 to 4 days, but can be up to 10 days. The illness can be effectively treated with antibiotics in hospital.

Cases of IMD generally increase each year in late winter and spring. In NSW, 116 cases of IMD were reported in 1995, and by the end of August 1996, 101 cases had been

FIGURE 3

CASES OF MENINGOCOCCAL DISEASE, WESTERN SYDNEY, JULY-SEP 1996, BY DATE OF ONSET AND REPORTED CONTACT WITH THE NIGHTCLUB

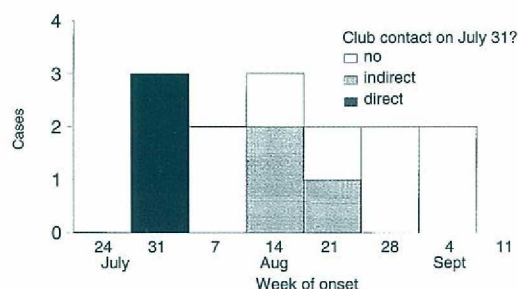


FIGURE 4

LABORATORY REPORTS OF SELECTED INFECTIOUS DISEASES, EASTERN SYDNEY LABORATORY SURVEILLANCE PROGRAM, 13 X 4 WEEK REPORTING PERIODS (1 YEAR) TO END AUGUST 1996 (AND HISTORICAL COMPARISON)

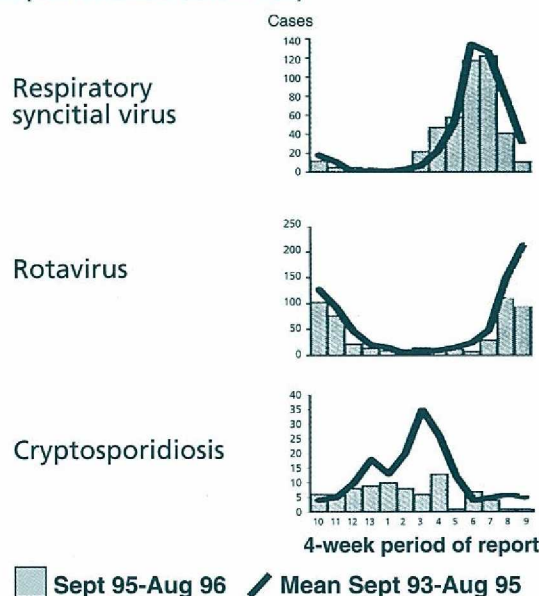


FIGURE 5

NSW GP SENTINEL SURVEILLANCE INFLUENZA-LIKE ILLNESS 1996

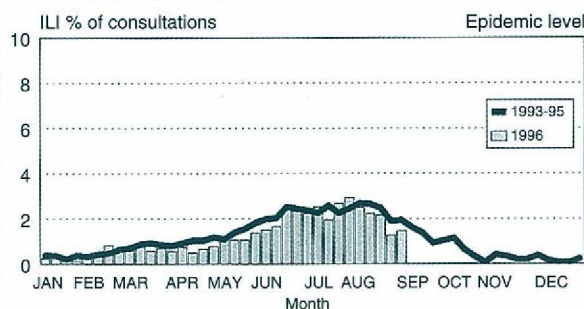
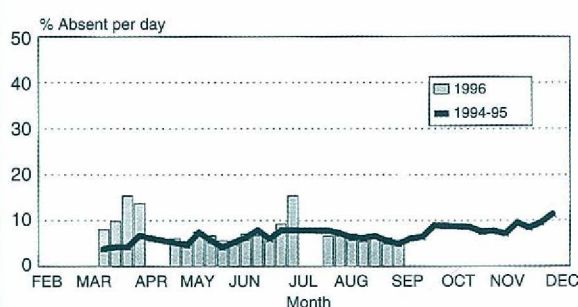


FIGURE 6

SCHOOL ABSENTEE RATE SURVEILLANCE NSW 1996



reported. In western Sydney, six cases were reported in 1995, and at the time of writing, 20 cases had been reported in 1996 (including the 14 cases reported in this cluster).

It is likely that on the night of July 31, a patron who was carrying the bacteria transmitted it to others by coughing in a densely crowded, smoke-filled room. Smoking – either actively or passively – substantially increases the risk of meningococcal disease. Examination of nightclub staff found that none of the 37 tested had evidence of the infectious strain. Consultation with experts suggests that carriage of group C meningococcus by close contacts of cases for long periods is rare; people who acquire the organisms either become ill, or clear it within a short time.

In response to this outbreak, Public Health Units throughout NSW initiated active surveillance for cases of IMD, and sought information from cases about contact with the Penrith nightclub. WSPHU staff interviewed cases and contacts about exposures; initiated rifampicin prophylaxis for household and close contacts who may have been at increased risk of carrying the organism; wrote to all general practitioners in western Sydney alerting them to the outbreak and emphasising early use of antibiotics for suspected cases; and distributed fact sheets on IMD to some schools in western Sydney. On August 28, 1996, the NSW Health Department issued a press release warning that a cluster of IMD cases had been identified in western Sydney, and urged people – especially those who had been at, or who had been in contact with persons who had been at the nightclub on July 31, 1996 – to seek early treatment if they developed symptoms.

At the time of writing this outbreak report, four cases were still hospitalised. No deaths had been reported, although one case was critically ill.

Thanks to Drs Mohamed Patel, John Tapsall and David Isaacs for advice in this investigation.

MEETINGS

Laboratory Surveillance Advisory Committee (LSAC)

At its meeting in August, LSAC discussed:

- Establishing a committee consisting of representatives from Areas and the Health Department to compare public health laboratory needs and existing services, with view to designating sites to perform Statewide functions.
- A planned survey of pathology laboratories in NSW to determine the range and types of tests performed in NSW for public health purposes.

CIRCULARS

The Department released a circular on vancomycin resistant enterococci (VRE) on September 13, 1996 (Circular 96/70). The circular is an adaptation of recommendations by the United States Hospital Infection Control Practices Advisory Committee (see the July issue of the *NSW Public Health Bulletin*), and will be reissued after review by key stakeholders in NSW.

ERRATUM

In the August edition of the *NSW Public Health Bulletin*, certain graphs in the Infectious Diseases section were unclear, due to excessively dark shading. We apologise for this error.

PUBLIC HEALTH EDITORIAL STAFF

The editor of the *NSW Public Health Bulletin* is Dr Michael Frommer, Director, Centre for 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) 9391 9029.

Please contact your local Public Health Unit to obtain copies of the *NSW Public Health Bulletin*. The *Bulletin* can be accessed via the Internet from the NSW Health Department's World Wide Website, at

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Back issues can be obtained from the Better Health Centre, Locked Mail Bag 961, North Sydney 2059. Telephone: (02) 9954 1193, Facsimile (02) 9955 5196.

TABLE 6

INFECTIOUS DISEASE NOTIFICATIONS FOR NSW IN AUGUST 1996, RECEIVED BY AREA HEALTH SERVICE

Condition	Area Health Service																	Period	
	CSA	NSA	WSA	WEN	SWS	CCA	HUN	ILL	SES	NRA	MNC	NEA	MAC	MWA	FWA	GMA	SA	Total for Aug	Year to date
Blood-borne and sexually transmitted																			
AIDS	1	4	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	6	186
HIV infection**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hepatitis B - acute viral**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23
Hepatitis B - other**	40	14	25	1	25	5	2	5	40	-	1	3	-	4	-	-	1	166*	2,992
Hepatitis C - acute viral**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9
Hepatitis C - other**	44	18	1	-	31	15	33	30	43	19	18	15	7	9	2	13	21	319*	5,335
Hepatitis D - unspecified**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Hepatitis, acute viral (NOS)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Gonorrhoea**	1	2	2	-	-	2	-	-	17	-	-	-	1	1	1	-	-	27	331
Syphilis	6	1	6	-	6	1	1	1	11	3	-	1	1	1	2	-	-	41	523
Vector-borne																			
Arboviral infection**	-	-	-	-	-	-	1	-	-	8	2	1	1	-	2	3	-	18	1,107
Malaria**	2	2	1	-	-	1	-	-	2	-	1	-	-	-	-	2	-	11	150
Zoonoses																			
Brucellosis**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydatid disease	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	9
Leptospirosis**	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	22
Q fever**	-	-	-	-	-	-	-	-	-	1	1	3	2	-	2	1	1	11	197
Respiratory/other																			
Legionnaires' disease	-	2	1	-	1	-	1	-	-	-	-	-	-	-	-	-	-	5	50
Meningococcal (invasive) infection	-	1	3	9	2	1	-	3	1	-	-	1	1	-	-	1	-	23	101
Leprosy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Mycobacterial tuberculosis	1	2	-	-	-	-	2	-	-	-	-	1	-	-	-	-	-	6	235
Mycobacteria other than TB**	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	220
Vaccine-preventable																			
Adverse event after immunisation	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	-	2	34
H.influenzae (invasive) infection	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
Measles	-	-	2	4	-	-	4	1	3	3	1	-	-	-	-	-	1	19	120
Mumps**	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1	17
Pertussis	1	8	1	1	2	-	3	-	3	2	1	2	-	-	-	1	-	25	517
Rubella**	4	1	1	1	-	-	-	3	1	-	-	-	-	-	-	-	-	11	156
Faecal-oral																			
Cholera**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Foodborne illness (NOS)	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	54
Gastroenteritis (instit)	31	63	13	13	-	-	-	-	-	-	-	-	-	-	-	3	-	123	305
Hepatitis A	6	1	7	-	2	11	3	7	16	-	-	2	2	4	1	1	1	64	693
Listeriosis**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9
Salmonellosis (NOS)**	2	6	5	3	2	2	3	1	7	-	1	2	-	1	-	-	1	36	752
Typhoid and paratyphoid**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23

* includes acute

** Lab confirmed cases only

Abbreviations used in this Bulletin:

CSA Central Sydney Health Area, SES South 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, NRA Northern Rivers Health Area, MNC Mid North Coast Health Area, NEA New England Health Area, MAC Macquarie Health Area, MWA Mid West Health Area, FWA Far West Health Area, GMA Greater Murray Health Area, SA Southern Health Area, 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.