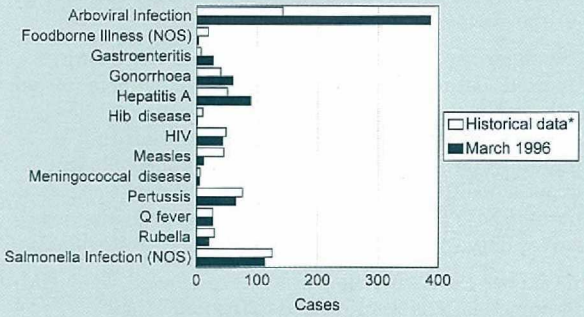
FIGURE 7

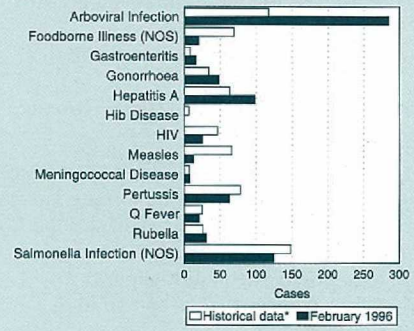
SELECTED INFECTIOUS DISEASES: NSW MARCH NOTIFICATIONS, 1996 COMPARED WITH HISTORICAL DATA



*Historical Data: the average number of notifications diagnosed in the same month in the previous three years. Source: IDSS

FIGURE 8

SELECTED INFECTIOUS DISEASES: NSW FEBRUARY NOTIFICATIONS, 1996 COMPARED WITH HISTORICAL DATA



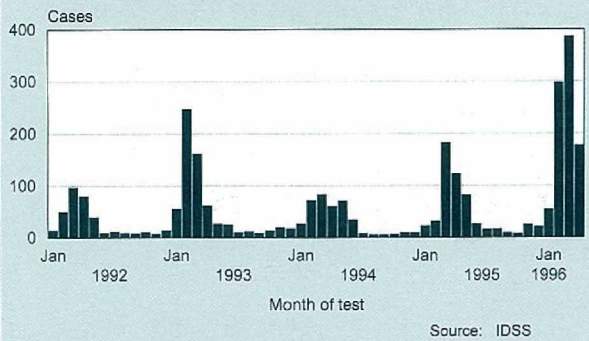
*Historical Data: the average number of notifications diagnosed in the same month in the previous three years. Source: IDSS

Erratum

Figure 8 reproduces Figure 2 from the April *Public Health Bulletin*. Due to a production error it was difficult to differentiate the historical data from that for February 1996.

FIGURE 9

ARBOVIRAL INFECTION NOTIFICATIONS: NSW 1994-1996, BY DATE OF TEST FOR DATA RECEIVED BY APRIL 30, 1996



Source: IDSS

NOTIFICATION TRENDS

There were more notifications of arboviral infection, gonorrhoea and hepatitis A than expected during March 1996 (Figure 7). Early returns for April suggest that arboviral cases are on the decline across the State after the March peak (Figure 9). Similarly, Statewide data suggest that hepatitis A notifications are declining, at least in Eastern Sydney (Figure 10), where numbers did not reach the 1991 epidemic levels. Early public health intervention, including education on how to reduce exposure, liberal use of immunoglobulin among contacts, and encouragement of vaccination among high-risk groups, may have helped to reduce the numbers of cases.

A second outbreak of hepatitis A has emerged, in the Shoalhaven district of the Illawarra Area. Fifty-nine cases have been reported since February 1996. The Illawarra Public Health Unit (PHU) investigation to date has identified no common source, and indicates that person-to-person transmission is the most likely mode of spread. The PHU has initiated several interventions including active case surveillance, working with local doctors to ensure that contacts of cases are offered immunoglobulin to prevent disease, and educating general practitioners, laboratories, schools, child care centres, patients and contacts, and the general population (through the media) about the disease and its prevention.

INFLUENZA SURVEILLANCE

Influenza activity appears to be at the same level, or at a slightly lower level, than for the same period in the previous few years.

Reports of influenza-like-illness (ILI) from the NSW Sentinel GP Surveillance Scheme are being received through six PHUs from more than 50 doctors carrying out approximately 7,000 consultations per week. Figure 11 shows that the State average consultation rate for ILI during the first half of May was similar to the average for the previous few years. Western Sydney had the highest consultation rate at 2 per cent.

School absentee rates are being monitored from 10 schools with a total of about 9,000 students, through six PHUs. Figure 12 shows that the average absentee rate during May was similar to the average for this time of year. The high rates during March were due to causes other than infectious diseases.

Reports from Sydney laboratories indicate for the year to date a small number of cases of influenza A (12 serological, 7 virological diagnoses), and fewer of influenza B (3 serological diagnoses). However, respiratory syncytial virus (RSV) is by far the most commonly diagnosed respiratory virus, and RSV infection is being reported by some laboratories in higher numbers than last year.

EQUINE MORBILLIVIRUS UPDATE: A NATURAL HOST?

Following reports of three human and several equine cases of equine morbillivirus (EMV) infection in Queensland in 1994 and 1995 *(NSW Public Health Bulletin*, November 1995), Queensland Department of Primary Industry researchers have been searching for a natural reservoir of infection. Since mid-1995, researchers have tested more than 5,000 blood samples from 46 species of domestic and wild animals (including horses, rats, mice, possums, cane toads, rodents, birds, cattle, cats, dogs, pigs, kangaroos, cockroaches, snails, slugs, donkeys and bandicoots) for EMV antibodies. All species had tested negative (except the seven

horses involved in the original outbreak) until recently, when two species of flying fox from Queensland (the black flying fox and the spectacled flying fox) tested positive. Positive tests indicate exposure to a bat paramyxovirus similar to or the same as EMV. Attempts are being made to isolate the virus, and serological testing of other species of bats and wildlife is continuing. While these findings are intriguing, further data are required to determine whether the bat virus poses a risk to humans.

GONOCOCCAL SURVEILLANCE, NSW, JANUARY-MARCH 1996

The Gonococcal Reference Laboratory, Microbiology Department, The Prince of Wales Hospital, Randwick, has submitted the following data:

Number of Gonococcal Isolates

A total of 209 isolates was received in the January-March 1996 quarter, 203 of which remained viable for further examination. This represented an increase on isolates received in the same periods in 1995 (165) and 1994 (144), and was substantially more than the last quarter of 1995 (148).

TABLE 3

INFECTED SITES

MALE PATIENTS		FEMALE PATIENTS	
Urethra	131	Endocervix/vagina	37
Pharynx	18	Pharynx	0
Ano-rectum	21	Ano-rectum	0
Blood	0	Blood	0
Eye	2	Eye	0
Other	0	Other	0
Total	**172**	**Total**	**37**

Isolates were obtained from males and females in the ratio of 4.6:1. For gonococcal isolates from men, rectal isolates comprised 12.2 per cent and pharyngeal isolates 10.5 per cent. All the isolates from females were from the endocervix. There were two ophthalmic infections in this quarter, one in a neonate.

Antibiotic sensitivity patterns

Penicillins (including penicillin, ampicillin and amoxycillin)
The pattern of gonococcal susceptibility of the penicillins remained essentially unchanged in this quarter and indicates that use of penicillin-based treatment regimens (including amoxycillin and ampicillin) would result in a significant proportion of treatment failures. One-third of all gonococci examined were resistant to the penicillins. Sixty-seven of the 203 strains tested were penicillin-resistant, 20 being PPNG (penicillinase-producing *N. gonorrhoeae*) and 47 resistant by chromosomal mechanisms (CMRNG). PPNG were isolated from patients who contracted their infection locally and overseas.

Ceftriaxone
All isolates examined were sensitive to this injectable antibiotic which has retained its activity against gonococci for many years.

Spectinomycin
All strains were susceptible *in vitro* to this injectable antibiotic.

Quinolone group (ciprofloxacin, norfloxacin, enoxacin)
Gonococci with low-level resistance to the quinolone group

FIGURE 10

HEPATITIS A NOTIFICATIONS NSW 1992-1996, BY DATE OF ONSET FOR DATA RECEIVED BY APRIL 30, 1996

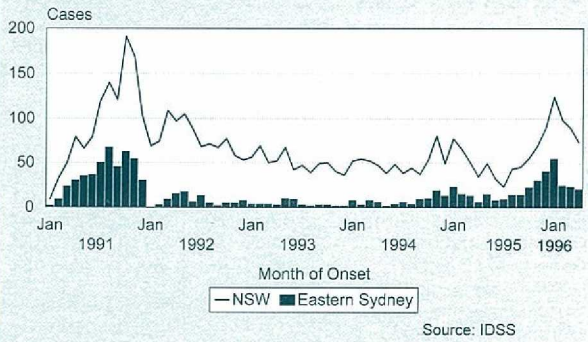


FIGURE 11

NSW GP SENTINEL SURVEILLANCE – INFLUENZA-LIKE ILLNESS 1996

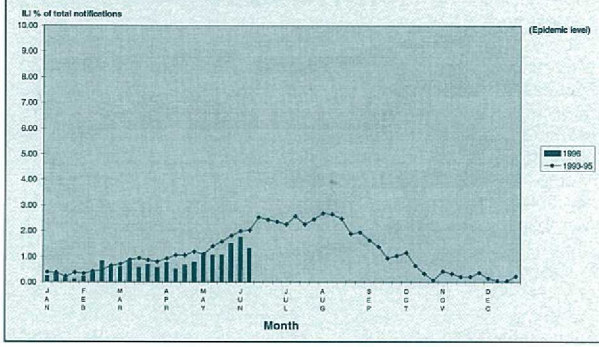
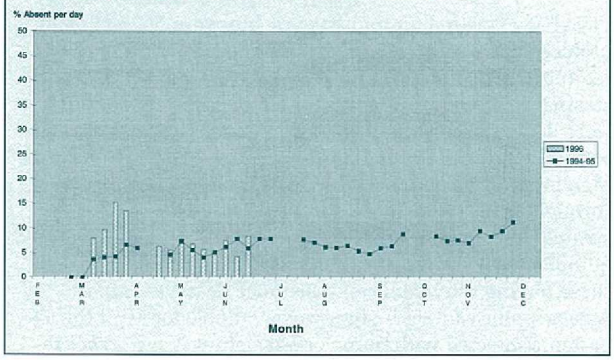


FIGURE 12

SCHOOL ABSENTEE RATE SURVEILLANCE, NSW 1996



Continued on page 52 ▶

TABLE 4

INFECTIOUS DISEASE NOTIFICATIONS FOR NSW, 1996
BY MONTH OF ONSET FOR NOTIFICATIONS
RECEIVED BY APRIL 30, 1996

Condition	Jan	Feb	Mar	Apr	Total
Adverse event after immunisation	9	4	3	2	18
AIDS	35	23	22	11	91
Arboviral infection	51	297	383	179	910
Brucellosis	–	1	–	–	1
Cholera	–	–	1	–	1
Foodborne illness (NOS)	17	20	8	2	47
Gastroenteritis (instit.)	11	16	27	–	54
Gonorrhoea infection	46	48	60	30	184
H. influenzae epiglottitis	–	–	1	–	1
H. influenzae meningitis	1	–	–	–	1
H. influenzae septicaemia	–	–	–	1	1
Hepatitis A – acute viral	124	98	89	63	374
Hepatitis B – acute viral	7	–	3	3	13
Hepatitis B – chronic/carrier	68	69	91	85	313
Hepatitis B – unspecified	306	331	343	196	1,176
Hepatitis C – acute viral	–	–	2	1	3
Hepatitis C – unspecified	719	730	645	405	2,499
Hepatitis D – unspecified	–	1	1	–	2
Hepatitis, acute viral (NOS)	3	–	–	–	3
HIV infection	37	23	43	34	137
Hydatid disease	1	2	2	2	7
Legionnaires' disease	4	10	8	6	28
Leprosy	–	–	1	–	1
Leptospirosis	3	3	5	1	12
Listeriosis	2	–	–	1	3
Malaria	22	22	22	14	80
Measles	21	13	12	12	58
Meningococcal infection (NOS)	1	3	1	–	5
Meningococcal meningitis	6	3	3	5	17
Meningococcal septicaemia	2	2	1	2	7
Mumps	5	6	–	–	11
Mycobacterial atypical	36	38	12	5	91
Mycobacterial infection (NOS)	8	12	9	7	36
Mycobacterial tuberculosis	40	23	19	8	90
Pertussis	101	68	65	50	284
Q fever	22	21	23	21	87
Rubella	41	31	21	15	108
Salmonella (NOS)	132	126	108	84	450
Syphilis infection	60	65	78	41	244
Typhoid and paratyphoid	7	5	5	–	17
Vibrio infection (non cholera)	1	1	–	1	3

TABLE 5

SUMMARY OF NSW INFECTIOUS DISEASE NOTIFICATIONS
APRIL 1996

Condition	Number of cases notified			
	Period		Cumulative	
	Apr 1995	Apr 1996	Apr 1995	Apr 1996
Adverse reaction	1	2	8	18
AIDS	33	11	158	91
Arboviral infection	121	179	356	910
Brucellosis	–	–	–	1
Cholera	–	–	–	1
Diphtheria	–	–	–	–
Foodborne illness (NOS)	28	2	262	47
Gastroenteritis (instit.)	35	–	50	54
Gonorrhoea	30	30	144	184
H influenzae epiglottitis	2	–	3	1
H influenzae B – meningitis	–	–	3	1
H influenzae B – septicaemia	–	1	3	1
H influenzae infection (NOS)	1	–	2	–
Hepatitis A	34	63	227	374
Hepatitis B	369	284	1,679	1,502
Hepatitis C	563	406	2,935	2,502
Hepatitis D	2	–	8	2
Hepatitis, acute viral (NOS)	–	–	–	3
HIV infection	34	34	173	137
Hydatid disease	–	2	4	7
Legionnaires' disease	2	6	36	28
Leprosy	–	–	1	1
Leptospirosis	1	1	3	12
Listeriosis	–	1	7	3
Malaria	10	14	58	80
Measles	34	12	257	58
Meningococcal meningitis	2	5	14	17
Meningococcal septicaemia	–	2	7	7
Meningococcal infection (NOS)	3	–	9	5
Mumps	–	–	2	11
Mycobacterial tuberculosis	23	8	155	90
Mycobacterial – atypical	34	5	183	91
Mycobacterial infection (NOS)	5	7	17	36
Pertussis	70	50	297	284
Plague	–	–	–	–
Poliomyelitis	–	–	–	–
Q fever	12	21	66	87
Rubella	27	15	138	108
Salmonella infection (NOS)	204	84	570	450
Syphilis	68	41	315	244
Tetanus	–	–	–	–
Typhoid and paratyphoid	5	–	27	17
Typhus	–	–	–	–
Viral haemorrhagic fevers	–	–	–	–
Yellow fever	–	–	–	–

Infectious diseases

► *Continued from page 51*

have been isolated for many years, but were not a clinical problem if the recommended higher dose treatment regimens (e.g. 500 mg ciprofloxacin) were used. In 1994, strains with higher minimum inhibitory concentrations were detected in Sydney and Port Kembla for which no dose of quinolone antibiotic would be effective. Isolates with this high level quinolone resistance continued to appear throughout 1995 and accounted for 3.5 per cent of the strains examined. Eleven isolates (5.4 per cent) with altered quinolone resistance were detected in this quarter, nine of these having the high level resistance described above. A geographic contact history was available for 10 of the 11 patients infected with quinolone-resistant *N gonorrhoeae* (QRNG). One locally acquired infection with a low-level resistant strain was recorded. All the other strains were isolated from patients infected in South East Asia. Data from World Health Organization sources indicate that more than 25 per cent of isolates in the Philippines, Hong Kong, China, Korea and Japan have altered quinolone resistance. Consideration should be given to the treatment regimen employed for patients who acquire their infection in these regions.

Tetracyclines

The tetracycline group is not recommended for the treatment of gonococcal infection. All of the above agents can be administered as single dose therapy to ensure patient compliance whereas the tetracycline treatment regimens are multiple-dose therapies. A further reason for not using tetracycline-based regimens is the resistance of gonococci to these agents. The most recent examination of tetracycline resistance patterns indicated that about 30 per cent of NSW isolates were resistant. Additionally, a form of high-level plasmid resistance to the tetracyclines has emerged in the

TABLE 6

INFECTIOUS DISEASE CUMULATIVE NOTIFICATIONS FOR NSW, 1996 BY PUBLIC HEALTH UNIT RECEIVED BY APRIL 30, 1996

Condition	CCA	CSA	CW	ESA	HUN	ILL	NC	ND	NSA	SE	SSA	SW	SWS	WEN	WN	WSA	U/K	Total
AIDS	3	18	–	26	5	–	4	–	15	–	2	1	12	4	–	1	–	91
Arboviral infection	8	3	20	4	53	6	299	238	15	9	3	86	7	–	154	5	–	910
Brucellosis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1
Gastroenteritis (instit.)	–	9	–	–	18	–	–	1	–	–	–	–	1	8	1	16	–	54
Gonorrhoea infection	3	16	3	90	2	2	7	5	11	3	10	–	5	5	13	9	–	184
Hepatitis B – acute viral	1	–	–	7	–	–	1	–	–	–	1	–	1	–	1	1	–	13
Hepatitis B – chronic/carrier	15	–	6	98	–	–	7	1	1	–	17	–	41	6	3	118	–	313
Hepatitis B – unspecified	10	146	2	40	30	32	23	6	173	6	210	9	354	7	10	118	–	1,176
Hepatitis C – acute viral	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	3
Hepatitis C – unspecified	104	237	76	325	164	154	243	61	195	44	150	56	298	119	29	243	–	2,499
Hepatitis D – unspecified	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	2
Hepatitis, acute viral (NOS)	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	1	–	3
HIV infection	1	17	1	46	5	3	1	1	9	–	2	1	9	4	–	11	26	137
Hydatid disease	–	1	2	–	1	–	1	–	–	–	–	1	1	–	–	–	–	7
Legionnaires' disease	2	2	–	–	3	1	1	–	2	3	1	–	5	1	–	7	–	28
Leprosy	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	1
Leptospirosis	–	–	1	–	4	–	4	2	–	–	–	–	1	–	–	–	–	12
Malaria	1	10	2	8	9	5	4	4	11	2	5	2	5	3	1	8	–	80
Meningococcal infection (NOS)	2	–	–	–	–	–	1	1	–	–	–	–	–	–	1	–	–	5
Meningococcal meningitis	1	1	–	–	6	2	2	–	–	–	1	–	–	1	2	1	–	17
Meningococcal septicaemia	–	–	3	–	1	–	–	–	–	–	1	1	1	–	–	–	–	7
Mycobacterial atypical	7	10	1	13	2	–	9	2	13	–	6	1	10	5	1	11	–	91
Mycobacterial infection (NOS)	2	5	–	1	5	–	4	1	5	–	5	–	1	1	1	5	–	36
Mycobacterial tuberculosis	6	5	1	8	2	–	–	1	15	–	12	–	21	2	–	17	–	90
Q fever	–	1	7	–	2	–	9	23	–	1	–	6	–	–	38	–	–	87
Syphilis infection	3	27	4	44	11	2	14	20	21	2	9	1	34	2	27	23	–	244
Vibrio infection (non cholera)	–	–	–	1	–	–	–	–	–	–	–	–	2	–	–	–	–	3

TABLE 7

VACCINE PREVENTABLE AND RELATED CONDITIONS, CUMULATIVE NOTIFICATIONS FOR NSW, 1996 BY PUBLIC HEALTH UNIT, RECEIVED BY APRIL 30, 1996

Condition	CCA	CSA	CW	ESA	HUN	ILL	NC	ND	NSA	SE	SSA	SW	SWS	WEN	WN	WSA	Total
Adverse event after immunisation	–	–	2	–	–	–	2	–	–	8	1	1	1	1	–	2	18
H. influenzae epiglottitis	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	1
H. influenzae meningitis	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1
H. influenzae septicaemia	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	1
Measles	1	2	4	2	1	5	2	2	1	3	5	5	7	2	4	12	58
Mumps	–	1	–	–	2	–	–	–	5	–	1	1	1	–	–	–	11
Pertussis	4	10	4	17	34	19	35	21	33	15	9	24	13	5	4	37	284
Rubella	–	28	1	1	–	9	2	–	–	2	6	–	–	16	–	43	108

TABLE 8

FOODBORNE INFECTIOUS DISEASE CUMULATIVE NOTIFICATIONS FOR NSW, 1996 BY PUBLIC HEALTH UNIT, RECEIVED BY APRIL 30, 1996

Condition	CCA	CSA	CW	ESA	HUN	ILL	NC	ND	NSA	SE	SSA	SW	SWS	WEN	WN	WSA	Total
Cholera	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	1
Foodborne illness (NOS)	7	5	–	–	2	1	–	1	–	–	–	2	20	–	9	–	47
Hepatitis A – acute viral	11	56	3	121	11	41	7	4	31	9	23	3	16	5	4	29	374
Listeriosis	–	–	–	–	–	–	–	–	–	1	–	–	2	–	–	–	3
Salmonella (NOS)	12	14	7	24	37	18	62	29	52	12	44	27	38	16	19	38	450
Typhoid and paratyphoid	–	5	–	1	2	–	–	–	–	–	1	–	6	–	–	2	17

past decade. Isolates possessing this plasmid are known as tetracycline-resistant *N gonorrhoeae* (TRNG). Thirteen TRNG were detected in this quarter (6.4 per cent of all isolates). Again, most of the strains were acquired overseas but two TRNG infections were acquired locally. Eleven TRNG were detected in the December quarter.

Editorial Note

The trends reported by the National Gonorrhoea Surveillance Scheme (NGSS) are reflected in NSW laboratory notifications of gonorrhoea, which were higher during the January-March quarter this year (154) than the previous quarter (115) and the same period last year (114). As previously discussed in the *Bulletin*, this may be due to a cycle in which gonorrhoea incidence peaks approximately every four years. NSW PHUs received fewer gonnorrhoea notifications than reported by NGSS, however, suggesting under-reporting by laboratories.

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.