

TRENDS

The onset of autumn brought with it further declines in **pertussis** and **salmonellosis** notifications (Figure 1, Table 2). **Hepatitis A**, **rubella** and **measles** have all remained uncommon in recent months. Autumn tends to be the peak season for **legionnaires disease**, but so far in 2001, no particular peak has emerged in notifications. However, it is timely to remind building owners of the importance of ensuring that cooling towers are regularly inspected and cleaned, to minimise the risk of contamination with legionella bacteria.

ENTEROVIRUS 71

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Hand, foot and mouth disease (HFMD) is a childhood disease that causes blisters, often in the mouth and on the hands and feet. It is usually not a serious illness. It can be caused by a number of different types of viruses, and is spread through contact with the fluid of the blisters, saliva and/or respiratory droplets of an infected person. Viruses are also shed in the faeces of affected people, who can remain infectious for several weeks. There is no vaccine against HFMD. Frequent handwashing and attention to personal hygiene may help in the prevention of the disease. HFMD is endemic both in Australia and throughout the world.

While infections with the group of viruses that are associated with HFMD usually cause only mild illness or no symptoms at all, they are rarely associated with neurological complications including meningo-encephalitis. There have been recent well-publicised outbreaks of HFMD caused by the virus Enterovirus 71 (EV71). In 1997, there was an outbreak in Sarawak, Indonesia, in which about 34 children were reported to have died. In 1998, there was an outbreak in Taiwan, in which over 100,000 children were reported to be infected with EV71, and 80 were reported to have died. In 1999, a small outbreak of EV71 was reported in Western Australia.¹

Between November 2000 and February 2001, four infants were admitted to the Intensive Care Unit (ICU) of the Sydney Childrens Hospital (SCH) and two to the ICU at Nepean Hospital. All were diagnosed with enteroviral meningo-encephalitis. Two of the children had a history of HFMD. The two children admitted to the Nepean Hospital recovered and were discharged in February 2000.

Three of the four children at SCH remain in a critical condition. EV71 was identified in three cases and typing indicates that the organisms are identical. One case remains untyped. However, this EV71 strain is

distinguishable from strains isolated during the recent outbreak in Western Australia.

The SCH Emergency Department reported larger than usual number of presentations of HFMD during November and December 2000. Rates have subsequently dropped.

Public health units were placed on alert since late December. Emergency Departments were updated at this time and requested to collect additional specimens from children presenting with suspected viral meningo-encephalitis.

Other enteroviruses can also be associated with HFMD and/or meningencephalitis, and there have been significant numbers of Coxsackie B4 and other enteroviruses isolated and typed at the ICPMR, Westmead Hospital. Current NHMRC recommendations—to exclude cases from childcare facilities until all blisters have dried—should be followed.²

References

1. McMinn P, Stratov I, Nagarajan L and Davis S. Neurological manifestations of Enterovirus 71 infection in children during an outbreak of Hand, foot and mouth disease in Western Australia. *Clin Infect Dis* 2001; 32.
2. Staying Healthy in Child Care; Preventing Infectious diseases in child care (2nd edition). Department of Health and Family Services.

ARBOVIRUS ACTIVITY

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*on behalf of the NSW Arbovirus Surveillance and Mosquito Monitoring Program
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This month we present a new feature, results of the NSW Arbovirus Surveillance and Mosquito Monitoring Program. The program provides data on mosquito trapping activities from both coastal and inland NSW, as well as data on weekly blood tests from sentinel chickens located in flocks in western NSW. Mosquito trapping is primarily an indicator of local mosquito activity, and thus of possible arbovirus infection (Murray Valley encephalitis virus and Kunjin virus, Ross River virus and Barmah Forest) in humans. The testing of chickens began in 1979 to provide an early warning of flavivirus activity (that is, Murray Valley encephalitis virus and Kunjin virus), and thus the risk to humans posed by these diseases. The variability of local conditions means that interpreting summary state-wide data is problematic. In February 2001, for the first time since the commencement of the program, MVE activity was confirmed—in sentinel chickens tested in late January—in the Far Western and Macquarie areas of

TABLE 1**RESULTS OF MOSQUITO TRAPPING AND SENTINEL CHICKEN TESTING, NSW, NOVEMBER 2000–MARCH 2001**

Month	Mosquito traps	Mosquitoes Trapped	Viruses detected in mosquitoes	Chicken flocks Tested (no. birds)	Chicken flocks with flavivirus seroconversions
November	48	15845	0	9 (393)	0
December	125	73021	6 Sindbis	9 (489)	0
January	162	28963	13 Sindbis 1 Ross River	10 (189)	2 KUN (2 flocks) 4 MVE (3 flocks) 3 Both (2 flocks)
February	173	58916	5 Sindbis 4 Ross river 2 Kunjin	10 (405)	7 KUN (4 flocks) 1 MVE (1 flock) 1 Both (1 flock)
March	160	24860	1 Kokobera	10 (672)	25 KUN (8 flocks) 2 MVE (1 flock) 1 Both (1 flock)

NSW. Evidence of Kunjin virus was also detected in February Greater Murray Area mosquitoes and chickens.

Kunjin and Murray Valley encephalitis viruses remained active in western NSW in March (Table 1). No human clinical cases of Kunjin or Murray Valley encephalitis cases were reported. Reports of human infections with Ross River virus were most common in the northern coastal areas and south west of the state. Mosquito

numbers generally declined across the state through March, although unusually large collections were made at Ballina, following heavy localised rainfall, and from the Port Stephens area. Note that Sindbis and Kokobera viruses are rarely reported as causing human illness.

For complete surveillance results, consult the NSW Arbovirus Surveillance web site at:

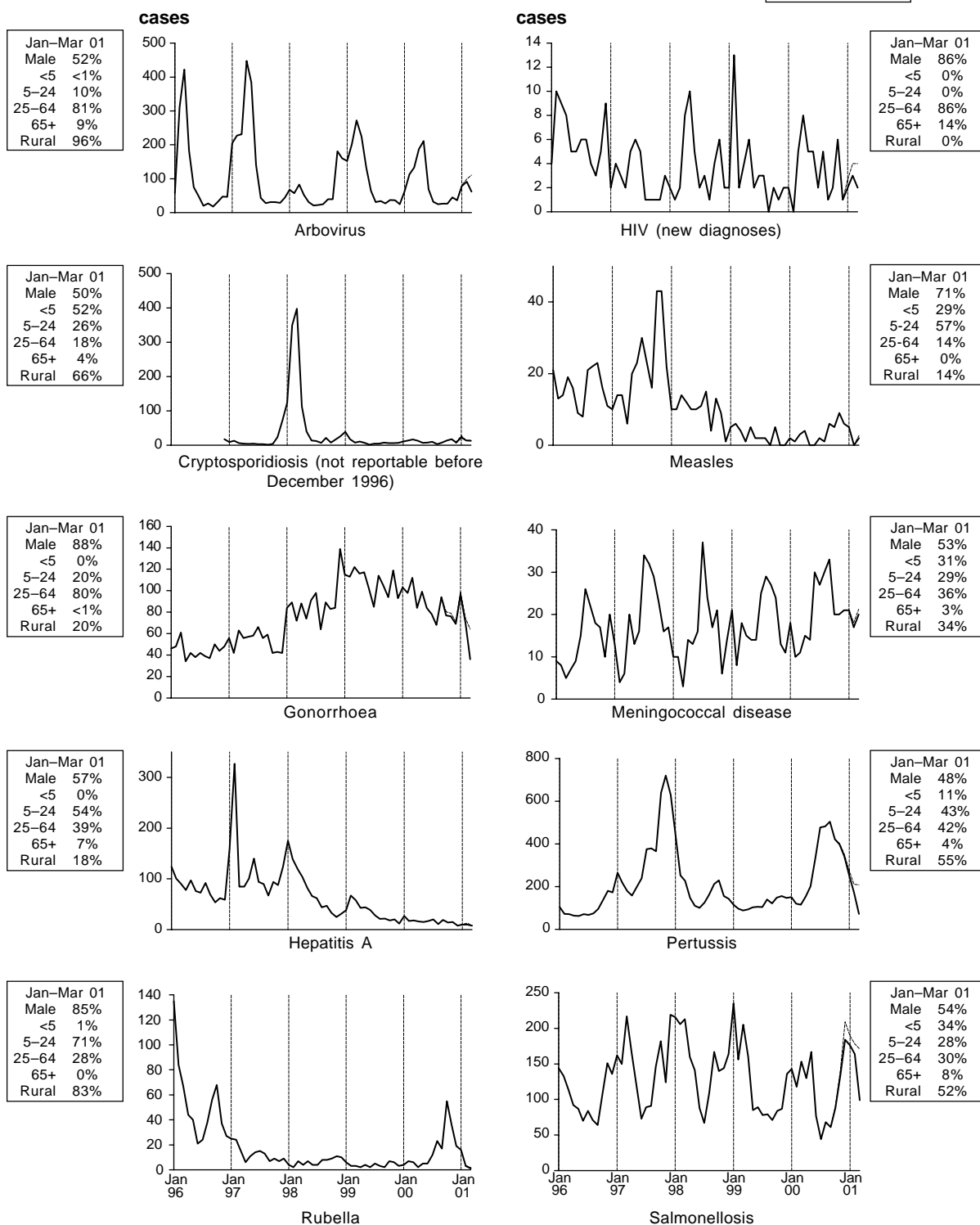
www.arbovirus.health.nsw.gov.au. ☞

FIGURE 1

REPORTS OF SELECTED COMMUNICABLE DISEASES, NSW, JANUARY 1996 TO MARCH 2001, BY MONTH OF ONSET

These are preliminary data: case counts for recent months may increase because of reporting delays. Laboratory-confirmed cases, except for measles, meningococcal disease and pertussis — actual — predicted after adjusting for likely reporting delays

NSW population	
Male	50%
<5	7%
5–24	28%
25–64	52%
65+	13%
Rural*	42%



* For definition, see *NSW Public Health Bulletin*, April 2000

TABLE 1 **REPORTS OF NOTIFIABLE CONDITIONS RECEIVED IN MARCH 2001 BY AREA HEALTH SERVICES**

Condition	Area Health Service (2001)																		Total	
	CSA	NSA	WSA	WEN	SWS	CCA	HUN	ILL	SES	NRA	MNC	NEA	MAC	MWA	FWA	GMA	SA	CHS	for March†	To date†
Blood-borne and sexually transmitted																				
AIDS	1	-	1	-	-	-	-	-	8	-	-	-	-	-	-	-	1	-	11	44
HIV infection*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33
Hepatitis B - acute viral*	-	1	1	-	-	-	1	2	-	-	-	-	-	-	-	-	-	-	5	25
Hepatitis B - other*	28	27	32	1	72	3	1	3	37	1	1	3	1	-	8	7	2	1	130	862
Hepatitis C - acute viral*	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	2	21
Hepatitis C - other*	29	31	47	23	52	22	19	34	105	36	27	12	4	5	3	5	14	32	504	1,962
Hepatitis D - unspecified*	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	3
Hepatitis, acute viral (not otherwise specified)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chancroid*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlamydia (genital)*	-	25	21	7	8	11	25	10	72	25	13	12	18	-	5	7	7	1	272	839
Gonorrhoea*	-	10	6	2	3	1	-	-	35	5	1	2	2	-	2	1	-	-	70	250
Syphilis	19	-	1	2	5	-	-	-	18	1	-	1	-	-	-	1	-	1	49	138
Vector-borne																				
Arboviral infection (BFV)*	-	-	-	-	-	1	1	2	-	8	7	-	-	-	-	-	6	-	25	60
Arboviral infection (RRV)*	-	-	-	-	1	-	6	3	1	19	15	8	7	2	2	28	2	-	94	210
Arboviral infection (Other)*	-	3	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	5	6
Malaria*	-	5	2	-	-	-	1	1	-	3	-	-	-	-	-	-	-	-	12	40
Zoonoses																				
Anthrax	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brucellosis*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Leptospirosis*	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	2	18
Lyssavirus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Psittacosis	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	2	8
Q fever*	-	-	-	-	-	-	1	-	-	1	-	3	1	-	-	-	-	-	7	35
Respiratory and other																				
Blood lead level*	-	1	-	1	9	2	5	2	1	1	-	1	1	-	-	-	-	-	24	108
Influenza	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-	3	5
Invasive Pneumococcal Infection	-	2	1	-	-	2	2	-	1	3	-	-	-	-	-	-	-	-	11	22
Legionnaires' Longbeachae*	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	5
Legionnaires' Pneumophila*	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	5
Legionnaires' (Other)*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Leprosy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Meningococcal infection (invasive)	-	4	3	-	4	-	3	2	4	1	-	-	-	-	1	-	-	-	22	64
Mycobacterial tuberculosis	2	3	2	-	1	1	4	2	4	-	1	-	-	-	-	-	1	-	21	95
Mycobacteria other than TB	-	1	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	5	17
Vaccine-preventable																				
Adverse event after immunisation	-	1	1	-	-	-	-	2	-	-	-	-	-	-	-	3	-	-	7	12
H.influenzae b infection (invasive)*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Measles	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	2	8
Mumps*	-	1	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	3	7
Pertussis	11	12	17	7	22	4	29	17	16	17	7	10	6	-	-	10	4	-	189	773
Rubella*	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-	2	29
Tetanus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Faecal-oral																				
Botulism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cholera*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cryptosporidiosis*	-	1	1	-	1	-	-	1	3	6	1	-	-	-	-	-	1	-	15	54
Giardiasis*	-	8	3	1	1	1	18	4	14	16	1	9	2	-	-	3	-	-	81	209
Food borne illness (not otherwise specified)	12	-	-	-	-	-	-	-	-	-	-	-	2	1	-	-	-	-	15	15
Gastroenteritis (in an institution)	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	185
Haemolytic uraemic syndrome	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Hepatitis A*	4	2	-	-	2	1	-	-	3	1	-	-	-	-	-	-	-	-	13	33
Hepatitis E*	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	4
Listeriosis*	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-	2	7
Salmonellosis (not otherwise specified)*	-	15	22	12	34	8	18	5	21	23	3	7	2	9	2	5	8	-	194	546
Shigellosis	-	1	-	-	-	-	1	-	11	-	1	-	-	-	2	-	1	-	17	27
Typhoid and paratyphoid*	2	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	4	13
Verotoxin producing Ecoli*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* lab-confirmed cases only

† includes cases with unknown postcode

CSA = Central Sydney Area
NSA = Northern Sydney Area
WSA = Western Sydney Area

WEN = Wentworth Area
SWS = South Western Sydney Area
CCA = Central Coast Area

HUN = Hunter Area
ILL = Illawarra Area
SES = South Eastern Sydney Area

NRA = Northern Rivers Area
MNC = North Coast Area
NEA = New England Area

MAC = Macquarie Area
MWA = Mid Western Area
FWA = Far West Area

GMA = Greater Murray Area
SA = Southern Area
CHS = Corrections Health Service