

Additional Reports

National Influenza Surveillance, 2000

Three types of data are included in National Influenza Surveillance, 2000. These are sentinel general practitioner surveillance conducted by the Australian Sentinel Practice Research Network (ASPREN), the Department of Human Services (Victoria), the Department of Health (New South Wales) and the Tropical Influenza Surveillance Scheme, Territory Health Services (Northern Territory); laboratory surveillance data from the Communicable Diseases Intelligence Virology and Serology Laboratory Reporting Scheme (LabVISE); and the World Health Organization Collaborating Centre for Influenza Reference and Research; and absenteeism surveillance conducted by Australia Post. For further information about these schemes, see CDI 2000;24:9-10.

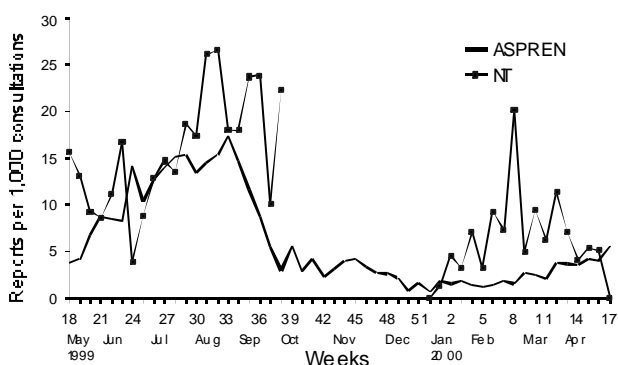
Sentinel general practitioner surveillance

Reports of influenza-like illness consultations for April 2000 and the earlier part of the year 2000 were available from the Northern Territory and ASPREN surveillance schemes. Victorian and New South Wales sentinel schemes resumed in May 2000.

The Northern Territory showed a characteristic early peak of 20.1 per 1,000 influenza-like illness consultations in late February. There were 20 influenza-like illness consultations in April 2000, a decrease from March 2000 (29) and April last year (110). Influenza-like illness consultation rates from January to April 2000, were 6.6 per 1,000 consultations (97 cases), less than for the same period last year (15.0 per 1,000) (Figure 8).

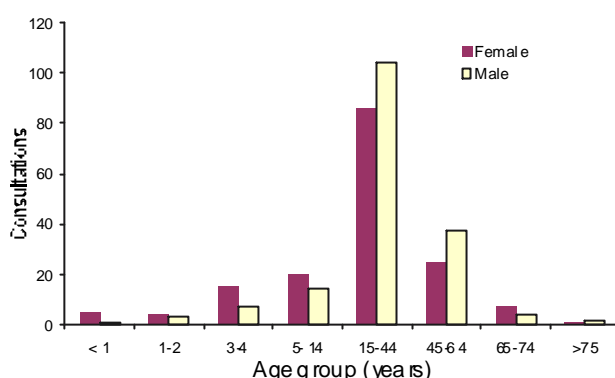
ASPREN recorded a peak of 5.5 per 1,000 consultations for influenza-like illness by the end of April 2000, greater than for the same period last year (3.5 per 1,000) and an increase from the beginning of the year (1.8 per 1,000) (Figure 8). The age distribution of influenza-like illness consultations reported by ASPREN for January to April 2000 is shown in Figure 9. Most influenza-like illness consultations occurred

Figure 8. Sentinel general practitioner influenza consultations rates, week 18 1999 to week 17 2000, by scheme



in the 15 to 44 years age range. (190, 57%). Forty-one (12%) cases were in children under 5 years of age and 14 (4%) in the 65+ years age range (Figure 9). The male to female ratio was 1:1 (172:163). The age distribution pattern for April 2000 was the same as for January to April 2000. However, there were more influenza-like illness consultations for females than males (male to female ratio 1:1.3).

Figure 9. ASPREN influenza-like illness consultation, January to April 2000, by age group and sex



Laboratory Surveillance

LabVISE collects surveillance data all year. There were 244 laboratory reports of influenza virus isolation from January to April 2000. Of these, 213 (87%) were influenza A virus and 31 (13%) were influenza B virus (Figure 10). This was an increase from the same period last year (208 isolations), and comparable with the consultation rate for influenza-like illness for ASPREN. The number of

Figure 10. Laboratory reports of influenza, 2000, by type and week of specimen collection

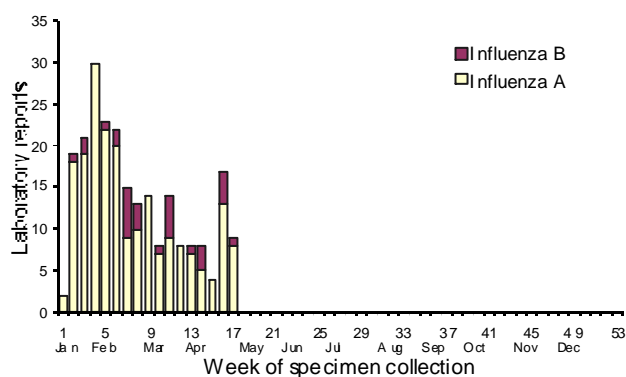


Figure 11. Laboratory reports of influenza, 1999 to 2000, by month of specimen collection

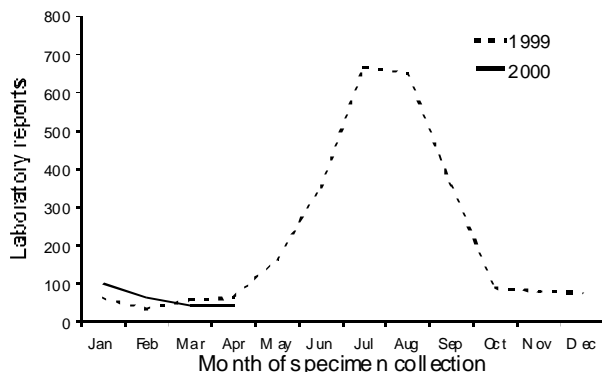
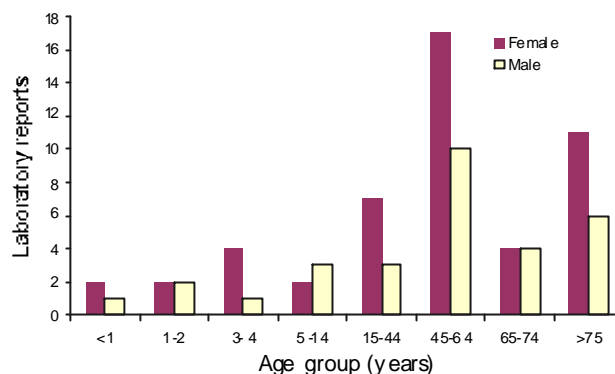


Figure 12. Laboratory reports of influenza, 2000, by age group and sex

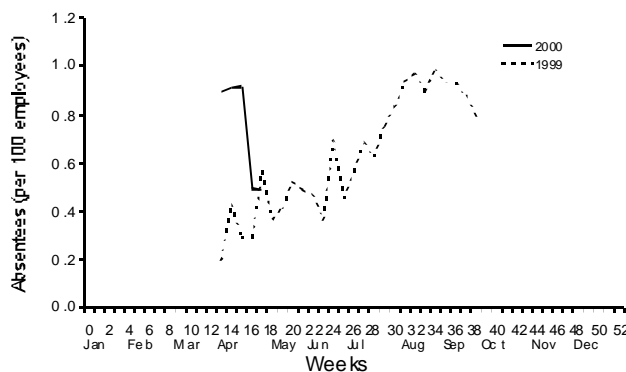


Influenza reports from LabVISE was higher between mid-January and the end of February 2000 than for the corresponding period in 1999. From the end of February 2000 the number of reports returned to a similar level to that seen in 1999 (Figure 11). Specifically for April 2000, there were 39 influenza reports, a decrease from March 2000 (42) and April last year (61). Of these, 33 were influenza A virus and 6 were influenza B virus. Age information was only available for 32% of the 244 reports with a peak in the 45 to 64 years age range (27; 34%). There were 12 (15%) reports in children under 5 years of age and 25 (32%) in the 65+ years age range, with a male to female ratio of 1:1.6 (Figure 12).

Absenteeism surveillance

Australia Post reports employees absent if they are not at work for 3 or more consecutive days in 1 week. The weekly rates for April peaked in the 2 week period coinciding with Easter (0.9%) and then declined to 0.5% later in April. Average weekly absenteeism rates for April were 0.8%, more than double the average rate for April 1999 (0.3%) (Figure 13). The increase in weekly absenteeism rate for April was not reflected in the corresponding trends in influenza-like illness consultations and laboratory reports.

Figure 13. Absenteeism rates in Australia Post, 2000



Sentinel Chicken Surveillance Programme

Sentinel chicken flocks are used to monitor flavivirus activity in Australia. The main viruses of concern are Murray Valley encephalitis (MVE) and Kunjin virus which cause the potentially fatal disease Australian encephalitis in humans. Currently 28 flocks are maintained in the north of Western Australia, seven in the Northern Territory, nine in New South Wales and ten in Victoria. The flocks in Western Australia and the Northern Territory are tested year round but those in New South Wales and Victoria are tested only from November to March, during the main risk season.

Results are coordinated by the Arbovirus Laboratory in Perth and reported bimonthly. For more information see CDI 2000;24:8-9.

AK Broom,¹ J Azuolus,² L Hueston,³ JS Mackenzie,⁴ L Melville,⁵ DW Smith⁶ and PI Whelan⁷

1. Department of Microbiology, The University of Western Australia
2. Veterinary Research Institute, Victoria
3. Virology Department, Westmead Hospital, New South Wales
4. Department of Microbiology, The University of Queensland
5. Berrimah Agricultural Research Centre, Northern Territory
6. PathCentre, Western Australia
7. Department of Health and Community Services, Northern Territory

Sentinel chicken serology was carried out for 26 of the 28 flocks in Western Australia in March and April 2000. Widespread activity was detected in the Kimberley, Pilbara, Gascoyne and Murchison regions in March and April 2000 and at one site in the Mid-West during April. The number of chickens positive for flavivirus antibodies by ELISA at each site and the identity of the infecting virus(es) are shown in Table 6. A number of the later seroconversions have not yet been confirmed.

These high levels of MVE virus activity have occurred as a result of high wet season rainfall in the Kimberley region and high cyclonic rains and extensive flooding in the Pilbara, Gascoyne and Murchison regions. MVE virus antibodies were detected in 3, possibly 4, chickens in the Dongara flock (Mid-West) in late April. This is the furthest south the virus has ever been detected. A survey to determine MVE antibody levels in domestic chickens located in this region and areas further south is being carried out to determine the southern limit of MVE virus activity in Western Australia.

A number of media warnings have been issued by the Health Department of Western Australia to warn residents living in the northern areas of Western Australia of the increased risk of disease. Additional warnings were also sent out by the Regional Public Health Units to Aboriginal communities in the regions.

Table 6. Flavivirus seroconversions in Western Australian sentinel chicken flocks in March and April 2000

Location	March 2000			April 2000		
	MVE	MVE/KUN	KUN	MVE	MVE/KUN	KUN
Kimberley						
Wyndham			2			
Kununurra		1		1		1
Halls Creek	1	2	1	4		
Fitzroy Crossing	2			1	1	
Derby*				3#	5#	
Pilbara						
Port Hedland*	3			2	1#	4#
Karratha	4			3#		
Harding Dam*	2	4		8	1	
Marble Bar	3	1		6#	1#	
Pannawonica	3	2		3	1	
Tom Price	1			3#		
Paraburdoo	1					
Onslow	3					
Ophthalmia Dam	2	6				
Newman	1			4		
Exmouth				1	1	
Gascoyne						
Carnarvon		1		2#		
Murchison						
Meekatharra	1					
Mid-West						
Dongara				2#	2	

* 2 flocks of 12 chickens at these sites.

Some of these results have not yet been confirmed.

MVE Antibodies to Murray Valley encephalitis virus detected by ELISA.

KUN Antibodies to Kunjin virus detected by ELISA.

Table 7. Flavivirus seroconversions in Northern Territory sentinel chicken flocks in March and April 2000

Location	March 2000			April 2000		
	MVE	MVE/KUN	KUN	MVE	MVE/KUN	KUN
Alice Springs	3#					
Leanyer				1		2
Tennant Creek	1	1	1			3
Katherine				1		

* 2 flocks of 12 chickens at these sites.

Some of these results have not yet been confirmed.

MVE Antibodies to Murray Valley encephalitis virus detected by ELISA.

KUN Antibodies to Kunjin virus detected by ELISA.

Eight cases of Murray Valley Encephalitis were reported from Western Australia including 2 cases with onset dates in May 2000.

(It should also be noted that there are now 28 flocks in Western Australia as a new flock at the Curtain Air Base, south of Derby, has now been added to the program).

Serum samples from all seven of the Northern Territory sentinel chicken flocks were tested in the laboratory in March 2000 and from six flocks in April 2000. There were seroconversions to flaviviruses in the flocks located at Alice Springs and Tennant Creek in March and at Leanyer, Katherine and Tennant Creek in April. The number of chickens positive for flavivirus antibodies by ELISA at each site and the identity of the infecting virus(es) are shown in Table 7. A number of media warnings have been issued by the Northern Territory Health Department and to date there have been four cases of Australian encephalitis confirmed from central Australia.

There have been no seroconversions to flaviviruses in the NSW and Victorian sentinel chicken flocks over this period.

HIV and AIDS Surveillance

National surveillance for HIV disease is coordinated by the National Centre in HIV Epidemiology and Clinical Research (NCHECR), in collaboration with State and Territory health authorities and the Commonwealth of Australia. Cases of HIV infection are notified to the National HIV Database on

the first occasion of diagnosis in Australia, by either the diagnosing laboratory (ACT, New South Wales, Tasmania, Victoria) or by a combination of laboratory and doctor sources (Northern Territory, Queensland, South Australia, Western Australia). Cases of AIDS are notified through the State and Territory health authorities to the National AIDS Registry. Diagnoses of both HIV infection and AIDS are notified with the person's date of birth and name code, to minimise duplicate notifications while maintaining confidentiality.

Tabulations of diagnoses of HIV infection and AIDS are based on data available three months after the end of the reporting interval indicated, to allow for reporting delay and to incorporate newly available information. More detailed information on diagnoses of HIV infection and AIDS is published in the quarterly Australian HIV Surveillance Report, and annually in HIV/AIDS and related diseases in Australia Annual Surveillance Report. The reports are available from the National Centre in HIV Epidemiology and Clinical Research, 376 Victoria Street, Darlinghurst NSW 2010. Telephone: (02) 9332 4648; Facsimile: (02) 9332 1837; <http://www.med.unsw.edu.au/nchecr>.

HIV and AIDS diagnoses and deaths following AIDS reported for 1 to 31 December 1999, as reported to 31 March, are included in this issue of CDI (Tables 8 and 9).

Table 8. New diagnoses of HIV infection, new diagnoses of AIDS and deaths following AIDS occurring in the period 1 to 31 December 1999, by sex and State or Territory of diagnosis

										Totals for Australia			
		ACT	NSW	NT	Qld	SA	Tas	Vic	WA	This period 1999	This period 1998	Year to date 1999	Year to date 1998
HIV diagnoses	Female	0	2	0	3	0	0	0	0	5	3	75	90
	Male	0	31	0	11	0	0	8	5	55	37	610	623
	Sex not reported	0	0	0	0	0	0	0	0	0	1	1	7
	Total ¹	0	33	0	14	0	0	8	5	60	41	686	720
AIDS diagnoses	Female	0	2	0	0	0	0	0	0	2	3	16	19
	Male	0	6	0	1	0	0	0	2	9	22	131	279
	Total ¹	0	8	0	1	0	0	0	2	11	26	147	299
AIDS deaths	Female	0	0	0	0	0	0	0	0	0	0	4	8
	Male	1	0	0	0	1	1	0	3	11	98	146	135
	Total ¹	0	1	0	0	0	1	1	0	3	11	103	154

1. Persons whose sex was reported as transgender are included in the totals.

Table 9. Cumulative diagnoses of HIV infection, AIDS and deaths following AIDS since the introduction of HIV antibody testing to 31 December 1999, by sex and State or Territory

		State or Territory								Australia
		ACT	NSW	NT	Qld	SA	Tas	Vic	WA	
HIV diagnoses	Female	26	603	11	148	61	6	212	113	1,180
	Male	220	10,792	108	1,965	672	79	3,872	907	18,615
	Sex not reported	0	253	0	0	0	0	24	0	277
	Total ¹	246	11,667	119	2,120	733	85	4,121	1,023	20,114
AIDS diagnoses	Female	8	184	0	47	25	3	68	26	361
	Male	86	4,630	36	817	345	44	1,603	347	7,908
	Total ¹	94	4,826	36	866	370	47	1,678	375	8,292
AIDS deaths	Female	3	113	0	31	15	2	48	16	228
	Male	65	3,167	24	564	230	29	1,267	246	5,592
	Total ¹	68	3,288	24	597	245	31	1,321	263	5,837

1. Persons whose sex was reported as transgender are included in the totals.