



National Centre in HIV Epidemiology and Clinical Research

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CD4+ cell count at AIDS diagnosis in Australia, 1994 – 2002

Highly active antiretroviral therapy (HAART) became widely available in Australia in mid 1996 and has contributed to delayed progression to AIDS (Correll *et al* 1998), a substantial decline in AIDS incidence (Law *et al* 2000, NCHECR 2002) and improved survival following AIDS (Dore *et al* 2002, NCHECR 2002). The widespread availability of antiretroviral treatment has also been associated with an increased CD4+ cell count at AIDS diagnosis, among cases whose HIV infection was diagnosed at least three months prior to AIDS (Law *et al* 1999). We report the pattern of CD4+ cell count at AIDS diagnosis in Australia in the years 1994 – 2002.

At notification of AIDS, information was routinely sought on the date of first HIV and AIDS diagnosis in Australia, the AIDS defining illness and CD4+ cell count. Completed AIDS notification forms were forwarded through State/Territory health authorities to the national HIV/AIDS surveillance centre for entry onto the National AIDS Registry. AIDS cases were analysed by year of AIDS diagnosis, median CD4+ cell count, AIDS defining illness and the timing of first HIV diagnosis relative to AIDS diagnosis. AIDS cases whose HIV infection was first diagnosed within three months of AIDS diagnosis were defined as cases of “late” HIV diagnosis; cases for which HIV infection was diagnosed at least three months prior to AIDS diagnosis were defined as “non-late” HIV diagnoses. AIDS defining illnesses were grouped as *Pneumocystis carinii* pneumonia (PCP) only, other opportunistic infections (OI) only, Kaposi’s sarcoma (KS) only, other cancers only, central nervous system (CNS) conditions (HIV encephalopathy, toxoplasmosis and cryptococcosis) and other multiple illnesses. Trends in median CD4+ cell count were tested using linear regression.

CD4+ cell count and the date of first HIV diagnosis were available for 90% and 95.7% of 3,967 AIDS cases, respectively, diagnosed in Australia in 1994 – 2002 and notified to the National AIDS Registry by 30 June 2003. The number of AIDS diagnoses dropped from 2,432 cases in 1994 – 1996 to 642 cases in 2000 – 2002. PCP was the most frequently diagnosed single AIDS defining illness (23.1%) and the percentage of AIDS cases with a diagnosis of PCP only increased from 21.6% in 1994 – 1996 to 29.3% in 2000 – 2002. Kaposi’s sarcoma was the second most frequently diagnosed single illness (9.8%) (Table 1.1).

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Announcements

National meetings

The **20th NRL Workshop on Serology** will be held at the Surfers Paradise Marriott Resort, Surfers Paradise, Queensland, on 13 – 15 August 2003. Further information may be obtained from Debra Irvine, National Serology Reference Laboratory, Australia, 4th Floor, Healy Building, 41 Victoria Parade, Fitzroy, Victoria.

Telephone: 61 3 9418 1117

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The **Australasian Society for HIV Medicine Conference 2003 Global Crisis: Local Action** will be held in Cairns, Queensland, on 22 – 25 October 2003. Further information may be obtained from The Australasian Society for HIV Medicine, Locked Mail Bag 5057, Darlinghurst NSW 1300 Australia.

Telephone: 61 2 9368 2700

Facsimile: 61 2 9380 9528

E-mail: ashm@ashm.org.au

Website: www.ashm.org.au

The **Eleventh National Symposium on hepatitis B and C** will be held at St Vincent's Hospital, Melbourne, VIC, on Saturday 22 November 2003. Further information may be obtained from Ms Eleanor Belot, Meeting Administrator.

Telephone: 03 9288 3580

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The median CD4+ cell count increased significantly over time among AIDS cases diagnosed on the basis of mycobacteriosis ($p = 0.009$), cytomegalovirus (0.004), Kaposi's sarcoma ($p = 0.009$), other cancers (lymphoma 98%, cervical cancer 2%) ($p = 0.01$) and HIV encephalopathy ($p = 0.023$) (Table 1.1). The median CD4+ cell count at diagnosis of oesophageal candidiasis, HIV wasting, cryptococcosis and other single illnesses combined (herpes simplex, cryptosporidiosis, pulmonary tuberculosis, recurrent pneumonia or another illness) also increased over time whereas the median CD4+ cell count among cases diagnosed with PCP or toxoplasmosis did not increase over time.

Among 917 AIDS cases diagnosed with PCP only in 1994 – 2002, 37.5% were cases of late HIV diagnosis. Among AIDS cases with a diagnosis of opportunistic infections other than PCP, or a diagnosis of a central nervous system condition, Kaposi's sarcoma or other cancers, 16%, 24.6%, 17.1% and 16.1% of cases, respectively, were diagnosed late in the course of HIV infection. The median CD4+ cell count did not change over time among AIDS cases with a late HIV diagnosis nor among AIDS cases with PCP only and a non-late HIV diagnosis. Median CD4+ cell count increased among AIDS cases with a diagnosis of opportunistic infections other than PCP, cases with Kaposi's sarcoma or other cancers, and among cases with central nervous system conditions (Table 1.2).

The recent pattern of increasing CD4+ cell counts at AIDS diagnosis among those cases with a non-late HIV diagnosis is broadly consistent with the pattern first observed in Australia in 1996 – 1997 and suggests that continued use of antiretroviral and prophylactic treatments remains effective in raising the CD4+ cell count and in delaying progression to AIDS in the majority of cases of diagnosed HIV infection. The recent pattern of higher CD4+ cell counts at AIDS diagnosis may be attributable to an overall increase in the proportion of people with HIV infection living with a higher CD4+ cell count (Law *et al* 1999, Mocroft *et al* 2000).

Table 1.1 Number of AIDS cases in Australia, 1994 – 2002, by AIDS defining illness, median CD4+ cell count, number (%) in each category of CD4+ cell count, and year of AIDS diagnosis

Year of AIDS diagnosis/CD4+ cell count	1994 – 1996	1997 – 1999	2000 – 2002	P value
<i>Pneumocystis carinii</i> pneumonia only	525	204	188	0.762
Median CD4+ count	60	45	50	
CD4+ count category	< 50	94 (46.1)	87 (46.3)	
	50 – 99	42 (20.6)	31 (16.5)	
	100 – 199	27 (13.2)	38 (20.2)	
	>= 200	18 (8.8)	22 (11.7)	
	Not reported	23 (11.3)	10 (5.3)	
Oesophageal candidiasis	365	95	62	0.142
Median CD4+ count	78	83.5	85	
CD4+ count category	< 50	25 (26.3)	24 (38.7)	
	50 – 99	22 (23.1)	8 (12.9)	
	100 – 199	17 (17.9)	8 (12.9)	
	>= 200	20 (21.1)	18 (29.0)	
	Not reported	11 (11.6)	4 (6.5)	
Mycobacteriosis	161	39	23	0.009
Median CD4+ count	22	35	80	
CD4+ count category	< 50	19 (48.7)	7 (30.4)	
	50 – 99	5 (12.8)	5 (21.7)	
	100 – 199	6 (15.4)	4 (17.4)	
	>= 200	6 (15.4)	6 (26.1)	
	Not reported	3 (7.7)	1 (4.4)	
HIV wasting	171	84	34	0.317
Median CD4+ count	60	90	98	
CD4+ count category	< 50	21 (25.0)	10 (29.4)	
	50 – 99	13 (15.5)	7 (20.6)	
	100 – 199	20 (23.8)	6 (17.7)	
	>= 200	11 (13.1)	8 (23.5)	
	Not reported	19 (22.6)	3 (8.8)	
Cytomegalovirus	102	20	12	0.004
Median CD4+ count	20	81	88	
CD4+ count category	< 50	6 (30.0)	4 (33.3)	
	50 – 99	5 (25.0)	3 (25.0)	
	100 – 199	4 (20.0)	2 (16.7)	
	>= 200	3 (15.0)	2 (16.7)	
	Not reported	2 (10.0)	1 (8.3)	
Kaposi's sarcoma	262	80	46	0.009
Median CD4+ count	98.5	163	138	
CD4+ count category	< 50	14 (17.5)	11 (23.9)	
	50 – 99	10 (12.5)	5 (10.9)	
	100 – 199	14 (17.5)	9 (19.6)	
	>= 200	30 (37.5)	18 (39.1)	
	Not reported	12 (15.0)	3 (6.5)	

Year of AIDS diagnosis/CD4+ cell count	1994 – 1996	1997 – 1999	2000 – 2002	P value
Other cancers	107	53	39	0.01
Median CD4+ count	135	200	237	
CD4+ count category	< 50	6 (11.3)	4 (10.3)	
	50 – 99	7 (13.2)	4 (10.3)	
	100 – 199	12 (22.6)	8 (20.5)	
	>= 200	26 (49.1)	20 (51.3)	
	Not reported	2 (3.8)	3 (7.7)	
HIV encephalopathy	108	52	34	0.023
Median CD4+ count	80	165	116	
CD4+ count category	< 50	11 (21.1)	7 (20.6)	
	50 – 99	9 (17.3)	5 (14.7)	
	100 – 199	7 (13.5)	8 (23.5)	
	>= 200	21 (40.4)	11 (32.4)	
	Not reported	4 (7.7)	3 (8.8)	
Cryptococcosis	92	38	20	0.131
Median CD4+ count	40	41	60	
CD4+ count category	< 50	19 (50.0)	8 (40.0)	
	50 – 99	7 (18.4)	7 (35.0)	
	100 – 199	6 (15.8)	2 (10.0)	
	>= 200	3 (7.9)	2 (10.0)	
	Not reported	3 (7.9)	1 (5.0)	
Toxoplasmosis	68	25	26	0.816
Median CD4+ count	49	45	30	
CD4+ count category	< 50	12 (48.0)	13 (50.0)	
	50 – 99	5 (20.0)	5 (19.2)	
	100 – 199	3 (12.0)	2 (7.7)	
	>= 200	4 (16.0)	3 (11.5)	
	Not reported	1 (4.0)	3 (11.5)	
Other single diagnoses¹	191	82	51	0.174
Median CD4+ count	90	140	137.5	
CD4+ count category	< 50	15 (18.3)	13 (25.5)	
	50 – 99	16 (19.5)	8 (15.7)	
	100 – 199	12 (14.6)	11 (21.6)	
	>= 200	33 (40.2)	12 (23.5)	
	Not reported	6 (7.3)	7 (13.7)	
Multiple diagnoses	280	121	107	
Total	2 432	893	642	

1 Includes cases with a diagnosis of herpes simplex virus infection, cryptosporidiosis, pulmonary tuberculosis, recurrent pneumonia or another single illness.

Table 1.2 Median CD4+ cell count at AIDS diagnosis by AIDS defining illness, year and timing of first HIV diagnosis relative to AIDS

AIDS defining illness	<i>Pneumocystis carinii</i> pneumonia		Other opportunistic infections		Kaposi's sarcoma		Other cancers		Central nervous system conditions	
	Non-late	Late	Non-late	Late	Non-late	Late	Non-late	Late	Non-late	Late
Year of AIDS diagnosis										
1994 – 1996	76	43	50	60	98.5	115	165	70	50	40
1997 – 1999	65	30	100	50	184.5	106	222.5	59	90	43.5
2000 – 2002	80	42	90	65	142	120	240	106	88	54

Reported by

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National AIDS Registry

Table 2.1 Cases of AIDS and deaths following AIDS by sex and State/Territory in which diagnosis of AIDS was made, cumulative to 31 March 2003, and for two previous yearly intervals

Cases

State/Territory	1 Apr 01 – 31 Mar 02		1 Apr 02 – 31 Mar 03		Cumulative to 31 Mar 03			
	Male	Female	Male	Female	Male	Female	Total†	%
ACT	0	0	2	0	90	9	99	1.1
NSW	81	5	58	2	4 920	212	5 145	56.9
NT	1	0	0	0	38	0	38	0.4
QLD	34	3	29	1	931	54	987	10.9
SA	13	4	7	1	376	30	406	4.5
TAS	1	0	1	1	47	4	51	0.6
VIC	42	7	40	1	1 788	85	1 882	20.8
WA	19	4	8	1	396	33	431	4.8
Total	191	23	145	7	8 586	427	9 039	100.0

Deaths

State/Territory	1 Apr 01 – 31 Mar 02		1 Apr 02 – 31 Mar 03		Cumulative to 31 Mar 03			
	Male	Female	Male	Female	Male	Female	Total†	%
ACT	2	0	0	0	71	4	75	1.2
NSW	38	2	36	3	3 396	125	3 530	56.2
NT	1	0	1	0	26	0	26	0.4
QLD	9	3	15	2	610	38	650	10.4
SA	9	2	7	1	252	19	271	4.3
TAS	0	0	1	0	31	2	33	0.5
VIC	16	5	11	0	1 332	57	1 396	22.2
WA	5	2	1	2	273	22	296	4.7
Total	80	14	72	8	5 991	267	6 277	100.0

† Totals include 26 AIDS cases and 19 deaths following AIDS in people whose sex was reported as transgender.

Table 2.2 Incidence of AIDS per million current population¹ by sex and State/Territory of diagnosis for the two most recent yearly intervals

State/Territory	1 Apr 01 – 31 Mar 02			1 Apr 02 – 31 Mar 03		
	Male	Female	Total	Male	Female	Total
ACT	0.0	0.0	0.0	12.6	0.0	6.2
NSW	24.7	1.5	13.2	17.5	0.6	9.0
NT	9.6	0.0	5.1	0.0	0.0	0.0
QLD	18.7	1.6	10.1	15.6	0.5	8.0
SA	17.4	5.2	11.2	9.3	1.3	5.3
TAS	4.3	0.0	2.1	4.3	4.2	4.2
VIC	17.7	2.9	10.2	16.6	0.4	8.4
WA	19.9	4.2	12.1	8.3	1.0	4.7
Total	19.8	2.3	11.0	14.9	0.7	7.7

¹ Population estimates by sex, State/Territory and calendar period from *Australian Demographic Statistics* (Australian Bureau of Statistics).

Table 2.3 Cases of AIDS and deaths following AIDS by sex and age group, cumulative to 31 March 2003, and for two previous yearly intervals

Cases¹

Age group (years)	1 Apr 01 – 31 Mar 02		1 Apr 02 – 31 Mar 03		Cumulative to 31 Mar 03			%
	Male	Female	Male	Female	Male	Female	Total†	
0–2	0	1	0	0	9	9	18	0.2
2–12	0	1	0	0	20	10	30	0.3
0–12	0	2	0	0	29	19	48	0.5
13–19	0	0	0	0	27	4	31	0.3
20–29	13	3	12	2	1 376	107	1 496	16.6
30–39	79	11	44	4	3 583	160	3 752	41.5
40–49	62	2	59	1	2 433	68	2 503	27.7
50–59	28	4	20	0	852	35	889	9.8
60+	9	1	10	0	286	34	320	3.5
Total	191	23	145	7	8 586	427	9 039	100.0

Deaths²

Age group (years)	1 Apr 01 – 31 Mar 02		1 Apr 02 – 31 Mar 03		Cumulative to 31 Mar 03			%
	Male	Female	Male	Female	Male	Female	Total†	
0–2	0	1	0	0	5	6	11	0.2
2–12	1	0	0	0	17	6	23	0.3
0–12	1	1	0	0	22	12	34	0.5
13–19	0	0	0	0	14	3	17	0.3
20–29	3	1	1	2	682	47	740	11.8
30–39	27	5	18	4	2 391	97	2 494	39.7
40–49	27	1	30	2	1 912	46	1 960	31.2
50–59	10	5	18	0	727	30	757	12.1
60+	12	1	5	0	243	32	275	4.4
Total	80	14	72	8	5 991	267	6 277	100.0

1 Cases are classified by age at diagnosis.

2 Deaths are classified by age at death.

Table 2.4 Cases of AIDS by sex and exposure category, cumulative to 31 March 2003, and for two previous yearly intervals

Exposure category	1 Apr 01 – 31 Mar 02		1 Apr 02 – 31 Mar 03		Cumulative to 31 Mar 03			
	Male	Female	Male	Female	Male	Female	Total	%
Male homosexual/ bisexual contact	141	–	100	–	7 110	–	7 110	81.7
Male homosexual/bisexual contact and injecting drug use	5	–	11	–	397	–	397	4.6
Injecting drug use	7	3	5	1	190	92	282	3.2
<i>Heterosexual</i>	4	2	4	1	123	70	193	
<i>Not further specified</i>	3	1	1	0	67	22	89	
Heterosexual contact	26	15	17	5	369	228	597	6.9
<i>Sex with injecting drug user</i>	0	1	0	1	7	25	32	
<i>Sex with bisexual male</i>	–	1	–	1	–	43	43	
<i>From a high prevalence country</i>	5	7	5	2	71	51	122	
<i>Sex with person from a high prevalence country</i>	5	0	3	0	58	15	73	
<i>Sex with person with medically acquired HIV</i>	0	0	0	0	2	10	12	
<i>Sex with HIV infected person, exposure not specified</i>	6	1	0	0	35	29	64	
<i>Not further specified</i>	10	5	9	1	196	55	251	
Haemophilia/coagulation disorder	1	0	2	0	118	3	121	1.4
Receipt of blood/tissue	0	1	0	1	78	65	143	1.6
Health care setting	0	0	0	0	1	3	4	0.0
Total Adults/Adolescents	180	19	135	7	8 263	391	8 654	99.4
Children (under 13 years at AIDS diagnosis)								
Mother with/at risk for HIV infection	0	2	0	0	13	16	29	0.3
Haemophilia/coagulation disorder	0	0	0	0	5	0	5	0.1
Receipt of blood/tissue	0	0	0	0	11	3	14	0.2
Total children	0	2	0	0	29	19	48	0.6
Sub-total	180	21	135	7	8 292	410	8 702	100.0
Other/undetermined ¹	11	2	10	0	294	17	337	
Total	191	23	145	7	8 586	427	9 039	

1 The 'Other/undetermined' exposure category includes 26 AIDS cases in people whose sex was reported as transgender. The category was excluded from the calculation of the percentage of cases attributed to each exposure category.

Table 2.5 Deaths following AIDS by sex and exposure category, cumulative to 31 March 2003, and for two previous yearly intervals

Exposure category	1 Apr 01 – 31 Mar 02		1 Apr 02 – 31 Mar 03		Cumulative to 31 Mar 03			%
	Male	Female	Male	Female	Male	Female	Total	
Male homosexual/ bisexual contact	60	–	54	–	5 076	–	5 076	83.7
Male homosexual/bisexual contact and injecting drug use	7	–	4	–	276	–	276	4.5
Injecting drug use	5	0	3	2	114	54	168	2.8
<i>Heterosexual</i>	2	0	0	1	78	44	122	
<i>Not further specified</i>	3	0	3	1	36	10	46	
Heterosexual contact	3	10	6	6	161	130	291	4.8
<i>Sex with injecting drug user</i>	0	0	0	1	4	12	16	
<i>Sex with bisexual male</i>	–	1	–	2	–	31	31	
<i>From a high prevalence country</i>	2	4	1	0	17	16	33	
<i>Sex with person from a high prevalence country</i>	0	0	1	0	19	10	29	
<i>Sex with person with medically acquired HIV</i>	0	0	0	0	2	7	9	
<i>Sex with HIV infected person, exposure not specified</i>	0	2	0	1	22	17	39	
<i>Not further specified</i>	1	3	4	2	97	37	134	
Haemophilia/coagulation disorder	1	0	1	0	93	3	96	1.6
Receipt of blood/tissue	0	3	0	0	68	55	123	2.0
Health care setting	0	0	0	0	1	2	3	0.0
Total Adults/Adolescents	76	13	68	8	5 789	244	6 033	99.4
Children (under 13 years at death following AIDS)								
Mother with/at risk for HIV infection	1	1	0	0	8	10	18	0.3
Haemophilia/coagulation disorder	0	0	0	0	3	0	3	0.1
Receipt of blood/tissue	0	0	0	0	11	2	13	0.2
Total children	1	1	0	0	22	12	34	0.6
Sub-total	77	14	68	8	5 811	256	6 067	100.0
Other/undetermined ¹	3	0	4	0	180	11	210	
Total	80	14	72	8	5 991	267	6 277	

1 The 'Other/undetermined' exposure category includes 19 deaths following AIDS in people whose sex was reported as transgender. The category was excluded from the calculation of the percentage of cases attributed to each exposure category.

The National HIV Database

Table 3.1 Number of new diagnoses of HIV infection by sex¹ and State/Territory, cumulative to 31 March 2003, and for two previous yearly intervals

State/Territory	1 Apr 01 – 31 Mar 02		1 Apr 02 – 31 Mar 03		Cumulative to 31 Mar 03			
	Male	Female	Male	Female	Male	Female	Total	Rate ²
ACT	7	1	3	0	238	28	266	82.5
NSW ³	333	29	375	30	12 052	698	13 011	195.4
NT	4	1	4	3	117	14	131	66.3
QLD	85	16	132	13	2 296	198	2 501	67.1
SA	37	11	15	3	755	78	833	54.7
TAS	4	0	2	2	85	7	92	19.4
VIC ⁴	193	27	181	16	4 443	275	4 760	97.4
WA	32	16	30	11	1 025	150	1 181	61.0
Total⁵	695	101	742	78	21 011	1 448	22 775⁶	115.4

1 Fifty seven people (26 NSW, 7 QLD, 18 VIC and 6 WA) whose sex was reported as transgender are included in the total columns of Tables 3.1 – 3.3

2 Rate per one hundred thousand current population. Population estimates by sex, State/Territory and calendar interval from *Australian Demographic Statistics* (Australian Bureau of Statistics).

3 Cumulative total for NSW includes 235 people whose sex was not reported.

4 Cumulative total for VIC includes 24 people whose sex was not reported.

5 Cumulative total for Australia includes 259 people whose sex was not reported.

6 Estimated number of new diagnoses of HIV infection, adjusted for multiple reports, was 19 910 (range 19 450 to 20 370). Reference: Law MG, McDonald AM and Kaldor JM. Estimation of cumulative HIV incidence in Australia, based on national case reporting. *Aust NZ J Public Health* 1996; 20: 215 - 217

Table 3.2 Number of new diagnoses of HIV infection for which exposure category was reported, by sex and exposure category, cumulative to 31 March 2003, and for two previous yearly intervals

Exposure category	1 Apr 01 – 31 Mar 02		1 Apr 02 – 31 Mar 03		Cumulative to 31 Mar 03			%
	Male	Female	Male	Female	Male	Female	Total ¹	
Male homosexual/ bisexual contact	480	–	531	–	14 673	–	14 673	77.4
Male homosexual/bisexual contact and injecting drug use	36	–	30	–	777	–	777	4.1
Injecting drug use	30	7	20	3	629	192	828	4.4
<i>Heterosexual</i>	20	6	13	2	250	140	391	
<i>Not further specified</i>	10	1	7	1	379	52	437	
Heterosexual contact	84	86	69	67	1 132	950	2 086	11.0
<i>Sex with injecting drug user</i>	2	1	1	5	32	93	125	
<i>Sex with bisexual male</i>	–	9	–	7	–	127	127	
<i>From a high prevalence country</i>	26	40	21	20	234	257	492	
<i>Sex with person from a high prevalence country</i>	16	15	17	8	196	108	304	
<i>Sex with person with medically acquired HIV</i>	0	0	0	0	5	17	22	
<i>Sex with HIV infected person, exposure not specified</i>	8	10	5	12	67	139	207	
<i>Not further specified</i>	32	11	25	15	598	209	809	
Haemophilia/coagulation disorder	1	0	0	0	221	4	225	1.2
Receipt of blood/tissue	0	0	0	0	106	102	208	1.1
Health care setting ²	0	0	0	1	3	9	12	0.1
Total Adults/Adolescents¹	631	93	650	71	17 541	1 257	18 809	99.2
Children (under 13 years at HIV diagnosis)								
Mother with/at risk for HIV infection ³	0	3	1	0	40	31	71	0.4
Haemophilia/coagulation disorder	0	0	0	0	66	0	66	0.3
Receipt of blood/tissue	0	0	0	0	13	8	21	0.1
Total children	0	3	1	0	119	39	158	0.8
Sub-total	631	96	651	71	17 660	1 296	18 967	100.0
Other/undetermined ⁴	64	5	91	7	3 351	152	3 808	
Total¹	695	101	742	78	21 011	1 448	22 775⁵	

1 Total column includes people whose sex was not reported.

2 'Health care setting' includes 6 cases of occupationally acquired HIV infection and 4 cases of HIV transmission in surgical rooms.

3 A total of 300 children were notified as having been born to women with HIV infection, cumulative to 31 March 2003.

4 The 'Other/undetermined' exposure category includes 3 790 adults/adolescents and 18 children. Fifty seven people whose sex was reported as transgender were included in the 'Other/undetermined' category. The 'Other/undetermined' category was excluded from the calculation of the percentage of cases attributed to each exposure category.

5 See footnote Table 3.1

Table 3.3 Number of new diagnoses of HIV infection by sex and age group, cumulative to 31 March 2003, and for two previous yearly intervals

Age group (years)	1 Apr 01 – 31 Mar 02		1 Apr 02 – 31 Mar 03		Cumulative to 31 Mar 03			
	Male	Female	Male	Female	Male	Female	Total ¹	%
0–2	0	1	0	0	43	20	64	0.3
3–12	0	2	1	0	91	21	112	0.5
13–19	11	5	2	5	430	94	533	2.3
20–29	166	37	166	25	7 003	588	7 714	33.9
30–39	284	36	319	33	7 841	419	8 365	36.7
40–49	149	12	155	9	3 721	152	3 916	17.2
50–59	62	5	69	2	1 284	56	1 352	5.9
60+	19	3	29	4	424	66	492	2.2
Not reported	4	0	1	0	174	32	227	1.0
Total¹	695	101	742	78	21 011	1 448	22 775	100.0

1 See footnotes Table 3.2

Table 3.4 Number of new diagnoses of HIV infection in the year 1 April 2002 to 31 March 2003 for which an HIV seroconversion illness was diagnosed or the date of a prior negative test was within one year of diagnosis of HIV infection, by sex and State/Territory and for two six month intervals of HIV diagnosis

State/Territory	1 Apr 02 – 30 Sep 02		1 Oct 02 – 31 Mar 03		1 Apr 02 – 31 Mar 03		
	Male	Female	Male	Female	Male	Female	Total ¹
ACT	1	0	0	0	1	0	1
NSW	51	0	77	2	128	2	132
NT	0	0	0	0	0	0	0
QLD	16	0	23	3	39	3	42
SA	4	0	1	0	5	0	5
TAS	1	0	0	0	1	0	1
VIC	30	0	33	1	63	1	65
WA	2	2	3	1	5	3	8
Total¹	105	2	137	7	242	9	254

1 Totals includes 2 people whose sex was reported as transgender and 1 person whose sex was not reported.

Table 3.5 Number of new diagnoses of HIV infection in the year 1 April 2002 to 31 March 2003 for which an HIV seroconversion illness was diagnosed or the date of a prior negative test was within one year of diagnosis of HIV infection, by sex and exposure category and for two six month intervals of HIV diagnosis

Exposure category	1 Apr 02 – 30 Sep 02		1 Oct 02 – 31 Mar 03		1 Apr 02 – 31 Mar 03		
	Male	Female	Male	Female	Male	Female	Total ¹
Male homosexual/bisexual contact	100	–	118	–	218	–	218
Male homosexual/bisexual contact and injecting drug use	2	–	6	–	8	–	8
Injecting drug use (female and heterosexual male)	0	0	1	0	1	0	1
Heterosexual contact	1	1	6	7	7	8	16
Health care setting	0	1	0	0	0	1	1
Other/undetermined	2	0	6	0	8	0	10
Total¹	105	2	137	7	242	9	254

1 Totals includes two people whose sex was reported as transgender and one person whose sex was not reported.

Table 3.6 Number of new diagnoses of HIV infection in the year 1 April 2002 to 31 March 2003 for which an HIV seroconversion illness was diagnosed or the date of a prior negative test was within one year of diagnosis of HIV infection, by sex and age group and for two six month intervals of HIV diagnosis

Age group (years)	1 Apr 02 – 30 Sep 02		1 Oct 02 – 31 Mar 03		1 Apr 02 – 31 Mar 03		
	Male	Female	Male	Female	Male	Female	Total ¹
13–19	0	0	1	0	1	0	1
20–29	28	0	36	1	64	1	65
30–39 ¹	50	1	65	4	115	5	123
40–49	20	0	26	2	46	2	48
50–59	6	1	7	0	13	1	14
60+	1	0	2	0	3	0	3
Total¹	105	2	137	7	242	9	254

1 Totals include two people whose sex was reported as transgender and one person whose sex was not reported.

Sentinel surveillance of HIV infection in sexual health clinics

Table 4.1 Number of people seen, number of people tested for HIV antibody and number of people newly diagnosed with HIV infection, by sex and sexual health clinic, during the quarter 1 January to 31 March 2003

Sexual health clinic	Seen at Clinic		Tested for HIV antibody		Newly diagnosed with HIV infection		
	Male	Female	Male	Female	Male	Female	Total
Sydney Sexual Health Centre, NSW	1 535	1 165	711	421	4	0	4
Livingstone Road Sexual Health Centre, Marrickville, NSW	389	400	182	133	0	0	0
Brisbane Sexual Health Clinic, QLD	902	736	365	188	1	0	1
Gold Coast Sexual Health Clinic, QLD	414	567	126	224	4	0	4
Clinic 275, Adelaide, SA	1 063	832	821	423	1	0	1
Melbourne Sexual Health Centre, VIC	1 640	1 474	833	652	5	1	6
Total	5 943	5 174	3 038	2 041	15	1	16

Table 4.2 Number of people seen¹ who had a *previous negative HIV antibody test*, percent retested for HIV antibody and number (percent) newly diagnosed with HIV infection, by sex and exposure category, during the quarter 1 January to 31 March 2003

Exposure category	Previous negative HIV antibody test		% retested for HIV antibody		Newly diagnosed with HIV infection			%
	Male	Female	Male	Female	Male	Female	Total	
Male homosexual/bisexual contact	814	–	64.6	–	6	–	6	1.1
Male homosexual/bisexual contact and injecting drug use	59	–	69.5	–	0	–	0	0.0
Injecting drug use (female and heterosexual male)	124	85	56.5	29.4	0	0	0	0.0
Heterosexual contact	1 255	1 363	47.1	28.2	0	0	0	0.0
<i>outside Australia</i>	198	158	58.6	43.3	0	0	0	0.0
<i>within Australia only</i>	1 057	1 205	44.9	26.2	0	0	0	0.0
Sex worker	–	333	–	60.1	–	0	0	0.0
Sex worker and injecting drug use	–	38	–	55.3	–	0	0	0.0
Other/undetermined	20	48	40.0	31.2	0	0	0	0.0
Total	2 272	1 867	54.4	34.5	6	0	6	0.3

1 Data from the Melbourne Sexual Health Centre, VIC, not included for this quarter.

Table 4.3 Number of people seen¹ with *no previous HIV antibody test*, percent tested for HIV antibody for the first time, and number (percent) newly diagnosed with HIV infection, by sex and exposure category, during the quarter 1 January to 31 March 2003

Exposure category	No previous HIV antibody test		% tested for HIV antibody		Newly diagnosed with HIV infection			%
	Male	Female	Male	Female	Male	Female	Total	
Male homosexual/bisexual contact	374	–	54.5	–	3	–	3	1.5
Male homosexual/bisexual contact and injecting drug use	22	–	54.5	–	0	–	0	0.0
Injecting drug use (female and heterosexual male)	73	42	75.3	64.3	0	0	0	0.0
Heterosexual contact	1 181	1 539	57.0	40.7	0	0	0	0.0
<i>outside Australia</i>	205	227	65.4	54.2	0	0	0	0.0
<i>within Australia only</i>	976	1 312	55.2	38.4	0	0	0	0.0
Sex worker	–	54	–	75.9	–	0	0	0.0
Sex worker and injecting drug use	–	15	–	53.3	–	0	0	0.0
Other/undetermined	152	159	16.4	25.8	1	0	1	1.5
Total	1 802	1 809	53.8	41.1	4	0	4	0.2

¹ Data from the Melbourne Sexual Health Centre, VIC, not included for this quarter.

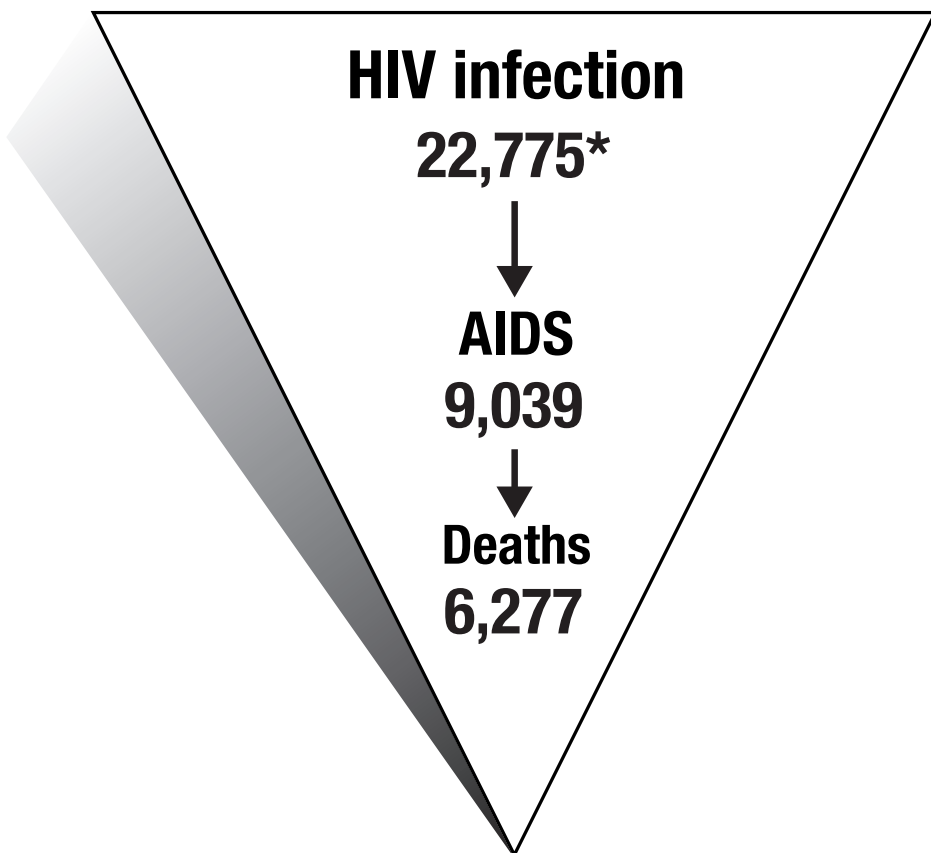
Table 4.4 Number of people seen¹, number of people tested for HIV antibody and number of people newly diagnosed with HIV infection, by sex and age group, during the quarter 1 January to 31 March 2003

Age group (years)	Seen at Clinic		Tested for HIV antibody		Newly diagnosed with HIV infection		
	Male	Female	Male	Female	Male	Female	Total
13–19	142	483	81	180	0	0	0
20–29	1 676	1 910	948	730	4	0	4
30–39	1 398	849	679	320	4	0	4
40–49	666	330	308	109	1	0	1
50–59	291	101	129	45	1	0	1
60+	130	27	60	5	0	0	0
Total	4 303	3 700	2 205	1 389	10	0	10

¹ Data from the Melbourne Sexual Health Centre, VIC, not available for this quarter.

The HIV Epidemic in Australia

A cumulative profile to 31 March 2003



* Estimated number of new diagnoses of HIV infection, adjusted for multiple reports, was 19,910 (range 19,220 - 20,140).



Diagnoses in the first quarter

1 January – 31 March 2003

- a total of 217 diagnoses of HIV infection, 17 diagnoses of AIDS and 19 deaths following AIDS were reported, by 30 June 2003, to have occurred in the first quarter of 2003
- following adjustment for reporting delay, the estimated numbers of AIDS diagnoses and deaths following AIDS occurring in the first quarter of 2003 were 46 and 25
- in comparison, 222 diagnoses of HIV infection, 64 diagnoses of AIDS and 16 deaths following AIDS were reported by 30 June 2003, to have occurred in the first quarter of 2002

New HIV infection

During the first quarter of 2003, 66 cases were reported as having newly acquired HIV infection identified by a negative test within the 12 months prior to diagnosis or the diagnosis of HIV seroconversion illness. A history of male homosexual contact, with or without a history of injecting drug use, was reported in 56 (84.9%) cases.

Diagnoses in the year to 31 March 2003

- 825 diagnoses of HIV infection
- 152 diagnoses of AIDS
- 80 deaths following AIDS were reported by 30 June 2003

HIV diagnoses

People diagnosed with HIV infection in the year to 31 March 2003 had an average age of 36 years and 0.8% was in the age group 13 – 19 years

- 89.9% were male, 9.7% were female, and was not reported in 0.4% of cases.
- of 725 cases of HIV infection, newly diagnosed in the year to 31 March 2003 for which exposure to HIV was recorded, a history of male homosexual contact, with or without a history of injecting drug use, was reported in 77.5%.

Total diagnoses to 31 March 2003

- 22,775 diagnoses of HIV infection
- 19,910 diagnoses of HIV infection following adjustment for multiple reporting
- 9,039 diagnoses of AIDS
- 6,277 deaths following AIDS were reported by 30 June 2003

HIV testing in sexual health clinics

Six sexual health clinics in Adelaide, Brisbane, Gold Coast, Melbourne and Sydney tested 5,079 people in the quarter 1 January – 31 March 2003 who were not previously known to have HIV infection

- of 1,713 people reported as having been tested for the first time, 4 (0.2%) was found to have HIV infection
- of 1,881 people reported as having been retested following a previous negative test, 6 (0.3%) were found to have HIV infection
- of 526 men who reported a history of homosexual contact only, who were retested following a previous negative test, 5 (1%) were newly diagnosed with HIV infection

Contents

CD4+ cell count at AIDS diagnosis in Australia, 1994 – 2002	1
Announcements	2
National AIDS Registry	9
National HIV Database	14
Sentinel HIV Surveillance in sexual health clinics	18
Australian HIV Surveillance Update	21
Notes	24

List of tables and figures

Table 1.1	Number of AIDS cases in Australia, 1994 – 2002, by AIDS defining illness, median CD4+ cell count, number (%) in each category of CD4+ cell count, and year of AIDS diagnosis	4
Table 1.2	Median CD4+ cell count at AIDS diagnosis by AIDS defining illness, year and timing of first HIV diagnosis relative to AIDS	6
Table 2.1	Cases of AIDS and deaths following AIDS by sex and State/Territory in which diagnosis of AIDS was made, cumulative to 31 March 2003, and for two previous yearly intervals	9
Table 2.2	Incidence of AIDS per million current population by sex and State/Territory of diagnosis for the two most recent yearly intervals	10
Table 2.3	Cases of AIDS and deaths following AIDS by sex and age group, cumulative to 31 March 2003, and for two previous yearly intervals	11
Table 2.4	Cases of AIDS by sex and exposure category, cumulative to 31 March 2003, and for two previous yearly intervals	12
Table 2.5	Deaths following AIDS by sex and exposure category, cumulative to 31 March 2003, and for two previous yearly intervals	13
Table 3.1	Number of new diagnoses of HIV infection by sex and State/Territory, cumulative to 31 March 2003, and for two previous yearly intervals	14
Table 3.2	Number of new diagnoses of HIV infection for which exposure category was reported, by sex and exposure category, cumulative to 31 March 2003, and for two previous yearly intervals	15
Table 3.3	Number of new diagnoses of HIV infection by sex and age group, cumulative to 31 March 2003, and for two previous yearly intervals	16
Table 3.4	Number of new diagnoses of HIV infection in the year 1 April 2002 to 31 March 2003 for which an HIV seroconversion illness was diagnosed or the date of a prior negative test was within one year of diagnosis of HIV infection, by sex and State/Territory and for two six month intervals of HIV diagnosis	16
Table 3.5	Number of new diagnoses of HIV infection in the year 1 April 2002 to 31 March 2003 for which an HIV seroconversion illness was diagnosed or the date of a prior negative test was within one year of diagnosis of HIV infection, by sex and exposure category and for two six month intervals of HIV diagnosis	17
Table 3.6	Number of new diagnoses of HIV infection in the year 1 April 2002 to 31 March 2003 for which an HIV seroconversion illness was diagnosed or the date of a prior negative test was within one year of diagnosis of HIV infection, by sex and age group and for two six month intervals of HIV diagnosis	17
Table 4.1	Number of people seen, number of people tested for HIV antibody and number of people newly diagnosed with HIV infection, by sex and sexual health clinic, during the quarter 1 January to 31 March 2003	18
Table 4.2	Number of people seen who had a <i>previous negative HIV antibody test</i> , percent retested for HIV antibody and number (percent) newly diagnosed with HIV infection, by sex and exposure category, during the quarter 1 January to 31 March 2003	18
Table 4.3	Number of people seen with <i>no previous HIV antibody test</i> , percent tested for HIV antibody for the first time, and number (percent) newly diagnosed with HIV infection, by sex and exposure category, during the quarter 1 January to 31 March 2003	19
Table 4.4	Number of people seen, number of people tested for HIV antibody and number of people newly diagnosed with HIV infection, by sex and age group, during the quarter 1 January to 31 March 2003	19

Australian HIV Surveillance Report

National Centre in HIV Epidemiology and Clinical Research

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NOTES

The National AIDS Registry is maintained by NCHECR on behalf of the National HIV Surveillance Committee, which consists of representatives from NCHECR, and the Health Departments of each State and Territory and the Commonwealth of Australia. The Registry is based on reports from doctors who diagnose AIDS, made to the Health Department in the State/Territory of diagnosis. Date of birth and a name code (first two letters of first and last name) are used to minimise duplicate registration, while maintaining confidentiality.

The National HIV Database is maintained by NCHECR on behalf of the National HIV Surveillance Committee. It is based on reports of new diagnoses of HIV infection from HIV Reference Laboratories (ACT, NSW, TAS, VIC), or from a combination of Reference Laboratory and diagnosing doctors (NT, QLD, SA, WA). In order to avoid counting the same case more than once, only diagnoses which are determined to be new by the diagnosing laboratory or doctor are reported for the purposes of national surveillance.

Sentinel surveillance is carried out by six sexual health clinics in five Australian cities, which send quarterly reports on HIV antibody testing to NCHECR. Tabulations from the National AIDS Registry, the National HIV Database and Sentinel HIV Surveillance in sexual health clinics 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.

Abbreviations: HIV is the human immunodeficiency virus, and unless otherwise specified, refers to HIV-1 only. AIDS is the acquired immunodeficiency syndrome and STI stands for sexually transmissible infection. High prevalence countries are those of sub-Saharan Africa, the Caribbean and specific countries in South East Asia (Cambodia, Myanmar and Thailand), where HIV prevalence is above 1% and transmission is believed to be predominantly heterosexual. The Australian States and Territories are: Australian Capital Territory (ACT), New South Wales (NSW), Northern Territory (NT), Queensland (QLD), South Australia (SA), Tasmania (TAS), Victoria (VIC) and Western Australia (WA). NCHECR is the National Centre in HIV Epidemiology and Clinical Research.

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State/Territory publications of surveillance data, available through the Internet, are listed below:

NSW Public Health Bulletin	www.health.nsw.gov.au/public-health/phb/phb.html
The Northern Territory Disease Control Bulletin	www.nt.gov.au/health/cdc/aids_std/report/index.shtml
Sexually Transmitted Diseases in South Australia	www.stdservices.on.net/publications
Victorian Infectious Diseases Bulletin	www.dhs.vic.gov.au/phd/vidb/
Disease WATCH	www.public.health.wa.gov.au/

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