



National Centre in HIV Epidemiology and Clinical Research

# Australian HIV Surveillance Update

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## Prevalence of HIV-1 genotypes and transmission of primary drug resistance in South Australia

Since its discovery more than 20 years ago, human immunodeficiency virus type 1 (HIV-1) has dispersed globally, generating extensive genetic diversity. To date, more than 11 subtypes, designated by letters from A to L, as well as more than 15 circulating recombinant forms (CRFs), have been identified. The predominant subtype found among cases of HIV infection newly diagnosed in South Australia was subtype B, characteristic of HIV infection found in a mostly western European population. However, as South Australia has become home to people from countries other than western European countries, there has been an increase in the proportion of non-B subtypes present among cases of newly diagnosed HIV-1 infection. We examined the viral subtype in 675 cases of HIV infection, newly diagnosed in South Australia in 1985 – 2004.

HIV-1 subtype was determined from ~1200 base pairs of viral nucleotide sequence of the HIV *pol* region. Genetic sequences were analysed by comparing them with GenBank deposited reference sequences and by submission to the Stanford HIV sequence database.

Overall, 90.3% of cases of HIV infection newly diagnosed in South Australia had subtype B infection and 9.7% had non-B subtypes. Of the 66 non-B subtypes, 28 (42%) were subtype AE (Thai) and 26 (39%) were subtype C. There were 3 cases with an A1 genotype, two cases with an AE (African) genotype and one case each of 7 other subtypes or circulating recombinant forms (G, D, BC07, BC08, AG, DG and AD).

One sample that aligned most closely with a reference sequence of recombinant type BC from China/India was subtype C for the *pol* region. Two samples that clustered with reference sequences of African origin were recombinant subtypes AD and AG and one sample from the Pacific region, sequenced for the *pol* region only, was a DG recombinant subtype. The AD and DG subtypes do not have equivalent circulating recombinant forms in the reference database.

Twenty five samples that had been sequenced for the *pol* region were also sequenced for a fragment of the envelope (*env*) gene and a fragment of the *tat* region. Genotypes generated from the *env* and *tat* regions were compared to the genotypes determined from the *pol* region. Nineteen samples had the same genotype for *pol*, *tat* and *env* (12 subtype B, 6 subtype C and 1 subtype A). For four *pol* AE samples, the *tat* region clustered with subtype A sequences. One sample that was subtype B in the protease region and subtype C in the reverse transcriptase region was subtype C for the *env* region and subtype B for the *tat* region, and aligned with a BC recombinant from the China/India subcontinent. Another sample, not sequenced for the protease region, was subtype A for reverse transcriptase and *tat*, and subtype D for *env*.

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## Announcements

### National meetings

The **5th Australasian Viral Hepatitis Conference 2006** will be held at the Sydney Masonic Centre, Sydney, on 20 – 22 February 2006. Further information may be obtained from the 5th Australasian Viral Hepatitis Conference 2006, Locked Mail Bag 5057, Darlinghurst NSW 1300 Australia.

Telephone: +61 2 8204 0770

Facsimile: +61 2 9212 4670

E-mail: [conferenceinfo@hepatitis.org.au](mailto:conferenceinfo@hepatitis.org.au)

Website: [www.hepatitis.org.au](http://www.hepatitis.org.au)

The **18th Annual Conference of Australasian Society for HIV Medicine** will be held in conjunction with the **3rd Australian Centre for HIV and Hepatitis Virology Research** at the Carlton Crest Hotel, Melbourne, on 11 – 14 October 2006. Further information may be obtained from ASHM Conference 2006,

Locked Mail Bag 5057, Darlinghurst NSW 1300 Australia.

Telephone: +61 2 8204 0770

Facsimile: +61 2 9212 4670

E-mail: [conferenceinfo@ashm.org.au](mailto:conferenceinfo@ashm.org.au)

Website: [www.ashm.org.au/conference](http://www.ashm.org.au/conference)

The **4th IAS Conference on HIV Pathogenesis and Treatment** will be held in Sydney on 22 – 25 July 2007. Further information may be obtained through the website [www.ias2007.org](http://www.ias2007.org)

Resistance to nucleoside reverse transcriptase inhibitors and non-nucleoside reverse transcriptase inhibitors has been detected among treatment naïve cases of HIV infection diagnosed in South Australia. A cluster of transmission with the drug resistance mutation K103N was detected among 14 treatment naïve cases of newly diagnosed HIV infection as well as in three other cases whose treatment history was unknown. In 2005, three cases without the resistance mutation and another with a K103S mutation were added to the cluster. Because no sequential genotypes for this group are currently available, it is not known whether reversion to wild type virus has occurred within the treatment naïve group or if the newly diagnosed infections were from a single contact whose virus has reverted to wild type. A total of six other primary resistance mutations (K79R, L74V, V106A, V118I, Y181C and M184V) have been detected among treatment naïve cases of HIV infection in South Australia.

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# National AIDS Registry

**Table 1.1 Cases of AIDS and deaths following AIDS by sex and State/Territory in which diagnosis of AIDS was made, cumulative to 30 June 2005, and for two previous yearly intervals**

## Cases

State/Territory	1 Jul 03 – 30 Jun 04		1 Jul 04 – 30 Jun 05		Cumulative to 30 Jun 05			
	Male	Female	Male	Female	Male	Female	Total†	%
ACT	2	1	0	0	92	9	101	1.1
NSW	117	6	51	7	5 205	234	5 455	56.9
NT	2	1	1	1	42	2	44	0.5
QLD	24	4	20	5	991	66	1 059	11.0
SA	8	0	7	1	392	31	424	4.4
TAS	1	0	0	0	48	4	52	0.5
VIC	40	4	38	7	1 895	102	2 007	20.9
WA	7	0	8	0	415	35	452	4.7
<b>Total</b>	<b>201</b>	<b>16</b>	<b>125</b>	<b>21</b>	<b>9 080</b>	<b>483</b>	<b>9 594</b>	<b>100.0</b>

## Deaths

State/Territory	1 Jul 03 – 30 Jun 04		1 Jul 04 – 30 Jun 05		Cumulative to 30 Jun 05			
	Male	Female	Male	Female	Male	Female	Total†	%
ACT	1	1	0	0	71	6	77	1.2
NSW	44	3	31	2	3 530	132	3 672	56.1
NT	0	0	0	1	26	1	27	0.4
QLD	13	2	9	1	645	41	688	10.5
SA	10	0	5	0	270	20	290	4.4
TAS	0	0	0	0	32	2	34	0.5
VIC	13	1	12	1	1 376	59	1 443	22.0
WA	4	1	7	0	290	24	315	4.8
<b>Total</b>	<b>85</b>	<b>8</b>	<b>64</b>	<b>5</b>	<b>6 240</b>	<b>285</b>	<b>6 546</b>	<b>100.0</b>

† Totals include 31 AIDS cases and 21 deaths following AIDS in people whose sex was reported as transgender.

**Table 1.2 Incidence of AIDS per million current population<sup>1</sup> by sex and State/Territory of diagnosis for the two most recent yearly intervals**

State/Territory	1 Jul 03 – 30 Jun 04			1 Jul 04 – 30 Jun 05		
	Male	Female	Total	Male	Female	Total
ACT	12.5	6.1	9.3	0.0	0.0	0.0
NSW	35.1	1.8	18.4	15.2	2.1	8.6
NT	19.1	10.6	15.1	9.5	10.5	10.0
QLD	12.5	2.1	7.3	10.2	2.5	6.4
SA	10.6	0.0	5.9	7.2	1.3	5.2
TAS	4.2	0.0	2.1	0.0	0.0	0.0
VIC	16.4	1.6	8.9	15.4	2.8	9.0
WA	7.1	0.0	3.6	8.0	0.0	4.0
<b>Total</b>	<b>20.2</b>	<b>1.6</b>	<b>10.9</b>	<b>12.4</b>	<b>2.1</b>	<b>7.2</b>

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

**Table 1.3 Cases of AIDS and deaths following AIDS by sex and age group, cumulative to 30 June 2005, and for two previous yearly intervals**

**Cases<sup>1</sup>**

Age group (years)	1 Jul 03 – 30 Jun 04		1 Jul 04 – 30 Jun 05		Cumulative to 30 Jun 05			%
	Male	Female	Male	Female	Male	Female	Total <sup>†</sup>	
0–2	0	0	0	0	9	9	18	0.2
2–12	0	0	0	0	21	11	32	0.3
0–12	0	0	0	0	30	20	50	0.5
13–19	0	0	0	0	27	5	32	0.3
20–29	11	3	7	1	1 410	116	1 539	16.1
30–39	80	5	34	9	3 755	179	3 944	41.1
40–49	60	3	49	6	2 595	84	2 683	28.0
50–59	34	4	24	3	942	42	988	10.3
60+	16	1	11	2	321	37	358	3.7
<b>Total</b>	<b>201</b>	<b>16</b>	<b>125</b>	<b>21</b>	<b>9 080</b>	<b>483</b>	<b>9 594</b>	<b>100.0</b>

**Deaths<sup>2</sup>**

Age group (years)	1 Jul 03 – 30 Jun 04		1 Jul 04 – 30 Jun 05		Cumulative to 30 Jun 05			%
	Male	Female	Male	Female	Male	Female	Total <sup>‡</sup>	
0–2	0	0	0	0	5	6	11	0.2
2–12	0	0	0	0	17	6	23	0.3
0–12	0	0	0	0	22	12	34	0.5
13–19	0	0	0	0	14	3	17	0.2
20–29	1	1	0	0	688	49	748	11.4
30–39	26	2	13	3	2 452	104	2 564	39.2
40–49	29	4	27	1	2 010	52	2 064	31.5
50–59	19	0	12	1	779	32	811	12.4
60+	10	1	12	0	275	33	308	4.7
<b>Total</b>	<b>85</b>	<b>8</b>	<b>64</b>	<b>5</b>	<b>6 240</b>	<b>285</b>	<b>6 546</b>	<b>100.0</b>

1 Cases are classified by age at diagnosis.

2 Deaths are classified by age at death.

**Table 1.4 Cases of AIDS by sex and exposure category, cumulative to 30 June 2005, and for two previous yearly intervals**

Exposure category	1 Jul 03 – 30 Jun 04		1 Jul 04 – 30 Jun 05		Cumulative to 30 Jun 05			%
	Male	Female	Male	Female	Male	Female	Total	
Male homosexual/bisexual contact	135	–	72	–	7 466	–	7 466	80.8
Male homosexual/bisexual contact and injecting drug use	17	–	15	–	444	–	444	4.8
Injecting drug use	12	1	6	1	213	96	309	3.3
<i>Heterosexual</i>	5	1	3	1	135	72	207	
<i>Not further specified</i>	7	0	3	0	78	24	102	
Heterosexual contact	24	14	20	18	425	275	700	7.6
<i>Sex with injecting drug user</i>	1	1	0	1	9	27	36	
<i>Sex with bisexual male</i>	–	2	–	2	–	48	48	
<i>From a high prevalence country</i>	4	8	4	10	79	74	153	
<i>Sex with person from a high prevalence country</i>	6	2	6	1	72	21	93	
<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>	2	1	1	1	38	35	73	
<i>Not further specified</i>	11	0	9	3	225	60	285	
Haemophilia/coagulation disorder	1	0	0	0	120	3	123	1.3
Receipt of blood/tissue	1	0	1	1	80	66	146	1.6
Health care setting	0	0	0	0	1	3	4	0.0
<b>Total Adults/Adolescents</b>	<b>190</b>	<b>15</b>	<b>114</b>	<b>20</b>	<b>8 749</b>	<b>443</b>	<b>9 192</b>	<b>99.5</b>
<b>Children (under 13 years at AIDS diagnosis)</b>								
Mother with/at risk for HIV infection	0	0	0	0	14	17	31	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	0.1
<b>Total children</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>30</b>	<b>20</b>	<b>50</b>	<b>0.5</b>
<b>Sub-total</b>	<b>190</b>	<b>15</b>	<b>114</b>	<b>20</b>	<b>8 779</b>	<b>463</b>	<b>9 242</b>	<b>100.0</b>
Other/undetermined <sup>1</sup>	11	1	11	1	301	20	352	
<b>Total</b>	<b>201</b>	<b>16</b>	<b>125</b>	<b>21</b>	<b>9 080</b>	<b>483</b>	<b>9 594</b>	

1 The 'Other/undetermined' exposure category includes 31 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 1.5 Deaths following AIDS by sex and exposure category, cumulative to 30 June 2005, and for two previous yearly intervals**

Exposure category	1 Jul 03 – 30 Jun 04		1 Jul 04 – 30 Jun 05		Cumulative to 30 Jun 05			%
	Male	Female	Male	Female	Male	Female	Total	
Male homosexual/bisexual contact	57	–	40	–	5 255	–	5 255	83.0
Male homosexual/bisexual contact and injecting drug use	10	–	5	–	298	–	298	4.7
Injecting drug use	6	2	6	0	130	59	189	2.9
<i>Heterosexual</i>	4	1	0	0	82	48	130	
<i>Not further specified</i>	2	1	6	0	48	11	59	
Heterosexual contact	8	5	8	4	185	139	324	5.1
<i>Sex with injecting drug user</i>	0	0	0	1	5	13	18	
<i>Sex with bisexual male</i>	–	1	–	0	–	32	32	
<i>From a high prevalence country</i>	1	2	0	0	19	19	38	
<i>Sex with person from a high prevalence country</i>	2	1	2	1	25	11	36	
<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>	2	0	1	1	26	18	44	
<i>Not further specified</i>	3	1	5	1	108	39	147	
Haemophilia/coagulation disorder	0	0	0	0	95	3	98	1.5
Receipt of blood/tissue	0	1	2	1	71	58	129	2.0
Health care setting	0	0	0	0	1	2	3	0.0
<b>Total Adults/Adolescents</b>	<b>81</b>	<b>8</b>	<b>61</b>	<b>5</b>	<b>6 035</b>	<b>261</b>	<b>6 296</b>	<b>99.5</b>
<b>Children (under 13 years at death following AIDS)</b>								
Mother with/at risk for HIV infection	0	0	0	0	8	10	18	0.3
Haemophilia/coagulation disorder	0	0	0	0	3	0	3	0.0
Receipt of blood/tissue	0	0	0	0	11	2	13	0.2
<b>Total children</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>22</b>	<b>12</b>	<b>34</b>	<b>0.5</b>
<b>Sub-total</b>	<b>81</b>	<b>8</b>	<b>61</b>	<b>5</b>	<b>6 057</b>	<b>273</b>	<b>6 330</b>	<b>100.0</b>
Other/undetermined <sup>1</sup>	4	0	3	0	183	12	216	
<b>Total</b>	<b>85</b>	<b>8</b>	<b>64</b>	<b>5</b>	<b>6 240</b>	<b>285</b>	<b>6 546</b>	

1 The 'Other/undetermined' exposure category includes 21 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 2.1** Number of new diagnoses of HIV infection by sex<sup>1</sup> and State/Territory, cumulative to 30 June 2005, and for two previous yearly intervals

State/Territory	1 Jul 03 – 30 Jun 04		1 Jul 04 – 30 Jun 05		Cumulative to 30 Jun 05			
	Male	Female	Male	Female	Male	Female	Total	Rate <sup>2</sup>
ACT	6	2	3	0	249	30	279	86.1
NSW <sup>3</sup>	342	53	380	37	12 915	799	13 975	207.1
NT	5	3	1	1	123	18	141	70.2
QLD	114	20	148	17	2 517	239	2 765	70.4
SA	51	4	51	5	864	87	952	62.0
TAS	3	1	1	0	90	8	98	20.3
VIC <sup>4</sup>	185	20	191	25	4 858	326	5 225	104.7
WA	45	8	40	12	1 126	175	1 308	65.6
<b>Total<sup>5</sup></b>	<b>751</b>	<b>111</b>	<b>815</b>	<b>97</b>	<b>22 742</b>	<b>1 682</b>	<b>24 743<sup>6</sup></b>	<b>122.4</b>

- 1 Sixty four people (28 NSW, 9 QLD, 1 SA, 19 VIC and 7 WA) whose sex was reported as transgender are included in the total columns of Tables 2.1 – 2.3
- 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 233 people whose sex was not reported.
- 4 Cumulative total for VIC includes 22 people whose sex was not reported.
- 5 Cumulative total for Australia includes 255 people whose sex was not reported.
- 6 Estimated number of new diagnoses of HIV infection, adjusted for multiple reports, was 21 820 (range 21 330 to 22 320). 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 2.2 Number of new diagnoses of HIV infection for which exposure category was reported, by sex and exposure category, cumulative to 30 June 2005, and for two previous yearly intervals**

Exposure category	1 Jul 03 – 30 Jun 04		1 Jul 04 – 30 Jun 05		Cumulative to 30 Jun 05			%
	Male	Female	Male	Female	Male	Female	Total <sup>1</sup>	
Male homosexual/ bisexual contact	556	–	597	–	16 088	–	16 088	76.9
Male homosexual/bisexual contact and injecting drug use	31	–	31	–	902	–	902	4.2
Injecting drug use	23	8	24	5	662	208	876	4.2
<i>Heterosexual</i>	12	5	12	5	275	154	429	
<i>Not further specified</i>	11	3	12	0	387	54	447	
Heterosexual contact	81	91	86	83	1 289	1 154	2 450	11.7
<i>Sex with injecting drug user</i>	2	4	0	6	32	103	135	
<i>Sex with bisexual male</i>	–	7	–	8	–	146	146	
<i>From a high prevalence country</i>	21	46	24	39	285	360	649	
<i>Sex with person from a high prevalence country</i>	29	11	30	6	262	125	387	
<i>Sex with person with medically acquired HIV</i>	0	0	0	0	4	18	22	
<i>Sex with HIV infected person, exposure not specified</i>	7	10	5	9	80	166	247	
<i>Not further specified</i>	22	13	27	15	626	236	864	
Haemophilia/coagulation disorder	0	0	0	0	218	4	222	1.1
Receipt of blood/tissue	1	0	0	1	109	102	211	1.0
Health care setting <sup>2</sup>	1	0	0	0	3	9	12	0.1
<b>Total Adults/Adolescents<sup>1</sup></b>	<b>693</b>	<b>99</b>	<b>738</b>	<b>89</b>	<b>19 271</b>	<b>1 477</b>	<b>20 761</b>	<b>99.2</b>
<b>Children (under 13 years at HIV diagnosis)</b>								
Mother with/at risk for HIV infection <sup>3</sup>	0	3	0	1	40	35	75	0.4
Haemophilia/coagulation disorder	0	0	0	0	65	0	65	0.3
Receipt of blood/tissue	0	0	0	0	13	9	22	0.1
<b>Total children</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>1</b>	<b>118</b>	<b>44</b>	<b>162</b>	<b>0.8</b>
<b>Sub-total</b>	<b>693</b>	<b>102</b>	<b>738</b>	<b>90</b>	<b>19 389</b>	<b>1 521</b>	<b>20 923</b>	<b>100.0</b>
Other/undetermined <sup>4</sup>	58	9	77	7	3 353	161	3 820	
<b>Total<sup>1</sup></b>	<b>751</b>	<b>111</b>	<b>815</b>	<b>97</b>	<b>22 742</b>	<b>1 682</b>	<b>24 743<sup>5</sup></b>	

1 Total column includes people whose sex was not reported.

2 'Health care setting' includes 5 cases of occupationally acquired HIV infection and 4 cases of HIV transmission in surgical rooms.

3 A total of 353 children were notified as having been born to women with HIV infection, cumulative to 30 June 2005.

4 The 'Other/undetermined' exposure category includes 3 799 adults/adolescents and 21 children. Sixty four 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 2.1

**Table 2.3 Number of new diagnoses of HIV infection by sex and age group, cumulative to 30 June 2005, and for two previous yearly intervals**

Age group (years)	1 Jul 03 – 30 Jun 04		1 Jul 04 – 30 Jun 05		Cumulative to 30 Jun 05			%
	Male	Female	Male	Female	Male	Female	Total <sup>1</sup>	
0–2	0	1	0	0	44	22	67	0.2
3–12	0	2	1	1	91	25	116	0.5
0–12	0	3	1	1	135	47	183	0.7
13–19	5	7	10	3	451	102	561	2.3
20–29	167	43	162	30	7 365	670	8 156	33.0
30–39	295	25	326	35	8 535	493	9 137	36.9
40–49	168	20	196	17	4 129	191	4 364	17.6
50–59	82	9	87	9	1 488	74	1 574	6.4
60+	34	4	33	2	497	73	573	2.3
Not reported	0	0	0	0	142	32	195	0.8
<b>Total<sup>1</sup></b>	<b>751</b>	<b>111</b>	<b>815</b>	<b>97</b>	<b>22 742</b>	<b>1 682</b>	<b>24 743</b>	<b>100.0</b>

1 See footnotes Table 2.1

**Table 2.4 Number of new diagnoses of HIV infection in the year 1 July 2004 to 30 June 2005 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 Jul 04 – 31 Dec 04		1 Jan 05 – 30 Jun 05		1 Jul 04 – 30 Jun 05		
	Male	Female	Male	Female	Male	Female	Total
ACT	1	0	1	0	2	0	2
NSW	61	1	68	1	129	2	131
NT	0	0	0	0	0	0	0
QLD	25	1	27	1	52	2	54
SA	6	1	13	0	19	1	20
TAS	0	0	0	0	0	0	0
VIC	36	1	37	3	73	4	77
WA	3	1	2	0	5	1	6
<b>Total</b>	<b>132</b>	<b>5</b>	<b>148</b>	<b>5</b>	<b>280</b>	<b>10</b>	<b>290</b>

**Table 2.5 Number of new diagnoses of HIV infection in the year 1 July 2004 to 30 June 2005 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 Jul 04 – 31 Dec 04		1 Jan 05 – 30 Jun 05		1 Jul 04 – 30 Jun 05		
	Male	Female	Male	Female	Male	Female	Total
Male homosexual/bisexual contact	115	–	129	–	244	–	244
Male homosexual/bisexual contact and injecting drug use	4	–	10	–	14	–	14
Injecting drug use (female and heterosexual male)	1	1	2	1	3	2	5
Heterosexual contact	6	4	3	4	9	8	17
Health care setting	0	0	0	0	0	0	0
Other/undetermined	6	0	4	0	10	0	10
<b>Total</b>	<b>132</b>	<b>5</b>	<b>148</b>	<b>5</b>	<b>280</b>	<b>10</b>	<b>290</b>

## Sentinel surveillance of HIV infection in sexual health clinics

**Table 3.1** 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 April to 30 June 2005

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	1 492	807	708	315	9	1	10
Livingstone Road Sexual Health Centre, Marrickville, NSW	374	279	179	61	1	0	1
Brisbane Sexual Health Clinic, QLD	990	860	301	154	1	0	1
Gold Coast Sexual Health Clinic, QLD	531	520	167	168	1	0	1
Clinic 275, Adelaide, SA	1 120	779	865	549	0	0	0
Melbourne Sexual Health Centre, VIC	1 850	1 905	871	687	4	1	5
<b>Total</b>	<b>6 357</b>	<b>5 150</b>	<b>3 091</b>	<b>1 934</b>	<b>16</b>	<b>2</b>	<b>18</b>

**Table 3.2** Number of people seen 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 April to 30 June 2005

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	1 402	–	66.1	–	11	–	11	1.2
Male homosexual/bisexual contact and injecting drug use	98	–	64.3	–	1	–	1	1.6
Injecting drug use (female and heterosexual male)	137	86	56.9	50.0	1	0	1	0.8
Heterosexual contact	1 881	1 585	46.4	39.7	0	0	0	0.0
<i>outside Australia</i>	346	280	57.6	48.6	0	0	0	0.0
<i>within Australia only</i>	1 535	1 305	43.3	37.9	0	0	0	0.0
Sex worker	–	791	–	51.1	–	0	0	0.0
Sex worker and injecting drug use	–	72	–	65.3	–	1	1	2.1
Other/undetermined	45	96	31.9	43.7	0	0	0	0.0
<b>Total</b>	<b>3 563</b>	<b>2 630</b>	<b>55.7</b>	<b>44.3</b>	<b>13</b>	<b>1</b>	<b>14</b>	<b>0.4</b>

**Table 3.3** Number of people seen 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 April to 30 June 2005

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	440	–	57.0	–	2	–	2	0.8
Male homosexual/bisexual contact and injecting drug use	16	–	68.7	–	0	–	0	0.0
Injecting drug use (female and heterosexual male)	49	39	77.6	46.2	0	0	0	0.0
Heterosexual contact	1 828	2 125	42.7	31.8	1	1	2	0.1
<i>outside Australia</i>	372	307	55.6	47.9	0	0	0	0.0
<i>within Australia only</i>	1 456	1 818	39.4	29.0	1	1	2	0.2
Sex worker	–	153	–	37.3	–	0	0	0.0
Sex worker and injecting drug use	–	5	–	40.0	–	0	0	0.0
Other/undetermined	188	174	14.9	9.2	0	0	0	0.0
<b>Total</b>	<b>2 521</b>	<b>2 496</b>	<b>44.0</b>	<b>30.8</b>	<b>3</b>	<b>1</b>	<b>4</b>	<b>0.2</b>

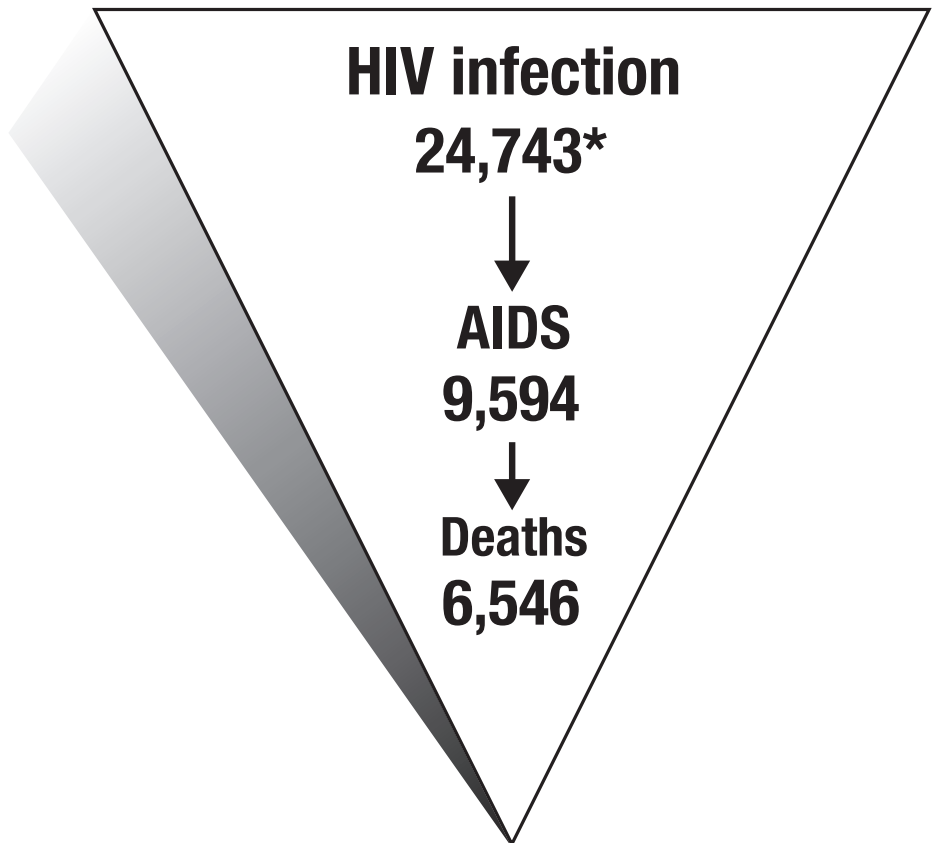
**Table 3.4** Number of people seen, number of people tested for HIV antibody and number of people newly diagnosed with HIV infection, by sex and age group, during the quarter 1 April to 30 June 2005

Age group (years)	Seen at Clinic		Tested for HIV antibody		Newly diagnosed with HIV infection		
	Male	Female	Male	Female	Male	Female	Total
13–19	237	515	121	162	0	0	0
20–29	2 628	2 667	1 381	1 000	5	2	7
30–39	1 899	1 274	902	506	6	0	6
40–49	993	513	433	204	3	0	3
50–59	427	154	187	56	2	0	2
60+	173	27	67	6	0	0	0
<b>Total</b>	<b>6 357</b>	<b>5 150</b>	<b>3 091</b>	<b>1 934</b>	<b>16</b>	<b>2</b>	<b>18</b>

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# The HIV Epidemic in Australia

A cumulative profile to 30 June 2005



\* Estimated number of new diagnoses of HIV infection, adjusted for multiple reports, was 21,820 (range 21,330 to 22,320).





## Diagnoses in the second quarter

### 1 April – 30 June 2005

- a total of 258 diagnoses of HIV infection, 36 diagnoses of AIDS and 12 deaths following AIDS were reported, by 30 September 2005, to have occurred in the second quarter of 2005
- following adjustment for reporting delay, the estimated numbers of AIDS diagnoses and deaths following AIDS occurring in the second quarter of 2005 were 77 and 21
- in comparison, 209 diagnoses of HIV infection, 44 diagnoses of AIDS and 25 deaths following AIDS were reported by 30 September 2005, to have occurred in the second quarter of 2004

### New HIV infection

During the second quarter of 2005, 78 cases among males 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 75 (96.2%) cases.

### Diagnoses in the year to 30 June 2005

- 919 diagnoses of HIV infection
- 146 diagnoses of AIDS
- 69 deaths following AIDS were reported by 30 September 2005

## HIV diagnoses

People diagnosed with HIV infection in the year to 30 June 2005 had an average age of 37 years and 1.4% was in the age group 13 – 19 years

- 89.4% were male and 10.6% were female
- of 822 cases of HIV infection, newly diagnosed among men in the year to 30 June 2005 for which an exposure to HIV was reported, 629 (76.5%) were attributed to male homosexual/bisexual contact, with or without a history of injecting drug use

### Total diagnoses to 30 June 2005

- 24,743 diagnoses of HIV infection
- 21,820 diagnoses of HIV infection following adjustment for multiple reporting
- 9,594 diagnoses of AIDS
- 6,546 deaths following AIDS were reported by 30 September 2005

## HIV testing in sexual health clinics

Six sexual health clinics in Adelaide, Brisbane, Gold Coast, Melbourne and Sydney tested 5,025 people in the quarter 1 April – 30 June 2005 who were not previously known to have HIV infection

- of 1,108 men reported as having been tested for the first time, 3 (0.3%) were found to have HIV infection
- of 1,983 men reported as having been retested following a previous negative test, 13 (0.6%) were found to have HIV infection
- of 989 homosexually active men who were retested following a previous negative test, 12 (1.2%) were newly diagnosed with HIV infection

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# **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.

## All data in this report are provisional and subject to future revision.

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

<b>NSW Public Health Bulletin</b>	<a href="http://www.health.nsw.gov.au/public-health/phb/phb.html">www.health.nsw.gov.au/public-health/phb/phb.html</a>
<b>The Northern Territory Disease Control Bulletin</b>	<a href="http://www.nt.gov.au/health/cdc/aids_std/report/index.shtml">www.nt.gov.au/health/cdc/aids_std/report/index.shtml</a>
<b>Sexually Transmitted Diseases in South Australia</b>	<a href="http://www.stdservices.on.net/publications">www.stdservices.on.net/publications</a>
<b>Victorian Infectious Diseases Bulletin</b>	<a href="http://www.dhs.vic.gov.au/phd/vidb/">www.dhs.vic.gov.au/phd/vidb/</a>
<b>Disease Watch</b>	<a href="http://www.public.health.wa.gov.au/">www.public.health.wa.gov.au/</a>

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