



National Centre in HIV Epidemiology and Clinical Research

## Australian HIV Surveillance Report

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### Monitoring newly acquired hepatitis C infection in South Australia

Hepatitis C virus (HCV) is a blood-borne virus that infects the liver and is a major health problem worldwide (Alter *et al* 1999). In South Australia, more than nine thousand cases of hepatitis C infection have been diagnosed since HCV antibody tests became available in 1990 (Sexually Transmitted Diseases Control Branch 1997, 1998; Sexually Transmitted Diseases Services 1999). Each year, approximately one thousand people are newly diagnosed with hepatitis C infection in South Australia.

Fewer than ten percent of diagnoses of hepatitis C infection are identified as newly acquired infection (incident cases); the remainder are of infection of unknown duration (prevalent cases). Monitoring cases of newly acquired hepatitis C infection can provide an indication of the extent of recent HCV transmission and current modes of exposure to HCV, and has the potential to identify unusual sources of exposure.

In South Australia, hepatitis C infection has been designated a controlled, notifiable disease under the 1987 Public and Environmental Health Act and reporting of cases has been a legal requirement from 1 January 1995. We report the pattern of newly acquired hepatitis C infection diagnosed in South Australia in 1997 – 1999, based on information obtained through laboratory and medical notifications.

Cases of newly acquired hepatitis C infection are identified in South Australia by demonstration of HCV antibody or HCV RNA following a negative antibody test in the preceding 12 months, or by demonstration of HCV antibody accompanied by an acute clinical illness not due to other causes. For surveillance purposes, an indeterminate test result is regarded as negative. Some indeterminate results represent recent infection and retesting for HCV antibody or viral RNA detection is indicated; others may represent false positive results. Potential cases of newly acquired hepatitis C infection are interviewed to determine their HCV testing history and the timing and possible route of exposure to HCV in the previous 18 months.

Exposure to HCV is possible through skin breaching activities such as injecting drug use (IDU), tattooing and other means of body piercing. Receipt of blood or blood products before the introduction, in 1990, of screening for HCV antibody is also associated with hepatitis C infection.

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## Announcements

### National meetings

The Australasian Society for HIV Medicine Conference 2001 will be held in Melbourne, Victoria, on 4 – 7 October 2001.

Further information may be obtained from ASHM Conference Secretariat, GPO Box 2609, Sydney NSW 2001.

Telephone: 02 9241 1478  
 Facsimile: 02 9251 3552  
 E-mail: ashm2001@icmsaust.com.au  
 Website: www.ashm.org.au

The Australasian Sexual Health Conference, 2001: A Sex Odyssey, will be held in Sydney, New South Wales, on 2 – 5 May 2001.

Further information may be obtained from Dart Associates, PO Box 781 Lane Cove NSW 2066.

Telephone: 02 9418 9396  
 Facsimile: 02 9418 9398  
 E-mail: dartconv@mpx.com.au  
 Website: www.acshp.org.au

### International meeting

The Sixth International Congress on AIDS in Asia and the Pacific will be held in Melbourne, Victoria, on 5 – 10 October 2001.

Further information may be obtained from ICMS Pty Ltd, 84 Queensbridge Street, Southbank, VIC 3006.

Telephone: +61 3 9682 0244  
 Facsimile: +61 3 9682 0288  
 E-mail: 6icaap@icms.com.au  
 Website: http://www.icms.com.au/6icaap

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Between 1 January 1997 and 31 December 1999, 212 cases of newly acquired hepatitis C infection were notified in South Australia. Of these, 201 cases had had a previous negative test including 1 case with viral RNA, 8 had not been tested for HCV but had a clinical illness, and testing history was unknown in 3 cases with a clinical illness. Overall, clinical symptoms of hepatitis were reported in 26 (12%) cases. Four cases with clinical hepatitis had had a negative test more than 12 months prior to their diagnosis.

Among cases of newly acquired hepatitis C infection, the male to female ratio was 2.1:1 whereas it was 1.8:1 for all new diagnoses of hepatitis C infection in the same period.

Although the age range at the time of diagnosis of newly acquired hepatitis C infection was 14 to 74 years, the majority of cases (81%) were aged less than 30 years. Ten people (5%) were aged 40 years or older when diagnosed with newly acquired hepatitis C infection and 14% were in the age group 30 – 39 years. Among prevalent hepatitis C infections diagnosed in the same period, the age group at diagnosis was 20 – 29 years in 28% of cases, 30 – 39 years in 37% of cases and 40 – 49 in 21% of cases.

Among cases of newly acquired hepatitis C infection, 195 gave a history of IDU but a recent history of injecting was reported in 189 cases. In 4 cases with a past history of IDU, recent IDU was strongly denied and no alternative exposure could be identified; in some of these cases the earlier negative test result may have been a false negative report. Recent injecting drug use was also denied in two institutionalised cases; occupational exposure was claimed in one case and recent tattooing was the likely source of exposure in the other.

Among the cases with no history of IDU, two cases reported sharing razors with household members with hepatitis C infection; one further case was the long-term sexual partner of a person with hepatitis C infection. Although exposure through an occupational source of infection was possible in one case, no incident likely to result in transmission was recalled. Recent tattooing at home appeared responsible for transmission of HCV in one case and body piercing in another. The likely source of exposure to HCV was sharing of a medical home-use finger-prick device in one case. No exposure could be identified in six cases; three had histories of indeterminate test results and were possibly false positive results.

Four cases were lost to follow-up. Information provided at notification in these cases was incomplete and the source of exposure to HCV remains undetermined.

Surveillance for newly acquired hepatitis C infection indicates ongoing HCV transmission in South Australia, primarily through injecting drug use. The number of cases of newly acquired hepatitis C infection diagnosed in this time period is, however, likely to be an underestimate of the actual number of cases. Cases of newly acquired hepatitis C infection may have been classified as prevalent cases due to lack of information on HCV testing history and clinical symptoms of hepatitis. However, many cases would not have been detected without screening for blood-borne infections in high-risk populations.

Two unusual modes of transmission were identified. Sexual transmission was likely in one case; a male with a long term male partner diagnosed with hepatitis C infection seven years earlier. In the other, sharing of a home use finger-prick device by a couple in a long-standing partnership seemed responsible for transmission of HCV. Attempts to genotype the virus in the index and likely source of the latter case were unsuccessful, as the index case was RNA negative three months later.

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**Table 1.1 Characteristics of cases of newly acquired hepatitis C infection in South Australia, 1997 – 1999**

Characteristic	Male	Female	Total	%
<b>Testing History</b>				
No previous test	5	3	8	3.8
Previous negative test in the past Last 12 months	137	64	201	94.8
Not reported	1	2	3	1.4
<b>Age group at diagnosis (years)</b>				
<15	–	1	1	0.5
15–19	17	14	31	14.6
20–29	98	42	140	66.0
30–39	22	8	30	14.2
40–49	6	3	9	4.2
50	–	1	1	0.5
<b>Likely source of exposure</b>				
Injecting drug use	130	59	189	89.2
Tattoos	2	–	2	0.9
Body piercing	1	–	1	0.5
Occupational exposure	1	1	2	0.9
Household	–	2	2	0.9
Sex Partner	1	–	1	0.5
Finger prick device	–	1	1	0.5
Not identified	6	4	10	4.7
Undetermined	2	2	4	1.9
<b>TOTAL</b>	<b>143</b>	<b>69</b>	<b>212</b>	

Among the cases in which no recent exposure was identified, some had past behaviour considered to be high risk for transmission of HCV. Two cases in this group were inmates of institutions and the circumstances of the interview may have resulted in the reporting of an incomplete exposure history.

Overall, four incident cases were lost to follow-up. When these cases are combined with those for which no exposure was identified at interview, they represent unknown transmission routes in 7% of cases of newly acquired hepatitis C infection for the period.

Ongoing monitoring of the hepatitis C status of people at risk will assist in future identification of cases of newly acquired hepatitis C infection. Prevention efforts focussed on safer injecting drug use may have the greatest potential for decreasing current transmission of HCV in South Australia.

#### Reported by

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#### References

Alter MJ, Kruszon-Moran D, Nainan OV *et al.* The prevalence of hepatitis C virus infection in the United States, 1988 through 1994. *N Engl J Med* 1999; 341 (8): 556-562.

Sexually Transmitted Diseases Control Branch. *Sexually Transmitted Diseases in South Australia, Epidemiologic Reports 11 & 12, 1997, 1998.* Public and Environmental Health Service, Department of Human Services. ISSN 1033-0607.  
[www.stdservices.on.net/publications](http://www.stdservices.on.net/publications)

Sexually Transmitted Diseases Services. *Sexually Transmitted Diseases in South Australia, Epidemiologic Report No. 12, 1999.* Internal Medicine Service, Royal Adelaide Hospital. ISSN 1033-0607. [www.stdservices.on.net/publications](http://www.stdservices.on.net/publications)

## 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 30 September 2000, and for two previous yearly intervals**

Cases									
State/Territory	1 Oct 98 – 30 Sep 99		1 Oct 99 – 30 Sep 00		Cumulative to 30 Sep 00				%
	Male	Female	Male	Female	Male	Female	Total <sup>†</sup>		
ACT	1	0	1	1	87	9	96	1.1	
NSW	89	14	69	15	4696	197	4905	57.9	
NT	3	0	0	0	35	0	35	0.4	
QLD	27	2	28	3	840	50	892	10.5	
SA	11	2	3	0	348	25	373	4.4	
TAS	0	1	1	0	45	3	48	0.6	
VIC	35	1	44	2	1660	71	1739	20.5	
WA	3	0	10	0	356	26	384	4.6	
<b>TOTAL</b>	<b>169</b>	<b>20</b>	<b>156</b>	<b>21</b>	<b>8067</b>	<b>381</b>	<b>8472</b>	<b>100.0</b>	

### Deaths

State/Territory	1 Oct 98 – 30 Sep 99		1 Oct 99 – 30 Sep 00		Cumulative to 30 Sep 00				%
	Male	Female	Male	Female	Male	Female	Total <sup>†</sup>		
ACT	1	1	3	1	68	4	72	1.2	
NSW	57	1	63	1	3231	114	3353	56.4	
NT	0	0	0	0	24	0	24	0.4	
QLD	22	1	10	1	573	32	607	10.2	
SA	5	0	3	0	232	15	247	4.2	
TAS	1	0	1	0	29	2	31	0.5	
VIC	31	2	29	1	1287	49	1342	22.6	
WA	3	0	5	1	252	17	270	4.5	
<b>TOTAL</b>	<b>120</b>	<b>5</b>	<b>114</b>	<b>5</b>	<b>5696</b>	<b>233</b>	<b>5946</b>	<b>100.0</b>	

† Totals include 24 AIDS cases and 17 deaths following AIDS in people whose sex was reported as transgender.

**Table 2.2 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 Oct 98 – 30 Sep 99			1 Oct 99 – 30 Sep 00		
	Male	Female	Total	Male	Female	Total
ACT	6.5	0.0	3.2	6.5	6.4	6.4
NSW	28.1	4.4	16.3	21.5	4.6	13.0
NT	29.6	0.0	15.6	0.0	0.0	0.0
QLD	15.4	1.1	8.3	15.8	1.7	8.7
SA	14.9	2.7	8.7	4.1	0.0	2.1
TAS	0.0	4.2	2.1	4.3	0.0	2.1
VIC	15.1	0.4	7.9	18.7	0.8	9.7
WA	3.2	0.0	1.6	10.6	0.0	5.3
<b>TOTAL</b>	<b>18.0</b>	<b>2.1</b>	<b>10.1</b>	<b>16.4</b>	<b>2.2</b>	<b>9.6</b>

<sup>1</sup> 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 30 September 2000, and for two previous yearly intervals**

Cases <sup>1</sup>								
Age (years)	1 Oct 98 – 30 Sep 99		1 Oct 99 – 30 Sep 00		Cumulative to 30 Sep 00			
	Male	Female	Male	Female	Male	Female	Total <sup>2</sup>	%
0–2	0	0	0	0	9	7	16	0.2
2–12	1	0	0	0	20	9	29	0.3
0–12	1	0	0	0	29	16	45	0.5
13–19	2	0	0	0	27	4	31	0.4
20–29	20	5	14	4	1335	99	1447	17.1
30–39	71	7	69	12	3399	137	3544	41.8
40–49	45	5	41	3	2255	62	2319	27.4
50–59	22	1	26	1	775	30	806	9.5
60+	8	2	6	1	247	33	280	3.3
<b>TOTAL</b>	<b>169</b>	<b>20</b>	<b>156</b>	<b>21</b>	<b>8067</b>	<b>381</b>	<b>8472</b>	<b>100.0</b>

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

Age (years)	1 Oct 98 – 30 Sep 99		1 Oct 99 – 30 Sep 00		Cumulative to 30 Sep 00			
	Male	Female	Male	Female	Male	Female	Total <sup>1</sup>	%
0–2	0	0	0	0	5	5	10	0.2
2–12	0	0	0	0	16	6	22	0.4
0–12	0	0	0	0	21	11	32	0.6
13–19	0	0	1	0	14	3	17	0.3
20–29	11	1	9	0	668	42	720	12.1
30–39	46	1	46	4	2294	85	2384	40.1
40–49	37	3	36	0	1806	42	1850	31.1
50–59	19	0	16	0	675	22	697	11.7
60+	7	0	6	1	218	28	246	4.1
<b>TOTAL</b>	<b>120</b>	<b>5</b>	<b>114</b>	<b>5</b>	<b>5696</b>	<b>233</b>	<b>5946</b>	<b>100.0</b>

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 30 September 2000, and for two previous yearly intervals**

Exposure category	1 Oct 98 – 30 Sep 99		1 Oct 99 – 30 Sep 00		Cumulative to 30 Sep 00			
	Male	Female	Male	Female	Male	Female	Total	%
Male homosexual/bisexual contact	110	–	106	–	6728	–	6728	82.4
Male homosexual/bisexual contact and injecting drug use	10	–	5	–	365	–	365	4.5
Injecting drug use	8	3	9	2	176	86	262	3.2
<i>Heterosexual</i>	3	3	5	1	114	66	180	
<i>Not further specified</i>	5	0	4	1	62	20	82	
Heterosexual contact	26	14	18	17	306	196	502	6.2
<i>Sex with injecting drug user</i>	0	0	0	4	7	21	28	
<i>Sex with bisexual male</i>	–	1	–	2	–	41	41	
<i>From a high prevalence country</i>	8	8	8	4	58	37	95	
<i>Sex with person from a high prevalence country</i>	4	0	4	0	43	13	56	
<i>Sex with person with medically acquired HIV</i>	0	0	0	1	2	10	12	
<i>Sex with HIV infected person, exposure not specified</i>	0	2	0	4	27	26	53	
<i>Not further specified</i>	14	3	6	2	169	48	217	
Haemophilia/coagulation disorder	1	0	2	0	114	3	117	1.4
Receipt of blood/tissue	1	2	0	1	78	63	141	1.7
Health care setting	0	0	0	0	1	3	4	0.0
<b>Total Adults/Adolescents</b>	<b>156</b>	<b>19</b>	<b>140</b>	<b>20</b>	<b>7768</b>	<b>351</b>	<b>8119</b>	<b>99.4</b>
<b>Children (under 13 years at AIDS diagnosis)</b>								
Mother with/at risk for HIV infection	1	0	0	0	13	13	26	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
<b>Total children</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>29</b>	<b>16</b>	<b>45</b>	<b>0.6</b>
<b>Sub-total</b>	<b>157</b>	<b>19</b>	<b>140</b>	<b>20</b>	<b>7797</b>	<b>367</b>	<b>8164</b>	<b>100.0</b>
Other/undetermined <sup>1</sup>	12	1	16	1	270	14	308	
<b>TOTAL</b>	<b>169</b>	<b>20</b>	<b>156</b>	<b>21</b>	<b>8067</b>	<b>381</b>	<b>8472</b>	

1 The 'Other/undetermined' exposure category includes 24 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 30 September 2000, and for two previous yearly intervals**

Exposure category	1 Oct 98 – 30 Sep 99		1 Oct 99 – 30 Sep 00		Cumulative to 30 Sep 00			%
	Male	Female	Male	Female	Male	Female	Total	
Male homosexual/ bisexual contact	88	–	81	–	4845	–	4845	84.2
Male homosexual/ bisexual contact and injecting drug use	7	–	7	–	257	–	257	4.5
Injecting drug use	9	0	5	0	102	49	151	2.6
<i>Heterosexual</i>	3	0	3	0	75	42	117	
<i>Not further specified</i>	6	0	2	0	27	7	34	
Heterosexual contact	9	4	8	5	147	110	257	4.5
<i>Sex with injecting drug user</i>	0	0	1	3	3	11	14	
<i>Sex with bisexual male</i>	–	1	–	0	–	27	27	
<i>From a high prevalence country</i>	1	1	3	0	13	12	25	
<i>Sex with person from a high prevalence country</i>	2	0	1	0	17	10	27	
<i>Sex with person with medically acquired HIV</i>	0	1	0	0	2	7	9	
<i>Sex with HIV infected person, exposure not specified</i>	0	0	0	0	22	14	36	
<i>Not further specified</i>	6	1	3	2	90	29	119	
Haemophilia/coagulation disorder	2	0	3	0	89	3	92	1.6
Receipt of blood/tissue	0	1	0	0	67	51	118	2.0
Health care setting	0	0	0	0	1	2	3	0.0
<b>Total Adults/Adolescents</b>	<b>115</b>	<b>5</b>	<b>104</b>	<b>5</b>	<b>5508</b>	<b>215</b>	<b>5723</b>	<b>99.4</b>
<b>Children (under 13 years at death following AIDS)</b>								
Mother with/at risk for HIV infection	0	0	0	0	7	9	16	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
<b>Total children</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>21</b>	<b>11</b>	<b>32</b>	<b>0.6</b>
<b>Sub-total</b>	<b>115</b>	<b>5</b>	<b>104</b>	<b>5</b>	<b>5529</b>	<b>226</b>	<b>5755</b>	<b>100.0</b>
Other/undetermined <sup>1</sup>	5	0	10	0	167	7	191	
<b>TOTAL</b>	<b>120</b>	<b>5</b>	<b>114</b>	<b>5</b>	<b>5696</b>	<b>233</b>	<b>5946</b>	

1 The 'Other/undetermined' exposure category includes 17 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 sex<sup>1</sup> and State/Territory, cumulative to 30 September 2000, and for two previous yearly intervals**

State/Territory	1 Oct 98 – 30 Sep 99		1 Oct 99 – 30 Sep 00		Cumulative to 30 Sep 00			Rate <sup>2</sup>
	Male	Female	Male	Female	Male	Female	Total	
ACT	8	4	8	2	228	28	256	82.4
NSW <sup>3</sup>	350	33	311	30	11151	621	12038	186.8
NT	8	1	3	0	108	9	117	60.1
QLD	96	12	102	18	2040	161	2208	62.2
SA	22	6	21	2	688	63	751	50.2
TAS	2	2	0	0	78	5	83	17.6
VIC <sup>4</sup>	140	13	147	16	3981	223	4242	89.2
WA	27	7	26	8	925	119	1049	55.9
<b>TOTAL<sup>5</sup></b>	<b>653</b>	<b>78</b>	<b>618</b>	<b>76</b>	<b>19199</b>	<b>1229</b>	<b>20744<sup>6</sup></b>	<b>108.6</b>

- Forty seven people (21 NSW, 7 QLD, 14 VIC and 5 WA) whose sex was reported as transgender are included in the total columns of Tables 3.1 – 3.3
- Rate per one hundred thousand current population. Population estimates by sex, State/Territory and calendar interval from Australian Demographic Statistics (Australian Bureau of Statistics).
- Cumulative total for NSW includes 245 people whose sex was not reported.
- Cumulative total for VIC includes 24 people whose sex was not reported.
- Cumulative total for Australia includes 269 people whose sex was not reported.
- Estimated number of new diagnoses of HIV infection, adjusted for multiple reports, was 17 950 (range 17 500 to 18 400). 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 30 September 2000, and for two previous yearly intervals

Exposure category	1 Oct 98 – 30 Sep 99		1 Oct 99 – 30 Sep 00		Cumulative to 30 Sep 00			%
	Male	Female	Male	Female	Male	Female	Total <sup>1</sup>	
Male homosexual/bisexual contact	412	–	416	–	13226	–	13226	78.1
Male homosexual/bisexual contact and injecting drug use	37	–	25	–	663	–	663	3.9
Injecting drug use	34	5	24	5	573	178	758	4.5
<i>Heterosexual</i>	21	3	15	4	210	126	337	
<i>Not further specified</i>	13	2	9	1	363	52	421	
Heterosexual contact	85	63	81	67	938	756	1698	10.0
<i>Sex with injecting drug user</i>	1	3	1	5	31	86	118	
<i>Sex with bisexual male</i>	–	6	–	5	–	107	107	
<i>From a high prevalence country</i>	27	22	28	26	162	167	330	
<i>Sex with person from a high prevalence country</i>	23	10	21	13	154	84	238	
<i>Sex with person with medically acquired HIV</i>	0	0	0	1	5	15	20	
<i>Sex with HIV infected person, exposure not specified</i>	7	11	4	10	55	116	172	
<i>Not further specified</i>	27	11	27	7	531	181	713	
Haemophilia/coagulation disorder	3	0	0	0	227	4	231	1.4
Receipt of blood/tissue	0	2	0	0	104	102	206	1.2
Health care setting <sup>2</sup>	0	0	0	0	3	8	11	0.0
<b>Total Adults/Adolescents<sup>1</sup></b>	<b>571</b>	<b>70</b>	<b>546</b>	<b>72</b>	<b>15734</b>	<b>1048</b>	<b>16793</b>	<b>99.1</b>
<b>Children (under 13 years at HIV diagnosis)</b>								
Mother with/at risk for HIV infection	1	1	1	1	38	27	65	0.4
Haemophilia/coagulation disorder	1	0	0	0	67	0	67	0.4
Receipt of blood/tissue	0	1	0	0	13	8	21	0.1
<b>Total children</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>118</b>	<b>35</b>	<b>153</b>	<b>0.9</b>
<b>Sub-total</b>	<b>573</b>	<b>72</b>	<b>547</b>	<b>73</b>	<b>15852</b>	<b>1083</b>	<b>16946</b>	<b>100.0</b>
Other/undetermined <sup>3</sup>	80	6	71	3	3347	146	3798	
<b>TOTAL<sup>1</sup></b>	<b>653</b>	<b>78</b>	<b>618</b>	<b>76</b>	<b>19199</b>	<b>1229</b>	<b>20744<sup>4</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 The 'Other/undetermined' exposure category includes 3 780 adults/adolescents and 18 children. Forty 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.

4 See footnote Table 3.1

**Table 3.3** Number of new diagnoses of HIV infection by sex and age group, cumulative to 30 September 2000, and for two previous yearly intervals

Age group (years)	1 Oct 98 – 30 Sep 99		1 Oct 99 – 30 Sep 00		Cumulative to 30 Sep 00			%
	Male	Female	Male	Female	Male	Female	Total <sup>1</sup>	
0–2	1	1	0	1	42	18	61	0.3
3–12	3	1	1	0	91	19	110	0.5
0–12	4	2	1	1	133	37	171	0.8
13–19	8	9	6	3	411	82	502	2.4
20–29	182	28	139	33	6536	503	7157	34.5
30–39	246	24	272	28	7110	340	7555	36.4
40–49	133	11	113	8	3349	131	3527	17.0
50–59	55	2	61	0	1114	48	1175	5.7
60+	21	2	20	2	368	57	427	2.1
Not reported	4	0	6	1	178	31	230	1.1
<b>TOTAL<sup>1</sup></b>	<b>653</b>	<b>78</b>	<b>618</b>	<b>76</b>	<b>19199</b>	<b>1229</b>	<b>20744</b>	<b>100.0</b>

1 See footnotes Table 3.2

**Table 3.4** Number of new diagnoses of HIV infection in the year 1 October 1999 to 30 September 2000 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 Oct 99 – 31 Mar 00		1 Apr 00 – 30 Sep 00		1 Oct 99 – 30 Sep 00		
	Male	Female	Male	Female	Male	Female	Total <sup>1</sup>
ACT	2	0	3	0	5	0	5
NSW	48	3	36	1	84	4	88
NT	1	0	0	0	1	0	1
QLD	9	2	9	0	18	2	20
SA	5	0	3	0	8	0	8
TAS	0	0	0	0	0	0	0
VIC	19	0	28	2	47	2	49
WA	5	0	1	0	6	0	7
<b>TOTAL<sup>1</sup></b>	<b>89</b>	<b>5</b>	<b>80</b>	<b>3</b>	<b>169</b>	<b>8</b>	<b>178</b>

1 Totals include one person whose sex was reported as transgender.

**Table 3.5** Number of new diagnoses of HIV infection in the year 1 October 1999 to 30 September 2000 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 Oct 99 – 31 Mar 00		1 Apr 00 – 30 Sep 00		1 Oct 99 – 30 Sep 00		
	Male	Female	Male	Female	Male	Female	Total <sup>1</sup>
Male homosexual/bisexual contact	74	–	69	–	143	–	143
Male homosexual/bisexual contact and injecting drug use	4	–	3	–	7	–	8
Injecting drug use (female and heterosexual male)	2	1	2	1	4	2	6
Heterosexual contact	5	4	3	2	8	6	14
Health care setting	0	0	0	0	0	0	0
Other/undetermined	4	0	3	0	7	0	7
<b>TOTAL<sup>1</sup></b>	<b>89</b>	<b>5</b>	<b>80</b>	<b>3</b>	<b>169</b>	<b>8</b>	<b>178</b>

<sup>1</sup> Totals include one person whose sex was reported as transgender.

**Table 3.6** Number of new diagnoses of HIV infection in the year 1 October 1999 to 30 September 2000 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 Oct 99 – 31 Mar 00		1 Apr 00 – 30 Sep 00		1 Oct 99 – 30 Sep 00		
	Male	Female	Male	Female	Male	Female	Total <sup>1</sup>
13–19	2	0	3	0	5	0	5
20–29	27	3	20	2	47	5	52
30–39	44	2	44	1	88	3	92
40–49	8	0	8	0	16	0	16
50–59	6	0	5	0	11	0	11
60+	2	0	0	0	2	0	2
<b>TOTAL<sup>1</sup></b>	<b>89</b>	<b>5</b>	<b>80</b>	<b>3</b>	<b>169</b>	<b>8</b>	<b>178</b>

<sup>1</sup> Totals include one person whose sex was reported as transgender.

## Sentinel surveillance of HIV infection in sexual health clinics

**Table 4.1** Number of people seen<sup>1</sup>, 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 July to 30 September 2000

Sexual health clinic	Seen at Clinic		Tested for HIV antibody		Newly diagnosed with HIV infection		
	Male	Female	Male	Female	Male	Female	Total
Livingstone Road Sexual Health Centre, Marrickville, NSW	281	320	120	126	0	0	0
Brisbane Sexual Health Clinic, QLD	818	586	272	149	1	0	1
Gold Coast Sexual Health Clinic, QLD	391	522	124	189	1	0	1
Clinic 275, Adelaide, SA	916	627	711	456	4	0	4
Melbourne Sexual Health Centre, VIC	1391	1018	1009	805	0	0	0
<b>TOTAL</b>	<b>3797</b>	<b>3073</b>	<b>2236</b>	<b>1725</b>	<b>6</b>	<b>0</b>	<b>6</b>

<sup>1</sup> Data from the Sydney Sexual Health Centre not available for this quarter.

**Table 4.2** 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 July to 30 September 2000

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	493	–	85.2	–	5	–	5	1.2
Male homosexual/bisexual contact and injecting drug use	49	–	69.4	–	0	–	0	0.0
Injecting drug use (female and heterosexual male)	130	93	69.2	65.6	0	0	0	0.0
Heterosexual contact	1302	1278	68.5	63.7	0	0	0	0.0
<i>outside Australia</i>	101	67	77.2	68.7	0	0	0	0.0
<i>within Australia only</i>	1201	1211	67.8	63.4	0	0	0	0.0
Sex worker	–	247	–	86.2	–	0	0	0.0
Sex worker and injecting drug use	–	23	–	56.5	–	0	0	0.0
Other/undetermined	167	122	80.2	67.2	0	0	0	0.0
<b>TOTAL</b>	<b>2141</b>	<b>1763</b>	<b>73.3</b>	<b>67.1</b>	<b>5</b>	<b>0</b>	<b>5</b>	<b>0.2</b>



**Table 4.3** 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 July to 30 September 2000

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	235	–	40.9	–	0	–	0	0.0
Male homosexual/bisexual contact and injecting drug use	11	–	54.5	–	0	–	0	0.0
Injecting drug use (female and heterosexual male)	56	50	58.9	58.0	0	0	0	0.0
Heterosexual contact <i>outside Australia</i>	918	1011	52.7	43.4	1	0	1	0.1
<i>within Australia only</i>	37	27	70.3	66.7	0	0	0	0.0
Sex worker	881	984	52.0	42.8	1	0	1	0.1
Sex worker and injecting drug use	–	39	–	61.5	–	0	0	0.0
Other/undetermined	–	9	–	55.6	–	0	0	0.0
	205	175	22.3	25.7	0	0	0	0.0
<b>TOTAL</b>	<b>1425</b>	<b>1284</b>	<b>46.7</b>	<b>42.2</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0.1</b>

**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 July to 30 September 2000

Age group (years)	Seen at Clinic		Tested for HIV antibody		Newly diagnosed with HIV infection		
	Male	Female	Male	Female	Male	Female	Total
13–19	137	364	82	167	0	0	0
20–29	1370	1597	848	908	3	0	3
30–39	1247	694	721	406	2	0	2
40–49	606	294	351	175	1	0	1
50–59	294	95	154	56	0	0	0
60+	143	29	80	13	0	0	0
<b>TOTAL</b>	<b>3797</b>	<b>3073</b>	<b>2236</b>	<b>1725</b>	<b>6</b>	<b>0</b>	<b>6</b>

**Table 4.5** Number of people diagnosed with specific sexually transmissible infections<sup>1</sup> other than HIV, by sex, exposure category and whether or not they were tested for HIV antibody<sup>2</sup> during the quarter 1 July to 30 September 2000

Exposure category	Tested for HIV antibody		Not tested for HIV antibody	
	Male	Female	Male	Female
Male homosexual/bisexual contact	14	–	24	–
Male homosexual/bisexual contact and injecting drug use	4	–	4	–
Injecting drug use (female and heterosexual male)	4	2	3	1
Heterosexual contact <i>outside Australia</i>	27	19	35	32
<i>within Australia only</i>	5	1	5	4
Sex worker	22	18	30	28
Sex worker and injecting drug use	–	0	–	1
Other/undetermined	–	1	–	0
	0	1	4	3
<b>TOTAL</b>	<b>49</b>	<b>23</b>	<b>70</b>	<b>37</b>

1 Specific sexually transmissible infections are gonorrhoea, syphilis and chlamydia.

2 Includes people who may have been previously tested for HIV antibody and excludes people previously known to have HIV infection.

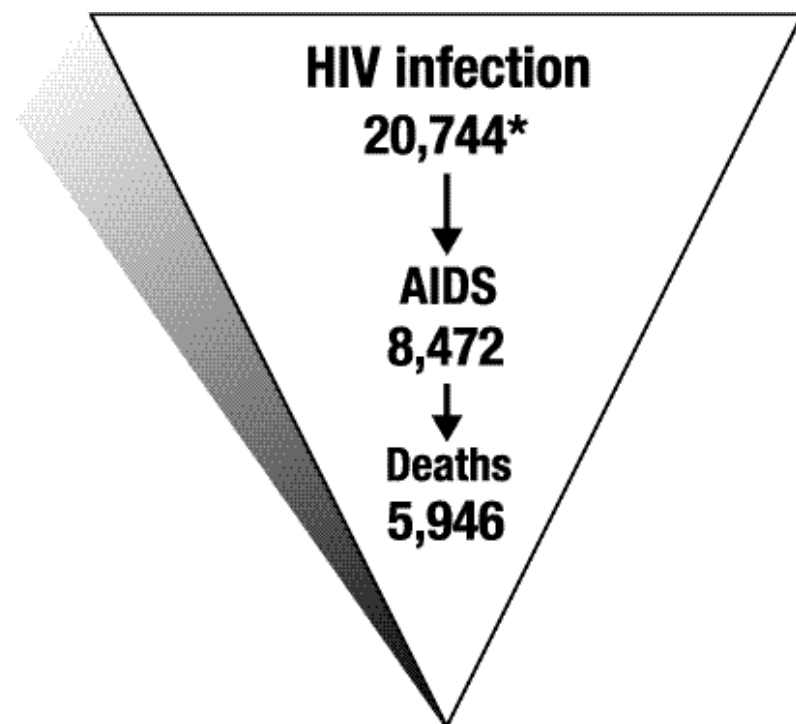


National Centre in HIV Epidemiology and Clinical Research  
**Australian HIV Surveillance Update**

**Vol 17 No 1 January 2001**

# The HIV epidemic in Australia

A cumulative profile to 30 September 2000



\* Estimated number of new diagnoses of HIV infection, adjusted for multiple reports, was 17,950 (range 17,500 to 18,400), cumulative to 30 September 2000.

## Diagnoses in the third quarter

### 1 July – 30 September

- a total of 144 diagnoses of HIV infection, 29 diagnoses of AIDS and 27 deaths following AIDS were reported, by 31 December 2000, to have occurred in the third quarter of 2000
- following adjustment for reporting delay, the estimated numbers of AIDS diagnoses and deaths following AIDS occurring in the third quarter of 2000 were 60 and 45
- in comparison, 211 diagnoses of HIV infection, 50 diagnoses of AIDS and 31 deaths following AIDS were reported, by 31 December 2000, to have occurred in the third quarter of 1999

### New HIV infection

During the third quarter of 2000, 34 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 30 (88.2%) cases.

### Diagnoses in the year to 30 September 2000

- 698 diagnoses of HIV infection
- 177 diagnoses of AIDS
- 119 deaths following AIDS were reported by 31 December 2000

## HIV diagnoses

People diagnosed with HIV infection in the year to 30 September 2000 had an average age of 36 years and 1.3% were in the age group 13 – 19 years

- 88.5% were male, 10.9% were female and sex was reported as transgender for 0.6% of cases
- of 89.4% of cases of HIV infection newly diagnosed in the year to 30 September 2000 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 70.7%

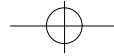
### Total diagnoses to 30 September 2000

- 20,744 diagnoses of HIV infection
- 17,950 diagnoses of HIV infection following adjustment for multiple reporting
- 8,472 diagnoses of AIDS
- 5,946 deaths following AIDS were reported by 31 December 2000

### HIV testing in sexual health clinics

Five sexual health clinics in Adelaide, Brisbane, Gold Coast, Melbourne and Sydney tested 3,961 people in the quarter 1 July – 30 September 2000 who were not previously known to have HIV infection

- of 1,208 people reported as having been tested for the first time, 1 (0.1%) were found to have HIV infection
- of 2,753 people reported as having been retested following a previous negative test, 5 (0.2%) were found to have HIV infection
- of 510 men who reported a history of homosexual contact, and who were retested following a previous negative test, 5 (1.2%) were newly diagnosed with HIV infection

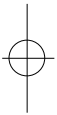


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## Australian HIV Surveillance Report

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. Specified countries are those of sub-Saharan Africa and the Caribbean, where transmission of HIV 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/nths/public/cdc/bulletin.htm">www.nt.gov.au/nths/public/cdc/bulletin.htm</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/vldb/">www.dhs.vic.gov.au/phd/vldb/</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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