Australian HIV Surveillance Report

National Centre in HIV Epidemiology and Clinical Research

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The XIth International Conference on AIDS

Vancouver July 1996

This report presents some of the highlights of the Vancouver AIDS Conference, with a particular focus on epidemiology.

In comparison with previous conferences, relatively little was presented on global trends in the epidemic. However, at a satellite symposium held just prior to the Conference, the global cumulative number of infections in adults was reported to have more than doubled since the beginning of the decade, from about 10 million cases in 1990 to 25.5 million cases in July 1996. In 1995, 2.7 million new cases of HIV infection were acquired: 1.4 million in sub-Saharan Africa and 1 million in South East Asia. By July 1996, 21.8 million adults and children were living with HIV infection or AIDS, with over 90% in developing countries. Of adults living with HIV infection, 12.2 million (58%) were males and 8.8 million (42%) were females.

In many industrialised countries, particularly those in which the epidemic has

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The National Centre is funded by the Commonwealth Department of Human Services and Health through the Australian National Council on AIDS (ANCA), and is affiliated with the Faculty of Medicine, University of New South Wales

ANNOUNCEMENTS

■ *Australian HIV Surveillance Report*— Changes in format

Changes in format have been introduced in this issue of the *Australian HIV Surveillance Report* (*AHSR*). A relatively brief summary of the pattern of diagnosed HIV infection and AIDS in Australia and the Western Pacific Region will be provided in the quarterly issues of the AHSR. Tabulations of the number of AIDS diagnoses by month of diagnosis and the number of deaths following AIDS by month of death and month of AIDS diagnosis will no longer be published. The *Australian HIV Surveillance Update* will continue to be published with each issue of the *AHSR*.

An annual report will be published separately and will provide a detailed summary of current knowledge of the pattern of HIV infection and AIDS in Australia. The annual report will include estimates of the number of AIDS diagnoses adjusted for reporting delay; current estimates of HIV incidence, both in the Australian population as a whole and in subgroups, using the results of back-projection from AIDS diagnoses; estimates of the number of people living with HIV infection and AIDS; incidence and prevalence of HIV infection measured in selected populations; analyses of multiple reporting of HIV diagnoses; summaries of HIV antibody testing; and the results of studies measuring HIV risk behaviour. The annual report will be available with the April issue of the *AHSR*.

■ National meetings

The Annual Scientific Meeting of the Australasian Epidemiological Association will be held on 29 September 1996 in Perth, Western Australia. Telephone: 09 351 2816, Facsimile: 09 351 3438, Email: ijacobs@health.curtin.edu.au.

The 28th Annual Conference of the Public Health Association of Australia will be held on 29 September - 2 October 1996 in Perth, Western Australia.
Telephone: 06 285 2373, Facsimile: 06 282 5438, Email: pha@peg.pegasus.oz.au.

The 8th Annual Conference of the Australasian Society for HIV Medicine will be held in Randwick, New South Wales, on 14 - 17 November 1996.
Telephone: 02 382 1656, Facsimile: 02 382 3699

■ International meeting

The 8th International Conference on the reduction of drug related harm will be held on 23 - 27 March 1997 in Paris, France. Telephone: 44 (0)151 227 4423, Facsimile: 44 (0)151 227 4023, Email: hrc@hit1.demon.co.uk

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been due predominantly to sexual transmission between men, annual AIDS incidence has reached a plateau. An increasing proportion of HIV and AIDS diagnoses among women was also observed. In the United States, AIDS incidence during 1995 in women ranged from 1:15,000 for white women to 1:1,100 for African-American women and 1:2,500 for Hispanic women, compared with 1:1,800 for white males. AIDS incidence in African-American women had increased by 200% since 1990 and was approximately 17 times higher than that for white males.

Around the world, there continues to be vast heterogeneity in HIV prevalence. The prevalence of HIV infection among pregnant women was 0.3 per 1,000 in Canada, 3 per 1,000 in Brazil, 1.2 per 1,000 in the United States, 20 per 1,000 in Thailand and 300 per 1,000 in Zimbabwe.

In some populations where substantial incidence had been seen, HIV prevalence has remained stable or even declined. In Uganda, HIV prevalence among pregnant women decreased from 24.6% in 1991 – 1992 to 18.8% in 1994 – 1995. Declines were particularly observed in younger age groups. HIV seroprevalence had also declined in Thai military recruits (21 year old males) from 10 – 12% in 1991 – 1993 to 6.7% in 1995.

New foci of HIV infection have appeared in Asia: In a small rural village in India, investigation following diagnosis of a case of HIV infection in a person from the village found a prevalence of 8% (24/305). None of the cases had risk factors for HIV infection, except that all had received injections at a private medical practice. Prevalence of HIV in Vietnamese injecting drug users (IDUs) increased from 25% in 1993 to 42% in 1995.

Treatment for HIV infection

A strong theme of the conference was renewed optimism for treatment of HIV infection. Reduction in HIV viral load to undetectable levels, long-term suppression of viral load and associated improvement in CD4 cell count were reported. A number of triple therapy combinations successfully reduced HIV RNA levels to less than 200 copies/ml including zidovudine, lamivudine and ritonavir; zidovudine, zalcitabine and ritonavir; zidovudine, didanosine and nevirapine; zidovudine, lamivudine and nelfinavir; and zidovudine, didanosine and indinavir.

A note of caution was nevertheless engendered by case reports of individuals who had maintained undetectable HIV RNA levels for 18 months, with negative culture of lymph node biopsy specimens, but who had recurrent HIV viraemia on cessation of antiretroviral therapy. It is likely that there are sites of HIV replication such as the central nervous system which require longer periods of treatment.

With the new drug combinations and methods for viral load monitoring, the

aim of treatment had become suppression and maintenance of HIV-1 RNA below detectable levels. Therapy should be initiated with two reverse transcriptase inhibitors and a protease inhibitor. The choice of combination would be determined by the additive or synergistic activity between agents, absence of cross resistance and overlapping toxicities, potential harmful pharmacokinetic or pharmacodynamic interactions, ease of administration and cost.

Initiation of triple therapy at HIV seroconversion resulted in impressive sustained reductions in HIV viral load in one study. Some researchers continued to recommend initiation of therapy when the CD4 count fell below 500 cells/ml, while others supported criteria related to viral load increases above 10,000 copies/ml.

New approaches to estimating HIV incidence

In Pune, India, population based estimates of HIV incidence were calculated from the prevalence and duration of HIV p24 antigenaemia in HIV seronegative individuals. Of 3,255 HIV seronegative individuals, 46 (1.4%) had p24 antigenaemia, resulting in an estimated incidence rate of 22%. The risk of HIV infection in the study population was associated with sexual contact with female sex workers and lack of condom use.

Age specific incidence among childbearing women living in Paris was estimated using the results of repeated anonymous unlinked seroprevalence surveys. Between 1990 and 1992, the prevalence of HIV infection remained relatively low (3.92 to 5.53 per 1,000). Under the assumption of similar fertility in women with or without HIV infection, overall HIV incidence among childbearing women was 1.7 per 1,000 and 2.4 per 1,000 in the 15 – 19 year age group.

In Ontario, Canada, incidence of HIV infection was measured by making use of computerised records of HIV antibody testing over the years 1992 – 1994. Of more than 766,000 tests carried out, 89% were among people tested for the first time, 10% were among people with repeat negative results and 282 incident cases of HIV infection were recorded. Among men who reported a history of male homosexual contact, HIV incidence declined from 2.7 in 1992 to 1.7 per 100 person years in 1994 whereas among people who reported a history of injecting drug use, incidence increased from 0.75 in 1992 to 1.2 per 100 person years in 1994.

HIV subtypes

To date, 10 subtypes of HIV-1 have been identified. In a sample of 215 cases of asymptomatic HIV infection in Thailand in 1994 – 1995, the majority (81%) of infections were subtype E. The distribution of HIV subtypes among Thai IDUs was reported to have changed rapidly over time. Overall, 46% of IDU were infected with subtype Thai B. Between 1992 and 1995, the proportion of IDU with subtype

E infection increased significantly, from 25% to 68%, and from 16% to 52% for IDU in Central and Southern Thailand, respectively. IDU with subtype E infection were significantly younger than IDU with subtype Thai B infection.

Prospective studies which control for behavioural and biologic variables influencing HIV transmission are needed to clarify whether HIV-1 subtype is a determinant of transmissibility.

Sexual transmission between men

There was considerable debate at the conference as to whether or not there had been a recent increase in the risk of HIV transmission through sex between men, particularly in relation to younger men. In a United States study of gay and bisexual men, 27% report unsafe sex within the previous six months. In a British telephone study of men who report sexual contact with both men and women, condom use with female partners was rare, and only 10% of respondents reported unprotected anal intercourse with male partners.

In a study of Thai male sex workers HIV incidence in 1989 – 1994 was calculated to be around 13% per year, the highest for any group of Thai men.

In a Canadian study of men aged 18 – 30 years who reported a history of homosexual contact, 46% and 26% of men with regular and casual partners, respectively, reported unprotected anal intercourse in the previous 12 month period. One third of men who practised unsafe sex with either a casual partner or a partner known to have HIV infection had a history of non-consensual sex, generally as an adolescent or adult. Those with a more recent history of sexual abuse were more likely to engage in risk-taking behaviour.

Injecting drug use

Australia's success in maintaining low HIV prevalence among injecting drug users was acknowledged in the opening address by Dr Peter Piot, Executive Director of the Joint United Nations Program on HIV/AIDS.

In the United States, distribution of needles without prescription remained illegal in at least nine States, and nearly all States had laws prohibiting carrying of drug injecting equipment. Although there were approximately 80 needle exchanges in 46 cities in 21 states, needle exchange programs have been barred from federal funding since 1988. In 1987 – 1995, between 4,000 and 10,000 HIV infections among IDU were estimated to have been preventable, with a cost saving ranging from $250 million to $500 million, had clean needles been available.

Increasing HIV prevalence among IDUs was reported in the Ukraine, Vietnam, China and Vancouver. In a case control study of newly infected IDUs in Vancouver, carried out to investigate the increase in HIV prevalence in this group since 1994,

sharing of injecting equipment with a stranger and unstable housing were associated with seroconversion. In a study of IDU in Montreal, HIV incidence remained at 14% in 1995.

Among young injectors (18 to 25 years) in Baltimore, USA, the first injection was usually carried out by a same sex peer, and trading sex for money or drugs, cocaine injection and being bisexual or gay were risk factors for HIV infection. Young IDUs in Amsterdam were more likely to report borrowing of injecting equipment. Rates of borrowing injecting equipment have not decreased in the last 10 years among those aged less than 26 years in Amsterdam. Among IDUs in Bangkok, a history of imprisonment was associated with HIV infection.

Since the introduction of a needle exchange into a women's prison in Switzerland, there had been no new infections, a reduction in reported sharing of injecting equipment and no episodes of violence. Other prevention programs in Swiss prisons include an heroin prescription program at Oberschongrun and flexible methadone programs in other prisons.

Long term non-progression

Estimates of long-term non-progression in adults ranged from 1% to 19%. Investigators from the Tricontinental Seroconverter Study suggested that prevalence of LTNP was dependent on the definition of LTNP and duration of follow up, and highlighted the need for a universal definition of LTNP. LTNP has generally been defined as cases of HIV infection with a CD4 count greater than 500 at least 8 years following infection. No association was found between LTNP and specific recreational drug and alcohol use, lifetime history of sexually transmissible diseases, high risk sexual practices or physical activity. Among cases of perinatal HIV infection, non-progression was strongly associated with having a mother who was asymptomatic at delivery, with a low viral load (<14,500 RNA copies/ml).

Baseline viral load was found to be a strong predictor of progression to AIDS among 1,604 HIV infected men enrolled in the Multicenter AIDS Cohort Study in 1985. Men whose baseline level of HIV RNA, measured in plasma samples collected 12 – 18 months after enrolment, was greater than 30,000 copies/ml were 13 times more likely to progress to AIDS within 10 years than men with non-detectable levels of HIV RNA.

HIV RNA level was also found to be a strong predictor of progression to AIDS, even after adjustment for age, in a study of 165 people enrolled in the Multicenter Hemophilia Cohort Study. In this study, HIV RNA was measured in serum samples collected 12 – 36 months after the estimated date of seroconversion.

In a study examining the association between HIV viraemia and clinical progression in 398 patients followed for a mean of 27 months, patients with a baseline viral load of between 8.5x104 and 1.7x106 copies/ml were at twice the

risk of death as patients with less than 7.2x103 copies/ml. Patients with CD4 counts of less than 46 cells/ml were at five times the risk of death compared with patients with baseline CD4 counts of greater than 488 cells/ml.

While viral load was shown to be variable from one individual to another, within an individual the level was relatively stable and was established shortly after infection. Generally, viral load was predictive of disease progression. However, inherent differences in HIV-1 variants may also play a role in progression, independently of viral load.

Role of Human Herpes Virus type 8 in Kaposi's sarcoma

Results of investigations into the relationship between Kaposi's sarcoma (KS) and human herpes virus 8, otherwise called Kaposi's sarcoma-associated herpes virus (KSHV), were reported. Evidence was accumulating that KSHV infection was causally related to the development of KS.

KSHV infection of KS tissue, peripheral blood, and other tissues was assessed using the polymerase chain reaction (PCR). KSHV was found in virtually all KS tissue, including AIDS-associated KS, African endemic KS, KS in people of Mediterranean origin and KS in HIV negative gay men. Viral DNA sequences were found at lower concentrations in other tissues of people with KS. The agent was rarely found in solid tissues of control subjects. KSHV was also found in peripheral blood mononuclear cells in about 50% of individuals with KS.

Using antigens produced by a KSHV-positive cell line, one group found an antibody seroprevalence of 0% in blood donors and another found a seroprevalence of 20%. Both groups found a much higher prevalence of KSHV antibody in males with HIV infection who reported a history of homosexual contact (between 30 – 100%) than in other people with HIV infection (20% or less). A very high seroprevalence was also found in Africans with KS. A higher seroprevalence was found in Italian (4%) than in American (0%) blood donors, and very high levels (in the order of 50%) were found in HIV negative, KS-free Ugandans. These results are consistent with the epidemiology of KS in HIV negative individuals.

Potential prophylaxis against KS using anti-herpes drugs was reported by several investigators. Ganciclovir and foscarnet were shown to have anti-KSHV action in-vitro. Acyclovir was also found to be inhibitory to KSHV growth in vitro, but only at very high concentrations unlikely to be reached by oral administration. The incidence of KS in people treated with either ganciclovir or foscarnet was lower than that in people treated with neither agent. There was no decrease in KS incidence among those treated with acyclovir. A meta-analysis of randomised trials found no evidence for a protective effect and there was no evidence from randomised trials that anti-CMV agents were effective prophylactic agents against KS.

HIV Prevention

In the community-randomised trial in the Mwanza region in Tanzania, improved management of sexually transmissible diseases (STD) at the primary health care level in six intervention communities was shown to have been associated with a reduction in HIV incidence of 42%. Over two years of follow up, more than 11,500 STD cases were treated and 210 cases of HIV infection per year were estimated to have been prevented. In the Rakai District in Uganda a high prevalence of HIV infection (17%) and other STD (for example, syphilis 12%) was reported. A randomised trial of mass STD treatment, where all adults aged 15 – 59 years in the intervention arm received a single dose treatment for STD, demonstrated a reduction in diagnoses of any STD symptoms by 50% in males and 20% in females.

In La Paz, Bolivia, HIV prevalence in female sex workers remained below 1% in 1992 – 1995. Following introduction of an STD treatment program, established in 1992 to prevent further HIV infection, prevalence of STDs decreased (for example, prevalence of gonorrhoea declined from 21% in 1992 to 10% in 1995) and prevalence of condom use increased from 36% to 74%. In Thailand, the prevalence of gonorrhoea and chlamydia declined significantly between 1991 and 1994 in both higher risk brothel-based female sex workers and in lower risk sex workers. While the decline in STD prevalence was associated with increased condom use, the decline remained after adjusting for behaviour, suggesting that STD prevalence in the community had declined.

Following recommendations for zidovudine use in late pregnancy and in the newborn to reduce the risk of mother-to-child HIV transmission, the prevalence of perinatal zidovudine use in the United States had increased from 17% among deliveries occurring prior to September 1994 to 80% for deliveries occurring afterwards. While the drop in the perinatal HIV infection rate, from 21% to 11%, was partly attributable to increased perinatal zidovudine use, reduced prevalence of other risk factors such as duration of ruptured membranes may also have contributed to the low infection rate.

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References available on request

THE 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 31 March 1996, and for two previous yearly intervals.

Cases

STATE/ TERRITORY	1 Apr 94 – 31 Mar 95		1 Apr 95 – 31 Mar 96		Cumulative to 31 Mar 96			
	Male	Female	Male	Female	Male	Female	Total	%
ACT	12	0	4	2	72	5	77	1.1
NSW	469	21	326	4	3789	130	3929	58.4
NT	4	0	2	0	26	0	26	0.4
QLD	101	5	85	2	647	28	677	10.1
SA	44	5	26	1	272	18	290	4.3
TAS	5	0	0	0	32	2	34	0.5
VIC	168	11	117	6	1336	47	1390	20.6
WA	34	4	23	1	287	18	307	4.6
TOTAL †	**837**	**46**	**583**	**16**	**6461**	**248**	**6730**	**100.0**

Deaths

ACT	8	0	4	0	50	2	52	1.1
NSW	383	21	244	11	2673	99	2778	57.1
NT	3	0	3	0	20	0	20	0.4
QLD	71	5	64	3	449	22	473	9.7
SA	34	3	31	1	188	13	201	4.1
TAS	2	1	0	0	21	2	23	0.5
VIC	161	6	120	15	1052	36	1094	22.5
WA	31	4	15	2	211	11	223	4.6
TOTAL †	**693**	**40**	**481**	**32**	**4664**	**185**	**4864**	**100.0**

†. Total columns of Tables 1.1 - 1.5 and 4.1 include 21 cases and 15 AIDS deaths in people whose sex was reported as transsexual.

Table 1.2
Incidence of AIDS per million current population by sex and State/Territory of diagnosis, from 1 January 1981 to 31 March 1996, and for two previous yearly intervals.

STATE/ TERRITORY	1 Apr 94 – 31 Mar 95		1 Apr 95 – 31 Mar 96		Cumulative to 31 Mar 96		
	Male	Female	Male	Female	Male	Female	Total
ACT	79.2	0.0	26.0	13.2	468.8	33.0	252.5
NSW	155.6	6.9	106.9	1.3	1243.0	42.1	640.4
NT	45.2	0.0	22.3	0.0	289.5	0.0	148.8
QLD	62.7	3.1	51.4	1.2	391.4	17.0	205.3
SA	60.3	6.8	35.5	1.3	371.5	24.2	196.7
TAS	21.3	0.0	0.0	0.0	136.3	8.4	71.8
VIC	75.7	4.9	52.4	2.6	598.2	20.6	308.1
W A	39.6	4.7	26.3	1.2	328.4	20.8	176.4
TOTAL[†]	**93.9**	**5.1**	**65.8**	**1.8**	**716.3**	**27.3**	**371.5**

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 31 March 1996, and for two previous yearly intervals.

Cases[1]

AGE GROUP (years)	1 Apr 94 – 31 Mar 95		1 Apr 95 – 31 Mar 96		Cumulative to 31 Mar 96			
	Male	Female	Male	Female	Male	Female	Total	%
0 – 12	3	6	0	1	26	15	41	0.6
13 – 19	1	0	3	0	22	3	25	0.4
20 – 29	118	14	79	2	1122	64	1198	17.8
30 – 39	393	15	257	10	2728	80	2814	41.8
40 – 49	232	9	167	2	1824	39	1865	27.7
50 – 59	66	1	58	1	564	21	586	8.7
60 +	24	1	19	0	175	26	201	3.0
TOTAL†	**837**	**46**	**583**	**16**	**6461**	**248**	**6730**	**100.0**

Deaths[2]

0 – 12	1	3	0	0	20	9	29	0.6
13 – 19	1	0	0	1	13	3	16	0.3
20 – 29	57	4	46	9	583	34	626	12.9
30 – 39	303	16	194	14	1874	60	1938	39.8
40 – 49	233	11	150	4	1486	32	1520	31.3
50 – 59	68	2	71	3	523	21	544	11.2
60 +	30	4	20	1	165	26	191	3.9
TOTAL†	**693**	**40**	**481**	**32**	**4664**	**185**	**4864**	**100.0**

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 31 March 1996, and for two previous yearly intervals.

Adults/adolescents (13 years and older at diagnosis of AIDS)

EXPOSURE CATEGORY	1 Apr 94 – 31 Mar 95		1 Apr 95 – 31 Mar 96		Cumulative to 31 Mar 96			
	Male	Female	Male	Female	Male	Female	Total	%
Male homosexual/bisexual contact	720	-	472	-	5530	-	5530	82.2
Male homosexual/bisexual contact and ID use	31	-	27	-	272	-	272	4.0
ID use (female and heterosexual male)	15	9	18	4	109	60	169	2.5
Heterosexual contact:	28	25	25	9	175	106	281	4.2
Sex with ID user	*0*	*1*	*2*	*1*	*3*	*6*	*9*	
Sex with bisexual male	-	*0*	-	*2*	-	*24*	*24*	
From specified country	*7*	*4*	*1*	*2*	*20*	*15*	*35*	
Sex with person from specified country	*5*	*4*	*5*	*0*	*22*	*10*	*32*	
Sex with person with medically acquired HIV	*2*	*2*	*0*	*1*	*3*	*7*	*10*	
Sex with HIV–infected person, exposure not specified	*1*	*4*	*1*	*1*	*27*	*15*	*42*	
Not further specified	*13*	*10*	*16*	*2*	*100*	*29*	*129*	
Haemophilia/coagulation disorder	12	0	7	0	94	2	96	1.4
Receipt of blood components/tissue	5	4	2	1	75	54	129	1.9
Health care setting	1	1	0	1	2	3	5	0.1
Other/undetermined[†]	22	1	32	0	178	8	207	3.1
Total Adults/ Adolescents[†]	**834**	**40**	**583**	**15**	**6435**	**233**	**6689**	**99.4**

Children (under 13 years at diagnosis of AIDS)

Mother with/at risk for HIV infection	3	5	0	1	10	12	22	0.3
Haemophilia/coagulation disorder	0	0	0	0	5	0	5	0.1
Receipt of blood components/tissue	0	1	0	0	11	3	14	0.2
Total Children	**3**	**6**	**0**	**1**	**26**	**15**	**41**	**0.6**
TOTAL[†]	**837**	**46**	**583**	**16**	**6461**	**248**	**6730**	**100.0**

Table 1.5
Deaths following AIDS by sex and exposure category, cumulative to 31 March 1996, and for two previous yearly intervals.

Adults/adolescents (13 years and older at diagnosis of AIDS)

EXPOSURE CATEGORY	1 Apr 94 – 31 Mar 95		1 Apr 95 – 31 Mar 96		Cumulative to 31 Mar 96			
	Male	Female	Male	Female	Male	Female	Total	%
Male homosexual/bisexual contact	579	-	399	-	4038	-	4038	83.0
Male homosexual/bisexual contact and ID use	41	-	24	-	187	-	187	3.8
ID use (female and heterosexual male)	15	7	10	6	65	41	106	2.2
Heterosexual contact:	18	23	18	23	104	79	183	3.8
Sex with ID user	*0*	*1*	*0*	*2*	*0*	*5*	*5*	
Sex with bisexual male	*-*	*4*	*-*	*2*	*-*	*20*	*20*	
From specified country	*1*	*1*	*4*	*5*	*8*	*10*	*18*	
Sex with person from specified country	*0*	*2*	*2*	*2*	*10*	*8*	*18*	
Sex with person with medically acquired HIV	*1*	*2*	*0*	*1*	*2*	*5*	*7*	
Sex with HIV–infected person, exposure not specified	*6*	*5*	*1*	*1*	*22*	*10*	*32*	
Not further specified	*10*	*8*	*11*	*10*	*62*	*21*	83	
Haemophilia/coagulation disorder	15	1	7	0	70	2	72	1.5
Receipt of blood components/tissue	4	6	3	2	64	48	112	2.3
Health care setting	0	0	1	0	1	1	2	0.0
Other/undetermined[†]	20	0	19	0	113	4	132	2.7
Total Adults/ Adolescents[†]	**692**	**37**	**481**	**31**	**4642**	**175**	**4832**	**99.3**

Children (under 13 years at diagnosis of AIDS)

Mother with/at risk for HIV infection	1	2	0	0	6	7	13	0.3
Haemophilia/coagulation disorder	0	0	0	0	5	0	5	0.1
Receipt of blood components/tissue	0	1	0	1	11	3	14	0.3
Total Children	**1**	**3**	**0**	**1**	**22**	**10**	**32**	**0.7**
TOTAL[†]	**693**	**40**	**481**	**32**	**4664**	**185**	**4864**	**100.0**

THE NATIONAL HIV DATABASE

Table 2.1
Number of new diagnoses of HIV infection by sex[1] and State/Territory, cumulative to 31 March 1996, and for two previous yearly intervals.

STATE/ TERRITORY	1 Apr 94 – 31 Mar 95		1 Apr 95 – 31 Mar 96		Cumulative to 31 Mar 96			
	Male	Female	Male	Female	Male	Female	Total	Rate[2]
ACT	13	2	14	2	168	15	183	60.0
NSW[3]	392	37	360	29	9988	556	12601	205.4
NT	7	1	3	0	82	4	86	49.2
QLD	146	11	110	12	1583	98	1686	51.1
SA	38	5	28	0	568	44	612	41.5
TAS	1	1	2	0	70	4	74	15.6
VIC[4]	197	11	159	16	3371	163	3585	79.5
WA	41	11	44	14	759	73	834	47.9
TOTAL[5]	**835**	**79**	**720**	**73**	**16589**	**957**	**19661[6]**	**108.5**

1. Twenty three people (7 NSW, 5 QLD, 9 VIC and 2 WA) whose sex was reported as transsexual are included in the total columns of Tables 2.1 – 2.6.
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 2050 people whose sex was not reported.
4. Cumulative total for VIC includes 42 people whose sex was not reported.
5. Cumulative total for Australia includes 2092 people whose sex was not reported.
6. Estimated number of new diagnoses of HIV infection, adjusted for multiple reports, was 15,400 (range 14,500 to 16,300). 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 31 March 1996 and for two previous yearly intervals.

EXPOSURE CATEGORY	1 Apr 94 – 31 Mar 95		1 Apr 95 – 31 Mar 96		Cumulative to 31 Mar 96			
	Male	Female	Male	Female	Male	Female	Total	%
Male homosexual/bisexual contact	634	-	510	-	10419	-	10419	80.3
Male homosexual/bisexual contact and ID use	43	-	25	-	399	-	399	3.1
ID use	17	9	26	4	469	151	641	4.9
Heterosexual	10	5	9	2	121	53	177	
Not further specified	7	4	17	2	348	98	464	
Heterosexual contact:	75	54	74	62	605	413	1022	7.9
Sex with ID user	1	4	4	6	17	31	48	
Sex with bisexual male	-	4	-	5	-	27	27	
From specified country	15	10	10	12	52	39	92	
Sex with person from specified country	7	11	19	8	64	36	100	
Sex with person with medically acquired HIV	1	2	0	0	4	6	10	
Sex with HIV–infected person, exposure not specified	3	4	11	10	33	32	65	
Not further specified	48	19	30	21	435	242	680	
Haemophilia/coagulation disorder	1	0	0	0	188	2	190	1.5
Receipt of blood/tissue	6	2	0	1	107	65	172	1.3
Health care setting[1]	0	1	0	0	3	7	10	0.1
Total Adults/ Adolescents[2]	**776**	**66**	**635**	**67**	**12190**	**638**	**12853**	**99.1**
Children (under 13 years at diagnosis of HIV infection)								
Mother with/at risk for HIV infection	5	7	1	1	24	20	44	0.4
Haemophilia/coagulation disorder	0	0	0	0	54	0	54	0.4
Receipt of blood/tissue	0	0	0	0	12	5	17	0.1
Total Children	**5**	**7**	**1**	**1**	**90**	**25**	**115**	**0.9**
Sub-total	**781**	**73**	**636**	**68**	**12280**	**663**	**12968**	**100.0**
Other/undetermined[3]	54	6	84	5	4309	294	6693	
TOTAL	**835**	**79**	**720**	**73**	**16589**	**957**	**19661**[4]	

1. The category 'Health care setting' includes 5 cases of occupationally acquired HIV infection and 4 cases of transmission in surgical rooms.
2. Total column includes cases for which sex was not reported.
3. The 'Other/undetermined' category includes 6675 adults/adolescents and 18 children. Twenty three people whose sex was reported as transsexual are 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 2.1.

Table 2.3
Number of new diagnoses of HIV infection by sex and age group, cumulative to 31 March 1996, and for two previous yearly intervals.

AGE GROUP (YEARS)	1 Apr 94 – 31 Mar 95		1 Apr 95 – 31 Mar 96		Cumulative to 31 Mar 96			
	Male	Female	Male	Female	Male	Female	Total	%
0 – 2	*3*	*4*	*1*	*0*	*30*	*13*	*44*	*0.2*
3 – 12	*2*	*4*	*0*	*1*	*74*	*15*	*89*	*0.5*
0 – 12	5	8	1	1	104	28	133	0.7
13 – 19	13	3	6	12	356	57	421	2.1
20 – 29	258	31	214	28	5385	373	5872	29.9
30 – 39	327	23	288	25	5420	227	5761	29.3
40 – 49	150	9	135	3	2417	71	2529	12.9
50 – 59	53	3	56	3	735	33	776	3.9
60 +	25	2	19	0	232	38	271	1.4
Unknown	4	0	1	1	1940	130	3898	19.8
TOTAL[1]	**835**	**79**	**720**	**73**	**16589**	**957**	**19661**	**100.0**

1. See footnotes Table 2.1.

Table 2.4
Number of new diagnoses of HIV infection in the year 1 April 1995 to 31 March 1996 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 95 – 30 Sep 95		1 Oct 95 – 31 Mar 96		1 Apr 95 – 31 Mar 96		
	Male	Female	Male	Female	Male	Female	Total
ACT	4	0	2	0	6	0	6
NSW[1]	55	0	40	2	95	2	100
NT	0	0	0	0	0	0	0
QLD	14	2	5	2	19	4	23
SA	5	0	5	0	10	0	10
TAS	0	0	0	0	0	0	0
VIC	16	3	17	0	33	3	36
W A	4	1	3	2	7	3	10
TOTAL[1]	**98**	**6**	**72**	**6**	**170**	**12**	**185**

1. Total column for Tables 2.4 – 2.6 includes 3 people whose sex was not reported.

Table 2.5
Number of new diagnoses of HIV infection in the year 1 April 1995 to 31 March 1996 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 95 – 30 Sep 95		1 Oct 95 – 31 Mar 96		1 Apr 95 – 31 Mar 96		
	Male	Female	Male	Female	Male	Female	Total
Male homosexual/bisexual contact	79	-	62	-	141	-	141
Male homosexual/bisexual contact and ID use	7	-	2	-	9	-	9
ID use (female and heterosexual male)	2	1	0	2	2	3	5
Heterosexual contact	6	5	5	4	11	9	20
Health care setting	0	0	0	0	0	0	0
Other/undetermined[1]	4	0	3	0	7	0	10
TOTAL[1]	**98**	**6**	**72**	**6**	**170**	**12**	**185**

1. See footnote Table 2.4.

Table 2.6
Number of new diagnoses of HIV infection in the year 1 April 1995 to 31 March 1996 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 95 – 30 Sep 95		1 Oct 95 – 31 Mar 96		1 Apr 95 – 31 Mar 96		
	Male	Female	Male	Female	Male	Female	Total
13 – 19	2	1	1	3	3	4	8
20 – 29	38	2	32	1	70	3	73
30 – 39	38	1	29	2	67	3	72
40 – 49	12	2	7	0	19	2	21
50 – 59	4	0	2	0	6	0	6
60 +	4	0	1	0	5	0	5
TOTAL[1]	**98**	**6**	**72**	**6**	**170**	**12**	**185**

1. See footnote Table 2.4.

SENTINEL SURVEILLANCE OF HIV INFECTION IN SEXUALLY TRANSMISSIBLE DISEASE 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 STD clinic[1], during the quarter 1 January 1996 to 31 March 1996.

STD 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	1738	1132	696	480	4	1	5
Clinic 34, Darwin, NT	222	136	103	81	0	0	0
Brisbane Sexual Health Clinic, QLD	946	625	275	147	0	0	0
Clinic 275, Adelaide, SA	1150	725	822	540	2	0	2
Melbourne Sexual Health Centre, VIC	1927	1401	1387	1208	5	2	7
TOTAL	**5983**	**4019**	**3283**	**2456**	**11**	**3**	**14**

1. Data not available for Parramatta Sexual Health Clinic, NSW.

Table 3.2
Number of people seen[1] 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 1996 to 31 March 1996.

EXPOSURE CATEGORY	Previous negative HIV antibody test		% Retested for HIV antibody		Newly diagnosed with HIV infection			
	Male	Female	Male	Female	Male	Female	Total	%
Homosexual/bisexual contact	813	-	64.1	-	4	-	4	0.8
Homosexual/bisexual contact and ID use	66	-	60.6	-	1	-	1	2.5
ID use (female and heterosexual male)	242	125	52.1	52.8	0	0	0	0.0
Heterosexual contact	2053	1600	52.9	54.2	0	0	0	0.0
***outside Australia*[2]**	*248*	*150*	*50.4*	*43.3*	*0*	*0*	*0*	*0.0*
within Australia only	*1805*	*1450*	*53.2*	*55.3*	*0*	*0*	*0*	0.0
Sex worker	-	369	-	82.9	-	0	0	0.0
Sex worker and ID use	-	39	-	59.0	-	0	0	0.0
Other/undetermined	81	107	82.7	72.0	0	0	0	0.0
TOTAL	**3255**	**2240**	**56.5**	**59.8**	**5**	**0**	**5**	**0.2**

1. At clinics other than Clinic 34, Darwin, NT.
2. Within 3 months for Clinic 275 and one year for other clinics.

Table 3.3
Number of people seen[1] 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 1996 to 31 March 1996.

EXPOSURE CATEGORY	No previous HIV antibody test		% Tested for HIV antibody		Newly diagnosed with HIV infection			
	Male	Female	Male	Female	Male	Female	Total	%
Homosexual/bisexual contact	271	-	61.2	-	4	-	4	2.4
Homosexual/bisexual contact and ID use	9	-	77.8	-	1	-	1	14.3
ID use (female and heterosexual male)	66	35	77.3	54.3	0	0	0	0.0
Heterosexual contact	1653	1273	58.6	63.9	1	1	2	0.1
***outside Australia*[2]**	*136*	*92*	*57.4*	*60.9*	*0*	*1*	*1*	*0.7*
within Australia only	*1517*	*1181*	*58.7*	*64.1*	*1*	*0*	*1*	*0.1*
Sex worker	-	77	-	92.2	-	1	1	1.4
Sex worker and ID use	-	1	-	100.0	-	0	0	0.0
Other/undetermined	335	246	43.9	53.7	0	1	1	0.4
TOTAL	**2334**	**1632**	**57.4**	**63.5**	**6**	**3**	**9**	**0.4**

1. At clinics other than Clinic 34, Darwin, NT.
2. Within 3 months for Clinic 275 and one year for other clinics.

Table 3.4
Number of people seen[1], 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 1996 to 31 March 1996.

AGE GROUP (YEARS)	Seen at Clinic		Tested for HIV antibody		Newly diagnosed with HIV infection		
	Male	Female	Male	Female	Male	Female	Total
13 – 19	230	478	135	257	0	0	0
20 – 29	2612	2177	1524	1348	2	3	5
30 – 39	1792	827	941	520	7	0	7
40 – 49	748	313	390	203	2	0	2
50 – 59	252	65	127	39	0	0	0
60 +	126	22	62	8	0	0	0
Unknown	1	1	1	0	0	0	0
TOTAL	**5761**	**3883**	**3180**	**2375**	**11**	**3**	**14**

1. At clinics other than Clinic 34, Darwin, NT.

Table 3.5
Number of people diagnosed with specific STD[1], other than HIV, by sex, exposure category and whether or not they were tested for HIV antibody[2] during the quarter 1 January 1996 to 31 March 1996.

EXPOSURE CATEGORY	Tested for HIV antibody		Not tested for HIV antibody	
	Male	Female	Male	Female
Homosexual/bisexual contact	18	-	20	-
Homosexual/bisexual contact and ID use	0	-	1	-
ID use (female and heterosexual male)	2	3	0	1
Heterosexual contact	35	26	38	21
outside Australia[3]	*2*	*2*	*12*	*2*
within Australia only	*33*	*24*	*26*	*19*
Sex worker	-	11	-	2
Sex worker and ID use	-	0	-	0
Other/undetermined	2	2	2	2
TOTAL	**57**	**42**	**61**	**26**

1. Specific STD 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.
3. Within three months for Clinic 275 and one year for other clinics.

REPORT FROM WHO WESTERN PACIFIC REGION

Dr G Poumerol, Acting Regional Advisor, WHO Regional Office, Manila.

Table 4.1

AIDS and HIV in the WHO Western Pacific Region by country; based on reports available at 31 March 1996.

COUNTRY/ AREA	CUMULATIVE AIDS CASES Male	Female	Children <13 Years	Total	AIDS Rate[1]	Cumulative Diagnoses HIV
American Samoa	0	0	0	0	0.0	0
Australia	6461	248	40	6730	37.2	19661
Brunei	6	0	0	6	2.1	309
Cambodia	56	23	1	86	0.9	2536
China[2]	109	8	0	117	0.0	3341
Cook Islands	0	0	0	0	0.0	0
Fed. S. Micronesia	2	0	0	2	1.8	2
Fiji	4	3	1	7	0.9	28
French Polynesia	3	2	0	50	23.1	156
Guam	34	3	0	37	26.1	87
Hong Kong	160	15	5	175	3.0	642
Japan	1105	81	9	1186	1.0	4175
Kiribati	0	0	0	0	0.0	3
Laos	10	3	1	14	0.3	113
Macao	7	1	0	8	1.9	122
Malaysia	361	27	9	388	2.0	15471
Marshall Islands	1	1	0	2	3.8	8
Nauru	0	0	0	0	0.0	1
New Caledonia	37	6	1	47	25.3	130
New Zealand	501	22	4	523	14.8	1077
Niue	0	0	0	0	0.0	0
N. Mariana Islands	2	0	0	6	10.4	10
Palau	1	0	0	1	5.8	1
Papua New Guinea	81	77	9	158	3.9	400
Philippines	163	86	7	249	0.4	732
Rep. of Korea	38	5	0	43	0.1	535
Samoa	3	1	1	4	2.5	4
Singapore	166	13	1	179	6.1	419
Solomon Islands	0	0	0	0	0.0	1
Tokelau	0	0	0	0	0.0	0
Tonga	5	0	0	5	5.1	6
Tuvalu	0	0	0	0	0.0	0
Vanuatu	0	0	0	0	0.0	0
Vietnam	274	33	1	316	0.4	3461
Wallis and Futuna	1	0	0	1	7.1	2
TOTAL†	**9591**	**658**	**90**	**10340**	**0.6**	**53433**

1. AIDS cases per 100,000 total current population.
2. For Taiwan 45 AIDS cases in males, 3 in females and 300 diagnosis of HIV infection were reported to 31 March 1996.

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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 STD 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 STD 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.

HIV antibody testing is carried out at Public Health Laboratories and Blood Transfusion Services, and summary information on testing is sent on a four–weekly basis to the National HIV Reference Laboratory, which produces quarterly tabulations for publication in the Australian HIV Surveillance Report.

Abbreviations: HIV is the human immunodeficiency virus, and unless otherwise specified, refers to HIV–1 only. AIDS is the acquired immunodeficiency syndrome, ID stands for injecting drug, and STD for sexually transmissible disease. 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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