

Northern Territory
Sexual Health and Blood Borne Viruses Unit
Surveillance Update

Department of Health and Community Services, Vol. 8 No. 2,

July-September 2007 & October-December 2007

A. Introduction

This surveillance update presents the quarterly Northern Territory (NT) statistics for notifiable sexually transmissible infections (STIs) and blood borne viruses (BBVs) at district level for the last two quarters of 2007. An annual overview for 2007 is also provided.

The data used for this report include notification data extracted from the Northern Territory Notifiable Diseases Surveillance System (NTNDSS), and HIV and AIDS data from the HIV/AIDS Database maintained by the Sexual Health and Blood Borne Virus Unit (SHBBVU) on 14 March 2008. The statistics of Australia and other States/Territories used for comparison were extracted from '*HIV/AIDS, Viral Hepatitis and Sexually Transmissible Infections in Australia Annual Surveillance Report 2007*' published by National Centre in HIV Epidemiology and Clinical Research.

The NT population data used to calculate all rates (both 2006 and 2007 rates) are the estimated resident population data for 2006 retrieved from the Australian Bureau of Statistics (ABS) and provided by the Health Gains Planning (HGP) of the NT Department of Health and Community Services. As the HGP is still working on a significant revision of the population estimates for the years before 2006 and for 2007 following the release of 2006 Census data by the ABS, analysis of the trend of STI rates is not provided in this report due to the unavailability of relevant population data.

All notification rates for quarters and 6-month periods presented in this report are crude annualised rates. In the calculation of Aboriginal and non-Aboriginal notification rates for 2007, the notifications for which ethnicity was not known were allocated to the two groups in a proportion based on the population distribution. The numbers of notifications by district do not add up to the total number of NT notifications because some notifications were recorded in people from interstate and/or overseas.

The author wishes to remind readers that notification rates of STIs and BBVs are greatly influenced by variations in testing volume. Therefore caution needs to be taken when

interpreting the disease rates reported in this Surveillance Update as an increase in the rate of notification does not necessarily represent a true increase in disease incidence. This is particularly true for the NT where the STI rates have been high and community-wide STI screening activities are not uncommon.

B. Quarterly Statistics

Table B.1 Number and rate of gonorrhoea, chlamydia, syphilis and trichomoniasis notifications, NT, Jul-Dec 2007

Quarter	Gonorrhoea		Chlamydia		Syphilis		Trichomoniasis	
	Cases	Rate	Cases	Rate	Case	Rate	Case	Rate
2007								
Jan-Mar	373	708.2	529	1004.4	52	98.7	461	875.3
Apr-Jun	532	1010.1	703	1334.8	103	195.6	622	1181.0
Sub-total	905	859.2	1232	1169.6	155	147.1	1083	1028.1
Jul-Sep	349	662.6	462	877.2	65	123.4	412	782.3
Oct-Dec	318	603.8	470	892.4	59	112.0	435	825.9
Sub-total	667	633.2	932	884.8	124	117.7	847	804.1
2007 Total	1572	746.2	2164	1027.2	279	132.4	1930	916.1
2006								
Jan-Jun	965	916.1	1067	1012.9	156	148.1	517	490.8
Jul-Dec	748	710.1	961	912.3	111	105.4	889	844.0
2006 Total	1713	813.1	2028	962.6	267	126.7	1406	667.4

Table B.2 Number and rate of gonorrhoea, chlamydia, syphilis and trichomoniasis notifications by sex, NT, Jul-Dec 2007

Gender	Gonorrhoea		Chlamydia		Syphilis		Trichomoniasis	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Jul-Dec, 2007								
Males								
Jul-Sep	167	610.6	165	603.3	40	146.3	42	153.6
Oct-Dec	159	581.4	198	724.0	32	117.0	35	128.0
Total	326	596.0	363	663.6	72	131.6	77	140.8
Females								
Jul-Sep	182	718.8	296	1169.1	25	98.7	370	1461.4
Oct-Dec	159	628.0	272	1074.3	27	106.6	400	1579.9
Total	341	673.4	568	1121.7	52	102.7	770	1520.6
Unknown								
Jul-Sep	0		1		0		0	
Oct-Dec	0		0		0		1	
Total	0		1		0		0	
2007 total								
Males	758	692.9	862	787.9	161	147.2	134	122.5
Females	814	803.8	1301	1284.6	118	116.5	1795	1772.4
Unknown	1							
Total	1573	746.7	2163	1026.7	279	132.4	1929	915.6

Table B.3 Number and rate of gonorrhoea, chlamydia, syphilis and trichomoniasis notifications by Aboriginal status, NT, Jul-Dec 2007

Ethnicity	Gonorrhoea		Chlamydia		Syphilis		Trichomoniasis		
	Quarter	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Aboriginal									
Jul-Sep	296	1778.3	235	1411.8	59	354.5	370	2222.9	
Oct-Dec	267	1604.1	253	1520.0	53	318.4	393	2361.0	
Total	563	1691.2	488	1465.9	112	336.4	763	2291.9	
Non-Aboriginal									
Jul-Sep	33	91.6	159	441.4	6	16.7	12	33.3	
Oct-Dec	27	75.0	163	452.5	3	8.3	18	50.0	
Total	60	83.3	322	446.9	9	12.5	30	41.6	
Unknown									
Jul-Sep	20		68		0		30		
Oct-Dec	24		54		3		24		
Total	44		122		3		54		
2007 Total									
Aboriginal	1453	2182.3	1468	2204.8	259	389.0	1875	2816.1	
Non-Aboriginal	119	82.6	696	483.0	20	13.9	55	38.2	

Figure B.1 Rate of gonorrhoea, chlamydia, syphilis and trichomoniasis notifications by Aboriginal status, NT, 2007

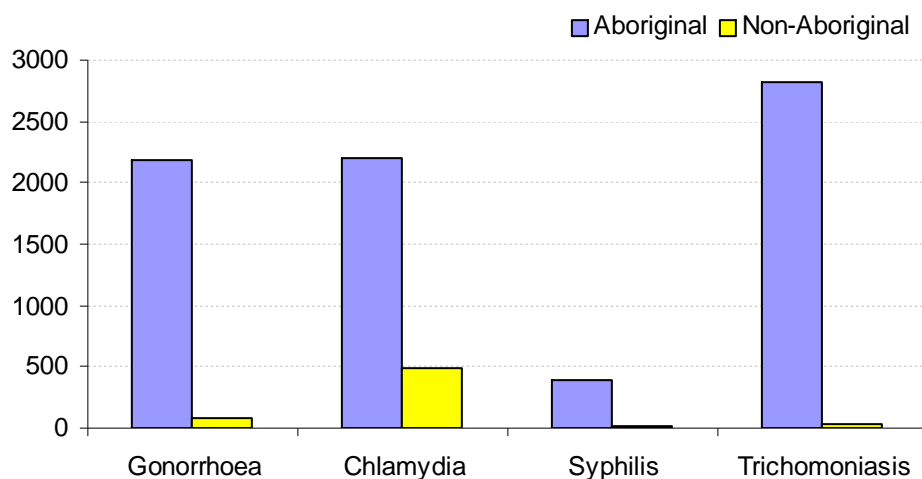


Table B.4 Number and rate of gonorrhoea, chlamydia, syphilis and trichomoniasis notifications by district, NT, Jul-Dec 2007

District	Gonorrhoea		Chlamydia		Syphilis		Trichomoniasis		
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	
Darwin									
Jul-Sep	95	291.6	221	678.3	19	58.3	138	423.5	
Oct-Dec	83	254.7	221	678.3	26	79.8	146	448.1	
Total	178	273.2	442	678.3	45	69.1	284	435.8	
Katherine									
Jul-Sep	62	1330.2	39	836.7	15	321.8	89	1909.5	
Oct-Dec	59	1265.8	46	986.9	8	171.6	96	2059.6	
Total	121	1298.0	85	911.8	23	246.7	185	1984.6	
East Arnhem									
Jul-Sep	30	753.1	50	1255.1	4	100.4	63	1581.4	
Oct-Dec	24	602.4	33	828.4	3	75.3	55	1380.6	
Total	54	677.8	83	1041.7	7	87.9	118	1481.0	
Barkly									
Jul-Sep	26	1676.6	15	967.3	3	193.5	18	1160.7	
Oct-Dec	26	1676.6	11	709.3	1	64.5	14	902.8	
Total	52	1676.6	26	838.3	4	129.0	32	1031.8	
Alice Springs									
Jul-Sep	130	1314.4	124	1253.8	21	212.3	101	1021.2	
Oct-Dec	115	1162.8	148	1496.4	18	182.0	116	1172.9	
Total	245	1238.6	272	1375.1	39	197.2	217	1097.0	

Figure B.2 Rate of gonorrhoea, chlamydia, syphilis and trichomoniasis notifications by district, NT, 2007

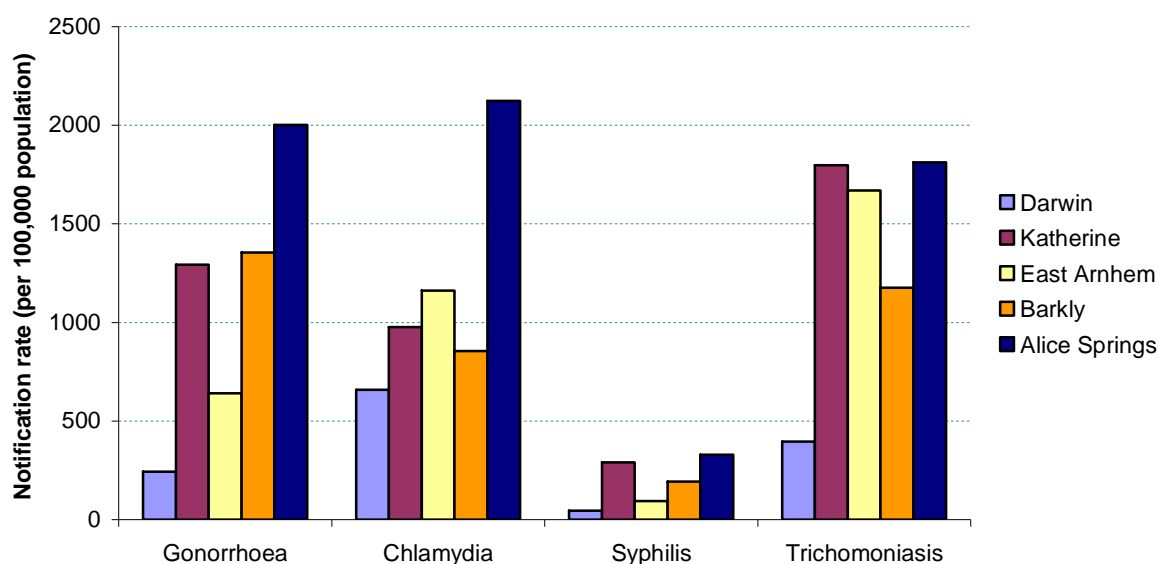
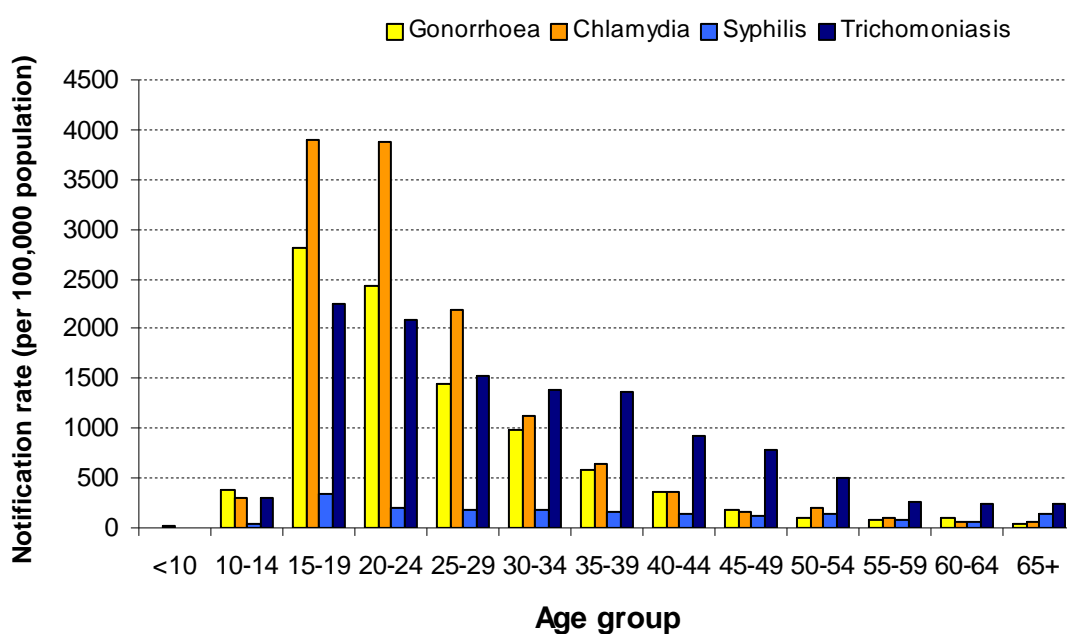


Table B.5 Number and rate of gonorrhoea, chlamydia, syphilis and trichomoniasis notifications by 5-year age group, Jul-Dec 2007

Age group	Gonorrhoea		Chlamydia		Syphilis		Trichomoniasis	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
<i>Jul-Dec 2007</i>								
<10	0	0.0	3	17.3	0	0.0	1	5.8
10-14	27	322.2	17	202.8	2	23.9	12	143.2
15-19	176	2266.3	257	3309.3	12	154.5	124	1596.7
20-24	177	2080.8	279	3279.8	12	141.1	149	1751.6
25-29	110	1238.0	180	2025.9	12	135.1	122	1373.1
30-34	74	819.3	87	963.2	16	177.1	108	1195.7
35-39	52	591.6	55	625.7	20	227.5	118	1342.4
40-44	23	280.8	20	244.2	16	195.3	79	964.4
45-49	13	170.3	12	157.2	9	117.9	60	785.9
50-54	8	119.0	9	133.8	12	178.5	36	535.4
55-59	0	0.0	6	108.0	6	108.0	16	288.1
60-64	5	138.7	3	83.2	1	27.7	10	277.4
65+	2	41.0	4	82.0	6	123.0	12	246.0
Total	667	633.2	932	884.8	124	117.7	847	804.1

Figure B.3 Notification rate of gonorrhoea, chlamydia, syphilis and trichomoniasis notifications by 5-year age group, 2007



B.1 Gonorrhoea

A total of 667 gonorrhoea notifications were recorded in this reporting period, which gave an annualised rate of 633.2 cases per 100000 population, lower than the 859.2 per 100000 for the first half of 2007 (Table B.1). The total number of notifications for 2007 was 1572, representing an 8.2% decrease over the 1713 notifications in 2006. This is consistent with the decreasing trend seen in recent three years, but the actual reason for this decrease is unknown as, based on the laboratory testing data available¹, the number of diagnostic tests performed actually increased slightly during the same time.

There were 326 male cases and 341 female ones notified in these two quarters, giving a male to female ratio of 1:1.05 (Table B.2). The 2007 notification rate was 692.9 and 803.8 per 100000 for males and females respectively, both of which were higher than the corresponding rates for the Jul-Dec period as the numbers of notifications were higher in the first half of 2007.

In this reporting period, about 84.4% of notifications were Aboriginal; the annualised notification rates for the Aboriginal population (1691.2 per 100000) was 20.3 times the non-Aboriginal rate (83.3 per 100000, see Table B.3). The 2007 notification rates for Aboriginal and non-Aboriginal populations were 51.7 and 2.0 times the Australian rate (42.2 per 100000 in 2006, 2007 data not available yet).

Alice Springs district accounted for 36.7% of all notified cases (Table B. 4). The rates of gonorrhoea for the five districts were all considerably higher than the national average, with the rate for Alice Springs being the highest at 1238.6 per 100000 for Jul-Dec and 2002.0 for 2007 (see Figure B.2).

The highest age-specific notification rate continued to be recorded in the age groups 15-19 and 20-24 years. The notifications in these two age groups accounted for 52.9% and 54.1% and of all gonorrhoea notifications recorded in this reporting period and in 2007 respectively (Table B.5 and Figure B.3).

¹ The laboratory testing data are de-identified and contain all test results, including positive and negative ones. The data currently made available to the Sexual Health and Blood Borne Viruses Unit courtesy of relevant pathology companies cover tests performed in all remote NT districts and part of the Darwin Urban and Alice Springs Urban Districts.

B.2 Genital Chlamydia

Genital chlamydia remains the most commonly notified STI in the NT. There were 932 notifications of genital chlamydia reported in this 6-month period, giving an annualised notification rate of 884.8 per 100000 (see Table B.1). The annual number of chlamydia notifications in 2007 was 2164, representing a 6.7% increase over the 2028 cases in 2006 – an indication that the increasing trend noted in recent years is persisting.

The number of female notifications was 1.6 times that for males in these two quarters (see Table B.2). The number of notifications in Aboriginal population accounted for 52.4% of all notifications, about 1.5 times that for non-Aboriginal population (Table B.3). However, the 2007 Aboriginal rate was 4.6 times the non-Aboriginal rate. The Aboriginal and non-Aboriginal rates were 9.5 and 2.1 times the Australian rate (232.1 per 100000 in 2006), respectively.

In this 6-month period, Darwin District accounted for 47.4% of all chlamydia notifications, followed by Alice Springs District (29.2%). However, the notification rate for Alice Springs District was the highest (1375.1 per 100000) among all districts, followed by East Arnhem (1041.7 per 100000, see Table B.4).

The highest age-specific rate was recorded in the 15-19 and 20-24 year age groups (Table B.5). About 57.5% of all notifications were recorded in these two age groups. It is alarming that, in 2007, the age-specific rates for these two age groups were both approaching 4%.

B.3 Syphilis

In this reporting period, 124 new notifications were recorded, giving an annualised notification rate of 132.4 per 100000, slightly higher than the 2006 rate (Table B.1). They included 36 cases of syphilis of less than 2 years duration and 88 cases of syphilis of more than 2 years or unknown duration, compared with 69 and 43 cases in these two categories respectively in 2006. Although the total number of syphilis notifications was higher in 2007, there were significantly less cases in the category of syphilis of less than 2 years duration.

The number and rate of male notifications were both considerably higher than those for females, which was different from the situation for other STIs (Table B. 2).

About 90% of all syphilis notifications in this 6-month period were from Aboriginal population and the Aboriginal rate was 26.9 times the non-Aboriginal rate (Table B.3). Table B.6 below provides a comparison of the number and rate of syphilis of less than 2 years

duration by ethnicity in the NT (2007 statistics) and Australia (2006 statistics, 2007 statistics not available yet). Both Aboriginal and non-Aboriginal rates are significantly higher in the NT.

Table B.6 Number and rate of notifications of syphilis of less than 2 years duration, NT (2007) & Australia (2006)

Ethnicity	NT		Australia	
	Number	Rate	Number	Rate
Aboriginal	108	162	217	51
Non-Aboriginal	10	7	591	3
Total	118		808	

(The Australian statistics are from States/Territories in which Indigenous status was reported for more than 50% of diagnoses in each year.)

In these two quarters, Darwin District recorded the highest number of notifications, (45 out of 124, or 36.3%, see Table B.4), but the notification rate was highest in Katherine (246.7 per 100000). However, Alice Springs recorded the highest number (130 out of 273 cases, or 47.6%) and rate (328.6 per 100000) among all districts in 2007.

During the reporting period, the highest age-specific rate was recorded in the 35-39 year age group (see Table B.5), but for the whole year of 2007, the highest number and rate of syphilis were still recorded in the age groups of 15-19 and 20-24 years (see Figure B.3).

There was no congenital syphilis notified in these two quarters. In 2007, there were 2 notifications of congenital syphilis recorded, both were Aboriginal.

B.4 Trichomoniasis

There were 847 new diagnoses of trichomoniasis recorded in this 6-month period, which gave an annualised rate of 804.1 per 100000 population (Table B.1). The notification rate for 2007, 916.1 per 100000, represents a 37.3% increase over the same rate for 2006, which was consistent with the existing increasing trend noted in the last three years. It is worth noting that the number of trichomoniasis notification was greater than that for gonorrhoea for the first time since 2001 and became the second most commonly notified STI in the NT.

As was the case in the past, the majority (90.9%) of all notifications were female (see Table B. 2) and 90.1% were Aboriginal (see Table B.3).

Darwin recorded the highest number of notifications (284, 33.5%), followed by Alice Springs (217 notifications). But the notification rate was highest in Katherine (1984.6 per 100000, see

Table B.4). The highest age-specific rates were recorded in the age groups 15-19 years and 20-24 years (Table B.5).

B.5 Donovanosis

There was one notification of donovanosis recorded in Alice Springs District in the Jul-Sep quarter. It was also the only one case notified in 2007. The case was an Aboriginal male in the 40-44 year age group.

B.6 Other Sexually Transmitted Infections

There were no notifications of chancroid or lymphogranuloma venereum in this reporting period.

B.7 Hepatitis C

Table B.7 Number and rate of hepatitis C notifications by sex and indigenous status, NT, Jul-Dec 2007

Quarter	Gender	Aboriginal		Non-Aboriginal		Unknown	Total	
		Case	Rate	Case	Rate	Case	Case	Rate
Jul-Sep	Female	6	71.1	13	77.0	4	23	93.7
	Male	3	36.6	31	161.9	6	40	149.9
	Total	9	54.1	44	122.1	10	63	119.6
Oct-Dec	Female	1	11.9	12	71.1	5	18	73.3
	Male	0	0.0	20	104.5	3	23	86.2
	Total	1	6.0	32	88.8	8	41	77.8
Jul-Dec	Female	7	41.5	25	74.1	9	41	83.5
	Male	3	18.3	51	133.2	9	63	118.1
	Total	10	30.0	76	105.5	18	104	98.7

Table B.8 Number and annualised rate of hepatitis C notifications by sex and district, NT, Jul-Dec 2007

Quarter	Gender	District									
		Darwin		Katherine		East Arnhem		Barkly		Alice Springs	
		Case	Rate	Case	Rate	Case	Rate	Case	Rate	Case	Rate
Jul-Sep	Female	16	9.7	1	43.7	1	51.9	1	133.4	4	80.2
	Male	20	116.2	5	210.9	1	48.6	0	0.0	12	244.8
Oct-Dec	Female	14	91.1	0	0.0	0	0.0	0	0.0	3	60.1
	Male	21	122.0	0	0.0	0	0.0	0	0.0	1	20.4
Jul-Dec 2007		71	109.0	6	64.4	2	12.6	1	32.2	20	101.1
		58.7%		5.0%		1.7%		0.8%		16.7%	

Figure B.4 Annualised notification rate of hepatitis C by age groups, NT, Jul-Dec 2007

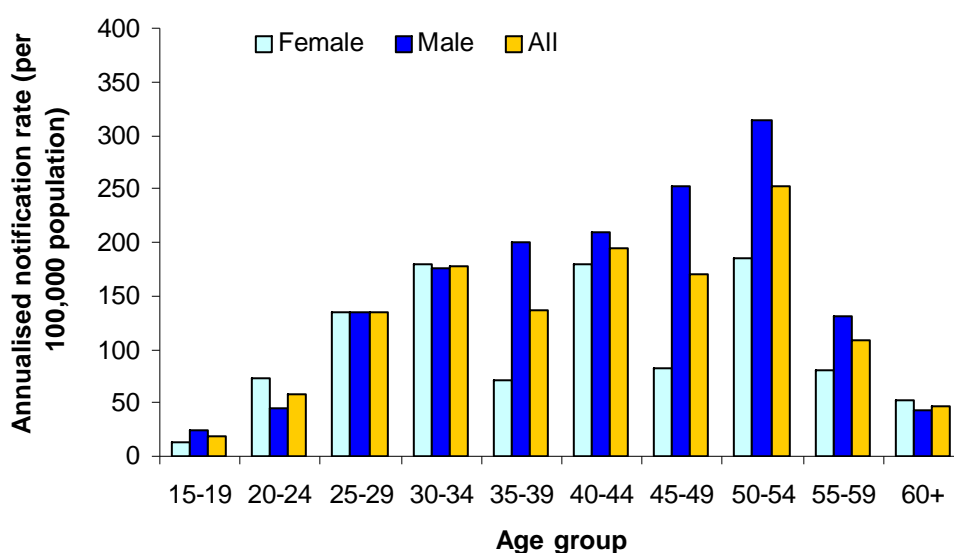


Table B.9 Number of hepatitis C notifications by sex, indigenous status and disease categories, NT, Jul-Dec 2007

Type	Gender	Indigenous status			Total	Percentage
		Aboriginal	Non-Aboriginal	Unknown		
Newly acquired	Female	0	0	0	0	0.0%
	Male	1	1	0	2	1.7%
Unspecified	Female	7	25	9	41	84.3%
	Male	2	50	9	61	
Total		10	76	18	104	
Percentage		8%	63%	15%		

A total of 104 new notifications of hepatitis C were recorded in this 6-month period (Table B.7). There were 225 diagnoses of hepatitis C in 2007, which represents a 16.4% decrease over the 269 notifications of 2006. This is worth noting as the increasing trend of hepatitis C noted since 2002 was reversed in 2007. The actual reasons for this change are unknown.

The annualised rate for males was about 1.4 times the female rate and non-Aboriginal population accounted for 73.1% of all notifications (Table B.8). Notably, there continued to be new notifications from the Aboriginal population (10 cases in these two quarters). Aboriginal status was unknown in 15% of notifications.

Nearly 60% of notifications were from Darwin district (see Table B.8). However, the notification rate for Alice Springs was close to that of Darwin, both being considerably higher than the national rate (61.1 per 100000 in 2006). As was the case in the last few years, the highest rates were recorded in the relatively older age groups (40-44, 45-49 and 50-54 years age groups, Figure B.4). In contrast, the highest rates in Australia were recorded in the 30-39 year age group.

There was one Aboriginal and one non-Aboriginal notification of newly acquired hepatitis C in this reporting period, both being male. The number of notifications recorded in the newly acquired category only represented 1.7% of all notifications. In 2007, the total number of newly acquired cases was 4, including 2 Aboriginals and 2 non-Aboriginals.

B.8 Human Immunodeficiency Virus (HIV)

In 2007, there were seven new notifications of HIV in the NT. Only five of them were Australian residents. The following description applies for these five NT cases.

All five cases were male. Four of them contracted the infection through male homosexual contact (80%) and one through heterosexual contact. Their age at time of diagnosis ranged from 24 to 58 years. None of them was Aboriginal.

B.9 Acquired Immunodeficiency Syndrome (AIDS)

There was no notification of AIDS in the NT in 2007.

D. Consumer response

The SHBBVU is very interested in readers' responses to this report. Please forward any comments or suggestions to:

Surveillance Project Officer or Head of Sexual Health and BBV Unit

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

This report is downloadable in PDF format from the Department of Health and Community Services website:

http://www.nt.gov.au/health/cdc/aids_std/report/index.shtml

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