



Northern
Territory
Government

DEPARTMENT OF HEALTH AND FAMILIES

Northern Territory
Sexual Health and Blood Borne Viruses Unit

Surveillance Update

Vol. 9 No. 2,
Jul-Sep 2008 & Oct-Dec 2008

A. Introduction

In this surveillance update we present the quarterly statistics for notifiable sexually transmissible infections (STIs) and blood borne viruses (BBVs) in the Northern Territory (NT) for the last two quarters of 2008. Where appropriate the annual statistics are also presented. Continuous monitoring of the epidemiology of STIs and BBVs is essential to the control of these infections, and it is hoped that relevant service providers may utilise the information provided in this report in the planning of targeted prevention and intervention programs to address the STI/BBV issues in the NT.

The data used for this report includes surveillance data extracted from the NT Notifiable Diseases System (NTNDS) of the Centre for Disease Control, and HIV and AIDS data from the HIV/AIDS Database maintained by the Sexual Health and Blood Borne Virus Unit (SHBBVU). The statistics of Australia and other states/territories used for comparison were extracted from the National Notifiable Disease System and the 'HIV/AIDS, Viral Hepatitis and Sexually Transmissible Infections in Australia Annual Surveillance Report 2008' published by National Centre in HIV Epidemiology and Clinical Research. An updated population data set for the NT provided by the Health Gains Planning is used for rate calculation. As this data set does not contain estimated population data for 2008, the data for 2007 is used to calculate all 2008 rates.

All notification rates for quarters and six-month periods presented in this report are crude annualised rates. Due to some notifications being categorised as 'interstate', the sum of district-specific notifications presented in tables with district breakdown may be lower than the total number of notifications shown in other tables. In the calculation of Aboriginal and non-Aboriginal notification rates, adjustments were made so that the notifications for which ethnicity was not known were allocated to the two categories in a proportion based on the population distribution.

As STI rates are known to be influenced by the amount of testing, caution should be taken when interpreting the statistics reported in this publication. This is particularly true for the NT where the STI rates have been high and an increase in notifications can often be due to an increase in testing or a large-scale community screening activity, and therefore does not necessarily represent an increase in transmission.

B. Quarterly Statistics

Table B.1.1 Number and rate of gonorrhoea, chlamydia, syphilis and trichomoniasis notifications, NT, Jul-Dec 2008

Quarter	Gonorrhoea		Chlamydia		Syphilis		Trichomoniasis	
	Cases	Rate	Cases	Rate	Case	Rate	Case	Rate
2008								
Jan-Mar	382	710.9	514	956.6	69	128.4	484	900.8
Apr-Jun	518	964.0	747	1390.2	64	119.1	734	1366.0
Sub-total	900	837.5	1261	1173.4	133	123.8	1218	1133.4
Jul-Sep	331	616.0	531	988.2	62	115.4	500	930.5
Oct-Dec	335	623.5	511	951.0	48	89.3	500	930.5
Sub-total	666	619.7	1042	969.6	110	102.4	1000	930.5
2008 Total	1566	728.6	2303	1071.5	243	113.1	2218	1032.0
2007								
Jan-Jun	916	852.4	1239	1152.9	155	144.2	1095	1018.9
Jul-Dec	678	630.9	938	872.8	137	127.5	860	800.3
2007 Total	1594	741.6	2177	1012.9	292	135.9	1955	909.6

Figure B.1.1 Notification rates of gonorrhoea, chlamydia, syphilis and trichomoniasis, NT, 2004-2008

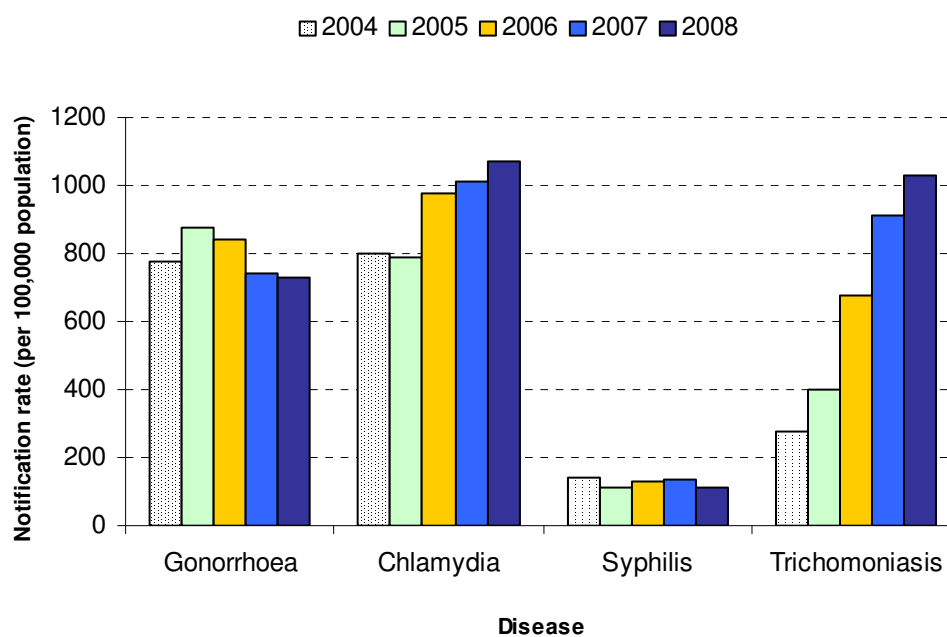


Table B.1.2 Number and rate of gonorrhoea, chlamydia, syphilis and trichomoniasis by sex, NT, Jul-Dec 2008

Gender	Gonorrhoea		Chlamydia		Syphilis		Trichomoniasis	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Jul-Dec, 2008								
Males								
Jul-Sep	159	570.1	195	699.2	35	125.5	59	211.5
Oct-Dec	161	577.2	194	695.6	20	71.7	44	157.8
Total	320	573.7	389	697.4	55	98.6	103	184.6
Females								
Jul-Sep	172	665.6	336	1300.2	27	104.5	440	1702.7
Oct-Dec	174	673.3	317	1226.7	28	108.4	456	1764.6
Total	346	669.5	653	1263.5	55	106.4	896	1733.7
Unknown								
Jul-Sep	0		0		0		1	
Oct-Dec	0		0		0		0	
Total	0		0		0		1	
2008 total								
Males	770	690.2	881	789.7	129	115.6	211	189.1
Females	793	767.2	1421	1374.7	114	110.3	2004	1938.8
Unknown	3		1				3	
Total	1566	728.6	2303	1071.5	243	113.1	2218	1032.0

Figure B.1.2 Notification rates of gonorrhoea, chlamydia, syphilis and trichomoniasis by sex, NT, 2004-2008

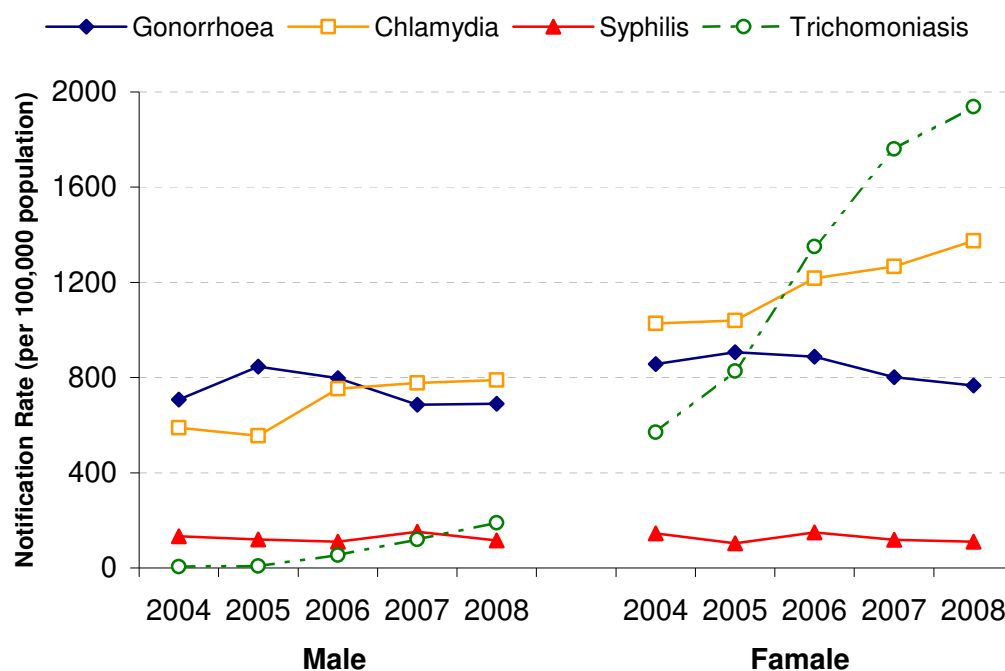


Table B.1.3 Number and rate of gonorrhoea, chlamydia, syphilis and trichomoniasis notifications by ethnicity, NT, Jul-Dec 2008

Ethnicity	Gonorrhoea		Chlamydia		Syphilis		Trichomoniasis		
	Quarter	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Aboriginal									
	Jul-Sep	289	1774.1	268	1645.2	49	300.8	462	2836.1
	Oct-Dec	301	1847.8	301	1847.8	40	245.6	468	2873.0
	Total	590	1811.0	569	1746.5	89	273.2	930	2854.6
Non-Aboriginal									
	Jul-Sep	35	93.5	198	528.8	11	29.4	23	61.4
	Oct-Dec	24	64.1	158	422.0	8	21.4	17	45.4
	Total	59	78.8	356	475.4	19	25.4	40	53.4
Unknown									
	Jul-Sep	7		65		2		15	
	Oct-Dec	10		52		0		15	
	Total	17		117		2		30	
2008 Total (Adjusted)									
	Aboriginal	1438	2207.2	1564	2399.6	206	315.4	2140	3283.7
	Non-Aboriginal	128	85.4	739	493.7	37	17.4	78	52.3

Figure B.1.3 Notification rates of gonorrhoea, chlamydia, syphilis and trichomoniasis by ethnicity, NT, 2008

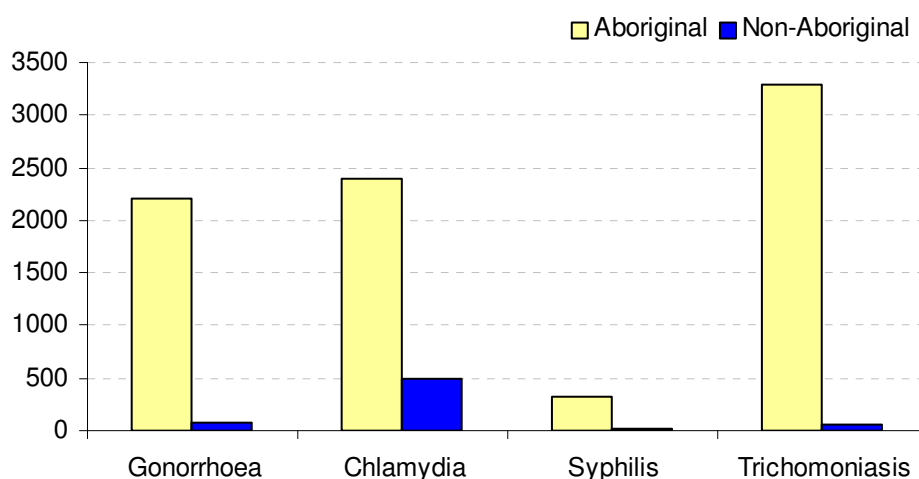


Table B.1.4 Number and rate of gonorrhoea, chlamydia, syphilis and trichomoniasis notifications by district, NT, Jul-Dec 2008

District	Gonorrhoea		Chlamydia		Syphilis		Trichomoniasis	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Darwin								
Jul-Sep	83	247.9	231	689.9	27	80.6	167	498.7
Oct-Dec	62	185.2	229	683.9	24	71.7	133	397.2
Total	145	216.5	460	686.9	51	76.2	300	448.0
Katherine								
Jul-Sep	59	1257.7	63	1342.9	9	191.8	84	1790.6
Oct-Dec	59	1257.7	58	1236.3	7	149.2	115	2451.4
Total	118	1257.7	121	1289.6	16	170.5	199	2121.0
East Arnhem								
Jul-Sep	24	603.4	50	1257.0	4	100.6	79	1986.0
Oct-Dec	28	703.9	39	980.5	1	25.1	80	2011.2
Total	52	653.6	89	1118.7	5	62.8	159	1998.6
Barkly								
Jul-Sep	19	1225.2	15	967.3	2	129.0	20	1289.7
Oct-Dec	22	1418.7	24	1547.6	4	257.9	17	1096.2
Total	41	1321.9	39	1257.5	6	193.5	37	1193.0
Alice Springs								
Jul-Sep	137	1366.2	159	1585.6	20	199.4	130	1296.4
Oct-Dec	158	1575.6	149	1485.8	10	99.7	140	1396.1
Total	295	1470.9	308	1535.7	30	149.6	270	1346.2

Figure B.1.4 Notification rates of gonorrhoea, chlamydia, syphilis and trichomoniasis by district, NT, 2008

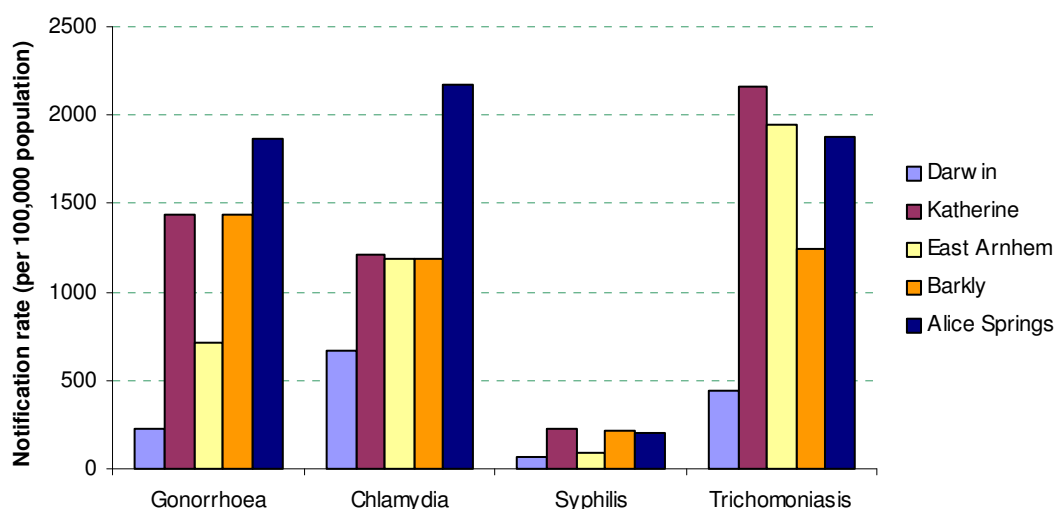
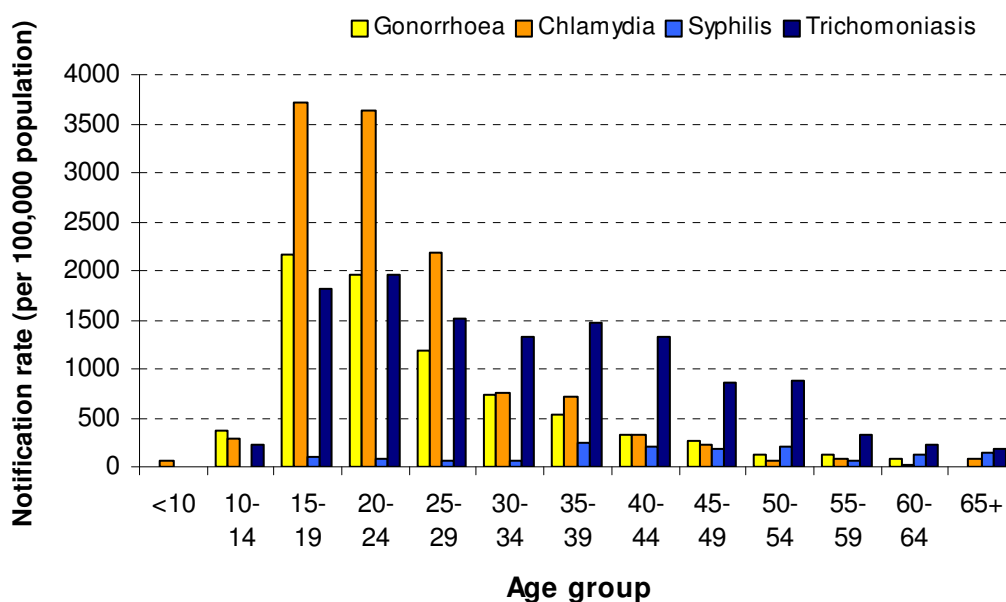


Table B.1.5 Number and rate of gonorrhoea, chlamydia, syphilis and trichomoniasis notifications by 5-year age group, Jul-Dec 2008

Age group	Gonorrhoea		Chlamydia		Syphilis		Trichomoniasis	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
<i>Jul-Dec 2008</i>								
<10	1	5.7	11	62.7	0	0.0	0	0.0
10-14	31	371.8	24	287.9	0	0.0	19	227.9
15-19	174	2160.3	299	3712.2	8	99.3	146	1812.7
20-24	172	1957.1	319	3629.7	7	79.6	173	1968.5
25-29	107	1175.5	198	2175.2	6	65.9	138	1516.1
30-34	67	742.7	68	753.8	6	66.5	119	1319.1
35-39	48	532.7	64	710.3	22	244.2	132	1465.0
40-44	26	317.9	27	330.2	16	195.6	109	1332.8
45-49	21	270.9	18	232.2	15	193.5	66	851.4
50-54	9	130.7	4	58.1	14	203.3	61	885.7
55-59	7	124.0	5	88.6	4	70.8	18	318.8
60-64	3	77.5	1	25.8	5	129.1	9	232.4
65+	0	0.0	4	75.9	7	132.9	10	189.8
Total	666	619.7	1042	969.6	110	102.4	1000	930.5

Figure B.1.5 Notification rate of gonorrhoea, chlamydia, syphilis and trichomoniasis notifications by 5-year age group, Jul-Dec 2008



B.1 Gonorrhoea

The annualised rate for gonorrhoea for this six-month period was 619.7 per 100000, about 26.0% lower than that for the first six months of 2008, which is usually the case in the NT because the large-scale annual sexual health screens are normally conducted in the first half of the year.

The decreasing trend in the rate of gonorrhoea noted in the last 3 years continued to persist in 2008, although the decrease from 2007 to 2008 was only mild (see Table B.1.1 and Figure B.1.1). However, the NT rate of 728.6 per 100000 population was still considerably higher than the corresponding rate for Australia (36.8 per 100000 in 2008).

From 2005 to 2008, the rate decreased by 18.5% in males and 15.3% in females. The female to male rate ratio was 1.1:1 in 2008.

The rate for Aboriginal population for the Jul-Dec period was about 23 times the non-Aboriginal rate in the Jul-Dec period (see Table B.1.3). After adjusting for the number of notifications with unknown ethnicity, about 91.8% of all notifications were Aboriginal, and the Aboriginal-to-non-Aboriginal rate ratio was 25.8:1 for 2008. However, the non-Aboriginal rate for the NT (85.4 per 100000) was more than double the rate for Australia mentioned above. At the district level, Alice Springs continued to record the highest number and rate of notifications in this reporting period (see Table B.1.4).

The highest notification rates continued to be recorded in the 15-19 and 20-24 year age groups, which accounted for 52.0% of all notifications during this reporting period (Table B.1.5 and Figure B.1.5). There was one case recorded in the age group of under 10 years and 31 cases in the 10-14 year age group. It is worth noting that several patients in the 10-14 year age group were notified more than once, so the actual number of individuals notified was lower than 31.

B.2 Genital Chlamydia

The increasing trend in the notification rate of genital chlamydia noted in the last three years persisted in 2008 (see Figure B.1.1 and Table B.1.1). The rate for 2008, 1071.5 per 100000, represented a slight increase (5.8%) over the 2007 rate, and was 3.9 times the rate for Australia (278.3 per 100000 in 2008). It is also worth noting that in 2008 the number of chlamydia notifications was 1.5 times the number of gonorrhoea notifications (the ratio was 1.4 in 2007).

The female to male rate ratio was 1.8:1 in this reporting period and 1.7:1 in 2008 (see Table B.1.2). From 2005 to 2008, the notification rate increased by about 34% in both males and females.

In this reporting period, 54.6% of all notifications were Aboriginal, and the notification rate for Aboriginals was about 4 times the non-Aboriginal rate (see Table B.1.3). The Aboriginal status was not reported in 11.2% of all notifications; in comparison, it was not reported in only about 2.6% of gonorrhoea notifications. Both Aboriginal and non-Aboriginal rates were considerably higher than the national notification rate mentioned above.

Darwin district recorded the highest number of notifications, followed by Alice Springs (see Table B.1.4). However, the notification rate was highest in Alice Springs (1535.7 per 100000).

During this six-month period, the highest age-specific rates were recorded in the 15-19 and 20-24 year age groups (Table B.1.5). These two age groups represented 59.3% of all notifications. There were 11 cases recorded in the under 10 years and 24 cases in the 10-14 year age groups respectively. However, the actual number of underage patients notified for chlamydia was lower because some individuals were notified more than once during this period.

B.3 Syphilis

The notification rate of syphilis decreased by 16.8% in 2008 when compared with that for 2007, against a mild increasing trend seen in 2005-2007 (see Table B.1.1 and Figure B.1.1). However, the NT rate of 113.1 per 100000 was considerably higher than the rate for Australia at about 14.9 per 100000 in 2008.

The rates for males and females were roughly equal in 2008 (see Table B.1.2). From 2007 to 2008, the rate for males dropped by 24.1% while that for females dropped by 6.6% (see Figure B.1.2).

The adjusted number of notifications for the Aboriginal population accounted for 84.6% of all notifications in 2008, and the adjusted Aboriginal rate was about 18.1 times the non-Aboriginal rate (see Table B.1.3). Although the Aboriginal rate has decreased, the non-Aboriginal rate of 17.4 per 100000 in 2008 represented a 25.2% increase over the same rate in 2007.

In this reporting period, 46.4% of all notifications were recorded in Darwin District, but the highest notification rate was recorded in Barkly (see Table B.1.4). Notably, from 2007 to 2008, the number of notifications in Alice Springs decreased by 40.4% (from 136 to 81), but it increased by 41.9% (from 62 to 88) in Darwin. However, about two-thirds of the increase in Darwin (17/26) occurred in the category of "syphilis of greater than two years or unknown duration" (see Table B.3.1).

Table B.3.1 Number of syphilis notifications by category, Darwin District, 2007-2008

Category	2007	2008
Greater than 2 years or unknown duration	44	61
Less than 2 years duration	18	27
Total	62	88

Unlike other STIs, it was in the age groups of 35-39 and 50-54 years that the highest rates of syphilis were recorded in this reporting period (see Table B.1.5). This is mainly due to the fact that the majority of the notifications were categorised as 'syphilis of greater than 2 years or unknown duration,' which is more likely to be recorded in the older age groups.

There was one congenital syphilis case notified in this reporting period, which was also the only one notified in 2008.

B.4 Trichomoniasis

The increasing trend in trichomoniasis notifications noted in the past five years has persisted in this year (see Figure B.1.1). The number of trichomoniasis notifications in 2008 showed a 13.5% increase over the 2007 figure (see Table B.1.1).

The female rate for 2008 was more than ten times the male rate (see Table B.1.2). The amount of notification increased by 57.5% in males and 10.1% in females in 2008 when compared with the corresponding statistics for 2007, although the increase in the actual number of notifications was much greater in females (184 in females versus 77 in males).

The vast majority (96.5%) of notifications were recorded in the Aboriginal population in 2008 (see Table B.1.3). The adjusted Aboriginal rate was about 62.7 times the non-Aboriginal rate.

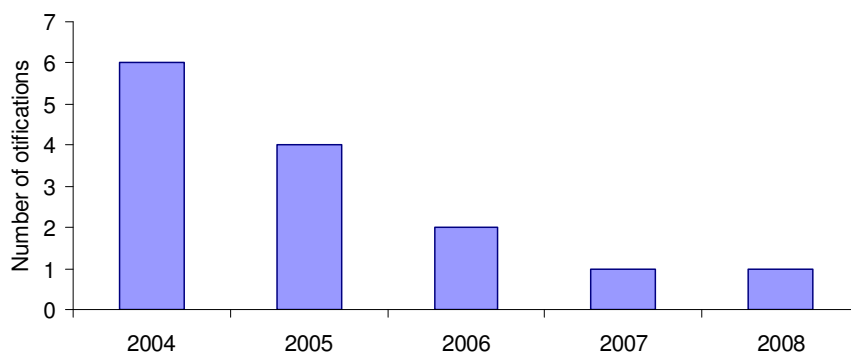
In this reporting period, Darwin recorded the highest number of notifications although the highest notification rate was recorded in Katherine (see Table B.1.4).

As was the case with gonorrhoea and chlamydia, the highest rates were recorded in the 15-19 and 20-24 year age groups, which together accounted for about 31.9% of all notifications in this reporting period (see Table B.1.5). There were 19 cases recorded in the 10-14 year age group.

B.5 Donovanosis

There were no donovanosis notifications in this reporting period. In 2008, only one donovanosis case was notified. The annual number of notifications has been decreasing in recent five years (see Figure B.5.1).

Figure B.8.1 Number of donovanosis notifications, NT, 2004-2008



B.6 Other Sexually Transmitted Infections

There were no notifications of chancroid or lymphogranuloma venereum in this reporting period or in 2008.

B.7 Hepatitis C

A total of 111 notifications were recorded in this reporting period, consisting of 66 (59.5%) males and 45 (40.5%) females (see Table B.7.2). In terms of disease categories, 95.5% of those notified were 'unspecified', and only 3 (2.7%) were categorised as 'newly acquired' (1 female and 2 males, all being non-Aboriginal, see Table B.7.3). The majority of notified cases (nearly 70%) were non-Aboriginal, and the ethnicity was unknown in about 12.6% of notifications, compared with the 14.9% in the same period of 2007. The notification rate for males was about 1.4 times the female rate, while the non-Aboriginal rate was about 1.7 times the Aboriginal rate. About 70% of cases were non-Aboriginal.

Among the 106 notifications in the 'unspecified' category in this 6-month period, 73 (68.9%) were new to the NTNDSS and were therefore investigated by the enhanced surveillance system, and data were successfully collected from 34 (46.6%) of these cases as of 15 February 2009. Among them, history of injecting drug use was unknown in 12 (35.3%), negative in 9 (26.5%) and positive in 13 (38.2%).

Over half of the notifications were recorded in Darwin District (52.3%, see Table B.7.4). However, the highest rate among all districts was recorded in Alice. The highest age-specific rates were recorded in the relatively older age groups in males (50-54 and 45-49 year age groups, see Figure B.7.1), but in females it was the 25-29 year age group that recorded the highest.

The number of notifications for 2008 was at about the level as that for 2007 (see Table 7.1).

Table B.7.1 Number of hepatitis C notifications by sex, NT, 2004-2008

Sex	2004	2005	2006	2007	2008
Female	84	99	91	85	89
Male	181	172	178	143	142
Total	265	271	269	228	231

Table B.7.2 Number and rate of hepatitis C by sex and ethnicity, NT, Jul-Dec 2008

Quarter	Sex	Aboriginal		Non-Aboriginal		Unknown	Total	
		Case	Rate	Case	Rate	Case	Case	Rate
<i>Jul-Sep</i>	Female	7	84.6	9	51.2	4	20	77.4
	Male	3	37.4	22	110.7	5	30	107.6
	Total	10	61.4	31	82.8	9	50	93.1
<i>Oct-Dec</i>	Female	6	72.5	16	91.1	3	25	96.7
	Male	4	49.9	30	151.0	2	36	129.1
	Total	10	61.4	46	122.9	5	61	113.5
<i>Jul-Dec</i>	Female	13	78.6	25	71.1	7	45	87.1
	Male	7	43.6	52	130.8	7	66	118.3
	Total	20	61.4	77	102.8	14	111	103.3
2008 Total	Female	23	69.5	57	81.1	9	89	86.1
	Male	10	31.2	113	142.2	19	142	127.3
	Total	33	50.6	170	113.5	28	231	107.5

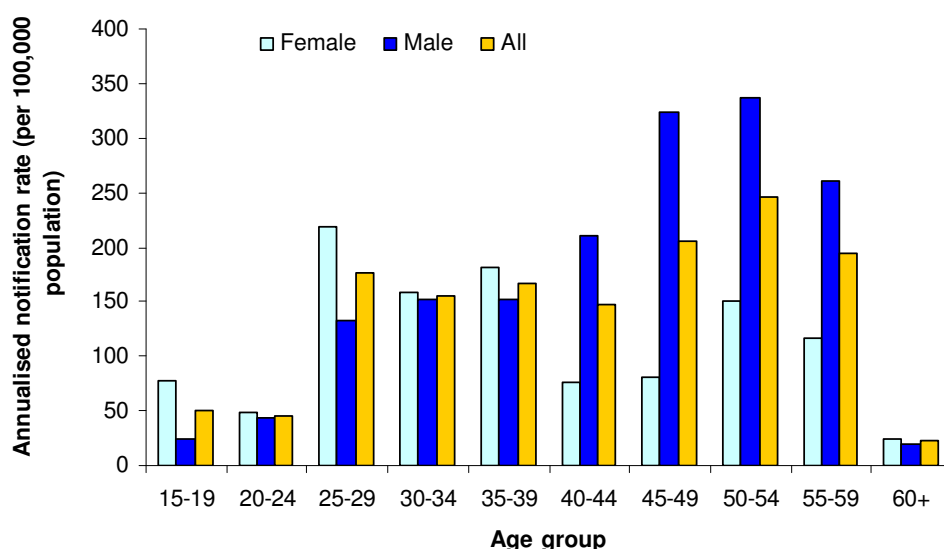
Table B.7.3 Number of hepatitis C notifications by sex, ethnicity and disease categories, NT, Jul-Dec 2008

Type	Gender	Indigenous status			Total	Percentage
		Aboriginal	Non-Aboriginal	Unknown		
Newly acquired	Female	0	1	0	1	2.7%
	Male	0	2	0	2	
Unspecified	Female	13	24	7	44	95.5%
	Male	7	48	7	62	
Chronic	Male	0	2	0	2	1.8%
Total		20	77	14	111	
Percentage		18.0%	69.4%	12.6%		

Table B.7.4 Number and annualised rate of hepatitis C notifications by gender and district, NT, Jul-Dec 2008

Quarter	Sex	District									
		Darwin		Katherine		East Arnhem		Barkly		Alice Springs	
		Case	Rate	Case	Rate	Case	Rate	Case	Rate	Case	Rate
Jul-Sep	Female	13	82.3	1	43.4	0	0.0	1	133.47	3	59.2
	Male	15	84.8	0	0.0	3	145.9	0	0.0	7	141.0
Oct-Dec	Female	13	82.3	1	43.4	1	52.0	1	133.5	7	138.2
	Male	17	96.1	1	41.9	4	194.6	1	124.8	9	181.3
Jul-Dec 2008		58	86.6	3	32.0	8	100.6	3	96.7	26	129.6
		52.3%		2.7%		7.2%		2.7%		23.4%	

Figure B.7.1 Annualised notification rate of hepatitis C by age groups, NT, Jul-Dec 2008



B.8 Human Immunodeficiency Virus (HIV)

There were 9 new notifications in this reporting period, of which 7 were residents of Australia, 2 females and 5 males. One male contracted the infection via male homosexual contact and one via male homosexual and bisexual contact, while all the others via heterosexual contact (5/7 or 71.4%).

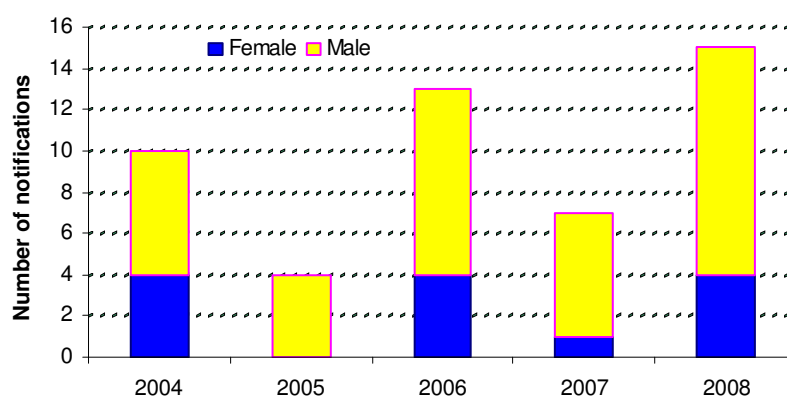
The demographics of the newly recorded cases in 2008 who were residents are summarised in Table B.8.1. The median age was 38 years (37 in females and 38 in males).

Table B.8.1 Demographics and exposure categories for HIV cases who were residents of Australia, NT, 2008

Category	Jan-Jun	Jul-Dec	Total	%
Male	5	5	10	76.9%
Female	1	2	3	23.1%
Total			13	
Aboriginal	1	0	1	7.7%
Non-Aboriginal	5	7	12	92.3%
Exposure category				
Male homosexual contact	2	1	3	23.1%
Male homosexual / bisexual contact	1	1	2	15.4%
Heterosexual contact	1	5	6	46.2%
Injecting drug user	1	0	1	7.7%
Unknown	1	0	1	7.7%

The annual number of HIV notifications in the last five years is displayed in Figure B.8.1. As this number tends to be low, year-to-year comparison is preferably done based on changes in the number of notifications rather than the percentage of change. There was a slight increase in the number of HIV notifications in 2008. However, the majority of these new cases acquired the infection overseas in high prevalence countries. There were more males notified than females (male to female ratio 2.8:1).

Figure B.8.1 HIV notifications in the NT, 2004-2008



D. Readers' responses

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

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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 website of the Department of Health and Families:

http://www.health.nt.gov.au/Centre_for_Disease_Control/Publications/Sexual_Health_Surveillance_Updates/index.aspx

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