



Department of Health
and Community Services

Northern Territory

Sexual Health and Blood Borne Viruses Unit

Surveillance Update

Department of Health and Community Services, Vol. 7 No. 2,

July-September 2006 & October-December 2006

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 2006. Where appropriate, disease rate comparisons with other jurisdictions and/or Australia as a whole are also provided. It is hoped that this report may inform service providers who can use the information for the planning of targeted prevention and intervention programs.

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 19 March 2007. 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 2006*' published by National Centre in HIV Epidemiology and Clinical Research. NT population data for the year 2006 by age, sex and district was produced and provided by the Health Gains Planning based on 2006 SLA-based population projections (unpublished ABS data).

All notification rates for quarters and 6-month periods presented in this report are crude annualised rates.

Some caution should be taken when interpreting the figures reported in this publication as, for STIs and particularly for the NT where the STI rates have been high, an increase in the rate of notification does not necessarily represent a true increase in disease incidence as STI notification rates are influenced by the numbers of tests done.

B. Quarterly Statistics

Table B.1.1 Number and rate of gonorrhoea, chlamydia, syphilis and trichomoniasis notifications, NT, Jul-Dec 2006

Quarter	Gonorrhoea		Chlamydia		Syphilis		Trichomoniasis		
	Cases	Rate	Cases	Rate	Case	Rate	Case	Rate	
2006									
Jan-Mar	487	950.4	568	1108.5	69	134.7	262	511.3	
Apr-Jun	526	1026.5	529	1032.4	93	181.5	274	534.7	
Subtotal	1013	988.5	1097	1070.4	162	158.1	536	523.0	
Jul-Sep	409	798.2	479	934.8	52	101.5	415	809.9	
Oct-Dec	367	716.2	496	968.0	53	103.4	479	934.8	
Subtotal	776	757.2	975	951.4	105	102.5	894	872.4	
2006 NT total	1789	872.8	2072	1010.9	267	130.3	1430	697.7	

Figure B.1.1 Notification rates of gonorrhoea, chlamydia, syphilis and trichomoniasis, NT, 2000-2006

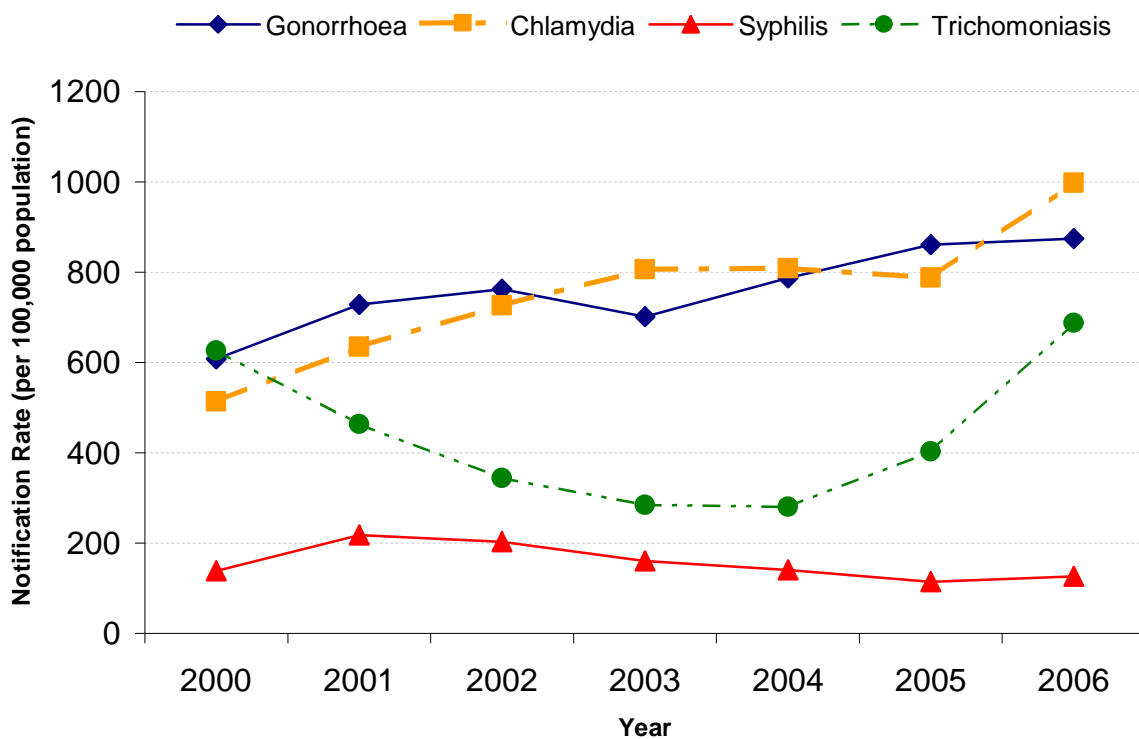


Figure B.1.2 Notification rates of gonorrhoea, chlamydia, syphilis and trichomoniasis, males, NT, 2000-2006

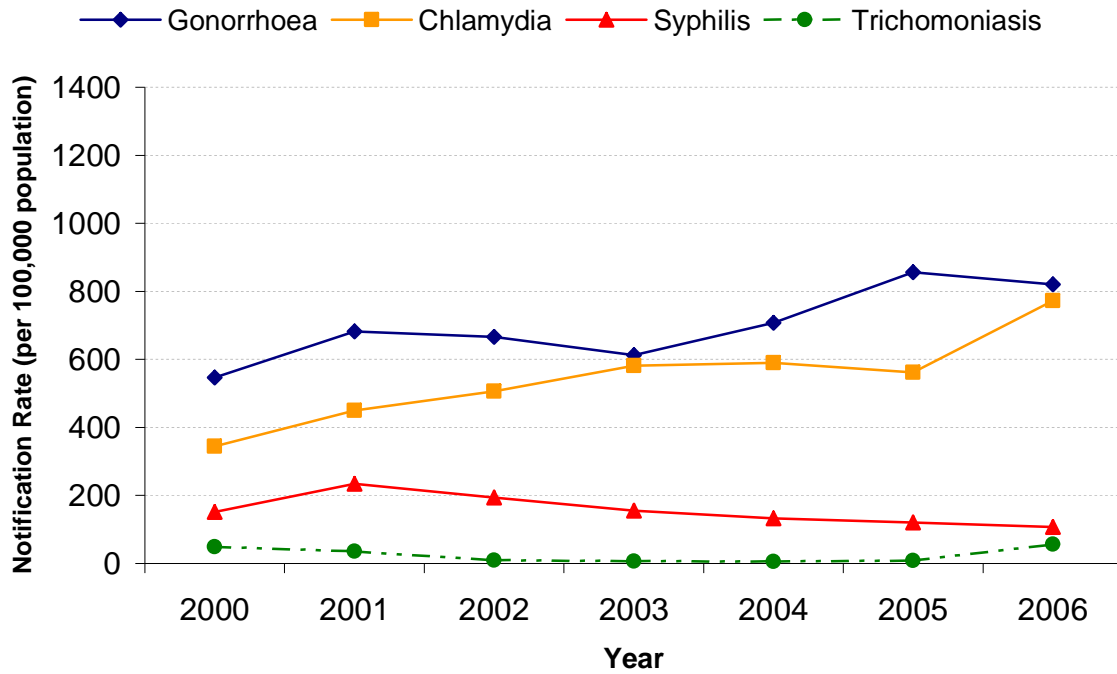


Figure B.1.3 Notification rates of gonorrhoea, chlamydia, syphilis and trichomoniasis, females, NT, 2000-2006

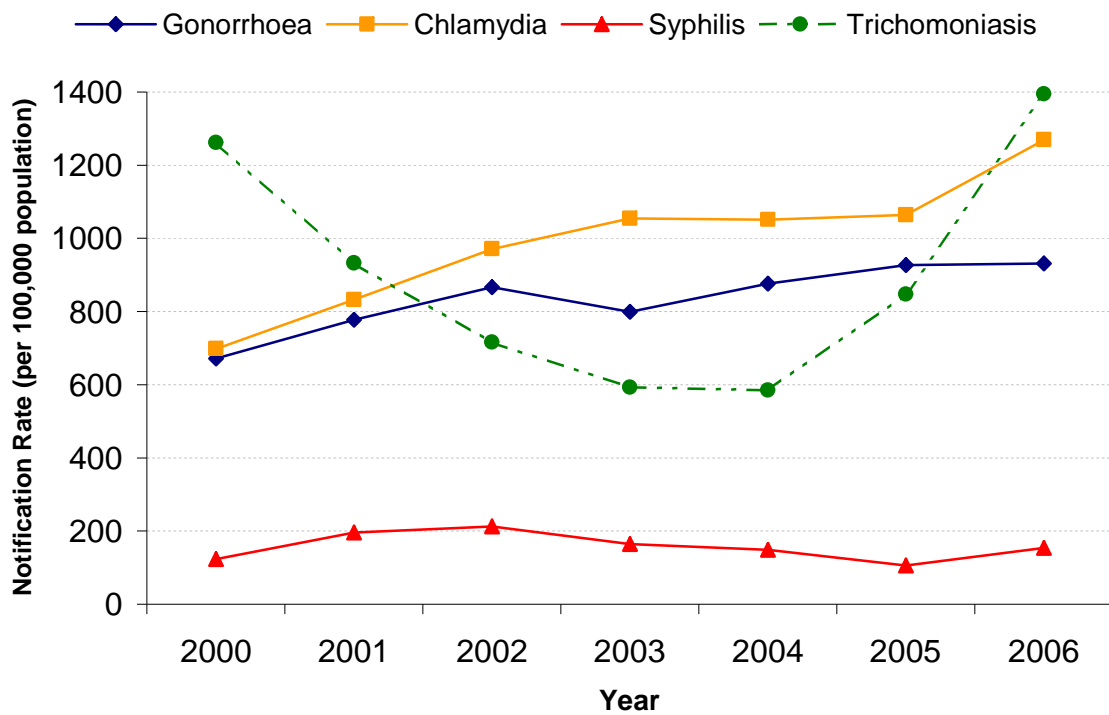


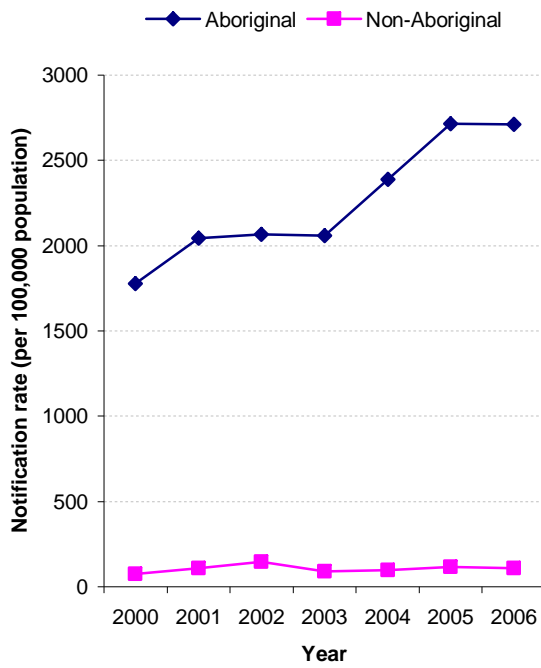
Table B.1.2 Number and rate of gonorrhoea, chlamydia, syphilis and trichomoniasis by sex, NT, Jul-Dec 2006

Gender	Gonorrhoea		Chlamydia		Syphilis		Trichomoniasis	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Jul-Sep, 2006								
Males								
Jul-Sep	197	738.3	181	678.3	27	101.2	22	82.4
Oct-Dec	183	685.8	211	790.8	20	75.0	27	101.2
Total	380	712.1	392	734.5	47	88.1	49	91.8
Females								
Jul-Sep	211	859.2	297	1209.4	25	101.8	393	1600.4
Oct-Dec	184	749.3	284	1156.5	33	134.4	452	1840.6
Total	395	804.3	581	1183.0	58	118.1	845	1720.5
Unknown								
Jul-Sep	1		1		0		0	
Oct-Dec	0		1		0		0	
Total	1		2		0		0	
2006 NT Total								
Males	876	820.7	824	772.0	116	108.7	60	56.2
Females	912	928.5	1246	1268.5	151	153.7	1370	1394.7
Unknown	1		2		0		0	

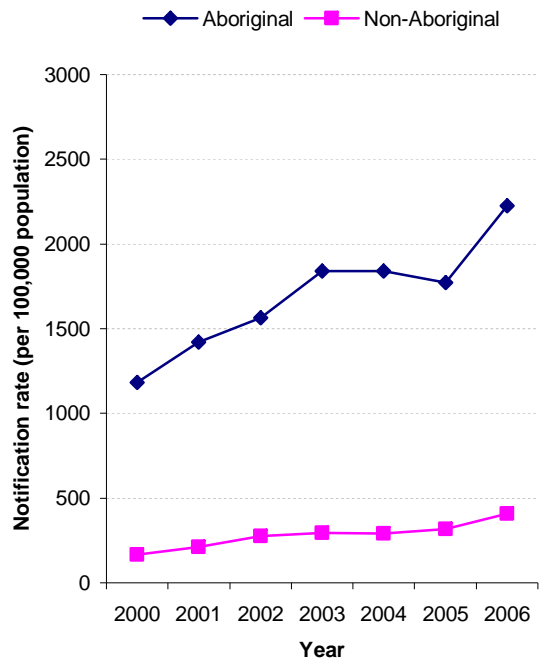
Table B.1.3 Number and rate of gonorrhoea, chlamydia, syphilis and trichomoniasis notifications by indigenous status, NT, Jul-Dec 2006

Ethnicity	Gonorrhoea		Chlamydia		Syphilis		Trichomoniasis		
	Quarter	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Aboriginal									
Jul-Sep		346	2410.4	264	1839.2	50	348.3	374	2605.5
Oct-Dec		310	2159.6	298	2076.0	50	348.3	432	3009.6
Total		656	2285.0	562	1957.6	100	348.3	806	2807.5
Non-Aboriginal									
Jul-Sep		41	111.2	156	422.9	2	5.4	16	43.4
Oct-Dec		39	105.7	153	414.8	3	8.1	23	62.4
Total		80	108.4	309	418.9	5	6.8	39	52.9
Unknown									
Jul-Sep		16		55		0		23	
Oct-Dec		10		41		0		21	
Total		26		96		0		44	
2006 NT Total									
Aboriginal		1553	2704.8	1277	4448.2	253	881.3	1294	4507.4
Non-Aboriginal		158	107.1	603	817.4	11	14.9	71	96.2
Unknown		78		192		3		65	

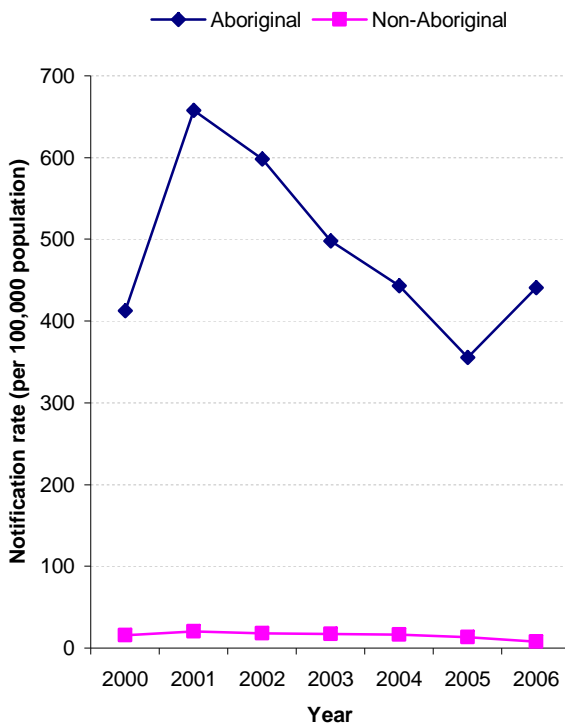
Figure B.1.4 Notification rates of gonorrhoea, chlamydia, syphilis and trichomoniasis by indigenous status, NT, 2000-2006



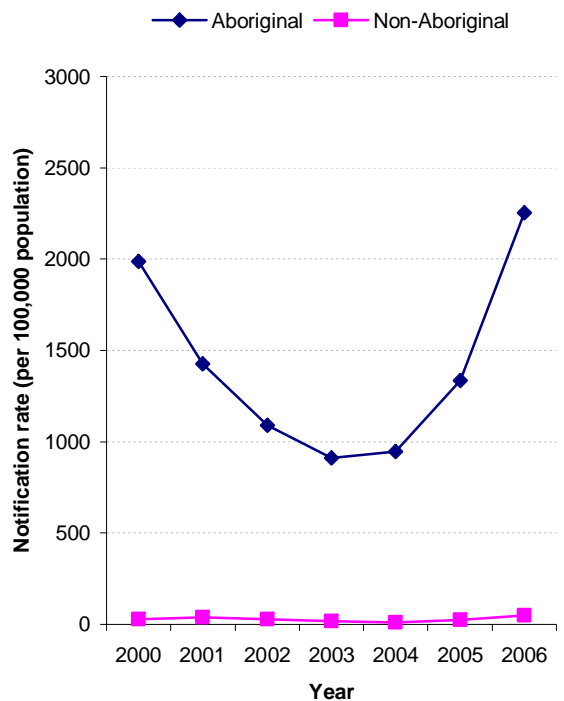
Gonorrhoea



Chlamydia



Syphilis



Trichomoniasis

Table B.1.4 Number and rate of gonorrhoea, chlamydia, syphilis and trichomoniasis notifications by district, NT, Jul-Dec 2006

District	Gonorrhoea		Chlamydia		Syphilis		Trichomoniasis	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Darwin								
Jul-Sep	91	285.4	220	690.1	1	3.1	116	363.9
Oct-Dec	95	298.0	223	699.5	3	9.4	150	470.5
Total	186	291.7	443	694.8	4	6.3	266	417.2
Katherine								
Jul-Sep	59	1281.8	43	934.2	8	173.8	78	1694.5
Oct-Dec	49	1064.5	36	782.1	9	195.5	94	2042.1
Total	108	1173.1	79	858.1	17	184.7	172	1868.3
East Arnhem								
Jul-Sep	34	953.1	39	1093.3	5	140.2	86	2410.8
Oct-Dec	25	700.8	37	1037.2	10	280.3	75	2102.5
Total	59	827.0	76	1065.2	15	210.2	161	2256.6
Barkly								
Jul-Sep	17	1282.1	6	452.5	2	150.8	7	527.9
Oct-Dec	6	452.5	1	75.4	3	226.2	11	829.6
Total	23	867.3	7	264.0	5	188.5	18	678.7
Alice Springs								
Jul-Sep	208	2108.7	171	1733.6	36	365.0	128	1297.7
Oct-Dec	192	1946.5	199	2017.5	28	283.9	149	1510.6
Total	400	2027.6	370	1875.6	64	324.4	277	1404.1

Figure B.1.5 Notification rates of gonorrhoea, chlamydia, syphilis and trichomoniasis by district, NT, Jul-Dec 2006

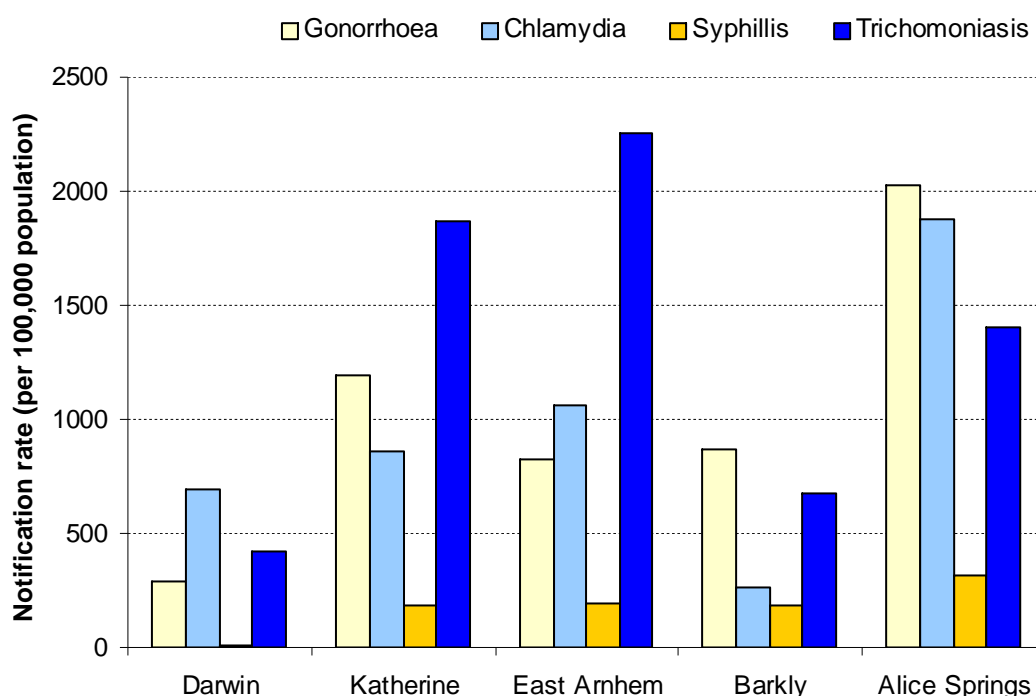
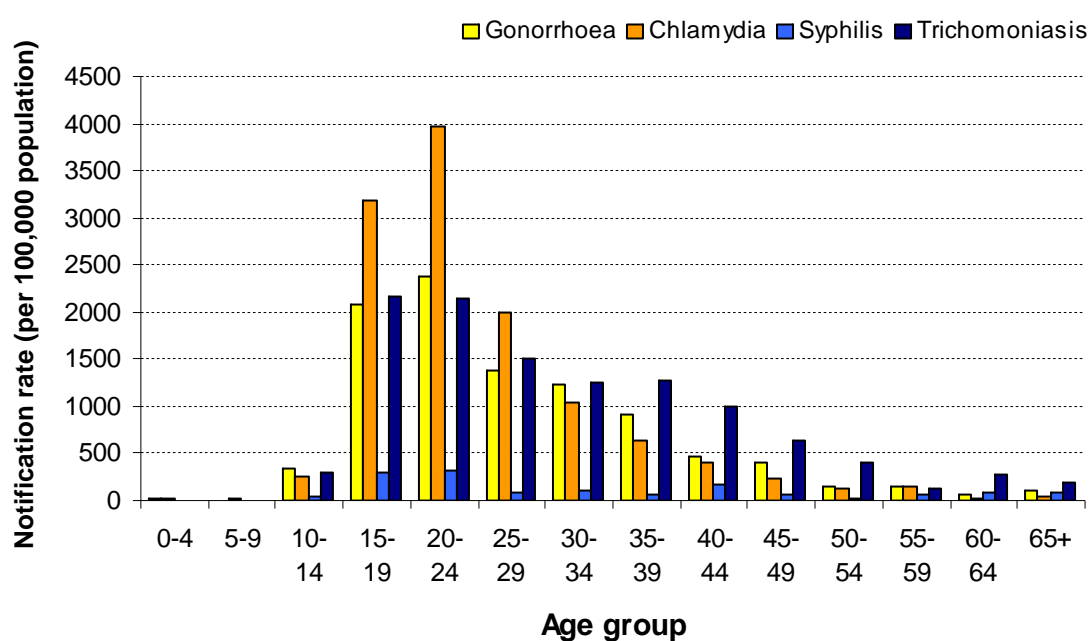


Table B.1.5 Number and rate of gonorrhoea, chlamydia, syphilis and trichomoniasis notifications by 5-year age group, Jul-Dec 2006

Age group	Gonorrhoea		Chlamydia		Syphilis		Trichomoniasis	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
<i>Jul-Dec 2006</i>								
0-4	2	22.5	1	11.2	0	0.0	0	0.0
5-9	0	0.0	2	23.7	0	0.0	0	0.0
10-14	27	329.4	21	256.2	4	48.8	25	305.0
15-19	157	2082.1	240	3182.8	23	305.0	164	2174.9
20-24	193	2375.5	322	3963.3	26	320.0	174	2141.7
25-29	119	1380.5	172	1995.4	8	92.8	129	1496.5
30-34	109	1222.7	93	1043.2	9	101.0	112	1256.4
35-39	79	906.4	56	642.5	5	57.4	111	1273.5
40-44	37	460.4	33	410.6	13	161.8	81	1007.9
45-49	29	396.9	17	232.7	5	68.4	47	643.3
50-54	9	139.5	8	124.0	2	31.0	26	403.1
55-59	8	151.5	8	151.5	3	56.8	7	132.6
60-64	2	60.3	1	30.2	3	90.5	9	271.5
65+	5	107.4	2	43.0	4	86.0	9	193.4
Total	776	757.2	976	952.4	105	102.5	894	872.4

Figure B.1.6 Notification rate of gonorrhoea, chlamydia, syphilis and trichomoniasis notifications by 5-year age group, Jul-Dec 2006



B.1 Gonorrhoea

During the latter half of 2006, a total of 776 gonorrhoea cases were notified, which gave an annualised rate of 757.2 cases per 100000 population¹, lower than the 988.5 per 100000 for the first half of 2006 (Table B.1.1). The notification rate for 2006 was 872.8 per 100000, which was consistent with a persistent increasing trend seen in the last few years (Figure B.1.1). As explained in the Introduction section, the amount of tests done can affect the rate and number of notifications to a large extent. The annual STI screening activities in Central Australia conducted in May and June is the major reason why the annualised notification rate for the first half of the year was considerably higher.

There were 380 males and 395 females notified in this reporting period, but the notification rate for females was 12.9% higher (Table B.1.2). The 2006 notification rates for both males and females did not change significantly compared with those for 2005. (Figure B.1.2 and Figure B.1.3).

In terms of disease burden, about 84.5% of all notifications were Aboriginal; in terms of annualised notification rates, the Aboriginal rate (2285.0 per 100000) was 21.1 times the non-Aboriginal rate (108.4 per 100000, see Table B.1.3). The 2006 notification rates for Aboriginal and non-Aboriginal populations were both considerably higher than the corresponding rate for Australia (41.5 per 100000 in 2005, 2006 data not available yet). The gonorrhoea rate for non-Aboriginal population has remained around 100 per 100000 in the last 6 years; in contrast, the rate for Aboriginal population has increased from 1775.8 in 2000 to 2704.8 per 100000 in 2006, an increase of 52.3% (Figure B.1.3).

Alice Springs district accounted for 50.3% of all notified cases in this 6-month period (Table B.1.4). 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 2027.6 per 100000 (or, 3.2%).

The highest notification rates continued to be recorded in the age groups 20-24 years and 15-19 years, which accounted for 45% of all gonorrhoea notifications during this reporting period (Table B.1.5 and Figure B.1.6).

¹ This annualised rate was calculated by dividing 779 (the number of gonorrhoea cases for the two quarters) with half of the 2006 NT population.

B.2 Genital Chlamydia

A total of 975 notifications of genital chlamydia were reported in this 6-month period, giving an annualised notification rate of 951.4 cases per 100000 population (see Table B.1.1 and Figure B.1.1). In 2006 the annual number of chlamydia notifications in the NT exceeded 2000 for the first time since chlamydia became a notifiable disease.

The number and rate of female notifications were both about 1.5 times male rates (Table B.1.2). Both female and male rates have increased considerably when compared with 2005 rates (Figure B.1.2).

Aboriginal population accounted for 57.6% of all notifications, about 1.8 times the number for non-Aboriginal population (Table B.1.3). However, the Aboriginal rate was 4.7 times the non-Aboriginal rate, compared with the Aboriginal to non-Aboriginal rate ratio of 21.1 to 1 for gonorrhoea. In other words, chlamydia was diagnosed much more frequently in non-Aboriginal population than gonorrhoea. Both Aboriginal and non-Aboriginal rates were considerably higher than the national notification rate (217.2 per 100000 in 2005).

Furthermore, as shown in Figure B.1.4, the annual rates for both Aboriginal and non-Aboriginal populations have increased significantly in 2006 compared with the corresponding rates for 2005 (the Aboriginal rate increased by 25.4% and the non-Aboriginal rate 29.5%).

Darwin District accounted for 45.4% of all chlamydia notifications, followed by Alice Springs District (37.9%). However, Alice Springs District recorded the highest notification rate (1875.5 per 100000) in the NT, followed by East Arnhem (1065.2 per 100000, see Table B.1.4).

The highest rate was recorded in the age groups 20-24 years and 15-19 years with both rates exceeding 3% (Table B.1.5). These two age groups represented 57.6% of all notifications.

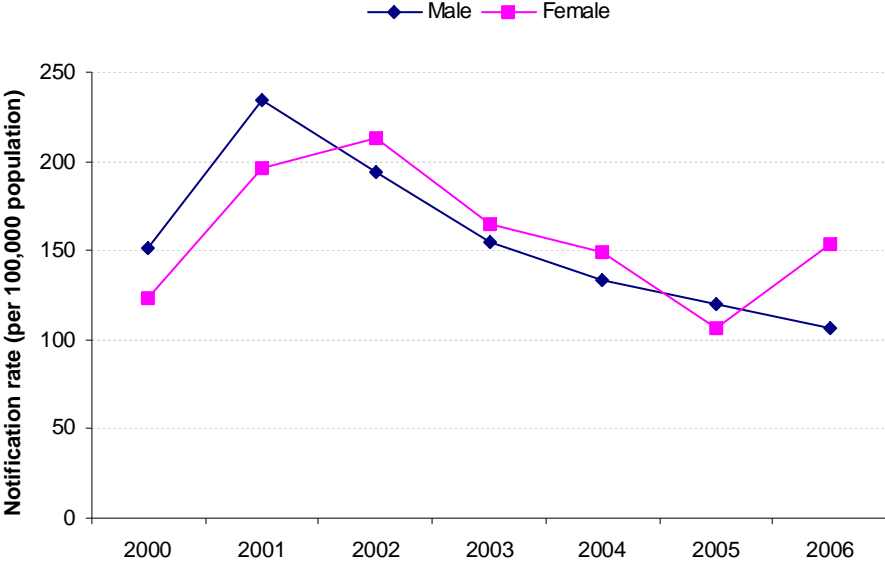
B.3 Syphilis

There were 105 syphilis² notifications in this reporting period, giving an annualised notification rate of 102.5 per 100000 population (Table B.1.1), compared with the national rate of 10.7 per 100000 population in 2005.

As is the case for gonorrhoea and chlamydia, the number and rate of female notifications were both considerably higher than those for males (Table B.1.2), which may be due to the fact that females are tested more and are more likely to access health care facilities and screening

activities. It is worth noting that the decreasing trend seen in the period from 2002 to 2005 was reversed in 2006, mainly due to an increase in female notifications (Figure B.3.1). This was believed to be caused by an increased number of cases detected in this year’s annual sexual health screen conducted in Alice Springs Rural communities in the second quarter.

Figure B.3.1 Notification rate of syphilis by sex, NT, 2000-2006



Almost all syphilis notifications were from Aboriginal population (95.2%) and the Aboriginal rate was 51.2 times the non-Aboriginal rate (Table B.1.3). The 2006 Aboriginal rate of 440.6 per 100000 represented a 23.9% increase over the same rate for 2005 (355.6 per 100000) while the non-Aboriginal rate remained stable and low (7.5 per 100000 in 2006, Figure B.1.4).

Alice Springs District recorded the highest number and rate of notifications, (64 out of 103, or 62.1%, and a high rate of 324.4 per 100000 population, see Table B.1.4).

Like gonorrhoea and chlamydia, the highest number and rate of syphilis were recorded in the age groups of 15-19 and 20-24 years (representing 46.7% of all syphilis cases, see Table B.1.5).

There were 6 notifications of congenital syphilis in the first two quarters and 2 in the last two quarters.

² This includes all categories of syphilis except congenital syphilis.

B.4 Trichomoniasis

There were 894 notifications of trichomoniasis in this 6-month period, which gave an annualised rate of 872.4 per 100000 population (Table B.1.1). The total number and rate for 2006 (1430 and 697.7 per 100000 respectively) represent 75.2% and 70.8% increases over the corresponding figures of 2005 respectively (Figure B.1.1). They were also consistent with an existing increasing trend noted in the last three years.

The majority (94.5%) of all notifications were female (Table B.1.2) and 90.2% were Aboriginal (Table B.1.3).

Alice Springs district recorded 277 (31.0%) notifications, followed by Darwin (266 notifications, Table B.1.4). But it was East Arnhem district that recorded the highest rate of 2256 per 100000, followed by Katherine district (1868.3 per 100000).

The highest rate was recorded in the age groups 15-19 years and 20-24 years (Table B.1.5).

As described in our last issue, the statistics of trichomoniasis notifications should be interpreted with caution as it is known that factors such as variations in the notification practice by different pathology laboratories and the availability of convenient nucleic acid tests may have contributed to the increasing trend in the last few years. Measures have been taken to improve the notification practice of pathology labs and it is hoped that the trichomoniasis statistics will become more reliable as a result.

B.5 Donovanosis

One case of donovanosis was notified in the NT in this reporting period. There were in total two notifications in 2006, compared with four in 2005.

B.6 Other Sexually Transmitted Infections

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

B.7 Hepatitis C

A total of 120 new notifications of hepatitis C were reported in this 6-month period (Table B.7.1). The annual number of hepatitis C notifications for 2006, 273, was consistent with an increasing trend noted in the last five years (Figure B.7.1).

The annualised rate for males was about 1.4 times the female rate. Non-Aboriginal population accounted for 75.8% of all notifications (Table B.7.1). Notably, there were 19 new notifications from the Aboriginal population in these two quarters.

In terms of disease burden, 70.0% of all notifications were from Darwin district, followed by Alice Springs (20.2%, Table B.7.2). The annualised notification rates for Darwin and Alice Springs (131.7 and 106.5 per 100000) were both considerably higher than the national rate (63.4 per 100000 in 2005). As was the case in the past few years, the highest rates were seen in the relatively older age groups (40-44, 45-49 and 50-54 years age groups, Figure B.7.2).

Table B.7.1 Number and rate of hepatitis C by sex and indigenous status, NT, Jul-Dec 2006

Quarter	Gender	Aboriginal		Non-Aboriginal		Unknown	Total	
		Case	Rate	Case	Rate	Case	Case	Rate
Jul-Sep	Female	5	69.2	13	75.0	4	22	89.6
	Male	5	70.2	32	163.6	2	39	146.2
	Total	10	69.7	45	122.0	6	61	119.0
Oct-Dec	Female	3	41.5	20	115.4	3	26	105.9
	Male	6	84.2	26	132.9	1	33	123.7
	Total	9	62.7	46	124.7	4	59	115.1
Jul-Dec	Female	8	55.3	33	95.2	7	48	97.7
	Male	11	77.2	58	148.3	3	72	134.9
	Total	19	66.2	91	123.4	10	120	117.1
2006 NT Total								
	Female	13	45.0	65	93.8	15	93	94.7
	Male	21	73.7	140	179.0	19	180	168.6
	Total	34	59.2	205	138.9	34	273	133.2

Figure B.7.1 Notification rate of hepatitis C, NT, 1995-2006

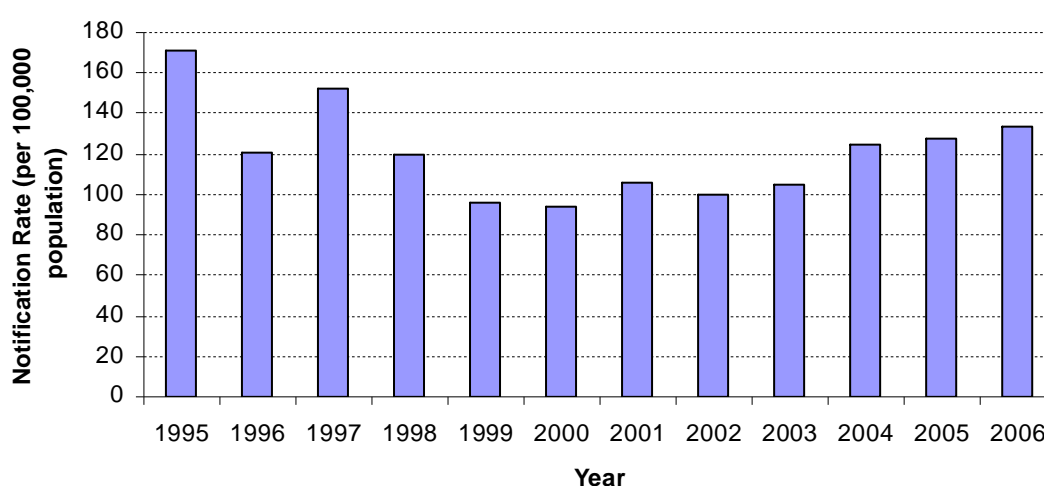


Table B.7.2 Number and annualised rate of hepatitis C notifications by sex and district, NT, Jul-Dec 2006

Quarter	Gender	District									
		Darwin		Katherine		East Arnhem		Barkly		Alice Springs	
		Case	Rate	Case	Rate	Case	Rate	Case	Rate	Case	Rate
Jul-Sep	Female	10	66.0	3	137.6	1	58.3	1	156.5	7	144.4
	Male	24	143.5	4	165.1	1	54.8	1	145.6	9	179.5
Oct-Dec	Female	23	151.8	0	0.0	1	58.3	0	0.0	2	41.2
	Male	27	161.4	2	82.5	1	40.4	0	0.0	3	59.8
Jul-Dec		84	131.7	9	97.8	4	28.0	2	75.4	21	106.5
		70.0%		7.5%		3.3%		1.7%		17.5%	

Figure B.7.2 Annualised notification rate of hepatitis C by age groups, NT, Jul-Dec 2006

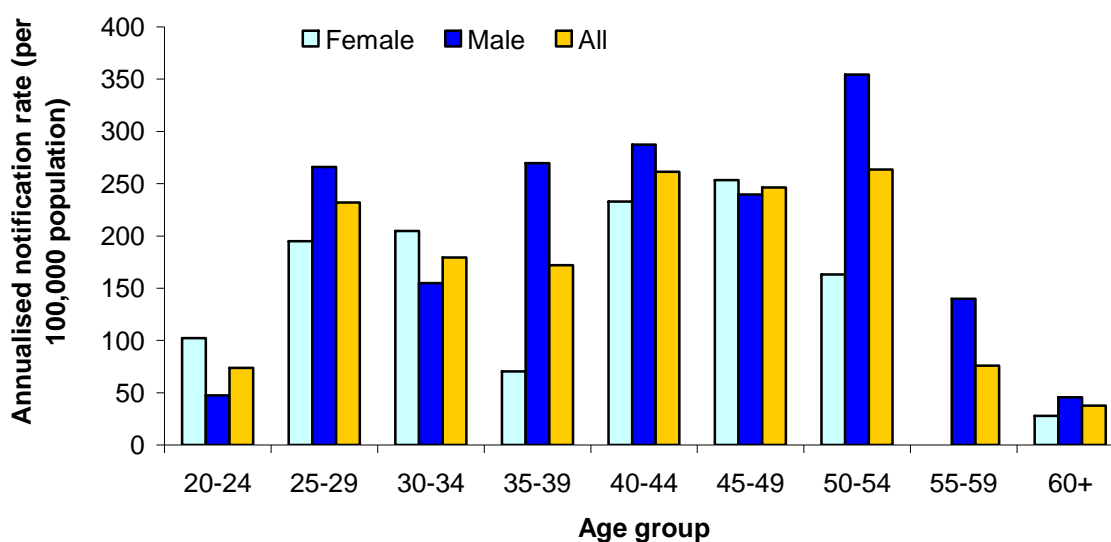


Table B.7.3 Number of hepatitis C notifications by sex, indigenous status and disease categories, NT, Jul-Dec 2006

Type	Gender	Indigenous status			Total	Percentage
		Aboriginal	Non-Aboriginal	Unknown		
Chronic	Female	1	0	0	1	0.8%
New	Male	0	2	0	2	1.7%
Unspecified	Female	7	33	7	47	97.5%
	Male	11	56	3	70	
Total		19	91	10	120	
Percentage		15.8%	75.8%	8.3%		

The NT Department of Health and Community Services (DHCS) commenced enhanced surveillance for hepatitis C from the 1st of July, 2006. During this 6-month period, two cases of newly acquired hepatitis C were notified and appropriate investigations were subsequently carried out. However, as shown in Table B.7.3, there were still 97.5% of notifications

categorised as 'unspecified'. The DHCS is currently undertaking a review on the results and methodology for this enhanced surveillance. It is hoped that, with an improved enhanced surveillance system, this percentage of unspecified hepatitis C will gradually decrease in the future.

B.8 Human Immunodeficiency Virus (HIV)

In 2006, there were thirteen new notifications of HIV in the NT, out of which seven were NT residents. The following description is for these seven NT cases.

There were two female cases and five male ones. Their age at time of notification ranged from 33 to 62. None of them was Aboriginal. Notably, five of them (71.4%) contracted the infection through heterosexual contact while the other two via male homosexual contact.

B.9 Acquired Immunodeficiency Syndrome (AIDS)

There was no notification of AIDS in this 6-month period in the NT.

D. Consumer response

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

Surveillance Project Officer

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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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