Northern Territory Government

DEPARTMENT OF HEALTH

Northern Territory

Sexual Health and Blood Borne Virus Unit

Surveillance Update

Vol. 13 No. 2,

Jul-Sep & Oct-Dec 2012

A. Introduction

The Sexual Health and Blood Borne Virus Unit publishes the Surveillance Update 6-monthly to present quarterly statistics for notifiable sexually transmissible infections (STIs) and blood borne viruses (BBVs) in the Northern Territory (NT). It represents an integral part of the NT's effort in continuous monitoring of the epidemiology of STIs and BBVs. It is hoped that clinicians and health 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 statistics reported in this issue are for July-December 2012, and where possible, the annual statistics for 2012 are also presented. The notification data were extracted from the NT Notifiable Diseases System (NTNDS) of the Centre for Disease Control (CDC) on 20 March 2013. Additional data for notifications of HIV were retrieved from the HIV database maintained by the Sexual Health and Blood Borne Virus Unit (SHBBVU) on the same day. 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 2012' published by the Kirby Institute. The population data for the NT were provided by the Health Gains Planning. As the NT population data for 2011 and 2012 are not available yet, data for 2010 were used to calculate rates for both 2011 and 2012.

All notification rates for quarters and six-month periods presented in this report are crude annualised rates without standardisation. Due to a proportion of 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. When calculating Aboriginal and non-Aboriginal notification rates, adjustments were made so that the notifications for which ethnicity are not known were allocated to the two categories proportional to their known distribution in the two populations.

A significant decrease in STI notifications noted in the second half of 2012 had triggered an investigation into its causes. The investigation found that the decrease was caused by a large proportion (up to 80% in some communities) of notifiable STIs and BBVs diagnosed in remote communities in Alice Springs Remote District not being notified to the CDC due to a technical issue. So far, it is not known exactly how many cases have not been notified, but the CDC is working to retrieve missed notifications.

Because of this known significant discrepancy in disease notification, this Surveillance Update only presents the data and does not provide comments on current statistics and trends over time for gonorrhoea, chlamydia and trichomoniasis as the surveillance data for these STIs are most affected by the discrepancy. The decrease in notifications of these three STIs in this reporting period is known to be artificial and should not be interpreted as a true decrease. As for the other STIs and BBVs, because the majority of HIV and hepatitis C cases were diagnosed in urban areas and enhanced surveillance has been conducted for HIV, hepatitis C and syphilis, they are not as affected by this incident as the three STIs mentioned above.

B. Quarterly Statistics

Table B.1.1 Quarterly numbers and rates (per 100,000) of gonorrhoea, chlamydia, infectious syphilis and trichomoniasis notifications, NT, Jul-Dec 2012

Quarter	Gonorrhoea		Chlamydia		Infectious Syphilis		Trichomoniasis	
	Cases	Rate	Cases	Rate	Case	Rate	Case	Rate
2012								
Jul-Sep	298	519.0	589	1025.8	3	5.2	574	999.7
Oct-Dec	357	621.7	562	978.8	3	5.2	632	1100.7
Jul-Dec total	655	570.4	1151	1002.3	6	5.2	1206	1050.2
2012 total	1480	644.4	2534	1103.3	14	6.5	2505	1090.7
2011								
Jul-Sep	454	790.7	693	1206.9	6	10.4	751	1307.9
Oct-Dec	451	785.5	619	1078.0	3	5.2	722	1257.4
Jul-Dec total	905	788.1	1312	1142.5	9	7.8	1473	1282.7
2011 total	1898	826.39	2605	1134.2	45	19.6	2764	1203.4

Figure B.1.1 Notification rates of gonorrhoea, chlamydia, infectious syphilis and trichomoniasis, NT, 2008-2012

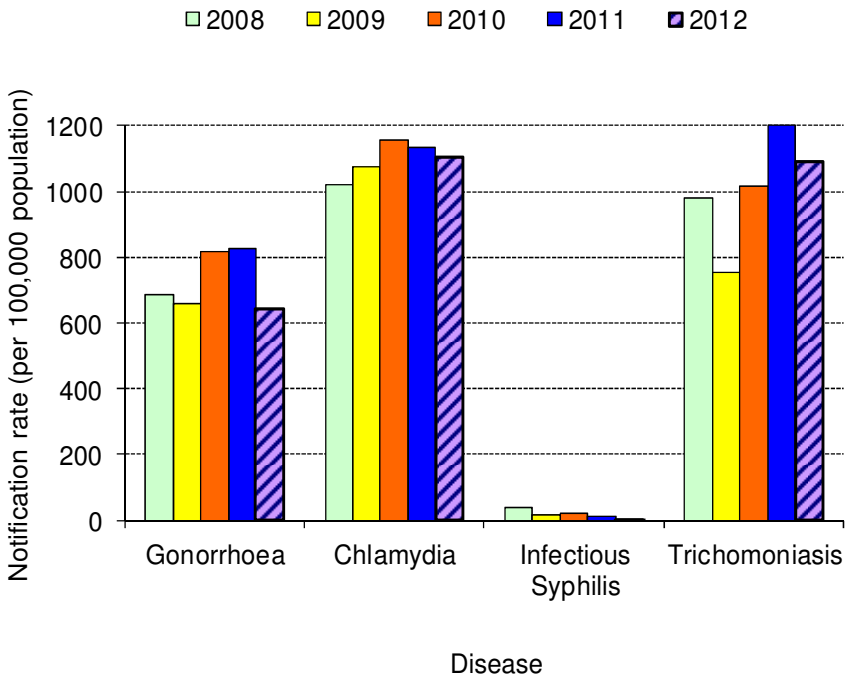


Table B.1.2 Quarterly numbers and rates (per 100,000) of gonorrhoea, chlamydia, infectious syphilis and trichomoniasis by gender, NT, Jul-Dec 2012

Gender	Gonorrhoea*		Chlamydia		Infectious Syphilis		Trichomoniasis	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Males								
Jul-Sep	145	487.2	245	823.2	1	3.4	90	302.4
Oct-Dec	189	635.0	266	893.7	3	10.1	101	339.3
Total	**334**	**561.1**	**511**	**858.4**	**4**	**6.7**	**191**	**320.9**
Females								
Jul-Sep	152	549.6	344	1243.9	2	7.2	483	1746.5
Oct-Dec	168	607.5	296	1070.3	0	0.0	531	1920.0
Total	**320**	**578.5**	**640**	**1157.1**	**2**	**3.6**	**1014**	**1833.3**
2012 total								
Males	725	609.0	1,090	915.6	9	7.6	385	323.4
Females	754	681.6	1,442	1303.5	5	4.5	2119	1915.5
Total	**1479**	**644.0**	**2,532**	**1102.4**	**14**	**6.1**	**2504**	**1090.2**

Figure B.1.2 Notification rates of gonorrhoea, chlamydia, infectious syphilis and trichomoniasis by gender, NT, 2008-2012

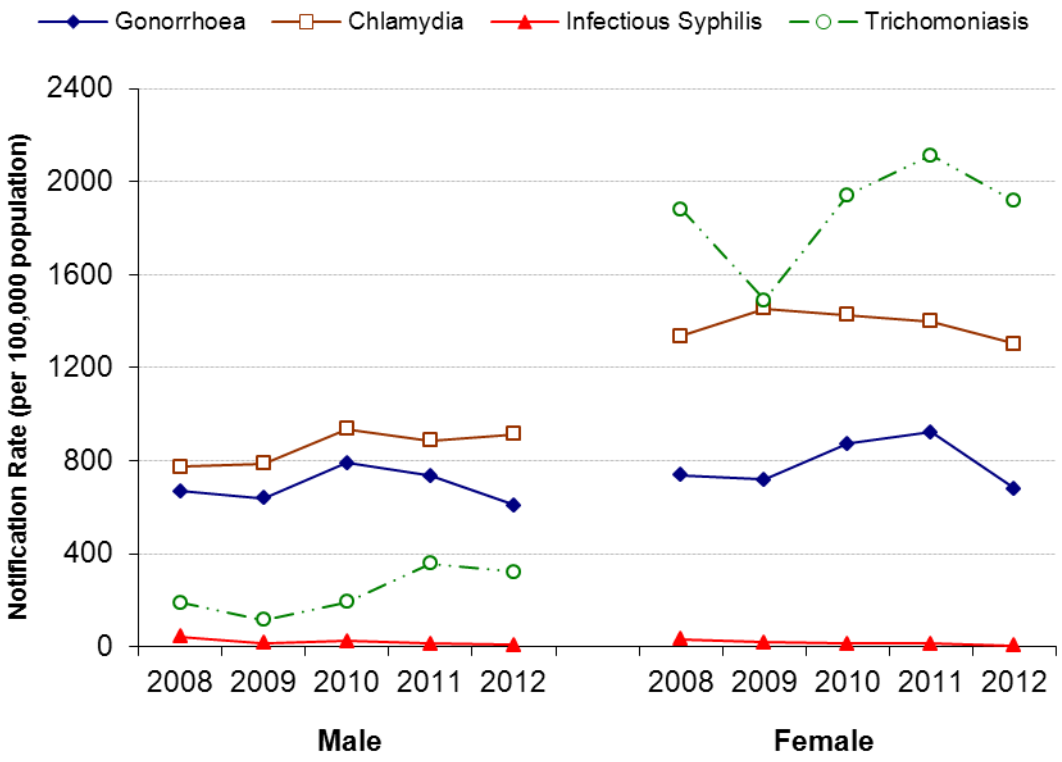
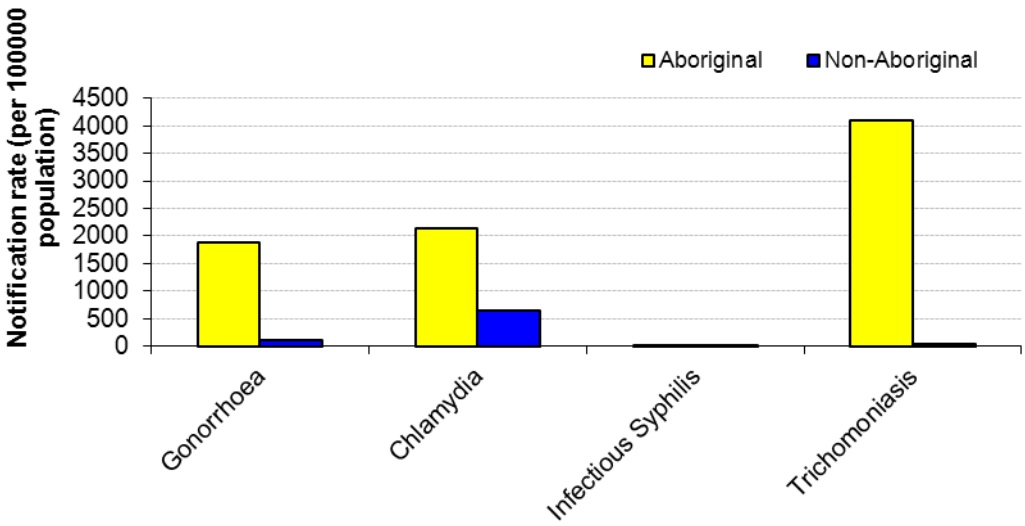


Table B.1.3 Quarterly numbers and rates (per 100,000) of gonorrhoea, chlamydia, infectious syphilis and trichomoniasis notifications by ethnicity, NT, Jul-Dec 2012

Ethnicity	Gonorrhoea		Chlamydia		Syphilis		Trichomoniasis	
Quarter	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Aboriginal								
Jul-Sep	251	1453.3	295	1708.1	3	17.4	550	3184.6
Oct-Dec	292	1690.7	277	1603.9	3	17.4	606	3508.9
Total	**543**	**1572.0**	**572**	**1656.0**	**6**	**17.4**	**1156**	**3346.7**
Non-Aboriginal								
Jul-Sep	37	92.2	251	625.2	0	0.0	21	52.3
Oct-Dec	49	122.0	235	585.3	0	0.0	17	42.3
Total	**86**	**107.1**	**486**	**605.3**	**0**	**0.0**	**38**	**47.3**
Unknown								
Jul-Sep	10		43		0		3	
Oct-Dec	16		50		0		9	
Total	**26**		**93**		**0**		**12**	
Jul-Dec, 2012 Total								
Aboriginal	829	1888.0	732	2140.1	8	40.5	1419	4087.8
Non-Aboriginal	63	109.4	491	657.3	1	2.5	42	50.5

Figure B.1.3 Notification rates* of gonorrhoea, chlamydia, infectious syphilis and trichomoniasis by ethnicity, NT, 2012



* Please refer to the Introduction section for adjustments made in calculating these rates.

Table B.1.4 Quarterly numbers and rates (per 100,000) of gonorrhoea, chlamydia, infectious syphilis and trichomoniasis notifications by district, NT, Jul-Dec 2012

	Gonorrhoea		Chlamydia		Infectious Syphilis		Trichomoniasis	
District	**Cases**	**Rate**	**Cases**	**Rate**	**Cases**	**Rate**	**Cases**	**Rate**
Darwin								
Jul-Sep	83	231.6	339	946.0	1	2.8	191	533.0
Oct-Dec	97	270.7	328	915.3	0	0.0	225	627.9
Total	**180**	**251.2**	**667**	**930.7**	**1**	**1.4**	**416**	**580.4**
Katherine								
Jul-Sep	66	1320.0	66	1320.0	1	20.0	146	2920.0
Oct-Dec	99	1980.0	72	1440.0	1	20.0	158	3160.0
Total	**165**	**1650.0**	**138**	**1380.0**	**2**	**20.0**	**304**	**3040.0**
East Arnhem								
Jul-Sep	16	379.2	39	924.3	0	0.0	118	2796.5
Oct-Dec	19	450.3	41	971.7	0	0.0	145	3436.4
Total	**35**	**414.7**	**80**	**948.0**	**0**	**0.0**	**263**	**3116.5**
Barkly								
Jul-Sep	18	1086.6	13	784.8	0	0.0	20	1207.4
Oct-Dec	10	603.7	10	603.7	1	60.4	24	1448.8
Total	**28**	**845.2**	**23**	**694.2**	**1**	**30.2**	**44**	**1328.1**
Alice Springs								
Jul-Sep	107	999.3	119	1111.3	1	9.3	92	859.2
Oct-Dec	116	1083.3	95	887.2	1	9.3	75	700.4
Total	**223**	**1041.3**	**214**	**999.3**	**2**	**9.3**	**167**	**779.8**

Figure B.1.4 Notification rates of gonorrhoea, chlamydia, infectious syphilis and trichomoniasis by district, NT, 2012

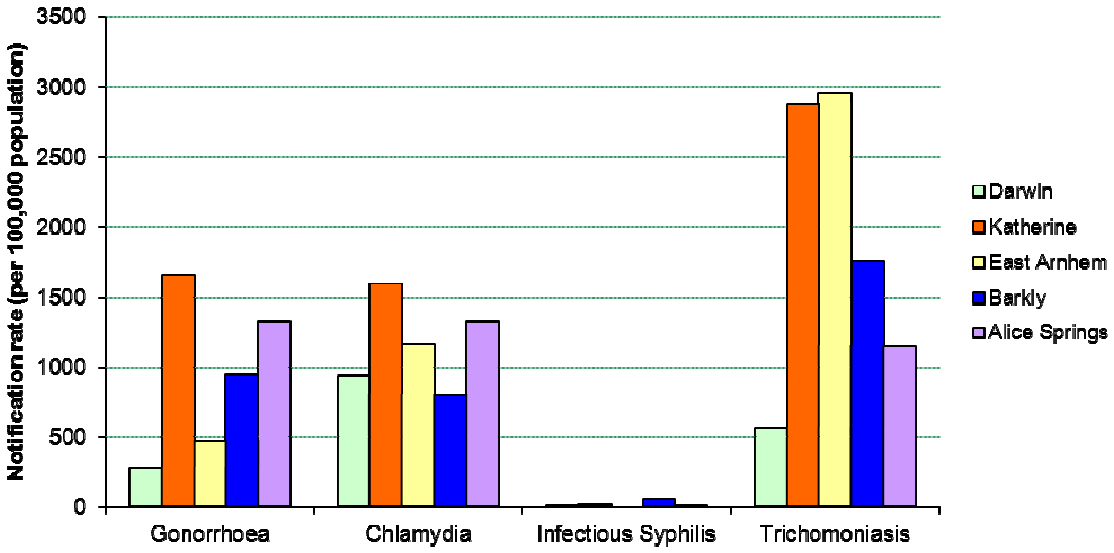
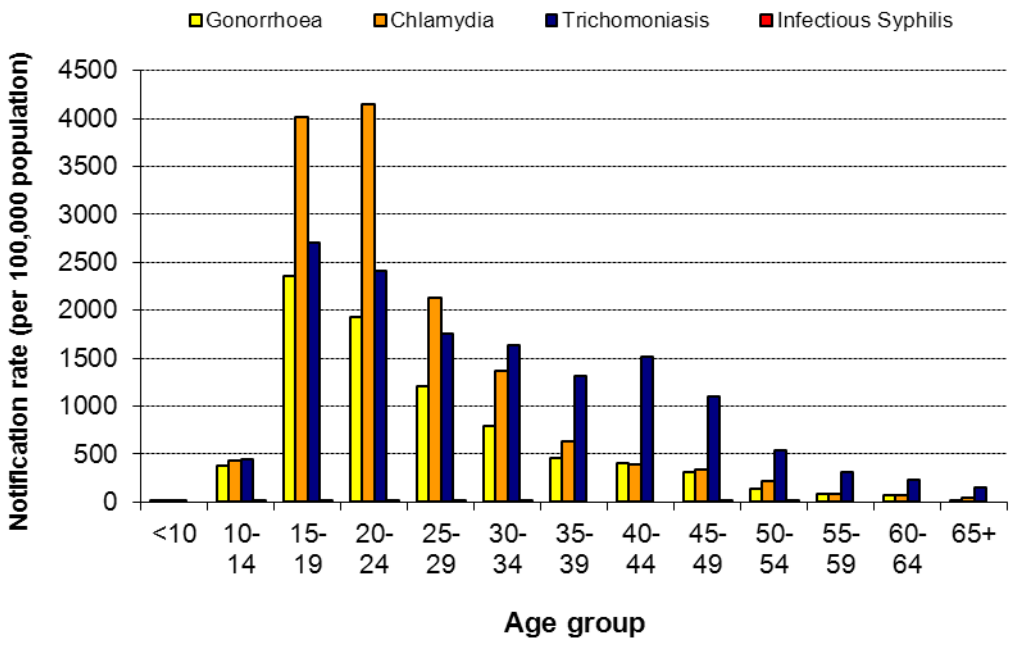


Table B.1.5 Number and rate (per 100,000) of gonorrhoea, chlamydia, infectious syphilis and trichomoniasis notifications by 5-year age group, Jul-Dec 2012

	Gonorrhoea		Chlamydia		Syphilis		Trichomoniasis	
Age group	**Cases**	**Rate**	**Cases**	**Rate**	**Cases**	**Rate**	**Cases**	**Rate**
<10	5	27.5	1	5.5	0	0.0	1	5.5
10-14	28	334.1	34	405.7	1	11.9	32	381.8
15-19	159	1887.9	310	3680.8	0	0.0	221	2624.1
20-24	147	1551.3	344	3630.2	2	21.1	208	2195.0
25-29	126	1193.1	205	1941.1	1	9.5	193	1827.5
30-34	77	815.5	122	1292.1	2	21.2	146	1546.3
35-39	36	387.5	48	516.7	0	0.0	111	1194.9
40-44	38	447.0	33	388.2	0	0.0	121	1423.3
45-49	21	260.3	26	322.3	0	0.0	94	1165.3
50-54	10	137.4	16	219.9	0	0.0	38	522.2
55-59	5	80.5	4	64.4	0	0.0	18	289.8
60-64	2	42.6	5	106.6	0	0.0	12	255.9
65+	1	15.7	3	47.2	0	0.0	11	172.9
Total	**655**	**570.4**	**1151**	**1002.3**	**6**	**5.2**	**1206**	**1050.2**

Figure B.1.5 Notification rate of gonorrhoea, chlamydia, syphilis and trichomoniasis notifications by 5-year age group, 2012



B.1 Gonorrhoea

Please refer to tables and figures provided above for statistics.

B.2 Genital Chlamydia

Please refer to tables and figures provided above for statistics.

B.3 Infectious Syphilis

Only 6 new cases of infectious syphilis (or, syphilis of less than two years' duration) were notified in this 6-month period, compared with 9 cases for the same period in 2011. The total number of notifications for 2012, 14, was a record low for the NT. This gave the annual notification rate of 6.1 per 100,000 population, which was evidence that the previously identified decreasing trend has persisted into 2012 (Figure B.3.1). This rate was also very close to the 5.7 per 100,000 for Australia in 2011.

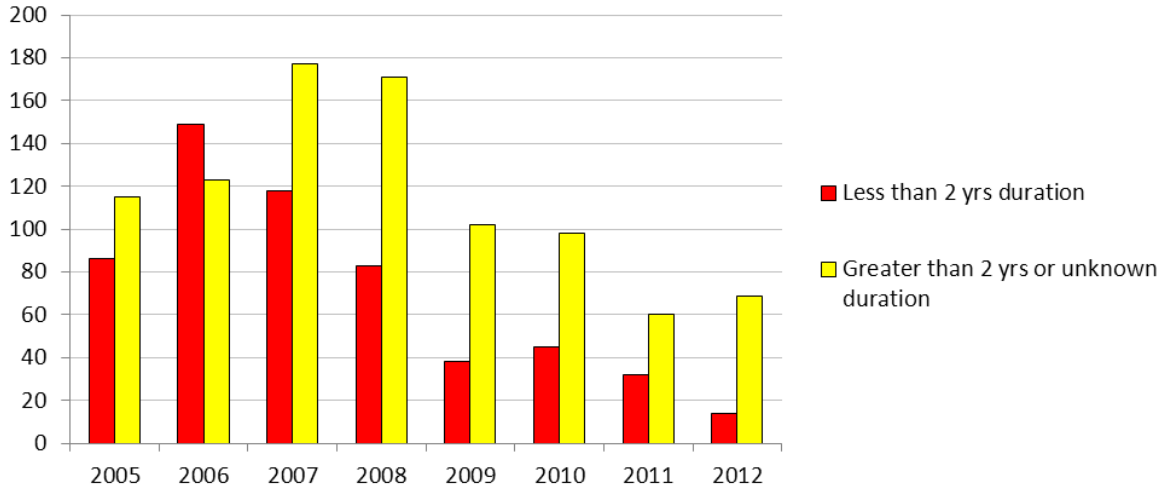
As usual, there were more male notifications than female ones (male to female rate ratio was almost 2:1, see Table B.1.2). All 6 cases notified in this period were Aboriginal (Table B.1.3).

All 6 cases were sporadic ones spread across Darwin, Katherine, Barkly and Alice Springs districts, rather than concentred in one or two districts (Table B.1.4). In 2012, all NT districts had recorded 4 or less new cases. In terms of age-specific rates, the highest was recorded in the 20-24 year age group.

As shown in Figure B.3.1, the number of notifications of syphilis of greater than two years or unknown duration has increase slightly in 2012, compared with 2011.

There was no congenital syphilis notification in 2012.

Figure B.3.1 Number of syphilis notifications by category, NT, 2005-2012



B.4 Trichomoniasis

Please refer to tables and figures provided above for statistics.

B.5 Donovanosis

There were no donovanosis notifications recorded in 2012.

B.6 Other Sexually Transmitted Infections

There were no notifications of chancroid or lymphogranuloma venereum recorded in 2012.

B.7 Hepatitis C

A total of 142 cases were notified in this 6-month period, compared with 110 cases for the same period in 2011 (Table B.7.1). The total number of notifications for 2012 ,237, represented a 10.7% increase over the 214 notifications for 2011. The increase all came from males; in fact the number of notifications in females decreased from 66 cases in 2011 to 47 cases in 2012 (Fig. B.7.1). There appeared to be an increasing trend in annual notifications of hepatitis C since 2009, which was mainly caused by a similar trend in males.

There were no 'newly acquired' cases in this reporting period (Table B.7.2). Non-Aboriginal cases accounted for 83.7% of all cases, and the ethnicity was unknown in 7.1% of notifications. The notification rate for males was about 5.3 times the female rate. The non-Aboriginal rate was about 4 times the Aboriginal rate.

Figure B.7.1 Number of hepatitis C notifications by sex, NT, 2008-2012

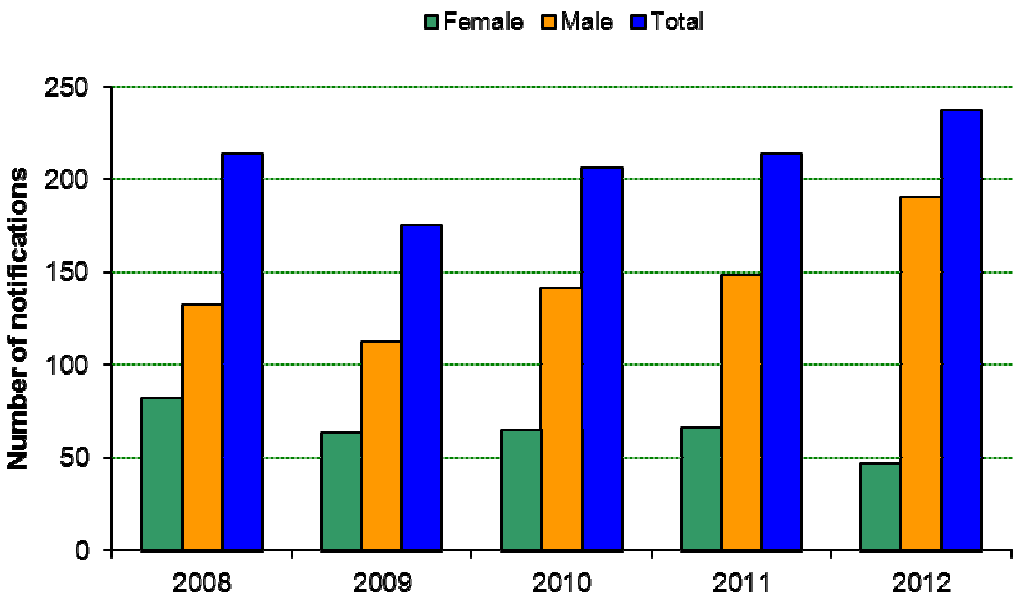


Table B.7.1 Number and rate of hepatitis C by sex and ethnicity, NT, Jul-Dec 2012

Quarter	Sex	Aboriginal		Non-Aboriginal		Unknown	Total	
		Case	Rate	Case	Rate	Case	Case	Rate
Jul-Sep	Female	1	11.4	8	42.4	1	10	36.2
	Male	5	58.9	43	202.1	5	53	178.1
	Unknown	0		0		1	1	
	Total	**6**	**34.7**	**51**	**127.0**	**6**	**64**	**111.5**
Oct-Dec	Female	2	22.8	8	42.4	1	11	39.8
	Male	5	58.9	59	277.3	3	67	225.1
	Total	**7**	**40.5**	**67**	**166.9**	**4**	**78**	**135.8**
Jul-Dec	Female	3	17.1	16	42.4	2	21	38.0
	Male	10	58.9	102	239.7	8	120	201.6
	Unknown	0		0		1	1	
	Total	**13**	**37.6**	**118**	**147.0**	**10**	**142**	**123.7**

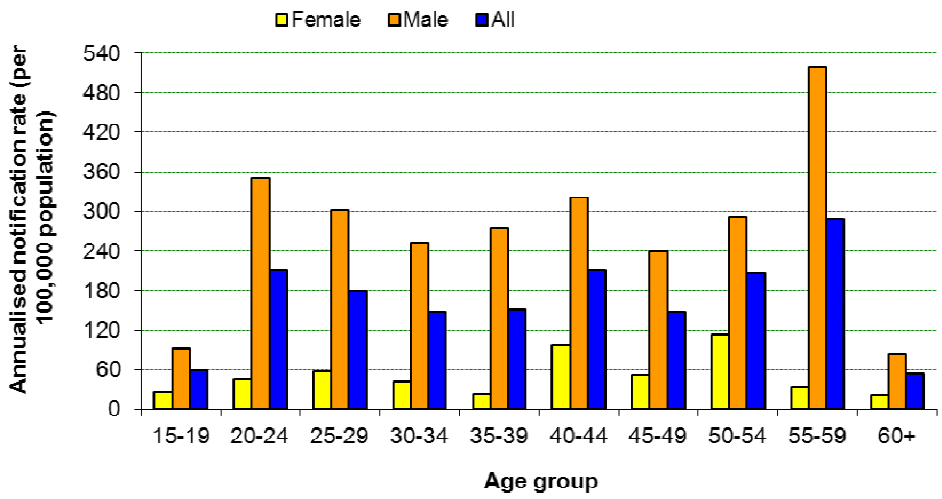
Table B.7.2 Number of hepatitis C notifications by sex, ethnicity and disease categories, NT, Jul-Dec 2012

Type	Gender	Indigenous status			Total	%
		Aboriginal	Non-Aboriginal	Unknown		
Newly acquired	Female	0	0	0	0	**0.0%**
	Male	0	0	0	0	
Unspecified	Female	3	16	2	21	**100.0%**
	Male	10	102	8	120	
Total		**13**	**118**	**10**	**141**	
%		**9.2%**	**83.7%**	**7.1%**		

Table B.7.3 Number and annualised rate of hepatitis C notifications by gender and district, NT, Jul-Dec 2012

Quarter	Sex	District									
		Darwin		Katherine		East Arnhem		Barkly		Alice Springs	
		Case	Rate	Case	Rate	Case	Rate	Case	Rate	Case	Rate
Jul-Sep	Female	9	53.2	0	0.0	0	0.0	0	0	0	0.0
	Male	39	206.3	2	78.7	0	0.0	0	0.0	8	151.3
Oct-Dec	Female	7	41.3	1	40.7	0	0.0	0	0.0	2	36.9
	Male	59	312.1	2	78.7	1	46.0	0	0.0	3	56.7
Jul-Dec 2011											
	Female	27		0		1		0		5	
	Male	60		2		1		1		12	
	Total	**87**	**121.4**	**2**	**20.0**	**2**	**23.7**	**1**	**30.2**	**17**	**79.4**

Figure B.7.2 Annualised notification rate of hepatitis C by age groups, NT, Jul-Dec 2012



The majority (80.3%) of notifications were recorded in the Darwin District (Table B.7.3). Darwin also recorded the highest notification rate in this reporting period. The highest rate in males was recorded in the 55-59 year age group, followed by the 20-24 year age group (Figure B.7.2). In females, the highest rate was recorded in the 50-54 year age group, followed by the 40-44 year age group. The pattern of age distribution in the NT is different from that for Australia; nationally, the age groups recording the highest rates pattern are 30-39 and 20-29 year age groups.

Enhanced surveillance data:

In 2012, 237 cases of unspecified hepatitis C infection were notified to the CDC and were investigated through the enhanced surveillance system. A total of 99 enhanced surveillance forms were collected, giving a response rate of 41.8%, which was considerably higher than the 27.9% of 2011, but still significantly lower than the 57.2% reported for 2010.

Among the 99 cases with enhanced data, 26 (26.2%) indicated that they were diagnosed as hepatitis C before (either in the NT or elsewhere), leaving 73 cases qualified as true unspecified cases. The data on injection drug use for these two groups are summarised in Table B.7.4. The proportion of patients identifying themselves as people who inject drugs was lower in the true unspecified category (27.4% vs. 42.3%).

Table B.7.4 Demographic and injection drug use data for those notified for hepatitis C infection investigated by the enhanced surveillance system in the NT, 2012

Category	True unspecified		Previously diagnosed	
Sex				
Female	14	19.2%	8	30.8%
Male	59	80.8%	18	69.2%
Injection drug use				
<two years	2	2.7%	1	3.9%
>two years	18	24.7%	10	38.5%
unknown	37	50.7%	11	42.3%
never	13	17.8%	4	15.4%
(no data)	3	4.1	0	0%
Total	73		26	

B.8 Human Immunodeficiency Virus (HIV)

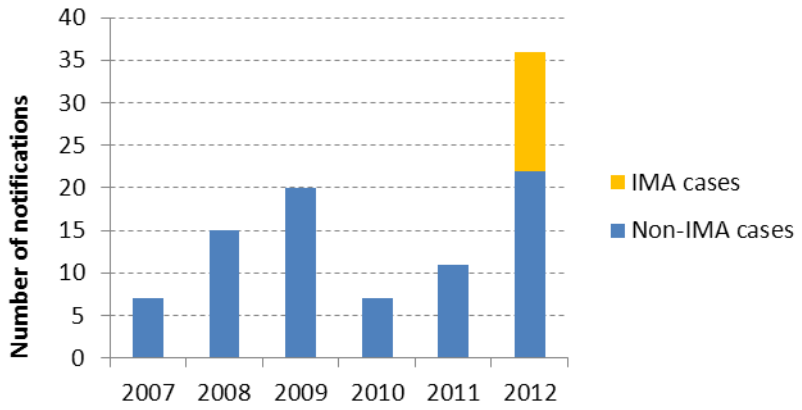
This reporting period has seen a large increase in HIV notifications: a total of 23 new cases were notified. The increase was mainly due to the 14 cases who were irregular maritime arrivals (IMAs) notified by the Immigration Detention Centre in Darwin. A summary description of the cases of 2012 is provided below.

There was a total of 36 cases of HIV notified in 2012, including 8 females and 28 males. Table B.8.1 summarises the place of diagnosis. The majority of cases are diagnosed outside of the Clinic 34 sexual health clinics. Routine testing on prison reception detected 2 cases. Nearly 40% of the cases were IMAs notified by the Immigration Detention Centre. As 2012 was the first year when there were HIV notifications recorded in IMAs (Figure B.8.1), we will describe these cases separately later.

Table B.8.1 Place of diagnosis for the HIV notifications of 2012, NT

Place of diagnosis	F	M	Total	%
ASH	0	1	1	2.8%
RDH	2	4	6	13.9%
Alice Springs Prison	1	1	2	5.6%
Clinic 34 Alice Springs	1	3	4	11.1%
Clinic 34 Darwin	1	3	4	11.1%
GP	1	4	5	16.7%
Immigration Detention	2	12	14	38.9%
Total	8	28	36	

Figure B.8.1 Notifications of HIV in the NT by status of irregular maritime arrival (IMA), 2007-2012



Of the 22 cases not from the Immigration Detention Centre, 6 were female and 16 male, and 27.3% were classified as cases of late presentation, compared with the average of 32.2% from cases notified between 2007 and 2011 (Table B.8.2). Only one of the 22 cases had co-infection, which included hepatitis C and latent tuberculosis infection. As was usual with NT cases, the majority (13 cases, or 59.1%) of the cases contracted the infection via heterosexual contact (the average for 2007-2011 cases was 50.9%). The proportion of late presentation did not differ considerably in these two exposure categories.

Table B.8.2 Details of exposure category and late presentation* for HIV notifications which were not from the Immigration Detention Centre, NT, 2012

Exposure category	Late presentation				
	Yes	No	Unknown	Total	%
Heterosexual	4	9	0	13	59.1%
MSM	2	6	1	9	40.9%
Total	6	15	1	22	
%	27.3%	68.2%	4.5%		

* Late HIV presentation was defined as newly diagnosed HIV infection with a CD4+ cell count of less than 200 cells/µl.

Twelve of the 13 heterosexually acquired cases were from a high prevalence country or had a partner from a high prevalence country. Of these 12, 4 (1 female and 3 males) were Australian residents acquiring the infection while travelling in high prevalence countries, and the rest were immigrants arriving in Australia with HIV (four of them already knew about their HIV status before they arrived). There was only one case who is thought to have acquired HIV heterosexually locally.

Of the 22 cases, there were five diagnosed as newly acquired HIV infection (patients acquired the infection in the 12 months prior to HIV diagnosis), three of them via MSM exposure and two via heterosexual exposure. Not counting the cases who are IMAs, the proportion of newly acquired HIV cases in the NT for 2012 was 22.7%, lower than the 33.2% reported for Australia for 2011.

The majority (about 60%) of the 14 cases who were IMAs were from high prevalence countries in South East Asia (Table B.8.3). Nine of them acquired HIV via heterosexual contact and two via MSM contact. Exposure data are not available for three cases. Three cases were categorised as late presentation. None was diagnosed as newly acquired HIV infection.

Table B.8.3 Region of origin for the HIV notifications from the Immigration Detention Centre, NT, 2012

Region of origin	Number	%
Middle East	3	21.4%
South Asia	2	14.3%
South East Asia	8	57.1%
Unknown	1	7.1%
Total	14	

In conclusion, there was a large increase in HIV notifications in 2012, mainly due to increased diagnoses in IMAs. While heterosexual transmission accounts for the majority of cases notified in the NT, all but one of these cases occurred in the standard priority populations for HIV control. National recommendations to focus HIV testing and prevention efforts toward priority populations remain relevant to the NT.

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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