

Northern Territory AIDS/STD Program Surveillance Update

**Department of Health and Community Services, Vol. 2 No 2,
Jul–Sep 2001 & Oct–Dec 2001**

This report presents quarterly statistics for all sexually transmissible infections (STIs) and blood borne viruses (BBVs) in the Northern Territory (NT) during the periods July to September 2001 and October to December 2001. Data for this report is sourced from the Northern Territory Notifiable Diseases Surveillance System (NTNDSS), the centralised database of NT wide notifications and the AIDS/STD Program's HIV and AIDS databases.

1. Aims of the report

The aim of the report is to provide up to date information that can be used by service providers to assess the current level of infection within their district. Notifications for the last two quarters of 2001 have been included for each district and for the NT. An accurate explanation of rate fluctuations from one quarter to another is difficult in the absence of denominator data (ie how many tests are being performed). However, regular reports also seek to raise the awareness of all service providers about the undeniably high rates of preventable and largely, readily curable infections and assist clinicians to plan targeted interventions.

2. Format

The report is divided into bacterial sexually transmissible infections (gonorrhoea, chlamydia, syphilis and donovanosis) and trichomonas. The blood borne viruses hepatitis C and human immunodeficiency virus are presented separately.

3. Surveillance issues for Sexually Transmissible Infections

3.1 Notification Data

All data on the Northern Territory Notifiable Diseases Surveillance System is now stored on the Department of Health and Community Services corporate data warehouse SHILO (Strategic Health Information Logically Organised). The benefits of this include improved data security, standardisation of the data fields, greater accessibility to the data by those who use it and the opportunity to use standard population denominator data to calculate disease rates. Additionally, information is updated daily so the most accurate data is always available to the users.

In the process of establishing this system of efficient transfer and storage of the data, a degree of data cleaning has been done and hence, figures previously reported in some publications may differ very slightly to those reported in the future.

3.2 Congenital syphilis surveillance

In this half-year there has been an increase in notifications of congenital syphilis from zero in the previous 6 months to 12. As a result of reviewing the protocols for managing congenital syphilis, hospital staff have become more aware of the criteria to diagnose congenital syphilis and the process of notification. The "increase" in cases is actually the result of finding ones that had slipped through the system and heightened staff awareness.

3.3 Sentinel Surveillance Sites – Antibiotic Resistant Neisseria gonorrhoeae (ARNG)

NT standard treatment guidelines recommend treatment with oral amoxicillin and probenidicid for gonorrhoea acquired locally. Following concern regarding the possible emergence of penicillin resistant strains in the NT, an analysis of the gonorrhoea notification data reported to the NTNDSS was conducted. This review concluded that due to the incomplete recording of the diagnostic method, the percentage of antibiotic resistant gonorrhoea and in particular, penicillin resistant strains, was unknown. The World Health Organisation (WHO) recommends changing antibiotic treatment when the proportion of resistant isolates reaches 5%. A greater level of detail in the information collected was essential if informed decisions were to be made regarding standard treatment guidelines.

Four sentinel surveillance sites were established from the 1st of July 2001 to better inform the AIDS/STD program of the epidemiology of *N. gonorrhoeae* and in particular ARNG. Two of the sites are in Darwin, with one in Katherine and Alice Springs. The preliminary report, published in the December issue of the CDC Bulletin, examines the first three months data and has highlighted some important points in the surveillance of this infection in the NT. The initial lack of recording of ethnic status proved problematic for analysis and interpretation of the data. This information is crucial in describing the current trends of infection and monitoring the emergence of resistant strains of gonorrhoea in the local population.

Additionally, the proportion of male sentinel cases that were asymptomatic is, to date, higher than expected. It will be interesting to see if this trend persists as cases numbers increase. Numbers of females being tested at the sentinel sites needs to increase for the sites to be representative of the population for which emerging ARNG infections are suspected. The addition of the planned fifth sentinel site should improve representation of females in testing numbers. There were no antibiotic resistant strains notified in the initial three months of the pilot.

4. Quarterly Notifications

4.1 Genital Chlamydia Infection

In the NT between 1 July and 31 December 2001, there were 642 notifications of genital chlamydia infection. This compares with a range of 407 to 499 for the same period 1998 to 2000. In the second half of 2001, females accounted for 60% of notifications, 39% of infections were notified in males and the remaining 1% had no gender recorded.

Consistent with trends described in other states of Australia, the highest rates of notification are among people in the 15-24 year age group (fig 1.5). The year 2001 overall saw higher rates of chlamydial infection in both males and females, Indigenous and non-Indigenous, all age groups to 59 years and 3 of 4 Districts (Katherine notifications were comparable with the previous year).

4.2 Gonorrhoea infections

Gonorrhoea continues to be the most frequently notified STI in the NT. Alice Springs District recorded the majority of gonorrhoea notifications overall (66%) and the 15 - 19 year age group represented nearly one third of NT wide gonorrhoea notifications in the six months to December 2001. Notified cases of gonorrhoea in this age group have increased by 25% when compared with figures for the first half of 2001. Gender distribution was relatively even with 374 cases recorded in males and 367 female episodes.

Infection in Aboriginal people accounted the majority (81%) of notifications, with 11% of cases in non-Aboriginals and the remaining 8% had no ethnicity recorded (fig 1.3).

4.3 Syphilis

Cases of congenital syphilis reported for this period have increased significantly from the preceding six months (no cases reported to 12 for this period). This is due to a review of the congenital syphilis case definition and consequent heightened awareness among clinicians regarding the importance of notifying cases of congenital syphilis (see section 3.1).

4.4 Trichomonas

High numbers of trichomonas notifications continue. These are predominantly made in females, 15 – 39 years and originate outside the major centres of Alice Springs and Darwin. Interpretation of this data is difficult due to large variation in testing patterns.

4.5 Hepatitis C

There was a total of 110 new notifications of Hepatitis C in the last 2 quarters of 2001. The majority of these infections were diagnosed in men (66%), with the Darwin District recording the most notifications (69%) (fig 3.3). Notifications peaked in the 35 to 39 year age group for this six months and cases were more frequently notified in non-Indigenous people (58%) than those identifying as Aboriginal (11%).

Currently, all notifications of Hepatitis C entered onto the Northern Territory Notifiable Diseases Database are recorded as Hepatitis C (unspecified) indicating there is no further information available to discern new infections from ones of a chronic nature. The hepatitis C enhanced surveillance pilot has temporarily ceased in anticipation of a review of the quality of the data obtained in the initial 12 months. This evaluation is anticipated to inform decision making around sustainability of the process based on the sensitivity of the surveillance system in identifying incident cases of hepatitis C.

4.5 Human Immunodeficiency Virus (HIV)

There were 2 new notifications of HIV infection in NT residents in the six months to December 2001. Both were males of non-indigenous origin with one reporting bisexual contact as their risk factor and the other heterosexual exposure. An additional case was diagnosed in a visitor from a high prevalence country and as such, is not included in Territory figures.

4.6 Acquired Immunodeficiency Syndrome (AIDS)

There were no new AIDS notifications in the period covered by this report.

5. Limitations to the report

This update does not provide data on:

- complications of sexually transmitted infections such as pelvic inflammatory disease, epididymo-orchitis or infertility. These are not notifiable.
- cases diagnosed as a proportion of the number of tests performed. It cannot be determined whether the epidemiology reported here reflects testing patterns or patterns of infection.

6. Consumer response

The NT AIDS/STD Program 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 Department of Health and Community Services website: <http://www.health.nt.gov.au/>

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1. Sexually transmissible infections (STIs)

Table 1.1 Gonorrhoea, chlamydia, syphilis and donovanosis rates in the Northern Territory, July–September 2001 and October–December 2001

NT Total	Gonorrhoea		Chlamydia		Syphilis		Donovanosis	
	Cases	Rate ¹	Cases	Rate ¹	Cases	Rate ¹	Cases	Rate ¹
<i>Quarter</i>								
Jul-Sep 2001	372	748.0	328	659.5	109	219.2	7	14.1
Oct-Dec 2001	371	745.9	314	631.3	120	241.3	2	4.0
Jul-Dec 2001	743	746.9	642	645.4	229	230.2	9	9.0

1 Cases per 100,000 population

Figure 1.1 Gonorrhoea, chlamydia, syphilis and donovanosis rates in the Northern Territory, July–December 2001

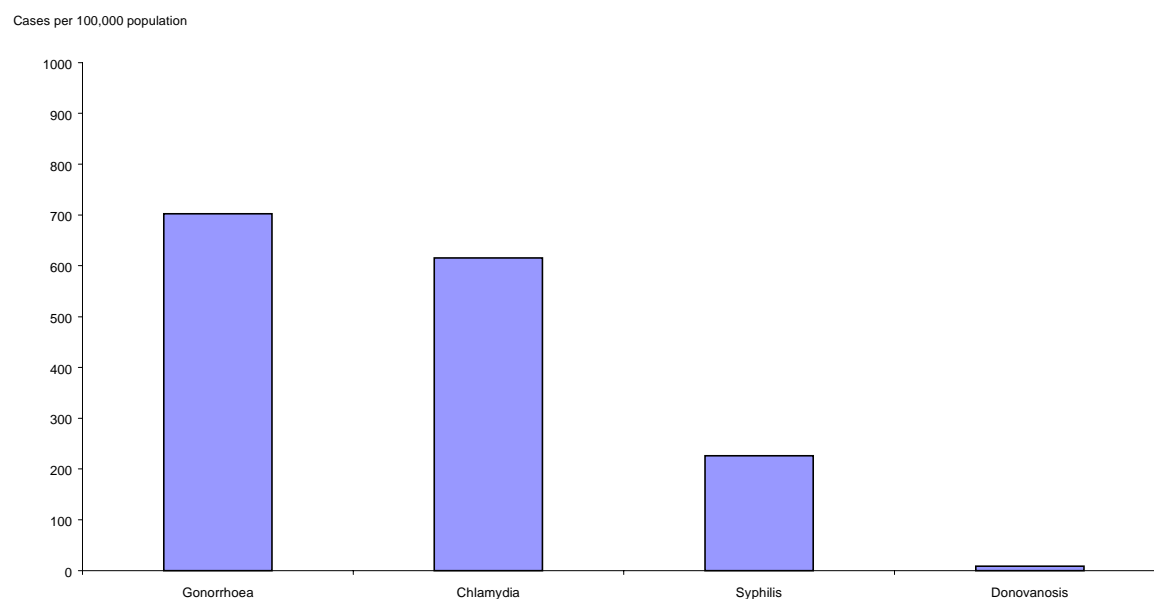


Table 1.2 Gonorrhoea, chlamydia, syphilis and donovanosis rates in the Northern Territory by gender, July–September 2001 and October–December 2001

Gender	Gonorrhoea		Chlamydia		Syphilis		Donovanosis	
	Cases	Rate ¹	Cases	Rate ¹	Cases	Rate ¹	Cases	Rate ¹
<i>Males</i>								
Jul-Sep 2001	180	688.4	122	466.6	70	267.7	1	3.8
Oct-Dec 2001	194	742.0	130	497.2	66	252.4	2	7.6
<i>Females</i>								
Jul-Sep 2001	190	805.4	203	860.5	37	156.8	6	25.4
Oct-Dec 2001	177	750.3	184	780.0	54	228.9	0	0.0
<i>Unknown</i>								
Jul-Sep 2001	2		3		2		0	
Oct-Dec 2001	0		0		0		0	

¹ Cases per 100,000 population

Figure 1.2 Gonorrhoea, chlamydia, syphilis and donovanosis rates in the Northern Territory by gender, July–December 2001

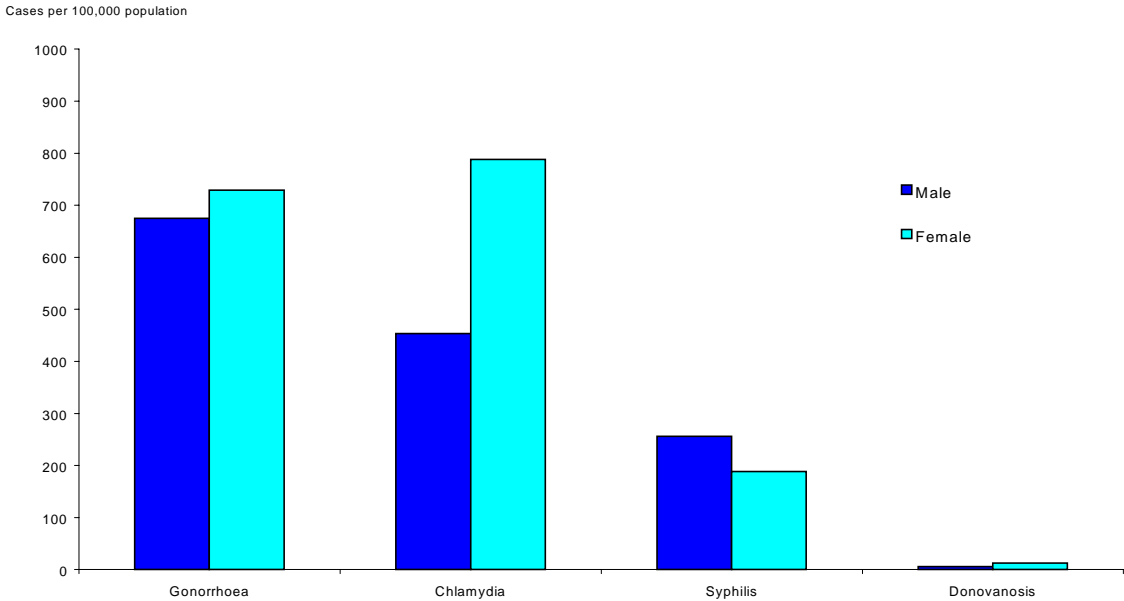


Table 1.3 Gonorrhoea, chlamydia, syphilis and donovanosis rates in the Northern Territory by Indigenous status, July–September 2001 and October–December 2001

Indigenous Status	Gonorrhoea		Chlamydia		Syphilis		Donovanosis	
	Cases	Rate ¹	Cases	Rate ¹	Cases	Rate ¹	Cases	Rate ¹
<i>Aboriginal</i>								
Jul-Sep 2001	294	2086.2	212	1504.3	92	652.8	7	49.7
Oct-Dec 2001	305	2164.2	204	1447.6	107	759.3	1	7.1
<i>non-Aboriginal</i>								
Jul-Sep 2001	43	120.6	69	193.6	8	22.4	0	0.0
Oct-Dec 2001	40	112.2	84	235.7	7	19.6	1	2.8
<i>Unknown I/S</i>								
Jul-Sep 2001	35		47		9		0	
Oct-Dec 2001	26		26		6		0	

¹ Cases per 100,000 population

Figure 1.3 Gonorrhoea, chlamydia, syphilis and donovanosis rates in the Northern Territory by Indigenous status, July–December 2001

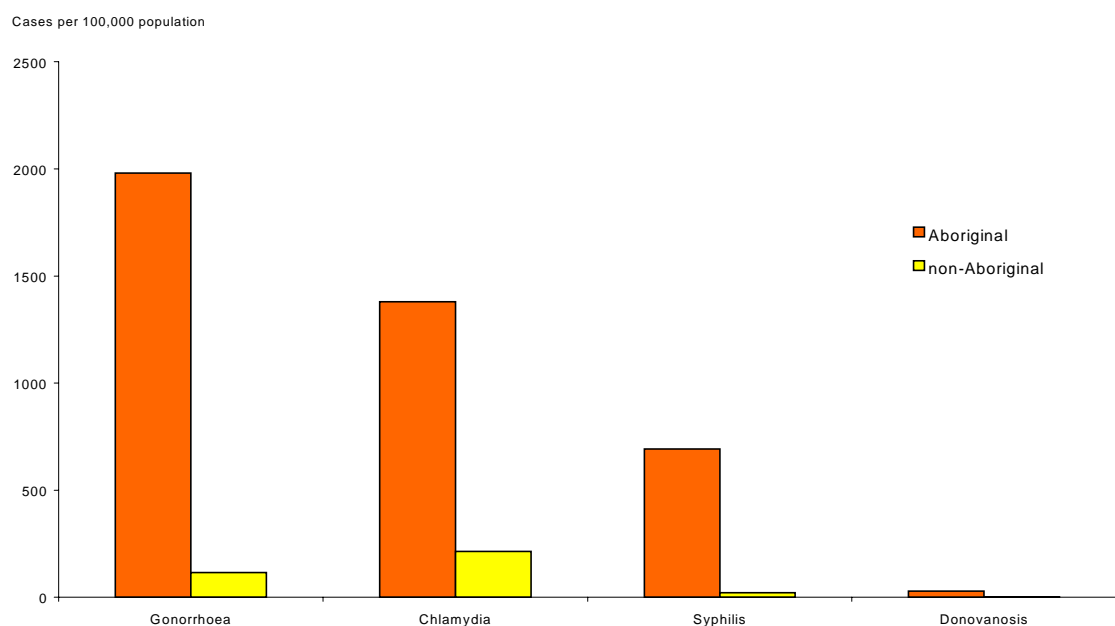


Table 1.4 Gonorrhoea, chlamydia, syphilis and donovanosis rates in the Northern Territory by district, July–September 2001 and October–December 2001

District	Gonorrhoea		Chlamydia		Syphilis		Donovanosis	
	Cases	Rate ¹	Cases	Rate ¹	Cases	Rate ¹	Cases	Rate ¹
<i>Darwin Urban</i>								
Jul-Sep 2001	52	194.0	85	317.1	9	33.6	0	0.0
Oct-Dec 2001	41	153.0	89	332.0	18	67.2	0	0.0
<i>Darwin Rural</i>								
Jul-Sep 2001	17	544.3	21	672.4	8	256.2	2	64.0
Oct-Dec 2001	17	544.3	19	608.4	14	448.3	0	0.0
<i>Katherine</i>								
Jul-Sep 2001	34	731.6	23	494.9	16	344.3	1	21.5
Oct-Dec 2001	38	817.6	22	473.4	11	236.7	0	0.0
<i>East Arnhem</i>								
Jul-Sep 2001	23	664.8	22	635.9	6	173.4	0	0.0
Oct-Dec 2001	14	404.7	28	809.4	17	491.4	0	0.0
<i>Barkly</i>								
Jul-Sep 2001	14	783.3	5	279.8	4	223.8	0	0.0
Oct-Dec 2001	6	335.7	8	447.6	2	111.9	0	0.0
<i>Alice Springs</i>								
Jul-Sep 2001	232	2340.2	172	1735.0	66	665.7	4	40.3
Oct-Dec 2001	255	2572.2	148	1492.9	58	585.0	2	20.2

¹ Cases per 100,000 population

Figure 1.4 Gonorrhoea, chlamydia, syphilis and donovanosis rates in the Northern Territory by district, July–December 2001

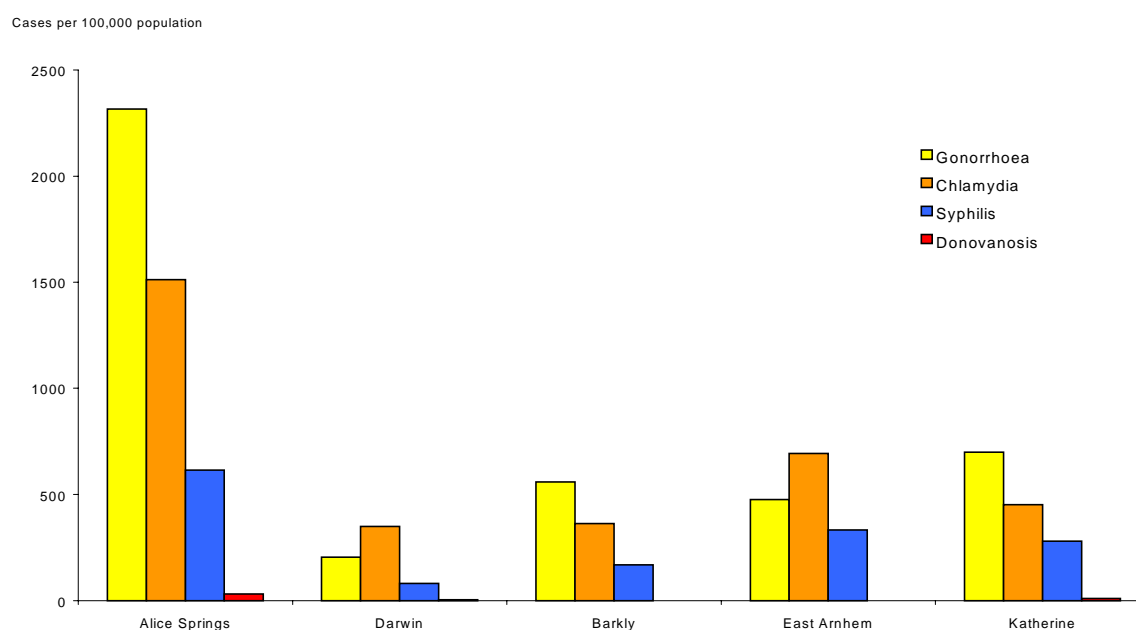
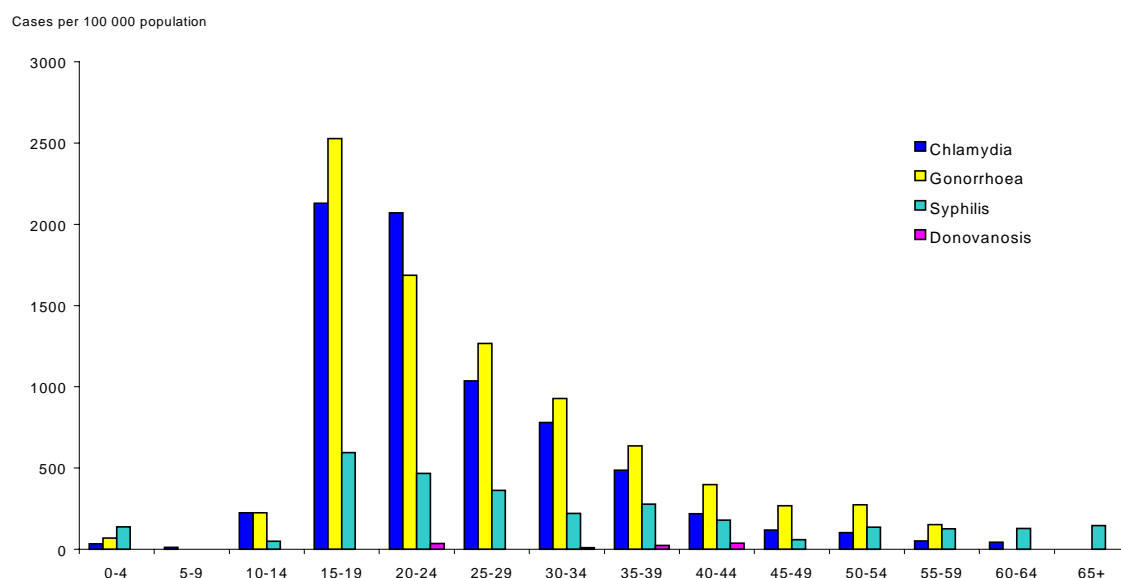


Table 1.5 Gonorrhoea, chlamydia, syphilis and donovanosis rates in the Northern Territory by five-year age group, July–December 2001

Age group	Gonorrhoea		Chlamydia		Syphilis		Donovanosis	
	Cases	Rate ¹	Cases	Rate ¹	Cases	Rate ¹	Cases	Rate ¹
<i>Jul-Dec 2001</i>								
0-4	6	68.9	3	34.5	12	137.8	0	0.0
5-9	0	0.0	1	11.5	0	0.0	0	0.0
10-14	18	224.6	19	237.0	4	49.9	0	0.0
15-19	202	2673.2	167	2210.0	46	608.7	0	0.0
20-24	157	1878.3	181	2165.5	40	478.6	3	35.9
25-29	132	1328.0	111	1116.8	37	372.3	0	0.0
30-34	90	948.7	78	822.2	21	221.4	1	10.5
35-39	60	694.5	45	520.9	24	277.8	2	23.1
40-44	33	423.9	17	218.4	14	179.9	3	38.5
45-49	18	268.5	8	119.3	4	59.7	0	0.0
50-54	17	290.5	6	102.5	8	136.7	0	0.0
55-59	6	152.2	2	50.7	5	126.8	0	0.0
60-64	0	0.0	1	42.9	3	128.6	0	0.0
65+	1	29.2	0	0.0	6	175.1	0	0.0
Unknown	3		3		5			
Total	743	746.9	642	645.4	229	230.2	9	9.0

¹ Cases per 100,000 population

Figure 1.5 Gonorrhoea, chlamydia, syphilis and donovanosis rates in the Northern Territory by five-year age group, July–December 2001



2. Trichomoniasis

Figure 2.1 Gonorrhoea, chlamydia and trichomoniasis rates in the Northern Territory by district, July–December 2001

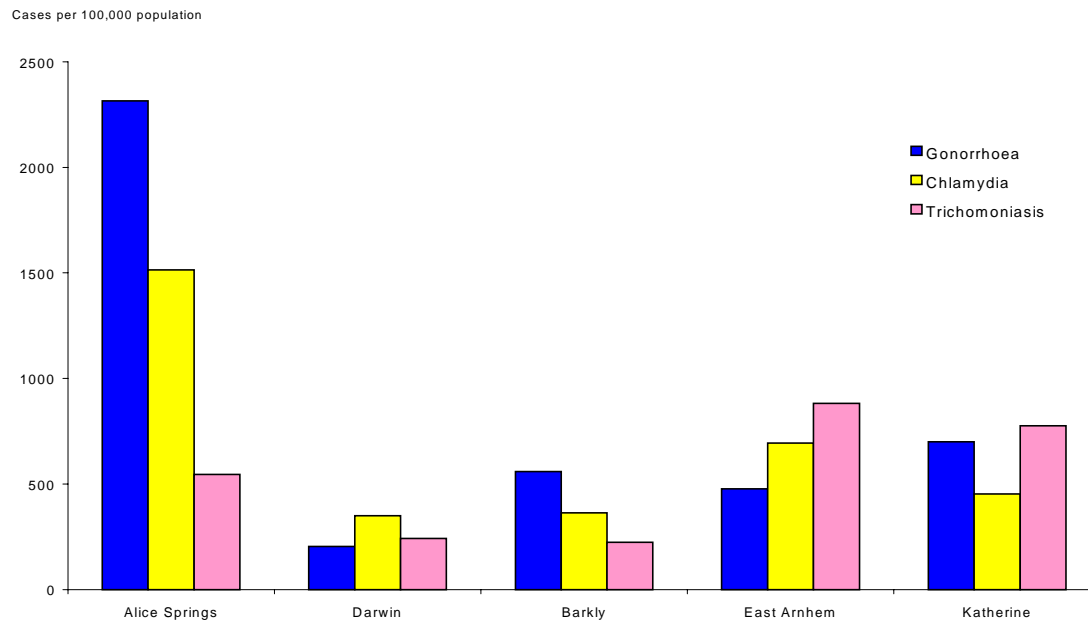
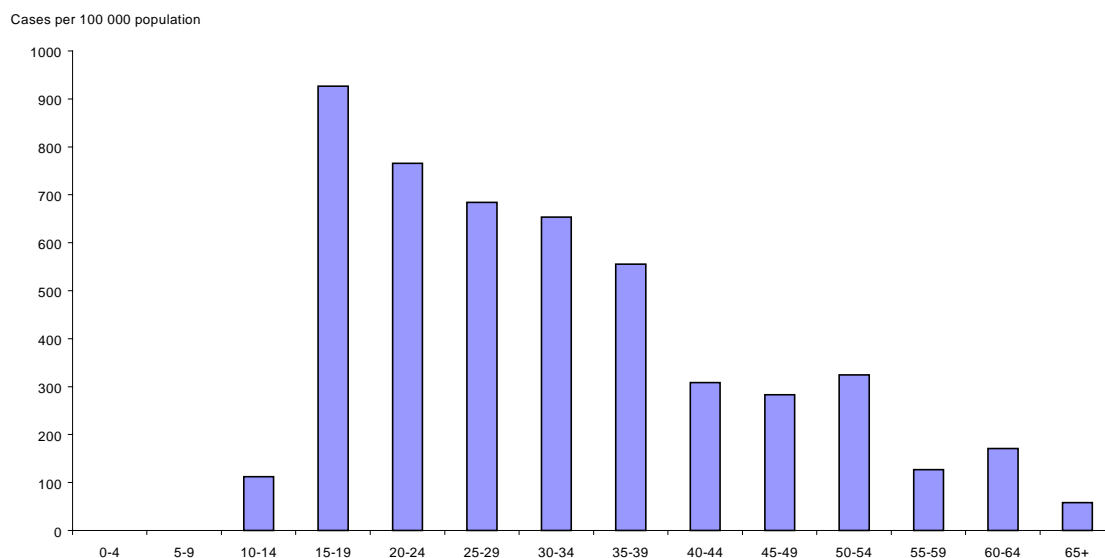


Figure 2.2 Trichomoniasis rates in the Northern Territory by five-year age group, July–December 2001



3. Hepatitis C

Figure 3.1 Percentage of hepatitis C cases in the Northern Territory by gender, July–December 2001

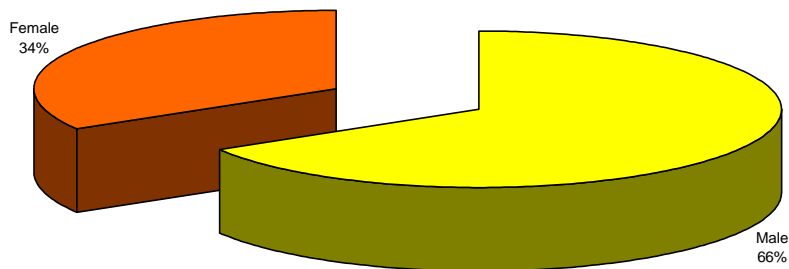


Figure 3.2 Percentage of hepatitis C cases in the Northern Territory by Indigenous status, July–December 2001

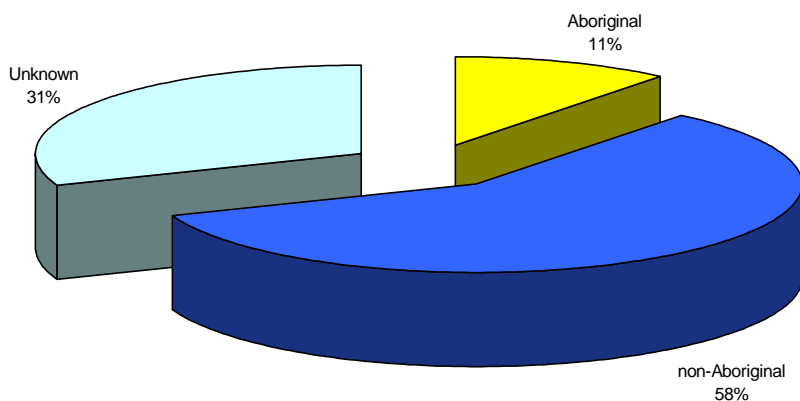


Table 3.1 Hepatitis C rates in the Northern Territory by district, July–September 2001 and October–December 2001

Gender	Darwin		Katherine		East Arnhem		Barkly		Alice Springs	
	Cases	Rate ¹	Cases	Rate ¹	Cases	Rate ¹	Cases	Rate ¹	Cases	Rate ¹
<i>Jul-Sep 2001</i>										
Male	27	170.9	2	78.9	0	0.0	1	105.3	7	82.3
Female	14	99.1	0	0.0	2	121.3	0	0.0	4	138.5
Unknown										
Total	41		2		2		1		11	
<i>Oct-Dec 2001</i>										
Male	26	164.6	3	118.4	0	0.0	1	105.3	6	118.7
Female	9	63.7	2	94.6	0	0.0	0	0.0	6	123.5
Unknown										
Total	35		5		0		1		12	
Jul-Dec 2001	76	127.0	7	75.3	2	28.9	2	55.9	23	116.0

¹ Cases per 100,000 population

Figure 3.3 Hepatitis C rates in the Northern Territory by district, July–December 2001

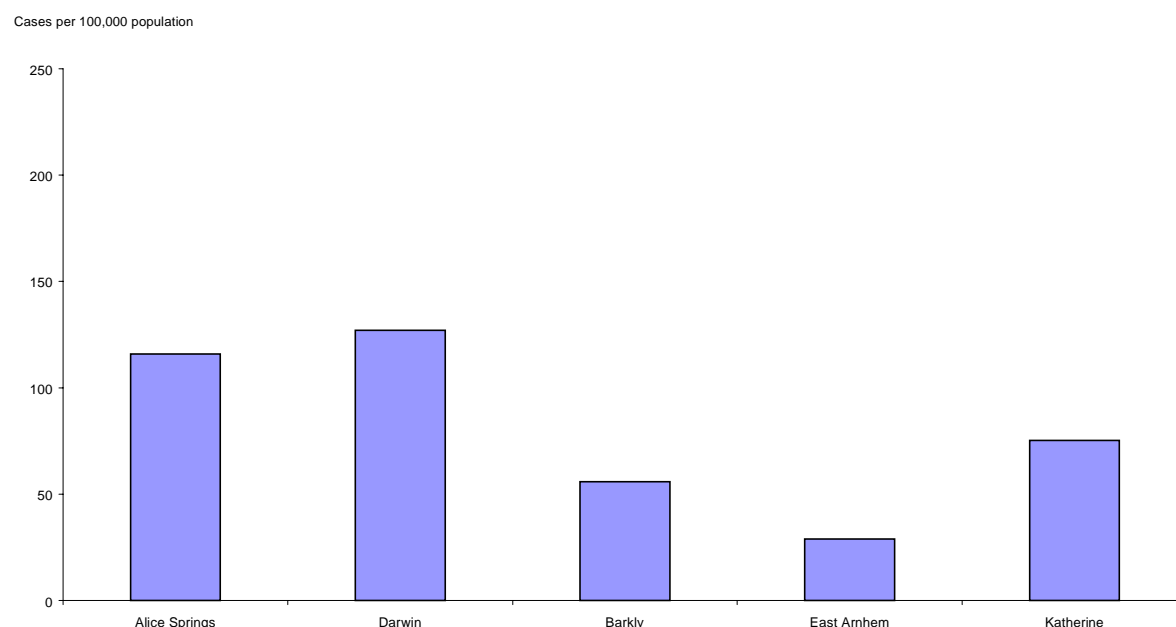
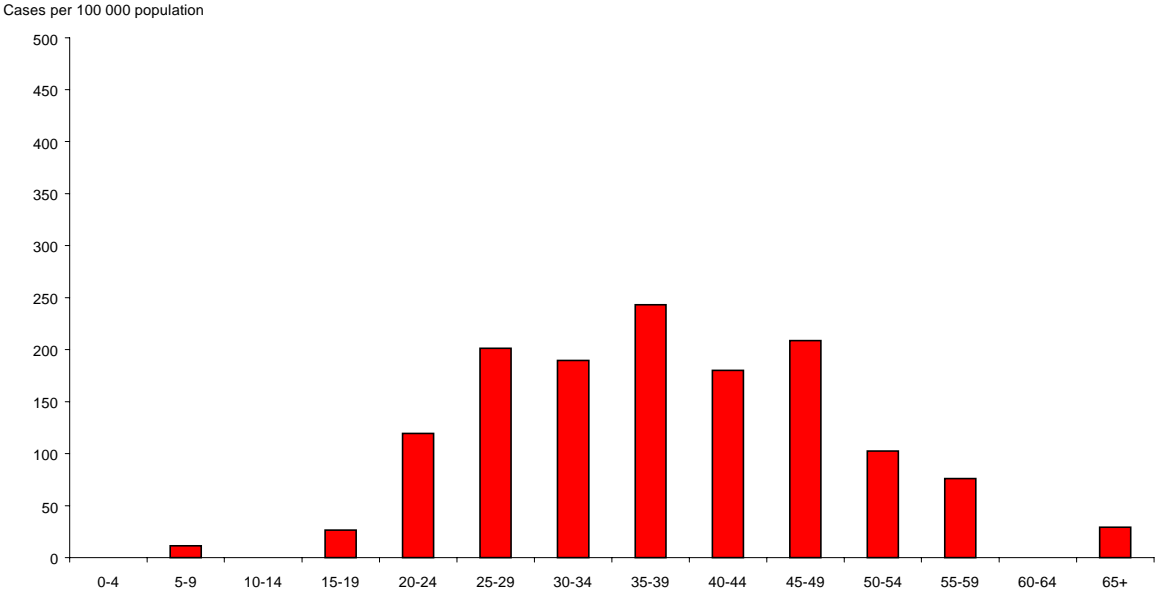


Table 3.2 Hepatitis C rates in the Northern Territory by five-year age group, July–December 2001

Hepatitis C		
Age Group	Cases	Rate ¹
<i>Jul-Dec 2001</i>		
00-04	0	0.0
05-09	1	11.5
10-14	0	0.0
15-19	2	26.5
20-24	10	119.6
25-29	20	201.2
30-34	18	189.7
35-39	21	243.1
40-44	14	179.9
45-49	14	208.8
50-54	6	102.5
55-59	3	76.1
60-64	0	0.0
65+	1	29.2
Unknown	0	
Total	110	110.6

¹ Cases per 100,000 population

Figure 3.4 Hepatitis C rates in the Northern Territory by five-year age group, July–December 2001



4. Human Immunodeficiency Virus (HIV)

Table 4.1 Number of cases of HIV during the second two quarters of 2001 by gender, Indigenous status, age group and mode of transmission

Quarter	Gender	Indigenous status	Age group	Mode of transmission
<i>Jul-Sep 2001</i>	Male	non Aboriginal	55-59	Bisexual transmission
<i>Oct-Dec 2001</i>	Male	non Aboriginal	20-24	Heterosexual transmission
Jul-Dec 2001 Total = 2 cases				

Table 4.2 Annual number of cases of HIV by age group and gender, 1985–2001

Age Group	Female	Male	Total
<i>00-12</i>	0	1	1
<i>13-19</i>	0	0	0
<i>20-29</i>	4	36	40
<i>30-39</i>	1	43	44
<i>40-49</i>	3	22	25
<i>50-59</i>	2	9	11
<i>60+</i>		1	1
Total	10	112	122

Figure 4.1 Notifications of HIV in the Northern Territory by year and Indigenous status

