

## Northern Territory AIDS/STD Program Surveillance Update

Territory Health Services, Vol. 2, Jul–Sep 2000 & Oct–Dec 2000

This is the second report from the Northern Territory AIDS/STD Program for the third and fourth quarters of the year 2000. It 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 2000 and October to December 2000.

### 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 2000 have been included for each district and for the NT. This information will assist service providers in both public and primary health care areas to identify priority areas and to plan, implement and monitor targeted interventions. Regular reports seek to raise the awareness of all service providers about the high rates of preventable and largely, readily curable infections.

### 2. Format

The report is divided into sexually transmissible infections (gonorrhoea, chlamydia, syphilis and donovanosis), trichomoniasis, hepatitis C and human immunodeficiency virus.

### 3. Surveillance issues for Sexually Transmissible Infections

Two surveillance issues were highlighted during the analysis of data for this report.

#### 3.1 Sexually Transmissible Infections in children

A disproportionate number of children under the age of 10 years were notified as having an STI. Close examination of data sent to the NTNDSS revealed that the majority of STI notifications in this age group were due to errors either at the district CDC or NTNDSS level. Two main errors were identified: incorrect date of birth or date of onset (66%) and incorrect recording of disease code (29%).

Data entry problems are inevitable in a manual entry database system and an error check has now been built into the NTNDSS database to detect any underage STI notifications. This will forewarn the data recorder to initiate appropriate quality assurance actions.

#### 3.2 Incorrect coding of HIV pathology

Maintaining the confidentiality of HIV test results is of foremost concern for the client, clinicians and laboratory staff. This is achieved by coding the test and is generally an effective mechanism if carried out in accordance with standardised nomenclature ie a three alpha (letter) prefix followed by a three digit (numeric) code. The alpha prefix assists laboratory staff to identify a test on the LABTRAK computer system with absolute confidence, provide verbal results in lieu of absent or missing pathology reports and establish testing rates per site. This is only information pertaining to negative HIV results:

POSITIVE HIV RESULTS ARE NOT RETAINED ON LABTRAK.

In the event of a positive HIV result, the Royal Darwin Hospital Laboratory adheres to the following procedures

1. The serologist who conducted a preliminary positive test must inform the Director of Pathology and Head of Microbiology, Dr Gary Lum immediately.
2. Dr Lum then contacts the diagnosing clinician of the preliminary result by phone.
3. Various confirmatory tests including Western Blot are performed at the National Serological Reference Laboratory (NRL)
4. A copy of the NRL report is sent to the clinician and to Dr Jan Savage (Head, NT AIDS/STD Program)
5. THE POSITIVE TEST IS THEN DELETED FROM THE COMPUTER SYSTEM AND THERE IS NO RECORD THAT THE CLIENT WAS EVER TESTED FOR HIV ON THIS OCCASION

Recording the client's date of birth and gender on both the specimen and the pathology form is also important as these items may be used as additional identifiers in case of specimen identification error. Further epidemiological information is sought from the clinician by the by the AIDS/STD Program and forwarded to the National Centre for HIV Epidemiology and Clinical Research in Sydney.

*Please note:* Unless identifying information written on the form is exactly the same as that written on the specimen label, laboratory staff are regulated under the National Accreditation Testing Authority (NATA) to mismatch the specimen and not proceed with the test.

#### **4. Highlights**

##### *4.1 Hepatitis C*

Enhanced surveillance of all cases of hepatitis C (HCV) notified during the 12 month period between the 1<sup>st</sup> July 2000 to 30<sup>th</sup> June 2001 commenced in July. All new notifications were followed up with a questionnaire sent to the diagnosing clinician.

##### *Summary of findings to date*

119 new notifications - 78 questionnaires returned (66%).

83 were males, 35 females and one unknown gender.

92 were non-Aboriginal, 11 Aboriginal and 16 unknown Indigenous status.

Darwin was recorded as the test centre for the majority of cases (83 cases: 70%).

The median age was 38 years (range 20–77 years).

50% of cases were detected due to routine screening of clients in high prevalence areas such as prison, drug and alcohol institutions or as part of a blood-borne virus check.

Clinicians following up clients with clinical symptoms, abnormal liver function tests or a history of risk factors accounted for most of the remaining cases (45%).

There were six incident cases (two sero-conversions, three acute HCV cases and one time-linked risk factor) and 60 prevalent cases. 73% of the prevalent cases had high risk factors of injecting drug use (IDU). Ten clients did not return for further follow-up and hence no information was available. The remaining two clients were possible prevalent cases and are undergoing further investigation.

The most frequent risk factor was IDU. A total of 49 clients (13 current and 36 past IDU) identified injecting drug use as their major risk factor. Blood transfusion (5 clients), biohazard injury (3 clients) and tattoos (3 clients) accounted for the majority of other significant risk factors.

#### *4.2 Antibiotic Resistant N.gonorrhoeae*

Seven cases of antibiotic resistant *N.gonorrhoeae* including penicillinase-producing *N.gonorrhoeae* (PPNG) were diagnosed, six in urban locations and one remote. Four of the seven cases were associated with overseas travel, two were acquired in the NT and one was unspecified.

#### *4.3 Sentinel Surveillance Sites*

To facilitate surveillance of gonorrhoea in particular antibiotic resistant *N.gonorrhoeae*, the establishment of five sentinel sites has been proposed subject to ethics committee approval. One will be based in Alice Springs, three in Darwin and one in a yet to be determined location.

#### *4.4 Human Immunodeficiency Virus (HIV)*

There was one positive HIV notification during the period from July to December 2000. Four overseas visitors from high prevalence countries were also diagnosed in the NT, however as non-residents they are excluded from Territory figures.

#### *4.5 Trichomoniasis*

In this half of the year the majority of notifications occurred among women (95%) and similarly among Indigenous persons (92%). Gender and Indigenous status analyses of trichomoniasis data generally reflect testing patterns however, and further conclusions about this data should be drawn with caution.

District notification rates for trichomoniasis varied from the district distribution of other STIs. For example Alice Springs had the highest gonorrhoea and chlamydia rates, relative to the other districts, but the incidence of trichomoniasis was much lower.

Age distribution was also somewhat different from that of other STIs, with older age groups accounting for a large proportion of cases.

### **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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Email: [jan.savage@nt.gov.au](mailto:jan.savage@nt.gov.au)

# 1. Sexually transmissible infections (STIs)

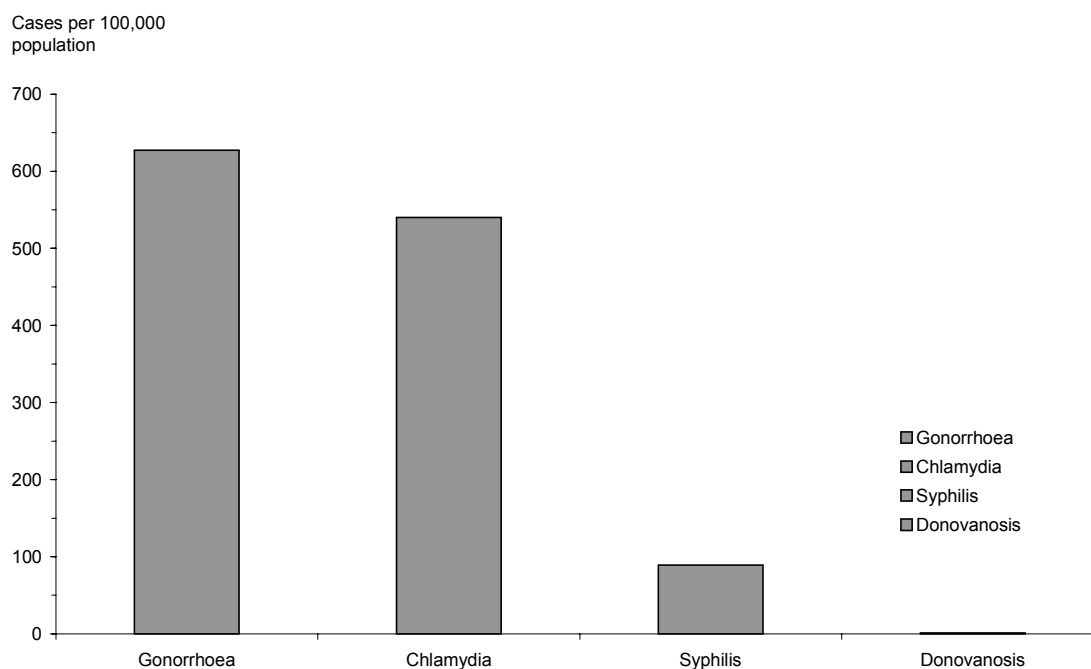
**Table 1.1 Gonorrhoea, chlamydia, syphilis and donovanosis rates in the Northern Territory, July–September 2000 and October–December 2000**

NT Total	Gonorrhoea <sup>2</sup>		Chlamydia		Syphilis		Donovanosis	
	Cases	Rate <sup>1</sup>	Cases	Rate <sup>1</sup>	Cases	Rate <sup>1</sup>	Cases	Rate <sup>1</sup>
<i>Quarter</i>								
Jul–Sep 2000	385	787.8	311	636.4	58	118.7	0	0.0
Oct–Dec 2000	228	466.6	217	444.1	29	59.3	1	2.0

1 Cases per 100,000 population

2 There were seven cases of penicillin resistant *N. gonorrhoeae* during the period July–September 2000, seven diagnosed in Darwin district and one in Katherine district.

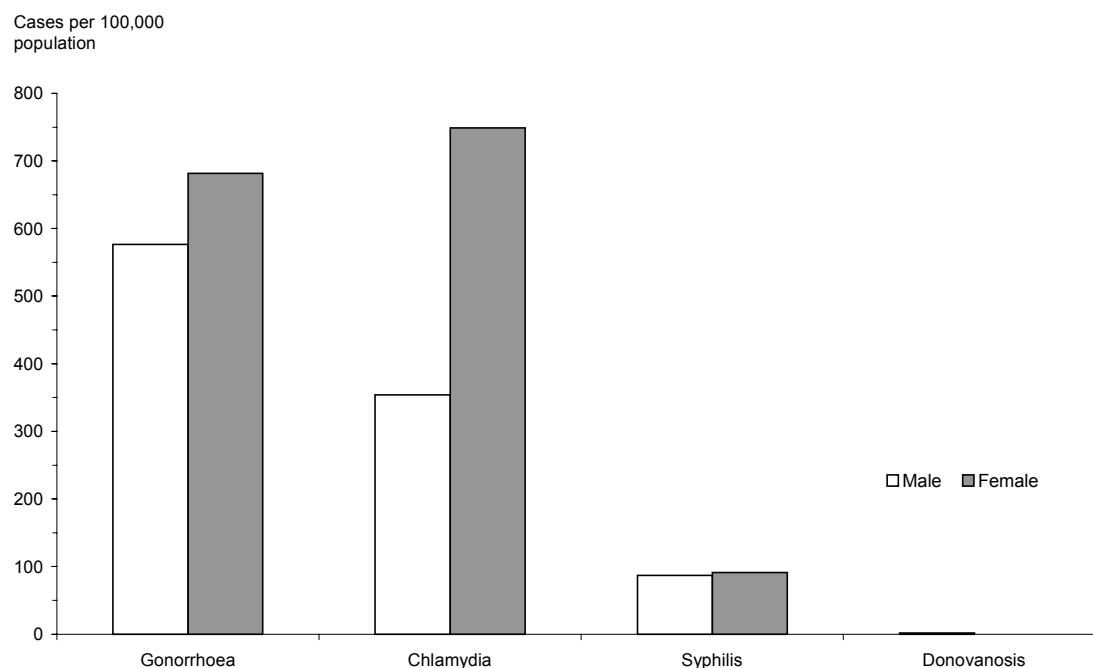
**Figure 1.1 Gonorrhoea, chlamydia, syphilis and donovanosis rates in the Northern Territory, July–December 2000**



**Table 1.2 Gonorrhoea, chlamydia, syphilis and donovanosis rates in the Northern Territory by gender, July–September 2000 and October–December 2000**

Gender	Gonorrhoea		Chlamydia		Syphilis		Donovanosis	
	Cases	Rate <sup>1</sup>	Cases	Rate <sup>1</sup>	Cases	Rate <sup>1</sup>	Cases	Rate <sup>1</sup>
<b>Males</b>								
Jul–Sep 2000	190	735.4	109	421.9	33	127.7	0	0.0
Oct–Dec 2000	108	418.0	74	286.4	12	46.4	1	3.9
<b>Females</b>								
Jul–Sep 2000	194	842.3	202	877.1	25	108.5	0	0.0
Oct–Dec 2000	120	521.0	143	620.9	17	73.8	0	0.0
<b>Unknown</b>								
Jul–Sep 2000	1		0		0		0	
Oct–Dec 2000	0		0		0		0	

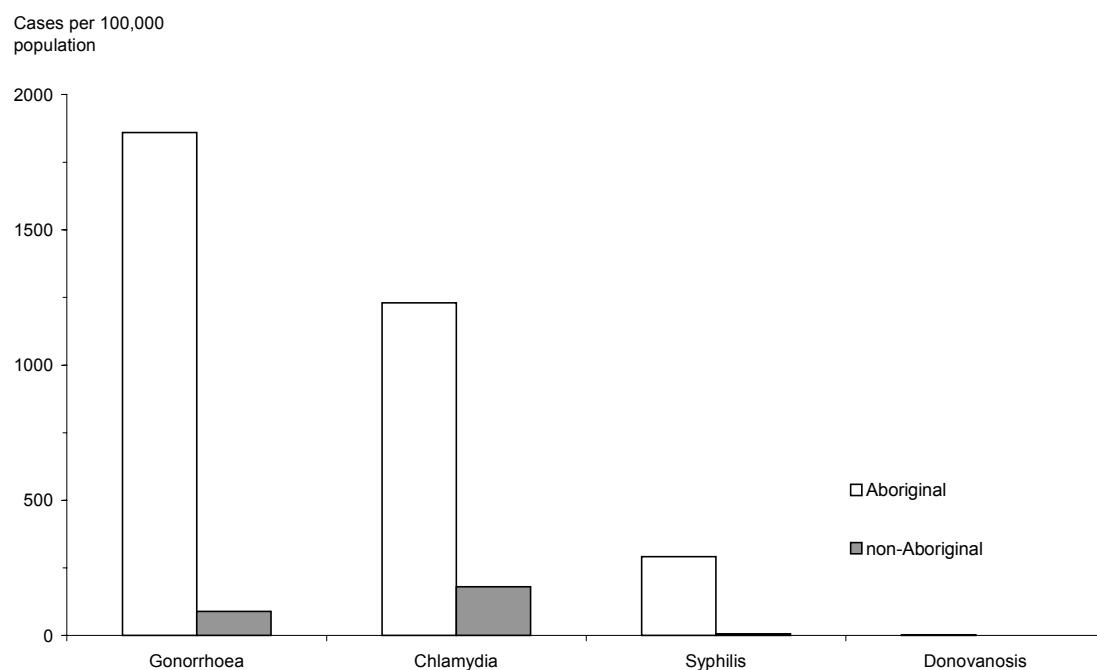
**Figure 1.2 Gonorrhoea, chlamydia, syphilis and donovanosis rates in the Northern Territory by gender, July–December 2000**



**Table 1.3 Gonorrhoea, chlamydia, syphilis and donovanosis rates in the Northern Territory by Indigenous status, July–September 2000 and October–December 2000**

Indigenous Status	Gonorrhoea		Chlamydia		Syphilis		Donovanosis	
	Cases	Rate <sup>1</sup>	Cases	Rate <sup>1</sup>	Cases	Rate <sup>1</sup>	Cases	Rate <sup>1</sup>
<i>Aboriginal</i>								
Jul–Sep 2000	343	2472.7	210	1513.9	53	382.1	0	0.0
Oct–Dec 2000	173	1247.2	131	944.4	28	201.9	1	7.2
<i>non-Aboriginal</i>								
Jul–Sep 2000	32	91.4	70	200.0	3	8.6	0	0.0
Oct–Dec 2000	31	88.6	56	160.0	1	2.9	0	0.0
<i>Unknown</i>								
Jul–Sep 2000	10		31		2		0	
Oct–Dec 2000	24		30		0		0	

**Figure 1.3 Gonorrhoea, chlamydia, syphilis and donovanosis rates in the Northern Territory by Indigenous status, July–December 2000**

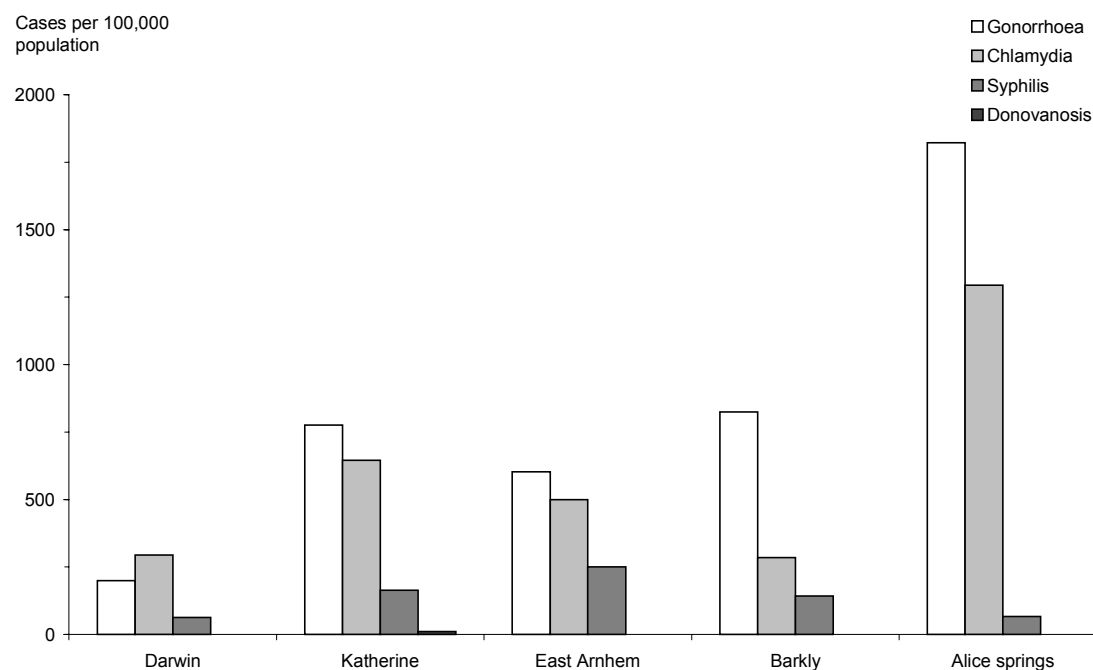


**Table 1.4 Gonorrhoea, chlamydia, syphilis and donovanosis rates in the Northern Territory by district, July–September 2000 and October–December 2000**

District	Gonorrhoea		Chlamydia		Syphilis		Donovanosis	
	Cases	Rate <sup>1</sup>	Cases	Rate <sup>1</sup>	Cases	Rate <sup>1</sup>	Cases	Rate <sup>1</sup>
<i>Darwin</i>								
Jul–Sep 2000	56	190.5	92	313.0	26	88.5	0	0.0
Oct–Dec 2000	61	207.5	81	275.6	11	37.4	0	0.0
<i>Katherine</i>								
Jul–Sep 2000	38	830.2	28	611.8	9	196.6	0	0.0
Oct–Dec 2000	33	721.0	31	677.3	6	131.1	1	21.8
<i>East Arnhem</i>								
Jul–Sep 2000	26	763.8	23	675.6	10	293.8	0	0.0
Oct–Dec 2000	15	440.6	11	323.1	7	205.6	0	0.0
<i>Barkly</i>								
Jul–Sep 2000	13	739.4	2	113.7	0	0.0	0	0.0
Oct–Dec 2000	16	910.0	8	455.0	5	284.4	0	0.0
<i>Alice Springs</i>								
Jul–Sep 2000	252	2588.1	166	1704.9	13	133.5	0	0.0
Oct–Dec 2000	103	1057.8	86	883.3	0	0.0	0	0.0

<sup>1</sup> Cases per 100,000 population

**Figure 1.4 Gonorrhoea, chlamydia, syphilis and donovanosis rates in the Northern Territory by district, July–December 2000**

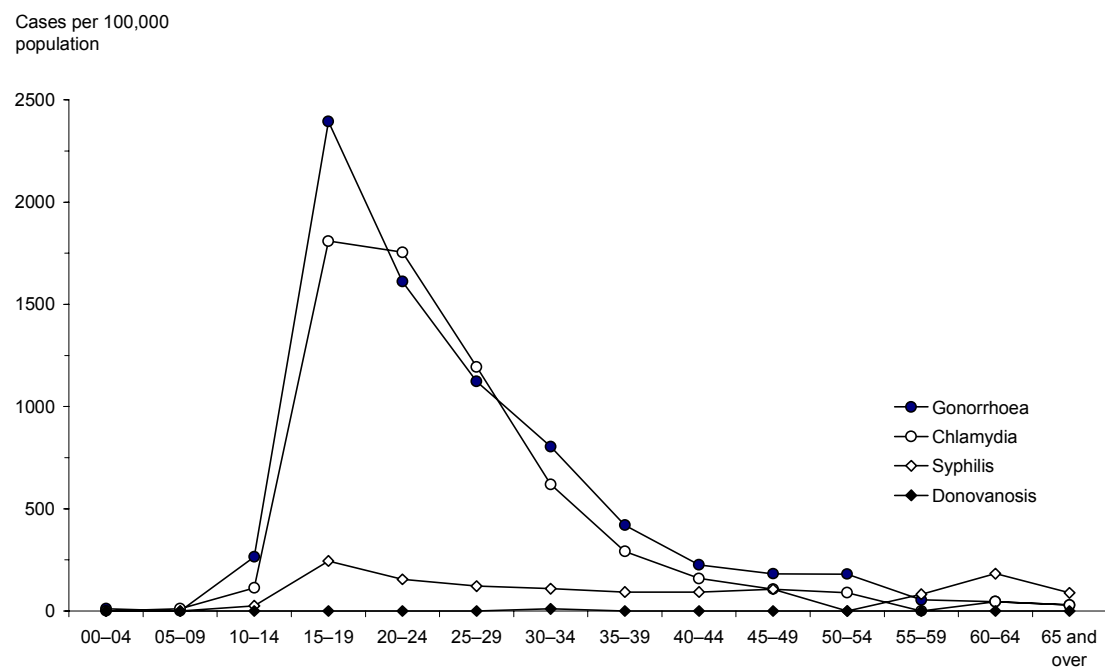


**Table 1.5 Gonorrhoea, chlamydia, syphilis and donovanosis rates in the Northern Territory by five-year age group, July–December 2000**

Age group	Gonorrhoea		Chlamydia		Syphilis		Donovanosis	
	Cases	Rate <sup>1</sup>	Cases	Rate <sup>1</sup>	Cases	Rate <sup>1</sup>	Cases	Rate <sup>1</sup>
<i>July–Dec 2000</i>								
00–04	1	11.4	0	0.0	0	0.0	0	0.0
05–09	0	0.0	1	11.5	0	0.0	0	0.0
10–14	21	265.3	9	113.7	2	25.3	0	0.0
15–19	176	2394.1	133	1809.2	18	244.8	0	0.0
20–24	135	1611.3	147	1754.5	13	155.2	0	0.0
25–29	111	1123.2	118	1194.0	12	121.4	0	0.0
30–34	74	804.0	57	619.3	10	108.7	1	10.9
35–39	36	420.5	25	292.0	8	93.5	0	0.0
40–44	17	226.1	12	159.6	7	93.1	0	0.0
45–49	12	181.8	7	106.0	7	106.0	0	0.0
50–54	10	179.8	5	89.9	0	0.0	0	0.0
55–59	2	54.4	0	0.0	3	81.7	0	0.0
60–64	1	45.8	1	45.8	4	183.0	0	0.0
65 and over	1	29.5	1	29.5	3	88.5	0	0.0
Unknown	16		12		0		0	
<b>Total</b>	<b>613</b>	<b>627.2</b>	<b>528</b>	<b>540.2</b>	<b>87</b>	<b>89.0</b>	<b>1</b>	<b>1.0</b>

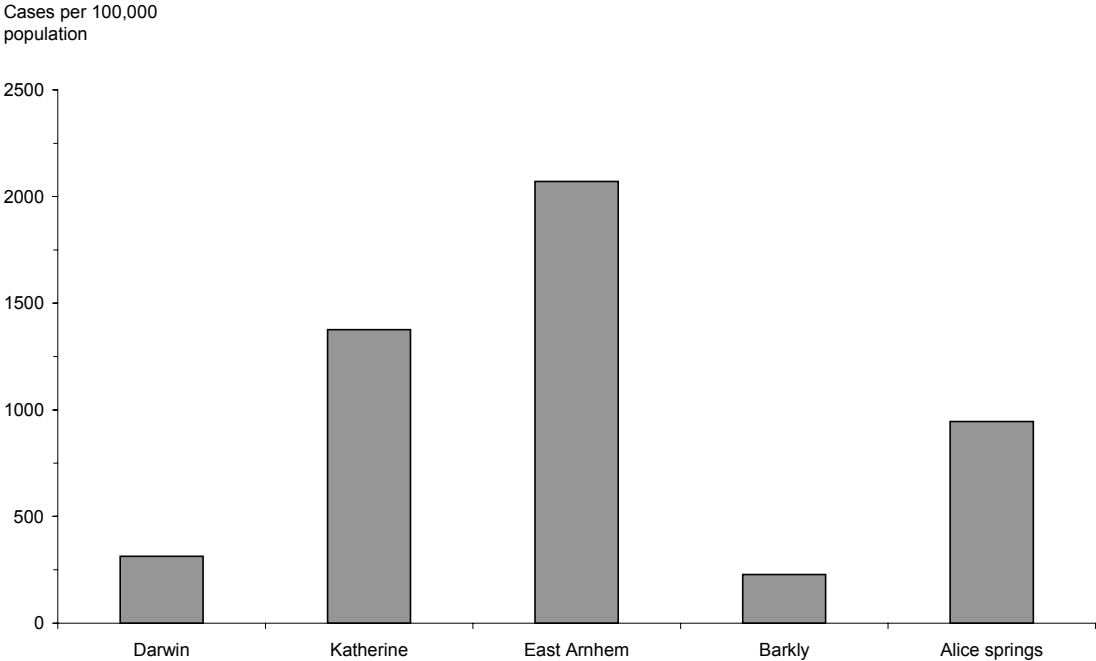
1 Cases per 100,000 population

**Figure 1.5 Gonorrhoea, chlamydia, syphilis and donovanosis rates in the Northern Territory by five-year age group, July–December 2000**

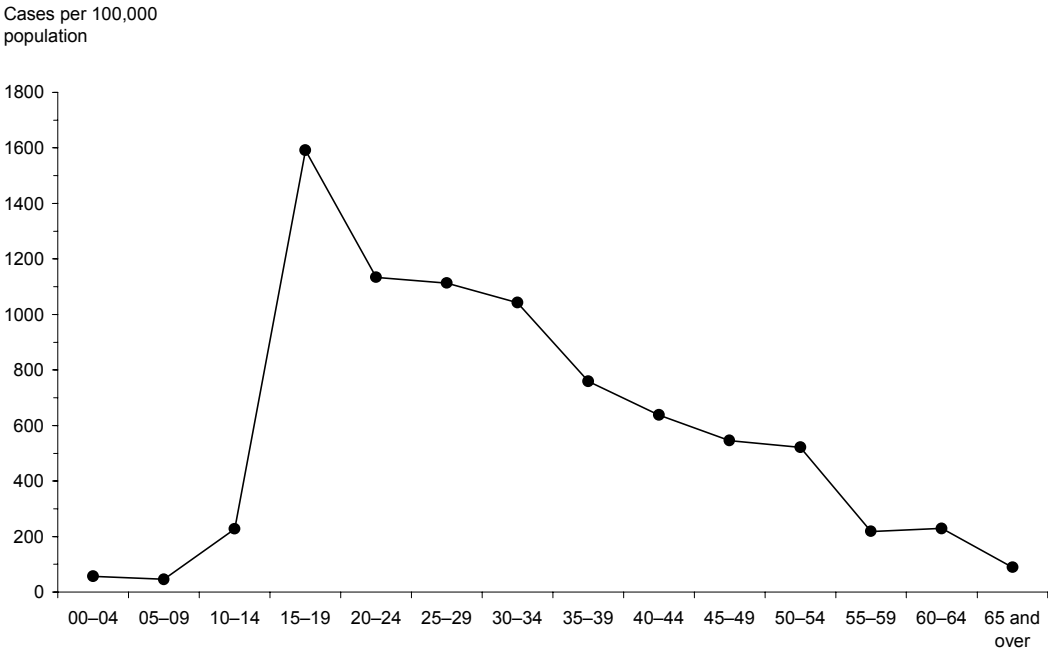


# 2. Trichomoniasis

**Figure 2.1 Trichomoniasis rates in the Northern Territory by district, July–December 2000**

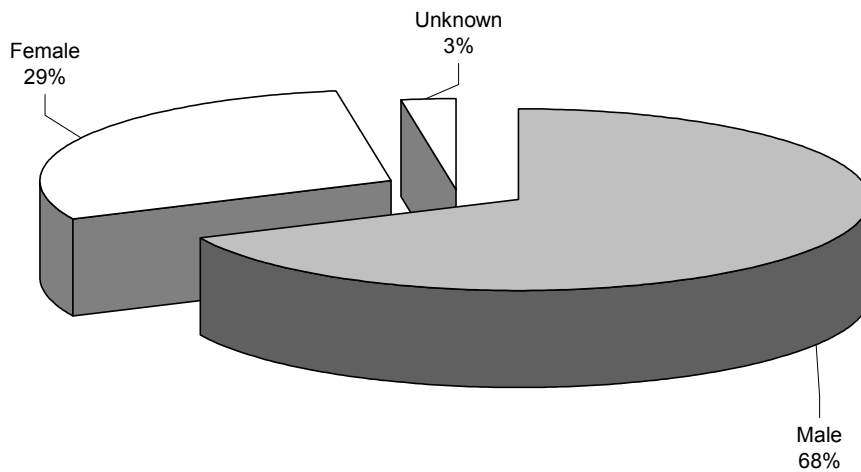


**Figure 2.2 Trichomoniasis rates in the Northern Territory by five-year age group, July–December 2000**

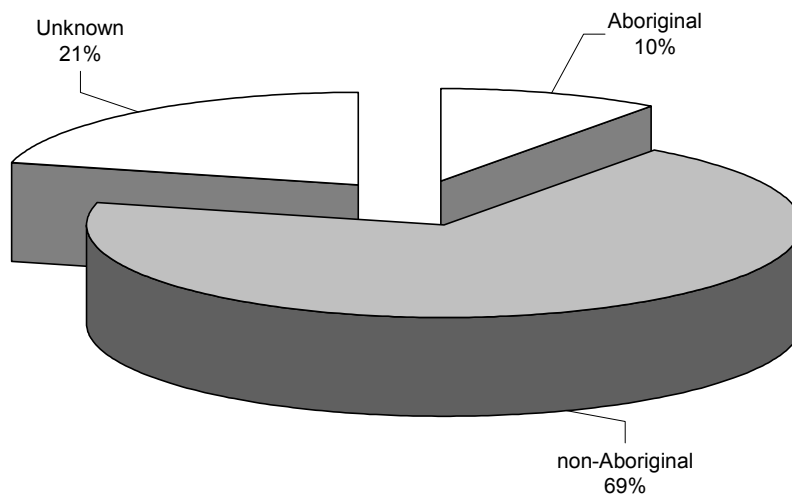


### 3. Hepatitis C

**Figure 3.1 Percentage of hepatitis C cases in the Northern Territory by gender, July–December 2000**



**Figure 3.2 Percentage of hepatitis C cases in the Northern Territory by Indigenous status, July–December 2000**

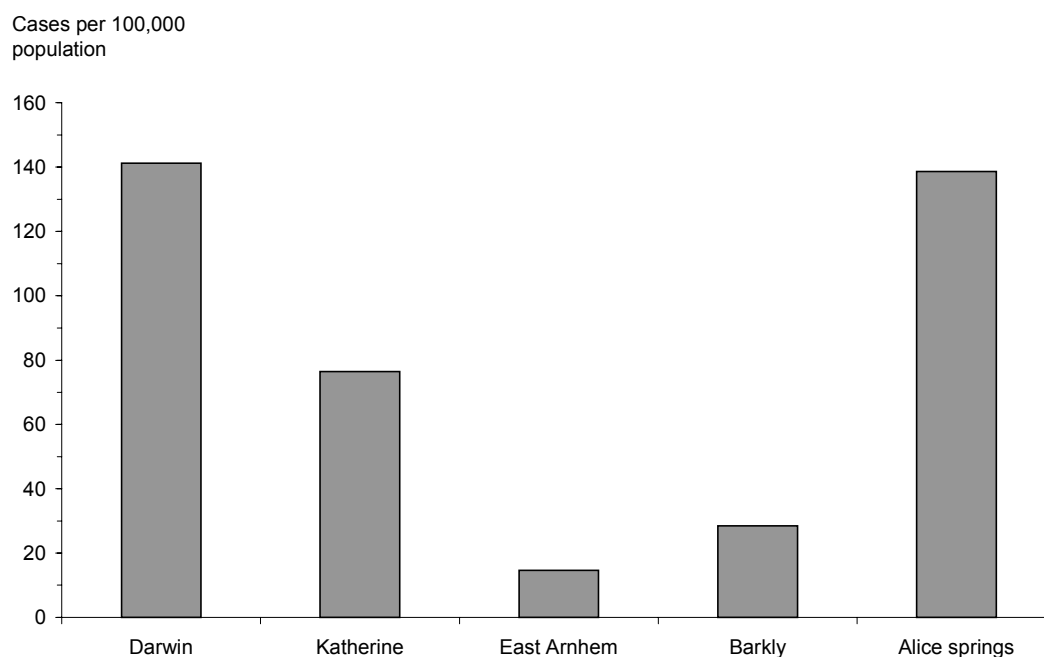


**Table 3.1 Hepatitis C rates in the Northern Territory by district, July–September 2000 and October–December 2000**

Gender	Darwin		Katherine		East Arnhem		Barkly		Alice Springs	
	Cases	Rate <sup>1</sup>	Cases	Rate <sup>1</sup>	Cases	Rate <sup>1</sup>	Cases	Rate <sup>1</sup>	Cases	Rate <sup>1</sup>
<i>Jul–Sep 2000</i>										
Male	22	140.8	2	79.9	0	0.0	0	0.0	11	220.4
Female	10	72.6	0	0.0	0	0.0	1	121.6	7	147.5
Unknown	0		0		0		0		3	
<b>Total</b>	<b>32</b>	<b>108.9</b>	<b>2</b>	<b>43.7</b>	<b>0</b>	<b>0.0</b>	<b>1</b>	<b>56.9</b>	<b>21</b>	<b>215.7</b>
<i>Oct–Dec 2000</i>										
Male	38	243.3	3	119.8	1	56.0	0	0.0	4	80.1
Female	13	94.4	2	96.4	0	0.0	0	0.0	2	42.1
Unknown	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
<b>Total</b>	<b>51</b>	<b>173.5</b>	<b>5</b>	<b>109.2</b>	<b>1</b>	<b>29.4</b>	<b>0</b>	<b>0.0</b>	<b>6</b>	<b>61.6</b>

<sup>1</sup> Cases per 100,000 population

**Figure 3.3 Hepatitis C rates in the Northern Territory by district, July–December 2000**

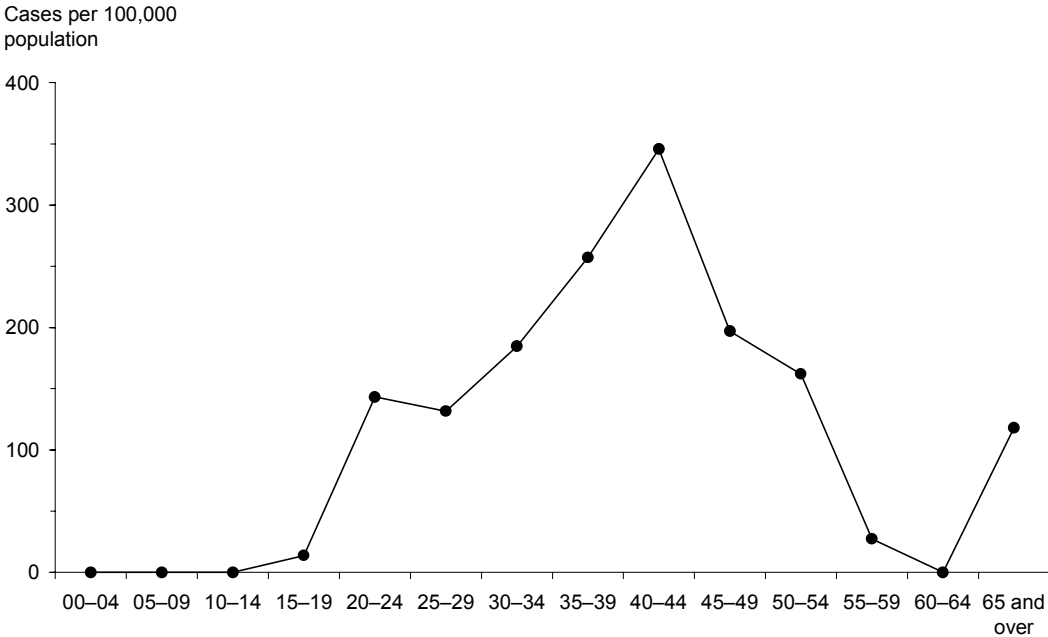


**Table 3.2 Hepatitis C rates in the Northern Territory by five-year age group, July–December 2000**

Hepatitis C		
Age group	Cases	Rate <sup>1</sup>
<i>Jan–June 2000</i>		
00–04	0	0.0
05–09	0	0.0
10–14	0	0.0
15–19	1	13.6
20–24	12	143.2
25–29	13	131.5
30–34	17	184.7
35–39	22	257.0
40–44	26	345.8
45–49	13	196.9
50–54	9	161.8
55–59	1	27.2
60–64	0	0.0
65 and over	4	118.1
Unknown	1	0.0
<b>Total</b>	<b>119</b>	<b>121.8</b>

<sup>1</sup> Cases per 100,000 population

**Figure 3.4 Hepatitis C rates in the Northern Territory by five-year age group, July–December 2000**



## 4. Human Immunodeficiency Virus (HIV)

**Table 4.1 Number of cases of HIV during the second two quarters of 2000 by gender, Indigenous status, age group and mode of transmission**

Quarter	Gender	Indigenous status	Age group	Mode of transmission
Oct-Dec 2000	Female	Aboriginal	20-24	Heterosexual transmission, partner from high prevalence country

**Figure 4.1 Annual number of cases of HIV by Indigenous status, 1985–2000**

