

Northern Territory AIDS/STD Program Surveillance Update

Territory Health Services, Vol. 1, Jan–Mar 2000 & Apr–June 2000

This first report from the Northern Territory AIDS/STD Program presents quarterly statistics for all sexually transmissible infections (STDs/STIs) and blood borne viruses (BBVs) in the Northern Territory (NT) during the periods January to March 2000 and April to June 2000. It is the first surveillance update of new notifications and rates since 1996 and will be a regular activity of the AIDS/STD Program.

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 first two quarters of 2000 have been included for each district and 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. How was the data obtained

Laboratories located in district public hospitals and the two private laboratories, Westerns Diagnostic Pathology and Queensland Medical Laboratories undertake pathology testing. Some pathology is sent interstate for confirmation or for testing that cannot be conducted in the NT. The Public Health Act requires that copies of all positive STD and BBV pathology reports are sent to the relevant Centres for Disease Control (CDC) in each district and that all notifiable diseases are registered on a centralised database. The NT notifiable diseases database is located in Darwin CDC and information is sent from the districts to the centralised data entry point on a fortnightly basis.

The number of cases per infection were extracted from the database and analysed by the Darwin AIDS/STD Program. Rates were produced using the 1999 estimated resident population of the NT broken down by gender, Indigenous status and health district as the denominator (source: Territory Health Services Epidemiology Branch).

3. Surveillance issues for AIDS/STD

Many surveillance issues are common across the board for all notifiable diseases and the following list is by no means unique to the NT AIDS/STD Program. The major issues are described in this section and followed by a section that briefly discusses options for improving some deficiencies.

3.1 Quality control

Maintaining quality control is an ongoing issue for all systems, particularly systems that rely on the manual entry of data. In the NT the current system for notifying communicable disease involves a data entry person manually entering the data onto a form or spreadsheet in the district CDC. This information is relayed to the Darwin CDC once a fortnight where the same

information is then manually entered onto the centralised database level. The district CDC instigate quality control measures to ensure that the data is correct prior to forwarding to Darwin where further measures are carried out during the process of data entry onto the centralised data base. Despite these efforts, the potential for error is high because of the duplication of manual data entry at two different locations. In addition notification of STDs and BBVs is a particularly sensitive area, and in order to maximise privacy, full identification of cases is not recorded on the disease database. In the absence of full identification, multiple notifications may be difficult to detect.

3.2 Under-reporting of cases

STD and BBV surveillance in the NT mainly relies on information provided by the laboratories. Syphilis, acute hepatitis and AIDS require clinicians to provide details for notification, this is generally so for donovanosis as well. Worldwide the true incidence of disease is frequently under-reported in notifiable disease systems, particularly those that do not actively seek information but mainly rely on passive surveillance.

3.3 Inadequate provision of demographic details

The ability of this report to represent the data by important demographic details is limited to availability of such data. If they are not provided on the pathology form, district CDC staff members attempt to obtain this information by other means such as using local knowledge or inferring gender from first name. While useful mechanisms for obtaining missing information in the smaller districts, they are less reliable in the two larger districts as local knowledge is often ineffectual in the urban populations and gender may not readily be inferred from contemporary names.

3.4 Inability to access important demographic details

Indigenous status is not routinely reported on pathology reports and identification of Indigenous status must also be obtained from other sources. Local knowledge is valuable in smaller district CDCs and traditional names and locations are reliable indicators of Indigenous status. As with other missing demographic details, the difficulty arises among the two larger urban populations where names are less traditional and location is not predictive. Thus Caresys (the public hospital database which lists patients Indigenous status and other demographic identifiers) is accessed to determine urban residents' Indigenous status. Proportionately fewer urban residents access the public hospital system and therefore not all clients are registered on Caresys, so despite this, this information may be unavailable.

4. Responses

Possible responses to the deficiencies identified in the notification of STDs and BBVs are outlined below.

4.1 Improvement in disease notification system

Currently the notifiable disease system is being reviewed and major changes are anticipated within the next six months. Several options for improving the mechanism for data entry into the centralised database are being discussed and include electronic downloading of pathology reports directly from the laboratories onto the database. This will decrease manual data entry and the potential for error, as well as increasing resources for conducting quality assurance.

4.2 Availability and access to important demographic details

Its unlikely that access to Indigenous status will improve while laboratories continue to not record indigenous status on their reports, however availability of other demographic details

can be improved. **Clinicians are requested to provide all relevant demographic details on pathology forms.** Any report is only as good as the data it receives.

4.3 Feedback

Feedback on this report is vital to determine whether adequate notification of all STD and BBV cases is occurring. Insufficient data for certain conditions is likely to indicate a breakdown in the reporting process and this information needs to be brought to the attention of the AIDS/STD program. We hope that CDCs are encouraged to carry out their own quality assurance on the basis of this report and report any differences between local data and the data produced here.

5. Format

The report is divided into four sections: sexually transmissible infections (gonorrhoea, chlamydia, syphilis and donovanosis), trichomoniasis, hepatitis C and HIV.

5.1 Sexually Transmissible Infections (excluding trichomoniasis)

Gonorrhoea, chlamydia, syphilis and donovanosis rates are presented in this section, firstly for the whole of the NT and then broken down by gender, Indigenous status, health district and five-year age groups. Urban and rural data are combined for all districts including Darwin and Alice Springs. With the exception of age breakdown, where numbers of cases are too small in most age groups, the number of cases and rates for each quarter are presented in the tables. The figures present rate for the combined two quarters only ie for the entire six-month period. Demographic details are available for over 90% of gonorrhoea, chlamydia, syphilis and donovanosis cases, however there is limited access to information on the number of tests ordered. These rates can only be considered estimates of the incidence as they may, in fact, reflect testing patterns.

5.2 Trichomoniasis

The first part of this section presents the number of trichomoniasis cases apportioned by gender and Indigenous status. Rates are not broken down by gender and Indigenous status because of difficulties interpreting results, difficulties that are explained by the following reasons:

- the number of cases is not representative of the entire population because testing guidelines recommend targeting antenatal women only for screening. Population screening is not recommended.
- different laboratory testing protocols eg Royal Darwin Hospital does not offer trichomoniasis PCR testing for most specimens in contrast to the private laboratories.
- testing for trichomoniasis by PCR may not be done unless specifically requested by the clinician.

District and age group rates are presented in the latter part of this section. Quarterly numbers of cases and rates for each district are displayed in a table and six monthly rates for each district and age group are displayed in the respective figures.

5.3 Hepatitis C

Hepatitis C cases are also apportioned by gender and Indigenous status in the first part of this section. Rates are not broken down by Indigenous status because of difficulties in obtaining adequate data for the Indigenous status. During the first six months of 2000, the Indigenous status of up to one third (33%) of hepatitis C cases was unknown.

As with trichomoniasis, district and age group rates are presented in the latter part of this section. Quarterly cases and rates for each district are displayed in a table and six monthly rates for each district and age group are displayed in the respective figures.

5.4 HIV

Four cases of HIV were notified during the first six months of 2000. Rates were not broken down by gender or Indigenous status because cases were so few.

6. Limitations to the report

This update does not provide data on:

- complications of sexually transmitted infections such as pelvic inflammatory disease, epididimo-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.

7. Consumer response

The NT AIDS/STD Program is very interested in readers' responses to this report. Please forward any comments or suggestions to:

Karen Dempsey or Jan Savage
AIDS/STD Program
Territory Health Services
PO Box 40596, Casuarina
Northern Territory

Phone: (08) 8922 8097 or (08) 8922 8874

Fax: (08) 8922 8809

Email: karen.dempsey@nt.gov.au
jan.savage@nt.gov.au

1. Sexually transmissible infections (STDs)

Table 1.1 Gonorrhoea, chlamydia, syphilis and donovanosis rates in the Northern Territory, January–March 2000 and April–June 2000

NT Total	Gonorrhoea ²		Chlamydia		Syphilis		Donovanosis	
	Cases	Rate ¹	Cases	Rate ¹	Cases	Rate ¹	Cases	Rate ¹
<i>Quarter</i>								
Jan–Mar 2000	245	508.1	213	441.7	56	116.1	5	10.4
Apr–June 2000	312	647.0	262	543.4	51	105.8	1	2.1

1 Cases per 100,000 population

2 There was one case of penicillin resistant *N. gonorrhoeae* during the period January–June 2000, diagnosed in Katherine district

Figure 1.1 Gonorrhoea, chlamydia, syphilis and donovanosis rates in the Northern Territory, January–June 2000

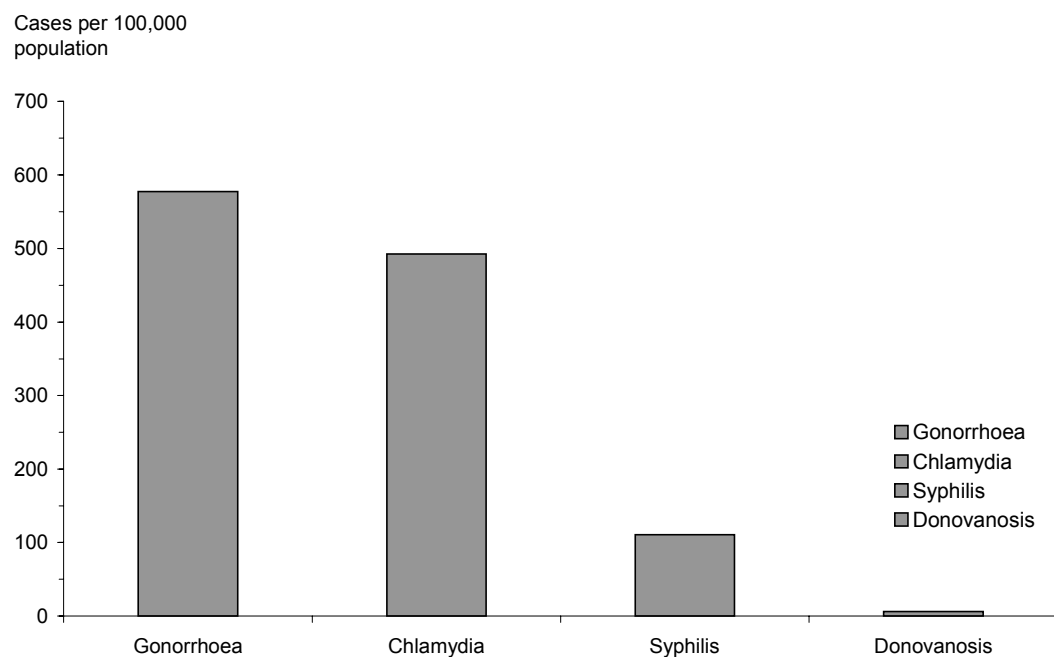


Table 1.2 Gonorrhoea, chlamydia, syphilis and donovanosis rates in the Northern Territory by gender, January–March 2000 and April–June 2000

Gender	Gonorrhoea		Chlamydia		Syphilis		Donovanosis	
	Cases	Rate ¹	Cases	Rate ¹	Cases	Rate ¹	Cases	Rate ¹
<i>Males</i>								
Jan–Mar 2000	120	470.6	74	290.2	39	152.9	1	3.9
Apr–June 2000	135	529.4	90	352.9	35	137.3	1	3.9
<i>Females</i>								
Jan–Mar 2000	125	550.2	138	607.4	16	70.4	4	17.6
Apr–June 2000	175	770.3	170	748.3	16	70.4	0	0.0

¹ Cases per 100,000 population

Figure 1.2 Gonorrhoea, chlamydia, syphilis and donovanosis rates in the Northern Territory by gender, January–June 2000

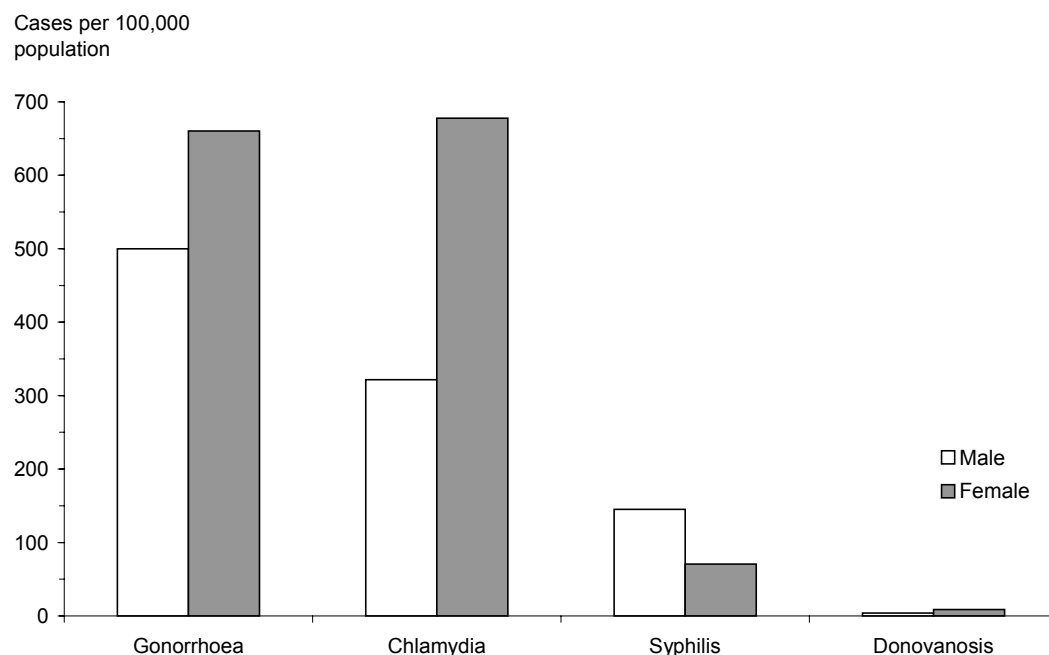


Table 1.3 Gonorrhoea, chlamydia, syphilis and donovanosis rates in the Northern Territory by Indigenous status, January–March 2000 and April–June 2000

Indigenous Status	Gonorrhoea		Chlamydia		Syphilis		Donovanosis	
	Cases	Rate ¹	Cases	Rate ¹	Cases	Rate ¹	Cases	Rate ¹
<i>Aboriginal</i>								
Jan–Mar 2000	190	1392.4	132	967.3	44	322.4	5	36.6
Apr–June 2000	270	1978.6	187	1370.4	41	300.5	1	7.3
<i>non-Aboriginal</i>								
Jan–Mar 2000	26	75.2	54	156.2	4	11.6	0	0.0
Apr–June 2000	19	55.0	50	144.6	8	23.1	0	0.0
<i>Unknown I/S</i>								
Jan–Mar 2000	29		27		8		0	
Apr–June 2000	23		25		2		0	

¹ Cases per 100,000 population

Figure 1.3 Gonorrhoea, chlamydia, syphilis and donovanosis rates in the Northern Territory by Indigenous status, January–June 2000

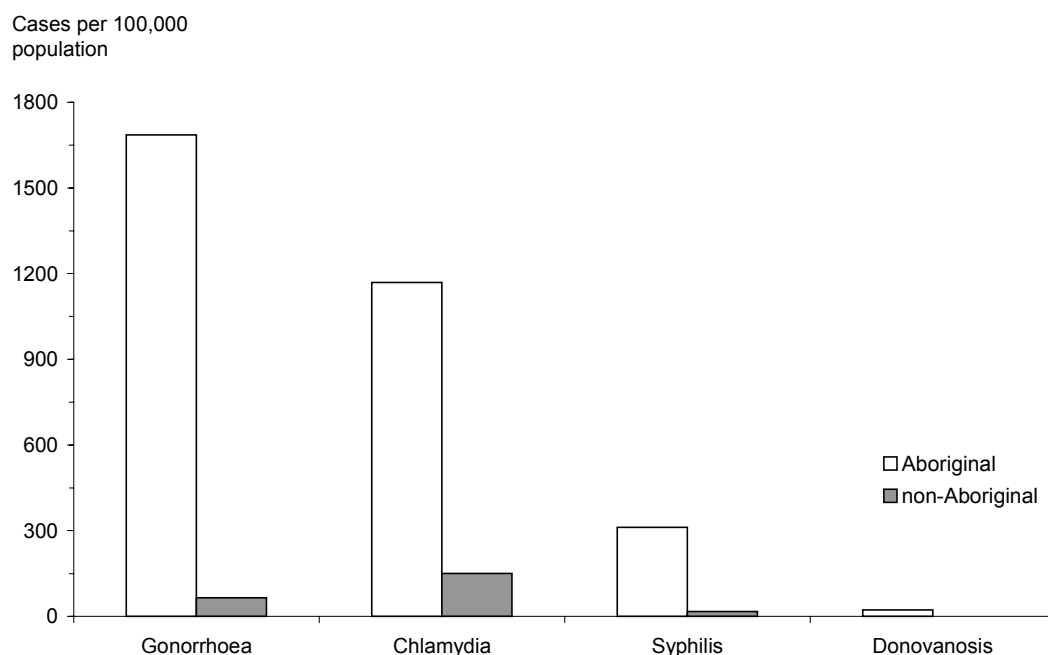


Table 1.4 Gonorrhoea, chlamydia, syphilis and donovanosis rates in the Northern Territory by district, January–March 2000 and April–June 2000

District	Gonorrhoea		Chlamydia		Syphilis		Donovanosis	
	Cases	Rate ¹	Cases	Rate ¹	Cases	Rate ¹	Cases	Rate ¹
<i>Darwin</i>								
Jan–Mar 2000	33	113.6	71	244.5	20	68.9	0	0.0
Apr–June 2000	44	151.5	77	265.2	22	75.8	1	3.4
<i>Katherine</i>								
Jan–Mar 2000	30	652.8	20	435.2	12	261.1	2	43.5
Apr–June 2000	45	979.3	34	739.9	3	65.3	0	0.0
<i>East Arnhem</i>								
Jan–Mar 2000	15	447.9	17	507.6	2	59.7	0	0.0
Apr–June 2000	14	418.0	17	507.6	1	29.9	0	0.0
<i>Barkly</i>								
Jan–Mar 2000	14	814.1	7	407.0	2	116.3	0	0.0
Apr–June 2000	8	465.2	1	58.1	0	0.0	0	0.0
<i>Alice Springs</i>								
Jan–Mar 2000	153	1607.7	98	1029.8	20	210.2	3	31.5
Apr–June 2000	201	2112.1	133	1397.5	25	262.7	0	0.0

¹ Cases per 100,000 population

Figure 1.4 Gonorrhoea, chlamydia, syphilis and donovanosis rates in the Northern Territory by district, January–June 2000

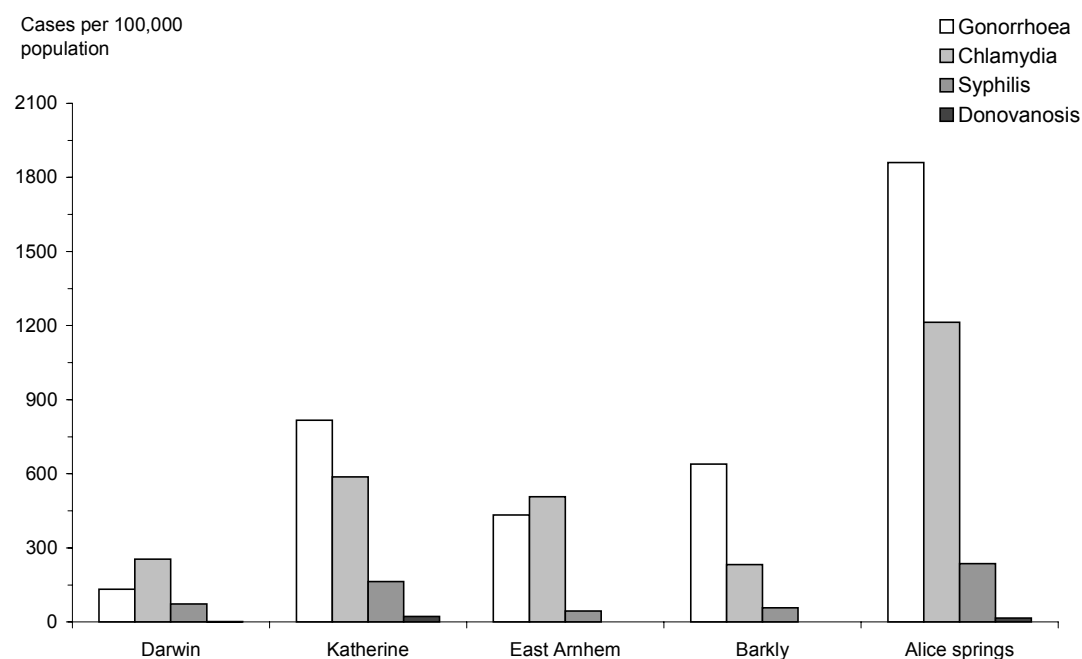
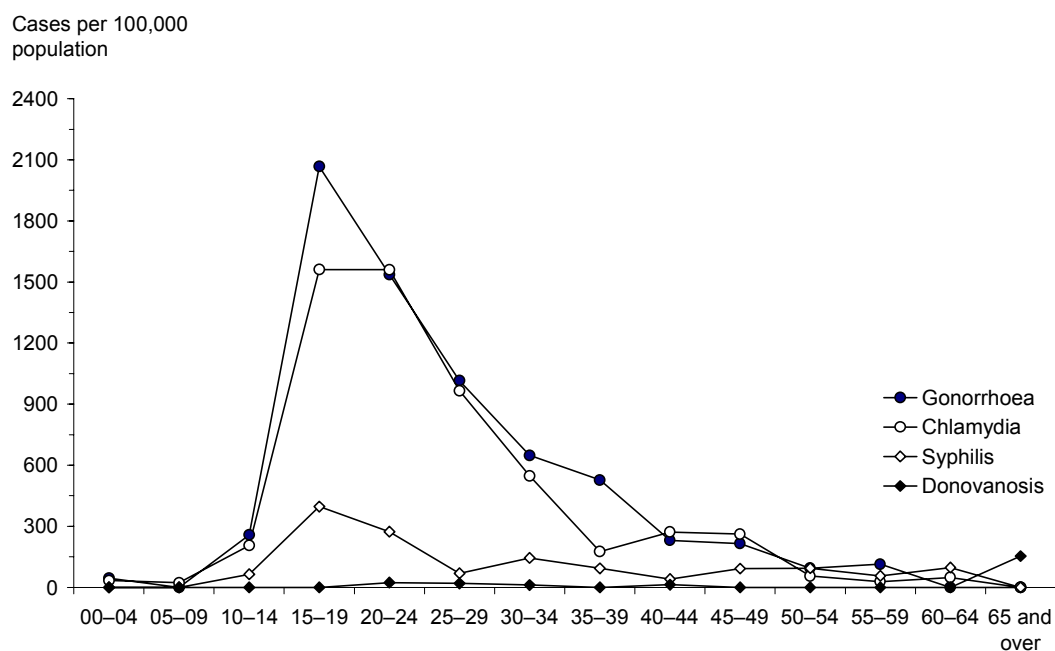


Table 1.5 Gonorrhoea, chlamydia, syphilis and donovanosis rates in the Northern Territory by five-year age group, January–June 2000

Age group	Gonorrhoea		Chlamydia		Syphilis		Donovanosis	
	Cases	Rate ¹	Cases	Rate ¹	Cases	Rate ¹	Cases	Rate ¹
<i>Jan–June 2000</i>								
00–04	4	45.5	3	34.1	0	0.0	0	0.0
05–09	0	0.0	2	23.0	0	0.0	0	0.0
10–14	20	258.0	16	206.4	5	64.5	0	0.0
15–19	151	2067.5	114	1560.9	29	397.1	0	0.0
20–24	129	1536.1	131	1559.9	23	273.9	2	23.8
25–29	102	1016.1	97	966.3	7	69.7	2	19.9
30–34	58	648.2	49	547.6	13	145.3	1	11.2
35–39	45	527.3	15	175.8	8	93.7	0	0.0
40–44	17	231.5	20	272.4	3	40.9	1	13.6
45–49	14	215.3	17	261.4	6	92.3	0	0.0
50–54	5	94.0	3	56.4	5	94.0	0	0.0
55–59	4	114.3	1	28.6	2	57.1	0	0.0
60–64	0	0.0	1	49.1	2	98.2	0	0.0
65 and over	0	0.0	0	0.0	0	0.0	0	153.7
Unknown	8	0.0	6	0.0	4	0.0	0	0.0
Total	557	577.6	475	492.5	107	111.0	6	6.2

¹ Cases per 100,000 population

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



2. Trichomoniasis

Figure 2.1 Percentage of trichomoniasis cases in the Northern Territory by gender, January–June 2000

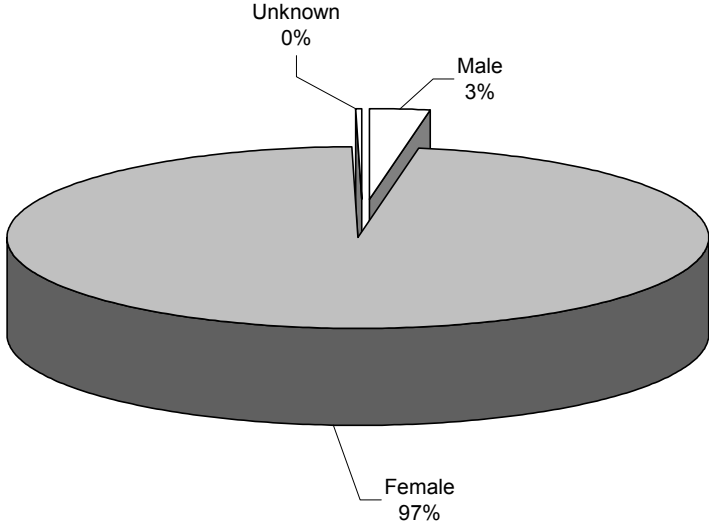


Figure 2.2 Percentage trichomoniasis cases in the Northern Territory by Indigenous status, January–June 2000

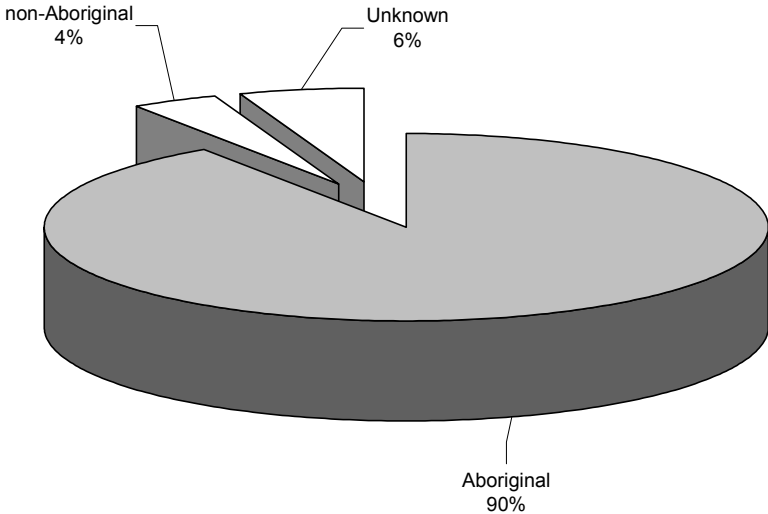


Table 2.1 Trichomoniasis rates in the Northern Territory by district, January–March 2000 and April–June 2000

Quarter	Darwin		Katherine		East Arnhem		Barkly		Alice Springs	
	Cases	Rate ¹	Cases	Rate ¹	Cases	Rate ¹	Cases	Rate ¹	Cases	Rate ¹
Jan–Mar 2000	53	182.5	62	1349.2	79	2358.9	6	348.9	96	1008.7
Apr–June 2000	79	272.1	70	1523.3	54	1612.4	6	348.9	77	809.1

¹ Cases per 100,000 population

Figure 2.3 Trichomoniasis rates in the Northern Territory by district, January–June 2000

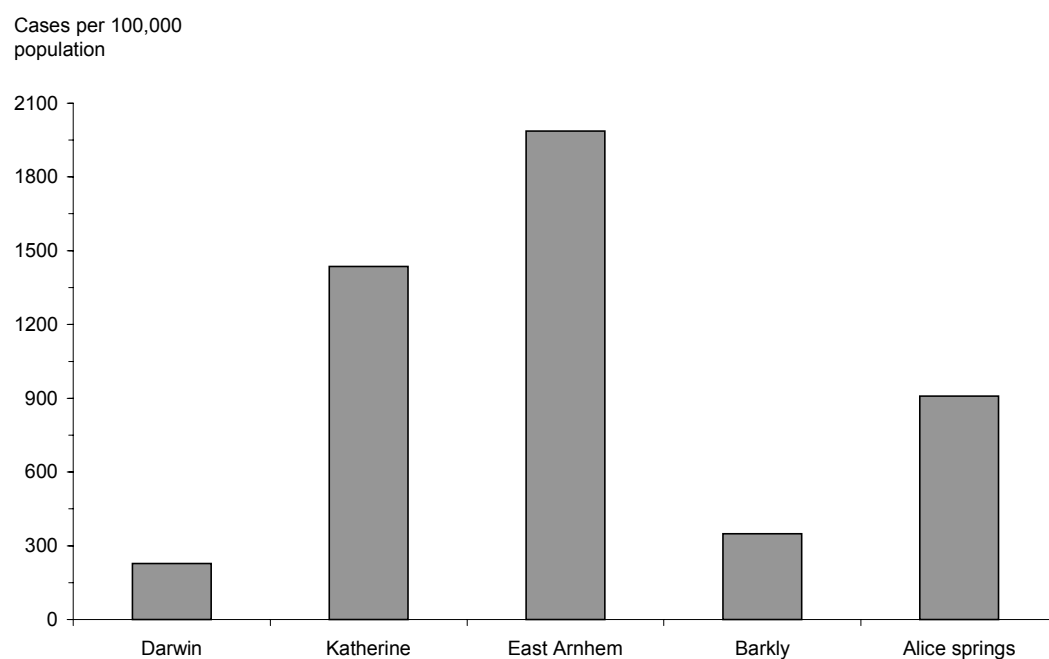
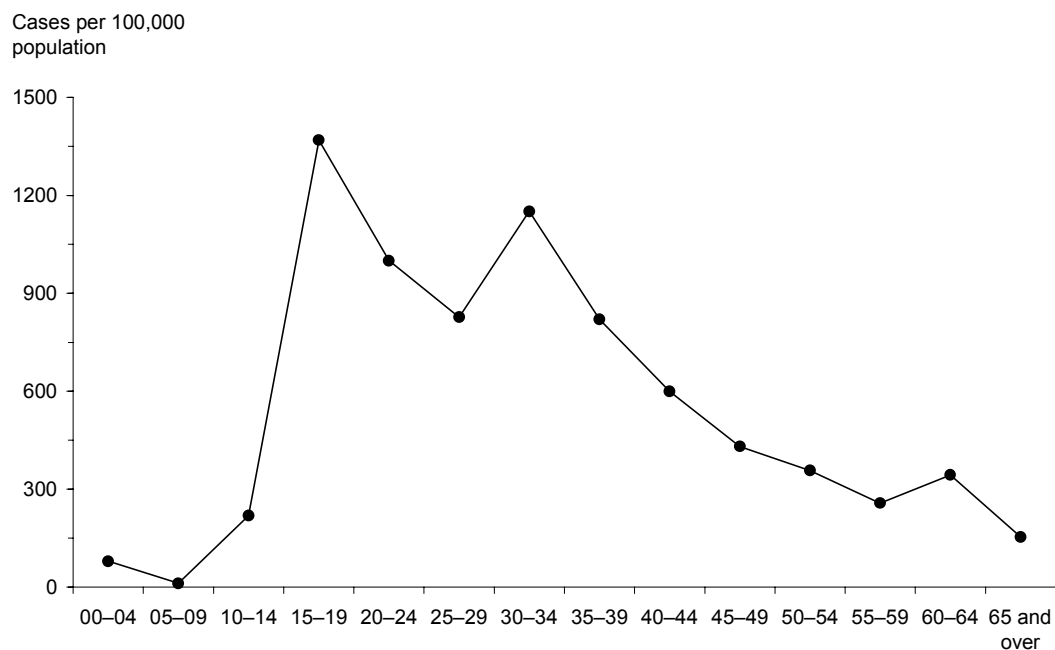


Table 2.2 Trichomoniasis rates in the Northern Territory by five-year age group, January–June 2000

Age group	Trichomonas	
	Cases	Rate ¹
<i>Jan–June 2000</i>		
00–04	7	79.5
05–09	1	11.5
10–14	17	219.3
15–19	100	1369.2
20–24	84	1000.2
25–29	83	826.8
30–34	103	1151.0
35–39	70	820.3
40–44	44	599.2
45–49	28	430.6
50–54	19	357.3
55–59	9	257.1
60–64	7	343.6
65 and over	5	153.7
Unknown	5	0.0
Total	582	603.5

¹ Cases per 100,000 population

Figure 2.4 Trichomoniasis rates in the Northern Territory by five-year age group, January–June 2000



3. Hepatitis C

Figure 3.1 Percentage of hepatitis C cases in the Northern Territory by gender, January–June 2000

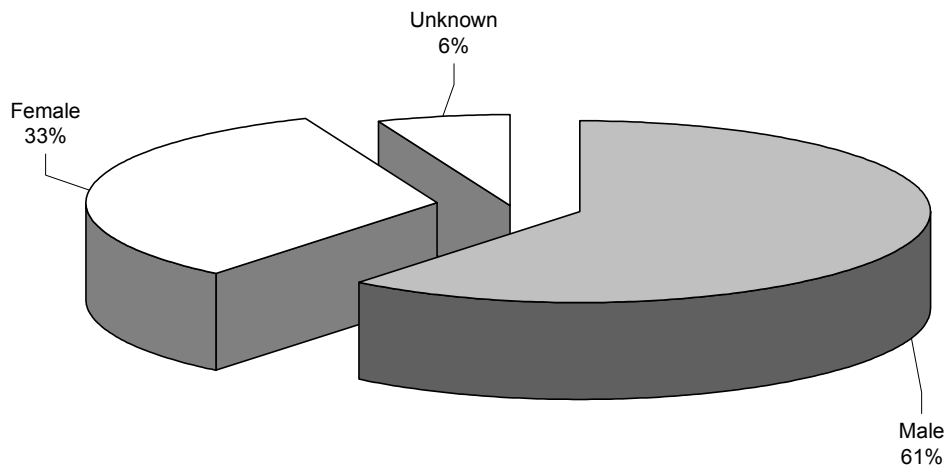


Figure 3.2 Percentage of hepatitis C cases in the Northern Territory by Indigenous status, January–June 2000

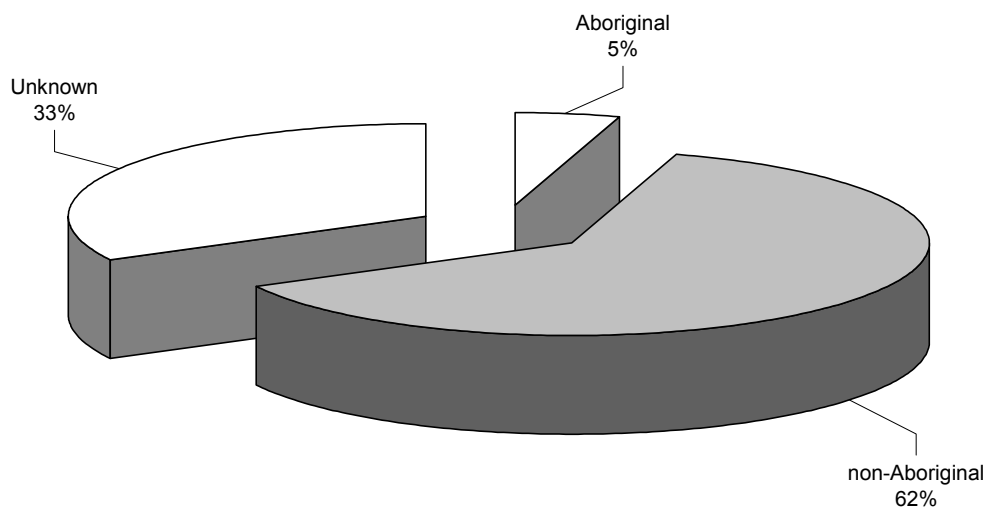


Table 3.1 Hepatitis C rates in the Northern Territory by district, January–March 2000 and April–June 2000

Gender	Darwin		Katherine		East Arnhem		Barkly		Alice Springs	
	Cases	Rate ¹	Cases	Rate ¹	Cases	Rate ¹	Cases	Rate ¹	Cases	Rate ¹
<i>Jan–Mar 2000</i>										
Male	11	71.1	1	39.9	0	0.0	1	112.0	0	0.0
Female	9	66.3	1	47.9	0	0.0	0	0.0	1	21.6
Unknown	3		0		0		0		1	
Total	23	79.2	2	43.5	0	0.0	1	58.1	2	21.0
<i>Apr–June 2000</i>										
Male	26	168.2	0	0.0	0	0.0	0	0.0	0	0.0
Female	7	51.6	1	47.9	0	0.0	0	0.0	1	21.6
Unknown	0		0		0		0		1	
Total	33	113.6	1	21.8	0	0.0	0	0.0	2	21.0

¹ Cases per 100,000 population

Figure 3.3 Hepatitis C rates in the Northern Territory by district, January–June 2000

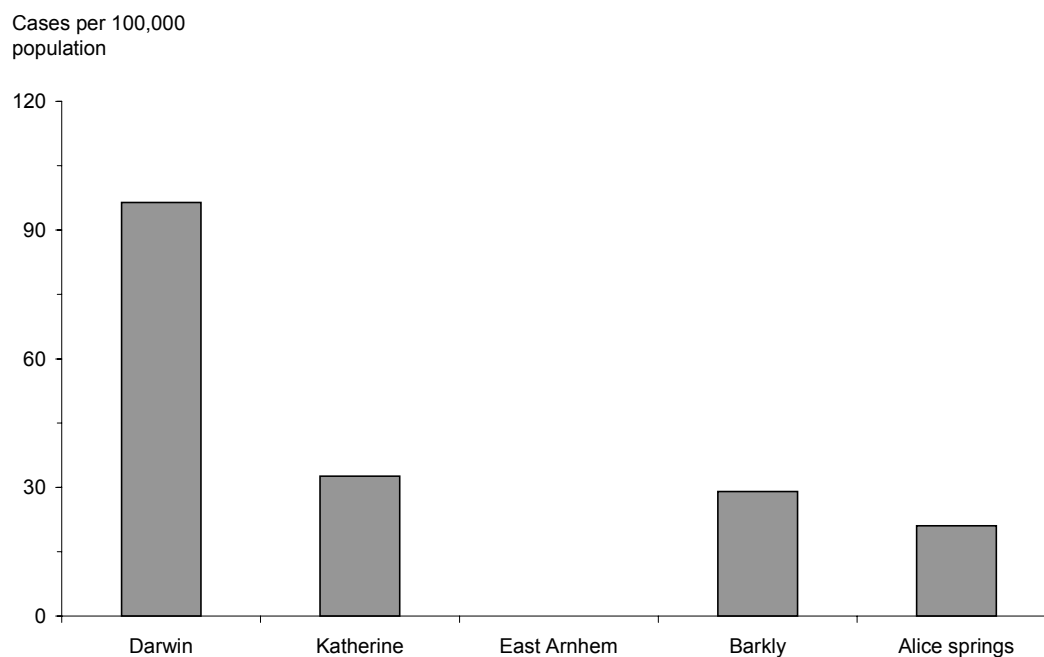


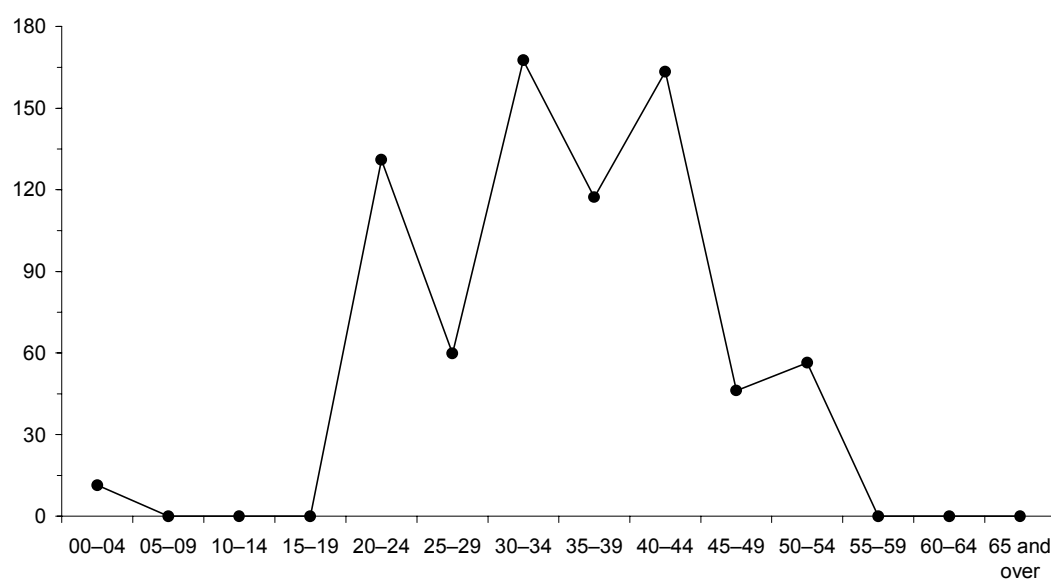
Table 3.2 Hepatitis C rates in the Northern Territory by five-year age group, January–June 2000

Hepatitis C		
Age group	Cases	Rate ¹
<i>Jan–June 2000</i>		
00–04	1	11.4
05–09	0	0.0
10–14	0	0.0
15–19	0	0.0
20–24	11	131.0
25–29	6	59.8
30–34	15	167.6
35–39	10	117.2
40–44	12	163.4
45–49	3	46.1
50–54	3	56.4
55–59	0	0.0
60–64	0	0.0
65 and over	0	0.0
Unknown	3	0.0
Total	64	66.4

¹ Cases per 100,000 population

Figure 3.4 Hepatitis C rates in the Northern Territory by five-year age group, January–June 2000

Cases per 100,000 population



4. Human Immunodeficiency Virus (HIV)

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

Quarter	Gender	Indigenous status	Age group	Mode of transmission
Jan–Mar 2000	Male	non-Aboriginal	55-59	Homosexual transmission
Jan–Mar 2000	Male	non-Aboriginal	45-49	Heterosexual transmission in high risk country
Apr–June 2000	Male	non-Aboriginal	30-34	Heterosexual transmission in high risk country
Apr–June 2000	Male	non-Aboriginal	25-29	Heterosexual transmission in high risk country
Jan–June 2000	Total = 4 cases			

Figure 4.1 Number of cases of HIV during the period 1985–1999 by Indigenous status

