

Sexually Transmitted Diseases

in South Australia in 1997

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Summary Statistics

South Australia

Sexually Transmitted Diseases	1988	1989	1990	1991	1992	1993	1994	1995	1996	No.	1997
											Rate/10 ⁵
Chlamydia	-	1616	1361	1070	943	762	733	774	1038	1052	71
Gonorrhoea	278	213	173	199	165	152	160	255	290	323	22
Syphilis	92	87	83	69	98	63	57	45	40	31	2

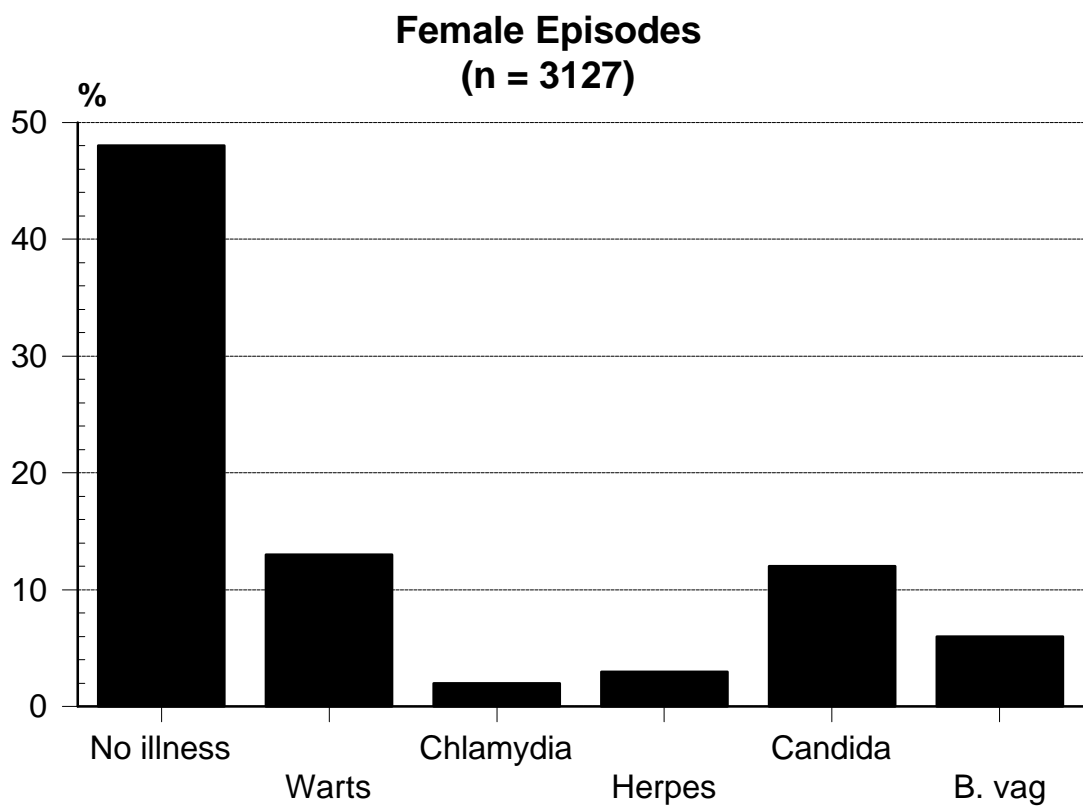
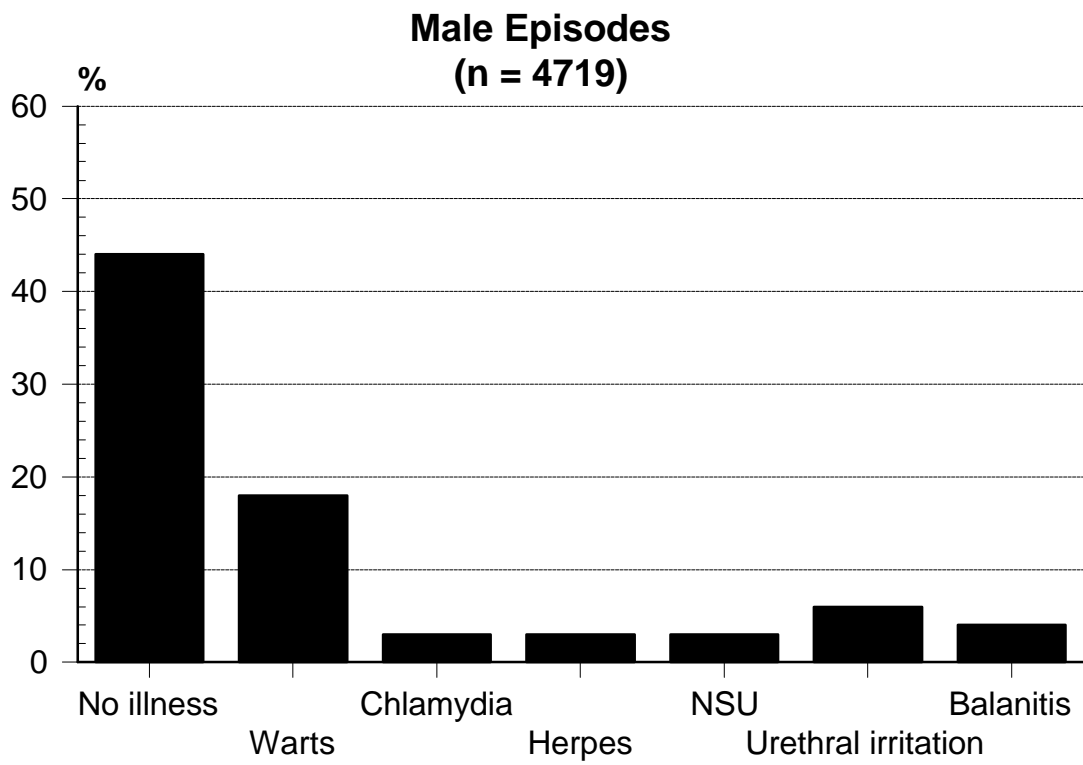
Blood Borne Diseases	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
	HIV cases	69	48	74	63	46	34	56	37	31	45
AIDS cases	10	27	32	27	41	36	42	50	34	38	24
AIDS deaths	3	12	13	18	22	31	35	35	38	29	9
Hepatitis B (acute)	76	43	50	35	28	22	35	38	26	20	18
Hepatitis C (incident)	-	-	-	-	-	-	-	-	34	31	51

Clinic 275

Diagnoses (1997)	Male	Female	Total
Gonorrhoea	49	4	53
Syphilis	3	-	3
Herpes	139	105	244
Chlamydia	126	70	196
Non-specific urethritis	123	na	123
Warts	852	323	1175
Trichomoniasis	1	5	6
Candidiasis	na	379	379
Crabs	121	30	151
Scabies	25	1	26
Molluscum contagiosum	126	32	158
Bacterial vaginosis	na	197	197
Balanitis	200	na	200
No illness	2069	1498	3567
HIV	8	1	9
Total clinic attendances	8968	5663	14631
Total Clients seen	3486	2321	5807

na: not applicable

Figure 1.1 Distribution of illness detected in male and female clients at Clinic 275, 1997.





Section 1 STD Overview

In 1997 there were 1052 (71/100 000) cases of chlamydia, 323 (22/100 000) cases of gonorrhoea and 31 (2/100 000) cases of syphilis (see **summary statistics**) detected in South Australia.

The number of HIV cases notified for 1997 was 35, a decrease of 10 cases from the previous year (see **summary statistics**).

In 1997, 24 individuals were notified with an AIDS defining illness, and nine individuals died of an AIDS defining illness (see **summary statistics**).

During 1997, medical notifications of Hepatitis C infection included 51 incident cases. Hepatitis B medical notifications in 1997 included 18 acute cases (see **summary statistics**).

The most common infection diagnosed at Clinic 275 continues to be genital warts (18% male, 13% female) (Fig 1.1). Common conditions in males were NSU (3%), balanitis (4%), urethral irritation (6%) and chlamydia (3%) and in females candidiasis (12%), bacterial vaginosis (6%), chlamydia (2%) and genital herpes (3%) (Fig 1.1). A high proportion of clients attending Clinic 275 had no illness (44% male, 48% female). Overall there were 14631 clinic attendances in 1997 (see **summary statistics**).

Contact Tracing at Clinic 275

Clinic 275 followed up 166 cases of chlamydial infection. Of these, contact tracing was effective in detecting 17 new cases in males and 12 in females, with a yield of 1.83 contacts per male index case and 1.75 contacts per female index case (Table 1.2). Of the 29 new cases detected 12 individuals were examined within 2 days of being contacted (Table 1.3).

For gonorrhoea six new cases were detected in contacts of males examined while no cases were detected in contacts of females examined for gonorrhoea (Table 1.2).

**Table 1.1 Summary of diagnoses made on clients attending Clinic 275 during 1997.
Specific diagnoses by number of clients, episodes and sex.**

Diagnosis	Male Episodes					*Total
	1	2	3	4	5+	
No illness	1580	194	21	8	1	2069
HIV+ve	8	-	-	-	-	8
GC	49	-	-	-	-	49
Syphilis	3	-	-	-	-	3
Herpes	123	8	-	-	-	139
Chlamydia	114	6	-	-	-	126
NSU	109	7	-	-	-	123
Warts	417	114	32	20	6	852
Trichomoniasis	1	-	-	-	-	1
Crabs	102	3	3	1	-	121
Scabies	22	-	1	-	-	25
Molluscum	108	9	-	-	-	126
Urethral irritation	254	4	1	-	-	265
Balanitis	174	13	-	-	-	200
Non STD illness	467	21	3	-	-	518
Uncertain	89	-	-	-	-	89
Other	5	-	-	-	-	5
*Total	3625	379	61	29	7	4719
*Total Male Episodes						4457
Diagnosis	Female Episodes					*Total
	1	2	3	4	5+	
No illness	1220	109	10	4	1	1489
HIV+ve	1	-	-	-	-	1
GC	4	-	-	-	-	4
Syphilis	-	-	-	-	-	-
Herpes	98	2	1	-	-	105
Chlamydia	64	3	-	-	-	70
Warts	162	41	12	7	3	323
Trichomoniasis	5	-	-	-	-	5
Candidiasis	321	26	2	-	-	379
Crabs	30	-	-	-	-	30
Scabies	1	-	-	-	-	1
Molluscum	28	2	-	-	-	32
Bacterial vaginosis	176	3	5	-	-	197
Non STD illness	184	16	1	-	-	219
Uncertain	69	1	-	-	-	71
Other	13	-	-	-	-	13
Suspected pregnancy	140	18	4	-	-	188
*Total	2516	221	35	11	4	3127
*Total Female Episodes						2941
Grand Total* Episodes 7398						

* since an episode of care may result in multiple diagnoses, total diagnoses exceed total episodes.

Table 1.2 Chlamydia and gonorrhoea contact tracing analysis - Clinic 275, 1997. Cases by sex.

	Chlamydia				Gonorrhoea			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Cases	98		68		44		4	
Contacts								
Elicited	179	183	117	175	64	145	8	200
Located	106	108	65	97	34	77	5	125
Locating index		59		56		53		63
Contacts infected								
Existing	35		18		10		2	
New cases	17		12		6		-	

Table 1.3 New cases of chlamydial and gonococcal infection identified by Clinic 275, 1997. Days taken to examine contacts by sex.

Days	Chlamydia			Gonorrhoea		
	Male	Female	Total	Male	Female	Total
0-2	5	3	8	5	-	5
3-7	7	3	10	1	-	1
8-14	3	2	5	-	-	-
Over 14	2	4	6	-	-	-
Total	17	12	29	6	-	6

Figure 2.1 Notification sources of genital chlamydial infection, 1997.



C 275 = Clinic 275
M Drs = Metropolitan Doctors
M Orgs = Metropolitan Organizations
R Drs = Rural Doctors
R Orgs = Rural Organizations



Section 2 Genital Chlamydial, Gonorrhoea and Syphilis Infection in South Australia, 1997

The STD Control Branch upgraded the chlamydia, gonorrhoea and syphilis notification system in 1997. Notification forms are generated by the Branch upon receipt of the laboratory results, eliminating the need for medical practitioners to keep supplies of notification forms. Practitioners should discard old blue and white chlamydia/gonorrhoea and syphilis notification forms.

Chlamydia Trachomatis

Of the 1052 cases of chlamydial infection detected (402 in males, 650 in females), 1050 (99.8%) were notified by medical practitioners (Table 2.1). The increase in reported cases since 1995 (Table 2.2) may be due to the introduction of DNA amplification technology (PCR testing). Clinic 275 notified 112 (28%) cases of infection in males and 58 (9%) in females, while metropolitan health services notified 15 (5%) cases of infection in males and 97 (15%) in females (Table 2.1). These different patterns may reflect a gender ratio of clients being tested in the health services rather than the sex ratio of infected individuals in the community (Figure 2.1).

Individuals presenting to Clinic 275 because they were STD contacts and under 25 years of age yielded 60% and 21% respectively in males and females compared with 18% in males and in 3% females who were not STD contacts (Table 2.3). There was a higher chlamydial yield in symptomatic males (19%) compared to asymptomatic males (5%) under 25 years of age (Table 2.4).

Demographic Characteristics

A large proportion (56% males, 68% females) of chlamydial infection occurred in the under 25 year olds, incidence peaking in the 20 - 24 year age group (Table 2.6). Seventy eight percent of males and 77% percent of females were classified as caucasian (Table 2.7). Those most likely to be infected are single (73% males, 66% females) (Table 2.8). Eighty three percent of males and 91% of females acquired their infection in South Australia (Table 2.9).

Laboratory Testing

There was less testing statewide for chlamydia than in previous years. The male to female ratio of laboratory tests performed since 1993 is shown in Table 2.10. The higher proportion of testing in women may be due to the gender ratio of clients attending health services, selective screening in males or presumptive treatment of males without confirmatory laboratory testing (Table 2.10).

Figure 2.2 Gonorrhoea infection in Aborigines, 1991 - 1997.

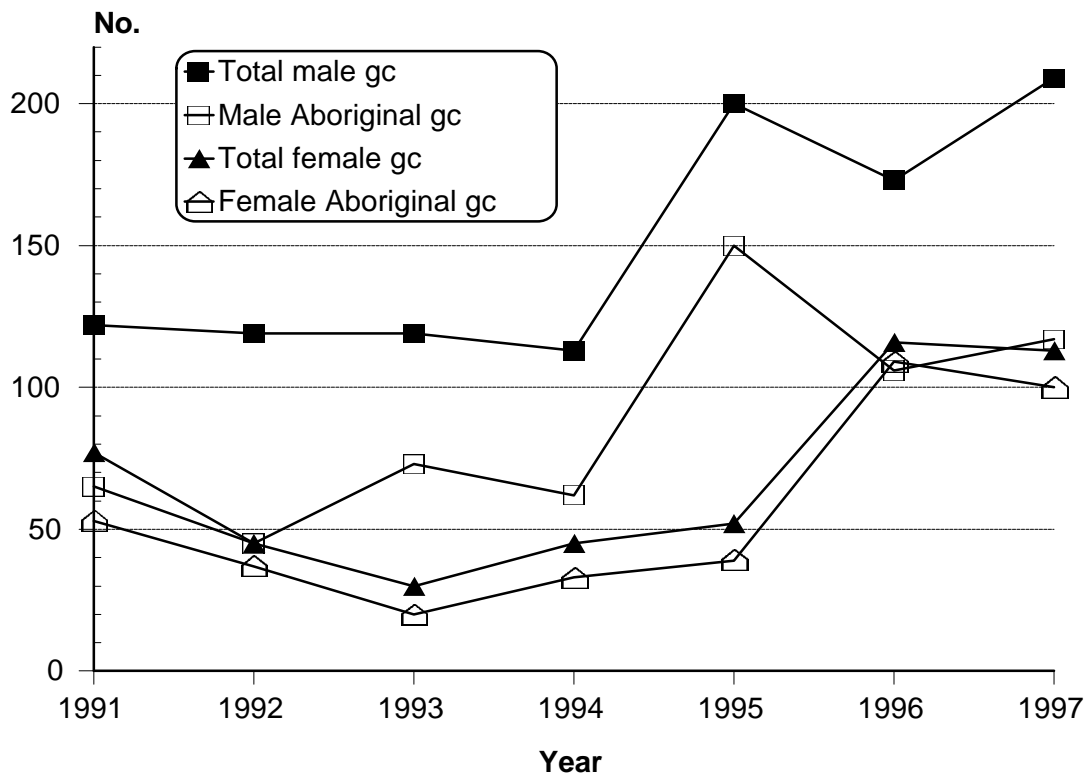
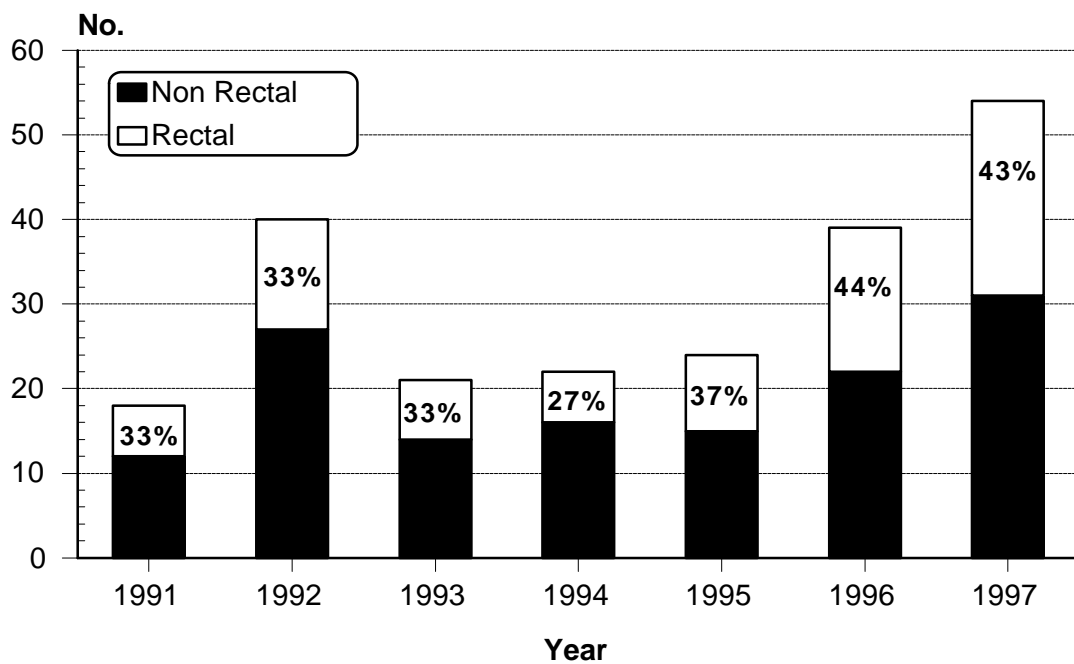


Figure 2.3 Proportion of rectal gonorrhoea in homosexual men diagnosed with gonorrhoea, 1991 - 1997.



Gonorrhoea

There were 323 laboratory notifications of gonorrhoea in 1997. Of these 323 cases, 322 (99%) were notified by medical practitioners. Two hundred and ten (65%) cases occurred in males and 113 (35%) occurred in females (Table 2.1). Overall there has been an increase in the number of cases of gonorrhoea reported since 1995, particularly in Aboriginal women (Table 2.11). This may be attributed to the recent introduction of annual screening programs within these communities. In 1997, 56 percent of males and 88 percent of females were notified from this group (Table 2.11, Figure 2.2).

Demographic Characteristics

A large proportion of gonococcal infection occurred in single males (61%) whilst 56% of infections occurred in females who were either married or in a defacto relationship (Table 2.12). Stratification by age shows that sixty seven percent of infection occurred in females under twenty five while in males infection was evenly distributed across age groups (Table 2.13). Most of the 322 cases of gonorrhoea were acquired in South Australia (80% males, 86% females) (Table 2.14).

The number of reported cases of gonorrhoea infection in homosexual men increased in 1997, however, the proportion of rectal gonorrhoea in this group has remained relatively stable (Table 2.15, Figure 2.3).

Sensitivity of *Neisseria gonorrhoeae* to Penicillin

Data on antibiotic sensitivity of *N. gonorrhoeae* have been collected by the IMVS Infectious Disease Laboratory since 1981. Figures 2.4 and 2.5 show the trends in sensitivity for non-penicillinase producing *N. gonorrhoeae* (non-PPNG) strains in South Australia from 1984-1997. During that period penicillinase producing *N. gonorrhoeae* (PPNG) strains fluctuated from 0 - 12% with 5% of isolates in 1997 being penicillinase producers (Table 2.16).

Not all notified cases of gonorrhoea have isolates which can be tested. In 1997 37% of gonorrhoea was diagnosed by urine PCR. This was predominantly in remote communities where annual screening programs have been implemented. This testing procedure does not produce isolates for antibiotic sensitivity testing.

Figure 2.4 Chromosomal mediated resistant (CMR) patterns of non penicillinase producing *Neisseria gonorrhoeae* (non-PPNG), in males 1984 - 1997.

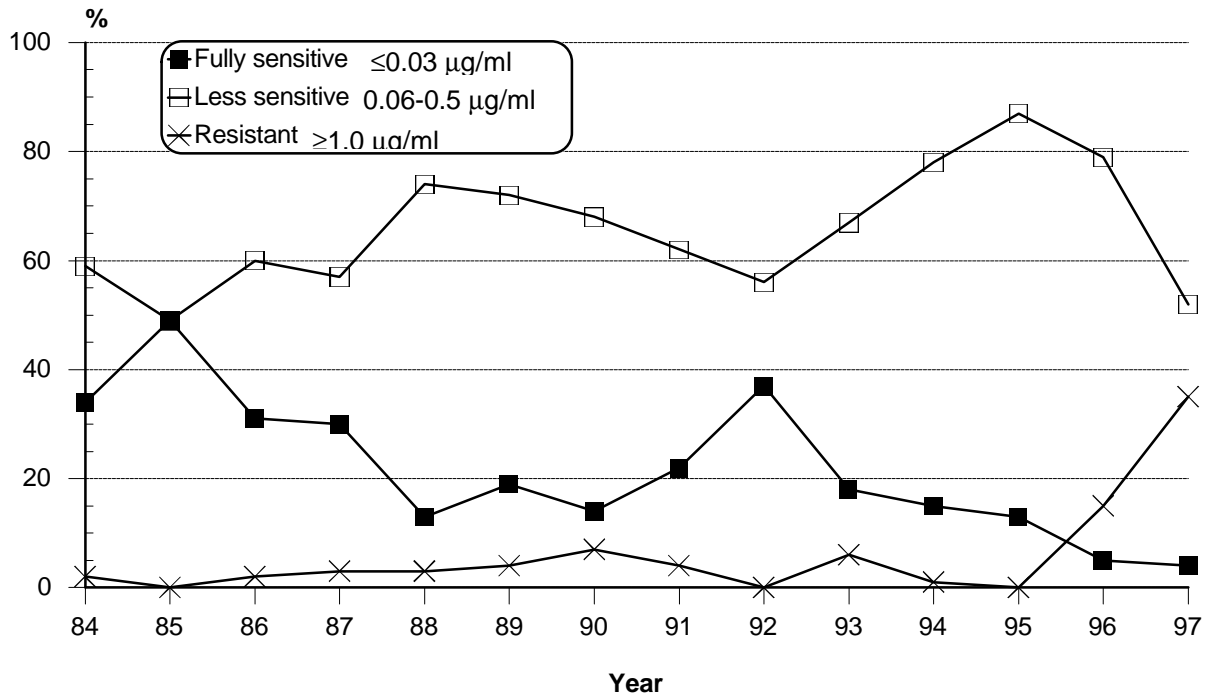
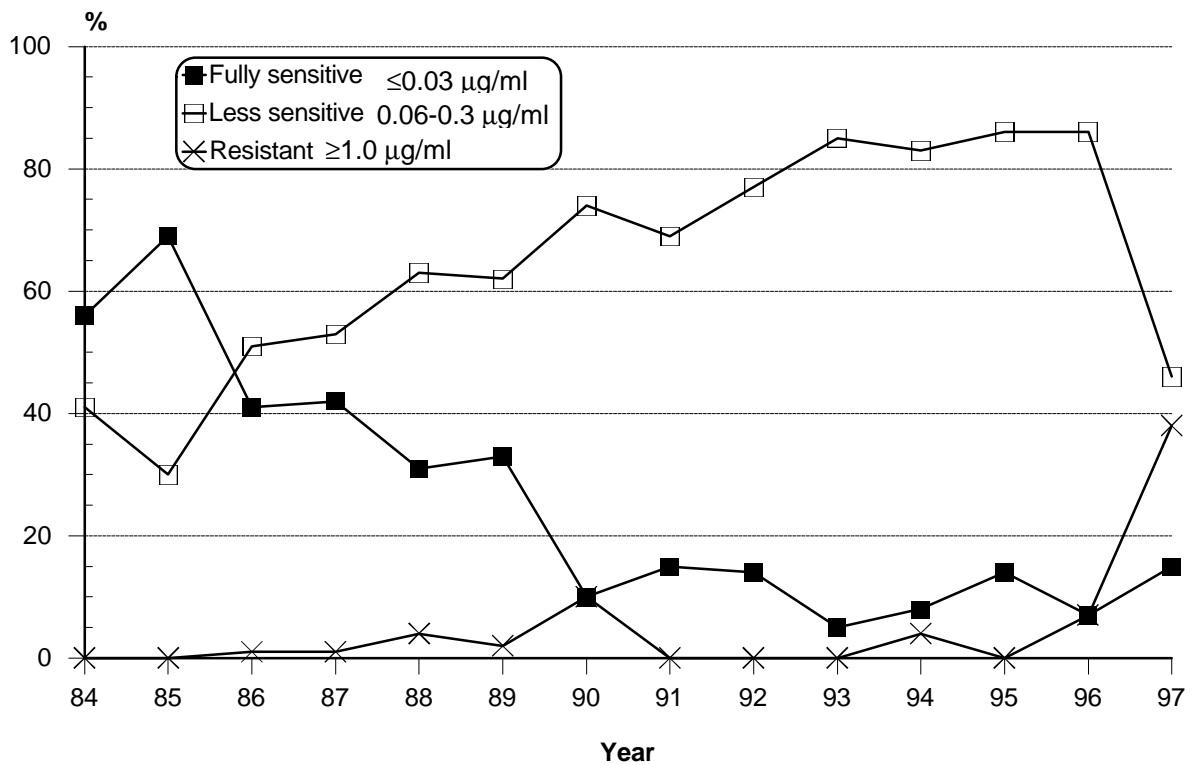


Figure 2.5 Chromosomal mediated resistant (CMR) patterns of non penicillinase producing *Neisseria gonorrhoeae* (non-PPNG), in females 1984 - 1997.



Notifications of 108 males and 15 females were not from remote areas and isolates from 94 males and 13 females were available for susceptibility testing. Non-PPNG strains are historically sensitive to penicillin. Since 1995 the susceptibility (sensitivity) pattern is similar for non-PPNG isolates from men and women with an increasing Chromosomal Mediated Resistant (CMR) pattern (Table 2.16). In 1997, 38% of non-PPNG isolates in men and women were resistant to penicillin (Table 2.16). Despite this decrease in susceptibility to penicillin there has been no increase in treatment failures noted among Clinic 275 patients. However, very few clinic patients are treated with amoxicillin and probenecid. A high proportion of gonococcal infections diagnosed in the clinic occurs in men who have sex with men and intramuscular ceftriaxone (250mg) is the drug of choice for suspected rectal infection. Ciprofloxacin (500mg oral stat) is a useful alternative if there is no history of interstate or overseas travel in the last 3 months. Amoxicillin (3 grams) with probenecid (1 gram) in a single oral dose can no longer be considered effective therapy for infections acquired in metropolitan South Australia. There is currently no third generation cephalosporin suitable for oral single dose therapy available in Australia.

Syphilis

There were 31 cases of syphilis infection reported during 1997, seven fewer than for 1996 (Table 2.1). All cases occurred in Aborigines. Fifteen cases occurred in males and 16 in females. The majority (80%) of cases were notified from Nganampa Health Service, in the far north west of the state (Table 2.2).

Table 2.1 Notification sources of chlamydia, gonorrhoea and syphilis in South Australia, 1997. Notification source by sex and infection.

Notification Source	Chlamydia		Male				Chlamydia		Female		Syphilis	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Clinic 275	112	28	47	22	-	-	58	9	4	4	-	-
Metro GPs	161	40	32	15	-	-	311	48	3	2	-	-
Rural GPs	47	11	11	5	-	-	88	13	4	4	1	6
Public Hospitals	3	1	2	1	-	-	44	6	4	4	1	6
Private Hospitals	-	-	-	-	1	7	1	1	-	-	-	-
Community Health Centres	9	2	3	1	-	-	41	6	-	-	-	-
Nganampa Health Service	61	15	101	48	11	73	93	14	98	86	14	88
Rural Aboriginal Health Services	2	1	10	5	-	-	2	-	-	-	-	-
Other	6	1	3	2	3	20	11	2	-	-	-	-
Lab. Notification only	1	1	1	1	-	-	1	1	-	-	-	-
Total	402		210		15		650		113		16	

laboratory notifications excluded in percentages

Table 2.2 Notification of chlamydia, gonorrhoea and syphilis, in South Australia 1991 - 1997. Year by infection.

Year	Chlamydia		Gonorrhoea		Syphilis		Total	
	No.	%	No.	%	No.	%	No.	%
1991	1070	100	199	100	69	100	1338	100
1992	943	88	165	83	98	142	1206	90
1993	757	71	149	75	62	90	969	72
1994	727	68	158	79	51	74	936	70
1995	769	72	252	127	44	64	1065	80
1996	1025	96	289	145	38	55	1352	101
1997	1050	98	322	162	31	45	1399	105

% compare annual totals with those for 1991

Table 2.3 Chlamydial infection in clients attending Clinic 275, 1997. Test result by sex, age group and reason for visit.

Test Result	Male															
	<25 years						≥25 years									
	STD contact		Non STD contact		STD contact		Non STD contact		STD contact		Non STD contact					
Asx	Sx	Asx	Sx	Asx	Sx	Asx	Sx	Asx	Sx	Asx	Sx					
No.	%	No.	%	No.	%	No.	%	No.	%	No.	%					
Positive	25	28	3	60	27	3	22	18	7	9	3	30	16	1	23	9
Negative	63	72	2	40	872	97	98	82	67	91	7	70	1806	99	251	91
Total	88		5		899		120		74		10		1822		274	

Test Result	FEMALE															
	<25 years						≥25 years									
	STD contact		Non STD contact		STD contact		Non STD contact		STD contact		Non STD contact					
Asx	Sx	Asx	Sx	Asx	Sx	Asx	Sx	Asx	Sx	Asx	Sx					
No.	%	No.	%	No.	%	No.	%	No.	%	No.	%					
Positive	7	20	3	21	30	3	12	3	5	26	1	50	9	1	3	1
Negative	28	80	11	79	850	97	334	97	14	74	1	50	578	99	216	99
Total	35		14		880		346		19		2		587		219	

Table 2.4 Chlamydia yields in clients attending Clinic 275, 1997. Test result by sex, age group and symptomatology.

Test Result	MALE							
	<25 years				≥25 years			
	Asymptomatic		Symptomatic		Asymptomatic		Symptomatic	
No.	%	No.	%	No.	%	No.	%	
Positive	52	5	25	19	23	1	26	9
Negative	935	95	100	81	1873	99	258	91
Total	987		125		1896		284	

Test Result	FEMALE							
	<25 years				≥25 years			
	Asymptomatic		Symptomatic		Asymptomatic		Symptomatic	
No.	%	No.	%	No.	%	No.	%	
Positive	37	4	15	3	14	2	4	1
Negative	878	96	345	97	592	98	217	99

Total	915	360	606	221
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Table 2.5 Chlamydial infection notified in South Australia, 1997. Symptomatology by notification source and sex.

Symptomatology	Chlamydia											
	Male						Female					
	Clinic 275		Non Clinic		Total		Clinic 275		Non Clinic		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
*Symptomatic	54	48	155	54	209	52	15	26	253	43	268	41
Asymptomatic	58	52	129	45	187	47	43	74	324	55	367	57
Not stated	-		5	1	5	1	-		14	2	14	2
Total	112		289		401		58		591		649	

* symptoms refer to genital discharge and/or dysuria

Table 2.6 Chlamydial infection notified in South Australia, 1997. Age group by sex.

	Chlamydia					
	Male		Female		Total	
	No.	%	No.	%	No.	%
Under 15	2	1	8	1	10	1
15-19	75	19	195	30	270	26
20-24	143	36	242	37	385	37
25-29	91	23	102	16	193	18
30-34	41	10	44	7	85	8
35-39	23	6	28	4	51	5
40+	22	5	30	5	52	5
Unknown	4		-		4	
Total	401		649		1050	

**Table 2.7 Chlamydial infection notified in South Australia, 1991 - 1997.
Race by sex and year.**

Male														
Race	1991		1992		1993		1994		1995		1996		1997	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Aboriginal	22	6	27	7	18	6	25	9	81	25	65	18	77	19
Asian	6	2	10	3	11	4	3	1	6	2	13	4	11	3
Caucasian/Other	342	92	320	90	266	90	254	90	231	73	292	78	313	78
Total	370		357		295		282		318		370		401	
Female														
Race	1991		1992		1993		1994		1995		1996		1997	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Aboriginal	39	6	56	10	30	6	40	9	71	16	109	17	120	19
Asian	11	2	13	2	12	3	16	4	15	3	32	5	29	4
Caucasian/Other	650	92	510	88	420	91	389	87	365	81	514	78	500	77
Total	700		579		462		445		451		655		649	

**Table 2.8 Chlamydial infection notified in South Australia, 1997.
Marital status by sex.**

Marital Status	Chlamydia					
	Male		Female		Total	
	No.	%	No.	%	No.	%
Single	295	73	425	66	720	69
Married/Defacto	72	18	164	25	236	22
Wid/Sep/Div	19	5	38	6	57	5
Unknown	15	4	22	3	37	4
Total	401		649		1050	

**Table 2.9 Chlamydial infection notified in South Australia, 1997.
Likely location of acquisition by sex.**

Likely Location	Chlamydia			
	Male		Female	
	No.	%	No.	%
South Australia	335	83	590	91
Interstate	35	9	25	4
Overseas	19	5	19	3
Not stated	12	3	15	2
Total	401		649	

**Table 2.10 Laboratory testing for genital chlamydial infection, 1993 - 1997.
Laboratory and sex by year.**

		Year				
		1993	1994	1995	1996	1997
Laboratories	Public	20921	19088	16014	16796	17733
	Private	12129	11601	14095	14520	11375
Sex	Male	6984	5868	5848	7662	7675
	Female	26066	24821	24261	23654	21433
	M:F Ratio	0.27:1	0.24:1	0.24:1	0.32:1	0.35:1
Total Tests		33050	30689	30109	31316	29108

Table 2.11 Gonococcal infection notified in South Australia, 1991 - 1997. Race by sex and year.

Male														
Race	1991		1992		1993		1994		1995		1996		1997	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Aboriginal	65	53	45	38	73	61	62	55	150	75	106	61	117	56
Asian	7	6	7	6	6	5	6	5	4	2	3	2	6	3
Caucasian/Other	50	41	67	56	40	34	45	40	46	23	64	37	86	41
Total	122		119		119		113		200		173		209	
Female														
Race	1991		1992		1993		1994		1995		1996		1997	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Aboriginal	53	69	37	82	20	67	33	74	39	75	109	94	100	88
Asian	3	4	2	4	1	3	1	2	0		1	1	3	3
Caucasian/Other	21	27	6	13	9	30	11	24	13	25	6	5	10	9
Total	77		45		30		45		52		116		113	

Table 2.12 Gonococcal infection notified in South Australia, 1997. Marital status by sex.

Gonorrhoea						
Marital Status	Male		Female		Total	
	No.	%	No.	%	No.	%
Single	127	61	41	37	168	52
Married/Defacto	59	28	63	56	122	38
Wid/Sep/Div	7	3	5	4	12	4
Unknown	16	8	4	3	20	6

Total	209	113	322
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**Table 2.13 Gonococcal infection notified in South Australia, 1997.
Age group by sex.**

Gonorrhoea						
Age Group	Male		Female		Total	
	No.	%	No.	%	No.	%
Under 15	1	1	5	4	6	2
15-19	36	18	36	32	72	22
20-24	48	23	35	31	83	26
25-29	49	23	14	12	63	20
30-34	34	16	14	12	48	15
35-39	17	8	6	6	23	7
40+	19	9	2	2	21	6
Unknown	5	2	1	1	6	2
Total	209		113		322	

**Table 2.14 Gonococcal infection notified in South Australia, 1991 - 1997.
Location of acquisition and sex by year.**

Location	Male													
	1991		1992		1993		1994		1995		1996		1997	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
South Australia	98	80	90	76	98	82	80	71	176	88	139	80	166	80
Interstate	9	8	11	9	12	10	22	19	17	8	24	14	36	17
Overseas	15	12	18	15	9	8	11	10	7	4	10	6	7	3
Total	122		119		119		113		200		173		209	
Location	Female													
	1991		1992		1993		1994		1995		1996		1997	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
South Australia	69	90	38	84	27	90	38	85	44	85	109	94	97	86
Interstate	3	4	5	11	2	7	6	13	8	15	6	5	15	13
Overseas	5	6	2	4	1	3	1	2	0		1	1	1	1
Total	77		45		30		45		52		116		113	

Table 2.15 Gonococcal infection in homosexual men in South Australia, 1991-1997. Site of infection by year.

Site	1991		1992		1993		1994		1995		1996		1997	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Urethral	10	56	16	40	11	53	11	50	12	50	17	44	25	46
Rectal	6	33	13	33	7	33	6	27	9	37	17	44	23	43
Pharyngeal	2	11	11	27	3	14	5	23	3	13	4	10	6	11
Other	-		-		-		-		-		1	3	-	-
Total	18	(15)	40	(34)	21	(18)	22	(19)	24	(12)	39	(23)	54	(26)
Total Male Gonorrhoea (SA)	122		119		119		113		200		173		210	

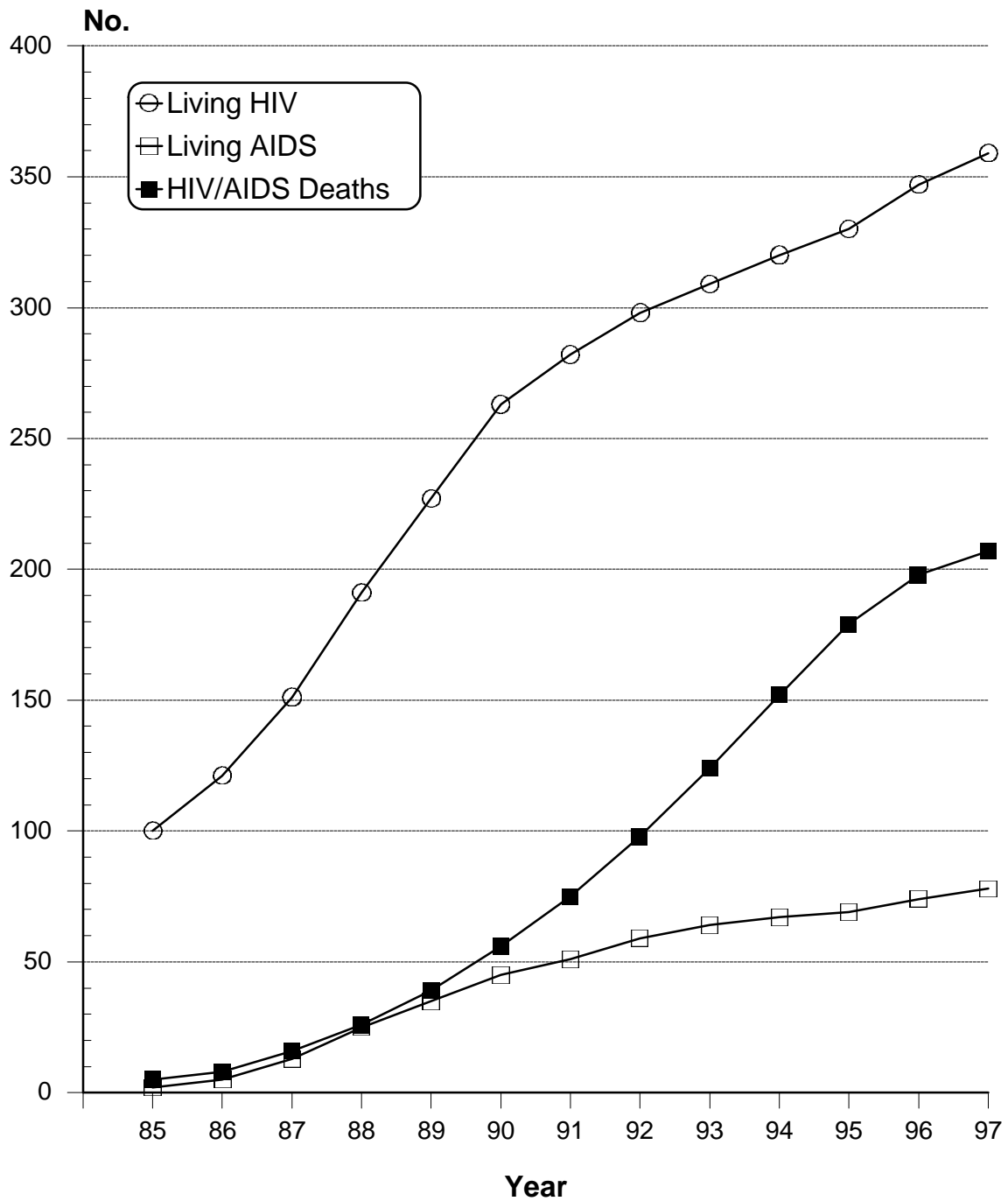
% refer to homosexual men

() refers to % of homosexual men diagnosed with gonorrhoea in that year

Table 2.16 Susceptibility of isolates of *Neisseria gonorrhoeae* to penicillin in South Australia, 1984 - 1997. Year by penicillin sensitivity and sex.

MALE					
Year	Penicillin Susceptibility ($\mu\text{g/mL}$)				Total No.
	Sensitive (≤ 0.03)	Less sensitive (0.06-0.5)	Resistant (≥ 1.0)	PPNG No.	
1984	121	208	6	16	351
1985	126	126	2	5	259
1986	112	213	7	25	357
1987	85	159	9	26	279
1988	18	101	4	13	136
1989	22	85	5	6	118
1990	15	71	7	12	105
1991	15	42	3	8	68
1992	37	55	-	7	99
1993	14	53	5	7	79
1994	12	63	1	5	81
1995	8	54	-	-	62
1996	3	49	9	1	62
1997	4	49	33	5	91
FEMALE					
Year	Penicillin Susceptibility ($\mu\text{g/mL}$)				Total No.
	Sensitive (≤ 0.03)	Less sensitive (0.06-0.5)	Resistant (≥ 1.0)	PPNG No.	
1984	114	83	1	6	204
1985	131	57	-	3	191
1986	122	151	3	19	295
1987	75	94	2	8	179
1988	24	49	3	2	78
1989	17	32	1	2	52
1990	3	23	3	2	31
1991	4	18	-	4	26
1992	3	17	-	2	22
1993	1	17	-	2	20
1994	2	20	1	1	24
1995	11	70	-	-	81
1996	1	12	1	-	14
1997	2	6	5	-	13

**Figure 3.1 Cumulative HIV/AIDS deaths and individuals living with HIV and AIDS at 31 December each year.
Three year moving average.**





Section 3 HIV Infection in South Australia, 1985 - 1997

There have been 683 individuals diagnosed with HIV infection, 630 (92%) in males and 53 (8%) in females (Fig 3.2, Table 3.1). Of the males diagnosed, 482 (77%) reported male to male sexual contact, 55 (9%) reported injecting drug use and 27 (4%) reported both risk factors (Table 3.2). Injecting drug use was reported by 22 (42%) of the women diagnosed with HIV infection and 24 (45%) reported heterosexual transmission (Table 3.2).

Age at diagnosis of HIV infection

The most common age at diagnosis of HIV infection in male homosexuals was in the 25 - 29 age group (24%) (Table 3.4). The next most common age was in the 30 - 34 age group (18%). For men who reported injecting drug use as their risk factor, 25 (45%) were aged between 30 - 34 years at diagnosis and 15 (27%) were aged between 25 - 29 years (Table 3.4). Of the women diagnosed 16 (30%) were aged between 30 - 34 at diagnosis of HIV infection (Table 3.5).

Current status of individuals diagnosed in South Australia with HIV infection, 1985 - 1997

Currently 87 (14%) people are living with AIDS and 210 (35%) individuals with HIV/AIDS have died (Table 3.6). Of the 683 individuals diagnosed with HIV infection in South Australia, 288 have been notified as AIDS cases (Table 3.7).

Fewer AIDS cases were notified in 1997 than in previous years, 24 cases were reported compared to 38 cases in 1996. In 1997, nine AIDS related deaths were reported compared to 29 in 1996 (Summary Statistics).

Figure 3.1 shows that the number of people living with HIV is increasing and the number of people living with AIDS is levelling out. This may reflect the use of combination anti-retroviral therapy and prophylaxis for AIDS defining conditions, hence individuals are living longer with HIV infection (Table 3.7).

During 1997, 74640 HIV antibody tests were performed, 34932 (47%) on males, 38891 (52%) on females and 817 tests on individuals whose sex was unknown. The male to female ratio of testing in 1997 was 0.90:1 compared with 0.77:1 in 1993 (Table 3.8).

HIV infection in South Australia, 1997

In 1997 HIV infection was diagnosed in 35 individuals of whom 29 (83%) were males (Table 3.9). Of the males diagnosed 26 (90%) reported male to male sexual contact as their risk factor.

HIV infection acquired in the past 12 months

Eight of the ten males who had acquired their infection in the preceding 12 months reported male to male sexual contact as their risk factor (Table 3.10). Of the 26 men who reported homosexual contact, 10 had not previously been tested while 8 had had a negative test more than 2 years previously (Table 3.10).

Contact tracing

Of the 29 males notified, 20 were interviewed and as a result, 23 partners were located and tested (19 males, 4 females) (Table 3.12). Anonymous male to male sexual contact was reported by 6 men, 3 men named partners who had previously been notified, 7 men reported sexual contact with men whose HIV status was unknown and 2 men reported sexual contact overseas. Of the nine not interviewed two men were aware of their partner's HIV infection. The notifying doctors opted to undertake contact tracing in seven instances while two men were medically unfit for contact tracing.

Absolute CD4 counts at diagnosis of HIV infection

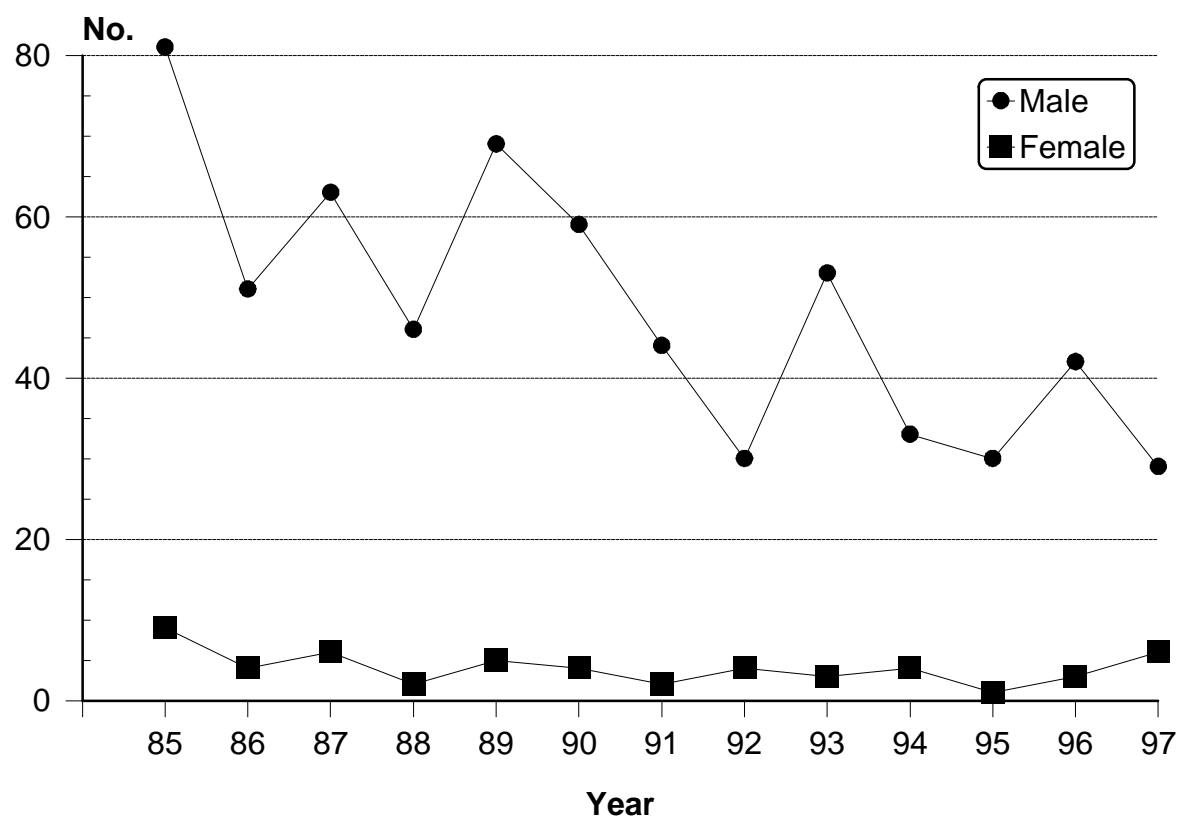
There were 14 individuals with absolute CD4 counts in the normal range ($>500/\mu\text{L}$) six of whom had acquired the infection within the last 12 months. Absolute CD4 counts below $500/\mu\text{L}$ indicate some degree of immune compromise. Twenty-one individuals notified were in this category (Table 3.13).

**Table 3.1 HIV infection detected in South Australia, 1985 - 1997.
Exposure category by sex.**

Exposure category	Male		Female		Total	
	No.	%	No.	%	No.	%
Homosexual	482	76	na		482	71
Homosexual/IDU	27	4	na		27	4
Heterosexual	26	4	24	45	50	7
IDU	55	9	22	41	77	11
Blood Products	7	1	2	4	9	1
Other	3	1	2	4	5	1
Unknown	30	5	3	6	33	5
Total	630		53		683	

% refers to proportion of known exposure category.

**Figure 3.2 HIV infection detected in South Australia, 1985 - 1997.
Sex by year of diagnosis.**



**Table 3.2 HIV infection detected in South Australia, 1985 - 1997.
Exposure category by sex and year of diagnosis.**

Exposure category	Male								Total	
	1985-90	1991	1992	1993	1994	1995	1996	1997	No.	%
Homosexual	270	33	24	42	26	26	34	26	482	77
Homo/IDU	21	2	-	1	1	1	1	-	27	4
Heterosexual	5	1	3	8	3	1	3	2	26	4
IDU	47	2	1	1	1	-	1	1	55	9
Blood Products	7	-	-	-	-	-	-	-	7	1
Other	2	-	-	-	-	-	1	-	3	
Unknown	17	6	2	1	1	2	2	-	30	5
Total	369	44	30	53	32	30	42	29	630	

Exposure category	Female								Total	
	1985-90	1991	1992	1993	1994	1995	1996	1997	No.	%
IDU	19	-	1	1	1	-	-	-	22	41
Blood products	2	-	-	-	-	-	-	-	2	4
Heterosexual	8	2	3	2	1	1	2	5	24	45
Other	1	-	-	-	1	-	-	-	2	4
Unknown	-	-	-	-	1	-	1	1	3	6
Total	30	2	4	3	4	1	3	6	53	

% refers to proportion of known exposure category.

Table 3.3 HIV infection in South Australia, 1987 - 1997. Likely location of acquisition of infection by year of diagnosis.

Location	Year							
	1985-90	1991	1992	1993	1994	1995	1996	1997
SA	92	8	18	36	21	22	32	23
Interstate	81	11	11	9	5	2	5	4
Overseas	36	2	4	11	10	4	8	7
Unknown	45	25	1	-	-	3	-	1
Total	254	46	34	56	36	31	45	35

**Table 3.4 HIV infection in South Australia, 1985 - 1997 (male).
Age at diagnosis by exposure category.**

Male Age	Homosexual		IDU		Other		Total	
	No.	%	No.	%	No.	%	No.	%
0 - 14	-		-		4	4	4	1
15 - 19	10	2	1	2	1	1	12	2
20 - 24	75	16	7	13	4	4	86	13
25 - 29	115	24	15	27	13	14	143	23
30 - 34	87	18	25	45	19	20	131	21
35 - 39	84	17	4	7	13	14	101	16
40 - 44	43	9	2	4	18	20	63	10
45 - 49	32	7	1	2	7	8	40	6
50+	35	7	-		14	15	49	8
Total	*482		55		93		*630	

* total includes 1 male whose date of birth is unknown

**Table 3.5 HIV infection in South Australia, 1985 - 1997 (female).
Age at diagnosis by exposure category.**

Female Age	IDU	Other	Total	
	No.	No.	No.	%
0 - 14	2	-	2	4
15 - 19	2	2	4	8
20 - 24	6	1	7	13
25 - 29	3	11	14	26
30 - 34	9	7	16	30
35 - 39	5	1	6	11
40 - 44	2	-	2	4
45 - 49	-	-	-	
>50	2	-	2	4
Total	31	22	53	

Table 3.6 Current HIV status by year diagnosed with HIV infection in South Australia, 1985 - 1997. HIV status by year of diagnosis.

	Year								Total	
	1985-90	1991	1992	1993	1994	1995	1996	1997	No	%
HIV	120	20	22	32	21	28	37	26	306	51
AIDS Living	43	7	3	10	9	2	5	8	87	14
HIV/AIDS Deaths	163	13	8	14	7	1	3	1	210	35
Unknown	73	6	1	-	-	-	-	-	80	
Total	399	46	34	56	37	31	45	35	683	

Figure 3.3 Current status of individuals diagnosed with HIV infection in South Australia, 1985 - 1997. HIV status by year of diagnosis.

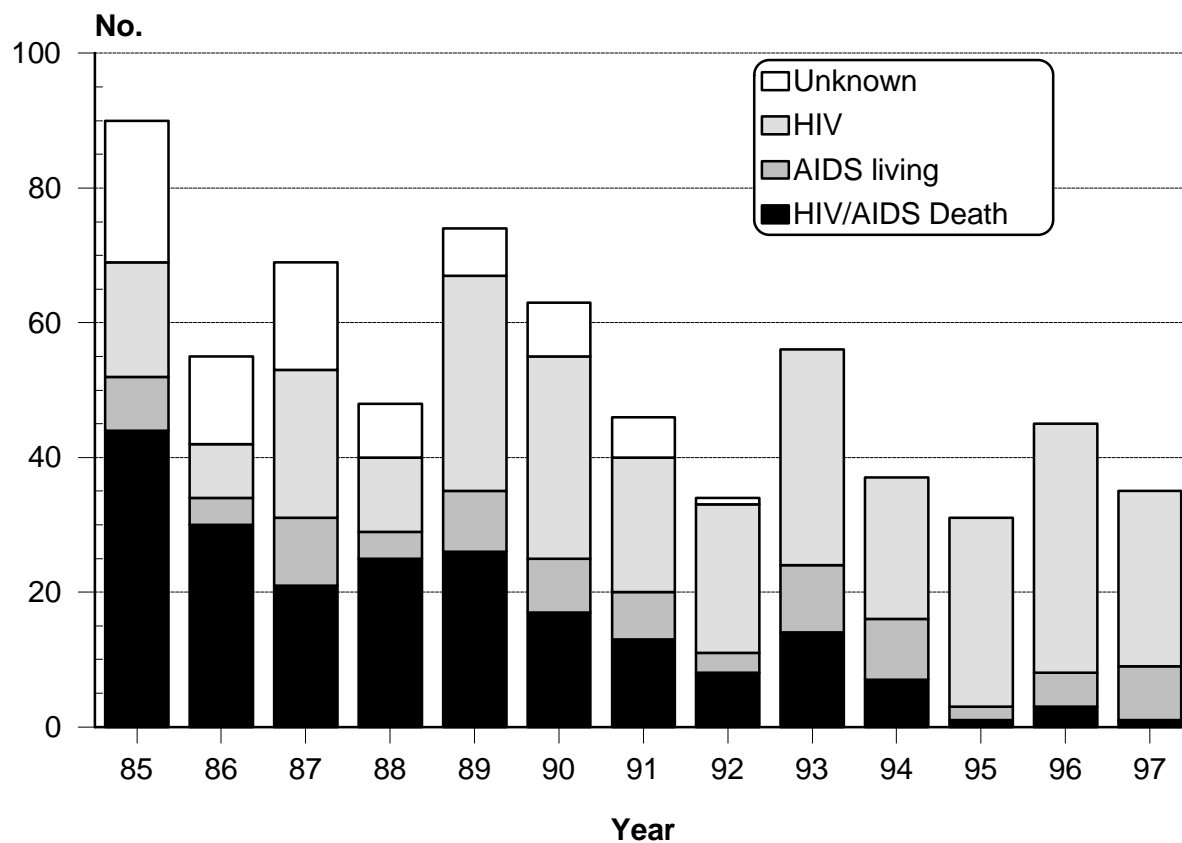


Table 3.7 Cumulative HIV and AIDS cases in South Australia, at December each year. HIV status by year.

	Year												
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Total HIV	90	145	214	262	336	399	445	479	535	572	603	648	683
Total AIDS	3	8	18	41	67	89	121	148	184	218	245	272	288
Deaths													
AIDS	2	4	7	17	28	44	62	85	110	141	169	190	197
HIV		4	7	8	10	11	12	12	12	12	13	13	13
Living AIDS	1	4	11	24	39	41	55	57	66	68	67	73	82
Living HIV	88	113	162	180	233	269	287	290	317	321	323	345	373
Unknown		21	34	50	58	64	72	76	76	76	76	76	76
Transferred													
AIDS		1	1	1	2	4	4	6	8	9	9	9	9
HIV		2	3	6	6	7	8	10	12	13	14	15	15

Table 3.8 Laboratory testing for HIV infection, 1993 - 1997. Laboratory and sex by year.

		Year				
		1993	1994	1995	1996	1997
Laboratories	Public	63573	63964	57457	56859	54259
	Private	13738	18026	19837	19239	20381
Sex	Male	32804	34551	33117	32628	34932
	Female	43294	46685	43281	40820	38891
	Unknown	1213	754	896	2650	817
	M:F Ratio	0.76:1	0.74:1	0.77:1	0.80:1	0.90:1
Total Tests		77311	81990	77294	76098	74640

**Table 3.9 HIV infection detected in South Australia, 1997.
Exposure category by sex.**

Exposure Category	Male	Female	Total
Homosexual	26	-	26
Heterosexual	2	5	7
IDU	1	-	1
Unknown/Other	-	1	1
Total	29	6	35

**Table 3.10 HIV infection detected in South Australia, 1997.
Exposure category by testing history.**

Exposure Category	Previous 12 mths	Over 24 mths	Never tested	Total
Homosexual	8	8	10	26
Heterosexual	*3	-	*4	7
Heterosexual/IDU	-	1	-	1
Other	*1	-	-	1
Total	12	9	14	35

* includes females

**Table 3.11 HIV infection detected in South Australia, 1997.
Age at diagnosis by testing history.**

Age	Previous 12 mths	Over 24 mths	Never tested	Total
0 - 19	1	-	-	1
20 - 29	6	2	3	11
30 - 39	3	3	4	10
40 - 49	2	3	4	9
Over 50	-	1	3	4
Total	12	9	14	35

Table 3.12 Contact tracing analysis for HIV infection, 1997.

Male				
Index cases	20			
Contacts	Male	Female	Total	%
Elicited	39	5	44	220
Tested	19	4	23	115
Testing index				52
Contacts				
Known	5	-		
New cases	-	1		

**Table 3.13 HIV infection detected in South Australia, 1997.
CD4 count at diagnosis by age distribution and duration of infection.**

CD4 Count/ μ L	AGE			
	< 30		\geq 30	
	Duration of infection \leq 12 mths	Unknown	Duration of infection \leq 12 mths	Unknown
\leq 50	-	-	-	6
51 - 200	-	-	-	4
201 - 500	5	1	1	4
>500	2	4	4	4
Total	7	5	5	18



Section 4 Hepatitis C Infection in South Australia, 1997

South Australian laboratories commenced testing for Hepatitis C antibodies in 1990 and medical notification of Hepatitis C infection began in 1995. Data from laboratories are limited to age and sex of individuals, whilst medical notification data covers demographic, clinical and epidemiological information (Appendix 6).

During the years 1993-7, hepatitis C antibodies were detected in 7541 individuals, 4941 males, 2596 females and 4 persons whose sex was not stated (Tables 4.7, 4.8). Incident cases (newly acquired infections) may be identified by recent seroconversion for hepatitis C antibodies or acute clinical illness not ascribed to other causes. In 1995, 1996 and 1997, 34, 31 and 51 incident cases were identified, respectively (Table 4.5).

Medical Notifications 1997

In 1997, 1380 medical notifications were received. Among these, 475 (34%) individuals had not been previously tested for Hepatitis C whilst 426 (31%) had a previous positive test. The testing history was unavailable in 371 (27%) cases and 108 (8%) individuals previously had a negative test. (Table 4.1).

Among 954 individuals with a first positive test for hepatitis C during 1997, a high proportion (67%) reported past or present injecting drug use as a likely mode of transmission for the virus. Possible exposure to hepatitis C virus by past receipt of blood or blood products was reported in 6% of cases, and in a further six percent, tattoos were cited as a probable transmission route. In 12% of cases the exposure category was unknown (Table 4.2).

The majority of individuals were aged between 20 and 39 years (69 % male, 63 % female) (Table 4.3).

Among the 108 individuals with a previous negative test, 51 were incident cases, acquiring hepatitis C in the preceding 12 months (Table 4.4). The 51 incident cases comprised 35 males and 16 females. At the time of diagnosis, 10 females and 13 males were aged less than 25 years, whilst six females and 22 males were more than 25 years of age (Table 4.5).

Recent or current injecting drug use was identified as a probable transmission route for hepatitis C in 84% of incident cases. The likely transmission route was recorded as unknown for five incident cases. In four, no exposure to hepatitis C virus was identified; one case was lost to follow-up. Home tattooing and body piercing were likely routes of infection in two cases (Table 4.4). Clinical symptoms of hepatitis were reported in six of the 51 incident cases.

Data collated from laboratories show 61005 tests for Hepatitis C antibodies were performed during 1997 (Table 4.6).

Joy Copland

Table 4.1 Medical notifications of hepatitis C infection, 1997. Testing history by sex.

Testing History	Male		Female		Total	
	No.	%	No.	%	No.	%
Never tested	299	32	176	39	475	34
Previous positive test	282	31	144	32	426	31
Not stated	269	29	102	22	371	27
Previous negative test	78	8	30	7	108	8
Total	928		452		1380	

Table 4.2 Hepatitis C infection detected in South Australia, 1997. Exposure category by sex.

Exposure Category	Male		Female		Total	
	No.	%	No.	%	No.	%
IDU*	447	69	194	63	641	67
Blood transfusion/blood products	34	5	23	8	57	6
Tattoos	47	7	12	4	59	6
Possible occupational exposure	1		5	1	6	
Other	41	6	40	13	81	9
Unknown	76	12	34	11	110	12
Total	646		308		954	

* Includes IDU in combination with other exposure categories.

Table 4.3 Hepatitis C infection detected in South Australia, 1997. Age group by sex.

Age group	Male		Female		Total	
	No.	%	No.	%	No.	%
under 10	-		3	1	3	
10 - 19	10	2	22	7	32	3
20 - 29	177	27	74	24	251	26
30 - 39	272	42	121	39	393	41
40 - 49	139	22	46	15	185	20
Over 50	48	7	42	14	90	10
Total	646		308		954	

**Table 4.4 Incident cases* of hepatitis C infection, 1997.
Exposure category by sex.**

Exposure Category	Male	Female	Total
IDU	30	13	43
Other**	2	1	3
Unknown	3	2	5
Total	35	16	51

* Incident cases are newly acquired infections defined by negative serology or diagnosed acute illness in the last 12 months.

** Other includes tattoos, body piercing and household transmission.

**Table 4.5 Incident cases of hepatitis C infection, 1995 - 1997.
Age group at diagnosis by year and sex.**

Age Group	1995		1996		1997	
	Male	Female	Male	Female	Male	Female
<25 years	14	7	5	6	13	10
>25 years	6	7	15	5	22	6
Total	20	14	20	11	35	16

**Table 4.6 Laboratory testing for Hepatitis C infection, 1995 - 1997.
Laboratory and sex by year.**

		Year		
		1995	1996	1997
Laboratories	Public	31231	34293	36033
	Private	18703	23747	24972
Sex	Male	23113	27374	29624
	Female	26231	28137	30834
	Unknown	590	2529	547
	M:F Ratio	0.88:1	0.97:1	0.96:1
Total Tests		49934	58040	61005

Table 4.7 Hepatitis C infection detected in South Australia, 1993 - 1997. Sex by year.

Sex	Year											
	1993		1994		1995		1996		1997		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Male	1236	65	1428	63	820	69	811	68	646	67	4941	66
Female	672	35	853	37	378	31	385	32	308	33	2596	34
Total	1912		*2285		1198		1196		954		7541	

* Total includes 4 individuals whose sex was not stated.

Table 4.8 Hepatitis C infection detected between 1994 - 1996. Age group by year and sex.

Age Group	1994			1995			1996		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
under 10	11	9	20	1	0	1	-	5	5
10 - 19	23	16	39	12	10	22	21	12	33
20 - 29	380	258	638	244	116	360	222	110	332
30 - 39	705	399	1104	401	172	573	357	164	521
40 - 49	179	103	282	94	31	125	147	54	201
Over 50	97	59	156	68	49	117	64	40	104
Unknown	33	9	42	-	-	-	-	-	-
Total	1428	853	*2285	820	378	1198	811	385	1196

* Total includes 4 individuals whose sex was not stated.



Section 5 Hepatitis B Infection in South Australia

Medical practitioners are required to notify all cases of hepatitis B infection (both acute clinical cases and chronic carriers) to the STD Control Branch.

The number of acute cases of hepatitis B infection reported in South Australia since 1987 continues to show a gradual decline (Table 5.1). More males than females acquire the infection (Table 5.1).

In 1997 there were 367 laboratory reports of individuals who tested surface antigen positive and who had not been previously notified, of these 360 (98%) were notified by medical practitioners.

Of the 360 medical notifications received, 18 (5%) were acute clinical cases, 245 (68%) were reports of antigen positivity of uncertain duration and 95 (26%) were reports of chronic carriers of greater than 12 months duration who had been previously diagnosed but not notified (Table 5.2). There were 2 (1%) reports of antigen positivity of less than 12 months duration (defined by a negative hepatitis B surface antigen test in the 12 months prior to diagnosis) (Table 5.2).

Exposure categories identified for the 18 acute clinical cases were injecting drug use (5/18), heterosexual contact (5/18), social/family contact (1/18) and unknown risk factors (7/18) (Table 5.3). The majority of acute clinical infections were in the 20-29 (7/18) and the 30-39 (7/18) age groups (Table 5.4).

Of the 245 reports of antigen positivity of uncertain duration, 127 (52%) tested positive for the first time in 1997. The testing history was unknown for the remaining 118 (48%) cases. Of the 127 individuals who tested surface antigen positive for the first time, the racial origin of 69 (54%) was reported as being Asian (Table 5.5).

Laboratory testing demonstrates widespread screening for hepatitis B surface antigen with 75090 tests performed during 1997 (Table 5.6). 44764 tests were performed on females, 29283 tests on males and 1043 on individuals whose sex was unknown (Table 5.6).

Table 5.1 Acute hepatitis B infection, 1987 - 1997. Year by sex.

Year	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Male	58	27	35	26	18	16	18	26	15	12	11
Female	18	16	15	9	10	6	17	12	11	8	7
Total	76	43	50	35	28	22	35	38	26	20	18

1987 - 1995 data supplied by the Communicable Diseases Control Branch.

Table 5.2 Hepatitis B infection, 1997. Case category by sex.

Case Category	Male		Female		Total	
	No.	%	No.	%	No.	%
Acute infection	11	5	7	5	18	5
Antigen positive - < 12 months duration	1		1	1	2	1
Antigen positive - Uncertain duration	163	71	82	63	245	68
Chronic carriers - > 12 months duration	54	24	41	31	95	26
Total	229		131		360	

Table 5.3 Acute hepatitis B infection, 1997. Exposure category by sex.

Exposure Category	Male	Female	Total
IDU	3	2	5
Heterosexual contact	2	3	5
Social/Family	-	1	1
Unknown	6	1	7
Total	11	7	18

Table 5.4 Acute hepatitis B infection, 1997. Age group by sex.

Age (yrs)	Male	Female	Total
10-19	-	1	1
20-29	4	3	7
30-39	6	1	7
>50	1	2	3
Total	11	7	18

Table 5.5 Individuals who tested hepatitis B surface antigen positive for the first time in 1997. Race by sex.

Racial Origin	Male		Female		Total	
	No.	%	No.	%	No.	%
Aboriginal	8	10	1	2	9	7
Asian	45	55	24	53	69	54
Caucasian	23	28	18	40	41	32
Other/unknown	6	7	2	4	8	7
Total	82		45		127	

Table 5.6 Laboratory testing for hepatitis B infection 1996 - 1997. Laboratory and sex by year.

		Year	
		1996	1997
Laboratories	Public	44244	44542
	Private	30520	30548
Sex	Male	23389	29283
	Female	35810	44764
	Unknown	15565	1043
	M:F Ratio	0.65:1	0.65:1
Total Tests		74764	75090

Summary characteristics of clients attending Clinic 275 for the first time in 1997.

Characteristics	Male		Female	
	n=1862	(58%)	n=1350	(42%)
Marital Status				
Single	1342	72%	1052	78%
Married/Defacto	321	17%	159	12%
Widow/Separated/Divorced	199	11%	139	10%
Age				
< 19	187	10%	407	30%
20-24	185	30%	446	33%
25-29	389	21%	196	15%
30-34	251	13%	107	8%
35-39	144	8%	77	6%
40+	337	18%	117	8%
Race				
Aboriginal	25	1%	18	1%
Asian	41	2%	57	4%
Caucasian	1774	95%	1253	93%
Other	22	1%	22	2%
No previous HIV Test	1034	56%	795	59%
Previous History of STD	389	21%	216	16%
Reason for visit				
Asymptomatic	812	44%	719	53%
Symptomatic	798	43%	503	37%
Contact of Notifiable STD	134	7%	62	5%
Doctor Referral	79	4%	49	4%
Other Referral	39	2%	17	1%
Partners in last 3 months				
0	201	11%	119	9%
1	987	53%	864	64%
2	401	22%	249	18%
3	131	7%	71	5%
4	48	3%	12	1%
5 or more	94	5%	35	3%
Sex in last 3 months				
None	201	11%	119	9%
SA only	1357	73%	1083	80%
Interstate	185	10%	110	8%
Overseas	105	6%	34	3%
Interstate and Overseas	14	1%	4	
Injecting drug use	202	11%	110	8%
Male to male sex - yes	262	14%	na	na



Section 6 Clinic 275

Overview

During 1997 there were 7398 episodes of care for 5707 clients resulting in 14631 clinic attendances. New client registrations accounted for 53% (3883/7398) of all episodes and 68% (3883/5707) of all patients seen.

Among new registrations the male to female ratio was 1.38:1 (1863/1350). The number of women aged 15-19 years registering at the clinic exceeds that for men of the same age group (male to female, 1:2.33). The average age of men registering with the clinic is 30.31 years and 25.54 years for women.

Characteristics of men who attended Clinic 275

Of the men attending Clinic 275 for the first time in 1997, 72% were single, 95% identified as caucasian, 73% reported sexual activity within the last 3 months only in South Australia and 21% had a previous history of an STD. A high proportion of men reported no previous HIV test. Approximately the same proportion of men attending was symptomatic (44%) or asymptomatic (43%) and 7% attended because they were a contact of a person with a notifiable STD. In the three months prior to attending Clinic 275, 53% of men reported one sexual partner whilst 36% reported 2 or more partners. Injecting drug use (past or current) was reported in 11% of the men, and 14% reported male to male sexual activities.

Characteristics of women who attended Clinic 275

Of the females who attended Clinic 275 for the first time in 1997, 78% were single, 93% identified as caucasian, 80% reported sexual activity within the last 3 months only in South Australia and 16% had a previous history of an STD. Fifty three percent of women attending the clinic were asymptomatic, whilst 37% were symptomatic and 5% attended because they were a contact of a person with a notifiable STD. In the three months prior to attending Clinic 275, 64% of women reported one sexual partner whilst 27% reported 2 or more partners over the same time period. Injecting drug use (past or current) was reported in 8% of the women and 59% had not previously been tested for HIV infection.

Sentinel surveillance activities

The clinic participates in sentinel surveillance activities for STD and HIV conducted by the National Centre for HIV Epidemiology and Clinical Research. Data are provided in the form of tabulations for age-group /exposure-category /results of HIV testing and specific STD. The clinic's computerized casenotes system and data collection process ensure high quality surveillance systems.

Of the individuals attending Clinic 275 in 1997, 63% of males and 55% of females previously had a negative HIV test (Tables 6.1, 6.2).

Russell Waddell and Tess Davey

Table 6.1 Males attending Clinic 275, 1997. Exposure category and HIV testing history.

Male								
	Attendances at clinic 275		Previously tested for HIV		Previously tested negative within 12 mths		Positive HIV tests, 1997	
Exposure Category	No.	%	No.	%	No.	%	No.	%
Homosexual/bisexual contact	557	16	430	19	245	26	6	75
Homosexual/bisexual contact & IDU	70	2	60	2	31	3	2	25
Heterosexual IDU	379	11	279	13	125	13	-	
Sexual contact outside Aust in the last 3 mths	159	4	98	5	40	5	-	
Other heterosexual	2227	64	1284	59	494	52	-	
No sexual intercourse in 12 mths or other	94	3	42	2	13	1	-	
Total	3486		2193		948		8	

Table 6.1 Females attending Clinic 275, 1997. Exposure category and HIV testing history.

Female								
	Attendances at clinic 275		Previously tested for HIV		Previously tested negative within 12 mths		Positive HIV tests, 1997	
Exposure Category	No.	%	No.	%	No.	%	No.	%
Heterosexual IDU	198	8	159	12	80	12	-	
Sexual contact outside Aust in the last 3 mths	59	3	44	3	21	3	-	
Other heterosexual	1835	79	928	72	471	72	1	100
Sex worker	41	2	38	3	24	4	-	
Sex worker IDU	18	1	18	2	10	1	-	
No sexual intercourse in 12 mths or other	170	7	96	8	48	8	-	
Total	2321		1283		654		1	



Section 7 Education

Medical education

One day seminars are conducted at the STD Control Branch for groups of fifth year students from Flinders University and sixth year students from Adelaide University.

The seminars cover the following topics:

- role and function of the STD Control Branch
- assessing patients for STDs (predominantly sexual history taking)
- notification and contact tracing
- HIV management issues
- videos, discussion of social issues, recognition of, and testing for HIV in clinical practice
- STD slide presentation.

Students are also offered an opportunity to return to the clinic and observe consultations performed by senior Medical Officers. Additionally, students from either university can undertake an elective placement at Clinic 275 in sixth year. During 1997, two students completed elective placements at the clinic.

At the beginning and end of each seminar, students complete a brief questionnaire to assess comprehension of material presented on sexual history taking, STD screening and public health issues related to sexually transmitted diseases.

Student education programs

During 1997, the STD Control Branch continued its student education program in which 1022 students from 27 education facilities visited the clinic. The secondary student program included an overview of a clinic visit followed by discussion covering common sexually transmitted diseases, prevention measures and clinic services. One secondary school visited Clinic 275 for the first time in 1997, whilst 16 schools sent classes in 1996 as well. Tertiary students included nursing, health science and pharmacy undergraduates as well as TAFE students. Other groups included pharmacists, trainee youth workers and health care workers (Table 7.1).

Computerized education package for students

The Nexus Information Service is a facility available on computers in school libraries, and accessible Australia-wide. STD information is compiled by the Branch. During 1997, 58 users logged in to the STD information, the average length of each call was 4 minutes (Table 7.2).

In-service training

Staff development courses organized internally in 1997 included:

- CPR training
- Fire evacuation training
- Medical writing seminars
- Epidemiology seminars
- Basic venereology seminars
- Introduction to EndNote
- FrontPage 97
- Training for managers and supervisors - Workers Rehabilitation and Compensation Act, 1986.

External conferences and seminars attended by staff included:

- ASHM conference - Adelaide
- Infection control seminar - Adelaide
- Herpes conference - France
- Herpes latency (Microbiology Dept Seminar) - Adelaide
- Hepatitis C conference - Sydney
- New perspectives in virology - Canberra
- Australian Society for Microbiology conference - Adelaide
- Adobe systems seminar - Adelaide.

STD Control Branch web site

The STD Control Branch web site exists on space donated by the Ngapartji Multimedia centre. It was significantly expanded and upgraded in 1997 to incorporate several new areas of content, a search engine and new logos and colour schemes.

The content of the web site includes:

- Text from a series of 20 patient education pamphlets
- Information for secondary and tertiary students as also featured on the Nexus Information Service
- Details of the role, function and staff of the STD Control Branch
- A client visit guide
- The "*Should I see a doctor?*" section, which helps users decide whether symptoms being experienced may be attributable to STD
- Information for target groups of Clinic 275, including gay and bisexual men, injecting drug users, hepatitis C antibody positive people and teenagers
- Details of the educational program for medical students, including copies of handouts
- Epidemiologic report of the STD Control Branch
- Information contained in the Quarterly Surveillance Reports
- Diagnosis and Management Guidelines for health care workers.

The web site has opened a new avenue of correspondence for individuals seeking information about STDs and their management. Since June 1997 the STD Control Branch has received a total of 121 email enquiries. Of these, 7 were from students, 12 from health care workers and 98 were enquiries from members of the general public.

The address for the website is: <http://www.stdservices.on.net>.

Enquires about the web site should be directed to the STD Services web site administrator: e-mail: stdservices@health.sa.gov.au.

Table 7.1 Student visits to Clinic 275, 1997.

Education Facility	Classes	Students
State secondary schools	26	467
Private secondary schools	9	243
TAFE	4	44
Universities	5	94
Other	12	174
Total	56	1022

Table 7.2 Users of computerized STD package (Nexus Information Service).

State	No. of Users
South Australia	43
New South Wales	14
Overseas	1
Total	58



Section 8 Clinical Trials and Research Projects

Clinical Trials

Participation in Phase III and IV clinical trials by Clinic 275 enables our client population to have access to the latest advances in prevention and treatment. This offers clinic doctors an opportunity to become familiar with the latest advances in therapy so as to better advise general practitioners.

Genital Herpes

Controlling the spread of herpes is difficult due to the high proportion of asymptomatic infections, sub-clinical shedding of infectious viral particles and lack of a curative treatment. Clinic 275 has been involved in the conduct of three clinical trials on a candidate vaccine for the prevention of genital herpes. Recruitment for two clinical trials (HSV016, HSV017) closed in 1997. Two of the three clinical trials (HSV007, HSV017) were amended to increase the sample size and extend the follow-up period for individuals in the study. The rationale for the extensions was:

- to increase the power of the study.
- to enable additional efficacy, long term safety and immunogenicity information on the vaccine to be collected and evaluated.

During 1997, recruitment was completed for a study to investigate the effect of two different treatment regimes (Famciclovir or Valaciclovir) in reducing the frequency of recurrences following first episode genital herpes infection. The follow-up phase on these subjects is expected to be complete by the end of 1998.

In association with Glaxo Wellcome, a study was undertaken by Clinic 275 to assess the human and economic impact of recurrent genital herpes infection. Subjects completed a questionnaire package which included the SF-36, the Recurrent Genital Herpes Quality of Life questionnaire (RGHQoL), as well as a productivity and health care resource use questionnaires.

Herpes Clinical Trials conducted at Clinic 275

Valaciclovir vs acyclovir in the treatment of first episode genital herpes. 1993 - 1994.

Herpes Vaccine Prophylactic Study, HSV007. 1995 - 1997.

Herpes Vaccine Prophylactic Extension Study, HSV007. 1997 continuing.

Herpes Vaccine Safety & Efficacy Study, HSV017. 1996 continuing.

Herpes Vaccine Safety & Efficacy Extension Study, HSV017. 1997 continuing.

Herpes Vaccine Safety Study, HSV016. 1996 continuing.

Famciclovir vs Valaciclovir in reducing lesional recurrences of HSV 2 following treatment of first episode genital herpes, Famvir 42810/191. 1996 continuing.



An assessment of the Human & Economic Impact of Recurrent Genital Herpes infection, RESA1073. 1997.

Research Projects during 1997

Hepatitis A

Outbreaks of Hepatitis A have been previously reported in the South Australian gay community. Free Hepatitis A vaccination in association with screening for STD was offered between 1 January and 31 March 97. The cost of the Hepatitis A vaccine was funded with monies generated by the clinical trials program.

Hepatitis G

Hepatitis following blood transfusion still occurs in a small number of cases. Investigation into the cause has led to the identification of Hepatitis G virus. Only a quarter of patients infected with Hepatitis G virus after blood transfusion show evidence of liver inflammation. Initial studies found 1-2% of the blood donor population to be infected with this virus, but none of these patients has evidence of liver disease. Together with IMVS, a study was conducted to investigate the relationship between Hepatitis G virus and exposure to blood products, injecting drug use and sexually transmitted disease.

