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Communicable Diseases Intelligence

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Contents:

VIRUSES, CHLAMYDIAS, COXIELLAS, RICKETTSIAS AND MYCOPLASMAS REPORTING SCHEME: A total of 1 127 reports were processed for this period.

Nine cases of Q Fever were reported, 1 from Western Australia, 1 from South Australia and 7 from New South Wales. Occupational exposure data were only available for:

. the Western Australian case, a 19 year old male shearer with pyrexia of unknown origin, and
. one of the New South Wales cases, a 39 year old male abattoir worker with prolonged fever.

None of the nine patients was involved in the Q fever vaccine field trial conducted in South Australia.

Cytomegalovirus (CMV) was isolated from:

. the post-mortem tissues from the thoracic wall of an aborted 11 week old foetus whose mother had a primary CMV infection at 7 weeks gestation,
. urine of 4 male HIV - antibody positive patients who had completed 40 weeks of AZT therapy. They were aged 50, 45, 25 and 25 respectively, and
. urine of a 32 year old female with Hodgkin's lymphoma.

Specific IgM antibody to Epstein-Barr virus (EBV) was detected in the serum of a 22 year old asymptomatic female with a history of intravenous drug abuse.

Adenovirus type 2 was isolated from the faeces of a 6 month old male whose failure to thrive was attributed to a poor feeding habit.

The Bulletin is compiled and distributed by the Public Health Section, Communicable Diseases Branch, Department of Community Services and Health.

Herpes simplex virus (HSV):

- untypable was isolated from lesions on the lips of a 15 year old immunosuppressed female,
- untyped was isolated from the bronchial washings of a 32 year old male with Hodgkin's disease, and
- type 2 was isolated from the lesions on the vaginal labia of a 32 year old female who had retained placenta following vaginal delivery in which lesions were covered. No information was available on her neonate regarding herpetic infection.

HUMAN IMMUNODEFICIENCY VIRUS INFECTION IN THE UNITED STATES

(based on MMWR Vol. 36/No 49, 18 December 1987)

N.B. The following report summarises the review of current knowledge on human immunodeficiency virus (HIV) infection in the United States that was presented to the Domestic Policy Council:

- *the review was conducted during the period September-November 1987, by the Centers for Disease Control (CDC, Atlanta) in conjunction with the National Institute on Drug Abuse of the Alcohol, Drug Abuse, and Mental Health Administration and the National Institutes of Health.*
- *although the various studies reviewed differ in design and cannot be precisely compared, the review yielded a description of the approximate patterns and trends of HIV infection in the United States.*

BACKGROUND

Since 1981, over 46,000 cases of acquired immunodeficiency syndrome (AIDS) resulting form HIV infection, have been reported to CDC, Atlanta:

- the mean interval between infection with HIV and the onset of AIDS exceeds 7 years,
- thus, information on prevalence (the number of currently infected individuals) and incidence (the rate at which new HIV infections occur over time) is vital to monitoring the progression of the HIV epidemic.

Transmission of HIV infection can be slowed or halted by reducing or eliminating the behaviours that place individuals at risk for acquiring the infection:

- better and more extensive information is essential for:
  - targeting and evaluating control and prevention efforts at local and state levels,
  - for predicting future health-care needs, and
  - for understanding the progress of the HIV/AIDS epidemic.
- surveillance of the prevalence and incidence of HIV

infection through continually:

. monitoring sentinel populations,
. expanding focused seroprevalence studies, and
. developing models to help interpret the data

remains a critical element of the nation's response to this major public health crisis.

HIV INFECTION IN THE UNITED STATES

Infection Among Groups at Recognised Risks

The observed prevalence of infection remains highest in those groups that account for the vast majority of AIDS cases:

- In 50 studies throughout the US, seroprevalence among homosexual and bisexual men has ranged from under 10% to as high as 70%, however, most findings have been between 20% and 50%.

  In 88 studies of intravenous (IV) drug abusers, HIV antibody prevalence has ranged from 50% to 65% in New York City vicinity and Puerto Rico to rates that, although varied, have been mostly below 5% in areas other than the East Coast.

- HIV antibody prevalence among persons with coagulation disorders requiring clotting factor concentrates (haemophiliacs) has varied according to the type and severity of the disorder. The overall prevalence among haemophilia A patients has been approximately 70%; for haemophilia B patients, it has been 35%. These rates appear uniform throughout the country and reflect the national distribution of clotting factor concentrates.

- The prevalence of HIV infection among regular heterosexual partners of infected persons has ranged from under 10% to 60%. Among partners of those who are at risk but whose HIV status is unknown, the prevalence has generally been under 10%.

Infection Among Groups within the General Population

In related groups within the general population:

. blood donors,
. civilian applicants for military service,
. Job Corps entrants,
. sentinel hospital patients, and
. women seen in family planning and other women's health clinics.

The prevalence of HIV infection has generally been a fraction of 1%. However, seroprevalence rates have varied considerably and have been found to be much higher among selected inner city populations.

Persons at increased risk for HIV infection are asked not to donate blood; therefore, the prevalence and incidence rates of donor groups under-represent the actual rates in the population:

- the overall prevalence of HIV antibody among Red Cross blood donors who have not been previously tested has averaged 0.04%;
- applicants for military service, who under-represent persons in the principal risk groups for HIV infection, have had a crude HIV antibody prevalence of 0.15%, which, when adjusted to the age, sex, and racial composition of the 17- to 59- year age group of the US population, is 0.14%;
- Job Corps entrants (disadvantaged youths 16 to 21 years of age) have had a prevalence of 0.33%; and
- patients without AIDS like conditions who have been tested anonymously at four sentinel hospitals have had a prevalence of 0.32%; the sex- and age-adjusted prevalence for military applicants from the same cities has been 0.11%.

Childbearing women in Massachusetts who were tested anonymously through filter-paper blood specimens from their newborn infants had an HIV antibody prevalence of 0.21%. Female applicants for military service from the same State have had a prevalence rate of 0.13%. The findings from surveys in women's health clinics have ranged from 0 to as high 2.60% positive (these surveys exclude pregnant drug users, whose prevalence reached nearly 30.0%). The higher prevalences have occurred in areas where the incidence of AIDS is high among women.

HIV Antibody Prevalence by Geographic Location, Age, Sex, and Race or ethnicity

The geographic distribution of HIV antibody prevalence among blood donors and applicants for military service and, to a limited extent, among homosexual men and IV drug abusers has been similar to the geographic distribution of AIDS cases (ie, highest on the East Coast and West Coast and lowest in the Northern Midwest and Mountain States). In addition, HIV antibody prevalence, like AIDS case incidence, has been greater in urban than in rural areas. Like AIDS cases, HIV infection among groups within the general population and among high-risk groups has been concentrated among young to early middle-aged adults and has consistently been more common among men and among blacks and Hispanics.

Heterosexuals

Information on the extent of HIV infection among persons who are exclusively heterosexual, do not use IV drugs, and have no known sexual exposure to persons at increased risk for HIV infection comes from two principal sources:

1. evaluation of the risk factors of seropositive blood donors and applicants for military service, and
2. HIV surveys among heterosexuals attending sexually transmitted disease (STD) clinics.

Limited studies of the exposure risks of seropositive blood donors, military applicants, and active duty military personnel suggest that approximately 85% of such individuals have identifiable risks for HIV infection. If the risk factor data from these limited studies prove to be consistent in more extensive national studies, then HIV antibody prevalence levels in persons without acknowledged or recognised risks would be below 0.02% for military applicants and below 0.01% for blood donors. However, more extensive studies on risk factors are urgently needed, particularly in inner city areas where AIDS case surveillance data suggest that heterosexual HIV transmission occurs.

In limited studies in which the subgroup of heterosexuals at highest risk (those being treated for STD) have been rigorously interviewed and those who are seropositive have been reinterviewed, the prevalence of HIV infection has generally ranged from 0 to 1.20% for persons without specific, identified risk factors. By contrast, the prevalence of infection among homosexual men at the same clinics has ranged from 12% to over 50%.

HIV Infection Trends Over Time and the Incidence of New Infection

Much less information exists on the trends and incidence of HIV infection than on its prevalence, and such data are much more difficult to develop. In the two general population groups tested over time (applicants for military service and first-time blood donors) HIV antibody prevalence rates have remained stable for 2 years, although the prevalence among donors has fluctuated seasonally. Increased self-exclusion of persons who know that they either are at risk or are already infected may have contributed to this observed prevalence pattern. The apparent stability may reflect the competing effects of self-exclusion by infected persons and the continued occurrence or new HIV infections.

There is evidence that new infections continue to occur among blood donors, military personnel, and groups at increased risk. However, in some groups, the rate of new infection may have declined somewhat from the rates that prevailed in the early 1980s. This interpretation is supported by the following observations:

1. declines in incidence of new infections have been observed in eight cohorts of homosexual men (the current principal risk groups);
2. the net seroprevalence among military applicants and blood donors no longer appears to be rising; and
3. serologic screening of blood products and heat treatment of clotting factor concentrates have significantly reduced new infection in transfusion recipients and haemophiliacs.

However, insufficient trends and incidence data are available to evaluate recent patterns in IV drug abusers or heterosexually-active persons or in local geographic areas such as the inner cities.

The HIV/AIDS epidemic is a composite of many individual, though overlapping, smaller epidemics, each with its own dynamics and time course. The incidence of new infection in certain subgroups may have declined somewhat; however, in the absence of specific information, incidence rates cannot be assumed to have declined in all subgroups or in all geographic areas. It is important that trends be monitored among the various groups at increased risk, with particular emphasis on the groups and settings in which the pattern of transmission may be changing (ie, IV drug abusers and heterosexually active persons and in localised areas such as inner cities). Data are insufficient to determine precisely the overall trends and incidence of HIV infection.

In 1986, public health and medical specialists from within and outside the government were convened by the Public Health Service to develop a working estimate of the number of Americans with HIV infection. They estimated that between 1 and 1.5 million persons were infected. This conclusion was based on the estimated average seroprevalence values for those populations. Since then, this computation has been re-examined in light of recently available data; other data, on AIDS cases and disease progression, have been used to explore mathematical models. The resulting estimates vary widely, but they are consistent with the 1986 figures. The estimation of the total number of infected persons will remain complex and inexact. There is no substitute for carefully obtained incidence and prevalence data. Additional surveys and studies are needed to determine the current extent of spread of HIV through the population.

CHLAMYDIAL INFECTION - LABORATORY REPORTS 1986 - CANADA

(based on CDWR Vol. 13-31, 8 August 1987)

During 1986, the Laboratory Centre for Disease Control received 9735 reports of chlamydial infection (submitted up until June 1987) from the 27 laboratories across Canada participating in the World Health Organization (WHO) virus reporting system. This represents a 23% increase over 1985 and a 5-fold increase over 1980.

Geographical Distribution:

The largest proporton (48.8%) of the reports came from Ontario, followed by:

. Manitoba (23.6%),
. Saskatchewan (10.5%),
. Nova Scotia (6.2%),
. Quebec (3.9%),
. New Brunswick (3.6%), and
. British Columbia (1.8%)

The remaining 1.6% were submitted from Newfoundland, Alberta, and Prince Edward Island.

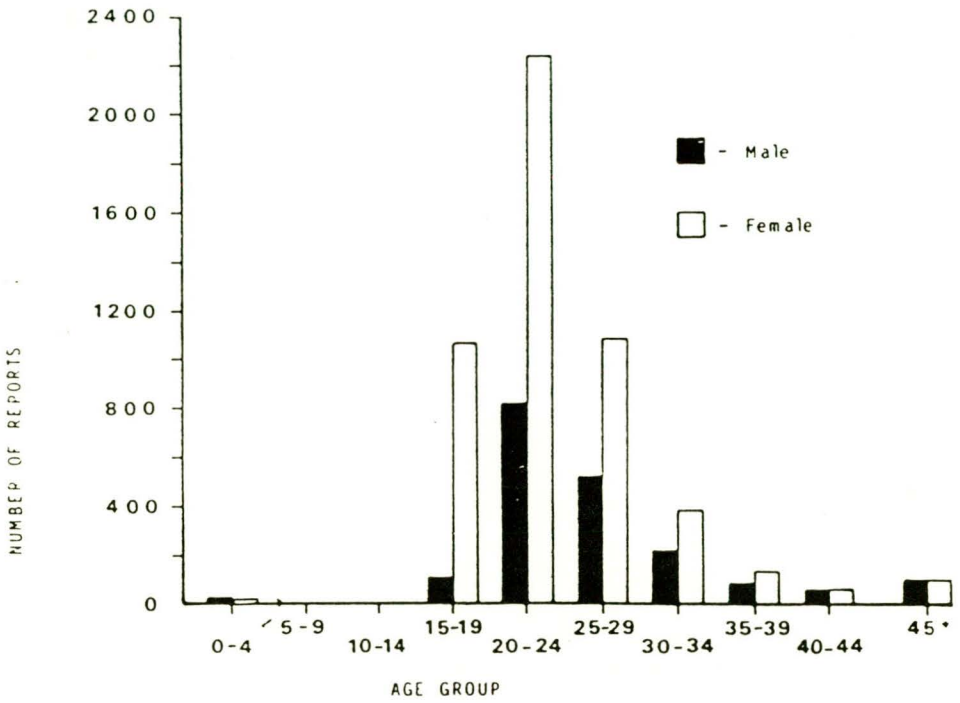
Age and Sex:

. Compared to 1985, reports involving children under 6 months of age declined by 34%.

. The largest increase occurred in those 15-19 years of age.
. The greatest proportion of reports involved:

- persons 20-24 years of age (43.8%), followed by
- those 25-29 (23.0%), and
- 15-19 (17.0%) (Figure 1).

FIGURE 1. Laboratory reports of Chlamydia Infections by Age and Sex, Canada, 1986.



The overall female:male ratio was 2.4:1, but this varied by age group:

. for those under 10, the ratio was 1:1,
. increasing to 10:1 for the 15-19 year age group and
. declining to 1:1 for those over 40.

Females 15-24 years of age accounted for 44% of all reports in 1986.

The source was specified in 7563 (77%) of the reports (Table 1)

. 98.8% involved the genital tract;
. 0.7% involved the eye;
. 0.4% involved the nasopharynx; and
. 0.1% involved the rectum/faeces.

Infant Infections:

. Children up to 4 years of age accounted for 0.7% of all reports, and
. 88% of infant infections occurred in those less than 6 months old.
. There were 21 reports of chlamydial eye infection in 1986, a decline from the 39 received in 1985.
. The majority (22/31) of all reports of nasopharyngeal infection involved children 0-5 months of age. This represents a sharp decline from the 46 reports involving this age group in 1985.

TABLE 1. Laboratory Reports of Chlamydial Infections by Age Group and Source of Specimen, Canada, 1986.

SOURCE OF SPECIMEN	Age Group									
	TOTAL	0-5 mths	6-11 mths	1-4 yrs	5-4 yrs	15-24 yrs	25-39 yrs	40-59 yrs	60+ yrs	Un-known
Genital Tract	7472	4	1	2	100	4612	1740	134	11	868
Eye	53	21	1	1	-	11	8	2	-	9
Nasopharynx	31	22	1	-	2	2	2	-	-	2
Rectum/faeces	7	-	-	-	-	3	-	-	1	3
Not specified	2172	14	1	1	16	938	339	47	8	808
TOTAL	9735	61	4	4	118	5566	2089	183	20	1690

CDWR Comment:

- The decline in the number of reports involving eye infections in children under 6 months of age may be related to the widespread prophylactic use of erythromycin or tetracycline eye drops at birth.
- There was also a 50% decline in the number of reports involving respiratory infection in children under 6 months of age.
- Increased screening programs, especially among pregnant women, may have resulted in fewer neonatal infections.

Of concern is the number of infections detected in young women because Chlamydia trachomatis has been implicated in 50% of pelvic inflammatory disease (PID) involving women under 25 years of age[1]. Chlamydial PID is frequently asymptomatic. Undetected and untreated infection may lead to tubal scarring resulting in ectopic pregnancy or infertility.

These data represent only those infections detected by WHO collaborating laboratories. To obtain more information on the incidence of chlamydial infection in Canada, the Bureau of Communicable Diseases Epidemiology established a surveillance system for Chlamydia in December, 1986, involving 35 other laboratories not participating in the WHO program. Preliminary figures indicate that these laboratories are detecting a comparable number of infections to those reported by the WHO collaborating laboratories.

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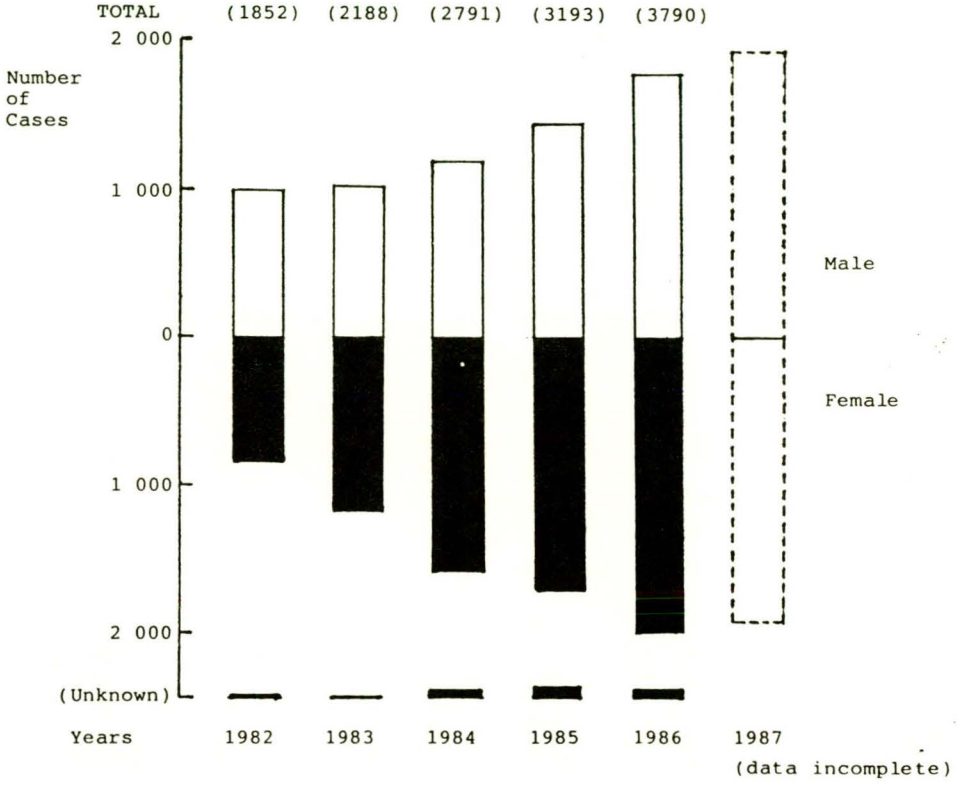
CHLAMYDIAL INFECTIONS - AUSTRALIA

Currently, only two chlamydial infections, lymphogranuloma venereum and trachoma, are listed as notifiable by the National Health and Medical Research Council. However, both diseases are only reported by a minority of States/Territories with lymphogranuloma vereereum notifiable only in New South Wales, Northern Territory and the Australian Capital Territory, and trachoma only notifiable in New South Wales, Queensland, South Australia, Western Australia and the Australian Capital Territory. However, data provided by the Communicable Diseases Intelligence (CDI) virology data bank indicated a dramatic increase in chlamydia isolates for the past five years (Figure 1).

FIGURE 1 *Chlamydia trachomatis* isolates surveyed by CDI between 1982 and 1987.



The above chlamydial isolates only refer to *C. trachomatis* infections in the following anatomical sites (Table 1).

TABLE 1 *C. trachomatis* infection sites for the years 1982-1986

YEAR	Site of Infections										Total
	Congenital		Eye		Respiratory		Genital		Other*		
	Cases	(% of total)	Cases	(% of total)	Cases	(% of total)	Cases	(% of total)	Cases	(% of total)	
1982			35	(1.9)	3		1810	(97.7)	4		1852
1983	1		25	(1.1)	12		2143	(97.9)	7		2188
1984	8		37	(1.3)	14		2700	(96.7)	32	(1.1)	2791
1985	1		27	(0.8)	7		3094	(96.9)	64	(2.0)	3193
1986	2		47	(1.2)	5		3459	(91.3)	277	(7.3)	3790

* Other includes other anatomical sites and site unknown.

The above data indicates that chlamydial infections of the eye and genital tract dominates the reported cases. While trachoma remains a significant public health problem in certain geographic areas and population groups of Australia[1], infections of the genital tract are believed to spread to all sections of the sexually active populations.

As reported in Table 1, genital infections accounted for between 91% and 98% of total C. trachomatis isolates between the years 1982 to 1986. The yearly increases of between 12% and 26% paralleled that of the total C. trachomatis isolates reported to the CDI. This reported yearly increment in genital isolates suggests that the increasing number of genital infections monitored by the CDI Virus Reporting Scheme over the past five years may reflect an increasing public health problem of sexually transmitted diseases with chlamydia.

Studies of the prevalence of C. trachomatis infection in a young, sexually-active Australian population are difficult to conduct, however reports of prevalence estimates have come from sexually-transmitted disease or gynaecological clinics with an expected high occurrence of sexually-transmitted disease. One such report has estimated the prevalence of C. trachomatis in a young sexually active population to be 5.1% and identified the group with multiple partners as being at high-risk[2].

Available CDI data indicate that the 15 to 24 year old age group accounts for the majority of cases reported to CDI (Table 2).

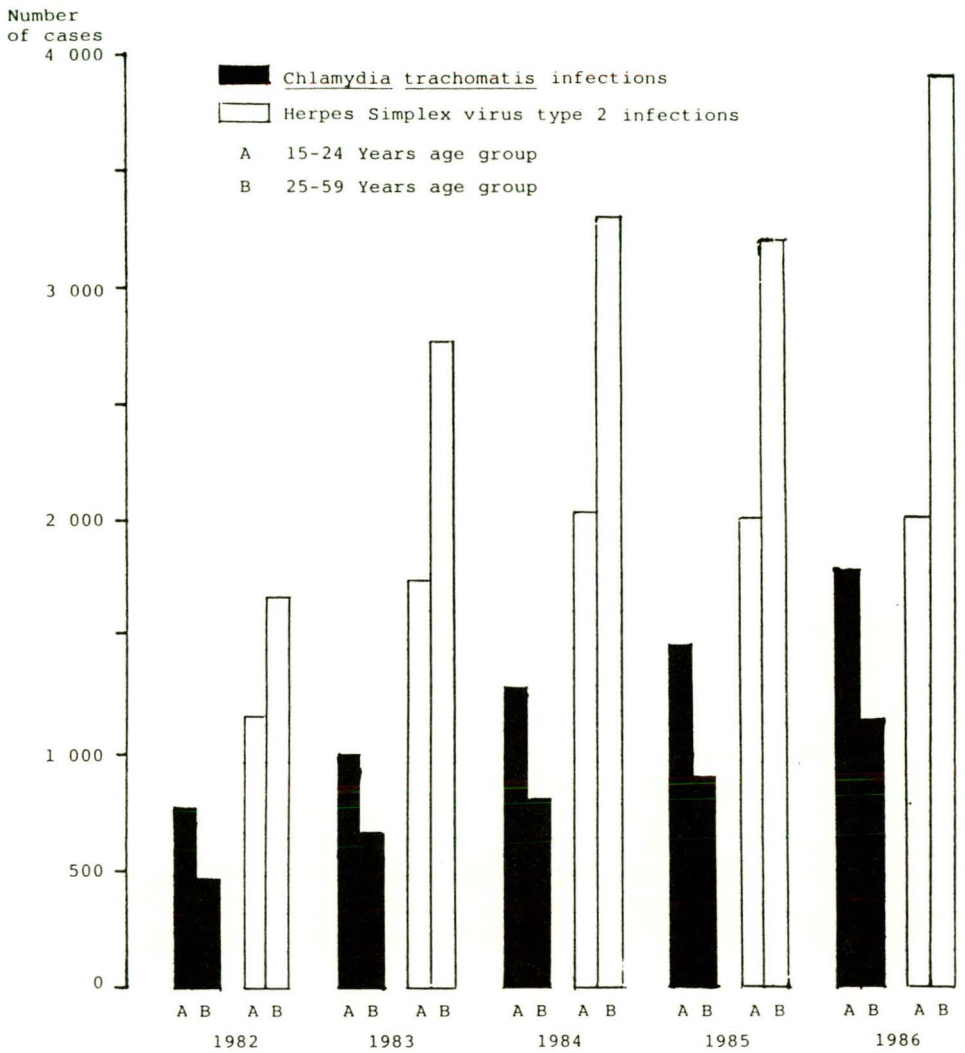
TABLE 2 Age breakdown of C. trachomatis infections reported to CDI for the years 1982-86.

	1982		1983		1984		1985		1986	
AGE GROUPS	Cases	(% of total)	Cases	(% of total)	Cases	(% of total)	Cases	(% of total)	Cases	(% of total)
0-11 months	18	(0.97)	19	(0.87)	24	(0.86)	19	(0.59)	26	(0.68)
1-14 years	11	(0.59)	7	(0.32)	12	(0.43)	14	(0.44)	32	(0.84)
15-24 years	771	(41.63)	995	(45.47)	1284	(46.00)	1458	(45.66)	1779	(46.94)
25-59 years	545	(29.42)	661	(30.21)	807	(28.91)	894	(27.99)	1141	(30.10)
60+	7	(0.38)	10	(0.45)	7	(0.25)	6	(0.18)	39	(1.03)
Unknown	500	(27.00)	496	(22.67)	657	(23.54)	802	(25.11)	773	(20.39)
TOTAL	1852	(100.00)	2188	(100.00)	2791	(100.00)	3193	(100.00)	3790	(100.00)

Although the major epidemiological features of chlamydial genital disease are that they occur in predominantly younger, more sexually active adults who are more often single, of lower socioeconomic status, and more often non white, the above observation that the incidence of C. trachomatis infections in the 15-24 years age group is much higher than that of the 25-59 years age group needs reporting. It is also observed that the difference in yearly incidences between the two age groups increases over the past five years (Figure 2).

The observed pattern of C. trachomatis infection in the 15-24 and 25-59 years age group is opposite to the trend recorded for the more prevalent sexually-transmitted herpes simplex virus type 2 (HSV 2) infections (Figure 2) and may support the view that sexually-transmitted C. trachomatis infections are more prevalent in the 15-24 years age group than in any other population groups.

FIGURE 2. Comparative Incidences of C. trachomatis vs Herpes Simplex Virus (HSV-2) isolates, Australia, 1982-86.



This predominance of C. trachomatis genital infections in the 15-24 years age group may allow inferences to be made about the sexual practices and the subsequent mode of transmission within this specific age group, but may also reflect the immunological responses of the host to primary and subsequent infection with C. trachomatis.

Epidemiological data suggest that prior genital infection may provide some protection against reinfection. Although a history of sexually transmitted disease is expected to either

be independent of the acquisition of a new infection, or to be positively correlated because of higher risk behaviour in individuals with such a history, limited data suggests that some protection against C. trachomatis reinfection is evident in both men[3-5] and women[6]. A recent study[7] examined this limited protection by evaluating 2546 men with non-gonococcal urethritis (NGU) and 1998 women with a history of possible exposure to chlamydia. In men with a history of NGU and in men and women with a past history of any sexually transmitted disease, the chlamydial isolation rate was lower at the index visit than in those without such a history ($p < 0.0001$). These associations were independent of the age of the patients and might account for the lower morbidity, hence a lower isolation rate, in the older age groups.

It is expected that a firm estimate of chlamydial infections would aid in establishing surveillance systems, identifying high risk areas or groups for targeted intervention, and evaluating high prevention/control program. However, precise data on the annual incidences have not been available because of diagnostic handicaps and limited official reporting. The data presented in this report should be interpreted with caution and within the limitations of the CDI Virus Reporting Scheme.

One of the methods used to estimate the annual incidence of genital chlamydial infections in the United States[8] involved establishing a case ratio of C. trachomatis-to-N. gonorrhoeae infection and multiplied that by the average annual number of gonorrhoea cases reported to the Centers for Disease Control (CDC, Atlanta). However, the case ratio of C. trachomatis-to-N. gonorrhoeae infection on which these estimates are principally based were found to be influenced by at least four variables, besides sex and age. These included race, pregnancy status, asymptomatic proportion, and sexual preference. Considerably higher chlamydia-to-gonorrhoea case ratios were found among whites, pregnant women, and populations with an increased proportion of patients with no symptoms; lower case ratios were found among homosexual men. As additional data are accumulated, particularly on these variables, the precision of the U.S. estimates will improve and future adaptation of this method to the Australian data may be possible.

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AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

TOTAL VIRAL ISOLATIONS BASED ON DATE OF COLLECTION
PERIOD - FORTNIGHTLY
VIRAL IDENTIFICATIONS FROM CONTRIBUTING LABORATORIES

Period 11/1/88 to 24/1/88

1. CODE 019 - FAIRFIELD(VIC)
2. CODE 065 - STATE LAB(WA)
3. CODE 110 - IMVS(SA)
4. CODE 111 - RCH(VIC)
5. CODE 112 - ICPMR(NSW) WVH(ACT)
6. CODE 113 - PHH POW(NSW)
7. CODE 114 - RAHC(NSW)
8. CODE 115 - STATE LAB(QLD)

		019	065	110	111	112	113	114	115	TOTAL
0100	ADENOVIRUS NOT TYPED	0	1	2	0	0	2	0	6	11
0101	ADENOVIRUS TYPE 1	0	2	8	2	1	0	0	0	13
0102	ADENOVIRUS TYPE 2	1	1	2	6	5	0	0	0	15
0103	ADENOVIRUS TYPE 3	1	1	1	0	3	1	0	0	7
0105	ADENOVIRUS TYPE 5	1	0	1	2	1	0	0	0	5
0106	ADENOVIRUS TYPE 6	0	0	3	0	0	0	0	0	3
0107	ADENOVIRUS TYPE 7	0	0	0	1	0	0	0	0	1
0108	ADENOVIRUS TYPE 8	3	6	0	0	0	0	0	0	9
0109	ADENOVIRUS TYPE 9	1	0	0	0	0	0	0	0	1
0199	ADENOVIRUS TYPING PENDING	0	0	0	4	0	2	0	0	6
0201	INFLUENZA A VIRUS	0	1	2	0	0	0	0	0	3
0202	INFLUENZA A VIRUS SUBTYPE H3N2	0	0	0	3	0	0	0	0	3
0203	INFLUENZA B VIRUS	0	0	3	0	0	1	0	0	4
0206	INFLUENZA A H1N1	0	0	1	0	0	0	0	0	1
0301	PARAINFLUENZA VIRUS TYPE 1	2	0	1	4	0	0	0	0	7
0303	PARAINFLUENZA VIRUS TYPE 3	1	1	3	6	1	0	0	14	26
0400	RESPIRATORY SYNCYTIAL VIRUS (R	2	0	1	7	0	0	2	3	15
0500	RHINOVIRUS (ALL TYPES)	5	3	4	17	0	0	0	3	32
0600	MYCOPLASMA PNEUMONIAE	0	5	8	2	7	7	0	0	29
0700	ORNITHOSIS-PSITTACOSIS	0	0	1	0	0	0	0	0	1
0809	COXSACKIEVIRUS A9	0	0	0	4	0	0	0	0	4
0816	COXSACKIEVIRUS A16	4	1	0	0	0	0	0	0	5
0902	COXSACKIEVIRUS B2	1	0	0	1	0	0	1	0	3
0905	COXSACKIEVIRUS B5	6	0	0	10	0	0	0	0	16
0907	COXSACKIEVIRUS B7 0907	1	0	0	0	0	0	0	0	1
1000	ECHOVIRUS NOT TYPED	0	0	4	0	0	0	0	0	4
1011	ECHOVIRUS TYPE 11	2	0	0	0	0	0	0	0	2
1099	ECHOVIRUS TYPING PENDING	1	0	0	0	0	0	0	0	1
1100	POLIOVIRUS NOT TYPED	0	0	0	1	0	0	0	0	1
1101	POLIOVIRUS TYPE 1	0	3	0	0	0	0	1	0	4
1102	POLIOVIRUS TYPE 2	0	1	1	0	0	0	0	0	2
1200	MUMPS VIRUS	0	0	0	0	1	1	0	0	2
1300	HERPES VIRUS GROUP - NOT TYPED	1	1	0	0	26	2	0	0	30
1301	HERPES SIMPLEX VIRUS - NOT TYP	4	0	0	0	0	0	1	0	5
1302	EPSTEIN-BARR VIRUS (EB VIRUS)	0	6	0	0	12	0	3	0	21
1303	VARICELLA-ZOSTER VIRUS	1	3	1	0	4	2	0	1	12
1306	HERPES SIMPLEX TYPE 1	34	21	9	0	19	6	0	29	118
1307	HERPES SIMPLEX TYPE 2	60	26	9	0	51	13	0	50	209
1399	HERPES VIRUS TYPING PENDING	0	0	0	8	0	0	0	0	8
1401	COXIELLA BURNETI	0	1	1	0	5	2	0	0	9
1502	PICORNIA VIRUS - NOT TYPED = E	0	0	0	0	0	9	0	17	26
1521	MEASLES VIRUS	0	0	1	1	0	1	0	0	3
1522	RUBELLA VIRUS	19	1	0	2	0	0	1	0	23
1532	HEPATITIS B ANTIGEN	12	3	10	0	101	11	0	13	150
1535	HEPATITIS A ANTIBODY	3	1	4	1	2	1	0	2	14
1541	CHLAMYDIA A - C. TRACHOMATIS	11	12	25	0	32	3	0	35	118
1556	CMV - CYTOMEGALOVIRUS	37	2	4	12	9	11	3	9	87
1564	ROTAVIRUS	6	0	6	1	3	10	0	0	26
1566	NORWALK AGENT	0	1	0	0	0	0	0	0	1
1599	ENTEROVIRUS TYPING PENDING	0	0	0	9	0	11	4	0	24
9992	ROSS RIVER VIRUS	0	5	0	0	0	0	0	0	5
9993	ASTROVIRUS	0	0	0	0	1	0	0	0	1
TOTAL		220	109	116	104	284	96	16	182	1127

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

VIRAL IDENTIFICATIONS BY CLINICAL INFORMATION TABLE 1.

Period 11/1/88 to 24/1/88

1. CODE 00, 99 ..... - NO ILL OR DATA
2. CODE 01, 02, 11, 12 - RESPIRATORY
3. CODE E3 ..... - ENCEPHALITIS
4. CODE M3 ..... - MENINGITIS
5. CODE 04 ..... - PARALYSIS
6. CODE 05, 13 ..... - CNS OTHER UNSPEC
7. CODE 07, 49 - GASTRO INTESTINAL
8. CODE 17, 47 - HEPATIC
9. CODE 19 ... - CVS
10. CODE 89 ... - URINARY TRA CT
11. CODE 06 ... - SKIN MUCOUS

		1	2	3	4	5	6	7	8	9	10	11	TOTAL
0100	ADENOVIRUS NOT TYPED	0	7	0	0	0	0	2	0	0	0	0	9
0101	ADENOVIRUS TYPE 1	0	8	0	0	0	1	4	0	0	0	0	13
0102	ADENOVIRUS TYPE 2	0	8	1	0	0	0	4	0	0	0	0	13
0103	ADENOVIRUS TYPE 3	0	2	0	0	0	0	2	0	0	0	0	4
0105	ADENOVIRUS TYPE 5	0	4	0	0	0	0	1	0	0	0	0	5
0106	ADENOVIRUS TYPE 6	0	2	0	0	0	0	1	0	0	0	0	3
0107	ADENOVIRUS TYPE 7	0	1	0	0	0	0	0	0	0	0	0	1
0108	ADENOVIRUS TYPE 8	1	0	0	0	0	0	0	0	0	0	0	1
0109	ADENOVIRUS TYPE 9	0	0	0	0	0	0	1	0	0	0	0	1
0199	ADENOVIRUS TYPING PENDING	0	2	0	0	0	0	3	0	0	0	1	[redacted]
0201	INFLUENZA A VIRUS	0	2	0	0	0	0	0	0	0	0	0	[redacted]
0202	INFLUENZA A VIRUS SUBTYPE H3N2	0	3	0	0	0	0	0	0	0	0	0	3
0203	INFLUENZA B VIRUS	0	3	0	0	0	0	0	0	0	0	0	3
0206	INFLUENZA A H1N1	0	1	0	0	0	0	0	0	0	0	0	1
0301	PARAINFLUENZA VIRUS TYPE 1	0	6	0	0	0	0	0	0	0	0	0	6
0303	PARAINFLUENZA VIRUS TYPE 3	1	23	0	0	0	0	0	0	0	0	1	25
0400	RESPIRATORY SYNCYTIAL VIRUS (R	0	15	0	0	0	0	0	0	0	0	0	15
0500	RHINOVIRUS (ALL TYPES)	0	32	0	0	0	0	0	0	0	0	0	32
0600	MYCOPLASMA PNEUMONIAE	2	21	0	0	0	0	0	0	0	0	1	24
0700	ORNITHOSIS-PSITTACOSIS	0	1	0	0	0	0	0	0	0	0	0	1
0809	COXSACKIEVIRUS A9	0	0	0	2	0	1	0	0	0	0	1	4
0816	COXSACKIEVIRUS A16	0	0	0	0	0	0	0	0	0	0	5	5
0902	COXSACKIEVIRUS B2	0	1	0	2	0	0	0	0	0	0	0	3
0905	COXSACKIEVIRUS B5	3	5	0	6	0	0	0	0	0	0	1	15
0907	COXSACKIEVIRUS B7 0907	0	0	0	1	0	0	0	0	0	0	0	1
1000	ECHOVIRUS NOT TYPED	1	1	0	0	0	0	1	0	0	0	0	3
1011	ECHOVIRUS TYPE 11	0	0	0	1	0	1	0	0	0	0	0	2
1099	ECHOVIRUS TYPING PENDING	0	1	0	0	0	0	0	0	0	0	0	1
1100	POLIOVIRUS NOT TYPED	0	1	0	0	0	0	0	0	0	0	0	1
1101	POLIOVIRUS TYPE 1	1	0	0	0	0	0	2	0	0	0	0	3
1102	POLIOVIRUS TYPE 2	0	1	0	0	0	0	1	0	0	0	0	2
1300	HERPES VIRUS GROUP - NOT TYPED	1	0	0	0	0	1	0	0	0	0	20	22
1302	EPSTEIN-BARR VIRUS (EB VIRUS)	4	0	0	0	0	0	0	5	0	0	0	9
1303	VARICELLA-ZOSTER VIRUS	0	0	0	1	0	1	0	0	0	0	8	10
1306	HERPES SIMPLEX TYPE 1	2	5	0	0	1	0	0	0	0	0	64	72
1307	HERPES SIMPLEX TYPE 2	9	1	0	0	0	0	0	0	0	2	52	[redacted]
1399	HERPES VIRUS TYPING PENDING	0	1	0	0	0	0	0	0	0	0	6	
1401	COXIELLA BURNETI	2	0	0	0	0	0	0	1	0	0	0	3
1502	PICORNIA VIRUS - NOT TYPED = E	1	5	0	0	0	3	14	0	0	0	3	26
1521	MEASLES VIRUS	0	0	0	0	0	0	0	0	0	0	2	2
1522	RUBELLA VIRUS	0	0	0	0	0	0	0	0	0	0	19	19
1532	HEPATITIS B ANTIGEN	68	0	0	0	0	0	0	65	0	0	0	133
1535	HEPATITIS A ANTIBODY	3	0	0	0	0	0	0	10	0	0	0	13
1541	CHLAMYDIA A - C. TRACHOMATIS	11	0	0	0	0	0	0	0	0	0	0	11
1556	CMV - CYTOMEGALOVIRUS	3	28	1	0	0	0	2	2	2	5	4	47
1564	ROTAVIRUS	0	0	0	0	0	0	26	0	0	0	0	26
1566	NORWALK AGENT	0	1	0	0	0	0	0	0	0	0	0	1
1599	ENTEROVIRUS TYPING PENDING	0	3	0	6	0	1	11	0	0	0	2	23
9992	ROSS RIVER VIRUS	1	0	0	0	0	0	0	0	0	0	2	3
9993	ASTROVIRUS	0	0	0	0	0	0	1	0	0	0	0	1
TOTAL		114	195	2	19	1	9	76	83	2	7	192	700

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

VIRAL IDENTIFICATIONS BY CLINICAL INFORMATION TABLE 2.

Period 11/1/88 to 24/1/88

12. CODE 10 - EYE
13. CODE 59 - GENITAL
14. CODE 39 - ENDOCRINE/SALIVARY GL.
15. CODE 38 - RETICULO-ENDOTHELIAL
16. CODE 29 - MUSCLE/JOINT
17. CODE 69 - CONGENTIAL
18. CODE P8 - PUO
19. CODE G8 - FEVER/MALAISE
20. CODE 09 - OTHER
21. CODE A1 - SIDS

		12	13	14	15	16	17	18	19	20	21	TOTAL
0100	ADENOVIRUS NOT TYPED	2	0	0	0	0	0	0	0	0	0	2
0102	ADENOVIRUS TYPE 2	0	0	0	1	0	0	0	0	1	0	2
0103	ADENOVIRUS TYPE 3	2	0	0	0	0	0	1	0	0	0	3
0108	ADENOVIRUS TYPE 8	8	0	0	0	0	0	0	0	0	0	8
0201	INFLUENZA A VIRUS	0	0	0	0	0	0	0	1	0	0	1
0203	INFLUENZA B VIRUS	0	0	0	0	0	0	0	1	0	0	1
0301	PARAINFLUENZA VIRUS TYPE 1	0	0	0	0	0	0	0	1	0	0	1
0303	PARAINFLUENZA VIRUS TYPE 3	0	0	0	0	0	0	0	0	1	0	1
[illegible]0	MYCOPLASMA PNEUMONIAE	0	0	0	0	0	0	1	0	4	0	5
[illegible]5	COXSACKIEVIRUS B5	0	0	0	0	0	0	0	0	0	1	1
1000	ECHOVIRUS NOT TYPED	0	0	0	0	0	0	0	0	0	1	1
1101	POLIOVIRUS TYPE 1	0	0	0	0	0	0	0	0	1	0	1
1200	MUMPS VIRUS	0	0	0	1	0	0	1	0	0	0	2
1300	HERPES VIRUS GROUP - NOT TYPED	1	4	0	0	0	0	0	0	3	0	8
1301	HERPES SIMPLEX VIRUS - NOT TYP	0	4	0	0	0	0	0	0	1	0	5
1302	EPSTEIN-BARR VIRUS (EB VIRUS)	0	0	5	2	0	0	0	2	3	0	12
1303	VARICELLA-ZOSTER VIRUS	0	0	0	1	0	0	1	0	0	0	2
1306	HERPES SIMPLEX TYPE 1	4	40	0	0	0	0	0	1	1	0	46
1307	HERPES SIMPLEX TYPE 2	0	143	0	0	0	0	0	0	2	0	145
1399	HERPES VIRUS TYPING PENDING	0	1	0	0	0	0	0	0	0	0	1
1401	COXIELLA BURNETI	0	0	0	0	0	0	4	1	1	0	6
1521	MEASLES VIRUS	0	0	0	0	0	0	0	0	1	0	1
1522	RUBELLA VIRUS	0	0	3	0	1	0	0	0	0	0	4
1532	HEPATITIS B ANTIGEN	0	0	0	0	0	0	0	0	17	0	17
1535	HEPATITIS A ANTIBODY	0	0	0	0	0	0	0	0	1	0	1
1541	CHLAMYDIA A - C. TRACHOMATIS	0	106	0	0	0	0	0	0	1	0	107
1556	CMV - CYTOMEGALOVIRUS	2	0	0	3	0	3	0	11	21	0	40
1599	ENTEROVIRUS TYPING PENDING	0	0	0	0	0	0	0	0	0	1	1
9992	ROSS RIVER VIRUS	0	0	0	0	2	0	0	0	0	0	2
TOTAL		19	298	8	8	3	3	8	18	59	3	427

NOTIFIABLE DISEASES REPORTED IN AUSTRALIA

Period 6 - 17 May 1987 to 13 June 1987 Bulletin...88/2....

Disease	N.S.W.	VIC.	QLD.	S.A.	W.A.	TAS.	N.T.	A.C.T.	Total		Cumulative Total to Date for Year
Amoebiasis	1		2	1				1	5		30
Ankylostomiasis	1			5	6		NN		12		30
Anthrax									-		1
Arbovirus infection	1		191		4				196		707
Brucellosis									-		8
Campylobacter infections	106		NN	127	9	NN	7		249		1 458
Chancroid			1	NN					1		5
Cholera									-		1
Congenital rubella syndrome			NN			NN		NN	-		-
Diphtheria							4		4		18
Donovanosis			15	NN			2		17		57
Giardiasis	30		NN	62	23	NN	NN	NN	115		710
Genital herpes	77		68	49	NN	NN	1	NN	195		1 061
Gonococcal ophthalmia neonatorum	1	NN			NN	NN	77	NN	78		232
Gonorrhoea	51		175	23	86	5	68	2	410	*	2 826
Hepatitis A (infectious)	14	7	8	3	4		3		39	*	304
Hepatitis B (serum)	44	46	37	5	25		2	2	161		868
Hepatitis – unspecified	3	23			NN	NN			26	*	97
Hydatid disease	1	1							2		5
Lassa fever			NN			NN		NN	-		-
Legionnaires disease	9		NN			NN		NN	9	*	61
Leprosy	2	1							3		14
Leptospirosis			7						7		69
Lymphogranuloma venereum				NN	NN	NN		NN	-		-
Marburg disease			NN			NN		NN	-		-
Malaria	7	9	14	2	6		1	3	42		308
Meningococcal infections	1	3	1	2	8	NN			15		37

Disease	N.S.W.	VIC.	QLD.	S.A.	W.A.	TAS.	N.T.	A.C.T.	Total	Cumulative Total to Date for Year
Non-specific urethritis	255			84	NN	NN	NN	NN	339	2 996
Ornithosis				1					1	6
Pertussis (whooping cough)	2	1	NN	7	6	NN		1	17	200
Plague									-	-
Poliomyelitis									-	-
Q. fever	20		15	1	1				37	* 196
Rabies				NN		NN		NN	-	-
Salmonella infections	68	11	60	23	45	11	17	1	236	1 545
Shigella infections	6	8	8	9	11		29		71	341
Smallpox									-	-
Syphilis	39		83		18		69	2	211	* 1 012
Tetanus									-	3
Trachoma		NN				NN	NN		-	77
Tuberculosis (all forms)	31	14	13	2	8		4	4	76	* 461
Typhoid fever	1	1							2	30
Typhus (all forms)									-	2
Vibrio parahaemolyticus infections			NN			NN		NN	-	2
Yellow fever									-	-
[illegible]sinia infections	10		NN	2		NN		NN	12	60

NN - Not Notifiable

(Note: Data collected under the Notifiable Diseases Returns may bear little or no correlation to that collected under the CDI laboratory scheme. Whilst the latter is a sampling program, the Notifiable Diseases data is dependent upon voluntary reporting by medical practitioners etc.)

*ADJUSTMENT TO THE CUMULATIVE TOTAL SINCE LAST REPORT

Gonorrhoea	+2	South Australia
Hepatitis A	+1	South Australia
Hepatitis Unsp.	+1	South Australia
Legionnaires dis.	+1	South Australia
Q Fever	+1	South Australia
Syphilis	+1	South Australia
Tuberculosis (all)	+2	South Australia

NOTIFIABLE DISEASES REPORTED IN AUSTRALIA

Period 7 - 14 June 1987 to 11 July 1987

Bulletin....88/2....

Disease	N.S.W.	VIC.	QLD.	S.A.	W.A.	TAS.	N.T.	A.C.T.	Total	Cumulative Total to Date for Year
Amoebiasis									-	30
Ankylostomiasis				1	1		NN		2	32
Anthrax									-	1
Arbovirus infection	17		220						237	* 945
Brucellosis			1						1	9
Campylobacter infections	75		NN	159	16	NN	2		252	1 710
Chancroid				NN					-	5
Cholera									-	1
Congenital rubella syndrome			NN			NN		NN	-	-
Diphtheria							5		5	23
Donovanosis			1	NN	1		4		6	63
Giardiasis	19		NN	65	7	NN	NN	NN	91	801
Genital herpes	59		11		NN	NN	8	NN	78	* 1 175
Gonococcal ophthalmia neonatorum		NN			NN	NN	24	NN	24	256
Gonorrhoea	41		60	45	56	1	41	2	246	* 3 192
Hepatitis A (infectious)	7	6	3	4	5		11	1	37	* 346
Hepatitis B (serum)	16	20	46	1	35		6	5	129	* 1 002
Hepatitis — unspecified	3	1			NN	NN			4	* 102
Hydatid disease	2								2	7
Lassa fever			NN			NN		NN	-	-
Legionnaires disease	12		NN		1	NN		NN	13	74
Leprosy									-	14
Leptospirosis	1		18		3				22	91
Lymphogranuloma venereum				NN	NN	NN		NN	-	-
Marburg disease			NN			NN		NN	-	-
Malaria	7	11	27	2			1	2	50	358
									-	-
Meningococcal infections		3		2		NN			5	* 43

Disease	N.S.W.	VIC.	QLD.	S.A.	W.A.	TAS.	N.T.	A.C.T.	Total	Cumulative Total to Date for Year
Non-specific urethritis	173		1	NN	NN	NN	NN	NN	174	* 3 455
Ornithosis		1							1	7
Pertussis (whooping cough)	1	2	NN	1	2	NN	1	NN	7	207
Plague									-	-
Poliomyelitis									-	-
Q. fever	11		26						37	* 236
Rabies				NN		NN		NN	-	-
Salmonella infections	60	9	55	31	27	11	27		220	1 765
Shigella infections	5	1	6	6	10	1	9		38	379
Smallpox									-	-
Syphilis	44		28	2	24		62	2	162	* 1 200
Tetanus			1						1	4
Trachoma		NN			23	NN	NN		23	100
Tuberculosis (all forms)	42	14	22	2	13	1	3	1	98	* 563
Typhoid fever		2	1	1					4	4
Typhus (all forms)									-	2
Vibrio parahaemolyticus infections			NN			NN		NN	-	2
Yellow fever									-	-
Yersinia infections	8		NN			NN		NN	8	68

NN - Not Notifiable

(Note: Data collected under the Notifiable Diseases Returns may bear little or no correlation to that collected under the CDI laboratory scheme. Whilst the latter is a sampling program, the Notifiable Diseases data is dependent upon voluntary reporting by medical practitioners etc.)

* ADJUSTMENT TO THE CUMULATIVE TOTAL SINCE LAST REPORT

For the period April to June

Genital herpes	+36	Victoria
Gonorrhoea	+101	Victoria
N.S.U.	+285	Victoria
Syphilis	+23	Victoria
Arbovirus inf.	+1	South Australia
Gonorrhoea	+19	South Australia
Hepatitis A	+5	South Australia
Hepatitis B	+5	South Australia
Hepatitis unspec.	+1	South Australia
Meningococcal Inf.	+1	South Australia
Q Fever	+3	South Australia
Syphilis	+3	South Australia
Tuberculosis (All)	+4	South Australia