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Sexually transmitted infections at New Zealand sexual health clinics, 1999

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Most sexually transmitted infections (STIs) are not notifiable in New Zealand. Therefore information on the epidemiology of STIs in New Zealand has been largely based on data from sexual health clinics. All sexual health clinics in New Zealand submitted STI surveillance data to the Institute of Environmental Science and Research (ESR) in 1999. As a proportion of total clinic visits, genital warts was the most frequently diagnosed STI (4.5%), followed by confirmed chlamydia (3.4%), non-specific urethritis in males (3.0%), and genital herpes (1.0%). Seventy percent of chlamydia, 69% of gonorrhoea, and 63% of genital warts diagnoses reported were in those aged less than 25 years. Rates of chlamydia and gonorrhoea were disproportionately high in Maori and Pacific Islands people. Genital herpes rates were highest in European, while rates of genital warts were similar in all ethnic groups. Between 1996 and 1999, there was a 40% increase in cases of both chlamydia and gonorrhoea in sexual health clinic attendees.

Most sexually transmitted infections (STIs) are not notifiable in New Zealand.¹ Therefore information on the epidemiology of STIs in New Zealand has been largely based on data from sexual health clinics. These clinics offer free, confidential sexual health services and diagnose a substantial proportion of the total number of STIs in New Zealand.^{2,3} The 31 sexual health clinics that participate in the surveillance system are located in the main urban centres and some larger rural centres, with most linked to a public hospital. Most other rural centres and isolated populations have limited or no access to sexual health clinics. There is a large variation in opening hours of the clinics, with clinics in the larger urban centres operating for more extensive periods, including evening sessions, whereas the smaller clinics may be open only a few hours a week.

This report presents the 1999 data collected by sexual health clinics and reported to the Institute of Environmental Science and Research (ESR) through the clinic-based STI surveillance system. Data on trends in STIs between 1996 and 1999 from this surveillance system are also reported. Sexual health clinics see a self-selected portion of the population who are probably at higher risk of a STI, and therefore data from these clinics may not truly represent the incidence of STIs in the general population. However, this surveillance information is useful for identifying trends in sexual health clinic attendees, and may provide an alert for changes or trends occurring in the wider population.

Methods

Sexual health clinics record anonymised data on age, sex and ethnicity of clinic attendees, and age, sex and ethnicity of cases meeting the surveillance definitions for the following infections: laboratory-confirmed and probable chlamydia, laboratory-confirmed and probable gonorrhoea (where

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probable chlamydia or gonorrhoea are symptomatic non-laboratory confirmed contacts of a confirmed case), genital warts (first diagnosis at the clinic), genital herpes (first diagnosis at the clinic), syphilis, non-specific urethritis (NSU) in males, chancroid, granuloma inguinale (GI), and lymphogranuloma venereum (LGV).⁴ For those patients diagnosed with chlamydia or gonorrhoea, information on the site of infection is also collected.

Each month clinics send completed surveillance forms either directly to ESR or to a regional coordinator. The regional coordinators enter the data onto local STI databases (Microsoft Access) and send the data electronically each month to ESR, where they are merged onto the national STI database.

Infection rates were calculated by dividing the number of reported cases by the total number of clinic visits. This denominator includes all new and follow-up visits made by clinic attendees. It is not possible to directly compare sexual health clinic infection rates from 1998 and 1999 with those from previous years, as a different denominator (the number of new clinic patients, defined as patients first attending the sexual health clinic and patients re-attending after ≥ 3 months had elapsed) was used

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prior to 1998. In addition, case definitions and reporting methods varied.⁴ Since the number of new clinic patients reported during 1996 and 1997 was relatively stable, as was the total number of clinic visits during 1998 and 1999, it seems unlikely that any changes in the number of reported cases were due to changes in clinic attendance. Therefore, the annual number of confirmed STI cases has been used to evaluate trends. Trend data have been presented only from 1996, the first year for which age, sex and ethnicity information was collated. Univariate analyses were performed using Epi Info version 6.04c.⁵ The student's t-test was used to compare continuous variables.

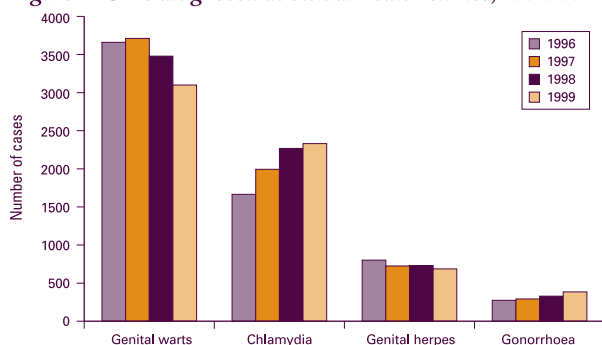
Results

In 1999, sexual health clinics saw a higher proportion of females than males (58% vs 42%). Fifty-one percent of clinic attendees were aged under 25 years. Europeans accounted for 74% of clinic attendees, Maori 15%, and Pacific Islands people 3%.

The 31 sexual health clinics reported 7400 confirmed STI diagnoses, an overall infection rate of 10.7%. These 7400 diagnoses were found in 6988 attendees. Genital warts was the most commonly diagnosed STI (4.5%), followed by confirmed chlamydia (3.4%), NSU in males (3.0%), genital herpes (1.0%), gonorrhoea (0.6%), and syphilis (0.03%) (Table 1). No cases of chancroid, GI or LGV were reported during 1999.

Figure 1 shows the annual number of confirmed STI cases from 1996 to 1999. During this four-year period, the number of chlamydia and gonorrhoea diagnoses each increased by 40%. In contrast, the number of genital herpes and genital warts diagnoses decreased by 14% and 15%, respectively. The number of syphilis diagnoses was relatively constant.

Figure 1: STIs diagnosed at sexual health clinics, 1996-99



Chlamydia: A total of 2331 laboratory-confirmed and 584 probable chlamydia diagnoses were reported by sexual health clinics in 1999. Of the confirmed cases, 1631 (70%) were aged less than 25 years, with a mean age of 22.9 years (range 13-66 years). Female patients with chlamydia were significantly younger than male patients (mean age 21.3 versus 24.7 years; $p < 0.0001$).

Rates of confirmed chlamydia were highest in those aged less than 20 years (5.2%) and declined as age increased (Figure 2a). Rates were higher in Maori (8.0%) and Pacific Islands people (7.4%) than in European (2.4%) (Figure 2b). Rates were higher for males than females in all age and ethnic groups.

Table 1: STI cases and infection rates by sexual health clinic, 1999

Infection	Whangarei	Auckland ⁴	Hamilton/Tokoroa	Tauranga	Rotorua	Whakatane	Taupo	New Plymouth	Gisborne	Napier	Hastings	Wanganui	Palm North/Levin	Wellington ⁵	Lower Hutt	Porirua	Nelson	Blenheim	Greymouth	Christchurch	Ashburton	Timaru	Dunedin	Invercargill/Gore	Total	
Chlamydia ¹	No.	58	551	339	173	108	76	45	98	73	53	25	24	136	187	15	27	35	16	6	158	8	31	59	30	2331
	Rate ²	4.5	2.8	4.6	4.5	8.7	8.2	5.9	4.7	5.5	6.6	6.9	3.0	3.9	2.5	1.9	4.7	2.8	1.9	1.7	3.1	6.9	1.7	3.3	3.4	
Gonorrhoea ¹	No.	3	181	48	16	14	23	3	7	16	16	12	4	3	15	1	6	3	0	0	10	0	1	2	0	384
	Rate ²	0.2	0.9	0.6	0.4	1.1	2.5	0.4	0.3	1.2	2.0	3.3	0.5	0.1	0.2	0.1	1.0	0.2	0	0	0.1	0	0.2	0.1	0	0.6
Genital herpes	No.	10	141	77	42	12	9	5	23	1	11	8	6	42	156	9	4	9	4	4	76	3	12	12	11	687
	Rate ²	0.8	0.7	1.0	1.1	1.0	1.0	0.7	1.1	0.1	1.4	2.2	0.8	1.2	2.1	1.1	0.7	0.7	1.2	0.8	1.2	2.7	0.4	1.2	1.0	
Genital warts	No.	51	926	310	122	66	37	34	139	4	30	10	26	149	353	72	22	98	29	17	350	20	21	148	66	3100
	Rate ²	4.0	4.6	4.2	3.2	5.3	4.0	4.5	6.6	0.3	3.7	2.8	3.3	4.2	4.8	9.0	3.8	7.8	5.1	5.3	3.8	7.7	4.7	4.3	7.3	4.5
Syphilis	No.	0	7	4	0	1	0	0	0	0	0	0	0	4	3	0	0	1	0	0	2	0	0	1	0	23
	Rate ²	0	0	0.1	0	0.1	0	0	0	0	0	0	0	0.1	0	0	0	0.1	0	0	0	0	0	0	0	0
NSU (males)	No.	0	383	55	15	4	2	0	81	0	15	4	17	151	0	0	0	22	5	0	91	1	3	2	24	875
	Rate ³	0	4.2	2.0	1.5	1.0	0.7	0	10.6	0	4.5	2.2	6.2	10.1	0	0	3.7	2.1	0	1.9	1.0	1.1	0.2	5.3	3.0	
Total clinic visits		1278	19957	7441	3804	1238	931	763	2095	1322	807	363	799	3513	7336	796	573	1255	573	321	9177	260	450	3420	909	69 381
Total male clinic visits		414	9189	2804	988	421	273	203	765	271	333	184	275	1500	3595	373	222	587	241	103	4751	102	261	817	457	29 129

Notes: 1 Confirmed cases only

2 Number of cases/number of clinic visits

3 Number of cases/number of male clinic visits

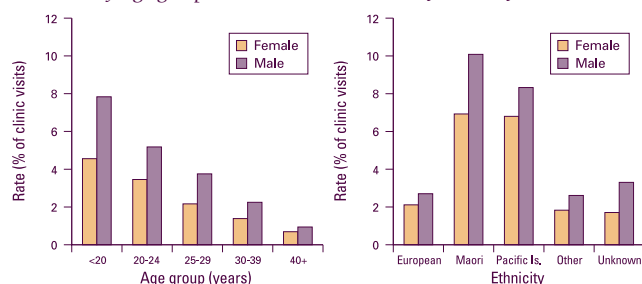
4 Based on data from four Auckland clinics

5 Based on data from two Wellington clinics

Chlamydial pelvic inflammatory disease (PID) was diagnosed in 42 females and chlamydial epididymitis in 12 males. The mean age of patients with chlamydial PID or epididymitis was 22.5 years (range 14-47 years). Approximately two-thirds (69%) of chlamydial PID and epididymitis cases were aged 15-24 years.

Trends: Between 1996 and 1999, the number of confirmed chlamydia diagnoses increased 40%, from 1665 to 2331. The greatest increase occurred in those aged 25-29 years (184 to 398 cases, 116%), followed by those aged 30-39 years (157 to 239, 52%). Increases in chlamydia diagnoses were greatest in Maori (525 to 844, 61%), followed by those whose ethnicity was coded as Other (65 to 93, 43%) and European (880 to 1212, 38%). Between 1996 and 1999, chlamydia diagnoses increased 45% in women and 34% in men.

Figure 2: Confirmed chlamydia diagnosed at sexual health clinics, 1999



Gonorrhoea: Sexual health clinics reported 384 laboratory-confirmed and 63 probable cases of gonorrhoea in 1999. Of the confirmed cases, 264 (69%) were aged less than 25 years, and the mean age was 23.4 years (range 13-61 years). Female patients with gonorrhoea were significantly younger than male patients (mean age 20.5 versus 25.8 years; $p < 0.0001$).

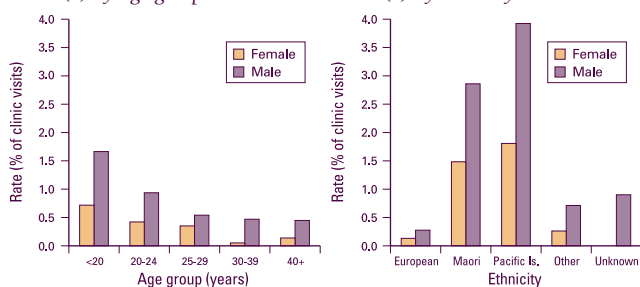
Rates of confirmed gonorrhoea were highest in those aged less than 20 years (0.9%) and declined as age increased (Figure 3a). Rates were higher in Pacific Islands people (2.7%) and Maori (1.9%) than in European (0.2%) (Figure 3b). Rates were higher for males than females in all age and ethnic groups.

Seven females were diagnosed with gonococcal PID and four males were diagnosed with gonococcal epididymitis. The mean age of patients with gonococcal PID or epididymitis was 24.4 years (range 15-52 years), with 10 cases aged less than 30 years and one case more than 50 years of age.

Trends: Compared to the previous year, the number of confirmed cases of gonorrhoea increased 7% in 1997, 13% in 1998, and 17% in 1999. The overall increase in gonorrhoea diagnoses between 1996 and 1999 was 40%. During this period the greatest increase occurred in young people, with the number of gonorrhoea diagnoses rising from 103 to 138 (34%) in those aged less than 20 years and from 77 to 126 (64%) in those aged 20-24 years. A disproportionate increase in gonorrhoea occurred in Maori, with the number of diagnoses increasing from 97 to 205 (111%) between 1996 and 1999. During the same period, there

was little or no increase in the number of gonorrhoea cases in Pacific Islands people or Europeans. Between 1996 and 1999, the male to female ratio of sexual health clinic patients diagnosed with gonorrhoea decreased from 2:1 to 1.2:1.

Figure 3: Confirmed gonorrhoea diagnosed at sexual health clinics, 1999
(a) by age group (b) by ethnicity

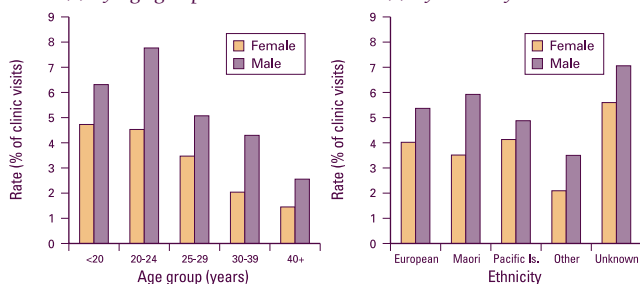


Genital warts (first diagnosis): A total of 3100 clinic attendees were diagnosed with genital warts. Of these, 1945 (63%) were aged less than 25 years, and the mean age was 24.6 years (range 14-72 years). Females diagnosed with genital warts were significantly younger than males diagnosed with genital warts (mean age 22.5 versus 26.8 years; $p < 0.0001$).

Rates of genital warts were highest in those aged 20-24 years (5.8%), followed by those aged less than 20 years (5.0%) (Figure 4a). Rates were similar for European, Maori and Pacific Islands people (4.6%, 4.3% and 4.4%, respectively) (Figure 4b). Rates were higher for males than females in all age and ethnic groups.

Trends: Between 1996 and 1999, the number of genital warts diagnoses decreased 15%, from 3660 to 3100.

Figure 4: Genital warts diagnosed at sexual health clinics, 1999
(a) by age group (b) by ethnicity

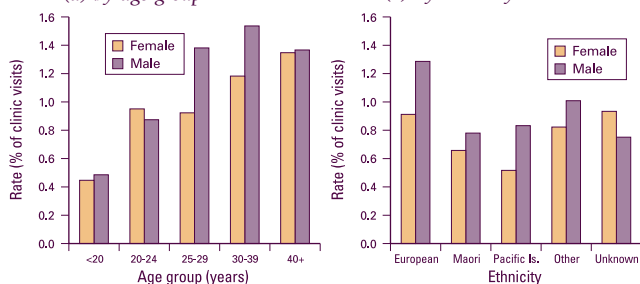


Genital herpes (first diagnosis): During 1999, 687 sexual health clinic attendees were diagnosed with genital herpes. Their mean age was 29.4 years (range 14-73 years). Females with genital herpes were significantly younger than males with genital herpes (mean age 27.1 versus 31.7 years; $p < 0.0001$).

Overall, rates of genital herpes increased with age, with rates highest in those aged 30 years or older (1.4%). Rates were higher in males than females for those aged 25-29 and 30-39 years, but similar in males and females in all other age groups (Figure 5a). Rates were higher in European (1.1%), than in Maori (0.7%) and Pacific Islands people (0.6%) (Figure 5b). Males had higher rates across all groups where ethnicity was known.

Trends: Between 1996 and 1999, the number of genital herpes cases decreased 14%, from 802 to 687.

Figure 5: Genital herpes diagnosed at sexual health clinics, 1999
(a) by age group (b) by ethnicity



Infectious syphilis - primary, secondary and early latent: In 1999, 23 sexual health clinic attendees were diagnosed with syphilis, one less than in 1998. Fifteen (65%) cases were male and eight (35%) were female. The mean age was 40.0 years (range 23-70 years). Females with infectious syphilis were older than males (mean age 44.4 years versus 37.6 years); however, this difference was not statistically significant ($p = 0.213$). The majority (65%) of those diagnosed with infectious syphilis had their ethnicity classified as Other.

Trends: There was little variation in the number of infectious syphilis cases between 1996 and 1999, with annual totals ranging from 23 to 27.

NSU (males only): In 1999, 875 males were diagnosed with NSU. The mean age was 29.3 years (range 14-62 years). Rates were similar in all age groups (range 2.7-3.4%) and among European (3.0%), Maori (3.6%), and Pacific Islands people (3.2%). No trend analysis is possible for NSU as it has been reported only since mid-1998.

Concurrent infections: A concurrent infection means that a sexual health clinic attendee was diagnosed with more than one STI in the same month. Of the 6988 clinic attendees diagnosed with a STI, 403 (5.8%) were diagnosed with concurrent infections. Gonorrhoea and chlamydia were the two STIs most frequently diagnosed together. Of the 2331 cases diagnosed with confirmed chlamydia, 6.8% were also diagnosed with confirmed gonorrhoea. Of the 384 cases diagnosed with confirmed gonorrhoea, 41.4% were also diagnosed with confirmed chlamydia.

Discussion

While sexual health clinic data may not represent the true incidence of STIs in the general population, they identify trends in sexual health clinic attendees, and may reflect changes in the wider population.

Chlamydia was the most commonly diagnosed bacterial STI in New Zealand sexual health clinics in 1999, with infection rates higher in young people and in Maori and Pacific Islands people. Higher infection rates in young people and ethnic minorities have been attributed to factors such as risk-taking behaviours, social-mixing patterns, and socio-economic status.⁶⁻⁸

While chlamydia rates among sexual health clinic attendees appear to be higher in men, laboratory data reported to ESR indicate that infection rates in the general population tend to be higher in women. This apparent difference is largely due to varying screening practices in different healthcare settings, and the fact that men are more likely to present to a sexual health clinic because they are symptomatic. Sexual health clinics generally offer STI screening to all attendees, while other healthcare providers, such as GPs, are more likely to screen women. Women are targeted for screening because they are more likely than men to have an asymptomatic infection, and are more vulnerable to long-term complications such as PID, ectopic pregnancy, and infertility. Such screening usually occurs during routine health checks, or in pregnancy due to the risk of transmission of infection to infants born to infected mothers.^{7,9}

Higher rates of chlamydia are commonly reported in the general population for women aged 15-19 years, compared with men of the same age. This difference is attributed not only to more intensive screening of women, but also because women become sexually active at an earlier age and often have older partners.¹⁰

The increase in the number of confirmed chlamydia diagnoses made at sexual health clinics is largely the result of more sensitive DNA amplification test methods. However, regardless of improvements in testing methods, the high level of chlamydia represents a considerable burden of disease in New Zealand. All diagnostic medical laboratories in the Waikato and Bay of Plenty submit chlamydia surveillance data to ESR, which enables the calculation of the infection rate in the general population. These figures indicate the incidence of chlamydia is 509 cases per 100 000, with the highest infection rate in women aged 15-19 years (4466 per 100 000). These figures are significantly higher than those reported in Canada, where STI surveillance is also based on laboratory data. In Canada, the overall rate is 115 per 100 000, while the rate in women aged 15-19 years is 999 per 100 000.¹¹

The burden of chlamydia will be even higher than that indicated by laboratory data as these figures do not include probable cases of chlamydia where a laboratory test may not have been performed.

Also, the asymptomatic nature of most chlamydial infections means a significant number of infections in the general population are not diagnosed and treated.¹²⁻¹⁴

The number of gonorrhoea infections diagnosed in sexual health clinics also increased between 1996 and 1999, with the largest increase occurring between 1998 and 1999. The greatest increases occurred in Maori, young people aged less than 25 years, and women. Laboratory data reported to ESR from the Auckland and Waikato regions suggest that the increase in gonorrhoea diagnoses among sexual health clinic attendees reflects an increase in gonorrhoea in the general population. In the Auckland region, the number of laboratory-confirmed cases doubled between 1997 and 1999, from 308 to 606. In the Waikato region, laboratory-confirmed cases of gonorrhoea increased from 38 to 95 between 1998 and 1999. The increase in gonorrhoea is a reversal of the previous sustained decrease that began in the mid-1980s, and is of concern because gonorrhoea is considered a sensitive marker of unsafe sexual practices.¹⁵ An increase in gonorrhoea may precede increases in other STIs, including HIV, and may reflect failures in safe sex messages, shortfalls in contact tracing, or limited access to sexual health care services.¹⁶ Other countries have noted similar increases in gonorrhoea¹⁷⁻²¹ and have emphasised the importance of partner notification in the control of this infection.^{16,22}

Despite a decline in genital warts diagnoses in sexual health clinics between 1998 and 1999, genital warts remains the most frequently reported STI. While the decrease in diagnoses between 1998 and 1999 may reflect a real reduction in disease incidence, this seems unlikely given overseas trends⁶ and increases in other STIs in New Zealand. The decreases noted may reflect changes in attendance patterns, service provision, or reporting factors, such as better adherence to the case definition.

The majority of STIs were diagnosed in young adults, with over two-thirds of gonorrhoea and chlamydia and over 60% of genital warts diagnosed in people aged less than 25 years. Teenagers are at high risk of STIs through biological susceptibility and behavioural factors, such as unprotected sexual intercourse.^{8,23}

The increase in bacterial STIs among Maori may also be partly attributed to factors such as a change in attendance patterns at sexual health clinics by Maori, an increase in the number of people who identify Maori as their ethnic group, or improved contact tracing in Maori. However, the association between higher STI rates and Maori and Pacific Islands people has been a consistent finding among sexual health clinic attendees, as well as the general population.^{2,24-27} As well as higher disease incidence, this finding in sexual health clinics may be partly attributed to fewer asymptomatic Maori and Pacific Islands people attending for check-ups than other ethnic groups. It may also be attributed to the sexual-mixing patterns of subgroups of the population and the sub-optimal use of health services by Maori and Pacific Islands people.²⁶ In addition, the very high birth and pregnancy rates among Maori and Pacific Islands teenagers suggest that behavioural factors, such as the failure to use contraceptives,²⁸ including condoms, may also contribute to the high rates of STIs. Recent research indicates that young Maori are more likely to have sexual intercourse at an early age, and have a higher number of life-time partners,^{29,30} and has prompted calls for research to develop culturally appropriate early sexuality and educational programmes and services.³⁰ The higher rates of infection among minority ethnic groups in other countries has been attributed to the underlying effect of low socio-economic status and limited access to health services.⁷

Sexual health clinic data provide important information regarding trends in STI incidence. However, these figures will underestimate the total burden of disease in New Zealand as laboratory surveillance data indicate that more than 50% of infections are diagnosed by other health providers. The gradual expansion of STI surveillance to include data from family planning clinics, student and youth health clinics, as well as laboratories,⁴ will provide a more comprehensive picture of disease incidence and trends in the general population. STI surveillance data are limited, however, in that they provide only minimal information on risk factors for STIs. Therefore, STI surveillance data should be used to stimulate further research - epidemiological, clinical, and behavioural³¹ - to examine the reasons behind our high rates of infection

in young people and in Maori and Pacific Islands people.

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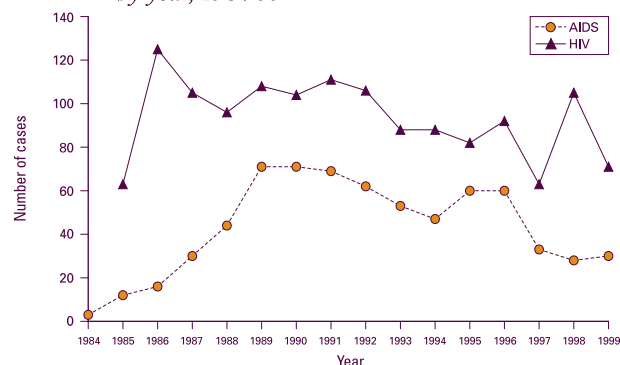
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AIDS and HIV infection in 1999

The number of AIDS cases notified in 1999 (30) was similar to that in 1998 (28) (Figure 1). Seventy-one people were newly diagnosed with HIV infection in 1999. By the end of 1999, 702 cases of AIDS had been notified in New Zealand since surveillance began in 1984, and 1407 people had been diagnosed with HIV infection since testing became possible in 1985.

Figure 1: AIDS notifications and diagnosed HIV infections by year, 1984-99



The decrease in AIDS notifications evident since 1996 is considered to be due to the introduction of the more effective combination antiretroviral treatments, which are delaying the development of AIDS in HIV-infected people. This decrease has resulted in an increase in the number of people living with diagnosed HIV infection. It is estimated that, at the end of 1999, there were approximately 833 people living with diagnosed HIV infection in New Zealand. The actual number infected with HIV will be higher.

Table 1 shows the most likely means of infection for people notified with AIDS and diagnosed with HIV infection in 1999 and in total up until the end of 1999. Notably, over a third (35.2%) of the people diagnosed with HIV infection in 1999 were heterosexually infected. The majority of heterosexual infections (88.7% of those in men and 74.1% in women since 1996) were acquired outside New Zealand.

Table 1: Exposure category of people notified with AIDS and people with diagnosed HIV infection

Exposure category	Sex	AIDS				HIV infection ¹			
		12 months to 31.12.99		Total to 31.12.99		12 months to 31.12.99		Total to 31.12.99	
		No.	%	No.	%	No.	%	No.	%
Homosexual contact	Male	22	73.3	562	80.1	34	47.9	755	53.7
Homosexual contact & IDU	Male	0	0	10	1.4	0	0	13	0.9
Heterosexual contact	Male	3	10.0	36	5.1	11	15.5	101	7.2
	Female	5	16.7	27	3.9	14	19.7	115	8.2
Injecting drug user (IDU)	Male	0	0	12	1.7	0	0	31	2.2
	Female	0	0	5	0.7	0	0	8	0.6
Blood product recipient	Male	0	0	15	2.2	0	0	29	2.1
Transfusion recipient	Male	0	0	1	0.1	1 ²	1.4	5	0.4
	Female	0	0	1	0.1	1 ²	1.4	6	0.4
	Not stated	0	0	0	0	0	0	5	0.4
Perinatal	Male	0	0	1	0.1	1	1.4	6	0.4
	Female	0	0	2	0.3	0	0	4	0.3
Awaiting information/undetermined	Male	0	0	28	4.0	8	11.3	286	20.3
	Female	0	0	2	0.3	1	1.4	23	1.6
	Not stated	0	0	0	0	0	0	14	1.0
Other	Male	0	0	0	0	0	0	2	0.1
	Female	0	0	0	0	0	0	4	0.3
Total		30	100	702	100	71	100	1407	100

Notes: 1 includes people who have developed AIDS
2 infected overseas

The ethnic distribution among the total 702 AIDS cases notified to the end of 1999 is: European, 79.6%; Maori, 10.6%; Pacific Islands people, 2.5%; other ethnicities, 6.2%; and unknown, 1.0%. In contrast, among the 1407 people who have

been diagnosed with HIV infection, there is a much greater proportion of people of 'other ethnicities': European, 48.3%; Maori, 6.0%; Pacific Islands people, 1.8%; other ethnicities, 39.6%; and unknown, 4.2%. Most of the infected people of 'other ethnicities' are from parts of the world where heterosexual transmission of HIV is common.

While the introduction of combination therapy is having an impact on the number of people developing AIDS, resistance to these drugs is already developing and widespread resistance could again lead to an increase in AIDS cases. In addition, there is concern that the perception by some people that HIV infection is now a treatable condition has resulted in less safe sex being practised. As HIV infection is still not curable, control of this disease must continue to focus on reducing the spread of the virus. (Reported by the AIDS Epidemiology Group, University of Otago.)

Few cases of toxic shellfish poisoning (TSP) notified despite large algal bloom

Despite the extensive toxic algal bloom which spread down the west coast of the North Island to the top of the South Island during 2000, only two cases of TSP have been notified, both unconfirmed. A probable case (toxin not detected in left-over food, but paralytic shellfish poisoning toxin detected in shellfish harvested from the same area as that eaten by the case) was notified in Northland in August, and a suspect case (toxin not detected in left-over food or shellfish harvested from same area as that eaten by the case) was notified in Nelson Marlborough in October.

Widely dispersed outbreak of Salmonella Paratyphi

In one week in September eight cases of S Paratyphi B var Java infection were notified. S Paratyphi B var Java typically causes gastroenteritis, and therefore is clinically more similar to salmonellosis than to paratyphoid fever. The ages of the eight cases ranged from 8-26 years. The isolates from the cases had the same molecular typing profile. The cases were notified from five health districts, and none had a history of overseas or local travel. This pattern of infection indicated the source was most probably a widely distributed contaminated food. Detecting and confirming a common source for small dispersed outbreaks of this type is difficult. There have been no further cases since September, which suggests that the source of infection has disappeared.

Correction

There was a publication error in the Surveillance data section of the September/October 2000 issue (Vol 7 No 9/10, pages 44-7). In both the national tables and health district tables for the months of July and August, the data published for acute gastroenteritis, campylobacteriosis, cholera, Creutzfeldt-Jakob disease, cryptosporidiosis and dengue fever were mis-aligned and are the data for campylobacteriosis, cholera, Creutzfeldt-Jakob disease, cryptosporidiosis, dengue fever and gastroenteritis, respectively. The copy of the September/October 2000 issue on the website is correct and is available at <http://www.moh.govt.nz/nzphr.html>. Labels to correct the order of the disease names in the incorrect tables are inserted in this issue.

Surveillance data

National surveillance data - September 2000

Disease ¹	Current year - 2000 ²			Previous year - 1999			Trends - September 2000
	Sep 2000 cases	Cumulative total year-to-date	Current rate ³	Sep 1999 cases	Cumulative total year-to-date	Previous rate ³	
AIDS	0	19	0.7	5	25	0.9	
Campylobacteriosis	630	5895	230.4	562	5723	252.0	***
Cholera	0	0	0	0	1	0.1	
Creutzfeldt-Jakob disease	1	3	0.1	0	1	0	200
Cryptosporidiosis	173	363	17.6	130	703	26.2	***
Dengue fever	0	3	0.1	0	8	0.4	*
Gastroenteritis ⁴	61	503	18.7	45	431	16.1	**
Giardiasis	142	1327	46.4	149	1440	51.8	**
<i>H influenzae</i> type b disease	0	9	0.3	1	9	0.3	
Hepatitis A	12	82	2.6	17	106	3.6	*
Hepatitis B (acute) ⁵	8	64	2.2	10	78	2.8	
Hepatitis C (acute) ⁵	7	68	2.5	9	73	2.9	
Hydatid disease	0	1	0.1	1	6	0.2	
Influenza ⁶	80	147	4.3	67	791	22.1	***
Lead absorption	11	84	3.2	15	122	4.0	
Legionellosis ⁶	9	42	2.0	6	38	1.4	
Leprosy	1	3	0.2	0	7	0.3	
Leptospirosis	7	79	2.8	5	38	1.8	
Listeriosis	1	20	0.7	2	15	0.5	**
Malaria	4	56	1.9	3	32	1.2	*
Measles	3	56	2.2	8	84	3.0	*
Meningococcal disease	62	354	13.2	65	384	13.1	
Mumps	2	39	1.4	8	44	1.6	
Paratyphoid	5	10	0.4	0	13	0.6	
Pertussis	433	2719	90.6	131	486	14.8	*** 514
Rheumatic fever	6	110	3.3	1	56	1.9	***
Rubella	1	19	0.8	2	24	0.9	
Salmonellosis	175	1301	47.7	143	1651	58.9	***
Shigellosis	12	86	3.2	5	116	4.1	
Tetanus	0	1	0.1	0	4	0.1	
Tuberculosis	28	272	10.8	46	331	12.0	
Typhoid	2	16	0.4	0	9	0.3	
VTEC/STEC infection	4	55	1.9	8	52	1.6	
Yersiniosis	27	311	12.0	52	380	13.7	*

Notes: 1 Other notifiable infectious diseases reported in September: murine typhus (1 case)

2 These data are provisional

3 Rate is based on the cumulative total for the current year (12 months up to and including September 2000) or the previous year (12 months up to and including September 1999), expressed as cases per 100 000

4 Cases of gastroenteritis from a common source or foodborne intoxication (eg, staphylococcal intoxication or toxic shellfish poisoning)

5 Only acute cases of this disease are currently notifiable

6 Surveillance data based on laboratory-reported cases only

7 Percentage change is the difference between the number of cases in the current year (12 months up to and including September 2000) and the previous year (12 months up to and including September 1999). This difference is expressed as a percentage of the number of cases seen in the previous year.

Surveillance data

Surveillance data by health district - September 2000

Cases this month Current rate¹

Disease	Cases for September 2000, ² and current rate ^{1,2} by health district ^{3,4}																							
	Northern				Midland						Central						Southern							
	Northland	NW Auck	Central Auck	South Auck	Waikato	Tauranga	Eastem BOP	Gisborne	Rotorua	Taupo	Taranaki	Ruapehu	Hawkes Bay	Wanganui	Manawatu	Wairarapa	Wellington	Hutt	Nelson-Marl	West Coast	Canterbury	South Cant	Otago	Southland
AIDS ³	0				0						0						0							
	1.5				0.0						0.8						0.2							
Campylobacteriosis	24	86	57	91	10	8	6	5	6	26	1	19	6	7	6	38	11	6	6	57	25	38	34	
	142.2	210.8	228.8	189.4	268.7	132.1	97.4	150.8	142.6	175.9	176.9	125.4	264.8	128.6	114.4	252.2	309.2	209.6	159.5	154.2	302.4	433.8	320.8	336.0
Cholera	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Creutzfeldt-Jakob disease	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	0	0	0.3	0	0	0.9	0	0	0	0	0	0	0.7	0	0	0	0	0	0	0	0	0	0	0
Cryptosporidiosis	9	7	3	9	49	3	1	2	4	2	7	0	6	1	14	1	4	3	1	2	15	15	8	7
	14.6	8.6	9.5	7.6	35.0	10.6	8.0	17.5	13.9	6.5	16.8	0	26.5	8.1	27.3	28.6	15.6	13.6	5.1	12.3	22.0	71.7	20.3	24.3
Dengue fever	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.3	0	0
Gastroenteritis	3	4	4	4	1	0	0	0	2	3	1	0	0	0	0	1	0	9	0	28	1	0	0	0
	5.8	17.5	25.5	13.8	15.5	11.5	8.0	2.2	12.4	153.1	16.8	0	0	0	0.7	2.6	15.2	2.3	11.1	0	60.0	7.5	15.6	5.4
Giardiasis	4	15	22	16	17	5	1	0	1	2	2	0	10	1	5	0	14	5	0	4	7	3	5	3
	29.9	57.8	79.5	36.9	62.1	60.3	21.9	35.0	46.5	48.9	17.8	29.8	76.0	17.9	18.6	18.2	63.8	45.2	14.6	83.3	36.2	28.9	33.6	20.7
H influenzae type b disease	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1.5	0	0.3	0.6	0.3	2.7	0	0	0	0	0.9	0	0	0	0	0	0	0	0	0	0	0	0	0
Hepatitis A	0	1	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	2	1
	0	1.5	2.9	2.6	1.0	2.7	2.0	4.4	3.1	0	1.9	0	0.7	0	1.3	0	1.6	1.5	1.7	0	9.8	5.0	1.2	1.8
Hepatitis B	0	1	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0
	1.5	1.0	3.2	0.6	5.0	3.5	2.0	4.4	0	6.5	0	6.0	3.5	0	0.7	2.6	1.2	3.0	1.7	0	2.8	6.3	1.7	0.9
Hepatitis C	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	1	0	1	0	2	1	0
	2.2	1.3	0.3	0.6	0.7	17.7	6.0	0	23.2	0	0.9	0	7.0	0	0.7	0	1.2	3.0	1.7	0	2.8	3.8	2.9	0
Hydatids	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0.3	0	0	2.2	0	0	0	0	0	0	0	0	0.4	0	0	0	0	0	0	0
Influenza ⁵	0	0	11	0	7	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	57	0	0	0
	0.7	0.3	6.7	0	3.0	0	2.0	0	0	0	0	0	0	0	0	4.5	0	0	0	0	26.4	0	3.5	0
Lead absorption	0	1	0	0	4	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	2	2	0
	1.5	0.3	1.4	1.2	6.9	0.9	2.0	6.6	1.5	3.3	2.8	0	4.2	3.3	6.0	5.2	2.1	0	3.4	0	5.7	16.3	4.1	1.8
Legionellosis ⁵	1	0	0	1	3	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0	1	0
	1.5	0.5	1.2	0.3	7.9	0.9	0	0	0	3.3	0	6.0	1.4	0	0.7	10.4	2.5	1.5	0	3.1	4.4	0	1.7	0.9
Leprosy	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0.3	0	1.2	0	0	0	0	0	0	0	0	0.7	0	0	0	0	0	0	0	0	0	0	0
Leptospirosis	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	3	0	1
	5.1	0.5	0	0.3	4.0	4.4	0	8.7	0	3.3	6.6	11.9	4.9	1.6	3.3	0	0.4	0	6.9	12.3	2.1	18.9	2.9	4.5
Listeriosis	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	1.0	0	0.9	0.3	0.9	0	0	0	0	0	0	0	0	0.7	0	0.4	2.3	0.9	0	1.0	3.8	0	1.8
Malaria	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0
	2.2	1.0	1.7	1.5	1.7	0	4.0	0	0	0	0.9	11.9	1.4	1.6	12.0	0	1.6	2.3	2.6	0	1.3	2.5	1.7	0.9
Measles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0
	3.6	3.3	1.2	1.2	0	0	0	0	1.5	3.3	0	0	6.3	0	0	5.2	0.4	3.0	4.3	6.2	3.6	2.5	2.9	6.3
Meningococcal disease	2	7	9	10	6	1	3	0	0	1	1	7	1	3	1	6	1	0	0	0	0	1	0	2
	17.5	10.7	20.5	33.1	14.5	9.8	23.9	26.2	18.6	0	6.6	11.9	13.9	13.0	4.7	10.4	7.0	7.5	1.7	0	6.7	3.8	13.3	7.2
Mumps	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	1.5	1.0	2.0	2.0	0	1.8	0	0	4.6	3.3	0.9	0	2.8	1.6	0.7	0	1.2	0.8	5.1	0	1.6	0	1.2	0
Paratyphoid	0	0	0	1	2	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0
	0	0.3	0	0.9	1.3	0	0	0	0	0	0	0	0	0	0.7	0	0.8	0.8	0	0	0.3	0	0.6	0
Pertussis	11	8	24	16	66	8	3	4	10	1	1	1	3	0	4	5	7	53	28	149	8	17	6	
	56.2	59.4	41.4	45.1	96.2	42.6	19.9	76.5	27.9	13.0	15.9	29.8	21.6	3.3	10.6	137.8	31.3	96.5	331.9	515.0	253.5	132.0	113.5	91.6
Rheumatic fever	1	0	0	0	3	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
	13.1	1.5	7.5	10.0	4.0	2.7	8.0	6.6	3.1	0	0.9	6.0	2.8	0	0	2.6	1.2	0.8	0	0	0	0	0	0
Rubella	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	0.7	1.0	0.6	0.3	0	0	0	0	0	0	0.9	0	0.7	0	0	1.2	0.8	0.9	0	2.1	0	0	3.5	0.9
Salmonellosis	2	15	6	0	9	3	2	1	0	1	6	0	1	1	8	4	9	0	3	1	34	7	20	42
	26.3	37.0	32.1	25.2	39.0	38.1	25.9	28.4	27.9	29.3	25.3	23.9	50.9	26.1	66.5	182.0	63.0	41.5	52.3	12.3	56.9	84.2	89.8	115.9
Shigellosis	0	1	5	3	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0
	4.4	5.1	5.5	6.1	2.3	0	6.0	6.6	4.6	19.5	0	1.4	0	0.7	2.6	2.9	6.0	0.9	0	1.3	1.3	1.7	0	
Tetanus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0.7	1.6	0	2.6	0	0	0	0	0	0	0	0
Tuberculosis	0	2	4	9	2	0	1	2	0	0	0	0	0	0	4	0	2	2	0	0	0	0	0	0
	5.1	11.4	21.7	21.7	8.9	8.9	13.9	4.4	4.6	3.3	1.9	6.0	8.4	13.0	10.0	2.6	18.5	19.6	2.6	0	4.7	2.5	4.1	0.9
Typhoid	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0.3	1.7	1.5	0.3	0	0	0	0	0	0	0	0	0	0	1.2	0	0	0	0	0	0	0	0
VTEC/STEC infection	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0
	0	0.3	0.3	0.9	7.3	0.9	4.0	0	1.5	19.5	3.7	0	1.4	1.6	0	1.6	0	0.9	0	2.6	1.3	4.1	0	
Yersiniosis	0	4	5	0	2	0	1	0	3	0	0	0	0	0	0	5	0	0	0	5	1	0	1	
	7.3	15.0	17.6	12.9	10.2	15.1	15.9	2.2	13.9	13.0	1.9	0	15.3	1.6	1.3	0	16.1	13.6	6.9	24.7	15.3	18.9	3.5	9.0

Notes: 1 Current rate is based on the cumulative total for the 12 months up to and including September 2000, expressed as cases per 100 000

2 These data are provisional

3 AIDS data given by divisions of the Health Funding Authority

Surveillance data

National surveillance data - October 2000

Disease ¹	Current year - 2000 ²			Previous year - 1999			Trends - October 2000
	Oct 2000 cases	Cumulative total year-to-date	Current rate ³	Oct 1999 cases	Cumulative total year-to-date	Previous rate ³	
AIDS	2	21	0.8	0	25	0.7	
Campylobacteriosis	828	6726	236.6	606	6329	243.8	
Cholera	0	0	0	0	1	0.1	
Creutzfeldt-Jakob disease	0	3	0.1	0	1	0	
Cryptosporidiosis	240	602	19.3	178	881	27.1	
Dengue fever	1	4	0.1	1	9	0.3	
Gastroenteritis ⁴	71	574	19.8	32	463	15.8	
Giardiasis	108	1436	46.0	124	1564	51.3	
<i>H influenzae</i> type b disease	1	10	0.3	0	9	0.3	
Hepatitis A	11	93	2.8	5	111	3.6	
Hepatitis B (acute) ⁵	7	70	2.2	7	85	2.7	
Hepatitis C (acute) ⁵	5	73	2.4	9	82	2.9	
Hydatid disease	1	2	0.1	0	6	0.2	
Influenza ⁶	66	213	6.0	3	794	22.0	
Lead absorption	7	91	3.1	11	133	4.1	
Legionellosis ⁶	12	54	2.1	10	48	1.7	
Leprosy	0	3	0.2	0	7	0.3	
Leptospirosis	7	86	2.7	9	47	1.7	
Listeriosis	0	20	0.6	2	17	0.5	
Malaria	7	64	2.0	4	36	1.3	
Measles	8	64	2.2	6	90	3.0	
Meningococcal disease	53	406	13.5	43	427	13.6	
Mumps	4	41	1.4	4	48	1.6	
Paratyphoid	4	14	0.4	3	16	0.6	
Pertussis	482	3201	99.4	166	652	19.0	
Rheumatic fever	7	117	3.4	3	59	1.9	
Rubella	4	23	0.8	6	30	1.0	
Salmonellosis	217	1515	49.6	145	1796	57.9	
Shigellosis	10	95	3.3	8	124	4.0	
Tetanus	0	1	0.1	0	4	0.1	
Tuberculosis	38	311	10.8	42	372	12.2	
Typhoid	2	18	0.5	0	9	0.3	
VTEC/STEC infection	6	61	1.8	8	60	1.8	
Yersiniosis	32	343	12.0	33	413	13.5	

Notes: 1 Other notifiable infectious diseases reported in October: nil

2 These data are provisional

3 Rate is based on the cumulative total for the current year (12 months up to and including October 2000) or the previous year (12 months up to and including October 1999), expressed as cases per 100 000

4 Cases of gastroenteritis from a common source or foodborne intoxication (eg, staphylococcal intoxication or toxic shellfish poisoning)

5 Only acute cases of this disease are currently notifiable

6 Surveillance data based on laboratory-reported cases only

7 Percentage change is the difference between the number of cases in the current year (12 months up to and including October 2000) and the previous year (12 months up to and including October 1999). This difference is expressed as a percentage of the number of cases seen in the previous year.

Surveillance data

Surveillance data by health district - October 2000

Cases this month Current rate¹

Disease	Cases for October 2000, ² and current rate ^{1,2} by health district ^{3,4}																							
	Northern				Midland						Central						Southern							
	Northland	NW Auck	Central Auck	South Auck	Waikato	Tauranga	Eastem BOP	Gisborne	Rotorua	Taupo	Taranaki	Ruapehu	Hawkes Bay	Wanganui	Manawatu	Wairarapa	Wellington	Hutt	Nelson-Marl	West Coast	Canterbury	South Cant	Otago	Southland
AIDS ³	0				0						1						1							
	1.5				0						0.9						0.3							
Campylobacteriosis	33	90	68	57	106	24	8	7	8	12	29	0	27	7	21	4	54	23	11	9	115	31	38	46
	155.4	216.1	232.5	191.7	274.3	148.9	101.4	153.0	139.5	201.9	183.4	119.4	269.7	136.8	119.0	241.8	307.9	211.9	156.1	154.2	320.0	445.1	320.3	360.2
Cholera	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Creutzfeldt-Jakob disease	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cryptosporidiosis	8	5	4	6	37	7	0	4	8	4	6	0	12	4	9	4	8	16	0	4	32	21	23	18
	17.5	8.1	9.5	9.1	40.3	12.4	8.0	21.9	26.3	19.5	14.0	0	22.3	8.1	23.9	23.4	17.7	25.6	0.9	24.7	18.9	78.0	29.0	33.2
Dengue fever	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	0	0	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0	0	0	0	0	1.3	0	0
Gastroenteritis	0	11	10	4	0	3	0	0	0	1	3	0	0	0	0	1	2	0	2	2	26	6	0	0
	4.4	19.3	25.7	14.3	15.5	13.3	8.0	2.2	12.4	156.3	19.7	0	0	0	0.7	5.2	16.1	2.3	12.0	6.2	63.4	15.1	15.6	5.4
Giardiasis	3	15	10	10	17	9	0	2	5	2	1	0	2	0	6	1	5	2	0	0	9	5	2	2
	31.4	58.1	77.2	38.0	61.8	63.8	19.9	37.2	51.1	48.9	16.8	29.8	69.0	17.9	18.6	20.8	65.0	43.7	12.9	83.3	34.9	35.2	29.0	19.8
H influenzae type b disease	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1.5	0	0.3	0.6	0.3	2.7	2.0	0	0	0	0.9	0	0	0	0	0	0	0	0	0	0	0	0	0
Hepatitis A	0	1	0	4	0	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	0	1.5	2.0	3.8	1.0	3.5	2.0	13.1	3.1	0	1.9	0	0.7	0	1.3	0	1.6	1.5	0.9	0	10.1	5.0	1.2	1.8
Hepatitis B	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0	0	4	0	0	0
	1.5	1.0	3.2	0.6	4.0	2.7	2.0	4.4	0	6.5	0	6.0	3.5	0	0.7	2.6	2.1	3.0	1.7	0	3.6	3.8	1.7	0.9
Hepatitis C	0	0	0	0	1	2	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
	1.5	1.3	0.3	0.6	1.0	17.7	4.0	0	15.5	0	0.9	0	7.7	0	0.7	0	1.6	3.0	1.7	0	2.8	3.8	2.9	0
Hydatids	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	0	0	0	0	0.3	0	0	2.2	0	0	0	0	0	0	0	0.8	0	0	0	0	0	0	0	0
Influenza ⁵	0	0	27	0	19	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	16	0	0	0
	0.7	0.3	14.5	0	9.3	0	0	0	0	0	0	0	0	0	0	5.4	0	0	0	0	30.5	0	3.5	0
Lead absorption	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	4	0	1	0
	1.5	0.3	1.4	1.5	6.3	0.9	2.0	6.6	3.1	3.3	1.9	0	3.5	3.3	6.0	0	2.1	0	3.4	0	6.2	13.8	4.1	1.8
Legionellosis ⁵	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	0	2	0
	2.2	0.8	1.2	0.3	7.3	0.9	0	0	0	0	0	6.0	0.7	0	0.7	10.4	2.9	2.3	0	3.1	4.4	0	2.9	0.9
Leprosy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0.3	0	1.2	0	0	0	0	0	0	0	0	0.7	0	0	0	0	0	0	0	0	0	0	0
Leptospirosis	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	0	1	0	1	1	1	0	0
	5.1	0.5	0	0.3	4.0	4.4	0	8.7	0	0	5.6	11.9	4.9	1.6	2.7	0	0.4	0	7.7	12.3	2.3	18.9	2.9	3.6
Listeriosis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0.8	0	0.9	0.3	0.9	0	0	0	0	0	0	0	0	0.7	0	0.4	2.3	0.9	0	0.8	3.8	0	1.8
Malaria	0	0	0	1	3	0	0	0	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0
	2.9	0.5	1.7	1.8	2.3	0	4.0	0	0	3.3	0.9	11.9	1.4	1.6	12.6	0	2.1	2.3	2.6	0	1.3	2.5	1.2	0.9
Measles	1	0	0	1	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	3	0	1	0
	4.4	3.0	1.2	1.2	0	0	0	1.5	3.3	0	0	7.0	0	0.7	2.6	0.4	3.0	4.3	3.1	4.4	2.5	2.3	6.3	
Meningococcal disease	1	4	12	11	3	1	2	1	4	1	0	1	2	0	2	1	3	3	0	0	1	0	0	0
	18.2	10.7	21.4	33.7	14.2	9.8	27.8	28.4	23.2	3.3	4.7	17.9	14.6	11.4	6.0	13.0	7.8	8.3	1.7	0	5.7	3.8	11.0	7.2
Mumps	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	1	0
	0.7	1.0	2.3	1.2	0	1.8	0	0	4.6	3.3	0.9	0	3.5	1.6	0.7	0	1.2	0.8	5.1	0	1.6	0	1.2	0
Paratyphoid	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	0	0
	0	0.3	0	0.6	1.7	0	0	0	0	0	0	0	0.7	0	1.3	0	0.8	0.8	0	0	0.3	0	0	0
Pertussis	15	19	25	15	61	9	14	2	15	4	1	1	13	0	2	5	21	22	62	16	113	10	35	2
	64.2	61.1	47.1	46.2	109.1	50.5	47.7	80.9	51.1	26.1	13.1	35.8	30.0	3.3	11.3	150.8	39.9	110.8	379.0	564.3	275.7	110.6	129.7	62.0
Rheumatic fever	1	0	0	0	0	0	1	0	1	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0
	13.9	1.5	7.2	10.0	4.0	2.7	9.9	2.2	4.6	0	0.9	6.0	4.2	0	0	2.6	1.6	1.5	0	0	0	0	0	0
Rubella	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0
	0.7	1.0	0.9	0.3	0	0	0	0	0	0	0.9	0	0.7	0	0	1.2	1.5	0.9	0	2.1	0	1.2	0.9	0
Salmonellosis	6	10	16	7	12	5	1	4	3	4	5	0	5	0	9	0	8	6	10	5	34	17	19	31
	29.9	37.3	32.7	25.2	38.3	41.7	23.9	30.6	27.9	39.1	22.5	17.9	46.0	26.1	69.1	174.2	62.6	43.7	52.3	24.7	62.9	96.8	93.2	134.7
Shigellosis	1	0	4	4	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4.4	4.6	6.1	6.7	2.3	0	6.0	6.6	6.2	19.5	0	0	1.4	0	0	2.6	2.9	6.0	0.9	0	1.3	0	1.7	0
Tetanus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0.7	1.6	0	2.6	0	0	0	0	0	0	0	0
Tuberculosis	0	2	5	11	2	0	0	0	0	0	0	0	2	0	0	0	5	3	1	0	1	0	5	1
	3.6	10.9	21.7	22.5	8.6	7.1	11.9	4.4	4.6	3.3	1.9	6.0	9.1	11.4	10.0	2.6	17.7	18.1	3.4	0	4.7	1.3	6.9	1.8
Typhoid	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0.5	1.7	1.8	0.3	0	0	0	0	0	0	0	0	0	0	1.2	0	0	0	0	0	0	0	0
VTEC/STEC infection	0	0	0	0	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	2	0	0
	0	0.3	0	0.9	6.9	0	4.0	0	3.1	19.5	4.7	0	1.4	3.3	0	0.4	0	0.9	0	2.3	3.8	4.1	0	
Yersiniosis	0	2	3	1	2	2	0	0	0	0	2	0	0	0	0	2	2	1	3	8	2	0	2	
	5.8	14.7	16.5	12.0	10.2	16.8	15.9	2.2	13.9	9.8	3.7	0	14.6	1.6	1.3	0	15.2	14.3	7.7	27.8	16.0	20.1	3.5	10.8

Notes: 1 Current rate is based on the cumulative total for the 12 months up to and including October 2000, expressed as cases per 100 000

2 These data are provisional

3 AIDS data given by divisions of the Health Funding Authority

4 Further data are available from the local medical officer of health

5 Surveillance data based on laboratory-reported cases only

Public health abstracts

No risk of sporadic Creutzfeldt-Jakob disease (CJD) from blood transfusions

A review of five case-control studies, published between January 1966 and January 1999, does not support an association between blood transfusion and development of sporadic CJD. Conversely, patients with CJD were less likely (odds ratios 0.54 to 0.89) to have received blood transfusions than controls. However, this apparent protective effect of transfusions is probably the consequence of the methodological limitations of the studies. These limitations included the choice of control population (medical/neurological patients in three studies) and reliability of recall of transfusion status. Studies of variant CJD (vCJD) were not included in this review (Wilson K, Code C, Ricketts MN. Risk of acquiring Creutzfeldt-Jakob disease from blood transfusions: systematic review of case-control studies. *BMJ* 2000; 321: 17-9).

Editorial note: This study provides support for current opinion that the classic form of CJD (mostly sporadic CJD) is not transmissible

via blood transfusions. There have also been no reports of vCJD transmission by transfusion, although recent research on bovine spongiform encephalopathy in sheep has suggested a theoretical risk (*Lancet* 2000; 356: 955-9). In 1999, the New Zealand Ministry of Health announced that two precautionary measures to reduce any risk of vCJD transmission by transfusion would be introduced. The first was the exclusion of donors who have spent six months in the United Kingdom between 1980 and 1996, and follows the introduction of similar policies in the United States and Canada. This new policy commenced from February 2000, and it was expected to affect up to 10% of the donor population. The second measure is universal leucodepletion of blood components, which should be fully implemented by June 2001. Removal of white cells is believed to reduce prion load in the donation.

Travel health

Large Ebola haemorrhagic fever outbreak in Uganda

An outbreak of Ebola haemorrhagic fever is occurring in the Gulu district of Uganda. According to the Ugandan Ministry of Health, as of 8 December this outbreak had resulted in 405 cases, including 160 deaths. This is the first known outbreak of Ebola in Uganda. The last large outbreak was in Zaire in 1995 (Ebola, Uganda (update). *Wkly Epi Rec* 2000; 49: 398-99 and <http://www.who.int/disease-outbreak-news/>).

Editorial note: The viral haemorrhagic fevers are a group of diseases characterised by fever and bleeding. Four are of particular public health concern because of their capacity for direct person-to-person spread. These are Ebola haemorrhagic fever and the closely related Marburg haemorrhagic fever, Lassa fever, and Crimean-Congo haemorrhagic fever. Detailed guidelines have been developed for the public health management of these four diseases. These emphasise isolation and barrier nursing of cases, and the identification, surveillance and quarantine of immediate contacts. The World Health Organization recommends no special restrictions on travel or trade to or from Uganda.

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