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2002 Canadian Sexually Transmitted Infections Surveillance Report

TABLE OF CONTENTS

FOREWORD

The Sexual Health and Sexually Transmitted Infections section of the Public Health Agency of Canada is pleased to provide you with this latest version of the *Sexually Transmitted Infections (STI) Surveillance Report.* The term STI (sexually transmitted infection), now commonly used in place of STD (sexually transmitted disease), is more encompassing and includes infections that may be asymptomatic.

The timing of this report is ideal, as the Sexual Health and Sexually Transmitted Infections section is currently revising the national STI goals set in 1996, as well as revising the 1998 *Canadian STD Guidelines*. In addition, this section has continued its development of the Minimum Dataset in collaboration with the provinces and territories. Such a dataset would enhance the consistency and timeliness of data submission at the national level. However, none of these can be done effectively without a knowledge of the current national STI picture.

This publication focuses on basic epidemiologic information for diseases that are transmitted predominantly through sexual contact *and* that are nationally reportable to the Public Health Agency of Canada. The list of nationally reportable diseases was determined by a federal/provincial/territorial committee using a priority-setting process to determine which diseases should be routinely monitored. Criteria were developed with the objective of ensuring the best use of resources in the prevention and control of diseases that are a threat to Canadians. The STI included in this list are genital chlamydia, gonorrhea, and infectious syphilis. Other infections, such as genital herpes and human papillomavirus, are not reportable and therefore not included.

This report on Canadian trends in STI is intended for governments, health professionals, researchers, voluntary agencies that are involved in service provision and planning, and the general public. The goal is to provide information that can be used to support and inform decision-making and programs aimed at improving the health of Canadians.

All surveillance systems have limitations; the following are the ones noted for our system. Many STI are asymptomatic, therefore some infections may go unnoticed, undiagnosed, and unreported. Furthermore, contact tracing is a critical activity in the prevention and control of STI, but recent increases in risky sexual behaviour, such as anonymous sex partnering, make contact tracing difficult. As a result, infections among anonymous contacts of cases may not be recognized and entered into the surveillance system. Among symptomatic individuals, only those who seek testing or medical care will be captured by this passive surveillance system. Because of these limitations, the counts in this report are likely an underestimate of the true burden of disease. However, the report does provide an estimate of the scope and trends of STI in Canada. Data up to 2001 have been finalized, but 2002 data are still subject to change because of reporting delays and other constraints of surveillance systems.

When reading this report, please keep in mind that small variability may exist between data reported by the Public Health Agency of Canada and data reported by individual provinces and territories. In such circumstances, provincial/territorial data are definitive, as their data are the most up to date.

This report, as well as our ongoing surveillance of STI, could not happen without the efforts of so many others:

- the Surveillance and Risk Assessment Division within the Public Health Agency of Canada, which maintains the Infectious Disease Reporting System from which counts of bacterial STI are derived;
- the National Microbiology Laboratory in Winnipeg, which provides data on antibiotic-resistant gonorrhea and has also contributed to sections of this report;

- the Data Development and Exchange Program at the Public Health Agency of Canada, which provided data on pelvic inflammatory disease as well as estimates of the number of births in Canada;
- the Field Surveillance Officers, located in several provinces and territories, who assist with data quality improvement and provide ongoing support to the Sexual Health and Sexually Transmitted Infections section;
- provincial and territorial health ministries. We gratefully acknowledge them for the timely manner in which they provide data to the Public Health Agency of Canada for their continued expert contributions to the national STI program.

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EXECUTIVE SUMMARY

Since the last report, there have been continued increases in all three nationally reportable sexually transmitted infections (STI): chlamydia, gonorrhea, and infectious syphilis. This upward trend in STI rates has been reported since 1997.

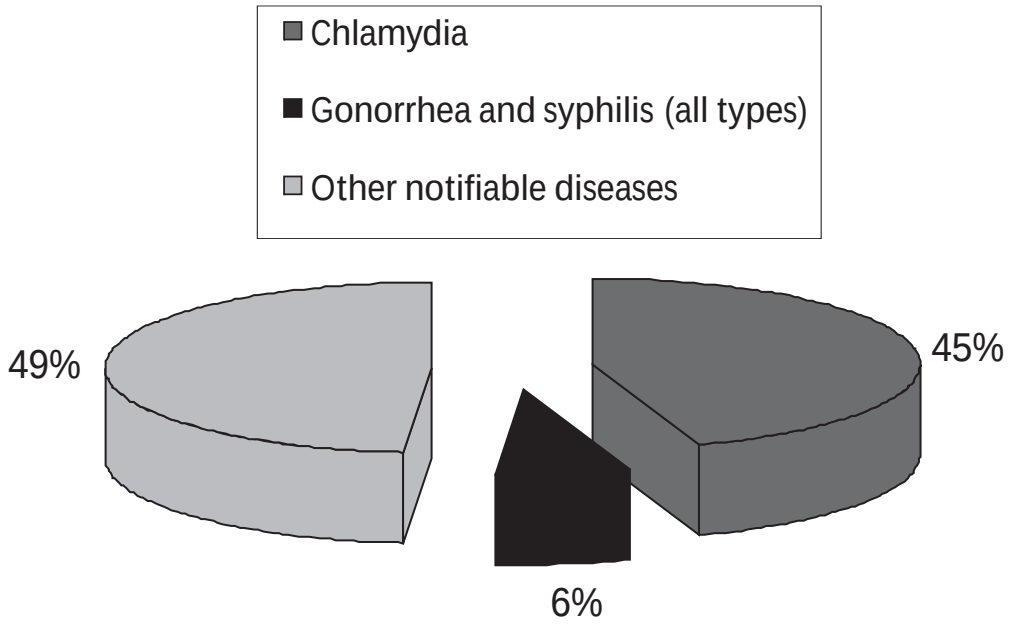
The trend of increasing STI rates is one that has been reported to varying degrees in other industrialized countries. In the United Kingdom, rates of chlamydia infection have been rising since 1996 and those for gonorrhea infection since 1995[1]. In 2002, rates of infectious syphilis were 73% higher among males and 33% higher among females than 2001[1]. With an exception in 2000, rates of chlamydia infection in the United States have risen steadily since 1996[2]. However, unlike Canada, where rates have been steadily rising since 1998, rates of gonorrhea in the United States in 2002 were the lowest they had been in the previous 4 years. Also in the United States, rates of infectious syphilis have increased by 12.4% from 2001, which is much lower than the 66.7% increase observed in Canada.

There were 56 241 cases of genital chlamydia in 2002, for a rate of 179.3 per 100 000 population. This represents an 11.1% increase compared with the rate of 161.4 per 100 000 in 2001 and a 57.5% increase above the rate in 1997. The number of reported cases of gonorrhea in 2002 was 7 367, for a rate of 23.5 per 100 000 population. This represents an increase of 7.9% compared with the 2001 rate of 21.8 per 100 000 and an increase of 57.3% compared with the rate in 1997. In 2002, there were 463 cases of infectious syphilis reported, for a rate of 1.5 per 100 000 population. This rate is 66.7% higher than that reported in 2001 (0.9 per 100 000 population) and 284.9% higher than the rate reported in 1997. However, the percentage increase associated with infectious syphilis (compared with chlamydia and gonorrhea) must be interpreted with caution, as the case counts and rates of infectious syphilis are very small.

With a few exceptions, patterns of STI infection related to gender have remained fairly consistent. Women continue to be disproportionately affected by chlamydia infection. Rates of gonorrhea and syphilis infection are still higher among men. For both chlamydia and gonorrhea, the males and females most at risk of infection are those between the ages of 15 and 29. The picture for syphilis, however, has changed. Among females, those most at risk continue to be between the ages of 20 and 39, whereas the males most at risk are between the ages of 25 and 59, those in the 30 to 39 age group being at greatest risk.

In 2002, reported cases of chlamydia, gonorrhea, and syphilis accounted for 51% of all notifiable disease cases reported to Health Canada. This proportion has remained relatively stable over the years.

Figure 1: Reported Cases of STI as a Proportion of all Notifiable Diseases in Canada, 2002*



* Preliminary data
Source: Notifiable Diseases, Surveillance and Risk Assessment Division, Public Health Agency of Canada, 2004

GENITAL CHLAMYDIA

(*Chlamydia trachomatis*)

- Genital chlamydia is the most commonly reported STI.
- The number of reported cases declined steadily when chlamydia became reportable in 1990[(3)], reaching its lowest point in 1997.
- The picture has changed drastically over the last 5 years. The rate of chlamydia in Canada has reached an all-time high of 179.3 per 100 000 in 2002, compared with 113.9 per 100 000 in 1997.

Table 1: Number of Reported Cases and Rates of Genital Chlamydia Infection in Canada, 1992, 1997 and 2002

Year	Number of reported cases	Rate[1]
1992	46 365	163.4
1997	34 144	113.9
2002[2]	56 241	179.3

[1]Rate per 100 000 population. Population estimates provided by Statistics Canada.

[2]2002 numbers are preliminary, and changes are anticipated.

Source: Public Health Agency of Canada, Centre for Infectious Disease Prevention and Control, Community Acquired Infections Division, Sexual Health and STI.

- The overall increase in the number of cases from 1997 to 2002 was 65%. The male increase was 100%, and the female increase was 52% over same period.
- Females have traditionally accounted for over 75% of all reported cases; a recent shift has seen that number drop slightly, to 69%, in 2002.
  - The reported rate remains significantly higher among females.

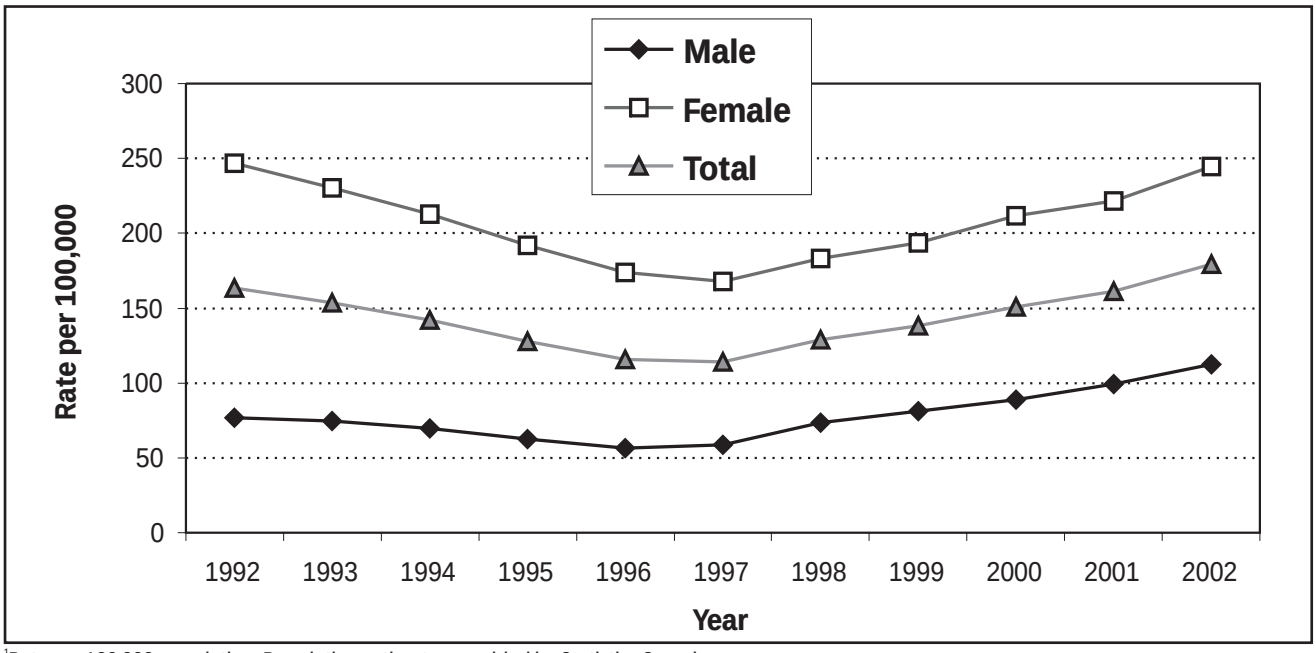
Sex and Age Group Distribution

- Overall, the distribution of reported cases across age groups has remained fairly constant from 1997 to 2002 in spite of increased numbers.
  - The majority of cases are aged 15 to 24 years.
- Among males, the consistently highest rate is in the age group 20-24, representing 38% of all male cases (see Figure 2).
- The 25-29 age group has the second highest rate of chlamydia among males.
- As of 2002, it appears that there is a divergence between 15-19 and 25- to 29-year-olds.
- The age group with the highest rate among females remains the 15-24 group (Figure 3).
- Those aged 20 to 24 now account for 37% of cases compared with 36% among those 15 to 19 years of age.

Geographic Distribution

- In 2002, Ontario and Quebec reported the most cases of chlamydia (17 994 and 11 112 respectively).
  - To understand what a “case” means, note that an individual can have multiple cases of an infection, e.g. can be re-infected by an untreated partner.
- However, the highest reported rates of chlamydia are in the northern territories. As shown in Figure 4, the case counts are relatively small.
  - Caution must be used in interpreting statistics from regions with small populations. Data based on small numbers of people are more prone to fluctuation and may inappropriately highlight very small changes in absolute cases as a large percentage change (may be unrelated to true changes in disease rate and be more difficult to interpret than data from larger populations).

Figure 1: Reported (Genital) Chlamydia Rates[1] in Canada, 1992-2002[2]

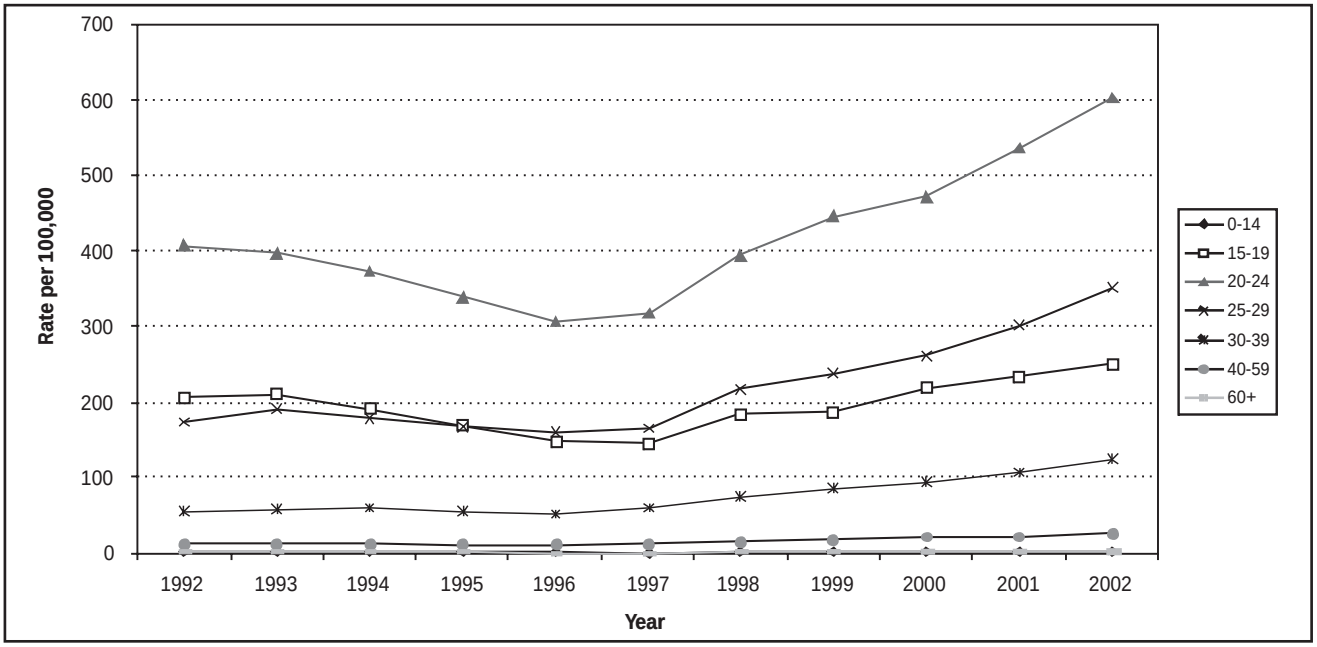


[1]Rate per 100 000 population. Population estimates provided by Statistics Canada.

[2]2002 numbers are preliminary, and changes are anticipated.

Source: Public Health Agency of Canada, Centre for Infectious Disease Prevention and Control, Community Acquired Infections Division, Sexual Health and STI.

Figure 2: Reported Male (Genital) Chlamydia Rates[1] in Canada by Selected Age Group, 1992-2002[2]

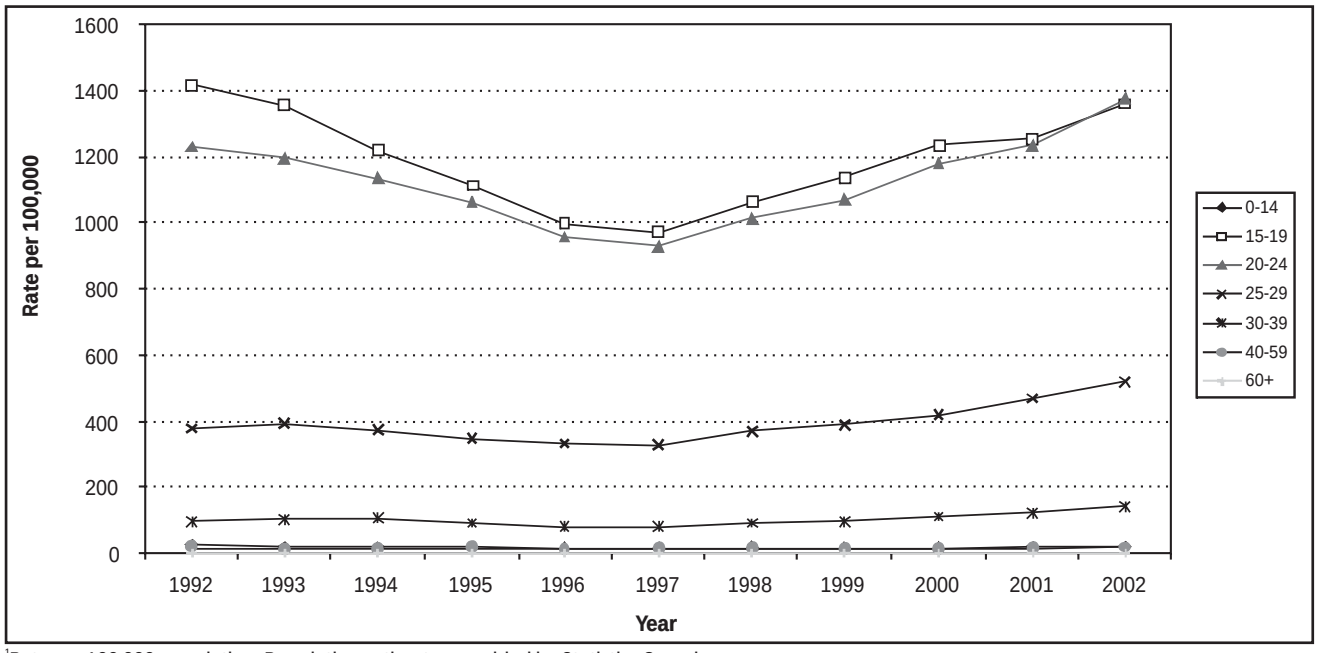


[1]Rate per 100 000 population. Population estimates provided by Statistics Canada.

[2]2002 numbers are preliminary, and changes are anticipated.

Source: Public Health Agency of Canada, Centre for Infectious Disease Prevention and Control, Community Acquired Infections Division, Sexual Health and STI.

Figure 3: Reported Female (Genital) Chlamydia Rates[1] in Canada by Selected Age Group, 1992-2002[2]

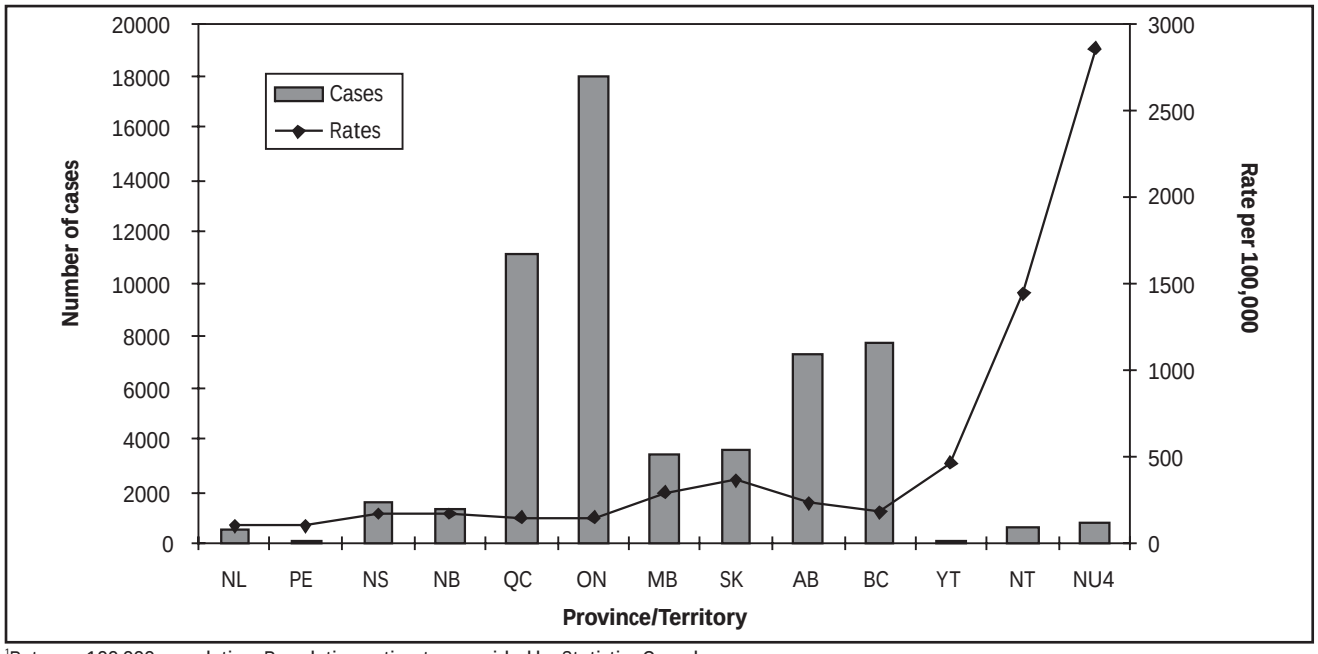


[1]Rate per 100 000 population. Population estimates provided by Statistics Canada.

[2]2002 numbers are preliminary, and changes are anticipated.

Source: Public Health Agency of Canada, Centre for Infectious Disease Prevention and Control, Community Acquired Infections Division, Sexual Health and STI.

Figure 4: Reported Cases and Rates[1] of Genital Chlamydia by Province/Territory, 2002[2]



[1]Rate per 100 000 population. Population estimates provided by Statistics Canada.

[2]2002 numbers are preliminary, and changes are anticipated.

Source: Public Health Agency of Canada, Centre for Infectious Disease Prevention and Control, Community Acquired Infections Division, Sexual Health and STI.

- The Prairies, in particular Saskatchewan, have the highest reported rate of chlamydia outside of the northern region.
- The regional distribution of chlamydia cases, illustrated in Figure 4 for 2002, has remained fairly constant in recent years.
- The national rate of chlamydia continues to be driven by the larger, more populous regions in Canada (e.g. in Ontario, Quebec, and British Columbia, the number of cases has increased by at least 70% from 1997 to 2002).
  - Therefore, while increases are seen across most provinces/territories, rates of increase vary. The one exception is the Yukon, where the overall number of cases has actually decreased (Table 2).

Table 2: Reported Cases and Rates[1] of Genital Chlamydia by Province/ Territory

	1997		2002[2]		
	Cases	Rates	Cases	Rates	% change
NL	335	60.5	522	100.5	56%
PE	139	101.6	145	105.8	4%
NS	1 127	120.6	1 574	168.5	40%
NB	819	108.6	1 313	175.0	60%
QC	6 380	87.4	11 112	149.3	74%
ON	10 559	93.9	17 994	148.4	70%
MB	2 587	227.6	3 370	291.7	30%
SK	2 317	226.7	3 613	362.9	56%
AB	4 547	160.3	7 336	235.6	61%
BC	4 116	103.9	7 701	187.2	87%
YT	173	536.6	141	468.1	-18%
NT/NU*	1 045	1 542.8	1 420	2 023.5	36%
Canada	**34 144**	**113.9**	**56 241**	**179.3**	**65%**

[1]Rate per 100 000 population. Population estimates provided by Statistics Canada.

[2]2002 numbers are preliminary, and changes are anticipated.

*The Northwest Territories was divided in April 1999 when Nunavut became a separate territory. To compare across time periods, these two territories have been combined.

Note: Small variability may exist between data reported by the provinces/territories and the Public Health Agency of Canada. Provincial/territorial data are definitive should a discrepancy exist.

Source: Public Health Agency of Canada, Centre for Infectious Disease Prevention and Control, Community Acquired Infections Division, Sexual Health and STI.

Males

- Among males in 2002, Ontario has the largest number of cases (6 154), and Nunavut had the highest reported rate (1 833.4 per 100 000 or 274 cases).
- Overall, there has been an increase in all provinces/territories since 1997, as illustrated in Figure 5.
- The largest increase has occurred in British Columbia (135% from 1997 to 2002, 1002 to 2 352 cases).

Females

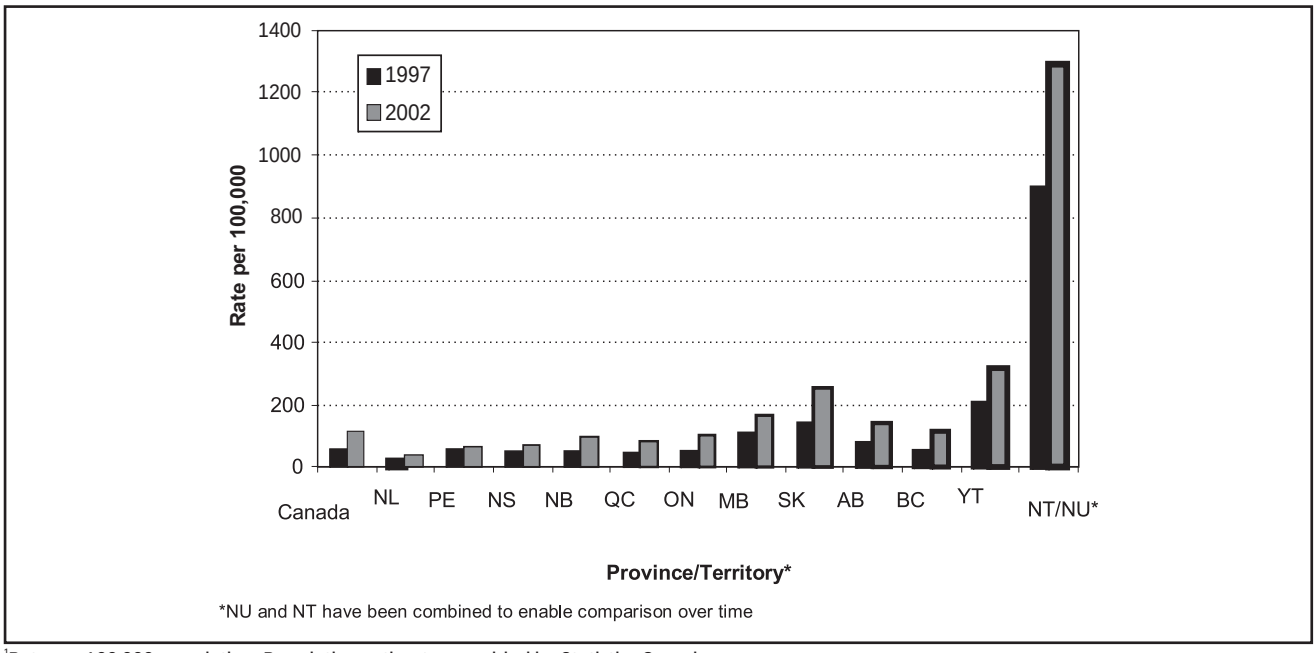
- In 2002, Yukon Territory is the only jurisdiction where there has been a reduction in the number of cases among females; however, rates continue to be high (Figure 6).
- The most cases are reported in Ontario (11 834), and the highest rate is in Nunavut (3 958 per 100 000, as compared with the national average of 245 per 100 000).
- Compared with males, the increase in female cases has been less dramatic between 1997 and 2002.
- Reported rates of chlamydia in British Columbia have increased the most of all regions: 72% from 1997 to 2002 (from 3 110 to 5 348 cases respectively)

Discussion

Surveillance systems capture only those cases in which an individual has presented to a health care professional and received a positive laboratory result for *C. trachomatis*. As a result, the true number of chlamydia cases in Canada is likely much higher than that reported. Lack of awareness, combined with lack of symptoms, further contributes to under-reporting. It is estimated that more than 50% of males and 70% of females can be asymptomatic[(4)], further diminishing the likelihood of testing.

The introduction of the nucleic acid amplification test (NAAT) has had an impact on chlamydia trends. This testing method, introduced in various regions of Canada in the late 1990s, permits the collection of urine-based samples instead of more invasive swabs.

Figure 5: Reported Male Genital Chlamydia Rates[1] in Canada by Province/Territory, 1997 and 2002[2]

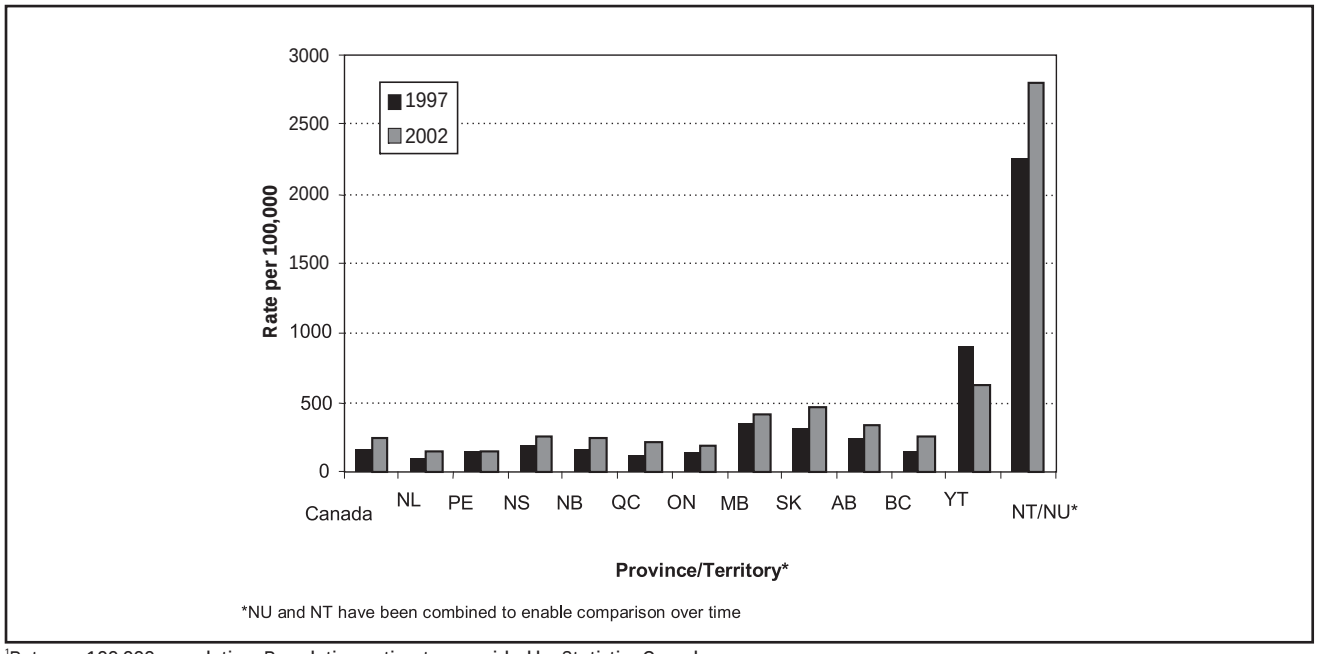


[1]Rate per 100 000 population. Population estimates provided by Statistics Canada.

[2]2002 numbers are preliminary, and changes are anticipated.

Source: Public Health Agency of Canada, Centre for Infectious Disease Prevention and Control, Community Acquired Infections Division, Sexual Health and STI.

Figure 6: Reported Female Genital Chlamydia Rates[1] in Canada by Province/Territory, 1997 and 2002[2]



[1]Rate per 100 000 population. Population estimates provided by Statistics Canada.

[2]2002 numbers are preliminary, and changes are anticipated.

Source: Public Health Agency of Canada, Centre for Infectious Disease Prevention and Control, Community Acquired Infections Division, Sexual Health and STI.

The change in specimen collection removes a barrier to testing, especially for males. The minor shift in sex distribution may be partially explained by use of NAAT. However, it is the availability of non-invasive testing such as NAAT and effective, single-dose treatment for non-compliant individuals that favour the control and prevention of chlamydial infection.

NAAT alone does not adequately explain the persistent increase in reported cases of chlamydia. While almost every jurisdiction that has introduced NAAT has shown a subsequent increase in the number of cases in the following year, the expectation is that the increase will level off as transmission is reduced by improved detection and treatment. This trend has not yet been observed, suggesting that other factors, such as risk behaviours, point towards a true increase in disease incidence based on broader societal changes.

Untreated chlamydia can result in pelvic inflammatory disease (PID), which can lead to other complications such as tubal infertility and ectopic pregnancy (EP). It is estimated that in 20% to 25% of women untreated chlamydia will progress to PID, and these women will be exposed to the additional risks of EP and tubal infertility[5]. EP occurs when a fertilized egg implants itself and the fetus develops outside the uterus. It is the leading cause of maternal death in the first trimester of pregnancy in industrialized countries. It can also lead to permanent sterility, affecting 20% to 60% of women who experience an EP[6]. *Chlamydia trachomatis* infection is the primary infectious agent responsible, accounting for 33%[7] to 50%[8] of all EP.

The rate of hospitalization for EP in Canada seems to have declined among women 25 years and older (Table 3). This may be explained, in part, by the increased use of other methods to treat EP that do not require hospitalization[6]. Across years, rates of hospitalization for EP are highest among women between the ages of 35 and 44 and lowest in women under 25.

Table 3: Counts and rates[1] of hospitalization for ectopic pregnancy by year and age group, Canada, 1995-2000

Year		15-19	20-24	25-34	35-44	All women 15-34
1995	Count	322	1 047	4 168	1 520	7 057
	Rate	13.2	14.3	17.1	31.4	18.1
1996	Count	294	950	3 877	1 447	6 568
	Rate	13.1	13.7	16.6	28.4	17.5
1997	Count	289	923	3 551	1 423	6 186
	Rate	14.2	14.1	16.1	27.5	17.3
1998	Count	265	915	3 305	1 347	5 832
	Rate	13.0	14.2	15.5	25.6	16.6
1999	Count	261	846	2 963	1 264	5 334
	Rate	13.4	13.4	14.2	23.3	15.4
2000	Count	262	822	2 630	1 242	4 956
	Rate	14.6	13.5	13.0	22.5	14.8

[1]Rate per 1000 pregnancies. Pregnancies are calculated as the sum of live births, stillbirths, legally induced abortions, and ectopic pregnancies.

Source: Public Health Agency of Canada, Centre for Infectious Disease Prevention and Control, Community Acquired Infections Division, Sexual Health and STI.

GONORRHEA

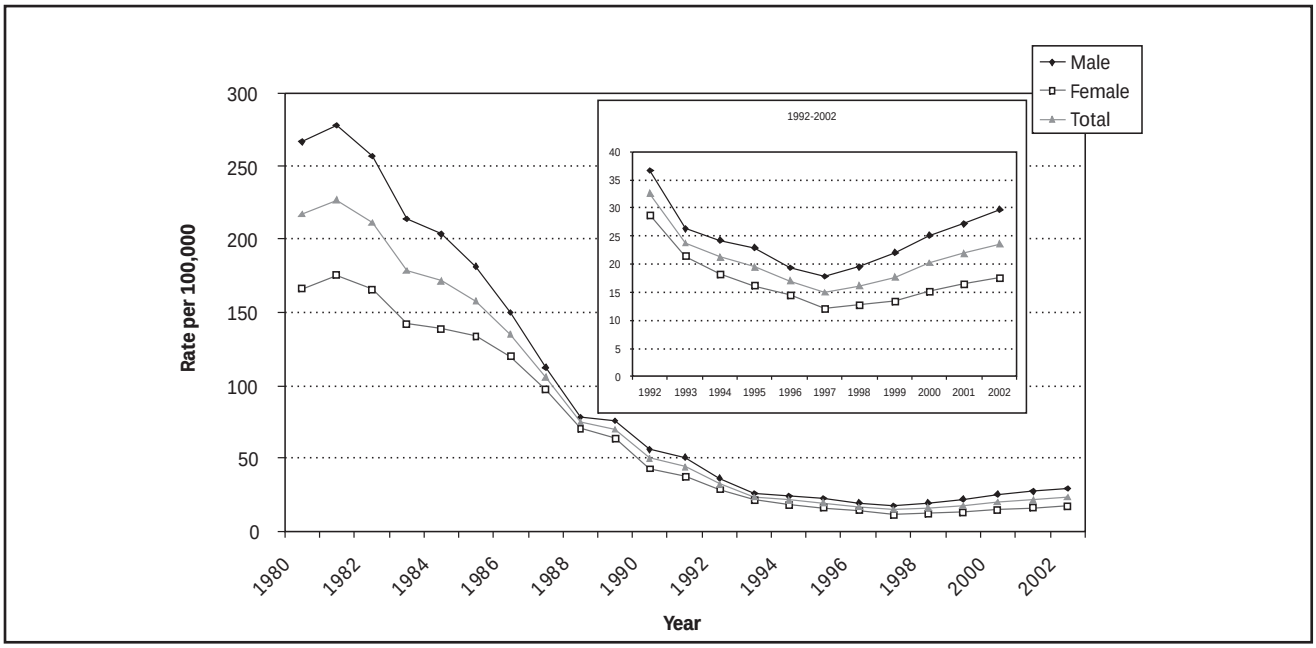
(Neisseria gonorrhoeae)

- Like chlamydia, reported rates of gonorrhea have increased substantially after years of decline.
  - At its lowest point in 1997, the reported rate was 14.9 per 100 000
  - As of 2002, this number has crept upwards to 23.5 per 100 000 (see Figure 1)
- Rates of reported gonococcal infection remain consistently higher among men than women.
- Since 1997, reported cases have risen disproportionately across the sexes: by 74% in men and 52% in women.

Sex and Age Group Distribution

- The overall distribution of gonorrhea has remained relatively constant in 2002 as compared with other years.
  - The most affected age group for females is 15 to 24 years (Figure 2).
  - Males are somewhat older, as the highest rate occurs in 20- to 29-year-olds.
- A notable shift has occurred in reported male cases, indicating that the epidemic now affects older males.
  - Since 1998, the rates among men in their 30s have been higher than among their adolescent counterparts (Figure 3).
  - Furthermore, the greatest percentage increase in the number of cases from 1997 to 2002 was observed in men 40 years and older (Table 1).
- However, it is important to note that increases have been observed for all males aged 10 and up.

Figure 1: Reported Gonorrhea Rates[1] in Canada, 1980-2002[2]

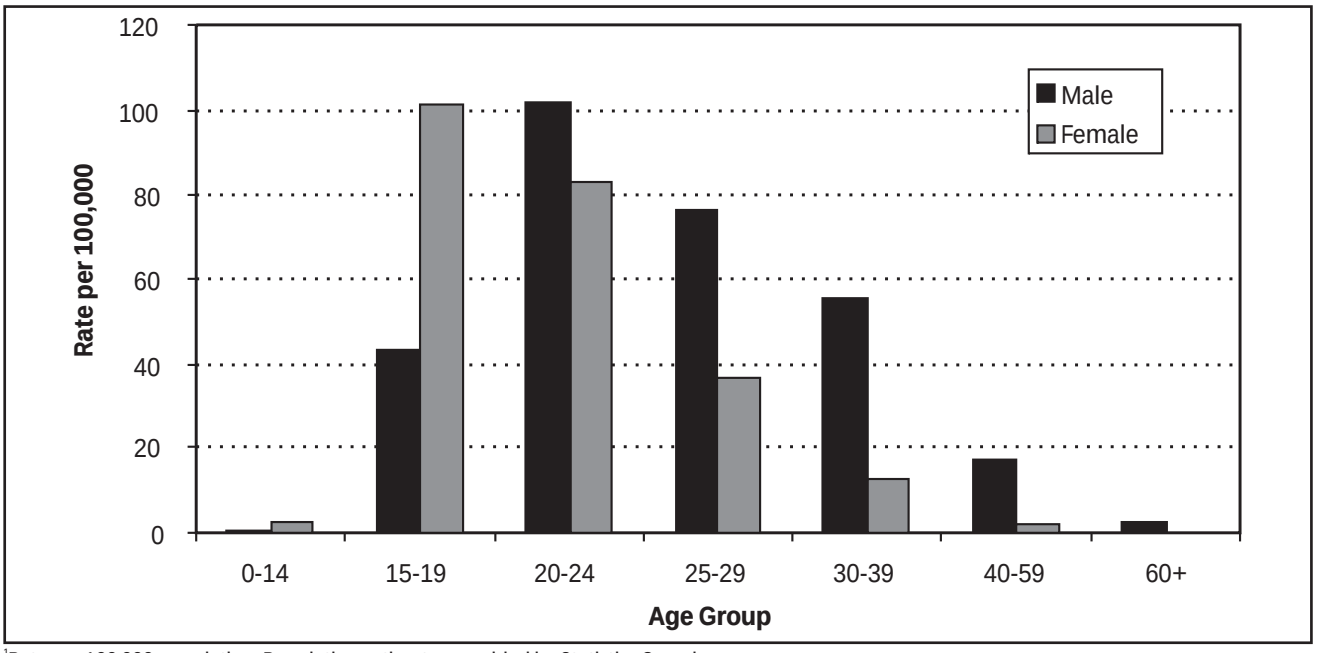


[1]Rate per 100 000 population. Population estimates provided by Statistics Canada.

[2]2002 numbers are preliminary, and changes are anticipated.

Source: Public Health Agency of Canada, Centre for Infectious Disease Prevention and Control, Community Acquired Infections Division, Sexual Health and STI.

Figure 2: Reported Gonorrhea Rates[1] in Canada by Sex and Age Group, 2002[2]

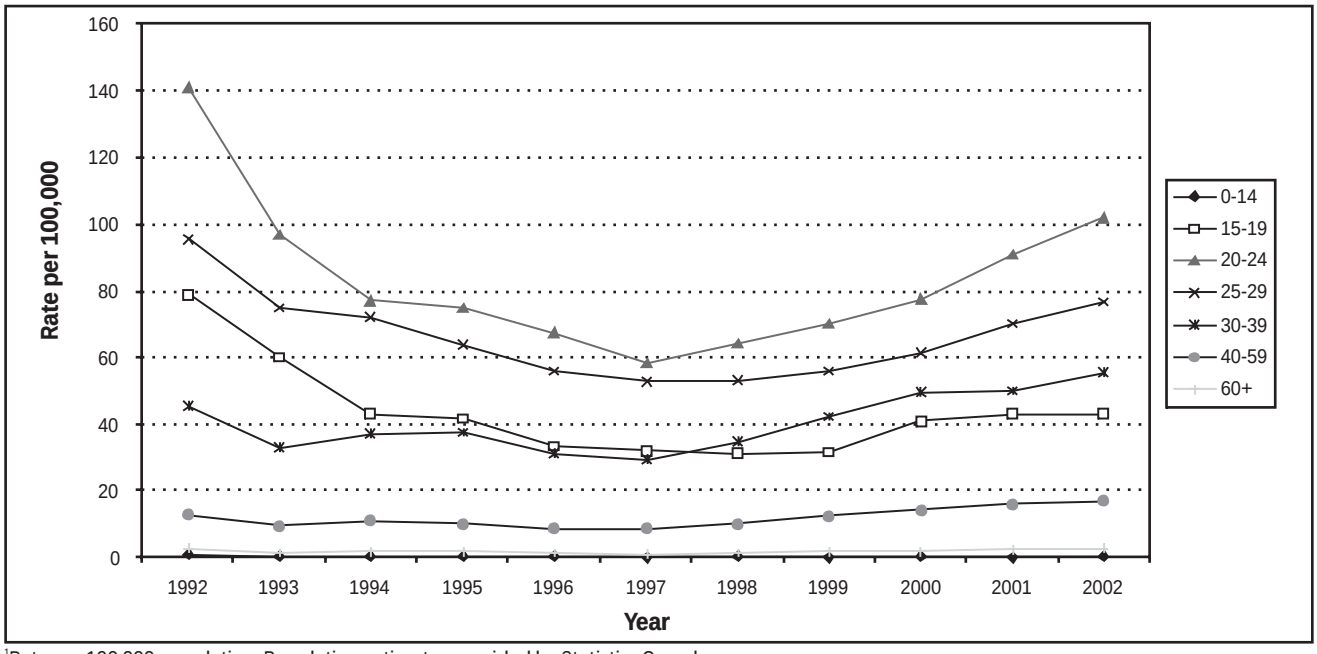


[1]Rate per 100 000 population. Population estimates provided by Statistics Canada.

[2]2002 numbers are preliminary, and changes are anticipated.

Source: Public Health Agency of Canada, Centre for Infectious Disease Prevention and Control, Community Acquired Infections Division, Sexual Health and STI.

Figure 3: Reported Male Gonorrhea Rates[1] in Canada by Age Group, 1992-2002[2]



[1]Rate per 100 000 population. Population estimates provided by Statistics Canada.

[2]2002 numbers are preliminary, and changes are anticipated.

Source: Public Health Agency of Canada, Centre for Infectious Disease Prevention and Control, Community Acquired Infections Division, Sexual Health and STI.

Table 1: Percentage Increase in Number of Reported Male Gonorrhea Cases, Canada, 1997-2002[1]

Age	1997	2002	Change
0 < 1	0	0	0%
1-9	0	0	0%
10-14	2	8	300%*
15-19	333	472	42%
20-24	599	1 121	87%
25-29	570	814	43%
30-39	765	1 347	76%
40-59	337	768	128%
60+	23	60	161%

[1]2002 numbers are preliminary, and changes are anticipated.

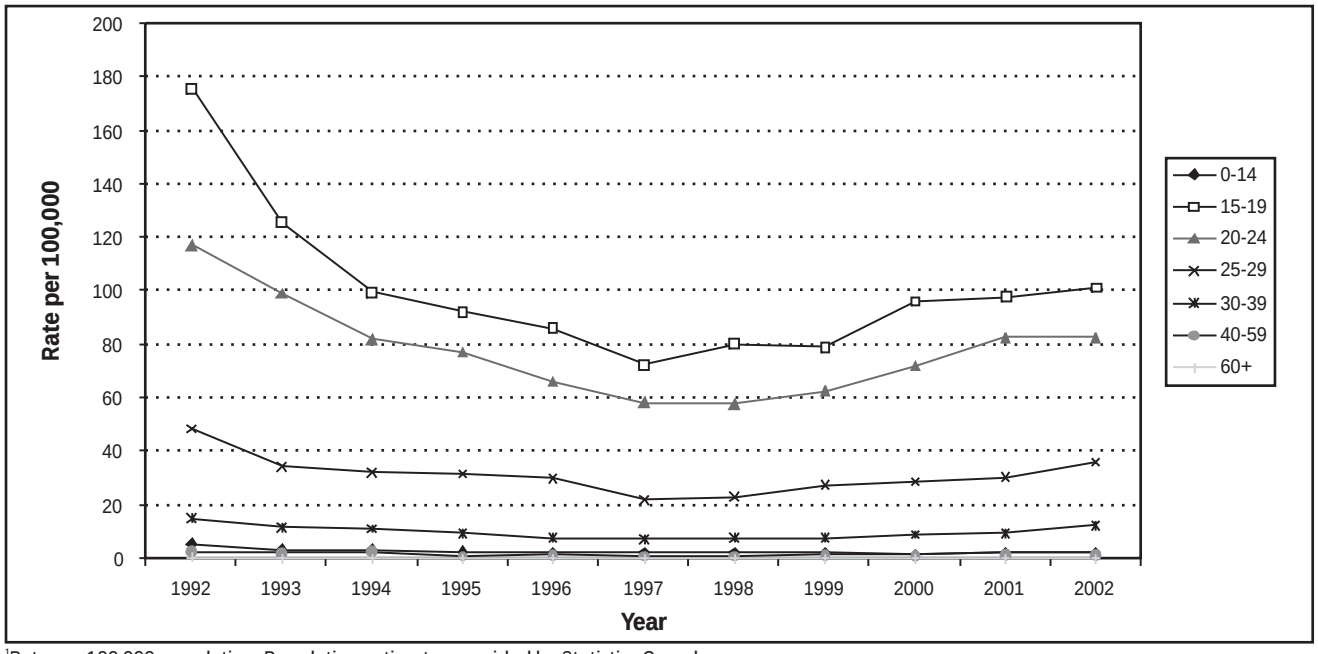
*Because case numbers are so small this increase should be interpreted with caution.

Note: Small variability may exist between data reported by the provinces/territories and the Public Health Agency of Canada. Provincial/territorial data are definitive should a discrepancy exist.

Source: Public Health Agency of Canada, Centre for Infectious Disease Prevention and Control, Community Acquired Infections Division, Sexual Health and STI.

- In 2002, more than 70% of reported female cases are under 25 years of age.
  - This distribution of cases has been consistent over time.
- Women aged 15 to 24 have the highest rates of gonorrhea (Figure 4), in contrast to older age groups in men.
- With the exception of women over 60, the number of reported cases of gonorrhea has increased in all age groups.
  - Other than the age group 1 to 9, which has very few cases, the largest percentage increase was among females aged 40 to 59 (42 reported cases in 1997 compared with 97 in 2002, Table 2).

Figure 4: Reported Female Gonorrhea Rates[1] in Canada by Age Group, 1992-2002[2]



[1]Rate per 100 000 population. Population estimates provided by Statistics Canada.

[2]2002 numbers are preliminary, and changes are anticipated.

Source: Public Health Agency of Canada, Centre for Infectious Disease Prevention and Control, Community Acquired Infections Division, Sexual Health and STI.

Table 2: Percentage Increase in Number of Reported Female Gonorrhea Cases, Canada, 1997-2002

Age	1997	2002[1]	Change
0 < 1	0	1	n/a
1-9	2	5	150%
10-14	56	61	9%
15-19	716	1 047	46%
20-24	578	872	51%
25-29	235	374	59%
30-39	184	301	64%
40-59	42	97	131%
60+	4	4	0%

[1]2002 Numbers are preliminary, and changes are anticipated.

N/A: not applicable

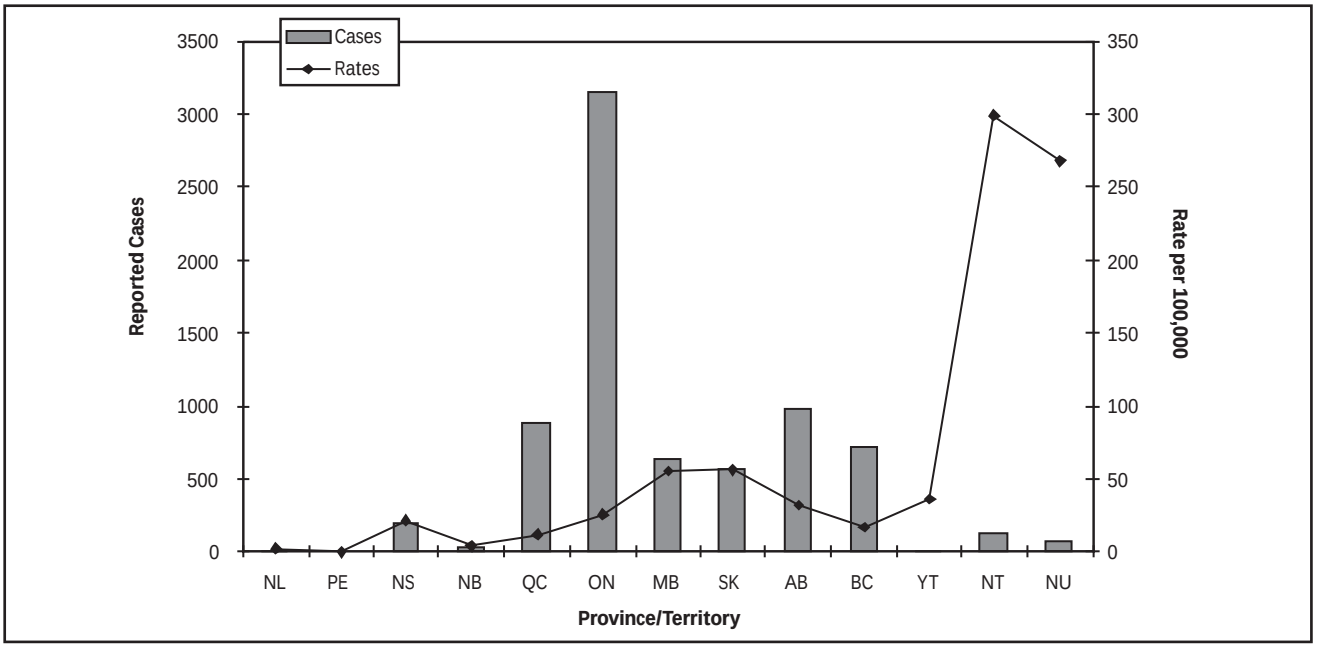
Note: Small variability may exist between data reported by the provinces/territories and the Public Health Agency of Canada. Provincial/territorial data are definitive should a discrepancy exist.

Source: Public Health Agency of Canada, Centre for Infectious Disease Prevention and Control, Community Acquired Infections Division, Sexual Health and STI.

Geographic Distribution

- In 2002, the highest reported rates of gonorrhea are in the Northwest Territories and Nunavut (299.3 per 100 000 and 267.9 per 100 000 respectively)
  - However, as shown in Figure 5, the number of cases is small, and the high rates are driven by small population numbers.
  - Saskatchewan and Manitoba have the highest reported rates outside of the North.

Figure 5: Reported Cases and Rates[1] of Gonorrhea by Province/Territory, 2002[2]



[1]Rate per 100 000 population. Population estimates provided by Statistics Canada.

[2]2002 numbers are preliminary, and changes are anticipated.

Source: Public Health Agency of Canada, Centre for Infectious Disease Prevention and Control, Community Acquired Infections Division, Sexual Health and STI.

Table 3: Reported Cases and Rates1 by Province/Territory

	1997		2002[2]		
	Cases	Rates	Cases***	Rates	% change**
NL	3	0.5	9	1.7	200%
PE	1	0.7	0	0.0	-100%
NS	108	11.6	199	21.3	84%
NB	15	2.0	30	4.0	100%
QC	545	7.5	878	11.8	61%
ON	1 931	17.2	3 148	26.0	63%
MB	518	45.6	635	55.0	23%
SK	340	33.3	558	56.1	64%
AB	406	14.3	980	31.5	141%
BC	458	11.6	718	17.4	57%
YT	0	0.0	11	36.5	n/a
NT/NU*	150	221.5	201	286.4	34%
Canada	**4 477**	**14.9**	**7 367**	**23.5**	**65%**

[1]Rate per 100 000 population. Population estimates provided by Statistics Canada.

[2]2002 numbers are preliminary, and changes are anticipated.

*The Northwest Territories was divided in April 1999 when Nunavut became a separate territory. To compare across time periods, these two territories have been combined.

**Percentage change in number of cases.

***Numbers include cases where gender was not specified.

Note: small variability may exist between data reported by the provinces/territories and the Public Health Agency of Canada. Provincial/territorial data are definitive should a discrepancy exist.

Source: Public Health Agency of Canada, Centre for Infectious Disease Prevention and Control, Community Acquired Infections Division, Sexual Health and STI.

- Between 1997 and 2002, all jurisdictions except PEI have seen an increase in the number of reported cases of gonorrhea (see Table 3). However, because of small case numbers, this change for PEI should be interpreted with caution.
  - The most substantial increase is in Alberta where there were 980 reported cases in 2002, up 141% from 1997.
  - Other provinces also have substantial increases, but case counts are small.

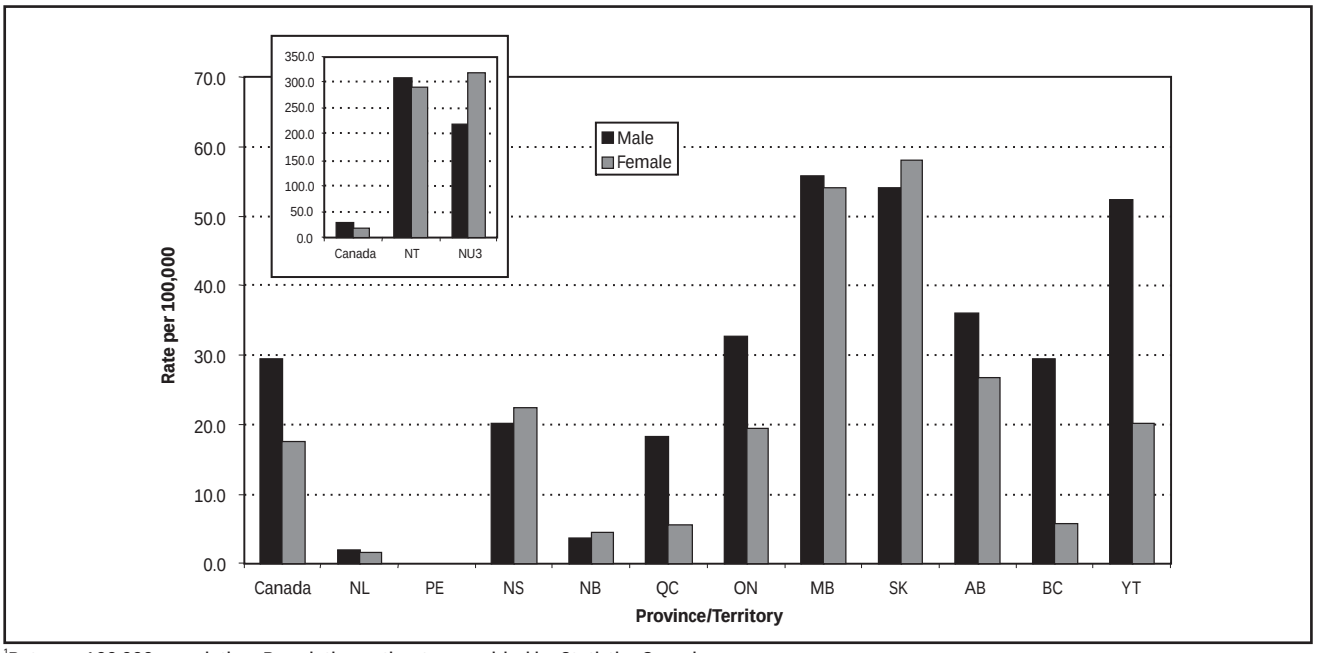
Geographic and Sex Distributions

- The national sex distribution, indicating that males make up about two-thirds of all reported gonorrhea cases, is not representative of all provinces and territories.
- Within larger provinces, such as Quebec, Ontario, and British Columbia, males do make up the bulk of reported gonorrhea cases (see Figure 6).
  - In 2002, 84% of cases in British Columbia were male, the largest proportion of male cases in the country.
  - Yukon rates appear quite high in Figure 6, but the total case count is 11 (compared with 718 in British Columbia).
- In other less populous jurisdictions, female rates are higher than rates reported among males.
  - Nunavut, Nova Scotia, New Brunswick, and Saskatchewan have higher rates among females than males.
  - The national picture is driven by trends in the more populous provinces such as Ontario, Quebec, and British Columbia.

Males

- The male gonorrhea rate comparing 1997 and 2002 is shown in Figure 7.
  - Note that Nunavut and the Northwest Territories have been combined to allow comparison over time. Because the rate is much higher than in other provinces/territories, Nunavut/Northwest Territories is displayed in the inset graph to allow comparison of other jurisdictions.
- Outside of Nunavut and the Northwest Territories, Manitoba and Saskatchewan have consistently had the highest reported rates of male gonorrhea.
- The Yukon, which had no reported cases in 1997, has reported 8 male cases for 2002. The resulting rate should be interpreted with caution, given the low number.

Figure 6: Reported Rate[1] of Gonorrhea by Sex and Province/Territory, 2002[2]

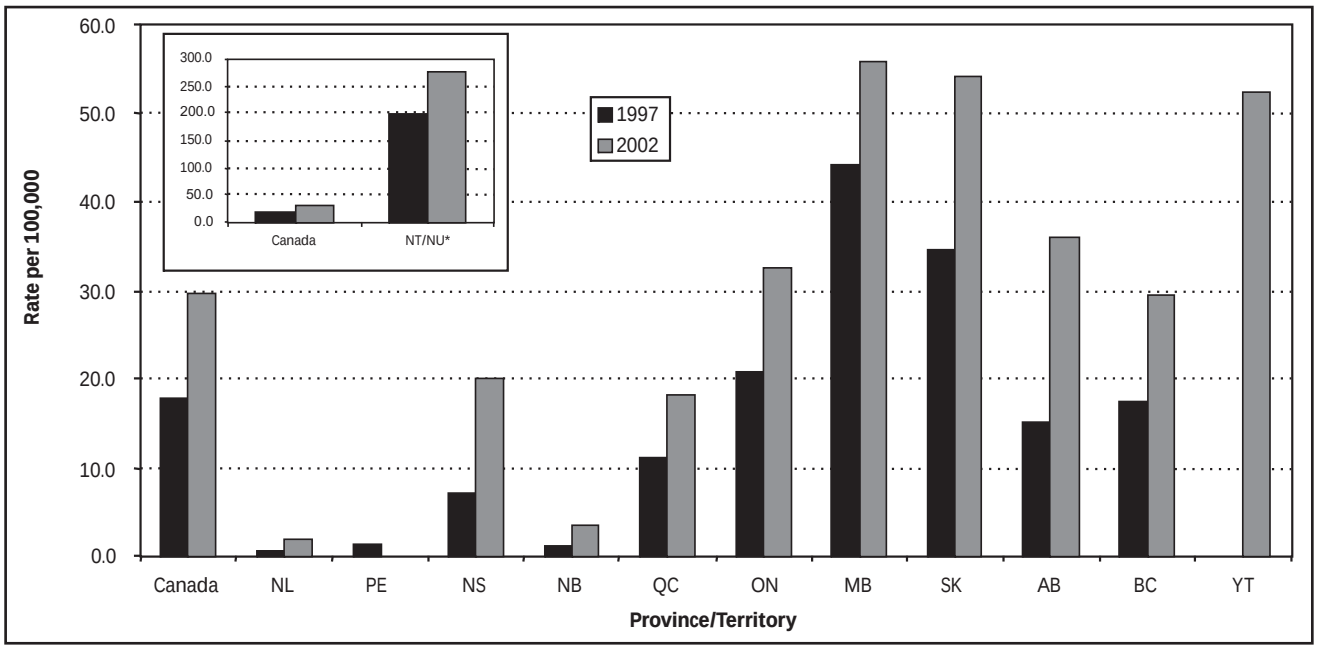


[1]Rate per 100 000 population. Population estimates provided by Statistics Canada.

[2]2002 numbers are preliminary, and changes are anticipated.

Source: Public Health Agency of Canada, Centre for Infectious Disease Prevention and Control, Community Acquired Infections Division, Sexual Health and STI.

Figure 7: Reported Male Gonorrhea Rates[1] in Canada by Province/Territory, 1997 and 2002[2]



[1]Rate per 100 000 population. Population estimates provided by Statistics Canada.

[2]2002 numbers are preliminary, and changes are anticipated.

Source: Public Health Agency of Canada, Centre for Infectious Disease Prevention and Control, Community Acquired Infections Division, Sexual Health and STI.

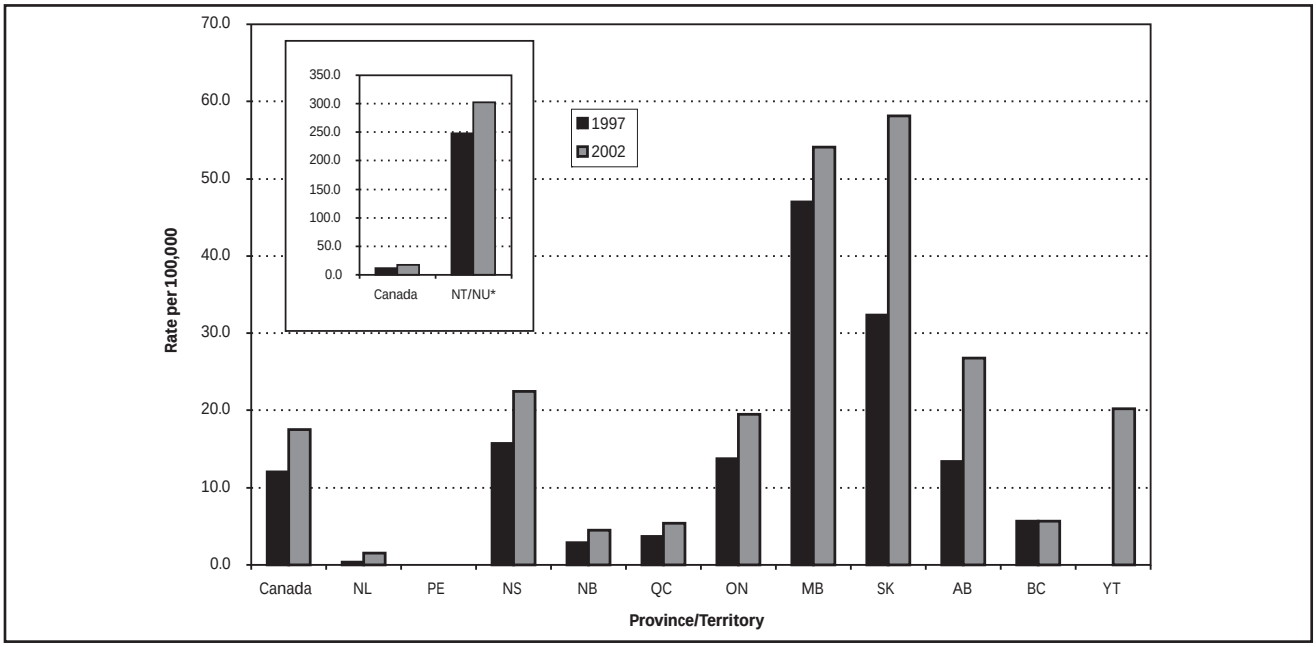
Females

- As with males, when comparing gonorrhea rates among females in 1997 and 2002 (see Figure 8), Nunavut and the Northwest Territories continue to have a much higher reported rate than other provinces/territories.
  - In 2002, the Canadian rate was 17.5 per 100 000 as compared with 302.5 per 100 000 in Nunavut/Northwest Territories.
  - To ease the comparison among other jurisdictions, Nunavut and the Northwest Territories have been included in the inset graph.
- Also as is the case with males, Manitoba and Saskatchewan show the highest gonorrhea rates among females outside of Nunavut and the Northwest Territories. However, between 1997 and 2002, Saskatchewan has surpassed Manitoba as the southern province/territory with the highest rate.

Resistant *Neisseria gonorrhoeae*

- Antimicrobial resistance, increasing worldwide, is an issue particular to gonorrhea. Uncomplicated cases can be treated with a single dose of antimicrobial therapy. However, resistance of *N. gonorrhoeae* challenges the treatment, control, and prevention of this infection.
- In Canada, provincial laboratories submit to the National Microbiology Laboratory all gonococcal isolates that have decreased susceptibility to at least one antibiotic.
- Penicillin- and tetracycline-resistant strains are documented worldwide, and recently fluoroquinolone resistance has become an issue.
- Once resistance rates reach between 3% and 5% (depending on the jurisdiction in Canada), that treatment (e.g. type of antibiotic, see Table 4) can no longer be recommended. For this reason, ongoing, accurate data on antimicrobial resistance and its associated risk factors (e.g. travel history, sexual practice) are needed.
- Table 4 outlines resistance in Canada for 2002.

Figure 8: Reported Female Gonorrhea Rates[1] in Canada by Province/Territory, 1997 and 2002[2]



[1]Rate per 100 000 population. Population estimates provided by Statistics Canada.

[2]2002 numbers are preliminary, and changes are anticipated.

*The Northwest Territories was divided in April 1999 when Nunavut became a separate territory. To compare across time periods, these 2 territories have been combined.

Source: Public Health Agency of Canada, Centre for Infectious Disease Prevention and Control, Community Acquired Infections Division, Sexual Health and STI.

Table 4: Antimicrobial Susceptibility of *N. Gonorrhoeae* Strains Tested in Canada in 2002

Antibiotic	Number of strains resistant to antibiotics	Resistance (%) of all cultured strains in Canada*
Penicillin	368	7.51
Tetracycline	830	16.93
Erythromycin	416	8.48
Ciprofloxacin	105	2.14

*Percentages are calculated using the number of specimens teted as the denominator: n = 4,903.

There is no resistant strain for spectinomycin, cefixime, or ceftriaxone.

Source: National Microbiology Laboratory, 2004

- Some strains have resistance to multiple antibiotics (e.g. penicillin, tetracycline, and erythromycin).
- Emergence of cephalosporin resistance is anticipated.
- The increasing use of NAAT to test for gonorrhea infection has implications for resistance trends, since this technology does not allow for resistance testing.
- An enhanced or sentinel surveillance system to track resistance trends may be needed. Such a system could incorporate epidemiologic data such as sex, age, and risk factors to help explain the resistance trends.

Discussion

Asymptomatic infections likely result in under-diagnosis of cases[4]. Thus, trends noted in this report may not describe the full impact of gonorrhea infection in Canada. It is also unclear what impact new technology, such as NAAT, has had on observed gonorrhea infection rates. It is known that regional outbreaks of gonorrhea are helping to fuel the increasing rates.

Untreated gonorrhea infection may lead to pelvic inflammatory disease (PID) and its associated outcomes. However, the number of cases of PID associated with gonorrhea is much less than those attributed to untreated chlamydia infection.

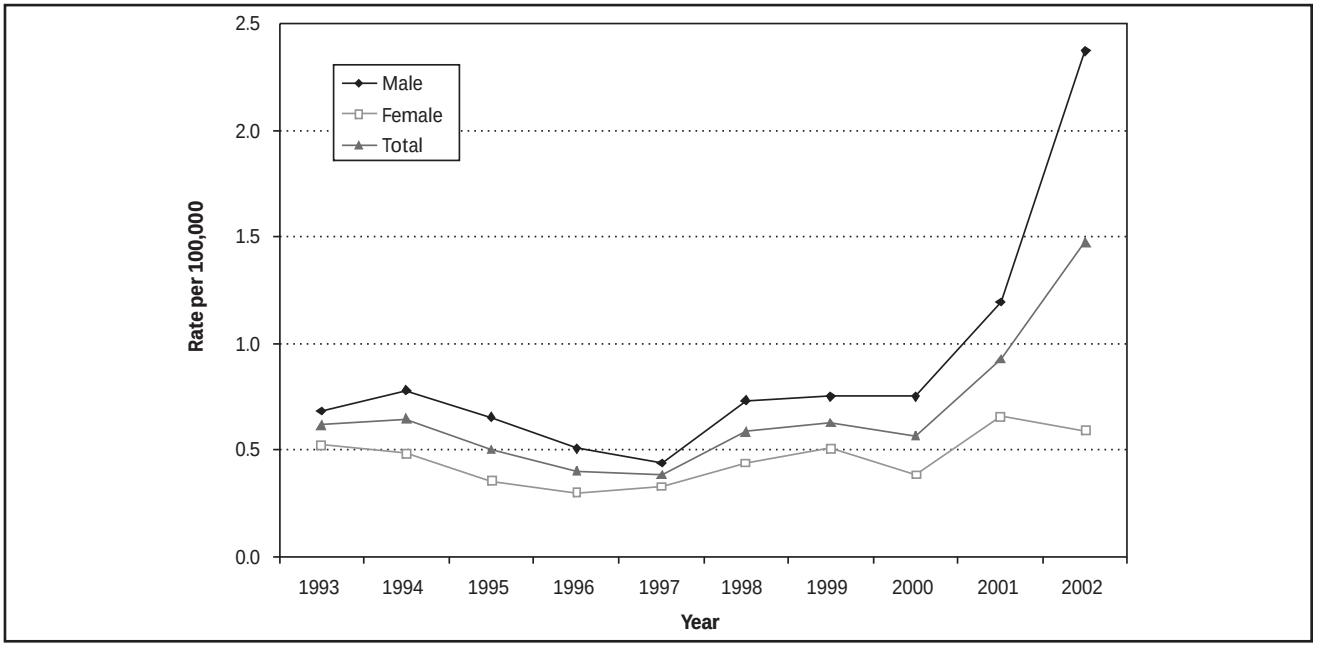
At a national level, there are more reported cases of gonorrhea in men than women. However, males are more likely to be symptomatic than females and therefore would be more likely to present to the health care system for diagnosis and treatment. Furthermore, part of this higher incidence among men may be attributable to NAAT. Traditional diagnostic methods are particularly invasive for men, who, as a result, may be more deterred from seeking medical care than women. Non-invasive methods such as NAAT would thus likely motivate proportionately more men than women to be screened for gonorrhea infection.

INFECTIOUS SYPHILIS

(Treponema pallidum)

- Syphilis has been a notifiable disease in Canada since the 1920s[9]. Disease progression is divided into the following stages: primary, secondary, early latent, late latent, and tertiary. There is also latent syphilis of unknown duration.
- Prior to 1993, aggregate data were reported to the national level according to clinical manifestation, which categorizes syphilis stages into early symptomatic (primary and secondary syphilis) and other syphilis (early latent, late latent, latent of unknown duration, and tertiary).
- The alternative method of classification, based on infectivity, is more useful for disease surveillance as it enables estimation of the risk of disease transmission. Accordingly, syphilis is grouped as infectious syphilis (primary, secondary, and early latent), non-infectious syphilis (late latent and tertiary), and congenital syphilis[10].
- Infectious syphilis is the least commonly reported STI.
- Like chlamydia and gonorrhea, rates of infectious syphilis have increased since 1997.
  - The rate has increased 285% from 1997 to 2002 (from 0.4 per 100 000 to 1.5 per 100 000).
- Because case counts are relatively small, caution must be used when analyzing and interpreting trends in infectious syphilis data.

Figure 1: Reported Infectious Syphilis Rates[1] in Canada, 1993-2002[2]



[1]Rate per 100 000 population. Population estimates provided by Statistics Canada.

[2]2002 numbers are preliminary, and changes are anticipated.

Source: Public Health Agency of Canada, Centre for Infectious Disease Prevention and Control, Community Acquired Infections Division, Sexual Health and STI.

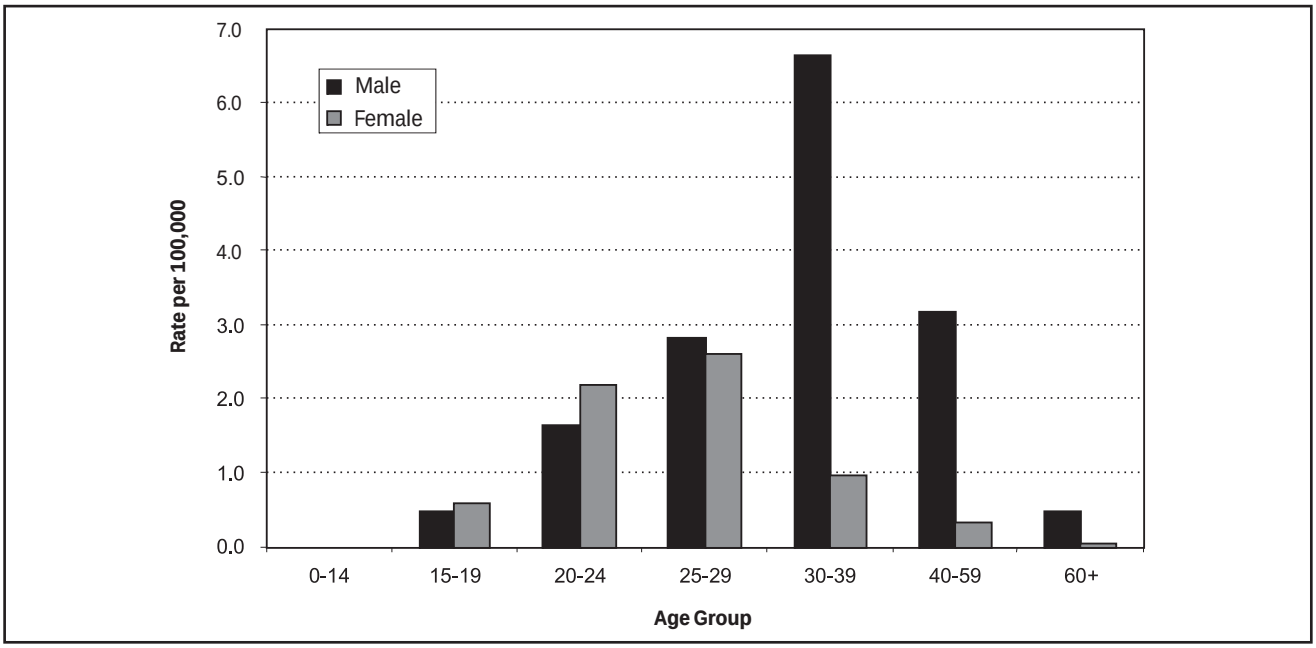
Sex and Age Group Distribution (Figure 2)

- Historically, there have been more reported cases of infectious syphilis among men than women. From 1993 until 2001, the female:male ratio was constant at approximately 1:1.3.
  - The ratio changed dramatically in 2002 to 1:3.9, a sizeable increase in the reported number of cases among males.
- Since 1995, the age group with the highest incidence rate of infectious syphilis shifted, from the under 30 age group to those 30 and older.
  - The shift is driven by the higher number of reported male cases, as the age distribution among women tends to be more evenly spread.
- Reported rates have increased 441% among males since 1997, whereas females have increased 80% over the same period. In 2002, males made up 79% of all infectious syphilis cases as compared with just over 50% before 1997.

Males

- More than 85% of male cases of infectious syphilis occurred in those 30 years and older in 2002.
  - Men aged 30 to 39 have the highest rate of infectious syphilis, at 6.6 per 100 000 (Figure 3).
  - There has been a dramatic increase since 2001, when the rate in this age group was 2.5 per 100 000 (163% increase), and since 1997, when the rate was 1.0 per 100 000 (560% increase).
- Also notable in 2002, the 40- to 59-year age group has overtaken the 25- to 29-year age group and now has the second highest rate of infectious syphilis (3.2 vs. 2.8 per 100 000, respectively).
  - However, because of differences in population size, the rate among males aged 25 to 29 is very close to that in the 40 to 59 age category.

Figure 2: Reported Rate[1] of Infectious Syphilis by Sex and Age Group, 2002[2]

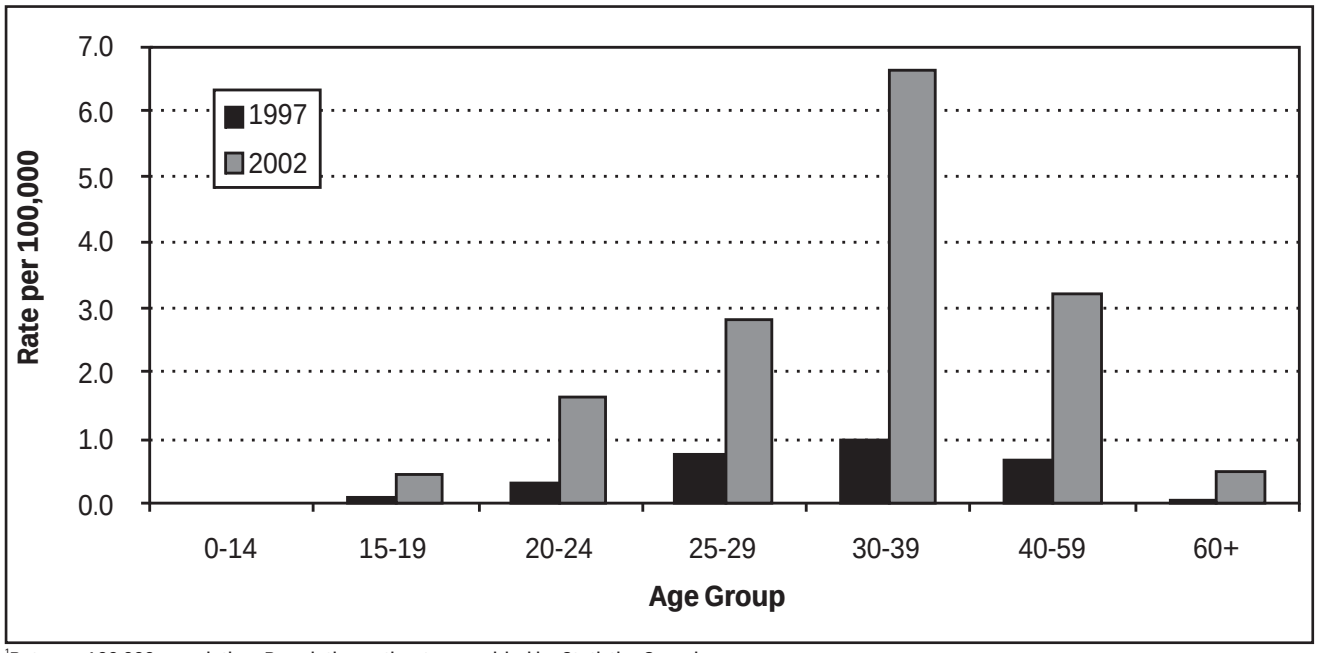


[1]Rate per 100 000 population. Population estimates provided by Statistics Canada.

[2]2002 numbers are preliminary, and changes are anticipated.

Source: Public Health Agency of Canada, Centre for Infectious Disease Prevention and Control, Community Acquired Infections Division, Sexual Health and STI.

Figure 3: Reported Rates[1] of Infectious Syphilis in Males, 1997 and 2002[2]



[1]Rate per 100 000 population. Population estimates provided by Statistics Canada.

[2]2002 numbers are preliminary, and changes are anticipated.

Source: Public Health Agency of Canada, Centre for Infectious Disease Prevention and Control, Community Acquired Infections Division, Sexual Health and STI.

Table 1: Percentage Increase in Number of Reported Male Syphilis Cases, Canada, 1997-2002

Age	1997	2002[1]	% Change
0 < 1	0	0	0%
1-9	0	0	0%
10-14	0	0	0%
15-19	1	5	400%
20-24	3	18	500%
25-29	8	30	275%
30-39	26	161	519%
40-59	26	143	450%
60+	1	11	1 000%

[1]2002 numbers are preliminary, and changes are anticipated.

*Because case numbers are so small these increases should be interpreted with caution.

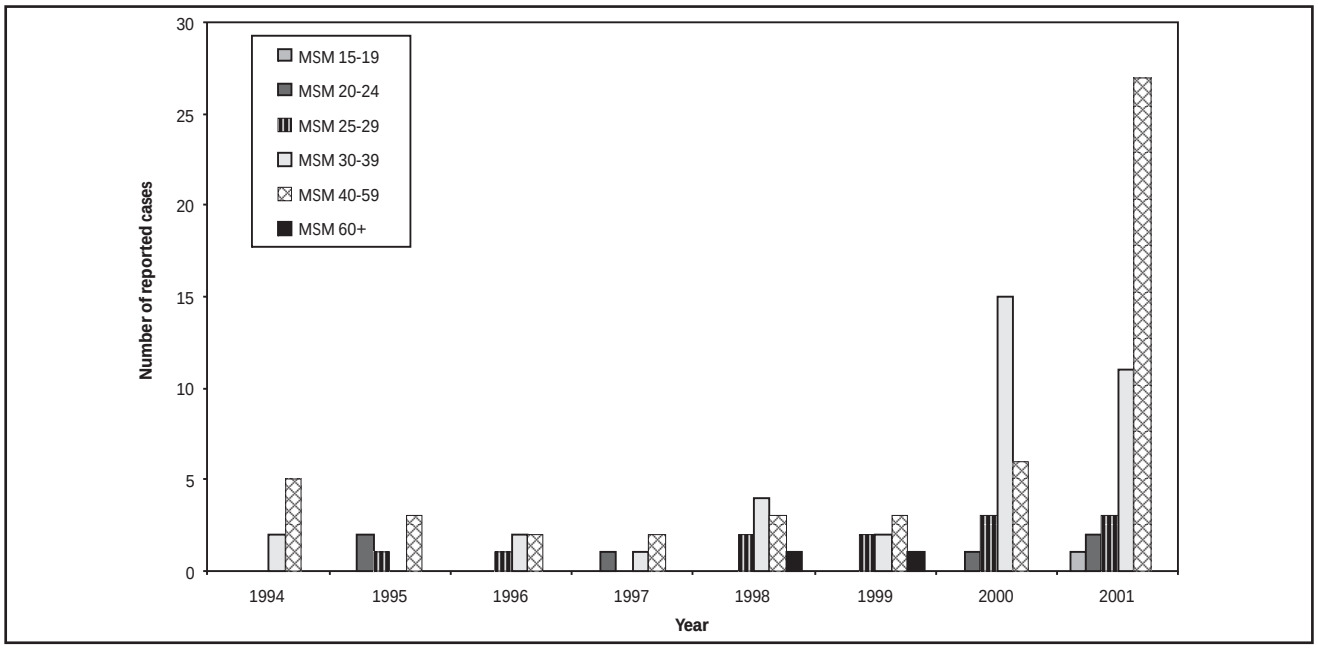
Note: Small variability may exist between data reported by the provinces/territories and the Public Health Agency of Canada. Provincial/territorial data are definitive should a discrepancy exist.

Source: Public Health Agency of Canada, Centre for Infectious Disease Prevention and Control, Community Acquired Infections Division, Sexual Health and STI.

Men Who have Sex with Men (MSM)

- Worldwide, increasing rates of STI and an increasing prevalence of higher-risk sexual practices have been observed for MSM.
- Outbreaks of infectious syphilis in the MSM population have been investigated in Vancouver, Calgary, Ottawa, Toronto, and Montreal.
- Between 1994 and 2001, the number of cases of infectious syphilis among MSM increased eight-fold (5 to 39 cases); in comparison, a four-fold increase was noted among heterosexual males over the same period
- The age distributions of infectious syphilis rates are different among heterosexual males and MSM.
  - Among MSM, the most notable increases are in the 30 to 39 and 40 to 59 age groups (Figure 4).
  - Among heterosexual males, increases have been observed in all ages 20 and up.

Figure 4: Age Distribution of Reported Infectious Syphilis Cases in MSM, Canada, 1994-2001



Source: Public Health Agency of Canada, Centre for Infectious Disease Prevention and Control, Community Acquired Infections Division, Sexual Health and STI – supplementary infromation. Source not included in routine surveillance.

Females

- Compared with males, reported cases and rates of infectious syphilis among females are distributed much more evenly across age groups.
  - The highest rates are in the 25- to 29-year group (2.6 per 100 000) followed by the 20- to 24-year group (2.2 per 100 000) in 2002.
  - As with males, rates have increased in most ages since 1997.

Table 2: Percentage Increase in Number of Reported Female Syphilis Cases, Canada, 1997-2002

Age	1997	2002[1]	% Change
0 < 1	0	0	0%
1-9	0	0	0%
10-14	0	0	0%
15-19	3	6	100%
20-24	8	23	188%
25-29	13	27	108%
30-39	17	23	35%
40-59	8	14	75%
60+	1	1	0%

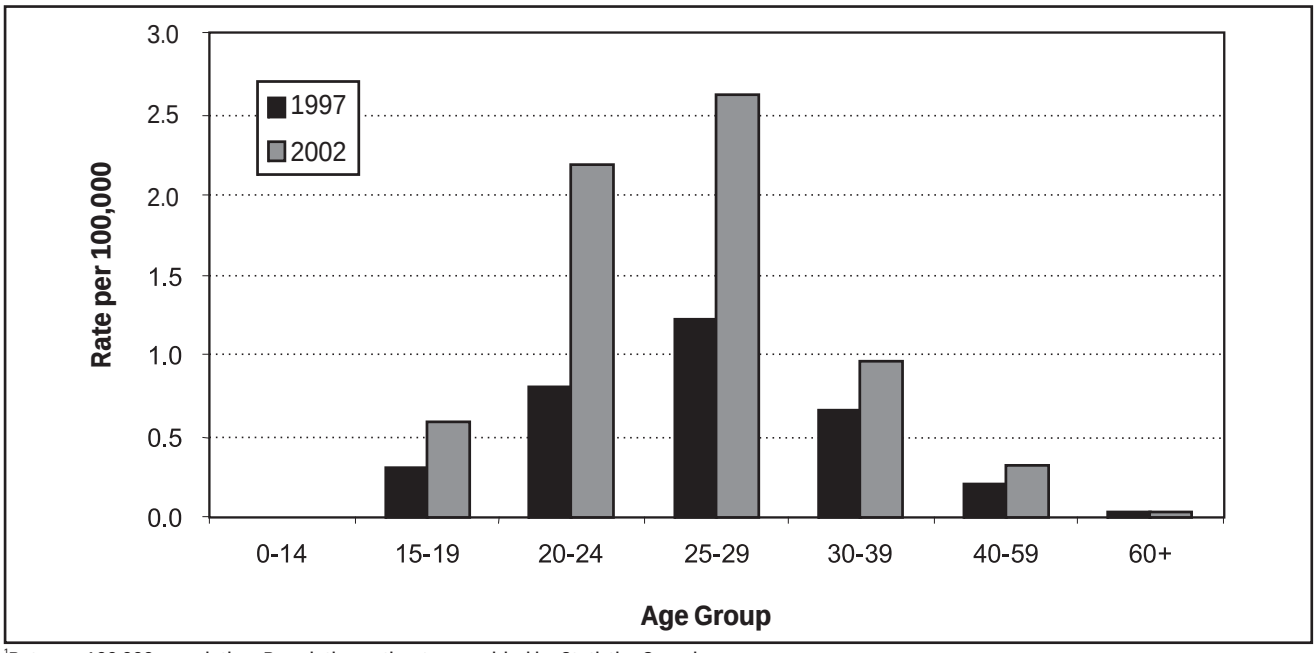
[1]2002 numbers are preliminary, and changes are anticipated.

*Because case numbers are so small, these increases should be interpreted with caution.

Note: Small variability may exist between data reported by the provinces/territories versus the Public Health Agency of Canada. Provincial/territorial data are definitive should a discrepancy exist.

Source: Public Health Agency of Canada, Centre for Infectious Disease Prevention and Control, Community Acquired Infections Division, Sexual Health and STI.

Figure 5: Reported Rate[1] of Infectious Syphilis among Females, by Age, 1997 and 2002[2]



[1]Rate per 100 000 population. Population estimates provided by Statistics Canada.

[2]2002 numbers are preliminary, and changes are anticipated.

Source: Public Health Agency of Canada, Centre for Infectious Disease Prevention and Control, Community Acquired Infections Division, Sexual Health and STI.

Geographic Distribution

- In 2002, three provinces/territories in Canada reported no cases of syphilis for the previous 3 years (Table 3).
- However, outbreaks in certain parts of the country have driven the national rate to 1.5 per 100 000.
- From 1998 until 2001, the national rate was driven predominantly by a large outbreak in Vancouver, BC. In 2002, this trend shifted slightly. Although BC is still a large contributor to the national picture, outbreaks in Toronto and Montreal are also having an impact, contributing 44% and 10% of cases respectively.

Table 3: "Syphilis-Free Status"[1] by 3-Year Interval and Province/Territory, Canada, 1994-2002

Province/ Territory	1994-1996	1997-1999	2000-2002[2]
NL		✓	
PE		✓	✓
NS			
NB		✓	
QC			
ON			
MB			
SK			
AB			
BC			
YT		✓	
NT		✓	✓
NU	–	–	✓

[1]"Syphilis-free" indicates that no cases of infectious syphilis were reported in that jurisdiction.

[2]2002 numbers are preliminary, and changes are anticipated.

Note: Small variability may exist between data reported by the provinces/territories and the Public Health Agency of Canada. Provincial/territorial data are definitive should a discrepancy exist.

Source: Public Health Agency of Canada, Centre for Infectious Disease Prevention and Control, Community Acquired Infections Division, Sexual Health and STI.

- The highest reported rate of infectious syphilis is in the Yukon (19.9 per 100 000), but this must be interpreted with caution as the total number of cases is very small (*n* = 6).
  - British Columbia has a reported rate of 4.5 per 100 000, the second highest in the country.
- The majority of cases are in Ontario (*n* = 203), British Columbia (*n* = 187), and Quebec (*n* = 47), which together account for 94% of all reported cases in Canada.

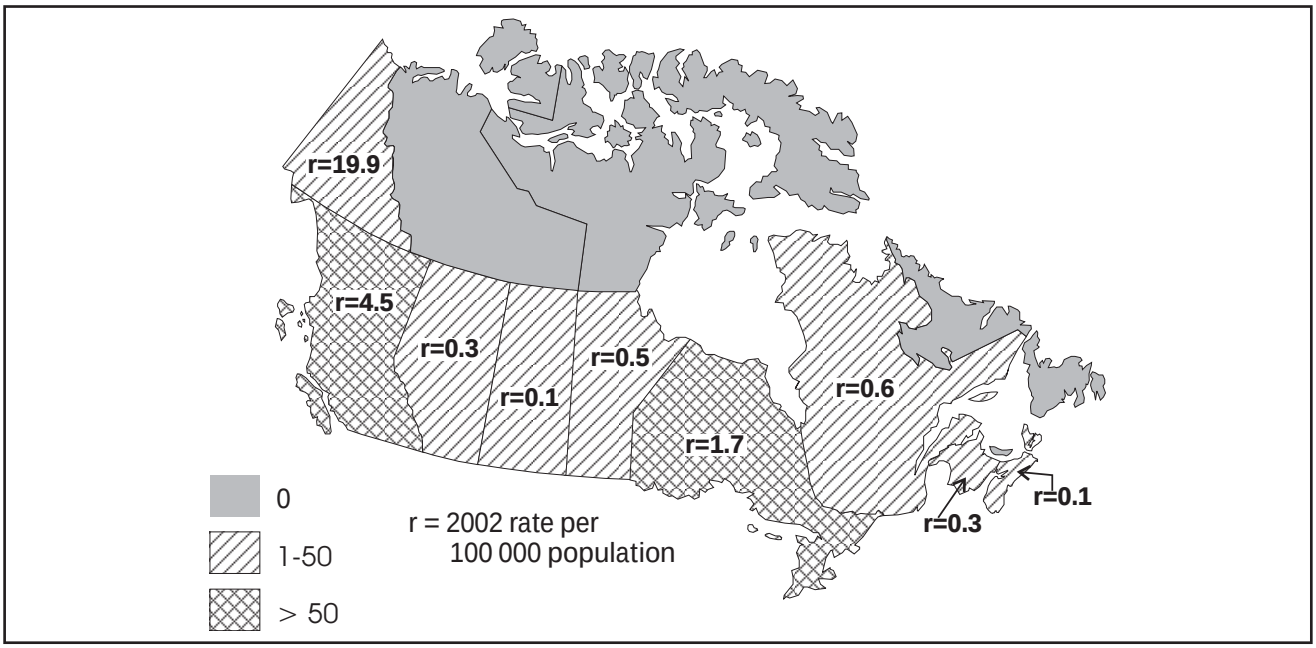
Sex

- Among both males and females in 2002, infection rates are highest in the Yukon Territory (26.2 and 13.5 per 100 000 respectively). However, caution is needed, as the actual case counts are very low (4 and 2 respectively).
- In Alberta, Nova Scotia, Ontario, and Quebec, rates among females were lower in 2002 than in 1997. Among males, this was noticed in Saskatchewan only (Figure 7).
  - Again, caution is needed because of low case numbers. Overall, it appears that national trends may be driven by regional syphilis outbreaks and therefore may not accurately reflect regional rates of infectious syphilis.

Congenital Syphilis

- Syphilis can be passed from mother to fetus transplacentally or during delivery if the newborn comes in contact with the genital lesion[11].
- Syphilis can seriously complicate pregnancy, resulting in spontaneous abortion, stillbirth, or perinatal death. Children who do survive may suffer serious sequelae[11], some of which may not become apparent for years[12].
- A rise in the number of syphilitic babies born in the late 1980s and 1990s has been attributed to illicit drug use and the sex trade[11,12]. However, lack of prenatal care is the primary reason that cases of congenital syphilis continue to be reported globally[11] .

Figure 6: Reported Infectious Syphilis[1] Cases and Rates[2] in Canada by Province/Territory and Sex, 1993-2002



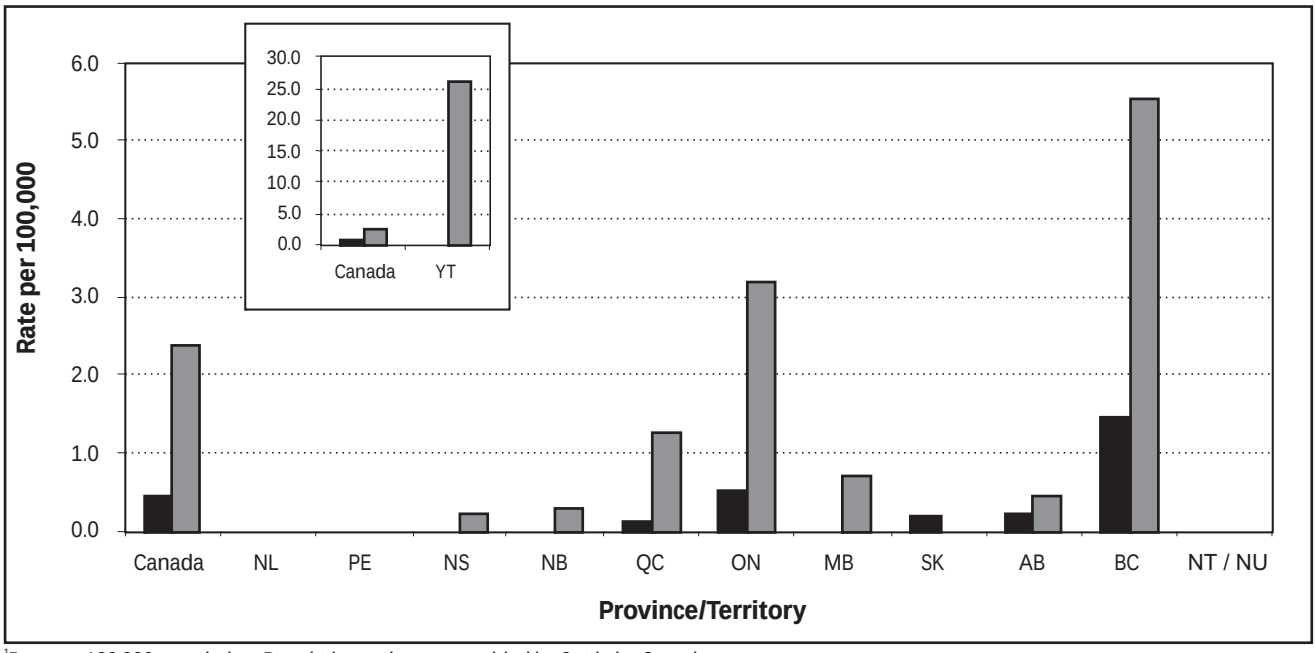
[1]Rate per 100 000 population. Population estimates provided by Statistics Canada.

[2]2002 numbers are preliminary, and changes are anticipated.

Note: Small variability may exist between data reported by the provinces/territories and the Public Health Agency of Canada. Provincial/territorial data are definitive should a discrepancy exist.

Source: Public Health Agency of Canada, Centre for Infectious Disease Prevention and Control, Community Acquired Infections Division, Sexual Health and STI.

Figure 7: Reported Rates[1] of Infectious Syphilis among Males by Province/Territory, 1997 and 2002[2]

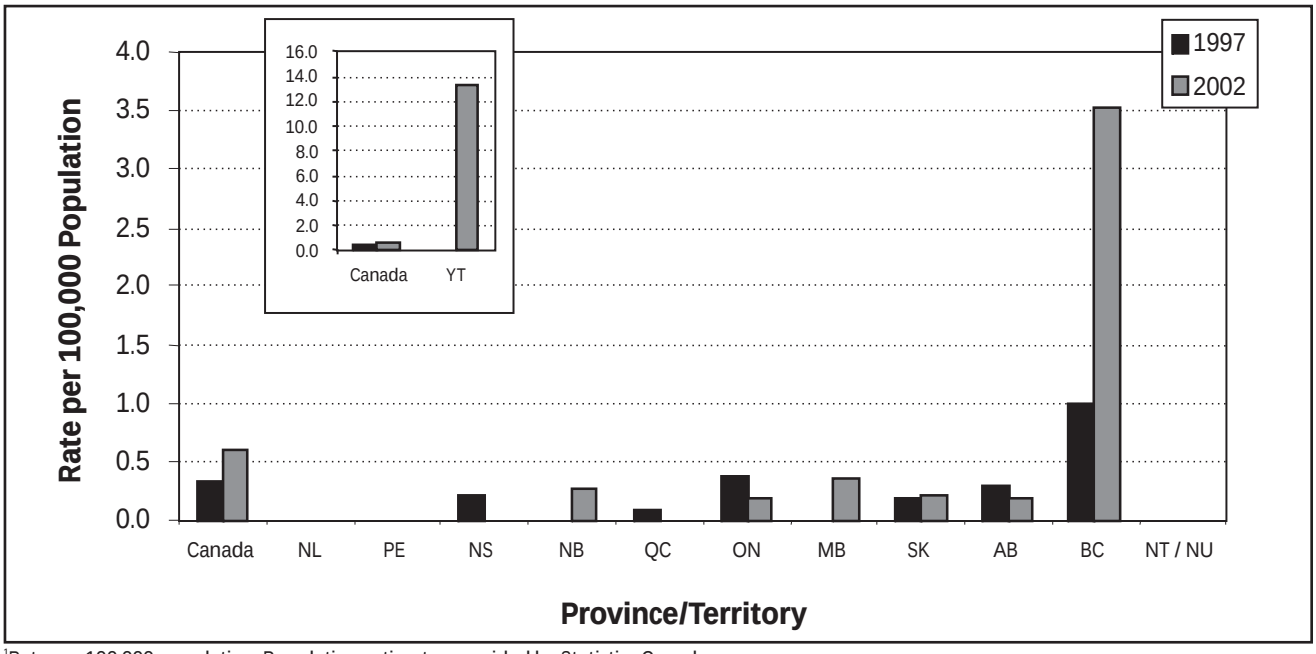


[1]Rate per 100 000 population. Population estimates provided by Statistics Canada.

[2]2002 numbers are preliminary, and changes are anticipated.

Source: Public Health Agency of Canada, Centre for Infectious Disease Prevention and Control, Community Acquired Infections Division, Sexual Health and STI.

Figure 8: Reported Rates[1] of Infectious Syphilis among Females by Province/Territory, 1997 and 2002[2]



[1]Rate per 100 000 population. Population estimates provided by Statistics Canada.

[2]2002 numbers are preliminary, and changes are anticipated.

Source: Public Health Agency of Canada, Centre for Infectious Disease Prevention and Control, Community Acquired Infections Division, Sexual Health and STI.

- Congenital syphilis has traditionally been divided into two syndromes[11]:
  - Early congenital syphilis: clinical manifestations occur within the first 2 years of life.
  - Late congenital syphilis: clinical manifestations occur after 2 years and usually near puberty.
- Cases of early congenital syphilis in Canada are of low frequency. Between 1993 and 2002, the number of cases fluctuated between 1 and 3 each year.

Discussion

Unlike gonorrhea and chlamydia, infectious syphilis is predominant in an older age group among both men and women. Although many current STI prevention and promotion efforts target adolescents and young adults who are at highest risk of acquiring chlamydia and gonorrhea, these efforts may not be appropriate for reaching those at greatest risk of syphilis. Efforts to reduce or prevent syphilis infection, therefore, need to target the older cohort of men and women most at risk of this infection.

The disproportionately high number of reported male cases, when interpreted using additional information from regional outbreaks, suggests that a significant proportion of syphilis transmission is occurring among MSM, although heterosexual transmission associated with the sex trade has also been reported. Anonymous sexual partnering (for example, in bathhouses or via the internet) may help fuel outbreaks, and it makes timely partner notification difficult. A rapid response is important in containing transmission.

There are several challenges to the control of infectious syphilis in Canada. Infectious syphilis can be transmitted orally, a fact that many people may be unaware of[13]. As with other modes of transmission, the primary chancre is painless, resolves on its own, and may go unnoticed.

Bicillin (benzathine penicillin G) is currently the recommended treatment in Canada for infectious syphilis[4]. However, access to this drug in an effective and easy to administer form has become a problem since the Canadian distributor stopped distributing Bicillin in 2002. Alternatives are less optimal because of efficacy and/or compliance issues. Azithromycin has been used to treat some cases of infectious syphilis, but resistance has started to surface[14].

An additional concern is that because syphilis has been rare for decades, there is now a new generation of clinicians who have never seen syphilis and may not know that they should look for it.

TECHNICAL NOTES

Commonly Used Terms/Definitions

Asymptomatic

- Lack of symptoms of a sexually transmitted infection; symptom-free (the opposite of "symptomatic", see below).

Case

- A case is a person in the population who has had a diagnosis of an infection (for our purposes, an STI). An individual may be a case more than once if he or she is re-infected (e.g. by an untreated partner). At the national level, all cases of STI are laboratory confirmed.

Gonococcal infection

- Another term for gonorrhea.

NAAT

- Nucleic Acid Amplification Test. It is a relatively newer method of testing for infection of various pathogens, including *Chlamydia trachomatis* and *Neisseria gonorrhoeae*. Unlike previous methods, which required a piece of tissue for testing, NAAT can be used on urine samples.

Outbreak

- The occurrence of a higher-than-expected number of cases in a community.

Rate

- A rate is calculated as the number of cases in a population (e.g. a geographic region or a specific sex) divided by the total number of people in that population.

STD

- Sexually transmitted disease. This is the traditional term for infections that can be spread through sexual contact with an infected person. However, some STDs can be spread though non-sexual methods, such as injection drug use.

STI

- Sexually transmitted infection. This term is commonly used in place of STD, because it includes infections that may be asymptomatic.

Surveillance

- This is the ongoing collection, analysis, and feedback of data that are collected systematically.

Symptomatic

- Showing the symptoms of a disease or infection

Population Standardization

A review of historical data was undertaken prior to publication of this report. Normally, the last 2 years of surveillance data are updated to account for reporting delays and any data cleaning that may have been undertaken at the provincial/territorial level. The population denominators, used to calculate rates, have been reviewed and updated to reflect the most recent and accurate population estimates.

Numerators have been reviewed and updated to correct historical errors where possible for gonorrhea and chlamydia. Because of the relatively small numbers and as a result of recent analyses, infectious syphilis numerators have been updated for all reported years. Please see footnotes on specific tables for more detail.

Overall Canadian trends have not been greatly affected by this update. While there are substantial changes in particular cells, primarily attributable to the denominator update, Canadian rates have shifted by less than 1% for all three infections.

Improvements to National Surveillance of Sexually Transmitted Infections

There are many challenges to monitoring STI at the national level. For a case to be entered into this surveillance system, an infected individual must experience symptoms and seek medical care. Because of the asymptomatic nature of most infections, many infected persons will not realize that they have an STI and thus not seek medical treatment. Some additional cases are identified through contact tracing of an individual with a diagnosed infection. However, the increasing prevalence of anonymous sexual partnering makes contact tracing more difficult.

Furthermore, not all STI are nationally notifiable. Although other STI, such as herpes, may be monitored at the provincial/territorial level, the data are incomplete at the national level.

Technical differences between the provinces/territories and the Public Health Agency of Canada may introduce problems that can delay the timely reporting of case information. Furthermore, because many provinces/territories use different software to maintain their data, not all submit the same data in the same format to the national level. Some submit aggregate case counts (by age, sex, and disease). Others submit case-level data with age and gender information. However, other fields, such as risk factor information, are completed to varying degrees, and different categories may be used in some fields (e.g. ethnicity).

There are several ways of getting around these limitations. Work is under way to implement a minimum dataset. This standardized data format, agreed upon by the provinces and territories, would identify required information and incorporate a consistent set of categories.

Case-by-case reporting by all provinces and territories would enhance the national picture of STI. Risk factor data at the national level are currently incomplete, prohibiting in-depth analysis to help explain observed trends.

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APPENDIX I

Table 1.1: Reported Genital Chlamydia Cases and Rates[1] in Canada by Age Group and Sex, 1991-2002[2,3]

			Age Group (years)											
Year			**Canada**	**0 < 1**	**1-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-39**	**40-59**	**60+**	**NS**
1991	Cases	Male	8 835	9	5	1	37	1 753	3 480	1 853	1 141	334	22	200
		Female	26 918	17	13	12	530	10 259	9 489	3 657	1 926	410	26	579
		Unspecified	10 216	0	0	0	1	8	10	5	0	1	0	10 191
		Total	45 969	26	18	13	568	12 020	12 979	5 515	3 067	745	48	10 970
	Rate	Male	63.6	4.3	0.6	0.1	3.8	176.9	327.6	145.9	46.2	10.4	1.1	
		Female	190.4	8.6	1.7	1.3	57.3	1 095.1	925.0	295.6	78.4	12.9	1.0	
		Total	164.0	6.4	1.2	0.7	29.9	623.4	621.6	220.0	62.2	11.7	1.1	
1992	Cases	Male	10 811	24	7	3	32	2047	4 290	2 122	1 423	400	34	429
		Female	35 363	23	16	14	605	13 235	12 466	4 550	2 407	526	58	1 463
		Unspecified	191	0	1	0	0	9	18	6	3	0	1	153
		Total	46 365	47	24	17	637	15 291	16 774	6 678	3 833	926	93	2 045
	Rate	Male	76.9	11.6	0.9	0.3	3.2	206.6	406.8	172.4	56.6	12.2	1.7	
		Female	247.1	11.7	2.1	1.5	64.5	1 412.1	1 225.6	378.7	96.3	16.1	2.3	
		Total	163.4	11.7	1.5	0.9	33.0	793.0	809.7	274.6	76.4	14.1	2.1	
1993	Cases	Male	10 621	9	4	6	51	2 077	4 132	2 250	1 490	451	27	124
		Female	33 379	18	11	11	600	12 744	12 012	4 558	2 542	500	40	343
		Unspecified	22	0	0	0	0	4	1	2	3	0	0	12
		Total	44 022	27	15	17	651	14 825	16 145	6 810	4 035	951	67	479
	Rate	Male	74.7	4.5	0.5	0.6	5.1	208.9	395.3	189.9	58.1	13.3	1.3	
		Female	2 30.5	9.4	1.4	1.2	63.0	1 355.0	1 194.2	394.4	100.0	14.8	1.6	
		Total	153.4	6.9	0.9	0.9	33.3	766.2	787.2	291.0	79.0	14.1	1.5	
1994	Cases	Male	10 006	20	2	4	33	1 914	3 859	2 022	1 544	460	38	110
		Female	31 176	27	13	13	577	11 567	11 282	4 165	2 669	589	40	234
		Unspecified	53	0	0	0	0	5	16	9	5	0	0	18
		Total	41 235	47	15	17	610	13 486	15 157	6 196	4 218	1 049	78	362
	Rate	Male	69.6	10.1	0.2	0.4	3.2	190.0	372.7	177.0	59.4	13.2	1.9	
		Female	212.8	14.4	1.6	1.4	59.8	1 215.5	1 131.8	373.6	103.8	16.8	1.5	
		Total	142.0	12.2	0.9	0.9	30.8	688.4	745.9	274.5	81.6	15.0	1.7	
1995	Cases	Male	9 085	24	6	3	21	1 721	3 478	1 848	1 484	398	33	69
		Female	28 451	32	5	10	466	10 704	10 496	3 745	2 312	459	31	191
		Unspecified	15	0	0	0	0	2	2	1	0	1	0	9
		Total	37 551	56	11	13	487	12 427	13 976	5 594	3 796	858	64	269
	Rate	Male	62.5	12.2	0.7	0.3	2.0	168.7	338.5	166.4	56.6	11.0	1.6	
		Female	192.0	17.2	0.6	1.0	47.9	1 111.1	1 060.2	345.4	89.4	12.6	1.2	
		Total	127.9	14.7	0.7	0.7	24.4	626.4	692.7	254.9	72.9	11.8	1.4	
1996	Cases	Male	8 317	9	1	0	23	1 524	3 128	1 745	1 372	436	22	57
		Female	26 062	14	9	14	435	9 752	9 439	3 549	2 134	530	26	160
		Unspecified	20	0	0	0	0	6	5	1	2	0	0	6
		Total	34 399	23	10	14	458	11 282	12 572	5 295	3 508	966	48	223
	Rate	Male	56.6	4.6	0.1	0.0	2.2	147.2	305.5	159.6	52.3	11.7	1.0	
		Female	174.0	7.5	1.2	1.4	44.5	997.1	956.7	331.7	82.6	14.1	1.0	
		Total	115.9	6.0	0.6	0.7	22.8	560.5	625.3	244.7	67.3	12.9	1.0	

			Age Group (years)											
Year			**Canada**	**0 < 1**	**1-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-39**	**40-59**	**60+**	**NS**
1997	Cases	Male	8 714	7	0	0	18	1 510	3 260	1 783	1 559	484	21	72
		Female	25 406	15	3	10	378	9 588	9 170	3 458	2 103	512	33	136
		Unspecified	24	1	0	0	0	4	4	1	0	1	0	13
		Total	34 144	23	3	10	396	11 102	12 434	5 242	3 662	997	54	221
	Rate	Male	58.7	3.8	0.0	0.0	1.7	144.7	316.1	164.3	59.8	12.5	1.0	
		Female	167.8	8.7	0.4	1.0	38.5	971.3	924.1	325.8	81.9	13.2	1.2	
		Total	113.9	6.5	0.2	0.5	19.6	546.7	614.5	244.2	70.8	12.8	1.1	
1998	Cases	Male	11 041	8	0	3	36	1 934	4 094	2 338	1 934	609	32	53
		Female	27 956	12	7	12	413	10 599	10 087	3 857	2 299	509	29	132
		Unspecified	37	1	0	0	0	4	4	4	2	0	0	22
		Total	39 034	21	7	15	449	12 537	14 185	6 199	4 235	1 118	61	207
	Rate	Male	73.7	4.5	0.0	0.3	3.5	183.8	394.1	217.0	75.1	15.2	1.5	
		Female	183.1	7.1	0.9	1.2	42.0	1 063.7	1 011.8	366.4	90.7	12.7	1.1	
		Total	129.0	6.1	0.5	0.7	22.2	612.0	696.8	291.0	82.9	13.9	1.2	
1999	Cases	Male	12 287	15	3	3	31	1 976	4 702	2 538	2 198	722	49	50
		Female	29 813	11	7	9	429	11 428	10 740	4 040	2 371	616	20	142
		Unspecified	41	0	0	0	0	12	7	3	1	1	0	17
		Total	42 141	26	10	12	460	13 416	15 449	6 581	4 570	1 339	69	209
	Rate	Male	81.4	8.7	0.4	0.3	3.0	186.7	446.3	237.0	86.4	17.5	2.2	
		Female	193.6	6.7	1.0	0.9	43.5	1 138.3	1 064.6	386.1	94.8	14.8	0.7	
		Total	138.2	7.7	0.7	0.6	22.7	650.6	749.1	310.8	90.6	16.2	1.4	
2000	Cases	Male	13 539	11	2	1	30	2 335	5 013	2 786	2 366	875	45	75
		Female	32 868	9	6	6	474	12 454	11 993	4 365	2 692	708	29	132
		Unspecified	32	0	0	0	0	4	9	5	1	1	0	12
		Total	46 439	20	8	7	504	14 793	17 015	7 156	5 059	1 584	74	219
	Rate	Male	88.9	6.4	0.3	0.1	2.9	219.4	470.4	260.6	94.2	20.6	2.0	
		Female	211.6	5.5	0.8	0.6	47.5	1 234.3	1 175.7	417.9	109.0	16.6	1.0	
		Total	150.9	6.0	0.6	0.3	24.6	713.5	815.7	338.5	101.5	18.6	1.4	
2001	Cases	Male	15 242	14	0	0	38	2 545	5 769	3 172	2 636	951	51	66
		Female	34 728	26	5	3	503	12 905	12 716	4 755	2 872	754	30	159
		Unspecified	107	0	0	0	1	28	42	16	7	1	0	12
		Total	50 077	40	5	3	542	15 478	18 527	7 943	5 515	1 706	81	237
	Rate	Male	99.2	8.2	0.0	0.0	3.6	233.8	534.5	301.3	107.2	21.8	2.2	
		Female	221.8	16.0	0.7	0.3	49.6	1 255.1	1 233.4	465.7	118.8	17.1	1.0	
		Total	161.4	12.0	0.4	0.1	26.1	731.2	877.9	383.1	113.1	19.4	1.6	
2002	Cases	Male	17 443	5	1	1	25	2 750	6 622	3 730	3 005	1 182	69	53
		Female	38 760	10	3	6	527	14 075	14 463	5 381	3 303	839	25	128
		Unspecified	38	0	0	0	0	3	6	4	1	0	0	24
		Total	56 241	15	4	7	552	16 828	21 091	9 115	6 309	2 021	94	205
	Rate	Male	112.3	2.9	0.1	0.1	2.3	251.7	602.6	350.7	124.0	26.3	2.9	
		Female	244.9	6.2	0.4	0.6	51.3	1 362.0	1 376.6	521.0	138.5	18.5	0.8	
		Total	179.3	4.5	0.3	0.4	26.2	791.5	981.2	434.8	131.2	22.4	1.8	

[1]Rate per 100 000 population. Population estimates provided by Statistics Canada (Source: Annual Demographic Statistics, 2000 Catalogue no. 91-213 and unpublished data).

[2]2002 data are preliminary and changes are anticipated.

[3]Data have been updated to rectify an historical discrepancy.

Source: Sexual Health and Sexually Transmitted Infections, Community Acquired Infections Division, Centre for Infectious Disease Prevention and Control, Public Health Agency of Canada, 2003.

Table 1.2: Reported Genital Chlamydia Cases and Rates[1] in Canada by Province/Territory and Sex, 1991-2002[2,3]

			Province/Territory													
Year			Canada	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT	NU[4]
1991	Cases	Male	8 835	74	22	395	0	3311	2 592	1 213	903	0	0	53	272	
		Female	26 918	518	73	1 832	0	9334	8 515	3 338	2 388	0	0	144	776	
		Total*	45 969	594	96	2 230	0	1 2681	11 110	4 551	3 291	6 909	3 261	198	1 048	
	Rate	Male	63.6	25.5	34.2	87.5	0.0	95.2	50.3	220.5	180.8	0.0	0.0	350.3	850.1	
		Female	190.4	179.3	1 10.8	395.1	0.0	260.3	161.5	596.7	474.4	0.0	0.0	---	2 681.9	
		Total*	164.0	102.5	73.7	243.7	0.0	179.5	106.5	410.2	328.2	266.5	96.7	684.8	1 720.0	
1992	Cases	Male	10 811	32	43	325	230	2 737	2 905	865	594	1 431	1 386	46	217	
		Female	35 363	417	148	1 321	1 109	7 595	9 915	2 425	1 814	4 881	4 910	146	682	
		Total*	46 365	450	204	1 646	1 339	10 361	12 830	3 290	2 408	6 312	6 434	192	899	
	Rate	Male	76.9	11.0	66.5	71.7	62.0	78.1	55.6	156.7	118.8	107.8	80.1	290.8	662.5	
		Female	247.1	1 44.0	2 23.5	283.3	293.9	210.5	185.4	432.1	359.8	373.5	282.2	---	2 299.7	
		Total*	163.4	77.6	155.9	179.0	178.9	145.7	121.4	295.6	239.8	239.6	185.4	634.9	1 440.4	
1993	Cases	Male	10 621	51	24	324	179	2 513	3 504	859	644	1 190	1 051	36	246	
		Female	33 379	412	110	1 134	887	7 129	10 529	2 400	1 665	4 006	4 251	130	726	
		Total*	44 022	463	139	1 459	1 066	9 647	14 041	3 259	2 309	5 199	5 302	166	972	
	Rate	Male	74.7	17.6	36.7	71.3	48.1	71.2	66.4	154.9	128.5	88.4	59.0	225.0	738.0	
		Female	230.5	142.1	164.2	241.8	234.8	196.2	194.5	425.6	329.2	302.3	237.3	889.4	2 402.8	
		Total*	153.4	79.8	105.0	158.0	142.2	134.6	131.3	291.4	229.3	194.7	148.5	542.1	1 529.5	
1994	Cases	Male	10 006	60	22	392	174	2 043	3 257	815	665	1 164	1 126	37	251	
		Female	31 176	296	85	1 052	743	5 783	10 196	2 260	1 832	3 845	4 217	116	751	
		Total*	41 235	356	109	1 446	917	7 837	13 465	3 075	2 497	5 010	5 368	153	1 002	
	Rate	Male	69.6	20.9	33.3	86.1	46.7	57.5	61.0	146.3	132.3	85.4	61.4	235.8	734.8	
		Female	212.8	102.9	125.6	223.4	196.4	1 58.2	185.9	398.8	361.2	286.5	228.3	808.2	2 422.7	
		Total*	142.0	61.9	81.5	156.1	122.1	1 08.7	124.4	273.6	247.3	185.2	145.8	509.2	1 537.8	
1995	Cases	Male	9 085	45	27	282	164	1 759	2 931	782	612	1 167	1 057	34	225	
		Female	28 451	227	85	884	598	5 278	9 157	2 226	1 737	3 851	3 602	122	689	
		Total*	37 551	272	112	1 167	762	7 048	12 090	3 008	2 344	5 018	4 660	156	914	
	Rate	Male	62.5	15.9	40.6	61.9	44.0	49.3	54.2	139.6	121.3	84.6	56.1	210.9	645.0	
		Female	192.0	79.8	124.5	187.3	157.9	143.8	164.7	390.8	340.9	283.2	189.7	826.3	2 174.0	
		Total*	127.9	47.9	83.1	125.8	101.4	97.3	110.3	266.2	231.1	183.1	123.1	505.1	1 372.9	
1996	Cases	Male	8 317	60	34	200	168	1 640	2 578	598	659	1 183	917	39	241	
		Female	26 062	219	97	873	665	5 006	8 025	1 961	1 577	3 685	3 191	105	658	
		Total*	34 399	279	131	1 074	833	6 655	10 605	2 559	2 236	4 868	4 116	144	899	
	Rate	Male	56.6	21.5	50.6	43.8	44.9	45.7	47.1	106.3	129.9	84.5	47.4	234.1	681.1	
		Female	174.0	77.9	140.6	184.0	175.4	135.8	142.5	342.8	307.8	267.0	163.8	687.3	2 044.4	
		Total*	115.9	49.8	96.2	115.3	110.6	91.5	95.5	225.6	219.3	175.1	106.0	450.9	1 330.5	
1997	Cases	Male	8 714	57	39	241	191	1 608	2 807	601	716	1 101	1 002	34	317	
		Female	25 406	278	100	885	625	4 758	7 750	1 986	1 601	3 446	3 110	139	728	
		Total*	34 144	335	139	1 127	819	6 380	10 559	2 587	2 317	4 547	4 116	173	1 045	
	Rate	Male	58.7	20.7	57.8	52.6	51.0	44.6	50.6	106.6	140.8	77.0	50.6	202.4	894.0	
		Female	167.8	99.9	144.1	185.9	164.4	128.6	135.9	346.7	311.7	244.8	156.4	900.4	2 255.4	
		Total*	113.9	60.5	101.6	120.6	108.6	87.4	93.9	227.6	226.7	160.3	103.9	536.6	1 542.8	
1998	Cases	Male	11 041	81	34	271	224	1 982	3 727	804	787	1 361	1 340	53	377	
		Female	27 956	294	110	938	735	5 268	8 724	2 148	1 612	3 834	3 422	124	747	
		Total*	39 034	375	144	1 216	959	7 264	12 458	2 954	2 399	5 195	4 769	177	1 124	
	Rate	Male	73.7	29.9	50.5	59.0	60.0	54.9	66.4	142.5	154.5	92.8	67.4	323.5	1 070.6	
		Female	183.1	107.0	158.1	196.6	193.4	142.0	151.2	374.4	312.8	266.2	170.3	819.1	2 315.2	
		Total*	129.0	68.8	105.2	129.9	127.3	99.2	109.4	259.6	234.1	178.7	119.3	561.5	1 665.7	

			Province/Territory													
Year			**Canada**	**NL**	**PE**	**NS**	**NB**	**QC**	**ON**	**MB**	**SK**	**AB**	**BC**	**YT**	**NT**	**NU[4]**
1999	Cases	Male	12 287	98	43	296	323	2 136	4 220	865	871	1 472	1 504	49	410	
		Female	29 813	335	105	1 055	813	5 813	9 030	2 102	1 785	3 944	3 895	127	809	
		Total*	42 141	433	148	1 364	1 136	7 968	13 256	2 967	2 656	5 416	5 402	176	1 219	
	Rate	Male	81.4	36.6	63.6	64.2	86.5	58.9	74.3	152.7	170.9	98.5	75.1	305.4	1 161.2	
		Female	193.6	122.8	149.9	220.3	213.4	156.1	154.6	365.0	346.0	269.1	192.2	847.2	2 485.3	
		Total*	138.2	80.1	107.6	145.1	150.6	108.4	115.0	259.7	259.0	183.0	134.1	567.0	1 796.4	
2000	Cases	Male	13 539	103	69	298	327	2 199	4 799	967	968	1 705	1 691	45	140	228
		Female	32 868	451	162	1 103	916	6 461	9 796	2 296	1 968	4 296	4 498	101	344	476
		Total*	46 439	554	231	1 405	1 243	8 678	14 603	3 263	2 936	6 001	6 191	146	484	704
	Rate	Male	88.9	38.7	101.8	64.6	87.5	60.4	83.3	170.2	190.8	112.3	83.9	285.3	662.6	1 591.2
		Female	211.6	166.4	230.4	229.7	240.2	172.9	165.5	397.4	382.4	288.2	220.1	682.1	1 739.4	3 636.4
		Total*	150.9	103.1	167.3	149.3	164.6	117.6	125.0	284.7	287.3	199.4	152.5	477.4	1 183.2	2 567.6
2001	Cases	Male	15 242	130	41	368	312	2 884	5 428	930	1 060	1 950	1 729	39	163	208
		Female	34 728	463	109	1 232	889	7 307	10 779	2 330	2 042	4 513	4 209	92	370	393
		Total*	50 077	593	150	1 603	1 202	10 214	16 217	3 261	3 170	6 463	5 938	132	533	601
	Rate	Male	99.2	50.5	61.5	80.6	84.2	79.1	92.3	162.9	213.1	126.2	85.4	254.6	772.6	1 417.6
		Female	221.8	174.8	155.8	258.8	234.4	194.9	179.1	401.4	406.2	298.5	204.9	621.2	1 876.0	2 922.4
		Total*	161.4	113.6	109.8	171.9	160.3	138.1	136.3	283.3	317.0	211.4	145.6	438.1	1 305.7	2 137.2
2002	Cases	Male	17 443	107	42	330	369	3 078	6 154	977	1 280	2 234	2 352	48	198	274
		Female	38 760	415	103	1 241	944	8 007	11 834	2 392	2 333	5 102	5 348	93	402	546
		Total*	56 241	522	145	1 574	1 313	11 112	17 994	3 370	3 613	7 336	7 701	141	600	820
	Rate	Male	112.3	41.9	62.9	72.1	99.6	83.9	103.0	170.6	258.6	141.9	115.3	314.4	924.2	1 833.4
		Female	244.9	157.3	146.6	260.4	248.7	212.3	193.4	410.5	466.1	331.3	257.8	626.0	2 009.1	3 958.0
		Total*	179.3	100.5	105.8	168.5	175.0	149.3	148.8	291.7	362.9	235.6	187.2	468.1	1 448.1	2 853.2

[1]Rate per 100 000 population. Population estimates provided by Statistics Canada (Source: Annual Demographic Statistics, 2000 Catalogue no. 91-213 and unpublished data).

[2]2002 data are preliminary and changes are anticipated.

[3]Data have been updated to rectify an historical discrepancy.

[4]Data prior to 2000 are not available because Nunavut became a Canadian territory in April 1999. Data for 1999 were included with NT.

*Total includes cases not specified for sex.

Source: Sexual Health and Sexually Transmitted Infections, Community Acquired Infections Division, Centre for Infectious Disease Prevention and Control, Public Health Agency of Canada, 2003.

Table 2.1: Reported Gonorrhea Cases and Rates[1] in Canada by Age Group and Sex, 1980-2002[2]

			Age Group (years)											
Year			**Canada**	**0 < 1**	**1-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-39**	**40-59**	**60+**	**NS**
1980	Cases	Male	32 555	10	0	6	43	3 921	10 821	7 505	6 542	2 241	173	1 293
		Female	20 485	18	36	34	193	6 075	7 234	3 280	1 962	436	31	1 186
		Unspecified	231	0	0	0	0	1	0	1	0	0	0	229
		Total	53 271	28	36	40	236	9 997	18 055	10 786	8 504	2 677	204	2 708
	Rate	Male	266.6	5.3	0.0	0.6	4.3	317.8	884.1	678.2	355.9	89.4	12.0	
		Female	166.5	10.1	5.2	3.9	20.1	513.1	602.5	298.4	110.0	17.4	1.7	
		Total	217.3	7.7	2.5	2.2	12.0	413.5	744.7	489.0	234.8	53.4	6.3	
1981	Cases	Male	34 337	5	5	8	54	4 435	11 991	7 906	6 959	2 179	149	646
		Female	21 863	10	28	33	219	6 932	8 034	3 487	2 110	476	33	501
		Unspecified	130	0	0	0	0	2	3	2	1	0	0	122
		Total	56 330	15	33	41	273	11 369	20 028	11 395	9 070	2 655	182	1 269
	Rate	Male	278.0	2.7	0.7	0.9	5.4	366.2	959.2	700.1	366.1	85.8	10.0	
		Female	175.3	5.6	4.0	3.8	23.2	598.6	654.7	310.8	113.9	18.8	1.8	
		Total	227.0	4.1	2.3	2.3	14.1	479.9	808.5	506.2	241.6	52.3	5.4	
1982	Cases	Male	32 078	5	3	1	46	4 063	11 239	7 309	6 399	2 169	147	697
		Female	20 893	8	22	32	211	6 563	7 816	3 363	1 899	422	21	536
		Unspecified	101	0	0	0	0	0	3	2	0	0	0	96
		Total	53 072	13	25	33	257	10 626	19 058	10 674	8 298	2 591	168	1 329
	Rate	Male	256.8	2.6	0.4	0.1	4.7	345.9	890.9	627.9	326.1	84.4	9.6	
		Female	165.5	4.4	3.1	3.7	22.7	587.0	634.0	290.5	98.9	16.5	1.1	
		Total	211.3	3.5	1.7	1.8	13.4	463.5	764.0	459.8	213.8	50.5	4.8	
1983	Cases	Male	27 006	10	2	3	32	3 223	9 455	6 186	5 592	1 801	116	586
		Female	18 148	6	19	31	185	5 469	6 904	2 934	1 719	414	25	442
		Unspecified	111	0	0	0	0	0	5	0	0	2	0	104
		Total	45 265	16	21	34	217	8 692	16 364	9 120	7 311	2 217	141	1 132
	Rate	Male	214.2	5.3	0.3	0.3	3.3	286.9	743.2	518.7	277.7	69.0	7.4	
		Female	142.3	3.3	2.7	3.5	20.1	512.4	558.9	247.7	86.9	16.0	1.2	
		Total	178.4	4.3	1.4	1.9	11.5	396.7	652.6	383.7	183.1	42.6	3.9	
1984	Cases	Male	25 852	7	2	3	51	3 094	9 024	5 966	5 226	1 828	98	553
		Female	17 924	4	22	26	240	5 501	6 832	2 792	1 677	365	23	442
		Unspecified	98	0	0	0	0	4	2	0	1	0	0	91
		Total	43 874	11	24	29	291	8 599	15 858	8 758	6 904	2 193	121	1 086
	Rate	Male	203.2	3.7	0.3	0.3	5.3	288.2	704.9	491.8	252.6	69.0	6.1	
		Female	139.1	2.2	3.1	3.0	26.4	540.0	553.6	232.6	82.1	13.9	1.1	
		Total	171.3	3.0	1.6	1.6	15.6	410.9	630.7	362.9	168.0	41.5	3.3	
1985	Cases	Male	23 277	8	1	4	41	2 804	8 545	5 091	4 484	1 522	88	689
		Female	17 399	5	19	26	207	5 448	6 445	2 666	1 598	349	18	618
		Unspecified	61	0	0	0	0	2	3	1	0	0	0	55
		Total	40 737	13	20	30	248	8 254	14 993	7 758	6 082	1 871	106	1 362
	Rate	Male	181.4	4.2	0.1	0.4	4.4	270.5	670.4	413.9	210.6	56.5	5.4	
		Female	133.7	2.8	2.6	2.9	23.0	554.9	526.6	220.2	75.8	13.1	0.8	
		Total	157.6	3.5	1.4	1.7	13.5	409.0	600.1	317.9	143.5	34.9	2.8	
1986	Cases	Male	19 458	7	1	6	34	2 715	7 042	4 542	3 413	1 164	100	434
		Female	15 744	7	23	21	227	5 128	5 690	2 513	1 394	320	28	393
		Unspecified	85	0	0	0	0	0	0	3	1	0	0	81
		Total	35 287	14	24	27	261	7 843	12 732	7 058	4 808	1 484	128	908
	Rate	Male	150.2	3.7	0.1	0.6	3.7	266.0	563.5	362.5	156.3	42.3	5.9	
		Female	119.7	3.9	3.2	2.4	25.6	530.3	475.6	205.1	64.3	11.7	1.3	
		Total	135.2	3.8	1.6	1.5	14.4	394.6	520.5	284.8	110.5	27.1	3.3	
1987	Cases	Male	14 755	3	7	4	35	2 288	5 361	3 307	2 447	897	74	332
		Female	12 923	6	18	30	195	4 357	4 578	2 017	1 084	298	17	323
		Unspecified	240	0	0	0	0	1	0	0	0	0	0	239
		Total	27 918	9	25	34	230	6 646	9 939	5 324	3 531	1 195	91	894
	Rate	Male	112.4	1.6	0.9	0.4	3.8	227.7	443.5	259.2	109.6	31.6	4.3	
		Female	97.0	3.3	2.5	3.3	21.9	456.9	396.5	162.5	48.9	10.6	0.8	
		Total	105.6	2.4	1.7	1.8	12.6	339.3	420.6	211.5	79.4	21.2	2.3	

			Age Group (years)											
Year			**Canada**	**0 < 1**	**1-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-39**	**40-59**	**60+**	**NS**
1988	Cases	Male	10 381	2	1	4	26	1 558	3 604	2 395	1 840	667	48	236
		Female	9 501	5	11	25	139	3 209	3 293	1 531	828	220	14	226
		Unspecified	220	0	0	0	0	0	0	0	0	0	0	220
		Total	20 102	7	12	29	165	4 767	6 897	3 926	2 668	887	62	682
	Rate	Male	78.1	1.1	0.1	0.4	2.8	156.2	312.5	185.3	80.5	22.8	2.7	
		Female	70.3	2.8	1.5	2.7	15.5	338.7	298.2	121.7	36.4	7.6	0.6	
		Total	75.0	1.9	0.8	1.5	9.0	245.1	305.5	153.9	58.5	15.2	1.5	
1989	Cases	Male	10 278	7	1	2	26	1 503	3 355	2 345	2 009	735	54	241
		Female	8 778	3	22	18	144	3 083	2 850	1 445	822	221	10	160
		Unspecified	54	0	1	0	0	1	3	2	2	0	0	45
		Total	19 110	10	24	20	170	4 587	6 208	3 792	2 833	956	64	446
	Rate	Male	76.0	3.6	0.1	0.2	2.7	151.1	301.4	178.5	85.1	24.3	3.0	
		Female	63.8	1.6	3.0	1.9	15.9	326.2	265.7	113.0	35.1	7.4	0.4	
		Total	70.0	2.6	1.6	1.1	9.2	236.4	284.0	146.2	60.2	15.9	1.5	
1990	Cases	Male	7 681	5	1	3	21	1 140	2 373	1 791	1 553	553	57	184
		Female	6 024	9	13	9	139	2 168	1 911	918	564	176	10	107
		Unspecified	117	1	0	0	0	3	7	1	4	0	0	101
		Total	13 822	15	14	12	160	3 311	4 291	2 710	2 121	729	67	392
	Rate	Male	55.9	2.4	0.1	0.3	2.2	114.6	219.5	136.9	64.2	17.8	3.0	
		Female	43.1	4.6	1.7	1.0	15.2	229.8	183.2	72.0	23.4	5.7	0.4	
		Total	49.9	3.7	0.9	0.6	8.5	170.8	202.0	104.9	44.0	11.8	1.6	
1991	Cases	Male	7 086	4	0	0	22	576	1 141	897	831	344	41	3 230
		Female	5 352	2	12	3	109	1 082	958	454	319	93	5	2 315
		Unspecified	19	0	0	0	0	0	1	0	0	0	0	18
		Total	12 457	6	12	3	131	1 658	2 100	1 351	1 150	437	46	5 563
	Rate	Male	51.0	1.9	0.0	0.0	2.3	58.1	107.4	70.6	33.6	10.7	2.1	
		Female	37.9	1.0	1.6	0.3	11.8	115.5	93.4	36.7	13.0	2.9	0.2	
		Total	44.4	1.5	0.8	0.2	6.9	86.0	100.6	53.9	23.3	6.8	1.0	
1992	Cases	Male	5 148	8	0	1	19	781	1 485	1 175	1 138	428	51	62
		Female	4 093	7	9	6	140	1 644	1 195	582	381	85	12	32
		Unspecified	12	0	0	0	0	2	2	4	1	1	0	2
		Total	9 253	15	9	7	159	2 427	2 682	1 761	1 520	514	63	96
	Rate	Male	36.6	3.9	0.0	0.1	1.9	78.8	140.8	95.5	45.3	13.0	2.6	
		Female	28.6	3.6	1.2	0.6	14.9	175.4	117.5	48.4	15.2	2.6	0.5	
		Total	32.6	3.7	0.6	0.4	8.2	125.9	129.5	72.4	30.3	7.8	1.4	
1993	Cases	Male	3 738	1	1	3	8	596	1 013	884	845	323	26	38
		Female	3 086	0	11	3	88	1 185	997	402	298	79	4	19
		Unspecified	8	0	0	1	1	2	0	0	0	0	1	3
		Total	6 832	1	12	7	97	1 783	2 010	1 286	1 143	402	31	60
	Rate	Male	26.3	0.5	0.1	0.3	0.8	59.9	96.9	74.6	33.0	9.5	1.3	
		Female	21.3	0.0	1.4	0.3	9.2	126.0	99.1	34.8	11.7	2.3	0.2	
		Total	23.8	0.3	0.7	0.4	5.0	92.2	98.0	54.9	22.4	5.9	0.7	
1994	Cases	Male	3 478	3	0	1	10	433	796	821	971	386	34	23
		Female	2 645	1	4	3	83	947	817	363	293	92	7	35
		Unspecified	44	0	0	0	0	2	2	1	4	0	0	35
		Total	6 167	4	4	4	93	1 382	1 615	1 185	1 268	478	41	93
	Rate	Male	24.2	1.5	0.0	0.1	1.0	43.0	76.9	71.9	37.3	11.0	1.7	
		Female	18.1	0.5	0.5	0.3	8.6	99.5	82.0	32.6	11.4	2.6	0.3	
		Total	21.2	1.0	0.2	0.2	4.7	70.5	79.5	52.5	24.5	6.8	0.9	
1995	Cases	Male	3 322	3	2	0	9	425	769	710	980	360	36	28
		Female	2 385	1	4	2	75	888	761	347	243	51	1	12
		Unspecified	8	0	0	0	0	2	0	2	1	1	0	2
		Total	5 715	4	6	2	84	1 315	1 530	1 059	1 224	412	37	42
	Rate	Male	22.9	1.5	0.2	0.0	0.9	41.7	74.8	63.9	37.4	10.0	1.7	
		Female	16.1	0.5	0.5	0.2	7.7	92.2	76.9	32.0	9.4	1.4	0.0	
		Total	19.5	1.0	0.4	0.1	4.2	66.3	75.8	48.3	23.5	5.7	0.8	

			Age Group (years)											
Year			**Canada**	**0 < 1**	**1-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-39**	**40-59**	**60+**	**NS**
1996	Cases	Male	2 845	1	2	1	5	345	688	614	820	320	26	23
		Female	2 168	2	3	2	64	844	652	320	210	60	2	9
		Unspecified	10	0	0	0	0	0	1	0	4	0	0	5
		Total	5 023	3	5	3	69	1 189	1 341	934	1 034	380	28	37
	Rate	Male	19.4	0.5	0.2	0.1	0.5	33.3	67.2	56.1	31.3	8.6	1.2	
		Female	14.5	1.1	0.4	0.2	6.5	86.3	66.1	29.9	8.1	1.6	0.1	
		Total	16.9	0.8	0.3	0.1	3.4	59.1	66.7	43.2	19.9	5.1	0.6	
1997	Cases	Male	2 646	0	0	0	2	333	599	570	765	337	23	17
		Female	1 822	0	0	2	56	716	578	235	184	42	4	5
		Unspecified	9	0	0	0	0	0	2	0	2	0	1	4
		Total	4 477	0	0	2	58	1 049	1 179	805	951	379	28	26
	Rate	Male	17.8	0.0	0.0	0.0	0.2	31.9	58.1	52.5	29.3	8.7	1.1	
		Female	12.0	0.0	0.0	0.2	5.7	72.5	58.2	22.1	7.2	1.1	0.1	
		Total	14.9	0.0	0.0	0.1	2.9	51.7	58.3	37.5	18.4	4.9	0.6	
1998	Cases	Male	2 921	0	0	3	5	327	665	571	898	406	32	14
		Female	1 938	3	5	3	51	799	575	245	196	53	5	3
		Unspecified	9	0	0	0	0	0	2	0	0	0	0	7
		Total	4 868	3	5	6	56	1 126	1 242	816	1 094	459	37	24
	Rate	Male	19.5	0.0	0.0	0.3	0.5	31.1	64.0	53.0	34.9	10.2	1.5	
		Female	12.7	1.8	0.7	0.3	5.2	80.2	57.7	23.3	7.7	1.3	0.2	
		Total	16.1	0.9	0.3	0.3	2.8	55.0	61.0	38.3	21.4	5.7	0.7	
1999	Cases	Male	3 322	1	0	1	2	337	737	597	1 077	518	45	7
		Female	2 054	0	4	5	49	798	636	293	193	71	2	3
		Unspecified	5	0	0	0	0	1	0	0	1	0	0	3
		Total	5 381	1	4	6	51	1 136	1 373	890	1 271	589	47	13
	Rate	Male	22.0	0.6	0.0	0.1	0.2	31.8	70.0	55.7	42.4	12.6	2.0	
		Female	13.3	0.0	0.6	0.5	5.0	79.5	63.0	28.0	7.7	1.7	0.1	
		Total	17.6	0.3	0.3	0.3	2.5	55.1	66.6	42.0	25.2	7.1	0.9	
2000	Cases	Male	3 829	1	1	0	6	432	824	656	1 246	612	46	5
		Female	2 353	1	1	0	47	969	732	300	223	71	6	3
		Unspecified	7	0	0	0	0	1	0	0	0	3	0	3
		Total	6 189	2	2	0	53	1 402	1 556	956	1 469	686	52	11
	Rate	Male	25.1	0.6	0.1	0.0	0.6	40.6	77.3	61.4	49.6	14.4	2.0	
		Female	15.1	0.6	0.1	0.0	4.7	96.0	71.8	28.7	9.0	1.7	0.2	
		Total	20.1	0.6	0.1	0.0	2.6	67.6	74.6	45.2	29.5	8.0	1.0	
2001	Cases	Male	4 176	0	0	0	4	467	980	740	1 224	704	53	4
		Female	2 571	3	0	3	58	1 007	852	310	236	96	4	2
		Unspecified	9	0	0	0	0	2	2	1	3	0	0	1
		Total	6 756	3	0	3	62	1 476	1 834	1 051	1 463	800	57	7
	Rate	Male	27.2	0.0	0.0	0.0	0.4	42.9	90.8	70.3	49.8	16.1	2.3	
		Female	16.4	1.9	0.0	0.3	5.7	97.9	82.6	30.4	9.8	2.2	0.1	
		Total	21.8	0.9	0.0	0.1	3.0	69.7	86.9	50.7	30.0	9.1	1.1	
2002	Cases	Male	4 595	0	0	0	8	472	1 121	814	1 347	768	60	5
		Female	2 766	1	2	3	61	1 047	872	374	301	97	4	4
		Unspecified	6	0	0	0	0	0	1	0	2	1	0	2
		Total	7 367	1	2	3	69	1 519	1 994	1 188	1 650	866	64	11
	Rate	Male	29.6	0.0	0.0	0.0	0.7	43.2	102.0	76.5	55.6	17.1	2.5	
		Female	17.5	0.6	0.3	0.3	5.9	101.3	83.0	36.2	12.6	2.1	0.1	
		Total	23.5	0.3	0.1	0.2	3.3	71.4	92.8	56.7	34.3	9.6	1.2	

[1]Rate per 100 000 population. Population estimates provided by Statistics Canada (Source: Annual Demographic Statistics, 2000 Catalogue no. 91-213 and unpublished data).

[2]2002 data are preliminary and changes are anticipated.

[3]Data have been updated to rectify an historical discrepancy.

Source: Sexual Health and Sexually Transmitted Infections, Community Acquired Infections Division, Centre for Infectious Disease Prevention and Control, Public Health Agency of Canada, 2003.

Table 2.2: Reported Gonorrhea Cases and Rates[1] in Canada by Province/Territory and Sex, 1980-2002[2]

			Province/Territory													
Year			Canada	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT	NU[3]
1980	Cases	Male	32 555	476	0	692	222	2 645	9 953	2 253	1 692	7 025	6 470	215	912	
		Female	20 485	276	0	753	101	1 936	6 093	1 831	909	4 451	3 513	128	494	
		Total*	53 271	792	108	1 528	323	4 581	16 046	4 084	2 601	11 476	9 983	343	1 406	
	Rate	Male	266.6	164.5	0.0	163.2	63.0	82.1	229.9	439.5	347.4	625.7	471.3	1 663.8	3 737.4	
		Female	166.5	97.5	0.0	175.5	28.6	58.9	138.0	350.7	189.2	416.1	256.4	1 122.1	2 256.3	
		Total*	217.3	138.3	87.3	179.2	45.7	70.4	183.5	394.7	268.9	523.4	363.9	1 409.8	3 037.0	
1981	Cases	Male	34 337	485	0	635	165	3 540	10 549	2 617	1 704	7 234	5 939	291	1 178	
		Female	21 863	307	0	668	98	2 690	6 651	2 054	991	4 453	3 168	158	625	
		Total*	56 330	813	92	1 320	263	6 230	17 200	4 671	2 695	11 687	9 107	449	1 803	
	Rate	Male	278.0	167.2	0.0	149.8	46.9	109.4	242.1	510.5	347.2	614.7	420.6	2 300.0	4 705.4	
		Female	175.3	107.8	0.0	155.1	27.7	81.3	149.3	392.2	204.3	398.5	224.4	1 404.3	2 775.3	
		Total*	227.0	141.4	74.3	154.4	37.2	95.1	195.2	450.7	276.2	509.4	322.5	1 878.4	3 791.4	
1982	Cases	Male	32 078	496	0	631	106	3 251	10 013	2 575	1 577	6 717	5 403	150	1 159	
		Female	20 893	257	0	626	84	2 372	6 371	2 033	889	4 349	3 223	108	581	
		Total*	53 072	777	59	1 275	190	5 623	16 384	4 608	2 466	11 066	8 626	258	1 740	
	Rate	Male	256.8	171.3	0.0	147.9	30.0	100.0	227.0	497.1	317.9	554.6	376.5	1 158.9	4 443.8	
		Female	165.5	90.2	0.0	144.5	23.6	71.3	141.2	384.5	181.0	375.9	224.2	936.8	2 479.3	
		Total*	211.3	135.2	47.6	148.3	26.8	85.5	183.6	440.2	249.8	467.3	300.3	1 054.3	3 514.1	
1983	Cases	Male	27006	394	0	564	61	3 542	9 412	2 152	1 295	4 623	3 774	89	1 100	
		Female	18148	279	0	594	59	2 360	6 183	1 609	734	3 398	2 315	58	559	
		Total*	45265	685	87	1 170	120	5 902	15 595	3 761	2 029	8 021	6 089	147	1 659	
	Rate	Male	214.2	135.1	0.0	130.8	17.1	108.6	210.5	409.7	257.5	379.3	260.3	713.0	4 090.6	
		Female	142.3	96.9	0.0	135.6	16.4	70.6	135.3	300.3	147.1	290.1	159.1	520.9	2 316.3	
		Total*	178.4	118.2	69.4	134.6	16.8	89.4	172.5	354.5	202.5	335.6	209.6	622.4	3 251.4	
1984	Cases	Male	25852	383	0	643	139	4 197	9 119	1 897	1 198	3 897	3 334	114	931	
		Female	17924	218	0	684	115	2 793	6 554	1 453	614	2 815	2 131	77	470	
		Total*	43874	617	67	1 342	254	6 990	15 673	3 350	1 812	6 712	5 465	191	1 401	
	Rate	Male	203.2	131.3	0.0	147.8	38.8	128.2	201.1	357.4	235.2	320.7	227.0	902.5	3 358.9	
		Female	139.1	75.6	0.0	154.7	31.7	83.2	141.3	268.5	121.3	239.6	144.3	682.5	1 891.6	
		Total*	171.3	106.3	52.9	153.0	35.2	105.4	170.9	312.5	178.4	280.8	185.5	798.7	2 665.3	
1985	Cases	Male	23277	357	0	506	243	3 749	8 462	1 813	1 209	3 175	2 819	115	829	
		Female	17399	201	0	677	264	2 678	6 445	1 373	689	2 515	2 103	76	378	
		Total*	40737	568	49	1 185	507	6 427	14 907	3 186	1 898	5 690	4 922	191	1 207	
	Rate	Male	181.4	122.7	0.0	115.3	67.5	114.0	184.1	338.2	235.2	260.7	190.2	894.3	2 888.3	
		Female	133.7	69.7	0.0	151.7	72.5	79.3	137.1	251.4	134.7	212.3	140.9	660.6	1 470.8	
		Total*	157.6	98.0	38.4	133.9	70.1	96.4	160.3	294.4	185.1	236.8	165.5	784.0	2 218.7	
1986	Cases	Male	19458	250	0	389	263	3 322	6 872	1 715	1 073	2 588	1 984	118	884	
		Female	15744	171	0	563	241	2 522	5 771	1 314	664	2 294	1 586	68	550	
		Total*	35287	435	67	952	506	5 844	12 643	3 029	1 737	4 882	3 570	186	1 436	
	Rate	Male	150.2	86.5	0.0	88.2	73.0	100.4	147.3	317.0	208.2	210.7	132.7	913.9	3 061.7	
		Female	119.7	59.5	0.0	125.6	66.0	74.2	121.0	238.6	129.2	190.8	105.1	587.8	2 129.9	
		Total*	135.2	75.5	52.2	107.0	69.8	87.1	134.0	277.5	168.8	200.8	118.8	759.8	2 625.4	
1987	Cases	Male	14755	152	13	251	268	1 973	5 077	1 585	968	2 158	1 565	68	677	
		Female	12923	102	20	356	203	1 697	4 596	1 306	816	1 949	1 355	57	466	
		Total*	27918	258	39	609	471	3 897	9 673	2 891	1784	4 107	2 920	125	1 144	
	Rate	Male	112.4	52.7	20.3	56.7	74.1	59.0	106.5	291.3	187.4	175.4	103.0	502.3	2 332.6	
		Female	97.0	35.6	30.9	78.9	55.4	49.4	94.3	235.8	158.1	161.7	88.5	468.4	1 791.3	
		Total*	105.6	44.9	30.3	68.2	64.7	57.5	100.3	263.3	172.7	168.6	95.7	486.2	2 078.6	
1988	Cases	Male	10381	89	10	197	104	1 342	4 149	1 115	669	1 285	1 119	62	240	
		Female	9501	59	13	346	139	1 227	3 680	903	601	1 272	1 015	38	208	
		Total*	20102	151	23	543	243	2 785	7 829	2 018	1270	2 557	2 135	100	448	
	Rate	Male	78.1	30.9	15.6	44.4	28.7	39.8	85.3	204.1	130.2	103.7	72.1	443.0	818.0	
		Female	70.3	20.6	20.0	76.3	37.8	35.4	73.9	162.5	116.8	104.7	64.9	301.0	789.2	
		Total*	75.0	26.3	17.8	60.5	33.3	40.7	79.5	183.1	123.5	104.2	68.5	375.6	804.4	

			Province/Territory													
Year			**Canada**	**NL**	**PE**	**NS**	**NB**	**QC**	**ON**	**MB**	**SK**	**AB**	**BC**	**YT**	**NT**	**NU[3]**
1989	Cases	Male	10 278	41	5	156	61	948	5 169	819	551	1 015	781	62	670	
		Female	8 778	37	10	295	87	694	4 081	721	449	962	712	35	695	
		Total*	19 110	80	15	451	148	1 694	9 250	1 540	1 000	1 977	1 493	97	1 365	
	Rate	Male	76.0	14.2	7.8	34.9	16.7	27.8	103.4	149.7	108.3	80.6	49.0	435.5	2 232.7	
		Female	63.8	12.9	15.2	64.5	23.5	19.7	79.8	129.6	87.9	77.8	44.4	271.7	2 572.5	
		Total*	70.0	13.9	11.5	49.9	20.1	24.4	91.5	139.6	98.1	79.2	46.7	357.7	2 393.7	
1990	Cases	Male	7 681	27	6	120	36	1 182	3 569	571	448	625	818	48	231	
		Female	6 024	22	3	190	26	695	2 552	508	455	630	682	37	224	
		Total*	13 822	49	10	310	62	1 966	6 148	1 079	903	1 255	1 500	85	455	
	Rate	Male	55.9	9.3	9.3	26.7	9.8	34.3	70.1	104.2	89.2	48.6	49.9	329.7	746.0	
		Female	43.1	7.6	4.6	41.3	7.0	19.6	49.0	91.1	90.1	49.9	41.3	279.9	801.7	
		Total*	49.9	8.5	7.7	34.1	8.4	28.1	59.7	97.6	89.7	49.3	45.6	306.0	772.4	
1991	Cases	Male	7 086	10	3	105	32	953	3 100	697	442	757	744	44	199	
		Female	5 352	15	3	189	21	417	2 274	598	404	630	584	33	184	
		Total*	12 457	25	6	294	53	1 380	5 381	1 295	846	1 387	1 330	77	383	
	Rate	Male	51.0	3.4	4.7	23.3	8.7	27.4	60.2	126.7	88.5	57.9	44.2	290.8	622.0	
		Female	37.9	5.2	4.6	40.8	5.6	11.6	43.1	106.9	80.3	49.0	34.5	239.4	635.9	
		Total*	44.4	4.3	4.6	32.1	7.1	19.5	51.6	116.7	84.4	53.5	39.4	266.3	628.6	
1992	Cases	Male	5 148	9	2	69	15	618	2 188	702	360	598	456	8	123	
		Female	4 093	4	1	126	9	264	1 707	557	357	576	336	5	151	
		Total*	9 253	13	3	196	24	891	3 897	1 259	717	1 174	792	13	274	
	Rate	Male	36.6	3.1	3.1	15.2	4.0	17.6	41.9	127.2	72.0	45.0	26.4	50.6	375.5	
		Female	28.6	1.4	1.5	27.0	2.4	7.3	31.9	99.3	70.8	44.1	19.3	34.7	509.2	
		Total*	32.6	2.2	2.3	21.3	3.2	12.5	36.9	113.1	71.4	44.6	22.8	43.0	439.0	
1993	Cases	Male	3 738	2	0	29	6	458	1 691	487	247	427	312	9	70	
		Female	3 086	1	0	61	2	217	1 341	436	243	404	254	14	113	
		Total*	6 832	3	0	90	8	680	3 035	923	490	831	566	23	183	
	Rate	Male	26.3	0.7	0.0	6.4	1.6	13.0	32.0	87.8	49.3	31.7	17.5	56.2	210.0	
		Female	21.3	0.3	0.0	13.0	0.5	6.0	24.8	77.3	48.1	30.5	14.2	95.8	374.0	
		Total*	23.8	0.5	0.0	9.7	1.1	9.5	28.4	82.5	48.7	31.1	15.8	75.1	288.0	
1994	Cases	Male	3 478	1	0	13	6	504	1 760	394	188	266	298	7	41	
		Female	2 645	2	0	22	7	225	1 328	335	189	240	189	6	102	
		Total*	6 167	3	0	35	13	735	3 123	729	377	506	490	13	143	
	Rate	Male	24.2	0.3	0.0	2.9	1.6	14.2	32.9	70.7	37.4	19.5	16.2	44.6	120.0	
		Female	18.1	0.7	0.0	4.7	1.9	6.2	24.2	59.1	37.3	17.9	10.2	41.8	329.0	
		Total*	21.2	0.5	0.0	3.8	1.7	10.2	28.8	64.9	37.3	18.7	13.3	43.3	219.5	
1995	Cases	Male	3 322	2	0	15	7	425	1 719	376	208	223	296	11	40	
		Female	2 385	2	0	23	7	165	1 264	282	178	177	193	9	85	
		Total*	5 715	4	0	38	14	595	2 983	658	386	400	492	20	125	
	Rate	Male	22.9	0.7	0.0	3.3	1.9	11.9	31.8	67.1	41.2	16.2	15.7	68.2	114.7	
		Female	16.1	0.7	0.0	4.9	1.8	4.5	22.7	49.5	34.9	13.0	10.2	61.0	268.2	
		Total*	19.5	0.7	0.0	4.1	1.9	8.2	27.2	58.2	38.1	14.6	13.0	64.8	187.8	
1996	Cases	Male	2 845	2	1	30	10	325	1 304	305	216	247	354	3	48	
		Female	2 168	0	0	67	31	144	1 008	249	188	225	172	7	77	
		Total*	5 023	2	1	97	41	478	2 312	554	404	472	527	10	125	
	Rate	Male	19.4	0.7	1.5	6.6	2.7	9.1	23.8	54.2	42.6	17.6	18.3	18.0	135.7	
		Female	14.5	0.0	0.0	14.1	8.2	3.9	17.9	43.5	36.7	16.3	8.8	45.8	239.2	
		Total*	16.9	0.4	0.7	10.4	5.4	6.6	20.8	48.8	39.6	17.0	13.6	31.3	185.0	
1997	Cases	Male	2 646	2	1	33	4	402	1 147	249	176	218	344	0	70	
		Female	1 822	1	0	75	11	136	783	269	166	188	113	0	80	
		Total*	4 477	3	1	108	15	545	1 931	518	342	406	458	0	150	
	Rate	Male	17.8	0.7	1.5	7.2	1.1	11.2	20.7	44.2	34.6	15.2	17.4	0.0	197.4	
		Female	12.0	0.4	0.0	15.8	2.9	3.7	13.7	47.0	32.3	13.4	5.7	0.0	247.8	
		Total*	14.9	0.5	0.7	11.6	2.0	7.5	17.2	45.6	33.5	14.3	11.6	0.0	221.5	

			Province/Territory													
Year			**Canada**	**NL**	**PE**	**NS**	**NB**	**QC**	**ON**	**MB**	**SK**	**AB**	**BC**	**YT**	**NT**	**NU[3]**
1998	Cases	Male	2 921	2	1	29	7	370	1 355	225	167	268	406	5	86	
		Female	1 938	0	0	55	10	112	917	198	159	250	163	6	68	
		Total*	4 868	2	1	84	17	490	2 272	424	326	518	569	11	154	
	Rate	Male	19.5	0.7	1.5	6.3	1.9	10.2	24.1	39.9	32.8	18.3	20.4	30.5	244.2	
		Female	12.7	0.0	0.0	11.5	2.6	3.0	15.9	34.5	30.9	17.4	8.1	39.6	210.8	
		Total*	16.1	0.4	0.7	9.0	2.3	6.7	20.0	37.3	31.8	17.8	14.2	34.9	228.2	
1999	Cases	Male	3 322	1	0	23	6	485	1 319	245	167	287	683	5	101	
		Female	2 054	0	0	39	5	136	911	265	135	248	205	10	100	
		Total*	5 381	1	0	63	11	623	2 230	510	302	535	890	15	201	
	Rate	Male	22.0	0.4	0.0	5.0	1.6	13.4	23.2	43.2	32.8	19.2	34.1	31.2	286.1	
		Female	13.3	0.0	0.0	8.1	1.3	3.7	15.6	46.0	26.2	16.9	10.1	66.7	307.2	
		Total*	17.6	0.2	0.0	6.7	1.5	8.5	19.4	44.6	29.4	18.1	22.1	48.3	296.2	
2000	Cases	Male	3 829	4	0	32	10	538	1 674	353	235	343	528	3	63	46
		Female	2 353	1	0	25	1	126	1 120	305	230	243	179	2	72	49
		Total*	6 189	5	0	57	11	670	2 794	658	465	586	708	5	135	95
	Rate	Male	25.1	1.5	0.0	6.9	2.7	14.8	29.0	62.1	46.3	22.6	26.2	19.0	298.2	321.0
		Female	15.1	0.4	0.0	5.2	0.3	3.4	18.9	52.8	44.7	16.3	8.8	13.5	364.1	374.3
		Total*	20.1	0.9	0.0	6.1	1.5	9.1	23.9	57.4	45.5	19.5	17.4	16.3	330.0	346.5
2001	Cases	Male	4 176	0	0	46	7	665	1 809	360	252	473	450	2	73	39
		Female	2 571	0	0	39	5	163	1 151	340	276	328	153	1	78	37
		Total*	6 756	0	0	86	12	832	2 960	701	531	801	603	3	151	76
	Rate	Male	27.2	0.0	0.0	10.1	1.9	18.2	30.8	63.1	50.7	30.6	22.2	13.1	346.0	265.8
		Female	16.4	0.0	0.0	8.2	1.3	4.3	19.1	58.6	54.9	21.7	7.4	6.8	395.5	275.1
		Total*	21.8	0.0	0.0	9.2	1.6	11.2	24.9	60.9	53.1	26.2	14.8	10.0	369.9	270.3
2002	Cases	Male	4 595	5	0	92	13	669	1 953	320	268	567	601	8	66	33
		Female	2 766	4	0	107	17	205	1 193	15	290	413	117	3	58	44
		Total*	7 367	9	0	199	30	878	3 148	635	558	980	718	11	124	77
	Rate	Male	29.6	2.0	0.0	20.1	3.5	18.2	32.7	55.9	54.1	36.0	29.5	52.4	308.1	220.8
		Female	17.5	1.5	0.0	22.5	4.5	5.4	19.5	54.1	57.9	26.8	5.6	20.2	289.9	319.0
		Total*	23.5	1.7	0.0	21.3	4.0	11.8	26.0	55.0	56.1	31.5	17.4	36.5	299.3	267.9

[1]Rate per 100 000 population. Population estimates provided by Statistics Canada (Source: Annual Demographic Statistics, 2000 Catalogue no. 91-213 and unpublished data).

[2]2002 data are preliminary and changes are anticipated.

[3]Data prior to 2000 are not available because Nunavut became a Canadian territory in April 1999. Data for 1999 were included with NT.

*Total includes cases not specified for sex.

Source: Sexual Health and Sexually Transmitted Infections, Community Acquired Infections Division, Centre for Infectious Disease Prevention and Control, Public Health Agency of Canada, 2003.

Table 3.1: Reported Infectious Syphilis[1] Cases and Rates[2] in Canada by Age Group and Sex, 1993-2002[3,4]

			Age Group (years)											
Year			**Canada**	**0 < 1**	**1-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-39**	**40-59**	**60+**	**NS**
1993	Cases	Male	97	0	0	0	0	2	14	16	30	29	6	0
		Female	76	1	0	0	0	13	24	10	15	7	6	0
		Unspecified	4	0	0	0	0	1	0	0	1	1	0	1
		Total	177	1	0	0	0	16	38	26	46	37	12	1
	Rate	Male	0.7	0.0	0.0	0.0	0.0	0.2	1.3	1.4	1.2	0.9	0.3	
		Female	0.5	0.5	0.0	0.0	0.0	1.4	2.4	0.9	0.6	0.2	0.2	
		Total	0.6	0.3	0.0	0.0	0.0	0.8	1.9	1.1	0.9	0.5	0.3	
1994	Cases	Male	112	0	0	0	0	3	15	19	31	32	12	0
		Female	71	0	0	0	0	9	17	14	15	11	5	0
		Unspecified	5	0	0	0	0	0	1	1	1	0	1	1
		Total	188	0	0	0	0	12	33	34	47	43	18	1
	Rate	Male	0.8	0.0	0.0	0.0	0.0	0.3	1.4	1.7	1.2	0.9	0.6	
		Female	0.5	0.0	0.0	0.0	0.0	0.9	1.7	1.3	0.6	0.3	0.2	
		Total	0.6	0.0	0.0	0.0	0.0	0.6	1.6	1.5	0.9	0.6	0.4	
1995	Cases	Male	95	0	0	0	0	1	16	13	31	27	6	1
		Female	52	0	0	0	0	9	11	10	14	8	0	0
		Unspecified	0	0	0	0	0	0	0	0	0	0	0	0
		Total	147	0	0	0	0	10	27	23	45	35	6	1
	Rate	Male	0.7	0.0	0.0	0.0	0.0	0.1	1.6	1.2	1.2	0.7	0.3	
		Female	0.4	0.0	0.0	0.0	0.0	0.9	1.1	0.9	0.5	0.2	0.0	
		Total	0.5	0.0	0.0	0.0	0.0	0.5	1.3	1.0	0.9	0.5	0.1	
1996	Cases	Male	74	0	0	0	0	3	7	12	28	20	3	1
		Female	45	0	0	0	0	6	8	12	12	5	2	0
		Unspecified	0	0	0	0	0	0	0	0	0	0	0	0
		Total	119	0	0	0	0	9	15	24	40	25	5	1
	Rate	Male	0.5	0.0	0.0	0.0	0.0	0.3	0.7	1.1	1.1	0.5	0.1	
		Female	0.3	0.0	0.0	0.0	0.0	0.6	0.8	1.1	0.5	0.1	0.1	
		Total	0.4	0.0	0.0	0.0	0.0	0.4	0.7	1.1	0.8	0.3	0.1	
1997	Cases	Male	65	0	0	0	0	1	3	8	26	26	1	0
		Female	50	0	0	0	0	3	8	13	17	8	1	0
		Unspecified	0	0	0	0	0	0	0	0	0	0	0	0
		Total	115	0	0	0	0	4	11	21	43	34	2	0
	Rate	Male	0.4	0.0	0.0	0.0	0.0	0.1	0.3	0.7	1.0	0.7	0.0	
		Female	0.3	0.0	0.0	0.0	0.0	0.3	0.8	1.2	0.7	0.2	0.0	
		Total	0.4	0.0	0.0	0.0	0.0	0.2	0.5	1.0	0.8	0.4	0.0	
1998	Cases	Male	110	0	0	0	0	2	4	13	41	39	11	0
		Female	67	0	0	0	0	6	8	10	26	14	3	0
		Unspecified	0	0	0	0	0	0	0	0	0	0	0	0
		Total	177	0	0	0	0	8	12	23	67	53	14	0
	Rate	Male	0.7	0.0	0.0	0.0	0.0	0.2	0.4	1.2	1.6	1.0	0.5	
		Female	0.4	0.0	0.0	0.0	0.0	0.6	0.8	0.9	1.0	0.3	0.1	
		Total	0.6	0.0	0.0	0.0	0.0	0.4	0.6	1.1	1.3	0.7	0.3	
1999	Cases	Male	113	0	0	0	0	1	13	11	36	41	11	0
		Female	78	0	0	0	0	8	12	14	19	22	3	0
		Unspecified	0	0	0	0	0	0	0	0	0	0	0	0
		Total	191	0	0	0	0	9	25	25	55	63	14	0
	Rate	Male	0.7	0.0	0.0	0.0	0.0	0.1	1.2	1.0	1.4	1.0	0.5	
		Female	0.5	0.0	0.0	0.0	0.0	0.8	1.2	1.3	0.8	0.5	0.1	
		Total	0.6	0.0	0.0	0.0	0.0	0.4	1.2	1.2	1.1	0.8	0.3	

			Age Group (years)											
Year			**Canada**	**0 < 1**	**1-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-39**	**40-59**	**60+**	**NS**
2000	Cases	Male	114	0	0	0	0	0	3	12	44	44	11	0
		Female	60	0	0	0	0	5	9	8	23	13	2	0
		Unspecified	0	0	0	0	0	0	0	0	0	0	0	0
		Total	174	0	0	0	0	5	12	20	67	57	13	0
	Rate	Male	0.7	0.0	0.0	0.0	0.0	0.0	0.3	1.1	1.8	1.0	0.5	
		Female	0.4	0.0	0.0	0.0	0.0	0.5	0.9	0.8	0.9	0.3	0.1	
		Total	0.6	0.0	0.0	0.0	0.0	0.2	0.6	0.9	1.3	0.7	0.3	
2001	Cases	Male	184	0	0	0	0	4	21	20	62	60	16	1
		Female	103	0	0	0	0	10	25	21	23	22	2	0
		Unspecified	0	0	0	0	0	0	0	0	0	0	0	0
		Total	287	0	0	0	0	14	46	41	85	82	18	1
	Rate	Male	1.2	0.0	0.0	0.0	0.0	0.4	1.9	1.9	2.5	1.4	0.7	
		Female	0.7	0.0	0.0	0.0	0.0	1.0	2.4	2.1	1.0	0.5	0.1	
		Total	0.9	0.0	0.0	0.0	0.0	0.7	2.2	2.0	1.7	0.9	0.3	
2002	Cases	Male	368	0	0	0	0	5	18	30	161	143	11	0
		Female	94	0	0	0	0	6	23	27	23	14	1	0
		Unspecified	1	0	0	0	0	0	0	0	1	0	0	0
		Total	463	0	0	0	0	11	41	57	185	157	12	0
	Rate	Male	2.4	0.0	0.0	0.0	0.0	0.5	1.6	2.8	6.6	3.2	0.5	
		Female	0.6	0.0	0.0	0.0	0.0	0.6	2.2	2.6	1.0	0.3	0.0	
		Total	1.5	0.0	0.0	0.0	0.0	0.5	1.9	2.7	3.8	1.7	0.2	

[1]Infectious syphilis: early symptomatic (primary and secondary) syphilis + early latent syphilis.

[2]Rate per 100 000 population. Population estimates provided by Statistics Canada (Source: Annual Demographic Statistics, 2000 Catalogue no. 91-213 and unpublished data).

[3]2002 data are preliminary and changes are anticipated.

[4]As part of a review of historical data, all case counts (numerators) for infectious syphilis have been updated as of January 2004.

Source: Sexual Health and Sexually Transmitted Infections, Community Acquired Infections Division, Centre for Infectious Disease Prevention and Control, Public Health Agency of Canada, 2003.

Table 3.2: Reported Infectious Syphilis[1] Cases and Rates[2] in Canada by Province/Territory and Sex, 1993-2002[3,4]

			Province/Territory													
Year			Canada	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT	NU[5]
1993	Cases	Male	97	0	0	6	0	11	58	2	3	5	12	0	0	
		Female	76	0	0	9	0	6	53	1	2	1	4	0	0	
		Total*	177	0	0	15	0	17	115	3	5	6	16	0	0	
	Rate	Male	0.7	0.0	0.0	1.3	0.0	0.3	1.1	0.4	0.6	0.4	0.7	0.0	0.0	
		Female	0.5	0.0	0.0	1.9	0.0	0.2	1.0	0.2	0.4	0.1	0.2	0.0	0.0	
		Total*	0.6	0.0	0.0	1.6	0.0	0.2	1.1	0.3	0.5	0.2	0.4	0.0	0.0	
1994	Cases	Male	112	0	0	11	2	16	55	3	11	5	9	0	0	
		Female	71	1	1	13	2	4	35	1	7	3	3	1	0	
		Total*	188	1	1	24	4	20	93	4	18	8	14	1	0	
	Rate	Male	0.8	0.0	0.0	2.4	0.5	0.5	1.0	0.5	2.2	0.4	0.5	0.0	0.0	
		Female	0.5	0.3	1.5	2.8	0.5	0.1	0.6	0.2	1.4	0.2	0.2	7.0	0.0	
		Total*	0.6	0.2	0.7	2.6	0.5	0.3	0.9	0.4	1.8	0.3	0.4	3.3	0.0	
1995	Cases	Male	95	1	0	1	1	6	58	3	9	3	13	0	0	
		Female	52	0	0	0	0	8	28	1	10	1	4	0	0	
		Total*	147	1	0	1	1	14	86	4	19	4	17	0	0	
	Rate	Male	0.7	0.4	0.0	0.2	0.3	0.2	1.1	0.5	1.8	0.2	0.7	0.0	0.0	
		Female	0.4	0.0	0.0	0.0	0.0	0.2	0.5	0.2	2.0	0.1	0.2	0.0	0.0	
		Total*	0.5	0.2	0.0	0.1	0.1	0.2	0.8	0.4	1.9	0.1	0.4	0.0	0.0	
1996	Cases	Male	74	0	0	1	0	10	41	1	4	1	16	0	0	
		Female	45	0	0	2	0	2	32	0	5	0	4	0	0	
		Total*	119	0	0	3	0	12	73	1	9	1	20	0	0	
	Rate	Male	0.5	0.0	0.0	0.2	0.0	0.3	0.7	0.2	0.8	0.1	0.8	0.0	0.0	
		Female	0.3	0.0	0.0	0.4	0.0	0.1	0.6	0.0	1.0	0.0	0.2	0.0	0.0	
		Total*	0.4	0.0	0.0	0.3	0.0	0.2	0.7	0.1	0.9	0.0	0.5	0.0	0.0	
1997	Cases	Male	65	0	0	0	0	4	28	0	1	3	29	0	0	
		Female	50	0	0	1	0	3	21	0	1	4	20	0	0	
		Total*	115	0	0	1	0	7	49	0	2	7	49	0	0	
	Rate	Male	0.4	0.0	0.0	0.0	0.0	0.1	0.5	0.0	0.2	0.2	1.5	0.0	0.0	
		Female	0.3	0.0	0.0	0.2	0.0	0.1	0.4	0.0	0.2	0.3	1.0	0.0	0.0	
		Total*	0.4	0.0	0.0	0.1	0.0	0.1	0.4	0.0	0.2	0.2	1.2	0.0	0.0	
1998	Cases	Male	110	0	0	1	0	2	25	2	4	6	70	0	0	
		Female	67	0	0	1	0	2	16	1	2	0	45	0	0	
		Total*	177	0	0	2	0	4	41	3	6	6	115	0	0	
	Rate	Male	0.7	0.0	0.0	0.2	0.0	0.1	0.4	0.4	0.8	0.4	3.5	0.0	0.0	
		Female	0.4	0.0	0.0	0.2	0.0	0.1	0.3	0.2	0.4	0.0	2.2	0.0	0.0	
		Total*	0.6	0.0	0.0	0.2	0.0	0.1	0.4	0.3	0.6	0.2	2.9	0.0	0.0	
1999	Cases	Male	113	0	0	1	0	2	37	0	0	2	71	0	0	
		Female	78	0	0	0	0	2	17	0	1	0	58	0	0	
		Total*	191	0	0	1	0	4	54	0	1	2	129	0	0	
	Rate	Male	0.7	0.0	0.0	0.2	0.0	0.1	0.7	0.0	0.0	0.1	3.5	0.0	0.0	
		Female	0.5	0.0	0.0	0.0	0.0	0.1	0.3	0.0	0.2	0.0	2.9	0.0	0.0	
		Total*	0.6	0.0	0.0	0.1	0.0	0.1	0.5	0.0	0.1	0.1	3.2	0.0	0.0	

			Province/Territory													
Year			**Canada**	**NL**	**PE**	**NS**	**NB**	**QC**	**ON**	**MB**	**SK**	**AB**	**BC**	**YT**	**NT**	**NU[5]**
2000	Cases	Male	114	0	0	0	0	5	29	0	1	13	59	7	0	0
		Female	60	0	0	1	0	2	14	1	0	2	36	4	0	0
		Total*	174	0	0	1	0	7	43	1	1	15	95	11	0	0
	Rate	Male	0.7	0.0	0.0	0.0	0.0	0.1	0.5	0.0	0.2	0.9	2.9	44.4	0.0	0.0
		Female	0.4	0.0	0.0	0.2	0.0	0.1	0.2	0.2	0.0	0.1	1.8	27.0	0.0	0.0
		Total*	0.6	0.0	0.0	0.1	0.0	0.1	0.4	0.1	0.1	0.5	2.3	36.0	0.0	0.0
2001	Cases	Male	184	0	0	0	0	15	37	1	2	13	103	13	0	0
		Female	103	1	0	0	0	0	9	0	1	7	76	9	0	0
		Total*	287	1	0	0	0	15	46	1	3	20	179	22	0	0
	Rate	Male	1.2	0.0	0.0	0.0	0.0	0.4	0.6	0.2	0.4	0.8	5.1	84.9	0.0	0.0
		Female	0.7	0.4	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.5	3.7	60.8	0.0	0.0
		Total*	0.9	0.2	0.0	0.0	0.0	0.2	0.4	0.1	0.3	0.7	4.4	73.0	0.0	0.0
2002	Cases	Male	368	0	0	1	1	47	191	4	0	7	113	4	0	0
		Female	94	0	0	0	1	0	12	2	1	3	73	2	0	0
		Total*	463	0	0	1	2	47	203	6	1	10	187	6	0	0
	Rate	Male	2.4	0.0	0.0	0.2	0.3	1.3	3.2	0.7	0.0	0.4	5.5	26.2	0.0	0.0
		Female	0.6	0.0	0.0	0.0	0.3	0.0	0.2	0.3	0.2	0.2	3.5	13.5	0.0	0.0
		Total*	1.5	0.0	0.0	0.1	0.3	0.6	1.7	0.5	0.1	0.3	4.5	19.9	0.0	0.0

[1]Infectious syphilis: early symptomatic (primary and secondary) syphilis + early latent syphilis.

[2]Rate per 100 000 population. Population estimates provided by Statistics Canada (Source: Annual Demographic Statistics, 2000 Catalogue no. 91-213 and unpublished data).

[3]2002 data are preliminary and changes are anticipated.

[4]As part of a review of historical data, all case counts (numerators) for infectious syphilis have been updated as of January 2004.

[5]Data prior to 2000 are not available because Nunavut became a Canadian territory in April 1999. Data for 1999 were included with NT.

*Total includes cases not specified for sex.

Source: Sexual Health and Sexually Transmitted Infections, Community Acquired Infections Division, Centre for Infectious Disease Prevention and Control, Public Health Agency of Canada, 2003.