

# **Report on Sexually Transmitted Infections (STIs) in the Eastern Region**

**1994-2003**



**Report by**

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**November 2004**

## Introduction

During 1994 to 2003, 14 sexually transmitted infections (STIs) were legally notifiable in Ireland: ano-genital warts, candidiasis, chancroid, *chlamydia trachomatis*, genital herpes simplex, gonorrhoea, *granuloma inguinale*, infectious hepatitis type B, *lymphogranuloma venereum*, *molluscum contagiosum*, non-specific urethritis, *pediculosis pubis*, syphilis and trichomoniasis. This list of notifiable STIs was updated in January 2004 (Infectious Diseases (Amendment) (No. 3) Regulations 2003, S.I. No. 707 of 2003), however this report details the 14 STIs that were notifiable prior to this date in the Eastern Region (Counties Dublin, Wicklow and Kildare). The number of infectious hepatitis B presented in this report only reflect those cases, which were notified by STI screening clinics. Please note that the number of STI notifications sent to the Department of Public Health (DeptPH) and presented here is based on the numbers of patients attending hospitals and GP clinics in the eastern region and is not necessarily a reflection of where those same patients are resident. Patients may travel from their area of residence to STI clinics outside their area, for example, there are currently no STI clinics in the Midland or North Eastern Health Boards. Furthermore, only disaggregate STI data are available from 1999 and that this data, apart from years 2002 and 2003, have been revised since been reported to the Department of Health and Children and the National Disease Surveillance Centre (NDSC). Aggregate quarterly data is available for the years 1995 to 1998 and annual data are only available for the year 1994. Incidence rates for the years 1994 to 2002 per 100,000 were calculated using denominator values that were interpolated from the 1991, 1996 and 2002 census data. For 2003 rates the population data were extrapolated from 1996 and 2002 census data.

## Summary

- During 2003, 5402 STIs were notified compared to 4435 in 2002, a 21.8% increase.
- The number of STIs notified in 2003 is the highest number reported in any year on record.
- Notified STIs have been increasing steadily each year since 1994, increasing by 84.6% between 1994 and 2003.
- During 2003, 53.3% (n=2879) of all notified STIs were amongst males whilst 45.9% (n=2477) were amongst females.
- Prior to 2003, well over 60 % of cases had no age details associated with them. 2003 was a turning point however where 94.5% of cases (n=5107) had an age, albeit  $\pm 1$  year in a majority of cases.
- Ano-genital warts accounted for the majority (34.8%) of all STI notifications in 2003.
- Candidiasis accounted for 30.2% of all STI notifications in 1994 but in 2003 it only accounted for 10.9%.
- Apart from a slight dip in numbers in 2002 the number of notified cases of *C. trachomatis* has steadily increased since 1994 (n=86; 6.7/100,000), reaching a peak in 2003 (n=1278; 90.1/100,000).
- Since 1999 the numbers of genital herpes notifications have averaged at 225 cases per year.
- In 2001 gonorrhoea notifications peaked with 247 cases (17.8/100,000) but fell sharply to 106 cases (7.5/100,000) during 2003.
- Between 1994 and 2003 only one cases of *G. inguinale* has been reported in the Eastern Region, which occurred in 1997.

- Between 1994 and 1998, no cases of infectious hepatitis B were reported by an STI clinic in the Eastern Region. Fifty-eight cases were notified in 2003, the highest yearly total on record.
- Since 1994 only 6 cases of *L. venereum* were reported in the Eastern Region, five of which occurred in 1997.
- Annual numbers of *M. contagiosum* cases have been steady since 1999 with averages of 69 cases per year.
- In 2003, the number of non-specific urethritis notifications rose to 975, an increase of 54.8% compared to 2002.
- Following a peak in 2000 with 221 cases, of which 204 were in males, notifications decreased sharply to 18 cases in 2003.
- In 2001 a syphilis outbreak in the Eastern Region resulted in a three hundred syphilis cases (21.7/100,000) being reported but in 2003 the incidence rate fell to 12/100,000 (n=170). In 2001 the number of cases among males was 249 (83%) compared to 51 cases (17%) in females. During 2003, male cases decreased to 105 (61.8%) and female cases increased to 64 (37.6%).
- The average number of trichomoniasis notifications reported per year between 1994 and 2003 was 43.6, peaking in 1997 with 67 cases (5.1/100,000).

### STI Annual Trends 1994-2003

During 2003, 5402 STIs were notified compared to 4435 in 2002, a 21.8% increase (Table 1). It should be noted that the number notified in 2002 represents a significant fall over the number reported in 2001 (n=5197). Notified cases of ano-genital warts, candidiasis, *C. trachomatis*, genital herpes simplex, infectious hepatitis B and non-specific urethritis all increased during 2003, compared to 2002. Gonorrhoea, *M. contagiosum*, *P. pubis* syphilis and trichomoniasis notifications all decreased in 2003, compared to 2002. Significantly, notified cases of infectious hepatitis B increased by 93.3% and syphilis decreased by 30.3%. No cases of chancroid, *G. inguinale* or *L. venereum* were notified in 2003.

Notified STIs have been increasing steadily each year since 1994, increasing by 84.6% between 1994 and 2003 (Table 2). The number of STIs notified in 2003 is the highest number reported in any year on record. The cumulative rate per 100,000 population for all notified STIs increased in 2003 to 380.7 per 100,000 population; compared to a rate of 316.5 per 100,000 in 2002 (Appendix 1). A quarterly breakdown of cases by disease type from Qr1, 1995 is presented in Figure 1 and in Appendix 2.

A breakdown of cases by year, gender and disease type is presented in Figure 2. During 2003, 53.3% (n=2879) of all notified STIs were amongst males (Appendix 3.1) whilst 45.9% (n=2477) were amongst females (Appendix 3.2). Gender data was not reported for 46 (0.9%) notifications. In 2003, the majority of STI cases occurred in males (53.3%) along with ano-genital warts (55.8%), gonorrhoea (74.5%), infectious hepatitis B (74.1%), *M. contagiosum* (66.7%), non-specific urethritis (79.4%), *P. pubis* (77.8%) and syphilis (61.8%). The majority of notifications of candidiasis (86.7%), *C. trachomatis* (52.4%) genital herpes (53.8%) and trichomoniasis (78.4%) were amongst females. 0.9% of cases in 2003 were not attributed to either gender.

Prior to 2003, well over 60 % of cases had no age details associated with them. 2003 was a turning point however where 94.5% of cases (n=5107) had an age value, albeit

± 1 year in a majority of cases, of which 0.2% (n=10) were 0 to 14 years old, 10.2% (n=550) were between 15-19, 33.4% (n=1802) were between 20-24, 25.8% (n=1393) were between 25-29, 12.2% were between 30-34, 5.9% were between 35-39 and 6.9% (374) were aged 40 years of age or older. Table 3.1 gives a breakdown of cases by 2003 STI notifications by disease type and by age group. Table 3.2 details the age group specific rates per 100,000 for these same STI notifications. Figure 3 gives a breakdown of all STIs combined by age group since 1995. Note that the distribution pattern among the age groups has been fairly consistent in spite of the sharp decrease in the number of cases with unknown age details in 2003 with the age group 20-29 showing the greatest proportion each year since 1999.

Table 4 gives a breakdown of STI cases by notifying source. It should be noted that for every year since 1999, the Guide clinic in St. James's Hospital in Dublin has been responsible for well over 65% of all STIs notified in the Eastern Region. The Mater hospital is also responsible for a significant proportion of notified STIs followed by south-side (including counties Wicklow and Kildare) and north-side genitourinary physicians and also other clinics (including maternity hospitals, family planning clinics and STI clinics exclusively for women) respectively.

### **Disease-specific STI Annual Trends 1994-2003**

*Data are detailed in Tables 1-3 and in Appendices 1-3 and are also presented graphically in Figures 1-3. Please note that disaggregate quarterly STI data are only available from Qr1 1999, aggregate quarterly STI data are only available for the years 1995 to 1998 and aggregate annual data are only available for the year 1994.*

#### **Ano-genital warts**

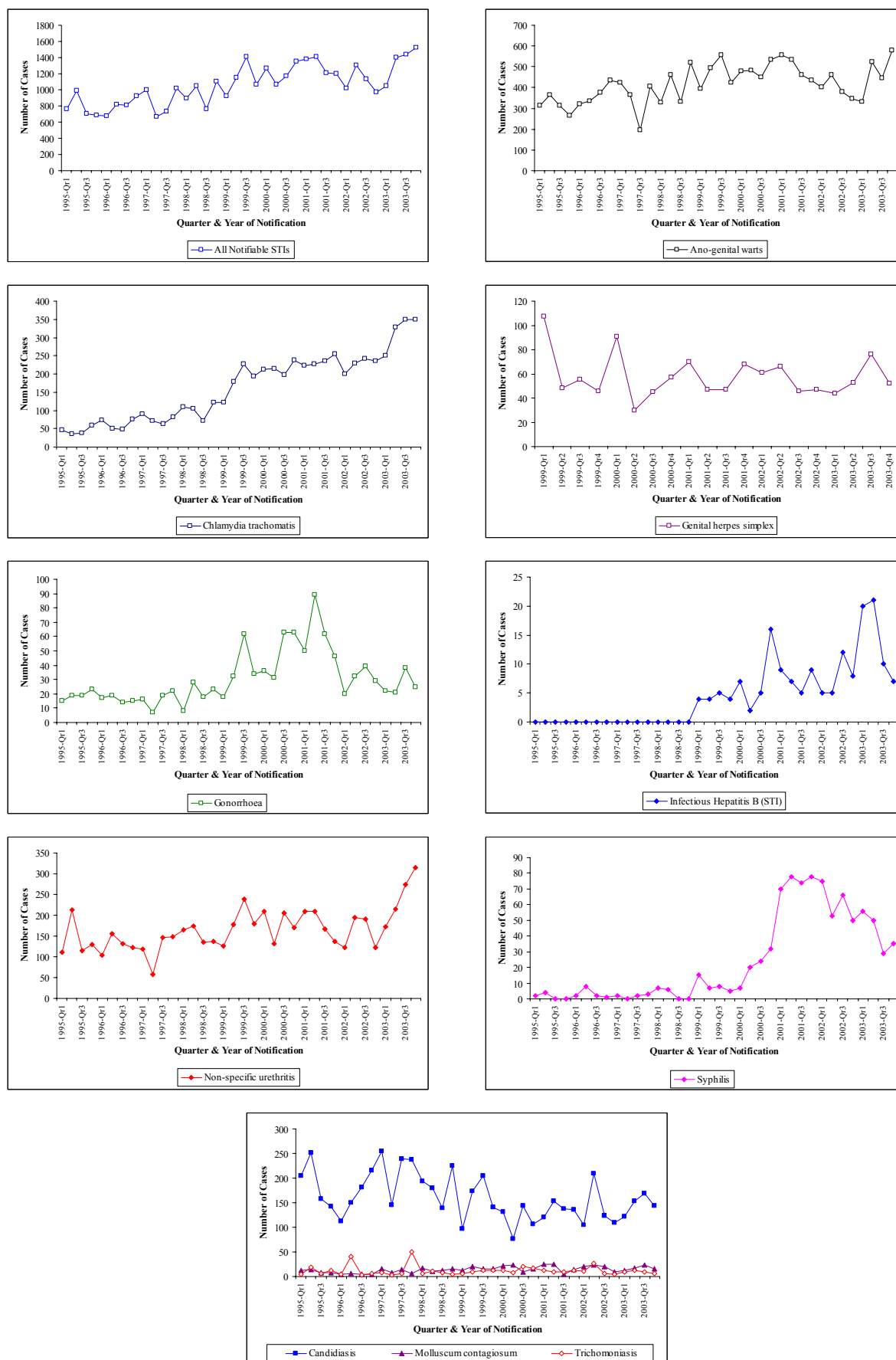
In 1994, 505 (85.8/100,000) ano-genital warts cases were notified, increasing to 1879 (132.4/100,000) in 2003. In 2002 (n=1588), notifications decreased by 20%, compared to 2001 but increased by 18.3% in 2003. This fall and rise in the number of cases between 2001 and 2003 is partly perhaps the result of a disruption in the timeliness with which STIs in general were notified to the DeptPH during this time. Ano-genital warts accounted for the majority (34.8%) of all STI notifications in 2003. In the same year, males accounted for 55.8% and females for 43.5% of cases (gender was not reported for 0.6% cases). Also, 0-19 year olds accounted for 11.4% of cases, 60.9% of cases were 20-29, 16.4% were 30-39 and 5.5% were aged 40 years or older (5.7% of cases had no age details).

#### **Candidiasis**

Between 1994 and 2003, the average number of notified candidiasis cases was 667 per year, peaking in 1994 at 883 cases (85.8/100,000). In 2003, the numbers of cases notified was 587 (41.4/100,000). Candidiasis accounted for 30.2% of all STI notifications in 1994 but in 2003 it accounted for only 10.9%. In 2003, males accounted for 13%% of cases and females for 86.7% (gender was not reported for 2 cases). In the same year, 0-19 year olds accounted for 12.4% of cases, 58.9% of cases were 20-29, 15.3% were 30-39 and 7% were aged 40 years or older (6.3% of cases had no age details).

#### **Chancroid**

No cases of chancroid were notified during 2003. Between 1994 and 2002, 9 cases of chancroid were notified in the Eastern Region.



**Figure 1.** Number of notifications of STIs by type (excluding *Pediculosis pubis*, chancroid, *Granuloma inguinale* and *Lymphogranuloma venereum*), by year and by quarter in the Eastern Region since Qr1, 1995.

### ***Chlamydia trachomatis***

Apart from a slight dip in numbers during 2002 the number of notified cases of *C. trachomatis* has steadily increased since 1994 (n=86; 6.7/100,000), reaching a peak in 2003 (n=1278; 90.1/100,000), particularly in the last 3 quarters of that year. Between 1994 and 2002, the quarterly average of notified cases was 1190 but in 2003 the quarterly average was 1350 cases. Chlamydial cases constituted 23.7% of all STI cases notified in 2003 with females accounting for 52.4% of cases compared to 45.6% in males (gender was not reported in 25 cases). Also in 2003, 0-19 year olds accounted for 12.4% of cases, 67.2% of cases were 20-29, 13.5% were 30-39 and 3.4% were aged 40 years or older (3.6% of cases had no age details).

### ***Genital herpes simplex***

Genital herpes simplex notifications rose gradually between 1994 (n=140; 11/100,000) and 1999 (n=256; 19/100,000) when it reached a peak. Since that time the numbers have leveled out with an average number of 225 cases per year. In 2003, females accounted for 53.8% of cases compared to 45.3% in males (gender was not reported in 2 cases). Also in 2003, 0-19 year olds accounted for 6.2% of cases, 48% of cases were 20-29, 29.3% were 30-39 and 9.3% were aged 40 years or older (7.1% of cases had no age details).

### ***Gonorrhoea***

In 1994 the gonorrhoea notifications totaled 94 cases (7.4/100,000). In 2001 notifications peaked with 247 cases (17.8/100,000) but fell sharply to 106 cases (7.5/100,000) during 2003. During the latter year, males accounted for 74.5% of cases compared to only 23.6% in females (gender was not reported in 2 cases). Also in 2003, 0-19 year olds accounted for 7.6% of cases, 50% of cases were 20-29, 25.8% were 30-39 and 13.2% were aged 40 years or older (3.8% of cases had no age details).

### ***Granuloma inguinale***

Only one case of *G. inguinale* has been reported in the Eastern Region since 1994.

### ***Infectious Hepatitis B***

Between 1994 and 1998, no cases of infectious hepatitis B were reported by an STI clinic in the Eastern Region. Fifty-eight cases were notified in 2003, the highest yearly total on record, increasing by 93.3% since 2002 (n=30). Forty-three (71.1%) of cases notified in 2003 were male and 15 (25.9%) were female. Also in 2003, 0-19 year olds accounted for 2.4% of cases, 12.7% of cases were 20-29, 21.2% were 30-39 and 14.6% were aged 40 years or older (49.1% of cases had no age details).

### ***Lymphogranuloma venereum***

Only one case of *L. venereum* was notified during 2002. The only other year in which such cases were notified was 1997, when there were 5 cases reported.

### ***Molluscum contagiosum***

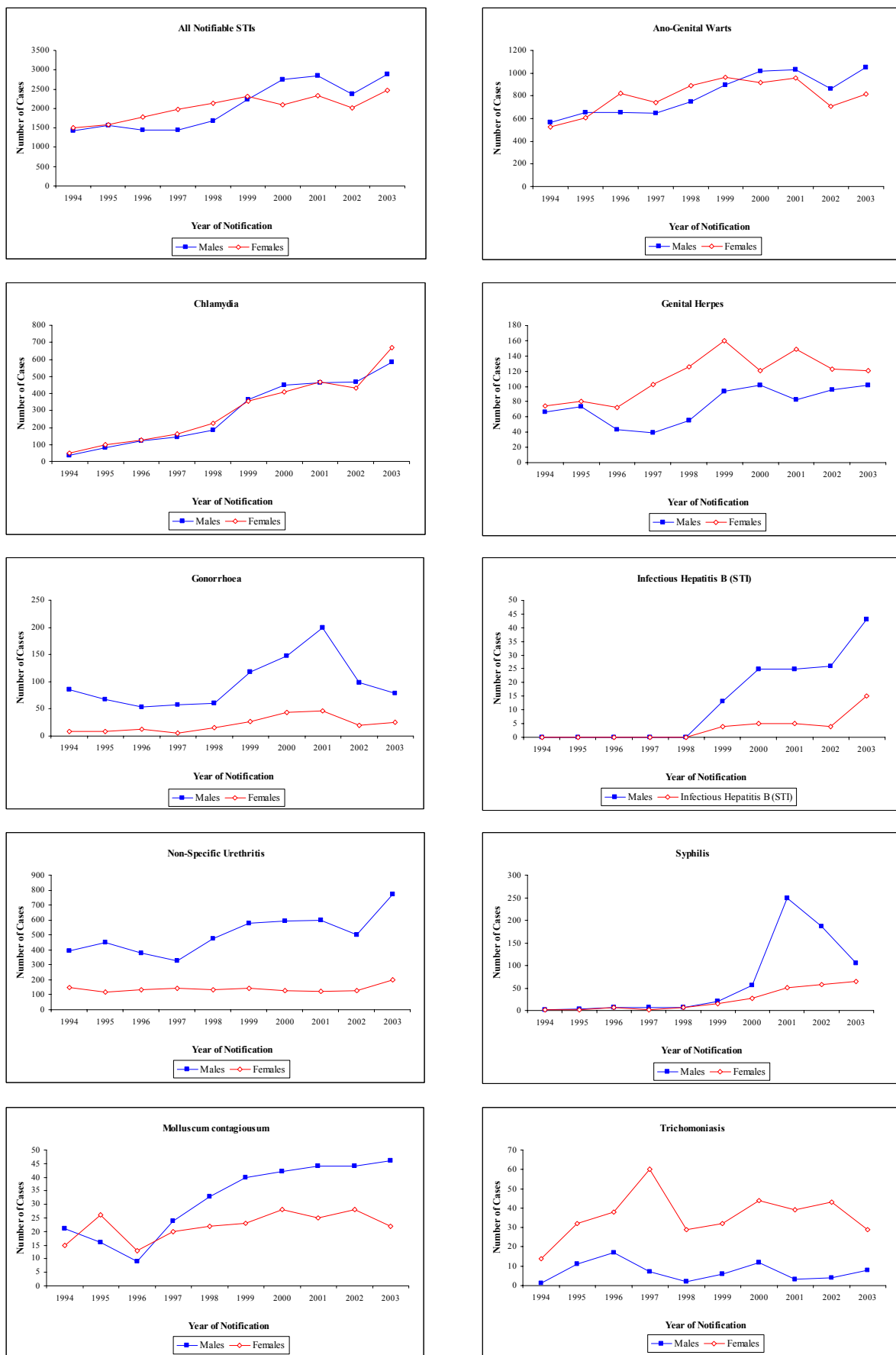
Notified cases of *M. contagiosum* have increased since 1994, increasing from 36 (2.8/100,000) to 69 (4.9/100,000) in 2003. Annual numbers of cases have been steady since 1999 with averages of 69 cases per year. During 2003, 66.7% (n=46) of cases were male and 31.9% (n=22) were female (one case had no gender details). Also in 2003, 0-19 year olds accounted for 13% of cases, 63.8% of cases were 20-29, 11.6% were 30-39 and 1.6% were aged 40 years or older (10.1% of cases had no age details).

**Table 1.** Percentage change of notified sexually transmitted infection, Eastern Region, for 2003 and 2002

<b>Sexually Transmitted Infection (STI)</b>	<b>2003</b>	<b>2002</b>	<b>Increase</b>	<b>% Increase</b>
Ano-genital warts	1879	1588	291	18.3
Candidiasis	587	546	41	7.5
Chancroid	0	1	-1	-
<i>Chlamydia trachomatis</i>	1278	910	368	40.4
Genital <i>herpes simplex</i>	225	220	5	2.3
Gonorrhoea	106	120	-14	-11.7
<i>Granuloma inguinale</i>	0	0	0	-
Infectious Hepatitis B (STI)	58	30	28	93.3
<i>Lymphogranuloma venereum</i>	0	1	-1	-
<i>Molluscum contagiosum</i>	69	72	-3	-4.2
Non-specific urethritis	975	630	345	54.8
<i>Pediculosis pubis</i>	18	24	-6	-25.0
Syphilis	170	244	-74	-30.3
Trichomoniasis	37	49	-12	-24.5
<b>All Notifiable STIs</b>	<b>5402</b>	<b>4435</b>	<b>967</b>	<b>21.8</b>

**Table 2.** Notified sexually transmitted infections, Eastern Region, 1994-2003

<b>STI</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>
Ano-genital warts	1094	1262	1471	1387	1638	1864	1941	1985	1588	1879
Candidiasis	883	755	659	877	738	616	458	547	546	587
Chancroid	2	3	0	0	0	1	1	1	1	0
<i>Chlamydia trachomatis</i>	86	178	249	308	411	723	862	940	910	1278
Genital <i>herpes simplex</i>	140	153	115	142	181	256	223	232	220	225
Gonorrhoea	94	76	65	64	77	146	193	247	120	106
<i>Granuloma inguinale</i>	0	0	1	0	0	0	0	0	0	0
Infectious Hepatitis B (STI)	0	0	0	0	0	17	30	30	30	58
<i>Lymphogranuloma venereum</i>	0	0	0	5	0	0	0	0	1	0
<i>Molluscum contagiosum</i>	36	42	22	44	55	65	70	69	72	69
Non-specific urethritis	531	568	511	472	612	722	719	722	630	975
<i>Pediculosis pubis</i>	42	59	60	49	48	71	221	81	24	18
Syphilis	3	6	13	7	13	35	83	300	244	170
Trichomoniasis	15	43	55	67	31	39	57	43	49	37
<b>All Notifiable STIs</b>	<b>2926</b>	<b>3145</b>	<b>3221</b>	<b>3422</b>	<b>3804</b>	<b>4555</b>	<b>4858</b>	<b>5197</b>	<b>4435</b>	<b>5402</b>



**Figure 1.** Number of notifications of STIs by type (excluding candidiasis, *Pediculosis pubis*, chancroid, *Granuloma inguinale* and *Lymphogranuloma venereum*), by year in the Eastern Region since 1999.



**Table 3.1** Notified sexually transmitted infections by age group, Eastern Region, 2003

STI	0-14	15-19	20-24	25-29	30-34	35-39	40+	UNK	Total
Ano-genital warts	1	214	662	483	215	94	103	107	<b>1879</b>
Candidiasis	0	73	195	151	60	30	41	37	<b>587</b>
Chancroid	0	0	0	0	0	0	0	0	<b>0</b>
<i>Chlamydia trachomatis</i>	4	154	505	354	127	45	43	46	<b>1278</b>
Genital herpes simplex	0	14	56	52	47	19	21	16	<b>225</b>
Gonorrhoea	0	8	30	23	14	13	14	4	<b>106</b>
<i>Granuloma inguinale</i>	0	0	0	0	0	0	0	0	<b>0</b>
Infectious Hepatitis B (STI)	0	4	6	13	14	10	10	1	<b>58</b>
<i>Lymphogranuloma venereum</i>	0	0	0	0	0	0	0	0	<b>0</b>
<i>Molluscum contagiosum</i>	2	7	23	21	8	0	1	7	<b>69</b>
Non-specific urethritis	0	71	281	247	129	80	99	68	<b>975</b>
<i>Pediculosis pubis</i>	0	1	6	4	2	2	0	3	<b>18</b>
Syphilis	3	1	26	38	41	22	37	2	<b>170</b>
Trichomoniasis	0	3	12	7	3	3	5	4	<b>37</b>
<b>All Notifiable STIs</b>	<b>10</b>	<b>550</b>	<b>1802</b>	<b>1393</b>	<b>660</b>	<b>318</b>	<b>374</b>	<b>295</b>	<b>5402</b>

**Table 3.2** Notified sexually transmitted infections by age group specific rate per 100,000 population\*, Eastern Region, 2003

STI	0-14	15-19	20-24	25-29	30-34	35-39	40+	UNK	Total
Ano-genital warts	0.4	199.9	483.6	361.1	179.0	88.3	19.9	N/A	134.1
Candidiasis	0.0	68.2	142.5	112.9	50.0	28.2	7.9	N/A	41.9
Chancroid	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A	0.0
<i>Chlamydia trachomatis</i>	1.4	143.8	368.9	264.6	105.7	42.3	8.3	N/A	91.2
Genital herpes simplex	0.0	13.1	40.9	38.9	39.1	17.9	4.1	N/A	16.1
Gonorrhoea	0.0	7.5	21.9	17.2	11.7	12.2	2.7	N/A	7.6
<i>Granuloma inguinale</i>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A	0.0
Infectious Hepatitis B (STI)	0.0	3.7	4.4	9.7	11.7	9.4	1.9	N/A	4.1
<i>Lymphogranuloma venereum</i>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A	0.0
<i>Molluscum contagiosum</i>	0.7	6.5	16.8	15.7	6.7	0.0	0.2	N/A	4.9
Non-specific urethritis	0.0	66.3	205.3	184.6	107.4	75.2	19.1	N/A	69.6
<i>Pediculosis pubis</i>	0.0	0.9	4.4	3.0	1.7	1.9	0.0	N/A	1.3
Syphilis	1.1	0.9	19.0	28.4	34.1	20.7	7.2	N/A	12.1
Trichomoniasis	0.0	2.8	8.8	5.2	2.5	2.8	1.0	N/A	2.6
<b>All Notifiable STIs</b>	<b>3.6</b>	<b>513.7</b>	<b>1316.5</b>	<b>1041.3</b>	<b>549.5</b>	<b>298.8</b>	<b>72.3</b>	<b>N/A</b>	<b>385.5</b>

N/A=not applicable

\* The age group specific rates for 2003 are based on a extrapolation of 2002 census data.

### ***Non-specific urethritis***

Non-specific urethritis (NSU) notifications averaged at 521 per year between 1994 and 1997. Between 1998 and 2002 notifications the yearly average increased to an average of 681 cases. In 2003, the number of NSU notifications rose further to 975 cases (an increase of 54.8% compared to 2002), which constituted 18% of all STI cases notified in that year with males accounting for 79.4% of cases compared to 20.5% in females (gender was not reported in one case). Also in 2003, 0-19 year olds accounted for 7.3% of cases, 54.2% of cases were 20-29, 21.4% were 30-39 and 10.2% were aged 40 years or older (7% of cases had no age details).

### ***Pediculosis pubis***

With a yearly average of 54.8 cases between 1994 and 1999, the numbers of *P. pubis* notifications reached a peak in 2000 with 221 cases (16.2/100,000), of which 204 were in males. Following this, notifications decreased sharply to 18 cases (1.3/100,000) in 2003. During 2003, there were 14 cases (77.8%) in males and 4 cases (22.2%) in females. Also in 2003, 0-19 year olds accounted for 5.6% of cases, 55.6% of cases were 20-29, 22.2% were 30-39 and none in those aged 40 years or older (16.7% of cases had no age details).

### ***Syphilis***

There has been a dramatic increase in syphilis amongst men who have sex with men (MSM) in Dublin since early 2000. This was against a low incidence of syphilis regionally since the mid 1990s, which in 1997 was 0.5/100,000). In 2001 it reached a peak of three hundred syphilis cases (21.7/100,000) that was reported through an enhanced surveillance system which was set up to deal with the outbreak which had begun in the Eastern Region in 2000. In 2003 the incidence rate fell to 12/100,000 (n=170). In 2001 the number of cases among males was 249 (83%) compared to 51 cases (17%) in females. During 2003, male cases decreased to 105 (61.8%) and female cases increased to 64 (37.6%) (gender was not reported in one case). Also in 2003, 0-19 year olds accounted for 2.4% of cases, 37.7% of cases were 20-29, 37.1% were 30-39 and 21.8% were aged 40 years or older (1.2% of cases had no age details).

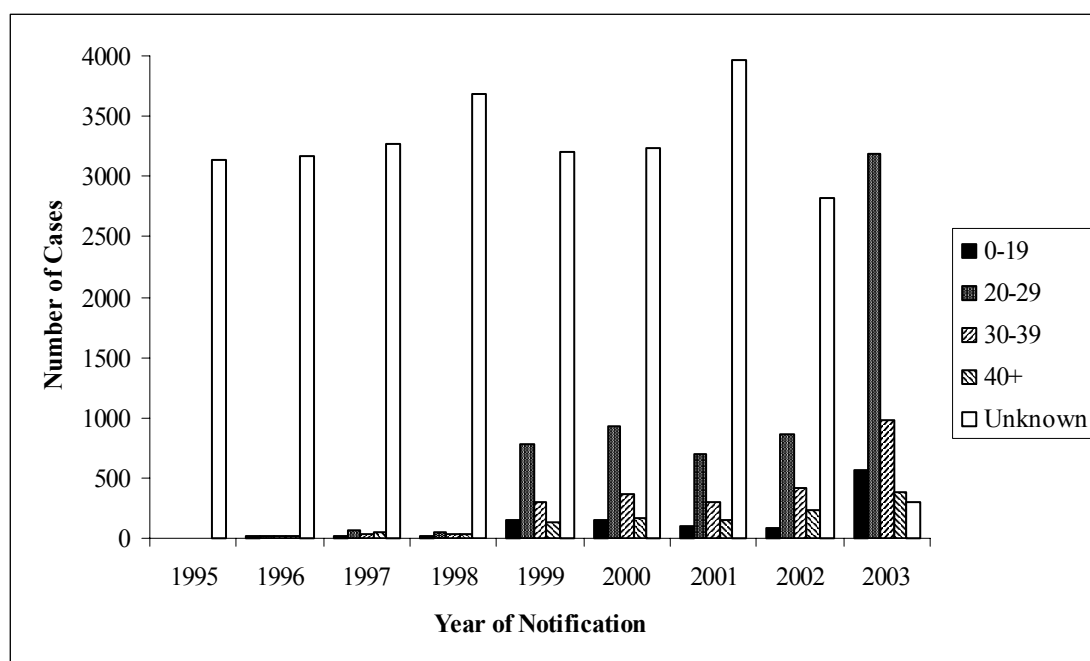
### ***Trichomoniasis***

The average number of trichomoniasis notifications reported per year between 1994 and 2003 was 43.6, peaking in 1997 with 67 cases (5.1/100,000). During 2003, 37 (2.6/100,000) cases were notified, a decrease of 24.5% compared to 2002 when 49 (3.5/100,000) cases were notified. In 2003, male trichomoniasis notifications accounted for 21.6% of cases (n=8), whereas female cases accounted for 78.4% cases (n=29). Also in 2003, 0-19 year olds accounted for 8.1% of cases, 51.4% of cases were 20-29, 16.22% were 30-39 and 13.5% were aged 40 years or older (10.8% of cases had no age details).

## **Discussion**

The increase in STIs in the eastern region between 1994 and 2003 is largely attributable to an increase in unsafe sexual practices. In recent years the increases in the identification and reporting of STIs are also due in part to improved acceptability of STI clinic services, greater public and professional awareness of STIs, improvements in diagnostic tests and greater notification of cases by laboratories. The latest increase observed in 2003 however, may partly be the result of late notifications arising from industrial strike action by public health staff during 2003.

Increased testing for chlamydial infection and the availability of sensitive and specific tests using nucleic acid amplification may also have influenced the increase in *C. trachomatis* notifications in recent years. The true rates of chlamydial infections are likely to be higher than those presented in this report, due to the scale of undiagnosed asymptomatic infections in the community. Chlamydial infection rates are of particular concern, especially among untreated young women who are at risk of infertility.



**Figure 3.** Number of notifications of STIs by year and by age group, Eastern Region 1995-2003

**Table 4.** Number of notifications of STIs by year and by STI clinic, Eastern Region, 1999-2003

STI CLINIC	1999	2000	2001	2002	2003	Total
St. James's Guide Clinic	3194	3303	4225	3038	3741	17501
Mater Hospital	871	924	501	453	583	3332
Private GUM Physicians (South-Side)	246	479	301	706	735	2467
Private GUM Physicians (North-Side)	70	64	18	141	130	423
Others*	172	84	36	69	189	550
Not Recorded	2	4	116	28	24	174
<b>All Notifiable STIs</b>	<b>4555</b>	<b>4858</b>	<b>5197</b>	<b>4435</b>	<b>5402</b>	<b>24447</b>

\* Includes maternity hospitals, family planning clinics and STI clinics for women

Asylum seekers currently undergo voluntary health screening, which includes testing for hepatitis B infection. The increase in infectious hepatitis B notifications since 1999 and particularly the sharp increase observed in 2003 is probably the result of new screening programmes and better reporting. The high proportion of female cases notified may also be a result of antenatal screening of pregnant women in some maternity hospitals. More detailed information (including risk factor details) is currently being collated through an enhanced surveillance system that is being managed by the DeptPH in the Eastern Regional Health Authority (ERHA).

Recently concern has been expressed over a resurgence of STIs, particularly amongst men who have sex with men (MSM). Gonorrhoeal infections for example, tend to be concentrated in such core risk groups. A peak in notification numbers observed in 2001, coincided with the outbreak of syphilis amongst MSM. During 2002 and 2003, a decrease in gonorrhoea notifications was observed, especially in men, which mirrored the decrease in reported syphilis cases amongst MSM. Gonorrhoea and syphilis co-infections were reported through the syphilis enhanced surveillance

system, during the syphilis outbreak. The decreases in gonorrhoea and syphilis notifications in male cases in 2002 may have resulted from the interventions put in place at the time.

Between 2000 and 2002, there was a dramatic increase in syphilis amongst MSM in Dublin<sup>1</sup>. This was against a background of low incidence throughout the late 1990s. Like other genital ulcer diseases, syphilis increases the risk of transmitting and acquiring HIV. An outbreak control team in October 2000 was convened by the Director of Public Health in the ERHA in response to this increase in syphilis. The outbreak amongst MSM in the Eastern Region peaked in 2001 but has now entered an endemic phase. The increase observed in female syphilis cases during 2002 was partly due to cases identified through antenatal screening, as reported through the syphilis enhanced surveillance system.

STI control and policy-making requires behaviourally and geographically targeted interventions. A subcommittee of the Scientific Advisory Committee of NDSC is currently undertaking a review of STI surveillance in Ireland and is soon to make recommendations in this regard.

### **Acknowledgements**

The authors would like to express a special thanks to Margaret McIver and Sinead Tierney for helping in compiling the STI notifications and also to Lisa Domegan and Niamh Murphy of the NDSC with the historical pre-1999 aggregate data, and all those who provided data for this report, especially the STI clinics and private GUM physicians based in the Eastern Region.

### **References**

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**Appendix 1.** Notified sexually transmitted infections per 100,000 population\*, Eastern Region, 1994-2003 and cumulative notified sexually transmitted infections per 100,000 population.

STI	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Ano-genital warts	85.8	98.1	113.5	105.6	123.1	138.2	142.1	143.4	113.3	132.4
Candidiasis	69.2	58.7	50.9	66.8	55.4	45.7	33.5	39.5	39.0	41.4
Chancroid	0.2	0.2	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0
<i>Chlamydia trachomatis</i>	6.7	13.8	19.2	23.4	30.9	53.6	63.1	67.9	64.9	90.1
Genital <i>herpes simplex</i>	11.0	11.9	8.9	10.8	13.6	19.0	16.3	16.8	15.7	15.9
Gonorrhoea	7.4	5.9	5.0	4.9	5.8	10.8	14.1	17.8	8.6	7.5
<i>Granuloma inguinale</i>	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Infectious Hepatitis B (STI)	0.0	0.0	0.0	0.0	0.0	1.3	2.2	2.2	2.1	4.1
<i>Lymphogranuloma venereum</i>	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.1	0.0
<i>Molluscum contagiosum</i>	2.8	3.3	1.7	3.3	4.1	4.8	5.1	5.0	5.1	4.9
Non-specific urethritis	41.6	44.2	39.4	35.9	46.0	53.5	52.6	52.2	45.0	68.7
<i>Pediculosis pubis</i>	3.3	4.6	4.6	3.7	3.6	5.3	16.2	5.9	1.7	1.3
Syphilis	0.2	0.5	1.0	0.5	1.0	2.6	6.1	21.7	17.4	12.0
Trichomoniasis	1.2	3.3	4.2	5.1	2.3	2.9	4.2	3.1	3.5	2.6
<b>All Notifiable STIs</b>	<b>229.4</b>	<b>244.6</b>	<b>248.5</b>	<b>260.5</b>	<b>285.8</b>	<b>337.7</b>	<b>355.6</b>	<b>375.5</b>	<b>316.5</b>	<b>380.7</b>

\*Rates per 100,000 population for 1994 to 2002 are based on the interpolations of the 1991, 1996, and 2003 population census. The rates for 2003 are based on a extrapolation of 2002 census data.

**Appendix 2.** Notified sexually transmitted infections, Eastern Region, 1995-2003 by year, by quarter and by disease type.

<b>Year&amp; Qr</b>	<b>Ano-genital warts</b>	<b>Candidiasis</b>	<b>Chancroid</b>	<b><i>Chlamydia trachomatis</i></b>	<b><i>Genital herpes simplex</i></b>	<b>Gonorrhoea</b>	<b><i>Granuloma inguinale</i></b>	<b>Infectious Hepatitis B (STI)</b>	<b><i>Lymphogranuloma venereum</i></b>	<b><i>Molluscum contagiosum</i></b>	<b>Non-specific urethritis</b>	<b><i>Pediculosis pubis</i></b>	<b>Syphilis</b>	<b>Trichomoniasis</b>	<b>All Notifiable STIs</b>
1995-Qr1	315	204	0	46	36	15	0	0	0	12	111	20	2	5	<b>766</b>
1995-Qr2	365	251	1	35	56	19	0	0	0	14	213	14	4	18	<b>990</b>
1995-Qr3	315	158	0	38	29	19	0	0	0	8	115	13	0	7	<b>702</b>
1995-Qr4	267	142	2	59	32	23	0	0	0	8	129	12	0	13	<b>687</b>
1996-Qr1	322	112	0	73	27	17	0	0	0	5	103	8	2	5	<b>674</b>
1996-Qr2	337	150	0	51	30	19	0	0	0	7	155	19	8	40	<b>816</b>
1996-Qr3	376	181	0	49	29	14	1	0	0	5	131	17	2	3	<b>808</b>
1996-Qr4	436	216	0	76	29	15	0	0	0	5	122	16	1	7	<b>923</b>
1997-Qr1	423	255	0	91	59	16	0	0	0	15	118	13	2	8	<b>1000</b>
1997-Qr2	365	146	0	71	0	7	0	0	0	8	58	12	0	3	<b>670</b>
1997-Qr3	195	239	0	64	31	19	0	0	0	14	147	13	2	6	<b>730</b>
1997-Qr4	404	237	0	82	52	22	0	0	5	7	149	11	3	50	<b>1022</b>
1998-Qr1	328	194	0	110	49	8	0	0	0	17	165	11	7	7	<b>896</b>
1998-Qr2	459	180	0	106	54	28	0	0	0	11	175	13	6	11	<b>1043</b>
1998-Qr3	333	139	0	72	39	18	0	0	0	12	135	8	0	8	<b>764</b>
1998-Qr4	518	225	0	123	39	23	0	0	0	15	137	16	0	5	<b>1101</b>
1999-Qr1	394	97	0	122	107	18	0	4	0	13	126	20	15	6	<b>922</b>
1999-Qr2	492	174	0	179	48	32	0	4	0	20	178	12	7	9	<b>1155</b>
1999-Qr3	556	204	0	228	55	62	0	5	0	16	238	23	8	12	<b>1407</b>
1999-Qr4	422	141	1	194	46	34	0	4	0	16	180	16	5	12	<b>1071</b>
2000-Qr1	479	132	0	212	91	36	0	7	0	22	210	60	7	12	<b>1268</b>
2000-Qr2	481	77	0	214	30	31	0	2	0	23	132	49	20	8	<b>1067</b>
2000-Qr3	448	143	0	198	45	63	0	5	0	9	206	14	24	20	<b>1175</b>
2000-Qr4	533	106	1	238	57	63	0	16	0	16	171	98	32	17	<b>1348</b>
2001-Qr1	556	121	1	223	70	50	0	9	0	25	209	33	70	12	<b>1379</b>
2001-Qr2	534	153	0	227	47	89	0	7	0	25	210	29	78	9	<b>1408</b>
2001-Qr3	460	137	0	235	47	62	0	5	0	5	166	8	74	10	<b>1209</b>
2001-Qr4	435	136	0	255	68	46	0	9	0	14	137	11	78	12	<b>1201</b>
2002-Qr1	400	104	0	201	61	20	0	5	0	20	122	4	75	11	<b>1023</b>
2002-Qr2	462	209	0	230	66	32	0	5	1	23	194	5	53	27	<b>1307</b>
2002-Qr3	381	123	1	243	46	39	0	12	0	20	191	5	66	6	<b>1133</b>
2002-Qr4	345	110	0	236	47	29	0	8	0	9	123	10	50	5	<b>972</b>
2003-Qr1	331	122	0	251	44	22	0	20	0	13	172	7	56	9	<b>1047</b>
2003-Qr2	524	153	0	328	53	21	0	21	0	17	214	3	50	12	<b>1396</b>
2003-Qr3	447	169	0	349	76	38	0	10	0	24	275	8	29	10	<b>1435</b>
2003-Qr4	577	143	0	350	52	25	0	7	0	15	314	0	35	6	<b>1524</b>

**Appendix 3.1.** Notified sexually transmitted infections in males, Eastern Region, 1994-2003

<b>STI-Males</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>
Ano-genital warts	569	652	651	645	750	894	1021	1029	863	1049
Candidiasis	240	172	118	158	66	44	95	80	66	76
Chancroid	2	3	0	0	0	1	1	1	1	0
<i>Chlamydia trachomatis</i>	35	79	121	144	186	366	451	464	466	583
Genital herpes simplex	66	73	43	39	55	94	102	82	96	102
Gonorrhoea	85	68	53	58	61	118	148	200	99	79
<i>Granuloma inguinale</i>	0	0	1	0	0	0	0	0	0	0
Infectious Hepatitis B (STI)	0	0	0	0	0	13	25	25	26	43
<i>Lymphogranuloma venereum</i>	0	0	0	0	0	0	0	0	1	0
<i>Molluscum contagiosum</i>	21	16	9	24	33	40	42	44	44	46
Non-specific urethritis	393	448	378	328	478	579	592	599	502	774
<i>Pediculosis pubis</i>	18	42	45	31	34	54	204	71	18	14
Syphilis	2	4	6	6	7	20	56	249	187	105
Trichomoniasis	1	11	17	7	2	6	12	3	4	8
<b>All Notifiable STIs</b>	<b>1432</b>	<b>1568</b>	<b>1442</b>	<b>1440</b>	<b>1672</b>	<b>2229</b>	<b>2749</b>	<b>2847</b>	<b>2373</b>	<b>2879</b>

**Appendix 3.2.** Notified sexually transmitted infections in females, Eastern Region, 1994-2003

<b>STI-Females</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>
Ano-genital warts	525	610	820	742	888	964	920	954	711	818
Candidiasis	643	583	541	719	672	572	363	466	473	509
Chancroid	0	0	0	0	0	0	0	0	0	0
<i>Chlamydia trachomatis</i>	51	99	128	164	225	356	408	466	430	670
Genital herpes simplex	74	80	72	103	126	160	121	149	123	121
Gonorrhoea	9	8	12	6	16	27	43	46	19	25
<i>Granuloma inguinale</i>	0	0	0	0	0	0	0	0	0	0
Infectious Hepatitis B (STI)	0	0	0	0	0	4	5	5	4	15
<i>Lymphogranuloma venereum</i>	0	0	0	5	0	0	0	0	0	0
<i>Molluscum contagiosum</i>	15	26	13	20	22	23	28	25	28	22
Non-specific urethritis	150	120	133	144	134	142	127	122	127	200
<i>Pediculosis pubis</i>	12	17	15	18	14	17	17	10	6	4
Syphilis	1	2	7	1	6	15	27	51	57	64
Trichomoniasis	14	32	38	60	29	32	44	39	43	29
<b>All Notifiable STIs</b>	<b>1494</b>	<b>1577</b>	<b>1779</b>	<b>1982</b>	<b>2132</b>	<b>2312</b>	<b>2103</b>	<b>2333</b>	<b>2021</b>	<b>2477</b>