

**Laboratory Surveillance of
Chlamydia and Gonorrhoea in the Auckland,
Waikato and Bay of Plenty Regions**

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by

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This report is also available at www.surv.esr.cri.nz

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Introduction

In New Zealand, sexually transmitted infections (STIs) are not notifiable and so surveillance efforts rely upon laboratories and clinics voluntarily providing data. Laboratory surveillance of gonorrhoea began in the Waikato, Bay Of Plenty (BOP) and Auckland regions in 1998. Laboratory surveillance of chlamydia began in 1998 in the Waikato and BOP regions, and in 2001 in the Auckland region.

This report presents data on chlamydia and gonorrhoea cases reported in the first quarter (January to March) 2004, from ten laboratories in the Waikato, BOP and Auckland regions.

Quarterly reports of clinic based surveillance are provided separately and are available at www.surv.esr.cri.nz.

All results and analyses are based on data submitted prior to the 10th May 2004. Any data submitted after this date is not included in this report due to time constraints. All results should be regarded as provisional.

Methods

The ten participating laboratories in the Waikato District Health Board (DHB), BOP region and Auckland region report anonymised data on laboratory-confirmed cases of chlamydia and gonorrhoea, by age and sex, to ESR. The diagnostic tests used by each laboratory differ.

Two laboratories provided data for all test-positive *patients*. The remaining eight laboratories provided data for all test-positive *specimens*. For the purposes of analysis, it was assumed that each test-positive specimen was equivalent to one test-positive patient. As it is possible for one patient to have two positive specimens taken for the one STI episode, the true incidence may be less than that reported here.

STI Rates

Population-based disease rates for the quarter were calculated by dividing the total number of test-positive reported cases for chlamydia and gonorrhoea by the total 'usually resident' population data for the DHBs included in each region (see below). Population data was supplied from the 2001 Census, Statistics New Zealand.

<u>Waikato region</u>	includes Waikato District Health Board (DHB)
<u>BOP region</u>	includes BOP DHB and Lakes DHB
<u>Auckland region</u>	includes Auckland DHB and Counties Manukau DHB for calculation of gonorrhoea rates. Includes Auckland DHB, Counties Manukau DHB and Waitemata DHB for calculation of chlamydia rates.

In contrast to previously prepared reports STI rates are not annualised.

Data completeness

All ten laboratories submitted chlamydia and gonorrhoea data for each month in the period January to March 2004. Of all positive data submitted 0.4% were of unknown age and 0.3% of unknown sex.

Chlamydia Results – January to March, 2004

Chlamydia Incidence

Waikato region

- Laboratories in Waikato tested 6 229 specimens for chlamydia, of which 538 (8.6%) specimens tested positive.
- Seventy one percent of all positive specimens occurred in people aged 15-24 years.
- The highest rates of chlamydia were found in the 15-19 years age group in females and the 20-24 years age group in males.

Bay of Plenty Region

- Laboratories in the BOP tested 5 650 specimens for chlamydia, of which 661 (11.7%) specimens tested positive.
- Seventy percent of all positive specimens occurred in people aged 15 to 24 years.
- The highest rates of chlamydia were found in the 15-19 years age group in females and the 20-24 years age group in males.

Auckland Region

- Laboratories in Auckland tested 30 162 specimens for chlamydia, of which 1 994 (6.6%) specimens tested positive from 1 963 patients.
- Fifty eight percent of all positive patients occurred in people aged 15-24 years.
- The highest rates of chlamydia in females and males were found in the 20-24 years age group.

Chlamydia trends: Auckland, Waikato and Bay of Plenty Regions

In the first quarter of 2004, a total of 3 162 cases of chlamydia was reported. This represents a rate of 179.2 per 100 000 population (BOP: 241.1 per 100 000; Waikato: 169.3 per 100 000; Auckland: 167.3 per 100 000)

Compared to the previous quarter, the number of chlamydia diagnoses increased by 24.9% in the BOP region, 10.3% in the Auckland region and 3.1% in the Waikato region.

Chlamydia cases reported in this quarter increased by 7.4% on the total of 2 944 in the equivalent quarter of 2003. The largest increase (22.9%) was seen in the BOP region (538 in Q1 2003, compared to 661 in Q1 2004).

The rate of chlamydia in the BOP region was significantly higher than in the Waikato and Auckland regions. There was no significant difference in the chlamydia rate in the Auckland region compared to the Waikato region (see figure 1).

Data tables: Chlamydia Incidence, January to March, 2004

Table 1. Number of positive specimens and rates of chlamydia in the Waikato region by age group and sex: January to March 2004

Age group (yrs)	Number of positive specimens				Rate per 100 000		
	Female	Male	Unknown	Total	Female	Male	Total
<1	2	1	0	3	81.6	42.2	62.2
1-9	0	0	0	0	0.0	0.0	0.0
10-14	7	1	0	8	52.2	7.6	30.1
15-19	165	44	0	209	1339.5	378.6	873.0
20-24	111	64	0	175	1080.3	631.2	857.2
25-29	51	24	0	75	524.0	233.0	374.4
30-34	15	14	0	29	141.6	118.2	129.3
>34	20	14	0	34	27.1	17.5	22.1
Unknown	1	0	4	5	-	-	-
Total	372	162	4	538	238.3	100.2	169.3

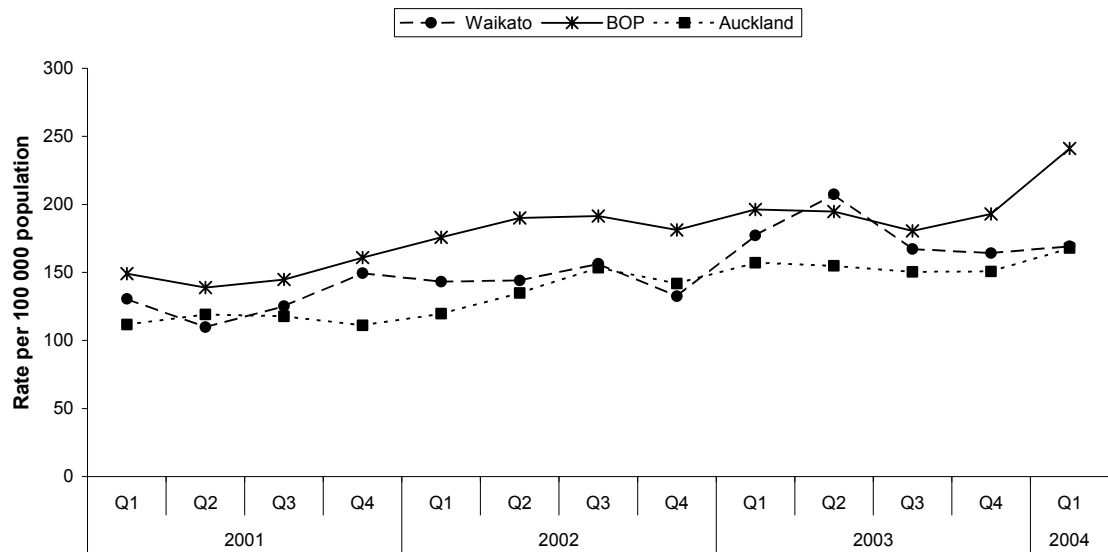
Table 2. Number of positive specimens and rates of chlamydia in the Bay of Plenty region by age group and sex: January to March 2004

Age group (yrs)	Number of positive specimens				Rate per 100 000		
	Female	Male	Unknown	Total	Female	Male	Total
<1	1	0	0	1	47.5	0.0	24.4
1-9	5	0	0	5	24.4	0.0	12.5
10-14	19	2	0	21	163.0	17.6	91.2
15-19	223	36	0	259	2372.6	404.3	1415.1
20-24	157	47	0	204	2281.3	667.5	1465.2
25-29	59	18	0	77	788.2	213.4	483.6
30-34	25	12	0	37	287.5	119.7	197.6
>34	35	13	0	48	52.5	17.7	34.2
Unknown	4	2	3	9	-	-	-
Total	528	130	3	661	395.7	92.4	241.1

Table 3. Number of positive patients and rates of chlamydia in the Auckland region by age group and sex: January to March 2004

Age group (yrs)	Number of positive specimens				Rate per 100 000		
	Female	Male	Unknown	Total	Female	Male	Total
<1	8	8	1	17	84.6	88.5	91.9
1-9	5	0	0	5	6.0	0.0	3.1
10-14	22	3	0	25	48.1	6.9	27.9
15-19	429	88	2	519	1004.9	210.4	614.1
20-24	444	184	0	628	1092.2	437.1	758.9
25-29	235	128	0	363	576.9	283.5	422.6
30-34	120	57	0	177	262.4	111.3	182.6
>34	125	102	2	229	47.7	35.0	41.4
Unknown	0	0	0	0	-	-	-
Total	1388	570	5	1963	243.4	94.6	167.3

Figure 1. Rate of chlamydia reported through laboratory surveillance in the Auckland, Waikato and Bay of Plenty (BOP) regions: January 2000 to March 2004



Gonorrhoea Results – January to March, 2004

Gonorrhoea Incidence

Waikato Region

- Laboratories in the Waikato region tested 9 047 specimens for gonorrhoea, of which 42 (0.5%) specimens tested positive from 39 patients.
- Sixty four percent of all positive specimens occurred in people aged 15-24 years.
- The highest rates of gonorrhoea in females and males were found in the 20-24 years age group.

Bay of Plenty Region

- Laboratories in the BOP tested 8 146 specimens for gonorrhoea, of which 80 (1.0%) specimens tested positive.
- Sixty four percent of all positive specimens occurred in people aged 15 to 24 years.
- The highest rates of gonorrhoea were found in the 15-19 years age group in females and the 20-24 years age group in males.

Auckland Region

- Laboratories in the Auckland region tested 47 465 specimens for gonorrhoea, of which 245 (0.5%) specimens tested positive from 242 patients.
- Fifty five percent of all positive patients occurred in people aged 15-24 years
- The highest rates of gonorrhoea were found in the 15-19 years age group in females and the 20-24 years age group in males.

Gonorrhoea trends: Auckland, Waikato and Bay of Plenty Regions

In the first quarter of 2004, a total of 361 cases of gonorrhoea was reported. This represents a rate of 27.0 per 100 000 population (Auckland: 32.6 per 100 000; BOP: 29.2 per 100 000; Waikato: 12.3 per 100 000)

Compared to the previous quarter, the number of gonorrhoea diagnoses increased by 11.4% in the Waikato region, 15.4% in the Auckland region and 56.9% in the BOP region.

Gonorrhoea cases reported in this quarter increased by 15.0% on the total of 314 in the equivalent quarter of 2003. The largest increase was seen in the BOP region (52 in Q1 2003, compared to 80 in Q1 2004).

The rate of gonorrhoea in the Auckland and BOP regions was significantly higher than in Waikato region. There was no significant difference in the gonorrhoea rate in the Auckland region compared to the BOP region (see figure 2).

Data tables: Gonorrhoea Incidence, January to March, 2004

Table 4. Number of positive patients and rates of gonorrhoea in the Waikato region by age group and sex: January to March 2004

Age group (yrs)	Number of positive specimens				Rate per 100 000		
	Female	Male	Unknown	Total	Female	Male	Total
<1	0	0	0	0	0.0	0.0	0.0
1-9	0	0	0	0	0.0	0.0	0.0
10-14	0	4	0	4	0.0	30.4	15.1
15-19	6	5	0	11	48.7	43.0	45.9
20-24	7	7	0	14	68.1	69.0	68.6
25-29	2	1	0	3	20.6	9.7	15.0
30-34	0	2	0	2	0.0	16.9	8.9
>34	3	2	0	5	4.1	2.5	3.2
Unknown	0	0	0	0	-	-	-
Total	18	21	0	39	11.5	13.0	12.3

Table 5. Number of positive specimens and rates of gonorrhoea in the Bay of Plenty region by age group and sex: January to March 2004

Age group (yrs)	Number of positive specimens				Rate per 100 000		
	Female	Male	Unknown	Total	Female	Male	Total
<1	0	0	0	0	0.0	0.0	0.0
1-9	1	0	0	1	4.9	0.0	2.5
10-14	2	0	0	2	17.2	0.0	8.7
15-19	22	8	0	30	234.1	89.8	163.9
20-24	12	9	0	21	174.4	127.8	150.8
25-29	7	7	0	14	93.5	83.0	87.9
30-34	4	2	0	6	46.0	20.0	32.1
>34	2	4	0	6	3.0	5.4	4.3
Unknown	0	0	0	0	-	-	-
Total	50	30	0	80	37.5	21.3	29.2

Table 6. Number of positive patients and rates of gonorrhoea in the Auckland region by age group and sex: January to March 2004

Age group (yrs)	Number of positive specimens				Rate per 100 000		
	Female	Male	Unknown	Total	Female	Male	Total
<1	0	0	0	0	0.0	0.0	0.0
1-9	3	0	0	3	5.6	0.0	2.9
10-14	4	0	0	4	13.9	0.0	7.1
15-19	39	23	0	62	143.9	86.1	115.2
20-24	29	41	0	70	106.7	141.5	124.7
25-29	10	22	0	32	36.6	72.5	55.5
30-34	12	14	0	26	40.5	42.3	41.4
>34	10	34	1	45	6.2	19.0	13.2
Unknown	0	0	0	0	-	-	-
Total	107	134	1	242	29.6	35.1	32.6

Figure 2. Rate of gonorrhoea reported through laboratory surveillance in the Auckland, Waikato and Bay of Plenty (BOP) regions: January 2000 to March 2004

