

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

April - June 2004

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by

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<p>This report is also available at www.surv.esr.cri.nz</p>

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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 Auckland, Waikato and Bay Of Plenty (BOP) regions in 1998. Laboratory surveillance of chlamydia began in the Waikato and Bay of Plenty regions in 1998 and in the Auckland region in 2001.

In June 2004, STI surveillance efforts were extended to a number of new laboratories across New Zealand. Data from the new laboratories is not presented here but will become available in the third quarterly report for 2004.

This report presents data on chlamydia and gonorrhoea cases reported in the second quarter (April to June) 2004, from ten laboratories in the Auckland, Waikato and Bay of Plenty 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 5th August 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 Auckland, Waikato and Bay of Plenty regions 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.

Three laboratories provided data for all test-positive *patients*. The remaining seven 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 District Health Boards (DHB) included in each region (see below). Population data was supplied from the 2001 Census, Statistics New Zealand.

<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.
<u>Waikato region</u>	includes Waikato DHB
<u>Bay of Plenty region</u>	includes Bay of Plenty DHB and Lakes DHB

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 April to June 2004. Of all positive data submitted 0.2% were of unknown age and 0.4% of unknown sex.

Chlamydia Results – April to June, 2004

Chlamydia Incidence

Auckland Region

- Laboratories in Auckland tested 29 158 specimens for chlamydia, of which 1 710 (5.9%) specimens tested positive from 1 691 patients.
- Sixty one percent of all positive patients 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.

Waikato region

- Laboratories in Waikato tested 5 794 specimens for chlamydia, of which 560 (9.7%) specimens tested positive.
- Seventy three 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 Bay of Plenty tested 5 257 specimens for chlamydia, of which 533 (10.1%) specimens tested positive.
- Seventy two 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.

Chlamydia trends: Auckland, Waikato and Bay of Plenty Regions

In the second quarter of 2004, a total of 2 782 cases of chlamydia was reported. This represents a rate of 157.6 per 100 000 population (Bay of Plenty: 194.4 per 100 000; Waikato: 175.6 per 100 000; Auckland: 144.2 per 100 000)

Compared to the previous quarter, the number of chlamydia diagnoses increased by 3.7% in the Waikato region. However, the number of chlamydia diagnoses decreased in the Bay of Plenty region and in the Auckland region by 19.4% and 13.9%, respectively.

Chlamydia cases reported in this quarter decreased by 7.6% on the total of 3 010 in the equivalent quarter of 2003. The largest decreased (15.3%) was seen in the Waikato region (659 in Quarter 2 2003, compared to 558 in Quarter 2 2004).

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

Data tables: Chlamydia Incidence, April to June, 2004

Table 1. Number of positive specimens and rates of chlamydia in the Auckland region by age group and sex: April to June 2004

Age group (yrs)	Number of positive specimens				Rate per 100 000		
	Female	Male	Unknown	Total	Female	Male	Total
<1	4	5	0	9	42.3	55.3	48.7
1-9	2	0	0	2	2.4	0.0	1.2
10-14	15	1	0	16	32.8	2.3	17.9
15-19	398	81	1	480	932.3	193.7	568.0
20-24	393	159	3	555	966.7	377.7	670.7
25-29	198	98	3	299	486.1	217.0	348.1
30-34	106	51	0	157	231.8	99.6	162.0
>34	96	77	0	173	36.6	26.5	31.3
Unknown	0	0	0	0			
Total	1212	472	7	1691	212.5	78.3	144.2

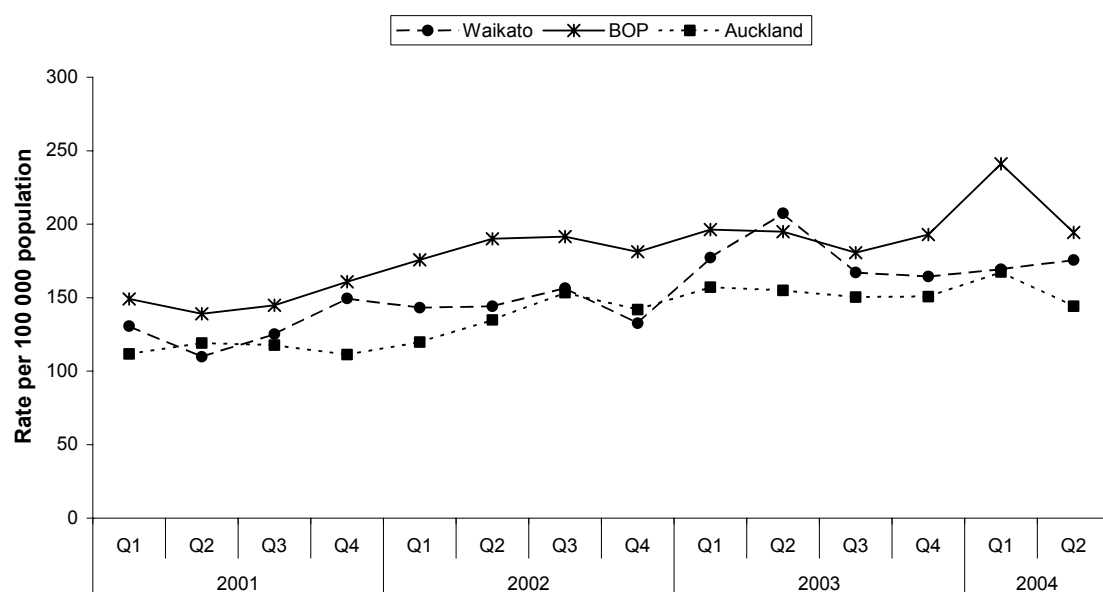
Table 2. Number of positive specimens and rates of chlamydia in the Waikato region by age group and sex: April to June 2004

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	10	0	0	10	74.5	0.0	37.6
15-19	162	39	1	202	1315.1	335.6	843.8
20-24	133	72	0	205	1294.4	710.1	1004.2
25-29	60	29	0	89	616.5	281.5	444.2
30-34	13	9	0	22	122.8	76.0	98.1
>34	14	12	0	26	19.0	15.0	16.9
Unknown	1	0	0	1			
Total	395	162	1	558	253.1	100.2	175.6

Table 3. Number of positive patients and rates of chlamydia in the Bay of Plenty region by age group and sex: April to June 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	22	1	0	23	188.8	8.8	99.8
15-19	177	34	1	212	1883.2	381.9	1158.3
20-24	121	51	0	172	1758.2	724.3	1235.4
25-29	47	15	0	62	627.9	177.8	389.4
30-34	26	9	0	35	299.0	89.8	187.0
>34	11	13	0	24	16.5	17.7	17.1
Unknown	2	1	2	5			
Total	406	124	3	533	304.2	88.1	194.4

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



Gonorrhoea Results – April to June, 2004

Gonorrhoea Incidence

Auckland Region

- Laboratories in the Auckland region tested 47 023 specimens for gonorrhoea, of which 256 (0.5%) specimens tested positive from 230 patients.
- Forty nine 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.

Waikato Region

- Laboratories in the Waikato region tested 8 211 specimens for gonorrhoea, of which 58 (0.7%) specimens tested positive from 55 patients.
- Sixty two percent of all positive specimens 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.

Bay of Plenty Region

- Laboratories in the Bay Of Plenty tested 9 547 specimens for gonorrhoea, of which 59 (0.6%) specimens tested positive from 58 patients.
- Sixty seven 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.

Gonorrhoea trends: Auckland, Waikato and Bay of Plenty Regions

In the second quarter of 2004, a total of 343 cases of gonorrhoea were reported. This represents a rate of 25.7 per 100 000 population (Auckland: 30.9 per 100 000; Bay of Plenty: 20.1 per 100 000; Waikato: 18.3 per 100 000)

Compared to the previous quarter, the number of gonorrhoea diagnoses increased by 48.7% in the Waikato region. However, the number of gonorrhoea diagnoses decreased in the Bay of Plenty region and in the Auckland region by 31.3% and 0.9%, respectively.

Gonorrhoea cases reported in this quarter increased by 2.7% on the total of 334 in the equivalent quarter of 2003. The largest increase (18.4%) was seen in the Waikato region (49 in Quarter 2 2003, compared to 58 in Quarter 2 2004).

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

Data tables: Gonorrhoea Incidence, April to June, 2004

Table 4. Number of positive patients and rates of gonorrhoea in the Auckland region by age group and sex: April to June 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	1.9	0.0	1.0
10-14	5	1	0	6	17.3	3.6	10.7
15-19	31	17	0	48	114.4	63.6	89.2
20-24	23	41	1	65	84.6	141.5	115.8
25-29	14	18	1	33	51.2	59.3	57.2
30-34	11	13	0	24	37.1	39.3	38.2
>34	9	43	1	53	5.6	24.0	15.6
Unknown	0	0	0	0			
Total	94	133	3	230	26.0	34.8	30.9

Table 5. Number of positive specimens and rates of gonorrhoea in the Waikato region by age group and sex: April to June 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	1	0	0	1	7.5	0.0	3.8
15-19	14	7	0	21	113.7	60.2	87.7
20-24	5	10	0	15	48.7	98.6	73.5
25-29	4	4	0	8	41.1	38.8	39.9
30-34	4	1	0	5	37.8	8.4	22.3
>34	2	6	0	8	2.7	7.5	5.2
Unknown	0	0	0	0			
Total	30	28	0	58	19.2	17.3	18.3

Table 6. Number of positive patients and rates of gonorrhoea in the Bay of Plenty region by age group and sex: April to June 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	4	0	0	4	34.3	0.0	17.4
15-19	16	5	0	21	170.2	56.2	114.7
20-24	10	6	0	16	145.3	85.2	114.9
25-29	4	5	0	9	53.4	59.3	56.5
30-34	0	4	0	4	0.0	39.9	21.4
>34	0	1	0	1	0.0	1.4	0.7
Unknown	0	0	0	0			
Total	34	21	0	55	25.5	14.9	20.1

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

