

**Laboratory Surveillance of
Chlamydia and Gonorrhoea
in New Zealand**

April to June 2005

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by

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**This report is also available at www.surv.esr.cri.nz
Ad Hoc STI requests may be accessed by emailing survqueries@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 Auckland, Waikato and Bay of Plenty (BOP) regions in 1998. Laboratory surveillance of chlamydia began in the Waikato and BOP regions in 1998 and in the Auckland region in 2001. Since June 2004, efforts have been made to extend STI surveillance to additional laboratories across New Zealand.

This report presents data on chlamydia and gonorrhoea cases reported in the last quarter (April to June) 2005, from eighteen laboratories across New Zealand.

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 29th July 2005. 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 eighteen participating laboratories report anonymised data on laboratory-confirmed cases of chlamydia and gonorrhoea, by age and sex. Laboratories only report specimens received directly from health care settings and do not report data on specimens which were subcontracted to their laboratory from outside of their region. Seventeen laboratories submitted chlamydia data with a total coverage of twenty-six laboratories. Eighteen laboratories submitted gonorrhoea data with a total coverage of nineteen laboratories. The diagnostic tests used by each laboratory differ.

An attempt has been made to deduplicate the data where one patient may have multiple positive specimens. If this is not possible then 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 the Auckland, Waikato and BOP regions (see below). Population data was supplied from the 2001 Census, Statistics New Zealand.

For several reasons population-based rates have not been determined for the new laboratories. Data submitted from newly participating laboratories is presented as the number of test-positive reported cases by age and sex. As the majority of laboratories within the new DHBs are not, at present, routinely reporting STI data population rates cannot be calculated accurately.

In contrast to reports prepared prior to 2004 STI rates are not annualised.

<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>BOP region</u>	Includes BOP DHB and Lakes DHB.

Data completeness

Seventeen laboratories submitted chlamydia data and eighteen laboratories submitted gonorrhoea data for each month in the period April to June 2005. Of all positive data submitted 1.7% were of unknown age and 0.2% were of unknown sex.

Chlamydia Results – April to June, 2005

Chlamydia Incidence

Auckland Region (see table 1)

- Laboratories in the Auckland region tested 29 878 specimens for chlamydia, of which 1 946 (6.5%) specimens tested positive from 1 847 patients.
- Sixty two percent of all positive patients occurred in people aged 15 to 24 years.
- The highest rates of chlamydia in females and males were found in the 20 to 24 years age group.

Waikato region (see table 1)

- Laboratories in the Waikato region tested 6 151 specimens for chlamydia, of which 682 (11.1%) specimens tested positive from 674 patients.
- Seventy six percent of all positive patients occurred in people aged 15 to 24 years.
- The highest rates of chlamydia were found in the 15 to 19 years age group in females and the 20 to 24 years age group in males.

Bay of Plenty Region (see table 1)

- Laboratories in the BOP region tested 5 897 specimens for chlamydia, of which 626 (10.6%) specimens tested positive from 626 patients.
- Sixty nine percent of all positive patients occurred in people aged 15 to 24 years.
- The highest rates of chlamydia were found in the 15 to 19 years age group in females and the 20 to 24 years age group in males.

New laboratories (see table 1)

- New laboratories reported 679 (10.7%) test-positive specimens for chlamydia from 569 patients.
- Sixty two percent of all positive patients occurred in people aged 15 to 24 years.
- The highest numbers of chlamydia were found in the 15 to 19 years age group in females and the 20 to 24 years age group in males.

Data tables: Chlamydia Incidence, April to June, 2005

Table 1. Number of test-positive cases and rates of chlamydia, age group and sex:
April to June 2005

Region	Age group (Yrs)	Number of test-positive cases				Rate per 100 000		
		Female	Male	Unknown	Total	Female	Male	Total
Auckland	<1	5	6	1	12	52.9	66.4	64.9
	1-9	0	0	0	0	0.0	0.0	0.0
	10-14	20	2	0	22	43.7	4.6	24.6
	15-19	427	84	1	512	1000.2	200.9	605.8
	20-24	463	161	0	624	1138.9	382.5	754.1
	25-29	198	104	0	302	486.1	230.3	351.6
	30-34	94	67	0	161	205.5	130.9	166.1
	>34	104	109	0	213	39.7	37.4	38.5
	Unknown	1	0	0	1			
	Total	1312	533	2	1847	230.1	88.4	157.5
Waikato	<1	1	1	0	2	40.8	42.2	41.5
	1-9	0	0	0	0	0.0	0.0	0.0
	10-14	12	2	0	14	89.4	15.2	52.7
	15-19	221	55	0	276	1794.1	473.2	1152.9
	20-24	158	74	1	233	1537.7	729.8	1141.3
	25-29	48	31	0	79	493.2	300.9	394.3
	30-34	26	8	0	34	245.5	67.5	151.5
	>34	18	15	1	34	24.4	18.7	22.1
	Unknown	1	0	1	2			
	Total	485	186	3	674	310.7	115.1	212.1
Bay of Plenty	<1	2	2	0	4	95.0	100.1	97.5
	1-9	0	0	0	0	0.0	0.0	0.0
	10-14	16	2	0	18	137.3	17.6	78.1
	15-19	244	31	0	275	2596.0	348.2	1502.5
	20-24	123	37	0	160	1787.3	525.5	1149.2
	25-29	62	21	1	84	828.3	248.9	527.6
	30-34	19	10	0	29	218.5	99.8	154.9
	>34	26	19	0	45	39.0	25.8	32.1
	Unknown	4	4	3	11			
	Total	496	126	4	626	371.7	89.6	228.4
New Laboratories	<1	1	0	0	1			
	1-9	0	0	0	0			
	10-14	17	0	0	17			
	15-19	168	33	0	201			
	20-24	103	46	0	149			
	25-29	45	28	0	73			
	30-34	20	17	0	37			
	>34	22	15	0	37			
	Unknown	26	28	0	54			
	Total	402	167	0	569			

Chlamydia trends: Auckland, Waikato and BOP Regions

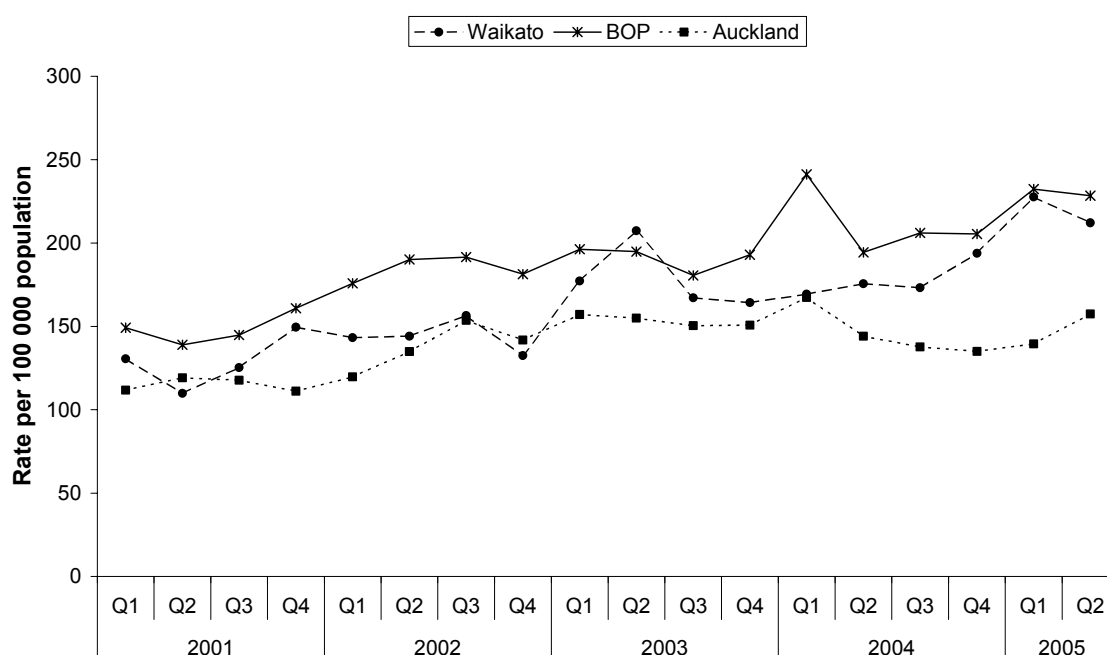
In the second quarter of 2005, a total of 3 147 cases of chlamydia were reported. This represents a rate of 178.3 per 100 000 population (Auckland: 157.5 per 100 000; Waikato: 212.1 per 100 000; BOP: 228.4 per 100 000).

Compared to the previous quarter, the number of chlamydia diagnoses increased by 12.8% in the Auckland region and the number of chlamydia diagnoses decreased by 6.8% in the Waikato region and 1.7% in the BOP region.

Chlamydia cases reported in this quarter increased by 13.1% on the total of 2 782 in the equivalent quarter of 2004. The largest increase (20.8%) was seen in the Waikato region (558 in Quarter 2 2004, compared to 674 in Quarter 2 2005).

The rates of chlamydia in the Waikato and BOP regions were significantly higher than in the Auckland region. There was no significant difference in the rate of chlamydia in the Waikato region compared to the BOP region.

Figure 1. Rate of chlamydia reported through laboratory surveillance in the Auckland, Waikato and BOP regions: January 2001 to June 2005



Gonorrhoea Results – April to June, 2005

Gonorrhoea Incidence

Auckland Region (see table 2)

- Laboratories in the Auckland region tested 47 844 specimens for gonorrhoea, of which 258 (0.5%) specimens tested positive from 212 patients.
- Forty eight percent of all positive patients occurred in people aged 15 to 24 years.
- The highest rates of gonorrhoea in females and males were found in the 20 to 24 years age group.

Waikato region (see table 2)

- Laboratories in the Waikato region tested 19 186 specimens for gonorrhoea, of which 48 (0.3%) specimens tested positive from 48 patients.
- Seventy three percent of all positive patients occurred in people aged 15 to 24 years.
- The highest rates of gonorrhoea in females and males were found in the 20 to 24 years age group.

Bay of Plenty Region (see table 2)

- Laboratories in the BOP region tested 9 128 specimens for gonorrhoea, of which 49 (0.5%) specimens tested positive from 49 patients.
- Seventy one percent of all positive patients occurred in people aged 15 to 24 years.
- The highest rates of gonorrhoea in females and males were found in the 15 to 19 years age group.

New laboratories (see table 2)

- New laboratories reported 105 (0.6%) test-positive specimens for gonorrhoea from 76 patients.
- Fifty eight percent of all positive patients occurred in people aged 15 to 24 years.
- The highest numbers of gonorrhoea were found in the 20 to 24 years age group in females and the 15 to 19 years age group in males.

Data tables: Gonorrhoea Incidence, April to June, 2005

Table 2. Number of test-positive cases and rates of gonorrhoea, age group and sex:
April to June 2005

Region	Age group (Yrs)	Number of test-positive cases				Rate per 100 000		
		Female	Male	Unknown	Total	Female	Male	Total
Auckland	<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	2	0	3	3.5	7.3	5.3
	15-19	21	27	0	48	77.5	101.1	89.2
	20-24	24	30	0	54	88.3	103.5	96.2
	25-29	10	23	0	33	36.6	75.8	57.2
	30-34	2	24	0	26	6.7	72.5	41.4
	>34	9	38	0	47	5.6	21.2	13.8
	Unknown	0	0	1	1			
	Total	67	144	1	212	18.5	37.7	28.5
Waikato	<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	1	0	1	0.0	7.6	3.8
	15-19	7	6	0	13	56.8	51.6	54.3
	20-24	14	8	0	22	136.3	78.9	107.8
	25-29	2	4	0	6	20.6	38.8	29.9
	30-34	0	1	0	1	0.0	8.4	4.5
	>34	1	4	0	5	1.4	5.0	3.2
	Unknown	0	0	0	0			
	Total	24	24	0	48	15.4	14.8	15.1
Bay of Plenty	<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	0	0	0	0.0	0.0	0.0
	15-19	23	5	0	28	244.7	56.2	153.0
	20-24	4	3	0	7	58.1	42.6	50.3
	25-29	3	4	0	7	40.1	47.4	44.0
	30-34	1	0	0	1	11.5	0.0	5.3
	>34	0	6	0	6	0.0	8.2	4.3
	Unknown	0	0	0	0			
	Total	31	18	0	49	23.2	12.8	17.9
New Laboratories	<1	0	0	0	0			
	1-9	1	0	0	1			
	10-14	1	0	0	1			
	15-19	12	10	0	22			
	20-24	13	9	0	22			
	25-29	7	9	0	16			
	30-34	0	3	0	3			
	>34	2	9	0	11			
	Unknown	0	0	0	0			
	Total	36	40	0	76			

Gonorrhoea trends: Auckland, Waikato and BOP Regions

In the second quarter of 2005, a total of 309 cases of gonorrhoea were reported. This represents a rate of 23.1 per 100 000 population (Auckland: 28.5 per 100 000; Waikato: 15.1 per 100 000; BOP: 17.9 per 100 000).

Compared to the previous quarter, the number of gonorrhoea diagnoses decreased by 5.8% in the Auckland region, 4.0% in the Waikato region and 42.4% in the BOP region.

Gonorrhoea cases reported in this quarter decreased by 9.9% on the total of 343 in the equivalent quarter of 2004. The largest decrease (17.2%) was seen in the Waikato region (58 in Quarter 2 2004, compared to 48 in Quarter 2 2005).

The rates of gonorrhoea in the Waikato and BOP regions were significantly lower than in the Auckland region. There was no significant difference in the rate of gonorrhoea in the Waikato region compared to the BOP region.

Figure 2. Rate of gonorrhoea reported through laboratory surveillance in the Auckland, Waikato and BOP regions: January 2001 to June 2005

