

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

**October to December 2004**

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by

STI Surveillance Team  
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**This report is also available at [www.surv.esr.cri.nz](http://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 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 (October to December) 2004, from eighteen laboratories across New Zealand.

Quarterly reports of clinic-based surveillance are provided separately and are available at [www.surv.esr.cri.nz](http://www.surv.esr.cri.nz).

*All results and analyses are based on data submitted prior to the 3<sup>rd</sup> February 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 October to December 2004. Of all positive data submitted 1.8% were of unknown age and 0.4% were of unknown sex.

## **Chlamydia Results – October to December, 2004**

### **Chlamydia Incidence**

#### ***Auckland Region (see table 1)***

- Laboratories in the Auckland region tested 27 532 specimens for chlamydia, of which 1 663 (6.0%) specimens tested positive from 1 583 patients.
- Sixty 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 (see table 1)***

- Laboratories in the Waikato region tested 5 900 specimens for chlamydia, of which 616 (10.4%) specimens tested positive from 616 patients.
- Seventy five 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.

#### ***Bay of Plenty Region (see table 1)***

- Laboratories in the BOP region tested 5 579 specimens for chlamydia, of which 563 (10.1%) specimens tested positive from 563 patients.
- Seventy four 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.

#### ***New laboratories (see table 1)***

- New laboratories reported 746 (11.2%) test-positive specimens for chlamydia from 621 patients.
- Sixty three percent of all positive patients occurred in people aged 15-24 years.
- The highest numbers of chlamydia were found in the 15-19 years age group in females and the 20-24 years age group in males.

# Data tables: Chlamydia Incidence, October to December, 2004

**Table 1.** Number of test-positive cases and rates of chlamydia, age group and sex:  
October to December 2004

Region	Age group (Yrs)	Number of test-positive cases				Rate per 100 000		
		Female	Male	Unknown	Total	Female	Male	Total
Auckland	<1	3	5	0	8	31.7	55.3	43.3
	1-9	1	0	0	1	1.2	0.0	0.6
	10-14	15	0	0	15	32.8	0.0	16.8
	15-19	394	66	5	465	922.9	157.8	550.2
	20-24	356	130	1	487	875.7	308.8	588.5
	25-29	189	93	1	283	464.0	206.0	329.5
	30-34	87	65	0	152	190.2	127.0	156.8
	>34	90	82	0	172	34.3	28.2	31.1
	Unknown	0	0	0	0			
	<b>Total</b>	1135	441	7	1583	199.0	73.2	134.9
Waikato	<1	4	0	0	4	163.2	0.0	83.0
	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	189	53	0	242	1534.3	456.0	1010.9
	20-24	154	64	0	218	1498.8	631.2	1067.8
	25-29	52	24	0	76	534.3	233.0	379.4
	30-34	22	12	0	34	207.7	101.3	151.5
	>34	17	17	0	34	23.0	21.2	22.1
	Unknown	0	0	0	0			
	<b>Total</b>	445	171	0	616	285.1	105.8	193.9
Bay of Plenty	<1	3	1	0	4	142.5	50.1	97.5
	1-9	0	0	0	0	0.0	0.0	0.0
	10-14	9	0	0	9	77.2	0.0	39.1
	15-19	221	34	0	255	2351.3	381.9	1393.2
	20-24	119	40	0	159	1729.1	568.1	1142.0
	25-29	53	18	0	71	708.1	213.4	446.0
	30-34	15	10	0	25	172.5	99.8	133.5
	>34	26	9	0	35	39.0	12.2	24.9
	Unknown	0	0	5	5			
	<b>Total</b>	446	112	5	563	334.2	79.6	205.4
New Laboratories	<1	0	0	0	0			
	1-9	1	0	0	1			
	10-14	7	0	0	7			
	15-19	176	42	0	218			
	20-24	113	61	0	174			
	25-29	50	30	0	80			
	30-34	29	13	0	42			
	>34	19	18	0	37			
	Unknown	29	33	0	62			
	<b>Total</b>	424	197	0	621			

## **Chlamydia trends: Auckland, Waikato and BOP Regions**

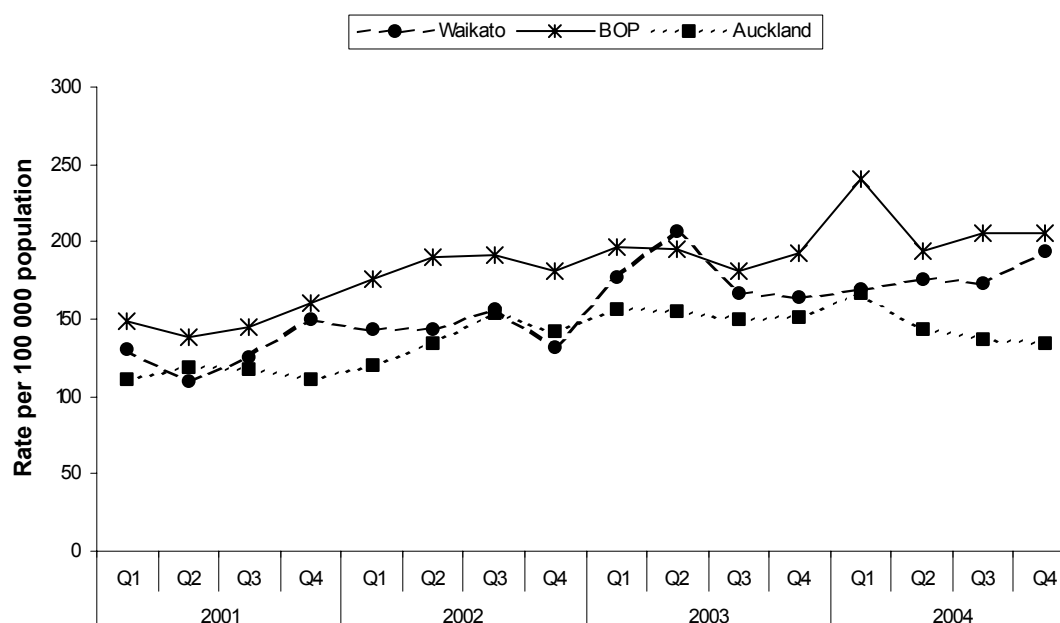
In the last quarter of 2004, a total of 2 762 cases of chlamydia were reported. This represents a rate of 156.5 per 100 000 population (Auckland: 134.9 per 100 000; Waikato: 193.9 per 100 000; BOP: 205.4 per 100 000).

Compared to the previous quarter, the number of chlamydia diagnoses decreased by 1.9% in the Auckland region and 0.4% in the BOP region. The number of chlamydia diagnoses increased by 12.0% in the Waikato region.

Chlamydia cases reported in this quarter decreased by 2.0% on the total of 2 819 in the equivalent quarter of 2003. The largest decrease (10.5%) was seen in the Auckland region (1 768 in Quarter 4 2003, compared to 1 583 in Quarter 4 2004).

The rate 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 December 2004





# **Gonorrhoea Results – October to December, 2004**

## **Gonorrhoea Incidence**

### ***Auckland Region (see table 2)***

- Laboratories in the Auckland region tested 44 604 specimens for gonorrhoea, of which 291 (0.7%) specimens tested positive from 238 patients.
- Fifty two 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 (see table 2)***

- Laboratories in the Waikato region tested 8 880 specimens for gonorrhoea, of which 38 (0.4%) specimens tested positive from 37 patients.
- Seventy three percent of all positive patients 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 (see table 2)***

- Laboratories in the BOP region tested 10 228 specimens for gonorrhoea, of which 85 (0.8%) specimens tested positive from 85 patients.
- Sixty seven percent of all positive patients occurred in people aged 15-24 years.
- The highest rates of gonorrhoea in females and males were found in the 15-19 years age group.

### ***New laboratories (see table 2)***

- New laboratories reported 66 (0.4%) test-positive specimens for gonorrhoea from 55 patients.
- Sixty four percent of all positive patients occurred in people aged 15-24 years.
- The highest numbers of gonorrhoea were found in the 15-19 years age group in females and the 20-24 years age group in males.

# Data tables: Gonorrhoea Incidence, October to December, 2004

**Table 2.** Number of test-positive cases and rates of gonorrhoea, age group and sex:  
October to December 2004

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	0	0	1	3.5	0.0	1.8
	15-19	36	21	0	57	132.8	78.6	105.9
	20-24	30	34	2	66	110.4	117.3	117.5
	25-29	10	22	1	33	36.6	72.5	57.2
	30-34	11	24	0	35	37.1	72.5	55.8
	>34	8	38	0	46	5.0	21.2	13.5
	Unknown	0	0	0	0			
	<b>Total</b>	96	139	3	238	26.6	36.4	32.0
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	6	8	0	14	58.4	78.9	68.6
	25-29	0	2	0	2	0.0	19.4	10.0
	30-34	2	2	0	4	18.9	16.9	17.8
	>34	1	2	0	3	1.4	2.5	1.9
	Unknown	0	0	0	0			
	<b>Total</b>	16	21	0	37	10.3	13.0	11.6
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	1	0	0	1	8.6	0.0	4.3
	15-19	27	9	0	36	287.3	101.1	196.7
	20-24	14	7	0	21	203.4	99.4	150.8
	25-29	11	5	0	16	147.0	59.3	100.5
	30-34	1	3	0	4	11.5	29.9	21.4
	>34	1	6	0	7	1.5	8.2	5.0
	Unknown	0	0	0	0			
	<b>Total</b>	55	30	0	85	41.2	21.3	31.0
New Laboratories	<1	0	0	0	0			
	1-9	0	0	0	0			
	10-14	1	0	0	1			
	15-19	8	5	0	13			
	20-24	6	16	0	22			
	25-29	2	3	0	5			
	30-34	0	1	0	1			
	>34	2	10	0	12			
	Unknown	0	1	0	1			
	<b>Total</b>	19	36	0	55			

## Gonorrhoea trends: Auckland, Waikato and BOP Regions

In the last quarter of 2004, a total of 360 cases of gonorrhoea were reported. This represents a rate of 27.0 per 100 000 population (Auckland: 32.0 per 100 000; Waikato: 11.6 per 100 000; BOP: 31.0 per 100 000).

Compared to the previous quarter, the number of gonorrhoea diagnoses increased by 2.1% in the Auckland region and by 60.4% in the BOP region. However, the number of gonorrhoea diagnoses decreased in the Waikato region by 14.0%.

Gonorrhoea cases reported in this quarter increased by 25.4% on the total of 287 in the equivalent quarter of 2003. The largest increase (66.7%) was seen in the BOP region (51 in Quarter 4 2003, compared to 85 in Quarter 4 2004).

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

**Figure 2.** Rate of gonorrhoea reported through laboratory surveillance in the Auckland, Waikato and BOP regions: January 2001 to December 2004

