

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

July to September 2004

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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. For the third quarter (July to September) 2004 these include:

North Island	Northland Pathology Laboratory, Whangarei Gisborne Hospital Laboratory, Gisborne Taranaki MedLab, New Plymouth Hutt Hospital Laboratory, Lower Hutt Medical Laboratory Wellington, Wellington
South Island	Grey Hospital Laboratory, Greymouth Canterbury Health Laboratories, Christchurch HealthLab Kew (Southland Hospital), Invercargill

This report presents data on chlamydia and gonorrhoea cases reported in the third quarter (July to September) 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.

All results and analyses are based on data submitted prior to the 8th November 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 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 July to September 2004. Of all positive data submitted 1.5% were of unknown age and 1.4% were of unknown sex.

Chlamydia Results – July to September, 2004

Chlamydia Incidence

Auckland Region (see table 1)

- Laboratories in the Auckland region tested 27 043 specimens for chlamydia, of which 1 759 (6.5%) specimens tested positive from 1 614 patients.
- Fifty seven 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 year age group.

Waikato region (see table 1)

- Laboratories in the Waikato region tested 5 476 specimens for chlamydia, of which 554 (10.1%) specimens tested positive from 550 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.

Bay of Plenty Region (see table 1)

- Laboratories in the BOP region tested 5 446 specimens for chlamydia, of which 565 (10.4%) specimens tested positive from 565 patients.
- Seventy four 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 year age group.

New laboratories (see table 1)

- New laboratories reported 595 (9.4%) test-positive specimens for chlamydia from 533 patients.
- Sixty five 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, July to September, 2004

Table 1. Number of test-positive cases and rates of chlamydia, age group and sex: July to September 2004

Region	Age group (Yrs)	Number of test-positive cases				Rate per 100 000		
		Female	Male	Unknown	Total	Female	Male	Total
Auckland	<1	2	3	0	5	21.2	33.2	27.0
	1-9	1	0	0	1	1.2	0.0	0.6
	10-14	16	1	1	18	35.0	2.3	20.1
	15-19	349	77	13	439	817.5	184.1	519.5
	20-24	336	132	14	482	826.5	313.6	582.5
	25-29	210	99	7	316	515.5	219.3	367.9
	30-34	99	83	3	185	216.5	162.1	190.8
	>34	88	74	0	162	33.6	25.4	29.3
	Unknown	0	2	4	6			
	Total	1101	471	42	1614	193.1	78.1	137.6
Waikato	<1	2	2	0	4	81.6	84.4	83.0
	1-9	0	0	0	0	0.0	0.0	0.0
	10-14	3	2	0	5	22.4	15.2	18.8
	15-19	174	54	1	229	1412.6	464.6	956.6
	20-24	109	68	0	177	1060.8	670.6	867.0
	25-29	43	28	0	71	441.8	271.8	354.4
	30-34	20	11	0	31	188.9	92.9	138.2
	>34	18	14	0	32	24.4	17.5	20.8
	Unknown	1	0	0	1			
	Total	370	179	1	550	237.1	110.7	173.1
Bay of Plenty	<1	5	0	0	5	237.4	0.0	121.8
	1-9	0	0	0	0	0.0	0.0	0.0
	10-14	11	1	0	12	94.4	8.8	52.1
	15-19	193	29	0	222	2053.4	325.7	1212.9
	20-24	143	52	0	195	2077.9	738.5	1400.6
	25-29	48	25	0	73	641.3	296.3	458.5
	30-34	20	5	0	25	230.0	49.9	133.5
	>34	21	10	0	31	31.5	13.6	22.1
	Unknown	0	1	1	2			
	Total	441	123	1	565	330.5	87.4	206.1
New Laboratories	<1	3	4	0	7			
	1-9	0	0	0	0			
	10-14	8	0	0	8			
	15-19	161	38	0	199			
	20-24	96	49	0	145			
	25-29	37	23	0	60			
	30-34	24	15	0	39			
	>34	17	15	0	32			
	Unknown	23	18	2	43			
	Total	369	162	2	533			

Chlamydia trends: Auckland, Waikato and BOP Regions

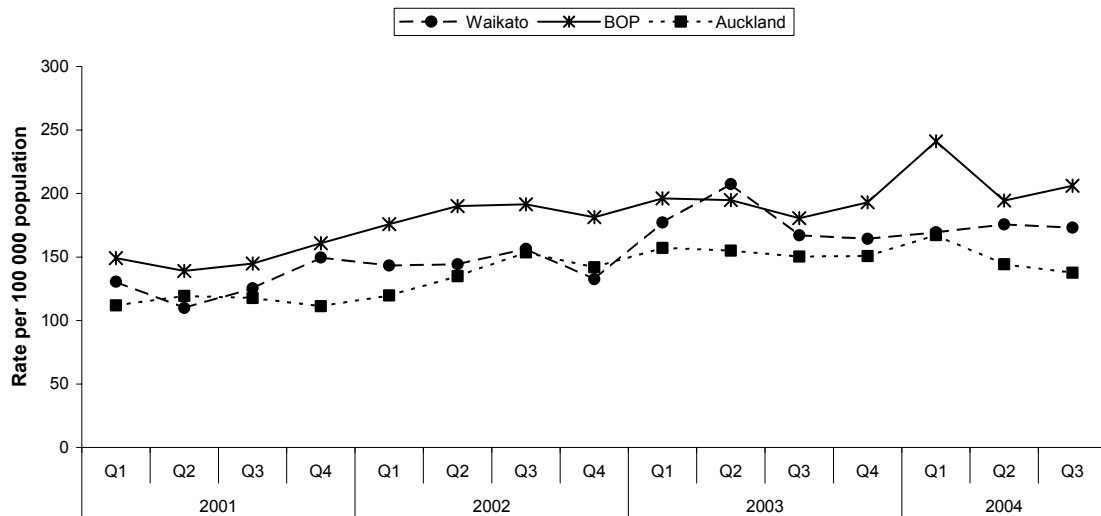
In the third quarter of 2004, a total of 2 729 cases of chlamydia were reported. This represents a rate of 154.6 per 100 000 population (Auckland: 137.6 per 100 000; Waikato: 173.1 per 100 000; Bay of Plenty: 206.1 per 100 000).

Compared to the previous quarter, the number of chlamydia diagnoses decreased by 4.6% in the Auckland region and 1.4% in the Waikato region. The number of chlamydia diagnoses increased by 6.0% in the BOP region.

Chlamydia cases reported in this quarter decreased by 2.2% on the total of 2 790 in the equivalent quarter of 2003. The largest decrease (8.5%) was seen in the Auckland region (1 764 in Quarter 3 2003, compared to 1 614 in Quarter 3 2004).

The rate of chlamydia in the Waikato and BOP regions were significantly higher than in the Auckland region.

Figure 1. Rate of chlamydia reported through laboratory surveillance in the Auckland, Waikato and BOP regions: January 2001 to September 2004



Gonorrhoea Results – July to September, 2004

Gonorrhoea Incidence

Auckland Region (see table 2)

- Laboratories in the Auckland region tested 43 326 specimens for gonorrhoea, of which 242 (0.6%) specimens tested positive from 233 patients.
- Forty five 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.

Waikato region (see table 2)

- Laboratories in the Waikato region tested 8 840 specimens for gonorrhoea, of which 46 (0.5%) specimens tested positive from 43 patients.
- Sixty three 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.

Bay of Plenty Region (see table 2)

- Laboratories in the BOP region tested 8 529 specimens for gonorrhoea, of which 68 (0.8%) specimens tested positive from 53 patients.
- Seventy four 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 in the 20-24 years age group in males.

New laboratories (see table 2)

- New laboratories reported 87 (0.5%) test-positive specimens for gonorrhoea from 69 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, July to September, 2004

Table 2. Number of test-positive cases and rates of gonorrhoea, age group and sex: July to September 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	2	2	0.0	0.0	16.3
	1-9	0	0	0	0	0.0	0.0	0.0
	10-14	5	1	0	6	17.3	3.6	10.7
	15-19	19	15	2	36	70.1	56.1	66.9
	20-24	21	47	0	68	77.3	162.2	121.1
	25-29	10	30	0	40	36.6	98.9	69.4
	30-34	12	13	1	26	40.5	39.3	41.4
	>34	6	49	0	55	3.7	27.4	16.2
	Unknown	0	0	0	0			
	Total		73	155	5	233	20.2	40.6
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	0	0	0	0.0	0.0	0.0
	15-19	10	5	0	15	81.2	43.0	62.7
	20-24	6	6	0	12	58.4	59.2	58.8
	25-29	4	3	0	7	41.1	29.1	34.9
	30-34	1	1	0	2	9.4	8.4	8.9
	>34	1	5	0	6	1.4	6.2	3.9
	Unknown	0	0	1	1			
	Total		22	20	1	43	14.1	12.4
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	2	1	0	3	17.2	8.8	13.0
	15-19	14	8	0	22	149.0	89.8	120.2
	20-24	6	11	0	17	87.2	156.2	122.1
	25-29	4	5	0	9	53.4	59.3	56.5
	30-34	0	1	0	1	0.0	10.0	5.3
	>34	0	0	0	0	0.0	0.0	0.0
	Unknown	0	1	0	1			
	Total		26	27	0	53	19.5	19.2
New Laboratories	<1	0	0	0	0			
	1-9	0	0	0	0			
	10-14	1	0	0	1			
	15-19	16	7	1	24			
	20-24	7	13	0	20			
	25-29	4	7	0	11			
	30-34	1	4	0	5			
	>34	1	7	0	8			
	Unknown	0	0	0	0			
	Total		30	38	1	69		

Gonorrhoea trends: Auckland, Waikato and BOP Regions

In the third quarter of 2004, a total of 329 cases of gonorrhoea were reported. This represents a rate of 24.6 per 100 000 population (Auckland: 31.3 per 100 000; BOP: 19.3 per 100 000; Waikato: 13.5 per 100 000).

Compared to the previous quarter, the number of gonorrhoea diagnoses increased by 1.3% in the Auckland region. However, the number of gonorrhoea diagnoses decreased in the Waikato and BOP region by 25.9% and 3.6%, respectively.

Gonorrhoea cases reported in this quarter increased by 18.8% on the total of 277 in the equivalent quarter of 2003. The largest increase (87.0%) was seen in the Waikato region (23 in Quarter 3 2003, compared to 43 in Quarter 3 2004).

The rate of gonorrhoea in the Auckland region was significantly higher than in the BOP and Waikato regions.

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

