

APPENDIX: NATIONAL SURVEILLANCE DATA AND TRENDS

A. COMPARISON OF NOTIFIABLE DISEASE CASES AND RATES FOR 2003 AND 2004

Table 28. Cases and rates per 100 000 population of notifiable diseases in New Zealand during 2003 and 2004

Disease ^a	2003		2004		Change ^{d,e}
	Cases	Rates	Cases	Rates	
AIDS	33	0.9	38	1.0	→
Barmah Forest virus infection	0	0.0	1	0.0	→
Brucellosis	0	0.0	2	0.1	→
Campylobacteriosis	14790	395.7	12213	326.8	←
Chemical poisoning from the environment	1	0.0	7	0.2	→
Cholera	1	0.0	2	0.1	→
Creutzfeldt-Jakob disease	6	0.2	8	0.2	→
Cryptosporidiosis	817	21.9	612	16.4	←
Decompression sickness	2	0.1	0	0.0	←
Dengue fever	55	1.5	8	0.2	←
Gastroenteritis ^b	1025	27.4	1370	36.7	→
Giardiasis	1570	42.0	1515	40.5	←
<i>Haemophilus influenzae</i> type b	12	0.3	4	0.1	←
Hepatitis A	70	1.9	49	1.3	←
Hepatitis B ^c	61	1.6	39	1.0	←
Hepatitis C ^c	40	1.1	24	0.6	←
Hepatitis NOS	5	0.1	2	0.1	←
Hydatid disease	0	0.0	1	0.0	→
Japanese encephalitis	0	0.0	1	0.0	→
Lead absorption	119	3.2	95	2.5	←
Legionellosis	77	2.1	62	1.7	←
Leprosy	4	0.1	3	0.1	←
Leptospirosis	113	3.0	104	2.8	←
Listeriosis	24	0.6	26	0.7	→
Malaria	46	1.2	33	0.9	←
Measles	67	1.8	33	0.9	←
Meningococcal disease	542	14.5	344	9.2	←
Mumps	56	1.5	45	1.2	←
Paratyphoid	18	0.5	28	0.7	→
Pertussis	585	15.7	3489	93.4	→
Rheumatic fever	151	4.0	75	2.0	←
Rickettsial disease	1	0.0	2	0.1	→
Ross River virus infection	1	0.0	5	0.1	→
Rubella	26	0.7	25	0.7	←
Salmonellosis	1401	37.5	1080	28.9	←
Shigellosis	87	2.3	140	3.7	→
Taeniasis	1	0.0	0	0.0	←
Tetanus	2	0.1	1	0.0	←
Toxic shellfish poisoning	4	0.1	0	0.0	←
Tuberculosis disease	421	11.3	372	10.0	←
Typhoid	20	0.5	31	0.8	→
VTEC/STEC infection	104	2.8	89	2.4	←
Yersiniosis	439	11.7	420	11.2	←

^a No cases of the following notifiable diseases were reported in 2004: anthrax, botulism, plague, poliomyelitis, rabies, cysticercosis, trichinosis, primary amoebic meningoencephalitis

^b Cases of gastroenteritis from a common source or foodborne intoxication e.g. staphylococcal intoxication

^c Only acute cases of this disease are currently notifiable

^d ← = Significant decrease, → = Significant increase, -- = No change, ⇐ = Not significant decrease, ⇒ = not significant increase

^e The Mantel-Haenszel chi-square test was used to determine statistical significance. P-values less than or equal to 0.05 are considered to be significant at the 95% level of confidence.

B. DEATHS FROM NOTIFIABLE DISEASES RECORDED IN EPI SURV FROM 1997 TO 2004**Table 29. Deaths due to notifiable diseases recorded in EpiSurv from 1997 to 2004**

Disease	1997	1998	1999	2000	2001	2002	2003	2004
AIDS ^a	27	15	19	13	12	5	6	6
Campylobacteriosis	2	2	1	3	1	1	0	0
Creutzfeldt-Jakob disease ^b	3	0	2	3	1	3	4	3
Gastroenteritis	0	0	0	0	0	1	0	0
Giardiasis	1	0	0	0	0	0	0	0
<i>Haemophilus influenzae</i> type b	1	0	0	0	1	1	2	0
Hepatitis B	2	0	0	0	1	0	0	0
Hydatid disease	0	0	0	1	0	0	0	0
Legionellosis ^c	4	1	1	5	2	3	1	1
Listeriosis - non perinatal	2	0	1	2	1	0	2	3
Listeriosis - perinatal	6	0	2	4	1	3	2	2
Malaria	1	0	0	0	0	0	0	0
Meningococcal disease	24	23	23	17	26	18	13	8
Pertussis	0	0	0	0	1	1	1	1
Primary amoebic meningoencephalitis	0	0	0	1	0	0	0	0
Rheumatic fever (acute) ^d	1	0	0	0	0	0	0	0
Salmonellosis	2	2	1	7	2	1	0	0
Shigellosis	0	0	1	0	0	0	0	0
Tetanus	0	0	0	0	1	0	0	0
Tuberculosis	15	8	14	8	2	6	6	6
VTEC infection	1	1	0	0	0	0	0	0
Yersiniosis	0	2	0	0	0	0	0	1

^a Data source [17]

^b Data source [10]

^c One further legionellosis death occurred in a laboratory-reported but non-notified case in 2002.

^d The death was a rheumatic fever recurrence

Note : The numbers in this table are those recorded in EpiSurv where the notifiable disease was the primary cause of death. Information on deaths is only reported by Public Health Services when it occurs close to the time of notification and investigation.

C. NZHIS MORTALITY DATA FOR SELECTED NOTIFIABLE DISEASES, 2000-2001

Table 30. Reported deaths from selected notifiable diseases, 2000 - 2001

Disease	ICD 10 Codes	2000		2001 ^a	
		Underlying ^b	Contributory ^c	Underlying ^b	Contributory ^c
AIDS	B20-B24	19	1	13	4
Campylobacteriosis	A04.5	0	0	2	0
Creutzfeldt-Jakob disease	A81.0	6	0	4	0
Giardiasis	A07.1	0	0	1	0
Hepatitis A	B15	0	1	0	1
Hepatitis B	B16	1	7	3	4
Hepatitis C	B17.1	0	10	0	3
Hydatid disease	B67.0-B67.4	2	0	1	0
Legionellosis	A48.1	2	0	2	0
Leptospirosis	A27	0	0	1	0
Listeriosis	A32	1	0	1	0
Meningococcal disease	A39	15	0	24	0
Pertussis	A37	1	0	1	0
Rheumatic fever	I00, I01, I02	1	0	0	0
Salmonellosis	A02	3	0	2	0
Tetanus	A33-A35	0	0	1	0
Tuberculosis	A15-A19, P37.0	11	19	5	14

^a Latest year data are available.

^b Underlying cause of death

^c Selected contributory cause of death

D. NZHIS MORBIDITY DATA FOR SELECTED NOTIFIABLE DISEASES, 2002-2004

Table 31. Hospital admissions for selected notifiable diseases, 2002 - 2004

Disease	ICD 10 Codes	2002		2003		2004	
		Principal diagnosis	Other relevant diagnosis	Principal diagnosis	Other relevant diagnosis	Principal diagnosis	Other relevant diagnosis
AIDS	B20-B24	11	185	26	260	16	263
Arboviral diseases	A83, A84, A85.2, A92, A93, A94, B33.1	1	0	1	0	4	0
Brucellosis	A23	1	1	0	1	0	1
Campylobacteriosis	A04.5	584	146	764	193	747	173
Cholera	A00	1	0	0	0	0	1
Creutzfeldt-Jakob disease	A81.0	6	0	4	2	12	2
Cryptosporidiosis	A07.2	36	8	35	11	16	8
Cysticercosis	B69	1	0	4	0	2	1
Decompression sickness	T70.3	45	2	13	1	9	0
Dengue fever	A90, A91	25	4	24	4	3	1
Diphtheria	A36	1	1	0	1	0	2
Giardiasis	A07.1	27	18	27	21	30	25
Hepatitis A	B15	30	17	19	26	12	16
Hepatitis B	B16	53	116	41	92	46	69
Hepatitis C	B17.1	15	21	10	8	6	14
Hydatid disease	B67.0-B67.4	1	2	1	2	0	2
Lead absorption	T56.0	5	1	6	1	8	1
Legionellosis	A48.1	15	12	24	6	10	3
Leprosy	A30	4	3	5	13	2	2
Leptospirosis	A27	69	10	60	11	69	4
Listeriosis	A32	6	14	13	16	13	18
Malaria	B50-B54	53	2	48	3	43	5
Measles	B05	5	2	9	1	4	1
Meningococcal disease	A39	532	82	548	125	401	64
Mumps	B26	9	6	8	2	7	1
Paratyphoid	A01.1-A01.4	1	0	7	0	10	0
Pertussis	A37	142	32	120	22	229	53
Plague	A20	1	0	0	0	0	0
Poliomyelitis	A80	0	1	0	1	0	0
Rheumatic fever	I00, I01, I02	177	44	226	59	181	45
Rickettsial diseases	A75, A77, A78, A79	4	0	1	1	2	1
Rubella	B06	4	2	1	1	1	0
Salmonellosis	A02	148	60	157	46	105	42
Shigellosis	A03	23	6	24	7	26	5
Tetanus	A33-A35	1	1	1	2	2	3
Trichinellosis	B75	0	0	0	0	1	0
Tuberculosis	A15-A19, P37.0	460	211	549	266	503	198
Typhoid	A01.0	21	1	14	0	18	1
Yersiniosis	A04.6	15	16	7	11	17	13

E. NOTIFIABLE DISEASE CASES AND RATES BY ETHNICITY, 2004

Table 32. Cases and rates per 100 000 population in 2004 by ethnic group

Disease	Ethnicity											
	European		Maori		Pacific Peoples		Other Ethnicity		Unknown		Total	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Campylobacteriosis	8509	326.0	581	110.4	126	62.9	530	212.2	2467		12213	326.8
Cryptosporidiosis	466	17.9	47	8.9	7	3.5	20	8.0	72		612	16.4
Dengue fever	6	0.2	0	0.0	1	0.5	1	0.4	0		8	0.2
Gastroenteritis	764	29.3	47	8.9	9	4.5	36	14.4	514		1370	36.7
Giardiasis	1054	40.4	69	13.1	7	3.5	103	41.2	282		1515	40.5
<i>Haemophilus influenzae</i> type b	2	0.1	2	0.4	0	0.0	0	0.0	0		4	0.1
Hepatitis A	24	0.9	1	0.2	12	6.0	9	3.6	3		49	1.3
Hepatitis B	18	0.7	11	2.1	3	1.5	6	2.4	1		39	1.0
Hepatitis C	13	0.5	6	1.1	1	0.5	2	0.8	2		24	0.6
Hydatid disease	0	0.0	1	0.2	0	0.0	0	0.0	0		1	0.0
Lead absorption	70	2.7	4	0.8	0	0.0	5	2.0	16		95	2.5
Legionellosis	50	1.9	1	0.2	1	0.5	5	2.0	5		62	1.7
Leprosy	0	0.0	0	0.0	3	1.5	0	0.0	0		3	0.1
Leptospirosis	68	2.6	26	4.9	4	2.0	0	0.0	6		104	2.8
Listeriosis	13	0.5	5	1.0	4	2.0	3	1.2	1		26	0.7
Malaria	12	0.5	2	0.4	3	1.5	14	5.6	2		33	0.9
Measles	19	0.7	5	1.0	1	0.5	4	1.6	4		33	0.9
Meningococcal disease	163	6.2	104	19.8	62	31.0	14	5.6	1		344	9.2
Mumps	24	0.9	8	1.5	5	2.5	4	1.6	4		45	1.2
Paratyphoid	15	0.6	1	0.2	1	0.5	7	2.8	4		28	0.7
Pertussis	2750	105.3	339	64.4	66	32.9	120	48.0	214		3489	93.4
Rheumatic fever	5	0.2	44	8.4	22	11.0	1	0.4	3		75	2.0
Rickettsial disease	2	0.1	0	0.0	0	0.0	0	0.0	0		2	0.1
Rubella	21	0.8	2	0.4	0	0.0	1	0.4	1		25	0.7
Salmonellosis	761	29.2	89	16.9	21	10.5	68	27.2	141		1080	28.9
Shigellosis	66	2.5	9	1.7	34	17.0	15	6.0	16		140	3.7
Tetanus	0	0.0	1	0.2	0	0.0	0	0.0	0		1	0.0
Tuberculosis disease	39	1.5	73	13.9	61	30.5	195	78.1	4		372	10.0
Typhoid	0	0.0	1	0.2	19	9.5	11	4.4	0		31	0.8
VTEC/STEC infection	69	2.6	6	1.1	3	1.5	3	1.2	8		89	2.4
Yersiniosis	261	10.0	37	7.0	6	3.0	47	18.8	69		420	11.2

F. CASES AND RATES PER 100 000 POPULATION IN 2004 BY SEX

Table 33. Cases and rates per 100 000 population in 2004 by sex

Disease	Sex							
	Male		Female		Unknown		Total	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Campylobacteriosis	6467	354.8	5495	287.0	251		12213	326.8
Cryptosporidiosis	301	16.5	306	16.0	5		612	16.4
Dengue fever	5	0.3	3	0.2	0		8	0.2
Gastroenteritis	485	26.6	868	45.3	17		1370	36.7
Giardiasis	774	42.5	704	36.8	37		1515	40.5
<i>Haemophilus influenzae</i> type b	3	0.2	1	0.1	0		4	0.1
Hepatitis A	18	1.0	31	1.6	0		49	1.3
Hepatitis B	23	1.3	16	0.8	0		39	1.0
Hepatitis C	14	0.8	9	0.5	1		24	0.6
Hydatid disease	0	0.0	1	0.1	0		1	0.0
Lead absorption	77	4.2	17	0.9	1		95	2.5
Legionellosis	38	2.1	23	1.2	1		62	1.7
Leprosy	2	0.1	1	0.1	0		3	0.1
Leptospirosis	99	5.4	5	0.3	0		104	2.8
Listeriosis – non perinatal	12	0.7	11	0.6	0		23	0.6
Malaria	26	1.4	6	0.3	1		33	0.9
Measles	16	0.9	15	0.8	2		33	0.9
Meningococcal disease	182	10.0	159	8.3	3		344	9.2
Mumps	26	1.4	19	1.0	0		45	1.2
Paratyphoid	21	1.2	7	0.4	0		28	0.7
Pertussis	1476	81.0	1983	103.6	30		3489	93.4
Rheumatic fever	34	1.9	22	1.1	19		75	2.0
Rickettsial disease	1	0.1	1	0.1	0		2	0.1
Rubella	11	0.6	14	0.7	0		25	0.7
Salmonellosis	565	31.0	501	26.2	14		1080	28.9
Shigellosis	54	3.0	84	4.4	2		140	3.7
Tetanus	0	0.0	1	0.1	0		1	0.0
Tuberculosis disease	181	9.9	187	9.8	4		372	10.0
Typhoid	16	0.9	15	0.8	0		31	0.8
VTEC/STEC infection	36	2.0	53	2.8	0		89	2.4
Yersiniosis	211	11.6	202	10.6	7		420	11.2

G. NOTIFIABLE DISEASE CASES AND RATES BY AGE GROUP, 2004

Table 34. Cases and rates per 100 000 population in 2004 by age group

Disease	Age Group																										
	<1		1 to 4		5 to 9		10 to 14		15 to 19		20 to 29		30 to 39		40 to 49		50 to 59		60 to 69		70+		Unknown		Total		
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases
Campylobacteriosis	245	448.3	1114	515.4	562	196.4	524	180.2	833	314.0	2199	451.8	1796	311.4	1571	292.3	1420	339.4	944	334.2	901	279.4	104		12213	326.8	
Cryptosporidiosis	26	47.6	254	117.5	87	30.4	37	12.7	42	15.8	60	12.3	60	10.4	23	4.3	14	3.3	4	1.4	4	1.2	1		612	16.4	
Dengue fever	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4	0.7	0	0.0	3	0.7	1	0.4	0	0.0	0		8	0.2	
Gastroenteritis	8	14.6	29	13.4	17	5.9	18	6.2	44	16.6	126	25.9	195	33.8	217	40.4	173	41.3	98	34.7	382	118.4	63		1370	36.7	
Giardiasis	22	40.3	294	136.0	104	36.3	42	14.4	26	9.8	174	35.8	371	64.3	194	36.1	147	35.1	87	30.8	37	11.5	17		1515	40.5	
<i>H. influenzae</i> type b	0	0.0	2	0.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.5	0	0.0	0	0.0	0		4	0.1	
Hepatitis A	0	0.0	1	0.5	8	2.8	3	1.0	5	1.9	5	1.0	7	1.2	6	1.1	4	1.0	5	1.8	5	1.6	0		49	1.3	
Hepatitis B	0	0.0	0	0.0	0	0.0	0	0.0	1	0.4	13	2.7	12	2.1	8	1.5	4	1.0	1	0.4	0	0.0	0		39	1.0	
Hepatitis C	0	0.0	0	0.0	0	0.0	0	0.0	3	1.1	7	1.4	4	0.7	7	1.3	2	0.5	0	0.0	0	0.0	1		24	0.6	
Hydatid disease	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.2	0	0.0	0	0.0	0		1	0.0	
Lead absorption	0	0.0	5	2.3	1	0.3	0	0.0	2	0.8	10	2.1	22	3.8	32	6.0	14	3.3	7	2.5	2	0.6	0		95	2.5	
Legionellosis	0	0.0	0	0.0	1	0.3	0	0.0	0	0.0	0	0.0	4	0.7	9	1.7	13	3.1	12	4.2	23	7.1	0		62	1.7	
Leprosy	0	0.0	0	0.0	0	0.0	1	0.3	0	0.0	1	0.2	0	0.0	1	0.2	0	0.0	0	0.0	0	0.0	0		3	0.1	
Leptospirosis	1	1.8	0	0.0	0	0.0	0	0.0	3	1.1	28	5.8	28	4.9	28	5.2	8	1.9	7	2.5	1	0.3	0		104	2.8	
Listeriosis – non perinatal	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.2	5	1.2	5	1.8	12	3.7	0		23	0.6	
Malaria	0	0.0	0	0.0	2	0.7	0	0.0	3	1.1	10	2.1	6	1.0	4	0.7	6	1.4	2	0.7	0	0.0	0		33	0.9	
Measles	8	14.6	14	6.5	4	1.4	3	1.0	1	0.4	0	0.0	2	0.3	0	0.0	0	0.0	1	0.4	0	0.0	0		33	0.9	
Meningococcal disease	46	84.2	96	44.4	43	15.0	35	12.0	40	15.1	32	6.6	13	2.3	15	2.8	10	2.4	8	2.8	6	1.9	0		344	9.2	
Mumps	0	0.0	12	5.6	13	4.5	1	0.3	5	1.9	4	0.8	4	0.7	2	0.4	1	0.2	2	0.7	1	0.3	0		45	1.2	
Paratyphoid	1	1.8	2	0.9	4	1.4	1	0.3	1	0.4	11	2.3	3	0.5	2	0.4	2	0.5	1	0.4	0	0.0	0		28	0.7	
Pertussis	179	327.5	360	166.5	659	230.3	602	207.1	267	100.6	213	43.8	356	61.7	379	70.5	236	56.4	133	47.1	104	32.2	1		3489	93.4	
Rheumatic fever	0	0.0	2	0.9	23	8.0	37	12.7	6	2.3	5	1.0	2	0.3	0	0.0	0	0.0	0	0.0	0	0.0	0		75	2.0	
Rickettsial disease	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.2	1	0.2	0	0.0	0	0.0	0		2	0.1	
Rubella	12	22.0	7	3.2	4	1.4	2	0.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0		25	0.7	
Salmonellosis	67	122.6	230	106.4	108	37.7	55	18.9	48	18.1	124	25.5	103	17.9	109	20.3	105	25.1	71	25.1	58	18.0	2		1080	28.9	
Shigellosis	2	3.7	15	6.9	18	6.3	8	2.8	3	1.1	15	3.1	19	3.3	17	3.2	20	4.8	17	6.0	5	1.6	1		140	3.7	
Tetanus	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.4	0	0.0	0		1	0.0	
Tuberculosis disease	1	1.8	8	3.7	9	3.1	9	3.1	17	6.4	92	18.9	76	13.2	36	6.7	42	10.0	33	11.7	49	15.2	0		372	10.0	
Typhoid	0	0.0	2	0.9	3	1.0	1	0.3	2	0.8	11	2.3	5	0.9	3	0.6	3	0.7	1	0.4	0	0.0	0		31	0.8	
VTEC/STEC infection	11	20.1	35	16.2	8	2.8	3	1.0	0	0.0	5	1.0	6	1.0	5	0.9	7	1.7	5	1.8	4	1.2	0		89	2.4	
Yersiniosis	36	65.9	111	51.4	29	10.1	18	6.2	13	4.9	39	8.0	43	7.5	48	8.9	38	9.1	19	6.7	17	5.3	9		420	11.2	

H. NOTIFIABLE DISEASE CASES AND RATES BY DISTRICT HEALTH BOARD, 2004

Table 35. Disease notifications and incidence rates per 100 000 population by District Health Board, 2004

Disease	Campylobacteriosis		Cryptosporidiosis		Dengue fever		Gastroenteritis		Giardiasis		Hepatitis A		Hepatitis B		Hepatitis C		Lead absorption		Legionellosis		Leptospirosis		Listeriosis		Malaria		Measles		Meningococcal disease		Mumps		Paratyphoid		Pertussis		Rheumatic fever		Rubella		Salmonellosis		Shigellosis		Tuberculosis disease		Typhoid		VTEC/STEC Infection		Yersiniosis	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate		
Northland	326	232.6	25	17.8	0	0.0	2	1.4	49	35.0	0	0.0	1	0.7	0	0.0	3	2.1	3	2.1	2	1.4	0	0.0	0	0.0	0	0.0	21	15.0	2	1.4	1	0.7	89	63.5	9	6.4	2	1.4	41	29.3	2	1.4	5	3.6	0	0.0	1	0.7	4	2.9
Waitemata	1630	379.3	24	5.6	0	0.0	93	21.6	176	41.0	6	1.4	5	1.2	3	0.7	6	1.4	8	1.9	1	0.2	3	0.7	3	0.7	2	0.5	45	10.5	2	0.5	4	0.9	97	22.6	1	0.2	1	0.2	96	22.3	12	2.8	47	10.9	3	0.7	6	1.4	61	14.2
Auckland	1445	392.9	13	3.5	0	0.0	91	24.7	213	57.9	7	1.9	3	0.8	3	0.8	5	1.4	10	2.7	1	0.3	2	0.5	6	1.6	2	0.5	39	10.6	2	0.5	2	0.5	90	24.5	5	1.4	1	0.3	102	27.7	19	5.2	67	18.2	4	1.1	4	1.1	57	15.5
Counties Manukau	1133	301.7	22	5.9	0	0.0	60	16.0	118	31.4	15	4.0	9	2.4	1	0.3	1	0.3	8	2.1	2	0.5	2	0.5	3	0.8	1	0.3	49	13.0	3	0.8	5	1.3	76	20.2	23	6.1	1	0.3	86	22.9	32	8.5	71	18.9	16	4.3	5	1.3	34	9.1
Waikato	1204	378.9	130	40.9	4	1.3	418	131.6	195	61.4	2	0.6	5	1.6	0	0.0	11	3.5	4	1.3	19	6.0	3	0.9	5	1.6	1	0.3	23	7.2	3	0.9	2	0.6	473	148.9	10	3.1	0	0.0	107	33.7	8	2.5	28	8.8	2	0.6	30	9.4	46	14.5
Lakes	281	292.8	34	35.4	0	0.0	52	54.2	53	55.2	2	2.1	2	2.1	1	1.0	2	2.1	0	0.0	4	4.2	3	3.1	0	0.0	1	1.0	16	16.7	0	0.0	3	3.1	81	84.4	1	1.0	1	1.0	21	21.9	1	1.0	3	3.1	0	0.0	2	2.1	7	7.3
Bay of Plenty	446	250.3	10	5.6	0	0.0	2	1.1	57	32.0	1	0.6	3	1.7	2	1.1	1	0.6	5	2.8	3	1.7	1	0.6	0	0.0	2	1.1	13	7.3	1	0.6	1	0.6	121	67.9	7	3.9	2	1.1	47	26.4	2	1.1	7	3.9	1	0.6	15	8.4	16	9.0
Tairāwhiti	86	195.7	6	13.7	0	0.0	0	0.0	24	54.6	1	2.3	1	2.3	2	4.6	3	6.8	1	2.3	5	11.4	0	0.0	0	0.0	0	0.0	13	29.6	1	2.3	0	0.0	26	59.2	5	11.4	0	0.0	2	4.6	0	0.0	1	2.3	0	0.0	2	4.6	5	11.4
Taranaki	314	304.7	13	12.6	1	1.0	7	6.8	20	19.4	1	1.0	1	1.0	0	0.0	2	1.9	1	1.0	2	1.9	0	0.0	0	0.0	1	1.0	7	6.8	0	0.0	0	0.0	16	15.5	0	0.0	3	2.9	32	31.1	0	0.0	4	3.9	0	0.0	4	3.9	6	5.8
Hawke's Bay	425	296.0	24	16.7	0	0.0	7	4.9	64	44.6	2	1.4	1	0.7	1	0.7	2	1.4	0	0.0	20	13.9	1	0.7	0	0.0	2	1.4	15	10.4	1	0.7	2	1.4	37	25.8	6	4.2	3	2.1	55	38.3	0	0.0	26	18.1	0	0.0	3	2.1	20	13.9
Whanganui	167	262.5	18	28.3	0	0.0	9	14.1	20	31.4	0	0.0	0	0.0	0	0.0	4	6.3	1	1.6	2	3.1	0	0.0	1	1.6	1	1.6	6	9.4	6	9.4	0	0.0	1	1.6	0	0.0	1	1.6	24	37.7	3	4.7	2	3.1	0	0.0	0	0.0	7	11.0
MidCentral	264	170.3	58	37.4	0	0.0	110	71.0	42	27.1	1	0.6	0	0.0	1	0.6	7	4.5	2	1.3	14	9.0	1	0.6	0	0.0	4	2.6	16	10.3	3	1.9	0	0.0	53	34.2	0	0.0	0	0.0	21	13.5	0	0.0	16	10.3	0	0.0	0	0.0	11	7.1
Hutt Valley	465	352.7	9	6.8	0	0.0	35	26.5	64	48.5	0	0.0	0	0.0	1	0.8	2	1.5	1	0.8	0	0.0	1	0.8	0	0.0	2	1.5	5	3.8	1	0.8	0	0.0	49	37.2	1	0.8	2	1.5	23	17.4	13	9.9	12	9.1	3	2.3	1	0.8	23	17.4
Capital and Coast	932	379.1	22	8.9	2	0.8	67	27.2	135	54.9	5	2.0	1	0.4	0	0.0	4	1.6	6	2.4	1	0.4	3	1.2	7	2.8	0	0.0	17	6.9	5	2.0	2	0.8	67	27.2	7	2.8	1	0.4	67	27.2	7	2.8	45	18.3	1	0.4	1	0.4	36	14.6
Wairarapa	77	201.6	14	36.6	0	0.0	8	20.9	13	34.0	0	0.0	0	0.0	3	7.9	0	0.0	1	2.6	1	2.6	1	2.6	0	0.0	1	2.6	1	2.6	1	2.6	1	2.6	2	5.2	0	0.0	1	2.6	9	23.6	3	7.9	4	10.5	0	0.0	0	0.0	3	7.9
Nelson Marlborough	253	206.6	18	14.7	0	0.0	17	13.9	50	40.8	2	1.6	1	0.8	1	0.8	2	1.6	2	1.6	3	2.4	2	1.6	0	0.0	3	2.4	3	2.4	3	2.4	3	2.4	502	409.9	0	0.0	2	1.6	36	29.4	1	0.8	5	4.1	1	0.8	3	2.4	4	3.3
West Coast	82	270.9	8	26.4	0	0.0	5	16.5	10	33.0	0	0.0	0	0.0	3	9.9	1	3.3	1	3.3	4	13.2	0	0.0	0	0.0	3	9.9	2	6.6	0	0.0	0	0.0	9	29.7	0	0.0	2	6.6	6	19.8	1	3.3	2	6.6	0	0.0	0	0.0	14	46.3
Canterbury	1307	306.0	73	17.1	0	0.0	206	48.2	144	33.7	3	0.7	5	1.2	2	0.5	14	3.3	3	0.7	7	1.6	0	0.0	4	0.9	5	1.2	27	6.3	4	0.9	4	0.9	694	162.5	0	0.0	2	0.5	133	31.1	31	7.3	19	4.4	0	0.0	4	0.9	40	9.4
South Canterbury	289	547.5	23	43.6	0	0.0	77	145.9	7	13.3	0	0.0	0	0.0	0	0.0	2	3.8	3	5.7	1	1.9	0	0.0	0	0.0	0	0.0	2	3.8	2	3.8	0	0.0	90	170.5	0	0.0	0	0.0	29	54.9	0	0.0	1	1.9	0	0.0	0	0.0	11	20.8
Otago	619	362.5	44	25.8	1	0.6	67	39.2	36	21.1	1	0.6	1	0.6	0	0.0	17	10.0	2	1.2	1	0.6	2	1.2	2	1.2	0	0.0	18	10.5	4	2.3	0	0.0	304	178.0	0	0.0	0	0.0	72	42.2	5	2.9	5	2.9	0	0.0	6	3.5	12	7.0
Southland	468	452.9	24	23.2	0	0.0	37	35.8	25	24.2	0	0.0	0	0.0	0	0.0	6	5.8	0	0.0	11	10.6	1	1.0	2	1.9	2	1.9	6	5.8	1	1.0	1	1.0	612	592.2	0	0.0	0	0.0	71	68.7	0	0.0	2	1.9	0	0.0	2	1.9	3	2.9
Total	12213	326.8	612	16.4	8	0.2	1370	36.7	1515	40.5	49	1.3	39	1.0	24	0.6	95	2.5	62	1.7	104	2.8	26	0.7	33	0.9	33	0.9	344	9.2	45	1.2	28	0.7	3489	93.4	75	2.0	25	0.7	1080	28.9	140	3.7	372	10.0	31	0.8	89	2.4	420	11.2

I. NOTIFIABLE DISEASE CASES BY YEAR AND SOURCE, 1984 - 2004

Note: cell is blank where data are unavailable

Disease	Source	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
AIDS	Notification	3	11	19	28	38	59	73	78	50	70	44	50	76	43	29	33	27	26	17	33	38
Campylobacteriosis	Notification	1915	2390	2786	2921	2796	4187	3850	4148	5144	8101	7714	7442	7635	8924	11573	8161	8417	10146	12494	14790	12213
Cholera	Notification	0	0	0	2	0	0	5	0	0	0	2	2	0	0	1	1	0	3	1	1	2
Creutzfeldt-Jakob disease	Notification													2	1	0	2	3	1	3	6	8
Cryptosporidiosis	Notification													119	357	866	977	775	1208	975	817	612
Dengue fever	Notification	1	1	3	0	1	3	2	3	1	1	0	6	23	14	26	9	7	93	70	55	8
Gastroenteritis	Notification													555	310	492	601	726	940	1087	1025	1370
Giardiasis	Notification													1235	2127	2183	1793	1684	1603	1547	1570	1515
<i>H. influenzae</i> serotype b	Laboratory				93	107	121	143	148	166	118	75	14	24	8	10	9	10	8	3	9	3
	Notification													26	9	11	10	13	11	3	12	4
Hepatitis A	Notification	539	380	251	158	176	134	150	224	288	257	179	338	311	347	145	119	107	61	106	70	49
Hepatitis B	Notification	609	530	488	474	370	309	242	227	221	145	133	125	104	138	88	94	79	56	67	61	39
Hepatitis C	Notification	29	31	17	18	20	13	11	25	89	91	79	88	59	92	102	96	80	59	53	40	24
Hydatid disease	Notification	6	4	5	2	2	0	4	0	4	4	1	5	3	2	2	8	3	7	2	0	1
Influenza	Sentinel isolates	9	6	8	18	136	119	343	183	317	423	441	521	673	743	127	425	73	313	241	230	231
Legionellosis	Notification	48	87	95	91	62	17	20	14	11	24	66	33	36	63	43	51	61	46	49	77	62
	Laboratory							21	42	60	76	121	76	60	109	107	65	56	56	53	82	75
Leprosy	Notification	9	5	7	8	2	4	1	4	5	3	1	1	10	3	3	10	4	3	4	4	3
Leptospirosis	Notification	201	174	139	129	99	90	117	106	70	116	70	65	56	52	75	59	98	101	140	113	104
	Laboratory					192	182	229	176	218	234	168	183	140	84	117	76	114	113	181	149	113
Listeriosis	Notification	6	6	6	12	7	10	16	26	16	11	8	13	10	35	17	19	22	18	19	24	26
Malaria	Notification	48	44	31	22	25	27	32	39	29	58	34	41	107	65	73	46	111	54	61	46	33
Measles	Notification													68	1984	164	107	64	82	21	67	33
	Laboratory	11	145	135	26	5	5	7	355	53	4	4	15	25	1220	35	2	9	21	6	15	10
Meningococcal disease	Notification	34	107	190	179	83	49	53	71	153	202	208	394	473	609	439	507	477	648	555	542	344
Mumps	Notification													76	90	85	56	50	56	64	56	45
	Laboratory	0	61	132	28	5	105	26	23	10	25	245	66	20	14	8	5	2	22	18	11	12
Paratyphoid	Laboratory					23	13	30	22	13	23	30	24	20	25	19	17	23	33	24	21	31
Pertussis	Notification													1022	284	153	1046	4140	1334	1068	585	3489
Rheumatic fever (initial attack)	Notification			12	215	153	148	90	97	70	81	98	88	110	95	65	71	136	114	87	148	73
Rubella	Notification													306	80	53	35	26	30	33	26	25
	Laboratory	155	120	30	50	95	114	168	81	27	244	104	1581	339	21	2	0	0	3	4	3	3
Salmonellosis	Notification	1138	1234	1335	1140	1128	1860	1619	1244	1239	1340	1522	1334	1141	1177	2069	2077	1796	2417	1880	1401	1080
Shigellosis	Notification	127	192	189	143	145	137	197	152	124	128	185	191	167	117	122	147	115	157	112	87	140
Tetanus	Notification	7	3	3	4	1	0	0	0	8	2	2	2	3	0	2	6	1	4	1	2	1
Tuberculosis	Notification	404	359	320	296	295	303	348	335	327	323	352	391	352	321	365	445	353	370	381	421	372
Typhoid	Notification	2	6	28	4	15	17	7	9	11	14	24	21	15	16	31	9	21	27	23	20	31
VTEC/STEC infection	Notification										3	3	6	7	12	48	64	67	76	73	104	89
Yersiniosis	Notification													330	488	546	503	396	429	476	439	420

J. PREVALENCE OF ANTIMICROBIAL RESISTANCE, 1991-2003

Pathogen	Antimicrobial	Percent resistance ^a (number tested)				
		1991-1993	1994-1996	1997-1999	2000-2002	2003
<i>S. aureus</i> ^b	methicillin	0.6 (42839)	2.8 (58283)	4.9 (136356)	7.2 (251448)	7.5 (62782)
	erythromycin	6.8 (40425)	8.0 (54870)	10.8 (134350)	12.0 (221394)	12.2 (60633)
	co-trimoxazole	1.1 (27469)	0.8 (32926)	0.6 (91391)	1.2 (149166)	2.2 (42028)
	mupirocin	NA ^c	10.1 (9291)	18.2 (37173)	20.0 (91555)	17.5 (14032)
Methicillin-resistant <i>S. aureus</i> ^d	erythromycin	58.2 (701)	31.5 (2249)	26.2 (1303)	40.0 (1409)	43.5 (513)
	co-trimoxazole	24.8 (701)	8.6 (2249)	1.8 (1303)	6.7 (1409)	9.4 (513)
	mupirocin	2.0 (701)	6.4 (2244)	6.0 (1303)	8.5 (1409)	9.8 (513)
	rifampicin	13.0 (701)	0.3 (2249)	0.8 (1303)	0.7 (1409)	0.8 (513)
<i>S. pneumoniae</i> , non-invasive disease ^b	penicillin ^e	0.8 (3720)	9.5 (7076)	19.0 (10976)	22.8 (12047)	27.6 (2912)
	erythromycin	1.3 (3554)	8.3 (6832)	14.5 (11212)	18.6 (14404)	20.6 (5118)
	tetracycline	1.7 (3376)	10.5 (5019)	11.2 (5993)	15.4 (9476)	18.9 (2761)
<i>S. pneumoniae</i> , invasive disease ^f	penicillin ^e	1.4 (694)	3.4 (989)	15.0 (1182)	15.3 (1493)	16.4 (523)
	erythromycin	1.9 (694)	2.6 (989)	4.1 (853)	7.3 (1492)	9.4 (523)
	cefotaxime ^e	0.1 (694)	1.8 (989)	7.3 (1182)	6.1 (1493)	12.1 (523)
<i>Enterococcus</i> spp ^b	amoxicillin ^g	2.3 (2573)	1.5 (7373)	2.4 (17548)	3.0 (22566)	3.2 (8391)
	vancomycin	0 (148)	0.2 (1141)	0.5 (4752)	0.3 (7505)	0.03 (3671)
<i>E. coli</i> , urinary isolates ^b	amoxicillin ^g	56.2 (29394)	55.9(48706)	56.0(138712)	54.4 (194799)	51.8 (38706)
	co-amoxiclav	6.9 (27249)	10.6(42666)	12.2(136326)	9.6 (194950)	9.4 (44848)
	trimethoprim	18.8 (29340)	19.6(48098)	22.6(111710)	22.3 (207837)	22.2 (46823)
	nitrofurantoin	2.2 (28331)	1.6 (48123)	1.7 (124362)	1.5 (206149)	1.5 (46970)
	fluoroquinolone	0.2 (7014)	0.5 (40032)	0.6 (118917)	1.6 (201382)	3.1 (45217)
<i>E. coli</i> , non-urinary isolates ^b	co-amoxiclav	18.3 (2318)	22.8 (7358)	21.8 (15948)	17.5 (11508)	15.4 (3337)
	cefuroxime	2.3 (1158)	3.2 (6309)	4.5 (6893)	4.2 (6576)	3.6 (2568)
	gentamicin	0.5 (3200)	0.8 (10352)	0.9 (13789)	2.4 (10392)	2.4 (3318)
	fluoroquinolone	0.1 (728)	0.5 (4717)	0.8 (10800)	2.4 (8821)	3.2 (2356)
<i>P. aeruginosa</i> ^b	gentamicin	5.8 (5918)	12.5 (9556)	9.5 (20542)	10.5 (25561)	6.4 (8881)
	tobramycin	3.1 (2535)	3.9 (6757)	2.8 (11033)	3.6 (10421)	3.7 (3100)
	ceftazidime	6.6 (1006)	5.0 (4832)	5.2 (11147)	3.9 (13253)	3.6 (6260)
	fluoroquinolone	8.4 (1652)	8.8 (8123)	9.9 (16551)	9.3 (22869)	7.5 (8902)
<i>H. influenzae</i> , non-invasive disease ^b	amoxicillin ^g	8.4 (4131)	12.0(12244)	19.3 (18852)	21.9 (28476)	23.4 (6407)
	co-amoxiclav	1.1 (1136)	1.1 (9839)	0.6 (15040)	0.8 (16333)	0.8 (5760)
	co-trimoxazole	11.4 (1581)	11.9 (6605)	14.7 (13964)	17.3 (22443)	19.2 (7868)
	tetracycline	1.7 (2082)	1.0 (7810)	1.5 (13007)	1.2 (15633)	0.7 (4876)
<i>H. influenzae</i> , invasive disease ^f	amoxicillin ^g	13.2 (478)	21.8 (179)	11.5 (122)	19.2 (125)	31.4 (70)
	co-amoxiclav	0.2 (478)	3.4 (179)	1.6 (122)	1.6 (125)	5.7 (70)
	cefuroxime	0.8 (478)	3.4 (179)	4.9 (122)	0.8 (125)	5.7 (70)
<i>N. meningitidis</i> , invasive disease ^f	penicillin ^h	2.1 (291)	3.9 (659)	7.9 (431)	7.5 (796)	7.8 (243)
	rifampicin	0.3 (291)	0 (659)	0 (431)	0 (796)	0.4 (243)
<i>N. gonorrhoeae</i> ^{b,i}	penicillin	16.4 (85)	11.6 (879)	10.4 (1437)	7.1 (2782)	5.1 (1426)
	fluoroquinolone	0 (85)	0.7 (864)	1.8 (1437)	6.3 (2349)	8.1 (994)
<i>M. tuberculosis</i> ^b	isoniazid	NA	4.6 (438)	8.2 (757)	8.5 (811)	9.9 (322)
	rifampicin	NA	0.7 (438)	1.3 (757)	0.7 (811)	0.6 (322)
	MDR ^j	NA	0.7 (438)	0.9 (757)	0.5 (811)	0.6 (322)

^a intermediate resistance not included in resistant category unless otherwise stated (refer footnotes e and h below)

^b collated clinical laboratory data

^c NA = not available

^d MRSA isolates tested by ESR

^e includes intermediate resistant and resistant isolates

^f invasive disease isolates tested by ESR

^g ampicillin used in laboratory testing

^h reduced susceptibility (MIC 0.12-0.5 mg/L)

ⁱ data from northern North Island only up until 2000, thereafter national data used

^j multidrug resistant (i.e., resistant to at least isoniazid and rifampicin)