

## MONTHLY SURVEILLANCE REPORT

This monthly report contains data and commentary on disease trends and events up to and including the end of December 2001. (See also the March 2002 issue of the *New Zealand Public Health Report*). Its purpose is to provide timely information for use by designated officers and public health service staff. Data contained within is based on information recorded on EpiSurv by public health service staff. As this information may be updated over time, the results should be regarded as provisional only.

Note: where rates are quoted, “current rate” refers to the rate for the 12 month period ending December 2001 and “previous rate” refers to the rate for the 12 month period ending December 2000.

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## 1. Major surveillance issues

- *Campylobacteriosis* has continued to occur at an unusually high incidence, with the December total exceeding that of any monthly total since the disease became notifiable.
- *Salmonellosis* incidence in 2001 was the highest recorded in New Zealand. The epidemic of *Salmonella* Typhimurium phage type 160 has continued during December, contributing 47% of total *Salmonella* isolates.
- *Meningococcal disease* cases reached 660 for 2001, the highest number in any year since the epidemic began.

## 2. Key disease trends

### Campylobacteriosis

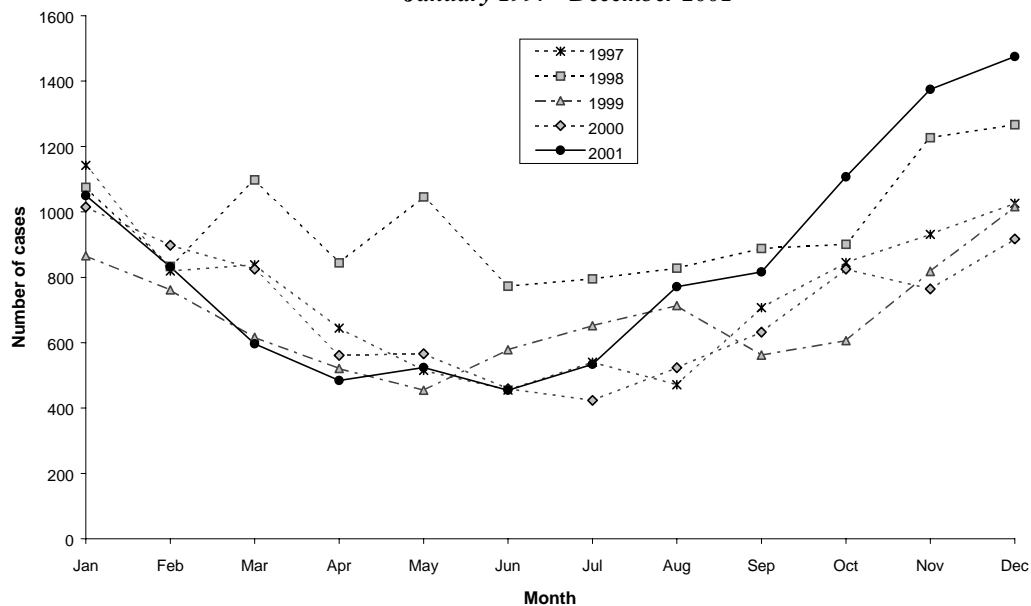
There were 1475 cases of campylobacteriosis notified during December 2001, bringing the year to date total to 10 125. In contrast, 919 cases were notified during December last year. This monthly total is the highest reported total for any month since campylobacteriosis became notifiable in 1980.

Rates higher than the national rate of 279.8 per 100 000 were seen in Wellington (460.7), South Canterbury (345.8), Waikato (340.1), Hutt (335.6), Taupo (322.5), North West Auckland (314.0), Central Auckland (305.1), Hawkes Bay (292.7), and Tauranga (284.6) health districts

Of the 1475 cases notified in December, 480 (32.5%) were notified from the combined Auckland health districts, 174 (11.8%) from Canterbury, 164 (11.1%) from Wellington, and 137 (9.3%) from Waikato health districts. Four outbreaks were reported this month from Rotorua, Manawatu, and Wairarapa health districts.

The following graph shows campylobacteriosis notifications by year since 1980. The total for 2001 of 10 125 is the second highest annual total. The previous highest annual total was in 1998, when 11 578 cases were notified.

*Campylobacter notifications by month,  
January 1997 - December 2001*



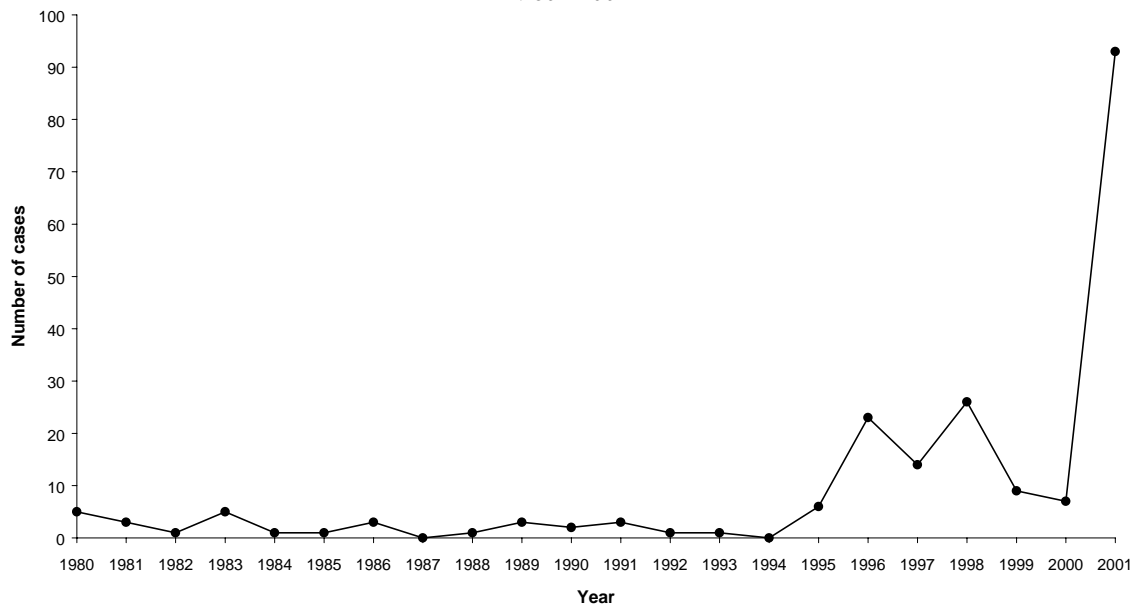
Risk factor information was infrequently recorded on the case report forms, with only 21.3% (314/1475) of notifications in December including information on human contact and only 32.5% (479/1475) including information on travel. Of these, 6.3% (20/314) had a history of contact with other symptomatic people and 6.4% (31/479) had been overseas during the incubation period.

## Dengue Fever

One case of dengue fever was reported in December, bringing the year to date total to 93. This total is the highest number of notifications reported in any single year. The rate of 2.6 per 100 000 is markedly higher than the 2000 rate of 0.6. Travel destinations were known for 97.8% (91/93) of cases. Of these, the most commonly visited overseas country was Samoa (59), followed by Tahiti (8), Indonesia (5), Thailand (5), Cook Islands (3), Tokelau (3), East Timor (3), Philippines (2), Fiji, India, and Sri Lanka (1 each). Ninety-two cases were confirmed by IgM serology and results are awaited for the remaining one. Hospitalisation status was recorded for 90.3% (84/93) of cases, and of these 21 (25.0%) had been hospitalised.

The following graph shows dengue fever notifications by year since 1980.

*Dengue fever notifications by year,  
1980 - 2001*



The table below shows dengue fever cases notified annually since January 1995, grouped by country and region visited. A total of 178 dengue cases was notified from January 1995 to December 2001. Travel history was reported for 95.5% (170/178) cases. In 2001, 63.4% (59/93) of the cases had travelled to Samoa during the incubation period. Samoa has previously been the source of dengue infection in New Zealand travellers in 1996-97.

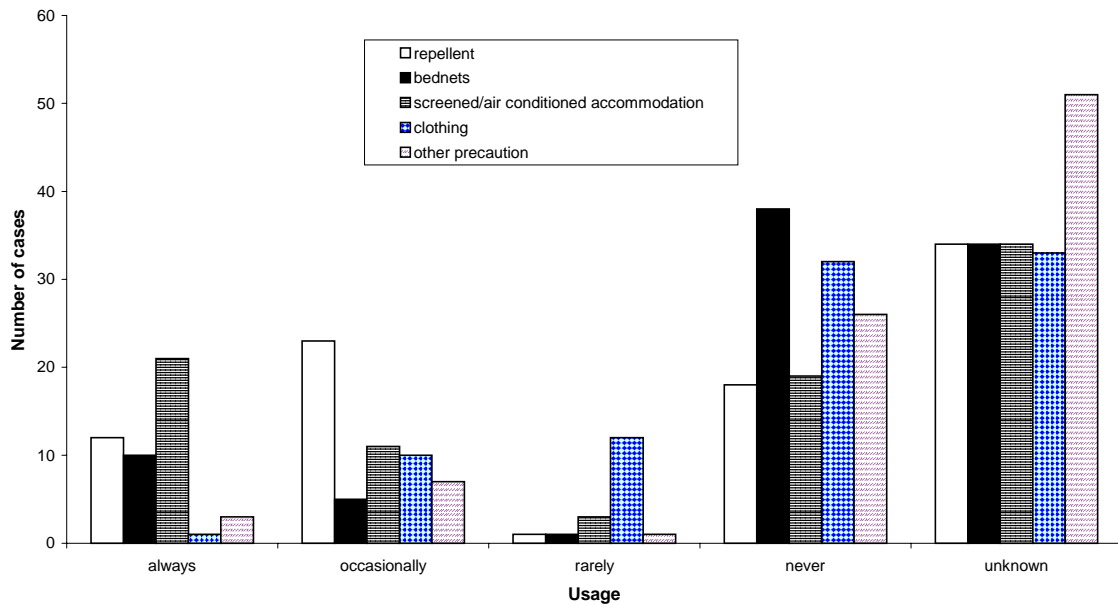
*Annual dengue fever EpiSurv notifications by country/region visited, 1995-2001*

<b>Country/Region</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001<sup>1</sup></b>
<i>Australia</i>			1			1	
<i>Pacific Islands</i>							
American Samoa				1			
Cook Islands (Rarotonga, French Polynesia)	2		6				3
Fiji	2			9	1	2	1
Samoa		16	4				59
Tahiti			3				8
Tokelau							3
Tonga				7			
Unspecified					1		
<i>South East Asia</i>							
Brunei		1					
East Timor						1	3
Indonesia (Bali, Jakarta)		2		2		1	5
India						1	1
Malaysia					1	1	
Philippines				2	1		2
Singapore					1		
Sri Lanka							1
Thailand		1		4	4		5
Vietnam							
<i>Unknown travel total</i>	2	3		1			2
<b>Total</b>	<b>6</b>	<b>23</b>	<b>14</b>	<b>26</b>	<b>9</b>	<b>7</b>	<b>93</b>

<sup>1</sup> Year to date cases only

The following graph shows the use of precautionary measures among dengue fever cases notified this year. Information on precautionary measures (including use of insect repellent, bednets, screened or air conditioned accommodation, wearing of long sleeved shirts and trousers) was recorded for 94.6% (88/93) of cases.

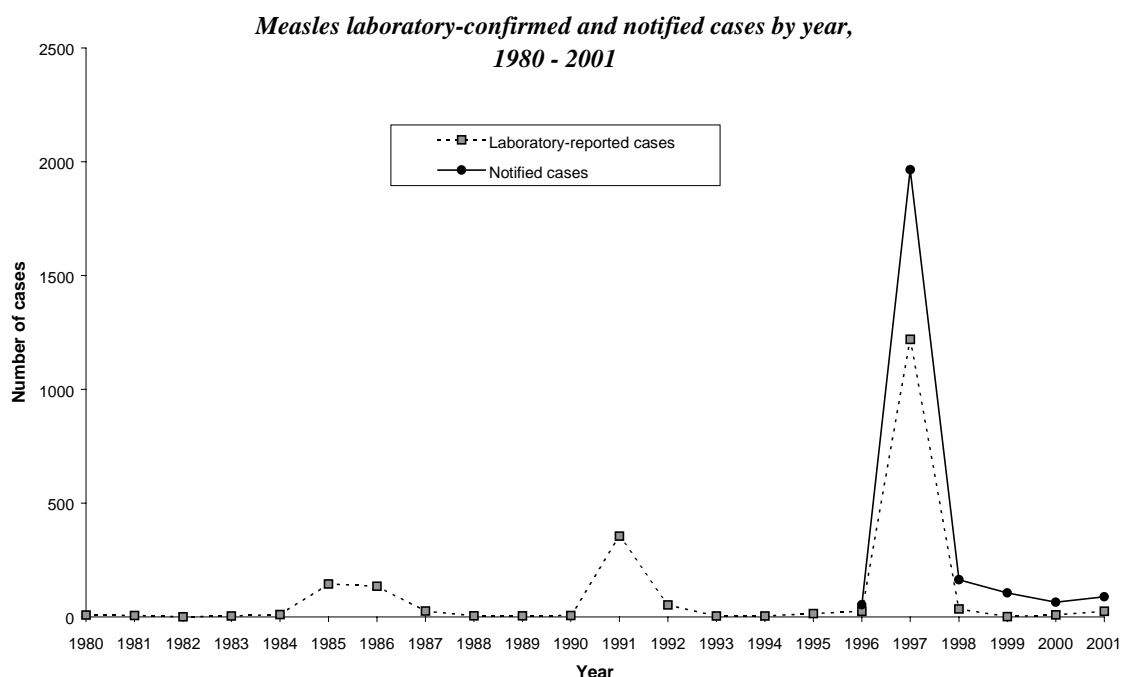
*Usage of precautionary measures among dengue fever cases,  
January - December 2001*



## Measles

Eleven cases of measles were notified during December, bringing the year to date total to 89. None of the December cases has been laboratory confirmed, although results are awaited for three. The cumulative year to date rate of 2.5 per 100 000 is slightly higher than the rate of 1.8 per 100 000 for 2000.

The following graph shows the number of laboratory confirmed cases of measles by year since 1980, and notified cases since June 1996 when measles became a notifiable disease. Only 28.1% (25/89) of cases notified between January to December 2001 were laboratory-confirmed.



The cases varied by age and health district (see table below). Five of the eleven cases reported contact with another measles case. None of the cases indicated overseas travel.

Six of the eleven cases were recorded as immunised. Only four cases had dosage information recorded, all of which had received the first dose only.

The table below shows the distribution by health district and the associated risk factors.

*Measles notifications by age, immunisation status, and recorded risk factors, December 2001*

Health District	Lab Confirmed	Age	Contact with a case	Overseas during incubation	Immunisation Status
Cental Auckland	Awaiting results	1y	Yes	Unknown	No
	Awaiting results	2 y	Unknown	No	Immunised
Manawatu	Not done	1y	Yes	No	No
Wairarapa	Awaiting results	3y	Unknown	No	Immunised
Nelson Marlborough	Unknown	2y	Unknown	Unknown	Immunised
Canterbury	No	1y	Yes	No	No
	Not done	4y	Yes	No	Immunised
	Not done	2y	No	No	Immunised
	Not done	1y	Yes	No	Immunised
Southland	Unknown	1m	Not recorded	Not recorded	Not recorded
	Not recorded	5m	Not recorded	Not recorded	Not recorded

The last measles epidemic began four years and seven months ago in March 1997 when 23 cases were notified. Of these, five were laboratory confirmed (see section on

measles from 1997 Annual Surveillance summary). The timing of future measles epidemics is difficult to predict because of a lack of reliable immunisation coverage data and the unknown impact of measles catch-up immunisation campaigns.

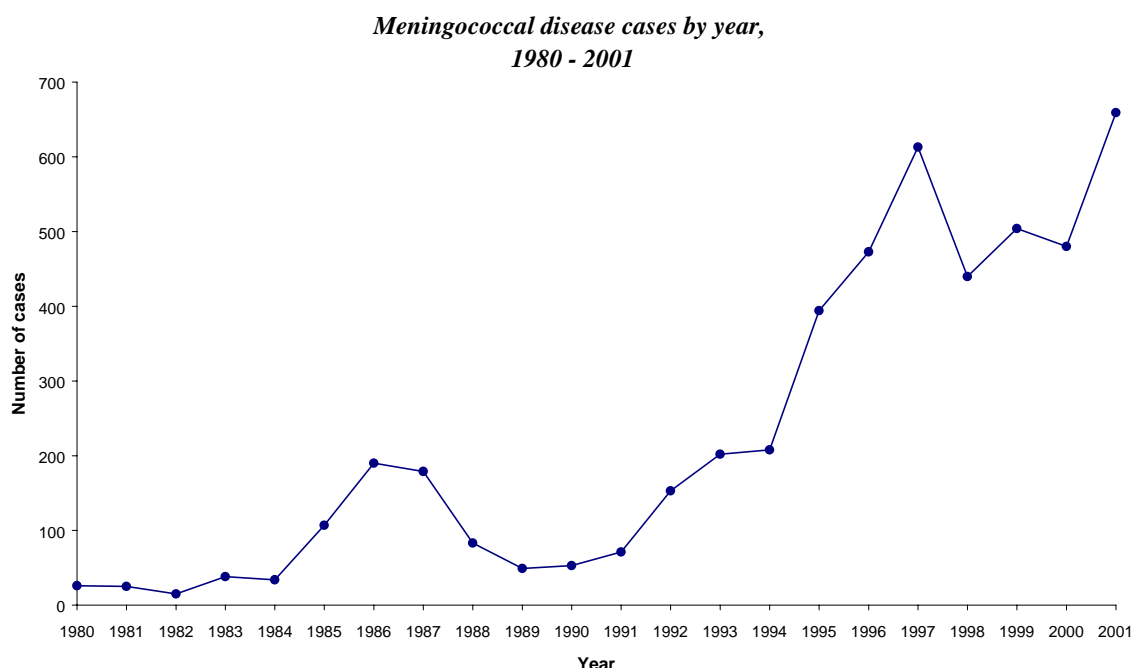
Local public health services should continue efforts to improve measles surveillance by encouraging case notification on suspicion and laboratory investigation of such cases. It is also important to record risk factor information and immunisation status for cases, particularly those that are laboratory confirmed.

## **Meningococcal disease**

A total of 54 cases of meningococcal disease was notified during December, bringing the year to date total to 660. This is the highest number of cases notified for the period for any year since the epidemic began.

One of the cases notified this month (a 24 year old male from Tauranga Health District) has since died. This brings to 26 the number of fatal cases this year.

The following graph shows the meningococcal disease notifications by year since 1980.



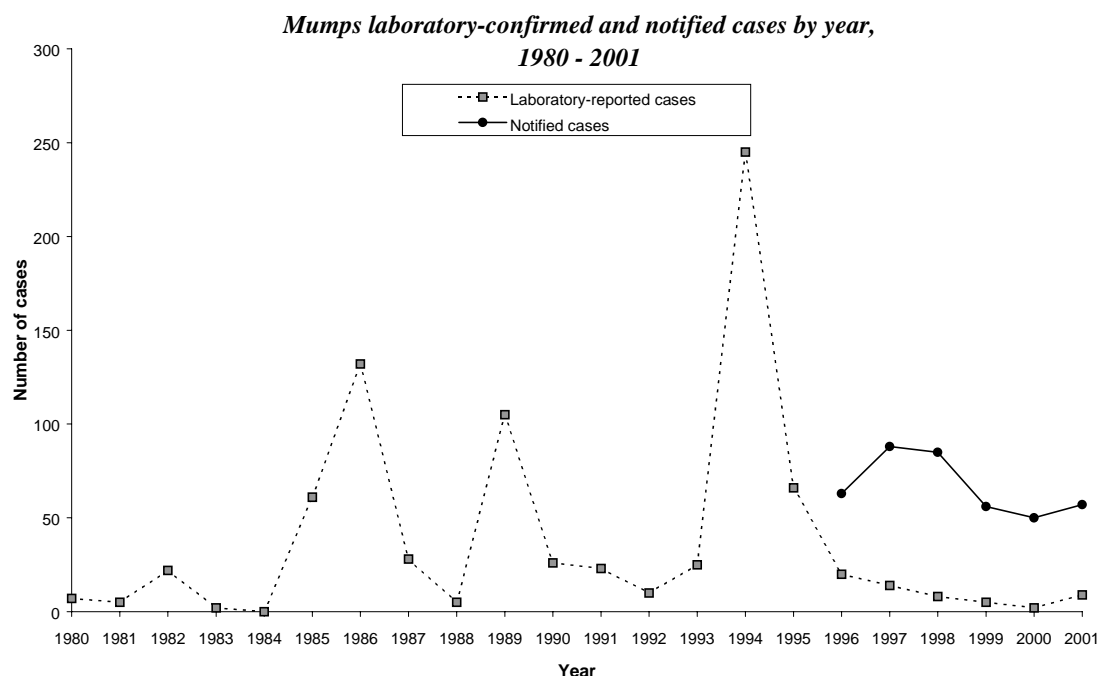
## **Mumps**

Three cases of mumps were reported in December, bringing the year to date total to 57. Nine of these 57 cases have been laboratory confirmed, although no December



cases were laboratory confirmed. The cumulative year to date rate of 1.6 per 100 000 is higher than the rate of 1.4 per 100 000 for the year 2000.

The following graph shows the number of notified and the number of laboratory confirmed cases of mumps by each year from 1980 to 2001.

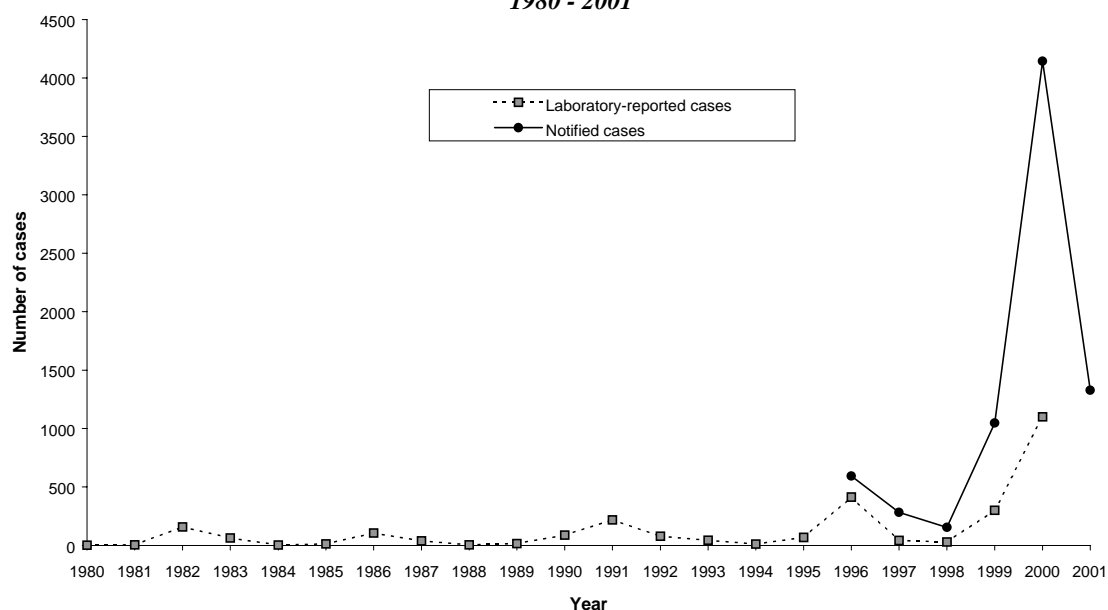


## Pertussis

A total of 6442 cases of pertussis have been notified since the current epidemic began in June 1999. Of these, 3015 (46.8%) cases have been laboratory confirmed. There have been 477 hospitalisations (8.0% of cases for whom this information was recorded) and one death reported. During December 2001, 60 cases of pertussis were notified, compared to 68 cases in November and 58 cases in October 2001. While the epidemic appears to be declining slowly the incidence is still well above the inter-epidemic level of about 15 cases a month. December notifications were highest in Waikato (18 cases), Canterbury (9) and North West Auckland (9) health districts.

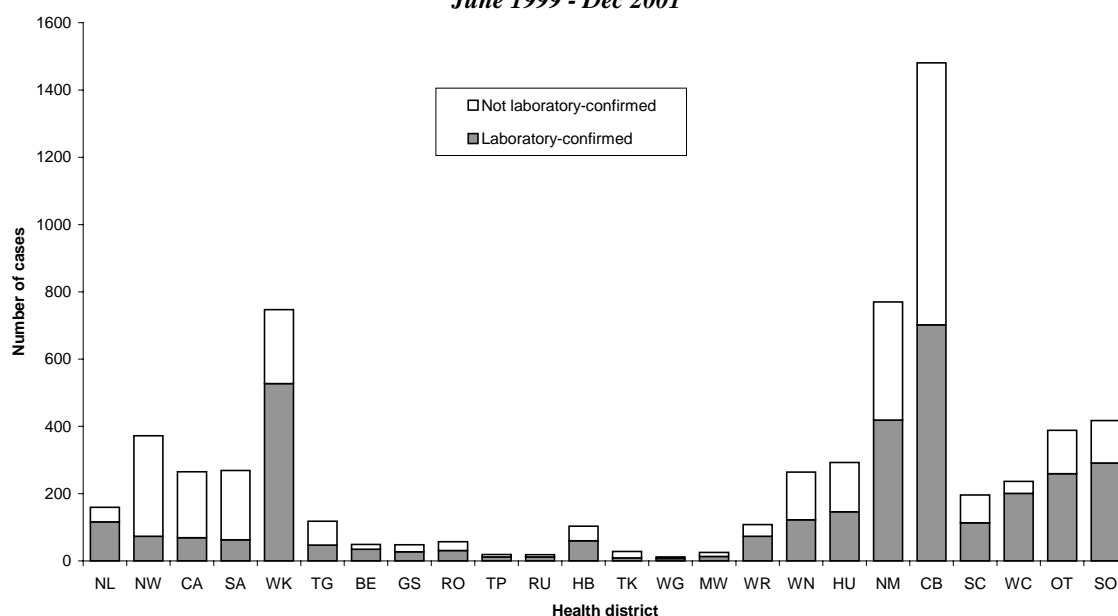
The following graph shows the number of laboratory-reported cases of pertussis by year since 1980 and notified cases since June 1996 when pertussis became a notifiable disease.

*Pertussis laboratory-confirmed and notified cases by year,  
1980 - 2001*



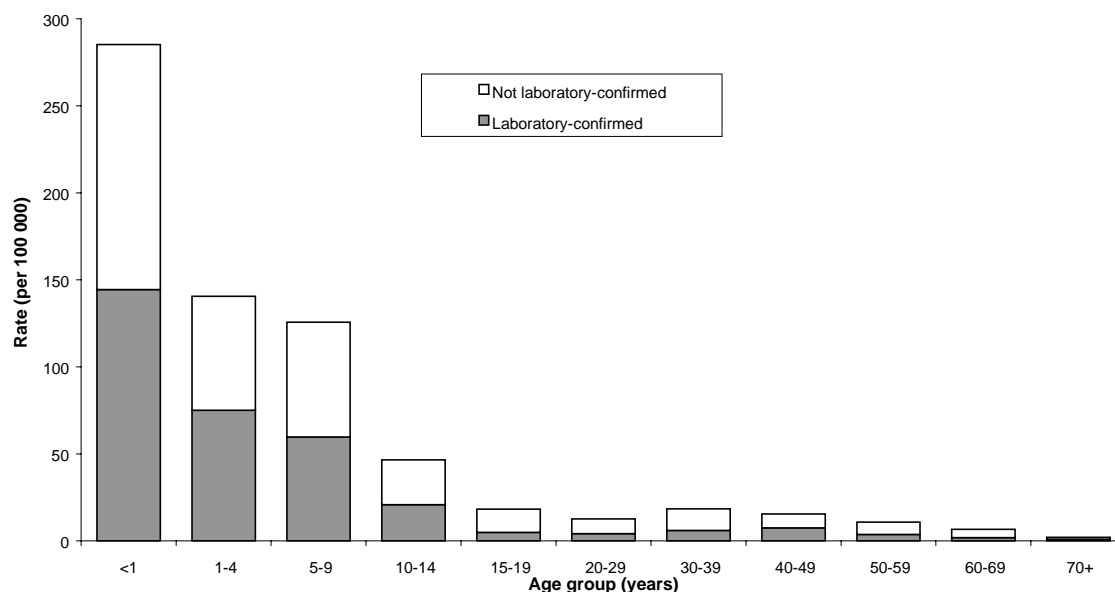
The graph below shows the number of cases of pertussis notified in each health district during the epidemic period. During this 31 month period (June 1999 to December 2001), the greatest number of cases was notified from Canterbury Health District, with 1481 notifications (53% laboratory confirmed by isolation or PCR), followed by Nelson-Marlborough with 770 (46% laboratory confirmed) and Waikato with 747 (30% laboratory confirmed). The laboratory confirmation rate was highest in the North West Health District (80.4% or 299/372 cases) and lowest in the West Coast Health District (14.8% or 35/236).

*Pertussis notifications by health district,  
June 1999 - Dec 2001*



The following graph shows the notification rates for pertussis over the last twelve months by age group. The highest rate was reported amongst infants aged less than one year (285.1 per 100 000), followed by children aged 1-4 years (140.5) and 5-9 years (125.6). The highest proportion of laboratory confirmation was in the 1-4 year age band (54%), followed by under one year old (51%), over 70 years (50%) and the 5-9 years (48%) age bands.

*Pertussis notifications by age group,  
January 2001 - December 2001*

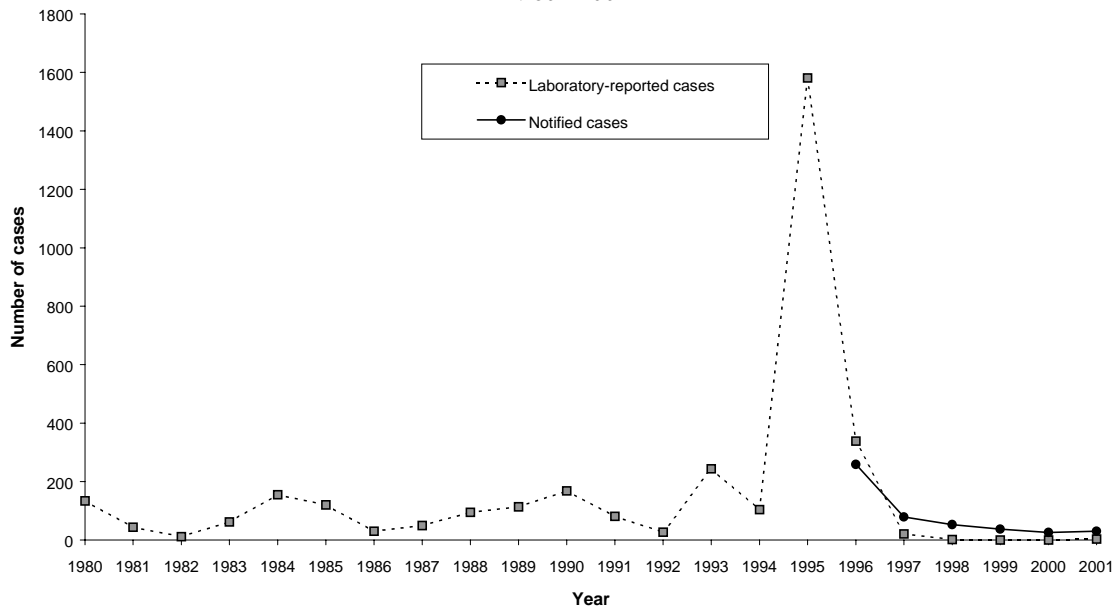


## Rubella

Three cases of rubella were reported in December, bringing the year to date total to 30. Two of the cases were laboratory confirmed. The cumulative year to date rate of 0.8 per 100 000 is slightly higher than the rate of 0.7 per 100 000 for the year 2000.

The following graph shows the number of notified and the number of laboratory confirmed cases of rubella by month from January 1996 to December 2001. Only 10.0% (3/30) of the cases notified between January to December 2001 was laboratory confirmed.

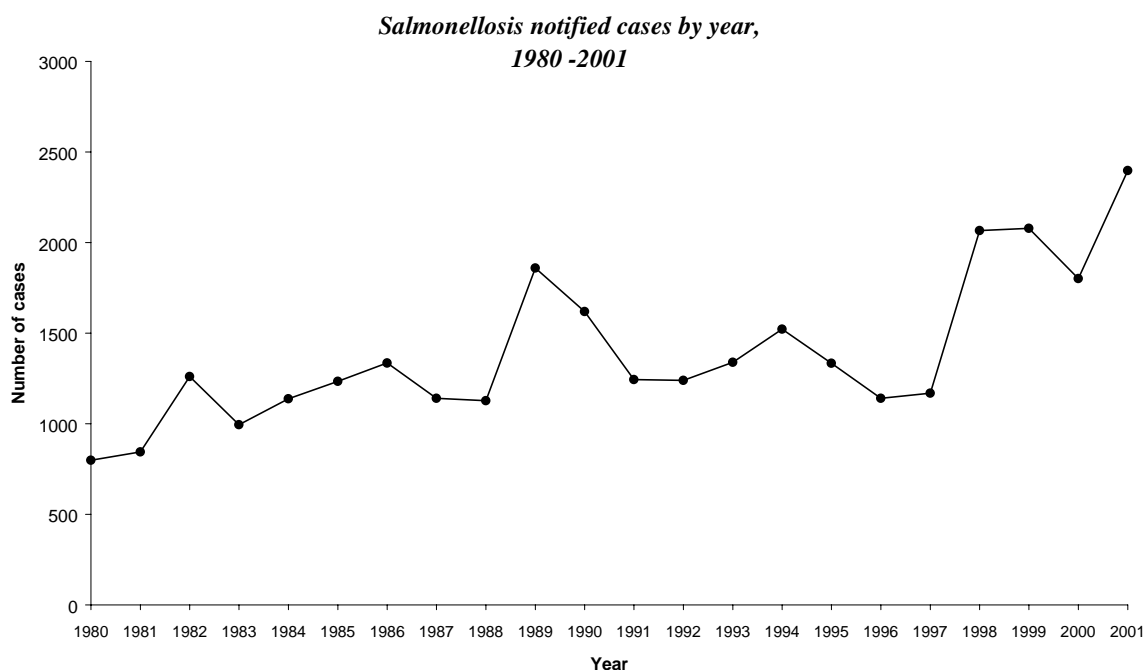
*Rubella laboratory-confirmed and notified cases by year,  
1980 - 2001*



## Salmonellosis

There were 212 salmonellosis notifications in December, bringing the year to date total to 2398 cases. The total for 2001 has greatly exceeded the previous highest annual total of 2079 in 1999.

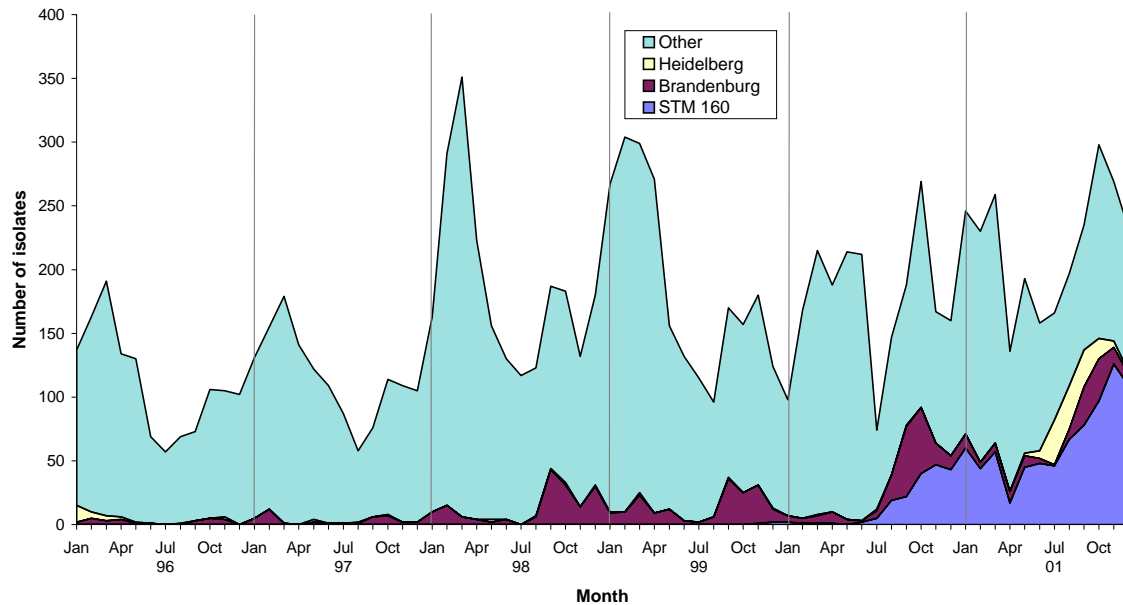
The following graph shows the number of salmonellosis notifications by year between 1980 and 2001.



The ESR Enteric Reference Laboratory (ERL) received 232 *Salmonella* isolates during December. The predominant types identified were *Salmonella* Typhimurium phage type 160 (STM 160), *S. Typhimurium* 135, *S. Brandenburg* and *S. Typhimurium* phage type 156. The STM 160 epidemic has persisted for the fifth month with 109 isolates in December, representing 47% of all *Salmonella* isolates. A recent investigation of STM 160 has identified ‘contact with an individual with diarrhoea or vomiting in the previous month’ and ‘contact with wild birds’ as risk factors. The frequency of *S. Brandenburg* isolation has decreased from thirteen isolates in November to nine isolates in December, and *S. Heidelberg* has decreased from five isolates in November (2% of total isolates) to two isolates in December (1% of total isolates).

The following graph shows the contribution these emerging *Salmonella* types are making to the total salmonellosis burden seen in New Zealand.

*Salmonella isolates (STM 160, Brandenburg, Heidelberg) by month,  
January 1996 - December 2001*



The ‘spring peak’ in cases of *S. Brandenburg* infection was lower in 2001 than in 2000.<sup>1</sup> Between September and November 2001, 76 *Salmonella* isolates were identified as *S. Brandenburg* – a 38.7% decrease from the 124 identified during the same period in 2000.

## Tuberculosis

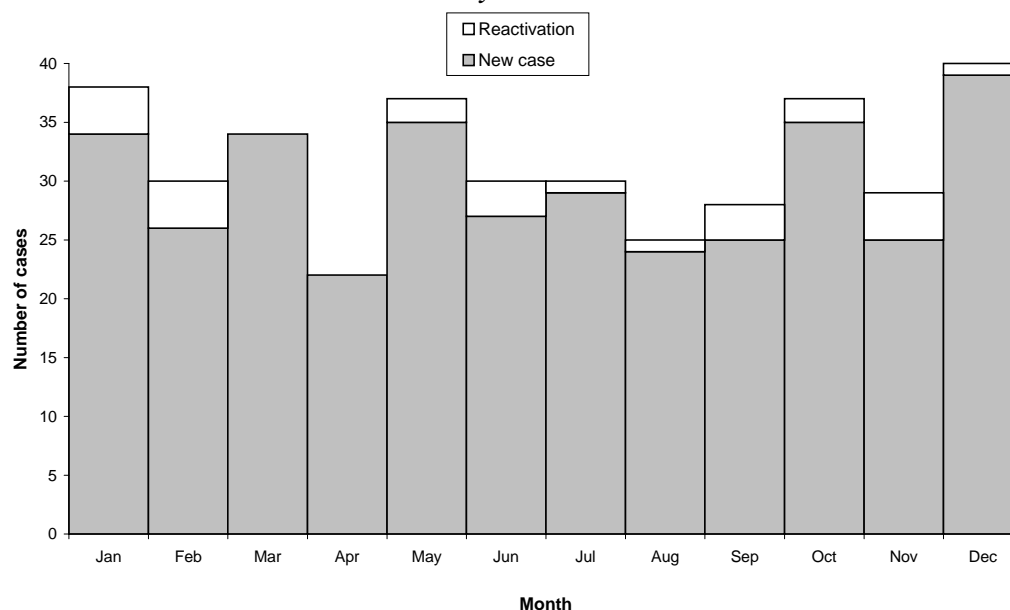
A total of 40 cases of tuberculosis was notified in December 2001, one of which was a reactivation. This brings the 2001 year total to 380, 25 of which (6.6%) were reactivations.

December notifications were highest in Central Auckland (11 cases), South Auckland (8), North West Auckland (7), Canterbury (6) and Wellington (5) health districts. Half (190/380) of all cases notified during 2001, were notified from Auckland health districts.

The following histogram displays tuberculosis cases notified each month during 2001.

<sup>1</sup> The frequency of *S. Brandenburg* cases during the spring months of September, October and November is typically higher than in other months of the year.

*Tuberculosis new cases and reactivations by month,  
January - December 2001*



Of the 31 December cases for which hospitalisation status was known, 18 (58.1%) had been hospitalised. This compares to an annual 2001 hospitalisation rate of 64.4% (210 of the 326 cases for which the information was known).

The following table shows the distribution of tuberculosis cases by age group and ethnicity for 2001.

Age group (years)	European Cases	Maori Cases	Pacific people Cases	Other Cases	Unknown Cases	Total Cases
<1	0	0	0	4	2	6
1-4	1	5	1	1	0	8
5-9	0	2	5	0	1	8
10-14	1	3	3	6	0	13
15-19	1	4	4	7	1	17
20-29	5	10	11	55	5	86
30-39	7	4	3	52	4	70
40-49	5	1	3	28	3	40
50-59	3	5	5	15	2	30
60-69	5	10	7	19	4	45
70+	26	7	5	13	6	57
Unknown	0	0	0	0	0	0
<b>Total</b>	<b>54</b>	<b>51</b>	<b>47</b>	<b>200</b>	<b>28</b>	<b>380</b>

During 2001, information on country of birth was provided for 330 cases. Of these, 68.8% (227/330) were recorded as having been born overseas. The most frequently recorded country of birth was India (53 cases), followed by China (20). In comparison, 83.9% (26/31) of December cases with country of birth information were recorded as having been born overseas.

### 3. Deaths from notifiable diseases (excluding AIDS)

One death from notifiable diseases was reported in December 2001.

<b>Disease</b>	<b>No. of deaths reported Dec 2001</b>	<b>Cumulative no. of deaths reported in 2001</b>
Campylobacteriosis	0	1
Creutzfeldt Jakob disease	0	1
Hepatitis B	0	1
Legionellosis	0	1
Listeriosis	0	1
Meningococcal disease	0	25
Salmonellosis	0	2
Tetanus	1	1
Tuberculosis disease	0	2
<b>Total</b>	<b>1</b>	<b>33</b>



## 4. Outbreaks

Outbreaks, for which ESR received sufficient information to report on during December 2001, are summarised in the table below and individually listed in the following pages.

*Summary of December 2001 recorded outbreaks:*

Organism/Toxin/Illness	Number of outbreaks	Total number of cases
<i>Bacillus cereus</i>	1	4
<i>Bordetella pertussis</i>	1	3
<i>Campylobacter</i>	8	24
Ciguatera poisoning	1	4
<i>Clostridium perfringens</i>	1	4
<i>Cryptosporidium parvum</i>	2	5
Gastroenteritis	7	28
Lead absorption	1	2
<i>Legionella</i>	1	2
Measles	2	6
<i>Nisseria meningitidis</i> P1.4	1	4
Norwalk-like virus	5	27
<i>Salmonella</i>	4	16
VTEC / STEC infection	1	3
Yersiniosis	1	2
<b>Total</b>	<b>37</b>	<b>134</b>

In addition, 21 preliminary outbreak reports were received from Auckland (*Campylobacter*, gastroenteritis and *Salmonella*), Gisborne (gastroenteritis), Hawkes Bay (*salmonella*), Wanganui (*Mycobacterium tuberculosis*), Manawatu (*Campylobacter*), Wellington (*Campylobacter*, gastroenteritis and *Salmonella*), West Coast (gastroenteritis) and South Canterbury (*Nisseria meningitidis*). These outbreaks will be reported in the monthly table, when further information has become available.

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### Completed outbreak reports received by ESR during December 2001:

Suspected pathogen/ toxin/illness	Public Health Service	Month of OB	Duration of OB (days)	Cases			Est. no. exposed	Setting	Suspected mode of transmission	Probable factors contributing to OB
				Lab Conf	Oth Conf	Prob.				
<i>Bacillus cereus</i>	Auckland	Nov	1	1	0	3	4	Takeaways	Foodborne (hawaiian pizza)	Cross contamination
<i>Bordetella pertussis</i>	Auckland	Nov	Unk	2	1	0	3	Home	Person to person	Inadequate vaccination coverage; inadequate vaccination effectiveness
<i>Campylobacter</i>	Auckland	Aug	2	2	0	0	Unk	Restaurant / café	Foodborne (chicken liver)	Undercooking
<i>Campylobacter</i>	Auckland	Sep	6	2	0	0	2	Home	Unknown	Unknown food factors
<i>Campylobacter</i>	Auckland	Oct	4	2	0	0	Unk	Home	Zoonotic (handling ducklings during stay on farm)	Exposure to infected animals or animal products
<i>Campylobacter</i>	Rotorua	Aug-Oct	69	2	0	0	6	Farm	Zoonotic (calves)	Consumption of unpasteurised milk; exposure to infected animals or animal products
<i>Campylobacter</i>	Manawatu	Aug	7	2	0	0	4	Home	Person to person	Unknown

**Outbreaks cont.**

Suspected pathogen/ toxin/illness	Public Health Service	Month of OB	Duration of OB (days)	Lab Conf	Cases Oth Conf	Prob.	Est. no. exposed	Setting	Suspected mode of transmission	Probable factors contributing to OB
<i>Campylobacter</i>	Manawatu	Oct-Nov	23	2	0	0	5	Home	Person to person	Exposure to infected people
<i>Campylobacter</i>	Wairarapa	Dec	9	2	0	7	19	Hotel/motel	Foodborne	Undercooking; improper hot holding; use of untreated water in food preparation
<i>Campylobacter</i>	Canterbury	Oct	4	3	0	0	50	Farm	Environmental; zoonotic	Consumption of unpasteurised milk; exposure to infected animals or animal products; poor hygiene of cases; exposure to contaminated environment(s)
Ciguatera poisoning	Auckland	Nov	3	0	0	4	4	Home	Foodborne (imported coral reef trout)	Use of ingredients from unsafe source
<i>Clostridium perfringens</i>	Canterbury	Nov	1	2	2	0	106	Restaurant / café	Foodborne	Cross contamination
<i>Cryptosporidium parvum</i>	Manawatu	Aug	7	2	0	0	4	Home; farm	Person to person	Exposure to infected people
<i>Cryptosporidium parvum</i>	Manawatu	Oct - Nov	Unk	2	0	1	4	Home	Person to person; zoonotic	Exposure to infected people
Gastroenteritis	Auckland	Sep	1	0	0	2	2	Restaurant/cafe	Foodborne	Unknown

**Outbreaks cont.**

Suspected pathogen/ toxin/illness	Public Health Service	Month of OB	Duration of OB (days)	Lab Conf	Cases Oth Conf	Prob.	Est. no. exposed	Setting	Suspected mode of transmission	Probable factors contributing to OB
Gastroenteritis	Auckland	Sep	1	0	0	2	2	Restaurant /café	Unknown	Unknown
Gastroenteritis	Auckland	Oct	1	0	0	4	4	Takeaways	Foodborne (chow mein); person to person	Inadequate reheating of previously cooked food; inadequate cooling or refrigeration; improper hot holding; cross contamination
Gastroenteritis	Auckland	Oct	1	2	0	0	2	Restaurant / cafe	Unknown	Unknown
Gastroenteritis	Waikato	Nov	1	0	4	4	Unk	Club licence	Foodborne (chicken fetticini); person to person	Inadequate reheating of previously cooked food; improper storage prior to preparation; cross contamination
Gastroenteritis	Wellington	Oct	2	0	0	6	7	Entertainment / food outlet	Foodborne; person to person; environmental	Exposure to infected people; suspected play equipment
Gastroenteritis	Wellington	Sep	1	0	0	4	5	Takeaways; office building	Foodborne	Inadequate cooling or refrigeration; improper storage prior to preparation
Lead Absorption	Manawatu	June	1	2	0	0	4	Home	Environmental (lead-based paint removal)	Exposure to contaminated environment(s)
Legionella	Auckland	Oct-Nov	47	2	0	0	Unk	Office building	Environmental (cooling tower)	Exposure to contaminated environment(s)

Outbreaks cont.

Suspected pathogen/ toxin/illness	Public Health Service	Month of OB	Duration of OB (days)	Lab Conf	Cases Oth Conf	Prob.	Est. no. exposed	Setting	Suspected mode of transmission	Probable factors contributing to OB
Measles	Auckland	Sep-Oct	17	4	0	0	9	Home	Person to person	Unknown
Measles	Wellington	Oct	19	2	0	0	Unk	Hospital (acute care)	Person to person	Inadequate vaccination coverage; exposure to infected people; inadequate vaccination effectiveness
<i>Neisseria meningitidis</i> P1.4	Manawatu	Jul	10	2	0	2	Unk	Home	Unknown	Unknown
Norwalk-like virus	Auckland	Oct	2	2	0	2	4	Home	Unknown possibly person to person or foodborne	Unknown
Norwalk-like virus	Auckland	Oct	2	4	0	1	5	Home	Unknown	Unknown
Norwalk-like virus	Auckland	Oct	2	1	0	1	Unk	Restaurant/cafe	Unknown	Unknown
Norwalk-like virus	Auckland	Sep	2	2	0	0	2	Supermarket/delicatessen	Foodborne (oysters); person to person	Unknown

**Outbreaks cont.**

Suspected pathogen/ toxin/illness	Public Health Service	Month of OB	Duration of OB (days)	Lab Conf	Cases Oth Conf	Prob.	Est. no. exposed	Setting	Suspected mode of transmission	Probable factors contributing to OB
Norwalk-like virus	Wellington	Dec	2	2	12	0	21	Restaurant/cafe	Foodborne; person to person	Inadequate cooling or refrigeration; unknown food factors
<i>Salmonella</i>	Auckland	Oct	1	2	0	0	2	Home	Foodborne (raw egg mayonnaise)	Consumption of raw food
<i>Salmonella</i>	Manawatu	Jul	7	2	0	0	4	Home; farm	Unknown	Exposure to infected people
<i>Salmonella</i>	Marlborough	Dec	2	4	0	5	Unk	Restaurant / cafe	Foodborne	Unknown food factors
<i>Salmonella</i>	West Coast	Nov	12	1	0	2	5	Home	Person to person; unknown	Exposure to infected people
VTEC / STEC	Gisborne	Aug-Sep	26	2	0	1	5	Unknown	Unknown	Unknown
Yersiniosis	Auckland	Oct	8	2	0	0	2	Home	Foodborne (pork); person to person	Inadequate thawing; undercooking; exposure to infected people

## 5. National surveillance data and trends

Disease <sup>1</sup>	Current year - 2001 <sup>2</sup>			Previous year - 2000		
	Dec 2001 cases	Cumulative total since 1 January	Current rate <sup>3</sup>	Dec 2000 cases	Cumulative total since 1 January	Previous rate <sup>3</sup>
AIDS	4	28	0.8	0	27	0.7
Campylobacteriosis	1475	10125	279.8	919	8432	233.0
Cholera	0	3	0.1	0	0	0
Creutzfeldt-Jakob disease	0	1	0	1	3	0.1
Cryptosporidiosis	40	1201	33.2	29	776	21.4
Denque fever	1	93	2.6	0	7	0.2
Gastroenteritis <sup>4</sup>	65	936	25.9	50	730	20.2
Giardiasis	119	1603	44.3	115	1686	46.6
<i>H. influenzae</i> type b disease	0	11	0.3	1	13	0.4
Hepatitis A	6	61	1.7	6	107	3.0
Hepatitis B (acute) <sup>5</sup>	2	57	1.6	7	79	2.2
Hepatitis C (acute) <sup>5</sup>	5	60	1.7	3	80	2.2
Hydatid disease	0	7	0.2	0	3	0.1
Influenza <sup>6</sup>	1	666	18.4	4	249	6.9
Lead absorption	7	128	3.5	26	125	3.5
Legionellosis <sup>6</sup>	5	57	1.6	5	68	1.9
Leprosy	0	2	0.1	1	5	0.1
Leptospirosis	9	104	2.9	8	99	2.7
Listeriosis	1	18	0.5	2	22	0.6
Malaria	5	54	1.5	5	111	3.1
Measles	11	89	2.5	0	64	1.8
Meningococcal disease	59	659	18.2	44	478	13.2
Mumps	3	57	1.6	4	50	1.4
Paratyphoid	0	27	0.7	2	24	0.7
Pertussis	60	1327	36.7	343	4140	114.4
Rheumatic fever	1	114	3.2	27	145	4.0
Rubella	3	30	0.8	1	26	0.7
Salmonellosis	212	2398	66.3	150	1799	49.7
Shigellosis	5	157	4.3	9	115	3.2
Tetanus	1	4	0.1	0	1	0
Tuberculosis	40	380	10.5	24	354	9.8
Typhoid	4	26	0.7	2	21	0.6
VTEC / STEC infection	2	80	2.2	3	68	1.9
Yersiniosis	38	428	11.8	22	397	11.0

**Notes:** <sup>1</sup> Other notifiable infectious diseases reported in December :Nil

<sup>2</sup> These data are provisional

<sup>3</sup> Rate is based on the cumulative total for the current year (12 months up to and including December 2001) or the previous year (12 months up to and including December 2000), expressed as cases per 100 000

<sup>4</sup> Cases of gastroenteritis from a common source or foodborne intoxication eg, staphylococcal intoxication or toxic shellfish poisoning

<sup>5</sup> Only acute cases of this disease are currently notifiable

<sup>6</sup> Surveillance data based on laboratory-reported cases only

## Surveillance data by health district - December 2001

Cases this month

Current rate<sup>1</sup>

Disease	Cases for December 2001, <sup>2</sup> and current rate <sup>1,2</sup> by health district <sup>3,4</sup>																							
	Northland	NW Auck	Central Auck	South Auck	Waikato	Tairāngia	Eastern BOP	Gisborne	Rotorua	Taupo	Taranaki	Ruapehu	Hawkes Bay	Wanganui	Manawatu	Wairarapa	Wellington	Hutt	Nelson-Marl	West Coast	Canterbury	South Cant	Otago	Southland
AIDS <sup>5</sup>	0	4			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	1.8			0	1.8	0	0	0	0	0	0	0	0	0	0	0.5	0	0	1.0	0	0	0	0
Campylobacteriosis	31	186	163	131	137	40	11	18	16	13	41	4	56	14	49	11	164	69	15	4	174	42	42	44
	167.0	314.0	305.1	242.6	340.1	284.6	163.1	179.2	229.4	322.5	277.0	131.3	292.7	190.5	178.2	257.4	460.7	335.6	131.2	228.2	269.8	345.8	230.5	255.1
Cholera	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	0.3	0.3	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Creutzfeldt-Jakob 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
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0	0	0
Cryptosporidiosis	2	3	3	1	2	0	1	0	1	0	0	0	3	0	2	0	5	0	0	2	4	3	3	5
	19.7	19.0	27.8	22.5	61.8	28.4	15.9	28.4	37.2	78.2	20.6	0	118.5	53.7	28.6	15.6	39.1	11.3	6.9	24.7	15.0	65.4	37.1	57.5
Dengue fever	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2.9	3.8	5.8	3.5	1.7	2.7	0	0	1.5	9.8	0	0	0	0	2.7	0	2.5	3.8	0.9	0	2.3	1.3	1.2	1.8
Gastroenteritis	0	5	11	3	0	0	0	0	0	0	0	0	0	1	0	0	12	3	5	0	23	0	1	1
	19.0	24.1	31.2	13.5	3.6	8.9	8.0	54.6	18.6	42.3	21.5	0	4.9	16.3	47.9	28.6	17.3	11.3	28.3	21.6	70.6	23.9	38.8	6.3
Giardiasis	2	12	24	5	11	4	2	3	2	0	2	0	11	0	2	0	8	3	2	0	17	3	4	2
	24.1	49.2	66.5	41.6	49.2	61.2	57.7	61.2	46.5	29.3	24.3	17.9	74.6	29.3	27.3	18.2	60.5	33.9	35.2	21.6	41.9	28.9	25.5	17.1
H. influenzae type b 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
	0.7	0.5	0.3	0	0	0	0	2.2	0	0	1.9	0	0.7	0	0	0	0.4	0.8	0	0	0.3	0	0	0
Hepatitis A	0	0	1	4	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	0	1.3	4.0	7.6	1.0	0	0	4.4	0	0	0	0	0	0	0	2.6	2.5	1.5	0	0	0.5	0	0	0
Hepatitis B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0
	2.2	1.5	1.4	1.5	2.3	3.5	0.0	0.0	0.0	6.5	0.0	0.0	4.2	0.0	0.7	7.8	1.6	0.8	1.7	6.2	0.8	0.0	1.2	0.9
Hepatitis C	0	0	0	1	0	2	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	1.5	0.5	0.9	0.6	0	16.0	6.0	2.2	7.7	6.5	0	0	1.4	0	0	0	2.5	2.3	0.9	3.1	1.6	0	0.6	1.8
Hydatids 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
	0.7	0.3	0	0	0	0.9	0	2.2	0	0	0	0	0	0	0	0	0.4	0	0	0	0.5	0	0	0
Influenza <sup>5</sup>	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	67.1	0.3	53.5	0	0	0	0	0	0	0	0	0	0	0	24.7	0	0	0	50.7	0	8.7	0
Lead absorption	1	1	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1
	2.9	1.3	2.3	0.9	5.6	2.7	2.0	2.2	3.1	0	5.6	29.8	3.5	6.5	6.0	2.6	1.6	0	6.9	0	3.1	12.6	9.3	3.6
Legionellosis <sup>2</sup>	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	2.9	0.8	0.9	0.9	5.3	0.9	0	0	0	0	0	0	0	1.6	0.7	2.6	2.1	3.8	0	0	2.6	1.3	1.2	0.9
Leprosy	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	0.3	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Leptospirosis	1	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	1	2	0	0
	10.9	1.0	0.6	0.6	7.3	4.4	2.0	17.5	3.1	3.3	2.8	6.0	9.8	0	4.0	0	0.8	0	1.7	3.1	1.0	8.8	0.6	0.9
Listeriosis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	0.7	0.8	0.9	0.3	0	1.8	0	2.2	0	0	0.9	0	0	0	0	0	0.4	0	0	0	0.5	1.3	1.2	0
Malaria	0	0	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2	0	0	0
	0.7	0.5	1.7	1.2	2.0	1.8	0	0	0	0	1.9	6.0	0.7	0	2.0	0	2.1	1.5	3.4	3.1	2.3	2.5	1.2	0.9
Measles	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	4	0	0	2
	2.2	1.3	2.9	1.2	0	6.2	0	6.6	0	0	1.9	0	4.9	1.6	1.3	2.6	2.1	0	4.3	12.3	3.6	0	2.9	9.9
Meningococcal disease	2	3	3	10	10	2	1	1	6	1	1	0	3	0	0	0	0	6	0	0	1	1	6	2
	27.0	9.1	23.1	37.2	25.1	13.3	35.8	24.0	38.7	39.1	9.4	11.9	19.5	11.4	12.6	31.2	9.5	12.8	10.3	9.3	4.9	3.8	31.9	10.8
Mumps	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	5.1	0.3	1.2	1.2	0	0.9	6.0	0	1.5	0	0	6.0	3.5	0	1.3	2.6	1.6	3.0	0.9	0	2.3	2.5	4.1	0
Paratyphoid	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	0.8	2.9	1.2	0	0.9	0	0	0	0	0.9	0	2.1	0	0.7	0	0.8	0	0	0	0.5	0	0	0
Pertussis	0	9	5	0	18	0	0	1	0	0	0	0	2	0	0	0	3	3	5	1	9	0	1	3
	22.6	18.5	16.5	19.3	66.1	31.0	11.9	6.6	15.5	16.3	3.7	29.8	15.3	14.7	4.7	36.4	42.4	77.7	176.6	104.9	47.9	37.7	37.6	48.5
Rheumatic fever	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7.3	2.0	10.4	8.5	3.0	0.9	15.9	4.4	0	3.3	0	6.0	1.4	3.3	0	2.6	1.2	0.8	0	0	0	0	0	0
Rubella	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0
	0	0.8	0	0.6	0	0	0	0	0	0	0.9	0	7.0	0	0	0	1.6	0.8	0	0	1.8	0	0	1.8
Salmonellosis	6	19	18	17</																				