MONTHLY SURVEILLANCE REPORT

This monthly report contains data and commentary on disease trends and events up to and including the end of September 2001. (See also the October 2001 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 September 2001 and "previous rate" refers to the rate for the 12 month period ending September 2000.

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1. Key disease trends

Anthrax

The apparently deliberate introduction of anthrax at multiple loci throughout the United States of America recently has raised the profile of this disease dramatically, both in New Zealand and internationally.

Anthrax is an acute bacterial disease caused by infection with the bacterium *Bacilius anthracis*. Anthrax is primarily a disease of herbivorous mammals, and is far less contagious and virulent among incidental hosts such as carnivorous mammals and humans (Berenson, 1995). Berenson (1995) summarises the pathology and treatment of anthrax in humans. In humans, anthrax takes one of three clinical forms: *cutaneous*, *intestinal*, or *respiratory* anthrax. Cutaneous anthrax affects the skin, and usually follows inoculation with anthrax spores through cuts or scratches. Cutaneous anthrax is manifested as painless skin lesions that develop into large blisters. The case usually recovers. Respiratory and intestinal anthrax are rarer forms of the disease, and follow inhalation or ingestion of the spores respectively. In contrast with cutaneous anthrax, respiratory and intestinal anthrax typically lead to fever, septicaemia, and death. However, anthrax in humans can be effectively treated with antibiotics.

The introduction of anthrax to New Zealand is associated with the early importation of improperly sterilised animal bones for processing into fertiliser during the late nineteenth and early twentieth centuries (Barry, 1954; Gill, 1993). The first recorded outbreak of anthrax in New Zealand occurred among domestic livestock in 1895 (Barry, 1954; Gill, 1993). Thirty–eight additional outbreaks of anthrax among livestock were observed over the years from 1895 to 1908 (Barry, 1954). With the introduction of controls on the importation of bone for fertiliser, and later the introduction of artificial fertilisers, and the introduction of active control measures including a vaccination programme and strict carcass disposal protocols, these outbreaks began to diminish (Barry, 1954; Gill, 1993). Sporadic outbreaks are recorded over the years from 1908 to 1954 (Barry, 1954). The last recorded outbreak of anthrax among domestic livestock in New Zealand occurred in 1954 (Gill, 1993).

Many of the later, sporadic outbreaks occurred on farms where outbreaks had been recorded in earlier years (Barry, 1954). However, the times between initial and subsequent outbreaks on farms were often considerable, usually years and on occasion decades (Barry, 1954). Although *B. anthracis* spores are able to remain viable in the soil for extended periods of time, New Zealand has enjoyed relative freedom from anthrax in recent years. It is thought that this is due to a low level of spores in the environment, achieved following the active control measures implemented in the early years of the twentieth century (Gill, 1993).

Cases of human anthrax in New Zealand appear to be associated with outbreaks of the disease among livestock (Gill, 1993). The last recorded human fatality in New Zealand attributed to anthrax occurred in 1903, when three farm workers, one of whom later died, contracted the disease after they slaughtered, butchered, and ate portions of a bullock infected with the disease (Department of Health, 1903). The date of the last non–fatal case of human anthrax in New Zealand is not well known. However, a non–fatal case of human anthrax from 1904 is recorded (Department of Health, 1904). The case was a worker in a fertiliser plant grinding imported bones into meal, and appears to have contracted cutaneous anthrax through cuts and abrasions sustained in his work (Department of Health, 1904). Other non–fatal human cases associated with later livestock outbreaks may have occurred, however no human or animal cases since the 1954 livestock outbreak have been confirmed.

The risk factors for human anthrax are contact with or ingestion of tissue, including hair, wool, meat, and hides, from livestock infected with the disease (Berenson, 1995). Clearly, workers in the agricultural sector, where occupational exposure to these materials is usually unavoidable, are most at risk, particularly during an animal outbreak of the disease. A recent case of human anthrax in a knackery worker in Australia (Lester *et al.*, 1997) was observed following a massive outbreak of the disease among cattle there (Turner *et al.*, 1999A; Turner *et al.*, 1999B). Although the real risk of an outbreak of either human or animal anthrax in New Zealand today is probably very small, the Ministry of Agriculture and Forestry maintains an active surveillance program to prevent re–introduction of the disease from abroad. Human anthrax is a notifiable disease in New Zealand. All suspected or confirmed cases must be reported to the regional Medical Officer of Health.

References:

Barry, W. C. 1954. The occurrence of anthrax in New Zealand. *New Zealand Veterinary Journal* **2**: 51–52

Benenson, A. S. (ed.). 1995. Control of communicable diseases manual. American Public Health Association, Washington.

Department of Health. 1903. Annual report. Unpublished report held by New Zealand Ministry of Health, Wellington.

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Gill, J. 1993. Anthrax — still history after all these years. *Surveillance* **20**(1): 21–22

Lester, R., Beaton, S., Carnie, J., Barbis, D., and Rouch, G. 1997. A case of human anthrax in Victoria. *Communicable Diseases Intelligence* **21**(4): 47–48

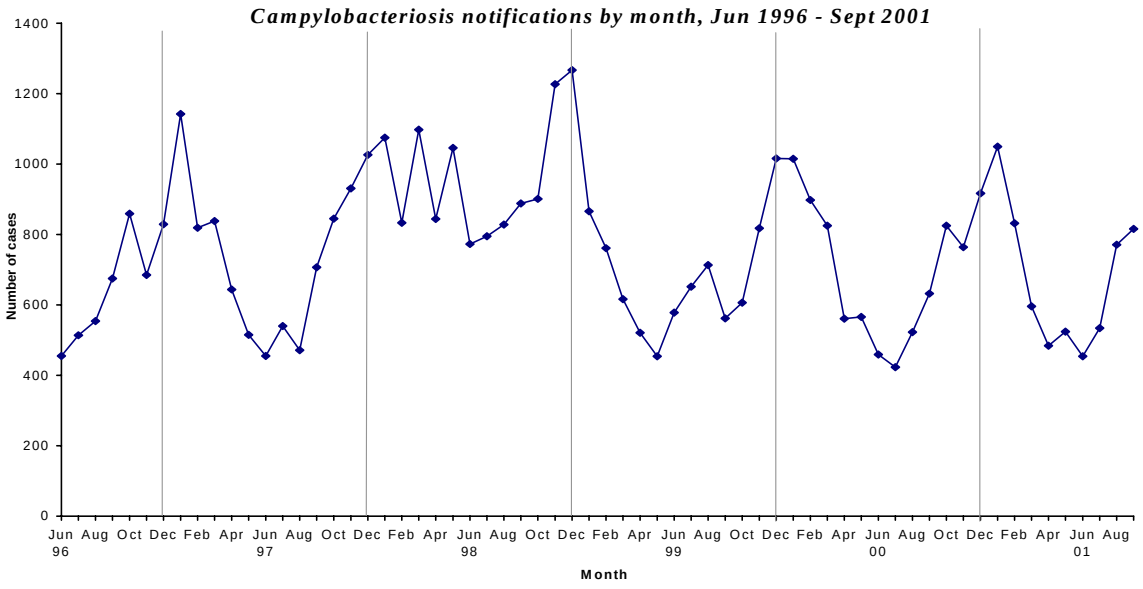
Turner, A. J., Galvin, G. W., Rubira, R. J., and Miller, G. T. 1999A. Anthrax explodes in an Australian Summer. *Journal of Applied Microbiology* **87**: 196–199

Turner, A. J., Galvin, R. J., Rubira, R. J., Condron, R. J., and Bradley, T. 1999B. Experiences with vaccination and epidemiological investigations on an anthrax outbreak in Australia in 1997. *Journal of Applied Microbiology* **87**: 294–297

Campylobacteriosis

There were 816 cases of campylobacteriosis notified during September 2001, bringing the year to date total to 6099. In contrast, 632 cases were notified during September last year.

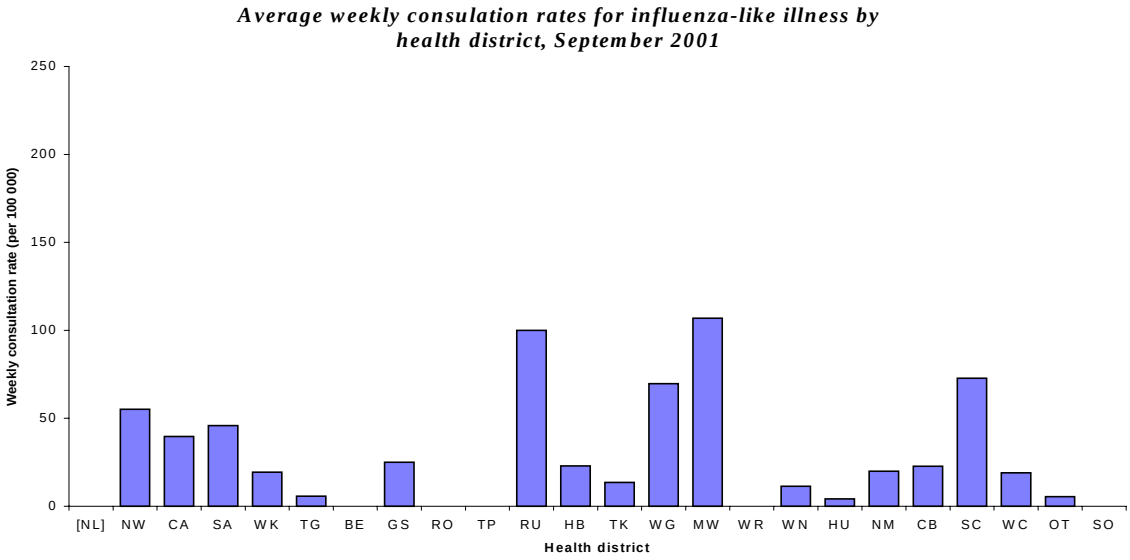
Of the 816 cases notified in September, 233 (28.6%) were notified from the combined Auckland health districts, 111 (13.6%) from Waikato and 97 (11.9%) from Wellington health districts.



Influenza

During September (weeks 36 – 39), 359 consultations for influenza-like illness were reported from 73 general practices (on average) in 23 out of 24 health districts. The average weekly consultation rate for September was 31.2 per 100 000 patient population.

The following graph compares the average weekly consultation rates for influenza-like illness for each health district during September. Manawatu had the highest consultation rate (107.0 per 100 000), followed by Ruapehu (100.0 per 100 000).



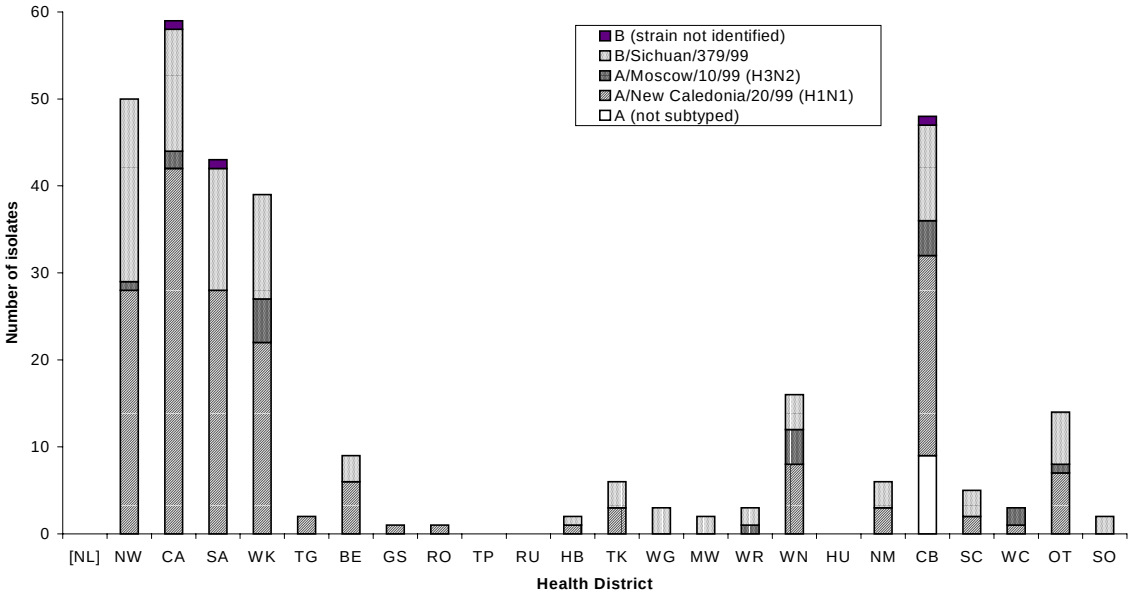
NB [ ] indicates no reports from the health district

A total of 87 swabs was sent for testing during September from sentinel surveillance. Ten influenza isolates were identified from swabs taken in September. All of these were typed as Influenza B, including nine typed as Influenza B/Sichuan/379/99-like virus (as represented by B/Johannesburg/5/99 in the diagnostic kit) and one with antigenic strain identification to follow. These isolates were from Central Auckland (four isolates), North West Auckland (two), South Auckland, Waikato, Taranaki and Canterbury (one each).

In addition, through the year-round laboratory-based surveillance system, a total of 22 isolates was identified from swabs taken in September. Of these, five were Influenza A. One case was further sub-typed as Influenza A/New Caledonia/20/99 (H1N1)-like virus and three cases were sub-typed as Influenza A/Moscow/10/99 (H3N2)-like virus (A/Panama/2007/99 in the diagnostic kit). One case of Influenza A has not yet been sub-typed. Seventeen cases were typed as Influenza B, including 14 typed as Influenza B/Sichuan/379/99-like virus (B/Johannesburg/5/99 in the diagnostic kit) and three with antigenic strain identification to follow.

Influenza sentinel surveillance finished for the season at the end of September. The following graph shows the cumulative total of sentinel isolates confirmed to the end of the 2001 season by health district.

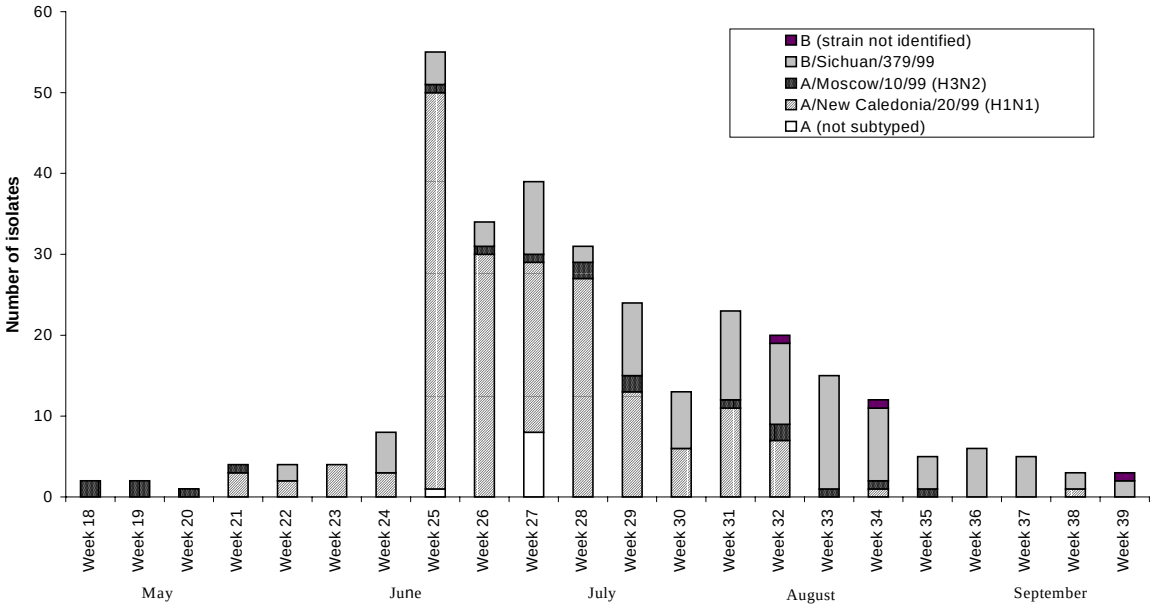
Cumulative laboratory confirmed isolates from sentinel surveillance by health district, May - September 2001



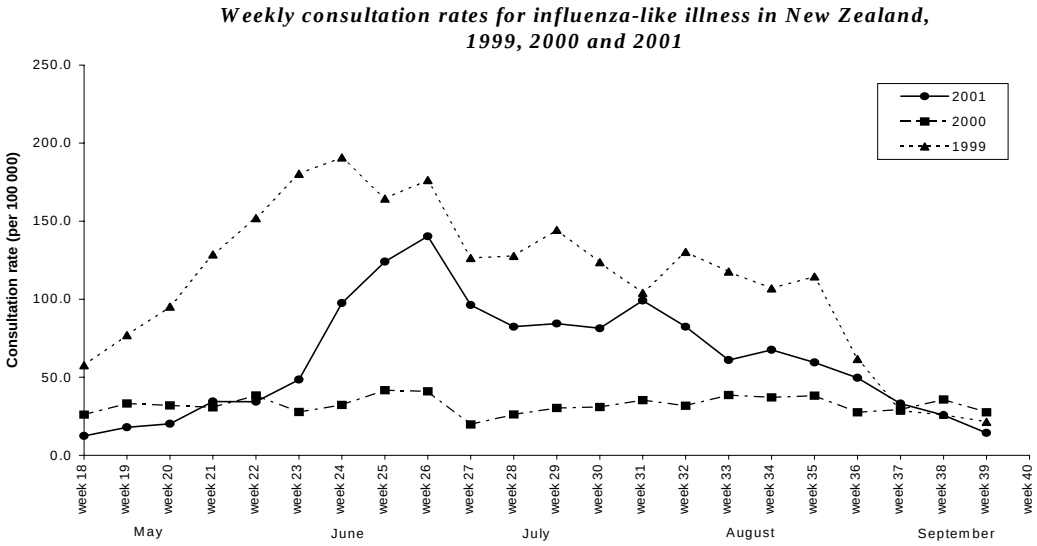
During the peak period of June and July, Influenza A(H1N1) was the predominant strain. Influenza B started to dominate in August and September.

The following graph shows the sentinel influenza isolates currently confirmed to the end of the 2001 season by week reported.

Laboratory confirmed isolates from sentinel surveillance by week reported, May - September 2001



The following graph shows the national weekly consultation rates to the end of sentinel surveillance, September 2001 compared with 1999 and 2000.



The influenza vaccine composition for 2002 has now been agreed. The recommended composition is:

- A/New Caledonia/20/99 (H1N1)-like strain
- A/Moscow/10/99 (H3N2)-like strain
- B/Sichuan/379/99-like strain

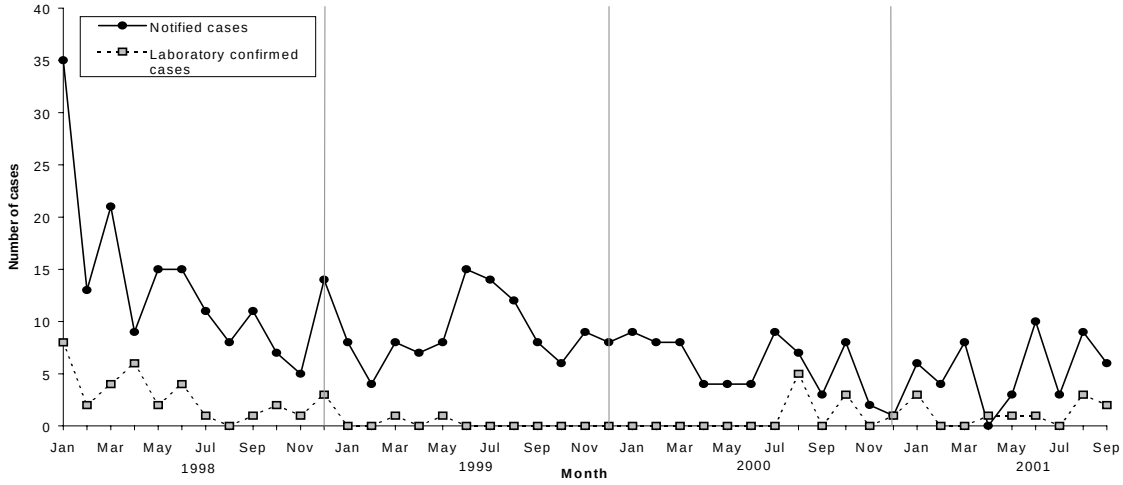
These are the same strains as were included in the influenza vaccine for 2001.

Measles

Six cases of measles were notified during September, bringing the year to date total to 49. Of the September cases, 33% (2/6) were laboratory confirmed.

The following graph displays the number of notified and the number of laboratory confirmed cases of measles by month, January 1998 to September 2001. Only 14.5% of the 387 cases notified between January 1998 and September 2001 were laboratory confirmed.

Notified and laboratory confirmed cases of measles by month, January 1998 to September 2001



Meningococcal disease

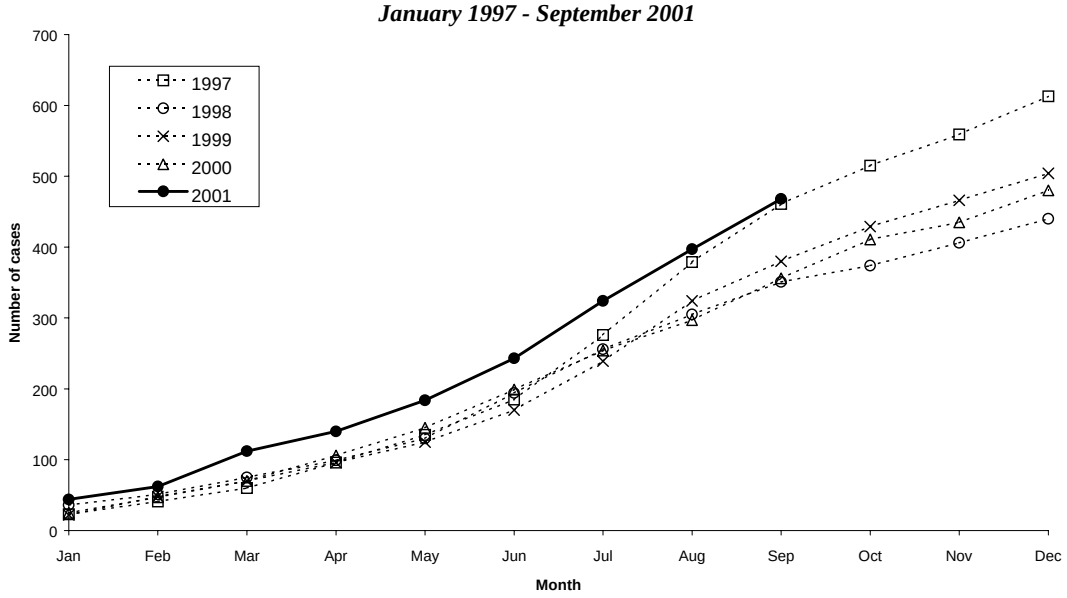
A total of 71 cases of meningococcal disease was notified during September, bringing the year to date total to 468. This is the highest number of cases notified for the January to September period for any year since the epidemic began. It is similar to the 1997 total for the same period, which was 461.

Three of the cases notified this month have since died: a one-year-old male from Tauranga Health District, a two year-old female from Southland Health District and a twelve year-old male from Otago Health District.

Of the 71 cases notified during September this year, 45 had been laboratory confirmed at the time of this report.

Note: the data plotted below were derived from combined laboratory and surveillance data, using the earliest available data for the case (i.e. onset or hospitalisation date, if available, rather than report date).

Meningococcal disease cases, cumulative total by month, January 1997 - September 2001

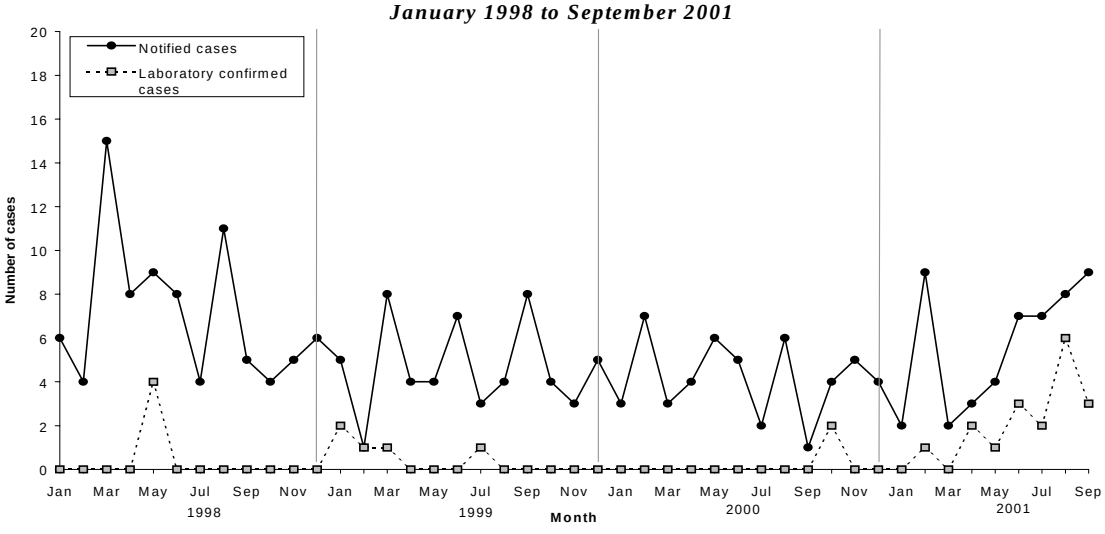


Mumps

Nine cases of mumps were notified during September, bringing the year to date total to 51. Of the September cases, 33% (3/9) were laboratory confirmed.

The following graph displays the number of notified and the number of laboratory confirmed cases of mumps by month, January 1998 to September 2001. Only 12.0% of the 242 cases notified between January 1998 and September 2001 were laboratory confirmed.

Notified and laboratory confirmed cases of mumps by month, January 1998 to September 2001



Norwalk-like Virus Outbreaks

Auckland District Health Board was notified of an outbreak of acute gastroenteritis in a group of 12 people who consumed a restaurant meal on 18th August 2001. Seven members of the group had become ill since dining at the restaurant. Two related outbreaks were reported, involving meals eaten at two different Auckland restaurants the following day. A total of 24 people from these three events reported symptoms of gastroenteritis.

Combined epidemiological and microbiological investigations identified Norwalk-like virus (NLV) as the likely pathogen. Fresh, raw Pacific oysters were determined to be the probable source of illness, with an attack rate of 54% and a relative risk (RR) of 12.92 (95% CI 1.78–93.94; p=0.0011) at the index restaurant. At the other two restaurants, the attack rates for those who had eaten oysters were 63% and 71%. The RRs associated with oyster consumption were 20.00 (95% CI 2.70–148.14; p=0.0005) and 1.43 (95% CI 0.33-6.17; p=1.0) respectively. Six of the 12 (50%) faecal samples obtained from cases in these outbreaks tested positive for NLV; no other pathogens were identified.

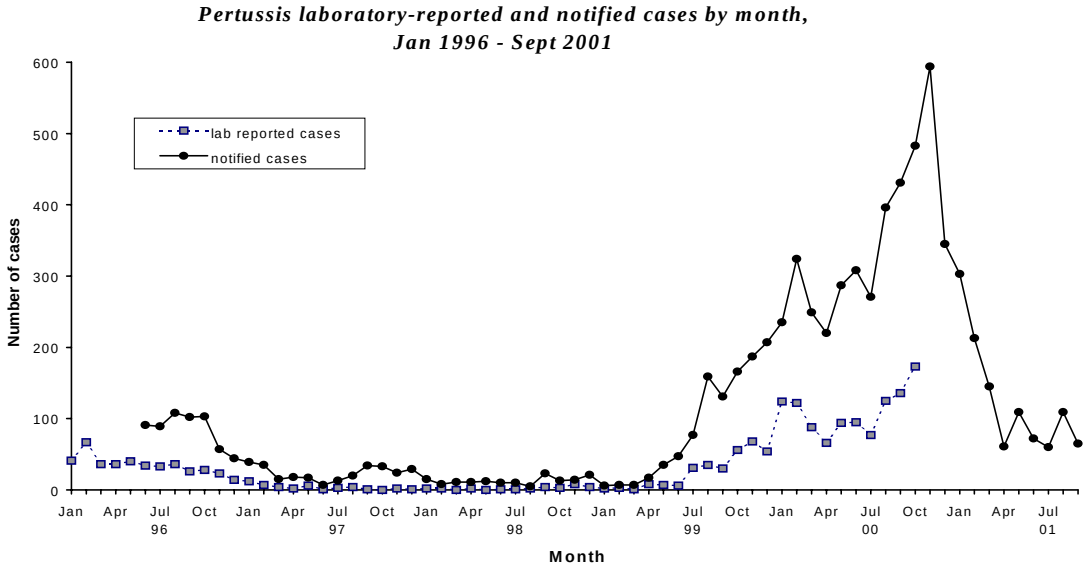
The origin of the oysters was identified by trace back through the harvesting, processing, and distribution chain to two growing areas in Northland (the Waikare Inlet and Orongo Bay). Oysters sampled from the Waikare Inlet in relation to a Northland outbreak tested positive for NLV; all other oyster samples were negative for NLV. No source of contamination could be identified down the chain of processing and distribution. As a result of the initial investigation, the two growing areas were closed for a period of 21 days. This is the third cluster of NLV outbreaks implicating oysters harvested from the Waikare growing area since 1994.

Reported by Rhys Jones, Auckland Healthcare

Pertussis

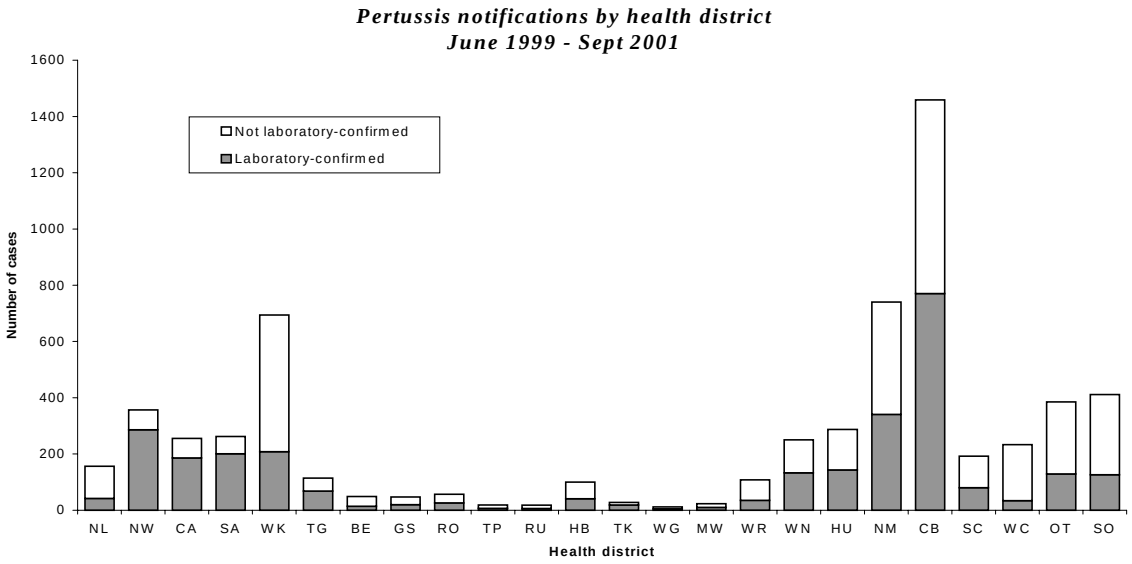
A total of 6256 cases of pertussis has been notified since the current epidemic began in June 1999. Of these, 2926 (46.8%) cases have been laboratory confirmed. There have been 458 hospitalisations (7.9% of cases for whom this information was recorded) and one death reported. During September 2001, 65 cases of pertussis were notified, compared to 105 cases in August and 60 cases in July 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. September notifications were highest in Nelson Marlborough (33 cases), Waikato (11) and Hutt (6) health districts.

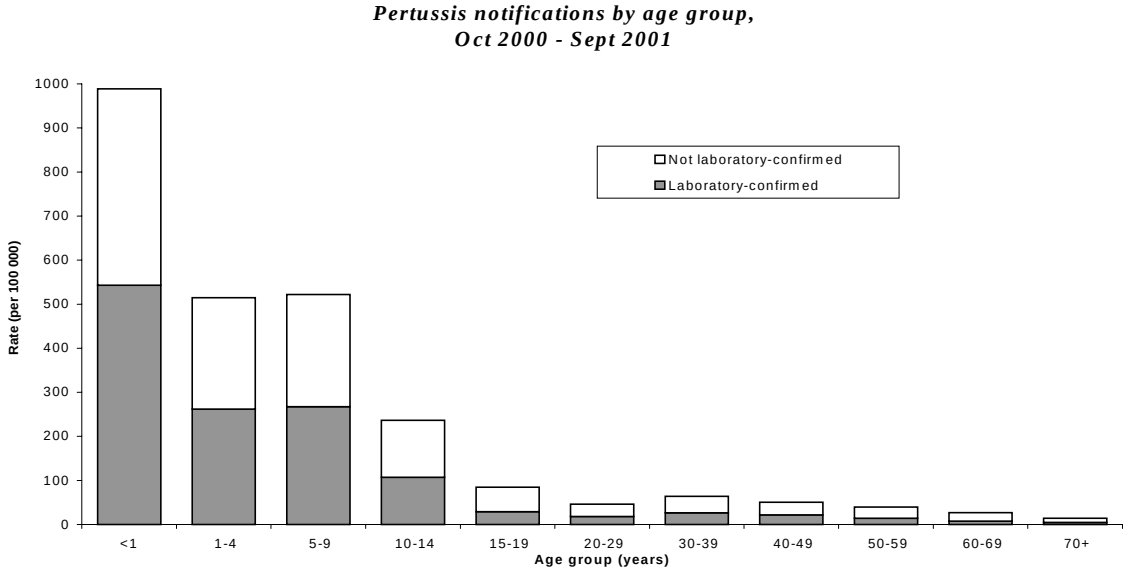
The following graph compares the number of laboratory-reported cases, between January 1996 and October 2000, with cases notified after June 1996, when pertussis became notifiable**.**



The graph below shows the number of cases of pertussis notified in each health district during the epidemic period. During this 28 month period (June 1999 to September 2001), the greatest number of cases was notified from Canterbury Health District, with 1459 notifications (53% laboratory confirmed by isolation or PCR), followed by Nelson-Marlborough with 740 (46% laboratory confirmed) and Waikato with 694 (30% laboratory confirmed). The laboratory confirmation rate was highest in the North West Auckland Health District (80.1% or 286/357 cases) and lowest in the West Coast Health District (14.6% or 34/233).

The following graph shows the notification rates for pertussis over the last 12 months by age group. The highest rate was reported amongst infants aged less than one year (988.8 per 100 000), followed by children aged 5-9 years (521.9) and 1-4 years (514.5). The highest proportion of laboratory confirmation was in the under one year olds (55%) followed by 1-4 years (51%) and 5-9 years (51%).





Rickettsial disease

One case of rickettsial disease was identified in the Waikato Health District in September and notified to EpiSurv on 2 October. This brings the total number of cases of rickettsial disease notified this year to four.

Fifteen cases of rickettsial disease have been notified since 1995. All cases, with the exception of the most recently notified one, were notified from Auckland health districts.

Rickettsial diseases are caused by a bacterial infection with species of the genus *Rickettsia*. Rickettsial diseases in humans are usually transmitted by an intermediate host such as ticks or fleas living on a reservoir species such as rodents or other mammals (including human beings), that later parasitise other humans. Typhus (*R. prowazekii*) and murine typhus (*R. typhii*) are rickettsial diseases.

The fifteen cases notified since 1995 have been variously notified as cases of "rickettsial disease", "murine typhus", and "typhus" (see table below). Only two cases had a history of overseas travel during the incubation period that might account for the disease: one case of "typhus" notified during 2000 had travelled to Egypt, and one case of "murine typhus" notified during 2000 had travelled to Australia.

As noted in last month's summary surveillance report, the handling of rodents (especially rats) or their carcasses, and the handling of other animals likely to come into contact with rodents (eg. domestic cats) are probable risk factors for murine typhus.

Rickettsial diseases notified to EpiSurv, 1995–2001

Year	Number of cases of rickettsial disease by disease name notified			
	Rickettsial disease	*Murine typhus*	*Typhus*	Total
1995	0	0	0	0
1996	0	0	0	0
1997	0	0	0	1
1998	0	0	0	0
1999	0	0	0	0
2000	0	3	7	10
2001*	1†	3	0	4

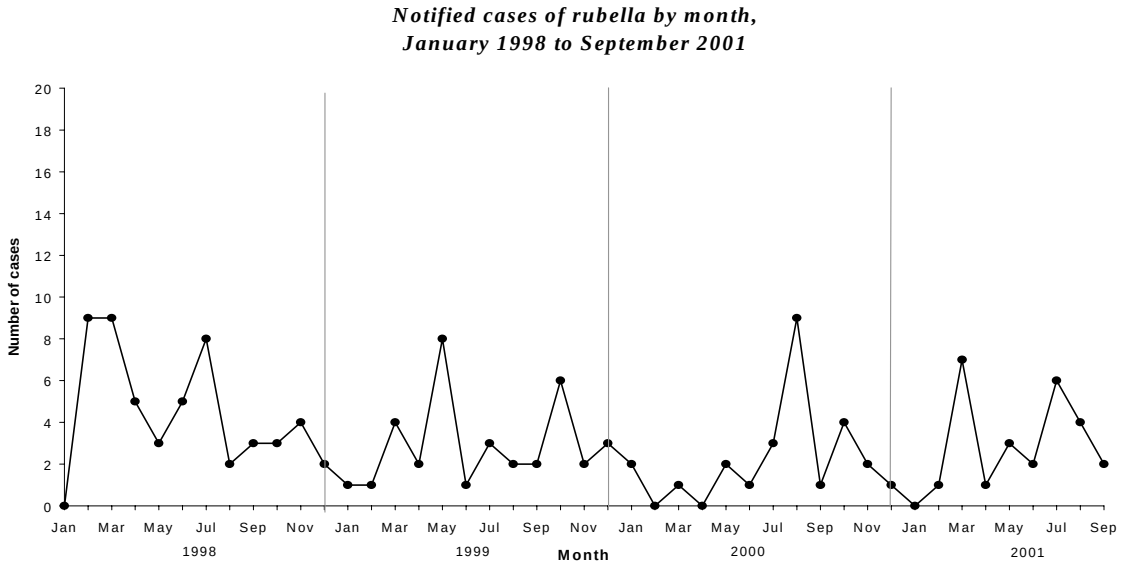
* 1 January to 2 October 2001

† The case identified in September and notified in October was notified as "rickettsial disease"

Rubella

Two cases of rubella were notified during September, bringing the year to date total to 26. None of the September cases was laboratory confirmed. In fact there have been only two laboratory confirmations of the disease since January 1998 (in July 1998 and August 1998).

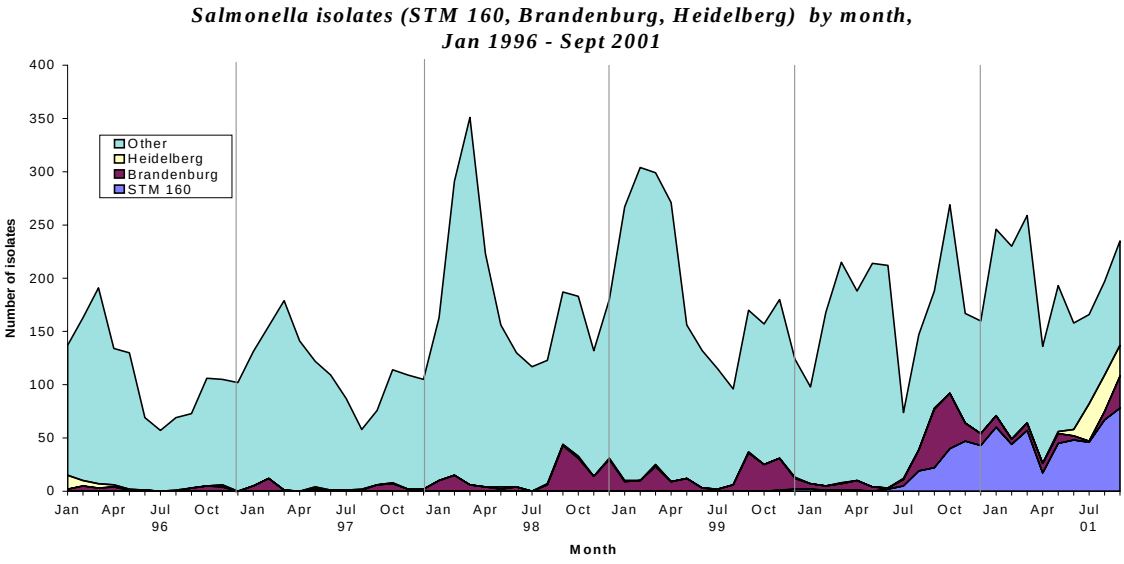
The following graph displays the number of notified cases of rubella by month, January 1998 to September 2001.



Salmonellosis

The ESR Enteric Reference Laboratory (ERL) received 235 *Salmonella* isolates during September. The predominant types identified were *Salmonella* Typhimurium phage type 160 (STM 160), *S.* Brandenburg and *S.* Heidelberg. The STM 160 epidemic has persisted for the second month with 79 isolates in September, representing 34% of total *Salmonella* isolates. *S.* Brandenburg has increased from eight isolates in August to thirty isolates in September. This increase in human isolations in spring follows a pattern similar to the one seen in the last three years. *S.* Heidelberg has decreased slightly from 34 isolates in August (17% of total isolates) to 29 isolates in September (12% of total isolates).

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



VTEC/STEC infection

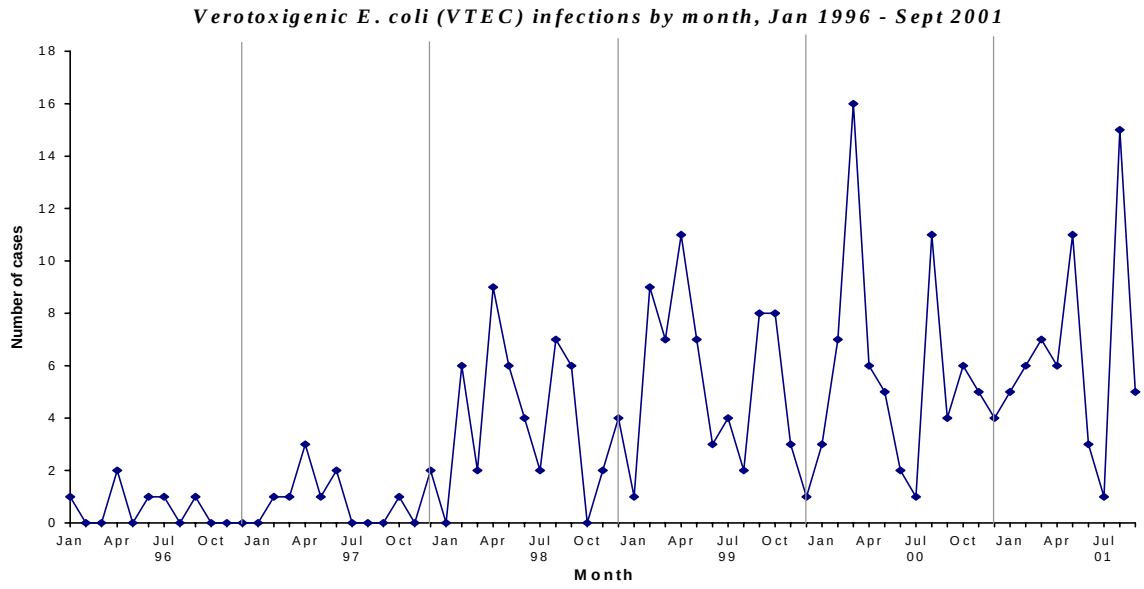
Five cases of Verotoxigenic or shiga-toxin producing Escherichia coli (VTEC/STEC) infection were notified in September. A further case was confirmed but not notified. The September cases were reported from Gisborne (three cases), Northland and Waikato health districts (1 each). Four of the cases were aged under five years and the remaining case, from Northland, was aged 91 years. The Gisborne cases were brothers and sisters. The Waikato case was an 11-month-old boy who had drunk unpasteurised goat's milk during the incubation period. The unnotified case was a 73-year-old woman from Auckland.

In August, one case of haemolytic uraemic syndrome (HUS) was reported from Canterbury Health District. The case was a one-year-old boy who was exposed to

seven cats fed on raw milk and raw mince. The child had possibly eaten from the cats' bowls. Molecular subtyping carried out in September revealed that the organism *Escherichia coli* O157 isolated from both the child and the raw milk were indistinguishable. This is the first New Zealand isolate of *E. coli* O157 from a food source.

A non-O157 VTEC/STEC was confirmed from a one-year-old boy with HUS in the Tauranga Health District. Serotyping results for this organism are not yet available.

The following graph displays the number of cases of VTEC / STEC infection notified each month since January 1996.



2. Notes on the surveillance system

Dengue Fever outbreak number

All individual cases listed in EpiSurv which are associated with the outbreak of Dengue Fever, either in Samoa or the other Pacific Islands (including Tahiti), should be given the outbreak number AK2001165. The details should be reported to the Auckland District Health Board (attention: Karalyn Kalemba) so they can update their outbreak report.

3. Deaths from notifiable diseases (excluding AIDS)

Three deaths from notifiable diseases were reported in September 2001.

Disease	No. of deaths reported Sep 2001	Cumulative no. of deaths reported in 2001
Campylobacteriosis	0	1
Creutzfeldt Jakob disease	0	1
Hepatitis B	0	1
Legionellosis	0	1
Listeriosis	0	1
Meningococcal disease	3	22
Salmonellosis	0	2
Tuberculosis disease	0	1
Total	**3**	**30**

4. Outbreaks

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

Summary of September 2001 recorded outbreaks:

Organism/Toxin/Illness	Number of outbreaks[1]	Total number of cases[2]
Campylobacter	2	5
Clostridium perfringens	2	11
Cryptosporidium parvum	5	55
Gastroenteritis	15	45
Giardia	3	46
Norwalk-like virus	1	17
Salmonella	2	18
Staphylococcus aureus	1	2
Yersinia enterocolitica	1	6
Total	**32**	**171**

[1] One outbreak, involved more than one pathogen.

[2] Thirty-seven cases involved more than one pathogen.

In addition, 18 preliminary outbreak reports were received from Auckland (*Campylobacter*, *Giardia*, and *Shigella*), Gisborne (VTEC / STEC Infection), Rotorua (Gastroenteritis), South Canterbury (Mycobacterium Tuberculosis) and Otago (Norwalk-like virus). 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 September 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.				
Campylobacter	Auckland	Jul	1	2	0	0	2	Hotel / Motel	Foodborne (chicken liver pate)	Improper storage prior to preparation; undercooking
Campylobacter	Canterbury	Aug-Sep	22	3	0	0	Unk	Hide processing	Zoonotic	Exposure to infected animals or animal products
Clostridium perfringens	Auckland	Jul	1	1	0	1	2	Restaurant / café	Foodborne (curry)	Improper hot holding; inadequate cooling or refrigeration
Clostridium perfringens	Canterbury	Sep	2	2	5	2	14	Restaurant / cafe	Foodborne (gravy)	Inadequate cooling or refrigeration
Cryptosporidium / Giardia	Auckland	Feb-Apr	45	7	12	18	70	Child care centre	Person to person	Exposure to infected people; poor hygiene of cases
Cryptosporidium parvum	Auckland	Mar-Apr	22	4	0	5	38	Child care centre	Person to person	Exposure to infected people; poor hygiene of cases; 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
Cryptosporidium parvum	Rotorua	Aug	6	2	0	1	4	Home; farm	Waterborne; person to person; environmental; zoonotic	Use of ingredients from unsafe source; use of untreated water in food preparation; exposure to infected people; poor hygiene of case; exposure to contaminated environment(s); exposure to infected animals or animal products
Cryptosporidium parvum	*Wanganui*	Sep	4	2	0	1	4	Farm	Zoonotic	Exposure to contaminated environment(s); exposure to infected animals or animal products
Cryptosporidium parvum	West Coast	Aug	4	1	0	2	5	Farm	Zoonotic	Unknown
Gastroenteritis	Auckland	Jun	1	0	0	4	4	Restaurant / café	Unknown	Unknown
Gastroenteritis	Auckland	Jun	1	0	0	2	2	Takeaways	Foodborne (chicken); person to person	Improper hot handling
Gastroenteritis	Auckland	Jul	1	0	0	2	2	Restaurant / café	Unknown	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	Jul	2	0	0	2	2	Unknown	Unknown	Unknown
Gastroenteritis	Auckland	Jul	1	0	0	2	2	Restaurant / café	Unknown	Unknown
Gastroenteritis	Auckland	Jul	1	0	0	3	3	Restaurant / café	Foodborne (beef stew)	Unknown
Gastroenteritis	Auckland	Jul	7	0	0	7	7	Restaurant / café	Foodborne (chicken)	Inadequate reheating of previously cooked food; inadequate cooling or refrigeration
Gastroenteritis	Auckland	Jul	1	0	0	2	2	Restaurant / café	Unknown	Unknown
Gastroenteritis	Auckland	Jul-Aug	5	0	0	3	3	Takeaways	Foodborne (kebabs)	Improper hot holding; cross contamination
Gastroenteritis	Auckland	Aug	1	0	0	2	2	Takeaways	Foodborne (BBQ sweet and sour pork with rice)	Inadequate cooling or refrigeration; cross contamination
Gastroenteritis	Auckland	Aug	1	0	0	2	2	Restaurant / café	Unknown	Unknown
Gastroenteritis	Auckland	Aug	2	0	0	2	2	Restaurant / café	Unknown	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	Aug	2	0	0	2	2	Restaurant / café	Foodborne	Improper storage prior to preparation; inadequate thawing; inadequate cooling or refrigeration;
Gastroenteritis	Auckland	Aug	31	0	0	3	3	Home	Person to person	Exposure to infected people
Gastroenteritis	Nelson	Sep	1	1	0	6	20	Restaurant / café	Foodborne	Unknown
Giardia	Rotorua	Jun-Jul	31	2	0	1	4	Home	Waterborne; person to person; zoonotic	Contamination of source water; exposure to infected people; poor hygiene of cases; exposure to infected animals or animal products; untreated water supply
Giardia	Nelson	Jul-Aug	17	6	0	0	6	Home	Person to person; environmental	Sharing baths within families
Norwalk-like virus	Canterbury	Aug	3	3	14	0	50	Hotel / Motel	Foodborne; person to person	Exposure to infected people

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
Salmonella	Rotorua	Aug	5	2	0	0	Unk	Home	Person to person; zoonotic	Exposure to infected people; poor hygiene of cases; exposure to contaminated environment(s); exposure to infected animals or animal products
Salmonella	Canterbury	Sept	4	6	10	0	32	Camp	Foodborne (lasagne)	Inadequate reheating of previously cooked food; inadequate cooling or refrigeration; cross contamination
Staphlyococcus aureus	Auckland	Jul	2	1	0	1	2	Home	Foodborne	Unknown
Yersinia enterocolitica	Wanganui	Aug	6	2	0	4	6	Home	Foodborne; waterborne; person to person; environmental; zoonotic	Exposure to infected people; exposure to contaminated environment(s); exposure to infected animals or animal products; untreated water supply

5. National surveillance data and trends

Disease[1]	Current year - 2001[2]			Previous year - 2000		
	Sep 2001 cases	Cumulative total since 1 January	Current rate[3]	Sep 2000 cases	Cumulative total since 1 January	Previous rate[3]
AIDS	1	21	0.8	0	19	0.7
Campylobacteriosis	816	6099	238.0	632	5918	231.0
Cholera	1	3	0.1	0	0	0
Creutzfeldt-Jakob disease	0	1	0.1	1	2	0.1
Cryptosporidiosis	186	819	34.0	172	366	17.7
Dengue fever	8	68	2.0	0	3	0.1
Gastroenteritis[4]	93	688	25.3	62	502	18.7
Giardiasis	123	1199	43.1	141	1327	46.4
H. influenzae type b disease	0	10	0.4	0	9	0.3
Hepatitis A	1	44	1.9	12	82	2.6
Hepatitis B (acute)[5]	1	44	1.6	8	65	2.2
Hepatitis C (acute)[5]	6	47	1.7	6	67	2.5
Hydatid disease	1	4	0.2	0	1	0.1
Influenza[6]	49	645	20.7	81	145	4.3
Lead absorption	10	106	4.0	11	86	3.2
Legionellosis[6]	0	46	2.0	7	40	2.0
Leprosy	0	2	0.1	1	4	0.2
Leptospirosis	3	79	2.7	7	80	2.8
Listeriosis	2	12	0.4	1	20	0.7
Malaria	3	43	2.6	4	60	2.0
Measles	6	49	1.6	3	56	2.2
Meningococcal disease	73	464	16.3	61	353	13.2
Mumps	9	51	1.8	1	37	1.4
Paratyphoid	2	21	0.9	8	14	0.5
Pertussis	65	1141	70.8	431	2718	90.6
Rheumatic fever	1	103	3.8	16	110	3.4
Rubella	2	26	0.9	1	19	0.8
Salmonellosis	214	1660	59.8	171	1296	47.6
Shigellosis	15	135	4.6	11	85	3.2
Tetanus	0	3	0.1	0	1	0.1
Tuberculosis	27	275	10.0	27	266	10.6
Typhoid	2	19	0.7	2	16	0.4
VTEC / STEC infection	5	63	2.1	4	55	1.9
Yersiniosis	27	296	10.5	27	313	12.0

Notes: [1] Other notifiable infectious diseases reported in September : Rickettsial disease

[2] These data are provisional

[3] Rate is based on the cumulative total for the current year (12 months up to and including September 2001) or the previous year (12 months up to and including September 2000), expressed as cases per 100 000

[4] Cases of gastroenteritis from a common source or foodborne intoxication eg, staphylococcal intoxication or toxic shellfish poisoning

[5] Only acute cases of this disease are currently notifiable

[6] Surveillance data based on laboratory-reported cases only