

## MONTHLY SURVEILLANCE REPORT

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

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## 1. Major surveillance issues

- *Dengue fever.* There have been a further 15 dengue fever cases notified in October bringing the 2001 total to 83 (almost as many as the previous 10 years combined). Most cases had a history of travel to Samoa or another Pacific Island. This is an important reminder of the need for travellers to take precautions against mosquito bites in all tropical countries.
- *Measles.* The small rise in measles notifications and increasing interval since the last epidemic in 1997 suggests the need for increased vigilance for this disease.
- *Meningococcal disease.* The current year continues to be the worst since the epidemic began in 1991, with the highest year-to-date total of cases (540) and fatalities (24).
- *Salmonellosis.* The current year looks like being a record one for this disease with almost 2000 notified cases to the end of October.

## 2. Key disease trends

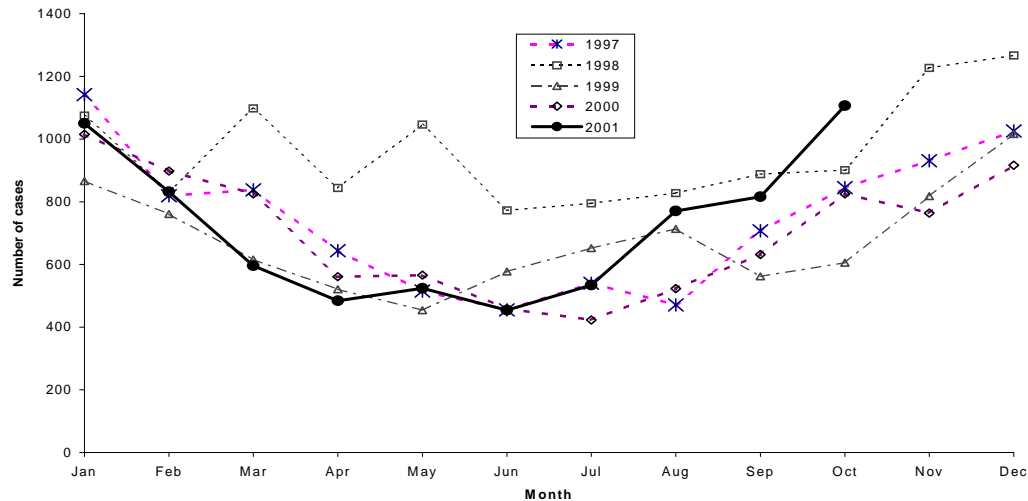
### Campylobacteriosis

There were 1107 cases of campylobacteriosis notified during October 2001, bringing the year to date total to 7209. In contrast, 824 cases were notified during October last year. This monthly total is the highest reported for any October since campylobacteriosis became notifiable in 1980.

Of the 1107 cases notified in October, 321 (28.9%) were notified from the combined Auckland health districts, 153 (13.8%) from Waikato, 119 (10.7%) from Wellington health districts. Four outbreaks were reported this month from Auckland, Rotorua and Canterbury health districts.

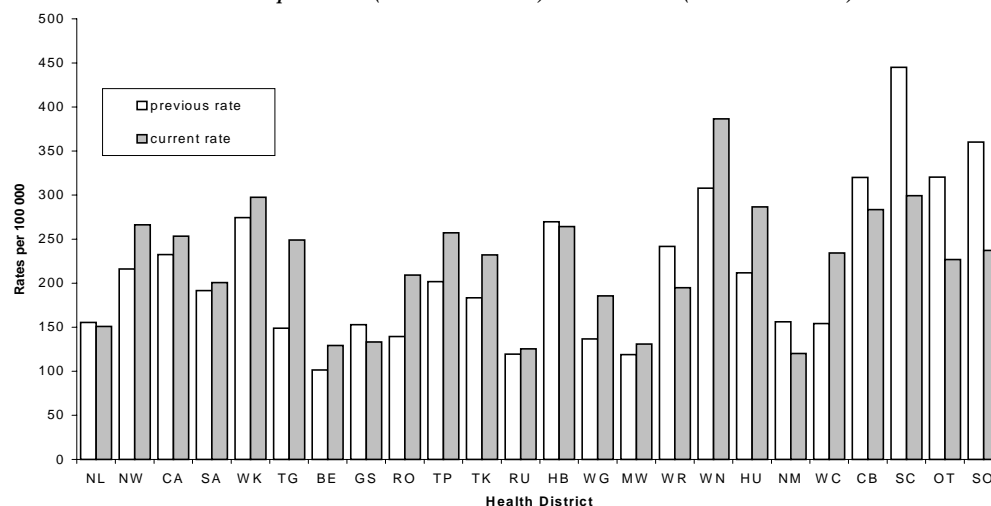
The following graph shows the number of cases by month since 1997.

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



The following graph compares the rates of campylobacter by health district for the years 2000 and 2001. Campylobacter has been reported in all the health districts with current rates ranging from 120.1 to 386.6 per 100 000. Rates have increased in 15 of the 24 health districts: North West Auckland, Cental Auckland, South Auckland, Waikato, Tauranga, Bay of Plenty, Rotorua, Taupo, Taranaki, Ruapehu, Wanganui, Manawatu, Wellington, Hutt, and West Coast.

*Campylobacter rates by health district:  
previous (Jan - Oct 2000) and current (Jan - Oct 2001)*

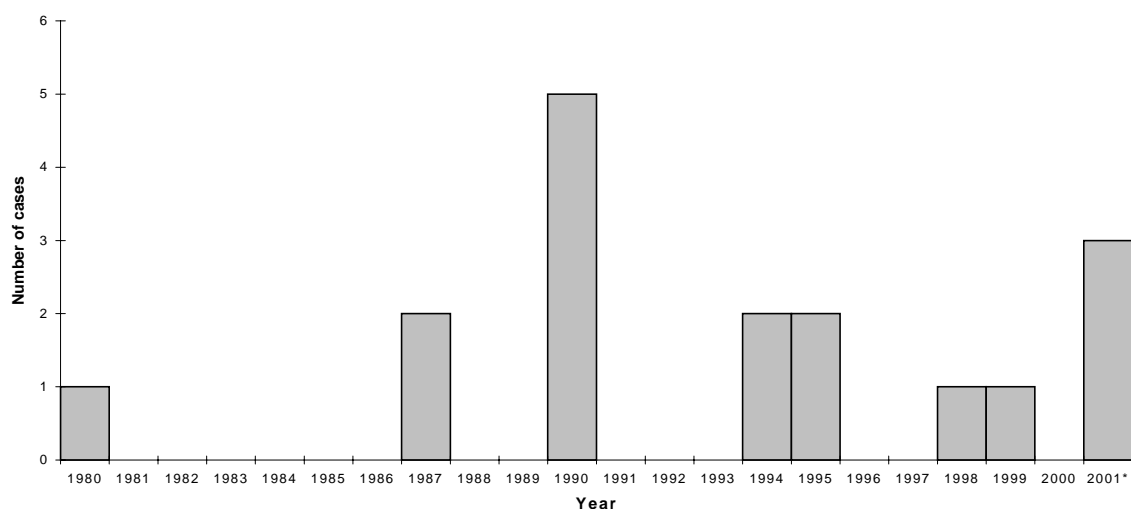


## Cholera

One confirmed cases of *Vibrio cholerae* O1 subtype Ogawa, biotype El Tor, was notified from South Auckland in October. The case was 28 year-old male on holiday in New Zealand who had recently travelled in India where he drank tap water. This

brings the total number of cases of cholera notified since 1980 to 17, five of whom have been notified in the last four years.

*Cholera notifications by year, 1980 - 2001\**

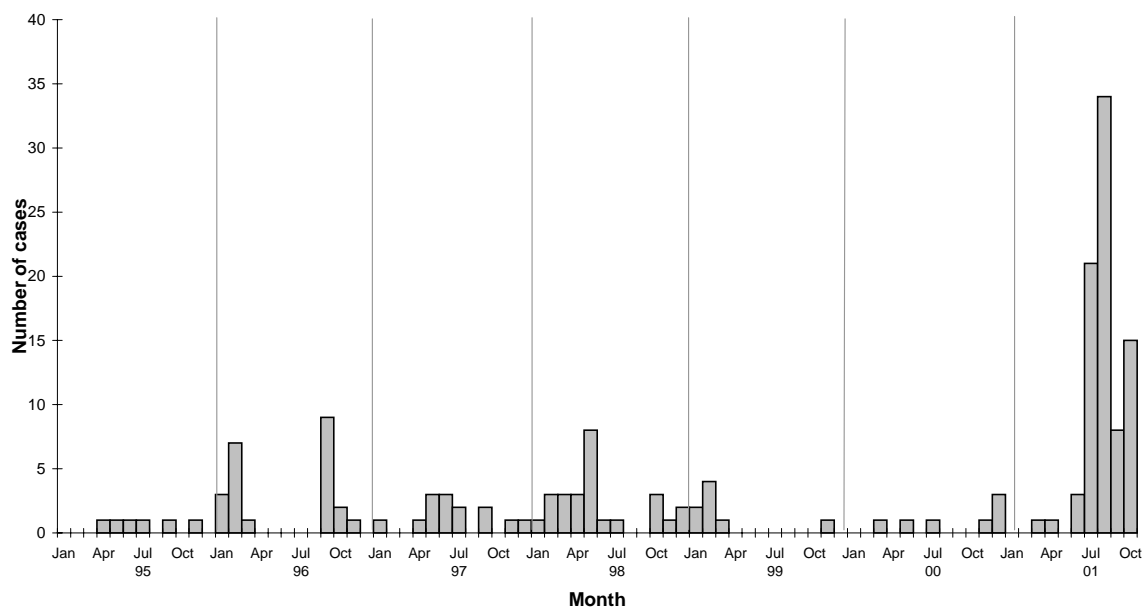


## Dengue Fever

Fifteen cases of dengue fever were reported in October, bringing the year to date total to 83. Travel destinations were known for 93.3% (14/15) of the cases: Samoa (5), Tokelau, Tahiti, Philippines (2 each), India, Indonesia, and Thailand (1 each). All of the cases were confirmed by IgM serology. None of the eleven cases, for which hospitalisation information had been recorded, was hospitalised.

The following graph plots the number of dengue notifications each month from January 1995 to October 2001.

*Dengue notifications by month, Jan 1995 - Oct 2001*



The following table shows dengue fever cases notified annually since January 1995, by country/region visited. A total of 168 dengue cases was notified from January 1995 to October 2001. Travel history was reported for 95.2% (160/168) of the cases. In 2001, 68.7% (57/83) of the cases had travelled to Samoa during the incubation period. Samoa has previously been the source of dengue infection in New Zealand travellers (1996-1997).

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

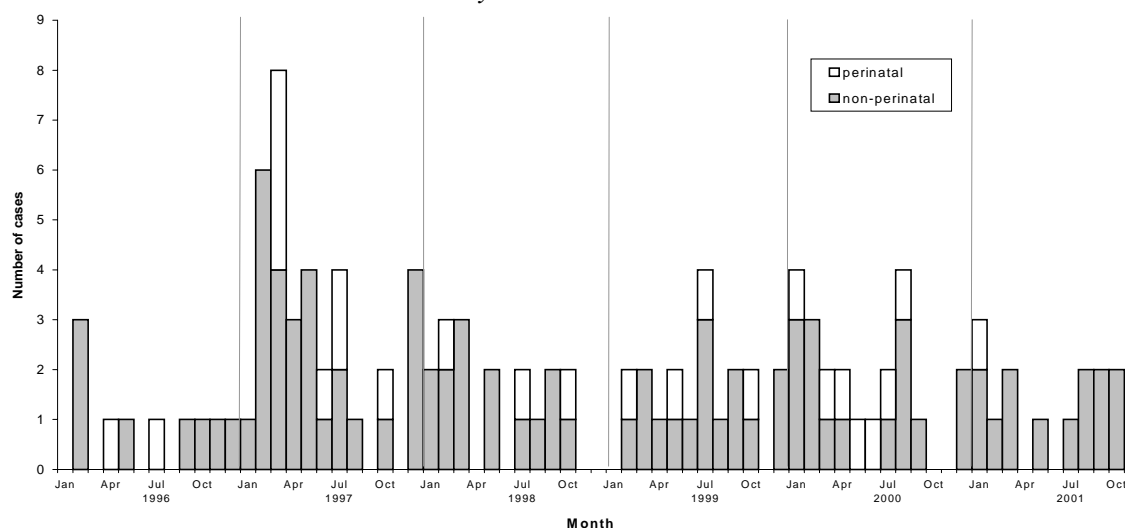
<b>Country/Region</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001<sup>1</sup></b>
Australia			1			1	
<i>Pacific Islands</i>							
American Samoa				1			
Cook Island (Raratonga)	2		6				
Fiji	2			9	1	2	1
French Polynesia							1
Samoa		16	4				57
Tahiti			3				6
Tokelau							3
Tonga				7			
Unspecified					1		
<i>South East Asia</i>							
Brunei		1					
East Timor						1	2
Indonesia (Bali, Jakarta)		2		2		1	3
India						1	1
Malaysia					1	1	
Philippines				2	1		2
Singapore					1		
Sri Lanka							1
Thailand		1		4	4		4
Vietnam							
Unknown travel total	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>83</b>

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

## Listeriosis

Despite the recent listeria exposure scares, no increase in listeriosis has so far been detected. Since January this year 14 cases have been notified compared to 20 at the same time last year. The current rate of 0.4 per 100 000 is less than the previous rate of 0.6. The following graph shows the number of listeriosis cases by month from January 1996 to October 2001.

*Perinatal and non-perinatal listeriosis cases by month  
January 1996 to October 2001*

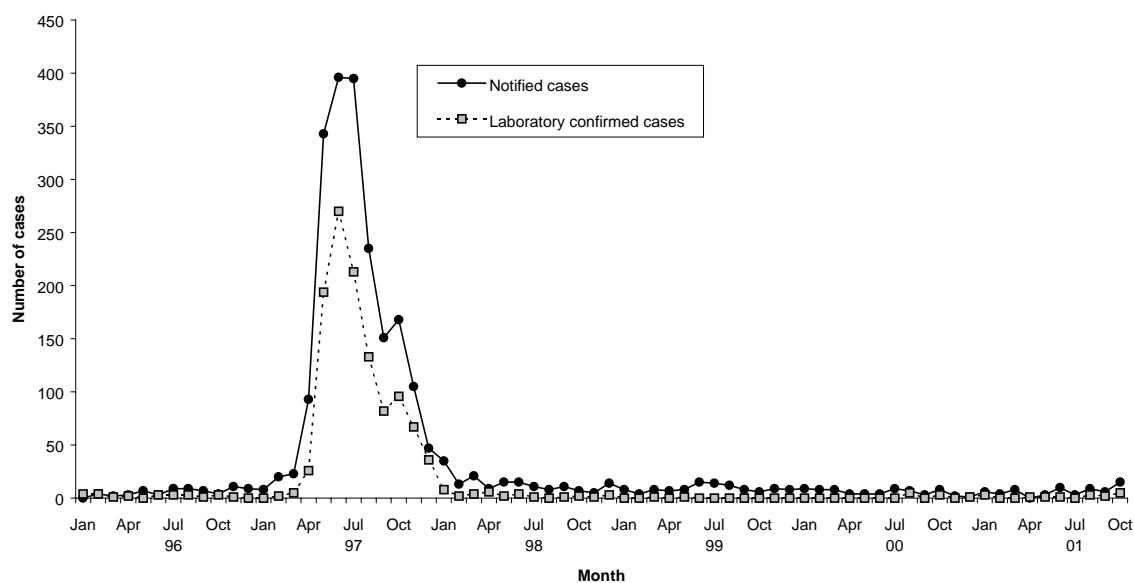


## Measles

Fifteen cases of measles were notified during October, five of whom were laboratory confirmed. These notification and laboratory confirmed totals are the highest since June 1999 and August 2000 respectively.

The following graph shows the number of notified and the number of laboratory confirmed cases of measles by month from January 1997 to October 2001.

*Notified and laboratory confirmed cases of measles by month,  
January 1997 to October 2001*



The cases were of variable ages and from different health districts (see table below). Three of the fifteen cases reported contact with a case. Only one of the cases indicated overseas travel.

Only four of the fifteen cases were recorded as immunised. Of the two cases for which dosage information was also recorded, one case received the first two doses, and the other received just one dose.

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

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

Health District	Lab Confirmed	Age	Contact with a case	Overseas during incubation	Immunisation Status
Northland	No	9y	Unknown	Unknown	Immunised
Central Auckland	Yes	1y	Unknown	Unknown	Not immunised
	No	81y	Not recorded	Unknown	Unknown
South Auckland	Yes	18y	Unknown	No	Unknown
Tauranga	No	5y	Not recorded	Unknown	Immunised
Gisborne	No	5m	Yes	No	Not immunised
Wellington	Yes	24y	Unknown	Overseas	Immunised
	Yes	11m	Yes	No	Not immunised
	No	25y	Yes	No	Immunised
Nelson-Marlborough	No	1y	Not recorded	Unknown	Unknown
West Coast	No	21y	Unknown	No	Not immunised
Canterbury	Yes	3y	No	No	Not immunised
Otago	No	9m	Not recorded	Not recorded	Not recorded
Southland	No	26y	Not recorded	Not recorded	Not recorded
	No	9y	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**

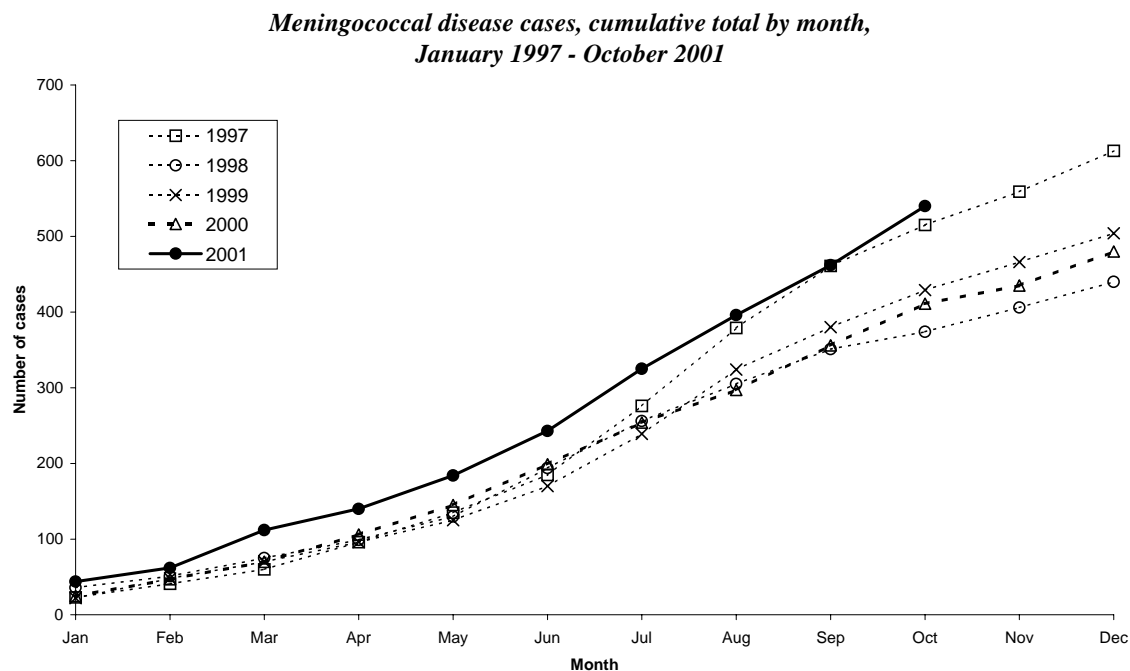
A total of 78 cases of meningococcal disease was notified during October, bringing the year to date total to 540. Again, this is the highest number of cases notified for the period for any year since the epidemic began.

Two of the cases notified this month have since died: a 20 year old male from Otago Health District and an 18 year old male from South Canterbury Health District. This brings to 24 the number of fatal cases this year.



Of the 78 cases notified during October this year, 53 had been laboratory confirmed at the time of this report.

Note: the data plotted below was derived using the earliest available data for the case (i.e. onset or hospitalisation date, if available, rather than report date).



### **Rickettsial disease (Murine Typhus)**

A further case of Murine Typhus was reported from North West Auckland in October. The risk factor was considered in this case to be contact with the family cat. Both cats and opossums have been implicated as reservoir hosts in previous cases in New Zealand.

### **Ross River Virus Infection**

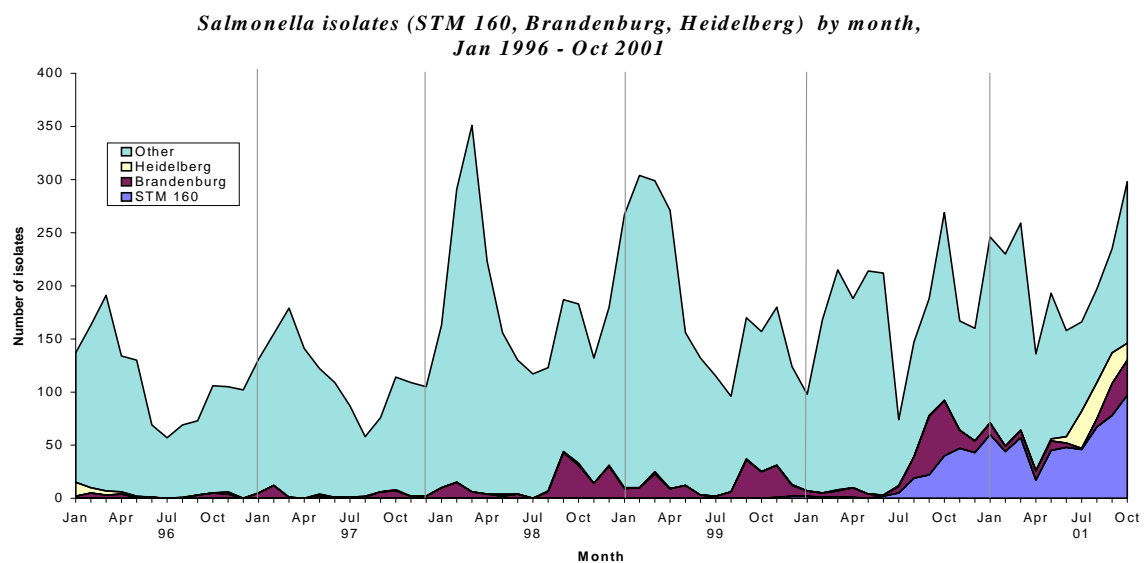
One case of Ross River virus infection was notified in October from Otago Health District. The case was a 72 year old male who had travelled to Queensland, Australia during the incubation period. This brings the total number of notified cases of Ross River virus to three since January 2001. This is the highest total for any year since the disease became notifiable.

## Salmonellosis

There were 295 salmonellosis notifications in October giving a total of 1956 cases for the first 10 months of the year. The total for 2001 is therefore likely to greatly exceed the previous highest annual total of 2079 in 1999.

The ESR Enteric Reference Laboratory (ERL) received 298 *Salmonella* isolates during October. The predominant types identified were *Salmonella* Typhimurium phage type 160 (STM 160), *S. Brandenburg* and *S. Typhimurium* 135. The STM 160 epidemic has persisted for the third month with 97 isolates in October, representing 33% of total *Salmonella* isolates. *S. Brandenburg* has increased from thirty isolates in September to thirty-three isolates in October. This increase in human isolations in spring follows a pattern similar to the one seen in the last three years. *S. Heidelberg* has decreased from 29 isolates in September (12% of total isolates) to 16 isolates in October (5% of total isolates).

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



### 3. Notes on the surveillance system

#### Use of Arboviral Case Report Form

Please use the Arboviral Case Report Form rather than the General Case Report Form to record cases of dengue fever, Ross River virus and any other arboviral disease cases on EpiSurv.

#### Listeria gastroenteritis

Cases of listeria gastroenteritis, rather than invasive listeriosis, should be recorded on the Enteric Disease Case Report Form. Please record the disease as "gastroenteritis" with the pathogen as "listeria".

#### Outbreaks caused by multiple pathogens

Where outbreaks are caused by multiple pathogens please enter "multiple" in the pathogen field and use the case definitions field for 'laboratory-confirmed case', 'other confirmed case' etc. to enter all the (abbreviated) names of the pathogens concerned.

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

Two deaths from notifiable diseases were reported in October 2001.

Disease	No. of deaths reported Oct 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	2	24
Salmonellosis	0	2
Tuberculosis disease	0	1
<b>Total</b>	<b>2</b>	<b>32</b>

## 5. Outbreaks

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

*Summary of October 2001 recorded outbreaks:*

Organism/Toxin/Illness	Number of outbreaks <sup>1</sup>	Total number of cases <sup>2</sup>
<i>Campylobacter</i>	4	14
<i>Cryptosporidium parvum</i>	4	11
Gastroenteritis	6	56
<i>Giardia</i>	1	3
Hepatitis A virus	2	5
Norwalk-like virus	5	52
Rotavirus	1	19
<i>Salmonella</i>	1	4
<i>Shigella</i>	1	2
<b>Total</b>	<b>23</b>	<b>158</b>

<sup>1</sup> One outbreak, involved three pathogens.

<sup>2</sup> Four cases involved three pathogens.

In addition, 24 preliminary outbreak reports were received from Auckland (*Campylobacter*, Dengue Fever, Gastroenteritis, *Salmonella* and *Yersinia*), Rotorua (*Campylobacter*), Wellington (Gastroenteritis and Rotavirus) and Otago (Gastroenteritis). 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 October 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>Campylobacter</i>	Auckland	Jun-Aug	46	1	0	3	Unk	Restaurant / café	Foodborne (chicken livers)	Undercooking
<i>Campylobacter jejuni</i>	Rotorua	Sept	1	2	0	1	5	Home	Foodborne (unpasteurised milk)	Consumption of unpasteurised milk
<i>Campylobacter</i> / <i>Cryptosporidium</i> / <i>Salmonellosis</i>	Canterbury	Aug-Oct	71	4	0	0	Unk	Abattoir or meat processing plant	Zoonotic	Exposure to infected animals or animal products
<i>Campylobacter</i>	Canterbury	Oct	4	3	0	0	50	Farm	Environmental; zoonotic	Consumption of unpasteurised milk; poor hygiene of cases
<i>Cryptosporidium parvum</i>	Rotorua	Sept	1	2	0	0	4	Farm; home	Environmental; zoonotic	Exposure to infected animals or animal products; exposure to contaminated environment(s); poor hygiene of cases
<i>Cryptosporidium parvum</i>	Wanganui	Oct	15	2	0	0	6	Farm; home	Environmental; person to person	Exposure to infected animals or animal products; exposure to contaminated environment(s); 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
<i>Cryptosporidium parvum</i>	Otago	Oct	8	3	0	0	3	Farm, home	Zoonotic	Exposure to infected animals or animal products; poor hygiene of cases
Gastroenteritis	Auckland	May	1	0	0	2	Unk	Campervan	Unknown	Unknown
Gastroenteritis	Auckland	Jul	1	0	0	2	Unk	Unknown	Unknown	Unknown
Gastroenteritis	Auckland	Aug	3	0	0	3	3	Restaurant / café	Foodborne (chicken sandwich)	Improper storage prior to preparation; cross contamination
Gastroenteritis	Auckland	Sept	Unk	0	0	30	Unk	Restaurant / café	Foodborne (raw oysters); unknown	Use of ingredients from unsafe sources
Gastroenteritis	Taranaki	Sept	3	0	0	12	33	Home; community / church gathering	Foodborne (hangi food)	Inadequate reheating of previously cooked food; undercooking; improper hot holding; inadequate cooling or refrigeration

**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	Hawkes Bay	Oct	1	0	0	7	7	Restaurant / café	Foodborne	Unknown
<i>Giardia</i>	Auckland	May	5	2	0	1	Unk	Child care centre	Person to person	Untreated water supply; exposure to infected people; poor hygiene of cases; exposure to contaminated environment(s)
Hepatitis A virus	Auckland	Oct	22	2	0	1	130	Boat ; Refugee Centre	Foodborne; waterborne; person to person	Contamination of source water; poor hygiene of cases
Hepatitis A virus	Gisborne	Jul	4	2	0	0	2	Home	Person to person	Exposure to infected people
Norwalk-like virus	Auckland	Aug	4	6	4	0	39	Restaurant / café	Foodborne (raw half shell Pacific oysters)	Use of ingredients from unsafe source
Norwalk-like virus	Auckland	Sept	4	3	0	3	6	Home	Person to person	Exposure to infected people
Norwalk-like virus	Eastern Bay of Plenty	Aug	2	2	0	2	13	Restaurant / café	Foodborne; person to person; hand towels	Unhygienic hand drying facilities
Norwalk-like virus	Otago	Jul	5	14	7	0	25	Inoor children's adventure playground	Unknown	Unknown

**Outbreaks cont.**

<b>Suspected pathogen/ toxin/illness</b>	<b>Public Health Service</b>	<b>Month of OB</b>	<b>Duration of OB (days)</b>	<b>Lab Conf</b>	<b>Cases Oth Conf</b>	<b>Prob.</b>	<b>Est. no. exposed</b>	<b>Setting</b>	<b>Suspected mode of transmission</b>	<b>Probable factors contributing to OB</b>
Norwalk-like virus	Otago	Sept	2	6	0	5	17	Hotel / Motel	Foodborne; person to person	Exposure to infected people; unknown food factors
Rotavirus	Manawatu	Sep-Oct	20	2	0	17	59	Child care centre	Person to person	Exposure to infected people
<i>Shigella</i>	Taranaki	Sept	4	2	0	0	2	Home	Person to person	Exposure to infected people



## 6. National surveillance data and trends

Disease <sup>1</sup>	Current year - 2001 <sup>2</sup>			Previous year - 2000		
	Oct 2001 cases	Cumulative total since 1 January	Current rate <sup>3</sup>	Oct 2000 cases	Cumulative total since 1 January	Previous rate <sup>3</sup>
AIDS	2	23	0.8	1	20	0.8
Campylobacteriosis	1113	7207	245.9	824	6742	237.0
Cholera	1	3	0.1	0	0	0
Creutzfeldt-Jakob disease	0	1	0.1	0	2	0.1
Cryptosporidiosis	238	1058	33.3	263	629	20.0
Denque fever	15	83	2.4	1	4	0.1
Gastroenteritis <sup>4</sup>	96	791	26.2	72	574	19.8
Giardiasis	135	1341	44.0	108	1435	46.0
<i>H. influenzae</i> type b disease	1	11	0.4	2	11	0.3
Hepatitis A	4	48	1.7	11	93	2.8
Hepatitis B (acute) <sup>5</sup>	6	50	1.6	5	70	2.2
Hepatitis C (acute) <sup>5</sup>	4	51	1.7	5	72	2.4
Hydatid disease	3	7	0.2	1	2	0.1
Influenza <sup>6</sup>	19	664	19.4	66	211	5.9
Lead absorption	4	110	3.9	8	94	3.2
Legionellosis <sup>6</sup>	3	49	1.8	12	52	2.0
Leprosy	0	2	0.1	0	4	0.2
Leptospirosis	6	84	2.7	6	86	2.7
Listeriosis	2	14	0.4	0	20	0.6
Malaria	2	45	2.5	7	67	2.1
Measles	14	63	1.8	6	62	2.2
Meningococcal disease	80	544	17.0	55	408	13.5
Mumps	4	54	1.7	4	41	1.4
Paratyphoid	4	26	0.8	6	20	0.6
Pertussis	60	1201	59.1	485	3203	99.4
Rheumatic fever	1	109	3.8	6	116	3.4
Rubella	1	27	0.8	4	23	0.8
Salmonellosis	293	1952	62.0	212	1508	49.4
Shigellosis	10	145	4.6	10	95	3.3
Tetanus	0	3	0.1	0	1	0.1
Tuberculosis	42	318	10.3	33	299	10.4
Typhoid	0	19	0.6	2	18	0.5
VTEC / STEC infection	6	71	2.2	6	61	1.8
Yersiniosis	58	356	11.3	32	345	12.0

**Notes:** <sup>1</sup> Other notifiable infectious diseases reported in October :Rickettsial disease, Ross River virus infection

<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 October 2001) or the previous year (12 months up to and including October 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 - October 2001

Cases this month

Current rate<sup>1</sup>

Disease	Cases for October 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	Tauranga	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	2			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	0.9	0	1.3	0	0	0	0
Campylobacteriosis	17	142	103	81	154	36	14	5	22	10	35	2	49	14	39	18	119	53	12	16	67	22	47	36
	151.0	266.6	254.5	198.4	297.5	249.1	129.3	133.3	209.2	257.3	232.1	125.4	264.1	187.2	131.0	195.0	386.6	286.5	120.1	234.4	283.5	298.0	227.0	237.2
Cholera	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0.3	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	0.5	0	0	0
Cryptosporidiosis	9	7	2	2	43	7	2	2	6	10	7	0	15	5	8	4	8	1	3	2	13	18	34	30
	16.8	16.7	27.2	22.8	61.1	28.4	9.9	32.8	38.7	78.2	20.6	0	121.3	52.1	28.6	26.0	38.3	21.9	6.0	27.8	15.5	74.2	39.4	46.7
Dengue fever	1	1	1	1	0	0	0	0	0	1	0	0	0	0	2	0	1	2	0	0	4	0	1	0
	2.9	3.6	6.4	3.2	1.3	2.7	0	0	1.5	3.3	0	0	0	0	2.7	0	2.5	3.8	0.9	0	1.6	1.3	1.2	0.9
Gastroenteritis	0	3	15	1	2	0	2	0	0	0	1	0	7	0	19	0	7	0	0	0	25	0	14	0
	19.7	23.8	29.8	13.2	4.0	6.2	9.9	54.6	20.1	45.6	43.1	0	5.6	13.0	48.5	28.6	9.9	11.3	25.7	21.6	68.5	51.6	39.4	5.4
Giardiasis	2	14	25	12	13	6	1	3	1	1	2	0	6	0	3	1	13	2	2	0	17	4	5	2
	29.2	48.2	64.5	43.0	49.9	62.9	51.7	39.3	46.5	35.8	22.5	23.9	69.7	26.1	28.6	26.0	65.0	28.7	33.4	70.9	37.8	27.7	24.9	17.1
<i>H. influenzae</i> type b disease	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0.7	0.8	0.3	0.3	0	0	0	2.2	0	0	0.9	0	0.7	0	0	0	0.4	0.8	0	0	0.5	0	0	0
Hepatitis A	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	1.5	4.3	6.7	0.7	0	0	6.6	0	0	0	0	0	0	0	0	2.1	1.5	0.9	0	1.3	0	0	0
Hepatitis B	0	0	1	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0
	2.2	1.5	1.7	1.5	3.3	2.7	0	0	1.5	6.5	0	0	3.5	0	1.3	7.8	0.8	0.8	2.6	6.2	0.5	0	1.2	0.9
Hepatitis C	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
	1.5	0.3	0.9	0.6	0	15.1	4.0	4.4	7.7	6.5	0	0	1.4	0	0	0	2.5	1.5	1.7	3.1	1.8	0	0.6	2.7
Hydatids disease	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
	0.7	0.3	0	0	0	0.9	0	4.4	0	0	0	0	0	0	0	0	0.4	0	0	0	0.5	0	0	0
Influenza <sup>5</sup>	0	0	12	0	5	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
	0	0	71.4	0.3	54.2	0	0	0	0	0	0	0	0	0	0	0	25.9	0	0	0	54.8	0	8.7	0
Lead absorption	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0
	2.2	1.0	2.6	0.9	5.3	2.7	0	2.2	3.1	0	4.7	29.8	4.2	8.1	6.6	5.2	2.5	0	6.9	3.1	5.9	15.1	8.1	2.7
Legionellosis <sup>5</sup>	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
	2.9	0.8	0.9	0.6	5.9	0.9	0	0	0	0	0.9	0	0	3.3	0.7	2.6	2.1	5.3	0	0	3.4	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	0.4	0	0	0	0	0	0	0
Leptospirosis	0	0	0	0	0	0	0	2	0	0	0	0	1	0	0	0	0	0	1	0	0	1	1	0
	9.5	0.8	0.6	0.9	6.6	4.4	2.0	19.7	3.1	3.3	2.8	0	8.4	1.6	3.3	2.6	0.4	0	1.7	3.1	1.3	5.0	1.2	0.9
Listeriosis	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	0.7	0.8	0.9	0.6	0.3	0	0	2.2	0	0	0.9	0	0	0	0	0	0.4	0	0	0	0.3	1.3	0.6	0
Malaria	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0.7	0.5	1.7	1.5	1.7	0.9	0	2.2	0	0	0.9	11.9	0	0	25.9	0	2.5	1.5	3.4	3.1	1.8	2.5	1.2	1.8
Measles	1	0	1	1	0	1	0	1	0	0	0	0	0	0	0	0	3	0	1	1	1	0	1	2
	1.5	1.3	2.6	0.3	0	6.2	0	6.6	0	0	1.9	0	4.2	1.6	0.7	0	1.6	0	3.4	12.3	2.1	0	2.3	3.6
Meningococcal disease	5	6	12	15	6	3	1	0	2	2	2	0	1	0	3	3	3	1	0	0	4	1	10	0
	29.2	9.4	24.0	37.2	20.8	16.0	27.8	21.9	24.8	35.8	9.4	6.0	16.7	11.4	12.6	26.0	9.5	7.5	11.1	9.3	5.9	1.3	23.2	9.9
Mumps	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0
	5.1	0.5	1.4	1.5	0	0	4.0	0	1.5	0	0	6.0	4.9	0	1.3	0	2.9	2.3	0.9	0	2.8	2.5	4.1	0
Paratyphoid	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	0	0.8	3.8	0.9	0	0.9	0	0	0	0	0.9	0	2.1	0	0.7	0	0.8	0	0	0	0.8	0	0	0
Pertussis	1	5	1	4	14	2	0	0	0	0	0	0	0	0	1	0	3	1	16	1	7	1	1	2
	43.8	25.4	24.9	27.8	116.0	51.4	49.7	19.7	37.2	35.8	5.6	71.6	34.1	16.3	4.0	132.6	56.4	104.1	240.1	157.3	86.9	51.6	75.3	64.7
Rheumatic fever	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	5.8	2.5	14.5	11.1	3.3	0	17.9	4.4	1.5	0	0	0	1.4	1.6	0	2.6	1.6	0.8	0	0	0	0	0	0
Rubella	1	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	0.8	0	0.6	0	0	0	0	0	0	0	0	5.6	0	0	0	1.6	0.8	0.9	0	1.8	0	0.6	1.8
Salmonellosis	6	21	29	26	24																			