

COMMUNICABLE DISEASES

For general practitioners and practice nurses

**Pertussis Increasing In Canterbury**

Throughout 2008 there was a steady increase in pertussis notifications in Canterbury (Fig. 1). This increase, although expected because of the three to four yearly periodicity of pertussis epidemics, is not as dramatic as in the months preceding the epidemics in 1999 and 2004 (Fig. 2).

Figure 1

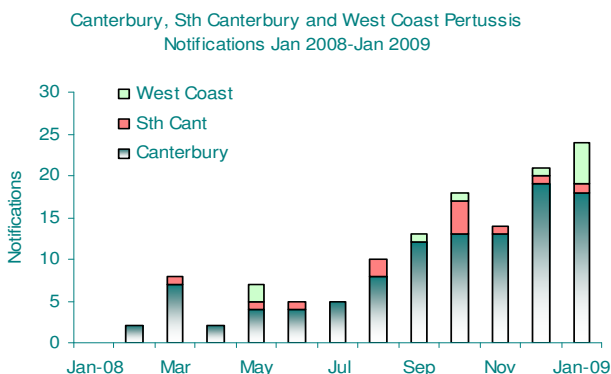
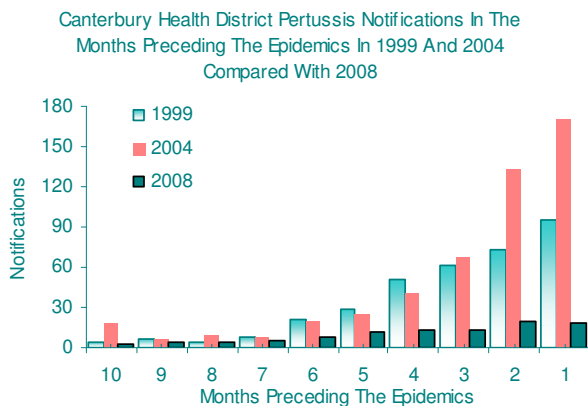


Figure 2



The two nationwide epidemics documented since pertussis became notifiable in 1996 resulted in a high incidence of disease in the region.

Media releases have been made to the newspaper, radio and television reminding parents to ensure their children, especially infants, are immunised on-time and that children and others with a cough should cover their mouth and stay away from infants and young children.

January 2008

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Public Health  
**Canterbury**  
 District Health Board  
 Te Poari Hauora o Waitaha

**TB Outbreak In Christchurch**

in April 2008 a 39 year old Christchurch man (case A) was notified with pleural tuberculosis (TB). In November a 38 year old man (case B) who had lived in the same boarding house and who had worked with the same temporary labour company was also admitted with pulmonary tuberculosis. While in hospital case B commented that he recognised a patient (case C) in the adjacent room as someone else he had worked with at the temporary labour company earlier in 2008. That patient was a 25 year old man who had also been diagnosed with pulmonary TB.

As a result of these links, the staff at the labour company were investigated but all five personnel including two van drivers were asymptomatic and Mantoux negative.

During this time C&PH was informed of two more cases: a 26 year old female (case D) in Blenheim who had lived in Christchurch earlier in the year and who had a boyfriend living at the residence where cases A and B had lived, and a 22 year old woman (case E) who had lived in the same house as case C early last year.

Investigation of the current and recent residents of the boarding house identified seven persons needing to be tested as well as the landlord, who visited frequently. Two of these persons including the landlord were Mantoux positive.

On sputum microscopy cases B and C were considered to be highly infectious. This clinical finding was borne out in practice with 20 contacts (50%) being Mantoux positive in the first round of testing. Another two converted on follow up testing. All Mantoux positive contacts have been referred to Respiratory Outpatients.

DNA fingerprinting which is done by an Auckland laboratory on all isolates of *Mycobacteria tuberculosis* will confirm whether or not these cases are due to the same strain.

### Salmonella Outbreak Linked With Flour

An outbreak of *Salmonella typhimurium* phage type 42 (STM 42) that commenced in October affected over 60 people in the following three months in many parts of the country. Canterbury (22 cases) and Otago were particularly affected. Flour samples from the homes of two cases were positive for STM 42. Questionnaire evidence suggested that people with the infection (especially children) were more likely to have eaten uncooked flour, for example in home-made play dough, raw cake and batter mixes. The flour producer has withdrawn product from the market pending the outcome of the investigation.

Flour is a raw ingredient and intended to be consumed cooked. It is not sterile and about one percent on average contains salmonella. However contaminated flour is safe to eat if the product is baked.

Good food handling practices include washing hands before and after handling food and food ingredients, thoroughly cooking foods and not eating raw batter or other mixes (such as cake and muffin) that contain uncooked baking ingredients.

### Outbreak Settings In 2008

There were 48 outbreaks documented in a variety of settings in the C&PH region last year (Table 1). Norovirus was reported from rest homes and residential care facilities, a hospital, hotel, lodge, university, birthday party and wedding function. Acute gastroenteritis (presumably viral) outbreaks occurred in rest homes and two commercial premises. Springston township was the site of the largest mixed outbreak (campylobacter/ unspecified gastroenteritis). The three outbreaks due to cryptosporidium occurred in rural West Coast and were due to contaminated water supplies. Of the two salmonella outbreaks, one was widely disseminated throughout the country and associated with flour (see this page) but the other was localised to Christchurch and the source was undetermined. Giardia outbreaks occurred in two families but this organism was also the commonest enteric pathogen identified in a cluster of cases in a tour group returning from Nepal that also had cryptosporidium and shigella in faecal specimens. *Clostridium perfringens*, probably from a contaminated 'masher', was identified in two outbreaks from a particular restaurant. Norovirus was also identified as a causative organism in one of these outbreaks.

Table 1

| C&PH Outbreaks 2008                 |                  |               |
|-------------------------------------|------------------|---------------|
| Organism                            | No. of Outbreaks | No. of Cases* |
| Norovirus                           | 22               | 645           |
| Acute gastroenteritis               | 8                | 189           |
| Campylobacter                       | 5                | 22            |
| Campylobacter/ unspecified gastro.  | 1                | 44            |
| Giardia                             | 4                | 22            |
| Giardia/Cryptosporidium /Shigella** | 1                | 14            |
| Cryptosporidium                     | 3                | 22            |
| Salmonella                          | 2                | 32            |
| C. perfringens                      | 1                | 8             |
| C. perfringens/ Norovirus           | 1                | 16            |

\* confirmed and probable cases

\*\* tour group returning from Nepal

## Enteric Notifications 2008

Of the five major enteric notifiable diseases, three (cryptosporidiosis, giardiasis and salmonellosis) had significant increases in notifications in 2008 compared with 2007 although campylobacteriosis had 58% less (Figs. 3 and 4).

Giardiasis notifications which were the highest regionally since 1998 were also high nationally. This was probably due to direct laboratory notification which commenced in December 2007. This national pattern of increased notifications however, was not apparent for cryptosporidiosis.

Figure 3

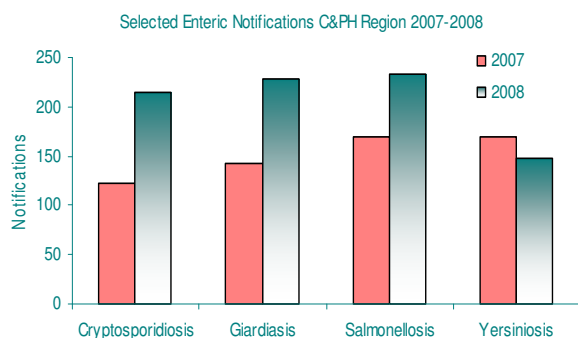
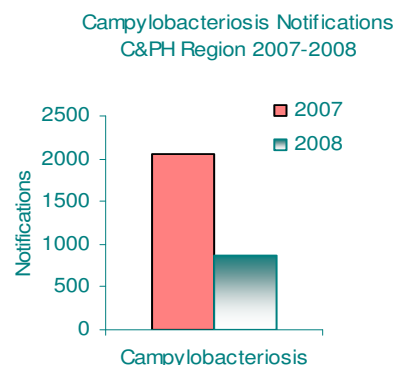


Figure 4



## Annual Summary Of Selected Notifiable Diseases 2008 & 2007

|                          | Canterbury |            | South Canterbury |            | West Coast |            | TOTAL      |            |
|--------------------------|------------|------------|------------------|------------|------------|------------|------------|------------|
|                          | Cases 2008 | Cases 2007 | Cases 2008       | Cases 2007 | Cases 2008 | Cases 2007 | Cases 2008 | Cases 2007 |
| <b>ENTERIC DISEASES</b>  |            |            |                  |            |            |            |            |            |
| Campylobacteriosis       | 593        | 1634       | 214              | 340        | 54         | 81         | 861        | 2055       |
| Cryptosporidiosis        | 109        | 58         | 86               | 53         | 19         | 12         | 214        | 123        |
| Gastroenteritis          | 117        | 143        | 11               | 5          | 10         | 8          | 138        | 156        |
| Giardiasis               | 184        | 119        | 23               | 17         | 21         | 6          | 228        | 142        |
| Hepatitis A              | 4          | 3          | -                | -          | -          | -          | 4          | 3          |
| Listeriosis              | -          | 1          | -                | 1          | -          | -          | -          | 2          |
| Paratyphoid              | 4          | 1          | -                | -          | -          | -          | 4          | 1          |
| Salmonellosis            | 172        | 136        | 52               | 21         | 10         | 12         | 234        | 169        |
| Shigellosis              | 6          | 17         | 1                | 1          | 1          | -          | 8          | 18         |
| Typhoid                  | 1          | 2          | -                | -          | -          | -          | 1          | 2          |
| VTEC                     | 20         | 17         | 5                | 5          | 1          | 3          | 26         | 25         |
| Yersiniosis              | 111        | 126        | 19               | 19         | 17         | 24         | 147        | 169        |
| <b>OTHER DISEASES</b>    |            |            |                  |            |            |            |            |            |
| AIDS                     | -          | -          | -                | -          | -          | -          | -          | -          |
| Chikungunya              | 1          | -          | -                | -          | -          | -          | 1          | -          |
| Dengue Fever             | 13         | 3          | -                | 1          | -          | -          | 13         | 4          |
| Haemophilus influenzae b | 2          | -          | -                | -          | -          | -          | 2          | -          |
| Hepatitis B              | 7          | 11         | -                | -          | -          | -          | 7          | 11         |
| Hepatitis C              | 3          | 10         | -                | -          | -          | 3          | 3          | 13         |
| Lead absorption          | 21         | 11         | 7                | 2          | -          | -          | 28         | 13         |
| Legionellosis            | 12         | 12         | 3                | -          | 1          | 1          | 16         | 13         |
| Leptospirosis            | 7          | 5          | 9                | 6          | 5          | 4          | 21         | 15         |
| Malaria                  | 3          | 4          | -                | -          | -          | -          | 3          | 4          |
| Measles                  | 7          | 3          | -                | -          | 1          | 4          | 8          | 7          |
| Meningococcal infection  | 9          | 11         | 2                | -          | 1          | 1          | 12         | 12         |
| Mumps                    | 13         | 7          | -                | -          | -          | -          | 13         | 7          |
| Pertussis                | 88         | 67         | 10               | 16         | 5          | -          | 103        | 83         |
| Rubella                  | 1          | -          | 1                | -          | -          | 1          | 2          | 1          |
| Tuberculosis (new case)  | 24         | 31         | 8                | 4          | -          | 1          | 32         | 36         |

## Norovirus: Advice To Reduce Risk To Institutions

Consistent advice to people with vomiting and diarrhoea will help stop reintroduction of the virus into institutions such as education settings, rest homes and hospitals. Primary care practitioners are requested to reinforce the following advice to anyone who has diarrhoea and vomiting:

1. People with norovirus are infectious while they are unwell and for several days after diarrhoea stops.
2. The best ways to prevent spread of norovirus infection are:
  - Careful hand washing at all times after going to the toilet, changing nappies and before preparing food
  - Keep sick people away from others. A

person who develops diarrhoea and/or vomiting should leave work or school immediately, and should avoid other

- people and handling food until 48 hours after diarrhoea has resolved.
- People who have had diarrhoea and vomiting should stay away from places where there are large numbers of other people.
- Food handlers who have had diarrhoea and/or vomiting must avoid handling food until 48 hours after the diarrhoea has resolved.
- Clean contaminated surfaces that a sick person has touched such as toilets, bathrooms and other hard surfaces with household bleach diluted to 0.1% hypochlorite.

## Summary Of Selected Notifiable Diseases October – December 2008 & 2007

|                          | Canterbury         |                    | South Canterbury   |                    | West Coast         |                    | TOTAL              |                    |
|--------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                          | Cases Oct-Dec 2008 | Cases Oct-Dec 2007 | Cases Oct-Dec 2008 | Cases Oct-Dec 2007 | Cases Oct-Dec 2008 | Cases Oct-Dec 2007 | Cases Oct-Dec 2008 | Cases Oct-Dec 2007 |
| <b>ENTERIC DISEASES</b>  |                    |                    |                    |                    |                    |                    |                    |                    |
| Campylobacteriosis       | 170                | 288                | 66                 | 69                 | 16                 | 16                 | 252                | 373                |
| Cryptosporidiosis        | 43                 | 20                 | 35                 | 28                 | 12                 | 4                  | 90                 | 52                 |
| Gastroenteritis          | 23                 | 42                 | 8                  | 1                  | 1                  | 4                  | 32                 | 47                 |
| Giardiasis               | 40                 | 25                 | 8                  | 5                  | 4                  | 1                  | 52                 | 31                 |
| Hepatitis A              | 1                  | 1                  | -                  | -                  | -                  | -                  | 1                  | 1                  |
| Listeriosis              | -                  | 1                  | -                  | 1                  | -                  | -                  | -                  | 2                  |
| Paratyphoid              | -                  | -                  | -                  | -                  | -                  | -                  | -                  | -                  |
| Salmonellosis            | 51                 | 28                 | 7                  | 6                  | 5                  | 1                  | 63                 | 35                 |
| Shigellosis              | -                  | 4                  | 1                  | -                  | 1                  | -                  | 2                  | 4                  |
| Typhoid                  | -                  | -                  | -                  | -                  | -                  | -                  | -                  | -                  |
| VTEC                     | 4                  | 1                  | -                  | -                  | -                  | 2                  | 4                  | 3                  |
| Yersiniosis              | 12                 | 43                 | 2                  | 2                  | 5                  | 8                  | 19                 | 53                 |
| <b>OTHER DISEASES</b>    |                    |                    |                    |                    |                    |                    |                    |                    |
| AIDS                     | -                  | -                  | -                  | -                  | -                  | -                  | -                  | -                  |
| Chikungunya              | 1                  | -                  | -                  | -                  | -                  | -                  | 1                  | -                  |
| Dengue Fever             | 4                  | -                  | -                  | 1                  | -                  | -                  | 4                  | 1                  |
| Haemophilus influenzae b | 1                  | -                  | -                  | -                  | -                  | -                  | 1                  | -                  |
| Hepatitis B              | 2                  | 1                  | -                  | -                  | -                  | -                  | 2                  | 1                  |
| Hepatitis C              | 1                  | 2                  | -                  | -                  | -                  | 1                  | 1                  | 3                  |
| Lead absorption          | 5                  | 7                  | -                  | 2                  | -                  | -                  | 5                  | 9                  |
| Legionellosis            | 5                  | 6                  | 2                  | -                  | 1                  | -                  | 8                  | 6                  |
| Leptospirosis            | -                  | 1                  | 1                  | 1                  | 1                  | -                  | 2                  | 2                  |
| Malaria                  | -                  | 4                  | -                  | -                  | -                  | -                  | -                  | 4                  |
| Measles                  | 2                  | 1                  | -                  | -                  | -                  | 1                  | 2                  | 2                  |
| Meningococcal infection  | 3                  | 3                  | 1                  | -                  | -                  | 1                  | 4                  | 4                  |
| Mumps                    | -                  | -                  | -                  | -                  | -                  | -                  | -                  | -                  |
| Pertussis                | 37                 | 4                  | 5                  | -                  | 2                  | -                  | 44                 | 4                  |
| Rubella                  | 1                  | -                  | -                  | -                  | -                  | -                  | 1                  | -                  |
| Tuberculosis (new case)  | 10                 | 7                  | -                  | -                  | -                  | -                  | 10                 | 7                  |

