

COMMUNICABLE DISEASES

For general practitioners and practice nurses

Outbreaks At The Scout Jamboree

The Scout jamboree was held over New Year at the Christchurch showgrounds. However, only the tireless efforts of those who managed the many cases of gastroenteritis on site, prevented a major incident being declared by the Christchurch hospital. **Norovirus** was identified early and cases continued to present throughout the nine days.

Community and Public Health were notified of the outbreak on the second day of the jamboree. Vomiting remained the predominant symptom, although some cases had diarrhoea, stomach pains, malaise and low-grade fever. Diagnosis and subsequent patient management was complicated by vomiting and nausea due to other causes, such as heatstroke. One hundred and thirty-eight attendees met the case definition. The overall attack rate was only 3% which compares very favourably with other norovirus outbreaks.

Having a highly infectious gastroenteritis outbreak amongst 4,500 mostly teenagers, closely quartered in a tent 'city', presented significant challenges and required extra resources. These included a fully staffed field hospital with a quarantine facility, infection control expertise, sanitation supplies and an emergency operations centre. There was also the need to communicate with the media, parents and airlines, as well as all the Scouts.

A key feature of the success of the response was the early notification by the Scouts' doctor. The outbreak was contained as a result of a rapid emergency response involving St John Ambulance, NZ Defence, Scouting NZ, ESR, the Salvation Army, Urban Search and Rescue, Dakins Group and several divisions of the Canterbury District Health Board besides C&PH. Despite their best efforts, the 24 Hour Surgery was unable to obtain any support from local GPs. This difficulty was addressed by Pegasus in time for the

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

subsequent Guide jamboree, at which local GPs provided valuable assistance.

A concomitant outbreak of **chickenpox** also occurred during the latter half of the jamboree when twelve Scouts from six different contingents, including a Fijian troop, developed the illness. All had been exposed to the virus prior to arriving. Some troops were inspected daily to enable early diagnosis and isolation of suspected cases. Post-jamboree accommodation was arranged for the Fijians who also had travel bookings postponed because they were unable to return home while infectious.

Girl Guides' Gastroenteritis

The Guide jamboree was held a week after the Scouts and was attended by 3,500 Guides from around the Oceania region. A total of 39 Guides developed gastroenteritis in the first four days after which there were no further cases. Norovirus was not identified from any specimens. Lessons learnt from the Scout jamboree meant that procedures and resources for managing the incident were quickly in place.

Review Of 2007

Enterics

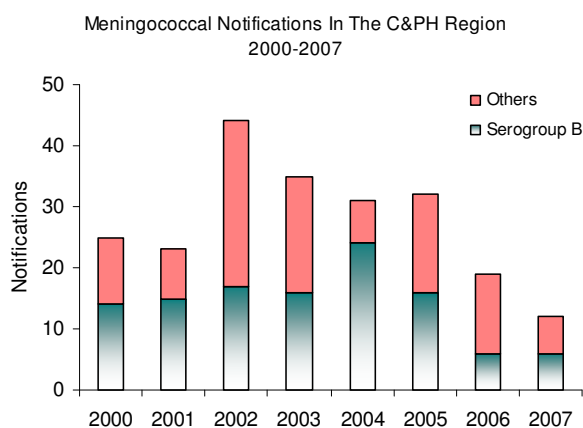
Salmonellosis notifications in South Canterbury were less than half those of 2006 but in West Coast were twice the previous year's total. **Yersiniosis** notifications increased significantly in both Canterbury and West Coast. As reported in the October PHIQ, the C&PH region and especially West Coast have high rates of yersiniosis compared with other DHBs.

However, although all cases of yersiniosis are notifiable, not all *Yersinia* are regarded as pathogenic. There has been a marked increase in the incidence of one of these supposedly non pathogenic biotypes (1A) in Canterbury in the elderly in 2008. No common source outbreaks have been identified but investigations are continuing.

Others

Legionellosis notifications in Canterbury increased from four in 2006 to 12 in 2007 although none were linked. Half the cases had exposure to potting mix and a quarter to spa pools. One patient contracted the disease while overseas. West Coast had one notification. The overall number of **meningococcal disease** notifications continued to decline (Fig.1). The vaccine against the epidemic type B strain was introduced in 2005.

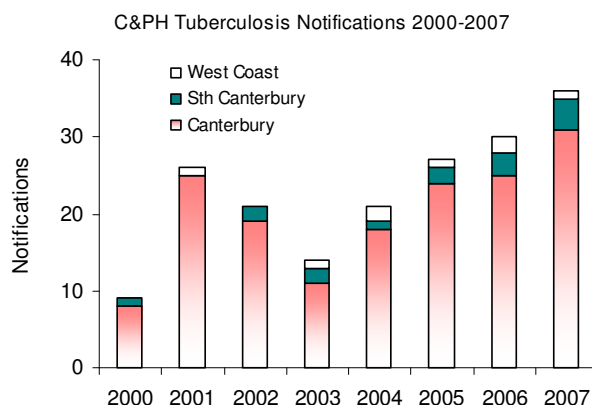
Figure 1



Tuberculosis has increased in Canterbury since 2003 (Fig.2) because of the high rates in persons born overseas. Chest x-ray

screening of immigrants and refugees and persons staying more than six months identifies only those with pulmonary disease. Of cases born overseas who develop tuberculosis, 25% present in their first year in New Zealand. Those aged over 55 years however, may present at any time after arrival.

Figure 2



Outbreaks in 2007

The large majority of the 74 outbreaks reported in 2007 were due to norovirus and occurred in rest homes and hospitals. A total of 2,321 persons were affected, of whom 2,181 had norovirus. Other outbreaks were caused by Rotavirus, Yersinia, Group A Streptococcus, E.coli 0157, Giardia, Vibrio parahaemolyticus and Campylobacter.

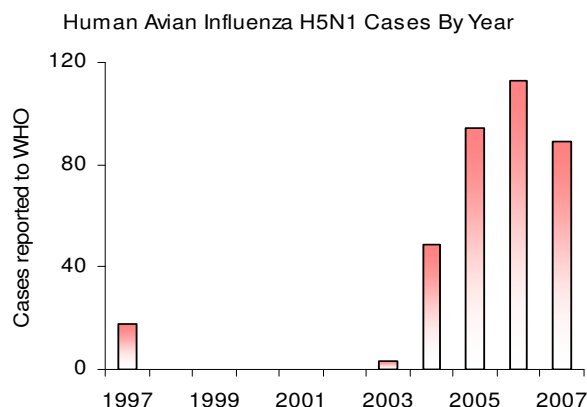
Avian Influenza Update

Twenty-four fewer cases of human H5N1 infection were reported internationally in 2007 compared with the previous year (Fig.3). In January, a report by the UN Food and Agriculture Organization stated that recent avian influenza outbreaks in birds in 15 countries demonstrated that the H5N1 virus remained a global threat requiring close monitoring. A WHO review* of current knowledge published in January reported the following:

- The median age of patients with influenza A (H5N1) is approximately 18 years.
- Overall case fatality proportion is 61%; it is highest among persons 10 to 19 years of age and lowest among persons 50 years of age or older.

- Most patients with influenza A (H5N1) were previously healthy. Of six affected pregnant women, four have died, and the two survivors had a spontaneous abortion.
- Limited, non-sustained human-to-human transmission has probably occurred during very close, unprotected contact with a severely ill patient.

Figure 3



- In the largest cluster, transmission probably occurred from the index case to six blood-related family members.
- Respiratory secretions and all bodily fluids, including faeces, should be considered potentially infectious.
- In one quarter or more of patients with influenza A (H5N1), the source of exposure is unclear, and environment-to-human transmission remains possible.

*Update on Influenza A (H5N1) virus infection in humans.
N Engl J Med 2008;358:261-73.

Food Handlers And Enteric Disease

Food handlers with campylobacteriosis are not required to have any negative faecal specimens before returning to work once they are asymptomatic, provided they have acceptable hygiene practices, as they pose minimal risk for transmitting the disease to others.

Annual Summary Of Selected Notifiable Diseases 2007 & 2006

	Canterbury		South Canterbury		West Coast		TOTAL
	Cases 2007	Cases 2006	Cases 2007	Cases 2006	Cases 2007	Cases 2006	Cases 2007
ENTERIC DISEASES							
Campylobacteriosis	1634	1777	340	404	81	73	2055
Cryptosporidiosis	58	64	53	64	12	16	123
Gastroenteritis	143	137	5	3	8	5	156
Giardiasis	119	104	17	21	6	5	142
Hepatitis A	3	28	-	1	-	-	3
Listeriosis	1	-	1	1	-	-	2
Paratyphoid	1	-	-	-	-	-	1
Salmonellosis	136	140	21	52	12	5	169
Shigellosis	17	9	1	-	-	1	18
Typhoid	2	-	-	-	-	-	2
VTEC	17	15	5	4	3	-	25
Yersiniosis	126	84	19	18	24	9	169
OTHER DISEASES							-
AIDS	-	8	-	-	-	-	-
Dengue Fever	3	2	1	-	-	-	4
Haemophilus influenzae b	-	-	-	1	-	-	-
Hepatitis B	11	16	-	2	-	-	11
Hepatitis C	10	13	-	1	3	1	13
Lead absorption	11	15	2	1	-	-	13
Legionellosis	12	4	-	2	1	-	13
Leptospirosis	5	6	6	6	4	2	15
Malaria	4	2	-	1	-	1	4
Measles	3	7	-	-	4	2	7
Meningococcal infection	11	18	-	1	1	-	12
Mumps	7	6	-	1	-	-	7
Pertussis	67	288	16	35	-	16	83
Rubella	-	1	-	-	1	-	1
Tuberculosis (new case)	31	21	4	3	1	2	36

Food handlers with suspected norovirus must remain off work from the onset of symptoms and until 48 hours after symptoms have ceased.

Hepatitis B And C Notifications

Hepatitis B should be notified if the patient has a clinically compatible condition and either a positive HBsAg or anti-HBc IgM.

Hepatitis C is notifiable if the patient has either evidence of seroconversion in the past 12 months or an anti-HCV positive test and a clinically compatible illness in the past 12 months where other causes of acute hepatitis can be excluded.

Interpretation of hepatitis serology has been simplified by a slide rule from Abbott

Diagnostics that can be obtained from the Business Development Manager (murray.craft@abbott.com).

Direct Laboratory Notification

The implementation of direct laboratory notification has gone smoothly and the Medical Officers of Health would like to thank general practitioners and practice nurses for assisting with the process. Notification from laboratories has meant a change in the timing of the receipt of notification details by C&PH and subsequently of requesting information from doctors, and your co-operation with this has been appreciated.

Summary Of Selected Notifiable Diseases October – December 2007 & 2006

	Canterbury		South Canterbury		West Coast		TOTAL
	Cases Oct-Dec 2007	Cases Oct-Dec 2006	Cases Oct-Dec 2007	Cases Oct-Dec 2006	Cases Oct-Dec 2007	Cases Oct-Dec 2006	Cases Oct-Dec 2007
ENTERIC DISEASES							
Campylobacteriosis	288	501	69	99	16	28	373
Cryptosporidiosis	20	24	28	23	4	5	52
Gastroenteritis	42	44	1	3	4	3	47
Giardiasis	25	27	5	6	1	1	31
Hepatitis A	1	-	-	-	-	-	1
Listeriosis	1	-	1	1	-	-	2
Paratyphoid	-	-	-	-	-	-	-
Salmonellosis	28	27	6	9	1	-	35
Shigellosis	4	1	-	-	-	-	4
Typhoid	-	-	-	-	-	-	-
VTEC	1	4	-	1	2	-	3
Yersiniosis	43	37	2	4	8	1	53
OTHER DISEASES							
AIDS	-	1	-	-	-	-	-
Dengue Fever	-	1	1	-	-	-	1
Haemophilus influenzae b	-	-	-	-	-	-	-
Hepatitis B	1	2	-	1	-	-	1
Hepatitis C	2	5	-	-	1	-	3
Lead absorption	7	1	2	-	-	-	9
Legionellosis	6	3	-	1	-	-	6
Leptospirosis	1	-	1	1	-	-	2
Malaria	4	-	-	-	-	-	4
Measles	1	2	-	-	1	1	2
Meningococcal infection	3	2	-	-	1	-	4
Mumps	-	2	-	-	-	-	-
Pertussis	4	38	-	3	-	-	4
Rubella	-	1	-	-	-	-	-
Tuberculosis (new case)	7	5	-	-	-	1	7