

COMMUNICABLE DISEASES

For general practitioners and practice nurses

**Tuberculosis**

A student from India at an educational institution in Christchurch was notified with pulmonary tuberculosis in June. The disease had developed in the 16 months since his arrival. Over 50 students and staff are to be followed up with Mantoux tests and chest x-rays if indicated. A week later a man from Africa was diagnosed with reactivation of TB on an immigration chest x-ray. In the C&PH region in the past five years there has been an average of 23 cases of TB per year of whom 60% were born overseas.

Those caring for immigrants from high incidence countries should have a high level of clinical suspicion for TB.

Some WHO TB statistics:

- 8.8 million people develop TB each year, and 1.6 million die from it.
- Someone in the world is newly infected with TB bacilli every second.
- Overall, one-third of the world's population is currently infected with the TB bacillus.
- 5-10% of people who are infected with TB bacilli (but who are not infected with HIV) become sick or infectious at some time during their life.
- People with HIV and TB infection are much more likely to develop TB disease.
- The largest number of new TB cases in 2005 occurred in the South-East Asia region, which accounted for 34% of incident cases globally.
- The estimated incidence rate in sub-Saharan Africa is nearly twice that of the South-East Asia Region, at nearly 350 cases per 100 000 population.

**XDR -TB**

International interest in tuberculosis has heightened recently with the publication of the details of a man in the United States with extensively drug resistant tuberculosis (XDR-TB) who flew to Europe and back potentially putting other passengers at risk.

July 2007

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XDR-TB is defined as resistance to at least rifampin and isoniazid (the multi-DR-TB definition), in addition to any fluoroquinolone and one or more of three injectable anti-TB drugs (capreomycin, kanamycin and amikacin). The WHO estimates there are 30,000 people worldwide affected by XDR-TB and about 450,000 get MDR-TB each year. The disease has a high mortality rate, particularly in persons with HIV.

Thirty-seven countries have confirmed cases of XDR-TB. With the high number of persons travelling internationally, and immigrants and refugees from high incidence areas settling here these details have significance for New Zealand.

**BCGs**

a) The free BCG clinic for neonates and children aged less than 5 years who are at increased risk of tuberculosis, is conducted by public health nurses at the Christchurch Women's hospital out-patient clinic on Wednesday and Friday afternoons. An

appointment is necessary and can be made by telephoning the BCG booking clerk on (03) 383 9498 or faxing (03) 383 9494.

The Immunisation Handbook 2006 lists the criteria for those at increased risk as those who:

- Will be living in a house or family/whanau with a person with either current TB or a past history of TB.
- Have one or both parents who identify as being Pacific people.
- Have parents or household members who within the last five years lived for a period of six months or longer in a country\* where there is a high incidence of TB.
- During their first five years will be living for three months or longer in a high incidence country\*.

[A list of high incidence countries is given on p. 248]

There are still a number of infants who are not being immunised against TB who should be. The lead maternity carer should identify neonates at risk and a referral made ideally before they leave hospital. Children who have missed immunisation at birth should be immunised as soon as possible, up to the age of five years. If the child is 12 weeks or older they will need a pre-vaccination Mantoux test to detect whether they have already been infected.

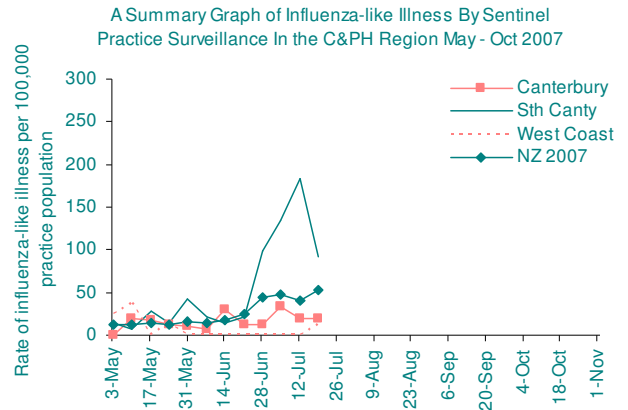
b) Persons aged over five years who require a BCG can contact the nurse at The Travel Doctor, 127 Lichfield Street, Christchurch. A BCG in this situation is not free and a Mantoux test will need to be done first. A BCG for overseas travel (even prolonged travel in high incidence areas) in most cases should be discouraged. It is more useful to ensure that a pre- and post-travel Mantoux test is documented and to carry out investigations and treatment or chemoprophylaxis in the event of Mantoux conversion.

**Seasonal Influenza**

Influenza A and B have been isolated in Canterbury and influenza B in South Canterbury. Typing has identified that this

year's vaccine will offer a good level of protection.

Figure 1



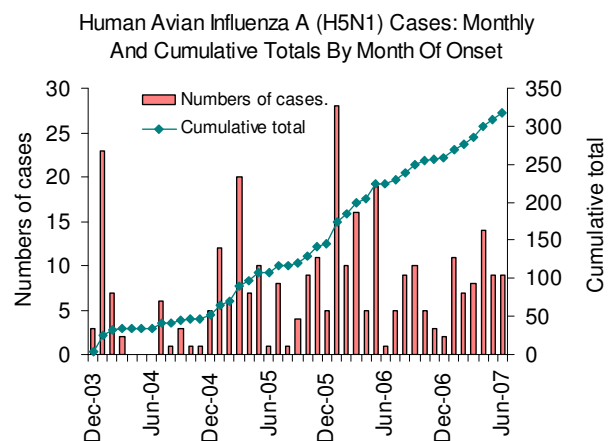
**Pandemic Preparedness**

The Ministry of Health's pandemic exercise went relatively well in most areas although gaps in planning and capacity were identified. From the Ministry's perspective the planning will be ongoing including the need to improve intersectoral communications, processes and resources.

Thank you to those in primary care who are supporting the Civil Defence led roadshow on pandemic preparedness that is visiting towns in Canterbury and South Canterbury.

**Avian Influenza Update**

Figure 2



As New Zealand and a number of other countries prepare to minimise the impact of pandemic influenza should it arrive, the WHO continues to closely monitor the global situation (Figure 2). The H5N1 virus is reported to have mutated in Indonesia

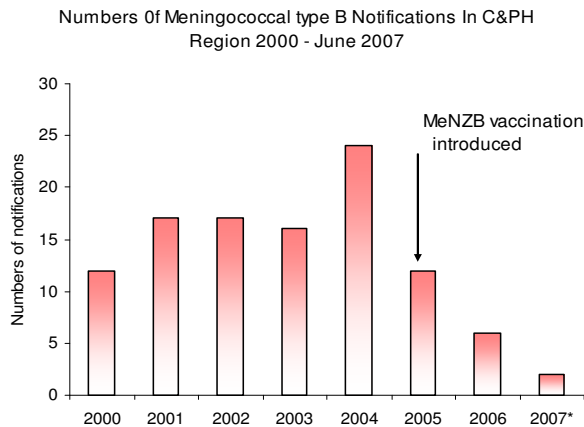
earlier this year although the mutation hasn't resulted in it becoming more transmissible.

Globally this year to the end of June there had been 54 cases of H5N1 in humans including 33 deaths. Over 80% of notified cases have been in Indonesia and Egypt.

## Meningococcal type B Decreases

There has been a steady decrease in the number of meningococcal type B notifications in the C&PH region since the introduction of the MeNZB vaccination in the South Island in 2005 (Figure 3). However, doctors need to remain alert to the possibility of meningitis because the vaccine is not 100% effective and it does not protect against other serogroups.

Figure 3



\* January to June

## Legionnaires' Disease And Potting Mix

There has been another death in Christchurch from Legionnaires' disease. An active elderly man died 10 days after re-potting bulbs. *Legionella longbeachae* was isolated from both the patient and the potting mix he had been using.

In the past five years there have been four deaths from *L. longbeachae* in Canterbury associated with potting mix. Compost is also a source of this species. Warning labels are on most bags of potting mix although people may not be aware of them. Those at increased risk of Legionnaires' disease are aged over 50 years and smoke or who have a chronic illness such as lung disease, diabetes, malignancy, renal

disease or who are immunocompromised. Men are affected twice as often as women.

Patients who are in the at risk group should be informed of the risk associated with potting mix and gardening and advised to take the following precautions:

- Water gardens gently using low pressure.
- Dampen potting mix before using.
- Open bags of potting mix and compost slowly and away from the face.
- Make sure the working area is well ventilated.
- Wash hands thoroughly after gardening and using potting mix or compost.

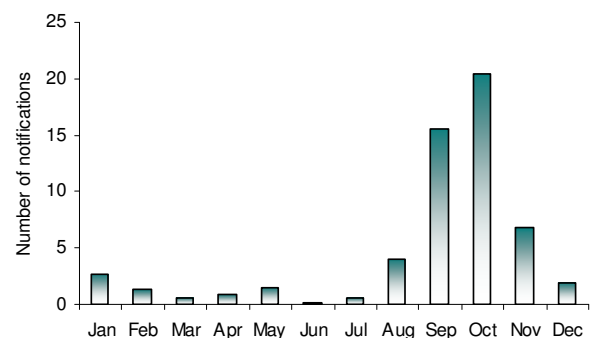
[A pamphlet is available from the local C&PH office]

## Cryptosporidiosis in South Canty

The incidence of cryptosporidiosis increases in spring in the three C&PH health districts, but particularly in South Canterbury where the rate of notifications (79 per 100,000 pop.) is four times that of Canterbury and almost twice that in West Coast. Mackenzie (127) and Waimate (105) districts have the highest rates. Figure 4 shows the average number of cryptosporidiosis notifications by month for the past seven years. Seventy percent of notifications occurred in spring, 40% were aged under five years and in this age group 60% were boys.

Figure 4

South Canterbury: Average Monthly Cryptosporidiosis Notifications 2000-2006



The incidence in rural children 1-4 years is 4.5 times that of urban children and contact with calves is a risk factor.

Children and adults, especially those who have contact with farm animals should be reminded to wash their hands thoroughly

after contact with animals, and to leave dirty footwear outside the home.

### Immunisation Coordinators

The Canterbury Immunisation coordinators contracts have been finalised. Partnership Health's Coordinators will provide the service to their own general practitioners and North Canterbury Immunisation will look after the rest of the practices in the Canterbury DHB including Ashburton and the hospitals.

### Allergy to Silver Birch

Following the death of a woman in Christchurch due to an allergic reaction to silver birch pollen, the Ministry of Health released this comment (edited):

'Allergy to silver birch pollen is well known (likely the most common 'hay fever' causing tree) and sensitivity testing can be undertaken for it. Severe reactions or death would appear to be exceedingly rare internationally. Symptoms may worsen with repeated exposures but would not normally be life-threatening at the first exposure. In context it would seem that allergy to silver birch pollen – while not uncommon – is of significantly lesser public health concern than other allergies (e.g. to bee sting venom). If there is the potential for severe allergic reaction/anaphylaxis a physician with specialist expertise in allergy should be consulted.'

### Summary Of Selected Notifiable Diseases April – June 2007, and 2006

	Canterbury		South Canterbury		West Coast		TOTAL Cases Apr-Jun 2007
	Cases Apr-Jun 2007	Cases Apr-Jun 2006	Cases Apr-Jun 2007	Cases Apr-Jun 2006	Cases Apr-Jun 2007	Cases Apr-Jun 2006	
<b>ENTERIC DISEASES</b>							
Campylobacteriosis	284	387	63	84	11	6	358
Cryptosporidiosis	12	8	1	8	-	-	13
Gastroenteritis	25	29	2	-	-	2	27
Giardiasis	30	30	5	5	2	2	37
Hepatitis A	1	1	-	-	-	-	1
Listeriosis	-	-	-	-	-	-	-
Paratyphoid	-	-	-	-	-	-	-
Salmonellosis	45	33	2	12	4	2	51
Shigellosis	6	1	1	-	-	-	7
Typhoid	-	-	-	-	-	-	-
VTEC/STEC	4	1	1	-	-	1	5
Yersiniosis	23	14	9	5	3	2	35
<b>OTHER DISEASES</b>							
AIDS	-	-	-	-	-	-	-
Dengue Fever	1	-	-	-	-	-	1
Haemophilus influenzae b	-	-	-	1	-	-	-
Hepatitis B	4	6	-	-	-	-	4
Hepatitis C	5	1	-	1	-	-	5
Lead absorption	-	5	-	-	-	-	-
Legionellosis	3	-	-	-	1	-	4
Leptospirosis	-	-	2	2	3	2	5
Malaria	-	-	-	-	-	-	-
Measles	-	1	-	-	3*	-	3*
Meningococcal infection	2	4	-	-	-	1	2
Mumps	2	2	-	-	-	-	2
Pertussis	19	62	7	9	-	10	26
Rheumatic fever (initial attack)	1	-	-	-	-	-	1
Rubella	-	-	-	-	1*	-	1*
Tuberculosis (new case)	5	3	2	1	1	-	8

\* Suspected