Immunisation Issues

COMING EVENTS

Update for Vaccinators: 02 November 1700-2100hrs Education Centre
Website address for On-line update for Vaccinators. www.icomet.org.nz
Immunisation Study Day for Midwives: 06 September 1300-1900hrs Education Centre

BCG VACCINATIONS

(From the Ministry of Health's Neonatal BCG resources)

TB is more common in non-Maori and non-European new people in New Zealand. However,

all pregnant women should have a discussion with their lead maternity carer about the risk of TB for their baby.

Infants who fit the criteria should be vaccinated within a few days of birth and before six months of age. After this age a Mantoux test is required before vaccinating.

Neonatal BCG should be offered to infants at increased risk of TB, defined 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 or household members or carers, who within the last five years lived for a period of six months or longer in countries with a TB incidence rate of ≥ 40 per 100,000.
- during their first five years will be living for three months or longer in a country with a TB incidence rate of ≥ 40 per 100,000 and are likely to be exposed to those with TB.

COUNTRIES WITH TB INCIDENCE ≥ 40 PER 100,000 POPULATION
As a general indication, the following areas have rates ≥ 40 per 100,000:

- most of Africa
- much of South America
- Russia and the former Soviet states
- the Indian subcontinent
- China, including Hong Kong
- Taiwan
- South East Asia (except Singapore)
- Pacific (except the Cook Islands, Fiji, Niue, Samoa, Tokelau and Tonga)

A table of all countries with a TB rate of ≥ 40 per 100,000 is available from the Health Promotion Resource Room, Public Health Nurses or the Immunisation Team, Napier Health Centre, Phone 834 1815.

Please use the attached referral form for BCG vaccinations and forward to Christel Longhurst.

BE WISE IMMUNISE ON-TIME EVERYTIME.

Medical Officer of Health
Public Health
ADVICE

Inside

Public Health Report July 2011 Volume 8, Issue 2

Tuberculosis in Hawke's Bay

Epidemiology

In the 6 years to the end of 2010, 56 new TB cases and 1 relapse have been notified – an average of one case every 5 weeks. Seventy-nine per cent had pulmonary disease and 36% extrapulmonary. Of those with pulmonary disease who had specimens tested, 64% were smear-positive and 75% culture-positive. The age-specific rates (figure 1) show a third-world bimodal pattern with higher rates among young adults and the elderly. The highest ethnic-specific rates are among Pacific and "Other" ethnic groups (figure 2) though the largest number of cases are among Maori. The disease is clustered in suburbs of lower socio-economic status (figure 3). Drug resistant TB is rare in Hawke's Bay which indicates a good standard of clinical care and adherence to treatment.

Clinical Awareness Of TB

Most TB cases present with symptoms to a GP, who need to be vigilant for the disease. Symptoms include cough, haemoptysis, fever, sweats, weight loss, shortness of breath or chest pain.

High risk groups include: Maori and Pacific people of any age; people who have lived in the Pacific Islands, Asia, Africa or South America; the immune-compromised; the elderly; those recently exposed to TB and those with a past or family history of TB. Consider TB in the high TB-risk patient whose symptoms you are ascribing to asthma, bronchitis or other lung diseases.

Consider chest X-ray in high risk patients with symptoms of pulmonary TB. Sputum culture is expensive and should not generally be done without first discussing with a chest physician.

The Mantoux test has low sensitivity and specificity and has little role in the diagnosis of active TB. However always have a high index of suspicion for the development of TB disease in patients who you know to be Mantoux positive, particularly if they are immunosuppressed by disease or drugs.

Interferon Gamma Release Assay

The interferon gamma release assay Quantiferon Gold has higher sensitivity, specificity, positive predictive value and negative predictive value than the Mantoux test. However it is expensive and its appropriate interpretation and routine clinical role will take some time to define. Therefore at present it will only be processed if requested by:

- Public Health Physicians as part of a contact tracing programme.
- Hospital Occupational Health for surveillance of health-care workers who have previously received BCG vaccine.
- Infectious Disease specialists, Respiratory Specialists and Paediatricians when assessing possible latent TB infection.
- Specialists considering TNF-antagonists or other immunosuppressant medication.

Individual cases can be discussed with either the Infectious Disease or Respiratory Physicians if it is felt the test is required outside of these settings.

The role of Public Health

Public health nurses provide monitoring of adherence to treatment for cases being managed by the hospital. They also follow up contacts of TB cases. If your patients consult you concerning a possible exposure to TB, please refer them to Public Health without doing Mantoux testing or chest X-ray. All abnormal investigations, referrals and treatment will be communicated to the GP.

New criteria for BCG vaccination

The 2011 Immunisation Handbook provides a new chapter on tuberculosis and new eligibility criteria for vaccination. Pacific Islands babies are no longer vaccinated simply on the basis of their ethnicity. New BCG referrals to the Public Health Unit from 1st July will be managed according to the new eligibility criteria. See back page for more detail.

New health education resources are available to support health professionals in screening babies antenatally for BCG: *Assessment of eligibility for neonatal BCG vaccination* and *BCG vaccine. Information for parents.* These can be obtained from the Health Promotion Resource Room at the Napier Health Centre ph 834 1815 ext. 4162.

An updated Public Health Unit BCG Referral form is enclosed. Please discard old copies.

BCG has limited efficacy and significant adverse events. It reduces the diagnostic value of the Mantoux test by causing the test to become positive. Because of these disadvantages, vaccination is targeted at those at highest risk.

It is the responsibility of lead maternity care providers to ensure that BCG eligibility is assessed antenatally and vaccination is arranged postnatally through Public Health.

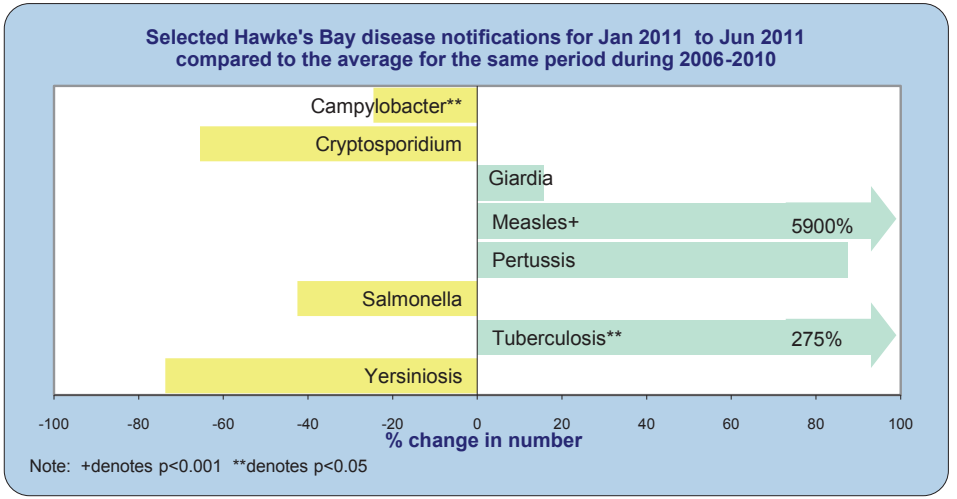
Weeping lesions with erythema at the injection site are normal. So is axillary adenopathy. Do not prick, squeeze, or treat reactions with any topical preparations. Refer abscesses and accelerated reactions (developing within two days) to Public Health.

Generally BCG is not recommended for health-care workers or overseas travellers though it could be considered in people in these groups who are at particularly high risk.

Guidelines for Tuberculosis Control in New Zealand 2010 are available at http://www.moh.govt.nz/moh.nsf/indexmh/tuberculosis-control-nz-guidelines-2010. Chapter two in particular is of relevance to general practice.

PH ADVICE

Disease Surveillance Summaries

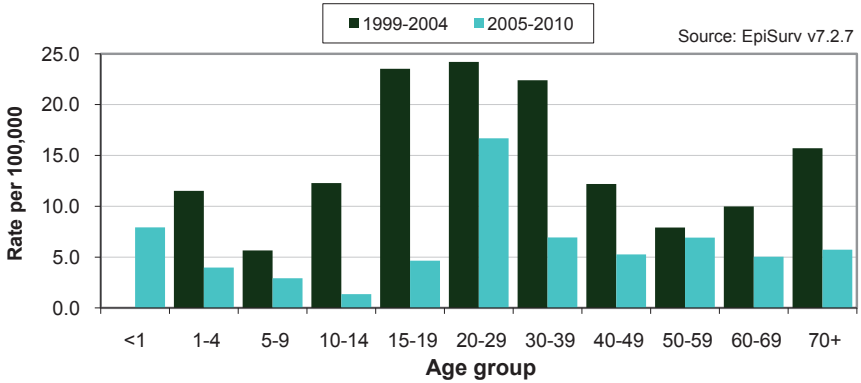


Selected notifications July 2010 to June 2011

	Hawke's Bay		New Zealand	
Disease	**Cases**	**rate***	**Cases**	**rate***
Campylobacter	309	199.6	6611	151.4
Chlamydia	1315	849.5	25264	578.5
Cryptosporidium	36	23.3	696	15.9
Giardia	89	57.5	1975	45.2
Gonorrhoea	183	118.2	2408	55.1
Hepatitis A	3	1.9	28	0.6
Invasive pneumococcal disease	28	18.1	525	12.0
Lead absorption	12	7.8	248	5.7
Legionella	2	1.3	199	4.6
Leptospirosis	12	7.8	76	1.7
Measles	25	16.2	117	2.7
Meningococcal disease	4	2.6	90	2.1
Pertussis	31	20.0	772	17.7
Rheumatic fever	7	4.5	159	3.6
Salmonellosis	40	25.8	1224	28.0
Tuberculosis disease	19	12.3	328	7.5
VTEC / STEC infection	8	5.2	182	4.2
Yersinia	12	7.8	431	9.9

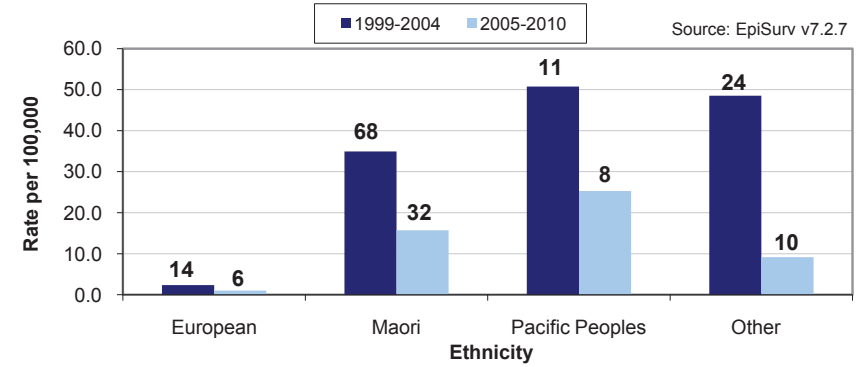
* Annualised crude rate per 100,000 population calculated from 2010 mid-year estimates.
Note: The national figures for Chlamydia & Gonorrhoea are for the 12 months ending Mar 2011.

Figure 1: Average annual rate of Tuberculosis in Hawke's Bay by age group



Note: 1999-2004 rate calculated using age specific populations from 2001 Census as denominator
2005-2010 rate calculated using age specific populations from 2006 Census as denominator

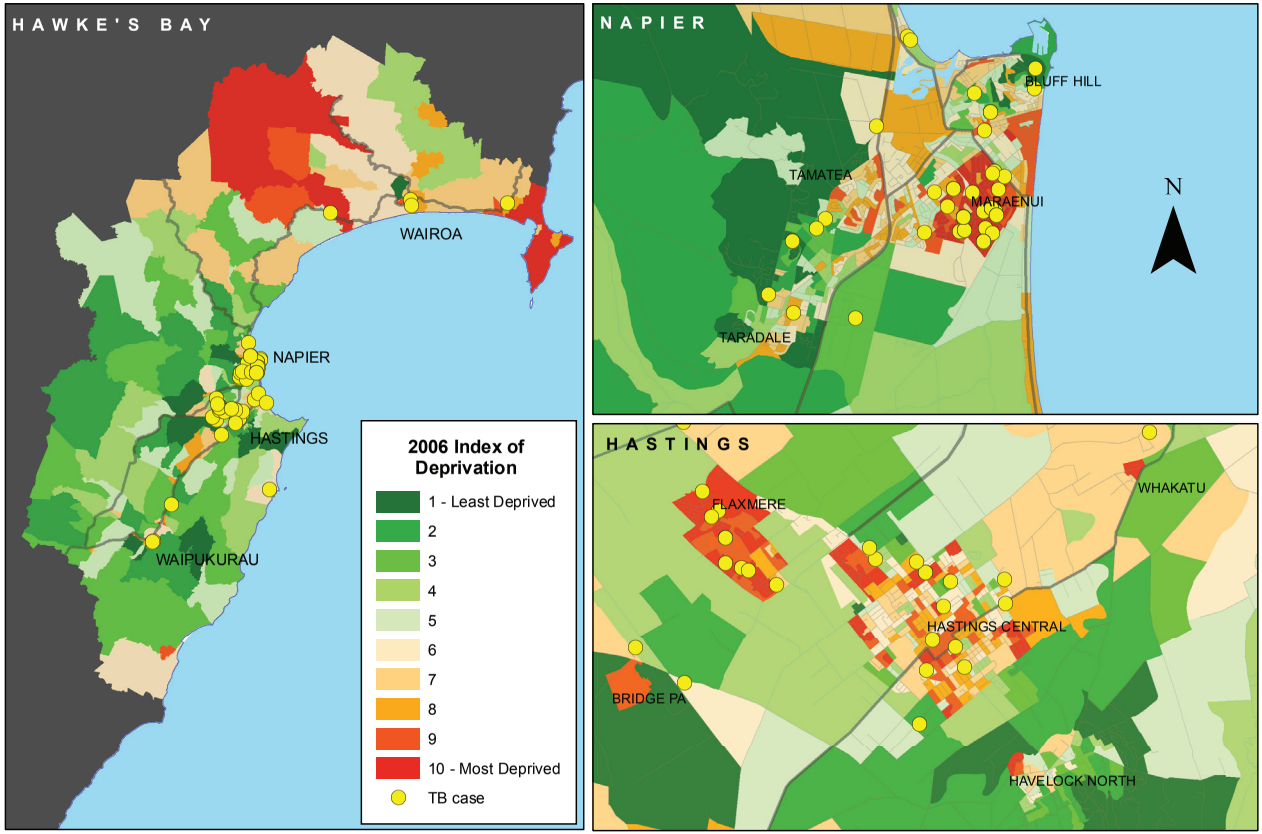
Figure 2: Average annual rate of Tuberculosis in Hawke's Bay by ethnicity



Note: 1999-2004 rate calculated using prioritised ethnicity from 2001 Census as denominator
2005-2010 rate calculated using total ethnicity response from 2006 Census as denominator
Numbers on top of the bars denote numbers of cases.

Public Health: Phone (06) 834 1815
Website: www.hawkesbay.health.nz

Figure 3: Tuberculosis cases[1] in Hawke's Bay by domicile & deprivation Index[2], 2004 to 2010.



[1]includes new and relapsed cases of active disease; excludes latent infections. [2]mapped by meshblock according to NZ Dep 2006 (from Census data).