

Medical Officer of Health

Public Health

ADVICE

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Public Health Report November 2018

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This edition of Public Health Advice provides updates on BCG Vaccinations, Enteric infections, Leptospirosis, Mumps, Rheumatic Fever, Sexually Transmitted Infections (including Syphilis). As usual we provide a summary of the notifiable disease cases you have reported to us.

We appreciate your continued support for public health by referring cases of notifiable disease. Feel free to contact any of the Medical Officers of Health to provide feedback or suggest issues you would like more information on.

BCG Vaccination Update

Following a three year period with no BCG vaccine supply worldwide, we now have a secure supply of vaccine available again.

During the past three years, many of you have continued to refer eligible babies, and we appreciate this. Our referral waiting list in Hawke's Bay was over 200 babies and we are currently working through these referrals, screening each one through a discussion with the parents, and arranging clinics for BCG vaccinations.

Babies over six months of age need to have a negative Mantoux skin test before the BCG vaccination can be given (which means two visits, and involves two separate injections).

BCG Vaccination Eligibility

Infants and children aged under five years are eligible for a BCG vaccination if:

- They will be living in a house or family/whānau with a person with either current TB or a history of TB
- They 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 rate ≥ 40 per 100,000*
- During their first five years will be living for three months or longer in a country with a TB rate ≥ 40 per 100,000*

For a table of countries with a TB rate ≥ 40 per 100,000, refer to:

<https://www.health.govt.nz//handbook-a8-high-incidence-tb-countries-mar18>

Our current [BCG-referral-form](#)

For further advice or information, please contact:

- Linda St. George, Nurse Educator, Public Health Nursing, Napier Health Centre, ph: 027-3535486

Enteric infections

Elevated Rates of Enteric Infection Continue

The seasonal increase in enteric infections is well and truly underway; notification rates for a number of enteric infections have been elevated in September and October. This includes elevated rates of Campylobacter, Cryptosporidium, and STEC (Shiga toxin producing E. Coli). Common risk factors seen over this period have been contact with farm animals, young children in nappies and overseas travel.

In addition to a seasonal increase in enteric infections, many enteric infections have been elevated throughout the year to date. As mentioned in the June edition of the Public Health Advice, changes in community testing are likely to have played some part in this. In January 2018 Southern Community Laboratories (SCL) introduced the multiplex faecal panel, meaning that all HBDHB community faecal samples processed through SCL are now being routinely tested using PCR for organisms such as *Cryptosporidium* and STEC when previously these organisms were only tested for on request or by a less sensitive culture method.

Public Health Follow up

The new 'Redcap' system for public health follow up has been in place for *Campylobacter* notifications since June 2018. Instead of being mailed a questionnaire to fill out and return, all cases (or caregivers of cases) with *Campylobacter* are now being sent an SMS message to request completion of an e-questionnaire. This has allowed for timelier public health investigation and action. We are currently moving to incorporate *Cryptosporidium* follow up to the RedCap system, and may progressively transition follow up for other enteric infections. Given the higher return rate than standard mailed questionnaire, this system appears to be a more user friendly approach. **Cases will receive the SMS message 24 hours after the Public Health Unit is notified of a case by the laboratory. If you request a stool sample, please advise the patient that public health will contact them if a notifiable organism is found.**

Leptospirosis

Trends in Leptospirosis

Leptospirosis notifications have been elevated in September and October, with six cases either confirmed or under investigation notified over this period. Hawke's Bay has a significantly higher incidence of this serious disease compared to the country as a whole, in part reflecting high levels of environmental exposure through strong agricultural and meat working industries as well as favourable climatic conditions. Analysis of notified Leptospirosis cases from 2007 – 2017 found approximately 90% of cases occur in men, with the majority of people reporting occupational exposure either in the meat working (34.2%) or farming (34%) industries. The presentation of Leptospirosis can vary from a mild-flu like illness to a severe, life-threatening infection. The diagnosis should be considered in anyone with occupational and/or recreational exposure to animal urine.

Laboratory confirmation of acute Leptospirosis infection is based on serovar-specific Microscopic Agglutination Titres (MAT) performed on acute and convalescent serum samples (taken three weeks apart). A four-fold or greater rise in Leptospiral MAT between acute and convalescent serum, or a single high antibody titre of >400 in the acute MAT confirm recent infection. PCR testing should only be performed in severe cases where results are required urgently to determine clinical management. If you are unsure of which test is required contact the on call clinical microbiologist.

Ongoing research into Leptospirosis

A Massey University national case control study on Leptospirosis will be recruiting in the Hawke's Bay region from early next year. The study will help to address current gaps in knowledge including gaining a better understanding of the risk factors and pathways for human leptospirosis infection. This will include looking at the regional variation in *Leptospira* serovars which will help us better understand the drivers of Leptospirosis in the Hawke's Bay region. Ultimately, it aims to inform intervention and control strategies to reduce the increasing burden of disease in New Zealand.

Mumps

A Public Health Advisory was sent to primary care on Wednesday 7th November advising that we have a relatively small contained mumps outbreak involving three linked households in Hawke's Bay. The source of infection is likely from infection in the Pacific, due to one family becoming sick soon after arrival.

The intention was to alert primary care that Mumps may have started to circulate in Hawke's Bay, given that we have one confirmed case at a school and a number of suspect cases in workplaces.

Please remember:

- Mumps is a notifiable disease, and should be notified on suspicion
- To confirm the diagnosis, PCR test using a buccal swab within seven days of parotid swelling
- Cases must isolate themselves for five days from swelling onset
- Those most at risk are post pubertal adolescents, adults (born after 1981) and pregnant women
- Immunisation with on-time MMR is the best protection

Rheumatic Fever - Sore Throats and Family History Matter

Following a quiet first seven months of the year with no new cases of acute Rheumatic Fever, we've now had four cases in quick succession. All new cases are Māori school aged children from across Hawke's Bay.

Apart from ethnicity, the main risk factor for these four cases is a significant family history; this is an association that Professor Michael Baker emphasised as being highly correlated at his recent Grand Round presentation on 'Rheumatic fever - what we have learnt about causes and interventions in NZ'. Healthy literacy was also an issue for some of our recent families in not getting sore throats checked.

Please consider the risk of Rheumatic Fever in all children/young adults who are Māori or Pacific, who present with a sore throat or sore joints and fever, and who have a significant family history of acute Rheumatic Fever.

Please swab and treat as per the [Heart Foundation Group A Streptococcal Sore Throat Guidelines and Algorithm](#).

Syphilis and other STIs

Syphilis rates are continuing to increase around the world including New Zealand. Although most cases are in men with male contacts there are an increasing number of infections in the heterosexual population including pregnant women. Internationally rises in Syphilis infection are often accompanied by an increase in HIV notifications

- Syphilis testing should be offered to all those requesting a sexual health check along with testing for HIV and Hepatitis B (unless immunised or immune)
- Men with male contacts should be offered Chlamydia/Gonorrhoea testing from pharynx and rectum and by first pass urine regardless of sexual practices in addition to HIV, Syphilis, Hepatitis B and A serology (and Hepatitis C by risk assessment) as per NZSHS guidelines, www.nzshs.org
- **All cases of infectious Syphilis should be referred or discussed with the specialist service 027 703 7391**

When treating for Chlamydia infection consider Doxycycline rather than Azithromycin if symptomatic (unless compliance likely to be an issue) because of higher treatment failure rates in the presence of a high bacterial load.

Please remember **contacts need testing as well as treatment** to improve our contact tracing and to detect other STIs. All those treated for Chlamydia or Gonorrhoea should be offered follow-up testing in 3 months to detect treatment failures and re-infections

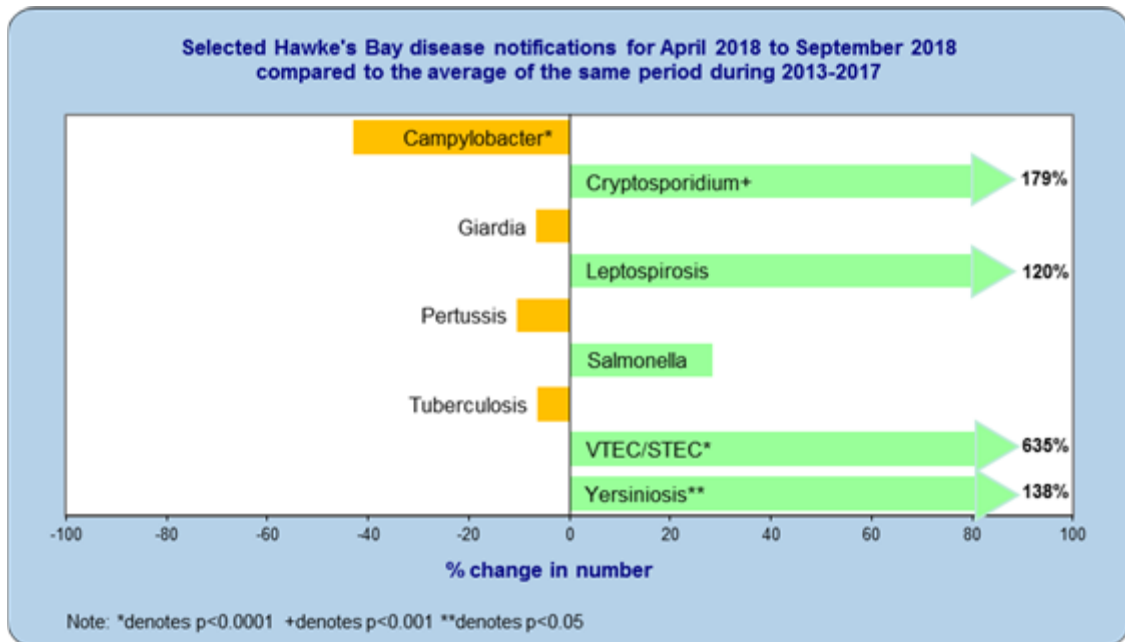
In the management of Gonorrhoea there are concerns about increasing rates of genetic mutations associated with antimicrobial resistance. Culture swabs should be undertaken when treating cases detected by a positive.

Gonorrhoea, Syphilis and HIV are formally notifiable and a notification process has been developed. Please see the [ESR STI surveillance page](#) for further information

For further advice or information, please contact:

- Lei Johnson, Nurse, Practitioner, Sexual Health, Napier Health Centre, ext. 4240
- Anne Robertson, Sexual Health Physician, anne.robertson@midcentraldhb.govt.nz or ph: 021 136 0229

Notified Disease Summary



Selected notifications October 2017 to September 2018

Disease	Hawke's Bay		New Zealand	
	Cases	rate*	Cases	rate*
Campylobacter	317	191.2	6,703	137.2
Cryptosporidium	67	40.4	1,690	34.6
Giardia	64	38.6	1,665	34.1
Hepatitis A	1	0.6	79	1.6
Invasive pneumococcal disease	35	21.1	551	11.3
Latent tuberculosis infection	6	3.6	275	5.6
Legionella	1	0.6	244	5.0
Leptospirosis	17	10.3	121	2.5
Listeria	1	0.6	31	0.6
Meningococcal disease	1	0.6	108	2.2
Mumps	1	0.6	1,098	22.5
Paratyphoid fever	3	1.8	24	0.5
Pertussis	116	70.0	3,379	69.2
Rheumatic fever - initial attack	5	3.0	172	3.5
Salmonella	33	19.9	1,092	22.4
Shigella	10	6.0	235	4.8
Tuberculosis - new case	7	4.2	296	6.1
VTEC/STEC Infection	41	24.7	813	16.6
Yersinia	42	25.3	1,154	23.6

* Annualised crude rate per 100,000 population calculated from 2018 mid-year estimates.
Hawke's Bay rate +10.0 higher / lower than the national rate

Public Health Advice is also available on the
Hawke's Bay District Health Board website:

<http://hawkesbay.health.nz/population-health/public-health-advice/>