



PUBLIC HEALTH POST

Public Health for Primary Care in Wellington, Wairarapa and the Hutt Valley

Also available online at www.rph.org.nz

December 2013

LEPROSY IN THE WELLINGTON REGION 2012 - 2013

This article is based on a poster presented at the 2013 Australasian Tuberculosis Conference on 28-29 November in Auckland.

Background

Leprosy is a chronic disease caused by the acid-fast bacillus *Mycobacterium leprae* and presents with a spectrum of skin and peripheral nerve pathology. Leprosy is a rare disease in New Zealand, with no previously documented local transmission. Sixty seven cases were notified between 1997 and August 2013 in the whole country.² The Wellington region had six cases between 1997 and 2011. From 2012 to 2013 (up to 31 August) there were three laboratory confirmed cases from two different Pacific Island communities. On contact screening, one probable case and several suspected cases were detected and they are now either on treatment or under investigation.

Classification of leprosy

WHO classification is based on numbers of skin lesions and the older Ridley-Jopling classification scheme is based on histological findings.

Multibacillary leprosy (WHO classification)

Multibacillary leprosy is marked by six or more lesions with possible visualization of bacilli on smear.

Lepromatous leprosy, borderline lepromatous leprosy, and midborderline leprosy on the alternative Ridley-Jopling scale are included in the multibacillary leprosy category.

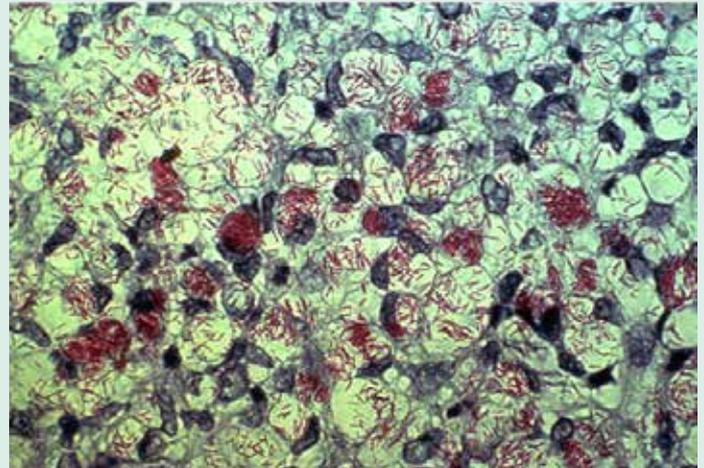
Paucibacillary leprosy (WHO classification)

Paucibacillary leprosy is characterized by five or fewer lesions with absence of organisms on smear.

Paucibacillary leprosy generally includes the tuberculoid and borderline tuberculoid categories from the alternative Ridley-Jopling system.

Method

Regional Public Health clinically screened the household members of the index cases. The screening consisted of questions about sensory and motor symptoms, examination for sensory and motor deficits and suspicious skin lesions, and palpation for thickened superficial peripheral nerves.



Acid-fast bacilli, *Mycobacterium leprae*, stained with Ziel-Nielsen carbolfuchsin. Source: US department of health and human services

We also asked the index cases whether they knew anybody either in New Zealand or in the Pacific Islands with suspected neurological symptoms or skin lesions. Follow up was arranged if anyone was identified with possible symptoms.

As leprosy can have a very long incubation period, screening soon after diagnosis of index cases may not be adequate. Therefore, we decided to screen close contacts annually for six years, as is done in the Northern Territory of Australia.³ Infectious Disease (ID) specialists assessed and provided treatment for adult cases. Paediatricians with ID support assessed the child contacts.

Case 1 and contacts

The first person is a 24 year old male from one of the Pacific Islands who migrated to New Zealand in 2010. He had a long history of sensory symptoms in his legs and hands.



On skin biopsy many acid fast bacilli (AFB) were seen confirming multibacillary (MB) leprosy. During treatment he had reversal reaction which usually manifests as fever, red swollen skin and tender peripheral nerves.

One of his sisters in the Pacific Islands reportedly had skin symptoms similar to his. The local health authority was

notified and she was found to have leprosy.

On the initial screening of household contacts in New Zealand, no other cases were found. However, rescreening a year later we found two cousins with hypo-pigmented skin lesions (one with sensory loss). They have been referred to a paediatrician for further investigation and management.

Case 2 and contacts

The second person is a 19 year old woman who had come to New Zealand three years ago from the same country as case 1. In New Zealand, her household was closely linked to the household



of case 1. Her grandfather was treated for leprosy before she was born. She developed numbness of the ulnar side of the left arm over two years and had a burn at that site. On examination she had a thickened left ulnar nerve and many hypo-pigmented anaesthetic skin patches. Skin biopsy showed many AFB confirming MB leprosy.

Her two brothers in NZ were found to have suspicious skin lesions. One is now on treatment for paucibacillary (PB) leprosy. The second brother is a probable case with treatment options under consideration.

The aunt (based in the Pacific) of case 2 had suspicious skin lesions and is now being investigated.

Case 3 and contacts

The third person is a 44 year old male with classical lepromatous MB leprosy. Biopsied skin nodules had numerous AFB. His brother had both sensory and motor neurological symptoms and is being investigated further. A three and a half year old nephew has multiple hypo-pigmented patches on the face. He has been assessed and is being monitored by a paediatrician.



Summary

With screening of household contacts Regional Public Health was able to detect additional probable and suspected cases. Given that leprosy has a long incubation it is likely that the three index cases were infected in the Pacific Islands. However, household transmission of leprosy in New Zealand is likely to have occurred for some of the contacts. This is on balance of probability for those who have lived in both the Pacific Islands and in New Zealand,

and is more likely for the child contact of case 3 with suspected skin lesions who has only lived in New Zealand.

The two cousins of the first case were initially cleared but on follow up were found to have developed suspicious skin lesions. This highlights the value of periodic screening of close contacts for some years.

Leprosy cases occur in many states in the Pacific Islands. The World Health Organisation has highlighted the Federated States of Micronesia, the Marshall Islands, Kiribati and Papua New Guinea as having high rates of transmission as indicated by the number of cases identified in children.⁴ Cases in New Zealand have not been limited to people from these countries.

Because it is rare, most doctors in New Zealand have not seen a case of leprosy. The recent cases highlight that we need to remain aware of how to diagnose this illness. We should be alert especially when patients have had contact with populations where leprosy is more common.

Key Points

- **General practitioners and practice nurses with their family and community networks are in a good position to identify suspected cases and to consult with specialist colleagues as to appropriate investigations when required.**
- **Anaesthetic, depigmented skin patches, thickened nerves, or other unexplained peripheral nerve problems, especially in people who come from countries with high rates of leprosy, should raise suspicion for potential leprosy.**

More information about leprosy in our region can be found at the Pacific Leprosy Foundation at:

<http://www.leprosy.org.nz/index.html>

<https://www.facebook.com/pages/Pacific-Leprosy-Foundation/276434102605>

and via the World Health Organisation as referenced below.

References

1. Mycobacterium leprae image from Wikimedia Commons accessed 25/11/2013.
2. From Institute of Environmental Science and Research's national disease surveillance database 'EpiSurv'.
3. Department of Health and Families, Northern Territory Government. Guidelines for the control of Leprosy in the Northern Territory, 2010.
4. World Health Organisation: http://www.wpro.who.int/leprosy/documents/leprosy_report_2008_2010.pdf Page 23.

Acknowledgement:

Thank you to the following authors who provided the source information for this report:

- Dilip K Das, Public Health Physician, Regional Public Health
- Laura Atkins, Public Health Nurse, Regional Public Health
- Nigel Raymond, Infectious Disease Physician, Capital & Coast DHB
- Email for correspondence: dilip.das@huttvalleydhb.org.nz

HEPATITIS C IN WELLINGTON

Effective treatments available but often escapes diagnosis

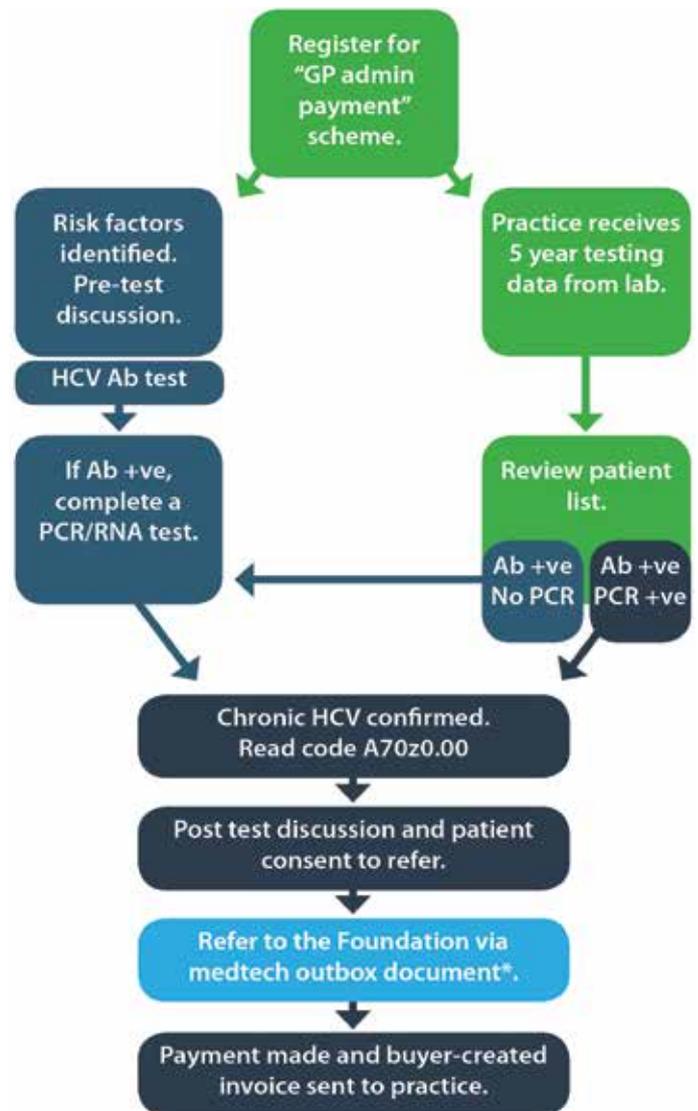
Approximately 4,355 people in Wellington, the Hutt Valley, and Wairarapa currently live with undiagnosed chronic hepatitis C. If left untreated, chronic hepatitis C can lead to liver failure or liver cancer. Already, this disease has become the main cause of liver transplantation in New Zealand, even though two-thirds of people can be cured.

The difficulty with chronic hepatitis C is that it is often asymptomatic, removing any obvious signal that damage is occurring. The Hepatitis Foundation of New Zealand asks health professionals to work with them to identify and treat hepatitis C. They believe this can be achieved, over time, through proactive targeted testing and follow up.

Funded by the Ministry of Health, The Hepatitis Foundation of New Zealand is working in partnership with health providers in the Wellington, Hutt Valley, and Wairarapa DHB regions to address chronic hepatitis C. Launched in 2012, the Hepatitis C Pilot aims to improve access to and uptake of testing, assessment, and treatment. A number of interventions have been implemented including public awareness, targeted testing, and a Community Assessment and Support Programme.

The 'Can you say yes?' public awareness campaign was launched in the greater Wellington region in April 2013. Buses, billboards, newspapers, and radio all sing the same song: Can you say yes to the risk factors of hepatitis C? The aim of the campaign is to drive those at risk to get tested and to increase awareness of the disease. This campaign is ongoing until the conclusion of the pilot on 30 June 2014.

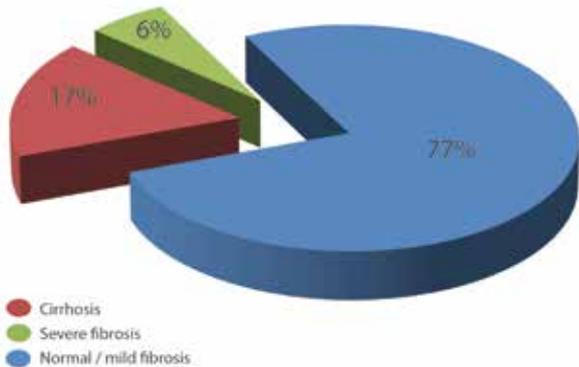
The Foundation is working closely with general practice and other service providers to implement targeted testing. General practice teams are encouraged to identify undiagnosed patients through risk-factor-based testing and to enrol existing patients living with hepatitis C onto the pilot's free Community Assessment and Support Programme. A suite of tools is available to help general practice participate in targeted testing; including query builder solutions, GP admin payments for referrals, risk factor resources, education, suggestions for testing, and most recently, laboratory lists. Aotea Pathology has worked in partnership with the Foundation to extract lists of general practice patients who have had a positive hepatitis C result in the previous five years. General practice can use these lists to identify patients and refer them onto the Foundation's Community Assessment and Support Programme.



*Referrals can also be made via phone, email, website, post, or fax.

The Hepatitis Foundation of New Zealand
website: www.hepatitisfoundation.org.nz
phone: 0800 33 20 10
email: referral@hepatitisfoundation.org.nz
post: PO Box 15 347, Tauranga
fax: 07 571 2548

The Community Assessment and Support Programme is a free community-based health service managed by the Foundation's trained hepatitis C nurses, and overseen by secondary care specialists. Since the beginning of the pilot, 481 people have been enrolled onto the community programme from Wellington, Hutt Valley, and Wairarapa. Patients enrolled in the programme are provided with integrated support, initial assessment, on-going follow up, appropriate blood tests, education, referral to secondary care (if required), and FibroScan® assessments. Over a 10 month period, 254 FibroScan® assessments have been completed in the greater Wellington region, with 58 people diagnosed with severe fibrosis or cirrhosis. These patients are currently being managed to help prevent further disease progression.



FibroScan® assessments at 30 September 2013 (n=254)

In New Zealand, approximately 50,000 New Zealanders live with chronic hepatitis C, yet only 25 per cent have been diagnosed. Early diagnosis and assessment is crucial in preventing disease progression. New generation interferon-free drugs are on the horizon, where over 90 per cent of patients will be cured with little or no side effects. Now is the time to find people living with chronic hepatitis C. The Foundation encourages general practice to identify undiagnosed patients and refer patients living with chronic hepatitis C to the Foundation's free community programme. Work with the Foundation to address hepatitis C; say yes to targeted testing.

Who should I test?

Those at risk of hepatitis C in New Zealand are people who:

- Have ever injected drugs (once is enough);
- Have ever received a tattoo or body piercing using unsterile equipment;
- Received a blood transfusion, or blood products, prior to 1992 in New Zealand;
- Have ever lived, or received medical treatment, in a high risk country (South East Asia, China, Eastern Europe (including Russia), or the Middle East);
- Have ever been in prison;
- Were born to a mother infected with hepatitis C.

Checklist for General Practice: Can you say *yes*?

- We know how to adopt a risk-factor-based approach to testing.
- We have asked the Foundation to educate us about the programme and provide ideas for testing.
- We have registered to receive payment for referrals.
- We know how to use the query builder or lab list to find patients in the practice.
- We have contacted patients and asked them if they would like to be referred to the Foundation.
- We have accessed the new resources and looked at the new HepCentral website.

For more information call Jenny Patchell on 021 921 694 or visit www.hepatitisfoundation.org.nz



Sources

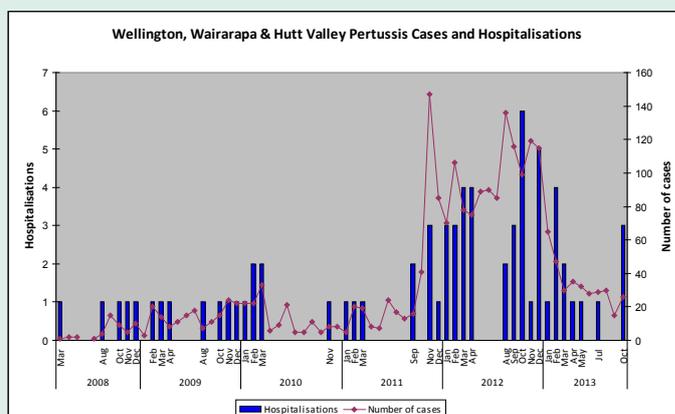
Regional Public Health would like to thank The Hepatitis Foundation of New Zealand for their preparation of this article.

PERTUSSIS VACCINATION IN PREGNANCY

The Ministry of Health notified health professionals in March 2013 that the number of claims for Boostrix for pregnant women was low and encouraging us to promote vaccination in the third trimester.

Rates of pertussis in the Wellington region have been lower over the last seven months than over the preceding two years. However a spike in hospitalisations in October 2013 is a reminder that this epidemic is not yet over and that all appropriate measures need to be taken to protect vulnerable babies.

Boostrix vaccination continues to be recommended for use in the third trimester, specifically weeks 28-38 of pregnancy.

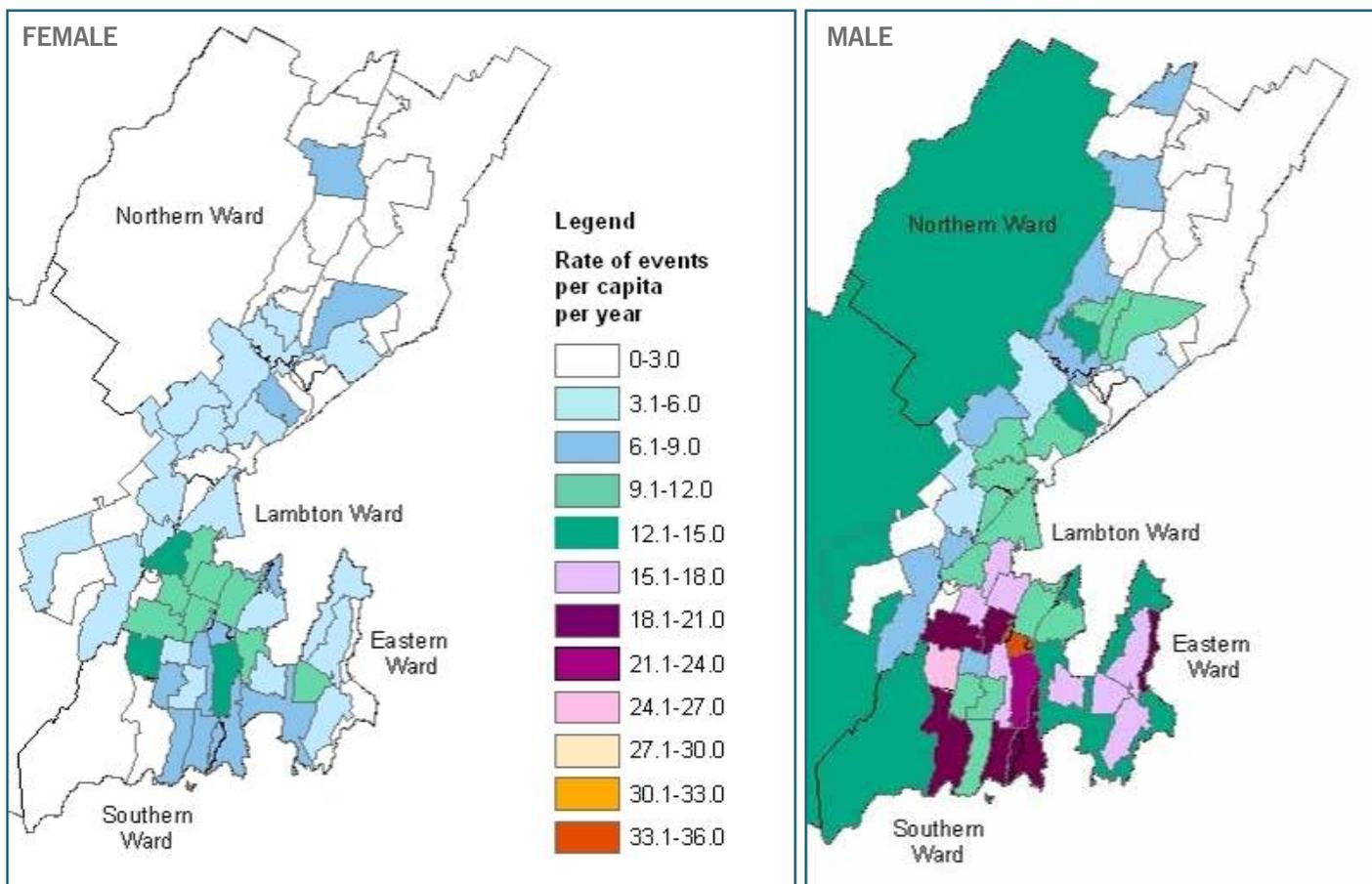


Sources

Episurv database of notifiable conditions, accessed 4/11/2013 New Zealand Ministry of Health

THE VOICE OF COMMUNITY ON HEALTH AND ALCOHOL

The gradual introduction of new alcohol legislation provides opportunities for making changes towards reducing alcohol harm in local communities. Last December the Sale and Supply of Alcohol Act 2012 was passed in parliament. These law changes give communities a stronger voice when it comes to issuing licences to sell or supply alcohol.



Wellington Hospital Emergency Department : Alcohol related attendances by patient area of residence.
Jan 2010 to March 2013, patients aged 14y to 34y, attendances rate per 1000 population per year.

The changes mean that there are now more options to object to a licence that affects you. Primary care practitioners are influential and privy to important local information about the health impacts of alcohol and this can carry considerable weight in supporting a community's objection to a new liquor licence application. The remainder of the new law comes into effect on 18 December 2013 with new default maximum hours of 7am-11pm for off-licences (bottle stores, grocery stores, supermarkets) and 8am-4am for on-licenses (bars restaurants and cafes). Councils can alter maximum hours through a local alcohol policy (LAP). However, LAPs will not come into effect for at least a month after the December law change. The Wellington and Hutt City Councils have already consulted the community on their LAPs, but the opportunity remains to make submissions regarding LAPs in Porirua, Kapiti Coast, Upper Hutt and Wairarapa. Oral and written submissions on LAPs are an important opportunity to reflect the views of the community.

This year, the alcohol team at Regional Public Health has been active in the development of LAPs, providing evidence to



council committees and participating in community meetings and local alcohol hearings, for example the Wellington Hospital emergency data informed the Wellington City Council LAP by highlighting the need to examine off-licence access to alcohol in the Southern Ward (see figure on previous page). The medical officer of health has increasingly been involved in supporting local communities who have made a stand against liquor licence applications. Community action in Eastern Porirua included Russell School supported by the medical officer of health, the Police and local general practitioners, Dr Kathy Stone and Dr Larry Jordan. This collaboration on community action has led to two landmark decisions by the Alcohol Regulatory Licensing Authority (ARLA).

New liquor license applications were made for both a bottle store opposite Russell School (primary school) on Fantame Street and for a tavern. The proposed tavern would have been in the centre of a shopping centre, in close proximity to an alcohol and drug treatment service, general practice and an early childhood centre.

The Authority (ARLA) declined both applications setting a national precedent and highlighting the powerful voice of community opposition in addressing alcohol related harm.

The Fantame Liquor Store is an example of how reducing the hours of operation (from midnight to a 9pm weekend closing) of the bottle store, which later closed, led to marked reductions in crime (as submitted to the ARLA hearing by the NZ Police) and in the community's experience of alcohol related harm (as submitted by community members to the ARLA hearing).

Effective methods

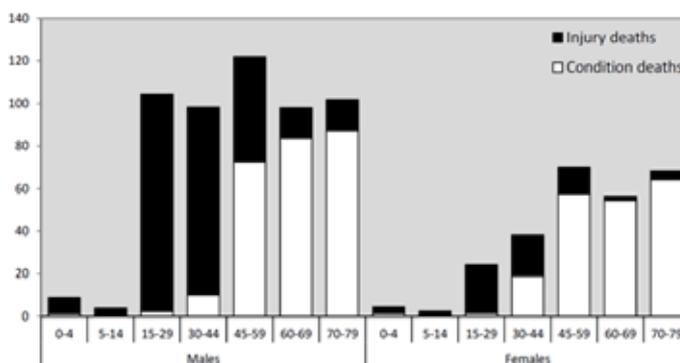
The most effective methods for addressing alcohol harm are well researched and documented. Three key publications; Alcohol No Ordinary Commodity (Babor, 2003), The Global Strategy to Reduce Harmful Use of Alcohol (World Health Organization, 2010) and the New Zealand Law Commission, Alcohol In Our Lives: Curbing the Harm (Law Commission, 2010) all refer to five key strategies:

- **Reduce availability**
- **Increase the price**
- **Increase the purchase age**
- **Reduce advertising and marketing**
- **Reduce the blood alcohol and driving limit**

The strategy under consideration by councils in their LAPs is the reduction in availability, which can be achieved through controls on the number of licences, their location and hours of operation.

Alcohol related harm impacts on health, it costs society, and it is preventable. Among <80 year olds in New Zealand, 451 deaths in 2007 were attributable to alcohol (Connor, 2013) and 4-5% of total health lost to death or disease in New Zealand was attributable to alcohol

Deaths attributable to alcohol from injury and alcohol related conditions in New Zealand 2007 (Connor, 2013)



(Ministry of Health, 2013, Connor, 2013). Alcohol causes both injuries and chronic diseases. Health impacts are related to both to the pattern of drinking and total alcohol consumption. For some diseases there is no safe threshold of alcohol consumption.

Regional Public Health delivers a range of services to assist people in the Wellington region to be free from alcohol harm. Public health advisors adopt a broad approach using regulatory and promotional activities to support the responsible supply of alcohol, promote moderate consumption and encourage harm reduction. Regulatory activities improve alcohol retailing accountability by working alongside alcohol retailers and interested groups such as council and police, to foster the responsible sale and supply of alcohol. Promotional activities raise awareness of alcohol issues and promote and support effective alcohol policies.

Resources

See <http://www.alcohol.org.nz/> for more information about legislation, patient resources such as helpline, and the latest activities and research.

See the Regional Public Health website for national and local submissions on alcohol policy <http://www.rph.org.nz/>.

References

1. BABOR, T. (2003) Alcohol: no ordinary commodity: research and public policy, Oxford University Press.
2. CONNOR, J., KYDD, R., REHM, J., SHIELD, K. (2013) Alcohol-attributable burden of disease and injury in New Zealand: 2004 and 2007. IN RESEARCH REPORT COMMISSIONED BY THE HEALTH PROMOTION AGENCY (Ed.). Wellington, Health Promotion Agency.
3. LAW COMMISSION (2010) Alcohol in our lives: Curbing the harm.
4. MINISTRY OF HEALTH (2013) Health Loss in New Zealand: A report from the New Zealand Burden of Diseases, Injuries and Risk Factors Study, 2006-2016. Wellington, Ministry of Health.
5. WORLD HEALTH ORGANIZATION (2010) Global strategy to reduce the harmful use of alcohol, World Health Organization.

Acknowledgement

Thank you to Dr Andrea McDonald, Public Health Registrar for the preparation of this article.

RESOURCE UPDATE

DECEMBER 2012

New or revised resources are stocked in the Health Information Room, Regional Public Health, Level 1, Community Health Building, Hutt Hospital, High St, Lower Hutt.

To order please contact - Laurina Francis phone: 04 570 9691, fax: 04 570 9211 or email: laurina.francis@huttvalleydhb.org.nz

Sore Throats and Rheumatic Fever

Poster, booklet and wallet card developed for parents, caregivers and families providing information about what rheumatic fever is and how it starts, the importance of recognising and treating sore throats, including the effects of rheumatic fever.

Hard copies available also in the following languages – Samoan, Tongan, Te reo, Cook Island.

Electronic copies only – Tokelauan, Tuvaluan

STOP SORE THROATS HURTING HEARTS
Preventing Rheumatic Fever

Steps of rheumatic fever

Sore throat

Kids tell your parents or an adult if you have a sore throat

Adults look for the signs of a sore throat

- hard to swallow
- trouble eating or drinking

Sore throat checked

Go to doctor or nurse straight away to get every sore throat checked.

Sore throats not checked

Don't go to the doctor or nurse to get sore throat checked, stay unwell.

Sore throat is 'strep throat' (caused by bacterial infection or bug called Group A Streptococcus).

'Strep throat' is treated - take antibiotics for 10 days. It's important to finish all the antibiotics.

Stops 'strep throat' and rheumatic fever.

Healthy and active with strong heart

Sore throat could be 'strep throat'.

'Strep throat' not treated with medicine (antibiotics).

Rheumatic fever could develop.

Get very sick from rheumatic fever - tiredness, sore and swollen joints (knees, elbows, ankles and wrists).

Unwell and tired with serious heart problems - rheumatic heart disease

STOP SORE THROATS HURTING HEARTS
Preventing Rheumatic Fever

Sore throats and rheumatic fever

Rheumatic fever and heart

Your heart

How does my heart work?

Sore throats and rheumatic fever

Show this card to the doctor or nurse.

"I am part of a community where rheumatic fever is a serious problem. I don't want my child to get rheumatic fever. Please check their sore throat and treat it."

Simple Steps To Healthier Eating

The 'Healthy Heart' basic guide and simple steps.

eat most
vegetables & fruit

eat some
breads, cereals, grains, starchy vegetables

fish, meat, chicken, legumes, eggs

milk, yoghurt, cheese

use some oils, nuts

simple steps to healthier eating

Heart Foundation

simple steps Healthier eating can be easy. Why not start by taking one simple step? Here are some ideas to add goodness to your diet.

- Add one more veg to dinner
- Add one salad veg to your sandwich
- Add one chicken to a takeaway meal
- Add one piece of fruit to breakfast or lunch
- Swap from white bread to wholegrain
- Choose baked potatoes or humus instead of deep fried
- Use wholemeal instead of white flour
- Choose just one dairy or grainy food as a meal
- Cut the fat off meat and the off chicken
- Drink the fat from canned corned beef
- Add a can of legumes to a dish with one less meat
- Steam, grill or pan fry fish instead of deep frying
- Switch to the blue, green or yellow top milk
- Swap from full fat to reduced fat cheese
- Swap from a sweet bakery item to reduced fat yoghurt
- Try homemade instead of bought takeaways
- Swap from butter or oil to olive or margarine
- Choose a handful of nuts for a snack instead of potato chips
- Add avocado to a sandwich or salad
- Swap a can of fizzy for water or milk
- Swap from a big plate to a smaller size

Prostate Cancer

Information about prostate cancer, checks, diagnosis, management and treatments. Aimed at encouraging and informing discussions among men, their families and whānau; to enable more informed decision making about having checks for prostate cancer.

Pamphlet, booklet and poster available.

Codes: HE2400, HE2401, HE2422

What is your risk of prostate cancer?

Are you a man:

- 50 to 70 years old
- in your 40s and your father or brother has had prostate cancer
- having trouble peeing?

Talk to your doctor, nurse or health professional.

Stay well for your family and whānau

For more information pick up a leaflet from your GP team or go to www.health.govt.nz

Prostate Cancer

More information for men and their families and whānau

Stay well for your family and whānau

Getting checked for Prostate Cancer

Quick guide for men and their families and whānau

Stay well for your family and whānau.

WHAT ARE YOU REPORTING

1 SEPTEMBER - 30 NOVEMBER 2013

Notifiable Condition	Number of cases (confirmed cases only)			
	Hutt	Wairarapa	Wellington	Total
Campylobacteriosis	45	22	117	184
Cryptosporidiosis	3	7	13	23
Dengue fever			2	2
Gastroenteritis - unknown cause	1		1	2
Gastroenteritis / food-borne intoxication	14		19	33
Giardiasis	9	3	39	51
Hepatitis A			1	1
Invasive pneumococcal disease	5	1	12	18
Lead absorption	2	1	1	4
Legionellosis	1			1
Leptospirosis		1		1
Malaria	1			1
Meningococcal disease			2	2
Pertussis (additional probable cases in brackets)	10 (16)		11 (28)	21 (44)
Rheumatic fever - initial attack	2		3	5
Salmonellosis	9	3	14	26
Shigellosis			2	2
Tuberculosis disease - new case			6	6
Tuberculosis disease - relapse or reactivation			1	1
Yersiniosis	5		18	23
Grand Total	107	38	263	408

Notes:

- Campylobacter case numbers have increased compared to the preceding three months reflecting national trends. Other enteric infections are either stable or increased.
- Enteric infections continue to dominate notifications
- Pertussis case numbers remain significant but at low rates compared with the preceding 18 – 24 months.
- The number of new tuberculosis cases in this three month period is at the higher end of the usual 3 – 7 new cases per quarter.

Sources

1. ESR. Episurv database of notifiable diseases, accessed 9/12/2013 and reviewed 16/12/2013.

PUBLIC HEALTH ALERTS

Regional Public Health communicates public health alerts to primary care practices by fax and by email. These communications often contain information that needs to be urgently taken on board by general practitioners and primary care nurses.

Please contact Regional Public Health on 04 570 9002 if you have not been receiving alerts, or to check and confirm that we have your correct details.

If you are not yet receiving alerts by email, and would like to, then you can provide your email address via phoning the number above.

Ordering Pamphlets and Posters:

To order any Ministry of Health resources, please contact the Health Information Centre on 04 570 9691 or email laurina.francis@huttvalleydhb.org.nz

Produced by: Regional Public Health
Private Bag 31-907, Lower Hutt 5040
Ph: 04 570 9002 Fax 04 570 9211

For enquiries regarding the Public Health Post, please contact Dr Jonathan Kennedy, Medical Officer, Regional Public Health jonathan.kennedy@huttvalleydhb.org.nz or by phone **04 570 9002**. Alternatively contact one of the regional Medical Officers of Health: **Dr Jill McKenzie, Dr Margot McLean, Dr Annette Nesdale and Dr Stephen Palmer**