

Public Health Perspectives

Presenting the Ministry of Health's public health focus

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Clean drinking-water fund

On 5 May 2005, the Government announced the establishment of a fund totalling \$150 million (GST inc) to help improve drinking-water systems in New Zealand communities.

Clean drinking-water is a necessity. Healthy communities cannot be maintained without it. Unfortunately, there are many communities – particularly the smaller rural, isolated ones – that do not have access to drinking-water of an appropriate standard. For this reason, the Government is establishing a Drinking-water Assistance Package (DWAP) that will provide funding to councils and other water suppliers specifically for upgrading drinking-water systems.

The new fund, aimed at small water supplies, will set aside on average \$15 million a year for 10 years. Local authorities and water suppliers will be able to apply to it for help, and assistance will be determined by a set of criteria agreed with local authorities and water suppliers.

There are two components to the DWAP – the Technical Assistance Package (TAP) and the Capital Assistance Package (CAP).

The TAP will initially concentrate on the development of Public Health Risk Management Plans (PHRMPs) for supplies. This will assist drinking-water suppliers to comply with the requirements in the proposed drinking-water legislation. The TAP will assist drinking-water suppliers to optimise their existing operations and provide information on whether capital upgrades may be required.

The CAP will provide financial assistance where capital upgrades to the system are found to be necessary. The main challenge will be to develop eligibility criteria to ensure we effectively assist the smaller communities where the provision of safe drinking-water incurs higher costs per head than urban communities. The information collected through the TAP will assist in achieving this.

The DWAP comes into effect on 1 July 2005 and for the first year will consist only of the technical assistance component. Information through the use of videos and written material will be available from this date. The TAP will be co-ordinated by the Ministry of Health in consultation with other government agencies, DHB drinking-water assessors and industry participants.

The CAP does not come into effect until the second year of the programme. The Ministry is currently developing a discussion document on the eligibility criteria for this part of the programme. The criteria will be finalised after a consultation process has been undertaken.

The Government announcement is an endorsement of the vision adopted for the management of drinking-water quality in New Zealand and provides a great platform for further development in the future.

Editorial

**Dr Don Matheson,
Deputy Director-General Public Health and
Stephen McKernan, Chief Executive,
Counties Manukau District Health Board**



Dr Don Matheson



Stephen McKernan

When District Health Boards (DHBs) were first mooted, there was considerable anxiety in the public health community that they would be unable to live up to their mandate of promoting and protecting public health. Many realistically felt the perennial problem of addressing prevention and public health in the face of immediate needs of waiting lists and escalating costs of personal technical interventions would overwhelm the boards. This issue plagues health services everywhere – the challenge is always to get beyond the rhetoric of prevention. The other challenge as seen by the public health community was that if prevention did get on the agenda of the boards, it was likely to be more 1950s health education in content, rather than embracing the Ottawa Charter approach.

Over the first couple of years, boards focused on clinical services, deficits and waiting times. However, there has been a remarkable development in the last 18 months, with boards beginning to embrace a public health agenda. An excellent example of this is the Let's Beat Diabetes campaign launched recently by Counties Manukau DHB. This campaign, which involved a large number of stakeholders in its development, was undertaken in response to the predicted escalating growth of diabetes and its flow-on effects. To reduce this growth, fundamental change is required across the whole community.

This broad approach is reflected in the 10 broad project areas. These areas largely reflect a public health agenda and are as follows.

- Supporting community leadership and action
- Promoting behavioural change through social marketing

- Changing urban design to support healthy, active lifestyles
- Supporting a healthy environment through a food industry accord
- Strengthening health promotion co-ordination and activity
- Enhancing well child services to reduce child obesity
- Developing a schools accord to ensure kids are fit and healthy and ready to learn
- Supporting for primary care-based prevention and early detection
- Enabling vulnerable families to make healthy choices.
- Improving service co-ordination and care for advanced disease.

While diabetes was the catalyst for action, the plan reflects a public health approach. Counties Manukau DHB has committed \$10 million over five years to support this plan and the various workstreams. It is the only initiative within the board that has secured such a commitment of future funding.

This is not an isolated example of DHBs picking up the public health baton at the district level. There is a range of similar initiatives across the country, in nutrition, diabetes and housing. They are a positive signal that district-level public health activities are now on the DHBs' agenda, backed up by real investment and committed to an approach that encompasses our current understanding of effective public health action.

Public Health Workforce Development discussion document

The Public Health Workforce Development discussion document, which we had hoped to have in your hands by April, has been held up unexpectedly. We will let you know as soon as possible when the document is to be published. If you'd like to receive advance notification of its progress, please email phwdp@xtra.co.nz or contact Viv Head on 027 276 9215.

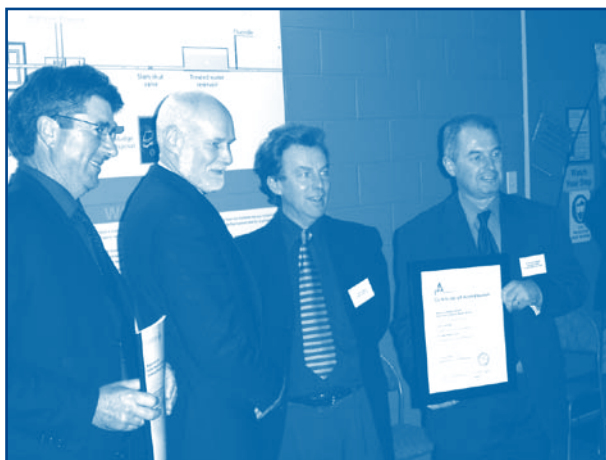
Hutt Valley Regional Public Health launches its drinking-water assessment unit

Hutt Valley Regional Public Health Service launched its drinking-water assessment unit in May and became the first to be accredited in New Zealand to test and certify water supplies.

The launch, held at the Wainuiomata Water Treatment Plant, was attended by Hon Pete Hodgson, Associate Minister of Health; Peter Glensor, Chair of the Hutt Valley District Health Board (HVDHB); Ian Buchanan, Chairman of the Greater Wellington Regional Council (GWRC); Kara Puketapu, local kaumatua; and Dr Stephen Palmer, Regional Leader Public Health Services, HVDHB, as well as members of each of the organisations involved and the media.

The awarding of the Certification of Accreditation (from International Accreditation New Zealand (IANZ) – the accrediting agency for all New Zealand drinking-water assessment units) was the culmination of a year of preparatory work by a small team within the Public Health Unit. It had put into action the vision the Ministry of Health has for the regulation of drinking-water supplies in New Zealand. It should be noted that the drinking-water assessment units cannot be appointed under statute until the drinking-water legislation is passed.

The Unit's first function, under the new drinking-water management approach of quality assurance,



Above, from left: Ian Buchanan, Chairman, Greater Wellington Regional Council; Hon Pete Hodgson, Associate Minister of Health; Peter Glensor, Chair, Hutt Valley District Health Board; Dr Stephen Palmer, Regional Leader Public Health Services, Hutt Valley District Health Board.

was to award the Wainuiomata Plant an A1 grading, the highest possible. To be awarded this grading, it was necessary for the GRWC to embrace the quality assurance approach to water supplies gained through its achievement of the ISO 9000:2000 accreditation, which has continuous improvement at its heart. The A1 grading describes the water as completely satisfactory, of demonstrably high quality and with negligible risk.

The National Screening Unit's expanding role

In 2003, the National Screening Unit's (NSU's) mandate was expanded to enable it to take a wider role on screening issues.

The National Health Committee also recommended that a specific advisory group be established to review the evidence and make decisions about potential and existing screening programmes and to oversee screening in New Zealand. Accordingly, in 2004, the NSU established the National Screening Advisory Committee (NSAC).

The purpose of the NSAC is to provide advice to the Director-General of Health on screening policy and practice, including cancer screening and genetic screening, by:

- considering the evidence about screening and providing advice about commencing, terminating or modifying screening programmes

- providing guidance on the quality systems needed to ensure that screening programmes being offered in New Zealand will maximise benefit and minimise harm.

The NSU is currently working on a number of screening-related projects outside its current breast and cervical screening programmes. These include:

- newborn metabolic screening
- colorectal cancer screening
- universal newborn hearing screening
- antenatal HIV screening
- antenatal screening for Down's syndrome
- chlamydia screening.

Like Minds, Like Mine – making international connections

In March this year, the Like Minds, Like Mine national project hosted a two-day meeting in Wellington for guests from England and Scotland who are working on campaigns to reduce stigma and discrimination associated with mental illness. The two-day meeting was one of a number organised in New Zealand by the International Initiative for Mental Health Leadership (IIMHL).

Gerard Vaughan, National Project Manager for Like Minds, Like Mine says the objective of the meeting was to share information about our work, particularly about methods that work and those that don't and to identify areas for international co-operation.

'Another excellent outcome was that we got to know each other quite well, which has established an excellent platform for the ongoing communication we have had since the meeting,' says Gerard.

'Even though our countries are quite different, there were some common threads in the work that we do. These were particularly around the importance of consumer/service-user leadership in our campaigns and the use of advertising and marketing-type

strategies. Also there was agreement around the importance of relationships with the human rights sector to address discriminatory practices and the need to work strategically through influencing policy agendas.'

'Since the meeting, we have all continued to communicate and share resources and information. We are also exploring ways of building wider international interest and support for the work we do. In particular, we have talked about working together to influence international media organisations around the portrayal of mental illness, as well as finding a journal outlet to share knowledge and information about our work and its progress. In addition, we are keen to grow our network with other countries who do similar work.'

The following websites provide further information about each of these campaigns:

Scotland
<http://www.seemescotland.org>

England
<http://nimhe.org.uk/shift/>

New Zealand
<http://www.likeminds.govt.nz>

New Zealand Suicide Prevention Strategy: A Life Worth Living

Eighty percent of New Zealanders who died by suicide in 2002 were aged 25 and older – that is why a new suicide prevention strategy is being developed to address suicide prevention across all ages.

While New Zealand's suicide rate has declined 25 percent since a peak in 1998, suicide is still a serious public health issue. In fact, the number of New Zealanders who die by suicide each year exceeds the annual road toll.

The Ministries of Health and Youth Development have just finished public consultation on the draft *New Zealand Suicide Prevention Strategy: A Life Worth Living*. Consultation feedback will now be

considered, and it is intended that a final strategy will be presented to Cabinet by the end of the year.

Although the all-age strategy will supersede the youth strategy, there will continue to be a focus on youth, as well as other high-risk groups such as males, older people, Māori and Pacific peoples.

The shift from a youth to an all-age strategy will see the Ministry of Health taking responsibility for leading and co-ordinating suicide prevention initiatives from 1 July 2005. The Ministry of Youth Development will continue to have a strong role in promoting youth suicide prevention.

For further information visit:
www.moh.govt.nz/suicideprevention

A step towards healthier communities – The New Zealand Urban Design Protocol

When people consider factors adversely affecting their health, they generally focus on influences, such as poor diet or the need for more exercise. Rarely do they consider less traditional factors, such as housing characteristics, land-use patterns, transportation choices or architectural or urban-design decisions, as potential health hazards.

In fact, ‘good’ urban design is critically important to the overall health of our cities. New Zealand is one of the most urbanised nations in the world – almost 87 percent of us live in towns and cities. Yet we have not paid enough attention to making the places we live in successful places that work for people. There is increasing evidence that the way we design our communities discourages physical activity such as walking and cycling. Worse still, it contributes to air pollution and promotes pedestrian injuries and fatalities. Vehicle dependence contributes to greenhouse gas emissions and increases the risk of road accidents. Water run-off due to the absence of vegetation is polluting our water systems. And sprawl may threaten mental health and social capital.

So what is urban design?

Urban design refers to the physical arrangement, appearance and functioning of our cities and the ways we use them. It is also ‘concerned not just with appearances and built form but with the environmental, economic, social and cultural consequences of design...that draws together many different sectors and professions, and it includes both the process of decision-making as well as the outcomes of design’ (*New Zealand Urban Design Protocol*, March 2005, Ministry for the Environment)

Quality urban design has a direct positive impact on public health by increasing levels of physical activity. The health impacts of physical inactivity are wider than just obesity and include cardiovascular diseases, diabetes and mental health issues. Quality urban design creates environments where inhabitants feel safe, access and mobility are improved and a range of transportation options are available, including walking, cycling and public transport.

What is happening nationally?

This year has been proclaimed by Government as the Year of the Built Environment. There are a number of initiatives under way to improve urban design in New Zealand; including the urban design protocol, the urban affairs strategy and the

sustainable cities regional programme. There is also an enormous amount of work on urban design going on both locally and internationally.

The New Zealand Urban Design Protocol

The New Zealand Urban Design Protocol is a voluntary initiative across sectors aimed at making New Zealand’s towns and cities more successful through high-quality urban design. It is an important outcome of the sustainable cities component of the Sustainable Development Programme of Action. The final protocol was launched in Wellington on 8 March 2005. There are over 80 signatories from central and local government, developers and investors, consultants, professional institutes, iwi and sector organisations.

The Ministry of Health has signed up to the Protocol and has encouraged District Health Boards (DHBs) to do the same. To date Toi Te Ora Public Health and the Auckland Regional Public Health Service have signed up. Such an arrangement is consistent with and supports the principles identified in the New Zealand Health Strategy (NZHS) – for example, ‘good health and well-being for all New Zealanders throughout their lives’ – that overlie a goals and objectives framework. A number of these goals and objectives reflect what is outlined in the Protocol’s Mission Statement, that is, ‘to ensure New Zealand’s towns and cities are successful places for people as part of a co-ordinated programme of sustainable development’. Sustainable development goals in the context of the urban environment embedded in the NZHS include:

- Goal 4: A healthy physical environment
- Goal 6: Healthy lifestyles
- Goal 8: Better physical health.

The priorities within the NZHS are reflected in accountability agreements between the Minister of Health and DHBs. Priority objectives include, for example, improving physical activity.

The *Achieving Health for All People* document refers to key actions that include:

- working ‘collaboratively in a “whole-of-government” approach on issues which impact on public health outcomes’.
- influencing ‘community and environmental policy across the different sectors (eg, by...supporting combined government initiatives)’.

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Drinking-water China-style

In March 2005, John Zhang, Scientist, ESR and John Youngson, Drinking-water Assessor, Community and Public Health, Christchurch visited China at the invitation of the World Health Organization (WHO).

The invitation was an endorsement of the ground-breaking work Dr Michael Taylor, Ministry of Health and ESR are doing in drinking-water management in New Zealand. WHO has adopted the concept of the Water Safety Plan (known as Public Health Managements Plans in New Zealand) as one of the tools to achieve sustainable safe drinking-water. The programme was aimed at upskilling water and public health officials in the Zhongwei County, Nixgxia on water safety plans.

John Youngson's role was to develop and deliver the training programme, which took the 65 participants through the risk-assessment process to complete a water safety and monitoring plan for the Zhongwei city and various rural supplies in the area.

Management of sampling data was an essential component of the programme. This was left to John Zhang who introduced Water Information New Zealand (WINZ) as a tool to record sampling results and use the reports and other features to make informed management decisions.

So it was from a water-abundant, green country to a mountainous, cold, dry desert environment that the two ventured. The contrast could not have been greater. Initially, becoming familiar with the water issues facing this desert region took the two men to some amazing areas, and they saw first-hand real public health issues associated with poor water quality and quantity.

Drinking-water in these regions is derived from deep aquifers recharged from winter/spring rain or from snow melt, the Yellow River and rainwater.

All water sources in the regions have public health issues. The original groundwater wells have elevated fluoride, and this is a major public health issue. Excess fluoride causes skeletal fluorosis, the opposite problem to that in New Zealand, where there is too little fluoride, giving rise to tooth decay problems. However, these groundwater wells have, in the main, been replaced with deeper or alternative sources. Wells up to 200m deep are not uncommon. In the more remote regions, drinking-water is trucked in and stored in large underground reservoirs that are often polluted from storm water run-off. Where rainwater is the only source of water,



Zhongwei County – new well development

algal and other problems arise associated with storage over the summer months.

The main water quality determinants being considered were chemical. Water safety monitoring is based on a set of 26 chemical determinants is taken every six months. Limited bacteriological sampling is carried out in Zhongwei City, but no bacteriological sampling is undertaken in the rural areas.

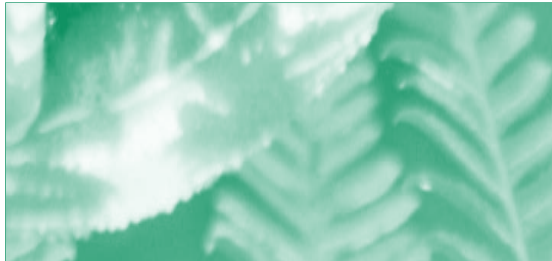
Lack of control of pollution sources in the catchments presents the greatest challenge. Large factories ranging from gold mines to cement factories spew pollution into the atmosphere and discharge their toxins into catchment areas. Heavy metals and acid rain are among the many issues facing water suppliers.

Participants were encouraged to undertake risk assessment monitoring and quantify the actual risks. Once this was known, public health strategies could be developed to take advantage of any future opportunities to gain improvement.

Under the WHO Standards, setting a 'Public Health Objective' is the starting point for a Water Safety Plan. An Objective discussed was to seek 'a reduction in the water-borne disease rates'. This could be achieved by placing more emphasis on the microbiological safety of drinking-water supplies.

The small water supply work Dr Jan Gregor, ESR, is doing around Water Safety Plan Templates was used and found to work very well. The information gained on the practical use of these will be useful to Drinking-water Assessors in New Zealand.

WHO considers New Zealand to be a world leader in the implementation of the Water Safety Plan Concept, and already other opportunities have been proposed for New Zealand Drinking-water Assessors to share their knowledge with other Western Pacific region countries.



PHIOnline

(www.phionline.moh.govt.nz)

As part of the Public Health Intelligence (PHI) strategy of redeveloping its web content, phionline has been created to facilitate an easy and alternative way for accessing its information.

PHIOnline will provide:

- an interactive mapping service
- a multidimensional view of data
- visualisation tool for this information
- ability to download and print maps.

The roll-out of the website will be achieved by phased releases. The first release will be available for viewing on 1 July 2005.

Upgrades in the future will revolve around technical issues as well as being data-driven. These include:

- download spreadsheets of the data
- greater spatial resolution (eg, CAU)
- ability to print 'zoomed in' maps
- availability of all of PHI's non-communicable disease data.

Initially with this first phase roll-out our main aim is to gather feedback regarding the functionality and ease of use of the site.

Tell us what you think is good about the site and what is not so good, so that your comments can guide the future development of this website.

You can send your comments to phi@moh.govt.nz. Alternatively, there will be a feedback form available from 1 July onwards which you can get from the above email address.

Public Health Law Symposium

What do airplanes, tobacco, inequalities, meningococcal B and human rights have in common? All are reflective of contemporary themes in public health law, they create challenges for both law and policy makers.

These challenges were central to presentations on globalisation, non-communicable diseases, socioeconomic determinants and ethics given at the *Public Health Law Symposium*, held in Auckland 21–22 April 2005. In her opening address, Hon Annette King noted the implications of such issues for the Public Health Bill. She also stressed the need for society to give expression in its law to values of individual dignity along with the social values that enable our communities to exist.

The symposium, hosted by the Auckland School of Population Health and organised by the Auckland District Health Board, was the first two-day event ever held in New Zealand on the emerging discipline of public health law.

Any discipline has its 'stars', and Professor Lawrence (Larry) Gostin is undoubtedly one of the brightest in the public health law galaxy. Larry is well known for his publications on a wide range of topics, including communicable disease and human rights issues, SARS and public health emergencies. He spoke on the conceptual foundations of public health law and on law and ethics in population health.

Dr Christopher (Chris) Reynolds, the co-director of the Australian Centre for Public Health Law, had the starring Australian role in the conference. Chris gave a thought-provoking address on the future of public health law, particularly on sustainability and links between public health and environmental issues.

Some of the other speakers included Dr Dale Bramley (presenting the paper *Indigenous Health Inequalities and the Law*), Louise Kuraia (*Law and Lore*) and Ron Paterson (*Public Health, and Patients' Rights*). The Ministry was represented by Dr Don Matheson, who focused on global public health; and Louise Delany (*non-communicable disease issues*).

An event of this kind is a rare opportunity to reflect on the complex and fascinating issues that face public health, and in particular the Public Health Bill. It shows the need to think about how law can contribute to:

- global and local action
- new solutions for new issues
- social justice as the basis of public health.

Ministry releases final blood dioxin report

The final report of a study to investigate historical exposure to dioxin among current and former residents of the New Plymouth suburb of Paritutu was released by the Ministry of Health in March.

Conducted by the Institute of Environmental Science and Research (ESR), the study sought to determine whether residents who lived close to the former Ivon Watkins Dow (IWD) agrichemical plant while the herbicide 2,4,5-T was being made 18 years ago had dioxin levels higher than those of other New Zealanders.

One particular type of dioxin, 2,3,7,8 tetrachlorodibenzo-p-dioxin (or TCDD) is a by-product of the manufacture of 2,4,5-T, which was used extensively throughout New Zealand for gorse control. Production of 2,4,5-T stopped in 1987.

The report found that residents who had lived very near to the plant for at least 15 years between 1962 and 1987 were more likely to have higher levels of this dioxin (TCDD) than other New Zealanders.

This was thought to be a result of breathing fumes from IWD. Eating home-grown leafy vegetables and 'exposed' fruits during that time also contributed to the dioxin levels found. No link was found between dioxin levels and eating home-grown root vegetables, 'protected' fruit such as citrus, poultry/eggs or local kaimoana (seafood).

The 52 participants in the study had blood levels of TCDD ranging from 0.85 to 33.3 parts per trillion (ppt). The average TCDD level of this group was 6.5ppt. The expected level was 1.7ppt (1 ppt = 0.000000000001 gram).

The study deliberately concentrated on people calculated to be the most exposed to dioxins. However, the study did not determine whether health effects had occurred in this group of people.

Studies of the Paritutu community to date have found no clear indication of increased disease rates due to dioxin levels, although data limitations mean that a small increased risk cannot be excluded.

However, there may be a small impact on cancer mortality rates in people who lived within 1km east and 400m south of the plant for more than 15 years during the years 2,4,5-T was manufactured (1962 to 1987).

The extent of the cancer risk is **highly** uncertain but, based on large international studies of more highly exposed people, it is estimated that it may be a small increase on the national all-cancer mortality rate for this exposed population. These studies examined groups exposed in industrial accidents and chemical workers in a number of countries with exposures to dioxins 100–1000 times greater than the population in Paritutu.

A local study of specific cancers that have been linked with historical dioxin exposure (lymphocytic leukaemia, soft tissue sarcoma, Hodgkin's disease and non-Hodgkin's lymphoma) is expected to be completed in June.

A similar study comparing local birth defect data with other regions for the 10 years from 1980 to 1989 will be analysed for any trends in birth defects in the New Plymouth area that may be associated with past dioxin exposures.

A step towards healthier communities – The New Zealand Urban Design Protocol

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The Ministry considers important aims of becoming a signatory to the New Zealand Urban Design Protocol to include:

- demonstrating a commitment to working in the area of sustainable development, in particular urban design and town planning
- demonstrating that urban design is multidisciplinary and that the protection and promotion of public health are key factors in urban design and town planning

- demonstrating a commitment to intersectoral collaboration at a strategic level to influence long-term health gains
- providing a platform for the Ministry of Health and DHBs to work collaboratively with local authorities and other agencies to address urban design and town planning.

A commitment to the New Zealand Urban Design Protocol demonstrates a growing recognition of the need to work 'upstream' to ensure long-term gains in population health outcomes. The Ministry would encourage those health agencies considering becoming a signatory to do so and commit to quality urban design in New Zealand.