

EDITORIAL

Dr Gillian Durham, Director of Public Health and General Manager, Public Health Group

This issue of *Public Health Perspectives* identifies the work under way to implement *Strengthening Public Health Action: The strategic direction to improve, promote and protect the public health* (Ministry of Health 1997). *Strengthening public health action can be achieved by concentrating effort on the cross-cutting themes of focusing on the determinants of health, building strategic alliances within and between sectors, implementing comprehensive public health programmes, and strengthening the public health infrastructure.*

Education and life skills are key determinants of health and the release of *Health and Physical Education in the New Zealand Curriculum* exemplifies this relationship. The siting of cellphone transmission facilities and the eradication response to exotic mosquitoes require us to work closely with other sectors. The national child health strategy will be a comprehensive strategy to improve the health of children in New Zealand. The *Why start?* update is but one part of New Zealand's comprehensive smokefree programme that includes education, legislation, and taxation. The public health legislation review and the review of the Water Supplies Protection Regulations 1961 are important steps to strengthen the public health infrastructure.

The Ministry has been working with the Health Funding Authority (HFA) to identify areas of overlap or where current Ministry responsibilities should transfer. Public health functions that are transferring to the HFA include health education services and the co-ordination of the national cervical screening programme. In addition, the Ministry and the HFA are working closely on the purchase of science services.

The Ministry has recently released its strategic business plan. We plan to rationalise and reduce Ministry activity in areas that are not part of our core business of policy advice (including implementation of the new regulatory framework), performance management of the HFA and Ministerial servicing. The Chief Advisors' networks are important inputs to our core functions. In this issue we welcome Debbie Sorensen as the Chief Advisor, Pacific

Health. You were introduced to Dr Pat Tuohy, Chief Advisor, Child Health in the last issue (*Public Health Perspectives* 1997; 1(2): 11). Pat and Debbie have just completed a demanding schedule of regional meetings, hui and fono as part of the consultation on *Towards a National Child Health Strategy*.

The components of policy advice include:

- environmental scanning
- advice on the strategic direction of the health and disability sector, changes to the roles and relationships of the agencies in the sector, and changes to the regulatory regime
- advice on broad priorities and performance expectations for the HFA
- monitoring of health risks and health outcomes
- advice on cross-sectoral initiatives to improve health and independence
- advice on funding levels for the budget.

Detailed programme design, service guidelines development, and service level specifications are the responsibility of the HFA although, in respect of public health regulation, overlaps are inevitable until the public health legislation review (p 12) and the food administration review (*Public Health Perspectives* 1997; 1(2): 9) are completed.

This work programme is enabling us to focus on strengthening public health action. In addition we have to be responsive to emergent issues, such as the dense bloom of the toxic phytoplankton species *Gymnodinium cf. mikimotoi* which has been moving along the coast of the North Island (p 9). We also need to prepare for the anticipated winter upsurge in cases of meningococcal disease (p 2). Finally, we do have the opportunity to celebrate some successes. The coverage achieved in the mass measles-mumps-rubella immunisation campaign was sufficient to prevent about 95 percent of predicted cases (p 4). Well done everyone who was involved, and those who supported other people's involvement.

Ministry of Health Makes Key Appointment for Pacific Health

'The appointment of a Chief Advisor, Pacific Health, shows the commitment and recognition the Ministry has made to improving the health of Pacific people in New Zealand,' says Dr Karen Poutasi, Director-General of Health.

Debbie Sorensen, a Tongan, started in the new role in January. A registered psychiatric nurse, Debbie has experience in a variety of clinical settings; she also has extensive management experience and purchasing experience gained as Manager, Pacific Health, Drug and Alcohol Services for North Health for three years.

Pacific people comprise 6 percent of the total population and are one of the fastest growing population groups in New Zealand. Studies of Pacific people in New Zealand have identified the leading cause of death for Pacific adults as cancer, coronary heart disease and cerebrovascular disease. A further leading cause of death for Pacific males is unintentional injuries.

Diabetes is also a major health problem with 4–8 percent of Pacific

people affected compared with 2–5 percent for all New Zealanders.

Pacific children have the highest hospitalisation rate and are particularly prone to infectious diseases. The measles and meningococcal disease incidence rate is about 10 times greater for Pacific people than for all New Zealanders.

'I am confident that Mrs Sorensen will be able to assist the health sector to bring about tangible improvements to the health of Pacific people,' says Dr Poutasi.

Mrs Sorensen, a former board member of the Pacific Island Chamber of Commerce and recipient of the Pacific Island Business Person of the Year, Highly Commended Award, has extensive experience in working with Pacific people, having worked in both the public and private sector and for a range of health providers and a health purchaser at a senior level.

She says the new position, which follows the launch of *Making a Pacific Difference: Strategic initiatives for the health of Pacific people in New Zealand*, is a good opportunity to



Debbie Sorensen

bring together all the key people and organisations with an interest in Pacific health.

'Pacific people's health has significant problems and will require an innovative and creative approach to make a difference. The key is for the communities, the health policy makers, funders and providers to respond in a meaningful way,' she said.

A key responsibility of the role will be sector leadership which will involve liaising with Pacific providers, health professionals and communities.

Meningococcal Disease

Meningococcal disease awareness

The Ministry of Health and the Health Funding Authority (HFA) reached agreement in February on the critical components of a three-year communications strategy to further raise public and professional

awareness of meningococcal disease. The Ministry and the HFA are continuing to collaborate in planning and finalising the detail.

The current health education resources have been reviewed, and concepts for new resources will be pretested in March.

Meningococcal disease vaccine development

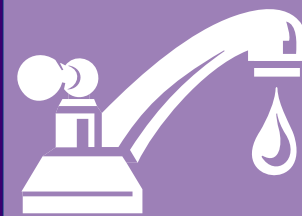
The Ministry of Health continues to assess the planning for

implementing the proposed clinical trial to determine the efficacy of a type B meningococcal vaccine. The need to secure an ongoing supply of a type B meningococcal vaccine is critical to the vaccine development progress.

Pre-admission antibiotics

Updated advice on pre-admission antibiotics was provided in the Ministry of Health Circular Letter to Health Professionals distributed in February 1998.

Review of the Water Supplies Protection Regulations 1961



The Ministry of Health is reviewing the Water Supplies Protection Regulations (WSPR) 1961.

A public discussion paper on the review has been published and sent to all public health service provider organisations, local authorities and relevant government departments, as well as all public libraries. Submissions close on 29 May 1998.

The water industry and the public have claimed, in consultation sessions with the Ministry of Health, that legislation protecting the public from disease deriving from drinking-water is incomplete, outdated, fragmented, and occasionally inconsistent.

The three main items of legislation relating to drinking-water are either currently being reviewed or soon will be:

- Clause G12 (Water Supplies) of the Building Regulations is currently under review by the Building Industry Authority. G12 applies to water supplies within the boundaries of buildings.
- The Ministry of Health is reviewing the WSPR.
- The Prime Minister's statement of 17 February 1998 on government policy noted that assessment of necessary changes in local authority water and wastewater legislation would occur in 1998.

Efforts are being made to ensure that the three reviews are co-ordinated to produce legislation which is comprehensive, easy to understand and 'seamless'.

Questions raised in the review of the WSPR include:

- Should there be an omnibus 'Drinking-Water Act', (with possible major delays in achieving this), or would amendment to the WSPR suffice?
- Should any legislation which may be drafted on drinking-water be in a prescriptive or in an empowering format?
- Should drinking-water legislation such as the Water Supplies Protection Regulations apply to both privately owned and publicly owned drinking-water supplies, or only to publicly owned supplies?
- Should the *Drinking-Water Standards for New Zealand 1995* and public health grading of drinking-water supplies be acknowledged in the revised legislation?
- Should the terms *potable*, *pure*, *safe*, and *wholesome* be defined in the *Drinking-Water Standards for New Zealand 1995*?
- Should the terms *potable*, *pure*, *safe*, and *wholesome* all have the same meaning, or should these terms refer to different characteristics?

- If you consider that the terms *potable*, *pure*, *safe*, and *wholesome* should have different meanings, what should these meanings be?
- Should legislation require all drinking-water supplies, be they privately or publicly owned, to be potable, or only publicly owned supplies?
- Should legislation require all the larger drinking-water supplies to comply with the monitoring requirements of the *Drinking-Water Standards for New Zealand 1995*?
- Should there be a 'cut-off' size of drinking-water supply below which compliance with the Standards should not be enforced, but left to local decision?
- If there should be a 'cut-off', at what size of drinking-water supply should the Standards not be enforced?
- Should legislation require all drinking-water suppliers, be they private or public, to monitor the public health safety of the water supply they provide?
- Should all drinking-water suppliers be required to maintain records of the quality of the water supply they provide and make these available to the public health services and the public?
- Should all drinking-water suppliers be required to maintain an adequate quality assurance regime?
- What should be the machinery for surveillance of the public health safety of community drinking-water supplies?
- Who do you consider should be responsible for carrying out surveillance of the public health safety of community drinking-water supplies?
- Should public health service providers continue to be responsible for the public health grading of community drinking-water supplies?
- Should temporary supplies such as water supplied at festivals and the sale of drinking-water from tankers during drought be made subject to the revised legislation?
- Should community drinking-water suppliers be required by the revised legislation to undertake appropriate sanitary precautions, such as those listed in paragraph 151, while constructing and repairing mains?
- Should community drinking-water suppliers be required by the revised legislation to provide appropriate protection of the mains against backflow,

Continued on page 4

Review of the Water Supplies Protection Regulations 1961

Continued from page 3

and to carry out regular inspections?

- Do you have any comments on benefit/cost issues?
- How could legislation concerning drinking-water be framed to avoid conflict with traditional Māori interests in water?

If you consider that there could be areas of conflict between Māori interests in water and water bodies and the role of central and local government in applying drinking-water legislation, please list the issues that should be addressed and any suggestions on how these should be managed or resolved.

- What kinds of issue should be considered by the Government in ensuring that the drinking-water supplied to Māori consumers meets their cultural expectations and requirements?

If you consider that the relationship between Māori and water requires that drinking-water supplied to Māori consumers be managed in a way which takes account of their cultural requirements, please list the type of issues that could arise and suggest ways in which these could be managed.

Please send your submission, before 29 May 1998, to:

Consultation Officer
Public Health Group
Ministry of Health
PO Box 5013
Wellington
Fax: (04) 496 2340



Measles Update

Return to Normal Schedule, But Ensure All Protected

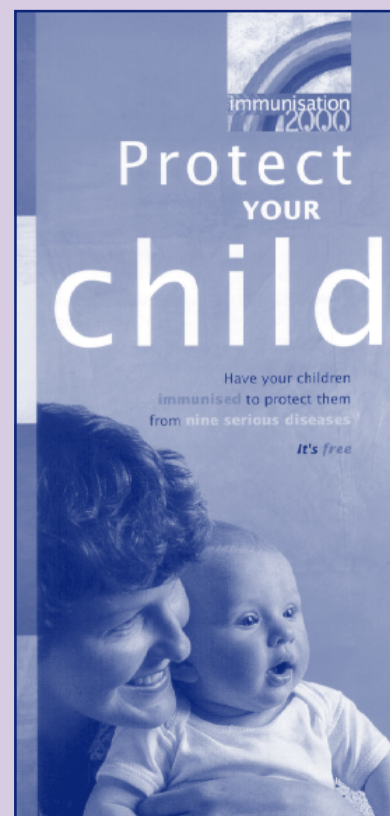
The success of the 1997 measles immunisation campaign was described in the December 1997 edition of *Public Health Perspectives*. Measles activity has continued to decline, with no confirmed cases for the week ending 27 February 1998. Since 1 January 1997 there have been 2096 measles notifications. The epidemic peaked during June and July 1997, following the mass immunisation campaigns which were mostly delivered in May. The coverage achieved was sufficient to prevent about 95 percent of the predicted cases. However, coverage achieved was not high enough to interrupt transmission, and pockets of low coverage have meant a slow decline to the epidemic. The potential for further measles activity remains.

Health professionals were advised in a February 1998 circular letter to return to the normal immunisation schedule. However, because of the potential for more activity, it is therefore important to ensure that all the children aged 15 months and over have received at least one dose of measles-mumps-rubella (MMR) vaccine. This becomes especially crucial for those children before starting school, because of increased contact rates at this time.

Children who attend an early childhood centre, are now required to present an Immunisation Certificate upon enrolment. All early childhood centres must keep an immunisation register, showing the immunisation status of all children aged 15 months and over who were born from January 1995. These registers can be used by public health staff, under the authority of the Medical Officer of Health, to ensure protection of children.

Children who received a dose of MMR during the 1997 campaign are likely to now have received the two recommended doses of measles vaccine. They will need another dose of MMR to receive the recommended two doses of mumps and rubella vaccines. There is no harm in receiving a third dose of measles vaccine.

The laboratory diagnosis of measles does not alter the clinical management of the individual. It is, however, of great public health importance. This is especially so now, at the tail end of the epidemic. Any suspected case of measles should be urgently notified on suspicion, and laboratory confirmation obtained. Measles IgM is found in 70 percent of cases on the day of rash onset, and in 100 percent by the fourth day. Measles IgM is also present eight days to eight weeks post-vaccination.

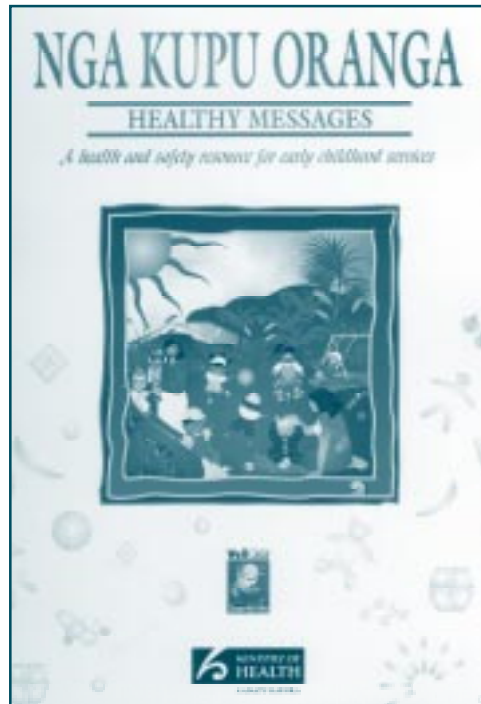


New Handbook for Early Childhood Centres

A new comprehensive health and safety resource for early childhood centres has been produced by the Ministry of Health.

Titled *Ngā Kupu Oranga – Healthy Messages: A health and safety resource for early childhood services*, the 110-page handbook is in a practical ringbinder format. It has been developed specially for early childhood services to provide information and advice about a wide range of topics including common illnesses and how to prevent them; the Well Child – Tamariki Ora programme; food and nutrition; staff health; and safety issues likely to occur in any early childhood service.

In the foreword to the resource, Dr Gillian Durham, Director of Public Health and General Manager of the Ministry's Public Health Group, says that *Ngā Kupu Oranga* is comprehensive, pertinent, reader-friendly and useful.



'One of its strengths is that a large amount of relevant information is now contained in one place.

'It contains information on preventing the spread of infectious

illnesses, which is particularly important for early childhood services in order to protect the health of the children in their care.

'Immunisation is also an essential measure to prevent the spread of diseases,' Dr Durham says.

The resource is based on an original draft developed by the public health service of Hutt Valley Health. Di Davies of JeDi Associates contributed to the writing and editing of the final document, after extensive consultation with health professionals, early childhood educators, and specialists from the Ministry of Education, the Early Childhood Development Unit and the Early Childhood Consultative Committee.

Copies of the resource have been distributed to all registered early childhood centres, relevant agencies and people who contributed to its development.

Moving and Shaking

The National Cervical Screening Programme (NCSP) is on the move. Within the next month the operational part of the programme – national co-ordinator and register staff, plus the register of course – will move to offices in the Central Region Health Funding Authority (HFA) at 155 The Terrace, Wellington. This was proposed in the Steering Group recommendations last year.

Consumers and service providers will notice no difference. Di Best, the national co-ordinator, sees the shift as a positive one, closer to providers and

consumers and aligned with other preventive programmes within the HFA. The programme will be situated within the Prevention unit in the Public Health section of the HFA. The national director is Bette Kill and staff will report to her.

One target of the NCSP has been reached ahead of time. Eighty-six percent of eligible women, (women aged 20–69 adjusted for hysterectomy) are now enrolled on the National Cervical Screening Register. The target was to reach 85 percent by the year 2000. However, despite having 86 percent enrolled overall, women over the age of 60 are less well represented. The nationwide advertising and promotional campaign last September resulted in an increase in enrolments among this age group but it is estimated that there are still over 33,000 women who have not been screened recently.

Why Start? Update

The Ministry of Health continues to be very pleased with the way the *Why start?* campaign is being received by young people. Two evaluations have shown that young people believe that the campaign has taken the right approach.

Evaluation findings

The Business Research Centre and the Eru Pōmare Māori Health Research Centre are undertaking the campaign evaluations. Business Research Centre Director, Emanuel Kalafatelis has the following comments about the impact of *Why start?* on young people.

'Based on the monitoring, we concluded that the campaign had been successful in communicating with youth. Indeed, the results of both monitors (October 1996 and March 1997) demonstrated that young people had a high level of awareness of the campaign, recalled the key messages, related to the messages and specific commercials as being credible, believed they were well targeted and importantly, that the campaign had taken the "right approach".'

Examples of some verbatim comments from the telephone monitoring are:

'That's good. A lot of people would think he's cool because a lot of people like surfing so they'll listen to him.' (Male, aged 12–13, in response to surfing 'smoking slows you down'.)

'That's real good because it says it doesn't take long to start but it takes a real long time to stop ... Tells how dangerous it is.' (Female, aged

10–11, in response to 'smoking is addictive'.)

'I related to this ad because she seems older and more in control of herself, her life.' (Female, aged 18–24, in response to basketball 'smoking slows you down'.)

'Persuasive, those are words young people use, like "shit" and he uses his own language "bro".' (Male, aged 14–17, in response to surfing 'smoking slows you down'.)

'If they hear kids their age group saying not to do it they probably won't. The kids are the same age group. They say why not to smoke and they have reasons. Most people start smoking because they get peer pressure at school.' (Under 15.)

'Yes. Different races and they hit on everyone. They do not block it out by saying that it is aimed only at Māori people. They are short advertisements. People are able to take it in.' (Male, aged 15 or over.)

'Yes, better than listing reasons why not. They're saying reasons kids can relate to.' (Male, aged under 15.)

Emmanuel Kalafatelis concludes:

'Based on our experience of monitoring other advertising and communication campaigns, the results of the monitors and qualitative work demonstrated a high level of recall and penetration amongst the target audience. And in terms of social marketing campaigns, which are typically more of a challenge, these are some of the better results we have seen.'

Specific issues raised by health promoters/ smokefree officers

Late last year, campaign public relations company Hill and Knowlton undertook a survey of public health services to gauge perceptions of the *Why start?* campaign and to seek suggestions for fine tuning the campaign. The many and detailed responses reflected the high level of commitment and support out there for the campaign.

A number of key themes emerged from the survey. These included:

- is the campaign reaching the target audience?
- should the commercials feature younger characters?
- should high-profile role models like sports stars and TV personalities be used to front the commercials?

Is the campaign reaching the target audience?

Considerable attention is paid to ensuring that the *Why start?* commercials are played at times when they will be seen by the target audience. AGB McNair viewing data is used to determine which are the most popular programmes with young people.

Susan Purcell, media manager for Ammirati Puris Lintas (the company contracted to work on the campaign), has the following comments to make about the placement of *Why start?* commercials.

'Our TV advertising has very much been focused on TV2 and TV3 and more lately TV4 and also MTV. During the campaign period we have

also used Aotearoa TV, Max TV, Cry TV, Channel 9 and Dog TV, Sky HBO and Sky Orange.

'These stations deliver not only strong viewing levels by our target audiences but also deliver cost-effective buying to ensure we maximise our exposure within the given budget.

'Throughout the campaign we have carefully tried to match the programmes with the commercials. For example, during Mai Time we have regularly played the Māori language commercials. John, the older Māori gentlemen has played in programmes such as the TV3 National News and Family Matters. A programme like Shortland Street which has a wide viewing audience would be used for all television commercials.

'The other media elements – metolites, posters in buses, cinema and iwi radio – have all been used to specifically target the younger end of the 10–24 age range.'

The last evaluation showed a significant increase in young respondents (10–12 years) believing the campaign was aimed at 10–13

year olds, moving from 22 percent in monitor one to 39 percent in monitor two.

Should the commercials feature younger characters?

It has always been the intention of the campaign to feature young people aged 13 and upwards in the commercials. While children of 10 and even younger are experimenting with cigarettes, pretesting and evaluations have consistently suggested that young people prefer messages from people slightly older than themselves – people they can aspire to be like in the near future.

Should high-profile role models like sports stars and TV personalities be used to front the commercials?

Research indicates that most young people are very comfortable with the *Why start?* message coming from other 'off the street' young people. While using high-profile stars and personalities to front a campaign can be very successful, there are possible pitfalls, particularly in a social marketing campaign.

Personalities and stars are expensive and would have greatly limited the number of commercials able to be produced. By using 'off the street' people it has been possible to develop a wide range of commercials using people of different sex and ethnicity.

In addition, there is always the risk that a high-profile person will turn out to have an association with smoking or tobacco in some way. Having a range of unknowns lessens this risk, as, even if a character was associated with smoking, there are always going to be a number of others who are smokefree.

Using a celebrity also immediately polarises opinion about the brand being promoted, particularly with a fickle younger audience who will either like or dislike the person concerned. When a number of unknowns are used, chances are everyone will relate to at least some of the characters in the commercials.

Next evaluation

The next campaign evaluation is due in April 1998. The findings of this evaluation will be used to fine-tune year three of the campaign.

World Smokefree Day *Poster Competition*

The Ministry of Health, Health Sponsorship Council, Te Hotu Manawa Māori and the Cancer Society have joined forces to promote World Smokefree Day 1998. The aim is for a well co-ordinated day, with the various brands working together to endorse the theme *Growing Up Smokefree/Auahi Kore.*

A major event organised by the group is a World Smokefree Day poster competition for intermediate schools. The aim of the competition is to encourage young people to think about what it means to be smokefree. The winning poster will become the official World Smokefree Day poster for 1998.

A flyer advertising the competition has been sent to all intermediate schools. Competition details also appeared in the December and February issues of teachers' resource magazine *Starters and Strategies*. In addition, public health services are helping to promote the competition to schools.

Eradication Response to Exotic Mosquitoes

The discovery in January 1998 of the exotic Asian Tiger (*Aedes albopictus*) and *Aedes japonicus* mosquitoes in a Japanese-imported concrete mixer truck, at the Ports of Auckland, has again made the Ministry of Health ask the question: how prepared are we in the event of these insects getting beyond the border and becoming established?



Our frontline defence is inspection, surveillance and active mosquito control measures at the border (ie, around air and sea ports). This work is being undertaken by the MAF Quarantine Service and the public health services with support by

port authorities. But, if this fails to prevent an incursion and establishment beyond the border, the Ministry and the public health services nationally must be ready to respond.

A national strategy has been under development since the release in September of a Ministry report to the Minister for Biosecurity *Exclusion and Control of Exotic Mosquitoes of Public Health Significance*. The consultation draft will be released later this year.

The Biosecurity Act 1993 allows for the Chief Technical Officer (Health), Dr Gillian Durham, and her Deputy, Henry Dowler, to manage, co-ordinate and oversee the implementation of the response. Their powers include the ability to

appoint and direct statutory officers. In turn, those statutory officers may *inter alia* enter and inspect properties, require assistance, give directions and declare restricted places thereby limiting the movement of risk goods.

Public health service personnel and others have attended training workshops in Auckland on 3 and 4 March 1998, which has increased awareness of the risks. Participants will also have acquired some knowledge about how to best to implement surveillance programmes, manage risks and plan locally for an effective response to an incursion.



Development of a National Child Health Strategy *Update*

On 29 January 1998 the Minister of Health released *Towards a National Child Health Strategy – A Consultation Document* for a six-week period of public consultation. Seventy submissions have been received from a wide range of individuals and organisations.

Towards a National Child Health Strategy proposes six key strategies to improve, promote and protect the health of New Zealand children. These are:

- focusing on prevention and health promotion
- improving co-ordination
- developing and implementing an information strategy
- workforce development
- child health research
- leadership in child health.

While the overall strategies apply to all children, key issues and specific

strategies are also proposed for priority populations. Four priority population groups are identified: tamariki Māori, Pacific children, children with high health and disability support needs, and children from families experiencing multiple social and economic disadvantage.

The Ministry of Health, with the advice of the Child Health Advisory Committee, will develop the final National Child Health Strategy taking the submissions into account. It will be released early in the next financial year.

Child Health Advisory Committee

Committee members are:

- Mrs Lyn Hartley (Chair)
- Dr Nick Baker (Deputy Chair)
- Ms Wendy Halsey
- Dr Teuila Percival
- Dr Harry Pert
- Ms Pam Wards
- Vacancy for Māori representative.



Marine Biotoxins Cause Respiratory Irritation Syndrome

*Jim Sim, Team Leader (Food Safety)
Food and Nutrition Section*

At the end of January and into early February, an unusual event occurred on the East Coast of the lower North Island. A dense bloom of the toxic phytoplankton species *Gymnodinium cf. mikimotoi* moved along the coast over a two-week period. When onshore wind brought the bloom into the surf zone, some people who were near the beach areas of that part of the coast reported symptoms that were consistent with respiratory irritation syndrome (RIS).

Suspected RIS cases were first reported over several days from a stretch of the Wairarapa Coast and about a week later from the Southern Hawke's Bay.

The clinical case definition for RIS is symptoms of conjunctivitis and irritation of the mucous membranes such as:

- burning sensations of the conjunctiva and nose
- profuse rhinorrhoea
- persistent non-productive cough.

Onset of symptoms occurs shortly after the victim arrives at or near the seashore and is associated with exposure to onshore breezes/sea spray. Symptoms disappear within a few minutes to a few hours of leaving the seashore.

In 1993 similar symptoms were reported by people living near the Orewa Beach area near Auckland. At the time, it was presumed that the phytoplankton species *Gymnodinium cf. breve* was responsible for the RIS as there were high numbers of that species present at the time in the surf zone. However, Hoe Chang of the National Institute for Water and Atmospheric Research Ltd (NIWA) has subsequently noted that he also found 117,000 cells per litre of *G. cf. mikimotoi* in water samples there as well. It may well be that the *G. cf. mikimotoi* was the cause of the RIS reported then and not the *G. cf. breve*.

Water samples taken from the Wairarapa showed cell concentrations of nearly a million cells per litre of *G. cf. mikimotoi* in some places. It is presumed that levels of *G. cf. mikimotoi* have to be high (maybe over 100,000 cells per litre) for symptoms to occur.

Gymnodinium cf. mikimotoi is common around the New Zealand coast, particularly in the South Island. The main active toxic substance found in shellfish that have been feeding on *G. cf. mikimotoi* has been named gymnodimine. This substance has not been found to cause human toxicity by ingestion and is excluded in the analytical procedure for marine biotoxins in shellfish. It is

however strongly ichthyotoxic and fish and shellfish kills are often found associated with blooms of *G. cf. mikimotoi*. It remains to be demonstrated if RIS is a direct result of inhalation of this substance.

A combination of factors which appear to have caused this problem are an upwelling of nutrient rich cold water in the south (possibly associated with the El Niño weather pattern), which was pushed northwards by the general movement of water up the east coast combined with onshore easterly winds.

Frequent phytoplankton sampling runs with fast turnaround on analyses, combined with knowledge of current flows and weather forecasts will provide the best information for prediction whenever this problem appears. Routine phytoplankton monitoring undertaken as part of the marine biotoxin monitoring programme may also provide early indication of a problem arising from this toxic algal species.

Health and Physical Education in the New Zealand Curriculum

The Ministry of Education has recently released the draft document *Health and Physical Education in the New Zealand Curriculum* to schools for consultation, trial and feedback. Other interested groups will also be able to obtain copies.

Submissions are being sought on the draft document by 10 July 1998. These may be written on a response sheet which is distributed with the document or in any other written form.

The final document is expected to be published at the beginning of 1999 and at this point the existing health, physical education and home economics syllabuses will be revoked. Schools will then have a two-year transition period which will allow them to progressively work towards implementation of the new curriculum statement before it is gazetted at from the beginning of 2001.

Funding administered by the Ministry of Education for professional development and materials development will be specifically targeted to support the implementation of the final curriculum statement during the transition period.

Copies of this document can be obtained from:
Learning Media, PO Box 3293, WELLINGTON
Fax (04) 472 6444 , E-mail: orders@learningmedia.co.nz

Siting of Cellphone Transmission Facilities

Sally Gilbert, Senior Advisor (Health Protection)

Introduction

Radiofrequency radiation is the name given to the energy emitted by radio and television transmitters. It is also produced by equipment such as cellphone transmitters and two-way radios.

The number of sources of radiofrequency radiation is increasing. For example, Telecom's cellular telephone market has grown at least 74 percent in the last two years. However, despite the great increase in the number of devices emitting radiofrequency radiation, the measurable exposure of the general population remains very small. This is because the more numerous devices, such as cellsites, are of low power.

Ministry of Health view on siting of cellsites

New Zealand currently follows the recommendations on general population exposure limits for radiofrequency fields as given in the World Health Organization (WHO) publication, *Environmental Health Criteria Volume 137 Electromagnetic Fields*. Exposure limits in the New Zealand Standard *NZS6609:1990 Radiofrequency Radiation* (NZS6609) are generally aligned with those of the International Radiation Protection Association guidelines published in 1988. These limits are somewhat more conservative (that is, they err on the side of caution) than those of major national bodies such as the American National Standards Institute. The Ministry of Health is aware that new recommendations

will be produced this year by the International Commission on Non-Ionising Radiation Protection (ICNIRP), but that these recommendations will be similar to the 1988 limits and so still have a similar basis to NZS 6609. The Ministry continuously reviews the standards and policies as new research and recommendations are developed internationally, and the 1998 ICNIRP recommendations will be important in this regard.

The Ministry believes that it would appear sensible to apply 'no cost' approaches to minimise, where possible, exposures to radiofrequency radiation. This view is consistent with NZS6609 and the findings of the report of the Parliamentary Commissioner for the Environment, described below. The intent is that this should not be met by arbitrarily imposing lower exposure limits. Rather, if there are different options available when designing or siting a radio transmitter or cellsite, then those that result in the lowest incidental exposures around the site should be preferred, all other things being equal.



It should be noted that no verified reports exist of injury or adverse health effects to people from exposures to radiofrequency radiation within the limits specified in exposure standards. The same can be said for exposures to levels about 10 times greater than allowed by with NZS6609.

Community concerns about perceived health effects

The perceived risk from exposures to emissions from cellsites has been a contentious issue over the past few years. Media attention to protests about cellsites located near schools has raised public awareness and concerns about these being sited in residential areas. There have also been a number of applications for cellsites which have been opposed by local residents during consent hearings, and decisions allowing such sites to be installed have been appealed to the Environment Court. To date, decisions of the Environment Court have been consistent with NZS 6609.

Research into whether health effects exist, other than thermal health effects (heating of body tissue), has not yet provided conclusive results. Thermal effects are experienced at much higher exposure levels than those in NZS 6609.

In 1996, the Ministry of Health commissioned a literature review of the epidemiological literature, and national and international policies and reports on radiofrequency radiation. The conclusions reached in the review were that the epidemiological research into the health effects of radiofrequency radiation is not well developed with

only a few limited and exploratory studies. Most studies have not been designed to answer specific research questions but rather screen a large number of outcomes in relation to a particular exposure. These studies may generate 'significant' positive results due solely to multiple comparisons. Such studies may provide important clues to the origins of disease but are unable to provide strong evidence of cause and effect.

However, even considering the limitations of the currently available epidemiological evidence, this is not sufficient reason to reject it. Biological plausibility is a weak criterion for assessing new exposures and the flaws in the research must be weighed against some consistency in outcomes. The epidemiological evidence may be construed as either incomplete evidence of cause or incomplete evidence of safety. It does seem clear at this stage, that even if the evidence does eventually show that health effects do exist, the relative risk from exposures to radiofrequency radiation will be very small or negligible. There is concern, however, that because of the high prevalence of exposure to radiofrequency radiation, the absolute number of people affected could be significant.

The International Electromagnetic Fields Project

The International Electromagnetic Fields Project (EMF Project) was established by WHO and ICNIRP in 1996 as a five-year project to co-ordinate research seeking to clarify

issues concerning electromagnetic fields. Results from the overall project are available as progress reports to the Advisory Committee at its annual meetings. However, because the project has a five-year span, final results are not expected until the year 2001.

The project has released four factsheets. Factsheet N183 *Electromagnetic Fields and Public Health* (October 1997), notes that: 'A scientific review by WHO, held under the International EMF Project (Munich, November 1996) concluded that, from the current scientific literature, there is no convincing evidence that exposure to radiofrequency fields shortens the life span of humans, induces or promotes cancer. However, the same review also stressed that further studies are needed to draw a more complete picture of health risks, especially about possible cancer risk from exposure to low-levels of radiofrequency fields.'

Report of the Parliamentary Commissioner for the Environment

In 1996, the Parliamentary Commissioner for the Environment released a report on the siting of cellphone transmission facilities. The report advocated minimising unnecessary exposures, which concurs with the conclusions of a literature review of the scientific evidence of health effects prepared for the Ministry in 1996 and with the recommendation in NZS6609. It also recommended to the Minister for the Environment that national environmental



guidelines be prepared in consultation with the Minister of Health.

A National Guideline on Radiofrequency in the Environment (Including Cellsites)

The Resource Management Act 1991 provides a legal framework for controlling the siting of cellphone transmission facilities. There is no legislation limiting the emissions or exposures to radiofrequency radiation other than requirements for safe workplaces and protection of workers from workplace hazards in the Health and Safety in Employment Act 1992.

The Ministry for the Environment, in partnership with the Ministry of Health, is preparing draft national guidelines on radiofrequency fields in the environment, including cellsites. The guidelines will include:

- risk analysis processes
- exposure levels
- resource management plans and processes
- monitoring
- any other issues arising from consultation.

Completing the review of public health legislation is high priority for the Ministry of Health. Much work has already been done and the desire by many sectors to see the review completed has been recognised.

A discussion paper, planned for release in July/August 1998, will focus on options for the scope and shape of public health legislation for the future. The emphasis will be on developing a flexible, risk-management and outcome-focused legislative framework which will be durable and widely accepted.

Why is a new public health legislative framework is needed?

From analyses to date it seems that there are several significant problems and risks associated with existing public health legislation. These include:

- the volume and complexity of public health and related legislation leading to poor understanding and use
- the inflexibility of the legislation, compromising the ability to respond quickly or appropriately to some emerging public health risks
- role confusion arising from the interface with legislation administered by other sectors which impacts on public health
- conflict with other modern legislative objectives
- inconsistency with altered and developing health sector roles and accountabilities
- barriers to innovation and inability to recover costs where it may be appropriate
- compliance and active enforcement being discouraged by relatively small penalties
- a series of *ad hoc* reviews not progressing visibly the reforms that are widely regarded as necessary.

It is likely that the discussion paper will propose that comprehensive and effective legislation, with the purpose of improving, promoting and protecting public health, would include objectives relating to:

1. the management of actual and potential risks to public health
2. clear responsibilities and lines of accountability (and mechanisms) for administration and implementation
3. monitoring and reporting on the state of public health
4. explicit emergency powers (for use in public health risk situations)
5. co-ordination with other enactments that impact on the improvement, promotion and protection of public health

6. co-ordination with New Zealand's international obligations in relation to public health
7. performance of functions in a professional and responsible manner
8. avoiding undue infringement of human rights and privacy
9. enhancing the capacity of people and communities to improve, promote and protect public health.

What progress has been made to date?

Earlier reviews have tended to concentrate on certain aspects of public health legislation, particularly the Health Act 1956 and subordinate legislation. These exercises have been informative and, where appropriate, are being used to guide the current review, for example, clarification of the interfaces between health and environmental law and work on the roles and responsibilities of the Ministry of Health, public health services and local authorities. The current review of the Water Supplies Protection Regulations 1961 will also feed into this wider review.

What are the plans for the future?

After extensive consultation and analysis of submissions, the intention is to provide the Government with advice (early 1999) on what new public health legislation should look like. Subject to Government approval, legislation would be drafted as soon as possible after that. This timeline is certainly ambitious, but not unachievable given the amount of preparatory work already completed.

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