Maori Health Protection Scoping Paper

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Definitions

A number of terms used in this document are defined below.

Term	Definition
ATSI	Aboriginal and Torres Strait Islander
BoP	Bay of Plenty
Competencies	Various skills, knowledge, ability – often used in place of competency
Designation	Official designation as an officer by the Director General of Health
DHB	District Health Board
EHO	Environmental Health Officer (local council 'health inspector')
Environmental Health and Protection	The work of Environmental Health and Health Protection Officers
Hapu	Subtribe
Hinengaro	Mental aspect
HFA	Health Funding Authority
HPO	Health Protection Officer – (public health unit 'health inspector')
Hui	Maori meeting
Kaimahi	Maori worker(s)
Kaumatua	Maori elder (male)
Kaimoana	Seafood
Kaitiaki(tanga)	Guardian(ship)
Kaupapa	Subject
Kohanga Reo	Maori pre-school centre ('language nest')
Kuia	Maori women elders
LG	Local Government (councils)
Maori	Indigenous people of New Zealand (Aotearoa)
Maori health protection	The workforce, practices and issues involved in protecting the health of Maori people. This term is not fully defined but leaves scope for further elaboration in areas like Maori concepts of hauora and the role of non-Maori in the protection role.
Marae	Traditional Maori tribal meeting house and grounds

MoH	Ministry of Health
Noa	Free from tapu or restriction
Noho Marae	Overnight Marae stay
NZIEH	New Zealand Institute of Environmental Health
Panui	Notice, newsletter
PHU	Public Health Unit
Rangatahi	Younger generation
RHA	Regional Health Authority
Rohe	Tribal district
Tapu	Sacred or restricted
Taha Maori	Maori cultural aspects
Tangata whenua	Local indigenous ‘people of the land’
Tauiwi	Non-Maori
Tautoko	Support
TPK	Te Puni Kokiri (Ministry of Maori Development)
Te reo Maori	Maori language
Tikanga	Maori custom and process
Tino rangatiratanga	Self-determination, chieftainship, autonomy
TKR	(Te) Kohanga Reo – Maori preschool ‘language nest’ centre
TLA	Territorial Local Authority (council)
Treaty	Treaty of Waitangi – founding New Zealand nationhood agreement made between indigenous Maori and the English Crown
Tuakana	Older sibling
Tuuturu	Traditional, authentic, ‘staunch or competent in Maori ways’
Waiora	‘living water’ (has deeper meanings also)
Wairua	‘Spirit’
Whanau	Family and/or extended family
Whare waananga	Maori university

Introduction

The aim of the paper was to investigate and bring together issues and discussion involved in an emerging Maori Health Protection workforce and associated training and recruitment needs. It includes a summary of recent work carried out in this area both at a national level and in some instances at a regional level in order to illustrate the scope of issues for further development. It is hoped this report may be a useful resource for others committed to Maori health protection and best practice for Aotearoa New Zealand.

Since Maori health protection is still embryonic and directions are still being trialed, this report should be considered as a useful starting point and clearing house for information rather than an attempt to make premature conclusions where there has not been widespread discussion. This work is still in process and it is hoped once more stakeholders are fully involved in the conversation, agreements can be made to work together and find the best ways to move forward. Whilst national support and consistency is important, regions are varied enough to require room to move in evolving what works in their area with their services.

As the Ministry of Health, Massey University and Bay of Plenty District Health Board (my employer) are key stakeholders in the issue, work on this topic was carried out in conjunction and with support from these organisations – acknowledgement is therefore given for this – kia ora.

Scope of Project

In order to approach the issues, the scope of the project needed to be inclusive of the needs of Maori and other stakeholders. A danger was recognised in focussing purely on the question 'how to get more Maori HPOs' which uses a non-Maori logic model and framework, despite being related to Treaty principles (equality, participation). A different question may be asked by an active Treaty partnership - for example 'where are efforts best spent to equitably protect the health of all New Zealanders (including Maori)' – the direction may include options other than placing scarce Maori resource into 'Tauiwi' roles like HPOs. This has been kept in mind throughout the process to encourage participation and relevance for Maori.

Process

The conceptual framework in Chapter 1 was generated to set an appropriate context and starting point for discussion with stakeholders. It goes hand in hand with several other pieces of work as well as helping to set the groundwork for the next stage of a development programme and possibly thesis work. A literature review (Chapter 1) was also produced, along with discussion about research methodologies and potential thesis proposal for masters study.

Stakeholders were identified as reflected in Appendix 2, and various discussions were carried out with some of them as recorded in the table provided. A range of discussion documents were provided as backgrounders, some of which are incorporated into this report. Some of these documents are new work with this process used as a way to 'try them out'.

Chapter 1 – Scoping Health Protection for Maori

Health Protection Officers (HPOs) today fill a similar role health or sanitary inspectors were known for in earlier days of the 'Health Department'. While new job titles are used for HPOs in public health units and their counterparts (Environmental Health Officers) in local councils, much of the work they do continues to be based around regulatory enforcement and protecting physical health. Since Maori and their holistic approaches to health have not featured much in this sector for a long time, some care needs to be taken to ensure both traditional stakeholders and Maori who may be new to the sector are included without alienation of either. An example of typical HPO activity appears as **Appendix 1**.

To scope out the subject at hand, this chapter comprises three parts:

1.1 A conceptual framework - used to help those discussing health protection identify where things are located with respect to a Maori context

1.2 Literature review for Maori health protection

1.3 A Maori practitioner perspective on the developmental needs for health protection

During this project, a number of stakeholders were identified. These stakeholders and a matrix of key information from some of them appear in **Appendix 2**.

1.1 Conceptual Framework

The Ministry of Health wishes to know 'where best to invest effort to bring more Maori Health Protection Officers into the workforce'. Before addressing this in isolation, there needs to be a wider conversation about the relevance the role has for Maori and how it aligns to Maori aspirations now and in the future. This not only makes good sense for a more robust future but assists with the Ministry's obligations as a Treaty Partner.

To add value to this analysis within a wider conceptual framework, it can be supplemented by some case studies, issues to date for Maori HPOs and experiences of Maori communities. Additional to this, since indigenous/Maori development is involved – some link with wider Maori development and other indigenous health workforce development is useful. A holistic focus is needed.

The conceptual framework (Figure 1) is proposed as a way to assist discussion on Environmental Health and Protection by or for Maori, so as to avoid the likelihood of just 'clipping-on' Maori to a generic box – one reason, it is suggested, why there has been limited success to date.

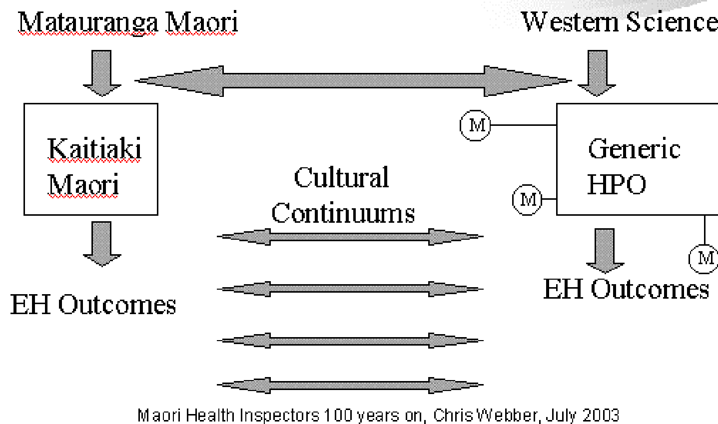


Figure 1. *A conceptual framework for discussing Maori Environmental Health & Protection*

The 'big arrow' continuum represents where one might be 'located' (by work plan or philosophically) between a Western Science-centered generic HPO role and some comparable *Matauranga Maori* (Maori knowledge) world view way of protecting health and achieving the desired environmental health (EH) outcomes. It also illustrates that despite often being 'clipped-on' to the generic box (as the only way currently to gain employment), officers may see, think or be required to act with regard to realities in the Maori end of the continuum.

The smaller arrow continuums represent cultural aspects individuals may be located differently on according to their stage of development. These might include things like cultural competencies in te reo, tikanga and community experience or circumstances like age, sex or work/community environment. Compared to the 'straight through' generic pathway from recruit to a job, the Maori pathway may be varied as it negotiates the additional cultural continuums both in training and the role settled on with an employer and community to be served.

As best practice becomes clear, the pathways do not need to be limited to Maori employees, since most Maori within the population will still be served by non-Maori staff with obligations for best practice. This should cater for both the development of Maori within the environmental health and protection workforce as well as the ability of the wider workforce to work with Maori.

Whether or not the above framework ends up catering for the variety of thought on the topic, it is put forward to generate further development. Work with key stakeholders (traditional and new ones) needs to draw out enough conversation to highlight ways forward. Over time this should progress to finer levels of detail and address regional variance with regard to Maori issues. An inclusive and flexible approach to ensure relevance for Maori will be key in sustaining Maori participation.

1.2 Developmental Needs

The following has been drawn from a paper by the author (Webber, 2000), reflecting early impressions as a Maori practitioner in the field of health protection.

Health Protection in Aotearoa New Zealand provides a generic approach for the Public Health Sector (in its construction and approach) with the potential to deliver inequitable services and outcomes for Maori health at a time when breakthroughs are needed to close the gaps.

Previous health sector review has paid little attention to Health Protection with even less inclusion of Maori perspective in this area. It's time to kick start a movement to protect Maori Health and create a safe place where best practice can evolve with those best placed to make it work for Maori health outcomes.

Vision for the Future

A vision for the future might include:

> *A health sector, which fosters an emerging generation of Maori Health Protection practitioners, whose role as kaitiaki (guardians), assists the health and wellbeing of Maori, wider society and provides new models for best practice. From preschool-environments to seasoned professional (Maori and Non-Maori), inclusion of Maori world-views and community development models leads world transformation towards sustainable futures.*

Three Observations:

- As more Maori enter the Health Protection field, there is a lack of guidelines and support to ensure sustainability and secure optimal benefits
- Evolving Maori approaches within non-Maori frameworks become compromised and are often restricted in making breakthrough progress for Maori
- Health sector-wide and inter-sector attention is required to address some of the issues that have not been addressed by individual providers through their annual contracts

Example of unresolved 'Maori HPO' Issues include:

- Current legislation and established practice reflects little if any Maori input
- The infectious disease surveillance/response model excludes Maori less likely to access notifying GP services (due to cost or other reasons) or be followed up effectively by non-Maori staff
- Traditional rural Maori communities often sit outside drinking water standards and surveillance targeted at town and larger supplies
- Shellfish gathering 'bans' (as opposed to culturally appropriate warnings and process) often alienate or fail with Maori - particularly those with customary practices or Treaty-related issues
- Maori cultural perceptions of risk (hence behavioural change) are not catered for by a largely non-Maori or western science-based approach
- There is little evidence of systematic cultural safely, ethical guidelines, codes of practice or audits addressing the needs of Maori within this work

- Maori must train (and work) in an environment that does not sustain Maori world views and priorities. Opportunities for working appropriately with Maori communities are often constrained
- Maori are expected to develop, maintain and apply additional skill base and knowledge often for the same pay as generic colleagues
- Providers enforce a 'one size fits all' regulatory model that doesn't account for Maori needs and priorities - much of Maori public life is not addressed in a manner relevant to Maori needs (Marae, whanau/hapu gatherings, housie halls, food gathering, resource management effects, etc.)
- Few services appear proactive in Maori areas without additional budget to their 'mainstream' service
- Ineffective integration of Promotion and Protection services often results in protection being less available/accessible to Maori communities (promotion more community-oriented)
- Appropriate forums and processes are required before Maori voices are heard or had regard for in the protection field – many generic approaches detract from Maori process (like caucus/consensus) and isolate or invisible-ize Maori perspective

Some Ideas for Development

- General theme of 'Promoting Health Protection' or taking it to Maori communities
- Utilise Health Promoters designated for Environmental Health & Protection work
- Establish Maori Environmental Health & Protection networks, discussion forums and identifiable bodies or programmes (regional & national)
- 'Kaitiaki mentoring' linking Maori science students to field-work, visits and experience with Maori EHO/HPOs. Flow-on effect for whanau/iwi awareness
- 'Kaitiaki forums' including presentations/workshops with Maori students, kaitiaki, Marae and community hui
- 'Kaitiaki training modules' for tangata whenua to train locally or in blocks to access roles relating to their natural resources and tribal community - for example water monitoring, shellfish biotoxins and disease surveillance
- Resource sets for use within Maori communities – like mobile information displays and resources appropriate for Maori gatherings etc.
- Better application of available technology targeted for bridging gaps with Maori communities
- Environmental Health and Protection Panui and update sheets for community networking and raising general knowledge within Maori communities
- Kohanga Reo centre/network initiatives
- 'Profiling' strategies to build credibility with Maori community
- Building critical mass and cooperation with Local Authorities and strengthening Maori HPO-EHO networks
- Flexibility for Maori HPO participation in professional forums to influence change - for example, Public Health Association membership and conference presentations
- Fast-track development and direct-access to policy/decision-making forums
- Separate Maori skill contracting from monocultural models

1.3 Literature Review

This literature review is an initial step towards the issue of 'recruitment and training of Maori health protection officers', albeit within a wider context of workforce development for Maori health protection in Aotearoa New Zealand.

CASE FOR CONDUCTING REVIEW

Health protection is a field where Maori are under-represented, with three Maori officers currently employed in a workforce of more than 120 health protection officers (HPOs). When combined with similarly trained environmental health officers (EHOs) in local authorities, Maori participation is lower still, with possibly only one Maori EHO in a workforce of over two hundred. A 2001 survey of both these groups regarding capacity and priority for Maori competency revealed significant gaps with respect to Maori expectations (Webber, 2001). Comparison with equivalent indigenous colleagues in Australia and other Pacific countries shows a contrast between their progress on indigenous workforce development strategy and the absence of similar development within the New Zealand industry.

Whilst much has been done about improving Maori participation in other parts of the New Zealand health sector, little has been done in this area. Reviews for generic 'health inspectors' have occurred at various times over the years, but little differentiation has happened in the case of Maori and specific workforce development issues they encounter.

PAPERS INCLUDED/EXCLUDED

Since it was anticipated there would be little by way of specific literature relating to this issue, key documents relating to health protection generally were searched for as well as a wider scope of documents pertaining to the Maori context. This included historical setting of Maori inspectors, Maori education and indigenous development in the field overseas. Searches were conducted on several databases, particularly EBSCO, CINAHL, web searches and Massey University Libraries for combinations of key words (and their synonyms) including: environmental health, indigenous education, Maori, public health, workforce development and health inspectors.

Papers were included if they were key health sector documents inclusive of both health protection and Maori commentary (separately or together). Documents were also included if they had a bearing on the wider context from a Maori or indigenous perspective. For example, Health Through Marae (Te Puni Kokiri, 1995) includes neither a health protection nor Maori health sector workforce development focus, yet was considered a potential part of the conversation within which Maori Health Protection approaches may evolve. Conversely, generic health inspector documents were excluded if they neither included specific Maori mention nor contained elements deemed to be currently relevant for Maori workforce development. It was noted that some earlier initiatives, like cadet-ships used to foster the generic industry but less common today, may now be quite timely to revisit for the purpose of fostering Maori into the industry.

Most documents reviewed were Crown agency reviews/policy documents or discussion pieces by various stakeholders. There seems to be little by way of formal research and/or peer-reviewed studies. The key papers reviewed are discussed below within the following themes:

1. Specific reference to Maori HPOs (or health inspectors) in review/policy documents
2. Related discussion from general HPO/EHO and wider health sector workforce development
3. Reference to other indigenous Environmental health settings overseas
4. Wider context of Maori education and workforce development

REVIEW OF STUDIES

Since the accounts of Maori health inspectors under Pomare and Buck in the early 1900s, the Maori 'inspector' workforce appears to gain little or no mention in the literature until recently. The Public Health Association HPO Workforce Development Review (PHA, 2000) recommends development of a Maori health protection workforce and meaningful inclusion of (and consultation with) Maori when planning workforce development initiatives for HPOs (refer **Appendix 6).** Key industry reports prior to this make little or no reference to Maori within the industry.

Board of Health reports on Training and Employment of Health Inspectors in 1963 and 1973 focus on generic discussion. Whilst health education is identified as being of the utmost importance requiring 10 percent of an inspector's time, the requirement to be fully trained in this area and for work with communities makes no reference to Maori or cultural contexts (Board of Health, 1973). A 1986 submission to the Board of Health indicates no change in thinking towards specific mention for Maori (Weldon, 1986).

The most recent work around HPO workforce development is the 'competency' range of discussion and policy documents (MoH, 2002). These were circulated seeking written feedback on key questions, which served as consultation towards establishing a core set of entry and ongoing competencies for being designated as an HPO. Submission response from stakeholders was mediocre with little evidence of Maori participation - the April 2002 analysis of submissions showed 17 submissions and reflected concerns at the lack of inclusion of Maori HPO issues (MoH, April 2002).

Maori were not well represented on the HPO competencies focus group due to resource limitations (MoH, Oct. 2002). Some correspondence with the Ministry exists identifying the need for a Maori-responsive caucus process on the issue – the absence of which contributed to a poor Maori response (Webber, personal comment). A paper on Maori HPO competencies was generated for discussion (Webber, July 2001), but some Maori HPO input ceased pending an appropriate process for Maori (Webber, personal comment). A national meeting of the four Maori HPOs in November 2002 re-enforced the need for additional Maori process (Webber, November 2002).

The PHA review was a more comprehensive and inclusive qualitative study, including one-to-one phone interviews (including a Maori HPO) and more open-ended questions than the prescriptive questioning used for focusing comment in the core competencies documents. It was also conducted by a reputable industry leader with a wider public health focus than that of the competencies discussion.

While other recent health workforce overviews talk of the need to increase Maori participation across all roles, this has not yet resulted in significant Maori comment in respective sections on health protection. Armstrong (a visiting US professor) and Bandaranayake (1995) after talking generically about protection roles, note under a separate section that "Maori health policy and

planning has assumed new independence in the last decade …accommodation of Maori health perspectives, and of other minority New Zealand cultures, must continue to evolve in the larger system as well”.

A more recent stock take of health workforce issues and capacity (HWAC, 2001) provides data and comment on HPOs and EHOs without raising Maori workforce issues. Comment is noted in other areas such as the “development of Maori community health workers is seen as a major opportunity to develop by-Maori-for-Maori services” (HWAC, 2001, xiv). Further relevant comment includes, “even where sufficient numbers of Maori are being trained (for example in midwifery), the high expectations in the workplace cause retention issues such as ‘burn out’…This needs urgent attention by employers and provider organizations in order for Treaty of Waitangi obligations to be met.”

Aside from industry-wide comment on Maori HPOs, some relevant papers have been written by individuals and organizations. Wellington Polytechnic (now Massey University) Environmental Health Programme leader Steve Bell provided some useful background and figures for Maori attending the programme, including comment on attendance barriers (Bell, 1996). The Public Health Leaders Group and Auckland DHB produced a benchmarking survey of staffing and remuneration via all 14 public health services – a question was included to identify what additional salary might be paid to a specialist Maori HPO. Protection and Promotion turnover data was not differentiated for Maori (Pritchard et al, 2002).

Papers and presentations by Maori HPOs have started to appear at conferences and national publications in recent years. Titles (by this author) include: Developmental needs for Maori health protection (Webber, August 2000); Environmental health protection for Maori community: Minisurvey (on Maori skills in the EHO/HPO industry) (Webber, April 2001); Protecting the health of Maori community (Webber, July 2001); HPO competencies for working with Maori (Webber, July 2001); Queensland indigenous environmental health exchange (Webber, April, 2002); HACCP for Maori health protection: A risk assessment approach to kaitiakitanga (Webber, June 2002); Fiji and public health: A new era in Pacific public health (Webber, April 2003). These papers are generally to stimulate further discussion - some reflect collected statistical data and strategic documentation such as a survey of Maori competency within current industry or indigenous developments overseas.

A number of other papers are relevant, which don’t include comment on Maori HPOs, but reflect important industry environment and trends. The National Report on Environmental Health 1998/99 (NZIEH, 2000) surveys employment conditions and service delivery. Other opinion pieces here (Stout, 2002) and overseas (Statham, 2002) provide consistent themes of things like patch protection or survival as professions. Strategic issues such as the interchange between EHO and HPO have been discussed in generic forums. Maori views on some of these issues are likely to be distinctive and different from current direction, such as the need to network HPOs and EHOs to retain critical mass in the Maori workforce and the need to maintain a strategic link with local authorities on Maori issues.

While there has been little significant dialogue in New Zealand on Maori HPO issues, indigenous developments overseas provide useful reference points. Australia has some well-developed indigenous environmental health strategy and initiatives (Webber, April 2002). The University of Western Sydney has reported on a four-year project and study to establish an indigenous

professional and local community workforce (Brown et al, 2001), The report includes some 'groundbreaking' (for Australia perhaps) analysis on power relations and professional practice issues for indigenous education. Fiji recently launched a public health association, spearheaded by indigenous Fijians including a much stronger contingent of Environmental Health Officers than New Zealand (Webber, April 2003). Documentation at the launch reflected a new direction of community-responsive strategic planning for pacific ingenuity to replace what is seen as a less appropriate western/colonial health inspector model.

Finally, from the literature about 'inspectors' in New Zealand - whilst now 100 years on, discussion about Maori health protection and it's relevance to Maori can't happen without some reference to Maori health inspector predecessors of yesteryear. Thanks to the efforts of various researchers and the storage habits of certain departments, quite a record exists of Maori sanitary inspectors and their role with communities in reducing infectious diseases from the turn of the century (Lange, 1972).

Beyond specific HPO/EHO workforce comment, the New Zealand indigenous Maori context invites a much wider scan of educational, cultural and indigenous development issues to help inform debate on Maori HPO workforce development. Within the confines of this review, just a few of the vast pool of literature that could contribute to this context are discussed.

General Maori Health workforce development is tackled in documents like the Retention of Maori Staff with the Ministry of Health (Navigate, 2002) and the still valid submission of the Board of Health Maori Standing Committee and it's Guidelines for the Introduction of a Maori Perspective into the Training of Health Professionals (Board of Health, 1987). The former conducted a survey of staff to provide a snapshot of things whilst the latter drew together the thinking of key leaders in Maori health to leave a lasting model. Other lessons can be learned though general Maori health workforce surveys such as in Wanganui (Douglas, 1989) or even educational learning styles that might help inform educators about appropriate education methods for Maori (ETSA, 1996).

Finally, there is a gap in the literature pertaining to Maori and the current health protection workforce, including recruitment, training, retention, competencies and best practice. What little reference there is to Maori inspectors is mostly historic record or recent discussion pieces. Whilst the need for workforce development has been identified, there is yet to evolve strategic analysis or review of past and present situations to help inform the process. Overseas indigenous comparisons exits, but a significant aspect of Maori cultural context needs to be built in.

LITERATURE REVIEW REFERENCES

Bell, S. (1996). *Maori students in the environmental health programme*. Wellington: Wellington Polytechnic.

Bell, S. (2002). *Environmental health: A Victorian anachronism or dynamic discipline?* Presentation to Australian Institute of Environmental Health. Paper presented to the Australian Institute of Environmental Health Conference, Sydney.

Board of Health (1963). *The Training and Employment of Health Inspectors in New Zealand*. Wellington: Board of Health

Board of Health (1973). *The Training and Employment of Health Inspectors in New Zealand (second report).* Wellington: Board of Health.

Board of Health: Maori Advisory Committee (1988). *Submission to the minister of health*: Maori health advisory committee.

Brown, V.A., Stephenson, P., Mitchell, K. (2001). *Indigenous communities environmental health research and development 1997-2001*: Final report to ATSIC/OATSIH. Sydney: University of Western Sydney.

Committee Advising on Professional Education (1997). *Education and development of the health and disability workforce: Recommendations from CAPE's consultation with health, disability and education sectors.* Wellington: CAPE

Department of Health (1990). *Nga mahi Ora: Careers in the health workforce*. Wellington: Department of Health

Douglas, E.M.K. (1989). Maori health workforce in the Wanganui area: Report of the pilot study undertaken in October-December 1988 to determine the Maori employee component of Wanganui health services

Durie, M (2002) Presentation to the Pacific region indigenous doctors' conference - Hawaii, August 2002.

ETSA. (1996) *Learning styles: An annotated bibliography*

Lange, T (1972). *The revival of a dying race: A study of Maori health reform, 1900-1918*

Loewenson, R. (1999*). Public Participation in Health: Making People Matter - Working Paper 84.* Brighton: Institute of Development Studies

Ministry of Health (2001). Towards Identifying Competencies required for Being Designated as a Health Protection Officer - a discussion document. Wellington: Ministry of Health.

Ministry of Health (April 2002). Towards identifying competencies required for being designated as a health protection officer - analysis of submissions. Wellington: Ministry of Health.

Ministry of Health (Nov. 2002). Towards Identifying Ongoing Competencies required for Being Designated as a Health Protection Officer - a discussion document. Wellington: Ministry of Health.

Ministry of Health (Oct. 2002). Defining competencies for designation as a health protection officer. Wellington: Ministry of Health.

Navigate (2002). Retention of Maori staff within the Ministry of Health. (no publisher details other than 'virtual' company contacts) www.navigate.co.nz (0800 462 844)

New Zealand Board of Health (1987). Guidelines for the introduction of a Maori perspective into the training of health professionals.

Orchard, M.B. (2000). National report on environmental health 1998/99. Christchurch: New Zealand Institute of Environmental Health Inc.

PHA (2002). Health Protection Officers Workforce Development Review. Wellington: Public Health Association of New Zealand

Pritchard, K., Simmons, G. (2002). Benchmarking the health promotion and protection workforce of New Zealand - a survey of staffing and remuneration. Auckland: Auckland District Health Board/Public Health Leaders Group

Salmond, G., Bowers, S. (1997). Development of the public health workforce: Research Report No. 9. Wellington: Health Services Research Centre

Statham, A. (2002, October). Sink or swim. Environmental Health Journal, pp.310-312.

Stout, S. (2002). Editorial. New Zealand Journal of Environmental Health, p.4.

Te Puni Kokiri (1995). Health through marae: Nga tikanga hauora o nga marae. Wellington: Te Puni Kokiri

Webber, C. (2001). Environmental Health Protection for Maori Community - Minisurvey (on Maori skills in the EHO/HPO Industry). Unpublished (email-circulated report).

Webber, C. (2002). Maori health protection hui, Rotorua: Meeting notes. Unpublished summary from the second group meeting of Aotearoa's Maori Health Protection Officers at Toi Te Ora Public Health, Rotorua - 29 November 2002..

Webber, C. (April, 2002). Queensland indigenous environmental health exchange. Public Health Association News, Vol. V No.2. Wellington: Public Health Association.

Webber, C. (April, 2003). Fiji and public health: A new era in Pacific public health. Wellington: Public Health Association.

Webber, C. (August 2000). Developmental Needs for Maori Health Protection. Discussion paper subsequently published in New Zealand Journal of Environmental Health, November 2001.

Webber, C. (July 2001). HPO competencies for working with Maori: Some ideas for discussion. Discussion paper subsequently published in New Zealand Journal of Environmental Health, November 2001.

Webber, C. (July, 2001). Protecting the health of Maori community. Presentation to Public Health Association Conference - Auckland, July 2001.

Webber, C. (June 2002). HACCP for Maori health protection: A risk assessment approach to kaitiakitanga. Presentation to Public Health Association Conference - Dunedin, June 2002.

Weldon, L.V. (1986). Health Inspection in New Zealand. Unpublished discussion paper to the Board of Health - Health Protection Committee.

Chapter 2 – Competence

If the first challenge is the absence of Maori HPOs from the workforce, the next one seems to be what range of skills and levels of achievement are required for protection officers to work with Maori. Aside from the generic 'competencies' already being discussed within the workforce, Maori Health Protection involves two aspects - generic officers able to be competent at working with Maori and more advanced abilities for specific Maori Health Protection Officers and/or those working with Maori communities.

Some regions have considered 'what is Maori Health Protection' for them (inclusive of Maori health perspectives) and how to achieve protection outcomes regardless of designated officer roles. In this way a treaty partnership might evolve which does not rely on the single strategy of recruiting more officers – particularly where Maori may identify other approaches for protection outcomes.

<u>This chapter introduces three themes:</u>

2.1 Guidelines from Others
2.2 Current status of Maori competency within the HPO workforce
2.3 Maori HPO Competencies – starting the discussion

2.1 Guidelines from Others

<u>2.1.1 Board of Health Maori Committee</u>

Guidelines have been provided before by Maori leaders with regard to Maori competency in the health workforce. One of the cardinal rules for many Maori is to hold onto the treasures passed on by those who have gone before – in this context there is still much of value here without having to reinvent the wheel.

The following notes are from '*Guidelines for the Introduction of a Maori Perspective into the Training of Health Professionals'* published in 1987 by the NZ Board of Health Maori Health Committee. The advice was from Maori Health leaders like Mason Durie and Putiputi O'Brien, who are still around today and much respected. While some of the health sector landscape has changed since then, areas like health protection have a long way to come, so the recommendations are still appropriate.

The report emphasizes the need to plan training programmes for introducing Maoritanga with the use of a Maori curriculum committee. This should include a Maori-competent health professional, representatives of appropriate tribal authority, local Maori organisation (like field experience Marae), Maori health organisation and institutional tutor/lecturers from Maori studies and faculty departments.

Six areas are laid out for the committee to consider:

- **The Philosophy** - integrative Maori framework where process and content are equally important to retain essence of Maori perspective

- **Objectives** – need to be clearly stated and might focus on things like wider community, students, equality, health understanding or community support and participation. The improvement of Maori health is recommended as an over-riding objective

- **Levels of Instruction and Knowledge** – three levels of learning are outlined: Level 1 – cultural awareness for all health professionals (wider than the Maori curriculum committee); Level 2 – basic repertoire of taha Maori for all students; Level 3 – specialized requirement for those likely to work in Maori communities. Levels 2 & 3 are expanded on in **Appendix 3**

- **Educational Base** – two points of focus include ensuring appropriate instruction (which institutions often have difficulty with) and the need for rational use of scarce resources. Combined teaching and inclusion of Maori exponents is suggested. Options identified include contracting tribal authorities, Maori studies departments, Maori schools of learning and personnel from Maori health centres

- **Integration into the Curriculum** – Maoritanga should extend over the period of the course to allow consolidation and development. Consider add-on modules and/or integrating with existing modules – particularly those identified by curriculum committee review. Allow elective/external/immersion options for Level 3 students. Extending integration to biculturalism would help confront Maori health issues including recruitment of Maori students and Maori participation in health planning

- **Resources –** as with the need to resource any new course, resource could be applied to: curriculum committee, occasional advisors/lecturers, Marae visit koha & development assistance, contractual arrangements with Maori schools of learning and secondment of staff to Maori centres.

In conclusion, the Board of Health strongly recommended that all institutions concerned with the training of health professionals review their current endeavours relating to Maori perspectives. They should be compatible with other aspects of Maori development and organisation and should not be isolated from the overall goals of health training or the wider aspirations of Maori people.

Many Maori would say the recommendations of the Board of Health (and subsequent ones) are not occurring in health protection and may further question the relevance and safety of sending their valuable resource (Maori science graduates) into such a non-responsive area. This may need to change before optimal results are obtained from other efforts such as recruitment drives.

2.1.2 Health Promotion Competency

Extract from: Health Promotion Forum, 2003. Report on the Future of Health Promotion Competencies for Aotearoa-New Zealand – Summary of Maori Consultations. Document broadcast by email, September 2003

"Much of the recent feedback strengthens concerns…that many Maori do not see the present competencies relevant to their mahi [work] because the document strongly reflects Pakeha perspectives, not indigenous kaupapa [perspective/subjects] and values. There is also a perception that the process revolving round competencies, standards and assessment procedures reflect Pakeha perspectives and ways of working – they do not reflect indigenous ways of working and values."

The full report was found on the Health Promotion Forum website. Recommendations were made for much wider consultation. The contract ran out and follow-up hui were not completed. Health promotion would be considered by many to be far in advance of health protection in terms of working with Maori. Once Maori involvement in health protection competency discussion progresses, similar issues to health promotion's are likely to arise.

2.1.3 Indigenous Australian EHO Competency

Indigenous Environmental Health in Australia is our closest neighbour and related profession with indigenous practitioners. Comprehensive strategy and resources have been applied to address the lack of indigenous involvement in the workforce. Aside from traditional technical skill areas in environmental health, indigenous EH Officer competency guides (as well as generic officers) contain strong emphasis on areas like health promotion, policy and community development (NSW Health, 2003). Trainees employed via the Aboriginal Environmental Health Programme were ackowledged as having played a leading role in the success of a number of projects.

By comparison with the New Zealand context however, there appears little reference to truly indigenous frameworks in the Australian work. Lack of successful implementation in aboriginal health programmes has been attributed to a failure to adhere to guiding principles (Thiele, 2003). These principles have relevance for New Zealand and include the need to:

- Accept and devise a policy which reflects Aboriginal people's holistic view of health
- Recognise the importance of local Aboriginal community control and participation; &
- Work across sectors in partnership and collaboration

2.2 Current status of Maori competency within the workforce

Three pieces of work are discussed in this section with regard to Maori competency within the Environmental Health and Protection workforce:

2.2.1 Mini-Survey for Maori Competency within current EHO/HPO workforce
2.2.2 HPO Forum follow-up survey – expectations and solutions
2.2.3 Interviews/Discussions with Maori HPOs and other kaimahi

2.2.1 Mini-Survey for Maori Competency within current workforce

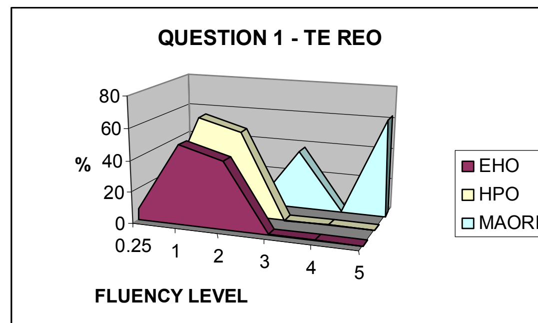
The following article was entitled ‘Environmental Health Protection for Maori Community, Mini-survey Initial Results, 23 April 2001 – Chris Webber’

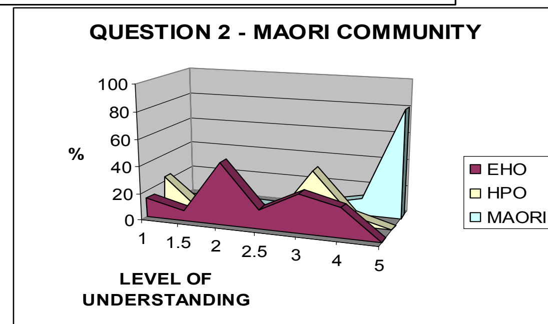
Subscribers to the HPOnet and HealthProtect email lists were invited to reply to the following three questions as preparation for a presentation on Environmental Health Protection for Maori Community. Data was to be anonymised and shared back with the group.

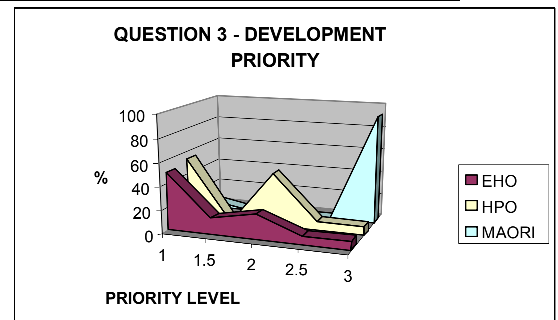
Q1 - Please indicate your level (1 to 5) of fluency in Te Reo Maori (1 = none, 5 = fluent)
Q2 - Please indicate your level (1 to 5) of understanding of Maori community and concepts
Q3 - Please indicate what priority for development (low, medium, high) the above represent in the performance of your current role.

Thirty responses were received (13 HPOs, 14 EHOs, 1 other). To help demonstrate a form of comparison – a Maori community reference group (of 16) was asked to indicate their expectations for each of the three areas. The results are anonymised to health regions and summarised below.

Health Region	Q1	Q2	Q3	(Q3 a/b)
AUCKLAND	1	1	1	
AUCKLAND SOUTH	1	3	3	
BAY OF PLENTY	2	4	3	(2/3)
CANTERBURY	1	1	1	
CANTERBURY	1	3	2	
CANTERBURY	1	3	1	
CANTERBURY	1	2	2	
GISBORNE	2	3	3	(2/3)
GISBORNE	2	4	2	(1/3)
HAWKES BAY	1	1	1	
HAWKES BAY	1	1	1	
HAWKESBAY	1	1	1	
MANAWATU-WANGANUI	2	3	2	
NORTHLAND	2	4	2	
OTAGO	1	3	1	
OTAGO	2	3	1	
SOUTH CANTERBURY	2	2	1	
SOUTH CANTERBURY	0.3	2	2	
TARANAKI	2	2	2	
TARANAKI	1	3	2	(1/2)
TARANAKI	1	3	2	
WAIKATO	1	2	1	
WAIKATO	2	3	2	(2/1)
WAIKATO	1	2	3	
WAIKATO	1	2	2	
WELLINGTON	2	3	1	
WELLINGTON	2	2	1	
WELLINGTON	2	3	1	
WELLINGTON	2	4	1	
WELLINGTON	2	2	1	







Maori Reference Group Summary

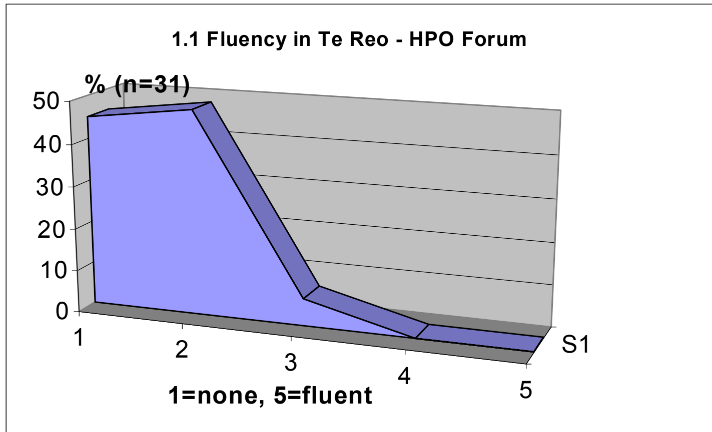
Q1	37.5% = 3, 62.5% = 5
Q2	6% = 3, 12% = 4, 81% = 5
Q3	6.7% = low (1), 93% = high (3)

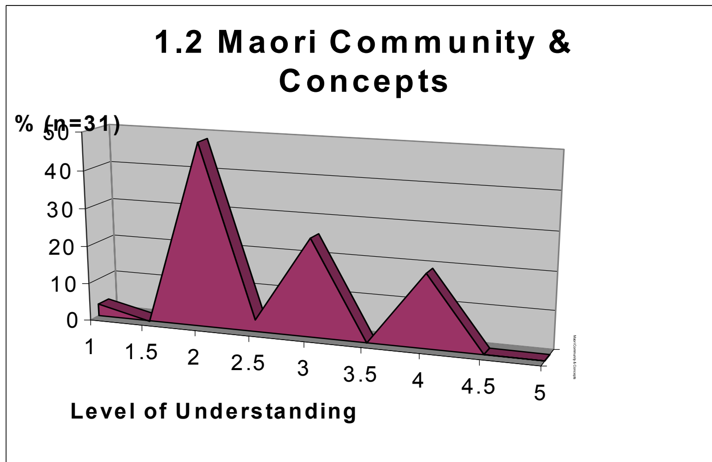
Clearly some gaps exist! The results indicate low reo skills across the board (Maori officers excluded) and a wide spread for (self-rated) understanding of Maori community and concepts. There seems to be a ‘hard core’ group of officers with low priority for development in this area. There also seems to be a ‘middle group’ of officers with medium priority for development in this area. There is a significant gap between both of these groups and the higher expectations of the Maori reference group. The reference group was the Te Arawa line dancers – active kuia from a wide cross-section of Te Arawa hapu.

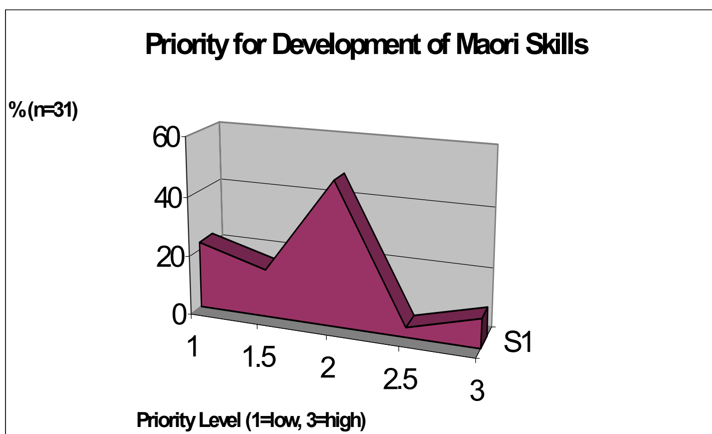
2.2.2 HPO Forum follow-up survey – expectations and solutions

Following the 2001 mini-survey, HPOs were surveyed in more detail with regard to their views on Maori competency. The following results were obtained from the 2003 HPO forum (31 responses) – the 2001 questions were repeated and additional statements were made to gauge levels of agreement:

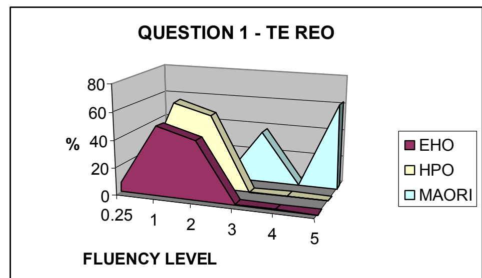
2003 Survey

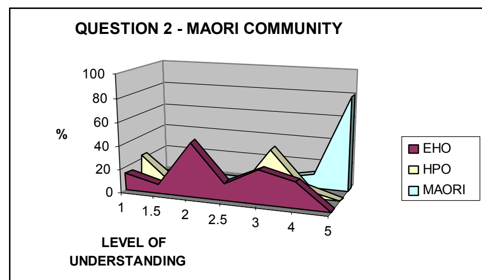


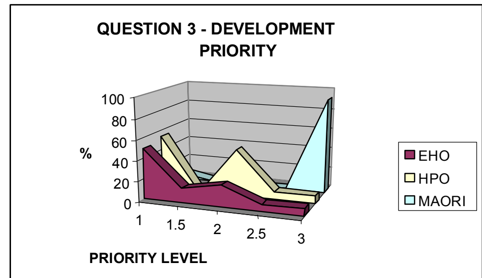




2001 Survey Comparison

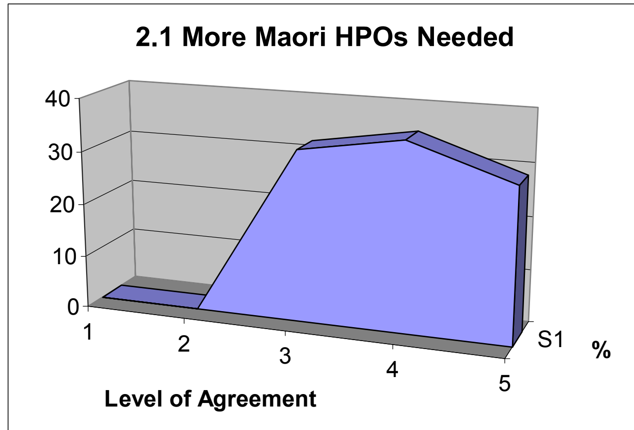






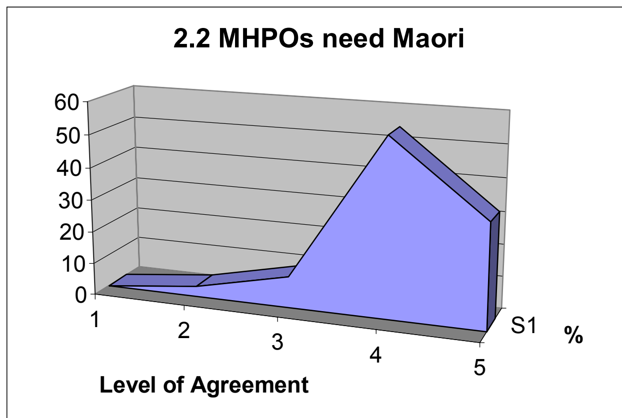
The repeat of these first three questions seems to provide results consistent with the first survey.

Survey Responses continued (additional responses bullet-pointed under statements):



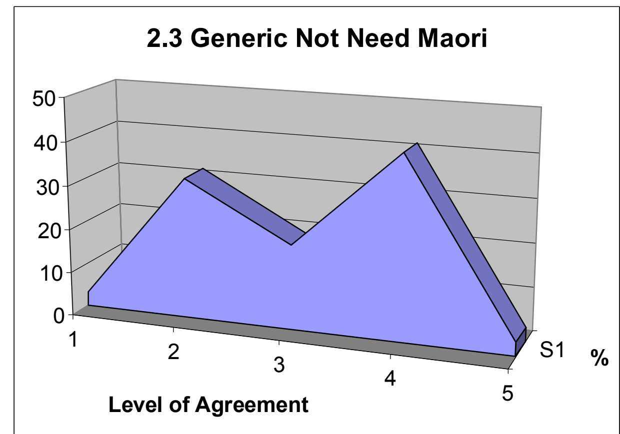
2.1 More Maori HPOs are needed in the region(s) I have a working knowledge of.

- Advertised last week for one
- More Maori HPOs are needed nationwide
- Everywhere
- More for BoP



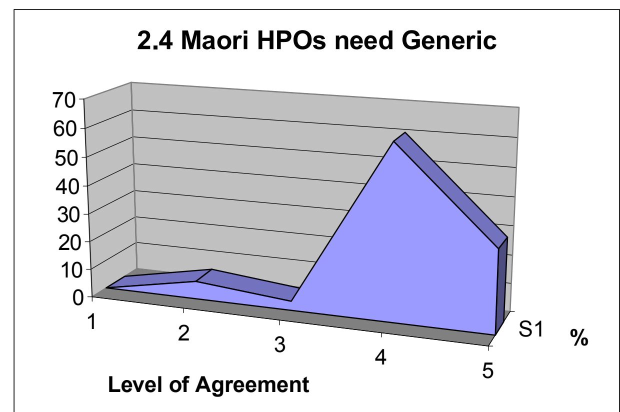
2.2 All Maori HPOs need a minimum skill set of Maori competencies.

- Agree - If Maori HPOs are specialising in Maori health protection i.e. te reo, tikanga, Maori health models. Disagree - if Maori HPO is not interested in doing Maori-related work.
- Agree - if HPO is to work with Maori
- Strongly agree but unclear what 'Maori competencies' means (language/reo?).
- So do Pakeha



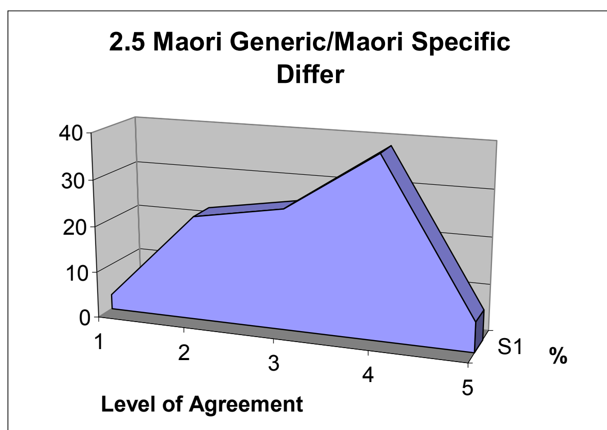
2.3 Generic HPOs do not need the same set of Maori competencies as Maori HPOs.

- Still need to understand competencies
- Agree - if Maori HPOs are specialising in Maori health protection but still need basic understanding of Treaty, Maori concepts, Maori health models, Maori protocols and values, basic te reo.
- Need to expand every HPO's understanding
- Disagree - consistency!
- Agree - but need minimum set
- Access by non-Maori HPOs in Maori communities is challenging & generic HPO may not understand/practice Maori community pace of progress and method of communication. Generic HPO may not be accepted in Maori community because of them/us attitudes



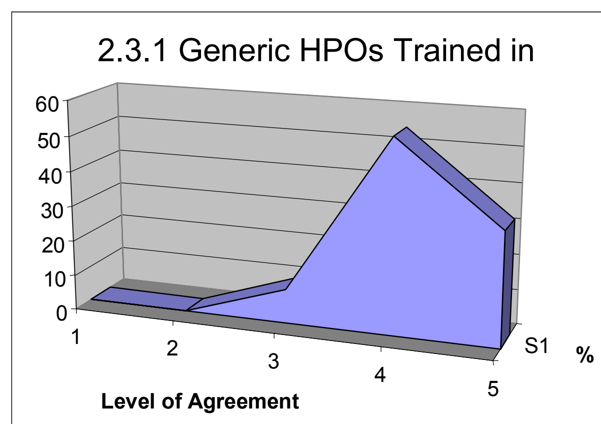
2.4 Maori HPOs need the same set of generic/core competencies as all HPOs

- Core competencies are essential for all HPOs then specialised competencies are additional
- That support can be provided by HPO colleagues if necessary
- Agree - if they are to contribute to core functions and be part of critical mass
- The same core competencies and requirements must apply
- Strongly agree - consistency!
- Agree but also need Maori competencies



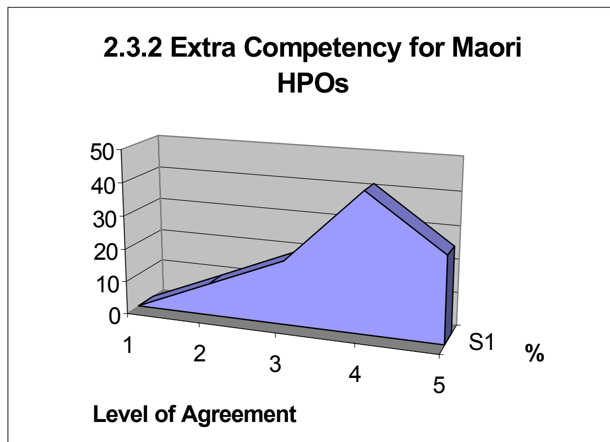
2.5 Maori employed as generic HPOs are different from those in Maori-specific roles.

- Some Maori may not wish to work in a Maori-specific role so cannot be stereotyped just because of their ethnicity
- Unsure what is meant by 'different', but in respect to working with Maori communities & public health issues, the resource of a Maori HPO should not be squandered, so would 'disagree'. Of course on an individual level, a specific Maori HPO may or may not be strong in their ethnic identity - but I think an employer should be clear in respect to their aims in employing a Maori HPO.
- Not necessarily as roles may differ - not the people
- Should have more understanding of Maori
- Agree - but depends on basis of employment - could be 50:50 split
- The roles are different. I know of HPOs of Maori ethnicity who wish to remain in mainstream. The two roles must remain close, with flexibility and understanding of each other's roles so they complement and support each other
- Strongly disagree - interpreted question as 'should Maori employed as generic HPOs be treated differently or have different working conditions from those in Maori-specific roles. Question is ambiguous
- Strongly disagree - consistency is vitally important in all roles
- Accountability to both community and organisation will differ



2.3.1 HPO training should provide a minimum set of Maori competencies to generic HPOs

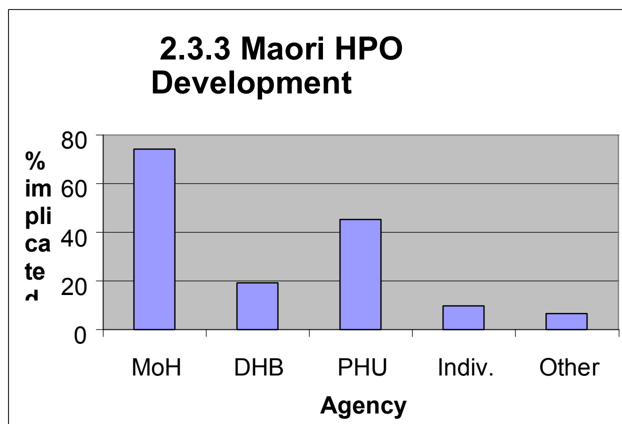
- And ongoing education and practice
- Without knowledge, people will remain afraid or dismissive of Maori culture
- What is meant by Maori competencies? Knowledge of te reo? Understanding culture/customs? Questions need to be more specific/clear leading to one straight answer. Consistency! Competency, Capability



2.3.2 Maori HPOs should have additional Maori-specific competency from outside of HPO training

- Should not be a requirement to meet a higher or different standard
- It is a specific role (even if it is not yet fully defined) so needs additional specific skill set
- Clarify 'Maori competencies' as per answers to 3.1, 2.2, 2.5

The option should be offered to all HPOs



2.3.3 Who should coordinate workforce development for Maori HPOs?

MoH DHB PHU Individual Other

- Feel there needs to be some national consistency - therefore MoH
- Included Other - Local hapu/iwi
- It is an employer's responsibility
- PHU - selection process also important
- MoH - with Maori input
- MoH for Maori specific, PHU for generic
- DHB - needs support from MoH but ongoing initiative required by service provider
- MoH - this will ensure consistency
- MoH - for all HPOs
- MoH - consistent

GAPS

2.4.1 What Maori HPO workforce 'gaps' do you see – how could they be addressed?
(eg. Recruitment, retention, development, relevance for Maori, Maori development, role flexibility)

<u>Gaps</u>:

- Obtaining links for generic HPOs, then the generic HPO can obtain the trust of local iwi etc
- Maori competencies
- Recruitment - difficulties for science-based skilled students for HPO training
- Role flexibility in small PHUs
- Have not employed a Maori HPO to no experience of 'gaps'
- Fully defining the role. 2. Development
- Lack of interest. Not many Maori students choose to pursue science-related studies. Not too many HPOs to provide role modeling in NZ. Recruitment, retention, relevance for Maori
- Recruitment
- Leading tradition towards change and development
- Recruitment
- Development, relevance, Maori development
- Gap is not seeing HPO workforce 'gaps' as Public Health workforce gaps

Solutions (where/how should efforts be spent):

- Competencies. Sorry, not very helpful
- Specialised courses at a local level. Need to be able to pay/find students through training i.e. cadetship/internship etc
- Expand workforce to allow flexibility - could also do what they have done with recent Health Promotion staff - train with/at PHU & eventually release/transfer them to Maori providers - may loose designation, but retain skills in appropriate setting
- Pita Paul's presentation covered solutions
- Ongoing program of discussions to refine. 2. Training and support of position needs to be further refined. Extra positions with good training framework can be duplicated within other PHUs
- More role modeling Not sure - as Steve Bell said in his talk recruitment and retention is a problem across the board. Fewer students taking science subject these days. Pay scales not too good in many areas.
- Go back to the old days of employing someone, putting them through the course, then bonding them for 1-3 years
- Traditional culture has great value but needs to be dynamic and developmental or it becomes stagnant, obsolete, repressive and dangerous
- How appropriate persons are identified. Flexible training pathways. Budget to facilitate. Liaison with local iwi including non-tangata whenua

Any other comments?

- Health protection appears to be the most difficult to reconcile with holistic worldviews such as Maori health models - but well worth persisting reconciliation for benefit of Maori and health protection profession. Difficulty is prioritising new learning and walking the walk given so many other pressures on HPOs and PHSs.
- Can results of survey be put on Environmental Discussion database?
- Health is the same for Pakeha as for Maori - "not merely the absence of disease but…". The issues of diet, exercise, alcohol, smoking etc are the same for each. Spiritual requirements may be different but still an important component to each. If perception of health is different then perhaps addressing inequalities will be difficult because of these differences. Primarily the challenge is providing the appropriate means of service delivery to Maori. The same challenges apply to different sections of Pakeha society.
- In small districts, unless Maori HPO is additional to critical mass of HPOs, then Maori HPO must undertake generic role so as to participate in all HPO activities & contribute to workload. May be insufficient work in a small district for a full time 'Maori only' HPO.
- There is clearly a need for Maori HPOs. But care needs to be taken that too many steps aren't taken at once. Officers placed in positions need support from both mainstream HPOs and also other Maori health workers.
- Fair and equal employment opportunities & conditions for Maori, Chinese, English and other HPOs must apply. Good luck with analysis!

2.2.3 Maori Competency for Maori HPOs

The question of Maori HPO competency and organisational requirements doesn't appear to have been progressed at a national level and needs to be clarified and developed. In regions where discussion has taken place, further work is needed to progress from initial directions to a more specific focus on answering the questions now being asked – like 'what are Maori competencies', 'what do employers require' and 'how to recruit and retain Maori HPOs'.

The few Maori HPOs over recent years have varied in backgrounds, maturity, taha Maori skills and particular interests and strengths within health protection work. Employment conditions and community links have also varied greatly with little consistency from which to draw conclusions regarding bestpractice and the way forward.

2.3 *HPO Competencies for Working with Maori*

(from Webber, July 2001)

This brief has been written to generate discussion for workforce development within the general Health Protection workforce. More specific discussion also needs to occur on issues for development of a Maori workforce within the HPO profession.

There are a number of competencies (skills, knowledge, ability) that could be considered for effective Health Protection work with Maori communities - this is an area that should be explored. How 'core' the competencies are may depend on how likely the Health Protection Officer (HPO) is to be dealing with Maori in their work (in the Bay of Plenty - very high probability).

Just as communication skills are essential to most areas of generic work, due to the complex nature of Maori society and the various tikanga, norms and realities that exist separately from mainstream, a corresponding level of attention needs to be applied to effective communication and operation within these situations. Little if any training is given on this for HPOs at the national level. Few within the workforce would possess the competency required to carry out their function optimally within Maori community or the wide range of scenarios likely to be experienced when working with Maori communities.

Working effectively with Maori community is a specialist area of skill, only able to be touched upon in the current trend to offer 'Treaty Awareness' training and noho-marae within training courses. A comprehensive progression of tailor-made training is required to progress professionals along a pathway that will see them more able to perform their role within a New Zealand setting, regardless of which part of the country they are operating in. For example work within a Ngai Tahu setting (South) may differ markedly from a Tuhoe (Eastern Bay of Plenty) or Nga Puhi (Northern) setting. To not achieve this level of responsiveness could

maintain barriers to Maori and contribute to the 'gaps' due to inequitable service delivery and the way 'protection models' evolve around monocultural perspectives.

There seems to be little movement with HPO pathways that have difficulty attracting and retaining Maori. Their educational environment and employment needs may not be recognised (such as the rangatahi who fell off the course partly for want of reliable transport - a Maori-oriented approach may have networked to spot this and other pastoral care realities and provided a whanau-based solution). Until alternatives evolve, entry criteria for potential candidates could include the ability to leave one's culture behind and survive a euro-centric approach to learning for 3 years.

In the workplace, the ability and maturity to survive in isolation (eg. via networking and use of support mechanisms) without the understanding and support of peers and appropriate work processes could be an essential quality. Such traits are likely to be in short supply among the younger recruits often sought. This may be less of a problem if the Maori recruits are ‘fully colonized’ and don’t carry the expectations and beliefs of Maori community (as many don't). But then additional development should be considered lest they be thrust upon the work based on the assumption that 'all Maori naturally have the competency and perspective for working with Maori community'.

Recruitment of more Maori to the industry is one way to attempt better outcomes – this can be dependent on the capacity and co-operation of organisations and their other workers, some kind of evaluation could be useful. A false sense of security is created if reliance is placed solely on the development of a Maori HPO workforce, when the majority of work done which affects Maori will still be carried out by a non-Maori workforce.

At least two other prongs need to be added for a more comprehensive strategy of Health Protection outcomes for Maori. Firstly, improved Maori understanding and competency for the entire workforce. Secondly, a shift in mainstream from the Ministry down to be inclusive of alternative approaches - incorporating Maori world views without them being compromised by the organisational 'box' (for example "kaitiakitanga can only include ‘xx’ because ‘xx’ comes under the work of another agency").

A basic starter pack for development might include:

- Correct pronunciation
- Basic protocols for meeting/greeting/interfacing in various situations (eg. “kia ora”, shoes off, cuppa tea, reciprocity, whakapapa/whanaungatanga)
- Tikanga awareness and use of support people
- Awareness of tribal rohe (districts) and major issues within each
- Understanding of Maori institutions and their functioning (kohanga, kura, marae, runanga, hauora, pan-tribal organizations etc.)
- Practicum - such as 'adopt a marae' to help enhance practical skills of two-way interfacing with Maori
- Key concepts of Whakapapa, Rangatiratanga, Mauri, Whanaungatanga, Kaitiakitanga etc. and how they can be applied to the work setting.

- How to translate topical issues into Maori world views
  (eg. antibiotics, fluoride, bacteria, food-safety, 'protection' etc)
- Past and Present Government policy/initiatives such as Ka Awatea, Maori Responsiveness, Closing the Gaps, Capacity Building, Korowai Oranga and how this relates to the experience of Maori communities
  (and their perceptions/attitudes/responsiveness towards Government agencies).
- Effective media/profiling and contribution of Maori networking
- ..the list could go on, needless to say there could be some kind of qualification associated with the achievement of this kind of practical knowledge...food for thought towards the possibility of specialist 'practitioner' status

More specific issues pertaining to development of a Maori workforce are likely to be raised when an appropriate forum occurs. These may include cultural knowledge and skills, networking, inter/intra agency collaboration, hauora (Maori health) concepts, ‘kupenga’ (net) approach to sharing skills across specialist areas, tuakana/teina (older/younger) mentoring, ethical guidelines, appropriate use of information, work approach protocols, cultural safety and institutional racism etc.

It is important to keep asking the question “who is covering input to this stuff from a Maori perspective and how is it progressing to better enable the sector to work equitably for Maori?”. The aim of this document is to stimulate further conversation.

Chapter 3 – Related Developments

Due to the embryonic status of Maori health protection, it is considered useful to make comparisons with related 'tuakana' workforce developments that have already progressed to various extents along pathways being considered for Maori health protection. These others demonstrate ways indigenous groups have progressed work according to their needs.

3.1 Maori Dentists

The following notes come from an interview with Dr John Broughton from Otago University. John has been responsible for much of the development of Maori dentistry in Aotearoa. (Interview at Tipu Ora, Rotorua on 7 July 2003). (Useful themes to compare are in ***bold****).*

In 1996 there were 6 Maori registered with Dental Council of New Zealand - today there are almost 40 Maori dentists. One reason for the increase in Maori dental graduates is that more Maori are successful through to the 7th form in **science subjects**.

One key strategy to increase the Maori health workforce is to ensure that **rangatahi** are successful at secondary school - for them to progress from the 3rd to 7th form in science subjects. If they are successful in secondary school, it is safe to assume that they will carry this success through to tertiary education.

At Otago University, the first year health science course will provide **options/variations** with more choices to springboard from in careers in health sciences: medicine, dentistry, pharmacy, physiotherapy, medical laboratory science, nutrition.
Otago has been very **proactive in seeking** Maori students and there are **support systems** in place for Maori students, especially in their **first year**. The **Maori Centre** plays a major role by facilitating **extra tutors, tutorials and study**. The staff are **older women** who provide **pastoral care** and help and support the students in a myriad of ways. **Information and support** to access **Maori scholarships** is another of the important roles of the Maori Centre.

At the **Maori pre-graduation ceremony**, many of the graduates express their thanks to the staff of the Maori Centre . "I wouldn't have got here if it wasn't for the **Maori centre and its staff**," is a common sentiment.

There is a myth out there that people (Maori) won't come to Otago because it is too far away. The **pass rate** in health science for Maori students is very high with virtually a **100%** pass rate; to lose a student in a health science school (i.e. medicine, dentistry, pharmacy etc) to **failure does not happen**. On the odd occasion, a student may withdraw due to illness, or family reasons. The **retention rate** is therefore very **high**, once they get into the health science school of their choice. The Division of Health Sciences is about to advertise for a **Maori student support person**.

Maori students within their respective health science schools form **whanau roopu**.

There are also many **iwi whanau groups** active in Dunedin – e.g. Ngati Porou, Tainui, Te Arawa, Taranaki, Te Tai Tokerau, Kahungunu to name a few - who look out for each other and **tautoko**.

There are many challenges working in a tauiwi world. One strategy in the New Zealand Dental health sector has been the **formation of** Te Ao Marama, The New Zealand **Maori Dental Association**. This national Maori organisation is recognised by the Dental Council of New Zealand, the New Zealand Dental Association and the New Zealand Dental Therapists' Association who are all very **good at consulting** with Te Ao Marama. Te Ao Marama has therefore made **valuable contributions to** the development of appropriate **policy**.

An important development has been the **increase in awareness** of **oral health** over the last decade. At **hui** about a decade ago many people were asking about oranga niho. One story from a kuia was that her moko (grandchild) was short listed for interview for a very good position. When he returned from the interview he said, "as soon as I opened my mouth they said the job was already taken."

In a project at Ratana Pa in 1992, when something like 75% of the local community were unemployed, **we showed** that poor oral health was a **barrier to employment**. Most of the people we provided dental treatment for were adults in the 20-40 year age group with extensive dental treatment needs. Within 3 weeks of completing dental treatment, 5 of the women got good full time employment.

Te Ao Marama **maintains contact with** Maori dental **graduates** via a **newsletter and an annual hui**. The organisation is self-funding. **Working at the University** allows us to **piggy-back networks** and to **share information** etc.

When we started off Te Ao Marama, there was nobody. A **panui** was sent out to all **Maori RHA managers** etc. for the first national **oranga niho hui** in Rotorua. There was an amazing response as something like 60 people came. It was **open to all** Maori health professionals and Maori community workers. At this initial hui, a national Maori dental **organization was formed**. The first hui was funded through a **grant-in-aid grant** from the Maori Committee of the Health Research Council. This was because J Broughton supervised an HRC Maori summer studentship undertaken by then 4th year dental student, Pauline Koopu. The hui was to **report back** to whanau, hapu and iwi/Maori the results of her Maori dental health **research project**.

Te Ao Marama is **open to any Maori** with commitment to the **kaupapa - hei oranga niho mo te iwi Maori**. Members do not have to be professionally qualified. The organisation **nurtures community health workers** and aims to have at least 50% membership made up of Maori community workers. At the Hui-A-Tau of Te Ao Marama, **strictly clinical topics tend to be avoided**. This is because this korero should be provided within the workplace by the employer. The hui tends to focus on dental public health, oranga niho promotion and oranga niho services. Included in the first couple of hui were **philosophical debates** on oranga niho and **te ao Maori/tauiwi** partnerships, interfaces, interactions, support etc.

Te Ao Marama made a **submission** to the Health Practitioners Competency Assurance Bill **Select Committee** on **inclusion** of a clause pertaining to the **Treaty of Waitangi**. The submission appeared to be very well received.

Oranga Niho has quietly blossomed over the last 7-8 years. Another key strategy was to **lobby key** people. For example, through Mr Rob Cooper (National Manager for Maori Health for the RHA's) and Mr Wayne McLean who was on the Board of HFA Te Ao Marama was able to have oral health as one of eight **Maori health gain priority** areas. To **maintain that impetus** J Broughton was on the **Reference Group** for NZ Health Strategy and was adamant that these 8 key areas had to be included in the **NZ Health Strategy**. This was done and they were naturally included then as part of Te Korowai Oranga, The **Maori Health Strategy**. The important strategy was to **convince** Wayne & Rob of **importance** of oranga niho.

3.2 Indigenous Australians

3.2.1 Research and Development

The following excerpts, from Australia's National Indigenous Communities Environmental Health Research and Development Program, provide some useful comments likely to hold similar truths for Maori environmental health & protection discussion. The four-year program (1997-2001) was undertaken by the University of Western Sydney to support students and help achieve the goal of establishing a professional capacity for Indigenous Community Environmental Health throughout the country. A summary table with comparisons for the New Zealand context is included in **Appendix 4.**

Report excerpts:

> **Indigenous Officers wanted by communities**
> *"In November 1996, Indigenous communities in Queensland, New South Wales, Northern Territory and Western Australia were asked their priorities for addressing the environmental health issues in their communities. Members of the communities overwhelmingly agreed: they wanted professionally trained* ***Indigenous Environmental Health Officers*** *available to their communities, and* ***community-based Indigenous-staffed Environmental Health services****…"*

New and relevant framework needed for training and employment
"The findings of accounts of student experiences in the two domains of **academia** and **professional** practice combine to suggest that a **wider educational framework** needs to be developed in relation to the education and training of Indigenous environmental health student practitioners. Easing their double bind and the double burden requires a **shift in thinking and in action** both within the **University curriculum** and in the **professional workplace**. In the University curriculum, the shift will require a reconceptualisation of the problem-based learning and a change in pedagogy from techniques that are currently representative of an interpretive approach to adult education, to one that has both ***critical*** **and *strategic* perspectives** embedded within it. The aim of this future curriculum would be to develop **skills in Indigenous problems facing their communities**. It would be

interested in action and review of field relevant issues, **placing the problems and practice** of community environmental health practitioners and government trainees **at the heart** of education and research practices of core subjects."

Challenge for Colleagues
"The challenge presented to the environmental health professional is to take meaningful steps to **support Indigenous practitioners** and their work in improving living conditions and well-being in Indigenous populations. In order for this to occur, non-indigenous professionals will need to: **over-come their fear** of working openly with Indigenous colleagues; **give professional space** to their indigenous counterparts so that their work in community can trial new ways of acting; **share power** and take steps to re-dress past power imbalances; **learn from, as well as teach**, their Indigenous colleagues; and take **active steps to influence policies and programs, as well as other practitioners** and politicians involved in Indigenous environmental health throughout the country."

Unresolved Issues Identified

- A *double bind*: Indigenous students in work placements are often required to be primarily members of their work place team when there is a conflict of interest with their community, without due respect and support for their role as an interpreter for their community.
- A *double Burden*: Indigenous students are expected to undertake the same full academic program as non-indigenous students, and at the same time develop the capacity to design and deliver culturally-appropriate strategies to their communities, usually without extra academic assistance.
- A *Thin Line*: Indigenous Environmental Health practitioners can be said to have risen …since they are spread thinly, distance inhibits the mutual support and learning available to other segments of the workforce.
- A *High Risk*: The 20 years shorter life span and 30% more illness predicted for Indigenous populations is the everyday experience of students in the ICEH Program and their communities. Thus the students are involved in life events of illness and death at something like three times the rate of other students, requiring an equivalent number of assignment extensions and special consideration – a situation not always recognised by other staff and students.

Further Recommendations being funded

- Development of an Indigenous Environmental Health Workforce Support program, linking practitioners with each other within a professional development program.
- Development of community-based integrated Environmental and Health action plans by and for Indigenous communities; and
- Establishment of national Indigenous Environmental Health Resources network through the use of information technology

Miscellaneous Quotes

- There is ample evidence that Aboriginal and Torres Strait Islander communities suffer from both increased exposures to environmental hazards and decreased access to environmental health services.

3.2.2 Environmental Health Workers

A major strategy Australia has used over the past eight years has been the use of community trained and retained Environmental Health Workers (EHWs). Whilst in recent years, the number of Indigenous EHOs has only increased in small numbers (0 to 14 in the ICEH Program), EHWs by comparison increased from around 200 to 1000. Following is a report by the author (Webber, April 2002), based on the findings of a work exchange visit to find out more about this work.

Queensland Indigenous Environmental Health Exchange

Description
A two week Toi Te Ora-funded work exchange trip visiting Queensland Health indigenous environmental health staff, services and communities, December 2001.

Learning Objectives

- Investigation of the status of indigenous environmental health in Queensland/Australia
- Formation of ideas which may contribute to fostering a BoP/NZ IEH strategy
- Networking and support

General Outcome
A successful trip full of interesting comparisons, resulting in lots of notes and documents from which to begin stepping out our own indigenous (Maori) sector strategy.

Whilst Queensland still fails to recover from indigenous inequalities including environmental health, breakthroughs in both policy and actions are largely due to a few committed individuals and their networks of support.

An opportunity has been gained to kick start things for New Zealand as well as maintain ongoing professional support and sharing.

Significance for New Zealand
New Zealand has little strategy or structure regarding Maori Health Protection or Environmental Health Officers An emerging critical mass requires a strategy to support and develop the workforce if optimal gains are to be made (two Maori HPOs left & two joined the profession in 2001, leaving four in total).

Many Bay of Plenty (and other) Maori communities aren't responding to generic approaches. Maori-responsive models are needed.

Recommendation for Next Two Years

- Strategic plan to be developed using Queensland process and documentation as a reference point.
- Regional-national interface to be strengthened (so regional plans are pushing & supported by national plans – Maori HPOs, DHBs, MoH, NZIEH, LG, TPK etc.)

- Action plan for BoP regional/local initiatives to be started – for example Environmental Health Worker Project and Marae Community Food, Water & Housing Programme – "Tangata Whenua Realities".

SWOT Analysis

Strengths – Currently motivated Maori HPO. Pressing need. Good examples/networks to share.
Weaknesses – Current role tied up with generic duties and not aligned to Maori development
Opportunities – NZ is considering Australian EH work and undergoing significant Health/LG review. Maori HPO caucus forming with MoH support. New DHBs
Threats – Limited support, work plan/job negotiation. Drain on current work if not altered.

NOTES:

From Aboriginal and Torres Strait Islander Health policy 1994:

The national Aboriginal health strategy working party adopted the ***following definition of Health for indigenous people****: " Health does not just mean the physical well-being of the individual but refers to the social, emotional, spiritual end cultural well-being of the whole community. This is a whole of life view and includes the cyclical concept of life-death-life. Health Services should strive to achieve the state where every individual can achieve their full potential as human beings and thus bring about the total well-being of their communities"*

The policy identifies **seven key areas for future action** to improve the health of indigenous people:

1. Community control of primary health care services
2. Participation
3. Culturally appropriate service provision
4. Needs based criteria for service provision and resource allocation
5. Workforce planning and development
6. Information, monitoring and evaluation
7. Across government approach

From the **Queensland Health ATSI Environmental Health Strategy 2001-2006**:
Refer **6 Key areas in framework for action** (each with 3 or 4 objectives):

1. Community Participation

- Increase knowledge/awareness
- Encourage/facilitate community participation
- Support community development & implementation of EH

2. Coordination and collaboration between agencies

- Define roles of agencies in EH
- Ensure health representation at housing, infrastructure management etc
- Ensure active consultation with & on behalf of communities

3. A sustainable environmental health workforce

- Encourage defined career structure & support opportunities
- Achieve sustainable & appropriate training programmes accessible to all
- Encourage opportunities to increase skills in indigenous EH
- Facilitate ongoing professional development based on emerging community needs

4. Healthy housing and infrastructure

- Ensure EH is considered in housing & infrastructure policies/programs
- Encourage community management & decision-making along with appropriate standards
- Improve provision of quality water supplies and other essential services

5. Information networks

- Facilitate sustainable improved access/channels to share EH information to be used by communities
- Encourage identification of appropriate technology for use by communities

6. Optimal environmental health programs

- Evaluate and facilitate the improvement of EH programs in communities
- Ensure ongoing assessment of future program requirements based on community defined needs

Monitoring and Review 5 steps:

1. Monthly reports for discussion at Managers meetings
2. Status Reports on projects and work in progress
3. Annual review on progress towards achievement of high, medium and low strategic actions
4. Assessment of the annual progress review against organisational outcomes
5. Completion of five year report which is disseminated to all stakeholders

Key Players in Queensland Environmental Health
(from Queensland Health ATSI EH Strategy 2001-6)

- **Australian Institute of Environmental Health**
- **EnHealth Council** – the peak EH advisory group for Australia (NZ has a member on the council)
- **Environmental Health Coordinators** – provide support, management & professional development for EH workers, identify issues & support EHOs
- **Environmental Health Officers** – completed qualifications acceptable to the AIEH & employed mostly in health/councils
- **Environmental Health Practitioners** – varied disciplines & multi-skilled practitioners
- **Environmental Health Workforce** – includes EHOs, EHWs, researchers, academics, policy officers, urban planners, engineers, administrators, allied health professionals, other professionals and managers
- **Environmental Health Workers** – EH practitioners from an indigenous community and employed mostly by community councils. Promote and enhance EH in communities. Identify and manage EH needs at the local level like housing, water quality, mosquitoes and other vectors, refuse, food safety and sewage. Minimum qualification of Diploma in (Indigenous) Primary Health Care (EH)

Queensland Health Units consulted include:
ASTI Health Unit
Communicable Diseases Unit
Environmental Health Unit
Public Health Planning & Research Unit
State-wide and Non-Government Health Services
State-wide Health Promotion Unit
Zonal Health units

Queensland ATSI Partnership – framework for action in ASTI Health
Overview/State-Wide/Regional. Profile/actions
Statement by indigenous partners - "The partnership does not support the selection process of 10 priority areas based on the (not 100% accurate) information available and the gap between needs and available services. i.e. some miss out."

Workforce Development Overview

Approximately 600 Queensland Health indigenous workforce (= 1.3% of total). About half employed as ATSI workers. Mainstream providers continue to be the main providers of health services to indigenous people. There is an ongoing lack of progress in improving indigenous health status

Strategies
Implement Labour market development programme
Increased level of health career choices among indigenous students
Increased level of higher education support for indigenous students

Implement an indigenous workforce development programme
Increase indigenous recruitment
Increase indigenous retention
Increase indigenous career development

Key Indigenous Health/Environmental Health Documents Being held.

- ATSI Health Policy 1994
- Queensland Framework for Action in ASTI Health – Queensland ATSI Health Partnership, 1999
- Queensland Health Indigenous Workforce Management Strategy, 1999-2002
- Towards a Queensland ATSI Environmental Health Strategy – a Scoping Paper, Queensland Health, April 1999
- National ATSI Health Strategy – Draft Discussion Feedback Sheet, May 2001
- Meeting the Challenge – Better Health and Well-being for Indigenous Queenslanders – Queensland Health, June 2000
- Overview of Queensland Health Strategic Directions for 2000-2010
- Queensland Health ASTI Environmental Health Strategy 2001-2006
- Environmental Health for Aboriginal Communities – A Training Manual for Environmental Health Workers (Western Australia EHW Training Programme), Department of Technical And Further Education, 1991
- Environmental health worker general duty statement - guide for community councils
- Environmental Health Services Annual Report 1999-2000, Far North Queensland Aboriginal Communities
- Environmental Health Worker? Manual by Andrew Malcolm, Queensland Health

Other Resources Gathered (ref full list):

- Environmental Health Worker video
- Mr Germ & other hygiene resources
- Pamphlets, job descriptions etc.
- Refer full list held by C. Webber

3.4 Fijian Public Health

In 2003, the Public Health Association of Fiji was launched. Indigenous Fijians appeared to spearhead the 'movement' (including health inspectors) - not only by healthy membership/attendance, but also by approach, as some newly released strategic documents reflected Healthy Island and community-responsive approaches. Pacific problem-solving approaches were deemed to be more appropriate than the colonial ‘health inspector model’..

3.5 Cook Island Tutaka

The six-monthly Tutaka in Rarotonga represents an indigenous community approach to environmental health issues. Health officers advertise the schedule then move around communities checking for problem situations. The accompanying community mobilisation reduces adverse environmental health conditions like mosquito breeding habitat and helps tidy up yards (with benefits to the tourism season). Examples of such activity could serve as a template and motivation for re-emergence of indigenous New Zealand efforts to participate in environmental health.

Chapter 4 – Progress in the Field

At the time of writing, there are currently three designated Maori Health Protection Officers employed in New Zealand. The total number since 1997 has been six - two left to travel overseas (a common expectation for younger workers such as these) and another 'fell out' of the workforce after having employment difficulties. Years of experience in the role are estimated as: 7.5, 4.5, 2, 2, 1 and <1. Less than a quarter of this time would have been spent in specific Maori health protection roles. More than 30 Maori HPOs would be needed to reflect the proportion of Maori in the population. If the EHO workforce was to be included, twice as many again (60 Maori EHOs) would be needed where there is currently one.

Whilst there has been a national recruitment drive via Auckland Public Health over recent years, few Maori have been making their way through the training to apply for jobs. Less than half-a-dozen Maori are currently employed in jobs whilst they complete various stages of health protection training. One is nearly due for designation, others are still at early stages. Not all can be expected to stay in the job once designated - at least one has identified the lack of career pathway will likely result in movement out of the role once designated - others have made similar noises (Pers. Comment, C. Webber, 2004).

Until there is critical mass, the gathering of information and examples from the field of work is likely to be thin on the ground. Selected examples of such work follows as a starting point for the kind of sharing that needs to be fostered.

4.1 What is Maori Health Protection?

One of the first questions that seems to be asked when discussing the work of a Maori HPO is 'what is Maori health protection?'. There is ongoing confusion within the sector about this as people's expectations lie anywhere along the continuum between a Maori person doing generic HPO work and someone who protects according to Maori perspectives of health, has Maori competency and uses Maori culture approaches for doing the work. Varied job descriptions have evolved between different PHUs with little consistency in the way Maori HPOs have been sought and applied. This matches a recent finding that each PHU is engaged using different styles of contract with no single exemplar (Bell, 2004).

This should not be too much of a surprise as the same work found 'health protection' itself does not seem to be very well defined. There does not seem to be a clear consensus within the sector as to exactly what an HPO does. Suggested classifications of HPO work include statutory work, skills-based work (because an HPO has the skills to do something) and other work (like contract, interest, local priority). In each case, some of this work may be shared with other non-HPO staff.

'Maori Health' is the other component to the role that needs to be investigated. This is also a term that has wide and varied meaning for many people. Maori are not a homogenous group and numerous holistic models for Maori health are in circulation - whare tapa wha, te wheke and te pae mahutonga, just to name a few. While they differ, the models share a common contrast with the western science-based biomedical model that dominates current health protection approach. **Appendix 5** contains a comparison between a Maori definition of health and current mainstream approach to measuring health and its related determinants.

There is much scope for tension and frustration within the Maori HPO role until stakeholders come to some consensus and employees can have some clarity (and hopefully agreement) with employers. There needs to be relevance for Maori in the work if such pathways are to be adopted and full participation by Maori achieved.

4.2 Case Studies – from work in the Bay of Plenty

Tuhoe Exhibition Gastro Outbreak

The biggest gastroenteritis outbreak in contemporary Tuhoe history which barely registered with the mainstream infectious disease surveillance system. Through ongoing conversations with community contacts, hundreds of people are reported to have come away from 2001 celebrations for the Tuhoe Exhibition in Wellington, with severe gastroenteritis. Anecdotal evidence suggests ‘busloads’ of Tuhoe people from the Bay of Plenty barely made the return leg for want of toilet stops. Another busload of symptomatic kaumatua continued journeying to the South Island to visit others – cultural or other barriers may have contributed to faecal sampling not being carried out, despite the presence of a GP with the group. Just two people were identified after reporting to other GPs and being found positive for infectious disease – one Giardia, the other Typhoid. Little if any follow-up was evident other than identification of suspect foods (raw cockles and mishandled pork) at the dining hall end. It is suggested more appropriate means of surveillance and response are required which reside closer to the community level (such as with Maori health service providers) and which can interface with public health contacts.

Ruatoki Housing Gaps

Families with severe housing problems and environmental health risks were found falling through the cracks of both TLA and targeted (Housing Corp) systems for intervention. In response to householder complaints, the progress of certain families were tracked and the lack of progress noted over time. One family living in a dilapidated unlined tin shed (without power or water) next to their ‘condemn-able’ house was unable to make progress and wanted to have their house condemned in order to pursue legal avenues against substandard construction process. A Maori organisation within the community was conducting a housing repair programme which they were expected to align to. Advice at the time that the Maori organisation’s programme was not working proved to be accurate, however no alternative actions were taken and the family of little means, continues living in the shed, whilst still paying the mortgage for a house they can’t live in..

Benchmark - Taieri River Cultural Health Index

Introduction of this model amongst Maori communities met with an observed 100% positive response. It was used as a context for discussing safe water by first validating that there are two cultural perspectives that make up the whole and a more robust picture. Without such benchmarks, conversations based on ‘western science’ alone were found to have less relevance for the communities to the extent they were bound to fail (or at least be tolerated without real prospects for change). A mobile Stream Health Monitoring Kit was found to be an essential ‘hands on’ tool to show whilst introducing the topic of stream health and extending the issue to include two perspectives. Whilst some expressed interest to use the kit, the limited practical application of it was less significant than it’s use as a prop to anchor the cultural health index discussion.

Taneatua Building Rubble & Rats

A routine visit to a Maori health provider’s building discovered rat infestation due to a large pile of building rubble from the commercial building next door which had burnt down several months prior. Complaints by the provider to the local authority (Whakatane DC) had failed to see the removal of the nuisance. On sighting rats in the health centre and documenting/photographing the case (as a Health Protection Officer), the Medical Officer

of Health was asked to intervene. A decisive statement from the MOH and community-initiated media attention was followed by removal of the nuisance removed. Support by an ‘official’ and further advocacy appeared to make the difference.

Ruatahuna Water Committee

Only one of Ruatahuna’s dozen or so community water supplies has been registered and monitored for water quality. A sanitary survey discovered third-world standards prevailed with gross bacterial contamination in some supplies. Limited capacity for infrastructure and the prevalence of traditional/cultural issues meant a non-mainstream approach was required to help evolve safe drinking water management.

With the assistance of the Maori provider (Hinepukohurangi Trust) key members of each sub-community (Marae-Hapu groups) were selected as water committee reps, introduced to basic water monitoring techniques and provided with initial sampling (dip-stick) and record-keeping resources (notebooks/community wall-chart). Whilst attempting to build up a picture over time of each water supply, data on hand was used to seek support from those agencies with an interest in strengthening community capacity and the need for safe drinking water.

The local authority (Whakatane DC) has a ‘user pays’ policy requiring the community to be rated directly for any council work regarding its own water supply – being a small community of low socio-economic status most options were therefore out of reach. Housing NZ Corp. committed to some assistance such as new tank and treatment for Marae which fed on to other houses. The corporation were encouraged to engage an engineer for wider community solutions but tended to focus on individual houses (sometimes with adverse results – see separate case study). The major landowning farm trust engaged its own consultant and put forward the option of a collective reservoir if other stakeholders could come in at the treatment end. Ongoing Practical workshop skills and sustainable water management plan were planned whilst ultimate ‘political solutions’ like the Puna Wai o Hokianga project were sought (ongoing).

Benchmark - Puna Wai o Hokianga

This project demonstrates two things – political solutions upon exposure of tangata whenua realities and culturally appropriate approaches in order to achieve success.

Whilst drinking water in the Hokianga had been substandard for a long time, it was only after recent severe flooding and a question in Parliament about the number of communities having to boil their water that millions of dollars were allocated to upgrade water supplies and community development project work.

In contrast to purely western science rationale for clean water (no bacteria), Maori knowledge and approaches have been demonstrated as key in achieving community buy-in. The kaupapa of waiora is less about parts per million and more about whakapapa and relationship to water from the Creator down through historical and traditional information regarding landmarks and waterways and the role of kaitiaki within this.

HNZC Water Tanks in Ruatahuna

Despite contrary advice from the community - some new houses built in Ruatahuna by Housing NZ Corp. were equipped with roof water supplies and collected in tanks on the ground – a system which relies on electricity and pumps, both of which have been shown to fail. In a short time, pumps needed replacement as they had run dry. Public health issued a reminder that the protection of health required a sustainable supply that would not be prone to breakdown due to the regular loss of electricity or other factors. The current rural housing programme could benefit from more involvement by public health in the planning/implementation loop – this could reduce the possibility of adverse results for communities when things go wrong.

Ruatoki-Taneatua Recreational Water & Boils

Concerns by Maori health provider over possible links between river water quality and high incidence of boils led to recreational water sampling and investigation of other pathways. Information was brokered between Regional Council data, swimming spot tests and correlation of individual household circumstances (like sanitation and GP anecdotal evidence) to propose possible causes and solutions. Information was distributed to community via health provider in order to raise level of awareness regarding environmental health risks and possible solutions

Waioho Stream Bathing Quality

The now typically contaminated Waioho stream (bacteria from farms) was identified and Council challenged (by community) over the situation since the stream is a traditional and well-used recreational swimming resource. Warning signs and upstream tightening of farming practice was initiated by council. The issue was previously not addressed without the advocacy and scientific knowledge of the local Whare Waananga CEO.

Minginui Lead Paint

A local provider was given a lead-paint test kit to enable a youth project to test lead paint in the community. A rangatahi carried out lead tests, finding every house tested had lead paint. Community general knowledge of health issues like lead paint is considered by those spoken to be low or absent. Communities like this still need such issues raised with them, unlike majority of other communities that have moved on, or enjoy a higher level of general knowledge or interface with services like health.

Waiohau Kohanga Reo

A random visit to a local provider allowed the opportunity for the question to be raised as to why local pre-school children were always sick with stomach complaints. A simple water test and advice resulted in a contaminated water supply being identified and a new treatment system being installed by the Kohanga Reo National Trust. The issue may not have come to light had the community contacts been expected to make contact with a public health service that was unknown/unfamiliar to them.

Te Mahoe Water Supply Transfer

A community looking to inherit/take over a water supply from the local authority (Whakatane DC) was advised that the supply had suffered bacteriological problems and may be in need of major infrastructure upgrade way beyond the capacity of the community (village trust) to fund. This issue reflects the trend of some Maori communities to seek independence from Council (which they feel doesn't serve them well). Also, the potential for Councils to agree to such moves where poor economies of scale exist and communities are unlikely to be able to sustain health standards on their own.

Ngati Rangiwewehi RMA Submission

An opportunity to serve and contribute skills as an expert witness to a Maori community submission, which in the long-term partnership is likely to have mutually beneficial outcomes. This Rotorua community is kaitiaki-rich, yet was able to benefit from specialist public health knowledge where it had none. In return, a strengthened relationship contributes to higher critical mass of active kaitiakitanga to interface with and promote sufficient momentum for Maori approaches to environmental health to be developed in other areas. Also an opportunity to present a submission supported by many to environmental decision-makers who, in other hearings, have attacked such Maori input as having insufficient scientific evidence, therefore relevance to the planning process.

DHB, TLA & Iwi Presentation Round

Presentation rounds inviting stakeholders to join with environmental health initiatives/loops proved to be slow and bureaucratic. Government/Crown organisations tended to pass presenters from one committee to another, whilst monthly or slower meeting dates restricted momentum. Maori stakeholders often had less capacity and inefficient systems resulting in unnecessary delays or in some cases no responses at all.

HPO Survey & Maori Competencies

Health protection and environmental health officers from around the country were surveyed with regard to their levels of competency in te reo, Maori community understanding and the level of priority for these skills in their current work. When compared within each other and against survey of a Maori reference group, significant gaps existed between the expectations of Maori and those in the industry. A trend was also highlighted between a 'hard core' of those applying low skills/low importance and those more 'in between', many of whom have had some exposure to working with Maori. Further discussion was prompted to tease out further discussion and detail regarding Maori competencies.

4.3 Maori Health Models

Without reviewing the various Maori health models that have emerged over time, suffice to say that there should be a place for such models in the work of health protection. Maori HPOs have been challenged by leading Maori Health commentator Mason Durie to consider what place Maori concepts like *tapu* and *noa* have in their work. Durie's recent Maori health promotion model Te Pae Mahutonga has been used below by way of a demonstration of its relevance to 'Maori health inspectors' 100-years ago compared with today.

Te Pae Mahutonga

In brief, Durie likens the six stars of Te Pae Mahutonga (The Southern Cross constellation) to six guiding elements for modern health promotion - theses should be present in order to point Maori (and others) in the right direction for promoting health and wellbeing. In this way Maori can navigate the correct course 'by the stars' as did their ocean-going forebears.

In the example below, it can be seen both Maori inspectors and their communities had some reason to succeed as they did in overcoming the sanitary challenges that threatened to wipe the race out a hundred years ago. By comparison today, the required elements are not clearly present with respect to Maori and environmental health workand a change of course is pointed to..

	100 Years Ago		**Today**	
TE PAE ELEMENTS	INSPECTOR	COMMUNITY	INSPECTOR	COMMUNITY
Nga Manukura (Leadership)	Yes	Yes	No	No/Other
Mana Whakahaere (Autonomy)	Some	Negotiated	Constrained	No/Negotiated
Mauriora (Access to Maori World)	Yes	Some	Constrained	Limited
Toi Ora (Healthy Lifestyles)	Maybe	Yes	Maybe	Mainstreamed

Waiora (Environmental Protection)	Maybe	Yes	Often not	Sometimes
Te Oranga (Participation in Society)	Yes	Yes	Constrained	No

4.4 Maori Community Realities

Much of what ends up becoming best practice relates to the situation at hand. Carrying out health protection with Maori communities requires knowledge and understanding of community realities and perspectives. The following is taken from and article by the author (Webber, 2002) '*HACCP for Maori Health Protection - A Risk Assessment Approach to Kaitiakitanga'*, presented at the Public Health Association Conference June 2002.

HACCP is just a flash way of saying 'where can problems occur and what can be done to prevent them?'. It is used in the food industry and stands for 'Hazard Analysis Critical Control Point'. It is applied in a wider context here particularly to encourage dialogue between health professionals who don't often stray into each other's boxes – perhaps by sharing, new solutions can be found.

There are currently only four Health Protection Officers (HPOs) who are Maori, with little consistency over how they are employed (such as for 'generic' duties or otherwise). Discussion about their contribution to Maori health gain is still evolving, let alone the wider issue of a health sector that protects within Maori frameworks of health.

Two 'givens' should not need to be explained. One is that significant risks continue to exist for many communities including Maori – despite the various protection tools in place (and risks/illness are under-reported). The other is that Maori 'cultural heritage' models of promotion and protection like Kaitiakitanga (guardianship) exist – but are largely overlooked as available tools for the current protection industry.

To demonstrate basic HACCP, follow a cow all the way from the farm to your restaurant plate. 'Germ' hazards can mount at every stage of the process if measures are not taken - from animal health, farm practice, slaughter, transport, refrigeration, butcher, kitchen storage, handling, cooking and serving. These are all points where controls are used to reduce levels of contamination – the critical control point that takes care of germs that made it through is to cook the steak properly (heat kills them). Food industry now writes out HACCP plans to ensure food safety before even starting rather than the old way of just 'maintaining a clean building' and hoping things go well. Just like the old food laws, there are a lot of risks for Maori health and lifestyles that are not being taken care of by the traditional tools, and a need to look at where and how to apply protection tools.

Over the years, government process has established 'low risk general population' lifestyles, where every part of daily life is catered for. Tools like the Building Act, Food Act/Regulations, smokefree premises and public water supply regulations/standards mean someone has the job of keeping you safe at home, work, supermarket, restaurant or wherever. 'Higher risk' lifestyles fall though the many gaps of a system not designed for them. It just so happens, many Maori live such lifestyles, where protection tools have not been evolved to reduce a number of significant risks.

Getting up in a cold, damp, handed-down house (pre-Building Act) and turning on a rural/village tap (not monitored), before re-heating the boilies with stream-gathered watercress might help prepare for the trip to the Marae (also on unmonitored rural water). There casual food helpers cater for hundreds before tucking in to the kaimoana someone donated from somewhere. Kids can jump in the farm-polluted stream for a play (public pools charge) after helping uncle sand down some old windows (with lead paint) by the old farm dump (leaching) by the bore. Top the day off with a year's worth of passive smoking with the kuia at wharewhare (housie) and that leftover hangi food in the warm old fridge (grows bugs). Just one of many scenarios happening in a town near you – but it's not worth going to the doctor for a crook guts so no public health advice today, nor will the protection regulations apply in these situations.

Public who…? What you do in your own private life is up to you…isn't it? Not if you look at a 'Maori model public', or any other high risk community grouping. One size does not fit all - it is more efficient, but creates gaps and inequalities which we need to reduce.

A kaitiakitanga approach is proposed as a public health protection and promotion tool. Like the network of pipes in the ground taking quality water into every town house, a human network of kaitiaki can reach into every risk aspect of Maori life. For those areas of interest to health protection officers, surveillance then becomes part of mentoring and monitoring kaitiaki networks. As breakdowns occur, the risks go up.

Australia has set an example here, not just by having an environmental health strategy inclusive of indigenous strategies. For some years, community trained and retained indigenous environmental health workers have been developed as first lines of defense for environmental health risks in their communities.

A trend exists in more rural parts of the Bay of Plenty, where Maori communities are forming often stand-alone villages, papakainga and other clusters. District Councils often no longer service them in return for rates whilst water, sewerage, rubbish and other infrastructure deteriorates beyond the ability of the community to fund major works. With tougher water standards on the way, some councils seem happy to offload aging water supplies to such communities.

Whilst other rural communities may face similar challenges, the cultural base of kaitiakitanga is more people-based rather than geography alone. This means protection gains can be rural, urban, semi-public or private – according to the application of the kaitiaki 'tool'.

The scope of such a tool is also up for grabs. Mason Durie issued a challenge last year to the Maori HPOs - to consider what place traditional tools like tapu and noa have in today's industry practice. Some coastal tribes might find their own tools like rahui more effective than a tauiwi inspector 'closing' their traditional seafood gathering sites with Government signs.

To conclude, it's a good time for public health services and communities to ask "how can health protection contribute to reducing risks and improving health outcomes for Maori (which benefits the whole population)?", without leaving it all to promoters or Maori communities unassisted. There are some good tools that should be shared and applied. Maori development, Treaty settlements and various cross-sector gap-focused initiative creates a good opportunity for a major rethink in the way health in Maori communities is protected.
Kia hiwa ra, kia hiwa ra, Kia kaha tatou nga kaitiaki, guardians – be alert – be strong)

4.5 Maori HPO Employer Requirements and Progress

Two surveys were initiated in June 2004, regarding the requirements of public health units for Maori HPOs and the capacity/needs of those involved in the work. While the survey work is ongoing and not completed at time of writing, the questionnaires for these are included in **Appendix 7** and initial findings for one of them are recorded below.

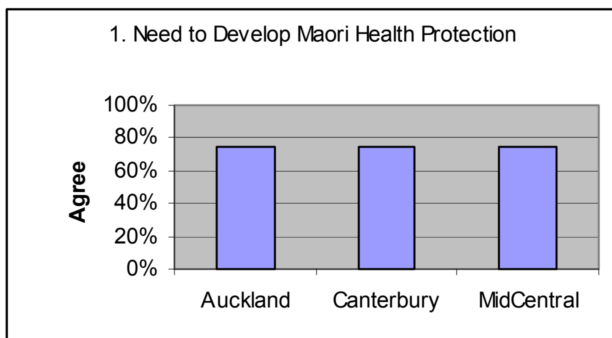
June 2004 Maori HPO Mini-Survey 1

In June 2004, Medical Officers of Health and Public Health Unit Managers were surveyed by completion of a short email questionnaire with regard to their basic requirements for Maori Health Protection Officers.

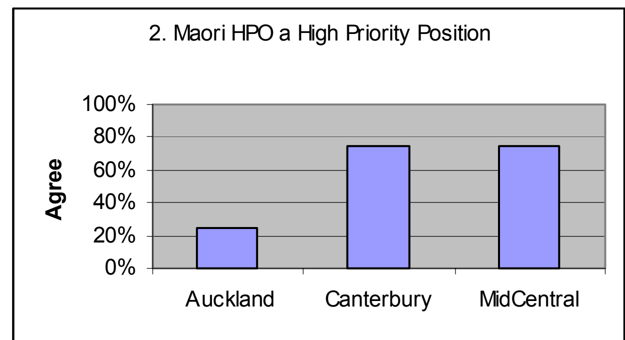
The following results were achieved from the initial response. Levels of agreement for the questionnaire statements are graphed below (0=strongly disagree, 50%=neutral, 100% = strongly agree) with any additional comments made by respondents bullet-pointed underneath.

<u>Survey Responses:</u>

Q1. Our organisation has specific need for the development of Maori health protection.

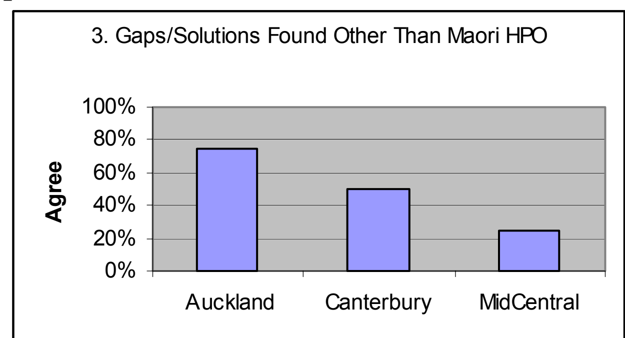


Q2. Appointment of a Maori health protection officer is of high enough priority to allocate a position for this purpose.



- Auckland have general HPO deficits which also need to be met to achieve core contract
- Auckland depends on who is available to fill such a role – important to have more Maori generally rather than stand-alone roles
- MidCentral – Is it possible to recruit for it after Ministry made us change wording for HPO scholarship

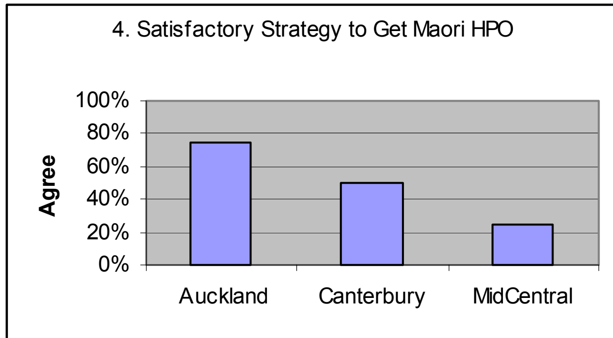
Q3. Gaps and solutions other than employment of a designated Maori Health Protection officer have been identified or acted upon to achieve Maori health protection outcomes.



- Auckland seeking to create and fill these positions gradually

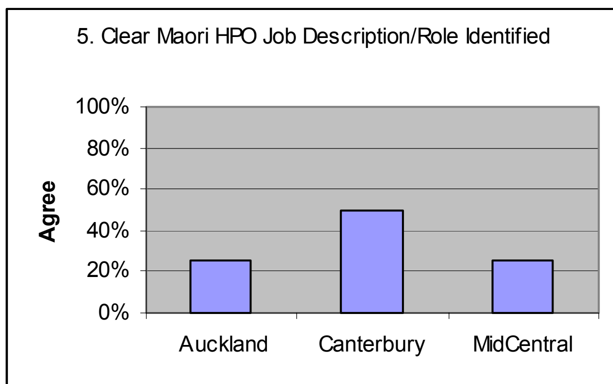
- MidCentral – we are examining this at present as have just aquired funding for additional HPO post

Q4. Our organisation has a satisfactory strategy to achieve the employment of a Maori Health Protection Officer.



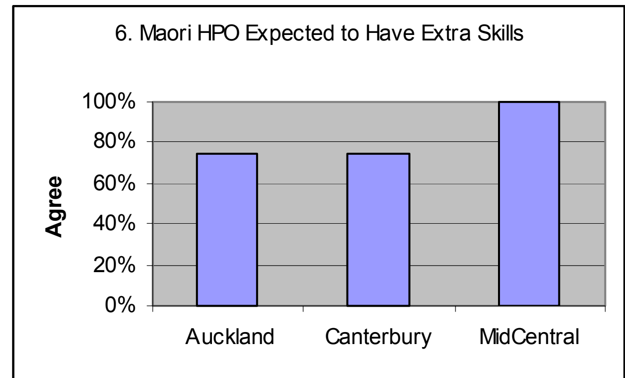
- Auckland – if one available
- MidCentral - as above, intentions there but not operationalised

Q5. A clear job description and role has been identified for such an officer if appointed.

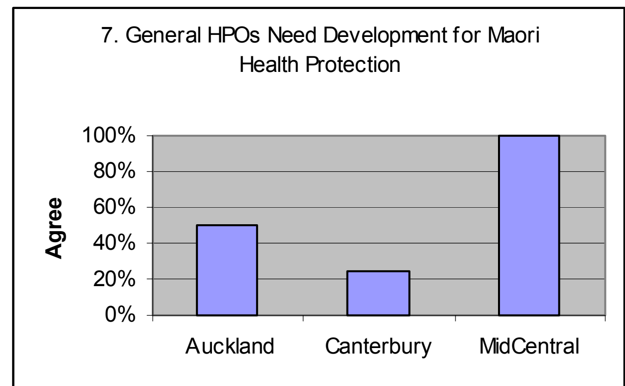


- Auckland – haven't seen one
- MidCentral – The role has but not got a job description

Q6. A Maori Health Protection Officer would be expected to possess Maori competency additional to the full range of generic HPO abilities

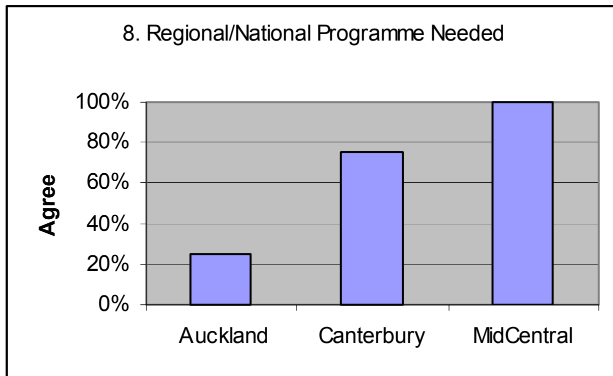


Q7. The general HPO workforce needs additional development in order to progress Maori health protection issues.



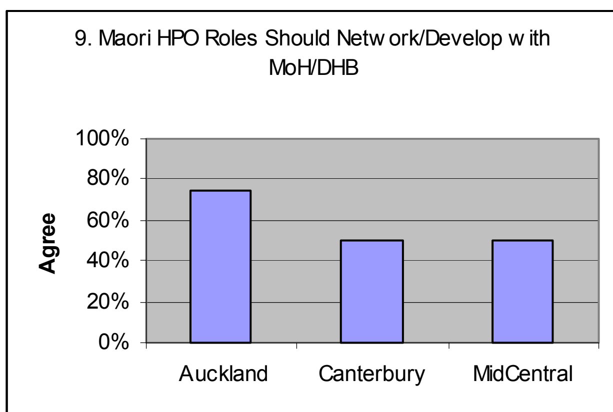
- Auckland – there is willingness but lack of capacity more of a problem than lack of skill & interest. Prefer to see increasing rate of HPOs who are Maori with change reinforced by Maori staff and managers. Cultural training of limited effectiveness
- MidCentral – becoming more of an issue with increasing specialisation of HPOs

Q8. There should be some sort of national/regional programme to achieve the general workforce development required to progress Maori health protection issues.



- Auckland – should be a programme to improve intakes and career opportunities for Maori – this may require review of salary structures as there are more financially attractive options for skilled young Maori
- MidCentral – would support regional rather than national as more likely to be skills based rather than theoretical and could involve local iwi

Q9. Maori HPOs should be part of a wider network with developmental roles supported by the MoH and DHBs.



- Auckland – they need personal support
- MidCentral – not clear what this means. I would see such HPOs belonging to both generic HPO networks and Maori specific ones. In this area it is not training funding that is the problem. It is either getting trainees in this area of work to develop or existing ones who wish to work here. There is the danger that we are all striving and end up pinching staff from each other (happened to us for this type of post in recent times)

Q10. Any other comments?

- MidCentral – main issue is recruiting Maori HPOs at all, especially for Wanganui. About to advertise scholarship – hoping to get a Maori recruit or someone with strong interest and understanding. Other issue would be possible isolation though we have a number of Maori staff in our various teams including Regulation

<u>Initial Findings</u>

- Further feedback required for fuller picture
- Some differences about weather or not a specific Maori HPO role is required and how much emphasis should be placed on the generic workforce
- If Maori HPOs are employed, they will be expected to have Maori competency as well as generic
- Roles not clearly defined yet
- Strategies to secure Maori HPOs need developing – other options also being pursued
- Regions may differ in the kind of development programme required
- Maori health protection a significant issue – barriers include availability of Maori HPOs; competing for recruits; lack of capacity in generic staff; restrictive salaries & career opportunities; isolation

Chapter 5 – Conclusions

This report aims to draw together information which may help progress Maori Health Protection Workforce Development. Whilst progress has been made in places, further work is required before full conclusions can be drawn.

The literature review identifies little by way of specific material for Maori health protection. Whilst comparisons are drawn with related developments, new work needs to be generated to find an appropriate pathway for this workforce. Additional work, often unpublished, which can help inform the process, continues to be picked up through ongoing activity.

Largely informal and ad hoc discussions, with a limited number of stakeholders, has helped build a partial picture of workforce requirements. However, key players are sufficiently thin on the ground and varied in circumstance that there appears to be little consistency. Other information has been provided from secondary sources or generated by low-key survey, key informant interviews and hui which is helping to flesh out details about 'what is already known', but not being clearly articulated in any kind of forum.

Whilst more stakeholders need to be involved to build a robust picture, a number of those involved so far have not provided anticipated feedback. This may be partly due to a lack of clarity or clear direction in their own minds regarding Maori health protection – for many, the conversation is too new to articulate views to the level of detail being sought. In other instances, timeframes or processes have been too constrained to properly engage. Stakeholders also seem to differ (even oppose) in their requirements and approach - more dialogue needs to be fostered over time so more collective thinking emerges or measures (like coordinated support for regional programmes) can be formed to cater for the variety.

As successive surveys are starting to reveal more than superficial levels of detail (compared with just 'yes, we need more Maori HPOs'), a clear picture is still to emerge from employers. For example, some say Maori HPOs are high enough priority to allocate positions for, whereas others don't. Some want to class them as any other worker, yet most require a dual set of abilities. More work is required to tease out this detail and start informing subsequent responses like options for choice and style of training providers.

More detail is also required about gaps in workplace capacity – likely to emerge over time as opportunities for dialogue arise. Initial work has identified gaps in generic workforce and services. Anecdotal/informal work with Maori HPOs has identified complete variances between those involved, their pathways in (and out) of the workforce and the roles they perform – tracking and analysis of this as part of a study could form an early part of the unique knowledge base for this workforce. Some information continues to be slow in coming forward, possibly until such time as a more robust programme encourages improved unity and cooperation.

An underlying gap in capacity for most is the spare time resource to spend on such a small and complex part of the workforce. This is an example of where unity with related colleagues

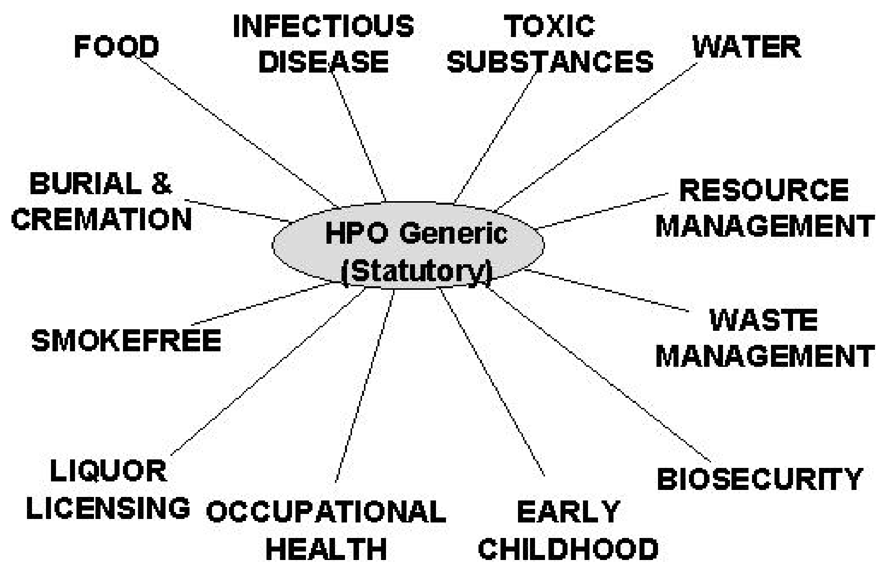
(like Maori EHO and OSH inspectors) can support the collective discovery and articulation of gaps likely to be in common. Such consistent themes have not yet emerged other than in anecdotal ways. For example, at least one new training provider (whare waananga) has taken serious interest in establishing linked-up pathways (currently costing a feasibility study), whilst more traditional institutions have not been engaged regarding areas like Maori responsiveness and pastoral care – all three being highlighted at times as areas of interest.

As comprehensive recommendations cannot be made at this stage, the way forward needs to focus on an appropriate process leading to eventual decisions. It is at this point that a number of principles are likely to be required to reach the destination with the subject group still involved. These principles are likely to emerge out of collective process – for example inclusion, relevance for Maori, wholistic development and Treaty partnerships. Differences in North and South Island approach may find a way to come together and inform each other.

An example for this stage of work already successfully demonstrated by indigenous Australians involves establishing an ongoing Indigenous Environmental Health (and Protection) Workforce Co-ordination programme. Coordinators have the job of fostering trainees and linking up the emerging regional developments as they grow – sharing and extracting the required data as things progress. Such work would also be able to follow steps like the Maori dentists in New Zealand took in getting established.

There are plenty of examples of good practice, barriers, needs and opportunities both here and overseas. Decisions however need to be made to move forward together in a coordinated way. Finer details and options could be honed out during national/regional hui where coordination of an ongoing programme under an agreed framework could be discussed. This may allow those currently with ideas to share or bids to sell, to place their '*take*' (issue) on the table. Stakeholders could have a more transparent and collective conversation, get up to speed on the issues and attempt to arrive at a robust model that has the best chance of being widely supported and achieving the workforce gains desired.

Appendix 1- HPO Activity (Bay of Plenty Example)



INFECTIOUS DISEASE
Follow-up notifiable disease cases
Medical Officer of Health work
Meningitis case contact tracing
National database stats. (EPISURV)

FOOD
Food Complaints – investigation/prosecution
Food-related illness & outbreaks
Food Samples – imports/labeling/compliance
Food Hygiene Premises Inspection
Shellfish Monitoring

BURIAL AND CREMATION
Disinterments
Burial in Special Places
Cemetery Inspections
Export of Bodies

SMOKEFREE
Illegal Sales & 'Stings'
Workplace Smokefree policies
Enquiries

LIQUOR LICENSING
Host Responsibility
Medical Officer report

OCCUPATIONAL HEALTH
Links with OSH eg. asbestos
Private monitoring eg. noise

TOXIC SUBSTANCES
Spray drift complaints
Pesticide Applications
Hazardous Substance Procedures
Licensing procedures
Bulk Containers
Fumigations

WATER
Drinking Water – surveillance
Water Treatment plants
Complaints
Recreational Water monitoring
Swimming Pools
Algal Blooms
Grading Supplies
National Database

RESOURCE MANAGEMENT
Submissions to Councils
Protocols & Liaison

WASTE MANAGEMENT
Sewage Treatment/Disposal
Refuse Disposal (Landfills etc.)
Hazardous waste Disposal

BIOSECURITY
Port Health Procedures
Deratting ship cargo etc
Vector Control (eg. mosquitoes)

EARLY CHILDHOOD
Inspection for Charter incl. kohanga

Appendix 2 - Stakeholder Matrix/Key Comments (Sample list only)

Stakeholder	Actions	Key Comment/themes
Academic & Research Groups		Refer Literature review
	John Walden (Massey University Research Officer) - several meetings & ongoing liaison regarding project approach and issues	Advice regarding project approach and format
District Health Boards & PHUs	Bay of Plenty DHB. Presentations conducted to Maori Runanga, Community & Public Health Advisory Committee, Toi Te Ora Public Health and Maori Health Services	Good support for kaupapa – invited further advice once obtained.
	Lakes DHB - presentation to combined Lakes/BoP Public Health Committee	Support given for the issue - invited to formally approach Lakes CEO (non PHU contract holder) for needs identification and investigation to be carried through
	Waikato DHB - two consultation sessions arranged. Not well attended.	Maori stakeholder awareness of the role may be low. Ongoing DHB restructuring and timetable clashes also reduce timeliness/priority for attendance
	Auckland Public Health Service (A+) - hui with Protection & Promotion Services to discuss integration for best practice	Need identified for Protection and Promotion to work more closely together. Some initiatives in place
	Misc. - various discussions with key staff/managers of DHB Public Health Units	Serious need for more Maori HPOs is clear. Various attempts with varied success at working with Maori communities, integrating promotion/protection services, supporting alternative pathways into the work and scholarships.
Health Promotion Forum	Reviewed literature (for example competencies discussion)	Key findings from health promotion competencies consultation about lack of relevance and processes for Maori
Health Protection Officers	HPOs surveyed via HealthProtect listserv re cultural competencies & priority for development	Wide gap exists between workforce capability and high expectations of Maori. Distinctive groupings evident - those self-rated with very low competence/priority and those with medium competence/priority.
	Good cross-section of generic HPOs re-surveyed at National HPO forum – survey questions extended to include comment on Maori HPO competencies and regional variance	Wide range of comments and perspectives. Few consensus items other than the need for more Maori HPOs and some expectations of central coordination and consistency

Maori HPOs	Maori HPO 'Caucus' - national hui in Northland attended/presented	Whakawhanaungatanga was the focus of hui – anticipated feedback not gained. The need for culturally safe process was confirmed - difficulty for representative views to be obtained from a still forming and diverse group
	Maori HPOs – various in depth discussions, meeting records and conversation/email strings	Wide range and depth of issues to be addressed both in training and particularly in the workplace
	Southland Maori Health Protection hui – Waikawa Marae, March 2004	A range of stakeholders and contributions including Maori world views, issues and proposed solutions
	Auckland trainees	One died at 30. Two didn't want ot proceed. No networking with wider group.
	Employer did not want a Maori HPO	Questioned my Maoriness, wouldn't make a commitment, control freak, red necks, Maori staff 2-faced & won't defend selves for fear of jobs. Health protection won't mix with promotion. There needs to be a Maori unit. Maori in the field want to know the cost, how long will it take, what's in it for them. Give it plain – many too worried about next meal.
	Role issues	Want to maintain broad specialist knowledge, stay desirable, not really happy – am never asked, want a decent pay rise. Business managers pull all the strings
	Marae Food safety	Need to bring in a consultant so can focus on overview & facilitating. Underbudgeted,
	Maori service	Provide kawa training for staff – supposed to be integrated into units
	Barriers	Have to give moe of own personality to show not just a Crown badge. We serve whole marae community whereas generic only deal with Council CEO. Young may not be recognised by tribal leaders – age is an issue. Council not a safe place. Extra duties for Maori. Conflicts of interest & confusion over hats. Pulled out of programme – a lot of pressure – not a good feeling. Middle managers don't understand us. HPOs have attitude problem about moderating own skills. Regional variance for Maori skills. Auckland has different issues to others. People patch protect. No accountability for unit – they just don't do it – need external auditors. Not invited to internal meetings.
	Technical Officers	Why no Maori technical officers – should be more.
	Training	Found AUT supportive reg Maori liaison unit. Distance with Massey OK.

	Scholarships	Not taken up in several districts. Return to cadetships that worked for getting others into the industry. Partnership with Maori community to help find the right person and support them through the process and into the job.
	Pathways	Give people extra work experience as a way to get them in. Critical that they can cope with technical and scientific work. Need maximum student participation – carrot at end- make it exciting and relevant. Target ideal person. Massey has Maori major c.f. AUT has varied kaupapa pathways. Waananga students are asking where do they go next (environmental studies graduates). Gap between waananga output and university structure.
	Best Practice	Kanohi kitea (face to face not phone), talking together in group better than in isolation, care for hapu in the role, take kaumatua, have resident kuia etc, flexible koha policy, Need to fast track roles. Unit needs to know where head is at when hiring. Need shared vision and intersecting circles of activity. Uplift our people and bridge areas like use of local authority. Need succession planning. External pressure from iwi the only way to get response. Can't be seen to be on 'the other side'. Not enough Maori visiting communities. Big difference being from the area – they couldn't get in otherwise. I may be Maori but that doesn't mean I'm automatically accepted in this community.
	Designation	May not need to have designation to achieve. Good work being done – train and designate later.
	Competency	Need to be strong enough to survive Pakeha and Maori community. Need health promotion competencies
	Retention	No career path - unlikely to stay beyond designation
Maori	Misc.	Misc.
Maori Workforce Advisory Cmmittee		Refer Literature review
NGOs	National Association of Maori Health Providers	Moving into alliances with other providers to take a whanau ora approach to workforce development and training in their own communities. Consider waananga training modules.

Health Workforce Advisory Committee	The New Zealand Health Workforce – Future Directions – Recommendations 2003	Strategic systems framework – improved workforce information, major culture or paradigm shift, work with communities, process of evolving change. Maori want action and participation in change, sense of direction, purpose and unity. Mainstream responsiveness to Maori, Treaty principles, collaborative service delivery and governance. Networks. Development function work from principles around empowering hapu & iwi, power sharing, kotahitanga, leadership, mobilisation and implementation. DHB involvement important. Active training of Maori staff, recruiting well qualified Maori, collaboration between health and education – ongoing education. DHBs advance community health practitioner needs, strengthen employer/ee constation, acknowledge and reward diversity, actively promote community health workers, invest in wfd components incl. Mentoring and leadership. Use broadr range of incentives to attract/retain workers – especially rural, share wisely. MoH to include in workforce development plans by June 2005.
Other	Past Inspectors - information sought & collated regarding history and issues pertaining to previous inspectors	Systemic problems as well as individual traits/circumstances contributed to non-sustainable roles. Appropriate support mechanisms could have helped in some cases.
	Whare Waananga o Awanuiarangi - discussion regarding current programme, synergies with EH work with communities and the need for linked-up pathways	Keen to develop linked-up pathways for students. Have a specialty focus on Environmental work including their own lab and intentions to link with hands on environmental health work with communities (and recruitment pathways for Maori students)
	Previous Maori advice reviewed	Advice of various Maori committees, board of health etc is still valid and does not need to be re-invented. Organisations just need reminding and coordination to help implement
	Maori EHO/OSH officers interviewed	Share similar concerns to Maori HPOs and are part of the critical mass for further development & support
Public Health Directorate wfd work stream	Approached regarding archives. To discuss hui stakeholder attendees.	Refer Literature review
Public Health Nurses	Taima Campbell (ADHB director of Nursing) – Mana Magazine, Oct-Nov 2003	Looking at wfd and why nurses burn out and leave. Usually because not feeling valued, lack of cultural understanding, institutional racism and having to justify practice – wears us down. Teach strategies to overcome. Head-butting is career limiting – be smarter. Paper to HWAC considered getting into schools, talking to teenagers and

		parents about careers, investing Treaty settlements in scholarships, bridging and second chance education, getting waananga, employers and mainstream providers working together, and collecting better data. Magnet recognition programme – strategy for Maori wfd. What makes a Maori magnet organisation? Critical mass of Maori professionals works. Also leadership, mentors, whanaungatanga and other factors.
Public Health Physicians	Local (BoP) GP group heads, PHO Maori GPs	Casual Discussion
Regional Councils	Presented to BoPRC Maori committee referred on to Strategic Planning Committee	Good support for kaupapa (regional EH work and the need for workforce development) - recommended onto strategic planning committee to effect some solutions
Territorial Local Authorities	EHOs surveyed re cultural competencies/relevance via health protect listserv	Wide gap exists between the industry capability and expectations of Maori. Distinctive groups of 'hard core' and partial commitment are evident.
	Presented to Whakatane DC EH management - agreed to MOU and referred on to works committee/full council	Qualified support for the need to progress. Gained some movement forward with a focus on real issues in communities. Limited immediate scope for workforce development support but potential to gain council support and interface with LTCCP and other work.
Wider Health Sector	Maori Dentists - interviewed John Broughton regarding evolution of Maori dentistry	Growth and evolution of Maori dentistry parallels and proceeds (by about 5 years) Maori HPO industry – key aspects include pastoral care, inclusive/whanau training institution environment and lobbying/enrolment of support from key positions of authority & policy process.
	Various Maori NGOs attended - eg. National Association of Maori providers	Supportive of kaupapa and keen for synergies to occur - their next phase is to move into synergies with other agencies
	Te Rau Matatini - Maori Mental Health workforce development - liased with	Like other initiatives, useful material to follow/compare/duplicate.
	National Maori workforce development hui - attended/presented	Shared kaupapa and issues. Support for highlighted issues and need to develop. Concern at inequalities for Maori in the processes. 3 Points - Maori frameworks are required; Maori control is needed; Reorientation of public health services to have infrastructure to support Maori HPOs

Appendix 3 – Levels of Instruction for Maori Health Perspective

(from NZ Board of Health, Maori Health Committee, 1987)

Level 1 – Cultural Awareness

All New Zealand health professionals should be aware of the relevance of culture to health, and in particular the relevance of their own culture(s).

Level 2 – Basic 'Taha Maori' Repertoire

Introductory Language – pronunciation, greetings, basic every day vocabulary, family relationships, body language, expressions used in social exchange, cross-cultural communication

- **Tikanga Maori** – marae protocol, role of tangata whenua, manuhiri, kaumatua, Rangi and papa and their children
- **Health-related Concepts** – the human life cycle, views on health and sickness, nutritional beliefs and practices, the human body, traditional healing
- **Social Organisation** – whanau, hapu, iwi, contemporary social structures, leadership, tribal runanga, land management
- **Current Issues** – health problems of concern to Maori people, biculturalism, The Treaty of Waitangi
- **Maori Health Initiatives** – marae clinics, community health workers, Maori health liaison officers, Matua whangai, Kohanga Reo, Maori Women's Welfare League, tribal waananga, specialised hospital facilities
- **Personal Skills** – waiata-a-ringa, karakia, whakatauki, assistance at hui

Level 3 – Suggestions for Specialist Requirements

Advanced courses in:
Language: fluency, immersion courses

- **Tikanga Maori**: whakapapa, tangihanga, hui-a-iwi, te ao turoa
- **Current Issues**: Waitangi Tribunal, Department of Maori Affairs, Biculturalism in health services
- **Maori Health Initiatives**: in depth study of one or more models
- **Social Organisation**: runanga participation in health care and health services
- **Family Health**: whangai mokopuna, paihere whanau
- **Personal Skills**: whaikorero, karanga, hui organisation
- **Health Issues**: epidemiological studies, health promotion in Maori communities

The specialised requirement may best be met by:
The addition of specific optional modules to the course
Recognition of courses outside the institution
Secondment to Maori health agencies for practical experience

Appendix 4 – Comparison with Australian Program

Following are points to note taken from the Australian National Indigenous Communities' Environmental Health Research and Development Program.
(The '?' column records whether the situation is the same for NZ (Yes/No/Don't know/).

Report Item	Findings/Statements	Comment	?
Overview	When Indigenous communities in Queensland were asked in 1996 what their priorities for addressing the environmental health issues in their communities were, the overwhelmingly agreed: they wanted professionally trained Indigenous Environmental Health Officers available to their communities, and community-based Indigenous-staffed Environmental Health services.	No record of the same question being asked formally in NZ. Same sentiments confirmed in other forums.	Y
	In 1996 there were no professional Indigenous EH practitioners, no dedicated Indigenous EH Services and no career paths nor formal recognition for the community EH workers.	1 EHO?. No EHWs.	Y
Results by 2001	Indigenous community-based Indigenous health and environmental services established in Queensland, Torres Straight, Pilbarra and New South Wales.	Nothing for NZ	N
	Public Health Services in various states have training placement for Indigenous Environmental Health Officers	Several positions/scholarships	Y
	National workshops sponsored by Federal and State Health services bring EHWs and cadet EHOs together regularly for professional development and networking	Needed for NZ	
	National Environmental Health (enHealth) Council has a standing committee, the National Indigenous Environmental health Forum, devoted to ICEH issues	No equivalent in NZ	N
	1 IEHO graduated, 3 pending, 40 students through program with positive experiences & outcomes, 20 more enrolled	4 Maori HPOs 1 EHO	
	Indigenous EH students presented joint workshops at Public Health Association and EH Institute conferences – papers published	Same for 1 Maori HPO	
	Course materials incorporating Indigenous issues into EH professional training programs	More needed in NZ	
	Other universities take active interest in recruiting Indigenous students to professional EH programmes. TAFE institutions have diploma courses designed to articulate with the professional programmes.	AUT starting to. Potential for Waananga.	
	Major research study identified key issues for Indigenous professional education, and in particular the difficult power relationships experienced by Indigenous EHOs.	Education & Workplace study for NZ Needed	N
Unresolve	*A double bind:* Indigenous students in work	Same for Maori	Y

d Issues from the study	placements are often required to be primarily members of their work place team when there is a conflict of interest with their community, without due respect and support for their role as an interpreter for their community.	HPOs	
	A Double Burden: Indigenous students are expected to undertake the same full academic programme as non-indigenous students, and at the same time develop the capacity to design and deliver culturally-appropriate strategies to their communities, usually without extra academic assistance.	Often the same for Maori HPOs	Y
	A Thin Line: Indigenous EH practitioners can be said to have risen sharply – among professionals from 0 to 1 with 14 pending; among EH workers from the order of 200 to an order of 1000 (difficult to classify). Since these are spread thinly over Australia, tyranny of distance inhibits the mutual support and learning available to other segments of the workforce.	Slow rise in Maori HPOs (3) with some leaving as others come.	N
	A High Risk: The 20 years shorter life span and 30% more illness predicted for Indigenous populations is the everyday experience of students in the ICEH program and their communities. Thus the students are involved in life events of illness and death at something like three times the rate of other students, requiring and equivalent number of assignment extensions and special consideration, a situation not always recognised by other staff and students.	Similar issues for NZ	Y
The Way Ahead	Development of an Indigenous EH Workforce Support programme, linking practitioners with each other within a professional development programme.	Needed for NZ	N
	Development of community-based integrated Environment and Health action plans by and for Indigenous communities	Needed for NZ	N
	Establishment of national Indigenous Environmental Health Resources network through the use of information technology	Needed for NZ	N

Appendix 5 – Maori/Generic Determinants of Health

The 1994 Maori Health Decade Hui (held in Rotorua) summarised Maori health as:

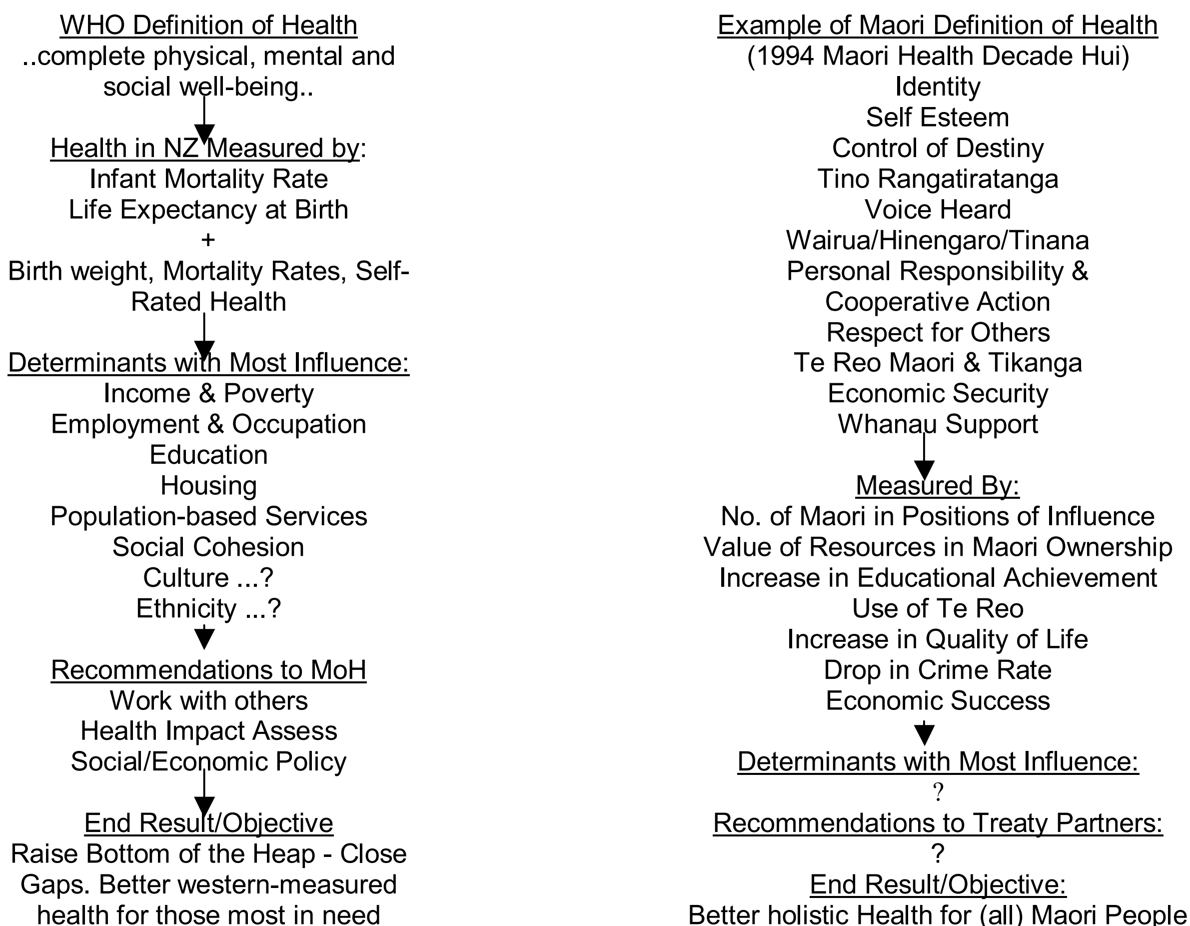
Identity, Self Esteem, Control of Destiny, Tino Rangatiratanga, Voice Heard, Wairua/Hinengaro/Tinana, Personal Responsibility & Cooperative Action, Respect for Others, Te Reo Maori & Tikanga, Economic Security, Whanau Support

Compared to Government measurements of health and wellbeing (measured by things like life expectancy and infant mortality rates and their associated determinants), the hui version of Maori health was said to be measured by:

No. of Maori in Positions of Influence, Value of Resources in Maori Ownership, Increase in Educational Achievement, Use of Te Reo, Increase in Quality of Life, Drop in Crime Rate, Economic Success

Determinants which affect these areas of 'measurement' for Maori health are not widely recognised. They could include, for example, things like positive iwi relationships with local employers, local authority inclusion of Maori councilors, staff & knowledge, community advocates and capacity of leaders to support waananga/youth/land reform or other initiatives.

Determinants of Health



Appendix 6 – PHA Review Comments Regarding Maori HPOs

The following are extracts relating to Maori Health Protection from the June 2000 report by the Public Health Association (PHA, 2000) into Health Protection Officer Workforce Development.

Specific issues for Maori inlcude:

- Lack of suitable training for Maori to become HPOs
- Insufficient training in the Maori approach to the environment
- Trainers also need to address how to handle issues regarding differences between the two cultures. This necessitates greater Maori input into curriculum development for degree courses.

A needs analysis by Paul et al. found a "lack of potential Maori students to enter tertiary science training with the pre-requisite qualifications" (Paul et al., 1999)…Potential Maori HPOs have been restricted by:

- The choice of locations where they can study
- The cost and duration of courses. Students without the appropriate preparation in mathematics and science must first take certificate courses which means up to five years study to gain the BAppSc degree
- Their ability "to perform service deliver which provides a consistent Maori health protection service philosophy to the Maori community."

A subsequent needs assessment *"highlighted the need to identify an appropriate, user-friendly pathway of bicultural learning…a curriculum that would produce a tuutuuru Maori health specialist, skilled in the traditional ideology and practices of Maori science, as well as Western scientific methods of theory and practice."* Consultation with Maori organisations, local authorities and CHEs indicated a strong demand for Maori HPOs "who were well versed in *te reo, tikanga,* and the Maori world view, in addition to performing the environmental science testing and analysis required under the Health Act (Paul et al., 1999).

Future options
…It would be useful and timely to consider developing additional options to the Maori studies/Applied Science degree. For example, Maori who have credibility in their local communities and skills in tikanga are valuable community assets, and with some specialist training can assist in health protection work without needing to become a designated HPO (Paul et al., 1999).

The Auckland Maori workforce development programme claims promising results after the number of Maori HPOs nationally went from zero in 1997 to 3 in 1999, 14 in training and an anticipated 40 within five years. A pilot project was proposed to roll out nationally.

Appendix 7 – June 2004 Maori HPO Minisurveys

Requirements & Capacity Survey for Maori Health Protection - PHU/Maori HPOs

Kia ora

As part of ongoing work into health protection workforce development, your response to the following would be much appreciated. This mini-survey is targeted at those involved in Maori Health Protection (including PHU Managers, Maori HPOs, trainees, others). For further information contact Chris Webber 0274 353-755.

Requirements:

1. Our organisation has identified its requirements for Maori health protection.

☐ strongly disagree ☐ disagree ☐ neutral ☐ agree ☐ strongly agree

Our Requirements are: ______________________________

2. Requirements identified reflect the requirements of our Maori community and staff.

☐ strongly disagree ☐ disagree ☐ neutral ☐ agree ☐ strongly agree

COMMENTS: ______________________________

3. These requirements are fully met.

☐ strongly disagree ☐ disagree ☐ neutral ☐ agree ☐ strongly agree

COMMENTS: ______________________________

4. There is a need to further define our requirements and approach for Maori health protection.

☐ strongly disagree ☐ disagree ☐ neutral ☐ agree ☐ strongly agree

COMMENTS: ______________________________

Resources

5. We have sufficient *personnel* to meet our requirements for Maori health protection.

☐ strongly disagree ☐ disagree ☐ neutral ☐ agree ☐ strongly agree

COMMENTS: ______________________________

6. We have sufficient *equipment* to meet our requirements for Maori health protection.

☐ strongly disagree ☐ disagree ☐ neutral ☐ agree ☐ strongly agree

COMMENTS: ______________________________

7. We have sufficient *time resource* to meet our requirements for Maori health protection.

☐ strongly disagree ☐ disagree ☐ neutral ☐ agree ☐ strongly agree

COMMENTS: ______________________________

Competency

8. Our Maori HPO/other staff have sufficient *skills* (technical & Maori tasks) to be competent in this work.

☐ strongly disagree ☐ disagree ☐ neutral ☐ agree ☐ strongly agree

Key Areas needed are: ______________________________

9. Our Maori HPO/other staff have sufficient *knowledge* (technical & Maori) to be competent in this work.

☐ strongly disagree ☐ disagree ☐ neutral ☐ agree ☐ strongly agree

Key areas needed are: ______________________________

10. Our Maori HPO/other staff have sufficient *Ability* to be competent in this work.

☐ strongly disagree ☐ disagree ☐ neutral ☐ agree ☐ strongly agree

Key areas needed are: ______________________________

11. I think the following options should be pursued to best address our current gaps in capacity and ongoing requirements for Maori health protection

☐ Maori HPO Scholarships
☐ Maori HPO Apprenticeships
☐ Maori Technical Officers
☐ Other/new types of role
☐ Alternative pathway options (eg retraining staff)
☐ Additional Contracting (of our service)
☐ External Sub/Contracting (other providers)
☐ Protocols with iwi/Maori/Pan-tribals
☐ More Maori responsive training programme
☐ More application of distance education
(☐ block, ☐ internet, ☐ correspondence)
☐ More localised training components
☐ More 'whanau-based' training/hui
☐ Alternative training providers
☐ Stronger Networking (MHPOs, trainees, support)
☐ More hands-on opportunities
☐ Focus on issues relevant to Maori
☐ Stakeholder Collaboration (eg TLA, TPK)
☐ Joining EHO/OSH/Kaitiaki critical mass
☐ Co-ordination of Support (Nat./Regional)
☐ Organisational change & commitment
☐ Local promotion/recruitment (schools & up)
☐ National promotion/recruitment
☐ Mentoring & Leadership
☐ Service Benchmarking
☐ Maori competence for non-Maori
☐ Maori support staff for non-Maori
☐ Strategic plan development
☐ Specialised Contract/Compensation arrangements
☐ Maori Community Support & Involvement
☐ Other

Any other comments regarding your gaps in capacity and/or training/recruitment requirements/solutions?

Name/Position: ______________________________

Organisation: ______________________________

I would like further involvement in this discussion (☐ Yes ☐ No)

Contact for follow-up: ______________________________

Kia ora rawa atu – please return to chris.webber@bopdhb.govt.nz, Box 1858 Rotorua, fax 07 346-0105

June 2004 Maori HPO Mini-Survey

Kia ora

As part of ongoing work into health protection workforce development, your response to the following would be much appreciated. This mini-survey is targeted at Medical Officers of Health and PHU Managers.
For further information contact Chris Webber 0274 353-755.

NEEDS:

1. Our organisation has specific need for the development of Maori health protection.

strongly disagree disagree neutral agree strongly agree

COMMENTS____

2. Appointment of a Maori health protection officer is of high enough priority to allocate a position for this purpose.

strongly disagree disagree neutral agree strongly agree

COMMENTS____

3. Gaps and solutions other than employment of a designated Maori Health Protection officer have been identified or acted upon to achieve Maori health protection outcomes.

strongly disagree disagree neutral agree strongly agree

COMMENTS____

RESPONSES:

4. Our organisation has a satisfactory strategy to achieve the employment of a Maori Health Protection Officer.

strongly disagree disagree neutral agree strongly agree

COMMENTS____

5. A clear job description and role has been identified for such an officer if appointed. strongly disagree disagree neutral agree strongly agree

COMMENTS____

6. A Maori Health Protection Officer would be expected to possess Maori competency additional to the full range of generic HPO abilities

strongly disagree disagree neutral agree strongly agree

COMMENTS____

OTHER:

7. The general HPO workforce needs additional development in order to progress Maori health protection issues.

strongly disagree disagree neutral agree strongly agree

COMMENTS____

8. There should be some sort of national/regional programme to achieve the general workforce development required to progress Maori health protection issues.

strongly disagree disagree neutral agree strongly agree

COMMENTS____

9. Maori HPOs should be part of a wider network with developmental roles supported by the MoH and DHBs.

strongly disagree disagree neutral agree strongly agree

COMMENTS______________________________________

10. Any other comments?

Name/Position: ____________________________________

Organisation: ____________________________________

I would like further involvement in this discussion (Y/N)

Contact for follow-up:____________________________________

Kia ora rawa atu – please return comment to chris.webber@bopdhb.govt.nz or fax 07 346-0105

References

Bell, S. (1996). *Maori students in the environmental health programme*. Wellington: Wellington Polytechnic.

Bell, S. (2002). *Environmental health: A Victorian anachronism or dynamic discipline?* Presentation to Australian Institute of Environmental Health. Paper presented to the Australian Institute of Environmental Health Conference, Sydney.

Bell. S (2004). Presentation to the 2nd annual Health Protection Forum - Wellington, June 2004.

Board of Health (1963). *The Training and Employment of Health Inspectors in New Zealand*. Wellington: Board of Health

Board of Health (1973). *The Training and Employment of Health Inspectors in New Zealand (second report).* Wellington: Board of Health.

Board of Health: Maori Advisory Committee (1988). *Submission to the minister of health*: Maori health advisory committee.

Brown, V.A., Stephenson, P., Mitchell, K. (2001). *Indigenous communities environmental health research and development 1997-2001*: Final report to ATSIC/OATSIH. Sydney: University of Western Sydney.

Committee Advising on Professional Education (1997). *Education and development of the health and disability workforce: Recommendations from CAPE's consultation with health, disability and education sectors*. Wellington: CAPE

Department of Health (1990). *Nga mahi Ora: Careers in the health workforce*. Wellington: Department of Health

Douglas, E.M.K. (1989). *Maori health workforce in the Wanganui area: Report of the pilot study undertaken in October-December 1988 to determine the Maori employee component of Wanganui health services*

Durie, M (2002) Presentation to the Pacific region indigenous doctors' conference - Hawaii, August 2002.

ETSA. (1996) *Learning styles: An annotated bibliography*

Lange, T (1972). *The revival of a dying race: A study of Maori health reform, 1900-1918*

Loewenson, R. (1999*). Public Participation in Health: Making People Matter - Working Paper 84.* Brighton: Institute of Development Studies

Ministry of Health (2001). *Towards Identifying Competencies required for Being Designated as a Health Protection Officer - a discussion document*. Wellington: Ministry of Health.

Ministry of Health (April 2002). *Towards identifying competencies required for being designated as a health protection officer - analysis of submissions*. Wellington: Ministry of Health.

Ministry of Health (Nov. 2002). *Towards Identifying Ongoing Competencies required for Being Designated as a Health Protection Officer - a discussion document.* Wellington: Ministry of Health.

Ministry of Health (Oct. 2002). *Defining competencies for designation as a health protection officer.* Wellington: Ministry of Health.

Navigate (2002). *Retention of Maori staff within the Ministry of Health*. (no publisher details other than 'virtual' company contacts) www.navigate.co.nz (0800 462 844)

New Zealand Board of Health (1987). *Guidelines for the introduction of a Maori perspective into the training of health professionals*. Wellington: NZ Board of Health.

NSW Health, (2003). Competency Guide for Aboriginal Trainee EHOs provided at NSW Housing for Health presentation by Jeff Standen at the Public Health Association Conference 2003 in Ngaruawahia.

Orchard, M.B. (2000). *National report on environmental health 1998/99*. Christchurch: New Zealand Institute of Environmental Health Inc.

PHA (2000). *Health Protection Officers Workforce Development Review*. Wellington: Public Health Association of New Zealand

Paul, P., et al. (1999). *A Strategic Plan for Maori Health Protection Officer Workforce Development, Science Development, and the Promotion of Maori and Science Subjects in Secondary and Tertiary Education*. Application for Resource Funding to the HFA. Auckland.

Pritchard, K., Simmons, G. (2002). *Benchmarking the health promotion and protection workforce of New Zealand - a survey of staffing and remuneration.* Auckland: Auckland District Health Board/Public Health Leaders Group

Salmond, G., Bowers, S. (1997). *Development of the public health workforce: Research Report No. 9*. Wellington: Health Services Research Centre

Statham, A. (2002, October). Sink or swim. Environmental Health Journal, pp.310-312.

Stout, S. (2002). Editorial. New Zealand Journal of Environmental Health, p.4.

Te Puni Kokiri (1995). *Health through marae: Nga tikanga hauora o nga marae*. Wellington: Te Puni Kokiri

Thiele, D (2003). *Indigenous Health: Moving from rhetoric to reality*. Presentation to Health Policy Forum Seminar, 2 July 2003. Downloaded from www.usyd.edu.au

Webber, C. (2001). *Environmental Health Protection for Maori Community - Minisurvey (on Maori skills in the EHO/HPO Industry).* Unpublished (email-circulated report).

Webber, C. (2002). Maori health protection hui, Rotorua: Meeting notes. Unpublished summary from the second group meeting of Aotearoa's Maori Health Protection Officers at Toi Te Ora Public Health, Rotorua - 29 November 2002..

Webber, C. (April, 2002). *Queensland indigenous environmental health exchange*. Public Health Association News, Vol. V No.2. Wellington: Public Health Association.

Webber, C. (April, 2003). *Fiji and public health: A new era in Pacific public health*. Wellington: Public Health Association.

Webber, C. (August 2000). *Developmental Needs for Maori Health Protection*. Discussion paper subsequently published in New Zealand Journal of Environmental Health, November 2001.

Webber, C. (July 2001). *HPO competencies for working with Maori: Some ideas for discussion*. Discussion paper subsequently published in New Zealand Journal of Environmental Health, November 2001.

Webber, C. (July, 2001). Protecting the health of Maori community. Presentation to Public Health Association Conference - Auckland, July 2001.

Webber, C. (June 2002). *HACCP for Maori health protection: A risk assessment approach to kaitiakitanga*. Presentation to Public Health Association Conference - Dunedin, June 2002.

Weldon, L.V. (1986). *Health Inspection in New Zealand*. Unpublished discussion paper to the Board of Health - Health Protection Committee.