Each issue of Keeping Up to Date tells you about current research, evidence and thought on an important issue for your work in health promotion. Keeping Up to Date reviews academic literature. It references some key articles, especially those that you can get download from the world wide web. If you have difficulty accessing any of the references, please contact us and we can point you in the right direction.

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Another bumper edition
This bumper edition of Keeping Up to Date makes up for the 29th and 30th editions of 2008.

We are thankful to Tim Rochford (Kai Tahu, Kati Mamoe) and Louise Signal, Department of Public Health, Wellington School of Medicine and Health Sciences, University of Otago, Wellington, New Zealand, for writing for this combined edition.

We always welcome your feedback. We need to know how we can continue to improve our service.

Using a framework of Māori models for health to promote the health of Māori
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Abstract
This paper examines three Māori health models for promoting the health of Māori. They are applied to a case study, the growing crisis of type 2 diabetes in Māori communities in Aotearoa me Te Wai Pounamu (New Zealand). In the paper indigenous health models are used to reflect on modern health problems of indigenous peoples through the eyes of indigenous peoples.

Firstly, using The Treaty of Waitaki as a model we are able to create the policy framework that will enable the health system to promote appropriate policies and programmes for Māori.

Secondly, using Whare Tapa Wha (the four cornerstones of health) we are able to tease out the cultural, social, psychosocial and physical determinants of health. This model of health enables the development of health promotion programmes that respond to these key health determinants and therefore are more likely to be effective.

Finally, using Mason Durie’s Te Pae Mahutoka (the Southern Cross) we are able to identify and implement the essential elements of an effective health promotion programme that meets the needs of Māori. Using these three models together enables the development of a comprehensive approach to Māori health and health promotion. This will hopefully assist health promoters, service providers, policy makers, researchers and Māori in meeting Māori health needs.

Note: Te reo Māori used in this paper is written in the dialect of the Kai Tahu, Kati Mamoe iwi; ie the letter k replaces the more commonly used ng.
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Introduction
The purpose of this paper is to describe a framework of three Māori models for health that address Māori health needs: the Treaty of Waitaki, Whare Tapa Wha and Te Pae Mahutoka. The framework operates at three different levels providing a holistic approach for addressing any health issue. In this paper the framework is outlined and then its application in health promotion is illustrated by applying it to preventing type 2 diabetes.

Socio-historical background of Māori
Māori are the takata whenua or indigenous people of New Zealand. They make up just under 15% of the population and are a young people with a median age of 21.6 years [1]. Like most indigenous peoples, Māori were colonised and suffered from loss of land that sustained traditional lifestyles. The loss of an economic base has resulted in many Māori being forced to abandon those lifestyles and being marginalised in their own homeland [2]. The impact of colonisation on the health of Māori has been widely discussed in literature [3]. Māori carry a greater burden of health inequalities and die approximately eight years earlier than their Pākehā (non-Māori) cohort [3].

In the last twenty years, in particular, Māori have sought to take back greater control, not only of their community direction but also of those social services delivered to them. This has resulted in the development of health services delivered by Māori for Māori as well as Māori health models that can test whether all health services delivered to Māori are consistent with Māori values. Developing Māori health models also validates Māori worldviews and in doing so, recognises kaupapa and empowers Māori communities [4].

Type 2 diabetes in Māori
Type 2 diabetes is a significant health risk for Māori; indeed Māori are thought to have one of the highest mortality rates of diabetes in the world [5]. The prevalence of type 2 diabetes in Māori has been reported as more than twice that of Pākehā (and this is thought to be under reported) and Māori have three times the hospitalisation rates. Māori also present with diabetes at an earlier age (median age of diagnosis for Māori 43 compared to 55 for Pākehā) and with a more serious level of illness [6]. The Māori mortality rate from diabetes is nine times that of Pākehā suggesting that there are inequalities in access to service and therefore significant health gains to be made by better prevention and management of the illness in Māori [5].

Model one: The Treaty of Waitaki
The first model discussed in this paper is based around the Treaty of Waitaki, New Zealand’s founding document, and provides the policy response needed to address public health issues. The Treaty was signed in 1840 as a result of the decision of the British Colonial Office that New Zealand’s inclusion in the British Empire was dependent on the consent of the indigenous Māori population. The Treaty was the terms of that consent. There were two versions of the Treaty, one in English and a significantly different one in Māori. In this paper will use the Māori version [7].

The essence of the Treaty is contained in its three articles.
1. Article one is about kawanataka; which has come to define the rights and responsibilities of the Crown or Government. It is the responsibility of governments to protect the wellbeing of all their citizens. They must be aware of the health risks that confront their populations and what determines these risks and seek to minimise the exposure of populations to health risks. There are a number of ways governments can address article one with regard to diabetes. These include ensuring healthy environments that reduce risk enacting policies that reduce population exposure to socio-economic determinants of poor health, such as poverty; and supporting research into areas such as the connection between indigenity and type 2 diabetes.

2. Article two concerns rakatirataaka; or the rights and responsibilities of Māori as iwi or tribal entities. This clause guarantees the right of Māori to retain autonomy and self-determination over their lives.

An essential component of good type 2 diabetes management is the partnership established between health services and communities. Effective partnership requires communities to have autonomy as well as effective involvement in the management and therefore determination of their health services [8].

In recent years Māori have sought and gained specific Māori input into, and responsibility for, policy development, governance and management of health services in New Zealand. As a result Māori have been able to push for a higher profile for health promotion in the health sector. Māori have also been able to set health priorities specific to Māori and this has led to greater prioritisation of Māori health need [9]. Many of these initiatives have developed from Māori health hui (conferences) such as Hui Oraka (1984) and Te Ara Ahu Whakamua (1994) that have called for Māori health models.
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and Māori health services as essential in responding to Māori health needs. These were specifically seen as expressions of promoting rakatirataka in health [10].

3. Article three promises oriteka or equity and provides a guarantee that Māori will have the same rights as citizens as Pākehā. From 1993 New Zealand governments have had the specific goal of reducing and eventually removing disparities between Māori and Pākehā [11] [12]. High quality research is needed to monitor the disparities in both the prevalence and mortality rates for Māori to ensure appropriate resourcing of effective diabetes health promotion and management in order to close these gaps.

Model two: Whare Tapa Wha

Whare Tapa Wha is a theory of wellbeing that was developed from a hui of Māori health workers in 1982 as described by Dr Mason Durie. Māori believe that most health services follow a bio-medical model, which is based on a reductionist worldview, which does not recognise things that cannot be measured. As a result, the health system is able only to respond to the physical or tinana needs of Māori [13].

Māori prefer to use a holistic model of health, such as Whare Tapa Wha (four cornerstones of health), the four realms being:

- **taha tinana** (physical);
- **taha hinekaro** (emotion);
- **taha whānau** (social); and
- **taha wairua** (spiritual)

As a model of wellbeing Whare Tapa Wha identifies the complex nature of both wellness and in its absence, illness. Using this model we can recognise that a complex disease such as type 2 diabetes has a number of determinants. These are often placed on a proximal (immediate cause) and distal (underlying cause) continuum, which does give greater weight to the more distal socio-economic causes.

This can devalue responding to proximal determinants such as lifestyle choices (eg diet and exercise) which may be more amenable at a prevention level. Focussing on the proximal however can lead to unrealistic programmes that result in unhelpful victim blaming and fail to address underlying problems. Whare Tapa Wha gives us the capacity to respond to all determinants in a balanced way.

1. **Taha tinana** (physical): This aspect reflects the need to prevent exposure to the physical risks that lead to diabetes and includes promoting the benefits of healthy diet and exercise. This should also include screening for at risk people to test for potential diabetes risks and responding medically to the complications that arise from the development of the disease;

2. **Taha hinekaro** (emotion): This aspect reflects the psychological damage done by poverty and racism. Racism contributes to emotional stress that can lead to internalised racism and passive acceptance of poor health [14]. It also reflects on the emotional toll that comes from having serious and potentially terminal illness. The level of emotional support in responding to such a health risk can play a significant part in the outcome;

3. **Taha whānau** (social) Prevention programmes such as healthy diets and exercise are far less likely to succeed if they are done individually. By taking into account the family or social environment there is a greater likely hood of success. Also given that diabetes has both heritable and lifestyle factors it is likely that diabetes clusters in families so identification of the development in one individual should encourage screening and prevention programmes to the family as a matter of good practice; and

4. **Taha wairua** (spiritual) Spiritual has very broad meaning, and here we use it as a sense of identity and place. As cultural dislocation from colonisation are associated with higher risk of type 2 diabetes then decolonization and cultural reconstruction should be part of any population response to prevention of diabetes.

These four aspects of a holistic response to the threat of diabetes are shown in the Figure 1 below.

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**Figure 1:** Determinants of disease, response by domain for type 2 diabetes for Māori.
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Model three: Te Pae Mahutoka

Te Pae Mahutoka was developed specifically for health promotion programmes by Professor Mason Durie, a leading Māori doctor and academic. The model is based on the Southern Cross star constellation (called Te Pae Mahutoka), one of the most prominent features of the southern skies. Its constant appearance in the night skies has made it one of the central navigational aids used by Māori explorers [15]. The four aspects of a healthy Māori community are outlined as:

1. Mauriora: An expression of wellbeing based on secure cultural identity. For Māori, like most indigenous people, colonisation has included a deliberate attempt by the Crown to destroy most aspects of Māori culture. Systematic attacks on Māori succession, land tenure, political structures and language have been the consistent and conscious policies of the Crown for over one hundred and fifty years [2]. More recently, as a result of legal challenges to this deculturation, the Crown has made a conscious effort to reverse these policies. The effect of deculturation, however, has been consistent for indigenous peoples all over the world. Colonisation has resulted in poorer health for indigenous peoples [16]. If cultural dislocation is a risk factor in prevalence of type 2 diabetes then cultural reconstruction must be part of the solution. Māori communities must be able to access cultural centres (marae) and have access to te reo Māori training. Health services must work with local iwi and also recognise the needs of those Māori living outside their tribal area. Placing diabetes prevention services in Māori centred settings (such as marae) will give greater resonance to the work of the service for Māori and will enable the programme to be seen as a component of community development rather than one of rescue from outside institutions [8].

2. Waiora: A reflection of the essential connection Māori have to the land and waters that sustain them and a focus on a healthy environment. Land alienation has been followed by deforestation, pollution and environmental degradation. In addition to the cultural insult of this Māori also suffer from alienation from traditional food sources and exposure to a unspoilt environment. Protecting and cleaning up the environment will have benefits for diabetes prevention, as it will encourage access to traditional healthy foods such as seafood. Access to traditional diet is of particular importance because it reinforces a cultural heritage while discourages the fast food culture that has 'coco-colonised' [colonised with Coke] the developed, and increasing the developing, world.

3. Toiora: In addition to cultural alienation and poor environment, colonisation is also associated with high-risk poor health behaviours. Poor diet, low exercise, drug consumption and high injury rates (both intentional and unintentional) are almost always associated with colonisation [17]. Poor lifestyle choices have long been associated with type 2 diabetes but changing lifestyles is extremely difficult. By tying healthy lifestyles to positive cultural identity there is the opportunity to promote better self-esteem and thereby give young Māori the resilience and strength to reject those unhealthy risk choices.

4. Te Oraka: this is about participation in wider society. Colonisation has resulted in the marginalisation of Māori from the centre of political decision making to the margins. As a result Māori suffer greater levels of poverty than their Pākehā cohort and this is reflected in disparities across every aspect of society [6]. There is considerable evidence that poor socio-economic status in developed countries is linked to type 2 diabetes. There is also evidence that being in an ethnic minority, particularly an indigenous ethnic minority, increases your risk of diabetes. There is a clear epidemiological and biological link between stress and the development of type 2 diabetes. There is also a clear link between racism and stress [18]. Māori are also confronted with racism in the media, in the institutions that control our lives (including health services) and in daily experience. This reduces the opportunities for Māori to enjoy the full aspects of citizenship. Providing legal and community protection from racism is likely to reduce exposure of Māori to the risk of type 2 diabetes [19]. One of the effects of racism is that Māori are often get limited access health promotion programmes, such as Green Prescription, that should be targeted to meet Māori health needs.

According to Durie these four components of a healthy Māori community can only be achieved by the other two other prerequisites, which are;

5. Te Manukura: this is about leadership where communities take responsibility for their health status. To do this requires communities to know the health risks faced by their community and the appropriate response to those risks.
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It involves education and health promotion as well as a good understanding of health services work among those communities. For Māori to provide leadership in reducing diabetes in Māori communities, recognition is required of the crucial role of Māori communities in the design and delivery of health promotion services. This is linked to the sixth part of the model.

6. Te Mana Whakahaere: For Māori to show leadership they must have autonomy: to give Māori communities autonomy means not only recognising Māori community structures and leaders, but also involving Māori in all levels of diabetes prevention strategies including setting priorities and policies, designing and delivering programmes and evaluating the effectiveness and safety of these programmes for Māori. But it is not just about involving Māori in these processes, real decision making and power must be devolved to Māori communities. This means Māori communities must have the mandate to endorse or change the services delivered to them. This of course is the true meaning of empowerment, the transfer of real power from those who have it to those who do not.

Both Te Manukura and Te Mana Whakahaere are interrelated and as the pointers of the Southern Cross they give direction to those working for healthy Māori communities.

Conclusion

In this paper we have outlined three models that can be used together to outline policy responses, the theory of wellness and programme design that enables a comprehensive health promotion response to complex problems, as illustrated by their application to type 2 diabetes.

Together these models provide a framework that is consistent with sound health promotion principles as outlined in the Ottawa Charter. These are:

1. the principle of partnership between health systems and affected communities in policy development (Treaty of Waitaki);
2. the principle of a holistic concept of wellbeing (Whare Tapa Wha); and
3. the principle of empowerment of affected communities in programme design and delivery (Te Pae Mahutoka).

This collective framework comes from a kaupapa Māori worldview but may have universal application for indigenous peoples. Coming from a Māori worldview is essential as it validates matauraka Māori (Māori knowledge) and demonstrates that the solutions to Māori health issues come from within Māori communities. That Māori can and will determine their own destiny.

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References

7. Refer to the following texts for further discussion. Orange C. 1987.
References

The Treaty of Waitangi.


From the Editor
Thirty years on the Alma Ata Declaration is still very influential and relevant to primary health care and health promotion in New Zealand and the many countries in the world. Here is the full text:

DECLARATION OF ALMA-ATA
International Conference on Primary Health Care, Alma-Ata, USSR, 6-12 September 1978
The International Conference on Primary Health Care, meeting in Alma-Ata this twelfth day of September in the year Nineteen hundred and seventy-eight, expressing the need for urgent action by all governments, all health and development workers, and the world community to protect and promote the health of all the people of the world, hereby makes the following Declaration:

I
The Conference strongly reaffirms that health, which is a state of complete physical, mental and social wellbeing, and not merely the absence of disease or infirmity, is a fundamental human right and that the attainment of the highest possible level of health is a most important world-wide social goal whose realization requires the action of many other social and economic sectors in addition to the health sector.

II
The existing gross inequality in the health status of the people particularly between developed and developing countries as well as within countries is politically, socially and economically unacceptable and is, therefore, of common concern to all countries.

III
Economic and social development, based on a New International Economic Order, is of basic importance to the fullest attainment of health for all and to the reduction of the gap between the health status of the developing and developed countries. The promotion and protection of the health of the people is essential to sustained economic and social development and contributes to a better quality of life and to world peace.

IV
The people have the right and duty to participate individually and collectively in the planning and implementation of their health care.

V
Governments have a responsibility for the health of their people which can be fulfilled only by the provision of adequate health and social measures. A main social target of governments, international organizations and the whole world community in the coming decades should be the attainment by all peoples of the world by the year 2000 of a level of health that will permit them to lead a socially and economically productive life. Primary health care is the key to attaining this target as part of development in the spirit of social justice.

VI
Primary health care is essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination. It forms an integral part both of the country’s health system, of which it is the central function and main focus, and of the overall social and economic development of the community. It is the first level of contact of individuals, the family and community with the national health system bringing health care as close as possible to where people live and work, and constitutes the first element of a continuing health care process.

VII
Primary health care:
1. reflects and evolves from the economic conditions and sociocultural and political characteristics of the country and its communities and is based on the application of the relevant results of social, biomedical and health services research and public health experience;
2. addresses the main health problems in the community, providing promotive, preventive, curative and rehabilitative services accordingly;
3. includes at least: education concerning prevailing health problems and the methods of preventing and controlling them; promotion of food supply and proper nutrition; an adequate supply of safe water and basic sanitation; maternal and child health care, including family planning; immunization against the major infectious diseases; prevention and control of locally endemic diseases; appropriate treatment of common diseases and injuries; and provision of essential drugs;
4. involves, in addition to the health sector, all related sectors and aspects of national and community development, in particular agriculture, animal husbandry, food, industry, education, housing, public works, communications and other sectors; and demands the coordinated efforts of all those sectors;
Declaration of Alma-Ata

5. requires and promotes maximum community
and individual self-reliance and participation in
planning, organization, operation and control of
primary health care, making fullest use of local,
national and other available resources; and to this
end develops through appropriate education the
ability of communities to participate;

6. should be sustained by integrated, functional and
mutually supportive referral systems, leading to the
progressive improvement of comprehensive health
care for all, and giving priority to those most in
need;

7. relies, at local and referral levels, on health workers,
including physicians, nurses, midwives, auxiliaries
and community workers as applicable, as well as
traditional practitioners as needed, suitably trained
socially and technically to work as a health team
and to respond to the expressed health needs of the
community.

VIII
All governments should formulate national policies,
strategies and plans of action to launch and sustain
primary health care as part of a comprehensive national
health system and in coordination with other sectors.
To this end, it will be necessary to exercise political
will, to mobilize the country’s resources and to use
available external resources rationally.

IX
All countries should cooperate in a spirit of partnership
and service to ensure primary health care for all
people since the attainment of health by people in
any one country directly concerns and benefits every
other country. In this context the joint WHO/UNICEF
report on primary health care constitutes a solid basis
for the further development and operation of primary
health care throughout the world.

X
An acceptable level of health for all the people of the
world by the year 2000 can be attained through a fuller
and better use of the world’s resources, a considerable
part of which is now spent on armaments and military
conflicts. A genuine policy of independence, peace,
détente and disarmament could and should release
additional resources that could well be devoted to
peaceful aims and in particular to the acceleration of
social and economic development of which primary
health care, as an essential part, should be allotted its
proper share.

The International Conference on Primary Health Care
calls for urgent and effective national and international