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**The importance of establishing an integrated approach to  
diabetic care for Māori patients within the Taranaki region.**

**Master Health Science**

**Māori Health**

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New Zealand.

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## Abstract

**“Ki te kahore he whakakitenga ka ngaro te iwi”** - *Without foresight or vision the people will be lost.*

Health and wellbeing discrepancies exist within Aotearoa, with the Māori population showing signs of lagging health status, due to long standing experiences of poor socio-economic determinants, access to health care, and quality services essential for good health. This thesis will therefore explore the determinants and foundations of health, along with historical events which have shaped contemporary Māori health, with particular reference to diabetes mellitus.

This qualitative research is directed by kaupapa Māori, with the kaupapa of the topic expanding on previous research conducted by the research. This research presented has provided the opportunity to discuss ‘The importance of establishing an integrated approach to diabetic care for Māori patients within the Taranaki region’. The aim of this research is to explore diabetic status within New Zealand, using Taranaki as a particular focal point. This will be completed by utilising various health professionals, and the services they provide in Taranaki. The thesis also provides a platform to analyse integrated services within Taranaki, and assess how patient participation can be encouraged to ensure and safeguard Māori health and well being for future generations.

Māori health research is an essential area for continual research, which will ensure future health developments for the indigenous population of New Zealand. Thus being said, this research will contribute new information, and respond to a relatively unknown area of Māori health. This project has the ability to direct future leadership for ongoing service integration and development. Questions will be

posed, and recommendations will be proposed throughout the research which has the potential to enhance understanding of Māori health needs, and direct Māori health development.

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## Chapter One

# INTRODUCTION

### 1.1 Background

The health and wellbeing of the indigenous population of New Zealand is neither a matter for the government, or for Māori people to settle for. Reports published by The Ministry of Health (2002) illustrate how the majority of health indicators utilised to portray current standing, including life expectancy, morbidity & mortality, along with socio-economic factors indicate the health of Māori is significantly poorer when compared to non-Māori population of New Zealand. Baxter supports the findings of the Ministry of Health, furthermore suggesting that “Māori are disadvantaged relative to non-Māori across a range of health risks and indicators” (Baxter, 2008, p. 3). Baxter indicates there must be multiple underlying reasons as to why indicators that suggest poor Māori health and wellbeing has presented over time. Additionally Baxter suggests the New Zealander population can positively contribute to help limit disadvantage poor Māori health is having on individuals, whanau, and the total population.

*“Ki te kahore he whakakitenga ka ngaro te iwi” - Without foresight or vision the people will be lost.*

This whakataukī has been included by the researcher as a strong indication of what contemporary Māori health research is seeking to provide. The researcher notes that Māori health research is structured and presented in order to ensure positive leadership and guidance for contemporary Māori health and

wellbeing. The researcher suggests that foresight, and ongoing contribution of individuals that builds Māori health and development, will ensure safety and positive outcomes for the enjoyment of future generations. The researcher suggests the underlying message within this thesis is that every piece of research, analysis, and information offered by individuals is vital to contributing towards the successful future of Māori health and wellbeing.

Māori health research has previously uncovered significant discrepancies between Māori and non-Māori, which ultimately uncovered the need for Maori development. Māori health development is of utmost importance, addressing academic concerns raised by many researchers surrounding Māori health, and additionally for practical applications such as rectifying current inequalities and inequities that exist for Māori. The research indicates that Māori development will ultimately enhance the quality of life experience by Māori residing in Aotearoa.

When addressing the need for this study, it is important to thank various highly regarded Māori health experts that have contributed so knowingly and passionately to understanding Māori health. The research notes the contributions by Dr Mason Durie, and Dr Eru Pomare, and indicates these are just two such people that have utilised their depth of knowledge to ensure Māori health and Māori health research remains a key priority. Future research will build on the work produced by Durie and Pomare, to ensure the future health of Māori populations. To ensure success, young Māori must take charge and offer their personal experiences, thoughts and views, in order to contribute positively to future health development. The researcher notes that although there has been significant research undertaken regarding health trends and associated inequalities, it is evident limited studies are directed toward diabetic service provisions and integrated care pathways, specifically within the Taranaki region. Therefore the research insists that the

information provided throughout this paper is that within a relatively new field of study

Initially the thesis overviews the circumstances that contribute to poor contemporary Māori health, including colonisation and the Treaty of Waitangi. The aim of this is to present background information in attempts it will provide a broader understanding of the current Māori health climate. Included in this thesis is the researchers 2011 pilot study *'the importance of Podiatry on Māori health and wellbeing in Taranaki'*. This initial pilot study utilises the researchers' clinical experience, and addresses how Podiatric intervention and treatment methods can contribute to improved health and wellbeing for diabetic Māori within the region. This pilot study has been included as the researchers platform for development. The initial study concluded the need for ongoing Māori health research is of high priority and limitations discussed in the study suggest to the researcher that a broader topic must be researched, which would ensure adequate information, and would provide sound research quality. This aim of the researcher is to expand upon the pilot study, and establish reasons why contemporary research such the exploration of the importance of integrated services is to positively influencing the future direction of Māori health and wellbeing.

## **1.2 Thesis Organisation**

Chapter one introduces the thesis *"the importance of establishing an integrated service approach for diabetic Māori in the Taranaki region"*. Additionally, this section provides background information as to the current requirement for the research presented. Furthermore, this section includes the thesis organisation and structure, and established the researchers position.

Chapter two explored issues that contribute to contemporary Māori health concerns. This chapter addresses historical concerns which contribute to poor contemporary health experienced by Māori in Aotearoa. Additionally, this chapter introduces the Treaty of Waitangi and indicates how the three principles; partnership, participation and protection, were established within the Treaty of Waitangi and how the principles have influenced contemporary Māori health and wellbeing. The researcher also addresses Māori development, as a result of colonial activity and pressure.

Chapter three introduced the researcher's pilot study from 2011 '*the importance of Podiatry on Māori health and wellbeing in Taranaki*'. The pilot study was included in the body of the thesis as a platform for development to ensure defined future research for the purpose of the researcher Master's degree. The inclusion of the pilot study has introduced Podiatry, and how this service contributes to the enhancement of Māori health and wellbeing.

Chapter four will introduce the research '*The importance of establishing an integrated approach to diabetic care for Māori patients within the Taranaki region*'. This chapter aims to outline the research proposal, and methodology used throughout the project. This chapter will differentiate between Māori centred research and Kaupapa Māori research, and then address the approach undertaken by the researcher. This chapter also discusses the sample and data collection methods, whilst providing an overview of qualitative research.

Chapter five will investigate Māori health, with the foundations for health which are recognised as essential to positive Māori health and wellbeing are addressed within this section. Socio-economic disparity as experienced by Māori is detailed, whilst



Māori health priorities and effective pathways are explored throughout this chapter, in order to set the scene for an integrated approach.

Chapter six focuses this research on a primary Māori health concern, which is also a area of passion for the researcher. This chapter is used to discuss type II diabetes, Māori prevalence rates for type II diabetes in relation to where non-Māori are positioned and goes on to investigate why type II diabetes is an area of concern for Māori within New Zealand. Chapter four also introduces the various aspects of diabetes. For example, complications, treatment options, diabetes indicators, and prevention and screening methodologies that could be incorporated into an integrated approach to ensure the advancement of Māori health and wellbeing.

Chapter discusses the research undertaken and then expands on integrated care and services for Māori and type II diabetics. This chapter introduced the participants, and comments on the nature of services, access and education that the participating health practitioners have drawn on throughout their interviews. Throughout this chapter a discussion will be formed with input from participants and academics.

Chapter eight draws conclusions of the research and offers an overview as to how the initial aims and objectives of research have achieved. The researcher's thoughts and recommendations for future research are included within this chapter, and suggestions as to how an integrated service approach to diabetes management within Taranaki could be effective are established.

### 1.3 Positioning of the Researcher

The researcher has personal history, background and experiences that when combined shape the way in which this study was undertaken. Born in Christchurch to a Māori father Dale Atkins (Ngati Kahungunu and Ngati Raukawa) and a European Mother Leith Atkins (nee McLean) in 1988, the researcher had little involvement in te ao Māori during formative years. The lack of involvement was due to the researchers fathers' lack of Māori knowledge, and the researchers own inability to access the Māori world. The only involvement the researcher experienced during childhood was during Tangi for relatives. The researcher was instead raised with grounding in Christianity, which was long standing within the mother's side of the family. Following high school the researcher completed my Bachelor of Health Science (Podiatry), and began working as a Podiatrist. It is here the researchers passion for Māori health and development was realised.

The researchers opinions were dramatically changed when witnessing a continual stream of Māori patients walk in to the podiatric clinic in Marlborough, presenting primarily for diabetic related complications. It was evident that the researcher was surprised by the outcome, however it brought about a sense of urgency, and hope that as a Māori health professional the researcher had the potential to not only treat patients immediate symptoms, but also address other needs such as educating individuals and teaching life skills in order to reduce risk factors associated with poor Māori health.

Following six months of Podiatric work, the researcher came to the conclusion that watching patients and treating end stage disease symptoms did nothing to contribute to the enhancement of Māori health. Therefore, the researcher resigned from Podiatry and began a Post Graduate Diploma in Health Science (Māori Health),

which subsequently led to the progression to a Masterate Degree in Health Science (Māori Health). It is the passion and desire of the researcher to be able to contribute to ensuring the development and advancement of Māori health and wellbeing that has assisted in the development of this thesis.

This thesis has provided the researcher with the opportunity to explore diabetes, and its effect on Māori patients in a safe environment. Overall, this research has allowed the researcher to address an area of immediate concern, and research an area of Māori health and development which has the potential to enhance Māori health and wellbeing throughout New Zealand.

#### **1.4 Defining Effective Services for Māori**

Ball (2010) indicates that Māori must be given the opportunity to define what effectiveness, appropriateness and quality of service means for them as a population. Ball (2010) goes on further to imply that the effectiveness of services aimed at Māori patients relates to the setting of goals that are reflective of Māori aspirations for the health and wellbeing of the population. However, for the purpose of this thesis the researcher will use Ball (2010) idea that suggests 'success or effectiveness' of services for Māori are considered to contribute to these four dimensions;

- a) Improved health outcomes.
- b) Improving social determinants of health.
- c) Reducing inequalities.
- d) Whanau and community self-determination.

The four dimensions described above will ensure the health and wellbeing of Māori are addressed in a more holistic sense, whilst guaranteeing services provided to Māori are of a high standard.

Effective services for Māori are considered to be those that take into account the unique history and culture of Māori, which respond accordingly to their individual needs and aspirations (Ball, 2010). For services to be effective initial steps need to be taken through local governance, to ensure Māori participation in management, and service provision to guarantee acceptability and utilisation of the service will occur.

## Chapter Two

# SHEDDING LIGHT

### 2.1 Introduction

Māori health appears to be a cause for concern. This first chapter 'Shedding Light', will briefly explore contemporary health, and the health issues associated with Māori in New Zealand. The inclusion of Māori health development and the colonial process of Western influence are discussed within this chapter, as an important milestone to reaching acceptable Māori health status.

The researcher did not include this chapter with the intention to start the research off on a negative note. It should however be viewed as a building block, in which positive ideas and outcomes are to be presented throughout this research. The researcher's idea is that this chapter will encourage the thinking processes of the audience, whilst exploring what is really required for Māori health to be successful for future generations.

Contribution and effort are required in order to improve Māori health and wellbeing. The Capital and Coast District Health Board (2006) District Strategic Plan 2006-2012, acknowledged that "Maori have a higher burden of disease than most ethnicities" (p. 23). From this statement, the researcher suggests that current Māori health status requires immediate attention from national level governance in order to assess and develop policy and legislation to ensure better services and systems are introduced which will provide optimal benefit for Māori patients. Overall, it is acknowledged the health and wellbeing of Māori is poorer than non-Māori (Baxter,

2008). With intervention, the government will ensure both regional and national level sectors are aware of the concerns, whilst also suggesting that improved processes must be put in place to ensure positive health gains are achieved.

## **2.2 Colonisation**

The intervention of local and national government which aims to assist the Māori population to better their health is a positive step in the right direction. However, it is what historical factors have led Māori health down this descending spiral that must be addressed to ensure all areas are equally assessed. Analysis and understanding of Māori health and development can only be recognised if all events are considered, therefore pre and post colonial activities are overviewed in this section. Colonial processes are considered to have contributed greatly to the poor contemporary health status of Māori. More importantly, they illustrate how ongoing global influences on Māori health still remain relevant for today's society.

Researchers Manaia and Hona suggest people must understand that change will not occur overnight, and Māori health development cannot immediately influence the way in which health is addressed is important to consider for the health and well being of future Māori (Manaia & Hona, 2005). Manaia and Hona provide a critical piece of information useful for consideration when addressing Māori health and the ongoing effects of colonisation. This section uses the process of colonisation and the ongoing assimilation processes of British dominance within Aotearoa to ensure the audience is fully informed.

The colonial history of Aotearoa is important to consider when assessing Māori health and development, as it is this process that initiated the need for Māori

development in order to strengthen the Māori population (Durie, 1994). Colonial processes throughout the 18<sup>th</sup> and 19<sup>th</sup> centuries have influenced the lifestyles of indigenous people throughout the Pacific region, mainly by European dominance. This movement includes the British colonial process which affected Māori in Aotearoa (Anderson et al., 2006). Māori life during the colonial period was changed dramatically as a direct result of colonisation and the associated loss of land, cultural identity, and traditional methods. The outcome of colonisation disrupts socio-cultural, economic and physical domains of Māoridom critical to positive Māori health. The movement “upset the balance upon which good health rests” (Wilson & Richmond, 2009, p.365). The British colonial event is said to have contributed to the decline of the Māori population, radically impacting Māori population from an estimated 150 000 in 1800, to a figure of 42 000 in 1896 (Kingi, 2007).

The British colonial process resulted in the decline of Māori health (Durie, 1994) Contemporary patterns of health and social suffering are reflective of the combined effects of colonial oppression and systemic racism experience by Maori during this period (Wilson & Richmond, 2009). Colonisation led to cultural alienation as Western ideology transformed Māori lifestyles, and encroached on Māoritanga, including social organisation, traditions, language, and interfered with ideas that had formed the platform of the Māori world (Durie, 1994). Colonisation established an unequal power relation that has since contributed to the on-going battle of equity and equality between Māori and non-Māori (Wilson & Richmond, 2009). Wilson and Richmond suggest it was an assumption by British of their superiority, which placed of the values of Western lore are a justification for colonisation. At this time it is noted the British considered the traditional ideals of Māori to be irrelevant. The researcher, when considering all the factors, would suggest the influence colonisation had on Māori society is significant, and has shaped the way in which contemporary Māori health and development has

been expressed and is approached at present. Wilson and Richmond suggest that acknowledgement by the New Zealand government in to the impact colonisation has had on social, economic and political factors are crucial to future Māori development and health advances (Wilson & Richmond, 2009).

### **2.3 Whenua loss: the result of colonial pressures**

The concept that whenua (land) is central to Māori health and wellbeing. Whenua is a critical component, which has the ability to enhance understanding and recognise the negative impact land confiscation had on Māori during the colonial period. Mark & Lyons (2010) indicate that the relationship held by the indigenous peoples (Māori) to their land is representative of their holistic concepts relating to health, and more importantly directs the way in which health development could be approached. This section addresses the role whenua played to improving health, and how colonial pressures stripped this bare.

Durie (2001) recognises that Māori identity is directly linked to the physical earth. It is understood that the earth formed an integral component in Māori creation. Durie indicates Māori views that the physical earth was the resting place of ancestors and was also important for history and traditions (Wilson & Richmond, 2009). The bond formed between Māori and whenua is further enhanced by Sheppard (n.d) who writes whenua was often referred to as the 'earth mother' and held in high regard throughout Māori history. Sheppard indicates that for Māori, whenua has the capacity to provide everyday requirements for ongoing health and survival, ensuring food, water, medicine and resources for shelter are available, and in exchange Māori cared for, and loved the land.



The narrow view held by Western colonial settlers regarding the importance of this relationship for Māori. This is easily illustrated through the dominating demeanor in which land was forcefully removed from tribal ownership across New Zealand (Sheppard, n.d). Sheppard proposes that land sales throughout New Zealand were of huge concern to Māori, suggesting this action depleted resources and control. Colonial settlers enforced the sale of tribal land by manipulating the poor economic state of Māori wellbeing. Sheppard indicates that approximately three millions acres of tribal land was forcefully removed from Māori ownership, suggesting Māori ultimately had little say in the sale process of land.

Land not only provided for the physical needs of Māori, but catered towards the populations spiritual wellbeing too. The histories of whanau were held strong upon tribal land, as well as the associated and recorded land titles and claims (Sheppard, n.d). Sheppard's report that linked Māori land and health together strongly describes how land loss tragically contributed to poor Māori health status.

There was no land for which there were not claimants. There was no hill or river that was not known, and whose history could not be recounted. Loss of land was loss of that part of life, which depended on the connections between the past and the present, and the present with the future (Sheppard, n.d, p. 2).

The large-scale alienation of Maori land that followed had negative implications for Maori wellbeing, which was so closely associated with tribal land ownership. New Zealand colonial history regarding the confiscation of land from Māori has been brought to the forefront of Māori development, with the establishment of the Waitangi Tribunal in 1975, in accordance with the Treaty of Waitangi (the Treaty) (Waitangi Tribunal, 2011). Māori can approach the Tribunal and make claims

surrounding any actions that oppose the Treaty, such as the ill treatment and confiscation of tribal land, with the purpose of the Tribunal to act as a commission of inquiry, and direct recommendations accordingly (Waitangi Tribunal, 2011)

Although the idea of integrated services within the Taranaki region cannot reduce the pain and grief experienced by Māori during this time, it can work to achieve a healthier future. A future that recognises the past, and uses mistakes to take positive steps forward.

#### **2.4 Assimilation; Colonial policy**

Colonial policy is a topic in which the Crown demonstrated full power and took a stance of authority. In this section, assimilation through policy will be reviewed, in order to prove how the government removed the rights of Māori people, and in doing so diminished their ability to work to achieve aspiration. These actions ultimately resulted in poor health status, and the contemporary requirement of Māori health development.

The colonial government's policy on assimilation was created in order to establish a hierarchal system of knowledge. The system suggested that western institutions were superior to that of Māori, which ensured the government informed the way Māori would live (Laing & Pomare, 1994). Laing and Pomare (1994) suggest one way in which Western amalgamation was sought was the introduction of Western based medicine at this time. The idea that western ideas were considered stronger and truer than Māori based traditions was thought to encourage a reliance on established western ways (Wilson & Richmond, 2009). Therefore the opinions and

views expressed by the British and the use of non-Māori versus Māori comparisons of health were introduced to prove Māori methods were influencing inferior results when directly compared with western methods (Ministry of Health, 1998).

Amalgamation of Western lifestyles on Māori did not solely rely on health related activities, as Durie (1994) reports the New Zealand colonial government made the practice and traditional recognition of Te Reo Māori language illegal. The prohibition of language contributed towards cultural surrender and cultural insecurity (Wilson & Richmond, 2009, & Jones, 2000a)

Assimilation of western methods ultimately contributed towards the disintegration of health experienced by Māori when compared with non-Māori. The comparisons drawn between the vastly differing cultures have continued to influence contemporary Māori health status and wellbeing.

## **2.5 Te Tiriti o Waitangi**

Kingi (2007) presented a paper with reference to the Treaty of Waitangi being the framework for Māori development, in which Kingi indicates the Treaty itself is important to consider when approaching how it can be applied to Māori health research and development. The Ministry of Health (2002) is required to use the Treaty of Waitangi to direct change and development. Indicating the influence the document has for the direction of the New Zealand government, and overall enhancement of contemporary health and wellbeing for Māori. Therefore, understanding the background of the Treaty and its individual history is critical to ensuring Māori health research and contemporary development is suitable for Māori.

Te Tiriti o Waitangi is regarded as the founding document of New Zealand, signed on the sixth of February 1840, the document acts as a formalisation of the relationship between Māori and the British crown (Kingi, 2007). Kingi argued that the Treaty of Waitangi is ultimately a treaty of cessation. The founding of the document initiated the transfer of governance from Māori to British settlers, in exchange for what Māori believed to be full and exclusive rights to protection, offered by the Crown to all its British subjects (Kingi, 2007; Waitangi Tribunal, 2011). In reality Kingi indicates that the colonial government forced Western ideology on Māori peoples, and that the governance of New Zealand would be based on the Westminster-style of government and that this system would be sufficient to protect the interests of Māori.

The Treaty of Waitangi has strong ties with Māori health development, with research Kingi (2007) suggesting that although the Treaty does not specifically name Māori health development, the health needs of Māori remains a fundamental cause to its development and inception. This obligation to protect Māori was to ensure equal access to health care, like that experienced by British citizens. Central to understanding the relevance of the Treaty in modern society, is the idea that it should be regarded as a living document (Jones, 2000a). There are in fact two ways in which to interpret the Treaty's relevance to health. First is based on specific Treaty text, and the second focused on the understanding of the principles of the Treaty, established by the Waitangi Tribunal.

The reference towards Māori health is alluded to in both the Māori and English translations, with Articles II and III of the English version discussing the Crown's guarantee of royal protection (Kingi, 2007). Article III extended royal protection for all Māori, in which the Queen guaranteed they will live in New Zealand protected under the same rights offered to British citizens (Waitangi Tribunal, 2011). Protection of Māoritanga and self-governance is promised in Articles I and II of the

treaty. Thus suggesting to this researcher that a relationship between Māori and the government would have the potential to protect all aspects of te ao Māori, whilst ensuring Māori have the right to live as Māori, retain their authority and manage their own affairs.

The second approach to the application of the Treaty on Māori health, is the use of the principles of partnership, protection and participation (Kingi, 2007), established by the Waitangi Tribunal in order to guide how the Treaty may be applied to contemporary Māori lifestyles (Waitangi Tribunal, 2011).

“The principle of Partnership is derived from the original Treaty Partnership and from a health perspective places an obligation on the crown to include Māori in the design of health legislation, policies and strategies” (Kingi, 2007, p.5). The concept of partnership is referenced in Article II, which has proved necessary for contemporary Māori approaches to health and wellbeing. Partnership places obligations on the Crown to work with Māori to ensure the betterment of health (Jones, 2000b). The principle of partnership addresses Māori rights to authority and suggests Māori should actively participate in determining their own health, with the assistance of the government. Jones (2000b) indicates that the principle of partnership was established within the Treaty as a direct response to Māori health and wellbeing. The Ministry of Health suggest the Principle of partnership has that potential to ensure a more equitable approach to Māori health is achieved, whilst moulding the ability of the Crown partners to develop strategies and policies that will ultimately be beneficial to Māori and their health interests (Ministry of Health, 2002).

The principle of protection draws on article three of the Treaty of Waitangi, alluding to the Crown's promise to all Māori that they will be entitled to all the benefits of

royal protection and full citizenship vital for equality (Waitangi Tribunal, 2011). Kingi (2007) states that the reference to royal protection is imperative to Māori health and development. The promise of equity between Māori and non-Māori provides an indispensable platform of obligation on the Crown to address health disparities. This includes an obligation to recognise Māori understandings of health and aspiration in order to achieve improved health outcomes utilising Māori development mechanisms.

Participation emphasises the principles of partnership and protection. The idea of Tino Rangatiratanga ensures Māori will have the ability to participate in the development, and overall delivery of health services that will prove beneficial. (Kingi, 2007; Ministry of Health, 2002). Kingi argues that historically, Māori participation within the health system has been limited to the role of consumer, Kingi goes on to suggest that even in this role, access was not consistent. Access to health care services and treatment providers is a major contributing factor to health disparity experienced by Māori, however with the increased awareness of the role the treaty has within the sector, ongoing developments associated with health policy and legislation should address this issue.

The text of the Treaty as interpreted by the Ministry of Health (2002) implicitly suggests the Crown is required to consult with Māori on issues that affect Māori people. Thus, the principles outlined within the Waitangi Tribunal should significantly influence the approach the government takes towards Māori health. Researcher Oh (2005) perspective of this same topic indicates that the principles established within the Treaty only provide a moral framework for policy development, in which encouragement of Māori to participate in guiding health is the outcome, as opposed to the direct influence it has on policy action. Kingi (2007) combines these two opinions and writes that the principles of the Treaty promote the development of Māori health and wellbeing, suggesting the actual degree to

which the Treaty has been influential in directing policy development to date relies on the way individual government applies it to the various situations (Kingi, 2007).

Ministry of Health (2002) writes

As a population group, Māori have on average the poorest health status of any ethnic group in New Zealand. This is not acceptable. The Government and the Ministry of Health have made it a key priority to reduce health inequalities that affect Māori. If Māori are to live longer, have healthier lives, and fulfill their potential to participate in New Zealand society, then the factors that cause inequalities in health need to be addressed. (Ministry of Health, 2002, p.2)

Suggesting that the Treat of Waitangi and the principles established within the document, will positively contribute to the development of Māori health in New Zealand. This statement indicates that poor Māori health, and the reasons behind it have been identified, and strategies are being implemented to ensure concerns are addressed.

Overall, Te Tiriti o Waitangi can be described as a living document that ensures Māori health development can occur throughout New Zealand, for the benefit of not only Māori people, but also New Zealand as a whole population. The Treaty is essential to ensure Māori needs are catered too, and disparity commonly seen between Māori and non-Māori is comprehensively addressed. The researcher suggests this thesis is based on the immediate health concerns of a large group of Māori, suggesting throughout the report the three principles are inherently covered to guarantee ongoing development within the diabetic area of Māori health.

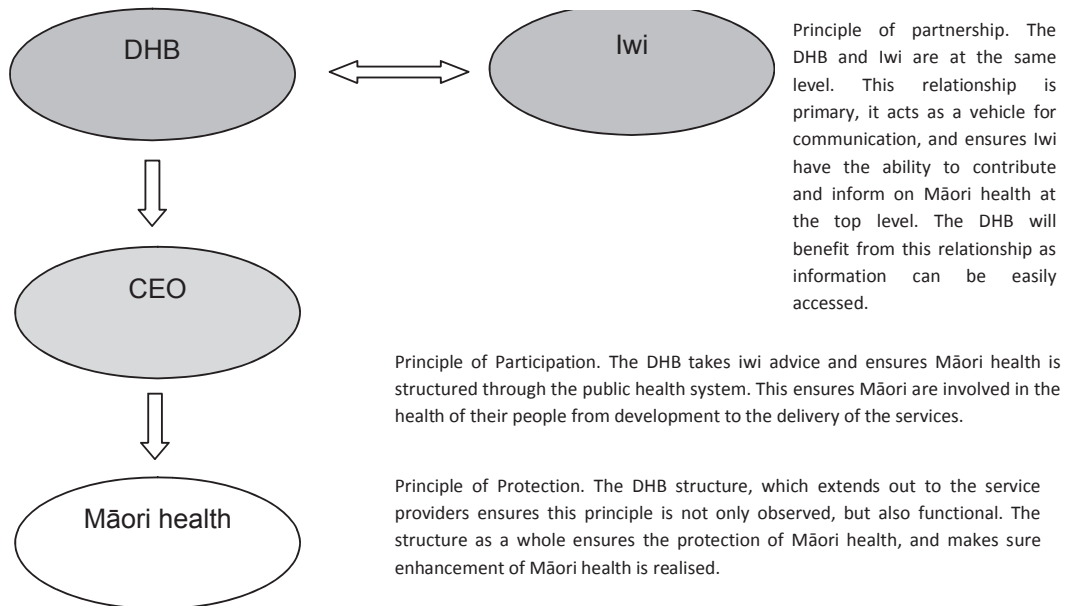
## **2.6 Te Tiriti o Waitangi; Its impact on Taranaki District Health Board**

The historical process of colonisation assisted in the demise of Māori health. However, what has since risen from a horrific event has the potential to ensure Māori health and wellbeing throughout New Zealand is positively enhanced. If policy and procedure is to address Māori health concerns, District Health Boards and other influential service providers must ensure Māori priorities are considered when strategising and developing ideas for the future. This section expands on the principles established within the Treaty of Waitangi and shows how the inclusion of these at local level has the potential to enhance the health and wellbeing experienced by Māori within the region.

The Treaty of Waitangi and the principles established within the Treaty should significantly impact the way in which District Health Boards operate. The principles outlined in the Treaty of Waitangi, and with specific reference to the principles of partnership and participation have the ability to shape the structure of all Health Boards, especially the Researcher's chosen region which includes the Taranaki District Health Board. The influence the Treaty of Waitangi has on this District Health Board will ensure there is ongoing involvement of iwi and local Māori to safeguard Māori aspiration for health and contribute to the development of future policy and ongoing management and integrated service plans. The development of a culturally sound District Health Board is illustrated below, and suggests how each of the three principles is established within the structure.



**Taranaki District Health Board Structure;**  
with guidance from Treaty of Waitangi



*Source: Taranaki District Health Board, 2006*

Integration of the principles is enforced throughout the structure of the Taranaki District Health Board (Taranaki District Health Board, 2006). This particular structure adopted by Taranaki ensures opinions and input of Iwi and local Māori are heard and inclusion of service providers input will ensure an integrated service system that is able to meet the on-going and ever changing health needs of Māori in Taranaki. The researcher suggests relationships between the various individuals could be further developed in order to enhance contemporary Māori health development.

Ministry of Health (2010), expects all District Health Boards will direct resources to the areas of highest demand, and will also assess current Iwi and Māori working relationships, in order to develop effective strategies to enhance Māori health. The Taranaki District Health Board presents a structure illustrated previously, which

indicates many of the key priorities discussed by the Ministry of Health are achievable. The achievement of these priorities is directly related to the structure prioritising and allocating resources for Māori health based on regional ethnic data received through the District Health Board and iwi partnership.

The researcher therefore suggests that the way in which the Taranaki District Health Board is structured would allow for an almost seamless integration of appropriate services. These services would address the various requirements of diabetic Māori patients in the Taranaki region. An integrated service approach to diabetic care should address ongoing concerns voiced by Māori and health providers, which suggest some services are not yet capable of dealing solely with diabetes. The spread of expertise established if utilising an integrated approach would ensure different health professionals views and opinions are sought, to ensure the process of treatment, education and diabetes management is enhanced. The integration of services and improvement of practice could potentially encourage utilisation of services for Māori.

## **2.7 Policy and Legislation**

The introduction of legislation and policy is a response to the principles established within the Treaty of Waitangi. Policy and development are proposed to generate an atmosphere in which Māori health will thrive. The policies aim to reduce disparity of health experienced by both Māori and non-Māori. The development of policies can be used as an exploration topic, in which a student Widodo (2007) directed research on what policies provide beneficial means to reducing disparity. Widodo (2007) established the intention of the Ministry of Health is to enable a more responsive system suitable for Maori, arguing that the restructuring of the health system would open up further opportunities for Maori health to thrive, ultimately improving

access to health and strengthening Māori health status. This section will explore some of the policies founded within the modern era, and analyse how they are used to encourage enhance Māori health and wellbeing, and discuss how these can be influence the establishment of an integrated service approach in Taranaki.

The Crown has a desire for Māori people, which suggests Māori, as individuals will contribute to improving their own health outcomes. The input of Māori at this level led to the development of the New Zealand Public Health and Disability Act 2000 (Ministry of Health, 2000). The purpose of the New Zealand Public Health and Disability Act, No 91 (2000) suggests the Act was structured for the benefit of the public health sector, and in doing so set the roles of the Minister of Health, various committees and District Health Boards as Crown partners.

The purpose of the New Zealand Health and Disability Act;

- to achieve for New Zealanders—
  - (i) the improvement, promotion, and protection of their health:
  - (ii) the promotion of the inclusion and participation in society and independence of people with disabilities:
  - (iii) the best care or support for those in need of services:
- (b) to reduce health disparities by improving the health outcomes of Maori and other population groups:
- (c) to provide a community voice in matters relating to personal health services, public health services, and disability support services—
  - (i) by providing for elected board members of District Health Boards:
  - (ii) by providing for board meetings and certain committee meetings to be open to the public:

- (iii) by providing for consultation on strategic planning:
- (d) to facilitate access to, and the dissemination of information to deliver, appropriate, effective, and timely health services, public health services and programmes, both for the protection and the promotion of public health, and disability support services.

(New Zealand Health and Disability Act, No. 91, 2000, p.1)

The New Zealand Public Health and Disability Act is regarded as a prominent piece of legislation, which has set a platform for which the New Zealand government must ensure the enhancement of Māori health status, whilst reducing the disparities experienced between Māori and non-Māori people. The Act also emphasises the improvement in the delivery of health services, by enhancing Māori participation at development level (Kingi, 2007 & Ministry of Health, 2000). This Act directs strategic policy, and ensures the outcomes will be beneficial for all New Zealanders. Research conducted by Kingi (2007) reports the Act did not result in any immediate changes seen in Māori health statistics however, it did act as a tool for further health development. This inherently proved the Treaty principles could be applied to policy (Ministry of Health, 2000).

### **He Korowai Oranga**

The New Zealand Health and Disability Act 2000 was followed in 2002 with the introduction of 'He Korowai Oranga', The Māori Health Strategy 2002. This new document incorporated the principles of the Treaty, and set a new direction for Māori health development (Ministry of Health, 2002). This strategy recognised Māori ambitions for self-determination and supported this, whilst suggesting the government is along with Māori are committed to the improvement of Māori health status (Ministry of Health, 2002). It is important to note that this strategy

acknowledges holistic health models such as Duries' Te Whare Tapa Wha, as critical to the resurrection and affirmation of Māori health and development (Ministry of Health, 2002). The Ministry of Health (2002) suggests He Korowai Oranga is proof that obligations for Crown partnerships with Māori are fulfilled through its application of the Treaty principles. Oh (2005) indicates through research and analysis into the application of principles on the strategy would indicate that they have been applied only as an enabling framework in He Korowai Oranga to engage Māori with the health sector.

It is clear the strategy incorporates the principles of the Treaty by encouraging partnerships. This suggests regional health boards, as Crown partners work and form relationships with iwi, hapū, whanau and Māori communities within their region to encourage participation, and develop strategies which contribute to positive health (Kingi, 2007 & Ministry of Health, 2002). Participation is integrated where the Crown involves Māori throughout all levels of health services, from the initial planning stages through to the delivery (Oh, 2005). The third and final principle of protection is included in this strategy as it works to ensure Māori are being provided necessary services in the hope to reduce health inequalities between Māori and non-Māori (Ministry of Health, 2002).

He Korowai Oranga acts as a strategic tool, fostered to develop Māori health and reduce inequalities experienced between Māori and non-Māori. Utilising Māori tools and methods this strategy is a vehicle for positive Māori health development. Policy development provides a means for change, and the recent changes to policy and the introduction of this strategy demonstrates the changing nature and importance research of racial health disparities have put on the New Zealand government (Ministry of Health, 2002).

The recognition of Māori ideas, which previously have been shunned by Western superiority is a huge step for the New Zealand government, and in doing so proves

to Māori peoples that traditional Māori beliefs are gaining credit. The impact He Korowai Oranga has on realising Māori potential is important when addressing how establishing an integrated service approach could be beneficial for diabetic care for Māori patients. He Korowai Oranga ensures that Māori opinions and values are protected, whilst encouraging the advancement of health within the population.

### **Whakatātaka Tuarua**

Whakatātaka Tuarua followed the introduction of He Korowai Oranga, and is the second Māori specific health action plan. The Ministry of Health (2006) demonstrates the maturing and strategic implementation of He Korowai Oranga. The aim of this strategy was to support Māori families and assist them with achieving positive health. This second strategy ensured whanau are included at the centre of public policy development (Ministry of Health, 2006). The Māori health action plan encouraged participation of iwi, hapū, whanau and Māori communities with the hope that their ongoing input and expertise regarding what their communities required would contribute to improved health and development for Māori (Ministry of Health, 2006).

Whakatātaka Tuarua, whilst providing strategic direction for improved Māori health, shifted focus of Māori health development from increasing Māori providers to building on the foundations of good health (Ministry of Health, 2006). A heavy burden is currently placed on mainstream providers with the Ministry of Health (2006) indicating that the focus of previous policies has been on solely increasing the number of Māori health care providers. The development of Whakatātaka Tuarua shifts away from this idea, indicating that the providers already working predominantly within the mainstream practice is sufficient to provide care. The Ministry of Health do however offer their opinion as suggest is the knowledge in

which these practices are based, which must be addressed in order to provide quality of care to both Māori and non-Māori (Ministry of Health, 2006)

Whakatātaka Tuarua has the potential to guide the development of a culturally appropriate approach to integrating services and providers for the management of diabetes in Taranaki. This policy would ensure that the foundations essential to Māori health are catered to, which in turn should encourage utilisation by Māori.

## **2.8 Māori Development; A Realisation of Maori Aspiration**

Maori people, along with the New Zealand government have aspirations for Maori health. What these aspirations consist of, and if Maori and Western aspirations for Maori health are similar need to be discussed. In order for Maori health development to strengthen Maori health status and current aspirations need to be defined. This section will define Māori development, and overview how Maori health development can be achieved.

### **Māori Development**

Māori development is the advancement of Māori, which includes the economic, social and cultural advancement of Māori in modern society (Durie, 2005). The origin of Māori development “stems from Māori aspirations for great autonomy, revitalisation of culture and language and a more direct role in delivery services to Māori” (Durie, 2005a, p.1). Durie suggests that Māori development was introduced in order to advance Māori culture and ideals following colonisation (Durie, 2005b).

Māori development is therefore essential to ensure Māori needs are requirements are catered met, in order to protect Māori people and culture.

Māori development has broadened the focus of Māori potential, Durie suggests four board themes were established in 1984 which contributed to some change. This improved approach to Māori lifestyle was welcomed by Māori people in 1984, and since its inception has ensured Māori needs are central to government and political reforms. Hui Taumata was held in 2005, where Māori development was the focus and the realisation that priorities set in 1984 were necessary, however directional shift was required. From this hui, seven priorities emerged:

- Focus on future not past
- Concern for whānau and iwi
- Engagement in collaborative networks
- Multiple partners
- Innovation and enterprise
- Governance and leadership
- Greater attention to results rather than process

(Durie,2005b, p.3)

In conclusion, Māori development is the realisation that Māori have potential to achieve. Governmental and directional change will ensure this potential is met, whilst also safe guarding Māori lifestyle and traditions. Māori development can be integrated at many levels including Māori health development, which will ensure that the health of Māori is enhanced in a way that produces positive outcomes for all involved.

### **Māori Health Development**



Māori health development is a realisation of Maori aspirations and the understanding that Maori have different priorities for their people as opposed to non-Maori (Durie, 1994; Ministry of Health, 1998). Key to this idea is the responsibility the government has in ensuring Māori receive support for this direction. The philosophy of Māori development takes a holistic approach responding to health, employment, education and housing according to need. It is suggested that development and future Māori health status relies on establishing strong Māori leadership (Durie, 1994). Leadership for Māori, by Maori will ensure a coherent and positive understanding of Maori philosophy, suggesting that Maori do not wish to be compared to non-Maori (Durie, 1994).

“Health is about people and Maori health development is essential to Maori defining their own priorities for health and then weaving a course to realise their collective aspirations (Durie, 1994, p.1). Maori development is a direct response to inequalities and inequity of health experienced by Māori and is established through the enhancement of rangatiratanga. Durie (1994) defines Maori health suggesting it is more about what Maori people believe are goals necessary for the enhancement of health and then the application of Maori knowledge to achieve this purpose. Durie (1994) continues this discussion by stating central to Maori health development is the goal of Maori control, which throughout history has proven essential in order to achieve success.

The Ministry of Health (1998) support the idea that Maori aspirations differ to non-Maori and propose that Māori health outcomes should not be directly compared with non-Maori outcomes. Durie (1994) highlights three alternative measures to assess health and wellbeing, which although have not been applied within any

current framework, have the potential to mark and achieve desirable Maori outcomes (Ministry of Health, 1998).

**Table 2.1 Duries alternative approach to measuring Maori health**

<b>Whanaungatanga</b>	A measure of how whanau are able to carry out their various tasks including care, redistribution of goods and services, guardianship, empowerment and future planning
<b>Kaumātua resources</b>	Maori estimates of the health or strength of a family or tribe are closely linked to the number and strength of its elderly population
<b>Mauri</b>	Which encompasses spiritual and physical dimensions, individual and group health, human and environmental forms.

*Source:*Ministry of Health, 1998, p.4

In conclusion,improved Māori development has led to positive Māori health development. The achievements to date have provided a strong base of support, however further work is required to ensure the health and safety of Māori is protected. The development of Māori health ensures advancement for health goals and achievements which aim to eliminate disadvantage and ensure a health future for Māori in Aotearoa.

## **2.9 Conclusion**

It is hard to distinguish what components have had the greatest impact on Māori health. This chapterdiscussedhow colonisation and western assimilation throughout

Aotearoa has had a detrimental effect on contemporary health and wellbeing of Māori within the country. It is explained within this chapter that poor Māori health is not an isolated event, but is associated with the process of colonisation, ultimately motivating the need for, and ongoing development of Māori health.

Ultimately, Māori health development must utilise both historical and contemporary research in order to create positive changes within the Māori health and wellbeing sector. In doing so, Māori needs will be met, and enhanced health and wellbeing will be established for future generations.

The establishment of relationships between service providers, health professionals, iwi and District Health Boards is vital to success. The development of these powerful and knowledgeable relationships are recommended within the principles of partnership and participation established in the Treaty of Waitangi. These relationships will encourage and support the introduction of integrated services in response to heightened requirement. This is just one way this researcher suggests the health concerns and needs of diabetic Māori could be met within the region.

### **Chapter Three**

## **2011 PILOT STUDY**

### **'The importance of Podiatry on Māori health and wellbeing in Taranaki'**

#### **3.1 Introduction**

In 2011 this researcher completed a research exercise as part of a Postgraduate Diploma of Health Science (Māori Health). This particular pilot study was used to analyse the Podiatric services provided throughout the Taranaki region. This pilot study also assessed how Māori diabetic patients were received, treated and educated about diabetic foot issues and complications. The researcher decided to include this section to briefly overview the initial research exercise. The basic analysis of Māori health and diabetic services was undertaken throughout the pilot study, which has since led to the evolution of the current research and thesis.

The pilot study addresses the importance podiatry has on Māori health and wellbeing within the Taranaki region. The pilot study was qualitative by nature, involving interviews with podiatrists employed within Taranaki. These health professionals work to provide services through both the Taranaki District Health Board diabetic scheme and the private sector. There is little evidence supporting podiatric care amongst Māori patients. This report specifically focuses on podiatry, predominantly due to the researcher's background and also as it is an area that has little supportive evidence.

Podiatric services are predominantly concerned with type II diabetic complications, resulting from microvascular failure. Microvascular complications affect peripheries such as a person's eyes and fingers, and can also

have serious consequences for the feet. Diabetic podiatry is the assessment, and treatment of the effect micro vascular complications have on the foot, specifically of the blood supply to the feet. The treatment involves assessing pedal pulses, vibration sensation, and touch proprioception, along with hot and cold recognition. If the blood supply to patients lower extremities is compromised it can lead to consequences including high pressure areas, sores, infection, gangrene and possible amputation.

The Taranaki District Health board currently provides diabetic podiatric services through private providers to patients throughout the region. The aim of this service as reported by the Taranaki District Health Board (2009) is to prevent lower limb amputations caused by diabetes. This is achieved by ensuring that early and effective management of foot ulcers is undertaken. It is reported that people at risk, such as those of Māori and Pacific Island background are monitored on a regular basis, and basic palliative podiatric care is provided.

### **3.2 Aims of the pilot study and Sample**

As Māori health is a great concern at both regional and national level, this report aims to address the importance of podiatry on Māori health and wellbeing in Taranaki by;

1. Identify the existing podiatric services within the region
2. Investigate the nature of their podiatric practices
3. Determine the influence podiatrists have on Māori patients and Māori health and wellbeing.
4. Establish the importance podiatry has on Māori health and wellbeing within the Taranaki region.

All qualified, registered and currently practicing podiatrists within the Taranaki region were invited to participate in this pilot study. Two podiatrists responded positively and agreed to participate in the study. The podiatrists were then advised of their rights and signed consent forms which were developed by the research, with the assistance of a supervisor. Each Podiatrist was interviewed at a location of their choice, for approximately one hour. Digital recordings were taken of each Podiatrists interview, and transcribed following the conclusion of an interview. One copy of each recording was kept electronically by the researcher, to ensure confidentiality for each Podiatrist. The limited sample size could be attributed to the limited profession of Podiatrists in the Taranaki region.

### **3.3 Data collection method**

The two podiatrists interviewed for the purposes of the pilot research were recruited through acceptance of an invitation for participation. The invitation was extended to all podiatrists throughout the Taranaki region. The two podiatrists that responded positively were keen to assist the researcher. The researcher met with the podiatrists individually at their practices, and advised them what the study entailed and how they could individually assist. At the conclusion of each meeting, the Podiatrist signed a consent form indicating their acceptance of the terms set out.

Podiatrist one and two were then interviewed individually at a locations determined by them, for an approximate duration of one hour each. Interviews were recorded with the podiatrist's written consent. In regards to security and privacy, following the interview the recordings were saved to the researcher's computer and assigned

with a number. Confidentiality was also ensured by excluding identifiable features of the Podiatrist. The digital recordings were then deleted from the voice recorder. The computer files were later transcribed into a word document, with the same care taken to ensure identifiable features were minimised. Due to the small podiatrist profession working in the Taranaki region, each participant was made aware that with such a limited sample size some identifiable factors may be obvious.

### **3.4 Background information**

#### **Type I & II Diabetes Mellitus**

Diabetes mellitus types I and II are both serious health concerns that will effect many people throughout their lifetime. Taranaki District Health Board (2011) indicates that 85-90% of diabetics suffer from type II, which is characterised by a heightened blood glucose level. Edmonds & Wall (2002) report that Type I diabetes is insulin dependent diabetes. Edmonds and Wall go on to suggest that it indicates an almost complete absence of effective insulin (Edmonds & Wall, 2002). The majority of diagnoses made for Type I diabetics are for people less than 30 years of age.

Type II diabetes differs from Type I, primarily in the fact that it is a non-insulin dependent form of the disease (Edmonds & Wall, 2002). Edmonds and Wall suggest that this form of the disease is due to insulin resistance, rather than the lack of effective insulin (Edmonds & Wall, 2002). Therefore, the patient's tissue becomes less sensitive to the effects of insulin. Type II diabetic patients are responsible for keeping their blood glucose levels at a safe balance, by alternative means including lifestyle changes, in which may lead to a change of diet to ensure low glucose and ongoing weight loss (Edmonds & Wall, 2002).

## **Prevalence of Diabetes**

The Taranaki District Health Board reports that within Taranaki in 2006 and 2007 the prevalence of type II diabetes was 3.2%. These statistics have increased over time, as 2010 figures indicate the prevalence rate of type II diabetes for the total Taranaki population to be 5.0% (Taranaki District Health Board, 2011). Two Auckland based Podiatrists and diabetic podiatric specialists Ihaka and Rome, report that “the prevalence of diabetes and its associated manifestations is higher in New Zealand Māori than New Zealand Europeans” (Ihaka & Rome, 2011, p. 1). This research indicates the possibility that significant disparities exist within the health sector between Māori and non-Māori. Baxter supports the argument made by Ihaka and Rome whom suggest that for Māori, the risk could be even greater (Baxter, 2002). Reports from the Taranaki District Health Board (2011) support this research and estimate that the true prevalence rate for Taranaki Māori could be as high as 5.3%. The evidence provided by all sources indicates that initiatives and interventions aimed at reducing prevalence and diabetic risk factors should be defined. This in turn would contribute to the enhancement of quality of life for Māori.

## **Modelling Mortality**

The Ministry of Health (2002) Modelling Diabetes: The mortality burden report indicates that the discrepancies and inequity experiences amongst Māori in regards to prevalence rates is continued through to mortality rates. Whilst diabetes accounts for a minimal total of 4% of all deaths amongst the non-Māori population, diabetes can be attributed to 20% of deaths among Māori as indicated in the table below (Ministry of Health, 2002). The important consideration is that not all



diabetes related deaths have been coded accurately, with an estimated 30% of Māori deaths being reported incorrectly (Ministry of Health, 2002). Therefore, the below rates could potentially be a lot higher, if these deaths were to be factored in.

**Table 3.1 Deaths attributable to diagnosed diabetes (onset 25-89 years), 1996**

	Māori			Non-Māori		
	Male	Female	Total	Male	Female	Total
<b>N</b>	222	238	460	507	384	891
<b>%</b>	18%	23%	20%	4%	3%	4%
<b>R</b>	304	301	303	45	28	36
<b>#</b>	0.63	0.64	0.63	0.37	0.35	0.36
<b>Re</b>	0.31	0.29	0.30	0.44	0.54	0.48

N = number of deaths attributable to diabetes

% = percentage of deaths attributable to diabetes/ all deaths

R = rate per 100,000 person/year

# = proportion of deaths attributable to diabetes/ all deaths among diabetics

Re = reported deaths coded as underlying cause / deaths attributable to diabetes

*Source: Ministry of Health, 2002, p. 8*

When considering how the above table portrays diabetes for Māori compared to non-Māori in New Zealand, and factoring the rate of error in reporting diabetes related deaths, it is clear that discrepancies and inequalities exist (Ministry of Health, 2002). Therefore it is essential that researchers continue to explore the multiple aspects associated with diabetes and diabetic complications, and analyse how altering treatment and improving intervention could enhance total Māori health and wellbeing.

## Diabetes Treatment and Intervention

There are direct methods for intervention for diabetes and the complications that can be attributed to the disease. This is especially true if the patient has long standing or poorly controlled blood glucose levels (Lebovitz, 1999). Edmonds argues that “diabetic patients may develop a variety of complications which include micro vascular disease (retinopathy and nephropathy), nervous system abnormalities and macro vascular disease (coronary, peripheral vascular and cerebral vascular disease)” (Edmonds & Wall, 2002, p. 245). Zimmet suggests complications such as those mentioned above are primarily associated with type II diabetes (Zimmet, Albert & Shaw, 2001). Micro vascular and neurological complications are rarely seen in Type I patients, however Type II diabetic patients have a higher risk, with an estimated 20% of patients suffering complications at first diagnosis (Edmonds & Wall, 2002).

Podiatry as a profession has the ability to impact the way in which diabetic complications and lower limb pathologies are addressed. Neuropathy and circulation issues of the lower limb and foot are the primary concerns of diabetic specialist podiatrists (Edmonds & Wall, 2002). “The foot can be affected by neuropathies and circulatory changes with or without additional problems from trauma and infections causing potentially serious foot problems.” (Edmonds & Wall, 2002, p. 248). Edmonds suggest the feet are prime target for peripheral neuropathy, which can lead to loss of sensation, and further damage and complication as addressed in table 3.2 Leg abnormalities in diabetes.

**Table 3.2 Leg abnormalities in diabetes**

	<b>Neuropathy</b>	<b>Ischemia</b>
<b>Symptoms</b>	None Paraesthesia Pain Oedema Painful wasted thigh Foot drop	None Claudication Rest pain
<b>Structural Damage</b>	Ulcer Sepsis Abscess Osteomyelitis Digital gangrene Charcot joints	Ulcer Sepsis Gangrene

*Source: Edmonds and Wall, 2002, p. 248*

Diabetic specialist Podiatrists are essential for providing influential support and necessary intervention to ensure risk factors associated with complications are reduced, and quality of life for patients is improved. Edmonds indicates that this was made possible by patient education and medical management (Edmonds & Wall, 2002).

### **Reasoning behind the Pilot Study**

The pilot study specifically focused on podiatry and podiatric intervention. This was predominantly due to the researcher's background as a qualified podiatrist. The clinical work and experience the researcher gained whilst providing essential care and intervention to diabetic patients in the Marlborough region heavily influenced post graduate study. The increased number of Māori patients compared to non-Māori seen during this period gave the researcher an idea that directed the pilot research, analysing how the inequity could be addressed. Podiatry is a small profession, and limited research was available, therefore these reasons increased the need for investigation.

The justification for the researcher commencing this study throughout 2011, is the way in which the research illustrates how important Podiatric care is for Māori. More importantly, it contributes to the development of Māori health and how services can better be suited to Māori needs (Joshy & Simmons, 2006). Joshy suggests “little data exists to guide such developments (Joshy & Simmons, 2006, p. 206).

Ultimately, this researcher’s aim is to increase public knowledge of diabetes, and ensure Māori are fully informed of the services available. Increased public knowledge of diabetes will enhance positive changes for Māori health and wellbeing developments. This pilot research has the potential to develop into a larger scale investigation during the course of a Masters Research program.

### **Current Diabetic Podiatry in Taranaki**

The Taranaki District Health Board currently provides diabetic podiatric services through private providers to patients throughout the Taranaki region (Taranaki District Health Board, 2009). The Taranaki District Health Board has set criteria and referral protocols (see Appendix A), with the aim to ensure all high risk patients receive essential treatment and support (Taranaki District Health Board, 2009). The Main aim of this service as reported by the Taranaki District Health Board (2009) is to prevent lower limb amputations caused by diabetes, by ensuring that early and effective management of foot ulcers is undertaken.

### **3.5 Results of the pilot project**

The pilot study uncovered three areas where Podiatry can impact Māori health and wellbeing; education, access and cultural competence. These key areas are discussed within this section, to provide a brief overview of the research conducted.

#### **Education**

Right from a young age human beings are exposed to education, whether it be through encouraging participation in tasks, given chores at home, taught new skills such as sharing or catching a ball, and for those fortunate, participation within the education system, to ensure we learn essential life skills. Education is deemed important as it informs people on how to approach situation, or what they can do to make that situation easier. So what happens when someone develops a disease such as diabetes in later life? Education once again is of foremost importance; however obtaining this education as reported by Brown et al. (2002), is a significant barrier to diabetes management. Brown et al, proposed that participants involved in their study indicate that the earlier the education takes place the better the outcomes for the involve, thus suggesting education is a key facilitator for improved outcomes.

*“People put up with so much rubbish sometimes, and they just don’t have to, they don’t know”* (Podiatrist One). This quote illustrates how important patient education is. It is indicative of how people may think, and also suggests that many patients that are at risk, such as those of Māori descent, are not aware of services that are available to them. Education can contribute positively towards improved health status for those at risk diabetic patients. This participant indicates that

education that leads to the *“prevention of amputation, cause it’s pretty easy and doesn’t take much”* (Podiatrist One) is essential, thus ensuring that necessary preventative action is taken to minimise harm to patients, and enable arising foot complications to be dealt with swiftly. Education also provides a means of minimizing cost to District health Boards, as preventative action is undertaken for most patients, suggesting long term complications such as ulcers, infection and gangrene are not common place.

Podiatrist one states that *“it’s all about education, it’s all about foot care”*, suggesting positive gains within this service and for high risk patients in general could be influenced by the education and information provided to them by health professionals, in particular podiatrists working with them on a regular basis in order to respond to arising situations concerning diabetic complications and foot issues. Podiatrist one whilst acknowledging the power of educating patients also recognises the importance of educating extended whānau, stating *“when I am with patients I try to get it out to the family”*. This illustrates how this podiatrist takes it upon herself to include her patient’s whānau in the treatment and education process. This whānau-orientated treatment encourages the growth of knowledge amongst non-sufferers, which can be passed down the generations in order to help minimize future diabetic foot complications. Podiatrist two offers a similar point of view towards the need for education at patient and whānau level, in which she points out *“...there has to be a lot of educating these at risk patients as to where they can go, rather than waiting till there is a big hole in their foot”*. These two quotes taken from both podiatrists suggest a similarity in thought processes and professional care, indicating that education of patients, to both professionals is pivotal within their practice methods to ensure patients receive necessary treatment when required.

Podiatrist two goes on to suggest that although education of patients is a top priority, this can only be achieved if firstly education is provided to those dealing

face to face with both patients and whanau, such as general practitioners, district nurses and even receptionists working in clinics. This podiatrist indicates, *“Really it’s just educating all staff in medical centers”*, which would enable a swift chain of communication between patient and podiatrist, and also allows the other health professionals to offer help to ensure risk factors are minimized. This podiatrist points out that *“The public health system can’t afford everything, but how many bad things come from not cutting nails right, or pressure areas”* (Podiatrist 2), which indicates the importance of practitioner education to ensure correct methods of intervention are undertaken in order to reduce diabetic foot complications. Ideally a podiatrist should see every person who has concerns, however with funding limitations such as the one mentioned above, it is not unusual that at risk patients will go unseen. If all health professionals could better educate low risk patients of risk factors associated with diabetes, and the complications they could incur, podiatric services could continue to provide necessary care to those with higher needs.

Podiatrist two offers one final thought regarding education, suggesting that education services which are currently offered through the stay well course offered by the TDHB for newly diagnosed diabetics is beneficial, with evidence from Brown et al (2002) indicating that there is a need for these small group sessions, as they provide for practical and easy to absorb information. Podiatrist two offers her opinion stating *“I think it (stay well course) is very important because we don’t get to see everyone we would like to see, as there aren’t enough appointments. We can give them (patients) information they require and I will sometimes give them a diabetic foot check”*. This stay well course offers a starting point for podiatric intervention, and ensures patients there are services to cater to their needs if they are to arise. This podiatrist also proposes that *“getting participation (at the stay well course), so all they really need to do is go to a course like that, then they have the knowledge and know what to do to manage themselves, but also know that if*

*they need help they can approach up*” would enhance knowledge and in turn reduce complications.

In speaking to podiatrist one, Māori participation is discussed, with this participant suggesting that this clinic in New Plymouth does not see many Māori patients, justifying this by suggesting this population lack education regarding podiatric care. *“They (Māori) probably need some more education, need some more teaching”*. This researcher is aware that this podiatrists gauge on statistics could be skewed as there are multiple practitioners working within this practice, and there are several clinics providing diabetic podiatric services, so although podiatrist one may not be seeing many Māori clients, this does not necessarily mean they are not presenting. In saying this however, it is this researchers belief that Māori within this region are not presenting as highly as European and other ethnic groups, however with an increase in education of diabetic patients and health workers this could be enhanced to ensure Māori health and wellbeing is positively influenced within the Taranaki region.

### **Access**

Access is a major factor that influences the health and wellbeing of Māori and non-Māori, and has been thoroughly examined by various researchers. With this being said it is this researcher’s belief that access is a vital component to address when analysing the Podiatric services offered through the Taranaki district Health Board, and the effect this may have on Māori health. Hence, this section will highlight accessibility to this particular service whilst providing questions that could be addressed in future research.



Access to health care is an all-encompassing concept that leads to an individual's ability to utilise particular health services. The Ministry of Health (2002) highlights access and emphasises that travelling distances for rural populations, along with communication difficulties between Māori and practitioners are obvious barriers. The recognition of accessibility issues has led to the innovation of mobile services, Marae based clinics and outreach programmes (Ellison-Loschmann & Pearce, 2004).

Māori traditionally have been over represented within the low socio-economic sector of society within New Zealand (Statistics New Zealand, 2006), illustrating that many suffer disadvantages in education, qualification, employment and ultimately income status (Durie, 2001; Statistics New Zealand, 2006; Williams, Lavizzo-Mourey & Warren, 1994). Crampton, Salmond, Blakely and Howden-chapman (2000) suggest that these disadvantages have had a major contribution in determining health, and the long standing association between Māori ethnicity and poor health status. Due to the low socio-economic status of Māori it is not hard to comprehend that the access to care for this population is of heightened concern. Financial aspects associated with health care and treatment leave many Māori in a disadvantaged position, therefore the likes of diabetic schemes offered to high risk diabetics within various regions is essential to promote positive Māori health outcomes.

*“Podiatry is mainly user pays”* (Podiatrist one, 2011), which could influence why there are limited Māori accessing Podiatric services within Taranaki. Podiatrist one emphasized accessibility of services by suggesting that *“you try to put them on the system to help them out financially if they need to be seen quite regularly”*. This statement not only illustrates the podiatrists experience within the sector, as she recognises socio-economic status as a major influence in accessibility, but also brings to light personal practice methods, suggesting that various people have difficulties in affording services such as podiatry is not covered by the Taranaki

District Health Board, therefore podiatrist one will do as much as possible within reason to ensure all patients have equal opportunities to seek treatment, enhancing health and wellbeing for Māori within the region.

Podiatrist one, whilst highlighting the importance financial access has on health and wellbeing also indicates that the tier system established by the Taranaki District Health Board, in relation to high or low priority patients is a cause for concern. (See appendix A for TDHB Podiatry Referral Protocol) *“Expanding on their criteria and the tier system”* is one suggestion this podiatrist gives when addressing ‘who is eligible for treatment’ ,thus showing that she has recognized that although the Taranaki District Health Board diabetic scheme is reaching a certain catchment, there are others in need that do not meet criteria set. Ideally the criteria would be made to ensure all people at risk from foot complications would be seen, thus ensuring that accessibility for all potential patients was priority, and would positively enhance people’s quality of life by decreasing future risk and ongoing complications.

Similarly Podiatrist two also discusses this concern in the interview, revealing, *“there is just a demand (for appointments) in general, because out allocation of appointments per year is so small and we are way over numbers”*. The allocation of these appointments along with the criteria each patient must meet are set by the Taranaki District Health Board, and with practitioner concerns such as the ones mentioned by both podiatrists, it is this researchers opinion that the following questions should be addressed

1. What is the research behind the allocation of appointment numbers?
2. Have the podiatrists approached the TDHB to air their concerns?
3. What are patient allocations like in other regions of similar size?

The answers to these questions could have the ability to shape the way podiatric services are delivered. Overall it is this researchers opinion that although the service is providing vital intervention for many people, the number of patients that are mission out and possibly facing future complications to too great to overlook.

### **Cultural Competence**

“Cultural competence is not simply a matter of social pleasantries; rather it has real life consequences for health outcomes (Tombros & Jordan, 2007, p. 325).

Cultural competency is the ability to effectively relate to people of different backgrounds, such as ethnicity, and also extending to religion, geographical settlement, gender, age group and socio-economic status (Betancourt, Green, Emilio & Ananeh-Firempong, 2003). Cultural competency is encouraged amongst health workers as it increases a practitioner’s ability to reach out to patients, and communicate with them at a level that is not overbearing. The idea of cultural competency addresses many concerns surrounding inequalities experiences within the health sector specifically those centred upon race (Tombros & Jordan, 2007). “Providers everywhere have an obligation to integrate cultural competence into practice to improve, if not save, their patients’ lives” (Tombros & Jordan, 2007, p.325).

During the interview process, both podiatrists although not directly discussing cultural competency allude to it through their individual opinions and practice methods. Podiatrist one has a wealth of knowledge, with 34 years of nursing experience behind her before training as a podiatrist. This podiatrist advises that in

order to practice effectively it is not so much the academic nature of the qualification that proves successful, but more so the experiences both personally and professionally (Podiatrist One, 2011). Whereas Podiatrist two, has less worldly experience compared with podiatrist one, however was trained in a modern environment that focused on cultural competence. This podiatrist's clinical experience at university and her three years of involvement with the diabetic scheme as led to a very open approach to treatment.

*I guess they (Māori) are treated the same as everyone else. They are not treated differently, it is a pretty good service, and they leave feeling pretty good about themselves and are aware of their feet and what is happening.*  
(Podiatrist two, 2011)

The personal interests, passion for the job, experiences, skills and education of both podiatrists' interviews has led to a practice and service that caters for various needs, ultimately increasing health and wellbeing for Māori within the Taranaki region.

### **3.6 Pilot research conclusion**

The information gathered from both podiatrists for the purpose of the pilot study regarding the importance podiatry has on Māori health and wellbeing within the Taranaki region was not fully answered within this study. It did however provide an informative start, which has directed research towards this thesis project '*the importance of establishing integrated approach to diabetic services for Māori within the Taranaki region*'. Overall, this qualitative pilot study provided valuable insight, and although the sample size is somewhat limiting, due to the small number of

podiatrists working within the region it did uncover that access, such as financial and transport are major contributing factors which prevent patients from utilising health care services. This pilot study was beneficial in assessing the basics of the local Taranaki diabetic podiatric service and how the structures in place are working to enhance Māori health and wellbeing.

From the research conducted it is clear podiatry does play a special role in enhancing the health and wellbeing of Māori within the Taranaki region, however as quoted *“feet are the last thing people are interested in. You can hide them away”* (Podiatrist one), it is clear that the amount of focus and education directed at teaching people who and what podiatrists are is not directed at those in need. With a little more emphasis on educating newly diagnosed and those at risk patients’ health and quality of life could be further enhanced.

Both podiatrists involved offered valuable opinions as to how the Taranaki District Health Board podiatric services are structured, consequently questions have been formulated by this researcher with hopes these will be answered in the follow up research assignment.

One barrier this pilot study was faced with was the use of only Taranaki podiatrists. As there is a limited number practicing within the region therefore identifiable factors of those participating may be obvious. Future research will ensure a larger sample size with a possibility of addressing the importance podiatry has on Māori health and wellbeing in smaller regions throughout New Zealand.

### **3.7 Concluding remarks**

*'The importance of Podiatry on Māori health and wellbeing in Taranaki'* was the pilot study conducted by this researcher throughout 2011. It was conducted in order to complete a post graduate diploma in health science (Māori health) and has encouraged the researcher to conduct more research surrounding Māori health. It also amplified some concerns such as using a small sample base of only Podiatrists. The process of evolution for this current research stems from the background information hinted at within the pilot study.

From the initial pilot study, it was established that podiatry does play an important role in enhancing the health and wellbeing of Māori within the Taranaki region. This research also provided evidence based background for future development, and ensured the researcher had the ability to conduct research at a higher standard. The knowledge gained and hurdles faced throughout the initial stages lead to strengthening of the research undertaken throughout 2012-2013.

## Chapter Four

# MĀORI RESEARCH

### 4.1 Introduction

Health research, in particular Māori health research has an ongoing importance for all. . Research has the ability to inform, and ultimately instructs change, development and policy to ensure all Māori have the opportunity to access vital services and receive access to essential care pathways. Māori health research is useful for the overall enhancement of Māori health and wellbeing.

The Health Research Council of New Zealand produced the following guidelines for health researchers involving Māori, with the goals

- To develop research partnerships between researchers and Māori communities or groups on issues important to Māori health.
- Research practices which ensure the biomedical, clinical and public health research effectively contributes to Māori health development whenever possible (The Health Research Council of New Zealand, 2010, p. 2)

The goals were realised by this researcher, when deciding on a topic that would be valuable, and could contribute to potential advancements of Māori health. This thesis has allowed the development of partnerships between researcher and practitioner within the Taranaki region to be established. The relationships, although new, provided valuable insight into Māori health status, diabetes and integrated services within the Taranaki region for Māori patients. The ability of the researcher to communicate with the local practitioners may also have increased the practitioners knowledge of Māori health and encouraged each practitioner

to consider how they will treat future patients to ensure the enhancement of Māori health status. Overall, this research seeks to actively contribute to Māori health development for diabetic patients.

The Health Research Council of New Zealand state “Māori are tangata whenua of New Zealand” (The Health Research Council of New Zealand, 2010, p. 3). The involvement of Māori in all areas of health research is critical in order to increase Māori participation, improve Māori health and wellbeing and reduce disparities across the health spectrum. It is thought that the implementation of these guidelines will increase work load, however this should enhance the quality of the research outcomes, and address the diverse needs of Māori (Health Research Council of New Zealand, 2010).

Before undertaking this particular Māori health research *‘the importance of establishing an integrated approach to diabetic services for Māori patients within the Taranaki region’* this research followed the advice offered by the New Zealand Research Council. The researcher considered the following questions to ensure the research proposed followed necessary pathways to ensure the best possible outcome for Māori.

- Does the research topic involve Māori as a population group?
- How will this proposed research project impact on Māori health?
- What are the benefits for Māori?
- How will Māori be involved? (E.g. as researchers, participants, advisors etc.)
- Which Māori could possibly be involved in this research project?

(Health Research Council of New Zealand, 2010, p. 6)



The research proposed addresses diabetes within New Zealand, and in particular the importance of integrated services for Māori diabetic patients. Ensuring Māori have access to, and receive essential care which will promote ongoing health and improved quality of life.

#### **4.2 The Research**

The Masters Research project explores the importance of establishing an integrated approach to diabetic services for Māori patients within the Taranaki region. An integrated approach will assist in forming a streamlined management system which will recognise that health professionals all have different specialties and knowledge. Therefore encouraging the sharing of this knowledge through integrated service provisions will enable Māori to be seen by a variety of different health professionals.

The overall outcome of the thesis is to present research that indicates how establishing an integrated system for diabetes management will be beneficial for Māori in Taranaki. This will be achieved by exploring current diabetes service provisions, treatment and management options, as well as areas in which strategies can be implemented in order to address the ongoing concerns surrounding Māori, diabetes prevalence, and the enhancement of health.

#### **4.3 Aims and Objectives of the Research**

##### **Aim:**

The primary objective of this investigation is to explore the diabetic status of Māori and explore the negative influences type II diabetes is having on many New

Zealandfamilies. Integrated service concept will be explored throughout the thesis to determine how Māori patients health care requirements can be met. This area is of particular interest as an integrated service approach may encourage utilisation of services, and increase participation of Māori, in order to contribute positively to health improvements.

**The objectives of this study are;**

1. To investigate diabetic services within the Taranaki region
2. To assess the importance an integrated approach could have on the community
3. To ascertain the importance of access for all diabetic patients within Taranaki
4. To provide insight into the reasons health professionals work with diabetic patients and how their reasons could be influence treatment and education.

**4.4 Methodology**

The way in which research is conducted and the methodology utilised and instilled within the thesis is a determining factor of how the research will respond to need. It is suggested that “Māori health research requires the development of new methodologies that will better measure and reflect Māori health as designed by Māori” (Durie, 1996, as cited in Cunningham, 2000, p. 68). Therefore, when undertaking this research it was essential that different methodologies were considered in order to find the best fit.

There are several different research methodologies to consider when undertaking research that involves Māori participants, utilises Māori researchers, or is for the benefit of Māori. The Health Research Council of New Zealand, although not an authority on Māori research, outline three common Māori research methodologies outline in Table 4.1 Māori research methodology, to ensure a basic level of understanding for the lay person.

**Table 4.1 Māori research methodology**

<b>Characteristics</b>	<b>Research involving Māori</b>	<b>Māori centred research</b>	<b>Kaupapa Māori research</b>
<b>Description</b>	Research where Māori are involved as participants or subjects, or possibly as junior members of a research team; Research where Māori data is sought and analysed; Research where Māori may be trained in contemporary research methods and mainstream analysis	Research where Māori are significant participants, and are typically senior members of research teams; Research where a Māori analysis is undertaken and which produces Māori knowledge, albeit measured against mainstream standards for research	Research where Maori are significant participants and where the research team is typically all Māori; Research where a Māori analysis is undertaken and which produced Māori knowledge; Research which primarily meets expectations and quality standards set by Māori.
<b>Example</b>	Analysis of ethnic differentials in disease rates, genetic study of familial cancer	Longitudinal social science study of Māori households	Traditional study of cosmology; study of cultural determinants of health
<b>Control</b>	Mainstream	Mainstream	Māori
<b>Māori participation</b>	Minor	Major	Major, possibly exclusive

<b>Methods/tools</b>	Contemporary-mainstream	Contemporary – mainstream	Contemporary – mainstream and Māori
<b>Analysis</b>	Mainstream	Māori	Māori

*Source: Health Research Council of New Zealand, 2010, p. 8*

Smith however suggests a more appropriate view of Māori centred and Kaupapa Māori research is the understanding that is has been introduced in order to fill a space that required a specific Māori focus, with the potential to enhance the value of Māori understanding and knowledge (Smith, 1999). Previous research has addressed Māori health concerns, however results are generally presented as a point of comparison with non-Māori, which has illustrated ongoing poor health for Māori (Durie, 1994; Forster, 2003). These types of research have led to the opinion of many that Māori have failed within various aspects of health and wellbeing (Durie, 1994). Durie points out that such measures and comparisons of prevalence rates to those of non-Māori descent fail to accurately portray Māori health and give little indication to the quality of care.

### **Māori Centred Research**

Māori centred research is the most common form of Māori research, and has the ability to involve Māori participation at all levels, including as participants, researchers and analysts (Cunningham, 2000). Cunningham writes the “much effort will be applied in collecting Māori data in a responsive way” (Cunningham, 2000, p.65). Māori centred research will address Māori needs, and analyse contemporary Māori disparity, to ensure the potential for Māori development is achieved. Cunningham argues that Māori knowledge can be produced through a Māori centred approach, even though it measures Māori status against mainstream

standards. Therefore, Māori centred research when used effectively has the ability to respond positively towards Māori needs, and enhance Māori health outcomes.

Māori centred research in response to the thesis question would ensure Māori participation at all levels. The participation would safeguard Māori priorities and establish what was required from the research and researcher. Using a Māori centred approach for this thesis would ensure the overall outcome of the study benefits the total Māori population.

### **Kaupapa Māori Research**

Kaupapa Māori research is research that has a high level of involvement for Māori people as individuals, or as communities. Kaupapa Māori research is set out to contribute positively toward enhancing the quality of life experienced by Māori (Cunningham, 2000; Smith, 1999). Cunningham suggests that although Māori centred and Kaupapa Māori research have similar traits, Kaupapa Māori is a more exclusive methodology that has a high degree of Māori control. The research outcomes sought within Kaupapa Māori framework are measured against Māori development goals and recognises the aspirations of Māori rather than mainstream measures. Cunningham identifies Kaupapa Māori research as "...research that is culturally safe, which involved the mentorships of kaumātua, which is culturally relevant and appropriate..." (Cunningham, 2000, p.67)

A Kaupapa Māori approach to this research would be difficult, as contemporary Māori health status are measured against mainstream statistics . Therefore, to ensure this research followed a truly kaupapa Māori approach, specific Māori

priorities, and health information would have needed to be established as the foundation for the research.

### **The Only Approach: Māori Centred**

“In New Zealand we undertake too little Māori centred and Kaupapa Māori research” (Cunningham, 2000, p. 65). Therefore, it is essential for this project to ensure a Māori research methodology was employed whilst undertaking this task. Initially this project was influenced by the researcher’s practical stance on the situation and clinical experience within the field of Podiatry. However, when conducting the pilot research in 2011 the researcher came to the realisation that the underlying concerns concluded upon far outweighed personal views. From this initial study, a passion for the enhancement of Māori health and continued development of the researcher was realised.

The researcher began this research with the idea that it would involve Māori and put their requirements central to conducting this research. Secondly, it must include Māori health statistics. As contemporary Māori health statistics are measured against non-Māori measures there was only one approach that could be undertaken. As a result, a Māori centred approach was established throughout the paper *‘The importance of establishing an integrated approach to diabetic care for Māori patients within the Taranaki region’*.

As overviewed and later to be discussed, contemporary Māori health status within New Zealand is in need of enhancement. The need is due to various historical circumstances that have had a long standing influence on Māori health and well being. Māori centred methodology was chosen for this particular research in order

to review and protect the health and wellbeing of Māori. Thus ensuring that the results established had the potential to inform change and direct development for the purpose of improving Māori health status.

#### **4.5 Qualitative Research**

A qualitative research approach has been utilised within this thesis. This approach is useful for acquiring quality, in-depth information from a smaller sample in order to provide greater insight for integrated services for Māori in the Taranaki region (Denzin & Lincoln, 2008; O'Leary, 2004). A small sample of various health professionals throughout Taranaki was utilised, primarily due to professional interest in the topic. Further professionals were sought, however many declined to participate for various reasons. An explanation as to why many health professionals declined to participate is explained later in the research.

A qualitative approach was achieved through kanohi ki te kanohi interviews, and also questionnaires directed at various health professionals. The health professionals used for the purpose of this research include a podiatrist, radiographer and clinical psychologist. These health professionals all indicate a level of involvement with both general and Māori diabetic patients throughout the region and therefore offer a wide range of opinions regarding integrated services, treatment, screening and education based services. It is important to recognise each health professional fulfils their own role within the diabetic services, and each have various understandings of why they are either working with diabetics, or the need for on-going research.

#### **4.6 Sample**

The three health professionals that have been included in this research are currently working with Maori patients in the Taranaki region, to provide diabetic services including, but not limited to treatment and education. The kanohi ki te kanohi interviews and questionnaires canvassed individual's perspectives, attitudes and experiences related to their current individual practice and an addressed their views on enhancing an integrated diabetic approach.

Initially a letter of intent was posted to medical practices and health centres throughout Taranaki, including Stratford, Waitara, Hawera and Opunake. These letter informed the various health workers of the researchers proposed study. Positive response was received from many of these health care practitioners, whom also indicated their willingness to participate and help in any way. When it came to recruiting these health professionals many decided against participating, making recruitment a difficult task for the researcher. Those that did offer support allowed this researcher to investigate the importance of establishing an integrated service approach to diabetic care of Māori within Taranaki.

When justifying the inclusion of three different health professionals within this study, the researcher argues that it provides a multidisciplinary service approach. This approach draws on the expertise and knowledge of a range of health practitioners to ensure the treatment and management of Māori diabetic patients is effective within Taranaki.



#### **4.7 Data Collection**

Data collection as discussed in the previous section began with letters of intent being sent throughout the region, with positive responses from most practitioners. Many of the practitioners approached decided to either not respond, or notified the researcher they no longer wanted to participate. During this process a small number of providers offered their expertise and contributed to the research.

Prior to any data being recorded, the health professionals whom volunteered were fully informed and advised of their role in the research. The information sheet and consent form were discussed in depth with each individual, and then signed. The informed consent acknowledged each participant approved for their answers to be recorded and analysed for the use within the thesis. It is important that the researcher explain that a small koha (not including money) was gifted to each participant following the face-to-face interview, as a sign of appreciation for the information provided.

Due care has been taken at all steps to ensure identifiable traits of each practitioner are minimised. Each individuals' field of expertise and the qualifications each has achieved are the only identifiable features recognised throughout the research. Including the identifiable features of each participants practice was done intentionally in order illustrate how each specialists field of practice responds to the needs of the diabetic Māori throughout the region.

In conclusion, data collection proved to be difficult for the researcher. Potential participants and those that were available were often running to strict schedules, due to the nature of shift work. The data collection for the purpose of this study

took longer than the researcher had initially estimated. It is however important to note that the information attained from these professionals has contributed positively to this thesis.

## Chapter Five

# MĀORI HEALTH

### 5.1 Introduction

Chapter five defines Māori health and addresses the immediate differences of health and wellbeing between Māori and non-Māori. Diversities are often included within research to illustrate failures, specifically in regards to how Māori adapt to western ideology. Instead of approaching diversity with negativity, chapter five will instead illustrate how valuable diversities can be when providing insight in to how improvements in Māori health and wellbeing could be approached.

Information gathered from the Capital and Coast District and that of the Taranaki District Health Board strategic plan offers insight into the current status of Māori health in regards to various health conditions. The aim of this chapter is to provide an introduction to Māori health and well-being.

### 5.2 Māori Health; A Holistic Concept

It is of foremost importance to consider what defines 'health' in order to fully comprehend how this study has the potential to enhance Māori health outcomes. It is essential to understand Māori views of health are contrasting to those established by Western lore. A holistic approach to health has influenced how Māori approach health. A holistic Māori approach is where a person's health is considered as a relationship between factors influencing total health, rather than as a physical manifestation of ill health (Wilson & Richmond, 2009).

Wilson suggests that holistic or holism approaches to health, like that employed by Māori allow for a multidimensional understanding, therefore extending beyond physical symptoms (Wilson & Richmond, 2009). The researcher proposes that individual health rests on the balance of relationships between people, communities, spiritual and physical realms (Wilson & Richmond, 2009). A holistic concept is captured clearly within Durie's model of health Te Whare tapa Wha, identified as a metaphor for total health and wellbeing. The whare consists of four walls representing the mental (taha hinengaro), spiritual (taha wairua), physical (taha tinana) and the social (taha whanau) dimensions necessary for positive health (hauora) (Durie, n.d). The research and model of health support the idea that proposes if one of these areas is not at full strength, health will suffer as a consequence (Durie, Potaka, Ratima & Ratima, 1993).

In comparison, Western health concepts are based on a biomedical and/or scientific background, which heavily relies on validated and verified knowledge (Wilson & Richmond, 2009). Wilson writes Western views of health are considered to follow a direct approach to knowledge, where illness is viewed on an individual basis, and that health services can treat according to experience and scientific reasoning, ultimately fixing the problem (Wilson & Richmond, 2009). Jones (2000a) suggests that whilst western medicine has achieved great feats in physical health, other dimensions that are fully explored within Māori health have been left behind.

In conclusion, the definition and understanding of Māori health differs from established Western medicine. Māori health should therefore be considered separately and priorities should be set to consider the effect these may have on Māori health and wellbeing. In doing this, it would ensure that structures and policy are put in place to incorporate the views of Māori, and positively contribute to the enhancement of Māori health.

### 5.3 Foundations of health

The definition of Māori health as established in the previous section varies to that of western understanding. Therefore, the foundations of Māori health must also be different. Section 5.3 Foundations of health outlines the foundations that are said to determine Māori health and wellbeing.

“Health is the product of a range of interacting determinants”

(Durie, 2001, p. 35)

Understanding the complex nature of the foundations of health is one aspect that Durie suggests must be addressed when assessing Māori health (Durie, 2001). Comprehension of the determinants must be considered when exploring health status is necessary, as the experiences and environments Māori and non-Māori are exposed to throughout their lives can differ dramatically. This section will offer a brief overview of the determinants of health for Māori.

**Table 5.1 Foundations for Health**

<b>Foundation</b>	<b>Indicators and Risks</b>
<b>Te ao hurihuri</b>	Housing
Society and the economy	Education*
	Employment and income*
	Justice
<b>Te ao hou</b>	Smoking
Lifestyles	Gambling

	Injuries
	Recreation and leisure*
	Nutrition*
	Alcohol and drug use
<b>Hikoi tāngata</b>	Collective histories*
Journeys	The forces of colonisation*
	Terms of participations in society
<b>Te ao Māori</b>	Access to the Māori world
Identity	Culture
	Heritage
	Whanau
<b>Mana ake</b>	Genetic endowment*
Uniqueness	Personality and temperament
	Personal journeys

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*Source: Durie, 2001, p. 36*

The foundations as mentioned in table 5.1 Foundation for Health are all vital for total health and wellbeing. For Māori people and particularly in regards to diabetic patients the factors that have a substantial influence on this disease and how treatment is received are marked with an \*. These factors will be addressed through the thesis to ensure total understanding of the disease itself, and the impact it has of the health and wellbeing of Māori people.

#### **5.4 Diverse Realities**

Comprehending Māori diversity is one key to tackling Māori health concerns.

Māori do not conform to a typical presentation either physically or psychologically...diversity is the rule and the diverse realities of Māori must be given due consideration if policies and programmes for health are due to make sense. (Durie, 2001, p.4)

Durie's statement is important to consider when conducting research and providing solutions in order to enhance health. Durie suggests Māori are different and as a population there are significant variations and diversity on an individual level (Durie, 2001; Williams et al, 1994; Pearce, Foliaki, Sporle, & Cunningham, 2004). Ellison-Loschamnn and Pearce (2006) indicate that inequalities experienced within health care between indigenous and non-indigenous populations have been evident for years, often attributable to their individual histories, policies and social development. Durie's view suggests that not one particular method which responds to health requirements will provide optimal fit. Durie goes on to suggest that understanding the diversity of Māori and Māori culture may provide the best method to providing essential services to enhance health and wellbeing (Durie, 2001).

### **5.5 Disparity**

"Poorer people are likely to have worse health than wealthier people."  
(Crampton et al, 2000, p. 94)

Populations worldwide are subject to health disparities, whether inclusive of age, gender, socioeconomic status, ethnicity or geographical region (Reid & Robson, 2006). In New Zealand these disparities are consistently witnessed between Māori and non-Māori health status. Reid & Robson (2006) define health inequalities as

“differences which are unnecessary and avoidable, but in addition are considered unfair and unjust” (p. 4). Section 5.4 Disparity, is dedicated to these inequalities and inequities which are commonly mentioned, but not well understood. Overall, this section will address an area of Māori health that is well known – disparity, which suggests there are inequities in society, and result in poor Māori health status (Ministry of Health, 2002), whilst providing a worldwide view on indigenous populations.

Initially ideas of ethnicity and race were witnessed during the imperial colonial period, in which racism was introduced to classify the differences in people. This method focused on biological make up of individuals, suggesting that some populations were inherently superior to others and that race could be used as a biological category that determines the health expectancies of an entire population (Williams et al, 1994). Contemporary research by Pearce suggests the link between biology and disparity is a misconception, and that health is rather a direct response to an individuals genes and how these genes can influence the health of an entire population (Pearce et al, 2004).

A different approach to explaining disparity indicates that socio-economic status is the central determinant of health status and suggests it is a vital factor when assessing racially related health (Williams et al, 1994; Crampton et al, 2000; Hefford, Crampton and Foley, 2004; Bhopal 2006). This provides interesting debate as the Māori population of Aotearoa are reportedly over-represented in the low-income bracket (Statistics New Zealand, 2006; Crampton et al, 2000). With this being said, it is clear socio-economic risk factors are essential when determining health at both population and individual level. Socio-economic disparity for Māori, as identified in the table 5.2 Socio-economic Disparities is recognised as hindrance for future Māori development and ongoing Māori health status.



**Table 5.2 Socio-economic Disparities**

	<b>Māori</b>	<b>Non-Māori</b>
% leaving school without a qualification	38%	13%
% unemployed	18%	7%
Woman's income derived from government benefit	50%	20%
Median income (15 years and over)	\$12 900	\$16 200
Death rates (all ages) per 100 000	812 (males)	610 (males)
	589 (females)	377 (females)
Life expectancy	67 (males)	73 (males)
	72 (females)	78 (females)

*Source:* Durie, 2001, p. 10

Low socioeconomic status has an ongoing correlation to social disadvantage. Disadvantages such as level of education attained, un-employment, and low socio-economic position have been influential components to the long-standing association between Māori people and poor health status (Crampton et al, 2000. Tapsell, Thomson, & Hughes, 2009). These researchers go on to suggest that the socio-economic hierarchical systems that exist within most populations show clear disparity.

Disparities in health are not limited to social disadvantage, but also encompass access to care as a facilitator. Hefford conducted research which examined Primary Health Organisations within New Zealand, highlighting access to care as fundamental to reducing disparity, shifting the focus onto the financial capabilities of Māori to seek assistance (Hefford et al, 2005). Hefford concluded that offering

free or low-cost care and subsidies would reduce inequalities, and enhance access (Heffor et al, 2005).

Overall, New Zealand is a country that provides a comprehensive health care system, which under the Treaty of Waitangi should be accessible to the entire population (Waitangi Tribunal, 2011). Treatment received by Māori must be of the same or similar standard of care received by non-Māori, and therefore questions need to be raised as to why Māori health status is poorer than non-Māori? Are Māori truly 'at risk, and in need'? What issues need to be resolved to ensure Māori reach their full potential?

#### **5.6 Māori Health Priorities**

The Ministry of Health report that it is not acceptable for Māori, as a population group to suffer from poorer health status against other ethnic groups within New Zealand (Ministry of Health, 2002). The government are responsible to act on these inequalities ensuring health priorities are set, for the enhancement of Māori health and wellbeing (Ministry of Health, 2002).

Māori health priorities should differ from health priorities established for the general public. This difference is due to the complex needs and requirements of Māori which dictate health and wellbeing. Durie states "Māori have long identified the overall context for improved health: full and active participations in society; access to teao Māori; access to quality health services" (1994, p.196).

**Table 5.3 Māori health advancement**

<b>Area for Advancement</b>	<b>Measure of Advancement</b>
<b>Participation in New Zealand society</b>	Education
	Economic status
	Participation in decision-making
<b>Access to te ao Māori</b>	Land
	Language
	Whānau
	Marae
<b>Quality health services</b>	Access to primary and secondary care
	Health purchasing
	Māori health services
	Māori health workforce

*Source: Durie, 1994, p. 196*

The priorities as illustrated in the table 5.3. Māori health advancement, suggest that in order to reduce disparity priorities and pathways must be introduced which will provide direction and address the foundation that good health rests on (Durie, 1994; Ministry of Health, 2002). These priorities have been addressed by the government alongside Māori participation in order to produce He Korowai Oranga – The Māori Health Strategy (Ministry of Health, 2002).

He Korowai Oranga – The Māori Health Strategy, sets new and improved directions for Māori health that encompass both Māori and government priorities (Ministry of Health, 2002). The Ministry of Health utilises the strategy to ensure whanau are provided support in order to enhance the overall health and wellbeing of Māori (Ministry of Health, 2002). Suitable pathways are established through this

strategy which provides assurance that everything is being done to achieve this goal.

**Table 5.4 He Korowai Oranga Pathways**

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**Pathway One: Te Ara Tuatahi – Development of whanau, hapū, iwi and Māori communities**

The Crown will work collaboratively with whanau, hapū, iwi and Māori communities to identify what is needed to encourage health as well as prevent or treat disease. This included supporting whanau, development and participation in both te ao Māori and wider New Zealand society, to improve health and wellbeing

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**Pathway Two: Te Ara Tuarua – Māori participation in the health and disability sector**

The goal is active participation by Māori at all level of the health and disability sector in decision making, planning, development and delivery of health and disability services. The pathway supports Māori provider and workforce development.

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**Pathway Three: Te Ara Tuatoru – Effective health and disability services**

This pathway aims to ensure that whanau receive timely, high quality, effective and culturally appropriate health and disability services to improve whanau ora and reduce inequalities

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**Pathway Four: Te Ara Tuawha – Working across sectors.**

This pathway directs the health and disability sectors to take a leadership role across the whole of government and its agencies to achieve the aim of whanau ora by addressing the broad determinants of health

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*Source: Ministry of Health, 2002, p. 9*

The four pathways described in table 5.4. He Korowai Oranga Pathways addresses all areas and determinants of health, to ensure enhancement is occurring throughout integrated sectors. The strategy, along with the pathways established place expectations on government agencies to ensure Māori health is a priority, and sets out achievable measures for these agencies to meet (Ministry of Health, 2002)

When examining how the thesis fits into and contribute to these priorities, pathways two, three and four are achieved. The primary aim of this thesis is to ensure the most effective health services are presented to diabetic patients within Taranaki, whilst investigating how integrating these services could improve Māori participation in diabetic services, ultimately encouraging the enhancement of Māori health.

## Chapter Six

### NARROWING THE ISSUE – DIABETES MELLITUS

#### 6.1 Introduction

Chapter Six, Narrowing the Issue – Diabetes Mellitus, provides additional information that works alongside what has been provided in Chapter three, for the purposes of the pilot study. This chapter will build on what diabetes is and discuss type II diabetes and its implications for Māori. This chapter also aims to outline prevalence rates, and discuss the common treatments and complications associated with the disease.

The Ministry of Health utilises the same definition of diabetes as the World Health Organisation, in which diabetes mellitus is defined as a metabolic disorder of

- (i.) Multiple aetiologies
- (ii.) Characterised by chronic hyperglycaemia (increase blood sugar levels) with disturbances of carbohydrate, fat and protein metabolism
- (iii.) Resulting from defects in insulin secretion, insulin action or both.

(Ministry of Health, 2003, p.1)

Diabetes can be split into three types, I, II, and gestational. Gestational diabetes is only experienced by a small number of women during pregnancy. The researcher has therefore decided to exclude gestational diabetes from the project. Types I and II diabetes are by far the more common types, each with their own identity, causes and effective management plans.

Type I diabetes mellitus is an “Auto-immune disease, in which insulin-producing pancreatic beta cells is destroyed” (Ministry of Health, 2003, p.1). The onset age for this type of diabetes is witnessed from childhood, usually through to young adults under the age of 30 (Ministry of Health, 2003). Thus, type I can be described as a genetic abnormality which leads to the development of an auto-immune disorder which affects the patient for the majority of their life.

Type II diabetes mellitus is more common than type I, with the Ministry of Health reporting “an epidemic of type II diabetes mellitus is occurring in New Zealand” (Ministry of Health, 2001, p.2). This type of diabetes results from insulin resistance and has generally been associated with obesity, poor lifestyle choices and poor general health. The Ministry of Health indicates that the risk of developing type II increases with age, whilst also providing information that suggests Māori and Pacific Island people are those in the highest risk category, due to higher rates of obesity and increased body mass index (Ministry of Health, 2001).

Moore and Lundt contribute to this argument indicating Māori and Pacific people tend to consume a diet that is higher in fat when compared with the general population of Aotearoa (Moore & Lundt, 2000). Moore indicates that the diet consumed by Māori has the potential to lead to an increased risk of developing type II diabetes mellitus, due to the population’s tendency to have centralised adipose tissue (tummy fat) (Moore & Lundt, 2000). The factors described combine to significantly increase the risk of obesity, measured by the body mass index rating of over 30 kg/m<sup>2</sup> (Moore & Lundt, 2000). Moore transferred this risk into a prevalence rating, which scores Māori at 8.3% and Pacific Islanders 8.1%, as opposed to their significantly lower European counterparts at 3.1% risk of developing type II diabetes mellitus throughout their lifetime (Moore & Lundt, 2000). This is indeed indicative of a correlation between obesity and type II diabetes.

When addressing how an integrated service approach could influence the risk factors associated with type II diabetes mellitus, it could be proposed that education and diet related professionals, like dieticians and nutritionist could be included within the scheme. The knowledge and experience these health practitioners possess would ensure Māori are fully informed whilst guaranteeing contributing lifestyle factor are altered in order to reduce the high prevalence rate of Māori. The health professionals mentioned above have the ability to intervene early, and potentially reduce the potential for an individual to develop type II diabetes.

## **6.2 Type II Diabetes; Prevalence**

The research predominantly discusses type II diabetes mellitus, with justification for the researcher narrowing the study to focus on this being that “the prevalence of type II diabetes and its associated manifestations is higher in New Zealand Māori than New Zealand Europeans” (Ihaka & Rome, 2011, p.1). With evidence such as that provided by Ihaka and Rome a critical analysis of type II diabetes is essential.

“Type II diabetes mellitus is not a sudden illness” (Harwood & Tipene-Leach, 2007, p. 165). Rather it is a disease that reflects the complex nature and balance of good health. Harwood and Tipene-Leach suggest that the development of diabetes is an interaction between our body and the environment, in response to the social determinants of health (Harwood & Tipene-Leach, 2007). Therefore, it should not be surprising that Māori suffer disproportionately and are reported to suffer low socio-economic status (Ministry of Health, 2007).



Diabetes is a disease in which there are huge disparities in prevalence and outcome for Māori (Harwood & Tipene-Leach, 2007). Suggesting the Māori population is more likely to experience that impact diabetes can have on health. Harwood goes on to suggest that “for no other disease are significant health inequalities more obvious than when we look at diabetes” (Harwood & Tipene-Leach, 2007, p. 162).

- Māori are three times more common to suffer from type II diabetes.
- Māori aged 45-64 years of age death rates are nine times higher, compared with non-Māori of the same age.
- Māori are diagnosed with type II diabetes on average 5 years prior to non-Māori diagnosis.
- Māori are more likely to develop complications associated with type II diabetes.

(Harwood & Tipene-Leach, 2007)

Simmons (2006) indicates through the report ‘Diabetes and its complications among Pacific people in New Zealand’, that the important factors that contribute to the high prevalence rates of type II diabetes seen among Māori and Pacific populations are lifestyle factors.

The diabetes prevalence rate within the Taranaki region is remarkably similar to that of the national level, as indicated in table 6.1 Diabetes Prevalence, 15+ years, per 100.

**Table 6.1 Diabetes Prevalence, 15+ years, per 100**

	Taranaki District Health Board 2002/03		New Zealand 2002/03	
	Māori	Non-Māori	Māori	Non-Māori
<b>Female</b>	4.4	2.6	6.7	3.3
<b>Male</b>	11.1	3.4	9.5	4.0
<b>Total</b>	7.6	3.0	8.0	3.6

*Source: Adapted from Ministry of Health, 2007*

Table 6.1 illustrates the extent of diabetes within Taranaki, specifically for Māori males, shown to be higher than the national average. Results such as these suggest the ongoing implications and complications associated with diabetes within the Taranaki region must be considered and analysed. Acknowledging there are disparities in the representation of diabetic patients throughout Taranaki will ensure the necessary strategic structures and service provisions are extended to those that have the highest level of requirement.

### **6.3 Type II Diabetes; Complications & Treatment**

Ethnic disparities associated with Māori diabetic complications are disproportionately high when put side by side with non-Māori (Harwood & Tipene-Leach, 2007). Thus suggesting those of Māori descent are more likely to suffer complications associated with their type II diabetes. Harwood suggests the incidence and mortality rates for type II diabetes are set to significantly rise over the next 20 years, impacting the health and wellbeing of many Māori (Harwood & Tipene-Leach, 2007). Therefore, it is essential that correct procedures and

interventions are put in place to ensure the early detection of diabetes and that those diagnosed are effectively managed to ensure Māori are able to lead full and active lives (Harwood & Tipene-Leach, 2007).

The prevalence rates of type II diabetes at present, along with the associated complications of the disease are significantly impacting the New Zealand health system. Therefore, affecting the health and lifestyle of many Māori (Simmons, 2006). The growing prevalence of the disease within contemporary New Zealand has resulted in the overloading of hospital services due to complications associated with the disease (Gifford, Handley, MacDonald & Menamin, 2007).

“diabetes is the third leading cause of premature death in Māori males, and the fifth leading cause of premature death for Māori females” (Leving-Wai & Sanderson, 2009, p.46).

Thus being said, it is essential researchers explore aspects of diabetic intervention and treatment, in order to assess how Māori health and wellbeing can be positively influenced. This section will discuss the complications and treatment options available to those that suffer from type II diabetes in order to set the scene for the following chapters, which will discuss services in a little more detail.

**Table 6.2 Diabetes indicators (New Zealand)**

Indication	Māori			Non-Māori		
	Male	Female	Total	Male	Female	Total
Diagnosed diabetes prevalence (self-reported), 15+ years	6.2	4.4	5.2	5.6	4.3	4.7
Diabetes complications renal failure with concurrent diabetes, 15+ years, rate per 100,000	139.5	86.7	111.0	14.0	11.5	12.6
Diabetes complications lower limb amputation with concurrent diabetes, 15+ years, rate per 100,000	52.2	28.3	39.4	12.2	5.0	8.4

*Source:* Adapted from Ministry of Health, 2010.

Table 6.2 diabetes indications suggests the prevalence of diabetes is similar for Māori compared with non-Māori, however the complications associated with diabetes is noticeably higher for Māori patients as opposed to their non-Māori counterparts. Table 6.2 includes both type I and II diabetes, in which type I diabetes is clearly more controlled. Therefore, the results are more indicative of the disparity seen in complications associated with Māori and type II diabetes. The inequity created between the two suggest Māori require additional treatment and services that will enhance health and well being. (Ministry of Health, 2010).

Harwood suggest there are many reasons to explain the disparities experience by Māori diabetics, however also argue there is evidence to suggest ethnic inequalities regarding access to, and quality of care have the potential to contribute to the ongoing inequities (Harwood & Tipene-Leach, 2007). The disparities expressed can be reduced through a complex and comprehensive approach to management, which addresses all levels of health determinants (Harwood & Tipene-Leach, 2007; Simmons, n.d).

### **Prevention**

Prevention of diabetes would ensure the enhancement of health and wellbeing for Māori (Harwood & Tipene-Leach, 2007). Utilising the services and encouraging an integrated service approach would equip Māori with the knowledge to alter their current lifestyle patterns and help adopt a healthy lifestyle that encourages an appropriate diet, exercise and weight management (Harwood & Tipene-Leach, 2007).

Zimmer supports Harwood idea, and indicate that exercise and a well-controlled diet can reduce risk factors to patients, however strict glycaemia control may also be essential for optimal success (Zimmet, Albert & Shaw, 2001). Poorly controlled glucose levels within the body may result in micro vascular complications, consequentially affecting the small capillaries which supply blood to the extremities; hands, lower limb, feet and eyes (Zimmet et al, 2001). It is these complications that general practitioners, diabetic educators, surgeons, district nurses and diabetic podiatrists are concerned with addressing in order to reduce the control diabetes is holding over individuals.

## **Screening and Diagnosis**

Screening and early diagnosis is essential for successful management of type II diabetes (Harwood & Tipene-Leach, 2007). Intervention and management of the disease before it is given the chance to progress will enhance health and wellbeing, and reduce the potential of complications to arise (Harwood & Tipene-Leach, 2007; Simmons, n.d).

The Ministry of Health guidelines recommend that Māori, aged over 35 years present to primary health clinics to undergo blood glucose testing (Harwood & Tipene-Leach, 2007). Harwood indicates however that Māori are not utilising these low cost and often free services, with support from 2002 statistics that indicates approximately 80% of non-Māori were screened, as opposed to 35% of Māori. These figures suggest Māori health education and understanding of type II diabetes is not fully comprehended. Therefore, interventions that ensure Māori are knowledgeable such as health education should be encouraged.

## **Treatment**

Diabetic treatment options are varied, with pharmacological intervention common for type I diabetes due to its genetic nature, along with the aetiology of the disease which suggests the patient is unable to physically produce the insulin required to metabolise sugar (Lebovitz, 1999). Type II diabetes differs to type I, as it is a progressive metabolic disorder which results from beta cell failure. Treatment for type II is dependent on individual circumstances, including but not limited to diet, lifestyle choices and exercise. As the disease progresses, or for those that struggle

to maintain health blood glucose levels, Lebovitz suggests pharmacological intervention may be necessary (Lebovitz, 1999).

Type II diabetes has the potential to be a debilitating disease, that that could affect the entire population. Research suggests Māori are at a higher risk of developing the condition, therefore it must be ensured that contemporary Māori centred research is undertaken and that the best and most efficient methods of service delivery and management are engaged.

Diabetes is a chronic disease which requires an individual management plan, ongoing education and future service provisions in order to prevent the occurrence of any complications (Barnett, Pearce & Howes, 2006). The treatment of type II diabetes would benefit from an integrated service approach. Integration of diabetic services would encourage participation of all Māori, including patients and health practitioners in the development of contemporary service plans and procedures. The integration of services has the potential to ensure the essential treatment and management methods are employed. An integrated service approach would be able to include screening, education services, along with management and treatment procedures that would encourage positive health gains for Māori.

### **Diabetes Care Improvement Package**

The diabetes care improvement package is an initiative funded by the Ministry of Health, taking over from the 'get checked' programme in 2012 as it was not providing critical improvement (Ministry of Health, 2012). Although it is described as a 'package' it should be considered as funding for individual District Health

Boards to create and implement their own structures, policy and management (Ministry of Health, 2012).

Māori and Pacifica people are more likely to be disproportionately affected by type II diabetes and its complications (Drury, Hoeben, Lloyd, Orr-Walker & Robinson, 2013). With this being said it is essential the New Zealand Government and Ministry of Health address these concerns, and implement a strategy in order to start reducing these. Drury indicates that the 'Diabetes Care Improvement Package' has been introduced to the health system, to place coordination of diabetes care in the hands of District Health Boards, rather than retaining it at National level (Drury et al, 2013). Through the encouragement and local recognition of the package, District Health Boards will be able to build their own models based on the New Zealand Diabetes Guidelines, in response to the specific needs of the people that reside in their region (Drury et al, 2013).

The diabetes care improvement package was only implemented in 2012, and there is little evidence available that reports on the development or achievements of the initiative. General consensus indicates that this new and improved structure has the potential to create positive change through

- Higher patient involvement, through increased health literacy, health seeking behaviour and self-management of care.
- A greater role of nurses in coordination and the delivery of resources.
- Involvement of allied health care and community care providers, doctors, and primary health care.
- Moving towards a 'clinical outcome' rather than output basis of measuring quality of care (Drury et al, 2013)



Drury concludes that although the diabetes care improvement package may not eliminate type II diabetes, its structure will work to reduce disparities experienced in health and health care services suited to Māori (Drury et al, 2013). The advantage of this package is the way in which community participation is encouraged throughout the planning and implementation stages (Drury et al, 2013).

The research suggests it is important to note the diabetes care improvement package is a management system that has recently been adopted by the Ministry of Health. Although it provides a method with potential to ensure suitable care for Māori diabetics, the implementation and safe running of the method is yet to be determined.

#### **Taranaki District Health Board – Diabetes Care Improvement Package**

The Diabetes Care Improvement Package is said to ensure a comprehensive and quality approach to long term conditions such as diabetes, which require ongoing social care and management that considers the needs of the individuals and communities (Drury et al, 2013). It is essential to address how this nation wide structure is being implemented by the Taranaki District Health Board.

The Taranaki District Health Board, Annual Report for 2011-2012 states that “we are currently working with primary health organisations in developing their diabetes care improvement packages” (The Taranaki District Health Board, 2012), and also indicates they have achieved 54% of re structuring. The aims of the board are to achieve 60% through a long term plan. Other than this indication through the annual report there is no other literature currently available which suggest how the

Taranaki District Health Board are addressing this service method or what is included in this package approach.

Overall, the diabetes care improvement package seems to suggest the Ministry of Health is taking the first step to acknowledging there are many long standing disparities that exist within diabetes care. If the Taranaki District Health Board is to align its diabetes care with the needs of the regions population a specialist approach is required.

## Chapter Seven

# THE RESEARCH, IMPLICATIONS& DISCUSSION

### 7.1 Introduction

Chapter six of the report will specifically focus on the importance of integrated services for Māori diabetics within the Taranaki region, as researched throughout the process of this study. This specific area was chosen predominantly due to the researchers' background as a health professional, and secondly because it is an area that has little evidence as to why and how it could be beneficial for Māori health and wellbeing.

Treatment, services and health professionals concerned with type II diabetic patients will be examined in order to provide the necessary information required, enabling the researcher to make sound, and unbiased recommendations. The health professionals who have participated in this study are responsible for providing services that relate to the treatment and education of diabetic complications such as compromised blood supply to extremities, which can result in pressure areas, sores, infection, gangrene and possible amputation.

### 7.2 Integrated Care

The thesis aims to establish the importance of integrated services, and how this could impact Māori diabetic's patients within the Taranaki region. Therefore, this section will aim to define integrated care, and provide a discussion that illustrates

what an integrated service approach could achieve and address strengths and weaknesses associated with this sort of management system.

'Integrated care' as a term has been alluded to by many health care professionals along with providers. Kodner describes 'integrated care' as an international buzz word (Kodner, 2002). Kodner goes on to suggest it is "an important framework to develop better and more cost effective health systems" (Kodner, 2002, p. 757). However, before going any further it is essential to define what integrated care is. New Zealand currently does not have an agreed definition of 'integrated care', however Ball suggests that utilising an early definition illustrates the capacity of the idea,

Integrated care can refer to the co-ordination of primary and secondary services; it can mean placing the responsibility on provision of several services with a single agency or placing the responsibility for provision of services with many agencies to co-ordinate decisions. (Ball, 2010, p. 5).

Health care systems are complex by nature, in which historical methods work to divide the various areas essential to building good health including funding, professional cultures and differing opinions (Kodner, 2002). However, Kodner suggests without the integration of these services health and wellbeing are said to suffer as patients are lost within the system, services fail to deliver and the quality of care experienced by patients declines (Kodner, 2002).

"Integration is the bringing together of inputs, delivery management and organisation or services as a means of improving access, quality, user satisfaction and efficiency" (Kodner, 2002, p. 758). This is supported by Ball who indicates that

integrated care ensures relationships and communication channels between health professionals and patients are open and clear to enhance information flow, and ensure access to their services are achievable for all patients (Ball, 2010). Jansen offers her opinion and indicates that the integration of services can provide an effective solution to treatment and management of conditions for Māori (Jansen, 2008). Jansen (2008) goes on to suggest that integrating services can enhance engagement and contributes to a more coordinated health care approach. As indicated previously, the Integration of services for Māori has the potential to safeguard patient wellbeing and would allow for clearer accountability for service quality within the New Zealand health care system.

Ramsey suggest integrated services can be separated into four areas (Ramsey & Fulop, 2008) are illustrated in table 7.1 Integrated services.

**Table 7.1 Integrated Services**

<b>Integration Type</b>	<b>Involvement</b>
<b>Organisational integration</b>	Organisations are brought together by mergers and/or structural change.
<b>Functional integration</b>	Where non-clinical support and back-office function are integrated
<b>Service integration</b>	Where different clinical services provided are integrated at an organisational level
<b>Clinical integration</b>	Where patient care is integrated in a single process both within and across professions

Adapted from Ramsey & Fulop, 2008 p. 11

‘The importance of establishing an integrated approach to diabetic care for Māori patients in Taranaki’ centres on service integration. Where management can ensure

clinical diabetic services including Podiatry, mental health, radiology, nurses, specialists and education staff are offered to all patients. The ability of these services to co-ordinate their efforts has the potential to enhance health and wellbeing.

Andrews addressed the key features which are common for all integrated service models of care

- Improved communication between providers.
- Easier access to treatment for consumers.
- Clearer flow of information.
- Clearer accountability for service quality and health outcomes.
- A key person organising care.
- More convenience for consumers.
- More coordinated clinical and financial management (adapted from Andrews, 1999,)

An integrated service approach could potentially address the complexity of type II diabetes, in which it would enhance the features discussed by Andrews. This is possible as health care integration covers a range of areas where coordination of services not limited to the locations of health clinics, co-locations of health and social services, shared-care initiatives, vertical integration and integrated care pathways for patients that suffer from chronic conditions (Ball, 2010). An integrated service model for addressing the concerns of type II diabetes must include education service provisions, various treatment and management options and offer a supportive environment where these goals are made achievable. A multidisciplinary approach would therefore cater to the various needs of patients, and enhance the quality of life by providing a more holistic service (Kodner,

2002). Clinical integration would be the secondary form of integration, which could occur long term following initial service integration.

An integrated service approach could be established within Taranaki to ensure Māori receive essential treatment and access to care, in order to reduce complications associated with type II diabetes. As an example, the Whanganui District Health Board alongside Whanganui Regional private health organisation and Taumata Hauora trust private health organisation developed a proposal that placed a greater emphasis on equity of access. The proposal focussed on providing services based within local communities in particular focused on targeting high risk patients such as Māori and Pasifika. The proposal was introduced to reduce diabetes risk, enhance management, and strengthen the relationships between service providers (Gifford et al, 2007). These goals would be achieved by including Māori and whanau at the planning stages of diabetes service delivery. Also there was an integration of public health and health promotion services, whose aim was to enhance diabetes awareness and assist with complication management by providing services such as 'Healthy eating Healthy Action'. An integration of services would extend to nurses, podiatrists, diabetes educators, pharmacy facilitators, Pasifika nurse specialists, Kaiawhina and community liaison officers who possess local knowledge (Gifford et al, 2007). The integration of such a large number of services ensures a more effective use of all health practitioners time, with the aim to enhance the utilisation of services for Māori.

Ultimately, Kodner suggests that "integration may be seen as a step in the process for health systems and health care delivery becoming more complete and comprehensive (Kodner, 2002, p. 759). Service integration for the purpose of diabetes care would ensure health professionals have necessary skills, and knowledge that guarantees the advancement of health and safety of their patients. In an event where further action must be undertaken to enhance the health and/or

wellbeing of their patient, the structures and management procedures would be in place to ensure effective action across various service platforms and providers is optimised.

### **7.3 Introducing the Participants**

Introducing the participants is an essential section of this thesis. It aims to give the audience an insight into the health practitioners that were interviewed. Jansen suggests “Māori patients receive a lesser standard of care than non-Māori from primary health care providers” (Jansen & Smith, 2006, p. 298). The disparity is often due to the relationship established between the practitioner and patient, and results in miscommunication and often mistreatment (Jansen & Smith, 2006). Therefore, I will introduce the patients to establish an understanding of their personal background, knowledge and experience, which could influence how they each respond to the needs of their patients.

A major task of diabetes care providers is to support patients in performing necessary self-care behaviours using well-accepted strategies such as recommending effective self-care regimens and educating patients... (Peyrot & Rubin, 2007, p.2433).

The researcher utilised the kind donation of time from various health professionals based in the Taranaki region, in order expand on the initial pilot study *‘Indigenous health: Impact of Podiatry of Māori health and wellbeing in Taranaki’* at post graduate level throughout 2011/2012 .



Health professionals all have their distinct reasons for taking on the challenging role of working, treating and educating patients. This section will explore their personal reasoning for becoming a health professional, whilst examining the way in which their opinions on diabetes and Māori health in Taranaki impact their ability to provide suitable care.

The identity of these participants will remain anonymous in accordance with the 'informed consent' form each person signed, however identifiable traits such as job, position, and academic background is essential to note. The information provided by each participant will assist the researcher to discuss integrated services, diabetes type II, and Māori health across varying health practitioners field of expertise.

Research Code: Health practitioner one

Qualifications: Bachelor of Applied Science (Medical Imaging Technology)

Current Job/Position: Clinical Radiographer. Working for Fulford Radiology at the Taranaki Base Hospital.

This health practitioner is currently studying extramurally through Sydney University, towards a Post. Graduate Certificate in Computed Tomography. Health practitioner one suggests this study is necessary and useful to ensure *"I am up to date with current techniques, and service approaches"* (Health practitioner one). The expansion of this health practitioner's knowledge is an asset to the numerous patients, all suffering various health conditions that will seek these professional services. Lipsky et al. (2006) argues that advancing skills and proficiency of imaging techniques and services like those provided by this health practitioner are essential to help diagnose or better define pathologies such as adequate arterial perfusion. Treatment and management provisions which stem from accurate diagnoses are critical to the enhancement of health and wellbeing.

Research Code: Health practitioner two

Qualifications: Bachelor of Health Science, Post. Graduate Diploma in Psychology, Bachelor of Science and an Honours degree in Psychology.

Current Job/Position: Intern Clinical Psychologist, with the Mental Health Unit based at Taranaki Base Hospital.

Health practitioner two is currently completing a Doctorate of Psychology, and states her reason for continuing education and working within mental health is due to *“a passion for working within a mental health setting to provide assessment and treatment for those who are seeking and would benefit from a better quality of life”* (Health practitioner two). The decision to utilise the services and opinions of a psychologist is largely based on the emotional distress a diagnosis of type II diabetes mellitus can cause (Peyrot & Rubin, 2017). This health professional provides essential services for Taranaki patients to improve not only their mental health, but also contributes to the overall enhancement of health and wellbeing within the region.

Research code: Health practitioner three

Qualification: Bachelor of Health Science majoring in Podiatry  
Current Job/Position: Senior Podiatrist, and owner/operator of Taranaki Podiatry.

This practitioner brings a wealth of knowledge to the participant field. This Podiatrist has seen the health structure within Taranaki change, and currently provides diabetic foot services to the regions ‘at risk’ diabetics (Taranaki District Health Board, 2006). The use of a Podiatrist for the purpose of this thesis ensures some continuity and expansion from the pilot study. It was established within the pilot study that *“Podiatry is an important part of an integrated diabetic service approach, and contributes to positive health gains for Māori”* (Atkins, 2012). This Podiatrist suggests *“the majority of this clinics workload is responding to the*

*increasing need of Māori clients, who are suffering from diabetes” (HP Three). The clinic provides assessment, treatment and ongoing education for diabetic patients.*

#### **7.4 Nature of Services**

This section will explore health care services and providers located in the Taranaki region. Using the nature of the services available for diabetic patients, this section will illustrate how integrating services and ongoing communication between different professionals is of a heightened priority. Jansen states “Māori patients receive a lesser standard of care than non-Māori from primary health care providers due to non-concordant relationships between the provider and patient” (Jansen & Smith, 2006, p. 298). An integrated service approach has the potential to meet the combined needs of many diabetics throughout the region whilst contributing to enhancing practitioner and patient relationships. Recognising how important diabetic treatment provisions are for all Māori patients is essential, as the aim of this research is to investigate the importance of establishing integrated services within the Taranaki region.

Barwick suggests that health professionals need to “appreciate that attitudes to health, health promotion and treatment are culturally determined and may influence patient’s responsiveness to health care advice” (Barwick, 2000, p. 22). This researcher suggests that the nature of health services provided by practitioners contributes significantly to treatment, understanding and utilisation of the services. Therefore, the nature of service delivery was observed and could be an area for development, which would target Māori health and wellbeing.

## Essential Services

There are critical diabetic services that all patients should have access to including treatment, education and support (Rea et al, 2007). The services mentioned contribute greatly to increasing knowledge and assisting diabetic patients through the long standing disease process. This section will explore the nature of these services in order to establish how they are offered and if clinicians and health professionals work alongside other health professionals. This section also uncovers some health practitioner's personal thoughts.

*"You cannot have once service without the other, referral pathways need to be clear and appropriate"* (Health Practitioner three)

Health practitioner three summarises her view on diabetic treatment and suggests that all health professionals must work together in order to provide beneficial services for diabetic patients. This statement also indicates the use of referral pathways, and suggests that in order for health objectives to be met, the ability for practitioners to work side by side is important when providing optimal treatment for diabetic patients.

**Question: *"What services do you think are essential for improving health and wellbeing for patients suffering from diabetes?"***

The question was proposed to the health practitioners to measure their responses, and see if any considered the same diabetic services to be essential. This question

was framed not to test the participants, but to gauge their approach to diabetes and health care.

**Table 7.2 Participants response to Essential Diabetic Services.**

Health Practitioner One	Health Practitioner Two	Health Practitioner Three
1. Diabetic Educator	1. Diabetic Educators	1. Diabetic educator
2. Dieticians	2. Dieticians	2. Podiatrist
3. Nutritionist	3. Nutritionist	3. Dietician
4. Psychologist	4. General	4. Nutritionist
5. Exercise classes	Practitioner	5. Vascular Surgeon
6. General Practitioner		6. Endocrinologist
		7. Orthopaedic Surgeon

The three health practitioners interviewed for this research all agreed that diabetic educators, dieticians and/or nutritionists were required when formulating a treatment programme for type II diabetics. Whilst each individual health practitioner obviously included their own field within essential services, the other services and professions mentioned includes podiatrists, vascular surgeons, endocrinologists, orthopaedic surgeons, and exercise classes. Health practitioner three was the main contributor to this exhaustive list, which was interesting to note, indicating to this researcher that not only do the general public need to be educated on services, but also health professionals must be made aware of what services are available.

*“Multidisciplinary teams and services are needed, and increased primary care service would be essential to improving this” (Health Practitioner two)*

The statement made by health practitioner two would suggest that an integrated service approach which encompasses a multidisciplinary approach to health care would be beneficial. This health practitioner indicates this could be achieved by increasing the access to primary care services throughout the region. A literature review conducted by Barwick supports the view of this health practitioner, and indicates that over the past 10 years Aotearoa has seen a significant change to the funding of services, such as primary health care (Barwick, 2000). Barwick suggests that although General Practitioners remain the significant provider, there has been an increase in third sector providers, for example Podiatrists and Nutritionists, due to an increasing demand. Relationships and partnerships have been developed between iwi, health providers and communities to ensure services that are required are reaching those in need (Barwick, 2000). The Taranaki structure is similar, as indicated in chapter two, where the researcher illustrates how the Taranaki District Health Board is structured to ensure participation of Māori (Taranaki District Health Board, 2006). The structure of the Taranaki District Health Board in turn should be able to incorporate an integrated approach to health care delivery, which would respond to the needs of Māori diabetics through;

- A multifaceted structure
- Enforcing a multidisciplinary approach
- Involve relationships and partnerships of local people
- Ensure interventions are culturally appropriate
- Tailor support material.

(Barwick, 2000, p. 4)

### **Practitioner's Answers Vary**

The researcher is unsure why each professional's list of whom they deem to be essential for diabetic treatment is varied. It could however be argued the question was framed in a way that encouraged the health practitioner to indicate only who they considered to be of highest demand. It is important to note that although the three health practitioners involved in this study did not name all the same services, they did suggest that a multidisciplinary team approach would be most beneficial for the ongoing care of patients. Health practitioner two indicates "*multidisciplinary teams and services are needed*". With the focus of this research centred on integrated pathways for diabetics, it is positive that such results were obtained, that indicate all three practitioners acknowledge there are many services that could contribute to the positive enhancement of Māori health and wellbeing.

Integrated pathways established by encouraging individual practitioners to communicate with other specialists within the region will ensure participation of all health professionals. Therefore creating a team environment which is beneficial for both patients and practitioners (Dagger, Sweeney & Johnson, 2007). Research conducted by Dagger goes on to imply that there are provisions for integrated care arrangements for the diabetic patients, which positively impacts primary care staffs' knowledge and patients' attitudes. The resulting attitudes would more than likely result in an increased number of appropriate referrals to acute specialist services. This is important as the general goal of integrated pathways is for all practitioners to work together in order to provide seamless care for patients with acute and chronic diabetes (Rea et al, 2007). Rea goes on to suggest that integrated care "extends to encompass preventative care, social care, and care and support in the home" (Rea et al, 2007, p. 1). Thus, a care approach of this manner recognises that there are many social implications that influence the health and wellbeing of an individual.

**Question: “of these services (noted above) are there any that Māori could/would find beneficial?”**

This question was a continuation of the first question posed to the participants. The researcher proposed this to analyse individual practitioners thinking whilst also illustrating if the practitioner recognises disparities in health care and access for Māori.

Health practitioner one offers an opinion and states “*I believe all services are equal for everyone in the community*”. This statement suggests that Māori receive services at an equitable standard to non-Māori through the Taranaki District Health Board. However, the presence of health disparities and research that contradicts this view, suggests there are discrepancies with access to and quality of care (Ellison-Loschmann & Pearce, 2006). The statement also implies that the health system provides a ‘one size fits all’ service, however it is evident from the introduction of He Korowai Oranga that in actual fact there are disparities in health that can only be addressed by ensuring Māori are guaranteed full access to suitable care (Ministry of Health, 2002). Māorians discussed throughout this thesis are a diverse population (Durie, 1991) and therefore it is essential to “*look at individuals on an individual basis, and assess their needs and requirements in order to promote change and make health a priority*” (Atkins, 2012).

Māori care services must ensure the services provided are appropriate for Māori clients and meet their ongoing and ever changing needs, whilst also being acceptable for Māori people, accessible, affordable and of high quality (Crengle, 2000). The view of Crengle is supported by health practitioner three who offers her opinion and indicates “*I think a Māori diabetic educator or a liaison person in the community would be beneficial to carry out diabetes education and referrals to*



*appropriate services*” (Health practitioner three). The statement made by this health practitioner would ensure a by Māori for Māori approach to health care was achieved, potentially altering the nature of the service provided to ensure a better fit for Māori requirements.

**Question: “Does your clinic offer any of these services OR do you know where these services can be accessed?”**

The health practitioners interviewed were asked if their clinics offered specific diabetic services, or if they knew and could point patients to where they could access services such as diabetic education. The researcher used this question to seek further knowledge and address where in the Taranaki region these services are available.

Health professionals one and two indicated none of these services were available within their clinic however, mentioned where information is available from. *“Not in our department, however in the hospital there is a renal unit which has brochures and professionals which can be of assistance”* Health practitioner one. This suggests that amongst health practitioners there is awareness and understanding of the importance of diabetic programmes and services. Even though the profession they are working within may not be able to offer the full complement of treatment and education, they are willing to point patients in a more beneficial direction and offer assistance. Barwick suggest that a health practitioner must “be committed to providing full information ensuring patients full understanding” (Barwick, 2000, p. 21). The ability of a practitioner to ensure the patient is fully informed about their condition, and respond to any questions is of the utmost importance. If a practitioner does not know how to respond to questions, or the question is beyond them, directing a patient to where information is available is essential.

**Question: *“If your practice cannot provide these services do you have the ability to incorporate an integrated service approach?”***

This question was presented to the health practitioners with the thought it would provide some insight into the current structures and availability of integrated services within the Taranaki District Health Board.

The answers between the health practitioners vary, which could indicate that current integration of services within Taranaki has not been visited by policy management. Health practitioner two suggests that mental health does not have the ability to incorporate a multidisciplinary approach to treatment, *“however, should health concerns and health anxiety surrounding diabetes be a key issue for any client, it might be useful to have greater knowledge and ability to talk about it, and refer to diabetic specialist”* (Health Practitioner two). The abilities and knowledge of health practitioners is essential to ensuring patients receive accurate advice, and sound treatment. Jansen states *“effective communication skills improve the relationships between providers and patients”* (Jansen & Smith, 2006, p. 299). Jansen argues that there is literature that supports the idea that the greatest impact on patient satisfaction and the effectiveness and outcome of treatment is based around the personal skills and communication provider by the health practitioner (Jansen & Smith, 2006). Therefore, it is necessary to point out that this health practitioners view on expanding her personal knowledge, and ensuring she discusses and introducing partnerships is beneficial.

## **An Integrated Approach**

Integrated pathways encourage participation of all health professionals, in order to create a team environment with the established goal being to provide seamless care for patients with acute and chronic diabetes (Rea et al, 2007). Rea suggest that integrated care “extends to encompass preventative care, social care, and care and support in the home” (Rea et al, 2007, p. 1). Thus, a care approach of this manner recognises that there are many social implications that influence the health and wellbeing of an individual. For instance, the rapport between different health practitioners, along with their treatment pathways can influence how a patient is treated and referred. This is an important aspect as the mutual understanding and the way in which professionals communicate with each other can influence when and how a patient is perceived. Secondly, the rapport established between practitioner and patient is highly regarded, as patients are more likely to comply with treatment plans and ongoing suggestions when they feel as if they are being treated as equals. Overall, the achievement of integrated services is due to various factors which include the strength of multiple relationships. The failing of one relationship may result in the overall collapse of a patients care pathways, ultimately affecting their health and general wellbeing.

When relating the importance of integrated care pathways to the need of Taranaki, it is clear that this approach to ongoing management along with treatment of diabetic patients within the region is essential. Integrated services promise a more encompassing approach to service delivery. This service provision will enable health practitioners to provide necessary treatment options and if they are unsure, use already established referral pathways to ensure the patients continually receive the best care possible.

## 7.5 Access

Access to health care is an all-encompassing concept that leads to an individual's ability to reach out and utilise particular health services. Jansen indicates "there is no single reason why Māori patients receive less care than non-Māori in a primary setting" (Jansen & Smith, 2006, p. 299). Section 7.5 is dedicated to accessibility issues that hinder the enhancement of Māori health and wellbeing within the Taranaki region. Jansen recommends ways in which an integrated approach to service could potentially improve accessibility (Jansen & Smith, 2006).

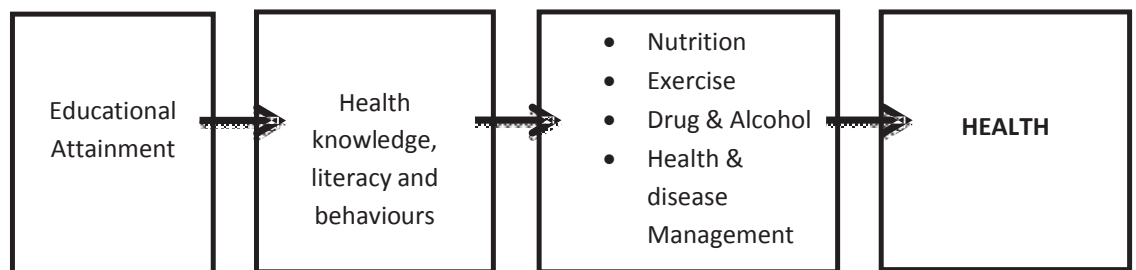
### Practitioner knowledge

The knowledge and attitudes held by practitioners is of utmost importance, with the attitudes of practitioners influencing the nature of service achieved. The attitude of practitioners can also act as a barrier to accessibility for many patients. Jansen implies that practitioners' knowledge regarding the management of patients, shapes the way in which treatment is provided (Jansen & Smith, 2006). Jansen suggests that lack of knowledge and effective communication skills can significantly impact patient satisfaction, understanding and utilisation of services. For practitioners it is essential they "*know the correct pathways and funding available to other services*" (Health practitioner three). If practitioners are not aware of other services which could complement what they are trying to achieve, an effective integrated service approach can not be provided.

## Educational Attainment

The educational attainment of patients is a key area when addressing accessibility. Although Egeter hints that few people acknowledge the importance of education as a barrier to accessibility, “education can lead to improved health by increasing health knowledge and health behaviours” (Egeter et al, 2009, p. 5).

Egeter illustrates through the following diagram how health and education are inextricably linked (Egeter et al, 2009).



Source: Egeter et al. 2009, p. 5

As indicated in Egeters’ diagram, educational attainment shapes the way in which individuals respond to health. Therefore increasing patient participation in health care services through expanding knowledge reduces this barrier to access. Health practitioner three states “it often appears as if their (Māori) health was not a priority, or significance of their diabetes was not acknowledged”(Health Practitioner three). This statement indicates that Māori are often not aware of the serious nature of their condition, which can be hindered by their educational attainment.

## **Self Awareness**

Self awareness is another form of access and can restrict a patients ability to seek necessary services. Health practitioners two and three suggest that self awareness and self care are the best methods of treatment for all patients. *“Often patients who have good self-awareness about their diabetes and self-care utilise the free service more than those high-risk patients (Health practitioner three).* Self awareness could be hindered by differences in education attainment, leading to the a reduced health literacy (Jansen, 2009). Thus suggesting that if Māori are appropriately educated and self-determination and autonomy are enhanced there may be potential for development of an integrated approach to health care. Durie supports this by indicating his thoughts on the barrier, and suggests that through the Rangatira framework, self determination, and increased health literacy could enhance the ability of Māori to deal with and access the services will assist in personal struggle with diabetes and the associated complications (Durie, 1994). Overall, an increase in personal awareness of what diabetes is, and the complications associated with it are, the more likely an individual will seek assistance. Breaking down this barrier could be achieved within the Taranaki region, by increasing the amount and quality of diabetes education, and ensuring any diabetic patients have equal and opportune access to these beneficial services.

## **Under Represented**

Māori are under represented in access to health care services (Jansen & Smith, 2006), which could detrimentally effect their total health and wellbeing. This under representation acts as a barrier to accessibility, and suggests that Māori are not receiving adequate care and management.

As discussed in chapters five and six, there are disparities that exist for Māori health. These disparities are evident in the prevalence rates for Māori diabetics when placed side by side with non-Māori. Harwood indicates that self prevalence of diabetes for Māori is 2.5 times higher than that of non-Māori (Harwood & Tipene-Leach, 2006). Therefore it is obvious Māori are over represented in regards to disease. A question to be answered in future research could be 'why then are Māori not accessing health care services?'

Health practitioner three indicates that the clinic she works in provides services that work closely with high risk diabetic patients as categorised by the Taranaki District Health Board. However, this health practitioner goes on to clarify that within the clinic and podiatric services she provides "*Maori do appear to be under represented in the referrals received, even when the services are provided free or at a subsidised rate*"(Health practitioner three). As this service is targeted as responding to the need of the community and enhancing the health and wellbeing of Māori this statement is a huge concern (Taranaki District Health Board, 2009).

This health professional's statement suggests two possibilities, either there are inequities associated with integrated services and/or referral pathways for Māori. This is supported by Ellison-Loschmann and Pearce who state "there is increasing evidence that Māori and non-Māori differ in terms of access to both primary and secondary health care services, that Māori are less likely to be referred for surgical care and specialist services" (Ellison-Loschmann & Pearce, 2006, p.16). The second possibility is that Māori are not actively seeking assistance, for what can be a debilitating disease. Health practitioner three indicates that "*often it appears health was not a priority or the significances of their diabetes were not acknowledged*" (Health practitioner three). Jantrana supports this health professional's opinion, and suggest that Māori are more likely to avoid necessary services due to accessibility issues (Jantrana & Crampton, 2009)

Overall, both possibilities as to why Māori are under represented and are not accessing essential care services are evident in current Māori health statistics. The reasoning for Māori not receiving this care is poor and indicates that improved and effective measures must be put in place to ensure inequity is reduced.

**Question: *“In your experience are people who require ongoing diabetes management knowledgeable regarding services that are available, and why they need to utilise them?”***

Health practitioner two states *“if they have been provided the best information and options by health professionals and have invested in undertaking their own research on the health matter, then yes, they are more likely to be knowledgeable and utilise the services”*(Health Practitioner two). Jansen however suggests that Māori in fact receive less care, possibly due to the current structure of the health system in New Zealand, that required patients knowledge of management pathways and service provisions (Jansen & Smith, 2006). Although this practitioner suggests patients do in fact know how to utilise the services on offer, their individual knowledge, education and social standing may have a negative influence on how and when they receive treatment.

Health practitioner two goes on further, and indicates that if *“key health professionals are to provide patients with necessary education and management pathways regarding treatment and service options, they will be more likely to engage in the services offered”*(Health Practitioner two). Without the building of relationships between practitioner and patient, knowledge is not passed on to those in need, and in effect indicates a greater potential for misunderstandings to occur (Jansen & Smith, 2006).



## **Socioeconomic Status**

Health care services in New Zealand are primarily based on a user pay system. This type of system tends to limit access for many individuals (Hefford et al, 2004). Therefore, socio-economic status is an area of access that must be addressed in order to suggest how integrating services could be influential to Māori health and wellbeing within the Taranaki region. Inability to pay for services contributes to discrepancies and disadvantages in health status. *“Knowing the correct pathways and funding available to other services”* (Health practitioner three), this statement suggests that within Taranaki financial constraints for patients to access services should be minimal, as there is funding and service provision for patients. The services should enhance health and wellbeing for Taranaki patients, however statistics suggest the current system may not be reaching those patients with the greatest need (Ministry of Health, 2002).

## **Cultural Fit**

The research, although not focused on patient treatment acknowledges the way in which patients are received and the weight a practitioners opinion can hold, which is reflected in current health status of Māori within New Zealand (Ellison-Loschmann & Pearce, 2006) . Jansen indicates that *“the fit between non-Māori provider and Māori patient influences the acceptability of services and adherence to treatment recommendations”* (Jansen, 2009, p. 1). Jansen also suggests that ‘the fit’ refers to perceptions of Māori patients feeling patronised, being mistreated and previous experiences of bias. If a working relationship that accounts for Māori beliefs and values is not realised, or at least alluded to, cultural fit will remain an area that acts as a barrier to access.

The pilot study uncovered cultural competency as a key factor that influences Māori accessing services. *“I guess they (Māori) are treated the same as everyone else, They are not treated differently, its a pretty good service, they leave feeling pretty good about themselves and are aware of their feet and what’s happening”* (Podiatrist two, 2012). The quote obtained from the Podiatrist uncovers how Māori patients are assessed within this practice, and although the practice and Podiatrist both provide a service that is equal for Māori and non-Māori, individual requirements are not necessarily taken into consideration. Thus suggesting, the services do not necessarily ensure equitable results for both Māori and non-Māori.

## **Transport**

The Ministry of Health highlights access and emphasises that travelling distances for rural populations, along with communication difficulties between māori and practitioners lead to obvious barriers associated with accessibility (Ministry of Health, 2002). The recognition of accessibility issues has led to the innovation of mobile service, Marae based clinics and outreach programmes which will help decrease the inequalities associated with access to care currently experience by Māori clients (Ellison-Loschmann & Pearce, 2004).

Durie indicates that Māori will require ongoing access to mainstream health services, therefore these services will need to alter they way in which they respond to specific Māori needs (Durie, 1991). Barwick states “workforce development strategies figures in the literature as a keyw ay to ensure that primary health care services are more accessible for minority groups” (Barwick, 2000, p. 3).The needs can be addressed through establishing partnerships at multiple levels of the health and disability sector as indicated through the principles established within the Treaty of Waitangi. Barwick also proposes that partnerships are not only

recommended, but necessary for the planning, implementation and success of new service pathways (Barwick, 2000).

The thesis research also revealed that health practitioner one has similar views to that expressed by Podiatrist two. *“I feel that all cultures are scanned equally and the benefits of our services are all the same for each patient”* (Health practitioner two). A study conducted under the instruction of the Ministry of Health compared Māori and non-Māori patients visits to Doctors indicates that Māori v. non-Māori imaging statistics suggesting that Māori patients are under-represented for imaging, plain xray, contrast imaging and ultrasound purposes (Ministry of Health, 2005). This report indicates that service provisions within Taranaki are not capturing Māori requirements, thus unfluencing how services influence Māori health and wellbeing.

Health practitioners two and three agree that Māori will benefit from greater accessibility to these services, including general health and diabetic education, in order to reduce health inequality. *“It is important Māori have ease of access to persons managing their diabetes, and who is aware of the services available and the barriers to them”* (Health practitioner three)

### **Improving Access**

The Ministry of Health indicates there is a substantial need to improve access to services and whilst reducing barriers that prevent Māori from obtaining essential services (Ministry of Health, 2013). Accessibility can be achieved through the implementation of the ‘Services to improve access’ strategy, which addressed this key priority (Ministry of Health, 2013). A number of the standard conditions for

district health boards, and health services requesting Services to improve access are outlined below;

- Be targeted to an enrolled population identified as Māori/Tangata Whenua. Pacific peoples and/or people living in NZDep index 9-10 decile areas.
- Show that the service is directed at improving the health of these target groups and improving their access to primary health care services.
- Provide a clear description of the service to be delivered and steps for implementation (Ministry of Health, 2013)

**Question: “Do you have any suggestions for how to facilitate access to these services for those in the ‘high risk’ category (specifically Māori)?”**

Health practitioner two offers her suggestions outlined in table 7.3 Health practitioner two – suggestions to facilitate access. Interesting to note is how most of her suggestions align to barriers of access mentioned throughout this section.

**Table 7.3 Health Practitioner two – suggestions to facilitate access**

<b>Transport</b>	<ul style="list-style-type: none"> <li>• Funding for transport</li> <li>• Regular home visits by district nurses</li> </ul>
<b>Socio economic</b>	<ul style="list-style-type: none"> <li>• Increased funding to ensure the advancement of services and practitioners</li> </ul>
<b>Cultural fit</b>	<ul style="list-style-type: none"> <li>• Introducing alternative approaches that provide a more holistic views</li> <li>• Consider the best fit for Māori</li> </ul>
<b>Multidisciplinary approach</b>	<ul style="list-style-type: none"> <li>• Increase management teams, and implement a multidisciplinary approach for improved integrated care</li> </ul>

## Conclusion

The Ministry of Health presented research that addressed reducing inequalities. This research led to the development of four possible areas where accessibility concerns must be directed.

- **Structural** – social, economic, cultural and historical factors which determine health
- **Intermediary pathways** – impact on social, economic, cultural and historical factors on health status is mediated by various factors
- **Health and Disability services** – what service can specifically do
- **Impact** – minimising the impact of disability and illness

(Ministry of Health, 2002, p. 18)

Access is a critical factor which influences the health and well being of both Māori and non-Māori. Ellison-Loschmann state “Improving access to care is critical to addressing health disparities...” (Ellison-Loschman & Pearce, 2006, p. 13). The statement suggests access is a vital component to address when considering the importance of integrated services for diabetic patients within Taranaki.

In conclusion, “integrated care models expect to address the growing complexity of patients needs by responding in a coordinated fashion and by providing the appropriate combination of social and home care in the community” (Rea et al, 2007, p. 2). With recommendations to instruct a change of service delivery ideas, and the importance of integrating services for diabetes, health professionals and health development officers seek to implement systems of care that ensure all patients have access to services.

## 7.6 Barriers to Information

“Knowledge is power. Information is liberating. Education is the premise of progress, in every society, in every family” - Kofi Annan

A health professional or practitioner is defined as “all people involved in the promotion, protection or improvement of health of the population” (Dal Poz, Kinfu, Drager & Kunjumen, 2007, p. 2). Therefore a health professional in New Zealand, must contribute not only to general health and wellbeing, but also promote Māori health and development.

When first addressing the researcher concerns regarding the recruitment process, the researcher was under the impression that health professionals throughout Taranaki would be keen and excited to have the opportunity to contribute to research and enhance health in the region. The potential to help and assist an area of health that is considered a priority would have been one reason participation should have been heightened, however it is clear from the three health practitioners recruited that this process proved negative.

Initial responses were positive and suggested there would be a number of various health practitioners involved in the study, however when it came time to complete the interview process health professionals opted not to participate. The opinions of health practitioners would provide valuable insight, knowledge and experience, and without this information the results obtained only provide a part of the necessary information which would contribute to a robust thesis.

Health practitioner three asked the researcher how the recruitment phases had gone following her interview. The researcher indicated that it hadn't gone as well as initially thought and asked the health practitioner "do you have any idea as to why other health professionals are withdrawing?". Health practitioner three indicated that "*some people aren't as concerned with Māori health failings, as they are with keeping up appearances*" (Health Practitioner three). The response of health practitioner three implied this research could have implications for individuals and the possibility that negative results could hinder them professionally was not considered viable.

The proposed participants' stance on the topic restricted the number of participants to three, thus reducing the content, understanding and impact this study could have provided. Overall, the research procedure has been a valuable experience for the researcher.

## Chapter Eight

# RECOMMENDATIONS & CONCLUSION

### 8.1 Re-introducing the Research

Every person whether they be of Māori or non-Māori descent has the right to enjoy the highest standard of health care and assistance to ensure their quality of life is not hindered in any aspect. The reality is that many individuals are subjected to less than adequate levels of health which are reflected in research, statistics and are commonly discussed at both local and national level governance. Many factors dating back to colonisation have significantly influenced the health and well being of many contemporary Māori. To achieve health gains for Maori, recognition of the impact of these events must be accepted and leadership established to ensure future generations are not subject to the same penalties. Chapter eight brings together all the aspects that have been discussed, and which influence Māori health and wellbeing. This chapter shows how each experience can be utilised to develop an effective integrated approach to diabetes care for Māori in Taranaki.

The thesis examined the contemporary idea of integrating services, in the hope that establishing an integrated service approach for Māori diabetic patients in the Taranaki region. The four objectives to be addressed in the research were,

1. Investigate diabetic services in the Taranaki region.
2. Assess the importance an integrated approach could have on the community.
3. Ascertain the importance of access for all diabetic patients within Taranaki.



4. Provide insight into the reason health professionals work with diabetic patients and how these reasons could influence treatment and education.

This chapter will overview how each of the four objectives were met, and summarise the findings of the research to address the thesis topic; “the importance of establishing an integrated approach to diabetic care for Māori patients within the Taranaki region”.

### **Diabetic Services**

It is clear from the research that there are many individual approaches to diabetic services currently operating within the Taranaki region. What they are achieving and their potential for development is yet to be recognised. One service in particular is providing an adequate level of diabetes treatment and support for Māori is Podiatry, which has now been examined in both the pilot and thesis research process. From the evidence provided podiatric treatment and service provisions throughout the region are providing an integrated approach to care. There are multiple pathways that have been established for referral procedures into the various clinics. What this service does not account for is the Taranaki District Health Board Podiatry referral protocol, which will indefinitely exclude individuals from receiving treatment. Health practitioner three indicated how closely her practice actually works with high risk diabetic patients, suggesting there is a need for additional patients to be seen, however regulations exclude these lower risk patients. As for the other two health practitioners, diabetes treatment and education was not the main component of their practice however, if needed they have the knowledge, skills and experience to ensure their patients would have access to diabetic specialist care throughout the region.

Integrating services provided by each individual practitioner would encourage participation in delivering appropriate and culturally safe health care services at all levels. Therefore, integrating the established services throughout the region would ensure there are seamless transitions from one to another which would benefit health and wellbeing outcomes.

### **An Integrated Approach**

There is evidence that suggests integration can be an effective way of delivering health care, and it can provide opportunities to break down barriers between primary and secondary health care, as well as health and social care (Ramsey & Fulop, 2008, p. 1)

A multidisciplinary or integrated approach to diabetic care within Taranaki is essential to improve the overall health and wellbeing of the total Māori population residing in the region. Dyall outlines the principles underlying service delivery, in his conference paper 'bringing together current strategies and building holistic frameworks to the future of good health' (Dyall, 1995). The framework provides a response to suitable service delivery whilst addresses access to services as a key priority. The principles must be employed by the Taranaki District Health Board in order to ensure an integrated service approach is the best fit for contemporary diabetes issues.

**Table 8.1 Dyall's principles for service delivery**

Choice	<ul style="list-style-type: none"> <li>• A range of services provided</li> <li>• Services delivered from a Kaupapa Maori grounding</li> </ul>
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Relevance	<ul style="list-style-type: none"> <li>• Service should be culturally relevant and able to address actual needs</li> </ul>
Integration	<ul style="list-style-type: none"> <li>• Services should integrate with one another, rather than stand alone.</li> <li>• Purchasing should strengthen intersectoral relationships and unite funding available for Māori health development.</li> </ul>
Quality	<ul style="list-style-type: none"> <li>• All services purchased should define the outcomes to be achieved for Māori</li> </ul>
Cost effectiveness	<ul style="list-style-type: none"> <li>• Services should be value for money</li> </ul>

*Source: Adapted from Dyll, 1995, p. 1*

Establishing A suitable and reliable integrated service programme will strengthen relationships between service providers, encourage education and enhance public knowledge of type II diabetes. An integrated management style has the potential to increase the health and wellbeing of Māori within the region, as the complications of type II diabetes are addressed and minimised. As stated previously, establishing an integrated approach to health care within the region will ensure a streamline service which operates at all levels of the health care system.

Integrating diabetic services within Taranaki is a short term goal. The ability of the Taranaki District Health Board to respond to the concerns of the community and local iwi can be addressed by utilising its current management structure. An integrated structure ensures Māori participation, in association with the diabetes care improvement package. If the two are combined efficiently an effective management system for addressing diabetes concerns amongst Māori diabetics could be realised. It is essential the integration of diabetic services be

realised before there is irreversible damage to the health and wellbeing of the Taranaki population.

### **Addressing Access**

From the research conducted it is obvious there are two areas that act as barriers to effective health care for Māori,

1. Access
2. Nature of Services

Access is a huge barrier to the success of health care intervention, which includes but is not limited to,

- Transport
- Cultural fit
- Socio economic status
- Educational attainment
- Self awareness
- Practitioner knowledge

Education has been recognised as one of the key areas throughout the accessibility chapter, in which education attainment of patients has a direct correlation to accessing services essential to health. Therefore, it would be safe for the researcher to recommend that the education of patients and whanau requires immediate attention. Patient education along with ongoing education of practitioners aims to reduce disparity whilst enhances the health potential of Māori in the region.

Integrated management could ensure that accessibility issues are minimised by recognising that Māori have different priorities which require alternative service provisions to ensure positive health gains. It appears that a multidisciplinary approach to recognising these issues could encourage Māori participation at all levels of the health care sector. The implications that integrating services could have on reducing these barriers is crucial to develop which is an area that may require additional research in the future.

The response to education acting as a barrier to access also includes health literacy. The knowledge needed for patients to recognise and respond to health concerns is an area that could be addressed at a later date. The researcher suggests it would be of interest to see how the integration of health education within a primary school setting could be addressed, to ensure future generations of Aotearoa are knowledgeable regarding type II diabetes and its repercussions .

### **Health Practitioners**

The three health care practitioners involved in the research described the reasons why they work in the health industry. All suggest it is based not only on a passion for their individual fields, but an overwhelming interest in helping people achieve a high quality of life. The three health practitioners have the ability to coordinate their knowledge, ideas, opinions and experience in order to contribute to a multidisciplinary system that addresses the barriers to diabetes health care delivery.

## **Policy and Legislation**

Policy and legislation established through the Treaty of Waitangi ensures Māori have the right to participate in the protection of their health and wellbeing interests. Therefore, Māori should have the opportunity to participate in how services that directly affect their health and wellbeing are managed. An integrated approach would see the combining of Māori aspirations with professional opinions in order to reduce barriers to access.

It is important to note within the diabetic services offered within Taranaki, that the core structure of the Taranaki District Health Board would allow for the intergration of a robust multidisciplinary approach if one was called for. Ultimately the structures that guarantee the participation of Māori and iwi at management level could safeguard the priorities of Māori health, contributing to its continual improvements throughout the region.

The researcher suggests that the principles established in the Treaty of Waitangi would recommend that encouraging the participation of local Māori, and Māori health workers when proposing an integrated service would be beneficial. This would guarantee that Māori views and opinions are heard, thus ensuring appropriate measures and systems are put in place to encourage utilisation.

General consensus from researchers and those interviewed for the purposes of this study suggest that education for patients and whānau regarding the impact and effect diabetes can have is of primary importance. Therefore, the researcher would recommend that educational services and resources are developed with Māori in mind. The sharing of knowledge would ensure positive development

and understanding. This increased understanding of what individuals' bodies are going through when they suffer diabetes has the potential to improve the quality and quantity of life experienced by Māori.

### **Diabetes Care Improvement Packages**

Chapter three indicates that the number of type II diabetic patients in Taranaki has significantly risen. Therefore, why are current aims of the Taranaki District Health Board to reach an achievement rate of 60% improvement when integrating the diabetes care improvement packages? It is the researcher's opinion that would suggest implementing an appropriate package, with input from community groups as instructed by the Ministry of Health would be able to address the current diabetic concerns in Taranaki.

The success of integrated pathways is as a direct response to the education, knowledge and relationships established within the professional community. Therefore in summing up it would be of value for Taranaki to establish an effective integrated service which has the ability to respond to the needs of both Māori and diabetic patients within the region. The thesis and accompanying pilot study revealed that there are many opportunities to improve diabetic services, enhancing Māori health and wellbeing is a product of these changes.

### **8.2 The Research & Māori Health Development**

The research conducted for the purpose of the thesis is influenced by the increased demand for Māori development and Māori health development. As discussed in

chapter two, Durie suggests that Māori health development is as a direct response to inequality and inequity (Durie, 1994), therefore the research addresses how Māori and the government can respond to the requirements of diabetic patients, whilst suggesting ways in which practitioners, patients, whānau and communities can ensure positive progress is made. Establishing an integrated approach for diabetic care within the Taranaki region could have the potential to increase health gains, whilst safeguarding the future of Māori. In order for progress to be recognised, existing barriers that result in poor health need to be addressed. Ensuring barriers such as transport, nature of services and socio-economic status will be a priority of the proposed service provision in order to establish an effective and efficient method of delivery which has the ability to cater to individual and whānau requirements.

### **8.3 Recommendations for future research**

Throughout the pilot study and thesis research, access has been a primary concern. In order to expand the knowledge and literature base currently available, accessibility and the barriers to achieving accessible health care should be addressed within future research. The issue would have to be addressed from a multitude of sources, including but not limited to socio-economic, transport, and educational attainment, in order to fully comprehend the severity of the issue. The thesis drew on surface issues regarding accessibility, however the health practitioners' statements and evidence provided suggest this access is an area which requires additional researching. The researcher would recommend that accessibility be assessed at an individual service provider level, as well as addressing how current functioning integrated service approaches could reduce the barriers.



Future recommendations for research would aim to build on the topic of establishing the importance of integrated services, however addressing it within other regions throughout New Zealand would be beneficial. Expanding the location of the regions captured would give a better indication as to how the status of Māori health and wellbeing within each District Health Board is being addressed.

This researcher would encourage the use of a 'bottoms up' approach to management and policy development. Many current policies, legislations and management plans have previously addressed the concerns of Māori, but have not prioritised Māori aspirations for their own health. Increasing community wide participation from local Maori, iwi and interested parties has the potential to be more responsive to their collective needs. The diabetes care improvement packages, as funded through the Ministry of Health shows great potential for enhancing effective diabetes service provisions if used in a way that responds to Māori needs and requirements. The researcher suggests the package is a great building block to incorporate a 'bottoms up' approach. However, the researcher would recommend that a specialist approach be taken to responding to the need of local Māori and diabetic patients. Additional research to what the diabetes care improvement package aims and goals are, along with how individual district health boards are responding to the funding is also recommended.

The final recommendation of the presented in the research would encourage a 'community involved or community based research', which would emphasise participation of groups of people, including ethnic groups and at risk populations. It was only towards the end of the study that the researcher realised the value this type of research could provide and the information that could be ascertained by using this method. This researcher would suggest further investigation into this nature of research is required. "Community based research in public health is a collaborative approach to research that equitably involves, for example community

members, organisational representatives and researchers in all aspects of the research process” (Israel et al, 1998, p. 177)

#### **8.4 Conclusion**

Māori health is a holistic concept that considers how multiple dimensions influence and contribute to the overall health and wellbeing of Māori, whilst Māori research aims to respond to the established needs of Māori. Therefore, the research which is Māori centred by nature specifically addresses how the diabetic health of Māori in Taranaki could be positively enhanced if an effective integrated service approach was to be introduced. An integrated service approach has the potential to reduce inequality and inequity, whilst addressing an area of health that requires ongoing development. Establishing a form of integrated service would cater to this core understanding by employing the knowledge and expertise of different health professionals to cover all areas of need that influence health.

In conclusion, the researcher suggests District Health Boards along with individual practitioners have an important role to play when providing health care services for Māori. However, if these various practitioners were to integrate their skills, experiences and knowledge there would be the potential to create a stronger service, that responds directly to the needs of Māori in a multidisciplinary setting. Overall, it is important to establish an integrated approach to diabetic care for Māori within the Taranaki region.

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## **Appendix A: TDHB PODIATRY REFERRAL CRITERIA PROTOCOL**

All individuals with active foot complications or high risk feet, particularly those with diabetes, are eligible to receive a TDHB podiatry assessment in accordance with the following criteria. Patients will then be prioritised and follow up appointments booked as per recommended timeframes.

### Criteria

#### **1. Patient has diabetes with one of the following:**

- Current active ulceration
- History of ulceration/amputation
- Has loss of protective sensation – insensitivity to 5.07(10gm) semmes-Weinstein monofilament
- Has no palpable pedal pulses and/or history of peripheral artery disease

2. Non-diabetic patient with peripheral vascular disease, rheumatoid arthritis or ESRF (end stage renal failure) and has current ulceration/infection or previous history of ulceration/amputation

### **Priority/Timeframes**

A (urgent) Active foot complication within 2 weeks

B (Semi-urgent) High Risk within 8 weeks

C (Routine) High Risk/at risk within 12 weeks

D (Discharge 1) At risk but does not qualify for continued TDHB podiatry care currently.

E (Discharge 2) Does not meet criteria

(Taranaki District Health Board, 2004)

## Appendix B: Massey University Human Ethics Approval



**MASSEY UNIVERSITY**  
TE KUNENGA KI PŪREHUROA

11 May 2012

Michelle Atkins  
19 Wakefield Street  
Welbourn  
NEW PLYMOUTH 4310

Dear Michelle

**Re: The Importance of Establishing an Integrated Approach to Diabetic Care for Māori Patients within the Taranaki Region**

Thank you for your Low Risk Notification which was received on 2 May 2012.

Your project has been recorded on the Low Risk Database which is reported in the Annual Report of the Massey University Human Ethics Committees.

The low risk notification for this project is valid for a maximum of three years.

Please notify me if situations subsequently occur which cause you to reconsider your initial ethical analysis that it is safe to proceed without approval by one of the University's Human Ethics Committees.

Please note that travel undertaken by students must be approved by the supervisor and the relevant Pro Vice-Chancellor and be in accordance with the Policy and Procedures for Course-Related Student Travel Overseas. In addition, the supervisor must advise the University's Insurance Officer.

**A reminder to include the following statement on all public documents:**

*"This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Human Ethics Committees. The researcher(s) named above are responsible for the ethical conduct of this research."*

*If you have any concerns about the conduct of this research that you wish to raise with someone other than the researcher(s), please contact Professor John O'Neill, Director (Research Ethics), telephone 06 350 5249, e-mail humanethics@massey.ac.nz".*

Please note that if a sponsoring organisation, funding authority or a journal in which you wish to publish requires evidence of committee approval (with an approval number), you will have to provide a full application to one of the University's Human Ethics Committees. You should also note that such an approval can only be provided prior to the commencement of the research.

Yours sincerely

## Appendix C: Participant Information Sheet



MASSEY UNIVERSITY  
COLLEGE OF HUMANITIES  
AND SOCIAL SCIENCES  
TE KURA PŪKENGĀ TANGATA

*The importance of establishing an integrated approach to diabetic care  
for Māori patients within the Taranaki region*

### INFORMATION SHEET

Tena koe

My name is Michelle Ann Atkins. I am a registered podiatrist and currently completing a thesis as part of a Masters of Health Science majoring in Māori health. This research seeks to explore how an integrated service approach could best be suited to Māori patients in order to encourage ongoing utilisation of the services, consequently leading to an improvement in health and quality of life for the Māori population within the Taranaki region. As a health professional currently providing diabetic services to Māori patients within the Taranaki region you are invited to take part in this research.

Taking part in this study is entirely voluntary and you may withdraw at any time. Participation in this research will involve a 1 hour interview, digitally recorded, at a time and place convenient to you. Interviews will be conducted between May and July. All efforts will be made to respect your privacy and confidentiality however given the small number of practitioners involved in delivering diabetic services in Taranaki it may not be possible to protect your identity.

The interviews will be transcribed and stored in a password protected file. No personal information will be kept with the data. This information will be kept for a period of 5 years before it is destroyed. You will receive a summary of the research findings at the conclusion of the project.

#### Participant's Rights

You are under no obligation to accept this invitation. If you decide to participate, you have the right to:

- decline to answer any particular question;
- ask for the recorder to be turned off at any time during the interview;

Te Kunenga  
ki Pūrehuroa

Te Pūtahi-ā-Toi – School of Māori Studies  
Private Bag 11222, Palmerston North 4442, New Zealand T +64 6 356 9099 extn 7236 F +64 6 350 5634 <http://maori.massey.ac.nz>

- withdraw from the study at any time;
- ask any questions about the study at any time during participation;
- provide information on the understanding that your name will not be used unless you give permission to the researcher;
- be given access to a summary of the project findings when it is concluded.

If you are interested in being part of this study, please contact me to arrange an interview. If you have any questions or concerns regarding the proposed research please contact Michelle Atkins at 06 7598831 or 021024213655 or [mish.atkins@gmail.com](mailto:mish.atkins@gmail.com) or you can contact the research supervisor Margaret Forster at [m.e.forster@massey.ac.nz](mailto:m.e.forster@massey.ac.nz).

This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Human Ethics Committees. The researcher(s) named above are responsible for the ethical conduct of this research. If you have any concerns about the conduct of this research that you wish to raise with someone other than the researcher(s), please contact Professor John O'Neill, Director, Research Ethics, telephone 06 350 5249, email [humanethics@massey.ac.nz](mailto:humanethics@massey.ac.nz).

Naki iti noa,



Michelle Atkins

## Appendix D: Participant Informed Consent



MASSEY UNIVERSITY  
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AND SOCIAL SCIENCES  
TE KURA PUKENGA TANGATA

*The importance of establishing an integrated approach to diabetic care for Māori patients within the Taranaki region.*

### PARTICIPANT CONSENT FORM -INDIVIDUAL

I have read the Information Sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I agree/do not agree to the interview being sound recorded.

I wish/do not wish to have my recordings returned to me.

I agree to participate in this study under the conditions set out in the Information Sheet.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Full Name - printed \_\_\_\_\_