

A community controlled smoking cessation  
programme, for Māori  
(ABC for Māori Communities)

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## **He Whiri**

*Ko te hua ia o te Wairua, he aroha, he hari, he rangimarie, he manawanui, he ngāwari, he ngākau pai, he whakapono. He ngākau mahaki, he ngākau kua taea te pehi: kahore he ture e riria ai enei mea (Karatia 5:22-23).*

## **Tauparapara**

*Ko Maunganui te maunga,*

*Ko Waikara te awa,*

*Ko Waikara te whenua,*

*Ko Te Rōroa, Ngāti Korokoro, Ngāti Wharara me Ngāti Hine nga iwi.*

*Ko Whakauaua te marae,*

*Ko Te Tane Hohaia te tangata.*

*Tihei wā mauri ora!*

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## HE MIHIMIHI

*Hi mihi tonu tenei mo ngā kaihautu, ngā kaiarahi, ngā kaimahi a te Hauora o Kaikohe. Tena koutou, tena koutou, tena koutou katoa.*

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Moana Tane

*Ki Whangarei*

## PROLOGUE: KO WAI AU?

I was born in Te Kopuru in the Kaipara district and lived in Dargaville, close to our whenua at Waikara on the northern side of Maunganui Bluff. My parents were working class and both had received a minimum of education; like so many of their generation they were native speakers, and had been punished and strapped at school, for speaking te reo Māori.

My mother was born in a nikau hut and grew up in Opahi as an only child. When she was 16 her younger brother was born but she'd already left home for Wellington to train in office work. My father was born into a large whānau with many land interests in the Hokianga and the Kaipara districts and a business oriented father who ensured that the children grew up to be hard working and industrious. My father had travelled extensively throughout the Pacific during the second World War as an Air Force gunner, and even late in life, he was still a crack shot with his rifle, bringing down unsuspecting game. He spent most of his adult working life as a bridge foreman for the local Council and cautioned us to "get an education or else you might end up in a job you hate, like me."

My memories of being a child are filled with the sounds of my tūpuna's voices – my grandfather, grand uncles and grand aunts who came to visit us regularly and who always took time to instruct my five siblings and I, to learn all that we could from the Pakeha language and from a Pakeha education. They, like my parents, valued education above everything else that they wished for their children's futures and as a result of their teaching, today we have a number of whānau members who have enjoyed a university education.

Most of my adult life was spent in Papua New Guinea where I looked after my family and raised my children – Jessica and Seth. As a result of this time overseas, I started my university education late in life, when I returned to New Zealand aged 38 years, to study. I graduated with a degree in education in 1999, and taught in New Zealand and in the United States for the next four years.

On my return home, I took up a researcher position with Te Iwi o Te Rōroa and spent two years travelling around my iwi, talking to kaumātua and kuia to film their stories and to find out from iwi members what they considered were priority areas of development for the iwi, as we moved toward a Waitangi Claim settlement.

An agreement in principle had been signed by Te Rōroa in 2004, and ratified by the iwi in 2005 and by this time, I had already left the district to work in Auckland with Auckland Regional Public Health as a regional Smokefree coordinator; my interest in tobacco control had taken a firm hold and I decided to undergo training as a Smokefree Officer to help me broaden my scope in the Smokefree sector. After a short period, I was recruited by Te Hotu Manawa Māori who appointed me as the national training manager, for the Aukati Kai Paipa smoking cessation workforce.

The role required that I travel all over the country to marae and community venues to provide training to 60 community health workers offering the Aukati Kai Paipa services in Māori health organisations, community, marae and/or medical settings. The training was in the form of three two-day training hui per annum, an annual site visit and a national hui-a-iwi. I met a remarkable group of people in the Aukati Kai Paipa whānau – dedicated to their communities and devoted to seeing people quit smoking; many of these workers continue today in kaupapa Māori services and are a credit to their organisations.

During this time with Te Hotu Manawa Māori, I underwent further training in smoking cessation with Associate Professor Renee Bittoun at the Brain Mind Research Centre, University of Sydney to become a smoking cessation practitioner. I tried to pass on what I had learned about nicotine addiction and the physiological effects of smoking to the AKP network and I found many of the kaimahi/workers open to this new learning.

It was my role to integrate the New Zealand Smoking Cessation Guidelines (Ministry of Health, 2007a) into the Aukati Kai Paipa (AKP) training and I did meet with initial resistance, as the guidelines were perceived by many of the workers to be an imposition and dismissive of their current practice. This may have been because the guidelines focused mainly on the ABCs of smoking cessation, and did not have, in their opinion, enough

acknowledgement of the role of an intensive, kaupapa Māori smoking cessation service. However, the guidelines provided enough information on the use of smoking cessation pharmacotherapies and medications for it to become an indispensable reference tool for the AKP workforce.

That year in June 2008, I coordinated the inaugural smoking cessation national conference in Wellington and in the course of planning for this major event, renewed my acquaintance with the wider tobacco control sector and met new contacts from primary health organisations who had begun integrating the ABCs of smoking cessation into their practices. The conference was facilitated as a bi-lingual event, and 360 conference attendees made their way to the Te Papa Museum to take part in the workshops – AKP were present in force as were many of the leaders in Māori tobacco control. It was a positive and uplifting event, which attracted a large number of Māori to participate in the working party – sadly this type of bi-lingual, Māori led conference has yet to be repeated in the same way, in this country.

At the same time, during 2008, the Te Rōroa Settlement Act was passed putting an end to a process that had begun in 1842, and that had resulted in Te Rōroa being alienated from their lands and their wahi tapu (sacred sites). I was living in Wellington and working for PHARMAC as their Māori Health Manager at the time, and I recall meeting my whanaungā from Te Rōroa on their way to Parliament, in anticipation of the Act being passed. Alex Nathan, a seasoned campaigner and negotiator for the Te Rōroa Claim, and I met briefly and took a moment to remember the many kaumātua and kuia who had passed away during the Waitangi Claim process; it was with considerable sadness that we recalled the many who would not see the fruits of their support and their hard work – an Act of Parliament, an apology from the Crown for the breaches suffered by Te Rōroa, and a quantum that enabled Te Rōroa to purchase back some of their original lands.

In my working life, my first year with PHARMAC had marked the beginning of my post graduate studies in public health and by 2009, I was on my way to completing a post graduate diploma in public health. I'd like to acknowledge a debt of gratitude to the

organisation and its people – a culture of professionalism and critical analysis allowed me to hone my debating skills and gave me an opportunity to develop and deliver position papers to their Board, and to run these through a very robust management and decision-making system.

I was also fortunate to work within a team that were supportive as I attempted to advocate strongly for easing the rather strict rules for access to funded nicotine replacement therapy, particularly as they related to Māori organisations and/or kaupapa Māori services such as Aukati Kai Paipa. I am happy to recall that during this time, PHARMAC and the Ministry of Health agreed to enable access by AKP service providers to bulk supplies of nicotine replacement therapy (NRT), removing significant barriers for those AKP workers and their clients who lived in remote and high needs areas or who had struggled to ensure whānau had NRT on hand whenever they were making a quit smoking attempt.

I have attempted to give the reader a brief glimpse into my history and to offer some insight into my life, as a Māori woman, who is also a mother, a sister, a grandmother, an aunt, a great-aunt and a wife.

What is missing from this brief history, is the “smoking world” in which I and many Māori babies are born – and the impacts of that upon us as individuals, whānau, hāpū and iwi. We as a people continue to suffer needlessly from the highest rates of mortality and morbidity in this country through smoking related diseases – and these facts alone should be the catalyst for us as Māori to take action immediately.

What is the point of gaining a Treaty of Waitangi Settlement if our iwi do not survive to see the results because they are dying prematurely from smoking?

And where is the sense of struggling against the injustices of Crown breaches and fighting for equitable redress, only to see our tamariki become ill or die from Sudden Unexpected Death in Infants or from respiratory diseases brought on by maternal smoking and environmental tobacco smoke?

My belief is that the solutions for change are already resident in Māori communities and we can and should determine our own future. We must not be passive spectators in the

initiatives that the government establish to improve Māori health – we need to act as leaders by establishing our own smoking cessation programmes, and to sustain these in our communities in the ways that suit us best.

My greatest hope is that our tamariki (children) and mokopuna (grandchildren, descendants) will grow up in homes where they are protected from the harm of smoking, where smoking is seen as an insult and challenge to our rangatiratanga (self-autonomy) and where all Māori are free from the harm of tobacco and the ravages of nicotine addiction.



## GLOSSARY OF MĀORI TERMS

<b>Auahi Kore</b>	Smokefree, a person who does not smoke is said to be “Auahi Kore”
<b>Aukati Kai Paipa</b>	A “for Māori, by Māori” smoking cessation programme, funded by the Ministry of Health, established in 1999 (Ministry of Health, 2003a)
<b>Kaupapa Māori</b>	<p>Kaupapa Māori research is collectivistic, and is orientated toward benefiting all the research participants and their collectively determined agendas. Kaupapa Māori Research is based on growing consensus that research involving Māori knowledge and people needs to be conducted in culturally appropriate ways, ways that fit Māori cultural preferences, practices and aspirations in order to develop and acknowledge existing culturally appropriate approaches in the method, practice and organisation of research (Bishop, 2009).</p> <p>Māori worldview: principles and themes of interconnectedness, Māori potential, Māori control, collectivity and Māori identity (Ratima, 2003).</p>
<b>Ngārara</b>	Grotesque, lizard (often regarded as an omen of death), spider, monster
<b>Porotiti</b>	The porotiti is a traditional Māori musical instrument and has a history of use in healing combined with karakia (prayers); it is believed that playing the porotiti can ease arthritis and that it can be used to help children with colds and congested chests. The porotiti is a humming disc, made of different

	<p>shapes with a cord looped through two holes in the centre.</p> <p>When the porotiti is played (by twirling the cord until it spins) it creates a humming sound which has a calming, soothing effect.</p> <p>It can be made from a variety of materials: wood, bone, stone and also can be worn as a pendant.</p>
<b>Rongoā</b>	A traditional Māori remedy usually made from natural products
<b>Te Tai Tokerau</b>	The region commonly known as Northland, New Zealand
<b>Te Tiriti o Waitangi</b>	The Treaty of Waitangi signed in 1840, by Māori chiefs and the Crown; the founding document of Aotearoa New Zealand with two versions (English and Māori) with most Māori having signed the latter. A popular translation was completed by the late Professor Sir Hugh Kawharu (Kawharu, 1997).
<b>Tupeka</b>	Tobacco
<b>Whakawhanaungatanga</b>	<p>A value, which reinforces the commitment whānau members have to each other; such commitment is expressed through a process of caring, sharing, respecting, helping, assisting, relieving, reciprocating, balancing, nurturing, and guardianship.</p> <p>Involvement through whanaungatanga “generates observable behavioural processes through which whānau functioning is promoted and enhanced”. Whakawhanaungatanga, building a collaborative learning community, establishes an environment of trust and reciprocity as an essential base for effective review (Hirini, 1997).</p>
<b>Whānau</b>	Give birth, family, genus (Ryan, 1999)

## ABSTRACT

The introduction of tobacco to Aotearoa, and the socio-political context in which this occurred, contributed directly to its quick uptake by Māori, and led to the normalisation in Māori culture and society, of smoking as an imposter “tikanga” (custom, meaning, criterion) (Ryan, 1999). In Māori communities tobacco use and dependence remain a significant barrier to well being and fulfilment of Māori potential to lead long and healthy lives – smoking not only kills more Māori than any other disease – it also robs Māori of the ability to be self determining with regard to health. In 2010, a kaupapa Māori (Māori worldview) smoking cessation programme was initiated, established, promoted and maintained by Māori workers in a high Māori population area in Te Tai Tokerau as an independent community-based initiative. The programme was integrated into the community through well-established work, whānau/family and social relationships and networks and was effective in recruiting young Māori smokers to make at least one quit smoking attempt during a four-week period.

This research investigation of a community controlled smoking cessation programme sought to determine the acceptability and outcomes of the programme from the perspectives of the regular smokers who were involved.

A literature review was undertaken prior to the research investigation to determine effective elements of smoking cessation interventions (Tane, 2009), demographic data and smoking history of the programme participants’ was analysed, and semi-structured interviews yielded transcripts of rich descriptions in this qualitative descriptive study.

The investigation has confirmed the acceptability and positive outcomes of a community led initiative providing evidence based smoking cessation support of nicotine replacement therapy and advice, and demonstrates that Māori smokers can and will make repeated quit attempts if they are well supported to do so within their own whānau and communities.

The research highlights the need for equitable and just distribution of sufficient resources to establish kaupapa Māori smoking cessation initiatives within Māori communities

and whānau – wherever smokers are – to prevent further unnecessary loss of life through tobacco use.

The issue of access to resources and funding is fundamental in addressing the unacceptably high smoking prevalence rates of Māori and there is an urgent need for better provision of and access to evidence-based medications; Māori smokers do want to quit, with support and advice from well-known and trusted peers, available to them quickly and conveniently at home, and in their communities.

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## 1.0 ABC FOR MĀORI COMMUNITIES: A RESEARCH INVESTIGATION

In 2009, during a period of change within the tobacco control sector, the Ministry of Health negotiated with the national Māori heart health organisation Te Hotu Manawa Māori to establish a new service called, “ABC for Māori Communities.”

The programme was trialed in two pilot sites in Te Tai Tokerau (Northland) as an alternative to the well-established health promotion programme, Auahi Kore, which had been funded by the Ministry of Health since the 1990's. Te Hotu Manawa Māori and the Ministry of Health negotiated to include new features to the existing programme, including a name change, which sharpened the focus on increasing Māori uptake of smoking cessation services, networking with Māori community leaders, quit smoking resources for Māori and workforce training to enable non-health personnel to become Quit Card Providers; the intention was to increase evidence-based support for Māori within their communities, to quit smoking. Following training of Family Start workers and administration staff in one of the the ABC for Māori Communities pilot sites, a four-week quit smoking programme was established in a Māori community as an independent intervention.

This research investigation was undertaken to evaluate the acceptability, uptake and outcome of this programme for Māori smokers and to identify key success factors, barriers or challenges for quitting smoking and maintaining abstinence. Inquiry was made into the role of whānau/family and friends during a quit smoking attempt and how the participants perceived access to nicotine replacement therapy, delivered at no cost to homes, supported their quit smoking attempt. The purpose of the investigation was to provide evidence and recommendations for establishing similar quit smoking programmes in other kaupapa Māori organisations, on national, regional and local levels.

Unfortunately the ABC for Māori Communities pilot came to an end in July 2010, and funding was redirected to other purposes. However, the findings from this community-controlled intervention remain relevant today for many whānau Māori where smoking remains the norm.

## 1.1 TAHUHU KORERO: THE HISTORY OF MĀORI AND TOBACCO

Tobacco has had an enormous impact on the health and wellbeing of Māori, the indigenous people of Aotearoa New Zealand. To understand how this occurred so rapidly, from its first introduction by European explorers in the late 1700s through to 2011, where nearly one in two Māori smoke, it is necessary to consider the socio-political and economic contexts and the cultural influences that contributed to the remarkably quick uptake of smoking by many Māori.

The following sections 2.1 – 2.7 provide a brief commentary on the history of Māori as people of the Pacific and Aotearoa, and gives emphasis to the role of tobacco during first encounters between Europeans and Māori to establish relationships, its use as a trade commodity and “gift” during the colonisation process and, of special note, how it was distributed freely to all Māori at the signing of Te Tiriti o Waitangi (the Treaty of Waitangi). With the signing of Te Tiriti Māori witnessed a sudden and unprecedented increase in the number of settlers in Aotearoa which led to them becoming a minority in their own lands, and the commentary deals briefly with this and with the response of Māori recently, in protest to land loss. Within the period from first contact to the present day, tupeka (tobacco) remains a constant amongst many Māori whānau (extended family groups).

### 1.2 Introduction

In 2010, 170 years from the signing of Te Tiriti o Waitangi in 1840, the Māori Affairs Select Committee began an inquiry into the tobacco industry and its impacts on Māori. This was the first undertaking of its kind in the history of Aotearoa New Zealand, and the inquiry and subsequent hearings around the country became the catalyst for many Māori and whānau to appear before the Committee and to bring with them their personal stories of struggle with nicotine addiction, and the loss of loved ones through lung cancer and other smoking related diseases.

A landmark report (Māori Affairs Select Committee, 2010) was tabled in Parliament, and recommendations were made to the Crown on the process for best addressing the severe consequences that Māori continue to experience as a result of exposure to and use of tobacco. The report has been described as “bold and visionary” (Blakely, Thomson, Wilson, Edwards & Gifford, 2010b) and is the first proposal in the world by an official body for an ambitious, time specific goal toward a tobacco free nation by 2025.

With the possibility that New Zealand may well become the first nation to become Tupeka Kore (Tobacco Free) and that Māori members of Parliament were instrumental in calling for this outcome through a Select Committee process, there is also irony in that Māori as a people have maintained the highest rates of smoking prevalence in this country since it was first introduced. The use of tobacco by Māori since it first came to these shores has been unremitting, and Māori smoking prevalence rates seem resistant to the public health programmes that have been so effective in reducing the smoking rates in New Zealand for non-Māori.

While smoking rates for Māori have been declining in recent years, they have done so at a much slower rate than non-Māori – from a high 58% in 1976, through the 1990s at around 50% and in 2008, New Zealand Māori adult smoking prevalence rate was 45.4% (Ministry of Health, 2009c).

Tobacco plays a significant role in health inequalities within New Zealand and higher smoking prevalence is seen among low-income groups, Māori and Pacific peoples (Hill, Blakely & Howden-Chapman, 2003); consequently the smoking related mortality burden is higher among these populations. Tobacco use is the leading cause of preventable death in New Zealand, accounting for around 4300 to 4600 deaths per year (Peto & Lopez, 2000) and for Māori, the impact of tobacco is significant with 600 deaths per annum (The Quit Group & Ministry of Health, 2009).

The struggle with the ngārara (spider, insect) tupeka (tobacco) and the persistent use of tobacco by Māori is suggestive of the success of tobacco marketing to Māori that began

nearly two hundred years ago when tobacco was first handed over to Māori as an item of trade – Te Taonga Mai Tawhiti, the gift from a distant land (Reid & Pouwhare, 1991).

Until changes are made to shift the status quo, the current rates of smoking amongst Māori will remain an embarrassment to public health programmes and interventions here and could invite challenges, particularly from Indigenous communities around the world, on whether we are deserving of our international reputation in tobacco control and legislative tobacco control leadership.

Change is long overdue and solutions require “critique and transformation of the social, political, cultural, economic, ethnic” (Guba & Lincoln, 1994) structures that constrain and exploit humankind, or in this case, Māori.

### 1.3 Learning from the past: those who cannot remember the past are condemned to repeat it

*Taken from a quote by George Santayana, a US Spanish-born philosopher (1863-1952) (Santanyana, 1905)*

In 1998, it was reported that initiatives to reduce smoking rates in New Zealand in the previous two decades had been successful in all groups, but less so in lower socioeconomic groups; while the smoking rate for the population as a whole had declined, the difference between the highest and lowest socioeconomic groups had widened (National Advisory Committee on Health and Disability, National Health Committee, 1998). The report considered that there was considerable potential to reduce the high rates of coronary disease in New Zealand and strategies to reduce smoking were central to achieving this reduction. In another report (Laugesen & Clements, 1998) Māori were shown to have twice the rates of smoking-related death in this age group as non-Māori and reducing smoking rates in Māori would significantly reduce Māori/non-Māori mortality differences; among Māori 41 percent of cancer deaths, 33 percent of circulatory deaths, and 62 percent of respiratory deaths were attributable to cigarette smoking. Of adult Māori cigarette-attributable deaths,

78% were in middle age (35-69 years) and only 22 per cent in old age (70 years and over); in non-Māori 41 per cent of cigarette deaths are in middle age.

By 2000, it was reported (Laugesen & Swinburn, 2000) that Māori prevalence between 1981 and 1996 decreased by 18% (from 56% to 46%) – in terms of percentage points, this 10 point reduction compared with an 8 point reduction for the total population over the same period; Māori had twice the smoking prevalence of the total population, starting smoking earlier and continuing longer. Among ever smokers, 29% of Māori had quit, in contrast to 48% in the total population; the authors remarked that, “interestingly”, Māori had similar attitudes to smokefree issues (CM Research, 1999), similar addiction and quit attempt rates (National Research Bureau, 1996), and were equally frequent users of the Quitline (Delamere, 1999), compared to the total population.

The reported widening of inequalities that occurred during this period, was not due to an increase in Māori smoking rates, but was due to the greater non-Māori share in smoking cessation. The research implied that further reductions in smoking prevalence, unless they are concentrated on Māori, might serve to further widen inequalities in death rates as a consequence of smoking (Laugesen & Clements, 1998).

Interventions, such as recent increases in taxes on all tobacco products to remove the tax advantage which makes loose tobacco cheaper for smokers will impact greatly on Māori who are reported to have higher overall use of roll-your-own tobacco (Ponniah, 2007). As smoking in New Zealand is increasingly concentrated among socio-economically disadvantaged communities and is much more common among Māori, further targeting for the provision and marketing of smoking cessation services and quit-smoking campaigns should be directed to these groups to ensure that comprehensive and affordable smoking cessation support is available to them (Wilson, Thomson, Blakely & Edwards, 2010b).

Tax increases as a measure to prompt Māori to quit smoking should not be the only approach taken by government; while smokers are affected every time they purchase tobacco, it is a blunt instrument (Wells, 2010), and should be used sparingly. Rather taxation should be used in a coordinated manner with other aids to smoking cessation –

indeed many within the tobacco control sector have called for the establishment of a 'dedicated' tax fund to assist in coordination (O'Dea & Thomson, 2007).

In 2003, it was found that established smoking interventions by Māori for Māori such as the Aukati Kai Paipa (Ministry of Health, 2003b) and Noho Marae (Glover, 2000) programmes were effectively reducing tobacco consumption among Māori women and their whānau. The hope was that sustained and expanded smoking cessation services would be available for all Māori communities, and that Māori specific quit support programmes would make a difference to Māori smoking prevalence and contribute to reduced disparities. These studies represented an explicit call to consider the social determinants of health for Māori and the hope that success could be amplified, if policies and practices that keep Māori (especially Māori women and children) in poverty were addressed. In 2004 these issues were also highlighted in a review on the economic determinants of Māori health and health disparities in New Zealand (Robson, 2004).

Since the establishment of the Aukati Kai Paipa programme in 1999, the number of service sites throughout Aotearoa has grown to 45 (including Pacific services), with a workforce of approximately 150 (Ministry of Health, 2011b). This is a relatively modest increase given that the number of current Māori smokers estimated for the 15-64 year age group (self-reported male and female) is 158,000 or 46.3% of the total Māori population of 342,276 (Ministry of Health, 2010c, Paynter, 2007, 2010a).

Current evidence suggests that motivation to quit smoking remains high amongst Māori; in 2006 a tobacco use survey reported that the number of Māori smokers who made a quit attempt in the past five years was estimated at 67.8% (Ministry of Health, 2007b). As well, results showed that 28.9% of Māori smokers (slightly higher than the non-Māori rate of 24.8%) who had quit in the previous 12 months had done so with some form of advice; similar proportions of Māori and non-Māori reported receiving advice from the Quitline (50.9% of Māori), a friend, family member, doctor or GP and that a significantly higher number of Māori – 20.6% - received advice from a Māori community health worker. Of those

who had made a quit attempt, 26.6% of Māori had used some form of quitting product and of those Māori who had, 84.4% had used patches (Ministry of Health, 2009b).

In 2008, 6200 clients were enrolled with Aukati Kai Paipa (Ministry of Health, 2009b), of whom 65% were Māori; of this group, 1200 Māori quit successfully. Between June 2007 and July 2008 9,800 Māori registered with a Quit Service including Quitline (The Quit Group, 2011b), web service (the Quit Group, 2011a) and Txt2Quit (The Quit Group, 2011c).

Noho Marae programmes which were never funded by the Ministry of Health are no longer active, and any workforce development for smoking cessation has been associated with the introduction and roll out of the ABC approach (training health professionals to **A**sk all patients about their smoking status, give **B**rief advice to quit smoking and offer smoking **C**essation advice or support) in primary care, and with increasing the capacity of Quitline services (Ministry of Health, 2007a).

Despite the fact that Māori are accessing Māori and mainstream services, they are doing so in insufficient numbers to impact significantly on smoking rates, given the number of current Māori smokers in Aotearoa. The distribution and lack of resources to support Māori to quit at the levels required for the Māori smoking population, is a significant impediment to the goal of reducing Māori smoking rates to the same level as non-Māori – if the current goal of halving the number of Māori smokers by 2015 (Māori Affairs Select Committee, 2010) is to be achieved, then for the next four years, 18,000 Māori smokers every year will need to quit, and stay quit. This is based on a current Māori population of 405,350 (15-64 year-olds, male and female) (Statistics New Zealand, 2011a), 44.2% of whom are current smokers (Ministry of Health, 2010d). Current smoking cessation services for Māori need to be dramatically increased to meet the demand of this target goal, and improvements made to ensure the provision of support, and numbers of workers to provide advice to Māori smokers.

## 1.4 Measures of inequality

Today, the Māori population is very young with approximately 565,329 people, most of who are aged less than 15 years (199,923). The second largest age group (153,435) are between 25-44 years of age; by gender, Māori women aged between 0-14 years of age are the largest group (97,278) (Ministry of Health, 2010c).

Māori represent just 14.6% of the entire New Zealand population (Statistics New Zealand, 2011a); in contrast to Māori, non-Māori have an aged population with the majority being aged between 25-44 years (980,817).

Despite a significant recovery for the Māori population after decimation of numbers last century from 45,549 in the 1901 Census to 526,281 in the 2001 Census (Statistics New Zealand, 2011a) there remain marked ethnic differences in life expectancy. In 2005–2007, male life expectancy at birth was 79.0 years for non-Māori and 70.4 years for Māori, a difference of 8.6 years. Female life expectancy at birth was 83.0 years for non-Māori and 75.1 years for Māori, a difference of 7.9 years (Ministry of Social Development, 2010).

In New Zealand, inequalities in health exist among socioeconomic groups, ethnic groups, people living in different geographic areas, and males and females (Ministry of Health, 2002). These inequalities are not random: in all countries more socially disadvantaged groups have poorer health, greater exposure to health risks and poorer access to health services. In countries with a colonial past, such as New Zealand, Indigenous peoples have poorer health, even when socioeconomic position is taken into account (Howden-Chapman & Tobias, 2000).

Historically in developed countries, inequalities in health and ‘health gaps’ between advantaged and disadvantaged population groups continue and in New Zealand research on mortality (Davis, Graham & Pearce, 1999) and hospital admissions (Barnett & Lauer, 2003) indicate persistent inequalities between social and ethnic groups – such trends are also characteristic of smoking in New Zealand (Barnett, Moon & Kearns, 2004).



The New Zealand Tobacco Control Survey 2006 (Ministry of Health, 2007b) reported that people in more deprived socioeconomic quintiles demonstrate higher rates of smoking compared to less deprived areas (29.2% in NZDep01 quintile 4 and 34.2% in NZDep01 quintile 5) and that smoking is related to education level, with the prevalence of smoking being highest among people who have no educational qualifications (39.2%).

Smoking contributes to the 7-8 year gap between Māori and non-Māori life expectancy and if smoking persists at current rates, it will become an even greater constraint on life expectancy improvements for New Zealanders in the future – solutions for the future must include a long term view for Māori that includes limiting access to tobacco and focusing on closing the Māori:non-Māori gaps in life expectancy. The end of tobacco smoking in Aotearoa-New Zealand by 2025 promises to achieve this end (Blakely, Carter, Wilson, Edwards, Woodward, Thomson & Sarfati, 2010a).

Smoking is strongly associated with cancer (particularly lung cancer) and heart disease – factors contributing to mortality differences between Māori and non-Māori and which include differences in the following: exposure to risk and protective factors, access to regular screening, and access to timely, high quality treatments (Robson & Harris, 2007). In addition, the differential exposure of Māori and non-Māori to risk and protective factors for cancer has been noted, and addressing these should include a focus on the fundamental drivers of inequalities in Aotearoa/New Zealand, which are obvious in the disparate distribution of determinants such as socioeconomic status by ethnicity, and which affect variations in exposure to risk factors such as smoking (Robson & Harris, 2007).

In 2005, a report on the death rate from lung cancer in Māori showed percentages that were three times higher than non-Māori, and an average age of death from lung cancer in Māori at 63 years compared to 70 years in non-Māori. Shockingly, the incidence of lung cancer in New Zealand Māori is, without exception, the highest in the world (Harwood, 2005).

In 2009, a literature review (The Asthma and Respiratory of New Zealand (Inc.) Te Taumata Huango Mate Ha o Aotearoa, 2009) confirmed that lung cancer is the leading

cause of cancer incidence and death for Māori and it is also the leading cause of cancer in Māori overall and in Māori men; lung cancer is the second leading cause of cancer in Māori women; in contrast, for non-Māori, lung cancer is only the fifth most common cause of cancer overall. Evidence shows in the period 2000 to 2004 there were 1,366 lung cancer registrations for Māori; this total accounted for 20.4% of new cancer cases in Māori.

More recently in 2010 statistics showed continuing negative outcomes for Māori: the Mortality and Demographic Data Report (Ministry of Health, 2010b) reported that the highest age-standardised rates of death in the Māori population in 2007 were from cancer, ischaemic heart disease and chronic lower respiratory diseases. Lung cancer was the leading cause of cancer death by age-standardised rate for both Māori and non-Māori in 2007 and the Māori population had a consistently higher rate of cancer death than the non-Māori population – Māori males had a higher rate than Māori females; the calculated Māori male rate was 52.8 per cent higher than the non-Māori male rate.

Māori females had a calculated rate of cancer death that was 64.8 per cent higher than the non-Māori female rate in 2007.

There are significant and consistent disparities in cancer outcomes between Māori and non-Māori that require urgent attention – there is also a pressing need to go beyond describing disparities in cancer outcomes between Māori and non-Māori, to examine the underlying causes of these disparities (Cormack, Robson, Purdie, Ratima & Brown, 2005).

The loss of Māori lives through preventable diseases equates to neglect of those with the highest needs in this country by those with decision making powers and the resources to make a difference. While there is a moral imperative to act, there is also the prospect of gains in economic benefits; smoking cessation can prevent Māori suffering and dying from smoking related diseases which equates to less demand on health services, a fit and healthy workforce and an increasing contribution of Māori business to the New Zealand economy (Te Puni Kokiri, 2009).

Having endured the powerful impacts of colonisation and the associated contact with various new diseases, ironically Māori face an even greater challenge: smoking, a known

risk factor for lung cancer and heart disease, is killing Māori and the loss of life is both needless and preventable.

## 1.5 Māori and the economy

Recently there has been a global economic recession, triggered by rising credit losses on United States residential mortgages during the first half of 2007 (Reserve Bank of New Zealand, December 2008). New Zealand is expected to feel the effects of the recession through tighter availability and increased costs of credit, a fall in business and consumer confidence, a fall in asset values and lower demand and prices for exports (Hon Bill English Minister of Finance, 18 December 2008).

For Māori, with assets concentrated in the primary and secondary sectors (and exposed to global fluctuations), the current recession represents significant risks. Historically, recessions have had a disproportionately negative impact on Māori compared to non-Māori largely because of where Māori have been concentrated in the labour market and industry sectors. In recent years Māori have made significant gains in terms of skills and education, however a relatively high proportion are still employed in lower-skilled, lesser paid occupations (Te Puni Kokiri, 2009).

Using the NZDep96, an index of deprivation for small areas originally designed for use in health research, resource allocation and advocacy, and now widely used as a social research tool (Salmond, 2001) deprivation characteristics in New Zealand have been shown to have a statistically significant association with smoking. The single best predictor of increased odds of smoking is a lack of any formal school or other qualification; individuals without qualifications had approximately twice the odds of smoking as those with qualifications and in the most-deprived NZDep96 decile, individuals have an odds of smoking more than four times greater than those in the least-deprived decile.

Recent increases in tobacco excise will invariably impact more significantly on Māori smokers and their families (who are over-represented in the lowest deciles) than non-Māori.

In 2004 (Robson, 2004) a report noted that taking \$200 million a year in taxes from the Māori population who have the lowest incomes, highest unemployment rates, lowest levels of wealth and assets, and the lowest economic living standards, coupled with the highest prevalence of persistent smoking seemed “punitive and contradictory” if the aim of increased tobacco tax is to decrease smoking prevalence. Māori smokers in the most deprived decile alone contribute \$57m a year in tobacco excise tax (\$17m more than Pākehā in decile 10).

## 2.0 OVERVIEW OF THE HISTORY OF MĀORI

### 2.1 Tāngata Whenua: people of the land

Our history shows that Māori are unique in the world – unrivalled as explorers, admired as warriors, artists, writers and singers, the Indigenous people of this country have also enjoyed a long and unbroken connection with Aotearoa New Zealand. The relationship with the lands of Aotearoa is an important cultural identifier for Māori, and is best defined in te reo Māori (the native language of the Māori people), in the term by which Māori describe themselves: tāngata whenua, people who are local, aboriginal or native. The coupling of the two words tāngata (meaning people) and whenua (meaning land), implies a symbiotic arrangement of harmony and balance.

The Māori language, with its constant use of metaphor and symbolism, applies such concepts as harmony and balance to both the physical and the spiritual states. The use of the word whenua, a term for the natural earth and “placenta” is a well-known example of the use of Māori imagery. Orator and philosopher, Māori Marsden described the use of the term whenua as a constant reminder that we are of the earth, born out of the placenta, and therefore human, and that as a mother nourishes her child in the womb and upon her breast, so does Mother Earth nourish humankind. Man is a part of the network of animals, birds, trees and plants and these are also his siblings because they share nourishment provided by Papatuanuku, Mother Earth (Marsden, 2003) p.68.

For Māori, the use of the term “tāngata whenua” describes a distinctive identity that is predicated by connectedness to the land, but which also includes belonging through whakapapa – geneology, cultural identity (Ryan, 1999) – expressed through the language, principles and beliefs.

This issue of Māori identity is important because it is based upon a distinct Māori philosophical theory of knowledge, or epistemology that is not defined from a western, colonial or settler view of the world, but is unique to Aotearoa and to Māori.

A Māori worldview perceives the universe as a process (Marsden, 2003) and postulates a world comprised of a series of interconnected realms separated by aeons of time, from where has emerged, the Natural World – the image is of a universe that is not static, but is a stream of processes and events and the view that history is not cyclical, it is lineal (Marsden, 2003).

These are important concepts for Māori as they challenge well established western views of reality, and question hegemonic practices and perspectives; they also highlight the failure of western culture to recognise and acknowledge other forms of knowledge, such as mātauranga Māori (contemporary and traditional Indigenous knowledge).

For Māori, the importance of seeing and expressing the world through a Māori lens is fundamental to the notion of their belonging to Aotearoa, and their place as tāngata whenua. While Māori as a people have adjusted in many ways to the changes that have been required of them throughout this country's history, many Māori still prefer to apply their own interpretation, practises and beliefs to their lives, their whānau, and their communities based on a traditional, holistic and unique Māori worldview.

## 2.2 Vikings of the Sunrise: ocean voyaging explorers

Māori are Indigenous to New Zealand and are Polynesian, the people of many islands (Belich, 1996). They share similarities of language and culture with other Pacific Islands peoples and were able to establish extensive connections with far flung islands throughout the Pacific through remarkable feats of navigation by early explorers. The process of travel saw the evolution of an oceanic culture with the construction of the voyaging canoe, which has been described as “the material counterpart of the mental and

spiritual development of a sea-minded people, stimulated by the drive of adventure, that knew no fear" (Hiroa 1938).

Māori customary knowledge of the discovery of Aotearoa is replete with references to Maui, a culture hero whose feats, pranks and exploits were known throughout Polynesia. The myth of Maui hauling the huge fish termed Te Ika a Maui (The Fish of Maui) from ocean waters, to become the North Island of New Zealand is well known, as is his naming of the South Island after his canoe: Te Waka o Maui (The Canoe of Maui) (Hiroa, 1966).

It is probable that Maui was an early navigator and explorer who lived so far back that he formed a link between the supernatural and the natural, between the gods and man (Hiroa, 1966). The transportation of these myths and stories are a tribute to the achievements of a stone age people, in efficient crafts, who crossed the Pacific from across its widest part, and who colonised every habitable island within its vast interior (Hiroa, p.5).

The Dutch also travelled here, to one of the most remote places on earth: with islands so inaccessible, they were the last landmass of any size in the world to have been colonised by human beings. They over-reached themselves however, when they claimed to have "discovered" 'Zeelandia Nova,' in 1642 as New Zealand had been settled since AD 800 (Salmond, 1991).

The arrival of Māori on the shores of Aotearoa has been estimated between 800 A.D. (Salmond, 1991) and 925 A.D. (Hiroa, 1966), was achieved after a journey of 1,650 miles, from Rarotonga, and preceded Viking oceanic explorations out of Europe by about 2,000 years.

The East Polynesians' who arrived carried with them women, men, dogs, rats and cultivated plants including kumara (sweet potato), yam, taro, gourd, aute (paper mulberry) and the tii pore variety of cabbage tree; noticeable by its absence, tobacco did not make its appearance until the arrival of Europeans in the 1700's.

## 2.3 Trade: gifts and exchanges

Aotearoa had been visited by the Dutch explorer, Abel Tasman in 1642, but the crew had been unable to make landfall; they did have an encounter with local iwi near Wainui Inlet in the South Island, which became violent (Salmond, 1991) resulting in the death of three of their men, and the mortal wounding of a fourth. In another incident while trying to obtain fresh water from shore, Tasman's men were warned off by local Māori who showered rocks down on the visitors, and following this the Dutch explorers weighed anchor and sailed east into the Pacific.

One hundred and twenty seven years later, in 1769 the Endeavour, captained by James Cook, arrived in Aotearoa; trading was a common occurrence, with tāngata whenua providing fresh fish and produce and in return, receiving beads, trinkets, glass, cloth, axes, tomahawks and spike nails (Salmond, 1991).

On board the Endeavour, Cook, who had been tasked to explore the farther reaches of the southern Pacific and to describe "the soil, animals and birds, fish, mineral resources and flora" (Salmond, 1991) and to cultivate a friendship with the inhabitants, had at his disposal, a wide range of equipment: botanical and medical instruments, a library, art supplies, food supplies, animals, navigational equipment, journals and log books. As well, he carried beer, wine, arrack, brandy and rum – these supplies were given as rations to the crew, as was tobacco.

During a visit to Te Waipounamu (South Island of Aotearoa), Cook was seen smoking a pipe. Teone Taare Tikao (Reid & Pouwhare, 1991) describes the reaction of Māori to Cook:

*Smoking filled our ancestors with awe, and it is said that Te Ihutakaru, father of Karetai, doused Captain Cook with water to see if his head was burning as smoke was issuing from it. He told the other Māoris [sic] what he was going to do, saying if the water put the fire out, the white chief was a man, but if it did not, he was an atua*



*(demon) and should be killed. The water put the pipe out, so it was decided the captain was a man (Beattie, 1990; Reid, 1991) p.12.*

Contact and trade continued throughout the period from 1769 until 1840 and the signing of Te Tiriti o Waitangi, and Māori came into regular contact with two particularly popular items – pigs, and tobacco. From the 1790s onwards New Zealand was visited by many American and European explorers, sealers and whalers who sought to establish pig breeding colonies on the small off shore islands of New Zealand so they would have food if they needed it, particularly for castaways and victims of shipwreck. American whalers at Russell swapped their tobacco and muskets for pigs and kumara from Māori who had come to greatly value pigs, and who had helped to spread them throughout New Zealand by giving them as gifts to other tribes (The New Zealand Kūnekūne Association, 2011).

By 1834, whaling ships and traders were making regular stops in the Bay of Islands, at Kororareka/Russell and according to Edward Markham (McCormick, 1963), there were approximately 200 permanent European settlers living, there, while the Māori population was ten times that figure. Markham goes down in history as having recommended co-habitation with Māori women, particularly if the woman happened to be a chief's daughter, as a “form of protection” and he remarked that parents seemed to encourage liaisons, exchanging a daughter for a musket and a blanket, or in one case, twenty pounds of tobacco (Wolfe, 2005).

Markham, who was a keen observer, also remarked on the “incessant smoking of certain ‘fiery’ brands of tobacco” allegedly resulting in a lowered vitality amongst Māori (p.68) and recounted numerous instances of the trading of tobacco for pigs and produce and flax for guns. Trade was brisk and for the produce Māori traded for they received powder shot, tomahawks, blankets, calico, clothing, pipes, tobacco and muskets.

## 2.4 The tenacious use and normalisation of tobacco

*Ka tohe puruhi te tangata nei! This man is as persistent as a flea! (Brougham, 1975:84; Gray 1857:44). This describes a person who keeps at one and is impossible to get away from (Mead, 2001).*

The metaphor of tobacco as a parasite, flea, is deliberate – tobacco has somehow attached itself to Māori, and over decades of time, has drawn off the resources of Māori in the form of land, money, and lives. As tenacious as a flea, tobacco use in Aotearoa has remained high amongst Māori who ‘took up the habit with alacrity’ (Easton, 1995) and from the early 1840s smoking was “universal among New Zealanders [Māori] of both sexes” (Easton, 1995; Rutherford, 1940).

As early as 1893, tobacco use amongst Māori was recorded and in the New Zealand Official Year Book, it was estimated that consumption per head of population, including Māori (who were noted as heavy smokers) was 2.01lbs per person (Reid, 1991).

Despite damning international evidence of the harm of tobacco use to smokers which included the Surgeon General’s report on the causal association to lung cancer in 1957, the 1964 Report on Smoking and Health and the Surgeon General’s warnings that were required on packs of cigarettes from 1965 in the United States by an act of Congress (*The Reports of the Surgeon General: the 1964 report on smoking and health*, 2011), tobacco has maintained a persistent presence in Māori homes, and is a constant reminder of how successfully it was introduced into this country upon an unsuspecting people.

There was a deliberate campaign to promote tobacco use to Māori by European tobacco traders and this is evidenced by the way tobacco was marketed: the Māori pipe smoker, immortalised in early portraiture and photographs, created the myth that Māori smoking was ‘normal behaviour.’ In a particularly offensive manner, the staging of small children smoking pipes and Māori women carrying their babies in the traditional ‘pikau’

method (wrapped in shawls and tied to their backs) while smoking, are harsh reminders to Māori of the unscrupulous methods that were used to entice them to tobacco use.

At a time when smoking was socially unacceptable to the majority of women in England, Māori women were being depicted in cigarette card advertisements in an unflattering light as smokers and while these cards are sought after by collectors today, they remain as an indictment of how low tobacco companies and advertisers will sink to sell tobacco.

The promotion and marketing of tobacco to Māori ensured very high smoking prevalence rates at this time, and unfortunately, these rates may have exacerbated the impact of the influenza pandemic in 1918 (Reid, 1991). The most striking feature of the pandemic was the massive difference between European and Māori death rates.

Māori were seven times more likely than Europeans to die from the flu – and this conclusion emerged from a fresh assessment of Māori mortality that estimated 2,160 Māori deaths from a population of about 51,000.

*“This yields a death rate of 42.3 per thousand, nearly double the official figure published in 1919, and more than seven times the revised European death rate” (Rice, 2005).*

The legacy of tobacco use in Māori communities remains one of the greatest barriers to Māori development and Māori aspirations as well as contributing to the needless loss of many Māori lives.

Addressing the harm that tobacco has caused Māori requires consideration of how tobacco as a bargaining tool was used most effectively by the new settlers, and became so intertwined with Māori identity to the point where its presence was not only tolerated, but accepted as a normal part of Māori living. The importance of this understanding cannot be underestimated as it acknowledges the role of community living and the social interaction which has been a crucial part in the normalisation of smoking amongst Māori.

Māori have returned from the brink of extinction, brought about through introduced diseases and the impacts of colonisation, have endured massive structural and political changes affecting Māori society at every level and a flood of newcomers that led to Māori being a minority in their own country, and today face fresh challenges associated with living in a country where they continue to suffer extreme disadvantage in the social and economic conditions in comparison to the rest of New Zealand society. Ever the optimists, Māori continue to seek true partnership, as contemplated under Te Tiriti o Waitangi, and to advance their rights as Māori to exercise sovereignty: in every aspect as determined by He Whakaputanga me Te Tiriti.

## 2.5 He Whakaputanga me Te Tiriti o Waitangi: the Declaration of Independence and the Treaty of Waitangi

The association of tobacco with the signing by rangatira/chiefs of Te Tiriti stands as a marker in Māori history. From innocuous beginnings, tobacco became the catalyst for Māori to lose their lives, their health and wellbeing, their traditional knowledge (with the premature death of kaumātua and kuia from smoking related diseases), their mokopuna (Sudden Unexplained Death in Infants and respiratory diseases associated with maternal smoking), and ironically, they would lose their land to tobacco as trade.

Historical records show that the lead up to the signing of Te Tiriti o Waitangi was marked by a period of increasing lawlessness and crime in Northland and in other parts of Aotearoa which forced rangatira to consider alternative solutions to the problems associated with the arrival of Europeans in the country.

The introduction of guns had a profound effect on Māori and precedence in battle between iwi groups was dependent upon the possession of firearms from Europeans, who were making brisk trade. In one instance the British captain and crew of the Elizabeth entered into a deal with Te Rauparaha, Ngāti Toa chief, and in exchange for a cargo of flax, they took him and his war party from Kapiti to the South Island in order to wreak vengeance

on an unsuspecting Ngai Tahu at Akaroa. Many people were killed, including the great southern chief Te Maiharanui, who was slowly tortured to death (Orange, 2004).

Following this incident a recommendation was made by Governor Darling (NSW, Australia) to appoint a British Resident in New Zealand, and in 1832 the Colonial Office in London decided to send James Busby in this role. According to official records, the protection of the trading partnership – important by now to both British subjects and Māori was the key factor in this decision (Orange, 2004).

Despite the disparaging term that Māori gave Busby - a 'Man-o-War without guns' (New Zealand History Online, 2011) in 1835 he was able to call a hui where the Confederation of Chiefs and Tribes of New Zealand declared their sovereignty to the world and signed He Whakaputanga, or what has become known as the Declaration of Independence.

Records show that this may have been motivated in some part as a response to French immigrant Baron de Thierry's plan to establish a government in Aotearoa (Wolfe, 2005). Whatever the motivation, continued lawlessness was of concern to Māori and European settlers, the latter petitioning King William to alert him to the 'serious evils and perplexing grievances' mostly due to his own subjects – individuals who 'fearlessly commit all kinds of depredations' (Polack, 1840; Wolfe, 2005).

Five years after He Whakaputanga was signed, Māori chiefs and a crowd of 1500 gathered at Waitangi outside Busby's grounds to discuss the formalisation of the trading partnership.

In the scant time that had passed between the introduction of tobacco to Māori, and the meeting at Waitangi, tobacco use had been well established amongst Māori and it was reported that 'hundreds of Māori were sitting in their tribal groups, smoking and talking (Orange, 1989).

Following the signing by Northern rangatira, William Colenso was left to distribute gifts – two blankets and some tobacco to each person signing (Orange, 1989) p.22. As Te Tiriti was taken to the Hokianga, the same gifts were given and an account of this process

included a haka of fifteen hundred men and a massive feast to celebrate the signing. Around three thousand Māori feasted on pork, potatoes, rice, and sugar. Gifts of blankets and tobacco were distributed (Te Papa National Museum, 2011).

Tobacco accompanied Te Tiriti throughout Aotearoa, as chiefs chose to sign at their own discretion and by the end of 1840, a total of nine Treaty Sheets had been signed by over 500 chiefs in the Māori language copy – only 39 Waikato chiefs had signed an English-version (although a Māori copy may also have been available) (State Services Commission, 2005).

Did Māori cede their sovereignty at Waitangi? And if so, how had their world changed so drastically in five years, from declaring their independence as a sovereign people with He Whakaputanga, to submitting to the intervention of a foreign rangatira/chief, on their lands?

Clearly, while they were eager to continue to have contact with Europeans and other trading partners, they did not cede sovereignty, nor would they have considered it: the relationships with their trading partners had proven to be extremely successful, bringing many improvements to their lives. It was unthinkable that these independent and autonomous rangatira/chiefs would have agreed to yield control over their lands, their resources and their peoples to the newcomers. New Zealand's history, however, has been written in terms of the conclusion that Māori requested a paternal domination (Henare, 2003). Rather, evidence confirms that rangatira were seeking the means to guarantee an improved quality of life and to make long-term and enduring peace and stability possible – and formally declaring the establishment of a nation state was intended to achieve these objectives (2003, p.14).

During the 2010 Te Papa o Te Raki Waitangi Tribunal hearings, held at Te Tii marae in Waitangi, evidence was offered by Māori academic and Ngā Puhi leader, Dr Patu Hohepa. Hohepa (*Linguistic Evidence of Patu Hohepa*, 2010) as a pou korero (appointed speaker and leader on behalf of the hāpū collective of Ngā Puhi) in a submission to the Waitangi Tribunal in 2010, applied a linguistic analysis perspective to He Whakaputanga and Te Tiriti, to describe the context in which Te Tiriti was signed by the chiefs of leading hāpū and tribes

of Tai Tokerau and later chiefs from the rest of Aotearoa. He attributed the signatories with a thorough understanding of the relationship being established by signing Te Tiriti and maintained that all were cognizant and informed in the decision they made to reach agreement with the Crown. He draws the conclusion that because Māori were accustomed to listening, absorbing, understanding and remembering what was spoken in Māori in their everyday lives, the chiefs would have remembered word for word, the spoken Māori text of Te Tiriti, me te Whakaputanga. Although Māori were indeed informed by explanations, offered implications and a rationale for signing through Henry Williams, Hohepa asks, “were *[these]* tika (correct) and pono (true)?” (Hohepa, 2010).

For Māori, Te Tiriti was an agreement with England that recognised a Governor who represented the Queen of England, who would control their people, who would honour and guarantee Māori rangatiratanga or mana motuhake – absolute sovereignty over all the lands, oceans, forests, fisheries and taonga of Māori (Hohepa, 2010). New Zealand history has failed to acknowledge that Māori signed Te Tiriti in their own language, not English. Māori did not agree to the English version – the English version is not a translation of the Māori Te Tiriti, and is in fact, irrelevant to the Māori understanding of Te Tiriti. Further, “the English version destroys the words and promises of Busby, Hobson, and Henry Williams given at Waitangi and Hokianga” (Hohepa, 2010) p. 63.

## 2.6 Taonga Tuku Iho: land, environment and gifts

The impact of colonisation on the health of Indigenous populations is well researched, with colonisation for Māori resulting in a dramatic drop in population numbers and near genocide (Durie, 1998b). A once thriving and well-ordered society, within fifty years of contact, changes had been forced upon Māori that saw a departure from a tribal lifestyle, inextricably bound to the natural environment, replaced by a new reality dictated by the “social and political inconsistencies of Victorian Britain”.

During this period Māori were “introduced to the dubious advantages of a Western civilization”, where they were completely unprepared for the epidemics of Europe and the avaricious demands of the economic market place – biologically and socially, they were ill-prepared for the new morality (Durie, 1998a) p.28.

The use of tobacco as a gift, koha or trade item became well established with increasing contact and immigration of European settlers – it was a substance that had not been used by Māori, and was taken up with a passion, firstly in the form of pipe smoking, with both men and women adopting the use of tobacco equally (Reid, 1991).

The addictive nature of nicotine ensured that tobacco became a much sought after commodity by both Māori men and women; cravings associated with nicotine withdrawal would have been new to Māori and avoidance of these unpleasant symptoms could account for the large number of references that show from its first use, Māori actively sought out tobacco from Europeans and were prepared to trade anything for it, including land.

Both Māori and Pakeha assigned great importance to the relationship that tobacco, and other trade items, established between Māori and Europeans. For Europeans, the importance of a liaison with Māori was essential to secure their future in these new lands; for Māori the association would have been predicated upon their own values which embraced reciprocity, responsibilities toward hāpū and whānau and interdependence; the principles that had been necessary for their own survival in Aotearoa.

The fear that they might not survive would have been far from their minds in the early 1800s<sup>1</sup> when they were the majority in Aotearoa, however as time passed Māori were forced to watch the increasing number of settlers arrive in their country so that within 10 years of the signing of Te Tiriti, European numbers had grown tenfold<sup>2</sup>; and in just twenty

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<sup>1</sup> At the beginning of 1800 New Zealand was occupied by a Māori population estimated at between 100,000 and 200,000, and by about 50 Europeans.

<sup>2</sup> As a result of colonising efforts, the European population in the period 1840–50 increased over tenfold, from about 2,050 at the beginning of 1840 to 22,108 in 1850.



years from Te Tiriti the Māori population had halved<sup>3</sup>(*Population, population trends and the Census*, 1966, 2009).

Political forces subjected Māori to oppression (Native Schools Act, 1867 decreeing that English should be the only language used in the education of Māori children) and suppression of traditional Māori healing practices (Tohunga Suppression Act 1907, repealed in 1962). These laws had an irreversible effect on the transmission of mātāuranga Māori through language, cultural practices and knowledge to tai tamariki (the rising tide of youth, the incoming wave of a new generation).

Despite overwhelming change and seismic shifts in their world, including the imposition of an “other” culture’s laws and systems in their lands which served to erode their traditional way of life, Māori maintained their own principles, tikanga and beliefs. Although the maintenance of Māori knowledge had been threatened and this has affected the transmission of knowledge that was ‘exclusively’ or particularly Māori, the struggle for acceptance and legitimacy of these forms of knowledge and learning has continued since colonisation (Smith, 1999).

## 2.7 The voice of rising Māori discontent, and protest

By the time that Māori became a minority in their own lands, and were responding to the socio-cultural and political context and the rapid changes that had impacted on them from the imposition of unjust and discriminatory policies and laws, tobacco use was well established. So “under the skin” had it become that a photograph taken at a Māori Leadership Conference in Taumarunui in 1963 (Westra, 1963) shows a speaker with a cigarette in his hand and packets of cigarettes and matches lined up on the workshop desks; the irony of speaking about leadership, while being addicted to tobacco, and its subsequent loss of autonomy (DiFranza, 2008), seems to have been lost.

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<sup>3</sup> The first census of the Māori population was taken between September 1857 and September 1858. The total Māori population was given as 56,049, of whom 38,269 lived in the province of Auckland, but the published tables included the precautionary phrase, “as far as can be ascertained”.

Despite the high numbers of smokers who were present during the years when the burgeoning voice of Māori began to be raised in objection, the pervasive use of tobacco seems to have slipped under the radar; the attitude of the times was that cigarette smoking was viewed as a “habit”, tobacco use was socially acceptable, and cigarettes were available cheaply and heavy smoking, common.

Unfortunately, and sadly an opportunity missed, was that the issue of tobacco use and nicotine dependence and the role it had played in the loss of lands and the early, preventable deaths of many Māori, did not attract criticism during the period when Māori began to reassert their position in Aotearoa New Zealand, through protest.

The history of Māori protest can be traced back to its own “rich, Indigenous and historical” lines (Harris, 2004); its modern development was a response to Crown policies of assimilation and later integration (Hunn Report, 1960<sup>4</sup>), that sought to socialise Māori into modern urbanised living, but in practice seemed to require that Māori forsake their own identity. The loss of land, language and culture as a result of these policies became the catalyst for a movement of activism to recover and reassert tino rangatiratanga and tribal authority which the Crown had wrested from Māori despite the promises of the Treaty of Waitangi.

In the 1970’s, Māori began to unite to address the issue of land loss and alienation, and in 1975 Dame Whina Cooper (who was 80 years old at the time) led a march of 5,000 people from Te Hapua in the north, to Parliament in Wellington where she presented a petition of 60,000 signatories to the Prime Minister, petitioning the government to “cease unjust alienation of Māori land” (Durie, 1998b) p.52. This march coincided with the final passage of the Treaty of Waitangi Bill through Parliament (Orange, 2004).

Other protests, including the occupation by Ngāti Whātua at Bastion Point from 1977-1978 and in Raglan in 1978, led by Eva Rickard were emphatic demonstrations of the resolve and the stand that Māori were taking to assert their Māori identity in ways that

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<sup>4</sup> Hunn, J. 1960. Report on Department of Māori Affairs. Deputy Chairman, Public Service Commission, Acting Secretary for Māori Affairs.

extended beyond their traditional realms of influence such as marae and into areas previously considered the domain of the professional (Durie, 1998b).

While Māori leaders were expressing their intention to enact their rangatiratanga, many Māori were continuing to smoke and to experience the associated harm and damage caused by tobacco use. In 1995, commenting on an investigation into the 1976 census, one researcher noted that, “the effect of smoking on health has been of epidemic proportions, notably for the Māori” (Easton, 1995).

The ever-smoking prevalence (people who have ever smoked tobacco) among Māori men had been consistently in the 75 percent to 80 percent from the the turn of the century and the lower prevalence that was observed in the actual data of the 1976 census reflected higher mortality. The prevalence among Māori women had been rising – from 65 percent during this period to above the male Māori rate for those born in the early 1950s and this indicated that whatever measures taken to reduce the prevalence of ever-smoking in the population as a whole, had not been as effective for Māori, which was “a gloomy conclusion reinforced by the lower reported quit rates for the Māori” (Easton, 1995).

While the process of colonisation for Māori has been a “stripping away of mana (our standing in our own eyes) and an undermining of rangatiratanga (our ability and right to determine our destinies)”, (Smith, 1999), many Māori, failed to recognise the role of tobacco in this process. Tobacco has its function as a tool in the colonisation process well established in historical records of trade and purchases, but perversely, the challenge tobacco poses to the health of Māori and the undermining of rangatiratanga/self-determination through nicotine addiction has not been acknowledged by many Māori.

Over the years, Māori aspirations and cultural practice have been asserted through various forms of activism, demonstrating a will by Māori people to make explicit claims about the validity and legitimacy of Māori knowledge (Smith, 1999). In the struggle for autonomy, and a desire for self-determination, aspirations have been declared for the future based on aims for Māori advancement, affirming Māori identity and environmental protection for future generations (Durie, 1998a).

This will to enact “tino rangatiratanga” (absolute sovereignty) continued to be expressed through the establishment of educational and community programmes, such as the Kohanga Reo movement (UNESCO, 2010) and Kura Kaupapa Māori (Māori language centres for primary school aged children) by Māori; with the passing of the Treaty of Waitangi Act 1975 (Waitangi Tribunal, 2011), Māori had, at last, a process to address the grievances and various breaches in relation to Crown actions relating to Te Tiriti o Waitangi.

With the establishment in 1975 of the Waitangi Tribunal many hāpū and iwi (sub-tribes and tribes) were able to seek cultural and financial redress for acts and omissions of the Crown, in the acquisition of lands. This legal process has led to many “Treaty settlements” between the Crown and iwi with Māori gaining increased access to and possession of their traditional lands.

For Māori this period of activism and awakening during the 1970s would impact on attitudes to health and health services and would bring theoretical and philosophical reviews that stimulated Māori interest in reclaiming an active role in health and health care (Durie, 1998).

These were issues that challenged New Zealand’s long-held, hegemonic perspectives and offered an alternative way of understanding cultural differences, by recognising Māori values in illness, and medical treatment (Durie, 1977). New Zealand seemed slow to appreciate the implications of culture to health and to health services, however, a resurgence of interest in Māori language and culture, combined with new insights about the Treaty of Waitangi and its relevance to contemporary life, strengthened the growing demand for fresh examinations of social services and the underlying philosophical tenets on which they were based (Durie, 1998a).

Despite this progress, the ubiquitous, imposter tikanga – smoking – had somehow managed to survive the revitalisation of Māori as a culture, and the normalisation of smoking, in the home, in cars, at work and at school has been and remains, an unfortunate reality for most Māori.

### 3.0 POST COLONISATION AND THE STATE OF MĀORI HEALTH

#### 3.1 Māori: an endangered species

The Māori population in the nineteenth century was estimated as ranging from 160,000 in the North Island in 1835, to 60,000 in 1838 (Pool in (Durie, 1998b). Although absolute numbers of Māori were uncertain, what is acknowledged was that from first contact with Europeans, a significant decline in the population had occurred, which was first detected in 1805 (Gluckman, 1976). By the 1830s, missionaries and the British Resident had begun to express concerns at the high Māori mortality rates which led Busby to despatch a report to his superiors urging active British intervention in New Zealand; “the Treaty of Waitangi was the eventual outcome” (Durie, 1998b) p.30. Further decline in the Māori population continued after Te Tiriti was signed, and a census taken in 1857-1858, based on an actual head count, revealed the number of Māori was 56,049.

At the time, the “extinction” of Māori in New Zealand was a foregone conclusion and in 1846, Dr Isaac Featherston, a surgeon who became a Member of the House of Representatives, and Superintendent of the Wellington Province declared that a “barbarous and coloured race must inevitably die out by mere contact with the civilised white; our business therefore, and all we can do is to smooth the pillow of the dying Māori race” (Durie, 1998b; Hamer, 1990). By 1901, the country’s demographics had drastically altered, with the population of 770,313 settlers outnumbering Māori by 16:5.1 (Pool, 1991).

Predictions of the demise of the Māori would have been welcome news to many settlers faced with increasing reluctance of Māori to sell land, and although the situation was dire Māori did survive, and by 1900, the tide was turning, and the threat of total extinction was over (Durie, 1998b).

### 3.2 Social and health inequalities – and their relationship to smoking

The introduction of firearms, tobacco and new infectious diseases impacted most significantly on Māori death rates, however the historical and socio-economic context in relation to Māori mortality after the colonisation of New Zealand, specifically the loss of land by Māori, was an important factor in the near-demise of the Māori people (Ellison-Loschman & Pearce, 2006).

Today, research concludes that smoking prevalence rates for Māori are influenced by factors such as income, employment status, housing and education and these factors can have both direct and indirect impacts on health and have cumulative effects over lifetimes (Robson & Harris, 2007). Because smoking prevalence peaks at young adult ages, the younger age structure of the Māori population accounts for greater impact on morbidity and mortality rates for Māori throughout their lives.

To decrease the numbers of Māori smokers, it is necessary to consider social and health inequalities, and to address the health inequities and the systems which allow these to exist. A wider view of the context in which smoking occurs will require a broad social health approach and this has been used by researchers to draw a distinction with a medical approach. The social health approach implies broadening a definition of health beyond medical factors to all those factors that may affect health (Baum, 2008) and over which the individual may not be able to exert influence or have choices.

The World Health Organization Department of Equity, Poverty and Social Determinants of Health defines health equity as an absence of unfair and avoidable or remediable differences in health among population groups who are defined by their social, economic and demographic positions and/or their geographic locations. In essence, there needs to be recognition that health inequities and health differences are socially produced, systematic in their distribution across the population and unfair (World Health Organisation, 2007).

These inequities in health status are “universal across cultures and persistent” (Baum, 2008), and relate to socioeconomic status, gender and ethnicity. International evidence based on socioeconomic status and health is constant and shows that the relationship has been observed in numerous countries, has continued over long periods of time, is apparent irrespective of how socioeconomic status is measured, is manifest for almost all health outcomes, irrespective of the measure of health that is used, is present across all age groups and is evident for both men and women (Baum, 2008; Commission on Social Determinants of Health, 2008).

New Zealand is a relatively prosperous nation with excellent healthcare and education systems, which includes social safety nets for individuals and families/whānau at particular risk. Recently however, a report showed that current disparity is increasing in this country, and that there is a widening of the inequalities gap between the poor and the prosperous (Public Health Advisory Committee, 2010). Reports also show that New Zealand has not compared well with other prosperous nations when it comes to child health; in 2009 a report from the Organisation for Economic Co-operation and Development (OECD), *Doing Better for Children*, New Zealand ranked 29th out of 30 countries for child health and safety. New Zealand’s child disease patterns are closer to those of developing countries which is cause for both reproach and concern (Public Health Advisory Committee, 2010).

### 3.3 Smoking – a killer legacy for Māori

#### *3.3.1 Sudden Unexpected Death in Infants*

One of the most devastating effects of smoking for Māori is in the high rates of Sudden Unexpected Infant Death (SUDI), (formerly Sudden Death in Infants SIDS) in Māori whānau (Moon, Horne & Hauck, 2007). SUDI has been highly associated with risk factors such as maternal smoking, the early cessation of breastfeeding and co-sleeping (where there was smoking in pregnancy).

In a review of autopsy reports of all SUDI deaths in the Auckland region from the period 2000 to 2009, of the 332 post-mortems during this period, 221 were classified as SUDI. Of these, 83% were Māori or Pacific infants. The median age at death was 11 weeks and 11% occurred in 7 to 28-day-olds. At the time of death, 64% overall were bedsharing; this was more common in 7–28 day olds (92%).

Although the review was limited by missing data for smoking and other relevant risk factors, previous work by the group had shown a maternal smoking rate of 52% in Māori mothers in Auckland (Tipene-Leach, et al, 2010) and in a similar study 29% of Pacific mothers smoked (Schluter, 2007), (Hutchison, 2011). Based on these prior results, the review surmised that smoking in pregnancy by the mothers in this study might have been at least equal to that in previous surveys; together with the high prevalence of bedsharing that had been reported, the smoking/bedsharing scenario seems to be the leading explanation of the high Māori, and moderately higher Pacific SUDI rates.

### *3.3.2 Ngā tai-tamariki – the rising generation*

There is overwhelming evidence that exposure to parental smoking has obvious adverse effects upon young children's respiratory health (Carlsen, 2007) and research has shown that environmental tobacco smoke (ETS) from household smoking is a significant and preventable contributor to childhood acute respiratory illness (ARI) (Blizzard, 2003; Johnston, Walker, Thomas, Glover, Chang, Bullen, Morris et al, 2010).

Research shows that among the population of both smokers and non-smokers, Māori were significantly more likely than non-Māori to report second-hand smoke exposure in their home during the previous seven days (29 per cent compared with 17 per cent) (Gillespie, 2005); 16 per cent of Māori who participated in a survey and 8 per cent of non-Māori reported being exposed to second-hand smoke every day for the seven days prior to being interviewed (The Quit Group & Ministry of Health, 2009).

Acute respiratory illness (ARI) is the most common cause of acute presentations and hospitalisations of young Indigenous children in Australia and New Zealand (Johnston,



Walker, Thomas, Glover, Chang, Bullen, Morris et al, 2010); ARI is a source of preventable morbidity and carries a high cost to the community with important, long-term consequences because children who have respiratory infections in early life are at an increased risk of developing asthma in later childhood.

The view that the levels of home second hand smoke (SHS) exposure and estimated mortality burden in New Zealand justify a substantial government and health-agency investment to reduce this exposure, particularly for children, Māori, and those in low-income households has been reported (Thomson, 2005); the argument that more effective strategies that prevent smoking in young people before they become parents and that have the potential to lead to reductions in these high rates of unnecessary morbidity in the next generation of children, has been made (Peat, 2001).

A report on monitoring the health of New Zealand children and young people in 2007, stated that understanding the large disparities in health outcome experienced by Māori children and young people, cannot occur without a knowledge of the history of the colonisation of New Zealand and the declines in health status which occurred as a result of the erosion of the economic and cultural base of Māori whānau from the early 1800s onwards (Craig, Jackson & Han, 2007).

The report called for initiatives aimed at reducing the currently marked disparities in health for Māori children and young people, and warned that these may not succeed in the longer term unless broader policies and strategies can be put in place which improve the economic base for Māori whānau, hāpū and iwi (Ministry of Social Development, 2005). This has also been reported elsewhere:

*Sectoral development [also] tends to mask the fact that social well-being may depend less on the delivery of services such as health or social welfare than on macro-policies which relate to employment, access to education, and immigration. Good health, for example, owes as much to good housing, a decent job, and education as to health services (Durie, 1998a).*

### 3.4 International perspectives: smoking, a global crisis

*Every day, over 13,500 people worldwide die due to tobacco. The total number of smokers' deaths will increase from 5 to 8 million in the next 20 years. Soon, it will become the leading cause of death in developing countries (as it is in high-income countries) (Commission on Social Determinants of Health, 2008) p.30.*

Smoking is an international issue, and of concern to the World Health Organisation (WHO). In 2003, the WHO Framework Convention on Tobacco Control (WHO FCTC) was developed and is the first treaty negotiated under the auspices of the World Health Organization. New Zealand is a member of the WHO FCTC and works with partner countries in response to the globalization of the tobacco industry. The rapidly rising flood of tobacco particularly to developing countries contributes to a variety of complex factors with cross-border effects, including trade liberalisation and direct foreign investment. Other factors such as global marketing, transnational tobacco advertising, promotion and sponsorship, and the international movement of contraband and counterfeit cigarettes have contributed to an escalation in tobacco use that is akin to an epidemic (Conference of the Parties to the World Health Organisation Framework Convention on Tobacco Control, 2003).

The high prevalence rates of smoking by Indigenous peoples is a priority, and the WHO FCTC guiding principles identify the need to take measures to promote the participation of Indigenous individuals and communities in the development, implementation and evaluation of tobacco control programmes that are socially and culturally appropriate to their needs and perspectives (Conference of the Parties to the World Health Organisation Framework Convention on Tobacco Control, 2003). These principles speak directly to Māori aspirations for tino rangatiratanga, self-determination and control.

Of note is Article 14 of the Convention which addresses demand reduction measures concerning tobacco dependence and cessation, and calls for the development and dissemination of appropriate, comprehensive and integrated guidelines based on scientific

evidence and best practices; this necessitates taking into account national circumstances and priorities and taking effective measures to promote cessation of tobacco use and adequate treatment for tobacco dependence (Conference of the Parties to the World Health Organisation Framework Convention on Tobacco Control, 2003).

To address the demand reduction measures concerning tobacco dependence and cessation, Article 14 of the Convention requires that effective programmes aimed at promoting the cessation of tobacco use, in such locations as educational institutions, health care facilities, workplaces and sporting environments are designed and implemented; in these settings, services for the diagnosis and treatment of tobacco dependence and counselling on cessation of tobacco use bringing together national health and education programmes, plans and strategies, with the participation of health workers, community workers and social workers as appropriate, are called for.

Included in this integrated approach is the establishment in health care facilities and rehabilitation centres, of programmes for diagnosing, counselling, preventing and treating tobacco dependence. Collaboration with other parties to facilitate accessibility and affordability for the treatment of tobacco dependence including pharmaceutical products and their constituents and which may also include medicines, products used to administer medicines and diagnostics when appropriate, is required.

The Charter is consistent with aspirations for Māori community controlled initiatives to expedite the distribution of evidence-based support for the treatment of tobacco dependence.

## 4.0 TITIRO WHAKAMURI, KI A HAERE WHAKAMUA

*“Ma te titiro whakamuri ka kite i te huarahi haere whakamua” – you need to look back to see the pathway to go forward (Māori SIDS, 2011).*

### 4.1 The extent of the problem: prevalence rates for Māori

In a recent survey of trends in tobacco use of year 10 students (14-15 year old) from 1999-2009 (Paynter, 2010a) it was noted that in 2009 daily smoking remains highest amongst Māori girls (18% compared to all other ethnicities), followed secondly by Pacific Island girls (7%); the percentage of European girls who smoke is 3.7% and the lowest rates for smoking is for Asian girls at 1.4% and other ethnicities (0.7%).

For boys, daily reported smoking was highest amongst 14-15 year Māori boys, at 11.1% followed by Pacific Island boys (6%); European boys who smoke daily is lower than girls of the same ethnicity (3.2%) and the lowest rate for Asian daily smokers was 3.2%; other ethnicities reported 3.0% of daily smokers.

There are a number of positive results: the proportion of Māori girls who have never smoked has increased to 31.8% with the highest relative increase in percentage (11.5%) reported in the period 2008-2009. For Māori boys having never smoked (46%), this group were lowest compared to all other ethnicities – but it was also noted in the 2008-2009 that the highest relative increase in the “never smoked” category was for Māori boys (12%). And, of the number of Māori girls who reported regular smoking in 1999, there has been significant improvement compared to 2009, with numbers of regular smokers reducing by 18.3%. For Māori boys there has been a 12.5% reduction in numbers of regular smokers.

Without exception however and across all age groups, the prevalence rates for Māori remain at an intolerably high level; smoking results in an increased burden of mortality and morbidity for Māori, which impacts on and exacerbates further disadvantage and socio-economic deprivation. Socio-economic deprivation describes access to material and social

resources and has to some extent underpinned conceptions of social class and socio-economic status. It has been defined as a state of observable and demonstrable disadvantage relative to the local community or the wider society or nation to which an individual, family or group belongs (Townsend in Salmond & Crampton, 2001).

Smoking remains a major contributor to health disparities, strongly shaped by income, deprivation, occupation and other intermediary factors, themselves determined by structural factor. Measures to address the root causes of educational and occupational discrimination are required; pervasive economic disparities and policies and practices that maintain poverty traps must be addressed to effect changes to smoking and Māori health (Robson, 2004).

#### 4.2 Māori youth: early initiation of smoking

Smoking initiation is a term that is used to describe the age when smoking first began, specifically, when ever smokers reported having had their first cigarette. Ever smokers are defined as people who have ever smoked cigarettes or tobacco at all (including cigars and pipes), even just a few puffs.

In a report to the Māori Affairs Select Committee the Ministry of Health estimated that for Māori youth, the median age of smoking initiation is 11.6 years (Ministry of Health, 2009b); for youth in the general population in 2009, the median age of smoking initiation is 13.4 years in 15-19-year-olds (Ministry of Health, 2007b).

The Māori population is very young with approximately 565,000, less than half of whom are younger than 15 years of age (200,000) (Ministry of Health, 2010c). Given that Māori youth are reported as being more than twice as likely to be current smokers as youth in the total population, smoking will remain an issue for Māori for some years into the future – of concern is that many of the young Māori have become nicotine dependent, after “just a few puffs” (DiFranza, 2007b).

**Table 1 Current smoking in youth aged 15-19 years by ethnic group 2009 (unadjusted prevalence)**

<b>Ethnic group</b>	<b>Prevalence (95% CI)</b>	<b>Estimated number</b>
European/Other	16.9 (13.0–20.8)	38,100
Māori	38.2 (28.8–47.5)	19,700
Pacific	26.9 (15.7–40.7)	7400
Asian	4.2 (0.1–22.2)	1500

**Source: 2009 New Zealand Tobacco Use Survey. Note: Total response ethnicity has been used.**

Māori youth are learning to resist the temptation to take “even one puff”, in greater numbers, however those that continue to experiment with smoking from very young ages, risk becoming “hooked from the first cigarette” (DiFranza, 2007a) thereby being forced to live their lives with all of the disadvantages of being nicotine dependent.

A New Zealand study (Poynter, Bullen, Whittaker & Grigg, 2008) posited that preventing tobacco smoking initiation at an early age is a key strategy in addressing tobacco use because over 80% of smokers begin smoking before the age of 18 years and that between one-third and one-half of those who experiment with tobacco become regular smokers. The study found that 72.3% of young New Zealand smokers who were surveyed, if they could start their lives again, said they would not smoke.

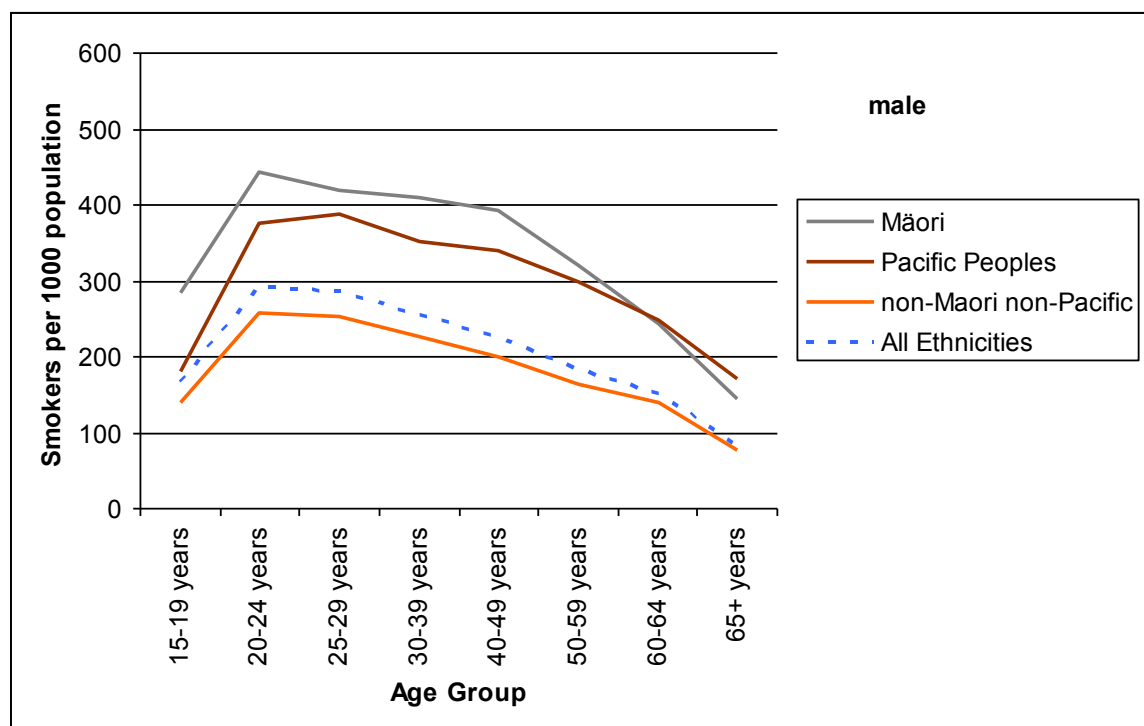
Using time from waking to first cigarette (TTFC) as an indication of nicotine dependence (Heatherton, Kozlowski & Frecker, 1989) the study concluded that awareness that under-18 nicotine dependence is equivalent to that of adults should lead to improved provision of NRT for adolescents. In addition the study reported that initiatives involving mobile phone technology were particularly appropriate for improving access to information and treatment for under-18s and proposed that adolescent tobacco cessation should be accorded greater priority in tobacco control policy, practice, and research.

### 4.3 Male smokers: Māori, by age group

Māori boys start smoking at the same age as other ethnicities (Pacific and non-Māori, non-Pacific) however they do so in greater numbers. The graph shows that the majority of smoking is occurring in Māori males, between the ages of 20 – 50 years.

The greater drop off rate for Māori men from 60 years partly reflects different rates of smoking and diabetes, as well as socio-economic differences associated with life expectancy rates. According to the 1996/1997 New Zealand Health Survey (Ministry of Health, 1999), Māori people were more than twice as likely to have been diagnosed with diabetes than European people, and nearly half of all Māori adults reported that they were current smokers compared with 23 percent of European adults. Similarly, the 1996 Census reported that 44 percent of Māori aged 15 years and over were regular smokers, compared with 21 percent of non-Māori (Statistics New Zealand, 1997).

Figure 1 Male smokers: Māori, by age group

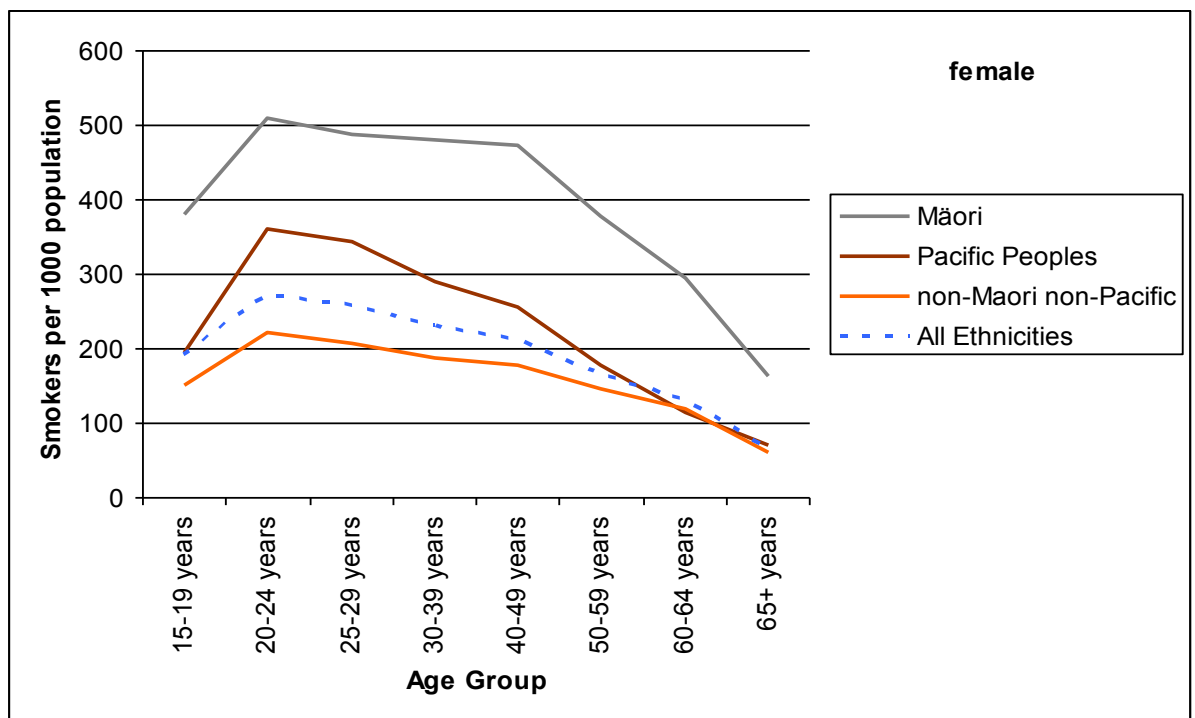


Source: (Arnold, 2009)

#### 4.4 Female smokers: Māori, by age group

Māori females have rates of smoking that are higher than all other ethnicities with smoking numbers peaking in the 20 – 24 years age group. The smoking rates remain consistent in this age group until 40-49 years age group, and the rapid decline in numbers of Māori women smokers may be due to premature death from smoking related diseases – of which lung cancer is highest in Māori women.

Figure 2 Female smokers: Māori by age group



Source: (Arnold, 2009)



## 4.5 Current smoking in New Zealand

The following table reports on the current smoking by ethnic group and gender, for all 15-64 year olds in New Zealand; rates for Māori female are highest (49.7%), followed by Māori males (40.4%), Pacific males (34.7%), Pacific females (28.5%), European/Other males (22.5%), European/Other females (20.2%), Asian males (20.1%) and Asian females have the lowest rate (5.2%).

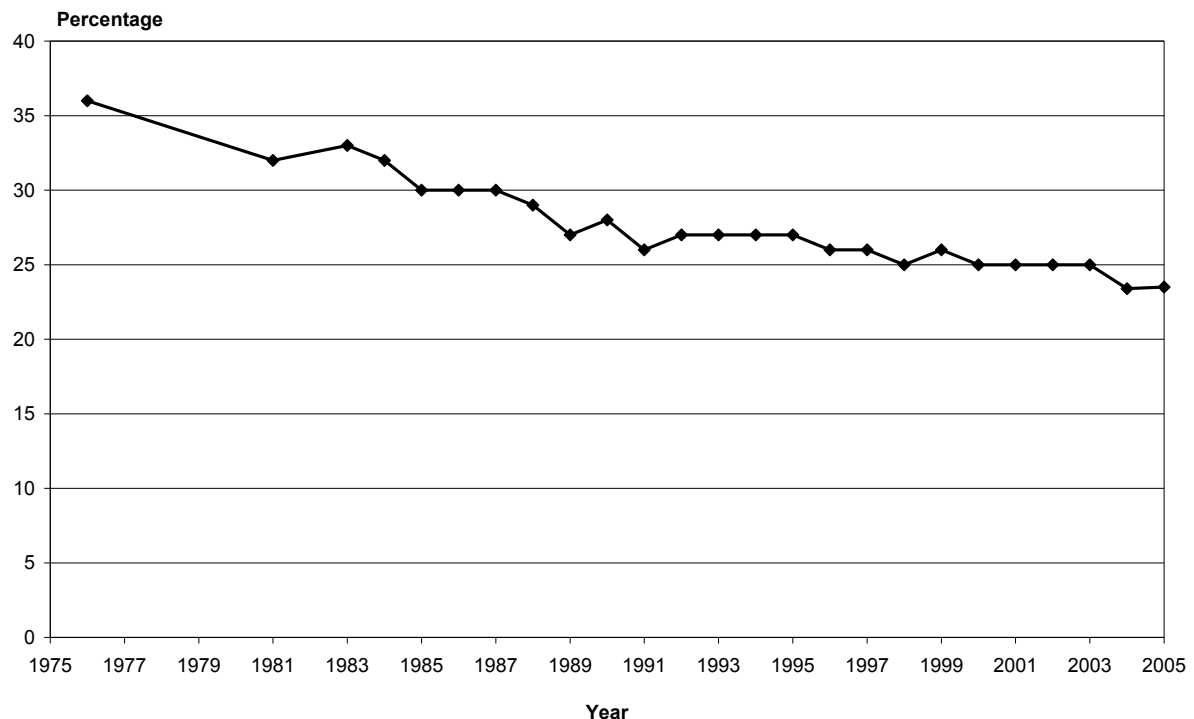
**Table 2 Current smoking for 15-64-year-olds, by ethnic group (total ethnicity) and gender, 2008 (unadjusted)**

Ethnic group	Males		Females		Total	
	Prevalence (95% CI)	Number	Prevalence (95% CI)	Number	Prevalence (95% CI)	Number
European/ Other	22.5 (20.3–24.7)	227,100	20.2 (18.0–22.5)	218,800	21.3 (19.8–22.8)	446,000
Māori	40.4 (34.7–46.0)	63,400	49.7 (44.4–55.1)	91,300	45.4 (41.4–49.4)	154,700
Pacific	34.7 (26.6–42.8)	26,100	28.5 (23.3–33.6)	23,700	31.4 (26.9–36.0)	49,800
Asian	20.1 (13.2–26.9)	31,200	5.2 (2.7–9.0)	8,600	12.4 (8.7–16.2)	39,800

**Source: New Zealand Tobacco Use Survey 2008. Total response standard output for ethnic groups has been used (Ministry of Health, 2008).**

## 4.6 Prevalence of current cigarette smoking in New Zealand 1976-2005

**Figure 3 Prevalence of current cigarette smoking (%), 1976-2005**



**Source: 1996 Census of Population and Dwellings, Department of Statistics; 1976–2005 ACNielsen (NZ) Ltd. Note: In 2003, prevalence of cigarette smoking was collected for 18+ years (Ministry of Health, 2008).**

From the time series provided by the ACNielsen survey, it can be seen that the prevalence of current smokers (all ethnicities, ages and gender) has continued to decline since the 1970s at an average annual rate of approximately 0.1–0.2 percentage points (Ponniah, 2007).

## 4.7 The Crown response and policy direction

In 2007, the New Zealand Smoking Cessation Guidelines (NZSCG) were released (Ministry of Health, 2007a) and provided smoking cessation workers from many sectors of the community (from full time smoking cessation providers such as Aukati Kai Paipa to

nursing and medical practitioners based in medical clinics) with a consistent message and advice based on clinical evidence for the use of pharmacological treatments such as nicotine replacement therapy, for nicotine addiction. The NZSCG emphasized treatment for priority groups such as Māori, Pacific, Asian, pregnant and breastfeeding women, children and young people, hospitalised and preoperative patients, people who use mental health services, and users of addiction treatment services, being associated with the highest rates of smoking prevalence.

The ABC approach to smoking cessation (ABC's) from the NZSCG uses the acronym ABC to prompt the following actions: (A) ask all people about their smoking status and document this; (B) provide brief advice to stop smoking to all people who smoke, regardless of their desire or motivation to quit; (C) make an offer of and refer to, or provide, evidence based Cessation treatment (Ministry of Health, 2007a).

The ABC's does not replace existing specialist smoking cessation treatment, such as Aukati Kai Paipa, but combines screening for tobacco use, brief advice and an offer of treatment which can include a referral to smoking cessation providers.

According to a recent survey (Ministry of Health, 2010d) , nearly one-third (30.9%, 27.0–34.8) of 15–64-year-old current smokers who had seen a GP in the past year were provided with quitting advice or information and referred to quitting programmes or given quitting products by a GP in the past 12 months. There was no significant difference by sex (p.79).

Crown policy on tobacco control in New Zealand has been made explicit in the 2009/2010 Ministry of Health Targets, which places emphasis on activity to address tobacco use, within hospitals and clinical settings and to provide better help for smokers to quit. The target aims for 80 per cent of hospitalised smokers to be given advice and help to quit by July 2010; 90 per cent by July 2011; and 95 per cent by July 2012. Similar targets for primary care were introduced in July 2010 through the PHO Performance Programme (Ministry of Health, 2009a).

Of those current smokers who had seen a GP in the past 12 months, those in the younger age groups (15–19, 20–24 and 25–29-year-olds) were significantly less likely to have been provided with quitting advice or information and referred to quitting programmes or given quitting products by a GP in the past 12 months than older people aged 40–49 and 50–59 years. Those aged 30–39 were less likely to have been provided with quitting advice or information and referred to quitting programmes or given quitting products by a GP in the past 12 months than those aged 40–49 years-old (p.80).

Table 3 reports on of the proportion of 15–64-year-old current smokers who were provided with quitting advice or information and referred to quitting programmes or given quitting products by a GP in the past 12 months, by ethnic group in 2009 (unadjusted prevalence):

**Table 3 Current smokers who were provided with quitting advice or information and referrals (by a GP) in the past 12 months, by ethnic group**

<b>Ethnic group</b>	<b>Prevalence (95% CI)</b>	<b>Estimated number</b>
European/Other	27.7 (23.2–32.2)	80,400
Māori	33.2 (26.2–40.3)	34,800
Pacific	37.1 (25.5–48.7)	13,000
Asian*	–	–

**Source: 2009 New Zealand Tobacco Use Survey (p.81). Note: total response ethnicity has been used; \*figures for the Asian population cannot be provided due to small numbers.**

After adjusting for age, 15–64-year-old European/Other current smokers were found to be less likely to have been provided with quitting advice and referral by a GP in the past 12 months than current smokers in the total population (p.86).

There was no difference between current smokers in the total population and Māori and Pacific current smokers in the age-standardised prevalence of having been provided with quitting advice and referral by a GP in the past 12 months (Ministry of Health, 2010d).

While the percentage of Māori smokers who are offered evidence based support to quit when they visit the hospital or their GP and nurse is increasing, there is an urgent need to extend efforts beyond health services to ensure more Māori receive advice to quit smoking. Focusing all efforts and resources within GP and medical settings ignores the evidence that shows Māori may not visit a primary health care setting because of cost, and the impact of cost may well be greater for Māori who may report higher levels of unmet need (Ministry of Health, 2006).

Of additional concern is a lack of knowledge about how Māori who visit primary health care settings receive a brief intervention, and whether this is undertaken in a culturally appropriate manner, by health care professionals who are likely to be non-Māori. There is evidence of the existence of healthcare disparities for Māori (Rumball-Smith, 2009), and data that suggests health care professionals are oriented to constructions of Māori health that either blame Māori for their plight or justify existing service provision, which may be poor (McCreanor and Nairn, 2002). These factors may impact negatively on the quality of the brief intervention given to a Māori patient, or may even prevent an ABC intervention being offered.

While the introduction of the ABC approach into hospital and primary health care settings has seen a marked increase in the frequency with which health professionals obtain smoking status for patients/clients and provide smoking cessation advice to quit – 23% of males in 2008 for males and 28.4% in 2009; 23.9% for females in 2008 and 27.8% for 2009 – further investigation should be made to determine how well the advice is given, and received, whether Māori respond to the offer for smoking cessation advice, and how they might be followed up, particularly if they agree to make a quit smoking attempt.

## 5.0 EVIDENCE BASED APPROACHES TO SMOKING CESSATION

The following is a brief outline of current smoking cessation approaches, that are based upon recent or current evidence (in the form of reviews, articles or publications). Most smoking cessation interventions in Aotearoa New Zealand such as those in hospitals or GP clinics which are funded by District Health Boards, or national programmes funded by the Ministry of Health, such as Aukati Kai Paipa and the Quitline, utilise NRT in three forms (patches, lozenges and gum) for pharmacotherapy treatment.

While there is a large body of international literature on smoking cessation including nicotine delivery systems, for the purpose of this research investigation, NRT, because of its accessibility (it does not have to be prescribed by a GP), and availability (it is able to be obtained in bulk by Māori smoking cessation providers such as Aukati Kai Paipa), NRT is the only pharmacotherapy that has been reviewed for this research investigation (Douglas, Leischow, Nides, Rennard, Johnston, Hughes, Smith, Muramoto, Daughton, Doan, Fiore & Baker, 1999; Ranney, Lux, McClain & Lohr, 2006; Hughes, Stead & Lancaster, 2010; Wu, Wilson, Dimoulas & Mills, 2006; Garrison, Christakis, Ebel, Wiehe & Rivara, 2003; Stead, 2009b; Shiffman, Fant, Buchhalter, Gitchell & Henningfield, 2005).

### 5.1 Nicotine replacement therapy (NRT) to aid smoking cessation

The use of NRT to aid smoking cessation, by reducing the effects of nicotine withdrawal, has been well researched: in a review of nicotine replacement therapy (NRT) to help people quit smoking, 132 trials of NRT with over 40,000 people were analysed (Stead, Perera, Bullen, Mant & Lancaster, 2008). The review found evidence that all forms of NRT made it more likely that a person's attempt to quit smoking would succeed and the chances of stopping smoking were increased by 50 to 70%. In a previous review by Silagy, Lancaster, Stead, Mant & Fowler (2003), all of the commercially available forms of NRT (nicotine gum, transdermal patch, the nicotine nasal spray, nicotine inhaler and nicotine

sublingual tablets/lozenges) were found to be effective as part of a strategy to promote smoking cessation and were shown to increase quit rates approximately 1.5 to 2 fold regardless of setting (Silagy, 2003); the review identified 110 trials, and 96 with a non NRT control group.

NRT aims to reduce withdrawal symptoms associated with stopping smoking by replacing the nicotine from cigarettes and is available as skin patches that deliver nicotine slowly, and chewing gum, nasal spray, inhalers, and lozenges/tablets, all of which deliver nicotine to the brain more quickly than from skin patches, but less rapidly than from smoking cigarettes. NRT works with or without additional counseling, and does not need to be prescribed by a doctor. Heavier smokers may need higher doses of NRT and people who use NRT during a quit attempt are likely to further increase their chance of success by using a combination of the nicotine patch and a faster acting form. The review findings suggested that starting to use NRT shortly before the planned quit date may increase the chance of success and adverse effects from using NRT are related to the type of product, which may include skin irritation from patches and irritation to the inside of the mouth from gum and tablets.

Subsidised NRT has been available in New Zealand since 2000 (Price & Allen, 2003), and recent research has demonstrated that smokers in New Zealand use a wide range of NRT products; combination therapy is recommended given that trial evidence supports improved quit rates over and above single therapy (Walker, Howe, Bullen, Grigg, Glover, McRobbie, Laugesen, Jiang, Chen, Whittaker & Rodgers, 2011a). Walker et al reported that patches and gum are the most common combination in New Zealand, possibly because they have been available the longest, they are relatively affordable (via the quit voucher scheme) and are the most heavily promoted by smoking cessation providers: these include NRT patches, gum and lozenges.

The use of NRT gum for smoking cessation has been well-documented and as early as 1982, a randomised controlled trial found that: “the active gum was initially more unpleasant to taste but subsequently became more satisfying...[and] the importance of

encouraging subjects to persist with it for at least two weeks” (Walker, Howe, Bullen, Grigg, Glover, McRobbie, Laugesen et al, 2011a). The article concluded that, “after more than 20 years of unsuccessful research into all kinds of treatment methods for smokers, nicotine chewing-gum given to well-motivated smokers in a clinic setting is the first treatment to have been developed that has a specific effect over and above that attributable to an attention-placebo response. That it is also the first treatment to provide effective nicotine substitution has important implications for the role of nicotine in cigarette dependence.”

More recently, the results of the Walker et al, 2011a trial found that in terms of smoking abstinence at 6 months, offering smokers who want to quit free access to a wide range of nicotine replacement therapy, including a one-week period of familiarization and choice of up to two products, appears no different to offering reduced cost and choice of nicotine replacement therapy, with no familiarization period. The trial reported that despite reporting greater use of NRT, smokers (particularly highly dependent smokers) in the intervention group might still have been ‘under-dosed’, which is why no effect was seen on quit rates.

Traditionally, a ‘one size fits all’ approach has been taken regarding NRT dosing, despite NRT delivering less than half the nicotine a smoker receives from a cigarette, different NRT products delivering different amounts of nicotine and there being significant inter-person variability in how fast nicotine is metabolized. The study proposed using the principle of therapeutic drug monitoring to achieve almost 100% replacement of nicotine using NRT, with resulting high quit rates. The rationale for this approach was based on the assumption that if smokers wanting to quit are given product choice and taught how to self-regulate their dosing of NRT, their belief in their ability to quit and overall quit rates may improve (Walker et al, 2011).

More recently, the need for new strategies to address both nicotine dependence and the psychological dependence on cigarettes has been highlighted (DiFranza, Riggs & Pentz, 2008). In a review it was noted that current smoking cessation treatments focus on addressing the pharmacological dependence of smokers on nicotine and that evidence from



a number of small smoking cessation studies suggests that the use of cigarettes with reduced nicotine content, in combination with nicotine replacement therapy (NRT), may help reduce withdrawal symptoms and increase quit rates. An investigation for a large randomised-controlled trial to test the effect of using nicotine-free cigarettes together with NRT on long-term quit rates has begun (Walker et al, 2011b).

## 5.2 Socially mediated support

The importance of community participation in smoking cessation programmes is an important aspect in seeking solutions to reduce the smoking prevalence rates amongst Māori. A review of the literature of smoking cessation interventions in communities found that despite communities often showing substantial awareness of their programme, this rarely led to higher quit rates; quit rates are shown to improve with a combination of nicotine replacement therapy (NRT) and support (rather than support alone). Research has also shown an increased knowledge of health risks, changes in attitudes to smoking, more quit attempts, and better environmental and social support for quitting were not accompanied by reductions in community smoking levels (Walker, Howe, Bullen, Grigg, Glover, McRobbie, Laugesen et al, 2011b); the cognizant point from this review is that successful quitting in communities occurs as a result of a combination of NRT and socially mediated support.

Research about the role of peer support for adolescent smoking cessation has shown positive results (Secker-Walker, Gnich, Platt & Lancaster, 2002) although another study (Dijk, Reubsaet, de Nooijer & de Vries, 2007) to assess the effectiveness of including a social support intervention ('buddy system') in a group treatment programme to aid smoking cessation, showed that there was no significant benefit of the buddy system to smokers trying to stop at 1, 4 and 26 weeks following their quit date. The study suggested that the buddy system did not represent a significant addition to group smoking cessation treatment although it reported the possibility that the level of social support already provided by the groups may have limited the scope for any additional effect provided by the buddy

system to be observed. The study suggested that despite the lack of effect on abstinence rates, the buddy intervention was effective in increasing the individual's perception of social support, with members of the buddy group reporting a greater sense of having someone to turn to on their quit dates.

A recent intervention study (Petersen, Steyn, Everett-Murphy & Emmelin, 2010) found that social support was rated highly as a means of shifting feelings from pessimism to optimism, in women who wished to quit smoking. The study sought to establish how effective a smoking cessation intervention consisting of cognitive behavioural interventions such as brief counselling and the provision of self-help material designed for pregnancy had been and to understand how such interventions are perceived by the targeted group.

Findings revealed that the intervention succeeded in shifting women from feeling pessimistic about ever quitting to feeling encouraged to try and quit. Informants rated the social support they received very highly and expressed the need for the intervention to become a routine component of clinic services.

Another study (Westmaas, 2010) found that although the ability of smokers to quit is undoubtedly influenced to some degree by community-level or population-level factors (e.g., smoking restrictions, advertising, culture), many smokers have been helped in quitting by receiving social support through quitlines, group behavioral therapy, or individual counselling.

These treatments clearly provide high levels of emotional, informational, and instrumental support even though they are not explicitly referred to as socially supportive interventions. In apparent contradiction to these beneficial, supportive treatments are studies finding no differences in quit rates between smokers in socially supportive-enhanced treatments.

The study posited that further research on the relevance of peer or partner social support in smoking cessation to advance theoretical models needed to be developed and tested. The findings suggested that these roles of social support constructs are important in facilitating cessation and they were associated with a stress-buffering perspective.

Investigation to identify and assess potential mediators and moderators of relationships could provide information of why a particular function or dimension of social support is effective and for whom it is effective.

### 5.3 Measuring nicotine dependence

An important component of providing effective smoking cessation support is in identifying the degree of nicotine dependence of the smoker; the level of dependence will give an indication of how severe withdrawal symptoms might become, help guide the intensity of behavioural support and the dose of NRT to be administered, and inform whether other types of medication or pharmacotherapy might be of benefit.

types of medication or pharmacotherapy might be of benefit.

Recent research suggests that measuring nicotine dependence is a major challenge to clinicians and researchers and that the existing measures, the Fagerstrom Tolerance Questionnaire (FTQ), (Fagerstrom & Schneider, 1989), the modified FTQ (Prokhorov, 1996) and the Fagerstrom Test for Nicotine Dependence (FTND; Heatherton, Kozlowski, Frecker & Fagerstrom, 1991) as closely related instruments commonly used in research have attracted criticism; critics note that it is unclear what feature(s) of dependence the Fagerstrom instruments measure; they have poor psychometric properties, and the scores are difficult to interpret (Colby, Tiffany, Shiffman, & Niaura, 2000; Lichtenstein & Mermelstein, 1986; Pomerleau, Carton, Lutzke, Flessland, & Pomerleau, 1994) in (Wellman, Savageau, Godiwala, Savageau, Friedman, Hazelton & DiFranza, 2006).

A measure called the Hooked on Nicotine Checklist (HONC) has been developed that measures nicotine dependence in terms of loss of autonomy; and that nicotine dependence begins when autonomy is lost, i.e. when the sequelae of tobacco use, either physical or psychological, present a barrier to quitting (Wellman, DiFranza, Savageau, Godiwala, Friedman & Hazelton, 2005). The HONC is a 10 item self-administered measure of dependence that has been validated for use with adolescents and adults, and for smoked

and oral tobacco products. The HONC produces a dependence score from 0 to 10 and is probably the most sensitive measure of early or low level dependence. Compliance with any of the 10 HONC items indicates a loss of autonomy (the presence of symptoms that hinder cessation). The HONC does not use cigarette consumption as a proxy for dependence, and it is not subject to measurement bias that arises when cigarette affordability differs between countries, or over time. The autonomy theory represents a potentially useful alternative to current concepts of nicotine dependence, an important function in measuring lost autonomy in adolescents.

In a recent study of adolescents (DiFranza, Savageau, Fletcher, Ockene, Rigotti, McNeill, Coleman & Wood, 2002b) those who had smoked only one cigarette had diminished autonomy over smoking; in the same study, a self-administered survey was completed by 367 adolescent smokers in Massachusetts. Diminished autonomy was measured with the HONC and was present in 5.7% of youth after one cigarette, in 9% after 2, in 26% after 3–4, in 44% after 5–9, in 43% after 10–19, in 67% after 20–99, and in 96% after 100 or more. DSM-IV (Ursprung & DiFranza, 2010) nicotine dependence was absent in youth who had not smoked 10 cigarettes but was present in 9% after 10–19 cigarettes, in 17% after 20–99, and in 58% after 100 or more.

The data showed diminished autonomy among subjects who had smoked only one or two cigarettes and DSM-IV nicotine dependence after 10–19 cigarettes, which supports the theory of nicotine addiction: that the addiction process is initiated by the first few cigarettes.

Research from a previous study in 2000, of a cohort of 681 seventh grade students (age 12–13 years) found that the intermission before the onset of symptoms of nicotine dependence was measured from the time a subject first smoked at a frequency of at least once per month. The results showed that 22% of the 95 subjects who had initiated occasional smoking reported a symptom of nicotine dependence within four weeks of initiating monthly smoking. One or more symptoms were reported by 60 (63%) of these 95 subjects. Of the 60 symptomatic subjects, 62% had reported experiencing their first

symptom before smoking daily or began smoking daily only upon experiencing their first symptom.

The study showed that the first symptoms of nicotine dependence can appear within days to weeks of the onset of occasional use, often before the onset of daily smoking and proposed the existence of three groups of individuals – rapid onset, slower onset, and resistant – distinguishable from one another by their susceptibility to nicotine dependence.

In a further study (American Psychiatric Association, 2000) it was found that once exposure to nicotine had occurred, few risk factors for smoking consistently contributed to individual differences in susceptibility to the development of dependence or loss of autonomy. An experience of relaxation in response to the first dose of nicotine was the strongest predictor of both dependence and lost autonomy. This association was not explained by trait anxiety or any of the other measured psychosocial factors; the results confirmed that the process of dependence is initiated by the first dose of nicotine.

#### 5.4 Effective components for Māori smoking cessation: lessons from the Cochrane Collaboration

Ensuring Māori receive the best possible support to help quit smoking based on best practice methods is an important approach to meet the needs of Māori smokers. In 2009 a literature review on Indigenous smoking cessation interventions was undertaken and this revealed the limited number of programmes and formal evaluations that had been conducted with Indigenous communities, such as Māori (Tane, 2009).

As a result, it was necessary to turn to non-Indigenous studies to identify the success factors for supporting smoker cessation interventions, and reference was made to a variety of Cochrane Reviews, which were part of the Cochrane Collaboration (The Cochrane Collaboration, 2011). The Cochrane Collaboration is an international organisation that aims to help people make well-informed decisions about health care by preparing, maintaining and promoting the accessibility of systematic reviews of the effects of healthcare

interventions. It is a not-for-profit organisation, established as a company, limited by guarantee, and registered as a charity in the United Kingdom.

A Cochrane review of 108 randomised controlled trials (RCTs) confirmed that nicotine gum, patches, nasal spray, sublingual nicotine tablets and inhaled nicotine were all highly effective components of smoking cessation in heavier smokers. Of note was that the effectiveness of NRT appears independent of the intensity of additional support to the smoker.

These reviews for the use of nicotine replacement therapy, individually counselling, community interventions and trained community pharmacists, are summarised in this report (see Appendix I).

## 5.5 Summary of evaluations

Achieving smoking cessation among Indigenous people is made significantly more complex because of multi-life stressors experienced (DiGiacomo, Davidson, Davison, Moore & Abbott, 2007). Briggs, Lindorff and Ivers reported in 2003 that Aboriginal and Torres Strait Islander tobacco control programmes should seek to maximise community control and demonstrate an understanding and respect for the social context in which Aboriginal people and Torres Strait Islanders live. Tobacco control programmes for Aboriginal and Torres Strait Islander communities should be holistic in nature and consider the social determinants of health and be as comprehensive as possible within given resources (Briggs, Lindorff & Ivers, 2003).

There are a number of studies that have reported on the successful experiences of smokers who have quit as part of a smoking cessation programme (Indigenous and non-Indigenous) and these are summarised briefly (see Appendix II Summary of Smoking Cessation Interventions; Appendix III Review of the Literature).

In 2004, 134 Māori participants received a 7-week course of Bupropion. The study (Holt, Timu-Parata, Ryder-Lewis, Weatherall & Beasley, 2005) showed good evidence for

the use of Bupropion by Māori: at 6-months after the quit date, the continuous CO-verified abstinence rates were significantly higher in the group using Bupropion compared to placebo 30% vs 11%.

During a residential intervention developed in Taranaki, Glover, reported that smokers who stayed on the marae (traditional meeting area of village) for up to a week to stop smoking with the aid of various behavioural strategies showed high success rates anecdotally: the evaluation used a quasi-experimental design (Glover, 2000).

In a non-Indigenous study, West (West, 2006b) reported that 48.6% of smokers made their most recent quit attempt immediately after the decision to quit was made. Unplanned quit attempts were more likely to succeed for at least six months: among respondents who had made a quit attempt between six months and five years previously the odds of success were 2.6 times higher (95% confidence interval 1.9 to 3.6) in unplanned attempts than in planned attempts; in quit attempts made 6-12 months previously the corresponding figure was 2.5 (1.4 to 4.7). The differences remained after controlling for age, sex, and socioeconomic group.

In 2006 a study was undertaken to evaluate the efficacy of cessation strategies, such as self-help, counselling, single pharmaceutical agents, combined pharmacotherapies and pharmacotherapies combined with psychological counselling (Glover, 2005). Research findings consistent with previous reviews showed that self-help strategies alone are ineffective, but counselling and pharmacotherapy used either alone or in combination can improve rates of success with quit attempts. Using effective smoking treatments is strongly encouraged for all populations, especially those with high and heavy rates of smoking, such as psychiatric and substance abuse populations.

In a review in 2007, Bullen et al (Smoking Cessation Guidelines Consortium: Bullen, Fraser, McRobbie, Whittaker, Baiabe, Wallace-Bell, Barlow, Beverley & Sellman, 2007) highlighted the use of pharmacotherapy as an important component of smoking cessation interventions for Māori, to address the physical dependency on nicotine. The study concluded the need for a behavioural support component, delivered in a way that is

culturally appropriate and inclusive where possible of whānau as essential in supporting Māori to quit smoking.

An evaluation of a smoking cessation programme for special populations in Australia (Ranney, Lux, McClain & Lohr, 2006) findings showed that those who are dependent on alcohol and other drugs, suffering mental illness, and Indigenous people are among the heaviest smokers and are least likely to quit. The study described a small-scale evaluation of a smoking cessation programme, which used tailored nicotine replacement therapy (NRT) aimed at these groups between 2004 and 2006 utilising a mixed methodology approach to data collection. The quantitative data indicated that programme participants achieved a low level of success while the qualitative data provided rich accounts of peoples' experiences in the programme. The research concluded that these accounts could be used to develop more effective programmes that take a full account of the complex issues that shape participants' responses to smoking cessation and provide greater levels of sustained motivation.

In recent research, the WhyKwit study with 168 participants of whom 53% identified as Māori (53%) or Pacific (45%). Just over half the participants were under 30 years of age, with 28% aged between 16-20 years (Glover, Nosa, Watson & Paynter, 2010b). Almost 60% were eligible for a Community Services card, a proxy for lower socio-economic status. The study identified the need to maintain a diverse range of tensions and triggers in order to maximise the potential to motivate smokers to quit and smokers in the study frequently demonstrated an interest and readiness to quit smoking. The study recommended strongly the need for effective and accessible cessation treatments to be marketed and in some cases, re-packaged, to smokers: it also noted that in the absence of support, many quit attempts are likely to be short lived.

In another study (Mikhailovich & Morrison, 2008) thirteen pregnant women were interviewed and 10 were followed up and re-interviewed later in their pregnancies. A content analysis approach was used for the investigation, which resulted in categories and themes describing women's experiences, thoughts, and feelings about the intervention. Four main themes captured the intervention's role in influencing women's smoking behaviour. The



process started with ‘understanding their reality,’ which led to ‘embracing change’ and ‘deciding to hold nothing back,’ which created a basis for ‘turning hopelessness into a feeling of competence.’ The intervention succeeded in shifting women from feeling pessimistic about ever quitting to feeling encouraged to try and quit. Informants rated the social support they received very highly and expressed the need for the intervention to become a routine component of clinic services.

Elements of the approaches described above have been utilised by two well-known to New Zealand, smoking cessation programmes (combining elements of kaupapa Māori and non-Māori) and a brief summary of these follows: Aukati Kai Paipa and Quitline.

## 5.6 Aukati Kai Paipa

As noted previously, the literature review highlighted a number of Indigenous smoking cessation interventions and programmes, particularly in Australia amongst the Aboriginal peoples, although many of these had not been formally evaluated or reviewed; in New Zealand, however, an evaluation has been undertaken for the Crown funded smoking cessation “for Māori, by Māori” programme, Aukati Kai Paipa.

Established as a pilot in late 1999 the programme was trialled for two years and in 2003, an evaluation was completed. The results showed that the programme was appropriate and accessible for Māori, especially effective for Māori and was likely to be cost effective (Glover, Nosa, Watson & Paynter, 2010b).

The programme was initially developed to test the viability of implementing a proven, effective, smoking cessation intervention in a Māori health setting. The service, delivered at no cost, provided free NRT in the form of patches and/or gum, together with counselling support provided by Māori quit coaches, for a period of up to 12 months; NRT lozenges have also been approved for provision to clients.

The Ministry of Health published the evaluation in 2003 with the decision to expand the programme as a Ministry of Health funded service in regions of high need i.e. high Māori

populations, with high rates of smoking prevalence. The recommendation was that the service be provided in a holistic Māori health service setting, by a Māori smokefree workforce, and that the focus be on specific Māori groups e.g. hapūngā wāhine (pregnant women); the evaluation showed a quit rate at six months of 26 per cent in 2000.

There are currently 45 Aukati Kai Paipa sites in New Zealand, delivering services that range from uniquely kaupapa Māori (cultural processes and practices) to more integrated services with mainstream providers.

The programme offers whānau the opportunity to address nicotine dependence through a range of interventions including motivational counseling and ongoing support. It includes an initial assessment by Quit Coaches, a reduction plan to help identify coping skills to overcome smoking triggers, an intensive eight-week programme, NRT patches, gum and/or lozenges and regular meetings with a Quit Coach and follow-up meetings for further support at three, six, nine and 12 month stages.

The Aukati Kai Paipa programme (Petersen, Steyn, Everett-Murphy & Emmelin, 2010) has been found to be especially effective for Māori, producing 12-month abstinence rates close to 30%. This is significantly better than the 3% chance of quitting long-term seen with unaided “cold turkey” quit attempts (Ministry of Health, 2003a).

## 5.7 The Quit Group: Quitline

The New Zealand Quitline was launched in 1999, offering advice and low-cost nicotine replacement therapy to smokers wishing to quit – today the Quitline provides a free phone line or website registration, where smokers are given brief advice by Quit Advisors, and receive Quit Cards by mail, to be redeemed for nicotine replacement therapy at local community pharmacies at a greatly subsidised cost.

A recent evaluation (Ministry of Health, 2003b) found that at the six-month follow-up, less than one-third of respondents (31%) had not smoked at all in the seven days prior to the

survey being undertaken ('7-day point prevalence'). This compares with 43% at the three-week follow-up survey.

While there were no significant differences in 7-day point prevalence rates by ethnicity and gender, those 25 years or older were significantly more likely to have not smoked in the last seven days (33% of those aged between 25 and 44 years, 30% of those aged between 45 and 64 years and 40% of those aged 65 years or older) than those aged 18-24 years (23%) or younger than 18 years (18%). Those in the highest socio-economic group were most likely to have not smoked in the last seven days (40%) while those in the lowest group were least likely (26%).

The continuous abstinence rate (CAR) at the six-month follow-up was 24% (that is the respondent had not smoked at all since they registered with Quitline). This compares with 47% at the three-week survey. At six-months, the CAR was significantly higher among Pacific (32%) respondents than Māori (21%). The CAR at six-months increased with age and socio-economic status.

The six-month intention-to-treat (7-day point prevalence) quit rate (assuming those lost to follow-up had smoked in the last seven days) was 21%. The six-month intention-to-treat CAR (assuming those lost to follow-up had not quit) was 17% (McRobbie, 2009a).

Research undertaken in 2007 sought to identify trends in the demographic and smoking characters of new callers to the Quitline, between 2001 and 2005. Statistically significant differences were found in all variables (except for gender) across the 5-year period. The results showed an increased proportion of callers are under 25 years old (67% increase), started smoking at 15 years old or older (10% increase), and/or have smoked for less than 10 years (86% increase). There is also an increased proportion of callers smoking roll-your-own cigarettes (13% increase).

In terms of ethnicity, the proportion of Pacific people using the Quitline increased by 54%, while the proportion of Māori callers fluctuated at just above 20% of all new callers. The proportion of pregnant callers also increased over time (127% increase) although the overall percent remains small (Gravitas Research and Strategy Ltd, 2009).

## 5.8 Research into smoking cessation for Māori

Earlier research in 2005 (The Quit Group, 2009) showed that the Quitline was an excellent source of Māori smokers who wished to participate in a smoking cessation trial. The investigation noted that Māori underuse primary care and other services compared to non-Māori New Zealanders, have a high smoking prevalence and a heavy burden of smoking related illness and as a priority group data was needed to determine cessation interventions that might work for them.

In this study, disproportionate 'over'-sampling of Māori callers was achieved by adjusting the call-up ratio to ensure that Māori formed 25% of all participants. Findings showed that Māori participants were more likely to participate in the study than non-Māori which indicated a greater desire among Māori smokers to try new ways of supporting a quit attempt when previous attempts have failed.

In another study, smoking cessation using mobile phone text messaging was found to be as effective for Māori as for non-Māori (Li & Grigg, 2007). A single-blind randomised controlled trial was undertaken with methods maximised for young Māori participation. The intervention included regular, personalised text messages providing smoking cessation advice, support, and distraction.

Māori text messages related to Māori language, support messages (in Māori and English) and information on Māori traditions. Text messaging was free for 1 month. After 6 weeks, the number of messages reduced from 5 per day to 3 per week until the 26-week follow-up. Māori in the intervention group were more likely to report quitting (no smoking in the past week) at 6 weeks (26.1%) than those in the control group (11.2%).

## 5.9 Māori youth and smoking cessation services

When considering access by young Māori to smoking cessation services, or uptake of NRT to assist quit smoking attempts, the results are disappointing. In a recent study (Bullen, Howe, Grigg, Phillips, Silcock, McRobbie & Whittaker, 2008) under-18 year old

smokers were found to be under-represented in the Quitline (a smoking cessation telephone counseling service) calling population. The study concluded that Māori and Pacific under-18s require further cessation support to avoid “exacerbating existing disparities in smoking.”

In a report to the Māori Affairs Select Committee in 2010 (Bramley, Riddell, Whittaker, Corbett, Lin & Wills, 2005) the Ministry of Health reported on Txt2Quit (a service aimed at 16-24 year-olds, who sign up to receive free motivational text messages to quit smoking for a period of 26 weeks) registrations by age and ethnicity during a six month period in 2008. Results showed that despite the higher prevalence rates of smoking, less than 2% of Māori <15 year olds accessed the service, although 28% of 15-19 year olds who registered, were Māori (compared to 24% non-Māori).

Aukati Kai Paipa offer smoking cessation services to Māori women and their whānau (including youth) however the low numbers of Māori who access the service – 6,200 in 2008 (p.13, 2009b) – are insufficient to impact significantly when compared to the large number of Māori smokers who have yet to make a quit attempt and those who have not utilised evidence based support to do so.

## 5.10 Looking at advertising and marketing for Māori

As the initiation of smoking occurs at such young ages for Māori, and given the evidence that links early smoking to higher levels of nicotine dependence, more school programmes, or community based children’s programmes should include strong warnings about the evidence that shows young smokers can become “hooked from the first cigarette” (Poynter, Bullen, Whittaker & Grigg, 2008). Caution must be exercised, however, as data from another study (Ministry of Health, 2009b) suggested that NRT advertisements might be influencing the belief among adolescents that if they were to start smoking they could quit any time they wanted.

These findings highlight the important consequences among those committed and susceptible “never smokers” who might venture into starting smoking in the belief that they

always can quit whenever they want by using NRT. This also suggests that the limitations of NRT in relation to nicotine dependence and smoking cessation needs to be addressed with young teenagers and some restrictions should be applied to the promotion of NRT and advertisements so that they include the realistic limitations of NRT effectiveness against tobacco addictions (p. 468).

Despite discernible risks, however, effective advertising and marketing strategies are needed to promote a whole of nation approach to quitting, something that is essential if we are to aspire to the recommendations of the Māori Affairs Select Committee (DiFranza, 2007a) to set a Smoke-free New Zealand goal. Finding ways to communicate with Māori communities requires an understanding of the people and their setting, and finding innovation from other successful models of engagement with Māori such as those associated with marketing should be considered. Research (Al-Delaimy, White & Pierce, 2006) has recognised that to reach Māori consumers and families, particularly in areas of attitude change or behaviour modification, culturally salient characteristics must be accommodated and addressed.

This approach would require the adoption of “sensitising constructs that enable people to create ethnic culture and identity” (Māori Affairs Select Committee, 2010); this includes the appropriate use of culturally relevant images and symbols to evoke positive response as a vital means of communication (Krisjanous & Love, 2002) which was found to be true when engaging with African-American audiences (Hecht, Collier & Ribeau, 1993) who responded positively to advertisements that were culturally targeted.

These examples suggest that advertising targeted at Māori though using images of the traditional nuclear family to position products, may not be useful in influencing attitudes. In August 2001 a new campaign encouraging Maori smokers to stop smoking (“It’s about whanau”) was launched as part of the National Quit/Me Mutu Campaign. Results from two surveys (Pitts, Whalen, O’Keefe & Murray, 1989) showed that smokers viewed “It’s about whanau” more positively and associations were found between positive perceptions of “It’s

about whanau” and discussions on smoking and between positive perceptions of the campaign and saying that it had a lot of influence on smokers’ quit attempts.

Research contends that re-enculturation using culturally compatible interventions will be the most effective means of reducing the high rate of substance abuse amongst Māori (Armstrong, 1999). This is also consistent with a recent study that explored ideas on how to achieve progress on smoke-free homes, cars and community property. The results indicated that Indigenous specific approaches and Indigenous leadership are critical for Māori tobacco-free advances; “harnessing Indigenous values and principles related to health, family and children was the preferred method of [these] Māori policymakers for delivering social marketing messages” (Barnes & McPherson, 2003).

#### 5.11 Searching for the middle ground – ABC for Māori Communities

For Māori, while both Aukati Kai Paipa and the Quitline services provide examples of interventions at opposite ends of the spectrum in the amount of time spent by quit advisors, with smokers who may wish to quit, there is still considerable scope for the development of smoking cessation interventions that combine a strong sense of Māori identity and a strengths-based approach to quitting smoking but do not rely upon a workforce of dedicated smoking cessation workers to do so. It is possible that skills to support smoking cessation amongst Māori can be integrated into existing roles for workers or volunteers who already have established relationships within Māori communities.

Crown-provided incentives are needed that recognise the importance of smoking cessation in Māori communities, and the provision of kaupapa Māori (Huriwai, 2002) (Gifford, Parata & Thomson, 2010) training for workers to become Quit Card Providers enabling them to offer quit advice and NRT to whānau, clients and co-workers. These additional responsibilities should attract remuneration as it would be unjust to require that workers take a role in the delivery of public health and primary healthcare services without acknowledging their contribution. Savings made by utilising existing roles to offer smoking

cessation services, rather than increasing the numbers of the current workforce, could be directed into salary increases, or establishing smoking cessation training incentives to open up access in high needs areas.

Advocating for this approach should be linked to the provision of professional support for staff in these roles to mitigate the risk of increasing the number of complex and varied functions required by those who work in high need communities. The results from a recent study (Ratima, 2003) showed that tensions existed for workers in the differing expectations between contractual requirements, the community expectation, and the ad hoc nature of training opportunities that existed – these tensions need to be addressed if the goal is to ensure a healthy and well workforce, who can also offer quit smoking advice.

#### 5.12 Māori Affairs Select Committee – where are the gains for Māori smoking cessation services?

The final report to the House of Representatives following the Māori Affairs Select Committee Inquiry into the tobacco industry and its impacts on Māori, has been tabled and the government has stated that “this year will see the ABC approach extended into the primary care health environment as part of an incentivised performance programme” (Bishop, 2009).

While this approach has been welcomed by many, it does little to address the barriers of access that are experienced by many Māori, in obtaining health care services. There is a critical lack of resource for Māori smoking cessation services and incentivising primary health care services to extend the ABC approach is hardly likely to address this. This decision will be a disappointment for many Māori who advocated throughout the inquiry for increasing resources within Māori communities, to enable more Māori the support to quit smoking.

Issues such as the health literacy levels of Māori pose an ongoing threat to the goal of improving Māori health outcomes. Recent findings (Kickbusch et al 2005) have shown that overall, the majority of New Zealanders are limited in their ability to obtain, process and



understand basic health information and services in order to make informed and appropriate health decisions; the results also showed that Māori have much poorer health literacy skills compared to non-Māori, regardless of gender, age, level of education, labour force status, household income, or rural/urban location, and this is likely to have a negative impact on their health status (Boulton, 2009).

The report advocated that to “lift health literacy, there needs to be a concerted effort from all the sectors that need to be part of the solution; from government agencies to schools to the health care system.” The call for building health literacy was associated with a range of activities such as clearer communication by health professionals, providing plain-language health information, adult literacy initiatives and raising literacy and numeracy levels in schools. Improving levels of health literacy was seen as key to containing system-wide costs, preventing illness and chronic disease and reducing rates of accident and death (Canadian Council on Learning 2008), (House of Representatives, 2011).

The importance of the contribution of central government to state programmes for Māori should not be underestimated (Ministry of Health, 2010a) however the notable lack of resources to address Māori and smoking rates, raises questions about the political will of Government to do more than just initiate a Māori Affairs Select Committee investigation into the impact of tobacco on Māori; what is required is an ongoing commitment and investment of resources, into actions to realise the goal of Tupeka Kore, Aotearoa. This has recently been highlighted:

*... the goal of a smokefree nation is an important step forward, but achieving this will only be possible if it is supported by sustained leadership across major political parties, by the necessary work on the major mechanisms, and appropriate timetabling and resourcing. If these are achieved it will be a major advance for the health of the population and an important way to reduce the still substantial health gaps between Māori and non-Māori New Zealanders (Ministry of Health, 2010a).*

### 5.13 Finding more effective means to help Māori quit smoking

While research has highlighted the most effective current approaches for smoking cessation, there are opportunities to explore alternative methods to improve quit rates for Māori; future research to investigate how to increase Māori rates of access to and optimal use of other pharmacotherapies such as Bupropion, Varenicline, and NRT (or combinations of these) in smoking cessation, should be undertaken.

These medications require prescriptions and current research shows that financial barriers to needed primary care exist for a substantial subgroup of people in New Zealand – the poor (Durie, 1998a). The study showed that a substantial proportion of people reported deferring primary health care during the preceding year because they could not afford the cost of a visit or prescription. The major barrier to primary care for those with high levels of individual deprivation (the NZiDep index is a tool for measuring socioeconomic deprivation for individuals) was cost, but other barriers to care included inconvenient location, longer waiting period, transportation problems or long distance, cultural and language barriers, or lack of other resources to seek care (e.g., availability of a child care facility) also weigh more heavily on the poor (p.8). Solutions to help Māori access smoking cessation medications through primary health care would need to factor in these various barriers.

Another alternative that would likely be attractive to Māori has been highlighted (Wilson, Blakely, Hoek, Gifford, Edwards & Thomson, 2011) in a plant extract called Cytisine, found in Golden Rain [*Cytisus laburnum* L.] and the New Zealand Kowhai [*Sophora tetraptera* L.]. Cytisine has a similar molecular makeup to nicotine, has been used successfully as a cessation product in central and eastern Europe and central Asia for many years, and is low priced. Recent reviews have found that Cytisine is twice as effective as a placebo for smoking cessation, and would be attractive to Māori as ‘rongoā Māori’ (a traditional Māori remedy), although confirmation of efficacy and safety will be needed before promotion of the product could occur.

Research should also be undertaken to investigate the causes and effects of decisions by central government to continue to invest in smoking cessation programmes, that show poor uptake by the highest prevalence of smokers in the country – young Māori. Research into why there is limited health care funding available to support Māori smokers to quit, despite the overwhelming evidence that they want to, and would reap significant benefits if they were supported to do so, should be addressed.

With an enormous and impressive body of knowledge about the extent of the problem of Māori tobacco use, it is time to ask the decision makers, where are the resources for solutions, for Māori and why have they not been released into the communities, where they are needed most?

The way forward is clear: a Māori centred approach which requires that Māori themselves are involved in the design, delivery, management and monitoring of services (Jatrana & Crampton, 2009).

#### 5.14 Community controlled smoking cessation programmes needed

As an approach, a community-based initiative, a departure from Crown led practice and policy (which have failed to impact on Māori smoking prevalence rates as effectively as the general population, despite many years of efforts), places the focus and emphasis on encouraging all sectors of the community to participate. Rather than seeking support from separate entities each of whom have their own funding streams and dedicated workforce, a community initiative can bring groups together to focus solely on the needs of the smoker and their whānau and to intervene by offering non-judgmental, positive, effective, evidence-based support in convenient settings such as work, home and school.

This approach aligns closely with a recent review of smoking cessation in Indigenous populations of Australia, New Zealand, Canada and the United States (Thompson-Evans, Glover & Walker, 2011). The review described tobacco as “a global agenda of death”, and highlighted the glaring disparities between smoking rates in Indigenous populations

compared to their non-Indigenous counterparts. The study found that tobacco control strategies have not been universally effective and likely reasons included issues of access and appropriateness of services and support, which reflected systemic barriers to improving the health of Indigenous peoples.

Advocating for a multifaceted approach and large scale public health strategies including policy development, the review supported tailored and targeted approaches for Indigenous populations, particularly for those who may not access mainstream public health services. In conclusion the review underscored the complexity of achieving smoking cessation and the need to collaboratively develop interventions that are acceptable and appropriate to local populations (Durie, 1998a).

**Figure 4 Re-orienting smoking cessation services for the convenience of the smoker and his/her whānau**



For Aotearoa New Zealand and for Māori, necessary changes to the status quo to ensure that there are effective and culturally acceptable services for Māori to quit smoking, require national leadership. Currently, the majority of government-funded smoking cessation services are oriented toward entry through mainstream services, or hospitals and primary healthcare and as has been argued previously, these services do not adequately address

the needs of Māori communities because of barriers to access. Sadly, history shows that Māori needs though arguably more urgent, because of health disadvantage, disability, reduced quality of life and higher mortality rates (DiGiacomo, Davidson, Abbott, Davison, Moore & Thompson, 2011) have remained a lesser priority to government when apportioning resources for services.

Although the Indigenous status of Māori has been recognised and acknowledged to some degree with respect to the Waitangi Tribunal processes, Te Tiriti has never been included in social policy legislation, and there is a clear gap between acceptance of Te Tiriti and translation of its aims into actual health gains for Māori. These gains are only possible as health care services begin to align more with Māori aspirations of self-determination, and engage with Māori wherever Māori are.

The presence of persistent disparities in health between Māori and non-Māori substantiate assertions that Māori health rights are not being protected as guaranteed under Te Tiriti; this should be of deep concern to Māori leaders. Ensuring that interventions take into account the various and complex realities needed to improve Māori health outcomes will require consideration of the macro-environment and factors of social, cultural, economic and political domains – these factors cannot be overlooked in terms of their contribution to the health status of Māori (DiGiacomo et al, 2011).

## 6.0 BACKGROUND: ABC FOR MĀORI COMMUNITIES

### 6.1 Te Taitokerau Pilot: ABC for Māori Communities and a four-week quit smoking programme

As reported earlier, two pilot sites – one in Kaikohe in the mid-North and the other in Bream Bay, south of Whangarei – were initiated through relationships previously established between Te Hotu Manawa Māori staff and representatives from Northland Health, and Māori health and social service providers in Northland. These associations led to an invitation to establish a pilot site in Kaikohe and agreement by school leadership to trial the programme in Bream Bay at the College, which is a health promoting school.

*Background Information - Kaikohe:* Kaikohe has a population of 4113, and a population of 3023 Māori (73.5%). With a community of over half of its people on an annual income of \$20,000 or less, Kaikohe represents an area of high priority with many single parent families (39.5%) and a large percentage of the population under 15 years of age (32.3%) (DiGiacomo et al, 2011).

*Background Information - Bream Bay:* Census information reports a population of approximately 786 people, with 24% being under 15 years of age, and a Māori population of 11% in Bream Bay. The most common occupational group in Bream Bay is “managers” and 17.4% of people aged 15 years and over have an annual income of more than \$50,000, compared with 13.0 percent of people in Northland Region (Ellison-Loschman & Pearce, 2006). The school roll of Bream Bay College is 479 – of this 38% are Māori (182 students). The school is a Health Promoting School, working with the Northland District Health Board and the school nurse is a Quit Card Provider.

In Bream Bay College, staff and students were offered the opportunity to quit

smoking as individuals or as part of a whānau group. Te Hotu Manawa Māori staff worked with the school nurse to promote a four-week quit smoking programme, and to set up a clinic where weekly supplies of nicotine replacement therapy were provided to smokers to support their quit attempt; every week, carbon monoxide (CO) readings were taken using a Smokerlyser<sup>5</sup> to validate abstinence (Statistics New Zealand, 2011c). Recruitment for participation in the Bream Bay College pilot began with a promotion event during the school assembly, and an invitation to students and teachers to join the programme was made.

In the Kaikohe pilot site, 12 staff members, including Family Start workers received smoking cessation training to become Quit Card Providers. The aim of the programme was to help young mothers to quit smoking and to be supported to do so as part of their Family Start service; following training, two staff members volunteered to establish a four-week quit smoking programme and as a result the promotion, management and administration of the four-week quit smoking programme became integrated as part of their existing roles.

In Kaikohe, participants were invited if they were part of the existing social and whānau networks of staff members or if a request to participate was made by a smoker. No person was refused entry into the quit smoking programme.

The ABC for Māori Communities four-week quit smoking programme was reported by the pilot sites to be successful in recruiting smokers to make a quit smoking attempt: in Bream Bay College, the programme was extended from its initial two-month trial, to become a regular feature and in December 2010 the programme was still being offered in the school. In a period of only six months many students, staff, friends and whānau had accessed quit smoking support and were abstinent – or had either reduced consumption of tobacco or had proceeded in making further quit attempts (Statistics New Zealand, 2011b), (Te Hotu Manawa Māori, 2010e).

In Kaikohe, the four-week quit smoking programme has continued to be offered to

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<sup>5</sup> The Smokerlyser is a battery powered Breath Carbon Monoxide Monitor used with people who want to stop smoking. The Smokerlyser is designed as a simple screening test for cigarette consumption, giving an instant indication of CO levels in PPM. <http://www.ebme.co.uk/arts/general/smoke.htm>

the community and it has been reported as a successful mechanism in recruiting smokers who had not taken up any alternative smoking cessation services previously, with many having made only one or no previous quit smoking attempts before joining the programme.

Reports on the pilot programmes were submitted to the Ministry of Health and these are available from Te Hotu Manawa Māori (Te Hotu Manawa Māori, 2010c), (Te Hotu Manawa Māori, 2010e), (Te Hotu Manawa Māori, 2010b), (Te Hotu Manawa Māori, 2010d).

Table 4 shows sample characteristics as a snapshot of one four-week period when the ABC for Māori Communities programme was being delivered in two pilot sites in Te Tai Tokerau (Te Hotu Manawa Māori, 2010e), (Te Hotu Manawa Māori, 2010c), (Te Hotu Manawa Māori, 2010e). The data was collected by staff from Bream Bay College and Te Hauora o Kaikohe, and provided to Te Hotu Manawa Māori as part of their reporting requirements to the Ministry of Health. All participants in the four-week quit smoking programme were required to answer survey questions (demographic data and smoking history) when they enrolled, with the understanding that their information would be reported anonymously to the Ministry of Health, and to Te Hotu Manawa Māori (for programme improvement purposes).

**Table 4 Data from the ABC for Māori Communities four-week quit smoking programme in Te Tai Tokerau (Northland)**

<b>Table 4: Sample characteristics of participants in ABC for Māori Communities programme: data from two sites have been analysed separately</b>		
	<b>Bream Bay College</b>	<b>Te Hauora o Kaikohe</b>
	N= 19	N= 22
Sex		
Male	49.5% (N=9)	67.5% (N=15)
Female	49.5% (N=9)	31.5% (N=7)
Age		



**Table 4: Sample characteristics of participants in ABC for Māori Communities programme: data from two sites have been analysed separately**

	<b>Bream Bay College</b>	<b>Te Hauora o Kaikohe</b>
Average	22 years	28.5 years
Range	12-45 years	18-46 years
Measure of nicotine dependence: time to first cigarette after waking		
0-5 minutes	38.5% (N=7)	0
6-15 minutes	22% (N=4)	22.5% (N=5)
16-30 minutes	5.5% (N=1)	18% (N=4)
31-60 minutes	11% (N=2)	36% (N=8)
61-90 minutes	5.5% (N=1)	22.5% (N=5)
Did not complete registration	16.5% (N=3)	0
Number of previous quit attempts in the past five years		
0 quit attempts	11% (N=2)	13.4% (N=3)
1 quit attempt	22% (N=4)	9% (N=2)
2-3 quit attempts	27.5% (N=5)	49.5% (N=11)
4-5 quit attempts	11% (N=2)	18% (N=4)
More than 5 quit attempts	11% (N=2)	9% (N=2)
Did not complete registration	16.5% (N=3)	0
Age when first smoked		
10 years	11% (N=2)	0
11 years	0	0

**Table 4: Sample characteristics of participants in ABC for Māori Communities programme: data from two sites have been analysed separately**

	<b>Bream Bay College</b>	<b>Te Hauora o Kaikohe</b>
12 years	27.5% (N=5)	9% (N=2)
13 years	5.5% (N=1)	31.5% (N=7)
14 years	11% (N=2)	9% (N=2)
15 years	0	31.5% (N=7)
16 years and over	16.5% (N=3)	18% (N=4)
Did not recall age when first smoked	11% (N=2)	0
Did not complete registration	16.5% (N=3)	0

**Source: 2010 Bream Bay College, Te Hauora o Kaikohe (Te Hotu Manawa Māori, 2010d). Note: In 2010, data was collected by Te Hotu Manawa Māori to report to the Ministry of Health on the ABC for Māori Communities programme.**

The Kaikohe cohort were regular smokers, recruited by staff members, who made at least one quit attempt during a four-week period. Each smoker/programme participant received an initial one-week supply of NRT (patches, gum and lozenges) and were visited on a weekly basis, in their own homes, where readings were taken to record carbon monoxide (CO) levels in expired breath (Te Hotu Manawa Māori, 2010c), (Te Hotu Manawa Māori, 2010b), (Te Hotu Manawa Māori, 2010e).

#### *6.1.1 Development of Awhi Mai Awhi Atu (AMAA)*

In 2010, following the completion of the ABC for Māori Communities programme pilot in Te Tai Tokerau, Te Hotu Manawa Māori developed a training programme called “Awhi Mai Awhi Atu” (AMAA) – a kaupapa Māori intervention comprising five components: training

community members to become Quit Card Providers, an online learning platform Ngā Kete Hauora, ongoing support to participants, a resource tool kit, and the opportunity for accreditation to a level five tertiary paper with an Auckland university. The online learning programme, and the resource tool kit components of the AMAA intervention have continued to be offered by Te Hotu Manawa Māori to district health boards, and Māori health and social service providers.

A recent evaluation (Warren 2011) of the ABC for Māori Communities programme was undertaken which concluded that the potential benefit of Awhi Mai Awhi Atu (specifically the training and resource tool kit components) to the smoking population is, “invaluable, especially in terms of savings that can be accrued from treating smoking related illnesses, and prolonging life expectancies.”

Information for the evaluation was drawn from diverse groups of people that included rural and urban settings, and a range of ages and occupations. The collection of evaluation data from training workshops showed that the programme is regarded as a unique approach to providing training in the area of smoking cessation that facilitates easy access to smoking cessation support directly within communities (for example: at home, in the workplace, or at school).

Findings also showed that the programme covers a broad range of issues relevant for those providing smoking cessation support (through nicotine replacement therapy or otherwise) that increases knowledge and confidence in the subject areas for trainees, and that Awhi Mai Awhi Atu is seen as, “relevant and appropriate for working within Māori communities, and delivered from a kaupapa Māori approach.”

The training programme was found to be suitable for a wide range of people (Māori and non-Māori, young and mature) and that participants were satisfied with and would recommend it to colleagues, friends and whānau. Of note is that the training is perceived to be cost-effective, is viewed as ‘professional development’ and builds upon a new skill set for participants to utilise in their *existing* employment and roles as it does not require dedicated full-time employees.

The evaluation also found that the Awhi Mai Awhi Atu resource tool kit was designed to meet the needs of smokers, with input from smokers and their whānau and that it incorporates all of the necessary elements (especially nicotine replacement therapy) that smokers and their whānau identified as necessary to assist smokers in their cessation journey.

The resource tool kit makes use of traditional taonga Māori and provides a link with and reaffirmation of te ao Māori (the Māori world) and a connection to traditional Māori healing techniques. The evaluation identified that the resource tool kit is considered helpful in the process of smoking cessation and that all users of the tool kit would recommend its use to others.

The evaluation concluded that Awhi Mai Awhi Atu was an organic development and its introduction was motivated by the lack of appropriate kaupapa Māori services to address the high rates of Māori smoking; the report highlighted that despite the number of models that have been developed for use within general populations, current smoking trends suggest that these programmes have yet to find success among Māori populations.

Based on estimates provided from a number of training workshops, the evaluation indicated that approximately 2,328 smokers per year (across the Bay of Plenty, Kaikohe and Nelson regions) may be reached by Awhi Mai Awhi Atu trainees and that this would ensure these smokers would have, “repeated opportunities to make quit attempts that may lead to successful smoking cessation” (Te Hotu Manawa Māori, 2010b).

#### *6.1.2 Kaikohe pilot: ABC for Māori Communities four-week quit smoking programme*

Training began for Te Hauora o Kaikohe with a workshop and the dissemination of information on the state of Māori and smoking, the history of Māori and tobacco, nicotine addiction and the use of nicotine replacement therapy to alleviate withdrawal symptoms.

Supply of NRT for the programme was made possible through an agreement between Te Hotu Manawa Māori, Ministry of Health and PHARMAC; in a departure from

normal practice, an agreement by the Ministry of Health to supply nicotine replacement therapy was arranged and access was made through PHARMAC online, by THMM as part of their ABC for Māori Communities contract.

**Table 5 Description of the ABC for Māori Communities four-week quit smoking programme: process of engagement with programme participants**

<b>Programme description: ABC for Māori Communities four-week quit smoking programme</b>	
<i>Recruitment and/or referrals</i>	A referral is made by a Family Start worker or staff member or a self-referral is made by a smoker wishing to quit; this process may include smokers who make contact with the organisation after hearing about the programme through word of mouth (the organisation does not advertise);
<i>Assessment</i>	A staff member meets with the smoker, assesses their level of nicotine dependency, and asks the smoker to fill in a survey form, which includes demographic data and smoking history;
<i>Baseline data</i>	A baseline reading of carbon monoxide (CO) levels in expired breath is taken using a Smokerlyser and data is recorded;
<i>Evidence-based support</i>	The smoker receives one week's supply of nicotine replacement therapy: patches, gum and lozenges (to be used concurrently by the smoker);
<i>Advice</i>	The smoker receives advice to assist them as they make their quit attempt (at any stage during the first week or any of the subsequent weeks, depending on when the smoker feels ready). The advice given covers the importance of a smokefree home, strategies to help them if they live or work with other smokers and a promise to visit again in one week to deliver more nicotine replacement therapy and to take further carbon monoxide (CO) level readings;
<i>Weekly visits</i>	Two staff members volunteer to take turns to visit programme participants on a weekly basis, and these visits are normally to their homes. The visits

<b>Programme description: ABC for Māori Communities four-week quit smoking programme</b>	
	include discussions on progress, challenges, effects of the nicotine replacement therapy (if any) and any other issues that are raised by the smokers.

**Source: A description of the programme was compiled following discussions with staff members from Te Hauora o Kaikohe during this research/evaluation (Te Hotu Manawa Māori, 2010d)**

Smokers were encouraged to both reduce their tobacco use, or to quit and if at the end of four weeks they had been unable to quit, they were encouraged to enter a second four-week programme, or they were offered an opportunity to be referred to the local Aukati Kai Paipa service in Kawakawa.

Helping young Māori women and their whānau quit smoking remains a significant priority in the community of Kaikohe and the programme was extended beyond the original two month period and at the time of writing, is still being offered. Of importance is that this programme has been achieved without the benefit of any formal promotion or advertising, without a Ministry of Health smoking cessation contract, and with a minimum of training for staff. Continued supplies of NRT have been available through an arrangement between Te Hauora o Kaikohe and PHARMAC.

#### *6.1.3 Bream Bay College – data collected from 18 programme participants*

The data showed the average age of smokers who joined the four week quit smoking programme was 25.6 years. The majority of smokers (70%) had made between 1-5 quit attempts, with 12.5% having not made their first quit attempt at the time of the programme. Half of the smokers had begun smoking before they were 16 years of age.

#### 6.1.4 Te Hauora o Kaikohe – data collected from 22 programme participants

The data showed the average age of participants who joined the four week quit smoking programme was 28.5 years. The majority of smokers (90%) had made between 1-5 quit attempts, with 13.5% having not attempted their first quit attempt at the time of the programme. 81% of the participants had begun smoking before they were 16 years of age.

Table 6 is a summary of the data collected describing previous quit attempts and age when first smoked, reported as part of the ABC for Māori Communities pilot programme in Northland.

**Table 6 Summary of data from the ABC for Māori Communities pilot programme in Te Tai Tokerau (Northland)**

	<b>Average Age</b>	<b>Number of previous quit attempts</b>	<b>Age when first smoked</b>
<b>Bream Bay College</b> N= 18	22 years	0=11% 1=22% 2-3=27.5% 4-5=11% 5+=11% did not complete: 16.5%	50% before 16 years
<b>Te Hauora o Kaikohe</b> N=22	28.5 years	0=13.5% 1=9% 2-3=49.5% 4-5=18% 5+=9%	81% before 16 years

**Source: 2010 Te Hotu Manawa Māori: ABC for Māori Communities four-week quit smoking programme (Warren, 2011)**

## 6.2 Engagement: acknowledgement of contribution by Te Hauora o Kaikohe

The important contribution that staff of Te Hauora o Kaikohe (THOOK) have made to this research evaluation, needs to be acknowledged. While the collection of data was concerned only with the perceptions and stories of the programme participants, regular discussions, consultation and guidance have been ongoing between staff members, the organisation's leader and the researcher. The cooperation and collaboration evidenced by this relationship is a positive outcome of engagement using kaupapa Māori processes (Bishop, 2009; Ratima, 2003) which began during the ABC for Māori communities pilot programme and continued throughout the development of the research proposal, the first stages of inquiry, access to data held previously by THOOK and finally the coordination for interviews with programme participants to collect data (Tane, 2011; Te Hotu Manawa Māori, 2010a).

The responsibility that researchers have who work with Indigenous communities to ensure their activities connect in humanizing ways (Ratima, 2003) is an essential part of this evaluation as it links to issues such as identity, place, spiritual relationships and community wellbeing (1999, p.149); for the researcher this is acknowledged as a responsibility to allow the voices of these contributors from the organisation, to also be heard. The staff of Te Hauora o Kaikohe were fully engaged in the smoking cessation intervention and provided feedback during the numerous meetings and discussions involving the programme. These anecdotal comments give some insight into the providers view of the smoking cessation programme and have been summarised in Table 7 (Bishop, 2009).



Table 7 Anecdotal comments from Te Hauora o Kaikohe staff

Discussion point	Comments/observations
On the state of Māori health and the community	High motivation to continue to offer the quit smoking programme was reported by the Executive Manager (EM): she commented on the fact that Māori are dying far younger (in Te Tai Tokerau) of preventable smoking-related diseases than the general population; she challenged the view of this loss as being “normal” and posed a rhetorical question: do people really NOT want to see their mokopuna (grandchildren)? She commented that her view of the contribution of Te Hauora o Kaikohe was one of modelling behaviour and asserted that the organisation knew what they needed to do to make gains – offer Māori more opportunities to quit smoking with NRT support and advice.
Opinions about the programme	The staff members and the EM reported on the success of “word of mouth” promotion of the quit smoking programme, and attributed whānau with “getting the word out there,” to the high levels of uptake by the community.
On using NRT	Comments about the taste of the gum were also noted during discussions with the staff members as this had been raised regularly by the programme participants; a request was made to the researcher to investigate the provision of different flavours of gum, to increase the choice that smokers have when they are seeking support to quit smoking; unfortunately, a choice of flavours is not possible when ordering funded NRT gum from PHARMAC.

Te Hauora o Kaikohe intend to use this evaluation report as evidence of the efficacy of the four-week quit smoking programme, and as a means to advocate to the Ministry of Health and Northland District Health Board for further training for community smoking cessation volunteers and to provide additional services to help whānau quit smoking (Smith, 1999). It should be noted that the work undertaken by Te Hauora o Kaikohe has been done without the benefit of any financial assistance – and in a high-needs community such as Kaikohe, this is a remarkable achievement and is a unique example of leadership in action.

#### *6.2.1 Ethics application process for Research Evaluation*

As part of the ethics approval process, to conduct the interviews with programme participants, discussions were held with the Executive Manager (EM) of Te Hauora o Kaikohe – consultation feedback informed the research design and implementation for ethics application. As part of this process, a letter of support was provided to the researcher (see Appendix XI).

## 7.0 RESEARCH INVESTIGATION INTO A COMMUNITY CONTROLLED SMOKING CESSATION PROGRAMME

### 7.1 Aims and Objectives

The aim of the study was to evaluate the acceptability, uptake and outcome of a four-week quit smoking programme for Māori that had developed as a community initiative.

The objectives of the research were to:

1. Establish the uptake, acceptability and outcome of a four-week quit smoking programme by Māori;
2. To record the voices of Māori participants as they describe their experiences of the programme and their responses to a quit smoking attempt;
3. To determine key success factors for quitting smoking, and to identify barriers or challenges for whānau to maintain abstinence following a four-week quit smoking programme. This would also include the following:
  - a. the role of whānau/family and friends during a quit smoking attempt;
  - b. the role of nicotine replacement therapy, delivered at no cost to their homes, in supporting their quit smoking attempt;
4. To provide evidence and recommendations for establishing similar quit smoking programmes in other kaupapa Māori organisations, on national, regional and local levels.

### 7.2 Ethics

Before any data was collected, Auckland University of Technology Ethics Committee (AUTEC) (Ethics Application 10/107) approved the full research proposal (see letter from AUTEC Appendix X).

### 7.3 Methodology

To undertake this investigation a critical theory paradigm (Tane, 2011) position was taken with an explicit call for transformation and with the knowledge that historical events have contributed to oppression, resulting in the need for restitution and emancipation (Guba & Lincoln, 1994) p. 112; characterising critical inquiry are goals for a just society, freedom and equity and the hope that the struggle for social justice can lead to a more just and free society than what we have at the moment (Guba & Lincoln, 1994). The research investigation ascribes to the notion of “criticalist” research, or work used (by researchers and theorists) as a form of social or cultural criticism with basic assumptions that all thought is fundamentally mediated by power relations that are social in nature and historically constituted (Crotty, 1998).

The position taken was further influenced by kaupapa Māori intentions where action is orientated toward benefiting all the research participants and that research is conducted in culturally appropriate ways, ways that fit Māori cultural preferences, practices and aspirations (Kinscheloe & McLaren, 1994). This position allowed a Māori centred approach where current services were critiqued according to their uptake and use by Māori participants and where a Māori worldview with principles and themes of interconnectedness (Bishop, 2009), Māori potential, Māori control, collectivity and Māori identity are seen as the only appropriate means of providing adequate coverage in the interests of Māori (Sandelowski, 2000).

#### *7.3.1 Method*

The research investigation was concerned with describing the response, uptake and acceptability by Māori smokers of an intervention that was designed specifically for the community in which it was trialed.

A qualitative, descriptive methodology was utilised for data collection and analysis with the use of audio recordings, field notes and transcripts. Oral language was utilised as a

vehicle of communication to penetrate into actions, activities, thoughts and perspectives, and to establish all of the facts and efforts of their quit smoking attempt. This was considered important to enable participants to describe all of the elements they considered made the intervention what it was (Ratima, 2003). The methodology emphasises the importance of language and through a process of interviews and discussions, unimpaired self-presentation by participants, characterised by mutuality of expectations rather than one-sided norms were sought and promoted (Sandelowski, 2000); an important feature of the research is that the voices of the Māori participants be heard and reported in a way that acknowledges them and their perspectives (Maxwell, 1992).

The research method used semi-structured interviews to capture participants' personal perspectives and reflections; these were part of a process to elicit "information-rich" insight about the programme (Habermas, 1970a, 1970b); data from provider records were also analysed to obtain demographic and smoking history data. An inductive approach was taken (Marsden, 2003) to condense and to organize the data under main themes or categories.

Two measures of nicotine dependence were used: the first measure, the FTND (Fagerstrom, Heatherton & Kozlowski, 1991) is cited in the New Zealand Smoking Cessation Guidelines (NZSCG), as one of the most frequently used tools (Smoking Cessation Guidelines Consortium: Bullen, Fraser, McRobbie, Whittaker, Baiabe, Wallace-Bell, Barlow, Beverley & Sellman, 2007). The second measure, the Heaviness of Smoking Index (HSI) is derived from the FTND and is a two-question measure, utilised to estimate nicotine dependence in New Zealand as an expeditious alternative: "*How soon after waking do you have your first cigarette*" and "*how many cigarettes do you smoke per day?*" (Heatherton, Kozlowski & Frecker, 1989).

However many practitioners in New Zealand also use just one question to make a quick assessment of nicotine dependence: "*How soon after you wake up do you have your first cigarette?*" If the person smokes within 30 minutes of waking then they have a higher degree of nicotine dependence, and are more likely to benefit from more intensive smoking

cessation treatments; this approach is also cited in the NZSCG; both measures were used as they are both currently utilised in smoking cessation practice in this country.

Tables 8 and 9 provide descriptions and times of the four-week quit smoking programme and the ABC for Māori Communities research investigation.

**Table 8 Description and timeline of the four-week quit smoking programme**

<b>Four-week Quit Smoking Programme Intervention Timeline and Description</b>		
<b>ABC for Māori Communities established in Te Tai Tokerau</b>	Te Hotu Manawa Māori invited to provide Quit Card Provider training in two pilot sites: Kaikohe and Bream Bay	<i>March 2010</i>
<b>Training to become Quit Card Providers (QCP)</b>	Volunteers receive 1.5 days of face to face training; volunteers join an online e-learning programme; on completion of both components, staff were registered as QCPs with Quitline;	<i>April 2010</i>
<b>Recruitment</b>	Word of mouth: Whānau of staff at Te Hauora o Kaikohe were offered help to quit smoking;	<i>April – May 2010</i>
	Promotion in community: Family Start clients were offered support to quit smoking and referrals were made;	
<b>Four-week Quit Smoking Programme established</b>	Provider records: Clients fill in survey forms to collect demographic data; Clients give permission for anonymised data to be used to report to the Ministry of Health; Volunteers give informed consent to participate in the four-week intervention;	<i>June 2010</i>
<b>Week 1: components of the intervention</b>	<b>Administration:</b> Clients readings of CO in expired breath are taken as baseline data using a Smokerlyser	<i>July 2010</i>

<b>Four-week Quit Smoking Programme Intervention</b> <b>Timeline and Description</b>		
	<b>Treatment:</b> Clients receive one-weeks supply of nicotine replacement therapy in three forms: patches, lozenges and gum; Clients receive a porotiti (a traditional Māori musical instrument) to wear as a pendant, which can also be used to calm during the onset of withdrawal symptoms; Clients select their target quit date (TQD);	
	<b>Advice and support:</b> Clients receive written information on how to use the NRT; Clients receive a demonstration on how to play the porotiti;	
<b>Week 2 components of the intervention</b>	<b>Administration:</b> Clients readings of CO in expired breath are taken and recorded using a Smokerlyser and comparisons made to previous week;	<i>July 2010</i>
	<b>Treatment:</b> Clients receive another one-week supply of nicotine replacement therapy in three forms: patches, lozenges and gum;	
	<b>Advice and support:</b> Clients discuss any problems, issues with NRT, status of their quit attempt with their QCP; Review TQD if necessary;	
<b>Week 3 components of the intervention</b>	<b>Administration:</b> Clients readings of CO in expired breath are taken and recorded using a Smokerlyser and comparisons made to previous week;	<i>July 2010</i>

<b>Four-week Quit Smoking Programme Intervention</b> <b>Timeline and Description</b>		
	<b>Treatment:</b> Clients receive another one-week supply of nicotine replacement therapy in three forms: patches, lozenges and gum;	
	<b>Advice and support:</b> Clients discuss any problems, issues with NRT, status of their quit attempt with their QCP; If relapse has occurred during the week, clients are encouraged to make another quit attempt as soon as possible; Review TQD if necessary;	
<b>Week 4</b> <b>components of the intervention</b>	<b>Administration:</b> Clients readings of CO in expired breath are taken and recorded using a Smokerlyser and comparisons made to previous week;	<i>July 2010</i>
	<b>Treatment:</b> Clients receive another one-week supply of nicotine replacement therapy in three forms: patches, lozenges and gum;	
	<b>Advice and support:</b> Clients discuss any problems, issues with NRT, status of their quit attempt with their QCP; If relapse has occurred, clients are encouraged to make another quit attempt as soon as possible.	<i>First time-point for abstinence rates recorded (by staff members)</i>
<b>Review</b>	At the end of the four-week period, if a successful quit attempt has been made, then the clients leave the programme. However if they have been unsuccessful and have relapsed at any stage during the final week of the intervention, they are encouraged to stay	<i>August 2010</i>



<b>Four-week Quit Smoking Programme Intervention Timeline and Description</b>		
	for a second round of treatment and to set a TQD again.	

**Table 9 Description and timeline of the ABC for Māori Communities research investigation**

<b>Research Investigation: ABC for Māori Communities Timeline and Description</b>		
Ethics approval given - AUTECH	Provisional ethics approval received;	<i>June 2010</i>
	Confirmation of ethics approval;	<i>August 2010</i>
Recruitment for research investigation	Advertisements and pamphlets distributed around Kaikohe; Volunteers contacted and forms are provided: information forms, consent forms, interview questions, access to provider records and data analysis permission forms; Data requested and received from provider records; Provider records accessed; Volunteers accept offer of home visits in preference to interviews being conducted at a local office; appointments made and confirmed;	<i>September - October 2010</i>
Data collection begins	Interviews: audio recordings made with six volunteers from the quit smoking programme;	<i>November 2010 Second time-point for abstinence rates recorded (by researcher)</i>
	Data transcription and analysis; review demographic data from provider records and	<i>January 2011</i>

<b>Research Investigation: ABC for Māori Communities</b>		
<b>Timeline and Description</b>		
	transcribe interviews;	
	Second round of data analysis from transcripts and review of nicotine dependency levels using two measures: FTND, HSI	<i>April 2011</i>
Thesis	Research report completed and submitted to AUT;	<i>July 12, 2011</i>
AUTEC	Final report made to AUTEC	<i>August, 2011</i>

### 7.3.2 Participants

The participants were six Māori who were all regular smokers when they joined a four-week quit smoking programme in May and June 2010, in Kaikohe; the programme was part of the Tai Tokerau ABC for Māori Communities pilot described earlier.

The participants were volunteers who responded to advertisements and pamphlets inviting them to take part in a research project, as part of a Master's thesis, after their experiences of the four-week quit smoking programme. From a total of 22 programme participants in Kaikohe, six volunteers agreed to be interviewed – this represents 27% of the Kaikohe cohort.

The original intent for recruitment was to interview all programme participants in Kaikohe; contact was to be made with each of them, to request an interview. However two ethical issues arose, during the research proposal process; the first was highlighted by the Ethics Committee (AUTEC); AUTEC considered that the researcher should not use the programme participants' contact details or request Te Hauora o Kaikohe staff to make contact for interviews, as it represented a potential risk to the ongoing relationships between the programme participants and the organisation, who were providing Family Start services.

AUTEC's second concern was of an apparent conflict of interest between the researcher, in her role as Master's student, and also as the CEO of Te Hotu Manawa Māori; in the case of the latter, all programme participants' information had been viewed previously, as part of an arrangement between Te Hotu Manawa Māori and Te Hauora o Kaikohe to collect data. However permission from programme participants to do so had been solely for the purpose of reporting to the Ministry of Health. Therefore, the committee considered that it would have been unethical for the researcher to use this information for research without seeking permission directly from the programme participants for this purpose.

A solution was offered by the Ethics Committee: to advertise for volunteers who had quit smoking recently within Kaikohe and at the premises of Te Hauora o Kaikohe, and to have volunteers contact the researcher to be interviewed; it was hoped that this approach would ensure the ongoing confidentiality of the programme participants and allow them an opportunity to opt out of the research project, rather than having to refuse a direct request. Those programme participants who agreed to be interviewed could do so without their Family Start worker knowing and so protect the client/service provider relationship between them.

As a result, posters and pamphlets were placed in and around Te Hauora o Kaikohe (see Appendices IV and V). Following these advertisements, programme participants made contact with Te Hauora o Kaikohe staff and received information sheets, and consent forms to release data held by Te Hauora o Kaikohe, and to be interviewed: these were signed by participants before the interviews took place. In consultation with Te Hauora o Kaikohe staff, and at times convenient to the programme participants, a schedule of interviews over the course of three days, in a two-week period were confirmed (see Appendix XII). This schedule was sent to the researcher to confirm visiting times, and to organise material/resources for the interviews.

A recruitment protocol was designed (see Appendix VI), semi-structured interview questions were developed (see Appendix VII) and all programme participants who volunteered for the research project were accepted for interviews.

At the start of the research project, all who were to be involved in the transcribing and/or arrangement of the interviews (the researcher, a typist, and staff members) signed confidentiality agreements – this was important to ensure the confidentiality of the programme participants of the project was maintained. Transcription of the interviews was started by a typist, but this was found to be unsatisfactory (time constraints) so the researcher completed this task.

#### *7.3.4 Measures*

A baseline data/survey form was developed by Te Hauora o Kaikohe for obtaining smoking history and demographic data from current smokers during the four-week quit smoking programme (see Appendix VIII).

The six participants had completed these forms when they joined the programme, and the data were held by Te Hauora o Kaikohe; permission for the researcher to access these data was requested as part of the consent forms for the research project. The baseline data information collected included smoking history, previous smoking cessation attempts, age when smoking first began, current smoking status, date of birth, marital status, iwi affiliation, education, qualifications and employment status.

The Heaviness of Smoking Index (HSI) (Ministry of Health, 2007a) was used to determine participants' nicotine dependence (see Appendix IX) and this analysis was undertaken from the smokers'/programme participants' data, after the interviews had been completed. Calculations of the programme participant's nicotine dependence levels using the Fagerström Test for Nicotine Dependence (FTND) were also made following the interviews as an additional measure given that they are both currently used by practitioners in this country (see Table 10 p. 116).

At the time of the interviews current smoking status was self-reported by the programme participants; to determine the smoking cessation outcomes of the four-week quit smoking programme the standard measurement of smoking status was used (Heatherton, Kozlowski & Frecker, 1989); the minimum standard asks for measurement of smoking status

at two time-points; the first is at 4-weeks following the target quit date (TQD) and the second at 3-months after the TQD.

While the study sought to obtain these data in accordance with current smoking cessation guidelines (Heatherton, Kozlowski & Frecker, 1989; Ministry of Health, 2011a), the distinction should be made however, that the programme participants were not limited to setting one TQD as part of the programme – they were encouraged by staff members to make their quit attempt within the first week of the programme, however if they failed to maintain abstinence with this attempt, then they made a second or third quit attempt during the four-week quit smoking programme; this was important so that programme participants were self-determining in their decision making, which is a key element in a kaupapa Māori approach.

At the end of the fourth week of the programme, smoking status was recorded as the first time-point measurement by THOOK; these data, however have not been available for analyses due to a number of lost forms and as a result, all smoking status was self-reported.

At the second time-point, three months after completing the four-week quit smoking programme, (October 2010), interviews were being conducted, and programme participants were asked to self-report on their smoking status at that point.

Where abstinence had not been achieved, but tobacco consumption had been reduced, data were collected from participants on their weekly use of tobacco (estimated in either loose tobacco or factory made cigarettes) during the interviews. Finally, all participants were asked if they were likely to make a future quit smoking attempt again, using the programme.

Background information and smoking history were analysed for programme participant demographics and uptake of other smoking cessation services, such as Quitline and Aukati Kai Paipa were investigated.

### *7.3.5 Procedure*

#### *Data collection*

Data was collected using two methods: the first method used existing provider records that had been collected and held by Te Hauora o Kaikohe; the second method was used to collect new data during semi-structured interviews with six programme participants.

Semi-structured interview questions had been developed to cover the main aims of the four-week quit smoking intervention and elements of effective smoking cessation interventions, particularly the use of nicotine replacement therapy. The questions sought feedback in the form of impressions, opinions and perceptions of the participants during the four-week quit smoking programme – these included the role of NRT and whānau in their quit smoking attempt. Participants were able to add their own comments during the interviews and any questions were addressed or comments noted by the researcher as they emerged – field notes were taken and recordings made using a voice recorder, by the researcher; written informed consent was given by programme participants before data collection began.

Before the interviews, the researcher purchased food (cakes, slices) and gift cards to give as koha/offering at the end of each interview. The programme participants were informed that the interviews would be conducted within the space of one hour and that the researcher would visit by herself.

### *7.3.6 Interviews with programme participants*

The researcher knocked at the door, introduced herself and was invited into the home. She presented the programme participant with kai (food) and all of the programme participants offered the researcher a cup of tea or coffee. This was accepted gratefully and the researcher was seated at the kitchen table or the lounge chairs (depending on where the programme participant indicated).

Interviews began with mihi mihi/greetings and some time was spent in establishing rapport with the programme participant as is consistent with a kaupapa Māori approach and the use of whakawhanaungatanga (Ratima, 2003). This time ranged from 10 -20 minutes before the interviews formally began and covered topics such as the programme participant and their family, current events etc. and led on to an introduction into the kaupapa/project for the interview.

At this point the researcher began by stating the following:

*Thank you so much X, for your time today and for agreeing to help me with this research project. Before we begin, have you seen the interview questions? And is it ok if I use a voice recorder so that I can get down everything that you say? Your comments and thoughts will be very useful to us in finding out about the [four-week quit smoking] programme.*

Questions followed, with the researcher taking notes – when a programme participant asked a question, they were answered at the time, and all discussions were recorded and noted: these included topics in relation to the interview questions and those that arose spontaneously. At the end of each session, if it had not come up during the interview, the researcher asked – *so, how is your smoking going?* – and this was noted in the data.

The researcher encouraged a collegial, collaborative approach demonstrated by attentive listening, and allowed time for the programme participant to speak freely, and to do so, uninterrupted. This approach was necessary to encourage the participants' full engagement during the interview, and is an important aspect of engagement with Māori as it demonstrates their views are being valued, and listened to.

At the end of the interview when all of the questions had been answered, the researcher asked if the participant had any questions, and if not, this concluded the interview and the recorder was turned off.

The researcher then thanked the programme participant again for their time, and gave them a thank you card, with a gift voucher inside. The researcher asked permission to make contact once more, if it became necessary to confirm any details from the interview, and each of the programme participants agreed to this; the researcher then left their home.

#### *7.3.7 Data analysis*

Data analysis was undertaken using an inductive approach to aid an understanding of meaning in complex data through the development of summary themes or categories from the raw data (Bishop, 2009). The purpose for using an inductive approach was to condense raw text data into a brief, summary format and to establish clear links between the research objectives and the summary findings derived from the raw data.

This approach required rigorous and systematic reading and coding of the transcripts to allow major themes to emerge. This was achieved by coding interview text and interview segments for analysis and documenting and identifying themes important to participants; similarities and differences were also explored. Coded items were then ranked by frequency (the number of times that each participant referenced a specific item or theme) and any comments and statements that emerged spontaneously during the interviews were also noted, and coded under additional themes; all themes were later condensed into three main categories.



## 8.0 RESULTS

### 8.1 Results from the four-week quit smoking programme

At the first time-point measurement, in week four of the intervention, all participants reported having made at least one quit attempt, two had quit smoking and four had not been able to maintain abstinence. At the second time-point measurement, three months after the quit smoking programme began, three self-reported during the interviews, that they had been successful in quitting smoking and maintaining abstinence – two for more than three months and one for nine weeks. The remaining three programme participants reported that they had reduced tobacco consumption considerably – estimates showed reductions of 20-25% in tobacco use and they intended to make further quit attempts.

The reported outcomes show half of the participants had quit successfully since participating in the ABC for Māori Communities four-week quit smoking programme. These results are comparative to a recent evaluation of Quitline services that found 43% of those having made a quit attempt reported abstinence (having not smoked at all in seven days prior to the survey being undertaken – ‘7-day point prevalence’) during a three-week follow up survey (Thomas, 2003), and 31% had reported abstinence at the six-month follow up in the same survey. The results are also comparative to the Aukati Kai Paipa programme (McRobbie, 2009a) where 12-month abstinence rates close to 30% have been reported.

The research participants’/smokers’ characteristics are summarised in Table 10. They were all Māori, all had smoked for at least eight years, and all had made at least one quit attempt in the previous 12 months; each had joined the ABC for Māori Communities programme four-week quit smoking programme in Kaikohe during May and June, 2010.

**Table 10 Sample characteristics of participants in the four-week quit smoking intervention**

<b>Sample Characteristics</b>	<b>Total N=6 N=number</b>
Sex	
Female	(N=4)
Male	(N=2)
Age	
Average	34.6 years
Range	21-76 years
Measure of nicotine dependence: time to first cigarette after waking	
0-5 minutes	0
6-15 minutes	(N=1)
16-30 minutes	(N=2)
31-60 minutes	(N=3)
61-90 minutes	0
Number of previous quit attempts in the past five years	
0 quit attempts	(N=1)
1 quit attempt	(N=3)
2-3 quit attempts	(N=1)
4-5 quit attempts	(N=1)
5+	0
Age when first smoked	

<b>Sample Characteristics</b>	<b>Total N=6 N=number</b>
10 years	0
11 years	0
12 years	0
13 years	(N=4)
14 years	0
15 years	0
16 years and over	(N=2)
Did not recall age when first smoked	0

## 8.2 Smokers'/programme participants' profiles

Table 11 describes the levels of nicotine dependency in the six participants based on the Fagerstrom Test for Nicotine Dependence (FTND) (Ministry of Health, 2003a). Half of the group had very low to low levels of nicotine dependence, two had medium levels of nicotine dependence and one was highly dependent.

### 8.2.1 Fagerstrom Test for Nicotine Dependence

**Table 11 Participant data estimating nicotine dependence levels using Fagerstrom Test for Nicotine Dependence**

<b>Kaikohe smokers/participants: Fagerstrom Test for Nicotine Dependence (Maxwell, 1992)</b>						
	1.	2.	3.	4.	5.	6.
1. Time to first cigarette in the morning (TTFC)	31-60 minutes: 1	6-15 minutes: 2	16-30 minutes: 2	31-60 minutes: 1	16-30 minutes: 2	16-30 minutes: 2
2. Refraining from smoking	No: 0	No: 0	Yes: 1	Yes: 1	No: 0	Yes: 1
3. Which cigarette to give up	Another one: 0	Another one: 0	First in the morning: 1	Unknown	Another one: 0	Another one: 0
4. How many cigarettes per day	5-7: 0	10: 0	15:1	8: 0	15: 1	50: 3
5. When is smoking more frequent	No: 0	Yes: 1	Yes: 1	No: 0	Yes: 1	Unknown
6. Smoking when ill	No: 0	No: 0	No: 0	No: 0	Yes: 1	Yes
<b>Score:</b>	1 (very low dependence)	3 (low dependence)	6 (high dependence)	2 (very low dependence)	5 (medium dependence)	5 (medium dependence)

### 8.2.2 Heaviness of Smoking Index measures

Table 12 outlines the Kaikohe programme participants' smoking history and the data shows that four had light nicotine dependence, one had moderate dependence and one was highly dependent on nicotine according to the Heaviness of Smoking Index (Heatherton et al, 1991).

Three of the programme participants had made only one previous quit attempt, and one of the group had tried to quit between 2-5 times. Two had not attempted their first quit attempt at the time of the programme. Four of the programme participants had begun smoking when they were 13 years of age and two had started smoking when they were 15 and older.

**Table 12 Participant data estimating nicotine dependence using Heaviness of Smoking Index**

<b>Programme Participants</b>	<b>Number of previous quit attempts</b>	<b>Heaviness of Smoking Index (HSI)</b>	<b>Age when first smoked</b>
6	0= (N=2) 1= (N=3) 2-3= (N=1) 4-5=0 5+=0	(N=4) light nicotine dependence (N=1) moderate dependence; (N=1) high dependence	13 years (N=4); 15 years+ (N=2)
<b>Heaviness of smoking index</b> (Heatherton et al, 1989) 5-6 points: heavy nicotine dependence 3-4 points: moderate nicotine dependence 0-2 points: light nicotine dependence			

### *8.2.3 Summary of participants' smoking history*

The following summary including demographic details and smoking history was compiled from provider records and permission was gained from all participants to access these data.

#### ***Programme participant 1***

Programme joining date: 15 June 2010

Interview date: 13 October 2010

The participant is Māori, single, female, age 22 years who lives alone with her two children, who are pre-schoolers. Her current occupation is “home-keeper” and she has been unemployed/not working for more than a year; she does not have any formal qualifications and is eligible for free or subsidised prescriptions through a Community Services Card (a proxy for low income status).

The participant has been a smoker since she was 13 years old, and she smokes hand-rolled cigarettes; she is estimated to have light nicotine dependence based on the HSI and very low dependence as measured by the FTND.

She had tried to stop smoking in the last five years, but was only able to give up for a 4-7 day period during that time. Her most recent attempt to stop smoking had been made three weeks previously.

During the interview, the programme participant self-reported that currently, she had been quit for 2.5 weeks; this means that she had not been able to maintain abstinence from smoking since she had first joined the ABC for Māori Communities four-week quit smoking programme three months earlier. She confirmed that if she were not successful in remaining abstinent, she would undergo another quit smoking attempt.

#### ***Programme participant 2***

Programme joining date: 18 June 2010

Interview date: 5 October 2010

The participant is Māori, separated, female, age 41 years. Her current occupation is “home maker” and she has no formal qualifications. She is currently not enrolled for free or subsidised prescriptions through a Community Services Card (a proxy for low income status). The participant has been a smoker since she was 13 years old, and she smokes hand-rolled cigarettes; she is estimated to have light nicotine dependence based on the HSI and low dependence levels as measured by the FTND.

She had tried to stop smoking once in the last five years, and had been successful in giving up for 3 weeks. She had made her last serious attempt to stop more than a year ago and she said that thinking she could smoke and stop easily, was the main reason for going back to smoking the last time.

At the time of the interview, over three months after she had completed the ABC for Māori Communities four-week quit smoking programme, she self-reported that she had reduced consumption of tobacco from 15 cigarettes per day, down to three, a reduction of 20%. She confirmed that she would make another quit attempt if she were not able to maintain abstinence from smoking.

### ***Programme participant 3***

Programme joining date: 22 June 2010

Interview date: 13 October 2010

The participant is Māori, a solo mother, age 21 years, who lives alone with her three-year old son. Her current occupation is “home carer – unpaid” and she has National Qualifications Framework levels 1-3. She is entitled to free or subsidised prescriptions through a Community Services Card. The participant began smoking when she was 13 years old, and smokes hand-rolled cigarettes; she is estimated to have moderate nicotine dependence based on the HSI and high dependence as measured by the FTND.

She had tried to stop smoking twice in the previous five years, prior to joining the programme and was able to give up for one day. Her most recent attempt to stop had been

made more than one year previously; the main thing that led her back to smoking last time was that she craved too much.

At the time of the interview, over three months after she had first joined the ABC for Māori Communities four-week quit smoking programme, she reported that she had reduced her tobacco consumption from 10-20 cigarettes per day per day, to around four cigarettes daily, a reduction of at least 20%. She stated that she would make another quit smoking attempt providing she was given all the nicotine replacement therapy support she needed, to do so.

#### ***Programme participant 4***

Programme joining date: 10 June 2010

Date of interview: 14 October 2010

The participant is Māori, female, age 29 years, single and who lives with her family. She is currently unemployed/not working for a year or more and does not have any formal qualifications; she is eligible for free or subsidised prescriptions through a Community Services Card. She has been a smoker since she was 16 years, and smokes hand-rolled cigarettes; she is estimated to have light nicotine dependence based on the HSI and very low dependence as measured by the FTND.

She had tried to quit smoking 2-3 times previously and was successful in stopping for one day. Her last serious attempt to stop had been more than a year previously, and she had gone back to smoking because she “craved too much.”

At the time of the interview, over three months after she had joined the ABC for Māori Communities four-week quit smoking programme, the participant reported that she had been abstinent for over three months. She also stated that if she were not able to maintain abstinence, she would make another quit smoking attempt.

#### ***Programme participant 5***

Programme joining date: 10 June 2010



Interview date: 14 October 2010

The participant is Māori, single, male, age 21 years, had been unemployed/not working for a year or more, however he is currently employed as a “dairy farm hand;” he does not have any formal qualifications. He is eligible for free or subsidised prescriptions through a Community Services Card. The participant began smoking when he was 13 years old, and he smoked hand-rolled cigarettes; he is estimated to have light nicotine dependence based on the HSI and medium dependence as measured by the FTND.

He had tried to quit smoking four or five times previously, and had been successful in giving up smoking for 4-7 days during the last five years. It had been more than a year since he had made a quit smoking attempt and he attributed craving too much, as the main reason that led him back to smoking again last time.

At the time of the interview, more than three months after joining the ABC for Māori Communities four-week quit smoking programme, the participant reported that he had been quit for nine weeks and stated that if was not able to maintain abstinence, he would make another quit smoking attempt.

### ***Programme participant 6***

Programme joining date: 7 May 2010

Interview date: 13 October 2010

The participant is Māori, married, male, 76 years old, and is retired. He was previously employed as a timber worker, and does not have any formal qualifications. He is eligible for free or subsidised prescriptions through a Community Services Card.

The participant began smoking when he was 18 years old, and had not tried to stop smoking in the last five years, although he had been able to stop smoking for 3-5 days previously; however, he had never tried before to make a serious quit attempt. He smoked hand-rolled cigarettes; he is estimated to have heavy nicotine dependence based on the HSI and medium dependence as measured by the FTND.

At the time of the interview, over four months after joining the ABCs for Māori Communities four-week quit smoking programme, the participant reported that he had reduced his tobacco consumption from four packets of 30g tobacco per week, to one packet per week, a reduction of 75%. He was still using patches and gum, intermittently, but maintained that if he were not successful in quitting within the next 12 months on the programme, he would make another quit smoking attempt.

### 8.3 Themes (based on programme participants' interviews)

The most common themes that emerged from analysis of the programme participants transcripts were whānau (support, influence etc.), motivation (personal and professional), nicotine replacement therapy, followed by less frequent references of access to tobacco (through friends and whānau), recruitment and the length of the programme, risk factors for relapse, the use of the Smokerlyser to monitor CO levels as a motivating effect, referrals to other smoking cessation services and willingness to make another quit attempt. The analyses showed most programme participants' discussed whānau influence and motivation issues more frequently, followed by comments about nicotine replacement therapy.

Of importance to participants were whānau members (including children) who were reported to have played a role in actively challenging their smoking, as well as offering encouragement to make a quit smoking attempt. The place of competition amongst peers was also seen as an important motivating factor for the programme participants who reported checking with one another on a weekly basis to compare CO readings.

The themes were condensed into three main categories and are reported below in Table 13.

**Table 13 Categories resulting from thematic analysis of transcripts**

<b>Themes</b>	<b>Number of statements made during interviews by programme participants</b>
<b>Category 1:</b> <b>Whānau influence and motivation</b>	41 Social factors = 11 Quitting with whānau and friends = 10 Economic benefits = 5 Reducing access to tobacco = 5 Monitoring CO levels = 4 Improved health = 4 Risk factors for relapse = 2
<b>Category 2:</b> <b>Nicotine replacement therapy</b>	31 Patches = 14 Gum = 12 Lozenges = 5
<b>Category 3:</b> <b>Would make another quit attempt (if relapse occurred)</b>	6 programme participants

### *8.3.1 Nicotine Replacement Therapy (NRT) Overview*

Programme participants' self-reported regular, daily use of the patches, gum and occasionally used the lozenges less than twice weekly. Although each of the participants had all three forms in supply personal preferences were noted and some participants chose to use only one form, such as patches, or gum.

The programme participants reported positively on having NRT available at no cost to them during the quit smoking programme; as well, having a choice of different NRT

products enabled them to use their preferred option which is consistent with a recent trial where personal choice of NRT was important although variable among smokers trying to quit (Heatherton, 1991).

### *8.3.2 Programme participants' statements about the NRT patches*

When asked whether the participants felt that the NRT support had been effective in helping them quit, programme participants responded positively about the use of NRT patches during their quit smoking attempt and described how its use alleviated some of the symptoms of nicotine withdrawal. The participants were aware of the need to allow some time before they experienced benefits from the patches, and had integrated this knowledge into their daily practice during the smoking cessation attempt.

*"I used the patches and I felt like I didn't need to roll a cigarette, when you could feel like the patch was working."*

*"The patches were "too much.""*

*"The patches, they just stopped me from wanting my morning smoke. I put it on first thing in the morning, after I had my shower and everything, because you have to leave it there for an hour or half an hour, and you have to just sit there and keep rubbing it and rubbing it, chewing the gum while you wait for your patch to kick in."*

*"The patches, they just stopped me from wanting my morning smoke, the first one as soon as you open your eyes and you have to have it?"*

*"Just having the patches there so there's no gap and there's no excuse."*

*"It was getting that bad that I was smoking so much I was having headaches, so if I start getting a headache, I just don't even bother, I just put a patch on."*

A programme participant described how she suffered a set back when she did not receive her weekly supply of nicotine replacement therapy (as her child had been

hospitalised and she was not at home for her weekly visit) and attributed her relapse to the lack of NRT supplies:

*“After that when I ran out of stuff [NRT], it was just like I might as well have a smoke cause I can’t without the patch, without the nicotine, I was getting headaches because of the lack of nicotine and then smoking too much. I was getting head aches because I had too much nicotine. I think the patch balances it out so you are not getting too much or not enough.”*

*“It was like, we’re just about there and then we get knocked back because we had run out of patches, it was really hard. Then it was like, I’ve got no patches I’m going to light up a smoke to make you feel better and it doesn’t, it gives you a headache.”*

Two negative statements were made by programme participants who chose not to continue use of the patches during their quit smoking attempt:

*“I did [use the patches] but I didn’t like them. Yeah the patches they made me dizzy and they made me nauseous, maybe it might have been myself just knowing that something that was on me, it wasn’t real.”*

*[Did you have any side effects with the patches?] “Not really, not with the patches. Not too sure how to say it but yeah, I didn’t really know what they were doing?”*

The programme participants reported that they favoured the use of the NRT patches most, and comments suggest that they agreed that it provided satisfactory and effective support in managing their withdrawal symptoms and helping them quit smoking.

### 8.3.3 Programme participants' statements about the NRT gum

For those who chose to use the NRT gum, they reported that it was very effective in helping to manage withdrawal symptoms and to support their quit smoking attempt. Of concern, however, is that the programme participants considered the NRT gum flavour to be unpleasant, and although most continued using it the taste prevented one programme participant from trying or using the lozenges. Frequent comments about the gum raised "taste" as an issue:

*"It was good to have done the quitting but the gum tasted like ash in my mouth, so the flavours were not good. I tried it once and it tasted bad like having ash in my mouth so I didn't want to do that anymore."*

*"Oh the gum was good, the gum was alright but it's got that taste in your mouth, it's sort of like ooh yuck, you don't want to smoke or anything eh. Yeah but the gum I felt really helpful."*

*"The gum is easier to handle. I mean I thought cause the gum was like tasted bad. Yeah after a week of chewing on it non stop you get used to the taste and when you have a lozenge, it's not really."*

*"Yeah they were effective, then the taste, just yeah...[The gum taste?] Yeah it just wasn't very nice at all."*

*"Nah I didn't like the taste of the chewing gum."*

*"I mean I thought cause the gum was like tasted bad."*

*"It's the gum is more when you crave for a smoke, you just chew."*

*"I think for the last, I just wanted the gum. I've run out. I've got all these boxes of the patches, I said, 'I don't really need the patches, I just need the gum.'"*

*"I went cold turkey yeah, nothing but the gum."*

*"I ate all my packets, I wanted more but I got told that I'm just eating those for the fun of it. My mate told me that [laughter]. I was eating them, just eating them it*

*was like chewing gum to me. That's why I chewed more cause it gave me something to do, I'd eat more, but I thought no, I'll go back to chewing gum. The chewing gum did help me more than the patches, I didn't enjoy them."*

*"It was hard to when I first started, but the chewing gum and the patches worked for two weeks, they worked for at least two weeks."*

*"I suppose the lozenges were ok but I was just sort of liked the gum. Because you know just take that bite, and sit it in your mouth and gets that taste out, that funny taste that makes you think I don't want to smoke and takes your mind off."*

#### *8.3.4 Programme participants' statements about the NRT Lozenges*

The programme participants reported not using the lozenges as much as the gum; however two had used them during the four-week quit smoking programme, in one case exclusively and in the other, in combination with the gum and patches. Statements suggested that the programme participants who used the lozenges were satisfied that they were effective although other comments suggested that the composition and the taste of the lozenges were disliked.

*"The lozenges were alright."*

*"The lozenges I had, I like those, they were alright. I didn't have them as much as the gum."*

*"The lozenge was good especially in the morning when your mouth is sour."*

*"No, [I didn't use the lozenges] cause when you suck on them they break up and you get and end up with heaps of it in your mouth and its gross, you get a yuk taste."*

*"I didn't try the NRT lozenges, I was put off because the gum tasted so bad."*

#### *8.3.5 Programme participants: Nicotine Replacement Therapy Summary*

The programme participants of the four-week quit smoking programme made their smoking cessation attempt using nicotine replacement therapy – and all were able to abstain from smoking for at least two weeks out of the four weeks during the period that they were in the ABC for Māori Communities four-week quit smoking programme.

All six programme participants described in positive terms their use of nicotine replacement therapy, and reported it as an effective support for their quit smoking attempt, irrespective of their current smoking status. The use of NRT was “taken for granted” by participants in the four-week quit smoking programme as an integral part of it and it had been offered without exception to all who joined the programme.

#### *8.3.6 Whānau and Friends Overview*

This section reports on programme participants’ perceptions of the role of whānau and friends in the smoking cessation attempts, and includes other themes relating to social contexts, motivation, access to tobacco and risk factors for relapsing that emerged spontaneously during interviews through the smokers’/programme participants’ comments. Participants were questioned on the ways that their whānau and/or friends had helped them to be successful, and if they had been influenced by them, in any way.

The programme participants reported that they had undertaken their smoking cessation attempts by joining the programme with others, or with support from friends and/or parents and one of the participants reported that a partner had provided encouragement and support to quit.

#### *8.3.7 Programme participants: quitting with whānau and friends*

The group had made quit attempts in the following ways:

1. Quit as a group with her friend and mother;



2. Quit with her daughter;
3. Quit with friends;
4. Quit with friends;
5. Quit with girlfriend (administrator) support;
6. Quit with administrator support.

Comments from the programme participants described a major contribution by whānau and/or friends in helping to recruit for the four-week quit smoking programme and in programme participants' maintaining interest during this period. Statements also reported on how whānau and friends had provided further encouragement and support beyond the programme duration, and that this had included the participants visiting one another, having sleepovers, meeting to provide encouragement and sharing their experiences.

*"We just sort of support each other and a few friends that have also joined and we try and support each other. And we talk about it, we talked to each other, "How are you going with your smoking? How much?" We sort of yarn together and talk about how we are getting on with each other, with ourselves and it's really comforting too just to hear their side. No we just sort of tried to help people like our mates, our friends, our family to help themselves out."*

*"Cause it's good even like with just us ones that we know, that I know of around here that are on the programme, we catch up [when] we see each other in town, we always talk about this. How you getting on with your smoking? How many do you smoke? How's it? How have you been?"*

*"Yeah we done the circle, there was quite a few of us, I'm not so sure if they went on. [What's a circle?] There were quite a few of us that were friends that jumped on the programme."*

*"I have friends and whānau [and they] told me to keep going, I'm doing good and I told them because when I first joined the programme I went three weeks*

*without a smoke. Three weeks without one, on my fourth week I had my slip up so that was really good. Everyone said that I'll be the last, you know I'll carry on smoking."*

*"And my mate was coming over every day, yeah, she comes over every day after work any way, so I didn't really need that kind of support [Aukati Kai Paipa], cause I had her support. You know she'll ask me if I've had a smoke and I'm honest to her, no I haven't what I did with myself."*

*"Yes it was, it's just that courage and that guilt - you know, you'll make me fail if you don't stop smoking! [Who said that?] My mate. I say I'm doing, I'm going to try it, so yeah, in fact I did really well. Yeah!"*

*"So it was really good, it was actually the programme that got me back up. Because you know I had the encouragement from friends and they said I did really well, keep up there. So it was really good."*

*"Well the girl I was going with didn't smoke and she didn't like anything to do with it, so I sort of really had to give up. She didn't even like the smell."*

*[Referring to whānau support] "Yeah yeah, pretty supportive bunch, and um, they just pretty much, yeah, C (administrator) was...I don't know, she was pushing me, yeah."*

During the interviews the programme participants reported on the strong and active familial and/or social relationships with other smokers; during their cessation attempts, they were not able to separate themselves out altogether and when they were present in social contexts, they expressed feelings of temptation and commented on the hardship of trying to maintain abstinence.

However despite these challenges, the programme participants expressed their intentions throughout the interviews on the desire to become smokefree or to maintain abstinence.

### 8.3.8 Programme participants' motivation: economic benefits

Saving money was a significant factor in programme participants making a smoking cessation attempt and represented a strong motivation for maintaining smoking cessation.

*"Oh my mate just asked me if I'd like to give up smoking and I was, oh yes, I was spending too much money. Yeah I get to spend some money, extra money."*

*"The money? Definitely, the money you've got to pay each week for smokes, it soon builds up alright and now when you think about how much your... The money side, when you think about how much you do save a month, man it's amazing. And when you think I can go and get me an ice cream, or something nice, or go for breakfast or lunch, yes, yes, that's the same with me and M. "Mum, let's go have lunch?" or get us some MacDonald's."*

*"I said to her [mother] the best I can do is drop down as much as I can cause it's saving myself money not buying a packet a day, even my 30 gram was lasting me 3-4 days, it just got real bad. But now I've saved myself a shitload of money."*

*"Hard on the pockets when you've got babies, you can't really afford to be smoking as much."*

*"She called us up cause we're all solo mothers and said why don't you give it a go and see how you go? Because it's better than us spending all our money and everything on smokes and not being able to spend our time on our kids, it's because we're too tired. A little run makes us tired."*

*"If they can help me cut down as much as I can and there's people out there that I know are smoking a lot more than I can or that I have. That can cut down, at least four times what they are smoking at the moment and once they start they realise how much money they are saving."*

#### *8.3.9 Programme participants' motivation: monitoring carbon monoxide levels*

Analysis of the interviews showed that additional motivation for maintaining participation in the four-week quit smoking programme was provided by two factors: the use of a Smokerlyser to monitor CO levels in expired breath, and the competition that was created between programme participants with regard to how low their levels were:

*"M and M and it was like a competition, everything we did was real trying to get a lower score [CO levels] than the other one."*

*"It gives you more incentive to quit if you see how fast or how well your results are when you blow in that screen. Cause my first blow that I done were all really low and I was really proud of myself and I just kept on doing it."*

*[So you've been blowing quite low readings now?]*

*"The last time I blew an eight because I had my first smoke just as K pulled in, she came early and I had my morning smoke and I blew an eight. But she always does that and it's usually under a four. The first one I ever blew was an eight and that was before I started the patches, and then I kept them down to threes and that was it, it stayed within two or three."*

*[Referring to CO monitoring]*

*"Yeah, but then they wouldn't come out and you wouldn't be able to blow that thing and see how well you have done."*

The use of the smokerlyser played an important role according to the programme participants: it was used by them to track progress, and to demonstrate to one another that they were still on the programme and improving their carbon monoxide levels by reducing or quitting smoking.

#### 8.3.10 Programme participants' motivation: improved health and urges to quit smoking

Other motivating factors described by the programme participants to keep trying to quit, or to remain abstinent, related to feelings of wellbeing or perceived improvements in health:

*"A lot healthier! Yeah, cause since I've started this with K, we walk every afternoon."*

*"Yeah I started walking a lot, so I'll get out there soon and carry on with my walking."*

Comments from one participant showed that she was experiencing persistent urges to quit – and viewed smoking as an obstacle that needed to be overcome:

*"Yeah I get a bit jealous sometimes because I hear one of my daughters mates' have quit smoking altogether, all done and I think, "Heck! Its all right, keep trying, keep trying, just keep going, you're doing good."*

*"I was just getting, it was just a bad habit and I couldn't really get out of it. Yeah, I don't even feel like a smoke, but I just go and roll a smoke, but I don't feel like, it's just that sort of thing, I just want to give it up altogether - it's sickening actually."*

All of the programme participants reported that should they relapse, they would undertake another smoking cessation attempt, and while they celebrated reductions in their consumption, they also commented that they would continue to make quit attempts in the future and were aiming for complete abstinence from smoking.

### *8.3.11 Programme participants' motivation: social factors*

Programme participants made comments about their experiences of trying to quit smoking, when a large proportion of those around them (friends, whānau and workmates) continued to smoke. While many of their whānau and friends encouraged them, it was often difficult for the programme participants to “get away” from smoking no matter what context they were in.

*“Well they didn't really [help], they just all smoke and it's hard when they are all smoking around you.”*

*“But they didn't really help at all cause all my family except my mum smokes, and she was just saying to me, “just throw it away and don't smoke at all.” But it's easy for her cause she just got sick of the taste of it and just threw her pack away and that was it, but I said to her, you can't fully quit if you're not ready to fully quit.”*

*“I did have like my neighbours like one lady from there, she's a solo, single mum, and one across over the fence, yeah and you know they yell over, “I'm going to come over for a coffee”, and I think yeah, that's alright, and they stay here for an hour and they're having the coffee as well as the smoke, and I'm going “oh” and they're going yeah, do you want a smoke [coughing deeply].”*

*“Nah, it's alright, it's alright, I'll sort of take my mind off it and come in here and make a cuppa and do something to get my mind of that thing. It was just things like that, when you get other visitors that come over for a cuppa and they'll yarn and of course they're going to light up the smoke while you're yarning.”*

*“Then you think I'll just offer them the one coffee [laughter] and if you make another cup they'll be sitting here for another coffee. Makes it hard for you, eh.”*

*“Yeah they smoked around me but after a while I just... told them to go away pretty much. Told them to go smoke out down the road. [When did you find it hardest*

*not to smoke?] When I drink. [Yeah, So how did you manage that?] I didn't really let myself smoke, I just drank more."*

*"Oh yeah but I have a couple of mates who don't smoke, so I'd just hang around with them. Stay in the pub with them – the non-smokers."*

*"It's mainly work. At work everyone at work is smoking around you. It's pretty hard actually."*

*"Sit in the truck or go and do the work. My boss doesn't smoke and my other mate doesn't smoke so that's pretty good. But all the other team most of them smoke. So I would either work or sit in the truck and talk or listen to music whatever. Kinda have to keep the mind occupied. Have to, or else it just veers off."*

*"They didn't really influence me to smoke, but just seeing them smoke just made it real hard. You just have to walk away from it sort of thing. You can't really hang around cause it makes you just crave it. If your mind is occupied I suppose you won't go there."*

*"Yeah I try to talk to my other mates that are non-smokers. Yeah it's pretty hard actually."*

The social context in which smoking was occurring, required constant vigilance for the programme participants' to prevent unexpected relapses. With tobacco readily available (due to the high prevalence rates of smoking in the Kaikohe community) it was very difficult for the programme participants to avoid being in contact with smokers and their smoking.

#### *8.3.12 Programme participants: reducing access to tobacco*

Programme participants cited family support in resisting tobacco purchases (by refusing to loan money and whānau refusing to purchase tobacco for the smoker) and described occasions when whānau had avoided visiting so that cigarettes could not be borrowed; the supply of tobacco was reported as an important strategy when programme participants were considering how they might quit smoking successfully.

*“We all did it at the same time because we realised that the places that we would go to get it if we weren't buying tobacco, if we all started quitting together then we all had nowhere to go. So we'd all go to each other to get tobacco whereas if we were all quitting together we'd have nowhere to go and so would probably have a better chance.”*

*“My dad doesn't offer me any smokes so that is good.”*

*“We have both helped each other eh, with whānau, we both knew, we both wanted to quit and we knew not to smoke - even going to her place and pull out a cigarette, I knew not to do that, cause she's trying to give up and she does the same for me.”*

*“We all quit together, and I told them I was trying to stop smoking and I tried so they tried really hard not to smoke around me. Whānau did influence me to quit so that I would stop asking them for money for cigarettes.”*

*“My whānau helped me alright, they usually come here every day, they avoid coming to visit cause they know I may ask them for a smoke. My whānau stayed away. My wife also accuses me because the house is always stink [from cigarette smoke].”*

Help to prevent “borrowing” tobacco or purchases from whānau members, was reported as a frequent strategy by the programme participants; this tactic was used by them to co-opt individuals and whānau before, during and after the programme to help them as they sought to maintain abstinence or reduce their tobacco consumption.

#### *8.3.13 Programme participants: risk factors for relapses*

Two programme participants mentioned stress as a factor in relapse; one smoker/programme participant described an event that led to her friend leaving the quit smoking programme, and the other smoker/programme participant attributed stress to her ‘slip’.



*“And one of them too, well her baby has been in and out of hospital and she has seriously thought about giving it up, she did start the plan, but then as her baby kept going in and out of hospital I think it just put it back onto the smoking, it was just stress that she couldn't handle, so she went back.”*

*“I mean I only slipped up due to personal stress, that made me just, “oh, give me a smoke now!” Those times when you can pop in a chewing gum. But when I did have that smoke, it didn't taste nice, but I still smoked it but it didn't taste nice.”*

## 9.0 DISCUSSION AND CONCLUSION

The research investigation had two main objectives: the first objective sought to evaluate the outcomes and acceptability of a four-week quit smoking programme, which had been established as a community-based initiative; the second objective was to determine the key success factors for quitting smoking and to identify the barriers or challenges for Māori smokers to maintain abstinence following a quit smoking attempt. It was important to understand, through hearing the voices of the participants, how to support Māori smokers and this included the importance of the role of whānau and friends, and NRT, in supporting their quit smoking attempt/s.

Underpinning this inquiry was a commitment to acknowledge kaupapa Māori processes, engagement with whānau Māori and utilisation and understanding of the strength of relationship networks that are available in Māori communities. Enquiries about the role of whānau and their influence on smoking cessation uncovered themes that touched on motivation, leadership, recruitment and competition and provided insight into how future programmes might best be positioned within Māori communities.

### 9.1 Whānau effects

Whānau was a major theme that emerged from the interviews as was competition amongst participants. This has been reported in another study (Ratima, 2003) where family and friends were challenged to “place bets” during a smoking cessation programme.

Although most programme participants joined as individuals, their reliance on one another for support and motivation, and their recruitment of friends and whānau is evidence of how kaupapa Māori principles, such as whānaungatanga (spirituality, caring, family ties) (Bishop, 2009), continue to be of importance to Māori.

This theme is consistent with a recent study (Glover, Nosa, Watson & Paynter, 2010b) that reported on support from other smokers as playing a “critical role in a quit attempt.” Working with a cohort of Māori, Pacific and low socio-economic status peoples the

study recognised that whānau/social groups play a powerful role as both facilitators for and barriers to quitting. The research recognised that although smoke free consciousness had been heightened by tobacco control initiatives, there remained many communities where smoking is still common and stopping is especially difficult. Where people who are trying to stop smoking reside in a “smoking world”, they face extraordinary difficulties (Wiltshire et al, 2003) in (Durie, 1998b).

While smoking continues to be the norm in many Māori communities, quitting smoking as a collective has yet to be fully explored and utilised. In a Cochrane review (Glover et al, 2010b) it was found that group therapy is better for helping people stop smoking than self-help, and other less intensive interventions, although there was insufficient evidence to evaluate whether groups are more effective, or cost-effective, than intensive individual counselling. The research confirmed, however, that the chances of quitting were approximately doubled although it was unclear whether groups were better than individual counselling or other advice.

Regular meetings between staff members and programme participants were a feature of the Kaikohe programme, and this contact (either with participants in groups, or as individuals) may have had a positive effect; although the research suggests that not all smokers making a quit attempt might want to attend group meetings, for those who do they were likely to be helpful (Glover et al, 2010b). The results of this study indicate that Māori smokers who join a community-controlled quit smoking programme that is managed by known and trusted whānau and/or peers trained to offer NRT and advice, and who attend meetings to receive support from them, is likely to be of benefit.

## 9.2 Nicotine replacement therapy

Arrangements to access funded NRT for the purpose of the programme was made possible through a relationship with PHARMAC and Te Hotu Manawa Māori; this was a necessary element of the intervention to ensure the best results for smoking cessation, as

reported in a recent review that showed NRT increases the chances of stopping smoking long term by 50-70% compared to placebo and using a combination of NRT products was associated with higher chances of quitting compared to using a single product (Stead & Lancaster, 2009).

This study has highlighted the importance of NRT in supporting quit attempts and maintaining abstinence throughout the duration of the programme and implicates the need for future supplies of NRT to be available, if the programme is to be sustained. The programme participants were not offered other forms of NRT such as the sublingual tablet; inhaler or oral pouch (only funded forms of NRT were available for distribution) but limited choice did not appear to affect their willingness to use the NRT patches, gum or lozenges.

The staff members were required to prepare the programme participants' to use the NRT as effectively as possible including the use of both patches and lozenge/gum and although they had received only 1.5 days training to provide advice for NRT use, all programme participants reported that they had used the NRT regularly, and in most cases concurrently for the duration of the four-week quit smoking programme.

In an article by McRobbie and Maniapoto (Stead & Lancaster, 2009) on recommending NRT to smokers, the authors described the importance of communicating positive and realistic expectations of what can be achieved – that NRT roughly doubles the chances of quitting long-term, and this is independent of the degree of behavioral support utilised – and that it works by reducing the severity of withdrawal symptoms associated with smoking cessation (urges to smoke, irritability, restlessness and poor concentration) and in doing so makes quitting easier. The article admonishes that despite strong evidence of effectiveness, NRT is not a “magic cure” and does not stop a person lighting up a cigarette; some effort is still required (McRobbie & Maniapoto, 2009b).

#### *9.2.1 NRT access and primary health services*

An important feature of the intervention was reported to be the availability of the NRT which would not normally be possible for Māori organisations who do not have a smoking

cessation contract with the Ministry of Health; in the absence of a service contract, or the Quitline, access to NRT would be made by Māori smokers through their GP – and the cost of GP visits and dispensing costs can be an impediment for Māori smokers to make a quit attempt.

Research has found that poor access to NRT products remains an issue for many Māori (McRobbie, 2009b) especially if it is obtained through primary health care visits. The costs of a visit to a GP are a barrier for many Māori (McRobbie & Maniapoto, 2009b) and a prescription for NRT can be prohibitive, even at \$3 per NRT product at a community pharmacy.

The issue of poor access to resources such as primary health care services remains a challenge for improving Māori health outcomes. In a recent study (Glover et al, 2010b) researchers found that ethnicity plays a critical role in facilitating or impeding access to primary health care. This suggests that policy measures to further reduce financial barriers to buying medication may improve access to care for everyone including Māori and Pacific people and may have positive health implications.

In another study (Ministry of Health, 2010c), the effectiveness of an NRT-based smoking cessation programme in a general primary care setting appears to have been significantly enhanced by local adaptation, the flexibility of a primary-care-team approach and subsidisation of NRT, together with facilitation responsive to individual practice needs. The success of this programme in helping individual patients quit, as well as its successful implementation in a wide primary care setting, suggests General Practice can play an important role in smoking cessation in a country with a high burden of disease from smoking-related illnesses.

However as an alternative to a visit to a GP, and for the sake of accessibility and convenience, having NRT available through alternative community services for Māori could address the long standing challenges that many Māori smokers face in utilising evidence-based approaches to quit smoking.

### *9.2.2 Information and knowledge about NRT*

The majority of participants in the four week quit smoking programme had little or no previous experience using nicotine replacement therapy, and required coaching in its use and application. This finding was consistent with results from a study with focus groups that revealed a low level of awareness of the full range of cessation treatments available and low knowledge of them or where to get them (Jatrana, Crampton & Norris, 2009). The study recommended taking information and support to smokers wherever they are, and these included their workplace (to get around barriers of work hours); at the shops and malls and markets, festivals and events where they are. This approach was to accommodate people who are 'too busy' and to offer support in a way where smokers are "not inconvenienced by having to go to the doctor or pharmacy or spend precious hours and dollars they don't have" (Richards, Toop, Brockway, Graham, McSweeney, MacLean, Sutherland & Parsons, 2003).

The taste of the gum and by association, the lozenges, as reported by programme participants, was highlighted as an issue and while it did not represent a major barrier for continued use, it did receive mention by those interviewed. Increasing the choice of flavours of NRT gum as suggested by one of the programme participants could address this, although the issue of its effectiveness in supporting their quit attempt, was not under question – clearly it did support the programme participants according to their statements.

There are however, well-reported side effects associated with the NRT gum, such as those described by McEwen as "some local irritation", a "burning sensation in the mouth" and an "aching jaw" (Glover & Cowie, 2010a) in its initial use; and from Stead et al "hiccoughs, gastrointestinal disturbances, jaw pain, and orodental problems" (Fiore 1992; Palmer 1992) in (Glover et al, 2010b). A recent review reported that NRT use is associated with a variety of side effects and recommended that in addition to counseling and medical monitoring, clinicians should inform patients of potential side effects which are associated with the use of NRT for the treatment of tobacco dependence (McEwen, Hajek, McRobbie & West, 2006).

In another article, results highlighted the need for a range of information for smokers to make the best use of NRT products that are available as smoking cessation tools; the same article brought to light information needed by policy makers to enable actions that support the efforts of smokers making quit attempts (Stead et al, 2008). These studies give insight into some of the challenges that would need to be addressed to ensure optimal use of NRT in any future ABC for Māori Communities quit smoking programmes and underscore potential solutions and opportunities to provide NRT-specific resources for Māori communities to aid smoking cessation. Importantly, despite the initially unpleasant side effects of NRT, smokers should be provided with information to encourage them during the initial stages of use, to persevere, as it increases their chances of successfully stopping smoking (Mills, Wu, Lockhart, Wilson & Ebbert, 2010).

Recently, a number of videos (Kozlowski, Gioviono, Edwards, DiFranza, Foulds, Hurt, Niaura, Sachs et al, 2007), (Stead et al, 2008), (McRobbie, 2011b) describing NRT use, have been posted to the online video community YouTube<sup>6</sup> which allows access by millions of smokers: having information about NRT readily available through online sources, is an innovative approach in ensuring that smokers will gain knowledge to increase their chances of making a successful quit attempt. The use of the internet has been found to be effective for viral marketing in bringing thousands of Web users to discover and explore a governmental health promotion website (McRobbie, 2011c) and in education, sharing online videos using YouTube is popular because of its accessibility and variety, connecting people with similar interests (McRobbie, 2011a).

It is likely that Māori would also benefit from access to these online resources, particularly in the areas of attitude change or behaviour modification, if the resources contain culturally salient characteristics (Gosselin, 2008). However access to the internet remains an issue and research has shown (Columna, 2009) that Māori and Pasifika tend to have less

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<sup>6</sup> Founded in February 2005, YouTube allows billions of people to discover, watch and share originally created videos. YouTube provides a forum for people to connect, inform and inspire others across the globe and acts as a distribution platform for original-content creators and advertisers, large and small. [www.youtube.com](http://www.youtube.com). Accessed 30 June 2011.

access to the internet and internet usage rates are low for Maori (62%) compared to other groups: Pakeha (77%), Pasifika (72%). There is an association of gradual fall-off in internet use, with increasing ruralness, and a strong and steady increase in usage with rising household income: for Kaikohe this represents further barriers to accessing necessary information.

#### *9.2.3 Nicotine replacement therapy – access to and use by Māori and Pacific smokers*

In a study conducted in Counties Manukau District Health Board (CMDHB), the proportion of working age people (age 15-64 years) who obtained at least one packet of subsidised NRT during 2007 was investigated and results showed that Pacific peoples were 60% less likely to claim NRT than European smokers, despite a higher prevalence of smoking in the former group. An over four-fold increased use of NRT was observed in those aged 55 to 64 years, compared to 15 to 25 year olds. The study concluded that dispensing of NRT is low overall in CMDHB, and the lowest rates of treatment were observed in younger age groups, men and Pacific and Maori people. The report called for programmes to increase the uptake of such treatment, urgently (Krisjanous & Love, 2002).

As described earlier, the population profile of Māori is young, with higher rates of smoking prevalence compared to the general population. If dispensing rates of NRT are lower in high Māori and Pacific population areas, then efforts need to be directed in helping this group to access NRT to support smoking cessation and to do so without requiring more young Māori and Pacific smokers to visit their GP's.

Alternative programmes such as a community-controlled smoking cessation programme can provide access to more young Māori smokers in existing services (such as Family Start) or by utilising existing relationships through whānau, friends and peer links; the means to distribute NRT with the right information at the right time, to the right people already exists within these networks. Training more peer smoking cessation advisors to offer evidence-based support has the potential to increase dramatically the poor rates of access by young Māori to NRT.



Smoking cessation programmes should provide information about what additional smoking cessation aids are available to reduce the symptoms of withdrawal; these are the types of information that are essential in helping Māori make evidence-based quit smoking attempts. Recently a report (Bell, Crothers, Goodwin, Kripalani, Sherman & Smith, 2008) on the health literacy levels of New Zealanders found that a lack of health literacy has been identified as a key factor in Māori accessing health services, and as a result many Māori experience poorer health outcomes. The report concluded that the effects of poorer health literacy meant that many people were less likely to use prevention services (such as screening) and have less knowledge of their illness, treatment and medicines.

This speaks directly of the need for more resources (which includes NRT and information about how to use it) to be released into Māori communities as an integral part of future quit smoking programmes; resources are also needed to provide for training and training materials so that Māori volunteers can become Quit Card Providers, and ensure that NRT can be easily accessed within communities, thereby addressing barriers of cost or distance.

As reported earlier, the ability of Te Hauora o Kaikohe to continue to offer evidence-based quit smoking support in their community, is entirely dependent upon having access to NRT through PHARMAC; secondly as more whānau seek the services of the staff members to take up the quit smoking programme, the need for more resources, to train any new administration or Family Start staff to integrate quit smoking advice into their existing roles and to produce information packs, grows. The commitment of this organisation to help more Māori quit smoking has been demonstrated however the cost of this has been a considerable sacrifice – support from central or regional health services for Te Hauora o Kaikohe to continue to offer the ABC for Māori Communities programme would ensure a sustainable future, providing help to this well-deserving community.

### 9.3 Measuring nicotine dependence

Two measures were used to determine the levels of nicotine dependence in the programme participants: the Fagerström Test for Nicotine Dependence (FTND) and the Heaviness of Smoking Index (HSI); this approach was considered appropriate given the variation of current practice in New Zealand as reported by the NZSCG (Thornley, Jackson, McRobbie, Sinclair & Smith, 2010).

The FTND is a non-invasive self-report tool that conceptualizes dependence through physiological and behavioral symptoms (Ministry of Health, 2010a). The current version of the FTND (Ministry of Health, 2007a) includes six items and though the test is brief, its completion requires a few minutes; to save time the Heavy Smoking Index (HSI), a shorter test was developed, which includes only two items from the FTND. The HSI has been used to estimate the degree of dependence although its usefulness in assessing nicotine dependence in general population surveys aimed at health planning has not yet been completely established.

According to both measures, the programme participants reported very low, low and moderate nicotine dependence levels, with only one participant showing a heavy or high level of nicotine dependence. Most of the programme participants in this study had started smoking at the early age of 13 years with the others becoming regular smokers by the time they reached 15, 16 and 18 years; all of the programme participants had made at least one quit attempt previously, and all had been unsuccessful in maintaining long term abstinence.

The reported low to moderate levels of nicotine dependence of the programme participants (HSI) and very low, low and medium dependence (FTND) were surprising results of the study, as it seemed contrary to what emerged from the interview transcripts and analyses of the smoking history of the participants: their inability to quit smoking, their reported intense cravings, and their sustained history of smoking from teen years, despite

financial hardship and high levels of motivation to quit, suggests that they were all highly dependent.

The issue of daily cigarette consumption utilised in both FTND and the HSI, requires some consideration; according to the participants their ability to access tobacco, from whānau, friends or to purchase themselves was influenced by economic need and the reported lower numbers of cigarettes smoked per day, and the associated low to moderate rates of nicotine dependence may have been a result of this. In future research, other measures such as the Hooked on Nicotine Checklist (Pérez-Ríos, Santiago-Pérez, Alonso, Malvar, Hervada & de Leon, 2009) described earlier, may be useful to apply with Māori smokers or other groups who may be sensitive to economic hardship and who may adjust their cigarette consumption because of this.

#### *9.3.1 Access to tobacco*

The issue of access to purchase tobacco products and having strategies to overcome the resistance to buy tobacco were seen to be of importance to the programme participants during their four-week quit smoking programme; this is consistent with research that found there is an association between exposure to point of sale tobacco displays and susceptibility to smoking uptake or experimenting (Heatherton et al, 1991). The study cited evidence that young people's exposure to tobacco displays at the point of sale in retail outlets is significantly associated with being susceptible to smoking, experimenting with smoking and current smoking. An awareness of the need to prepare smokers to resist temptation to either purchase, or procure tobacco from others, is necessary in helping smokers to maintain abstinence during quit attempts.

#### *9.3.2 Recruitment into the smoking cessation programme*

The ABC for Māori Communities four-week quit smoking programme was promoted vigorously by word of mouth, with recruitment goals part of core business for the staff of Te Hauora. The numbers of enrolled whānau who joined the programme by self-referral or after

hearing from peers or whānau members or being invited, was undertaken without any formal advertising. The participants reported high levels of motivation in being part of the four-week quit smoking programme and all confirmed that they would access the service again in the future if necessary.

The issue of recruitment is a pertinent one, given that relatively few smokers opt to use quit smoking services compared to the number of current smokers. For Māori, the comfort of having a familiar and importantly, a trusted person to help during a quit smoking attempt, is an innovative approach that could be utilised further in communities and word of mouth promotion is an ideal mechanism to do so. From the perspective of Māori community workers or volunteers, the offer of training to become a Quit Card provider with access to NRT to distribute amongst whānau, friends and clients as part of their existing duties is a positive, helpful and non-judgemental way to offer support to Māori in their communities. The approach needed is at a community based, grass roots level, which strongly contrasts to the current focus on accessing smoking cessation support through primary health care, GP or nursing services, within a medical model for treatment which would likely include prescriptions rather than direct access to NRT.

Community workers are in an ideal situation to offer this type of support in the community as many have developed the ability to synthesise and articulate complex medical information in lay terms; research confirms that they are often called upon to act as the interface between western medical science and traditional knowledge (Wellman, DiFranza, Savageau, Godiwala, Friedman & Hazelton, 2008) in their daily duties.

### *9.3.3 Risk factors for relapse*

Family and friends had a strong influence on those who were making a quit attempt but other factors also played into their success or failure to quit: personal issues, such as a sick baby, drinking alcohol with friends (a particularly susceptible time for relapse and slips) and stress. Studies have found that various types of sociocultural stress are associated with smoking risk (Paynter, Edwards, Schulter & McDuff, 2010b) and Glover et al (2010b) posit

that “negative emotions may *[also]* be linked with being of low SES *[socio-economic status]* and that the personal and material circumstances of smokers’ lives influence and impede quit attempts” (Boulton, Gifford & Potaka-Osborne, 2009) p.163.

In another study (Fernander, Schumacher & Nasim, 2008) recent quit attempts were found to strongly predict future attempts, but also predicted subsequent relapse; motivation to quit was found to predict future attempts but did not predict relapse/abstinence following the quit attempts. The study found that relapse to smoking was associated with nicotine dependence, exposure to smoking cues, craving, withdrawal symptoms, and lack of smoking cessation aids. The findings lend support to a model of cessation in which the level of motivation to stop generates quit attempts but plays little role in relapse. The study concluded that nicotine dependence, social smoking cues, and a recently failed quit attempt are important factors in relapse.

On the issue of providing on going support to smokers to reduce the risk of relapse for them, the research to date, does not support skills training or other interventions to help individuals who have successfully quit smoking to avoid relapse. The report called for future study, as an area of importance (Glover et al, 2010b).

#### *9.3.4 No quit dates*

The programme participants did not set a quit date when they joined the programme – rather they chose when to quit, when they felt able and ready, to do so. Although the programme was structured for a quit attempt within a four week period, they were not required to set a specific quit day; as well the programme participants were able to remain on the quit smoking programme for a subsequent quit attempt if they had failed to maintain abstinence with their first effort.

West & Sohal have noted from a study that almost half of the attempts to stop smoking were made without previous planning (Zhou, Nonnemaker, Sherrill, Gilsenan, Coste & West, 2009) and that it was possible for people to bypass stages of behaviour models formerly thought to be necessary for change, to be ready for a quitting attempt immediately

following a decision to stop smoking. The opportunity to be offered support to quit smoking can be viewed as an effective catalyst for making the decision to quit.

While this study relates to spontaneous quit attempts (rather than a structured programme) their results show that no preplanning was associated with better results for longer (lasting for six months or longer, twice that of preplanned attempts).

Another study (Lancaster, Hajek, Stead, West & Jarvis, 2006) showed that subjects who made an unplanned quit attempt were more likely to be non-white, have no college education, report smoking their first cigarette of the day more than 30 minutes after waking and had not used any pharmacotherapy during their quit attempt. These results are important and relevant to future smoking cessation initiatives as they show that a substantial proportion of quit attempts are unplanned and that such attempts can be a successful route to cessation. The report highlighted that given the frequency of such attempts, methods of making treatment available to assist unplanned quitting should be considered; this point further strengthens the argument that having access to NRT and peer-support in Māori communities at any time, has the potential to take advantage of unplanned quit attempts that might otherwise fail without evidence-based support.

Analyses of the interviews in this study reported unanimous responses affirming that the programme was effective in helping the programme participants make a quit smoking attempt and that if they were not able to maintain abstinence, they would try again until they were successfully quit.

#### 9.4 Referrals to other smoking cessation services

Although none of the programme participants had sought smoking cessation help from other sources (such as their local GP or an Aukati Kai Paipa quit coach) prior to or during the ABC for Māori Communities four week quit smoking programme, and those who were aware of alternative services had chosen not to access them, there is no evidence to

suggest that if the service were offered to them directly (as the programme was), that they would not participate.

Although the Aukati Kai Paipa programme is available at no cost to Māori women and their whānau, and that nicotine replacement therapy is provided to clients who wish to quit at no cost, the programme participants reported little interest in joining this programme. Distance to the services appears to have been one of the reasons why the AKP programme was not accessed; but an alternative view is that the help to quit was conveniently available in their own communities, delivered right to their homes and offered to them, by a known and trusted, whānau member, friend and peer.

These aspects are important to consider as they suggest that for many Māori, particularly those in the priority group (young Māori boys and girls, and their whānau) having personal knowledge of and trust in the smoking cessation advisors and convenient access to nicotine replacement therapy (delivered to homes) is a powerful tool for recruiting volunteers and for maintaining interest and participation during the four week programme.

## 9.5 Implications of the research findings

There are a number of important implications to be drawn from these research findings. Of importance, is that whānau or community based quit smoking programmes need access to regular supplies of NRT, in all its forms, with the freedom to choose between products as a means of providing the best evidence based support to Māori smokers; this may prove to be a significant barrier as access may not be possible under the current government bureaucracy.

In addition having the NRT delivered to homes by peers and whānau members, who were able to offer information and advice, contributed to its regular use by programme participants during quit smoking attempts and the convenience of having the NRT available at any time, in the privacy of the home was seen as a strength of the programme. The accuracy of the information offered to participants on how to use NRT effectively (with regard

to reducing the effects of nicotine withdrawal symptoms) appears critical in the light of recent research findings (West & Sohal, 2006a) on Māori health literacy levels; this point argues that resource needs to be found for designing and producing information on using NRT and other smoking cessation aids for Māori.

Whānau approaches (to initiate quitting and to offer support) that utilised words of encouragement and admonishments (or “nagging”) were tools used to motivate the programme participants, and in the presence of competition and “challenges”, appeared to induce and inspire those who were making a quit attempt. Whānau agreements to limit or reduce access to tobacco suggests that kaupapa Māori approaches (Ferguson, Shiffman, Gitchell, Sembower & West, 2009) (Ministry of Health, 2010a) that utilise “connectedness” within relationships was an effective way to ensure programme participants were protected from exposure to tobacco products during the withdrawal stages. There is a need for research to investigate how these approaches might be further utilised and integrated into current and future smoking cessation programmes.

Future investigations with smokers who make a quit smoking attempt in Māori communities should incorporate the loss of autonomy measure for nicotine dependence rather than the Fagerström test for nicotine dependency or the Heaviness of Smoking Index; this approach would likely be more reliable in assessing the younger Māori population of smokers. With the lower levels of tobacco consumption reported or variations in smoking patterns according to the availability to tobacco for purchase or access from whānau or friends noted, the use of an alternative measure such as the HONC, estimates could be made based on a single characteristic feature: the recurrent and periodic compulsion to use tobacco (Ratima, 2003).

Further research should also include nicotine dependence in lower socio-economic communities and smokers, as this has relevance to NRT dosing. Choice for smokers is important (Bishop, 2009) as it allows them to self-administer a dose of nicotine on an “as-needed” basis. Acute-dosing NRT products such as gum and lozenges, have the benefit that both the amount and timing of doses can be titrated (continuously measure and adjust the



balance of drug dosage) by the user – and smokers with more nicotine tolerance or greater need can get a higher dose and smokers who are experiencing acute adverse effects can scale back their intake.

## 9.6 Limitations

There are two significant limitations to this research study: the first is its small sample size (just six programme participants from a possible sample of 22 programme participants who took part in a four-week quit smoking programme); a larger sample would have provided more data for analysis and by association, may have represented stronger evidence to the effectiveness of a community-controlled smoking cessation intervention for Māori. The small sample size, although representing 27% of the group, was largely the consequence of having to advertise for volunteers in Kaikohe instead of directly approaching people who had participated in the programme. This was considered necessary by AUTECH to ensure confidentiality of the programme participants was maintained and to mitigate the perceived risk of impact upon clients' existing relationships with their Family Start workers as many of the participants were also clients of Te Hauora o Kaikohe.

The second limitation relates to the collection of data: while CO levels were taken from all programme participants by THOOK during the ABC for Māori Communities four-week quit smoking programme at the first time-point (week four of the smoking cessation programme), to verify abstinence in both pilot sites of Bream Bay and Kaikohe, not all of the data was handed over for analysis and a number of forms were missing; the CO readings were therefore excluded from analysis as not all of the programme participants' data was available. Abstinence at the four-week time-point and the three-month time-point was self-reported by the programme participants during the semi-structured interviews.

Of lesser significance, but still worthy of note, is that the majority of the programme participants in the interviews were related by whānau connections. The strength of whānau and social relationships may have influenced responses, although interview narratives

showed that programme participants did offer suggestions for future improvements to the programme, and these were directed at the programme, rather than the organisation, or individuals facilitating it.

Also worth noting is that although the interview questions were semi-structured (to allow wider discussions to develop during the interviews), this approach may have limited the scope or range of topics to smoking cessation, rather than allowing other aspects such as smokers'/programme participants' life experiences to emerge.

## 9.7 Bias

The study used descriptive, qualitative research methods, underpinned by kaupapa Māori (DiFranza, 2010) (Shiffman, Fant, Buchhalter, Gitchell & Henningfield, 2005) a conscious awareness of Māori systems, knowledge, people and processes (Ratima, 2003). The research project, by virtue of its inquiry into Māori and smoking cessation and its composition (the two organisations involved in the training and data collection are Māori trust organisations and all of the individuals involved in the programme and the research are Māori) required an acknowledgement of the validity of Māori knowledge and a Māori worldview; this approach inferred that the cultural capital or knowledge of the researcher would be applied to the interpretation and analysis of data (Bishop, 2009). The use of a qualitative descriptive analysis of the data was also influenced by a kaupapa Māori (Pihama, 2011) methodology – this is acknowledged as a necessary bias of this study.

Engagement with programme participants in this research required a process that was intertwined with tikanga Māori during the data collection phase of the study; in the analysis and description of data phases, the researcher was required by a kaupapa Māori approach, to consider the wider cultural and societal context in which this investigation has been undertaken; this is also acknowledged as a necessary bias.

The influence of bias upon the research findings, the interpretation of the data and the descriptions of the phenomenon under study are acknowledged as being predisposed by

a personal desire and intention to achieve clear benefits for Māori health (Smith, 1999) on an issue relevant to Māori health – smoking; these aspects influenced the research design and this bias is acknowledged as required.

## 9.8 Implications for future research

Future research should utilise the strengths of kaupapa Māori research methodology (Pihama, 2011) (Sporle, 2004) where the process of enquiry determines the methods used, and where these are likely to be subordinate to the issues and utility of the research and drawn from a wide range of approaches (Pihama, 2011), (Smith, 1999), (Cram, 1997). The most important feature of kaupapa Māori research is that research will have positive outcomes for Māori (Edwards, McManus & McCreanor, 2005), (Smith 1999) – and smoking cessation is one of the most positive outcomes that can be achieved by Māori, with the benefits felt immediately by whānau and communities.

As discussed previously, there is an increasing use of the term “loss of autonomy” to describe nicotine dependence (Barnes, 2000; Smith, 1999) – the original draft of the American Psychiatric Association’s Diagnostic and Statistical Manual of Mental Disorders (DSM) definition stated that an individual smoked and no longer wished to do so as the simplest measure of lost autonomy (Jones, Crengle & McCreanor, 2006); “Autonomy Theory” (DiFranza, Riggs & Pentz, 2008) defines when a person becomes hooked: a person is hooked when he or she has lost full autonomy over the use of tobacco, when discontinuing the use of tobacco is no longer an effortless exercise of free will.

Future research should utilise the “loss of autonomy” theory as it is likely to provide more reliable measures allowing more accurate dosing of medications to manage the withdrawal symptoms of smokers during smoking cessation and lead to better quit rates and outcomes. As discussed earlier, this is important when considering the number of young Māori smokers who have yet to make an evidence-based quit smoking attempt, despite

being nicotine dependent and who are not currently accessing smoking cessation services, to do so.

## 9.9 Smoking and the wider impacts for Māori

A recent study in 2010 looked at tobacco control interventions supported by central government in New Zealand, to determine evidence of policy incoherence (Wilson, Thomson, Blakely & Edwards, 2010b). The study found that there was evidence of significant incoherence in tobacco control policy, for the top four interventions: tobacco taxation to raise tobacco prices (to reduce youth uptake and promote quitting); complete restrictions on tobacco sponsorship and nearly complete restrictions on tobacco marketing and smoke free environments (especially indoor public settings and school premises). The study argued that these measures were consistently undermined by government policies which allowed duty free sales of tobacco, no dedicated component of tobacco tax for tobacco control, point of sale displays and smoking in cars.

The study also noted the intervention of widely available and heavily subsidised pharmacotherapies such as nicotine replacement therapy and noted a lack of coherence in the uneven retail availability of tobacco (there is no requirement for retailers to sell nicotine replacement therapy if they sell tobacco) and the lack of public education; the authors also suggested the existence of a form of policy incoherence (in central government) in the lack of public education to reduce substantial confusion and misconception among smokers about nicotine being the major cause of cancer from cigarettes (DiFranza, 2002a).

This highlights again the very important issue of Māori literacy levels and how they might impact on the ability of Māori smokers to access support such as nicotine replacement therapy, and to have the knowledge and understanding of how to use the support to its optimal effect.

#### *9.9.1 Are Māori willing to quit? Ae marika!*

Despite the high numbers of Māori who smoke, recent research has found that many Māori continue to support high level interventions in tobacco control regulation: Wilson et al found that an increase from 62.5% to 73.8% of Māori smokers indicated support for a ban on point-of-sale tobacco displays (Wilson et al, 2010b); Edwards and his colleagues (Wilson et al, 2009c) found that 70.5% of Māori smokers agreed that tobacco companies should be more tightly regulated, that 65.9% of Māori smokers felt the government should do more to tackle the harm done by smoking, that 84.8% of Māori smokers supported laws that would reduce the toxins in cigarette smoke and that 84.4% of Māori smokers supported laws that would reduce the addictiveness of cigarettes.

The message is clear: Māori do want to quit smoking – 84.7% of Māori experience high levels of smoker regret (Wilson et al, 2010a). However, Māori continue to underestimate the extent of the risks to health posed by tobacco smoking and second hand smoke exposure and have misperceptions about light and mild cigarettes. A lack of knowledge and understanding is killing our people.

#### *9.9.2 Where to from here?*

The final report to the House of Representatives following the Māori Affairs Select Committee Inquiry into the tobacco industry and its impacts on Māori, has been tabled and the government has stated that “this year will see the ABC approach extended into the primary care health environment as part of an incentivised performance programme” (Edwards, Wilson, Thomson & Weerasekera, 2009).

While this approach has been welcomed by many, it does little to address the barriers of access that are experienced by many Māori, in obtaining health care services. There is a critical lack of resource for Māori smoking cessation services and incentivising primary health care services to extend the ABC approach is hardly likely to address this. This decision will be a disappointment for many Māori who advocated throughout the inquiry

for increasing resource within Māori communities, to enable more Māori the support to quit smoking.

Research continues to highlight the willingness of Māori to try quitting, but in the past many smokers have not had access to the relatively small workforce of Māori who can provide evidence based support. Methods for improving Māori health have maintained a role in directing Māori toward health services, rather than orienting health services to where Māori live, work and play.

Shifting to a whānau centred provision of services will require inter-sectoral cooperation which is consistent with a Whānau Ora approach – where whānau are engaged and actively involved “in decisions that affect their lives. Whānau want choice about the type of service they receive, and want to receive high quality services” (Wilson, Edwards & Weerasekera, 2009a).

Rather than seek solutions for Māori smoking in one specific sector – health – a Whānau Ora approach advocates a whānau centred approach, through capacity building, and cooperation across sectors to address the “lack of cohesion across government agencies” (New Zealand Parliament, 2011).

## 9.10 Concluding remarks

In 1884, the Treaty signatory Āperahama Taonui spoke these words:

*E ngā rangatira o Ngāpuhi, whakarongo mai. Kaua e uhia te Tiriti o Waitangi ki te kara o Ingarangi, engari me uhi anō ki tōu kara Māori, ki te kahu o tēnei motu.*

*Ngāpuhi chiefs, listen to me. Don't cover the Treaty of Waitangi with the English flag, but cover it with your own flag, with the cloak of this island (Whānau Ora Taskforce, 2009) p. 34.*

This saying has been attributed as one of the most eminent concerning the Treaty of Waitangi and Taonui, who had as his mission the protection of his people's spiritual, political and economic identity in mind, was urging Ngāpuhi to take ownership of the Treaty, "both actually in political terms, and also symbolically by 'covering' it with a cloak, an image indolent with mana" (p.34).

Is it possible to turn the tide, and in this late hour, to make the necessary adjustments to ensure a better future for Māori? It is possible, and history has shown that Māori can endure, survive and thrive despite a history of challenges and Crown leadership that continues to ignore the urgency of Māori needs; for Māori to overcome the enormous impact of tobacco use, we will need to deliberately and intentionally plan for this to happen.

Investing in smoking cessation programmes such as the ABC for Māori Communities four-week quit smoking programme is essential for the future and an approach which is community based, drawing upon existing relationships of kinship and friendship and supported by evidence based approaches, such as the use of nicotine replacement therapy can increase the number of times that Māori smokers are offered an opportunity to make a quit attempt.

However, there is also urgency to ensure that Māori have access to resources that support increases in health literacy and access to information that will help them use smoking cessation aids, such as nicotine replacement therapy and other smoking cessation aids, some of which are already funded, such as Champix and Zyban.

At the beginning of this paper, reference was made to the trading of tobacco for Māori land, almost two hundred years ago – Te Taonga Mai Tawhiti, the gift from a distant land (Whānau Ora Taskforce, 2009). The manner in which this exchange occurred, and the quick uptake by Māori of tobacco has seen tobacco use normalised in Māori culture and society, with smoking becoming the imposter "tikanga" (custom, meaning, criterion) (Kawharu, 2008).

Our response as a people must be to re-establish a tikanga of being Auahi Kore, as a normal and positive declaration of Māori self-autonomy. This can be achieved by the

provision of kaupapa Māori smoking cessation programmes to Māori wherever they are: in the home, the workplace, and at school. An approach that provides support and resources to whānau Māori to undertake this work in their communities, is consistent with a kaupapa Māori philosophy (Reid & Pouwhare, 1991) (Smith 1999) (Ryan, 1999) (Jones et al, 2006) and can lead to evidence based support being present where and when it is needed. With the help of peers, friends, partners, parents and whānau it is possible for Māori to enact tino rangatiratanga – and demonstrate sovereignty and self-determination over the ngārara, tupeka.



## 10.0 WHAKAWĀTEA

The following pepeha/proverb draws upon the author's connection with her ancestral lands near Waipoua Forest, and references the links though whakapapa to those who have passed, and to those who continue to live there.

According to Alex Nathan (kaumatua/elder, Te Rōroa) pepeha are a key aspect of mana whenua, and the notion that no individual or group can own land; rather the land 'owns' them.

*The concept of belonging to the land rather than the land belonging to the individual is demonstrated by [these] pepeha... identity stems not simply from their tupuna by descent, but from the land to which the individual and his people belonged (Pihama, 2011) p.189.*

Māori, through virtue of their belonging in Aotearoa New Zealand as tāngata whenua, people of the land, have a responsibility to protect and nurture ngā taonga tuku iho, me te ira tāngata, from generation to generation:

***He aha te mea nui o te ao? He tāngata, he tāngata, he tāngata.***

**What is the greatest thing in this world? It is people, people, people.**

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## APPENDICES

Appendix I Summary of Cochrane Reviews		
Author	Aim	Summary
Cochrane Database System Review (Bishop, 2009)	Can nicotine replacement therapy (NRT) help people quit smoking?  132 trials with over 40,000 participants – no reference to Indigenous representation in the sample groups.	NRT temporarily replaces some of the nicotine from cigarettes to reduce motivation to smoke and nicotine withdrawal symptoms, thus easing the transition from cigarette smoking to complete abstinence.  The review describes the chances of stopping smoking using NRT are increased by 50-70% compared to placebo and using a combination of NRT products was associated with higher chances of quitting compared to using a single product.
(Kawharu, 2008)  Cochrane Database of Systematic Reviews (Stead et al, 2008)	Does individually delivered counselling help people stop smoking?  30 studies with over 7000 participants – no reference	Individual counselling is commonly used to help people who are trying to quit smoking. The review looked at trials of counselling by a trained therapist providing one or more face-to-face sessions, separate from

## Appendix I Summary of Cochrane Reviews

Author	Aim	Summary
	to Indigenous representation in the sample groups.	medical care. All the trials involved sessions of more than 10 minutes, with most also including further telephone contact for support. The review found that individual counselling could help smokers quit, but there was not enough evidence about whether more intensive counselling was better.
(Lancaster & Stead, 2005)	Can community interventions stop adults from smoking?  37 studies (2 in Australia) – no reference to Indigenous interventions.	Although intervention communities often showed substantial awareness of their programme, this rarely led to higher quit rates. Similarly, increased knowledge of health risks, changes in attitudes to smoking, more quit attempts, and better environmental and social support for quitting were not accompanied by reductions in community smoking levels.

## Appendix I Summary of Cochrane Reviews

Author	Aim	Summary
(Stead & Lancaster, 2009)	<p>Trained community pharmacy personnel may be able to help people who wish to stop smoking.</p> <p>Two studies, total of 976 smokers; 51 pharmacies in one study (Maguire 2001) and 60 in the other (Sinclair 1998).</p> <p>37 studies (2 in Australia) – no reference to Indigenous interventions.</p>	<p>Personnel in community pharmacies (drug stores) can be a source of information and support for people trying to quit smoking. They may have a role because nicotine replacement therapy, an effective cessation pharmacotherapy, is available without prescription in many countries. People also come to pharmacies with prescriptions for medications to help them quit. The review included two trials and found limited evidence that training pharmacy personnel to offer counselling and record keeping services to their customers may help smokers to quit.</p> <p>Both studies involved training interventions which included the Stages of Change Model: a three-hour workshop for pharmacists plus one outreach visit (Maguire 2001), and a two-hour workshop for pharmacists and pharmacy assistants.</p>



Appendix II Summary of Smoking Cessation Interventions				
Evidence	Setting	Smoking Cessation Aids	Type of Intervention	Evaluation
(Secker-Walker, 2002)	Smoking Cessation Clinic, Aboriginal Medical Service	Nicotine replacement therapy (NRT) dispensed at no cost	Weekly cessation counselling services	Achieving smoking cessation among Indigenous people is made significantly more complex because of multi life stressors experienced.
(Sinclair, 2004)	Three Indigenous communities in the Northern Territory, Australia	NRT patches used by Indigenous people at no cost	Brief intervention for smoking cessation including advice on health effects of tobacco use, support in setting a quit date, counselling on cessation, and being	Free nicotine patches might benefit a small number of Indigenous smokers. Cessation rates for the use of both nicotine patches and brief intervention alone were lower than those in other populations possibly because the study was conducted in a primary care setting and because of barriers to cessation such as widespread use of tobacco in these communities

			offered a pamphlet	
<b>Evidence</b>	<b>Setting</b>	<b>Smoking Cessation Aids</b>	<b>Type of Intervention</b>	<b>Evaluation</b>
(DiGiacomo, 2007)	Systematic review preceded two interventions, delivered by Aboriginal Health Workers in a primary care setting	NRT patches	Brief intervention with nicotine patches was developed in conjunction with Aboriginal people to ensure it was culturally appropriate. Involved brief counselling, setting a quit date and use of supporting health promotion materials	Evidence of effectiveness of an intervention should not be the only factor considered when planning interventions for implementation; that is consideration of the evidence is necessary but not sufficient. Taking an evidence-based approach may not be the primary consideration when planning health programmes for many Aboriginal organisations. Other factors may include expressed need by Aboriginal people, cultural appropriateness, and potential to enhance community control and community employment, the presence of well-organised funded health services and employment of health public policy.

<b>Evidence</b>	<b>Setting</b>	<b>Smoking Cessation Aids</b>	<b>Type of Intervention</b>	<b>Evaluation</b>
(Ivers, Farrington, Burns, Bailie, D'Abbs, Richmond & Tipiloura, 2003b)	Analysis of the 2005 National Health Interview Survey	NRT  pharmacotherapy  Zyban or  Bupropion  Behavioural counselling	A recent survey of three measures of health care – encounter based tobacco interventions (screening, smoking cessation advice and use of smoking cessation aids)	Results show that compared to white smokers, black or Hispanic smokers had significantly lower odds of being asked about tobacco use, being asked to quit or having used smoking cessation aids.  Further actions are needed to understand and eliminate this disparity.
(Ivers, 2003a)	2006 New Zealand Census Survey	N/A	Investigation of socio-demographic characteristics of New Zealand adult smokers, ex-smokers, and non-smokers: results from the 2006 Census	Prevalence of smoking in New Zealand continues to decline as a result of a reduction in initiation rather than increased cessation, but significant ethnic and socioeconomic inequalities in smoking persist.  Programmes and initiatives need to be accessible and reliably delivered to groups with the highest smoking rates.

<b>Evidence</b>	<b>Setting</b>	<b>Smoking Cessation Aids</b>	<b>Type of Intervention</b>	<b>Evaluation</b>
(Cokkinides, 2008)	2002 National Aboriginal and Torres Strait Islander Social Survey	N/A	Examination of the association between various social factors and being a non-smoker in a national survey of Aboriginal and Torres Strait Islander people aged 15 and over	<p>Different groups within the Indigenous population have quite different smoking behaviours, although the prevalence of smoking is very high across all groups. The poorest and most socially disadvantaged are the least likely to be non-smokers.</p> <p>Indigenous tobacco control programmes need to consider additional targeting of more disadvantaged groups. TC programmes should work with broader campaigns to ameliorate social disadvantage among Indigenous peoples.</p>
(Ponniah, 2007)	New Zealand wide cross sectional population	N/A	Mass media smoking cessation campaign developed to deliver a cessation message to	<p>The campaign was received positively by Māori smokers and their whānau (extended family), and played a role in prompting quit attempts.</p> <p>Social marketing campaigns have an important role</p>

	surveys		Indigenous people	as part of a tobacco control programme to reduce high smoking prevalence among and inequalities in health outcomes between Māori and other New Zealanders.
<b>Evidence</b>	<b>Setting</b>	<b>Smoking Cessation Aids</b>	<b>Type of Intervention</b>	<b>Evaluation</b>
(Thomas, 2008)	An evaluation of tobacco brief intervention training in three Indigenous health care settings in north Queensland	Nicotine patches, Nicorette gum	A one-day training programme for health staff in which patterns of smoking in Indigenous communities, health effects of smoking, current tobacco control practice and the evidence base for brief intervention were discussed.	Modest health gains are likely through brief interventions, the potential effectiveness in Indigenous settings will be limited in the absence of broader strategies aimed at tackling community-identified health priorities e.g. alcohol misuse, violence etc. Tobacco and other lifestyle brief intervention need to be part of multi-level strategies. Training in tobacco brief intervention should address both the Indigenous context and the needs of Indigenous health care workers.

<b>Evidence</b>	<b>Setting</b>	<b>Smoking Cessation Aids</b>	<b>Type of Intervention</b>	<b>Evaluation</b>
(Grigg, 2008)	A review of interventions to reduce the harm resulting from tobacco use among Indigenous Australians	N/A	A systematic review of medical literature and an audit of information from 32 government departments, non-government organisations and Indigenous health organisations, completed in March 2001.	There was a major lack of research and evaluation of tobacco interventions for Indigenous Australians. More research and evaluation is required to ensure that tobacco interventions are appropriate and effective for Indigenous people. It is time to cease chronicling the ill health of Indigenous Australians and time to ensure the availability of well-evaluated, effective tobacco programs.
(Harvey, 2002)	A revised literature review and background information		Smoking cessation advice by health workers: a small advantage of intensive	Results indicate potential benefits of smoking cessation advice and counselling given by nurses to their patients, with reasonable evidence that interventions can be effective.

			advice over minimal advice; for every 40 smokers offered advice, one extra smoker quits and remains smokefree at 12 months.	
<b>Evidence</b>	<b>Setting</b>	<b>Smoking Cessation Aids</b>	<b>Type of Intervention</b>	<b>Evaluation</b>
(Ivers, 2003a); (National Health Committee, 2002)	A report that identifies possible ways to increase the availability of subsidised NRT so that more quit attempts are	NRT	Specialist smoking clinics: usually located in hospital settings; offer a variety of interventions, use of NRT and pharmacological adjuncts, and group counselling sessions.	High intensity behavioural interventions are effective in promoting smoking cessation in hospitalised patients

	accompanied by NRT use			
<b>Evidence</b>	<b>Setting</b>	<b>Smoking Cessation Aids</b>	<b>Type of Intervention</b>	<b>Evaluation</b>
(Ministry of Health, 2007a)	Evaluation of a “for Māori by Māori” programme for Māori women and their whānau	NRT	Aukati Kai Paipa: quit rate at 12 months 23% (latent rate of 12.5%).	Programme appears successful in delivering cessation services in a Māori appropriate, culturally safe manner, to a population group that does not generally access cessation services in another way. Abstinence rate at 12 months – 23%; evaluation highlighted general lack of good access to smoking cessation services and low levels of knowledge about medications to aid quitting.
(Allen and Clarke Policy and Regulatory Specialists Limited, 2007)	A review of the effectiveness of NRT in smoking cessation in heavier smokers	NRT	Available from pharmacies, in different forms: over the counter forms.	A Cochrane review of 108 RCTs confirmed that nicotine gum, patches, nasal spray, sublingual nicotine tablets and inhaled nicotine were all highly effective components of smoking cessation in heavier smokers.



				The effectiveness of NRT appears independent of the intensity of additional support to the smoker.
<b>Evidence</b>	<b>Setting</b>	<b>Smoking Cessation Aids</b>	<b>Type of Intervention</b>	<b>Evaluation</b>
(Ministry of Health, 2003a)	Literature review for the revision of the New Zealand Smoking Cessation Guidelines	NRT  Bupropion	Smoking cessation interventions in priority populations: Māori	It is generally accepted that smoking cessation interventions for Māori need to address all elements of wellbeing: te taha tinana (the physical body); te taha wairua (the spiritual realm); te taha hinengaro (the psychological realm) and te taha whanau (the family and wider community). This is described in more detail elsewhere, but in summary, smoking cessation interventions for Māori need to address the physical dependency on nicotine, include a behavioural support component, be delivered in a way that is culturally appropriate and inclusive where possible of whanau. Qualitative research suggests that a

				group-based cessation support format may work for some Māori (e.g. older people and those living in rural communities) but not for all. It is therefore important that alternative cessation treatment modalities and formats are offered to Māori.
<b>Evidence</b>	<b>Setting</b>	<b>Smoking Cessation Aids</b>	<b>Type of Intervention</b>	<b>Evaluation</b>
The Quit Group	It's about whānau; Māori designed campaign, for Māori audience	Mass media campaign	Text messaging provided positive messages about quitting as well as more general tobacco control messages such as 'smoke free'	Seventy-eight per cent of smokers and 73% of whānau were able to recall the campaign one year following its launch. The television commercials (TVCs) were consistently rated very believable or very relevant by over half of the smokers who had seen them. More than half of smokers (54%) stated that the campaign had made them more likely to quit; the effect of the campaign on cessation rates was not examined.

(Stead et al, 2008)	Study that used a contemporary theoretical framework, Te Whare Tapa Wha to analyse smoking behaviour of Māori	Behavioural therapy for nicotine addiction	Noho marae	Residential intervention developed in Taranaki; smokers stay on the marae for up to a week and stop smoking with the aid of various behavioural strategies; evaluation using a quasi-experimental design and high success rates anecdotally.
<b>Evidence</b>	<b>Setting</b>	<b>Smoking Cessation Aids</b>	<b>Type of Intervention</b>	<b>Evaluation</b>
(Smoking Cessation Guidelines Consortium: Bullen, 2007)	Intervention with volunteers using mobile phones (control and intervention groups)	A personalised package of mobile phone based support including cessation advice, motivation and	Stop smoking with mobile phones	RCT showed a smoking cessation intervention delivered via mobile phones was effective in short term abstinence rates compared to a control group. 335 Māori smokers were examined to assess effectiveness in Māori compared to non-Māori (1350). No significant difference in outcome

		encouragement, diversionary information and feedback		between the two ethnic groups; the intervention did not show an effect at 6 months.
<b>Evidence</b>	<b>Setting</b>	<b>Smoking Cessation Aids</b>	<b>Type of Intervention</b>	<b>Evaluation</b>
(Glover, 2005)	Intervention with volunteers	Bupropion – pharmacological smoking cessation aid	Randomised Controlled Trial of Bupropion	134 Māori participants smoking received a 7-week course of Bupropion or placebo. At 6-months after the quit date, the continuous CO-verified abstinence rates were significantly higher in the group using Bupropion compared to placebo 30% vs 11%. The findings provide good evidence for the use of Bupropion in Māori.

Appendix III Review of the literature: surveys, interventions, evaluations, reports

Indigenous and Non-Indigenous smoking cessation interventions

Evidence	Setting	Type of Intervention	Evaluation
(Rodgers, Bramley, Riddell, Wills, Lin & Jones, 2005)	Article outlining the need for public health research to address health inequities experienced by Australia's Indigenous populations.	Practical guidelines to assist public health researchers to conduct ethical health research that is planned and carried out in a culturally appropriate way that will benefit urban Aboriginal people.	A comprehensive checklist of actions: importance of building relationships of mutual trust; consultation at the earliest stages of a research proposal as it is in development; appropriate consultation with highest agencies; educate and inform ourselves as researchers about the Aboriginal people and the communities to be involved in the research; involve Indigenous people in the research planning and implementation; communicate throughout the project; establish a project steering committee; formalise the relationship through a project agreement; conduct research having received ethical approval; acknowledge Aboriginal co-investigators, research officers etc.

Appendix III Review of the literature: surveys, interventions, evaluations, reports Indigenous and Non-Indigenous smoking cessation interventions			
Evidence	Setting	Type of Intervention	Evaluation
(Holt, 2005)	Cross-sectional data taken from 4.7 million respondents to the 1981 and 1996 New Zealand Censuses and 4,619 participants in a 1989 national survey, aged 15 to 79 years. Smoking prevalence rates were calculated by socio-economic	Examination of the changes in the socio-economic and ethnic distribution of smoking in the New Zealand population from 1981-1996. During this period, state led interventions were aimed explicitly at decreasing overall tobacco consumption rather than reducing smoking inequalities between groups. The findings suggest that a fall in smoking prevalence at this time was primarily driven by a decline in smoking among high	Smoking prevalence fell in the period 1981-96 in every population group. However, socio-economic and ethnic differences in smoking increased in relative terms. The greatest increase in socio-economic differences may have occurred during the 1980s, the period of greatest overall decline in total population smoking.  Public health programs aimed at reducing tobacco use should pay particular attention to disadvantaged, Indigenous and ethnic minority groups in order to avoid widening relative inequalities in smoking and smoking-related health outcomes.

Appendix III Review of the literature: surveys, interventions, evaluations, reports Indigenous and Non-Indigenous smoking cessation interventions			
Evidence	Setting	Type of Intervention	Evaluation
	position and ethnicity.	socio-economic groups and the non-Māori non-Pacific population.	
(Pyett, 2009)	The National Aboriginal and Torres Strait Islander Tobacco Control Project; Canberra National Aboriginal Community Controlled Health Organisation –	The National Aboriginal and Torres Strait Islander Tobacco Control Project was undertaken by the National Aboriginal Community Controlled Health Organisation (NACCHO) between November 2000 and June 2002. The project aimed to determine key issues for tobacco control in Aboriginal and Torres Strait Islander communities and make recommendations for	Aboriginal and Torres Strait Islander tobacco control programmes should seek to maximise community control.  All individuals and organisations working on programmes in Aboriginal and Torres Strait Islander tobacco control should understand and respect the social context in which Aboriginal people and Torres Strait Islanders live their lives and programmes should reflect this understanding.  Tobacco control programmes for Aboriginal and Torres Strait Islander communities should be holistic in nature and consider the social determinants of health.  Tobacco control programmes for Aboriginal and Torres Strait

Appendix III Review of the literature: surveys, interventions, evaluations, reports Indigenous and Non-Indigenous smoking cessation interventions			
<b>Evidence</b>	<b>Setting</b>	<b>Type of Intervention</b>	<b>Evaluation</b>
	Tobacco: time for action (2002).	future action based on comprehensive consultation with Aboriginal and Torres Strait Islander community members and health professionals across Australia.  Reference to “Tobacco: time for action” (Lindorff, 2002) and the recommendations made.	Islander communities should be as comprehensive as possible within given resources
(Hill, 2005, 2003)	An evaluation of the activity of smoking cessation	A questionnaire was sent to 1183 HCPs to assess training that enables them to deliver smoking	Health care professionals (HCPs) in New Zealand have access to free smoking cessation training which enables them to deliver smoking cessation support and



Appendix III Review of the literature: surveys, interventions, evaluations, reports Indigenous and Non-Indigenous smoking cessation interventions			
<b>Evidence</b>	<b>Setting</b>	<b>Type of Intervention</b>	<b>Evaluation</b>
	practitioners in New Zealand following smoking cessation training.	cessation support and provide government subsidised NRT. A second enquiry was to investigate barriers to establishing and/or providing a cessation service.  There was a low response rate of 11%. Māori as a high priority group were not identified in the study.	provide Government subsidised nicotine replacement therapy (NRT). However, it is unknown how many trainees go on to provide cessation services or what level of smoking cessation support activity they undertake.

Appendix III Review of the literature: surveys, interventions, evaluations, reports Indigenous and Non-Indigenous smoking cessation interventions			
<b>Evidence</b>	<b>Setting</b>	<b>Type of Intervention</b>	<b>Evaluation</b>
(Briggs, 2003)	Over a number of years the Cancer Council developed partnerships with other local agencies such as a local Aboriginal health service, a mental health service and a therapeutic drug and alcohol rehabilitation service to deliver smoking	The program was adapted from a nationally recognised smoking cessation program developed by the Cancer Council of Victoria (Fresh Start). An important feature of The Cancer Council ACT smoking cessation program was the provision of free NRT to participants. A key difference between the Cancer Council program and Fresh Start was the introduction of NRT in the first session of the program. Another	<p>An evaluation of a smoking cessation program for special populations in Australia.</p> <p>Those who are dependent on alcohol and other drugs, suffering mental illness, and Indigenous people are among the heaviest smokers and are least likely to quit.</p> <p>The article described a small scale evaluation of a smoking cessation program, which used tailored nicotine replacement therapy (NRT) aimed at these groups between 2004 and 2006.</p> <p>A mixed methodology approach to data collection was employed.</p> <p>The quantitative data indicated that a low level of success was achieved by program participants. The qualitative data</p>

Appendix III Review of the literature: surveys, interventions, evaluations, reports Indigenous and Non-Indigenous smoking cessation interventions			
<b>Evidence</b>	<b>Setting</b>	<b>Type of Intervention</b>	<b>Evaluation</b>
	cessation programs to clients using these services.	feature of the program was the use of an algorithm developed by Renee Bittoun to administer an individually tailored combination NRT for 'hard to treat' smokers (Bittoun, 2006).	provided rich accounts of peoples' experiences in the program. These could be used to develop more effective programs that take a full account of the complex issues that shape participants' responses to smoking cessation and provide greater levels of sustained motivation.
(McRobbie, 2008)	Three district health boards (DHBs) organisations that	A commercial web-based smoking cessation programme "Smokestop"	Of 104 participants who logged onto the programme, 12 (12%) achieved 6-month continuous CO-validated abstinence. Of the participants 46% agreed that the

Appendix III Review of the literature: surveys, interventions, evaluations, reports Indigenous and Non-Indigenous smoking cessation interventions			
Evidence	Setting	Type of Intervention	Evaluation
	govern public hospitals and services in Auckland, NZ		programme had assisted them, 74% stated they would recommend it to other smokers. The attendant use of NRT was seen as an important component.
(Mikhailovich, 2008)	Counties Manukau DHB	Editorial describing innovative interventions for prompting quit attempts among Māori, Pacific and low socioeconomic smokers to address barriers of low health literacy and cost in using effective cessation methods	Quit and Win contests at local and regional level can deliver quit rates above baseline community rates – Keeping Kids Smokefree’s (Fraser, 2009) most effective strategy for prompting quitting among school students’ parents and whanau (family) has been an adapted quit and win contest – Sponsor to Win.  Whānau Ora Taskforce is looking for initiatives that build on strengths and capabilities of whanau. Iwi Whānau Ora Challenge (tribes) against each other competing toward

Appendix III Review of the literature: surveys, interventions, evaluations, reports Indigenous and Non-Indigenous smoking cessation interventions			
Evidence	Setting	Type of Intervention	Evaluation
			<p>improving whanau ora.</p> <p>National competitions such as the Aotearoa Performing Arts Festival and inter-iwi competitions such as Te Matatini (Māori Kapahaka contest).</p> <p>Cold calling smokers to offer cessation advice, and focusing on Māori and Pacific smokers.</p> <p>Retail approach – offering Quit Cards at shopping centres showed that over a 2-month period in 2009, 10% of the cards were redeemed for nicotine replacement therapy.</p>
(Glover, 2010a)	National study of 29 focus groups conducted between August 2009 and	The WhyKwit study investigated what motivates Māori, Pacific and low socioeconomic New Zealanders who smoke, to stop.	The WhyKwit study had 168 participants and the supplementary study, KwitNeeds had 43 participants in six groups. 63% were female, most identified as Māori (53%) or Pacific (45%). Just over half the participants were under 30

Appendix III Review of the literature: surveys, interventions, evaluations, reports Indigenous and Non-Indigenous smoking cessation interventions			
Evidence	Setting	Type of Intervention	Evaluation
	January 2010.		<p>years of age, with 28% aged between 16-20 years. Almost 60% were eligible for a Community Services card, a proxy for lower socio-economic status.</p> <p>The study identified the need to maintain a diverse range of tensions and triggers in order to maximise the potential to motivate smokers to quit as described in the Snakes and Ladders model.</p> <p>Smokers in the study frequently demonstrated an interest and readiness to quit smoking.</p> <p>Motives for previous quitting attempts, across Māori, Pacific and ex-smokers were roughly the same, with health reasons and quitting for children or pregnancy being the most commonly cite trigger to quit.</p>

Appendix III Review of the literature: surveys, interventions, evaluations, reports Indigenous and Non-Indigenous smoking cessation interventions			
Evidence	Setting	Type of Intervention	Evaluation
			There is an equally important and clear need for effective and accessible cessation treatments to be marketed and in some cases, re-packaged, to smokers. In the absence of support, many quit attempts are likely to be short lived.
(Glover, 2010c)	Cross sectional household survey	918 smokers who reported having made at least one quit attempt and 996 ex-smokers aged 16 and over.	48.6% of smokers reported that their most recent quit attempt was put into effect immediately the decision to quit was made. Unplanned quit attempts were more likely to succeed for at least six months: among respondents who had made a quit attempt between six months and five years previously the odds of success were 2.6 times higher (95% confidence interval 1.9 to 3.6) in unplanned attempts than in planned attempts; in quit attempts made 6-12 months previously the

Appendix III Review of the literature: surveys, interventions, evaluations, reports Indigenous and Non-Indigenous smoking cessation interventions			
Evidence	Setting	Type of Intervention	Evaluation
			<p>corresponding figure was 2.5 (1.4 to 4.7). The differences remained after controlling for age, sex, and socioeconomic group.</p> <p>A model of the process of change based on “catastrophe theory” was proposed, in which smokers have varying levels of motivational “tension” to stop and then “triggers” in the environment result in a switch in motivational state. If that switch involves immediate renunciation of cigarettes, this can signal a more complete transformation than if it involves a plan to quit at some future point.</p>
(Glover, 2010b)	Systematic reviews	Findings from systematic reviews were summarized and compared with findings from	The review included studies evaluating the efficacy of cessation strategies, such as self-help, counselling, single pharmaceutical agents, combined pharmacotherapies,



Appendix III Review of the literature: surveys, interventions, evaluations, reports Indigenous and Non-Indigenous smoking cessation interventions			
Evidence	Setting	Type of Intervention	Evaluation
		original research published beyond date ranges included in the reviews. Strength of evidence was used to assess the body of evidence.	<p>and pharmacotherapies combined with psychological counselling.</p> <p>Research findings consistent with previous reviews show that self-help strategies alone are ineffective, but counselling and pharmacotherapy used either alone or in combination can improve rates of success with quit attempts.</p> <p>Although self-help strategies alone marginally affect quit rates, individual and combined pharmacotherapies and counselling either alone or in combination can significantly increase cessation.</p> <p>Using effective smoking treatments is strongly encouraged for all populations, especially those with high and heavy rates of smoking, such as psychiatric and substance abuse</p>

Appendix III Review of the literature: surveys, interventions, evaluations, reports Indigenous and Non-Indigenous smoking cessation interventions			
Evidence	Setting	Type of Intervention	Evaluation
			populations.
(West, 2006b)	Qualitative research	In-depth interviews with women attending four antenatal clinics in Cape Town, South Africa, who were exposed to a smoking intervention delivered by midwives and peer counsellors	Thirteen women were interviewed at their first antenatal visit and 10 were followed up and re-interviewed later in their pregnancies. A content analysis approach was used, which resulted in categories and themes describing women's experiences, thoughts, and feelings about the intervention. Five women quit, five had cut down, and three could not be traced for follow-up. All informants perceived the intervention positively. Four main themes captured the intervention's role in influencing women's smoking behaviour. The process started with 'understanding their reality,' which led to 'embracing change' and 'deciding to hold nothing back,' which created a basis for 'turning hopelessness into a feeling

Appendix III Review of the literature: surveys, interventions, evaluations, reports Indigenous and Non-Indigenous smoking cessation interventions			
Evidence	Setting	Type of Intervention	Evaluation
			<p>of competence.'</p> <p>The intervention succeeded in shifting women from feeling pessimistic about ever quitting to feeling encouraged to try and quit. Informants rated the social support they received very highly and expressed the need for the intervention to become a routine component of clinic services.</p>
(Ranney, 2006)	Pacific Islands Families Study	The study investigated (among mothers of a Pacific Island birth cohort) the rates of smoking before, during, and after pregnancy as well as factors predictive of smoking during pregnancy.	<p>In this study, mothers of a cohort of 1398 Pacific infants born in Middlemore Hospital, Auckland during 2000 were interviewed when their infants were 6 weeks old.</p> <p>Mothers were questioned about their maternal health, and lifestyle behaviours such as cigarette smoking. Additional data were obtained from hospital records. Analyses focused on 1365 biological mothers. Overall, 339</p>

Appendix III Review of the literature: surveys, interventions, evaluations, reports Indigenous and Non-Indigenous smoking cessation interventions			
Evidence	Setting	Type of Intervention	Evaluation
			<p>(approximately one-quarter) of the mothers reported smoking during pregnancy. 331 (76.1%) of the 435 smokers (before pregnancy) continued to smoke during pregnancy, and eight mothers commenced smoking once pregnant.</p> <p>Smoking rates for each trimester were 23.7% in the first, 21.0% in the second, and 20.4% in the third trimester of pregnancy, respectively. Multivariate analyses showed that smoking was significantly associated with several factors, including indicators of disadvantage and degree of westernisation.</p> <p>Greater efforts are needed to reduce smoking during pregnancy among Pacific women. Findings can be used to inform public health policy and smoking cessation</p>

Appendix III Review of the literature: surveys, interventions, evaluations, reports Indigenous and Non-Indigenous smoking cessation interventions			
Evidence	Setting	Type of Intervention	Evaluation
			programmes for Pacific families.
(Petersen, 2010)	Investigation of working age people (age 15–64 years) in Counties Manukau District Health Board (CMDHB)	Analysis of health data using a cross sectional method, to estimate the odds of Māori and Pacific ethnic groups with high smoking prevalence accessing subsidised NRT during 2007.	Nicotine replacement therapy (NRT) is a life-saving, cost-effective smoking cessation treatment that doubles the chances of long-term abstinence regardless of the amount of additional support provided. The proportion of working age people (age 15–64 years) in Counties Manukau District Health Board (CMDHB) who obtained at least one packet of subsidised NRT during 2007 and whether this varied by demographic characteristics was investigated. Subsidised NRT was infrequently (proportion of 'ever users' 0.5%/year, or about 2.1% of smokers) claimed for in CMDHB in 2007. When adjusted for demographic variables, Pacific peoples were 60% less likely to claim NRT than European (odds ratio

Appendix III Review of the literature: surveys, interventions, evaluations, reports Indigenous and Non-Indigenous smoking cessation interventions			
Evidence	Setting	Type of Intervention	Evaluation
			<p>0.34; 95%CI 0.29–0.41), despite a higher prevalence of smoking in the former group. An over four-fold increased use of NRT was observed in those aged 55 to 64 years compared to 15 to 25 year olds.</p> <p>Dispensing of NRT is low overall in CMDHB. Lowest rates of treatment were observed in younger age groups, men anPacific and Māori people; programmes to increase uptake of such treatment in these groups are urgently needed.</p>

## Appendix IV Poster for Recruitment

**MĀORI WHO HAVE RECENTLY  
QUIT SMOKING:  
RESEARCH PROJECT**



Would you like to be a participant?  
Contact: Moana Tane 09 638 5801 DIRECT DIAL  
021 852 047 TEXT OR CALL  
EMAIL: moanabella@gmail.com

## Appendix V Flyer calling for Volunteers



### Research volunteers invited

You are invited to take part in an interview, as part of a research project conducted by Moana Tane, Master's student, Auckland University of Technology.

#### Ko wai au?

Ko Maunganui te maunga,  
Ko Waikara te awa,  
Ko Waikara te whenua.  
Ko Te Uaua te marae,  
Ko Te Tane Hohaia te tangata.  
Ko Te Rūroa, Ngāti Korokoro, Ngāti Whararū, Ngāti Hine ahau.  
Tihei wa mauri ora!

The research project involves interviews  
will all clients of Te Hauora o Kaikohe, who  
may have taken part recently in a quit  
smoking programme. If you would like to  
find out more about it please contact me.

Moana Tane

09 638 5801 Direct Dial

021 852 047 Text or Call

[moana-bella@gmail.com](mailto:moana-bella@gmail.com)

### What is the research project about?

Helping more Maori, to get support to quit smoking

I am interested in finding out successful approaches to help our people try to quit smoking more frequently.

Research shows us that it can take up to 14 quit attempts for a smoker to quit smoking permanently.



Research Questions:

#### Interviews:

- I will come to your house, or we can choose another venue if you'd prefer;
- We will talk for no more than an hour;
- All of your information is confidential and your privacy will be protected;
- No one will know if you are participating in the interviews, but me;
- You may withdraw from the interview at any time, and all of your information will be returned to you.

1. Do you feel that the four week quit smoking intervention was an effective way to quit smoking?
2. Did you feel that the nicotine replacement therapy support was effective in helping you quit smoking?
3. In what ways did your whānau and/or friends help you to be successful?
4. Did your whānau and friends influence you in any way?

These interviews are voluntary – so you do not have to participate unless you want to.



## Appendix VI Recruitment Protocol

1. Two staff members from Te Hauora o Kaikohe will be responsible for coordinating initial contact between the researcher and the volunteers. The staff members would not know who had given informed consent to participate in the research project. Their role would be to undertake the following:
  - a. Sign confidentiality forms for all of the material/contact that they will be handling;
  - b. Deliver flyers to all the Family Start clients (by mail and via the Family Start workers);
  - c. Put up advertisements in the building of Te Hauora o Kaikohe, in the reception area, and on the community bulletin board, inviting participants to be interviewed by the researcher.
2. Following promotion of the research project, and calls for volunteers, the staff members would provide to all Family Start clients, sealed envelopes containing information sheets and informed consent forms, for the clients to process if they wished to proceed in the research project;
  - a. To maintain confidentiality of the Family Start clients who may wish to participate in the research project, the staff members would be asked to ensure that the Family Start clients fill in the forms later (after they have left), return the forms to their sealed envelopes, and then have them collected by the staff members at their next visit;
  - b. This process is to ensure that the confidentiality of the clients is maintained and to protect the staff members from knowing who has agreed to participate;

- c. The Family Start workers will also not know which of their clients have agreed to participate in the research project.
- 3. Once the sealed informed consent forms have been received by the researcher, contact will be made directly with each client, to set up interview times to meet;
- 4. All interviews will be conducted in the homes of the participants.

## Appendix VII Interview Questions

### **Programme Participants**

1. Do you feel that the four-week quit smoking intervention was an effective way to quit smoking?
2. Did you feel that the nicotine replacement therapy support was effective in helping you quit smoking?
3. In what ways did your whānau and/or friends help you to be successful?
4. Did your whānau and friends influence you in any way?
5. Did you receive a referral to Aukati Kai Paipa services and if so, how did this happen?
6. Did you appreciate your Family Start worker inviting you to join the four-week quit smoking intervention?
7. Would you recommend other whānau to get help from a Family Start worker to quit smoking?
8. Would you try another quit smoking attempt in the future?
9. Do you have any advice for improving the four-week quit smoking intervention in the future?

Appendix VIII Survey Form for Programme Participants

CLIENT NO: 2010: \_ \_ \_

**ABC For Māori Communities Programme:  
Smokers Questionnaire**

Ngā mihi nui ki a koe i te timata i tenei mahi.

Please complete this form before your first session with your Family Start Worker or Nurse.

If you have any problems with the questions, please don't worry or be put off coming. We will help you if necessary.

The information collected is strictly confidential, and your information will be analysed anonymously by the ABC for Māori Communities project manager. Some items, e.g. age, sex, ethnicity, etc. are required by the Ministry of Health to monitor the service we provide. Other items, including those obtained from all sessions including any follow-up, will be used by your Family Start Worker, in association with the Nurse, to guide your treatment, and may be used in research on smoking.

No names or information that might identify you will be used in any reports, only figures from many smokers together.

The information will be stored in accordance with the Privacy Act (1993) and you have the right to review it, or withdraw your permission for us to use it.

Your participation in this work is voluntary and your Family Start programme will not be affected if you refuse.

Please discuss any concerns you may have regarding this information with your Family Start Worker or the Nurse.

Signing below indicates that you have read this notice and agree to your information being used in this way.

**Signature** \_\_\_\_\_

Your name: \_\_\_\_\_

Are you? 1 Male 2 Female (*circle ONE only*)

Your date of Birth: \_\_\_\_\_

Your age \_\_\_\_\_ years

Iwi affiliations:

\_\_\_\_\_  
\_\_\_\_\_

Person to contact if we cannot reach you: \_\_\_\_\_ Tel  
No: \_\_\_\_\_

1. Are you? 1 Married 2 Divorced 3 Separated 4 Widowed 5 Single  
(never married)  
(*circle ONE*)

Date \_\_\_\_\_

Please write where you see the lines. Circle the word which applies to you:

2. Do you live? 1 With your spouse/partner 2 Family/friends 3 On your own 4  
Hostel/residential home  
(*circle ONE*)

3. Are you ( *circle ONE* )

1 Working in a routine or manual occupation  
student

5 Full time

2 Working in an intermediate occupation

6 Retired

3 Working in a managerial or professional occupation  
Disabled / Unable to return to work

7 Sick /

4 Unemployed / not working for a year or more  
(unpaid)

8 Home carer

9 None of these

4. What is your most recent or current occupation?

\_\_\_\_\_

5. Which qualifications do you have?

1 None 2 National Qualifications Framework Levels 1-3 3 Levels 3-4/Certificate  
4 Levels 5-7 Diploma 5 Level 7+ Degree 6

Other \_\_\_\_\_

6. Are you entitled to free or subsidised prescriptions?

1 Yes 2 No (*circle one*)

7. Which of these best describes your ethnic origin?

1 Māori

2 Pacific

3 Pakeha

4 Other

5 Don't wish to answer

**Questions about your smoking**

8. How many cigarettes do you usually smoke each day? \_\_\_\_\_ (write a SINGLE average number)

9. Do you smoke hand-rolled cigarettes? \_\_\_\_\_ 1 Yes 2 No  
(circle one)

10. How soon after waking up do you usually smoke?  
(circle one)

1 Within 5 mins 2 6 to 15 mins 3 16 to 30 mins 4 31 to 60 mins  
5 After 1 hour

11. Do you find it difficult not to smoke in places where smoking is not allowed?  
1 Yes 2 No (circle one)

12. Do you smoke more in the first hours after waking up than during the rest of the day?  
1 Yes 2 No (circle one)

13. Which cigarette would you hate most to give up? 1 The first of the morning  
2 Another one (circle one)

14. Do you smoke if you are so ill that you are in bed most of the day? 1 Yes  
2 No (circle one)

15. How often do you wake up at night and smoke?  
(circle one)

1 Never 2 Less than once a month 3 1 or 2 times a month 4 1 or 2 times a week  
5 Most nights

16. How old were you when you first started smoking regularly? \_\_\_\_\_ years old

17. Does your spouse or partner smoke? 1 Yes 2 No 3 No  
spouse/partner (circle one)

18. How many times have you tried to stop smoking in the last 5 years?  
(circle one)

1 Not at all 2 Once 3 2 or 3 times 4 4 or 5 times  
5 More than 5 times

19. What is the longest time you've succeeded in giving up smoking in the last 5 years?  
(circle one )

1 Few hours    2 1 day    3 2 -3 days    4 4 -7 days    5 1-3 weeks    6 1-3 months  
7 More than 3 months    8 Not tried

20. How long ago was your last serious attempt to stop?  
(circle one )

1 1 - 3 weeks    2 1 - 6 months    3 More than 6 months    4 More than a year  
5 Never tried before

21. What was the ONE MAIN THING that led you back to smoking last time?  
(circle JUST ONE reason below )

1 Never stopped before    2 Got too miserable    3 Craved too much    4 Put on too much weight  
5 Got too bad-tempered

6 Got too stressed    7 Thought I could smoke and stop easily    8 Cannabis smoking  
9 Getting drunk    10 Something else

If you join participate, you will receive nicotine replacement therapy to help. Some medicines can be harmful for some people, so we ask everyone to complete the medical checklist below. If you don't understand some of the questions, your Family Start worker will help you.

30. To my knowledge the information I have given above is correct.

Signed: \_\_\_\_\_  
\_\_\_\_\_

He mihi nui ki a koe ki te whakatau nei i ngā pātai.  
Thank you for answering these questions.  
Please remember to bring this form with you for your first visit.

## Appendix IX Heaviness of Smoking Index

### HEAVINESS OF SMOKING INDEX (HIS)

Heaviness of Smoking Index Questions		
How soon after waking do you smoke your first cigarette?	Within 5 minutes:	3 points
	Within 30 minutes:	2 points
	Within 1 hour:	1 point
How many cigarettes do you smoke per day?	More than 30 per day:	3 points
	21 to 30 per day:	2 points
	11 to 20 per day:	1 point
<b>SCORING</b>		
5-6 points: Heavy nicotine dependence		
3-4 points: Moderate nicotine dependence		
0-2 points: Light nicotine dependence		





# MEMORANDUM

## Auckland University of Technology Ethics Committee (AUTEC)

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To: Hayden McRobbie  
From: **Madeline Banda** Executive Secretary, AUTEC  
Date: 25 June 2010  
Subject: Ethics Application Number 10/124 **Awhi mai, awhi atu (Help received, help given).**

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Dear Hayden

I am pleased to advise that the Auckland University of Technology Ethics Committee (AUTEC) approved your ethics application at their meeting on 14 June 2010, subject to the following conditions:

1. Provision of revised responses to sections D.2 and E.4 of the application that better reflect the conflict of interest situations involved in research, including those between the funder of the research and the organisation receiving the funding that are inherent in the researcher's dual role as the Chief Executive Officer and as a Master's student, and those of the family support workers who are recruiting participants with whom they have a therapeutic relationship. These conflicts of interest also need to be adequately addressed in the research design and practice and in the Information Sheets;
2. Provision of a likely range for the number of participants in the response to section D.3 of the application;
3. Provision of the exact storage locations in the responses to sections F.3 and F.7 of the application;
4. Clarification of whether the research instrument being used to analyse the carbon monoxide levels in expired breath has been validated;
5. Amendment of the Information Sheet for the data analysis as follows:
  - a. Inclusion in the section titled 'An Invitation' of advice about the researcher's role as a Master's student undertaking research for an AUT qualification;
  - b. Inclusion in the section titled 'An Invitation' of a statement that clearly identifies that the participation is voluntary and that participants may withdraw at any time prior to the completion of data collection;
  - c. Reconsideration of the date in the section titled 'What opportunity...' and clarification of why the choice to participate in the programme is being discussed in the Information Sheet for the research;
  - d. Inclusion of the required section about who to contact when there are concerns as given in the Information Sheet exemplar in the Ethics Knowledge Base;

- e. Provision of the supervisor's AUT telephone extension and email address, and removal of the personal business email address provided;
- 6. Amendment of the Information Sheet for the Quit Smoking intervention as follows:
  - a. Inclusion in the section titled 'An Invitation' of advice about the researcher's role as a Master's student undertaking research for an AUT qualification;
  - b. Inclusion in the section titled 'An Invitation' of a statement that clearly identifies that the participation is voluntary and that participants may withdraw at any time prior to the completion of data collection;
  - c. Removal of the dollar value of the voucher in the section titled 'Are there any costs...'
  - d. Inclusion of the required section about who to contact when there are concerns as given in the Information Sheet exemplar in the Ethics Knowledge Base;
  - e. Provision of the supervisor's AUT telephone extension and email address, and removal of the personal business email address provided;
- 7. Reconsideration and revision of the sixth and seventh questions in the Interview questionnaire given the conflict of interest situation involving the researcher.

AUTEC advises that it has arranged for Dr Philippa Gerbic and Ella Henry to be available to consult with the researcher and yourself about the above points. It is hoped that this will assist the satisfactory resolution of these matters.

I request that you provide the Ethics Coordinator with a written response to the points raised in these conditions at your earliest convenience, indicating either how you have satisfied these points or proposing an alternative approach. AUTEC also requires written evidence of any altered documents, such as Information Sheets, surveys etc. Once this response and its supporting written evidence has been received and confirmed as satisfying the Committee's points, you will be notified of the full approval of your ethics application.

When approval has been given subject to conditions, full approval is not effective until *all* the concerns expressed in the conditions have been met to the satisfaction of the Committee. Data collection may not commence until full approval has been confirmed. Should these conditions not be satisfactorily met within six months, your application may be closed and you will need to submit a new application should you wish to continue with this research project.

When communicating with us about this application, we ask that you use the application number and study title to enable us to provide you with prompt service. Should you have any further enquiries regarding this matter, you are welcome to contact Charles Grinter, Ethics Coordinator, by email at [ethics@aut.ac.nz](mailto:ethics@aut.ac.nz) or by telephone on 921 9999 at extension 8860.

Yours sincerely



**Madeline Banda**  
**Executive Secretary**  
**Auckland University of Technology Ethics Committee**

Cc: Moana Tane [moana.tane@thmm.co.nz](mailto:moana.tane@thmm.co.nz)

## Appendix XI Letter of support from Te Hauora o Kaikohe

Te Hauora o Kaikohe  
PO Box 733  
5 Marino Place  
**Kaikohe 0140**

Ethics Approval  
Auckland University of Technology  
Building AG  
90 Akoranga Drive  
Northcote  
**North Shore City 0627**

### **To Whom It May Concern**

I am writing to offer my support to Moana Tane, researcher and student with Auckland University of Technology, as she submits an ethics proposal for retrospective analysis of data taken during the ABC for Māori Communities programme.

Te Hauora o Kaikohe invited Te Hotu Manawa Māori to provide smoking cessation training for our staff of Family Start workers, and an allied Asthma Educator.

This training was undertaken in early April and led to 8 of our staff and the Asthma Educator becoming Quit Card Providers. As part of their roles, they can offer nicotine replacement therapy, to help our whānau quit smoking.

Following the training, our Family Start workers promoted a four week programme, with free nicotine replacement therapy patches and lozenges, to our whanau. Many of the women gave their permission to participate to try to quit smoking.

I understand that Ms Tane is seeking approval to analyse the data the Family Start workers collected during the four week programme and I support her doing so.

Should her proposal be accepted, I have offered to have the Family Start workers invite those who took part in the quit smoking programme, to meet Ms Tane for individual interviews. Should they agree, Ms Tane will interview in my offices.

I understand that volunteers will sign consent and release forms and receive information sheets. I also understand any of my staff who are handling these forms will need to complete confidentiality forms, and that all the forms will be stored securely during processing.

Please feel free to contact me if you have any questions relating to this letter of support.

Te Roopu Poa  
**GENERAL MANAGER**

## Appendix XII Schedule of Interviews provided by Te Hauora o Kaikohe

<b>Interviewees</b>	<b>Time</b>	<b>Date</b>	<b>Interview Time</b>
1.	8:30 am	13 October 2010	60 minutes
2.	9:30 am	5 October 2010	60 minutes
3.	11:00 am	13 October 2010	60 minutes
4.	1:00 pm	13 October 2010	40 minutes
5.	12:00 pm	5 October 2010	45 minutes
6.	2:00 pm	5 October 2010	45 minutes