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Muddy Doctors and Mustard Poultices: Medical knowledge and practices in colonial New Zealand.

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ABSTRACT

This thesis examines health care in colonial New Zealand and sets about identifying and recognising the care which was given by women in their homes and communities. Based around four dominant etiological theories of the nineteenth century it explores the introduction, application and adaptation of medical knowledge in New Zealand.

An overview of *public* health care in New Zealand from the late 1700s through to the 1930s is included. This covers the introduction of disease to the colony, the role of missionaries as healers, the contribution made by private medical practitioners as well as the professionalisation of medicine in New Zealand and the development of public health practices. This research is placed in the broader context of European colonisation and uncovers settler's ideas, beliefs and perceptions surrounding health and disease. The use of medical rhetoric to control the population and promote progressive ideals is discussed.

The importance and prevalence of *domestic* health practice becomes clear when we examine colonial diaries and correspondence and take into account the haphazard nature of the public health systems and the popularity of home medical books. The division of labour generated through gender stereotyping meant that women in particular worked tirelessly as health care providers with little remuneration or recognition. Domestic health care has been overlooked in our country's official medical history. This thesis seeks to address that omission.

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CHAPTER ONE

Introduction

Biology and culture matter equally in the human experience of disease. Every aspect of the illness experience, from the individual's recognition of symptoms to assessments of treatment outcome, is shaped by the cultural frameworks of the sufferer and of those to whom he or she turns for help (Joralemon 1999: xiii).

Medical Anthropology

For centuries the desire to understand our bodies and control our state of health has prompted experimentation, examination, rivalry and debate. These debates persist in spite of technical advances and advantages and every day we are presented with contradictory reports and advice relating to our health. What was good for us one day becomes detrimental to our well being the next. So-called 'new diseases' challenge our perceptions, provoking deliberation while they determine cultural standards and norms. Patients are frequently challenging the medical establishment and questioning the care they are provided. Medicine, in all its forms, is coming under an intense medico-socio gaze, assisted and encouraged by medical anthropology.

The recognition that "biology and culture matter equally in the human experience of disease" (Joralemon 2006: xi) is the fundamental principle that underpins medical anthropology. For medical anthropologists how people perceive their health and what assistance they seek depends on a multitude of social and cultural factors. Understanding and identifying these factors does not deny the physiological existence of disease, rather it challenges the assumption that disease exists in isolation, unaffected by beliefs, sanctions or economics.

Four main concentrations in medical anthropology exist; interpretive medical anthropology, ecological/evolutionary, applied, and critical medical anthropology (Joralemon 2006). Interpretive medical anthropology focuses on the cultural construction of sickness and health and explores how people's understandings are shaped by cultural assumptions. The ecological approach draws on evolutionary theory and analyses the interaction between humans and their environment. Ecological anthropologists explore the long and short-term effects that different environments and changing cultural patterns have on human health.

Applied medical anthropology is used primarily to assist international and national health initiatives by managing and explaining cross-cultural misunderstandings. Critical medical anthropology developed during the second half of the twentieth century, encouraged by Marxist theory and post-structural discourse. This approach highlights the inequalities and power differentials surrounding medical care and has encouraged the analysis of western medical systems (Joralemon 2006). Academics such as Sylvia Tesh (1988) have contributed to this analysis, examining western medicine from an anthropological and historical perspective. This they do, "not in order to sanctify it as has so often happened in histories of medicine" (Lupton 1994:15), but to broaden our understanding of medical practice and better understand the preoccupations of today.

A persistent faith in biomedical science, the pursuit of progress and the commodification of health are some of the forces that led western medicine to its present position of power. When we explore these aspects we challenge the assumption that medicine has developed solely to alleviate human suffering and recognise and identify the impact culture has had on health and disease.

Beginnings

When I was eight months pregnant I was shown around the maternity ward in one of the country's largest public hospitals. Beside me another mother-to-be, enthralled by the sterility and impressed by the technology, smiled at me, expressing how reassured she felt. As I struggled with my own apprehension it dawned on me how differently people view the medical care we are offered and the systems they operate in. One month later my son was born at my residential address. Several years later I worked at a women's health clinic providing support to women who had experienced trauma or illness. Many struggled on the fringes of the public health system, not quite sick enough to receive help but not quite well enough to function to their full potential. This experience contributed to my view of our medical system, a view which has been legitimised by critical medical anthropologists.

Jaded by inequality and negative stereotyping, the women I talked to at the centre spoke of the social and cultural influences that affect the delivery of medical care. They discussed the incentives received by doctors for prescribing particular drugs and alluded to unethical practices. They criticised pharmaceutical companies that allegedly withheld cures to maintain their income, and medical systems that medicalised natural processes such as child birth. These views were repeated to me when I enrolled at a naturopathic college.

Studying naturopathy and majoring in medical herbalism effectively combined my interest in health with my interest in plants. The college I attended boasted a curriculum that included the skills and knowledge that allowed graduates to enter into private practice and compete in a capitalistic medical system. The irony of integrating into a system that was frequently described as corrupt appeared to go unnoticed. Enamoured by the fundamentals of

anatomy and physiology, I enrolled at Waikato University and completed a degree in biological science.

As a student of science I focused on anatomy and physiology of both plants and people and delved into medicinal chemistry. I enjoyed the regimented way in which scientists conducted their research and admired the experimental process. I gained an appreciation for scientific rationale and strove to incorporate this with my previous experiences and beliefs. In my third year I conducted an experiment on native plants and their effect on the musculature of ruminants. Despite my experiment being scientifically and methodologically sound, my professor warned me not to get too “airy fairy herbalist” about it. It seemed my greatest challenge would be to integrate two opposing systems, the scientific, and the perspective that incorporated variables not so easily measured and collated, social and cultural.

When I returned to university I was immediately drawn to medical anthropology. This subject placed the rhetoric surrounding western health care in an academic context and provided me with the tools with which to understand and articulate my experiences and my ideas. By this time I had increased my understanding of our county’s public health system (by working in a large public hospital) and had once more worked on the fringes (in an organisation that held similar objectives to the centre I had worked at in the past). These experiences fuelled my interest in New Zealand’s medical system and led me to my current research.

I was keen to understand the resistance to alternative therapies in New Zealand and so began to explore the history of western medicine. My reading included American anthropologists Peter Freund and Meredith McGuire (1999) who examine the development of biomedicine and describe the processes that led to its professional dominance. I became curious to discover whether similar processes had taken place in New Zealand and

turned my attention to our country's official medical history. Before long it occurred to me that what has been recorded and presented up till now is only part of the greater story. The more I talked to others, (especially the older members of my community) the more convinced I became that a system of domestic health care, both widespread and necessary, existed in colonial New Zealand. This care, given and received by hundreds of people outside of government funded initiatives or institutions, has yet to be recognised as part of our country's medical history. It was at this point I became committed to addressing this omission.

The Research Question

This research is based on an anthropological analysis of New Zealand's medical history from the late 1700s through to the 1930s and will address the following questions. What medical knowledge was present in colonial New Zealand and how did this affect settler's views on health and the illness experience? What health care was available to colonists and to what extent was this directed and controlled, and by whom? My research is primarily concerned with recognising the existence and significance of health care provided by women in their homes and communities. It asks why this care has been omitted from our country's official medical history and presents evidence to support the assumption that domestic health practices were an important and necessary part of colonial life.

This research is set in a period of intense social and environmental change brought about by Britain's colonisation of New Zealand. It is important therefore for me to understand and comprehend colonisation and the processes involved. In Chapter Two I discuss the colonisation of New Zealand and provide context for my research.

Colonisation involves the mass transfer of knowledge, people and skills and relies on the subjugation of distant peoples and the reproduction of one's own society (Belich 2009). Included in the knowledge transferred to the colony were medical theories that were used to assist the colonisation process. These theories are explored in Chapter Three. This chapter presents four dominant etiological theories from the nineteenth century; contagion theory, miasma theory, supernatural theory and personal behaviour theory and illustrates how these influenced actions and policies in New Zealand (Tesh 1988). Understanding the origin and application of these theories highlights the social construction of medical knowledge and affords insight into the motivations of administrators and the public. The influence of these theories is discussed, as is their adaptation in response to the colonial environment.

Chapter Four presents an overview of public health services in colonial New Zealand and critically examines the health care available to settlers. It seeks to dispel the myth that New Zealand in the 1800s was inherently healthy and challenges the idea that public health services provided the most widespread and paramount system of care. It explores the constraints and prospects of settlers and delves into a society that strove to both avoid and supplant social institutions such as class and industry. This history begins in the late 1700s. It pinpoints the introduction of disease to New Zealand by whalers, sealers and traders, and discusses the impact this had on Maori. The response to this by missionaries and colonial authorities is examined, as well as the calibre of medical care available. This chapter reveals the motivations of early administrators and discusses the consequences of colonisation and early promotions of the colony, promotions that emphasised the salubrity of the climate and gave settlers the impression that good health would be gained upon arrival.

...all that has been said or written of the extraordinary healthiness of this place has been borne out by experience. I believe that every temperate and well conducted person in the colony is entirely free from disease of every description (Petre 1842:31).

As New Zealand's population grew, so too did the numbers of doctors prompting the professionalisation of medicine and the subsequent fight for medical control. The struggle to gain a monopoly on what began as a diffuse and unorganized industry is discussed, and we take a look at the lives of some of New Zealand's earliest physicians. Developing public health policy and practice in Britain and New Zealand was encouraged by a number of contributing factors. While some of these were shared by both countries, others were unique to the colony. Comparing these systems allows us to view the inheritance and adaptation of public health conjecture. In conclusion, I will argue that limited public health services and unreliable access to colonial doctors prompted people to look for and use an alternative health care system.

My final chapter focuses on women and their role as healers in colonial New Zealand. This chapter draws on the conclusion from Chapter Four, that public health services were inadequate, and proposes that it was women who made up for this deficiency. This chapter includes references that allude to a system that was as widespread and important as that funded by the state. Despite this, the assistance given by these women has been virtually ignored by historians. Why this is so is discussed.

The prevailing belief that women were more moral than men assisted New Zealand women in their fight for the vote. This assumption was supported and expressed by the numerous women's organisations designed to address the morality and social purity of the nation. How women interpreted health and how they shared and constructed medical knowledge determined how they helped others. This chapter explores the definition of health as asserted by community, class and gender. It examines the influence of etiological theories and scientific conjecture as well as the persistence of alternative or folk medicines. The collective and public effort made by women to protect the

health of the country is discussed and so too is the role women played in the privacy of their own homes or settlements. This chapter includes evidence that suggests colonists used introduced and native flora, as well as inorganic compounds for medicinal purposes and forms the basis for further research aimed at compiling a comprehensive history of domestic health care in colonial New Zealand.

Methodology

This research is based on a literature search and review of both contemporary academic research and personal colonial correspondence. My theoretical chapter relies primarily on the work of social scientists including Sotirios Sarantakos (2005) and Deborah Lupton (1994) and refers to the writings of Foucault (1973). This chapter includes theories and processes associated with colonisation which provide international and national context. The major paradigms positivism, critical theory and constructionism assist my understanding and organisation of material and the theoretical perspectives that have directed my research include a political economy perspective and social constructionism. Taking an inter-disciplinary approach to my analysis has helped to avoid the deficiencies of any one theory and in Chapter Two I discuss elements of each and the relevance of these to my report. The etiological theories, identified by Sylvia Tesh (1988) and presented in Chapter Three, are an important element to my research and I refer to them in Chapters Four and Five also.

Much of Chapter Four is based on current research relating to the history of the public health system in New Zealand. It refers to the substantial contribution made by Derek Dow (1999) and for international insight I have relied on Roy Porter (1999). F.S. Maclean (1964) was the first to compile a history of health care in New Zealand and I rely heavily on his account. Chapter Four explores the presentation of colonial society by influential

colonists such as Charles Heaphy (1842/1968)¹ and Charlotte Godley (1821-1907/1951) and to maintain a personal perspective I have included references from colonial diaries as well as official literature.

My fifth chapter includes references to domestic health care found in personal correspondence and diaries written during the nineteenth century. I include these as evidence to support my supposition (that domestic health care was widespread and relevant) and to gain an understanding and insight into the practices and perceptions of individuals. Most references were discovered by scrolling through colonial diaries and letters held at the Alexander Turnbull Library, local museums, local libraries (including hospital archives) and university libraries. During the course of this research I have gathered an extensive collection of old medical books from book fairs, second-hand book shops and on-line trading sites. These became important guides, informing and educating me on the medical knowledge and research current at any given time.

Because I am referring to literature written over the course of one hundred and sixty years, it was important for me to understand and bear in mind the perspectives from which the authors wrote. Many early medical histories such as Maclean's *Challenge for Health* (1964), present the profession from a functionalist perspective. Doctors are portrayed as benign and benevolent, with the right to dictate how society should perform and behave. The development of biomedical practice is presented as a series of technical and academic advancements. This view is challenged by contemporary historians such as Derek Dow (1999) who take a more constructionist approach and include the social and cultural, as well as the biological influences surrounding medical care.

¹ The first date indicates the original publication and the second, the edition I refer to.

CHAPTER TWO

Theoretical Perspectives

Introduction

The central theme for this research is an anthropological analysis of health care in colonial New Zealand. The research project is divided into two parts. The first part explores the development of public health services in New Zealand and the professionalisation of medicine. The second focuses on domestic health care, which is defined as the care given to and received by people outside institutions or government funded initiatives. This chapter presents the theoretical perspectives that have assisted my research and directed my analysis.

The colonisation of New Zealand is set in the broader context of a European expansion that led to the creation of mega-cities (such as New York), and an explosion of English-speaking citizens around the world (Belich 2009). Theories that explain this expansion and the processes involved are numerous. This chapter presents some of those relevant to New Zealand.

According to Sarantakos (2005) the ultimate goal of the social scientist is not only to gather useful and valid knowledge, but also to educate the community about the status and validity of particular sources of knowledge. To achieve this I have presented dominant paradigms that help explain how people understand the world and processes around them. Positivism, constructionism and critical theory determine the perspectives both the reader and the author take. Recognising these affords insight into the motivations and motives of both the public and colonial administrators and highlights the complexities surrounding social research.

New Zealand's medical history, up until recently, has been recorded and presented by professionals who, grounded in scientific rationale, have focused solely on the contribution to humanity modern medicine has made. If we explore this history from a critical perspective however we uncover vested interests and consequently challenge the idea that medicine is purely an altruistic pursuit. Critical theorists challenge the assumption that health and medical care is accessible to all and explore the notion of marginalisation. The perspective of political economy, which informs my analysis of public health services, is grounded in critical theory and is discussed later in this chapter.

An important aspect to my research is the construction of medical knowledge and how this knowledge helped shape settlers' views on their health, their bodies, and their social and physical environment. Social constructionism identifies the role all humans play in the construct and reproduction of knowledge and is particularly relevant to my research. Social constructionists explore the concept and influence of class, race and gender and it is through this perspective I examine these aspects of colonial society.² This chapter presents the principles of constructionist theory.

Colonisation

To understand the processes and motivations associated with colonisation I have relied on the work of James Belich (2009) and Michael King (2003). Belich has written extensively on colonisation, the rise of the Anglo world, and New Zealand's nineteenth century history. Michael King's comprehensive history of New Zealand explores the promotions and incentives promised by

² The role women played in colonial New Zealand is reflected in the underrepresentation of women in our country's medical history and I discuss this further in Chapter Five. Notions of race and class were perpetuated in New Zealand on the basis of medical conjecture.

colonial administrators and the consequence of fulfilled or unfulfilled expectations.

Belich (2009) defines colonisation as a complex process that involves the subjugation of distant peoples and the reproduction of one's own society through far-settlement. Records show that by the 1500s, civilisations around the world attempted to procure resources, power and dominance by exporting their culture, money, people and skills around the globe. The colonisation of New Zealand was first achieved by Maori who, all evidence suggests, arrived in New Zealand in the 13th century AD (King 2003). The history of Maori colonisation has been contained in the myths and oral traditions of the culture.

In 1642 Maori had their first glimpse of Europeans though this fleeting exchange left no lasting impression. Nearly 130 years later, in 1773, Captain James Cook and his crew spent several months on and off shore around New Zealand interacting with Maori and introducing new forms of trade, technology and disease. Cook was followed closely by French navigators and by the late 1700s, whalers, sealers and traders were setting up permanent residence in New Zealand. These men, New Zealand's earliest European inhabitants, were often abandoned in remote parts of the country by ambitious whaling or sealing captains who frequently failed to return for them. To survive they joined Maori communities, took Maori wives, fathered part-Maori children and became known as Pakeha Maori. As industry grew, these castaways provided an invaluable labour force and a point of contact between Maori and European (King 2003).

Missionaries arrived in 1814 in response to reports of ill conduct by Maori and European. They were encouraged by Samuel Marsden, (then Chaplain at the New South Wales penal colony) who wrote of Maori suitability to Christian uplift.

Historians attribute the rise of foreign missions in the nineteenth century to a number of factors including a collective response to anti-Christian sentiment in Europe, growing industrialisation, and the advent of the middle class. The humanitarian basis of many early missions, including New Zealand's, was established in the 17th and 18th centuries as ministering to the poor and needy became a reflection of social status. The wealthier the person, the more obliged they became to donate money or time to those less fortunate. According to Grey (who was first, colonial secretary and later Governor of New Zealand in the 1860s), philanthropy became integral to upper-class self-image and success, as "...it is only by charity that rich men can cover their sins, escape oblivion, and gain immortality" (Johnston 2003: 14-15). Imperial ideas about race and savagery justified the posting of mission stations in areas deemed adequately heathen and suited for evangelistic energies.

Christian missionary activity was central to the work of European colonialism, providing British missionaries and their supporters with a sense of justice and moral authority....Missionary activity was, however, unavoidably implicated in either covert or explicit cultural change (Johnston 2003:13).

The establishment of missions in New Zealand was set in a turbulent time. During the early 1800s the population of Europeans rose considerably and so too did the disorderly conduct, initially unchecked by any law or order. Muskets proved ideal goods with which to barter and trade with Maori, the result of which was an intense period of inter-tribal fighting between 1822 and 1836, known as the musket wars. "Over the period of 30 years these actions had been responsible for the deaths of at least 20,000 Maori and possibly many more" (King 2003:139). Throughout this time British authorities relied on reports from missionaries such as Henry Williams whose dire representations proved to be the impetus for a more formal relationship between New Zealand and Britain. By 1840, Britain was in a formal constitutional arrangement with New Zealand and European emigration began in earnest, changing New Zealand rapidly and drastically.

The reproduction of British society in New Zealand required the mass transfer of people, hardware (technology, transport systems etc) and software, (money, information and skills) (Belich 2009). The first great wave of European colonisation began in 1840. By 1881 an estimated 500,000 settlers had arrived in New Zealand (King 2003). As more Europeans arrived they brought with them social institutions and built the necessary infrastructure required to accommodate the growing population. By the late 1800s, European political, legal and education systems were in place.

The subjugation of Maori was justified by medical and scientific theory (such as social Darwinism, see Appendix One) and a prevailing Eurocentrism. In New Zealand, prior to 1840, contact between Maori and European was limited to ports and other coastal areas and the impact on Maori life was small. Following the signing of the Treaty and the arrival of great numbers of Europeans, however, the impact increased dramatically. In the face of explosive colonisation,³ the introduction of disease and the unscrupulous actions of colonisers had devastating effects. By 1891 Maori made up only 10% of the population (from 50% in 1860) and in their possession was only 17% of their original land (King 2003). During the nineteenth century the prevailing belief that Maori were a dying race was the impetus for native health officers and a focus on Maori health (Dow 1995).

Understanding explosive colonisation such as this has prompted several theories. Push and pull theories are among the most common. Push theorists believe that intolerable living conditions in Britain caused by the demographic, agricultural and industrial revolutions created the greatest impetus for mass emigration (which involved as many as 50 million people in the eighteenth and nineteenth centuries). European overpopulation, poverty and hunger, religious persecution and the inability to break out of class systems are all

³ The term explosive colonisation is often used as a synonym for progressive colonisation and is distinguished from other forms of colonisation by the speed with which the process took place (Belich 2009).

viewed as factors that 'pushed' people to pursue a new life in a new land. Though frequently presented, this theory is questioned by some historians who argue that factors such as these were present before emigration became popular. Statistics show that Britain's population peaked nearly a century before emigration did. Similarly the agricultural revolution, that displaced farm workers and resulted in large scale poverty and hunger, occurred decades before large scale emigration. Industrialisation, they argue, could be as easily seen as a way to create opportunities as it could to destroy them (Belich 2009).

Pull theories, in contrast, propose that emigrants were well informed rational actors, 'pulled' to their new lands by economic opportunities and adventure (Belich 2009). Certainly colonial promotions by the likes of The New Zealand Company, lured thousands to New Zealand's shores and the promise of cheap or free land secured the bait. Early colonial administrators were keen to create a society that transcended the pitfalls of industrialisation and displayed only the best of British culture. Promotions of the colony, therefore, focused on the opportunities settlers had to transcend social institutions, such as class, and achieve wealth and prosperity. These promotions emphasised differences between New Zealand and Britain, giving the impression of an independent nation. By the late 1800s, this illusion of independence was displaced by a period of re-colonisation.

Re-colonisation is a process specifically related to explosive colonisation. It describes a time in which new economies are formed and physical links between the colony and the homeland are strengthened. Re-colonisation prevents the fragmentation of independent nations and re-secures colonies firmly to their homeland. In New Zealand, the catalyst for this period was the introduction of refrigeration in the late 1800s which made it possible for sustainable and quantifiable trade with Britain (Belich 2009).

Dominant Paradigms

Paradigms are theoretical tools that govern methodologies and perspectives and help to explain how people interpret the world around them. In relation to my research, they explain the different ways people understand health and disease and the choices they make in respect to health care. Recognising the perspectives or paradigms that govern people's thoughts and actions assist our analyses and encourages self-reflection.

Positivism

Positivism seeks to explain social life by providing well-documented, replicable information from which definite objective analyses or evaluations can be made. This paradigm supports the notion of knowledge as a universal reality, objective, measurable, precise, isolated from human action and determined by natural laws. Positivism supported the validity of empirical knowledge and scientific reasoning and is historically significant, driving research, both medical and social, throughout the nineteenth century (Sarantakos 2005).

Positivism was first proposed by Greek philosophers including Thales (640-550BC) and Hippocrates (c. 450BC) who based their theories on direct observation and experimentation. These men proposed an empirical-scientific approach to the world, drawing the public's focus away from supernatural understandings and directing their attention to scientific reasoning.

This approach culminated in the nineteenth century during the scientific revolution, supported by social and cultural changes (Sarantakos 2005).

Medical theory and education became increasingly scientific and by the early twentieth century, a biomedical perspective, grounded in positivism, dominated medical research. This encouraged professional cohesion and

elitism by creating terminology and practices unfamiliar to the untrained. Technology assisted this process. The invention of medical and scientific instruments such as the stethoscope and the microscope allowed the inner workings of the body to be explored and led to a systematic and clinical approach to care. The patient was reduced to a collection of external and internal systems that were better understood by the doctor than by the patient. This approach helped define and shape the relationship between patient and doctor (Porter 1999). Michel Foucault describes the advent and consequences of this medico-scientific gaze. The physical examination, the stethoscope, the autopsy and the development of specialisation all contributed, according to Foucault, to an increased regulation, monitoring and disciplining of bodies (1973/1997).

Critical Theory and the Perspective of Political Economy

Critical theorists are primarily concerned with the use of knowledge as a tool to oppress and divide the population. This approach facilitates a critique of social reality by exploring the notion of marginalisation and inequality, with the aim of emancipating people and liberating the oppressed (Sarantakos 2005). Critical theory challenges the existence of any given reality, and seeks to identify those who benefit from the construct and promotion of 'truth'. This paradigm includes a political economist perspective and when applied to the construct of medical knowledge, challenges the hegemony of the positivism.

Informed by Marxist critiques, this perspective is particularly relevant to the study of medicine as a tool in the colonisation process. Political economists view the good health of individuals as a consequence of political and economic processes, not simply as a state of physical and mental well being. Access to, and control over, the material and non-material resources that sustain life are the main focus from this perspective. Health care is viewed as a commodity that is purchased or provided to sustain a viable and productive

population, capable of contributing to and interacting in a capitalistic market. For the political economist the physically or mentally ill are marginalised by society and few resources are made available to them because they do not contribute to production or consumption. Many question the benevolence of medicine, seeing profit as the overriding objective (Lupton 1994). This perspective perceives health care as overly expensive, under-regulated and vastly inequitable (Lupton 1994) and can be easily applied to colonial New Zealand where fiscal restraints and a lack of infrastructure resulted in a haphazard and inconsistent system of care. This is discussed further in Chapter Four. A political economy perspective considers ill health to be a consequence of capitalism and is employed by critical medical anthropologists.

Critical perspectives have been criticised for focusing too strongly on the relationship between capitalism and health care and for viewing medicine as an institution that is primarily concerned with profit and social control (Lupton 1994). This perspective has the propensity to retreat into the doctor bashing I encountered within the natural therapy industry and ignore the contributions made by medical science. To avoid this and to better explore the micro-social elements of health and disease I have incorporated elements of social constructionism.

Constructionism and Social Constructionist Perspective

Interpretive or constructionist research attempts to understand human behaviour and action by attaching meaning to everyday events and discourse and challenging the concept of universal realities. “Constructionism focuses on the firm belief that there is in practice neither objective reality nor objective truth. On the contrary, reality is constructed” (Sarantakos 2005: 37).

Constructionists view knowledge as a social construct, interpreted, assessed and created through social interaction and experience (Sarantakos 2005). In

respect to medical knowledge, constructionists view this as a product of socio-historical settings, constantly renegotiated and often serving a specific purpose (Lupton 1994).

Encouraged by post-structuralism, feminist discourse and Foucauldian scholarship, constructionism (like critical theory) considers any given reality as the product of power relations, never neutral and subject to change. The approach challenges the positivist assumption that medicine has developed in a lineal progression towards more refined understanding and technical acumen. For the social constructionist, medical knowledge is the product of a series of related events and actions, influenced and dependent upon socio-historical settings. Unlike critical theorists, constructionists resist viewing knowledge as a weapon wielded from above; instead they recognise numerous interests and sites of power (Lupton 1994).

Those adopting the social constructionist perspective argue that medical power not only resides in institutions or elite individuals, but is deployed by every individual by way of socialization to accept certain values and norms of behaviour (Lupton 1994:12).

Much of the medical knowledge brought to New Zealand in the 1800s was contained in the dominant etiological theories of the nineteenth century. The following chapter presents four of these theories and relies heavily on the work of Sylvia Tesh (1998) and Roy Porter (1999). From a social constructionist perspective it explores the socio-historic settings that surrounded their construct as well as the social use of each theory.

CHAPTER THREE

Etiological Theories

Introduction

Throughout history people have developed ideas and beliefs in their attempt to explain and understand the phenomenon of ill health. These ideas are governed by aspects of the society and culture in which they develop and as such, are socially constructed. How people understand health and interpret wellness is multifaceted and complex in origin. Politics, religion, gender, class and ethnicity all play a part in the construct and perpetuation, acceptance or denial of medical ideas and beliefs. Conversely, medical beliefs have been used to promote and justify social institutions. Throughout history the most callous forms of discrimination have received medical justification. The classification of *drapetomania* in 1851, for example, reassured slave owners that absconding slaves were in fact ill and by correct and strict adherence to a prescribed cure (such as cutting off their toes) they would accept their subordinate position (Joralemon 1999).

Included in the knowledge carried by colonists were ideas and beliefs relating to the cause and treatment of disease. Nineteenth century etiological theories have been identified and summarised by Sylvia Tesh (1988). They include contagion theory, supernatural theory, personal behaviour theory and miasma theory. These theories influenced settler's ideas and beliefs and can be easily identified in New Zealand literature relating to health and disease. The following is a summary of these theories and their relevance to colonial New Zealand.

Contagion Theory

Contagion theory is based on the assumption that certain diseases are contagious and

...are passed from one person to another. It would generally be assumed that contagion is direct, by contact; infection indirect, through the medium of water, air, or contaminated articles (Bashford 2001:15).

Girolamo Fracastoro (Hieronymus Fracastorus 1478-1542) was the first to propose the concept of contagion, describing the spread of disease as a form of pathological pollination. Fracastoro suggested disease was spread by fomites or seeds, imperceptibly small particles, capable of reproducing themselves and invisible to the naked eye (Porter 1999). In the seventeenth century the microscope illuminated a world of tiny organisms, supporting Fracastoro's theory. Throughout the 18th century scientists built on these ideas, placing disease squarely within a biological context and sanctioning preventative practices such as the burning of infected clothing, linen and houses.

Contagion theory placed an emphasis on human proximity which generated anxiety and fear that escalated during the period of great expansion. The theory often led to the punitive segregation and isolation of hundreds of people. Cholera epidemics in Russia led to inhumane treatment of the sick and indigent who were reportedly herded into carts and dragged unceremoniously and against their will into quarantine. Epidemics of yellow fever in Philadelphia in the late 1700s led to a "breakdown in human intercourse" (Tesh 1988:12). People avoided handshakes and crossed the road to avoid others, snubbing acquaintances. Fear manifested as blame and the theory became an ideal vehicle for discrimination. Social groups (such as the Irish in Britain and Jews and gypsies in the Middle Ages) were blamed for introducing disease. Those considered contagious experienced contempt,

exclusion and, at worst, torture and expulsion. “The contagion hypothesis was, throughout history, embellished by whatever xenophobic and prejudicial attitudes prevailed at the time” (Tesh 1988:13).

Contagion theory was important in Europe during the eighteenth and nineteenth centuries, providing an explanation for diseases such as syphilis which were spreading rapidly and growing more virulent over time. Medical records and statistics⁴, first collected in the 1800s, provided an insight into the rates and prevalence of disease prompting a new broader approach to medical care. In France, provincial administrators appointed physicians to study epidemics and focus on the medical topography of their district. Treatments and protocols were created that required a co-operation from both the police and the patient and the relationship between the state and medicine was established. Theories such as contagion theory were put forward to explain discernible patterns and justify preventative measures such as quarantine (Foucault 1975, Porter 1999).

Preventing the spread of disease by quarantining people and property was a popular measure taken throughout Europe in the 16th, 17th and 18th centuries. However by the 19th century the industrial revolution was in full swing and to remain committed to contagion theory became counter-productive to trade. Enforcing quarantine delayed and complicated the movement of goods and was eventually opposed by new industrialists who made no effort to disguise their economic and political standpoints (Tesh 1988). Eventually, to support contagion theory was deemed oppressive and anti-liberal, holding back and preventing society’s real pursuit; progress and production. The fact that people had got ill irrespective of prior contact and others, exposed to disease, had not succumbed became adequate justification for many to reject the theory.

⁴ Johann Peter Süssmilch (1732-77), a Prussian army chaplain was the pioneer of medical statistics, collecting data relating to public hygiene, life insurance and epidemics (Porter 1999).

Promotions of New Zealand as a colony focused on the country's innate ability to cure diseases, particularly pulmonary ones, associated with the industrial west. Early legislature, based on contagion theory and aimed at border control, reflected both the belief in this promotion and the desire to establish a nation that selected only the best, that is, the healthiest of Britain.

In 1842 the legislative council of New Zealand passed an ordinance to provide for the regulation of harbours. In it, the quarantining of infected vessels and passengers was addressed. Harbour masters and Medical Officers were given the authority to place any vessel under quarantine, detaining the ship as long as they thought necessary. The captain's bill of health, journal, log book and personal report were used to determine the presence of disease (Maclean 1964). Captains faced penalties if any goods or merchandise left their ship while quarantined and any person caught leaving the ship or entering a quarantined vessel was liable to be fined £20 (Maclean 1964). In 1853 fear, induced by an outbreak of cholera in Western Europe, prompted authorities in New Zealand to strengthen quarantine laws. Penalties for non-compliance rose to £100, the enactment was gazetted and areas of land were designated sites for quarantine.

Frequent amendments and subjective rulings by individual harbour masters made New Zealand's quarantine laws anything but straightforward. Inconsistencies surrounded what constituted a threat (first determined by the Governor and later, local boards of health) and who should be placed in quarantine. Maclean writes that in the early 1860s ships from Australia were granted lenience in regard to quarantine, presumably to support trade and exchange between the two colonies. This lenience was addressed and regulations tightened later that decade. At the same time harsher penalties were put into place for captains and crew who gave false or evasive answers in their effort to avoid quarantine.

In 1872 the *Nebraska*, a ship that had been previously implicated in the introduction of smallpox, was ordered into quarantine after being granted pratique at its first port of call. Between ports the Governor made amendments to quarantine regulations that justified holding the ship for fifteen days and ordering a thorough fumigation. It seems “probable that this action was taken, not to control suspected infection, but rather as a disciplinary measure” (Maclean 1964:40).

International events and outbreaks of disease overseas contributed to the establishment of Public Health Acts and were used to determine what constituted a threat to New Zealand’s population.

In parenthesis it may be noted that probably the fear of cholera inspired these regulations which were the first effective public health legislation enacted; the fear of small pox, which was introduced in 1872 by sea inspired the first Public Health Act, that of 1872; and the fear of plague in 1900 was the direct cause of the Public Health Act 1900....Finally, the influenza pandemic of 1918-19 brought about the Health Act of 1920, and a major reorganisation of the Department (Maclean 1964:36).

The fear of infection rested on the belief that New Zealand was inherently healthy and before the 1870s few medical statistics were kept to prove otherwise. Scarlet fever, the plague, small pox and cholera were closely guarded against, although identified by harbour masters and Health Officers, few of whom had the adequate skills or techniques to properly diagnose. For passengers who had spent an uncomfortable few months at sea, quarantine was both irksome and exasperating.

After a melancholy consultation we were ordered into quarantine for five weeks !....The government steamer used to visit the Quarantine Island every second day, bringing us fresh provisions. The only person in charge of the buildings was a little old man. I had to work to keep my girls within bounds. The confinement after the irksome voyage was beginning to tell on them....(Hewitt 1911/1928:87).

The fact that thousands of immigrants suffering from pulmonary disease were not only exempt from quarantine but were encouraged to travel and settle in New Zealand highlights the selectivity of this process. The consequence of this was significant particularly to Maori who suffered greatly from the introduction and proliferation of tuberculosis.⁵

In the late 1700s in Gloucestershire, England, Edward Jenner made public his discovery of the smallpox vaccination which attracted immediate attention and gained the support from health officials in America, Germany, France, Holland and Spain. Vaccination soon became the most effective and indeed, the only available, measure to combat smallpox. By 1799, over 5000 people had been vaccinated in England. Despite this the disease still posed a significant threat. From 1830 to 1837 in London alone an average of 560 people died each year from the pox. Between 1837 and 1840 a smallpox epidemic claimed the lives of over 41, 000 in England and Wales (Porter 1999). The battle against smallpox was transported to the colonies.

In an attempt to keep smallpox from New Zealand's shores emigrant ships were ordered to vaccinate their passengers and vaccination has been included within New Zealand legislation since 1863 (Maclean 1964). This first Act imposed compulsory vaccination for infants under six months old followed by the presentation of a certificate and registration of vaccination (see Appendix Two). It included penalties for not following these instructions. Like much of the colony's early legislature however, these penalties were rarely enforced. Insufficient supplies of lymph and inadequate payment for doctors and vaccination officers, difficulties transporting vaccine and strong opposition by anti-vaccinationists, rendered this intention unenforceable.

⁵ Tuberculosis, also called scrofula or consumption was not properly understood until Robert Koch's identification of the tubercle bacillus in 1882 and no effective treatment was available until the early twentieth century (Maclean 1964). Before this the significantly higher rate of the disease in Maori was attributed to living conditions, clothing and diet, fuelling the drive to Europeanise Maori.

Any success that the act may have achieved, therefore, depended entirely on the enthusiasm of the medical men concerned, who in any case would probably do the work without remuneration (Maclean 1964:238).

By the 1860s only a few reports of smallpox were made and funding for vaccination was cut considerably. The drive to vaccinate was reignited under the Public Health Act of 1872 and later fell under the jurisdiction of Department of Health whose vaccination regime was often one of response rather than prevention.⁶ Maori were vaccinated in New Zealand from as early as the 1820s by missionaries and visiting ships surgeons and by the 1850s it was used to address the prevailing belief that the Maori population, unable to cope with the introduction of European diseases, would soon die out.⁷

The Contagious Diseases Act of 1869, despite its ubiquitous title, focused solely on the control of venereal diseases. Prostitution and venereal disease had proliferated in the country since the late 1700s. Syphilis was incurable during the late 18th century and the organism that caused gonorrhoea was not discovered until 1879 (Eldred-Grigg 1984). Treatments for these and other sexually transmitted diseases were often useless and at times harmful.

The most popular “cures” for syphilis employed mercury or silver nitrate, which were applied to the lesions, injected into the urethra or swallowed by the patient, and often caused intense pain. Lotions of alum, zinc and lead were also applied to sufferers, but even when such remedies seemed to have some effect, a “large number” of patients developed parasyphilis, which often involved degeneration of the brain and spinal cord (Eldred-Grigg 1984:33)

Following in the footsteps of its British counterpart, the Contagious Disease Act allowed the government to proclaim any area a contagious disease

⁶ By the early 1900s vaccines for other diseases such as diphtheria became available and the Department of Health led emphatic campaigns to increase public compliance. By the 1960s public compliance reached its all time high and 97% of New Zealand’s school children were vaccinated against polio (Dow 1999).

⁷ The population of Maori decreased from 150,000 in 1814 to 56,000 in 1857 (Dow 1999).

district and order any prostitute to submit to regular medical examination. Diseased prostitutes were confined in one of the growing number of female reformatories often run by middle class women. This confinement, much like quarantine, was believed to curb the spread of disease, but in effect did little more than condemn women to conditions often reputedly worse than prison. These refuges became notorious for their inhumane treatment of so called 'fallen women' or those on the "downward path but not yet fallen" (Eldred-Grigg 1984:157). Treatment became no less punitive when prostitution began to be explained as not only a moral malfunction but an inherent illness.

The Contagious Diseases Act did not seek to suppress prostitution but in effect legitimised it by appearing to make it safe for the consumer. As such, the Act came under direct attack from social puritans who campaigned to abolish prostitution altogether succeeding, on paper at least, by 1900. The laissez-faire attitude of police and other authorities however meant that prostitution in New Zealand remained alive and well. Contagion theory had, in all effect, served to legitimise the industry by providing a foundation for control and attempting to transform an industry deemed dirty and disreputable into one of controlled cleanliness and necessity.

For over a century New Zealand continued a regime of health care that supported elements of the contagion theory. In 1919, on the heels of an influenza pandemic, the League of Nations was established and attempts were made to specify international quarantine regulations. In 1926 an International Sanitary Convention was formed and statistics taken from most developed countries during the late 1800s and early 1900s were used to define five significant diseases: the bubonic plague, yellow fever, cholera, smallpox and typhus. Measures were drawn up in regard to international quarantine (Maclean 1964). When air travel became significant during the First World War, quarantine regulations were applied to aircraft in the same

manner they were to ships and when civilian air travel developed in the 1940s, the quarantine air regulations were enacted.

One of the main reasons for the creation of the Department of Health in 1900 was to place the control of infectious disease on a more effective footing (Dow 1999:136).

By the turn of the twentieth century bacteriology had become the foundation for medical theory.⁸ The word 'contagious' with all its associated connotations was replaced by the term 'infectious'. While 'contagious' diseases required and promoted social control and judgment, 'infectious' diseases removed people from the equation, reifying disease and reducing the influence of society and culture. People appeared no longer at risk from others but now lived in fear of microscopic pathogens capable of infection. Germ theory replaced both contagion theory and miasmatic theory as science infused medical practice.

Miasmatic Theory

Before the discovery of microbes, people in their quest to identify the origin of disease focused their attention on their immediate surroundings. Miasma, or miasmata, was the term given to particles of decomposed matter identified by smell and initially believed to be the product of atmospheric or meteorological events such as earthquakes or volcanoes. Miasma was thought to be the catalyst that led to fermentation and decay and based on Hippocrates' association between the environment and health was considered to be the cause of most diseases and ill health (Thorsheim 2006). As miasma theory developed, the belief that people were helpless in the face of seasonal changes or elusive atmospheric shifts, gave way to ideas that provided scope for human intervention.

⁸ In the 1860s the work of Louis Pasteur and Robert Koch gave rise to bacteriology by identifying the role of pathogenic micro-organisms (Porter 1999).

As industrialisation and population intensity increased so too did the production of foul air. Decomposing bodies, decaying organic matter, rank slaughterhouse offal and human waste became the origin of miasma. So convinced that disease was transmitted through foul air, Londoners in the mid 1800s contaminated their water supply (the Thames) with sewage because they thought this preferable to the miasma that arose from the stagnation and accumulation of waste on land (Thorsheim 2006).

Human waste was ranked as the main offender in the production of miasma, the president of the British Medical Association stating in 1879 that “the higher the animal life is on the scale of creation the more injurious is the excreta of such animals, and that of man most of all” (Thorsheim 2006:14). Plants and animals were also implicated. Environments that promoted rapid growth and subsequent decay such as the tropics were deemed havens for miasma and consequently disease. High rates of illness in soldiers, missionaries and colonisers in these areas appeared to provide evidence of nature’s malevolent potential and led to the desire to control both the physical environment and its inhabitants. Unhealthy and healthy environments became defined according to miasmatic theory providing significant justification for Victorian sanitarians and colonisers (Thorsheim 2006).

In highly industrialised towns and cities fumigation was believed to offer the greatest protection against miasma. Three methods were employed: the shooting of canons and other artillery, the burning of fragrant and then not-so-fragrant substances, and methods to keep the air immediately surrounding the person pure by carrying posies and using sweet smelling colognes. During epidemics in the 1800s people went to great lengths to protect their immediate environment, enveloping themselves in aromatics such as camphor, garlic, vinegar and tobacco (Tesh 1988). In an ironic supposition, supported by industrialists, smoke was used to combat ill health, the carbon and sulphur contained in coal smoke in particular, thought to have purifying

qualities. One Manchester manufacturer argued that smoke is “guiltless of any deleterious effect on human health, is one of the most anti-putrescent bodies and while floating in the atmosphere does all it can to arrest and destroy noxious and miasmatic vapours” (Thorsheim 2006:17). During the flu pandemic of 1918, physicians committed to this theory advocated smoking as a preventative.⁹

Miasmatic theory received its greatest promotion from Poor Law secretary, Edwin Chadwick. Based on extensive surveys and research in 1842 in London’s dirtier streets, Chadwick presented a report that recommended massive sanitary reforms throughout Great Britain. This report was followed by lobbying and public campaigns and succeeded in gaining government and public support for an environmental approach to disease prevention that initiated the sanitary revolution of the nineteenth century (Tesh 1988). Measures taken to improve living standards led to a decrease in the occurrence of disease and seemingly provided the evidence needed to prove the theory.

Based on miasmatic theory, public health initiatives adhered to visions of a more civilised and clean society and the emphasis placed on keeping the labour force healthy appealed to industrialists. Unlike contagion theory (which appeared to suppress trade and enterprise) miasmatic theory, as advocated by Chadwick, promoted industrial production by creating an environment that would increase productivity and reduce poor relief expenditure (Tesh 1988). In spite of the fact that both theories were backed by scientific reasoning and both promoted a focus on sanitation and improved living conditions, debates arose between advocates of contagion theory and devotees to miasmatic theory, dividing the medical faculty of the time.

⁹ Social puritans abhorred the increase in tobacco consumption during this time particularly in young women, a practice they considered unladylike (Rice 1988).

In New Zealand, miasma theory formed the basis for early portrayals of the country as a clean and curative land and influenced decisions relating to where Europeans chose to settle.

It did not surprise me to learn there was much sickness in a town built on land so flat out and swampy [Christchurch]... The fact is this climate has been so over-praised, that people have a vague idea it ought to change the laws of nature (Muter 1864/1997:239).

If foul air contributed to an individual's demise then it made sense to many that clean air was both beneficial and curative. New Zealand, with its untouched landscape, represented all that had come to stand for health and reports from explorers and developers such as Charles Heaphy include numerous references to locations in New Zealand suitable for salubrious habitation. New Zealand's early promotions rested on the premises of miasmatic theory and resonated in the minds of many who believed their health was a consequence of their environment. Administrators, recognising an advantage, played upon these ideals promoting the country as an island sanatorium, successfully encouraging thousands to immigrate to New Zealand for the sake of their health. Green spaces were set aside by the New Zealand Company in each of its settlements and reflected the ideals of a progressive society "intent on maximizing its resources and improving both its nature and its people" (Beattie 2008:591).

By 1870 New Zealand's population had grown so rapidly that many of the negative factors identified by Chadwick in London could now be recognised in the country's bigger settlements. Vital waterways were being polluted and typhoid rates in particular soared. The removal of night soil (human waste) proved problematic, many cities not having adequate sewage systems until the turn of the century. The health department urged local governments to turn their attention to their city's wellbeing and stemming the production of foul air became the focus of research and public health practices (Maclean 1964).

While public health initiatives focused on environmental sanitation, researchers continued their exploration of the climate and the effect of environmental factors such as humidity, temperature and atmosphere on individuals. Miasmatic theory effectively paved the way for the study of climatology, research most relevant to New Zealand whose topography included apparently every level of altitude. The study of climatology received much attention at turn of the century seemingly providing the answers to questions posed by miasmatic doctrine.

On coming to the country, nothing so much astonishes us as the accounts of the salubrity of the climate, especially the total absence of fever. I could not understand how such large swamps and so much stagnant water as are found in various parts of New Zealand could exist without generating fever. As that disease is, however, unknown in the country, it must be solely accounted for by the existence of these periodical gales of wind (Martin 1845:240).

In the *Practical Medicine Series* (Butler, Favill and Bridge 1912) climatology is explained in scientific terms. Variables such as temperature and humidity are described as “climatic modes of action”. These are believed to have the ability to cause such changes in the nervous system and internal organs that they modify or alter circulation and metabolism. Meteorology and the purity of the air is explored. Humidity is discussed in great detail as is the effect of temperature upon a patient. A poorly ventilated sick room is thought to pose as high a risk as the most fetid and putrefying environments. The book describes experiments on sea-air, salt content and the therapeutic advantages of periodic steamer trips. The prescription that requires a patient to leave their home during inhospitable times of the year and seek a fresh and invigorating climate was one given to numerous people throughout the nineteenth century and was the impetus for many to immigrate to New Zealand. The future for many of New Zealand’s earliest settlers was dictated therefore by, one would hope, well intentioned physicians.

Supernatural Theory

The idea that disease is caused by supernatural origins has a long history and survives still, kept alive by individuals in both western and non western countries. Medicine and faith have been inextricably linked throughout history, encouraged particularly by the Christian church which decreed a supernatural plan and purpose for everything. Christianity taught that the spirit was eternal while the body was weak and susceptible. The New Testament makes frequent references to disease-causing demons and in Christian belief the only cure for such demonic possession is exorcism (Tesh 1988). From AD300 onwards Christ's directions to assist the poor, sick and needy were being followed by deacons and bishops throughout Europe who established institutions where they nursed the sick using ordained medical practices.

During the 1800s the colonies became ideal destinations for evangelistic energies. Enticing free or low cost passages appealed to both the capitalist and the missionary and many settlements in New Zealand such as Christchurch were designed to be a "godly experiment" (Jackson 1987:17). Maori were considered adequately receptive to religious indoctrination and supernatural theory was included in the doctrine that many missionaries sought to impart. Before long, missionaries realised that providing health care to Maori was an excellent vehicle for social and religious reform. For Maori who adhered to western practices, good health, as well as spiritual redemption became the recompense.

The early acceptance of western medicine by Maori has been attributed to the similarities between both systems, including the personification of disease and the practice of medicine by a spiritual advisor.

They used to give comical accounts of their aches and pains in all parts of their body and how they chased 'him' from one place to

another with the plaster or blister always personifying an enemy....(Gluckman 1976:96).

Maori beliefs included the presence of gods who personified aspects of humanity or nature and were believed to have the ability to predict, punish or inflict disease. These gods might inhabit an individual or influence an object for better or worse and were believed to be the spirit of ancestors or strangers. Each had a representative *tohunga* or priest. According to Gluckman (1976) Maori rationalised the decline in their population following European colonisation as their gods withdrawing their protection.

Gluckman (1976) claims ancient Maori recognized three main ways of dying. 1. Death by war or *mate taua*, 2. Death by decay or old age, *mate tara whare* or *mate aitu*, or 3. Death by supernatural influences, known as *mate atua*. *Mate atua* could be brought about with or without human intervention. If human intervention was involved this was termed *makutu*. Diseases brought by Europeans were given the term *mate Pakeha* 'disease of the white people'.

While the influence of supernatural entities was familiar to both European and Maori the nature and practice of *tapu* was foreign to settlers and proved cause for complications as western medicine began to dominate. *Tapu*, described by Gluckman as "a series of things not done, a series of positive prohibitions thou shall not's...imposed by gods" (Gluckman 1976:239), is a dominant part of Maori culture. *Tapu* can be ascribed to an object or a person to designate significance or sacredness. One such example is the placing of *tapu* on a person directly following death or on a building where a death has occurred. This enforces certain protocols surrounding the burial and conduct of others. Ignoring *tapu* was believed to result in the withdrawal of the god's protection or worse induce punishment that may result in disease or death. The protocol associated with *tapu* proved incompatible with western medical practices particularly in the confines of colonial hospitals. Many Maori would

refuse to enter a building in which a person had died until the *tapu* had been lifted (by way of a blessing), a practice not adhered to by all hospital administrators. Failure to respect these practices contributed to a decline in the numbers of Maori who sought treatment in colonial hospitals (Gluckman 1976).

The premise for supernatural theory rests on the definition of sin.¹⁰ Since the seventeenth century Christian conceptions portrayed god as a wrathful punitive entity who inflicted upon man all kinds of disease as tests of faith or punishment for sin (Stainton Rogers 1991). In colonial New Zealand definitions of sin coincided with Christian definitions and represented all that British settlers wished to leave behind. The idea that a nation could be established that excluded all so-called negative aspects of a society reflects the idealistic and romantic vision people held and highlights the disparity between the promotion of the land and the reality of life in the colony.

The reality was that, by the time of determined European colonisation, the colony and its inhabitants displayed sin in all its definitions. Russell was nicknamed 'The Hell hole of the Pacific'. Early missionaries had little influence over the likes of whalers and traders and advocating abstinence and sobriety appealed only to a few. Prostitution, excessive drinking and idleness proliferated in New Zealand during the 1800s prompting the establishment of philanthropic societies and Christian organisations intent on raising the standards of morality. Poverty, idleness (or unemployment) and disease were deemed consequences of sin. Those subject to such were considered unwholesome and in need of salvation.

¹⁰ The Bible provided some definition in the way of the seven deadly sins, each having its own embodied pathology. For example, "pride was thought to cause swellings such as tumors and inflammations; sloth was believed to result in dead flesh and palsy, and gluttony in dropsy and a large belly" (Lupton 2000:59).

Because epidemics took a greater toll on the poor than the rich, the healthier rich could employ the supernatural theory as a justification for berating the poor for sinful behaviour... (Tesh 1988:18).

Elements of supernatural theory were upheld by many in colonial New Zealand who were, by comparison with today, considerably more religious. The theory, however, held little in the way of a practical solution for the spread of disease. Prevention involved abstaining from sinful behaviour but few advocates believed prayer or exorcism alone held the means to cure. In what appears a contradiction, many men devoted to medical science regarded themselves above all else as upstanding Christians, the debate between creation and evolution still yet to divide the fraternity. Supporters therefore retained elements of the theory such as advocating abstinence and self control while seeking and using a variety of remedies and incorporating more scientific practices such as vaccination and environmental sanitation.

By the turn of the century the divide between religion and medicine was increasing. Religious references were discreetly omitted from more scientific texts and supernatural elements became associated with quackery and alternative health care. Only alternative therapists such as James Neil, New Zealand's first practicing herbalist, remained committed to the theory reminding patients frequently that illness is a consequence of sin. Neil's book, *The New Zealand Family Herb Doctor*, first published in 1891, presents a plethora of herbal remedies and recipes designed to combat disease and promote good health. Neil's objective and beliefs are clear. God has provided all that is required to heal and protect and ultimately life and death are in the hands of the creator.

We have one serious fault to find with most medical books, both botanic and regular, namely that the great source of blessing and healing is almost ignored, namely God, who gives us all things richly to enjoy and employ to the benefit of one another (Neil 1891/1998:5).

As people embraced rationalism and empirical observation, many abandoned supernatural explanations about the cause of disease that once were held in awe and reverence, converting the body to a “disenchanted entity (that) require(s) no special reverence” (Freund and McGuire 1999:212). Descartes’ mind and body dualism contributed to a physical reductionism that medical science embraced effectively ignoring the most problematic of all variables, society and culture.

Personal Behaviour Theory

Personal behaviour theory determines that health is a direct consequence of lifestyle. It is a concept that allows for greater individual responsibility by implying that good health can be achieved by adhering to certain standards of living. This theory shared the limelight with miasmatic theory in colonial New Zealand and was supported by the Department of Health who provided adequate information and advice on healthy lifestyles to people who, in their pursuit of health, followed this to varying degrees.

Personal behaviour theory has been associated with the advent of the middle class in Europe which gave people more time to pursue recreational activities and explore alternatives to social institutions such as medicine and religion. Many turned to nature for their amusement. The more serious of pursuits included botanising and zoology and a great mass of information was collated and recorded during this time. The fascination with science and a growing secularisation in society challenged societal norms and women in particular explored alternatives to their often rigidly controlled lives. Overseas, institutions including the medical profession were scrutinised and challenged as “nineteenth century Americans and Europeans hoped to throw off ancient ‘artificial’ structures and to live in a manner consistent with natural law” (Tesh 1999:21). Paralleling the domination of medical science was a mounting protest against the reification of disease and control by the medical fraternity.

This led to considerable discourse on preventative health care as people rejected the increasing number of inorganic medicines that had appeared on the market and began seeking alternatives.

Sylvester Graham was a major advocate of preventative health in the United States. Graham campaigned for a low-sugar natural diet, high in wheat products and fresh fruit and vegetables. He created the whole-grain crackers that still bear his name and promoted exercise, fresh air and 'sex hygiene'. He published widely during the 1800s earning him the nickname, the 'Peristaltic Persuader' (Tesh 1988). In Europe during the end of the nineteenth century many were engaged by the Austrian philosopher, Rudolph Steiner. Steiner founded the spiritual movement Anthroposophy, which has roots in European transcendentalist theory and was based upon Annie Besant's Theosophy. Steiner's vision was inspired by his desire to define an association between science and mysticism, an area he termed spiritual science.

The production and presentation of information is fundamental to personal behaviour theory which is based on the assumption that people will commit to a healthy lifestyle only if given clear instructions and information. Supporters of the theory work together to provide the public with discourse aimed at promoting healthy living, and by doing so, effectively present definitions of healthy and unhealthy, acceptable and unacceptable behaviour.

Alternative therapies gained ground under the guise of personal behaviour theory, hydrotherapy in particular earning a great reputation, with advocates from all over the world encouraging and promoting the establishment and use of spas and natural mineral waters. Spas epitomised the association between middle class indulgence and health with many complexes resplendent with luxurious grounds, entertainment and medical attendants.

For the sophisticated European of the nineteenth century, a spa was much more than just a health resort. The famous spas of France,

Germany and Britain were elegant social and cultural centres. Most who took the cure did not do so primarily for medical reasons, but to see and be seen by high society (Rockel 1986:1).

In New Zealand, the attempt to establish spas reflected not only an attempt to retain aspects of social niceties but also reflected settlers' anxieties surrounding health and illness and their desire to transform and utilise their resources. Much excitement had been raised over New Zealand's mineral-rich waters and colonial administrators saw an opportunity to replicate the spa culture of overseas. Rotorua and Te Aroha, New Zealand's main spa attractions in the nineteenth century, were constructed in accordance with European ostentation. Despite promotions by first, the colonial government and later the Department of Tourist and Health Resorts (established in 1902), the goal to attract wealthy clientele from overseas was never completely realised, New Zealand's capital insufficient to afford such ambitious plans.

Distance from the clientele of the European spas, and a lack of population in the immediate vicinity worked against the project [Rotorua]; extraordinary maintenance problems and a change in philosophy killed it (Rockel 1986:12).

Personal behaviour theory has similarities with supernatural theory in that it held the individual responsible for their illness, but where the supernatural theory placed the origin of disease within esoteric realms, personal behaviour theory placed an emphasis on biology and the influence of physiology. Both theories dismissed any responsibility on the part of the state, and class and position in society were viewed as irrelevant. The fact that only the middle to upper class had the time to indulge in exercise, correct diet and spa treatments went largely ignored and in many ways personal behaviour theory paid homage to middle class life.

In New Zealand personal behaviour theory represented an opportunity for the colonial government to mitigate the rising cost of health care. It was advocated under the guise of preventative health by Health Department

officials who recognised the financial implications if people continued to become more and more dependent on doctors and the state. Members of the New Zealand British Medical Association resented the state's influence over health matters. However they supported personal behaviour theory, seeing this as an alternative to the inevitable social dependence they anticipated would be the result of a national health insurance scheme.

Conclusion

Though defined individually these theories were often held in conjunction, elements of each merging to form a strong barricade against disease. In the face of epidemics, many European cities enforced quarantine regulations, based on the theory of contagion. Posies were sold to protect people against miasma while priests paraded crucifixes through town, evoking God's help and establishing their own boards of health (Tesh 1988). Despite their differences each theory provided their devotees with a sense of control and understanding, helping to relieve anxieties when faced with, what must have appeared as, unfathomable suffering and death.

Miasma, contagion and supernatural theories stemmed from ideas formulated centuries before the European colonisation of New Zealand and in countries faraway. Despite this, their influence in the colony was substantial. These theories were imported to New Zealand alongside colonists, contained and perpetuated in models for health practices and policies, medical handbooks and social discourse. The movement, adaptation and application of this knowledge highlights the integral relationship between people and theory and illustrates how medical ideas are constructed and adapted in response to changing geographical and social environments.

The high hopes for the young colony held by the New Zealand Company and later the British government, placed pressure on early administrators to create

a society that would avoid “the many evils which have attended the early progress of several of the previously formed colonies in Australia and elsewhere”(Heaphy 1848:67). Few medical statistics were kept in the colony before the 1870s. New Zealand’s early health policy, therefore, relied solely on theoretical conjecture and observations made overseas. Miasma theory dominated health policy after receiving significant substantiation in Britain by Chadwick, while contagion theory justified border control. Successful colonisation relied on ideas of race and class that justified the subjugation of Maori and the instigation of European authority. Personal behaviour and supernatural theory supported these ideas, as well as the notion that good health could be achieved by adhering to rules set by upper class European men and women. Officials, eager to fulfil their colonial vision, proposed medical policies and practices that were supported by these theories. Colonists, who were equally keen to see the colony prosper, accepted and applied the familiar practices that arose.

As New Zealand society evolved, these theories became tailored to the new environment. Miasma theory was initially used to promote the colony but soon highlighted the problems associated with rapid colonisation. It was used thereafter to focus on living conditions and encourage urban development. Empirical analyses that revealed decreased rates of disease supported this theory providing a measure of success. Pamela Wood argues the Empire’s obsession with controlling dirt was used as a measure of progress, and the colony’s focus on sanitation in the late 1800s parallels the drive to develop society (Colebourne 2009).

Contagion theory was applied subjectively by administrators who selected the diseases they wished to accept or exclude, while personal behaviour theory was promoted by a government keen to alleviate responsibility and encourage self sufficiency. Supernatural theory was adapted as science took precedence, converging with personal behaviour and decreeing moral

definitions of right and wrong. The combination of these theories can be seen in medical handbooks, many of which dictate the moral duty of women and provide directions for an acceptable path through life. At the same time they promote alternative remedies and elements of personal behaviour theory such as diet and exercise. By the early 1900s personal behaviour theory was advocated by women's organisations, private practitioners and the Department of Health.

CHAPTER THREE

Public Health

Introduction

This chapter provides an overview of medical services in New Zealand from the late 1700s through to the 1930s. This time period allows us to review the introduction of disease into the colony, the response to this by institutions and individuals, the development of public health policy and practice and the professionalisation of medicine in New Zealand. This chapter presents the public side of health care in early New Zealand and seeks to place this in the broader context of European colonisation.

Introduced theories and ideas influenced the direction and development of medical systems in New Zealand significantly. However the colony's isolation and individual characteristics led to local adaptations and responses. This chapter will examine the role the state played in directing these responses and will explore the development of a medical system that is both unique to New Zealand and reminiscent of British models.

The pursuit of a healthy nation provided the justification required for social control in New Zealand and the promotion of this by both professionals and laypersons highlights the anxieties surrounding the construction of their new lives. This chapter explores theories around the use and abuse of medicine as a form of social control and discusses the introduction and influence of the medico-social survey and the use of medical knowledge as a moral barometer.

Capitalism effectively transforms health care from an altruistic pursuit to a commodity. As a consequence people's health becomes vulnerable to market fluctuations and financial constraints. In colonial societies this directly influenced the responsibility people took for their own care. This research questions the efficacy of colonial public health services by exploring the relationship between capitalism and health care. In the conclusion to this chapter I will argue that geographical isolation, colonial vision and financial restraints prompted settlers to take greater responsibility for their own health. These conclusions pave the way for the following chapter in which I explore the private side of health in the colony which is not well represented in our country's history and not easily revealed.

The Introduction of Disease

In 1769 Captain James Cook of the British Admiralty rediscovered New Zealand and initiated an era of European colonisation that was to have lasting and irreversible consequences on the health of those who lived there. Cook relayed reports about the potential for extractive industries such as whaling and sealing to Britain, a nation in the grips of industrial, agricultural and demographic revolutions. Driven by the desire to obtain both raw materials and markets and encouraged by the close proximity of New Zealand to newly founded penal colonies in New South Wales, privately run whaling and sealing ventures effectively closed the gap between Europe and New Zealand (King 2003).

Cook left the shores of Britain during a time of significant change. Intellectuals were welcoming in the scientific revolution and medical conjecture had turned away from Galenic¹¹ traditions, refocusing on the social and political cost of

¹¹ Galen was born in AD 129. His medical theories, based on Hippocrates' humoral theory focused on the synchronicity between philosophy, physics and ethics. His theories supported by his allegiance to dissection persisted for more than a millennium. "Galen took clinical Hippocratic medicine and set it within a wider anatomo-physiological framework...." (Porter 1997:77).

disease. Scientific research became synonymous with progress marking the beginning of a complex relationship between governments, people and medicine. Medical research supported by first the court and then the state represented humanity's control over nature and life and death itself. By the late 1700s gross anatomy was well understood however the intricacies of physiology were still cause for confusion, promoting and encouraging experimentation and rivalry (Porter 1999). Nutritional deficiencies were little understood and as a consequence scurvy proved a formidable enemy, complicating early ventures. Ranked alongside malaria and typhus, scurvy was regarded as one of the great killers, threatening both life and enterprise (Gluckman 1976). Under Admiralty direction Cook achieved relative success in preventing and treating scurvy and his research assisted both explorers and colonisers.

The disease scurvy can be regarded as the cornerstone to the successful colonisation of New Zealand....The conquest of scurvy enabled the successful transportation of large numbers of men, women and children over large distances of space over lengthy periods of time (Gluckman 1976:19).

After numerous trials with sauerkraut and malts, Cook's ultimate recommendations were simple; land and fresh provisions. As trade and enterprise in New Zealand increased, new crops were introduced on land to alleviate the effects caused by months of an inadequate diet. Maori adjusted quickly to both new forms of horticulture and new forms of trade, growing fresh produce and trading with visiting ships (Morton 1982). Potatoes proved to be effective preventatives and were described by Dr. Felix Maynard, a French whaling surgeon, as one of the great means of exchange belonging to New Zealanders, the other being young girls (Maynard 1937). Scurvy was one of the first European diseases to be treated on New Zealand shores; the other, not surprisingly, was venereal disease (Gluckman 1976).

Whalers and sealers were among the first Europeans to settle permanently in New Zealand. Many were escaped convicts who Grady describes as “desperadoes in search of an isolated spot beyond the reach of the law” and who had to “...endure the hardships and privations that are difficult for most of us to imagine today” (Grady 1986:16). The first whalers in New Zealand waters were crews from Britain and Australia. They were soon joined by ships from America and France. The crews on board these ships were among the first to introduce foreign diseases to New Zealand.

Medical care at sea was limited as not all whaling and sealing vessels sailed with a surgeon. Many relied on the cook, who was often given the nickname ‘doc’, for medical assistance (Gluckman 1976). Others relied on the perfunctory skills of their captain. Few American ships sailed with surgeons; however all were required to carry medicine chests. French ships were required by law to carry surgeons only if the crew numbered more than twenty. British whale ships were required to sail with a surgeon however this regulation was seen as a “bureaucratic burden” (Morton 1982:101) and one that was not enforced by all. With limited resources and skills on board, the diseases that plagued these men frequently made it to shore.

Pulmonary disease regularly visited whaling and sealing crews, assisted by on-shore doctors encouraging consumptives to accompany whale crews for the good of their health (Morton 1982). Later missionaries were shocked at the incidence of pulmonary disease in Maori, who, having no resistance and living in conditions that exacerbated such afflictions, suffered terribly. Venereal diseases (not differentiated at that time) were spread by the common practice of taking women aboard ships when docked in harbour, an occurrence rejected by only a few captains and regarded by others as a “necessary evil” (Morton 1982:176). Once introduced, venereal disease swept through New Zealand gaining virulence as it progressed. A surgeon in the Bay of Islands in 1821 reported that syphilis was almost always fatal and that

the people had effectively no cure (Gluckman 1976). The spread of venereal disease increased when shore whaling was established.

Shore whaling peaked in the early 1820s, proving more lucrative, less dangerous and requiring less capital to initiate than off shore enterprises. Shore whaling had a considerable impact on Maori and their way of life as trade and relations between Maori and European became increasingly co-dependent (Morton 1982). Europeans married into tribes to secure rights and contracts and Maori changed their patterns of settlement, organising their labour resource and cultivating crops for trade and exchange (King 2003). Medical care proved to be an excellent vehicle for good relations between Maori and European and the accounts ship's surgeons produced suggest that the role they played on land was significant. Often Maori wounded in battle would seek medical assistance from these men, the most famous of all being the great Hongi Hika, who, shot through his right lung, was treated by whaling surgeons (Morton 1982). By this time the impact on Maori both introduced diseases and introduced lifestyles were having was drawing attention from Christian evangelists and the British government. The first to address these concerns were missionaries.

Missionaries and Medicine

Missionaries employed by the Church Missionary Society (CMS) were the first to establish a strong foothold in New Zealand in 1814. The first mission station was established at Rangihoua in the Bay of islands by the Chaplain then posted at the New South Wales penal colony, Samuel Marsden. Thomas Kendall, William Hall and John King were the first men left with their families to initiate Marsden's civilisation first policy.¹² After a turbulent beginning that included fighting among the missionaries and illicit trade with Maori, the station was abandoned and the men dismissed. In 1823 former naval officer

¹² Marsden's civilization first policy involved instructing Maori in horticulture, agriculture, trade and European morals and manners before introducing them to the word of their God (King 2003).

Reverend Henry Williams assumed leadership of the mission and, stationed at Paihia, succeeded in resisting the 'sublimity' of Maori that Kendall professed had turned him from Christian to heathen (King 2003).

By this time new trade networks had distributed and exacerbated diseases such as yellow fever in the Americas, (a consequence of the transatlantic slave trade) and measles and tuberculosis in the Pacific. Medical men influenced by the Enlightenment and the ideals of a progressive society were turning their gaze on populations and attempting to explain the disparities relating to health and wellness reported by traders and explorers. The increasing influence of science had propelled medical research and had led to breakthroughs such as Harvey's discovery of the circulation of blood. Surgery developed considerably in the nineteenth century, encouraged by advances in antiseptic and anaesthetic technique and military experience. Despite this, bed side practitioners continued largely unaffected and health care in the early nineteenth century remained inconsistent and relatively ineffective (Porter 1999).

Medicine had yet to meet the reforms of the late 1800s that standardised medical knowledge in Europe and America and denigrated alternative practitioners. Health care was still an occupation practised by many including barbers, midwives and bone setters as well as doctors and missionaries. Practical care depended on the practitioner's beliefs and preferences and, based on little medical knowledge, it often resulted in dangerous and ineffective practices such as bloodletting (Freund and McGuire 1999). When the introduction of disease to isolated populations such as those in the Pacific proved too much for indigenous medical practices, Western medicine appeared, if not entirely effective, then at least familiar with many of the new diseases and Maori in particular welcomed this new system of care.

William Williams, (Henry Williams' brother), was one of few missionaries trained in medicine before arriving in New Zealand. The medical care he gave to Maori and traders received accolades from many, including visiting surgeons such as W.B. Marshall. "The dispensary is at Mr. William Williams residence....it has proved a blessing to hundreds" (Gluckman 1976:50). Williams, reputedly the most qualified doctor in New Zealand during this time also performed surgery, a procedure that done before the advent of anaesthetic or antiseptics must have been daunting for both patient and doctor alike.

William Williams' wife, Jane, was also in great demand for her medical acumen and Williams' sister-in-law, Mrs. Henry Williams, is regarded by Gluckman(1976) as probably the best medically-qualified resident in New Zealand before the arrival of William Williams in 1826. Women were also primary care givers in their own homes and while their husbands occupied themselves with the health of others, women cared for both outsiders and their own, often large families. Catherine Hadfield, William Williams' eighth child and later, wife of Octavius Hadfield, cared for her nine children as well as nursing numerous others during typhus and measles epidemics in 1856 and 1870 (Ross 2006).

Most missions provided medical care and many established rudimentary 'native' hospitals. Bishop Pompallier established a hospital in Kororaraka at the expense of the Catholic mission which was attended, by all accounts, by a doctor who treated predominantly Maori (Gluckman 1976). Thomas Chapman, a CMS missionary in Rotorua, wrote of having up to five patients on his station, likening this situation to that of a hospital. Chapman, like others, regarded his role as healer as a worthy and necessary part of his pastoral duties that was more than offset by the opportunity to impart elements of Christianity. This has been described as a high risk venture by

some as “the failure of Western medicine could and did lead to the rejection of the spiritual message” (Dow 1999:21).

Throughout this time the devastation that introduced diseases was having on the Maori population was prompting constant and repeated appeals to the British government to send medical and surgical equipment. Missionaries and a small contingent of colonial surgeons and philanthropic doctors sent frequent accounts back to Britain while Maori recorded their experience of sickness and death in *waiata*. One, attributed to *Harata Tangikuku* of *Te Whanau a Ruataupere Ngati Porou*,¹³ was recorded by William Williams towards the end of the nineteenth century (Porter and Macdonald 1996).

It was not until the 1840s, however, when European colonisation began in earnest, that permanent hospitals were erected and medical care became increasingly organised. By this time the earlier appeal of Western medicine for Maori had waned and medical attendants, subsidised by the colonial government, rendered the medical mission virtually redundant. Maori were returning to traditional modes of healing, consulting *tohunga* and consequently antagonising missionaries. Reverend Richard Taylor excluded several Maori from one evening service for consulting and receiving advice from a *tohunga* (Gluckman 1976). Missionaries and colonial authorities chastised what they viewed as inadequate and detrimental modes of healing, opinions that persisted and were expressed through the Tohunga Suppression Act of 1908.

William Williams’ familiarity and understanding of the Maori language assisted colonial authorities considerably and many missionaries like him found themselves entangled in the colonisation process. Others refused to align themselves with the government, arriving settlers or Maori, provoking animosity from all sides. George Clarke, another CMS missionary was made

¹³ See Appendix Three.

Chief Protector and came under pressure from both the colonial government and settlers to act on their behalf and negotiate land sales with Maori. Later, Williams found himself at the centre of controversy due to his English translation of The Treaty of Waitangi (Etherington 2005).

European Colonisation

During the 17th century Russia, Spain, Portugal and Britain were leaders in the European settler race. By the 18th century, in the wake of American independence and the French Revolution, Britain faced a period of intense change brought about by a number of peaceful revolutions, demographic, agricultural and industrial. This age of revolutions (Belich 2009) transformed both the physical and social environment and by the mid 18th century Britain was seen as the hub of global commerce and colonial and maritime power (Porter 1999). Everyday life was transformed by steam engines, printing presses, the iron horse and later electricity, powered flight and the motor car. The industrial revolution allowed more people than before to accumulate wealth, giving rise to a middle class who had the time to pursue reason and rationality. Societies were formed to explore ideas such as Descartes' mind and body dualism and social Darwinism. Enlightened intellectuals predicted science and technology would create a better future, "providing mankind with the tools to master nature, conquer disease and perhaps disarm death itself" (Porter 1999:397).

Faith in medical science and challenges to religion saw more and more people being born in the presence of a physician. Dying became challenged by a doctor rather than guided by a priest. Death rates lowered considerably, contributing to the demographic revolution. Britain's population exploded growing in the first half of the 19th century almost 100%, from 11 million to 21 million by 1850 (Belich 2009). Colonisation, which had been incremental up to then, became explosive. Emigration out of Britain increased fifty fold in the

first half of the nineteenth century. This was due in part to Britain's ability, in comparison to others settler nations such as France, to mobilise a higher proportion of its resources. Cultural, institutional and structural factors also contributed, as well as the belief that the British were peculiarly obsessed with obtaining their own land (Belich 2009). The expansion of the British Empire, which included the emigration of half a million people during the eighteenth century, and a staggering 25 million in the nineteenth century, included the colonisation of New Zealand.

In 1823 and 1828 Acts of Parliament were passed that gave jurisdiction to the Courts of Justice of New South Wales over all British subjects living in New Zealand. In 1833 James Busby was stationed in the country as the first British representative to curtail the evils and atrocities of traders and others. Busby's position however proved little more than a kind of race relations facilitator (King 2003). He could not hold magisterial office in an independent territory and could not rely on military support. His inability to control and curb unsatisfactory behaviour proved compelling justification for formal British intervention and in 1839 William Hobson sailed to New Zealand under orders to take the constitutional steps necessary to establish a British colony.

He [Hobson] was told to negotiate a voluntary transfer of sovereignty from Maori to British Crown, so that there might be no doubt under international law about the validity of the annexation that would follow (King 2003:156).

Hobson arrived in the Bay of Islands in 1840 with a handful of men destined for future civil service and hastily wrote a treaty that was to become the most contentious and problematic document in this country's history, the Treaty of Waitangi. Disputes over the premature proclamation of sovereignty, the selection of Chiefs asked to sign, the duplication and translation of the treaty and the spirit in which it was signed have constituted grounds for debate for more than 160 years. In 1840 however, the document served its original purpose and "enabled William Hobson, as the representative of the British

Crown to proclaim British sovereignty over the country and bring it into that family of nations known as the British Empire” (King 2003:165).

In 1840 the first great wave of emigration from Britain to New Zealand began and between the years 1839-55, 30,000 immigrants arrived in the new colony (King 2003). Push and pull theories have been presented by historians to explain this form of explosive colonisation (see Chapter Two). ‘Push’ factors present in British society in the 1800s included widespread unemployment, overpopulation, poverty, religious persecution, class confinement, disease and pestilence. ‘Pull’ theories imply emigrants were informed, rational travellers who were drawn by the promise of prosperity and a new life (Belich 2009). Colonial promotions of New Zealand included such promises and the disillusionment experienced by many colonists suggests expectations were high.

Yes, indeed, I must own to having been one of those misguided and foolish people so amusingly described in an article on Colonial life, in the “Daily News”, of October 30th, 1886, to which article I allude elsewhere. Like the lady mentioned in that paper, I also firmly believed in “the sunny south as the land of promise, the land of plenty, and the land of hope;” but how different were the real facts! (Hopeful 1887:ix).

Campaigns that promoted the colony as a land of opportunity, wealth and health were designed and presented to the British public by private enterprises.¹⁴ The New Zealand Company was among the first. In the early 1800s Edward Gibbon Wakefield was establishing the New Zealand Association and implementing plans to formally colonise New Zealand and establish a government of his own. By 1839 the Association had reformed as the New Zealand Company and Wakefield sailed to New Zealand to initiate land sales and establish authority. Colonising crusaders such as Wakefield were driven by the ideals of progressive colonisation that included avoiding

¹⁴ Later provincial governments would take over these campaigns which were equally misleading. Advertisers played a sleight of hand when promoting their provinces, alluding to available assistances such as charitable aid while simultaneously downplaying the need for these institutions (Tennant 1989).

the price Britain had paid for industrialism, offering prosperity and opportunities to all and maintaining rural virtue. The desire to create a better Britain (Belich 2001) led to persistent, and some say, deceptive promotion of the colony.

Shew me a man of robust health, sober, honest and industrious, whose only heritage is a “hardy frame, and hardier spirit” and I will shew you a man who has a *capital* amply sufficient, if properly applied, to secure a return which will, in a very few years, place that man and his family in a position of independence for all time coming (Unknown Author 1875:9 emphasis in the original).

Particular emphasis was given to the fertility of the land and its suitability for the English constitution. Charles Heaphy, an employee of The New Zealand Company writes,

Of the climate of New Zealand too much cannot be said in praise, as it is equalled by but few, and cannot be surpassed by any, in the world. It is extremely equable, and, consequently, well adapted to persons suffering from, or dreading, pulmonary disease; and to whom the sudden change from extremities of warm and cold temperature is fatally injurious. Many persons, and amongst them some with whom I am personally acquainted, emigrated solely on the account of the benefit which they expected they might derive from the superior climate; and in every instance have their wishes been realised (Heaphy 1842: 22).

By this time sanitary reforms, prompted by Chadwick’s report (see Chapter Two, miasmatic theory), had cemented an association between the environment and health. In Europe medical research and public health initiatives focused on reducing the rate of disease by improving sanitation. New Zealand, with its pristine environment and clean air, represented yet another opportunity to better British society by offering salubrious surroundings that would improve the health of its population. The consequence of this was that many people chose to settle in New Zealand for the sake of their health and sufferers of pulmonary disease were particularly encouraged. Other diseases were not so welcome.

Chadwick's report had linked infectious diseases such as typhoid and cholera to squalid living conditions and poverty (Tesh 1988), two aspects of British society colonists were reluctant to import. In 1842 therefore the Legislative Council passed the Quarantine Act (Maclean 1964) in order to keep diseases (and consequently infected people) from New Zealand's shores. This was to be achieved by appointing harbourmasters to regulate and enforce penalties upon any who ignored quarantine regulations (see Chapter Two, contagion theory).

It is not surprising that a community which came across the world to escape from the social inequalities and injustices of Europe should, at an early stage, have attempted to exclude the diseases of the old world (Maclean 1964:34).

Throughout history quarantine and border control have proved excellent tools for discrimination and Wakefield's arbitrary selection of emigrants eligible for free or assisted passage highlights the prejudicial attitudes that prevailed at the time.

Emigrants, to be eligible, [for free passage] must be complete men and women. No person who, through accident or otherwise, may have lost any member, such as an eye, a leg, a finger etc., is eligible, nor is anyone, defective intellectually, or who may have incipient insanity, nor are fatuous persons, granted free passage. Those who are eligible must be of good personal appearance, active, intelligent, practical labourers, able to play their part in the game of life, and to hold their own in their respective callings against all comers; they must also be persons of good moral character, sober, honest and steady....In short, the Government want to plant this land with a people physically and morally superior,... (Unknown Author 1875/1996:11).

Despite rudimentary assessment of immigrants before dispatch and quarantine controls upon arrival, immigrant ships became the new transporters of disease. Described by David Hastings (1952) as "laid out like a social map", these ships became infamous for the crude and intolerable conditions. The *Tyburnia* left Gravesend for Auckland on the 31st of May 1863. The passenger list (366 persons) included a small proportion that could

afford to travel first-class. These travellers occupied the 'after deck', or 'poop deck', which was elevated and furnished appropriately for the Captain and Officers also. The majority of passengers (nine-tenths of the whole), however, "were carried in what was euphemistically known as " 'tween decks,'" (Morton 1925: 10). No port holes illuminated these decks and the only ventilation was that which came from the canvas sails. Space was limited and families were confined to bunks that allowed little room for comfort over the three month long voyage. Diets were inadequate, with fresh provisions rationed carefully and selectively. Margaret Peace, who sailed from St. Johns to Auckland in 1864 with her husband, five children and her younger sister Isabella writes,

Picking bread today. Bread all mouldy from the damp of the ship. There has been great error somewhere as the beef is bad, the pork is bad, the water is bad and now the bread is mouldy. The salmon, also preserved in tins...is all spoiled before we were a month at sea (Macdonald and Porter 1996:66).

Disease was prevalent and most ships experienced frequent outbreaks. "Nearly 400 persons cooped up like sheep in a pen, offered a very excellent chance for tragic outbreak" (Morton 1925:13). Smallpox, cholera and influenza were common. The *S.S. Mongol* arrived at the Otago heads in 1874. During her voyage from Plymouth 67 cases of measles had occurred, 21 of scarlet fever and eight cases of bronchitis. Four children had died from measles, five from scarlet fever and eight from bronchitis. There was one fatal case of diarrhoea, one from ulcer, one from inhalation and one from sunstroke (Maclean 1964). Limited space reduced the opportunity to isolate infected persons, creating situations described by Morton (1925) as loathsome, and a horror.

Travellers were assured there was on board adequate medical care although the calibre of doctors appears anything but consistent. Charlotte Godley describes the surgeon aboard her ship as little more help than hindrance, being invariably drunk. Despite this, on her arrival in the colony she writes

that “The more we see and hear of other ships and passages the more we are and ought to be thankful for our own” (1951: 89). Many of these doctors disembarked in New Zealand and began practice in the colony.

Most doctors who immigrated during these early years had gained some medical qualification, either a license to practice, or less commonly a degree from a university in Britain or Europe (Wright-St.Clair 1987). They arrived from a climate in which they were paid nominally, worked tirelessly and were little regarded in society. Gluckman (1976) classifies these early medics into three groups; surgeons and assistant surgeons within naval and military regiments, ex-service doctors, looking to practice their profession and gain a better life, and wealthy and well educated doctors. The latter often had more desire to engage in the politics and making of the nation than the practice of medicine and the contribution these doctors made to colonial administration was significant. “Male doctors played a key role in the definition of disease in the new colony, with many active in the political culture of their times” (Colebourne 2009: 42).

Gluckman identifies Dr. A. J. Ross as New Zealand’s first resident physician, who was based in Waitangi in the 1830s and played a “valuable role in the Bay of Islands both by treating patients, especially the families of the missionaries, and by educating the missionaries in medical matters” (Gluckman 1976:57). The second resident doctor was Dr. Crocome of Otakou followed by Dr. Ford who established himself first in Russell then in private practice in Auckland (Gluckman 1976). Robert Fulton M.D. (1922) describes the lives of early physicians living in remote settlements.

Picture to yourself, you practitioner of to-day, Dr Crocome going his rounds, striding in heavy jack boots through swamp and mud, a Maori for his guide to the deep river crossings, where the only passage was by flax and korari raft or mokihi. Here a poor native unable to make himself understood, writhing in apparent agony, to him the doctor can only give a bolus of powdered opium and butter and wait an hour to see if any relief is obtained; his next patient many miles further on,

mayhap a man with a leg fractured several days before, and by this time almost gangrenous.... hot water and soap of the crudest are all that are needed, and with no anaesthetic, the prospect of an amputation must have been appalling and rarely attempted (Fulton 1922:9).

The areas these early doctors practiced in were often vast and it was not uncommon for doctors to travel for hours to reach patients many kilometres away. Many early physicians were forced to supplement their earnings by farming or other mercantile endeavours. In the *Lancet* a journalist warned young medical men thinking of immigrating that it takes considerably more capital to start up practice in New Zealand and often the harshness of life and uncompromising work conditions led young professionals to drink (Wright-St.Clair 1987). Settlers during this time were often reliant on themselves or their neighbours for medical assistance and the responsibility people took for their own health was great.

There are few of the public institutions to be found in the Colonies as at home; few eminent physicians who give their advice at certain hours gratis; and again, there are no dispensaries for the distribution of medicine to the poor at a trifling cost. Everything *must be paid for* (Hopeful 1887:xi emphasis in the original).

Medical care in New Zealand in the 1840s and 50s, while reminiscent of British models, was carefully revised to meet New Zealand's needs and perceptions. British public health care had been initiated under The Poor Law Act, an Act that was coming under intense scrutiny and being blamed for creating and perpetuating negative stereotypes. Colonial administrators were reluctant to initiate a system that showed any similarity to that which was receiving criticism back home and were equally reluctant to challenge the healthy portrayal of New Zealand they had promoted. The premise for medical care in New Zealand therefore was that European settlers required no assistance, having been carefully screened before their departure and moving to a nation that was deemed inherently healthy. State funded health

care in the colony initially focused on mitigating the spread of infectious disease among Maori.

New Zealand's small settler population in the early 1840s was ostensibly screened to restrict immigration to the healthiest members of society and to prevent any influx of paupers (Dow 1999:23).

Despite best laid plans by the New Zealand Company, it was not until the arrival and advocacy of Sir George Grey, later Governor, that public hospitals were erected in four main centres; Wanganui (1851), New Plymouth (1848), Wellington and Auckland (1847) (Wilson 1948).¹⁵ The Canterbury Association started a hospital in 1849 and Dunedin's first hospital was opened in 1851. "The public hospitals laid the foundation of an embryonic health service for the colony" (Tennant 1989:14). Plagued by fiscal constraints, hospitals often put in place regulations to cope. Christchurch's first hospital had the following policy:

That no woman in an advanced state of pregnancy, or child under six years (except in case of sudden accident), no person disordered in their senses or subject to epileptic fits or suspected to have the small pox, venereal disease, itch or other infectious distempers, no persons having chronic ulcers on the legs, inoperable cancers or dropsies in their last stages, or those apprehended to be in a dying condition or incurable, shall be admitted; or if inadvertently admitted be suffered to continue. (The veto against dying patients later withdrawn...) (Bennett 1962: 28).

Initially Maori made up a large proportion of patients in the early days of these hospitals. However this attraction soon waned and the ratio of Maori to

¹⁵ Private hospitals were established by various missions throughout the 19th and 20th centuries. The Mater hospital in Auckland was founded in 1900 by The Sisters of Mercy and was New Zealand's only Catholic hospital until the arrival of The Little Company of Mary in 1914. The 'blue nuns', identified by their blue veils, established four hospitals in New Zealand between 1914 and 1968. The first, in Bealy Avenue in Christchurch opened on 15th March 1914 and contained room for about twenty patients with one operating theatre. Within their first year they treated over 140 patients, 63 of them surgically. They expanded their operations despite initial resistance and suspicion from locals and their hospital, by 1915 held forty patients, and had a modern surgical theater and consultation rooms (Trotter 2003).

European patients which, in 1840 was 40:1 evened out considerably during the 1850s. Debates over the rights to service, the reputation of colonial medicine, deaths rendering the hospital *tapu* (forbidden or sacred) and provincial land wars have all been implicated in the decline of Maori patient numbers (Dow 1999).

In the colony health care for Maori was viewed as an independent enterprise. Up until the early twentieth century it was provided mainly by back block nurses and native health officers who the colonial government struggled to maintain. Poor pay and difficult conditions¹⁶ made turnover high and the supply of care inconsistent (Dow 1999). The overall health of Maori was used to define notions of race and a widespread and generally accepted view was that Maori required Europeanising to survive (Colebourne 2009).

...Europeans witnessed so-called weaker peoples seemingly more susceptible to waves of disease and accordingly formulated particular understandings of race (Colebourne 2009:38).

In 1846 Resident Magistrates controlled expenditure on health care and the provision of care and doctors' compensation varied from province to province. The appointment of medical men was inconsistent and relied greatly on the support from provincial governments and their allocation to medical expenditure. "It is difficult to be certain about the number of subsidised doctors at any given time...some were very short-lived engagements" (Dow 1999:41).

In 1855 the registration of non-Maori births and deaths was made compulsory marking the beginning of an infatuation with statistics and medical records

¹⁶ The position of Native Medical Officer was open for tender by the colonial government and given to the doctor who provided the lowest tender. This resulted in less than fully dedicated persons fulfilling this role and contributed to a less than adequate service (Dow 1999).

that encouraged responsibility for the colony and its inhabitants and justified later public health initiatives.¹⁷

'Knowing' [her emphasis] the population involved representing it in statistical terms, and creating a new discourse of epidemiology that would later become central to public health campaigns and practices (Colebourne 2009: 45).

By the 1860s statistics showed that New Zealand was among the most urbanised countries in the world and it became clear that the unsanitary and inhospitable conditions that prompted public health Acts in Britain were rampant in the colony's larger settlements. A second round of New Zealand wars had displaced both European and Maori families and the discovery of gold on the West Coast of the South Island, Otago and Coromandel saw the erection of shanty towns that became havens for disease. Despite this, many administrators persisted in upholding New Zealand's healthy image. A report from Dr. Arthur Thomson, surgeon to the 58th Regiment, revealed that mortality rates in New Zealand were only two-thirds of those in Britain and morbidity rates were less than half (Dow 1995). However Dr. Thomas Hocken, the coroner for Dunedin, observed the death rate in the town in 1864 was approximately equivalent to that of Manchester, a densely populated, highly industrial town. Six commissioners from the Dunedin Sanitation Commission concluded that febrile deaths during 1863-64 were two and half times higher than in the worst areas of London (Dow 1995). Without clear guidelines or a national register it was difficult to come to any categorical conclusion and it wasn't until the 1870s that statistics from individual provinces were brought together. By that time it was clear New Zealand was rife with disease (see Appendix Four).

¹⁷ The registration of Maori births and deaths was not introduced until 1913 (Maclean 1964).

Table one: Deaths from Infectious diseases (Europeans)¹⁸

Decennia	European Population*	Tuberculosis	Typhoid Fever	Scarlet Fever	Diphtheria
1872-81	1874 : 344,985	3353	1613	545	1551
1882-91	1886 : 620,451	5053	1335	327	1744
1892-01	1891: 668,652	5680	1046	51	1283
1902-11	1906 : 815,862	5891	607	344	613
1912-21	1912 : 1,058,313	5955	415	258	1282
1922-31	1922: 1,271,667	5594	208	176	677

*The date indicates the year the census was taken

(Maclean 1964:345, Statistics New Zealand 2010)

The numbers of doctors arriving in the colony, despite increasing substantially during the last three decades of the 19th century, failed to keep up with population growth. In 1869, 181 names were registered on the country's first medical register; by 1900 this number had risen to 504. In 1874 there was one doctor per 1, 391 residents and in 1901 the ratio stood at 1:1,863. Between 1871 and 1901 36-38 percent of all doctors practiced in the four main urban centres while 33-35 percent were located in small towns and rural settlements (Dow 1999). Medical care subsidised by the colonial government remained inconsistent and disorganised until the first Public Health Act was passed in 1872.

¹⁸ Early health statistics for Maori were seldom collated before the turn of the century. In 1900 the Maori Councils Act addressed this omission and Maori health statistics began to be collected (Maclean 1964).

Professionalisation

Up until the early 1800s few regulations or medical legislations existed and medicine therefore was practised by anyone who had the inclination. Due to this and the relative futility of early medical practices, doctors' incomes were low and so was their status in society. To address this, the American Medical Association and the British Medical Association took steps to monopolise the market and transform medicine into a profession practised by a select few. Medical anthropologists Freud and McGuire (1999) describe this process of professionalisation as “a sociopolitical movement organised to achieve a monopoly of opportunities in a market of services or labour and, inseparably, monopoly of status and work privileges” (p.207). This was partly achieved by the scientisation and standardisation of medical knowledge which was brought about by reforms initiated by the American Medical Association. These reforms transformed the medical curriculum from one lacking in scientific conjecture to one grounded in scientific theory. This increased the cost of a medical education in America and successfully eliminated ‘undesirable’ students such as women, blacks and the working class (Freund and McGuire 1999).

Medical Associations, formed by college graduates enacted codes of ethics that prevented certain practitioners such as herbalists and homeopaths from joining. Association members used terms like ‘quackery’ and ‘unorthodox’ to refer to those not scientifically trained. They warned the public against charlatans while they presented their scientific education as a signal of their superiority. Medical knowledge became more specialised and less available and people enamoured by science turned to the medical establishment for answers to social as well as biological problems. This encouraged medicalisation (legitimising medical control over an area of life (Freund and McGuire 1999)) and by the turn of the twentieth century had raised the status of doctors' considerably.

Colonial doctors in New Zealand followed this course to professionalisation to varying degrees. Few were concerned with raising their social status as the great need for medical assistance established their relative importance and place in society upon arrival. Of a greater concern for New Zealand's doctors was securing their incomes and gaining the monopoly on a market which they shared with homeopaths, herbalists and chemists.

Sickness with old age was increasing in the settlement. Many of us longed for occasional medical advice. Therefore G.V.S. was made welcome when he introduced a 'doctor from home anxious to settle among us (Stewart 1908:167).

From as early as the 1850s, colonial doctors, concerned with the lack of professionalism and cohesion, were organising meetings and forming associations. The first recorded association advertised in the *Taranaki Herald* in 1855 on July the 17th (Wright-St.Clair 1987). In 1873 the influential Otago Association was formed in Dunedin by Dr. T. M. Hocken who was elected the first president. Several others arose around the country before a national society was formed. In 1866 this society amalgamated with the powerful British Medical Association to form the New Zealand British Medical Association (NZBMA) and by the 1890s had developed into a formidable political body (Wright-St.Clair 1987). From the beginning, the Association's doctors drafted Bills and presented these to Parliament, pushing their objectives and promoting the professionalisation of medicine in New Zealand. Among their objectives was the elimination of the competition.

Porter describes the popularity and rise of alternative therapies in the nineteenth century as a counter-movement which arose in response to the increasing specialisation of medicine and the growing elitism of the medical faculty. While many continued to place their faith in science and seek advice and help from the medical fraternity, others questioned the power and authority of doctors and the approach to health care that reduced the patient to disconnected parts of a whole. Challenging this approach was a great

number of alternative therapists who presented their treatments as not only holistic and inclusive but also as a form of resistance to the professionalisation of medicine. Charismatic salesmen and a growing consumerism contributed to the popularity of new remedies and proprietary medicines which flooded the market (Porter 1999). These medicines and alternative remedies were particularly popular in colonial New Zealand, the necessity for them and access to them enhancing their appeal. In the larger settlements homeopathy, herbalism and hydrotherapy were particularly favoured and received endorsement from certain government officials. The NZBMA however, intent on their objective, resented the competition and fought to exclude alternative practitioners from any medical organisation (Wright-St.Clair 1987).

Members of the NZBMA controlled entry to their association by enforcing strict codes of conduct and ethical guidelines. In the 1800s however few national regulations surrounded the practise of medicine and the occupation itself was still open to all. Forms of registration had been enforced by local governments but it was not until 1867 that national registration was imposed. Anyone wishing to register was required to lodge appropriate diplomas or degrees with the Registrar-General of Births, Deaths and Marriages where they were held open to inspection. No governing body existed to regulate registration however and this process did not prevent the unqualified from practising. Members of the NZBMA who, “worried about... the public being duped by quacks and, incidentally, taking money out of the pockets of the legitimate profession” (Wright-St.Clair 1987:59), campaigned for the establishment of a government-endorsed medical council. Despite their insistence, it would be another thirty years before such a council would be established.

The NZBMA campaigned for stricter regulations surrounding registration. They questioned clauses they believed opened the market up for quacks and

they staunchly opposed Sir George Grey's proposal to 'throw open' the medical profession by reducing the requirements for medical registration. The appointment of Dr. F. W. Irvine, a practicing homeopath, as medical assessor in Nelson led to disbandment of the Nelson medical board and resignation by members of the Association who, in their collective, had already become a powerful and influential subculture. In 1906 they appealed to the Post-Master General to have unregistered practitioners removed from the listings of medical practitioners in the front of the phone directory.

The public's attraction to alternative practitioners and reluctance to consult only registered practitioners antagonised the Association and animosity between practitioners trained in medical science and those who were not grew considerably.

There are large numbers of people including not only the ignorant, but lovers of the mysterious, the neurotics, the half-crazy cranks and faddists, who prefer the treatment of quacks to that of orthodox practitioners (Wright-St.Clair 1987:63).

In an attempt to standardise medical knowledge and increase the number of trained physicians several members of the NZBMA established the Otago Medical School in the late 1880s. This school received support from its local community, however, those who graduated from it initially struggled to gain the same recognition as those qualified overseas (Wright-St.Clair 1987). Many doctors considered the New Zealand medical education inferior although the exclusion of graduates from the NZBMA or the medical register was never considered. This somewhat undermined the Associations appeal to protect the nations population from seemingly inadequate medical practices. One Christchurch doctor expressed his opinion in The Lyttelton Times.

Surely, when we in this part of the world allow faith healers, magnetic healers and red flannel healers to treat those who are ill, or imagine

themselves to be ill, we run no added risk in permitting physicians and surgeons trained in our colleges and hospitals to prescribe for us and operate on us (Wright-St.Clair 1987: 36).

For many settlers, used to improvisation and self reliance, medical assistance was simply not confined to the realm of the visiting physician. Friends, neighbours, chemists, herbalists and homeopaths all provided this service and just as much faith was placed in the hands of the untrained. Significantly the first medical journal to be published in New Zealand was entitled *The Homeopathic Echo* (1855-56) and was especially intended for settlers who lived in remote bush areas where “medical assistance of any sort is hardly to be attained” (Gluckman 1976:115).

Early legislation decreed all ingredients in medicinal compounds must be known to the public and medical handbooks presented recipes for poultices, tonics and tinctures, as did early cookery books. Chemists provided the raw ingredients for these remedies such as senna pods, sulphur powder, castor oil, and various tinctures. Many settlers relied heavily on both their medical handbooks and the chemist who was often the first port of call when a family member fell sick.

...Hugh had one of his occasional attacks of rheumatic-gout, which invalidated him for a few days, and which he ultimately cured with a guinea box of Fraser’s Sulphur Tablets (Stewart 1908:116).

A faith and devotion to herbalists, homeopaths and chemists and the formation of medical lodges (Friendly Societies as they became known) greatly reduced the earning potential of medical men in the young colony. Friendly Societies originated in England and were established to assist the poor in accessing medical services. Members of the Friendly Societies paid an annual fee, generally one pound per head, which the society duly paid to a local or contracted doctor. The doctor was then obliged to attend to the member and his or her family free of charge. This system operated well in England where clear class distinctions prevented the wealthy from utilising

this service. In New Zealand however the Medical Association ran constant campaigns against the system accusing members of being too wealthy to belong and abusing a system designed to help only the poor. One doctor described members as

...insolent, exacting and tyrannical. Wealthy men belong to them and exact attendance from the wretched medical man at a truly miserable remuneration. The medical man, being generally the only decently bred person in the whole district, is a target for the ruffians who inhabit it and whom a fortunate country has carefully exported. Let no medical man come out to the colonies in hopes of making his fortune. If he makes a bare living by very small fees and in spite of contumely and hardship, he will have met with average good fortune (Wright-St.Clair 1987:20).

Another threat perceived by members of the NZBMA was the establishment of public health services and the involvement of the colonial government in matters relating to health. By 1872 the government could no longer cling to the belief that disease was not a problem in the colony and a small outbreak of smallpox proved the impetus for an organised system of health. The first Public Health Act was passed in 1872, significantly one year before the New Zealand Medical Association formed.

Under this Act health boards were established and power and authority was given to European men employed as public health officers. In 1876, following the abolition of provincial governments a new Act resulted in a central governing board of health. This singularly ineffective body continued for twenty four years, meeting infrequently and failing to initiate any public health policy (Maclean 1964). "The laissez-faire attitude of politicians combined with the fatalism of the Victorian public produced a lack of care about disease, except when great epidemics caused mad panic" (Wright-St.Clair 1987:111). Laypersons heavily outnumbered those employed within local boards and medical men continued to voice their concerns regarding the health of New Zealand inhabitants and the poor performance of the boards. During the late

1800s fiscal restraints, local government rivalries and over-bureaucratism resulted in national initiatives that provided little service to the public. Despite this the government continued to pass Acts and increase its jurisdiction over matters of health.¹⁹

In 1885 public hospitals in New Zealand were brought under the control of the Hospitals and Charitable Institutions Act (New Zealand's equivalent to The Poor Law authorities) and hospital boards, appointed by local authorities were made responsible for the operation of each hospital. The NZBMA resented the growing influence over the medical profession and in particular criticised the "increasing burden of hospital expenditure" (Wright St-Clair 1987:106). Health boards in turn placed expectations on doctors to continue honorary positions in hospitals. The fact that many boards were reluctant to pay doctors for their services, led to conflict between doctors and the state.

Though he or someone on his behalf had signed the contract to pay 30/- per week while in hospital, that he often had not the means and therefore should be on a charitable basis was always a grievous matter to the board...He was usually young (average age of hospital patients in 1868 was 22.2; average age in ward 8 in 1958 was 65.3). He frequently came from outside the city. The patient admitted because of accident or infection was usually dead or convalescent within a week (Bennett 1962: 54-55)

Patients seeking charitable aid were required to produce sufficient evidence of pauperism before obtaining a certificate from local authorities that could be redeemed for medical treatment (Webb 1910). This assistance was the only support, apart from Friendly Societies, that people had in times of sickness or debilitation. Charitable Aid Boards endeavoured to maintain good relations with attending physicians. Fearful of practitioners shunning poorer patients, they were also wary of providing treatment for people who would have

¹⁹ By the 1930s the Department was represented or administered the board of health, the Medical Council, the Masseurs Registration board, the Nurses and Midwives Registration Board, the Opticians Board and the Plumbers Board (Dow 1995).

otherwise paid for treatment had the aid not been available. The latter contention became a recurring theme with the NZBMA who staunchly opposed social dependence by anyone not absolutely destitute. Doctors argued “the gratuitous services of medical men are intended for the poor and not for such as can afford to pay for their attendance” (Wright St. Clair 1987: 99) and if doctors were giving their services for free, who was left in the community to pay for private practice.

The establishment of public health services changed the way New Zealanders viewed their health, their bodies and the progression of their society. New Zealand’s reputation as a land of healing was proving inaccurate and the consequences of this promotion were evoking new attitudes and responses.²⁰

New Zealand does not invite persons suffering from tuberculosis, in any form, to come to the Dominion. Therefore in no sense of the word can this Southern Britain be regarded as a health resort for the consumptive (Bryder 1999:115)

Health officers were given an inflated sense of authority prompted by increasing anxieties surrounding infectious disease. This power has been described by Foucault as the coercive and discriminatory control over bodies in the name of public health (Lupton 1994). Foucault argues that by the nineteenth century a new medical discourse had emerged that defined disease as problematic, dangerous and a direct threat to society. Disease became constituted in the social body rather than the individual. Charitable and religious organisations that had once attended to the sick and indigent were replaced with state apparatuses directed towards policing behaviour and preserving the labour force (Lupton 1994). The introduction of record

²⁰ Sufferers of pulmonary disease who had once been encouraged to the colony were now regarded as a drain on the state. The campaign that had promoted the country as a sanatorium was rejected and actively fought against by Chief Health Officers James Mason and Thomas Valentine. Both men recognized tuberculosis as major cause of death in the colony and one that was raising the county’s medical expenditure (Dow 1999).

keeping, monitoring, measuring and reporting back to government agencies was justified by the pursuit of health and provided a basis for public health initiatives. People accepted this new rationale to varying degrees, exposing themselves to the medical gaze in ways they hadn't before. The medico-survey became an important tool in managing and controlling the population under the guise of public health.

The rhetoric of public health discourse is such that the individual is unaware that the discourse is disciplinary; health is deemed a universal right, a fundamental good, and therefore measures taken to protect one's health must be necessarily the concern and goal of each individual. Initiatives to encourage individuals to change their behaviour, to know the risks therefore are seen as benevolent (Lupton 1994:32).

In 1900, fear of a plague pandemic prompted the amendment of New Zealand's Public Health Act. This amendment was marked by the establishment of the world's first national Department of Health. Six District Health officers were given the authority to declare any building or land unsanitary and order its demolition, enforce compulsory medical examination on any man, woman or child and implement compulsory quarantine (Maclean 1964). People's privacy, their rights and their possessions were controlled in the name of public health. People were subjected to intense scrutiny from health officers and their behaviour was judged as right or wrong according to definitions provided by the Department. These definitions were presented at public lectures and included in medical handbooks, leaflets and newspapers.

Providing information and creating medical discourse was essential to gain public compliance and in New Zealand medical education was imbued with ideas about morality and appropriate behaviour. Disease had long been viewed as a threat to New Zealand's progressive society. However, it was not until the late 1800s that disease became synonymous with immorality. High rates of disease became entangled with moral panics about prostitution, alcohol consumption, vagrants, Chinese immigrants and socialists. Belich

(2001) describes a great tightening in New Zealand society that led to the establishment of organisations such as the Women's Christian Temperance Union and the Ladies' Benevolence Society. The crusade that ensued can be credited with some great achievements such as votes for women and better living conditions for children. Conversely, it condemned and judged people and strengthened class and racial divisions. Book censorship tightened and government-endorsed patrols policed public displays of affection in cinemas, streets and dance halls. Farmers were forced, through legislation, to keep mating cattle in the back paddocks to protect the public from impropriety (Belich 2001). Prostitution in particular was viewed as a significant problem and many turned to the medical establishment for advice and explanation. The establishment responded by suggesting that the propensity for a woman to prostitute herself is an inherent characteristic and entirely treatable (Eldred-Grigg 1984). Treatment consisted of punitive forms of incarceration and hundreds of women were condemned to refuges run by middle to upper class women determined to instil Christian morals and values. The colonial government responded in the form of the Contagious Diseases Act of 1869.

By the late 1800s the bacterial revolution was reaching New Zealand's shores. Scientific theory began to dominate the medical profession reigniting a focus on sanitation and living standards. Members of the NZMBA prided themselves with keeping up to date with overseas developments, voicing their concerns over the calibre of medical care in the colony and drawing attention to the need for specialised bacterial intervention. The Department of Health consisted of Chief Health Officer James Mason and appointed District Health Officers, including a pathologist, Mr. J. A. Gilruth, an analyst, Dr. J. S. Maclaurin and a health officer to Maori, Dr. Maui Pomare (Maclean 1964). These men were required to have special knowledge of sanitary science and bacteriological science and could not engage in private medical practice. All were registered members of the NZBMA.

Maori health was directed by the Native Department, which after its abolition in 1892 handed the responsibility to the Justice Department. In 1900 the Maori Council Act was passed that focused Maori health initiatives on sanitation, housing and clean water. Dr. Pomare, trained by American born Dr. Kellogg had worked as health Officer to the Maori people since 1896 and was now supported by the first Maori New Zealand trained medical graduate, Dr. Peter Buck. In 1904 Pomare published a blueprint for Maori health reminiscent of James Pope's *Health for the Maori: A Manual for Use in Native Schools* (the first of its kind published in 1882 in both English and Maori) that included such aims as training for Maori nurses, the appointment of non-Maori women to provide health care and education to Maori, better use of native officers, separate Maori tuberculosis hospitals and the prohibition of the practices of quacks and *tohunga* (Dow 1999).

During the early 1900s, the Department of Health increased its commitment to the health care of women and children, supported by women's organisations and the establishment of the Royal New Zealand Society for the Health of Women and Children, known later as the Plunket Society. James Mason drew attention to the need for specialised services in the area of child welfare and health, however financial constraints meant that his ideas were put on hold. Regardless, this marked the beginning of a focus on child health and welfare that was picked up later by, among others, Dr. Truby King.

The decade between 1910 and 1920 was marked by the First World War and an influenza pandemic that pushed the country's medical resources to its limits. As a Dominion of the British Empire²¹, when Britain declared war against the central powers to Europe in 1914, New Zealand was automatically in a state of conflict (King 2003). During the First World War New Zealand provided a high level of reinforcements in Europe sending, by

²¹ The signing of the Treaty of Versailles by the then Prime Minister William Massey gave New Zealand a degree of independence, making it a founding member of the League of Nations and giving New Zealand mandated responsibility for Western Samoa (King 2003).

the end of the war, no less than 100,444 men, nearly ten percent of its entire population (Rice 1988). Communities rallied, forming local Patriotic Societies and organising fund-raising events. Groups such as the Women's National Reserve directed women into roles vacated by men serving overseas. The NZBMA made a concerted effort to safe-guard their professional interests and support the wives and children of their colleagues drafted overseas. During this time the relationship between the NZBMA and the state, represented by the Department of Health, was tense. The rejection of any initiative that alluded to socialism was rejected by the majority of members. When Mason's successor, Dr. Thomas Valintine, suggested nationalising the country's medical establishment, it added fuel to a fire that had been ignited by the establishment of the Department in 1900.

By 1918 one fifth of New Zealand's registered doctors were posted overseas, some serving with the New Zealand Army Corps and others assigned to the British Army. Five hundred nurses had volunteered for service on military ships and in military hospitals in England and France. "New Zealand's medical resources were therefore at unusually low ebb in 1918" (Rice 1988:19). It was then that the influenza pandemic reached its shores.

The Spanish Flu is the worst influenza pandemic recorded killing more than twice as many as the estimated ten million who died during the First World War (Rice 1988). The virus paralysed communities, halted economic activity and traumatised families. Morbidity rates in towns rose to as high as 80 percent and the death rate for Maori was seven times that for European. Trentham military training camp erected twenty miles north-east of Wellington, became a breeding ground for influenza. Overcrowding and inadequate infrastructure led to frequent outbreaks of infectious diseases such as measles and septic bronchitis, rendering soldiers vulnerable to the virus that swept through in 1918 killing hundreds in its wake. It would be another ten years before antibiotics were routinely used. The fight against flu

therefore relied predominantly on community initiative and voluntary effort which was already well organised, though exhausted due to the war effort. Many cities and some larger towns divided into blocks each with reporting depots and, later, fumigation stalls.

Fumigation stalls were the primary preventative offered by the state. However the efficacy of these was questionable and people sought to treat their loved ones with anything they could. Camphor bags, quinine tablets, garlic, onion, brandy and whiskey were among some of the preventatives employed (Rice 1988). Dr. William Fyffe, Sanitary Officer for Wellington, advocated a reasonable amount of alcohol (Dow 1995) while many other doctors recommended people take up smoking (Rice 1988). Sulphur was used liberally to dispel flu germs and in some smaller towns sheep dip was used as an antiseptic and sprayed on the streets (Rice 1988).

The actions of the state were scrutinised in the aftermath of the pandemic in a Royal Commission in 1919 which led to major changes to the structure of the public health system. In the midst of the pandemic, the Public Health Act was hastily amended. When the panic subsided this was replaced by a more considered Act in 1920. This Act created seven distinct departments; public hygiene, hospitals, nursing, school hygiene, dental hygiene, child welfare and Maori hygiene. Raising public awareness over issues such as cancer prevention, children's health, food and drug standards, oral health and tuberculosis became a focus for the Department. Preventative health received a renewed focus under this amended Act and was one point that the NZBMA and the Department agreed upon.

Personal behaviour theory influenced these initiatives and many elements of the theory received scientific backing. Nutritional science verified the benefits of healthy eating while hydrotherapy became the science of balneology. Standards and definitions of healthy and unhealthy living were defined and

advocated during this time and annual health weeks were instituted, beginning in Wellington in March 1921. Public lectures were given on topics such as personal hygiene, tuberculosis, diet, open-air schools and infectious diseases. Other towns followed suit, Christchurch's campaign under the slogan *Prevention is better than cure*. Throughout these campaigns doctors in the NZBMA contributed reports and observations to the department who in turn conveyed these to the public. Health camps epitomised these ideals and were established by a number of voluntary organisations working together with the Department of Health. Hundreds of children spent time at these camps originally established to combat the malnutrition associated with tuberculosis (Dow 1995).

During this time medical handbooks flooded the market. Their directives and instructions allow us an insight into the responsibility people took for their own health and shed light on a society that was placing more and more faith in medical science. In *Home Nursing*, first published in 1923, the author instructs the reader on how to give a hypodermic injection and treat infectious diseases such as anthrax and diphtheria. Sanitation is a focus in these books, signalling the rise and influence of germ theory.

On the heels of the great depression²² the Labour Party, equipped with a portfolio that included a system of social security for all, was elected into parliament and sat for the first time as New Zealand's government. Its focus on socialism and intention to implement a universally applicable health insurance scheme caused alarm and opposition from the NZBMA who saw its members' incomes, control and autonomy threatened. The implementation of

²² By 1931, New Zealand was in the grips of the great depression. Export prices had fallen by 40% and government revenue fell by half. When the unemployment register opened on February 1931 23,000 put their names down. By June this number had risen to 51,000. In the height of the depression, King (2003) states unemployment rose to as high as 100,000, 40 % of the male workforce. Government expenditure was decreased significantly and public health initiatives were put on hold.

this scheme appeared inevitable and was encouraged by the organisation of health care during the First World War. It was also welcomed by families recovering from the depression. Despite this it was fervently opposed by NZBMA who had already taken steps to challenge the Bill, organising in 1920 a committee to fight the then-rumoured scheme (Wright-St. Clair 1987).

In 1938 the Social Security Bill was passed. Contained in the Bill was an offer of contracts for maternity benefits to doctors practicing in this field. The NZBMA rejected this collaboration as it did the introduction of hospital benefits. Hospital benefits came into effect in 1936 and despite doctors complaining previously about their obligation to work unpaid honorary positions in hospitals, now faced with an income, they were equally scathing.

The profession has been bred for centuries with a tradition of charity which to a certain present trend of social thought has become repugnant, but which we have not cast off....The community, we are told, no longer desires our charity and no longer wishes us to be able to give it (Wright-St.Clair 1987:142).

The Association's resistance to any universally applicable initiative mimicked the opposition demonstrated by doctors in both Britain and America faced with similar initiatives. Sir James Barr, president of the British Medical Association was one of a few who mention the social implications of the Act, writing:

It [national health insurance] is a long step in the downward path towards socialism. It will tend to destroy individual effort and increase that spirit of dependency which is ever found in degenerate races (Wright- St.Clair 1987:129).

The Association fervently opposed any control over their incomes, a point that led to much criticism from the public who accused doctors of being concerned only with money. Doctors insisted however, that not only were their incomes threatened but also the status of their position. Being paid from the Social Security fund they believed would reduce the profession to one of civil

servant and rights and liberties, once surrendered, would never be retrieved (Wright- St.Clair 1987). Negotiations continued for several years until in 1941, without the backing of the NZBMA, the Labour Government passed a universally applicable general practitioner scheme. This capitation scheme paid practitioners for every man, woman and child on their list of patients and was supported by rural doctors who welcomed the opportunity to standardise their income. Others rejected the proposal and continued to fight until the fee was increased and an amendment provided doctors with the opportunity to charge (and set their own payments) on top of the capitation.

Despite their opposition, Social Security promoted the monopoly doctors now hold in the medical field. Patients, though slow to adapt to the new ways, eventually turned to the medical care that was subsidised. The NZBMA effectively presented itself as the most advanced and professional group of practitioners and by receiving what was in effect government endorsement, gained the monopoly on the medical market. Alternative practitioners, for whom people had to pay full price, became marginalised. Medical science gained precedence, doctors gained respect and their jurisdiction increased resulting in a medical dependency that moved the focus towards curative health and away from personal responsibility.

Conclusion

The European colonisation of New Zealand made permanent and irreversible changes to the environment and the health of the people who lived there. Whalers, traders and sealers were among the first Europeans to arrive, bringing with them diseases and lifestyles that were to have significant and abhorrent consequences for Maori. The impact of introduced disease and unruly behaviour, in what soon became a major centre for trade, prompted first missionaries and later the British government to intervene. By 1840 New

Zealand became part of the British Empire and the first great wave of European emigration began.

Encouraged by congenial promotions, thousands of people from Britain and Europe immigrated to New Zealand bringing with them materials, skills, knowledge and ideals. Colonial administrators struggled to accommodate and control the burgeoning population, playing a kind of catch up game with Acts and Grants passed in response rather than anticipation. In order to support emigration, justify colonisation and encourage early portrayals of the colony, they denied the incidence of disease in Europeans while they highlighted the susceptibility of Maori.

By the 1860s the unsettling truth about the prevalence of disease in New Zealand became apparent and administrators, adhering to the ideals of a progressive society, adopted a scientific approach to medical care. Scientific techniques and empirical analyses were used to judge the health of not only the individual, but also the nation and the statistics they generated justified social controls and regulations. The first Public Health Act was passed in 1872 and highlighted the importance of bacteriology in the fight against infectious disease. Fiscal restraints and a lack of organisation however reduced the government's ability to react and in the 1800s, medical assistance was predominantly given by private practitioners and members of the community, mainly women, who, out of necessity worked tirelessly and with little remuneration. "The distinctions between medical professionals and lay sufferers of illness in this period were highly porous" (Colebourne 2009: 41) and before long, in order to distinguish themselves from other practitioners and promote the professionalisation of medicine, colonial doctors organised themselves into a distinctly political body, the NZBMA.

In 1900 New Zealand established the world's first national Department of Health. This department, recognising the financial and practical benefits of

personal behaviour theory, promoted individual responsibility and encouraged colonists to consider their health as a reflection of their behaviour.

The livelihoods of late-nineteenth-century New Zealanders depended greatly upon maintaining 'good health'....Mindful of this, contemporaries sought to define and explain health in a variety of ways (Colebourne 2009:44).

This had the combined effect of addressing both disease and unacceptable behaviour such as prostitution and alcoholism and effectively placed responsibility for the health of the nation in the hands of individuals. Women in particular were encouraged to educate and assist people in their pursuit of health and did so by associating bad health with immorality. Good health was presented as the reward for following guidelines and assisting in the creation of a progressive and moral society. Bad health was viewed as the consequence of deviating from this objective.

In the 'new morality' of preventative health, falling ill has become viewed as a sign of moral failure, a source of blame. States of health, therefore, are inherently associated with moral meanings and judgements (Lupton 2000).

By this time the NZBMA had grown considerably in numbers and influence and the relationship between the Association and the Department of Health varied over time between outright hostility and amicable co-operation. During the 1900s the Department of Health did little to support doctors' attempts to eliminate alternative practitioners from the market and as a consequence alternative therapies and home remedies remained popular. By the 1940s the introduction of the Social Security Act gradually changed all this, effectively encouraging greater dependence on doctors and moving the focus from preventative health to curative. Medical care became increasingly more organised, accessible and technical and people who had previously relied on home medical books, family members and neighbours turned to the medical profession for advice and assistance.

This chapter has discussed the role the state played in maintaining the health of the colonial population and has explored the fight for medical control and the influence of colonial doctors. State intervention was clearly limited in the 1800s and by the 1900s the Department of Health encouraged individual responsibility. The number of colonial doctors in the 1800s limited the care available to settlers while in the 1900s the fight for medical control clearly overshadowed the provision of care. How then did settlers maintain and view their health in light of these inadequacies? The following chapter attempts to answer this question by revealing that many colonists relied, not on visiting physicians or government funded initiatives, but on women applying knowledge they brought with them to the colony and adapted in response to their new environment. This knowledge was not limited by scientific reasoning but included alternative ways of viewing health and medical care. It combined elements from etiological theories, alternative remedies and practices as well as biomedical perspectives. This system of domestic health care has a history as relevant and important as that just discussed.

CHAPTER FOUR

Domestic Health Practices

Introduction

Described in the humblest of terms by women in their diaries and letters is evidence of an important and widespread system of health care that existed in colonial New Zealand. This system of home care catered to hundreds of families and individuals who were vulnerable to sickness and disease and who were often isolated either socially or geographically. This chapter is designed to explain the exclusion of this system from our country's official medical history and presents evidence to determine the vital role this played in colonial society.

The first part of this chapter explores the notion of gender and examines the role women played in colonial society. During the nineteenth century a preoccupation with the differences between men and women led to a strict division of labour. Domestic duties, including domestic health care, were considered a woman's duty. Gender related beliefs and ideas affected not only how settlers lived and worked but also how our country's history was recorded. In relation to this I will explore the under-representation of domestic health care in our country's official medical history.

Part two considers the construction of medical knowledge and the popularity of medical handbooks. While the professionalisation of medicine in Europe and Britain created distinct boundaries between biomedicine and alternative remedies, I will argue that this dichotomy was not as rigidly expressed in the realms of domestic health care. In the professional sphere the vested interests of professionals underlay their animosity towards alternative

remedies. Those who provided domestic health care nevertheless remained relatively unbiased. By the twentieth century many women were accepting an increasing medicalisation of their lives. However, the necessity for and faith in home remedies persisted. Medical handbooks met the demand for this approach, combining scientific rationale and technique with popular domestic remedies. These books challenged the jurisdiction of medical doctors and promoted the role of the chemist in colonial society. Chemists played an important role in early New Zealand and I will explain why this was so.

Part three sheds light on the personal experience of disease in the colony by exploring colonial literature and correspondence. How women perceived their health and the importance they placed on their role as healers is discussed. The modest way in which women refer to the care they give alludes to a stoicism we often associate with the time. Part four explores the use of medicinal plants and the combination of traditional Maori medicine with European practices. In conclusion, I will argue that by focusing further research in this area, a significant and important addition to our country's history will be made.

Women in Colonial Society

Edward Wakefield's vision for New Zealand included creating a society that displayed qualities exhibited by both men and women. In the nineteenth century these qualities, which included industriousness and morality, were inextricably linked to ideas of gender. Supported by social and political discourse and literature, and arising from religious and later scientific doctrine, men were ascribed a particular set of qualities, women another. Women were perceived as moral and pure while at the same mentally inferior and physically weak. Men were attributed with strength and decisiveness but were also excused from unsociable behaviour such as physical violence on account of their 'manliness'. Defining these qualities determined the role both

men and women played in society. While men were expected to go out to work and return with an income, women were placed squarely in the role of homemaker, wife and mother.

In Britain, books such as *The Women of England, their Social Duties and Domestic Habits* by Mrs. Sarah Stickney Ellis enforced these ideas and presented standards and behaviour women were expected to display (Dalziel 1986). According to these publications, women were ultimately responsible for preserving the moral fibre of the nation. By creating a haven of peace and tranquillity in their home and an environment of pure and gracious sanctity they would nurture their position which would always be inferior to the men (Dalziel 1986). Later medical handbooks such as the *Ladies' Handbook of Home Treatment* (Richards 1939) would enforce these ideas adding a scientific justification and encouraging a medicalisation of women's lives. J. H. Kellogg, M.D., a fervent advocate of personal behaviour theory, wrote the *Ladies' Guide in Health and Disease* (1895). In this Kellogg addresses the "increase in the number and frequency of that very large class of maladies familiarly known as 'diseases of women'" (Kellogg 1895:i). While his colleagues attribute this increase to an escalating intellectuality, faulty methods of education, or injurious climatic influences, Kellogg suggests that a lack of physical culture, defective home training, sedentary lifestyles and too much excitement are among the prime causes. The *Ladies' Guide* is an attempt to address these concerns by presenting both practical and moral guidance to a woman through all her life stages; the little girl, the young lady, the wife and the mother.

The Homeopathic Echo, (1855-56) the first medical journal printed in New Zealand, includes a chapter on the *Treatment of Women and Their Peculiar Affections* supporting the distinction between men and women and enforcing the perception that women were both vulnerable and biologically unique.

On the basis of these perceptions Wakefield strove to ensure that equal numbers of men and women arrived in New Zealand during the early stages of colonisation. Women would, according to Wakefield, maintain the morality, virtue and gentility of New Zealand men, an issue for administrators since the early days of sealers and traders. Wakefield encouraged men immigrating to marry before they left or soon after they arrived in the colony as this would ensure “the strongest motives for industry, steadiness and thrift” (Dalziel 1986:57). Women, in their role as homemakers, wives, housekeepers and mothers, were seen as fundamental to the colonial vision and administrators actively campaigned to maintain the balance of the sexes.

Charlotte Macdonald (1990) writes about the effort on the part of colonial governments to import women of good character to New Zealand. Throughout the nineteenth century more men than women immigrated to New Zealand and the need for women to fulfil roles as domestic servants and wives became apparent (See Appendix Five). Provincial governments, assisted by private enterprises, ran campaigns from 1862 onwards to balance the ratio of the sexes. The Otago government was among the first to provide financial assistance to around 1,300 women who arrived in Dunedin direct from London and the Clyde. The Canterbury government followed suit assisting over 4000 during the 1850s and 1860s. In the 1870s single women made up around one-fifth of the immigrants brought to the colony through assisted immigration schemes (Macdonald 1990).

Right from the start these schemes proved controversial and emigration societies soon formed to address related concerns. Sydney Herbert²³ focused on the opportunities emigration offered to women while others, including the British Ladies Female Emigrant Society, concerned themselves with the conditions these women were subject to on board and on arrival (Macdonald

²³ Sydney Herbert worked hard to commandeer passage for London needlewomen in 1850 whose undesirable circumstances had been brought to the public's attention by Henry Mayhew (Macdonald 1990).

1990). The concern that notions of class and etiquette were being ignored prompted the National Benevolent Fund for Widows and Orphan Daughters of Gentlemen, Professional Men, Officers, Bankers and Merchants to provide financial assistance which gave women an opportunity to emigrate without loss of caste. This organisation together with the Female Middle Class Emigration Society founded by Maria Susan Rye²⁴ clashed with government ambitions which focused on bringing women who, by experience and class, were used to the heavy routines of colonial life (Macdonald 1990).

Domestic service was the greatest source of employment in the colony for young women and work in this area remained the dominant paid occupation for women in New Zealand up until the Second World War (Dalziel 1986). Later teaching and nursing, occupations deemed appropriately suited to notions of femininity, proved equally popular. The other great occupation, which domestic service was viewed as a form of training for, was marriage. In the 1874 census only 15 percent of women over twenty were single and only 5 per cent over the age of thirty (Dalziel 1986).

Marriage and domestic service kept women in the realm of home and family. However, in the colonial context, this role proved more challenging and offered a greater sense of reward than it did back in the homeland. The supply of domestic servants never met the demand and frequently middle and upper class women found themselves engaged in manual labour. Many assisted their fathers or husbands in their farming or trading endeavours while others embarked on business ventures, contributing to the family income. Adela Stewart's life was typical of many middle class settlers. Adela sailed to New Zealand in 1878 with her husband, his parents, their only child a son of seven, and Lou, a daughter of a friend. Settling in the small town of

²⁴ Rye visited the colony in the 1860s and was instrumental in early feminist circles in New Zealand, promoting and financing the emigration of middle class women whom she encouraged to achieve economic independence. Rye was instrumental in reforming the married women's property law and travelled extensively throughout the colony concerning herself with the conditions and betterment of women (Macdonald 1990).

Waihi the Stewarts were industrious from the start. They converted old stables into a fine homestead and grew and produced the majority of their food. Adela worked tirelessly and as hard as any domestic servant, the employment and retention of which she agonised over frequently (Stewart 1908).

Women in New Zealand found themselves challenging the assumptions made about their strength and intelligence. However few challenged their role in the home and their position as inferior to men. New Zealand women fought for their suffrage, not by challenging gender roles but by embracing them (Else 1993).

The conception of women's role as wife, mother, homemaker and guardian of society's morals, was, I would argue, very closely associated with the agitation for suffrage and with the early extension of the vote to New Zealand women. The early New Zealand feminists, female activists and pro-suffrage males argued from a position solidly based on the family....Political rights were a recognition of the worth of that vocation, and a complement to it (Dalziel 1986:64).

Early feminist writers such as Mary Ann Muller appealed for the right to vote on the grounds that the virtues and qualities of women, such as their purity of spirit, should be allowed to infuse politics and assist men as they had done since their arrival in the colony. Mrs. Mary Colclough, a prominent activist who wrote and lectured under the pseudonym of Polly Plum, held similar views, asserting that women are "emphatically 'the weaker vessel' and we shall never, as a body, equal men as a body" (Dalziel 1986: 65). The campaign for franchise was greatly assisted by the prohibitionist movement led by Kate Sheppard which enforced the perception of women as moral police. Eventually politicians and suffragettes agreed and on 19th September in 1893 vice regal assent was given to an electoral bill which enfranchised New Zealand women on the same terms as men. Supporters agreed that allowing women to vote would increase attention to social and domestic problems

(such as prostitution and alcoholism), it would eliminate the coarse and corrupt behaviour associated with voting and politics and it would ensure the wrong sort of man no longer returned to parliament. The claim for women's franchise rose, according to modern historians, out of the achievements of women within the home and their new found sense of value and worth (Dalziel 1986).

The fears expressed by anti-suffragettes that women would adopt more masculine habits and reject the role of homemaker and wives was abandoned soon after the franchise was won. An assessment by Lady Stout in 1910 on '*What the Franchise has done for Women and Children in New Zealand*' showed clearly that the vote had not led women away from the home and into the world of men. Instead, the vote had created a sense of true comradeship with men and a new sense of responsibility. This responsibility included maintaining their role as homemakers and moral guardians and women committed themselves to this role with renewed force (Dalziel 1986).

Women continued to establish organisations (often working under the auspices of men) designed to address the ills of society. These organisations sought to instil elements of social purity, enforcing standards on women they hoped men would meet (Else 1993). Organisations such as the Onehunga Ladies Benevolent Society, the Methodist Ladies Guild, the Girls Friendly Society and the New Zealand League of Mothers focused on the health and welfare of women and children. In these organisations women constructed and shared information including valuable medical knowledge, which up till then, had been present but rarely publically discussed.

In the 1800s New Zealand's settlers had received little medical advice. Early administrators were reluctant to challenge the perception that all Europeans were healthy or would become so once they disembarked and what advice was given often referred solely to emergency or survival medicine. *Brett's*

Colonists' Guide (1897) suggests learning how to bleed, set a broken limb and bind wounds. If the colonist can learn how to amputate, writes Brett, so much the better. He recommends immigrants procure handbooks on the subject, suggesting *Household Surgery* by John F. Smith and *Druids Surgeon's Vade Mecum* (Leys 1897). The necessity for medical knowledge led to the sharing, adapting and promotion by women which became an essential and vital part of colonial life. Despite this, little reference of this is made in New Zealand's official medical history.

Placed squarely in the realm of domestic duties, home health care has been traditionally practiced by women and unfortunately the "realms in which most women spent their lives tended not to be the realms which drew the attention of historians" (Macdonald 1990:2). In Cathy Ross's book, *Women with a Mission* (2006) she describes the sharp distinction between the public world of men and the private world of women. While the significant actions of men were readily recorded and made public, those of women remained private. This veil of privacy made my research difficult, as did the general reluctance to discuss medical matters and the fact that colonial life left very little time for correspondence or journal entry. Charlotte Macdonald describes the difficulties she faced writing an account of working class women in early New Zealand articulating the challenges I have faced finding references to home doctoring.

In reconstructing the lives of working-class women, there are several obstacles to overcome. The most important is the paucity of source material. Apart from a few shipboard diaries, very occasional letters and words uttered before officials, these women left virtually nothing of their own account. They are largely mute in the historical record (Macdonald 1990:11).

Women have been typically regarded as incapable of contributing little more than peripheral assistance to the major events that have shaped our history and as such have been virtually discounted and disregarded. Ross (2006) states,

'The women have simply disappeared'. However, it is not that women were absent from history - women have always been there - but rather that history has been written from a particular standpoint from which women were often excluded (Ross 2006:9).

Addressing this omission and giving a voice to colonial women has occurred, according to Ross, in stages. The first of which, she refers to as the 'compensatory stage' (Ross 2006). This stage returns women to the story but does so through the lenses of men. This can be seen in Simpson's book *The women of New Zealand* (1962).

A further difficulty has been the comparative lack of records other than those written by men and from a man's point of view. It will therefore be necessary for readers of this volume to read it, as I have tried to write it, with imaginative sympathy (Simpson 1962: viii).

A later stage, a 'contribution stage', discusses the history of women in terms of their contribution to a male dominated society. This stage is both important and relevant but nonetheless still relates back to men and their actions. The fourth stage, as described by Ross, stems from a women's perspective, how history is appreciated, experienced and understood through the eyes and minds of women. This stage examines how women lived, their experiences and ideals, their social networks and position in society and their relationships with their families, their community and their power. *Brave Days: Pioneering Women of New Zealand*, compiled and published by the Women's Division of the New Zealand Farmers' Union (WZNZU) in 1939, is an example of such a history. This book, written by women for women, presents short biographies and includes details that would otherwise be considered insignificant. These histories move beyond the overriding achievements by prominent figures such as Kate Sheppard and Jean Batten and present a broad view of women's lives "where the common distinction between 'life' and 'work' rarely fits" (Macdonald, Penfold and Williams 1991:vii).

My own contribution to this area will focus on the medical care women provided to friends, family and neighbours and in particular the care given by those who were medically untrained. Women like Mrs. Hill and her daughter Mrs. Hugh McKenzie worked tirelessly as midwives in the Auckland area. Mrs. Saunders and Mrs. Nicholson attended all births in the Raglan area. Mrs. Whitworth who of “modern antiseptics she knew little or nothing” (WDNZU 1939:86) devoted fifty years to backblock nursing in the Bombay area in Auckland. Catherine Wallace of South Westland had fourteen children and frequently used Maori remedies such as flax root and koromiko. Mrs. Stronge of Opunake set the broken leg of women after ordering a drunken doctor away. Miss Betts of Okaiwa, Taranaki, worked tirelessly for neighbours during the diphtheria epidemic of the 1860s, and there were numerous ‘Howdies’, (so called after their habit of greeting their patients with “Howd’ye fin’ yersel’ the morn?”) women of Scottish descent who, though untrained, provided midwifery service to hundreds in Otago and Southland (WDNZU 1939). Theirs is the story that remains untold.

Medical Knowledge

If we look simply at medical knowledge we may view it as taking two distinct forms, alternative or scientific. Alternative knowledge includes that which had been applied by people for centuries and that which defies scientific explanation. Medical science or biomedicine in contrast, rests on scientific justification and is an institution that, since the nineteenth century, has reflected modernity and the ideals of a progressive society. The clear boundary between these two forms has existed since the mid-twentieth century. However in nineteenth-century New Zealand, the dichotomy was less distinct. Various remedies we would consider alternative today received scientific validation. Hydrotherapy was one such example. Termed balneology, this form of therapy received much praise from the scientific community in the nineteenth century (Rockel 1986). It was advocated by

physicians who prided themselves on their scientific acumen and was included in most home medical books where it was described as an effective therapy. The use of medicinal plants was usual before the rise of the pharmaceutical industry and it was not uncommon for hospital nurses to apply a mustard poultice or tincture of arnica.

Unlike overseas the fight for medical control in the colony did not revolve around rejecting alternative knowledge or resisting scientific explanation. Instead colonial doctors objected to alternative or untrained *practitioners* whose practices threatened their income and who, irrespective of their perspectives, they labelled quacks. In the same respect, those who challenged doctors did not necessarily reject science, rather they used science to validate and legitimise alternative views on health. Theoretical perspectives merged and were accepted to varying degrees by those fighting for professional dominance as well as those resisting doctors' attempts to gain authority and power. Medical knowledge in the colony was a combination of alternative remedies and scientific technique and theory and was presented to people in a variety of ways.

By the turn of the twentieth century, women's organisations such as the Women's Christian Temperance Union (WCTU), together with the Department of Health were presenting information and educating people on their health and wellbeing. These organisations, run by nineteenth century feminists, were influenced by the ideals of the American Popular Health Movement and the writings of overseas writers such as Frances Power Cobbe, (who wrote *The Little Health of Ladies*) and Dr. Alice Stockham. This discourse centred on personal behaviour theory and emphasised personal responsibility. It accepted alternative views on health and challenged the Medical Association's condemnation of alternative practitioners. The *White Ribbon*, the forum for the WCTU, had this to say:

What has contemptuously been termed 'quackery' has as much claim to our considerations as the methods which find most favour in the medical school (Else 1993:243).

Early groups included the Young Women's Christian Association, the National Council of Women and the various divisions of the Women's Institute. These groups were primarily concerned with establishing a woman's basic right to good health and, as discussed in Chapter Two, were dedicated to raising the moral tone of society. Raising the conditions in which women worked and lived was among their objectives. So too was challenging the perception of a woman's body as problematic and vulnerable to disease. These groups held public meetings and lectures and published handbooks that contained information relating to health, household hints and moral concerns (Else 1993). These topics reflect the realm that women occupied and were also covered in early medical handbooks.

Dr. Chase's Medical Receipt Book, first published in 1884 is consistent with the tone of these books which were designed to educate and instruct women. It begins with a detailed section on specific diseases from chicken pox to malaria, providing graphic accounts of symptoms and treatments. Listed under 'causes' are environmental and climatic considerations that reflect the influence of miasmatic theory. The second half of the book provides advice on nursing the sick including ideal temperatures and conditions for the sick room; good ventilation, low light and low humidity. A culinary or cooking section gives recipes for substantial meals suitable for specific ailments and the latter part of the book is dedicated to such domestic duties as agriculture, bee-keeping and dairy farming. A miscellaneous section includes helpful advice such as how to wash lace curtains and kid gloves as well as recipes for pastes, cements and caterpillar poison.

The Concise Household Medical Encyclopaedia published in London presents medical advice in an alphabetically arranged compendium of household hints. 'Adenoids' appear before 'adhesives' and baths are

recommended to be taken at least once a week (Hammerton circa 1910). Health is defined as every organ working so as to allow the body to perform comfortably with vigour and without undue fatigue. The author states that health may be undermined by the pursuit of personal habits that are generally wrong. Moral connotations are neither subtle nor infrequent in these early books, many of which speak with religious authority.

By the turn of the century the information found in these books as well as that presented and advocated by women's groups had grown considerably more scientific. 'Household advice' became 'domestic science' and was made compulsory for girls in schools. Domestic science became a university degree in New Zealand in the early 1900s and the curriculum included medical studies (Macdonald *et al* 1991). Eugenic ideals, as advocated by Sir Truby King, were promoted (Dow 1995) and doctors, encouraged by the presence and growing influence of science, offered their support. Women's organisations invited doctors to give lectures on the prevention and treatment of diseases which encouraged the medicalisation of women's lives.

...white women, especially mothers, were 'at the forefront of the battle' against disease and were 'expected to guard the health of their families'. Mothers were also drawn into scientific discourses of hygiene and cleanliness, with advocates of 'home science', notably Dr. Fredrick Truby King, raising expectations of women's role in the health management of the home (Colebourne 2009:41).

Women who established themselves in a professional medical sphere traditionally dominated by men, encouraged women to view their bodies as problematic. In 1927 the New Zealand Obstetrical Society was formed to counter what was described as the Health Department's reign of terror which included the view that birth was a natural and easy process. Doris Gordon, a founding member, agreed with overseas research that perceived childbirth as dangerous and encouraged New Zealand's health professionals to view it as such (Dow 1995).

...prominent obstetrics overseas are emphatically teaching that pregnancy from start to finish is a process fraught with danger and must be treated accordingly (Dow 1995:103).

These women encouraged the professionalisation of medicine and led their own campaigns to standardise medical knowledge. Nursing arose as an occupation during the 1800s and gave women the standardisation and validation they sought. One of the founding institutions was the Deaconess Institute in Germany. There, women were given the title of deaconess and were encouraged to adopt ideals of dedication and devotion. They were taught fundamental principles of nursing and were instructed to care for the sick poor. Florence Nightingale studied there for three months and Elizabeth Fry visited in 1840, subsequently founding the Sisters of Charity. The much published work of Nightingale during the Crimean War spurred the real promotion of nursing as a profession and a nursing training scheme was initiated in 1860 at St.Thomas Hospital in London. Soon after, training institutions were established in many of the bigger cities and young middle class women began to view nursing as a legitimate and respectable career (Trotter 2003).

This trend was replicated in New Zealand in the 1880s and by the early twentieth century better education, an increase in social mobility and a World War led to a significant increase in the numbers of nurses working in New Zealand hospitals. Untrained and independent nurses were increasingly supplanted by hospital trained nurses who practised while adhering to guidelines much different from those untrained. Hospital-based training imposed a hierarchical régime. Nurses were taught to obey and listen to doctors with strict efficiency and rules and restrictions surrounding the conduct, etiquette and behaviour of nurses were enforced, often by the nurses themselves. In 1909 the Trained Nurses Association formed in order to promote the interests of trained nurses only. The association deliberately excluded untrained nurses in an attempt to distinguish themselves from

domestics. The professionalisation of nursing effectively followed that of doctors, accepting and promoting the standards doctors set while covertly encouraging autonomy (Belgrave 1991). This movement progressed in city centres while nurses, trained or otherwise, continued to provide care in rural sectors.

Margaret Macnabb who completed her training at Christchurch hospital, moved to the remote settlement of Te Kaha on the East Coast in the 1930s. There she lived in a very “primitive and poverty stricken place that had originally been a Maori dwelling” making it habitable and homely with a settee made out of orange boxes complete with a “...cushion with frills to go on it” (Cowley 1998: 52). Macnabb lived there for four years providing medical services without assistance and with few medical provisions. With no “doctor around for most of the time” and often difficult births to attend to, Macnabb relied on the training she had been given at Christchurch hospital and the guidance from books such as an obstetrics manual written by a Mr. Jellett, a Dublin doctor and teacher. Many of her patients sent for her assistance by way of small notes and she travelled to them on horseback. Macnabb went on to become nurse inspector in Wellington during the Second World War working with “naughty girls during the American invasion” (Cowley 1998:73).

Like Macnabb, many health providers continued unaffected by the debates surrounding professionalisation. Medical handbooks, the only guide many of these healers had access to, flooded the market and by the 1920s it appeared “almost every [house] contains its doctor’s book” (Haresnape 1923:13). The advice these books gave supported the increasing influence of science by including scientific terminology and biomedical applications. Most include anatomical illustrations and encouraged the reader to become familiar with basic physiological processes. Many of them were written by doctors and warn the public against ‘quacks’, however, they make no association between ‘quacks’ and alternative remedies, many of which, by today’s definitions, make up the greater part these books.

The information contained in this medical library is based on the assumption that every man has a right to all knowledge he can acquire, on all subjects, medicine not excepted.... A more general diffusion of medical information has also the effect to render the public less easily imposed upon by the numerous 'Quacks' who abound everywhere, and who reap their gain chiefly from the fact that the people know all other things better than they *know themselves* (Miller, Hunt, McCormick, Burr and King 1943: v, emphasis in original).

While earlier books were somewhat limited to poultices, wound dressing and the administration of medicine, by the 1920s books included procedures such as hypodermic injections, catheterisation, inhalations and enemas (Haresnape 1923). These books were predominantly written for women by men and enforce the gendering of roles. Nurses are referred to as 'she' or 'her' and doctors are 'he' or 'his'. Minute details include not only the practical aspects of nursing but also appropriate bedside manner and behaviour around attending physicians.

In *Home Nursing* (1923) by Isobel Haresnape a preface describes Isabel's desire that the book be small enough to be affordable to woman even of small means and hopes it will become the household standard that the cookery book is. The book is aimed at providing practical advice so even women with no nursing training can attend to a patient under the supervision and guidance of a doctor. A chapter on poultices, plasters, fomentations and compresses illustrate the persistence of tried and true remedies such as mustard and linseed poultices.

Domestic Medical Practice (1913/1943) was a popular book in New Zealand in which copious information for the home doctor was provided by contributing American authors. Following a detailed description complete with illustrations on anatomy and physiology, an extensive compilation of diseases and their symptoms is given. A section on *materia medica* and home treatments gives recipes and instructions on how to treat such diseases as epilepsy (mustard plaster remedy, nitrate of amyl remedy, bromide of potash

remedy, arsenic and electric therapy), kidney 'troubles', (turpentine remedy, hops remedy, peppermint and digitalis remedy), and gall stones (lemon remedy, olive oil and mustard poultice remedy). The ingredients included in these recipes can be found in numerous other books.

The Best Way books published in 1909 present a compilation of tips found in the 'Best Way' section from the weekly British journal, *Woman's World*. The book recommends to the reader that they study a practical medical book and stock an adequate medicine cabinet. Included in the cabinet is castor oil, ipecacuanho wine, carron oil and olive oil for burns, brandy, fluid magnesia, boracic acid powder, oil silk, linseed, zinc ointment, oil of cloves, senna pods, quinine, Epsom salts, mustard leaves, turpentine, a thermometer and bandages (*Woman's World* 1909). Chemists sold the ingredients for these remedies and their establishments played an important role in New Zealand society.

The first dispensaries in New Zealand were on board visiting ships which sailed with medicine chests that included compounds such as ginger powder, calomel, laudanum, iodine and tinctures of arnica (Gluckman 1976). By the 1840s the first chemists arrived in the country bringing with them all that was required to establish their business and trade. These men had recently defined their profession by establishing the Pharmaceutical Society of Great Britain in 1841 and were keen to promote their occupation in the colony. Life and work in New Zealand however proved unpredictable and, without the security of social welfare, insurances and market safeguards, many early pharmacists had to take on other forms of employment. Most held numerous positions including public vaccinators, optometrists, dentists and veterinarians. When imported patent medicines began to fill their shelves, low profit margins forced many to expand. Some, like Glaxo, began manufacturing while others increased their wares selling horticultural

compounds, and culinary products such as pickles, essences and oils (Millen 1997).

The chemist provided the raw ingredients included in many of the recipes in early medical handbooks and was often the first port of call when a family member became sick. Chemists dispensed advice as well as medicine providing what many believed to be the greatest threat to doctors' incomes and jurisdiction in early New Zealand. Michael Belgrave (1991) describes an environment in which doctors and chemists jostled for jurisdiction, pharmacists often giving out medical advice and doctors frequently mixing and providing drugs. For settlers equipped with their handbooks, chemists allowed them to care for themselves, providing them with the necessary raw ingredients and supporting their role as healers.

The Personal Experience of Health and Disease

About this time we all more or less went through the usual painful process of acclimatisation, by a visitation of boils, the first I have ever had, and mercifully the last; but they were very bad, and left ineradicable scars. Lou proved a most kind, clever nurse, but was herself suffering from toothache (Stewart 1908:43).

The development of biomedical systems and the contributions made by prominent figures, many of whom were men, has been the focus for medical histories for some time. The personal experience of illness, how people interpreted their wellness and what significance they placed on their health, has been largely ignored. As disciplines such as medical anthropology and medical sociology developed however different approaches and various theoretical perspectives have been adopted in order to explore people's perceptions, experiences and ideas. Perspectives such as social constructionism explore the meanings invested in everyday activities and discourse in which people engage (Lupton 1994), illuminating aspects of people's lives that would otherwise remain concealed. Domestic health care

is one such activity that, relegated to the realm of the domestic, received little attention and was deemed insignificant by many. Reading the letters, diaries and correspondence written by colonial women allows us to see how these women describe their day to day lives to loved ones, and how they perceived their health and their role as healers.

As discussed in Chapter Four, health care by the end of the nineteenth century became a social project and as a consequence the health of the individual became less important than the health of the nation. This perception appears to be one that was adopted by individuals and one that was arguably inflated later by the patriotism that accompanied the World Wars. In private literature dating from the nineteenth to the mid-twentieth century there appears to be a general reluctance to dwell on an individual's state of health. Adela Stewart's candour appears the exception not the norm and to discuss in any detail the particulars of any one disease is a subject that appears altogether distasteful. This is expressed by Amelia Courage author of *Lights and Shadows of Colonial Life* (c.1845) who reprimands her domestic servant for speaking candidly about illness and the symptoms of disease. A person who dwells on such subjects, according to Courage, must possess a diseased mind. What references to illness can be found allude to a degree of stoicism that is often associated with colonial women and a reliance upon one another that obviated the need for trained medical assistance.

In the smaller settlements of New Zealand, where doctors were either overworked or absent, women were frequently called upon to help in times of sickness or accident. These women performed minor surgeries and procedures few of us would attempt today. Many became well known for their abilities and were called on by people who placed faith and at times their lives in their hands.

There was no doctor within thirty miles. Indeed, no one knew where one was to be found. The women learnt to nurse very well. Two

neighbours, one with ten children and the other with twelve, used to help each other turn about, and a finer, healthier lot of children were never born (WDNZFU 1939: 36).

Mrs. Alexander Jenkins became well known in the Gore district for her pragmatic approach to medical care. Jenkins pulled teeth, set bones, worked as the local midwife and at one point cut out a crochet needle from a women's hand (W.D.N.Z.F.U. 1939). Mrs. Charlotte Bint, a pioneer in the small settlement of Tarata in Taranaki regularly attended midwifery cases, tramping at night with a hurricane lamp through miles of bush. When a worker on a neighbour's farm gashed his calf, Mrs. Bint instructed the man to place his leg in a nearby stream. Bint then stitched the leg, putting in twenty stitches with a needle and thread (W.D.N.Z.F.U. 1939). Much of Adela Stewart's time was taken up by swaggers or travellers who, often downtrodden, unemployed or ill, ensconced themselves at her farm and were attended to and nursed by herself or her domestic help. In *Station Amusements in New Zealand*, (1873) Lady Barker describes the need for her rudimentary medical skills.

... took some minutes to understand that it was Fenwick, a gigantic Yorkshireman, who had been seized with what Pepper would call the "choleraics," and who, in spite of having swallowed all the mustard and rum and "pain-killer" left on the premises, grew worse and worse every moment.... I knew quite as little of medicine as my husband did of law, but of course we decided instantly that we ought both to go and see what could be done in any way to relieve either the body or mind of the sufferer (Barker 1873:263).

Jean Wightman writes an account of "Gran", Jessie Anderson, a pioneer, born in 1850, who cared for people in and around her district near Christchurch.

In the early years as the population of the district grew, Gran became a friend and counsellor to almost every new arrival. Often there was no medical man nearer than Ashburton, so her knowledge of sickness and nursing meant that many calls were made on her time and service....When someone was sick or injured, they were driven by horse and cart to Gran Anderson's door, or she would be taken to their

home to nurse or help them in time of distress (Wright, Martin and Gerard 2001:45).

Childbirth was frequently attended by local women, the first trained midwife in New Zealand not arriving until 1865 (WDNZFU 1939). Fulton (1922) describes the 'howdies' in Otago whose presence "occupied, in those days, a most important position" (Fulton 1922:230). These women, Scottish in heritage, were well known for their services and were responsible, according to Fulton, for many of our fine pioneer women coming through the perils of maternity, healthy, vigorous and buxom. These women gave their services freely and received little training or support from local doctors. The assistance they gave was based on traditional knowledge and techniques that often conflicted with doctors' advice. The use of whiskey and "comforters" (a device not unlike the modern pacifier but fashioned from a piece of bread with raisins) and a resistance to open windows or clean sheets caused concern to some. Despite this these so-called faults were excused by most and the work these women did was much admired by families and medical professionals alike.

These old women in their day served their employers honestly: little or nothing did they know of the theory, but much of the practice of midwifery. Kindly and always willing to help, they gave their services free in a vast number of cases for the love of humanity. Rough as was the life of the doctor, that of the howdie was worse (Fulton 1922:231).

Mrs. Emma Whitworth is believed to be the first trained midwife to arrive in the colony and along with others founded the small settlement of Bombay thirty miles north of Auckland. Whitworth's first home in New Zealand was a mud-floored hut which had been built by soldiers during the Maori wars and which she shared with three other women. Whitworth worked as a midwife in the backblocks of the district for over fifty years, travelling by foot, bullock wagon or on horseback. "Her technique consisted in keeping herself and her patient clean" (W.D.N.Z.F.U. 1939: 86). Whitworth attended to her last patient in her ninety-fifth year.

Mrs. Hill sailed to New Zealand with her husband on the *Jane Gifford* in 1842. Shortly after they arrived in Auckland, the ship's doctor asked her to assist him with a confinement of one of the passengers. "That was the beginning of a long period of midwifery among women of the infant settlement" (WDNZFU 1939:45). Mrs. Hill later trained her daughter Mary in nursing who also gave a lifetime's service to the people of her district.

While women occupied themselves with caring for others, their own health was frequently overlooked.

We were often working in the rain, which gave me many a sore throat, with bad head-ache, from which latter I suffered greatly from earliest days in New Zealand, but never spent a day in bed; there was too much interesting and necessary work to be done.... (Stewart 1908:50).

Adela Stewart's attitude to ill health was not uncommon. Many women simply rejected the idea of ill health, being too busy attending to others and to the household duties to see to themselves. "How I lived through these times is a mystery, as I often felt too ill to stand, much less go on working; but I did it" (Stewart 1908:115). Many were convinced of the country's inherent ability to keep them healthy and relied on the climate and environment to keep them well.

....no one ever dreamed of catching a cold however from the meteorological changes and chances, an immunity which no doubt we owed to the fact we led, whether we liked it or not an open air life (Broome 1988:23).

Jane Maria Atkinson fell in love on the voyage out to New Zealand and upon arrival married and settled with her new husband in New Plymouth. There, Maria (as she was known), nursed and cared for women and children in the district. Her immediate family enjoyed relatively good health, a state she attributed to "the healthy situation" (Macdonald *et al* 1991:27) of her beach cottage.

For the hundreds of single working class women sickness threatened their positions forcing them to work through any ailment or affliction. Amelia Courage regularly treated her maid for toothache (with a flannel compress soaked in eau-de-cologne followed by a Perry Davis painkiller) while the girl worked on regardless (Courage c.1845). Miss Maria Nicholson sailed to New Plymouth (Omata) in 1859 as governess to Mr. Brown and expresses in her letters the vulnerability of her position.

My present position is comfortable in every respect....Yet I cannot forget that I am no longer young and that I cannot always have a home here. If my health were to fail I do not know what would become of me, I could not remain a burden when no longer useful (Nicholson 1860:3).

The notion of becoming a burden is entwined with ideas of gender and the expected course of a woman's life. Young middle to upper class women in the nineteenth century were decidedly cloistered. Their fragility and susceptibility to disease and social evils was emphasised and their virtue was protected at all costs. When they became wives and mothers however their roles changed significantly. Kellogg identifies procreation and motherhood as the main occupations of a woman during this period in her life. For working class women, these occupations were not dissimilar, the only difference being that one would care for another woman's husband (in the role of a domestic) or children (in the role of governess). Both occupations focused on caring for others, a characteristic that continued as women entered the workplace as teachers and nurses. It is perhaps not surprising then that women gave only peripheral help to themselves, considering their own sickness as an inconvenience and seeking help or a rest when only really necessary.

...and thus to the last I was left to take care of myself while suffering more than others knew.... My turn for rest had come, so having taught Tom to make bread, I went by a little steamer to Tauranga...and drove by appointment to a Nursing Home. Here the life did not suit me at all...I changed my quarters to the North Shore, a short ferry-trip from

Auckland, and there I spent a month pleasantly and restfully (Stewart 1908: 110-130).

For many of these women their role as healers was simply an extension of their role as mothers and wives and much of the knowledge they applied and shared with others would have been taught to them by female relatives. Jane, the young woman who worked for and lived with Amelia Courage, obviously learnt a great deal from her mother and offered her employer the benefit of her advice.

...you just get her breather on by a piebald horse - that's almost a certain cure, although it doesn't cure everybody. Now my little brother tried and it din' do him no good; so mother she took and dragged him backwards through a gorse hedge; but he got no better. So last of all she was told to catch nine mice and fry 'em and give him to 'em each morning, then wait three mornings and give him three more - waiting another three - then give him the rest; and sure enough after he had all of them there was a change, and after a bit he got quite well (Courage c.1845:82).

Women met the need for medical care in their homes and communities. They filled a role that was frequently vacant and provided a service that was necessary and important. Some, such as Annie Aves, provided a service that was otherwise inaccessible. In the 1930s Annie Aves performed illegal abortions for hundreds of women in the Hawkes Bay area. When news of her occupation became known her home was raided by the local constabulary. Foetal remains were found in her garden and Aves was brought before a court. The jury, who "were reluctant to convict abortionist while the women who used their services went scot-free" (Macdonald *et al* 1991:32), released Aves and she returned to her illegal trade. Aves was shot in 1938 by a man convinced his partner was about to die as a consequence of a botched abortion (Macdonald *et al* 1991).

Medicinal Plants

The use of plants as medicine has a history as old as humanity itself. Some of the earliest herb gardens were planted in Egypt around 4000 years ago where the herbs were grown and used for medical and ceremonial purposes. Monasteries, from their conception in AD305 had attached gardens in which they grew plants to feed and to heal. Monasteries placed special emphasis on plants that healed, teaching others to do the same. These gardens became known as physic gardens and their popularity grew considerably during the 13th century mainly under the direction of infirmity sisters. By the 16th century herb gardens were planted at universities and used to teach both botany and medicine (Bown 2002). Edinburgh University in particular focused on *materia medica* (the use of plants as medicine) and what became known as the natural sciences (Beattie 2008).

By the 19th century, medical men, driven by the desire to identify and potentiate active constituents, changed the way plants were used. Tinctures, pills, lotions and creams were formulated and contributed to the commodification of health. Doctors no longer had only a service to sell, they also had a product and it became “easier for practitioners to charge for their pills and boluses than for their attendance or advice alone” (Porter 1999:268). Before market safeguards and pharmaceutical legislation, medicines were manufactured and sold by many looking to profit.

The use of patent medicines exploded in the nineteenth century and colonial newspapers were full of advertisements proclaiming their value. Few attempts were made to regulate the production and consumption of these with early acts focusing on food and beverage regulation only. In New Zealand, the Sale of Food and Drugs Act of 1877, led to the appointment of inspectors who analysed food and enacted standards for the weight of bread, milk, butter, tea, cocoa and vinegar. However, drugs were seldom inspected (Maclean

1964). It was not until the turn of the twentieth century, when addiction was recognised as a consequence of unregulated prescribing that drugs were closely monitored. Meanwhile women continued to use plants straight out of the garden and in New Zealand a fascination with traditional Maori use of plants led to some interesting relationships.

The medicinal use of the native flora by Maori had been noted by early colonisers and there appears little doubt that settlers experimented with these plants and their medicinal potentials (see Appendix Six). Early herbalists such as James Neil (1891/1988) list native plants and their therapeutic qualities in early herbal handbooks and *Brett's Colonists' Guide* (1897) includes a five page Maori pharmacopoeia.

Sister Suzanne Aubert (1835-1926), a French nun who arrived in the 1860s with Bishop Pompallier, is probably best known for combining her nursing skills with local knowledge, observing, learning and then incorporating plants used by Maori (Munroe 1996).

Suzanne quickly applied her knowledge of chemistry and botany to experimenting with her medicines...from early in her time in Hawkes Bay she was regularly seen with Maori women, gathering roots, barks, leaves and plants across the hills and swamps (Munroe 1996:202).

Stationed for a time at a Marist mission just outside Taradale, Napier, Mother Aubert grew, manufactured and dispensed her medicines freely to Maori and Pakeha alike (Munroe 1996). The success of Aubert's medicines was such that in 1891 she signed a contract with a leading pharmaceutical manufacturer, Kempthorne and Prosser. In 1894 Aubert was released from her contract after legal wrangling with the company who, in their desire to meet demand, had diluted the stock, reducing efficacy and increasing the rate of fermentation (Munroe 1996).

Mary Boyce married the captain of a trading vessel in the 1930s and settled with her husband in the Motueka district near a large *pa*. Mary learnt a great deal from Maori women in the district including how to gather, prepare and apply medicinal native plants. She became well known in the area for her medical acumen and attended people in the community while she raised fourteen children and helped her husband on the farm (W.D.N.Z.F.U. 1939).

Agnes Harrold, who became known as Granny Harrold, was born in 1831 in Canada and moved to New Zealand in 1848. Her husband James brought the Taiere hotel in Port Chalmers where Agnes took in and looked after orphan children. Agnes, according to her granddaughter's accounts, was a great believer in and user of herbs. After moving to Stewart Island Agnes provided medical care for most of the island's inhabitants. Her remedies combined plants such as peppermint, dandelion and raspberry leaf with Maori herbs including rata, koromiko and kokihi (Harper 1980). Florence Bennett (1882-1962) had similar ideals. Settling near Fielding with her husband John, Florence cared for numerous foster children who came to her both formally (under the Child Welfare Act of 1925) and informally. Florence used herbal remedies effectively to care for these children and others in the district (Macdonald *et al* 1991).

The introduced plants used were those that have been applied by herbalists for centuries for specific purposes which rarely change (see Appendix Seven). Lady Martin in her hospital in Tauranga, used mustard poultices, rosemary tea, eldershoots, wild marshmallow and seaweed dressings (Gluckman 1976:118). Others used elderberry, peppermint, dandelion, mustard, rhubarb and ginger and while some of these plants would have been brought in raw form from chemists others were undoubtedly harvested from the wild.

There was an appeal to import and propagate medicinal plants in New Zealand by colonial doctors, herbalists and horticulturalists. James Neil, New Zealand's first commercial herbalist, describes the source of his ingredients.

At the beginning we had to import all our herbs but now we grow at our nursery in Caversham some that need cultivating, and gather more which we can find growing wild (Neil 1989: 21).

Sister Mary Aubert grew herbs in Taradale for her combinations (Munroe 1996) and Angela Caughey (1994) describes a garden grown by Dr. Joseph Crocome. Unfortunately there are no records of the species he grew, his belongings burnt soon after his death. The propagation of rhubarb is mentioned by Allan Hale (1955) in his work on pioneer nurserymen and peppermint is listed as one of the plants introduced by Samuel Marsden (Bradbury 1995). Soon after the Pharmaceutical Society of New Zealand was formed they appealed to the domain boards of the Colony, advocating the cultivation of plants for medicinal purposes. Christchurch gardens supplied the Society with a list of over 100 medicinal species in their botanical garden and Auckland and Dunedin both expressed their willingness to co-operate (Combes 1981).

Conclusion

This chapter has discussed perceptions of gender, the role of women in colonial society and contribution made by women to the health of the colonial population. During the nineteenth century, literature, social discourse, medical theory and religious doctrine supported notions of gender that became a part of the culture in which they existed. These perceptions affected how men and women related to each and the role they played in society. Most women accepted and perpetuated gender stereotypes, embracing the positive qualities attributed to them and using them to their advantage. The assumption that women were better suited to dictate and maintain the moral tone in New Zealand assisted them in their fight for the vote. Unfortunately the relative insignificance ascribed meant that their contribution to history has been largely ignored or excluded. Modern historians, guided by feminist theory, are addressing this omission and are beginning to give a voice to colonial women in New Zealand. The role women played as care takers and moral guardians is being realised as an important and significant part of New Zealand's history. This role was epitomised in women's organisations.

Part two of this chapter explored the construction of medical knowledge and the promotion of this by women's organisations and medical handbooks. Organisations, such as the Women's Division of the New Zealand Farmers' Union, created a forum from which women could learn, socialise and assist one another with the duties assigned to them. These organisations commonly focused on the health and welfare of women and children and, in them, medical knowledge was created and shared. This knowledge was printed in medical handbooks, leaflets, pamphlets and newspapers and was shared at lectures, seminars and social events. Medical handbooks in particular became a vital resource in the colony and the information they contained reflected the medical practices that were occurring inside homes around the country.

The final section in this chapter explored the application of this knowledge and the perceptions of individuals. This section focused on the lives of women who, in the course of their everyday lives, contributed to the health and wellness of people around them. Some were goaded into action, recognising a need and organising assistance, while others performed the task with little consideration. All contributed to the movement and creation of knowledge and all inadvertently challenged the jurisdiction of male doctors.

CHAPTER FIVE

Conclusion

A cultural approach to health and illness sees people being exposed to multiple paradigms and, either by themselves or in a group, working out a response that fulfils not only their health needs but also larger social needs....(Macdonald and Park 2005:97-98).

This thesis has explored medical knowledge and practice in colonial New Zealand and has uncovered a system of health care that appears as widespread and important as that provided by the state and by private practitioners. It has relied on current research as well as an analysis of colonial literature. It has looked specifically at the control, access and construct of medical knowledge and has employed the dominant methodological paradigms; positivism, constructionism and critical theory. In the course of this research I have examined the professionalisation of medicine in New Zealand and have discussed how this process differed to that which occurred overseas. Finally this thesis has presented evidence to suggest that colonial women as well as men were active in maintaining the health of New Zealand's population.

My research began by exploring colonial ideas and beliefs relating to health and wellness. To do this I relied on the supposition that the dominant etiological theories present in Europe and America during the mid 1800s, were transferred to New Zealand. I supported this theory by identifying the influence of miasma theory, contagion, personal behaviour and supernatural theory in colonial literature. Chapter Three addresses my first research question and examines the knowledge available to settlers in colonial society. By applying a social constructionist perspective I was able to explore the existence of many realities and explain the changing nature of medical ideas and beliefs.

Etiological theories influenced the decisions settlers made in respect of their new lives and were perpetuated and contained in public health policy, medical handbooks and social discourse. Miasma theory dictated where settlers choose to live and encouraged hundreds of people to emigrate for the sake of their health. It played a significant role in early public health policy and directed urban development. Contagion theory encompassed the belief that disease was caused by contact with infected people and was used historically to justify discrimination and persecution. In New Zealand it was used to limit entry into the country and control the behaviour of the population. Supernatural theory was introduced by missionaries who were the first to associate notions of impurity and immorality with health and disease. This theory was accepted to a degree by Maori who held similar etiological beliefs. Personal behaviour theory followed along similar lines, dictating and defining acceptable and unacceptable behaviour and associating this with good or bad health. In New Zealand this was promoted by women and the Department of Health and was used to resist the authority of the NZBMA.

Colonists explained their state of health and the presence of disease within the framework provided by these theories. Influenced by miasma theory many believed in the country's innate ability to cure and viewed their health as a direct reflection of the physical environment. In nineteenth-century New Zealand "great anxieties about health existed side-by-side with confidence in the environmentally transformative potential of colonisation" (Beattie 2008: 583). This confidence demanded a respect for the environment that challenges the concept of European settlers as "arrogant agents of environmental exploitation" (Beattie 2008: 583). Contagion theory encouraged people to view their bodies as vulnerable to infection. Settlers accepted laws and regulations, such as compulsory vaccinations, due to their anxieties that stemmed from this belief. According to David Arnold (1993) the introduction of vaccination by colonial powers in India, at first, appeared to demonstrate the effectiveness of western medicine. It was promoted by the

colonial state and became “emblematic of its self-declared humanity and benevolence toward the people of India” (Arnold 1993:120). In New Zealand it represented a similar benevolence and was used to address concerns relating to the health of Maori. In addition to this it was employed in a greater project designed to create a society that reflected progressive ideals. These ideals, which included prosperity and innovation, relied on healthy citizens and the body became a metaphor for this colonial vision. Colonists were convinced that healthy, hard-working individuals would result in a healthy and consequently progressive society. Disease would infect not only the individual, but also the nation, threatening the colonial vision and the prosperity promised.

Personal behaviour theory is often presented by anthropologists as a form of resistance to biomedicine. However, in colonial New Zealand this theory was supported by science and encouraged people to view their bodies as machines, a perspective that has been traditionally associated with the biomedical paradigm. The theory led people to believe that their bodies would function efficiently and effectively if given the right sustenance and maintenance. This principle was supported by biomedical specialities such as nutritional science and was presented in schools, colleges and at public events. Eventually, as in other countries, biomedicine gained precedence and stopped supporting therapies associated with personal behaviour theory, such as water cures, which could not be sufficiently scientifically explained.

Chapter Four is written from a critical perspective and addresses my second research question; what health care was available to colonists and to what extent was this directed and controlled, and by whom? Critical theorists seek to identify the inequalities in society, with the intention of raising the consciousness of the people oppressed and improving their situation (Sarantakos 2005). This paradigm leads to mid-level perspectives such as

feminism and political economy and has allowed me to explore the professionalisation of medicine in the colony and the fight for medical control.

In Chapter Four I presented an overview of New Zealand's medical history beginning with the introduction of disease by whalers, sealers and traders and ending with the introduction of Social Security in the 1930s. It discussed the role of missionaries in relation to health and the contributions made by ships surgeons. This chapter examined the lives of New Zealand's earliest doctors; men who worked tirelessly in an environment that gave little support. Securing an income was the greatest challenge faced by these men. To address this, by the late 1800s doctors had organised themselves into an influential association, the NZBMA, and were taking steps to transform the occupation into a profession.

Exploring the professionalisation of medicine in New Zealand would ultimately answer my question relating to medical direction and control and in order to understand this process I relied on the analysis provided by Freund and McGuire. Their definition is based on a series of events that occurred in America and while some of these events were replicated in the colony, others were not. As I learnt more, it became clear that the professionalisation of medicine in New Zealand followed its own unique course.

Medical professionalisation in New Zealand was encouraged by members of the NZBMA who in their collective fought for the right to control their profession and consequently secure their incomes. Gaining a monopoly on the medical market was an important step in professionalisation overseas and doctors in New Zealand fought hard to achieve this in the colony. In America reforms to medical colleges had successfully limited the number of doctors graduating and had standardised medical knowledge, grounding it in scientific theory. This had effectively marginalised alternative practitioners who were excluded from medical associations and registration. In New Zealand

however where medical care was scarce and medical knowledge took all forms, doctor struggled to eliminate the much needed and valued competition.

The NZBMA sought to control medical registration and adopted belittling terminology such as 'charlatan' and 'quack' to identify those practitioners they wished to exclude. The Department of Health, under the direction of James Mason, supported the Association, passing the Quackery Prevention Bill in 1908. By 1910 however, and headed by Dr. Thomas Valintine, the Department recognised the popularity of alternatives and the futility of the Act. It accepted the necessity for medical care and realised the financial advantages of people seeking help from alternative sources. They gave little support to the NZBMA whose campaigns to smear the competition received criticism from many.

Defend me from having too many retired doctors as honorary members, or for that matter, members of the Boards. With one exception a medical member on a board has proved of more nuisance than help to departmental officials (Dow 1995:97).

By the 1900s biomedical techniques and methods were developing at a considerable rate encouraging the professionalisation of medicine and enhancing the status of doctors. In New Zealand biomedicine was an important ideology, presented by early administrators as a tool to drive social progress. It was however slow to gain the dominance it achieved overseas due to limited expertise, financial constraints and the need to embrace alternative views on health. While science was used to denigrate and marginalise alternative therapies and ideologies in America, in New Zealand it was used to legitimise and validate the practices that remained popular throughout the nineteenth and twentieth centuries. In America and Britain biomedical knowledge was becoming increasingly concealed by practitioners, while in New Zealand it remained relatively available.

Biomedical methods and techniques were presented to settlers alongside home remedies in medical books and at public lectures held by women's organisations and the Department of Health. The information presented became increasingly scientific and technical which encouraged people to attempt medical procedures (for example hypodermic injections) few of us would consider today. This slowed the professionalisation of medicine in New Zealand and it appears, up until the 1950s, New Zealanders were continuing to consult and use medical handbooks as their first point of defence. A hierarchy of resort describes the process whereby people seeking medical assistance refer to number of alternative sources before consulting a doctor. In colonial New Zealand this hierarchy existed due to geographical and social isolation, resistance to the NZBMA and ready access to alternatives.

Women's organisations in particular resisted the NZBMA and constructed their own forum and medium for medical knowledge and assistance. Women encouraged people to take greater responsibility for their health and by doing so resisted the NZBMA and their attempts to monopolise the industry. The campaigns run by women's organisations supported those of the Health Department but were often more concerned with the health of women and children, raising awareness and of course, raising the moral tone of colonial society. Women had considerably more authority in the colony than they experienced back in their homelands and were active in defining moral standards and codes.

Social scientists have by and large taken male authority for granted; they have also tended to accept a male view that sees the exercise of power by women as manipulative, disruptive, illegitimate or unimportant. But it is necessary to remember that while authority legitimates the use of power, it does not exhaust it, and actual methods of giving rewards, controlling information, exerting pressure, and shaping events may be available to women as well as men (Rosaldo 1974: 21).

In Chapter Five I explored the lives of colonial women in New Zealand and examined perceptions of gender and the underrepresentation of women in

New Zealand's official medical history. Modern historians have explained the absence of women in history as a reflection of a period in which men were considered the most influential and active. I have presented references from recent anthologies as well as colonial diaries and letters that support the idea that women contributed significantly to the health of the colonial population. Despite this, medical historians have ignored this side of our country's medical history. This thesis represents the beginning of a greater project aimed at addressing and rectifying this omission.

Domestic health practices relied on knowledge that was brought, shared and adapted by colonial women. Unlike the initiatives run by women's organisations and the Department of Health, these private practices were less concerned with empirical, measurable results than they were with the personal experience of health and disease. Remedies were used if they had a history of success and success was interpreted through personal experience. Science was neither required nor denied and women constructed their ideas on health by combining, applying and adapting what was available.

For many women herbal medicine was taught to them during the course of lives. Applying remedies used by their mothers and grandmothers must have added a sense of familiarity that was otherwise absent in their foreign new homes. Utilising resources and learning to take advantage of their new environment was a necessary part of the colonisation process and many experimented with local plants. The reasons these practices were so seldom recorded are many, not least of which is the insignificance attached to women's lives. As science began to validate these practices however we see them being collated and presented in home medical books and supported by public institutions such as hospitals. By the turn of the twentieth century home medical books, often written by doctors, validated and encouraged domestic health practices. Today it is rare to talk to someone who does not have a

story to tell about a home remedy or 'old wives tale' relating to health. This reflects the ubiquity of these practices and their significance in New Zealand culture.

A Combined Perspective

The public side of health care continued to develop under the auspices of science and by the mid twentieth century had achieved significant authority. Doctors took over the role of moral guardians as people placed more faith in biomedical understandings and technology. The public appealed to practitioners to address the problems that upset social balance and control, promoting medical hegemony (Lupton 1994). At the same time women continued to provide care for their families and friends, drawing on knowledge from a variety of sources. By the 1970s, a growing resistance to the medical establishment led to a resurgence of alternative therapies. By the 1990s this resurgence was aligning itself with science in its attempt to qualify and compete in a capitalist market. At the same time many doctors began to recognise the advantages of incorporating aspects of alternative medicine into their practice, not least of which was the retention of patients. Despite this, the propensity to view health care in terms of two opposing systems, alternative and scientific remains.

This thesis has explored how these systems interact and how elements of both are often combined. The merging of different views relating to health and disease has been consistent throughout time and is revealed by exploring the personal experience of health and disease. It is apparent when we view health and health care as not only an institution but also an experience, one shared by all. The integration of an alternative perspective with a scientific is a study as relevant today as it was in colonial times.

APPENDIX ONE

Social Darwinism

In *On the Origin of Species*, published in 1859, Charles Darwin presented the theory of evolution, and in doing so revolutionised popular ideas on life and differentiation. Darwin's theory suggests that over long periods of time one species gradually evolves and changes by a series of evolutionary steps. This change, according to Darwin, occurs by individuals selecting mates that display advantageous traits from each generation (natural selection) and excluding and not breeding with those who exhibit the negative or unnecessary. In this way only the fit will survive (survival of the fittest) and the physical traits of the species will gradually change to assist their survival and help them adapt to a changing environment (Peoples and Bailey 2009).

This hypothesis challenged the religious belief that all life was made individually by the Creator and it caused great debate. While some simply denied or abandoned the idea, others expanded on it, relating the theory to humanity. Social Darwinism grew from Darwin's original supposition that humans evolved from apes and was explored by a burgeoning middle class who had the time and energy to explore the increasingly colonised world and were attempting to explain the very different societies and cultures. The process of natural selection, when applied to humanity, suggested that some societies (such as the English) had evolved more rapidly than others, and as a consequence had reached levels of sophistication others hadn't. This hypothesis placed societies on an evolutionary ladder and justified the discrimination and subjugation that accompanied colonisation (Peoples and Bailey 2009).

APPENDIX TWO

Vaccination Certificate 1863

No. 463.

“VACCINATION ACT, 1863.”

SCHEDULE D.

To the Father, Mother, or other Person having the care, nurture, or custody of

Sarah Ann Hayes

I hereby give you notice and require you to have the said child Vaccinated forthwith; and if you neglect for SIX MONTHS from the Birth of such child so to do, you are liable to a penalty of 40s.

Dated this *10th* day of *December* 186*7*

Wm. Ed. Smith

Registrar of Births for the *Ballington* District.

APPENDIX THREE

A Song of Sickness by Hine Tangikuku, Ngati Porou

E timu ra koe e tai nei,
Rere omaki ana ai ki waho ra.
Hei runga nei au tiro iho ai
Nga roro whare ki Mihimarino;
Nga ia na koe i kakekake
I nga rangi ra, ka hori nei

E tangi ra koe e te kihikihi;
Tenei koe ka rite mai ki ahau.
Me he huroto au kei ro repo,
Me he kaha, e whakaroa ana.

Tirohia atu koia mo ko Tawera,
Whakakau ana mai ki uta.
Hohoro mai koia, hei hoa moe ake
Moku ra, e tiu nei.
Me he porangi au e keha ana
Me haurangi, kai waipiro;
Me he tahuna rere it e amo hau,
He perehia rere ki tawhiti.

Tiro iho ai ki ahau,
Rinoi ra te uaua;
Te koha kore o te kai ki ahau,
Heke rawaho it e kiri ora.
Waiho au kia poaha ana,
He rimu ouka, kei te ahau.

Neap-tide and the ebbing days slide
From my side as I stand
Here beyond the land
I loved. The open doors
Of Mihimarino call me no more.
Sing cicada, for soon you will die,
And so must I;
The bitterns cry doleful death,
The parrot chokes on his last breath.

The morning star swims in the sky
To this shore, where I

Lie washed in a sea of pain,
Writhing like one insane.
Fever-drunk, drifting
Like pollen in a dream, sifting
Like seed, I am not what I seem.

I see myself, twisted sinew,
Wasted flesh; the body I once knew
Has no substance, unsustained,
Is itself the sustenance of pain.
I am dead weed cast upon the shore.

(Porter and Macdonald 1996: 38-39)

APPENDIX FOUR

Disease Rates in New Zealand in the 1800s

Among the most significant disease was typhoid fever, said to arrive in the country in 1860 appearing as an epidemic and arriving upon a succession of immigrant ships. It spread rapidly around the country and during the 1870's ranked close to pulmonary tuberculosis as a major cause of death. In 1875, 323 deaths caused by typhoid were recorded and many more were thought to have gone unreported (Maclean 1964). The spread of typhoid was exacerbated by poor housing and unsanitary living conditions and high rates among Maori became the impetus for the recruitment of Native health officers. It was not until the routine inoculation of Maori school children in the late 1920s that typhoid numbers decreased significantly (Dow 1995).

Scarlet fever, thought to have been introduced in the late 1840's killed more people per capita than the influenza pandemic of 1918 and ravaged the settler population in 1864 which was already severely compromised by diarrhoea, dysentery and typhoid fever. Diphtheria was at its most virulent in 1874 with a total of 270 deaths (Maclean 1964). Influenza was recorded in New Zealand from as early as 1838 as it "is quite clear that during the first 40 years of settlement in New Zealand influenza was a common epidemic disease" (Maclean 1964:384). The prevalence and significance of tuberculosis in this country can hardly be ignored nor can the association between this and the encouragement given to immigrants suffering this disease to travel and live in New Zealand. Associations between climate and pulmonary disease had been made and perpetuated since the 1500s encouraging large numbers of immigrants suffering from this disease to travel to areas that were believed to be healthful.

APPENDIX FIVE

Migration (nett) to New Zealand by Sex, 1853-1880

	Females	Males	Total
1853-55	1 895	3 962	7 085*
1856-60	10 123	14 092	24 215
1861-65	29 884	63 285	93 169
1866-70	9 369	11 167	20 536
1871-75	35 445	46 501	81 946
1876-80	22 917	31 870	57 787

*Includes 1228 sex not stated (Macdonald 1990:21).

APPENDIX SIX

Maori Herbals

In traditional Maori society *tohunga* were the men people consulted when they fell ill. According to belief, the knowledge *tohunga* acquired and applied came from three baskets of knowledge which *Tane-i-te-wananga-a-rangi* had brought down from the tenth or twelfth uppermost heaven. This knowledge was taught to certain young men at *whare wananga* (houses of learning) and by chief *tohunga* or *tohunga pu taua*. Medical practices included *karakia* (prayer), and *rongoa* (plant based remedies). The rituals associated with healing were extremely sacred and consequently *tohunga* were revered by Maori, viewed as the vessels or human mediums between the spiritual world and the physical world (Riley 1994).

No distinction was made between the spiritual healing and the use of herbs, for according to Maori belief they are part of a whole and cannot be effective one with without the other. After all, both have the same origin, plants have celestial ancestral, as has the knowledge of the *tohunga* (Riley 1994:8).

Maori used a wide range of plants for a variety of ailments and this was recorded by early explorers such as Elsdon Best and John White. Some of this information appeared in colonial literature, including Brett's Colonists' Guide. The use of these plants by settlers has been touched on in this thesis and I include in this appendix one plant biography to demonstrate that significance of these plants to both Maori and European. Further research in this area would, I believe provide insight into the relationship between colonists and Maori and would be research of interest to both botanist and social scientist.

New Zealand Flax, (*Phormium tenax*), Agavaceae.

Harakeke

Flax caused a great deal of excitement when Europeans first came to New Zealand and its virtues were reported to colonial administrators from as early as the late 1700s. Maoris' reliance of the plant illustrated its versatility and every part of the plant was used for a myriad of purposes. Medicinally the plant was used for both internal and external afflictions ranging from rheumatism to constipation. Bones were bound, umbilical cords were tied, wounds were wrapped and poisons were beaten out of a person, all by flax. Menstrual cloths were fashioned, children were weaned and hangovers were cured with this plentiful and indispensable plant. Eating *rahurahu* root was a major cause of constipation for pre-European Maori and flax root, before the introduction of Epsom salts by missionaries, was the most common cure.

Murdoch Riley (1994) includes in his book, *Maori Healing and Herbal*, around 130 references to the medical use of flax by Maori and many European, whom it appears experimented with plant frequently. Colonial doctors recognised the plants virtues and recommended it other settlers. Dr Dieffenbach, a New Zealand Company employee writes in his accounts, "I have indeed in many cases been induced to recommend it [flax], but was unable to watch its effects" (Riley 1994:131). Dr. Monkton recommends the plant in his book, *Hints for Bush Surgery* (1858).

In compound or severely lacerated wounds dress with the following but as it ferments readily you must take it fresh it day. Cut flax root into small pieces, cover it with water in a billy and boil till you have a black liquid. Its healing properties are powerful and disinfectant virtues so great that while the wound is kept wet with it, there will be no discharge or smell (Riley 1994:129).

APPENDIX SEVEN

Some Plants Commonly Used in Colonial New Zealand: their origins and historical uses.

Mustard, (*Brassica spp.*), Brassicaceae

Mustard has played a significant role in history and has been used as a medicine for centuries. Archeologists uncovering plants of significance to the Sumerians, people who inhabited an area around the Tigris and Euphrates rivers around 4000BC, found mustard included (Low, Rodd and Beresford 1994). The Chinese first recorded the use of mustard in 659AD (Bown 2002) and the ancient Greeks revered the plant so much they attributed its discovery to Æsculapius, the God of medicine and healing. Shakespeare refers to mustard more than once in his writings, Tewkesbury mustard specifically in Henry IV (Low *et al* 1994). Mrs. Grieve (1992) writes of an unnamed herbalist who, in 1657 made mustard seed balls, a practice reportedly common during that period. The balls were made up of mustard, honey and vinegar and a little cinnamon and were 'activated' by an extra addition of vinegar. In Culpepper's *English Physician* (1653) he suggests the following applications.

The head is purged by Gargarisms, of which Mustard, in my opinion, is excellent, and therefore a spoonful of Mustard put into the mouth, is excellent for one that is troubled with the lethargy: also the head is purged by sneezing; but be sure if you would keep your brain clear, keep your stomach clean. Take a red Onion, and bruise it well, and boil it in a little Verjuice and put thereto a little clarified honey, and a great spoonful of good Mustard, when it is well boiled, raise the sick upright, and let him receive the smell up his nose twice a day, whilst it is very hot (Culpepper 1653).

Mustard is not included in New Zealand's contemporary *Materia Medica* (Painter and Fisher 1996) however it is mentioned frequently in early colonial

herbals such as James Neil's compendium (1988). Plasters appear to be the most common form of application and poultices and plasters are recommended for a range of symptoms and complaints, mainly pulmonary in origin. A mustard footbath is traditionally a cure for colds and references to this can be found in a compilation of remedies published by an incapacitated returned soldier (1920). Mustard is described by Mrs. Grieve (1992) as a "pungent warming herb that stimulates the circulatory and digestive systems, and irritates the skin and mucous membranes.

The common application of mustard poultices in colonial New Zealand is confirmed to us by Neil's observation, "Made into poultices we are nearly all familiar with its irritant qualities" (Neil 1998:11). Neil advocates the use of a mustard poultice for rheumatic conditions and the alleviation of muscular pain. Octavius Harwood, a clerk stationed at Otakou whaling station, writes in his diary about the application of mustard poultice by Dr. Crocome, (Caughey 1994) and Bishop Selwyn's wife, Sarah Selwyn, describes the novel appeal of the mustard plaster to Maori in their mission hospital at Waimate.

...as being stronger, a mustard plaster was preferred, and bliss of bliss! If you had a blister to spare! This they cherished, passing it on after using to a sick friend with totally different symptoms, who would also do the same kind act to a third party and so on till hardly a thread remained (Gluckman 1976:96).

Modern research reveals mustard is a potent emetic in large doses (Brown, Deni 2002) and according to Low *et al* (1994) small amounts of the seed mixed with water are said to be a mild laxative and can relieve acid indigestion. The *Readers Digest, Magic and Medicine of Plants* (1994) recommends mustard poultices or liniments for muscular aches and pains, rheumatism, chilblains and respiratory tract infections.

Rhubarb (*Rheum spp L.*), Polygonaceae.

Although rhubarb is seldom used by modern herbalists, references to its use by early chemists and as an ingredient in home remedies is frequent. Frost, (2004) in his work on early New Zealand pharmacists includes an advertisement published by Charles Cox in 1872 describing rhubarb compound pills “superior to most of their class”. The earliest reference I can find to the cultivation of rhubarb is by Hale (1955). His account of early nursery men includes brief details on the plants they propagated and it is in his account of William Hale (unrelated to the author) and his brother John, nurserymen from Scotland, we find references to rhubarb. “In 1850 William Hale planted an acre of rhubarb roots, and again this proved a real bonanza” (Hale 1955:41). His younger brother John also grew onions, carrots and rhubarb by the ton. The second reference to rhubarb in this book is associated with the work of David Bower, another Scot, who by all accounts contributed greatly to the horticultural industry in the Dunedin province in the 1800s. The following report was published in the Otago news February, 21, 1849.

We had the pleasure of tasting some very fine early rhubarb last week from the garden of David Bower, Pelichets Bay. It is the first that has been cut in Dunedin from seedling plants, and its propagation as an article of diet or domestic use, is worth the notice of all family gardeners (Hale 1955:70).

In a recipe book compiled by an unnamed incapacitated soldier and published in 1920 powdered rhubarb features in remedies for flatulence, indigestion, soothing syrup and biliousness. Rhubarb has been used for centuries as a laxative by people of many cultures (Barceloux 2008). It is included in many herbals (books containing medicinal and botanical information) including Mrs. Grieves, *A Modern Herbal* (1931), Culpeppers *The*

English Physician (1653) and *The King's Dispensatory*, an American herbal first published in 1854.

The Bastard Rhubarb hath all the properties of the Monk's Rhubarb, but more effectual for both inward and outward diseases. The decoction thereof without vinegar dropped into the ears, takes away the pains; gargled in the mouth, takes away the tooth ache; and being drank (sic), heals the jaundice. The seed thereof taken, eases the gnawing and griping pains of the stomach, and takes away the loathing thereof unto meat. The root thereof helps the ruggedness of the nails, and being boiled in wine helps the swelling of the throat, commonly called the king's evil, as also the swellings of the kernels of the ears. It helps them that are troubled with the stone, provokes urine, and helps the dimness of the sight. The roots of this Bastard Rhubarb are used in opening and purging diet-drinks, with other things, to open the liver, and to cleanse and cool the blood (Culpepper 1653).

Peppermint, (*Mentha piperita* L.), Lamiaceae.

Mentha piperita, or peppermint is another common herb used in colonial New Zealand. It is included in many of the early remedies I have come across this far and is a herb used frequently by modern herbalists (Fisher and Painter 1996). It is easily grown and transplanted and is indicated for common digestive disorders (Fisher and Painter 1996). According to Mrs. Grieve (1992) it came into general use in Europe in the middle of the eighteenth century where it was first used in England. "The well stocked monastery gardens of the Middle ages would contain forty to fifty different kinds of herbs and flowers including.....mint... (Dann 1990:9). It was admitted into the British pharmacopoeia in 1721 (Grieve 1992). Mint is included in Samuel Marsden's list of plants he bought to New Zealand in the early 1800s (Bradbury 1995) and is included in numerous descriptions of colonial gardens (Dann 1990).

Peppermint is included in early remedies as oil, a tincture and an infusion. An incapacitated returned soldier (1920) includes the oil of peppermint in his remedy for biliousness and in the *Universal Home directory*. Matthews (1938)

recommends one should include peppermint in any medicine cabinet. Dr. H.C.A. Vogel (1989) recommends peppermint for the treatment of tapeworm and impaired skin function and James Neil (1891/1988) suggests peppermint in a liniment be used for headaches, burns and external piles. He extols its use for colic and flatulence and comments on the relative abundance in New Zealand's gardens in the late nineteenth century.

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