

PROJECTS FUNDED OR BEING FUNDED THROUGH RANGAHAU HAUORA MAORI RESEARCH PORTFOLIO OF THE HEALTH RESEARCH COUNCIL OF NEW ZEALAND IN THE LAST 3 YEARS

ProposalType	ResearchTitle	Term (months)	Provider	Funding	Objective/outcome
Programme	Te Pumanawa Hauora	48	Massey University	\$ 1,647,001	This programme addresses the health disparities of Maori by conducting research on the numerous positive developments within the Maori health and development sectors, particularly in the priority Maori populations (tamariki, rangatahi, kaumatua and tangata whatoro). A Maori-centred methodological approach, utilizing both quantitative and qualitative methods is employed. The projects within this programme (2 existing and 2 new) are in mental health, the health of children and adolescents, and the health of older Maori. These projects are part of a broader programme of research which also addresses health service performance and outcome measurement. Te Pumanawa Hauora will continue to significantly contribute to Maori research workforce training and collaborative partnerships with iwi, whanau, hapu, Maori and mainstream researchers.
Project	He wai te kai: environmental health through Maori community development	36	Institute of Environmental Science	\$ 589,780	Failing onsite wastewater treatment and disposal is a significant public health problem for Maori in poor isolated rural communities. Poorly treated wastewater discharge can contaminate drinking water and mahinga kai with pathogens including Hepatitis A, Cryptosporidium, Giardia and Campylobacter. These cause gastrointestinal illnesses that are especially serious for tamariki and kaumatua. Maori communities urgently seek solutions that are effective, culturally appropriate and meet the needs of whanau, hapu and iwi. Working in partnership, Hauora Hokianga, Hauora Hapu and iwi, and ESR will carry out a participatory action research project to improve community-based sewage treatment and disposal. The research will examine regulatory, institutional, cultural and community interactions.
Strategic Development Contract	Insulin resistance, muscle triglyceride and Maori - Nuclear Magnetic Resonance feasibility study	18	Massey University	\$ 116,945	Obesity is suggested to be the primary causes of Type-2 diabetes. New Zealanders of Māori origin exhibit higher rates of type-2 diabetes than those of European origin. However, when matched for weight and BMI, incidence of type-2 diabetes remains higher in Māori, suggesting factors other than adiposity mediating insulin resistance in this population. Recent research shows type-2 diabetes and insulin resistance are linked with accumulation of lipid within skeletal muscle, and this occurs independently of whole-body adiposity. Thus, the increased incidence of type-2 diabetes seen in the Maori population may involve elevated muscle lipid concentrations. Our proposed research will use non-invasive NMR techniques to characterise the lipid content of skeletal muscle and viscera of Māori and compare these with Europeans matched for sex, age and adiposity. Our findings will aid in designing appropriate strategies for preventing type-2 diabetes in NZ Māori and support training a Māori researcher in NMR techniques.
Project	Why are Maori over represented in psychiatric services - Phase two	32	University of Auckland	\$ 273,768	This project is phase two of a three phase study which addresses the broad question 'Why are Maori over represented in Psychiatric Hospitals. The ultimate aim of the study is to contribute towards the attaining mental health services for all Maori which are appropriate and meet Maori needs. Phase one, funded by a joint HRC/FRST Maori Knowledge and development Grant is in progress and the Report will be available in February 2004. During Phase one analysis of the National Mental Health data collection and focus group discussions with a range of participants has confirmed Maori overrepresentation in acute psychiatric admissions throughout New Zealand and identified several possible reasons. Phase Two, for which funding is sought will use a combination of qualitative and quantitative methods to test the hypothesis that 'Maori are overrepresented in psychiatric services because of differences in care, the basis of which may well be miss- communication due to differences in culture.'

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Project	The experience of traumatic brain injury for Maori, Pacific people and their whanau	18	Medical Research Institute of New Zealand	\$ 148,730	Maori and Pacific people are at increased risk for moderate to severe traumatic brain injury (TBI) and poor outcomes from TBI including death and disability. Previous qualitative research that looked at the needs of people with TBI and their families (particularly in regard to information requirements and return to work issues) has not included Maori or Pacific participants. As part of an overall strategy to reduce the short and long term consequences from TBI, and ensure equitable outcomes for Maori and Pacific people, we aim to undertake a qualitative study with Maori and Pacific people diagnosed with moderate to severe TBI (using the New Zealand diagnostic criteria). We will also seek input from whanau/families of participants. The study will explore their views around TBI recovery, rehabilitation, outcomes and perceived barriers to care. Interventions that improve TBI recovery for Maori and Pacific people will be designed on the basis of the study's findings.
Project	The role of antipsychotic medication in the prevalence of type 2 diabetes in New Zealand Maori	36	University of Otago	\$ 545,780	Antipsychotic medication is commonly used to treat the symptoms of schizophrenia, bipolar illness, depression and dementia. These mental illnesses affect about 2% of the general New Zealand population and Maori are more likely to be treated with antipsychotics than non-Maori. Unfortunately, some antipsychotics can have side effects, one of which may be Type II diabetes. Type II diabetes is a major cause of death and suffering in the Maori community. We will determine whether antipsychotics lead to more Type II diabetes in Maori with mental illness by measuring the occurrence of Type II diabetes in Tangata Whaiora, (Maori Mental Health Clients) being treated with antipsychotics. We will also investigate how antipsychotics might cause diabetes at the molecular and cellular level in the laboratory. Our project may lead to fewer Maori with mental health problems developing Type II diabetes by informing antipsychotic prescribing practice.
Project	Secondary prevention of cardiovascular disease in general practice: The impact of ethnicity and measures of deprivation	36	University of Auckland	\$ 843,371	Cardiovascular diseases (CVD) are leading causes of hospitalisation and death in New Zealand, from which Maori suffer disproportionately. Reasons for this disparity include higher rates of smoking, and also poor access to general practice care and preventive services compared with the general population. The optimal management and prevention of further cardiovascular disease after discharge from hospital (secondary prevention) has been settled, and these guidelines are applicable to almost all patients. It is not known whether general practitioners provide similar care to all patients with established CVD after hospital discharge. A prospective study of 270 Maori discharged from Middlemore hospital will be compared with an equal number of randomly selected NZ European patients over an eighteen month period. Data will be collected at 0 months from hospital records, and at 6 and 12 months from general practitioner, laboratory and NZHIS records. Data collected will include risk factor management and medications prescribed. Analysis will include the impact of socio-economic status.
Project	Te Mauri o te U-Kai-Po: intergenerational experiences of environments and wellbeing	36	Massey University	\$ 878,401	This three-year project will focus on Maori experiences of significant features of environments in which they live. It will begin by exploring with iwi what they consider are important sites in their local areas (eg. marae, whenua and other resources and taonga). The research will then examine how and in what ways properties of place such as identity, belonging, resource access and kaitiakitanga are associated with health. The project aims to develop locality maps and indexes that reflect changing access to these important sites over time; gather qualitative data from (and about) generations of whanau; and use both to examine the changing nature and impacts of environments on people. GIS will be used as an enabling technology to show visual change over time. This approach provides a unique opportunity to develop methodologies within a Maori driven and led research project. The research partnerships involved will enhance research and iwi capacity.

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Strategic Development Contract	Contracting for Whanau Ora	36	Massey University	\$ 121,308	This research will explore the issues and challenges that funders, planners and providers have in contracting for "whanau ora" at the district level. It builds on two significant pieces of work undertaken by this research group: Boulton's doctorate which examined performance measurement for Maori mental health providers, and the Health Reforms 2001 project which evaluated DHB establishment. The project moves towards an applied, action research approach in order to positively influence purchaser and provider performance in a contractual environment which has been described as "highly fragmented" and "bearing a weak resemblance" to the official government policy (Lavoie, 2003). Through a detailed case study in a single DHB, an understanding of the contracting process between District Health Board and providers of services to Maori - Maori and mainstream - will be gained. The research will seek to improve the local contracting process by synthesising provider, purchaser, policy and indigenous perspectives.
Strategic Development Contract	Developing Quality Standards for Kaipapa Hauora Services: an interactive study	36	Massey University	\$ 84,621	A successful PhD study has identified a model of hauora articulated and understood by a group of kaumatua and kuia from Kahungunu and Taranaki, pre-dating both Te Whare Tapa Wha and Te Wheke but including elements of each. This study will operationalise this new model - kaupapa hauora - into a set of quality standards which will be measurable and will guide Maori service provider development, especially services for older Maori.
Project	A diabetes-related lower limb pathology control demonstration intervention for Maori	24	Auckland University of Technology	\$ 469,690	Maori are more severely effected by diabetes than non-Maori. Diabetes related foot problems are a particular area of concern given that Maori have low use of podiatry (foot specialist) services. Accessible and acceptable foot specialist services will be important in reducing these problems among Maori. This action research project involves developing and testing a process for foot screening, early intervention, ongoing care and appropriate referral to other needed services, in three Maori community health services. Accessible and acceptable foot specialist services for Maori have the potential to reduce diabetes related foot problems among Maori (including amputations) and thereby improve Maori health.
Project	Ngati Porou Hauora Prevent Diabetes Project	12	University of Otago	\$ 201,456	Type 2 diabetes has reached epidemic proportions in NZ and prevalence rates are especially high amongst Maori. The Ngati and Healthy Prevent Diabetes Project, a collaboration between Ngati Porou Hauora and the University of Otago, is a community intervention programme aiming to reduce the prevalence of insulin resistance in the short term and type 2 diabetes in the long term. The MoH funded lifestyle intervention involves both population and high risk individual strategies aimed at increasing fruit, vegetable and wholegrain cereal consumption, reducing saturated fatty acid consumption, and increasing physical activity. The outcome of our intervention involves both population and high risk individual strategies aimed at increasing fruit will be evaluated by comparing the results of our completed pre-intervention prevalence survey undertaken 2 years after initiating the intervention. Specifically, the impact of the intervention on the prevalence of prediabetic states, in particular insulin resistance will be examined. Changes in cardio-risk factors will also be examined.

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Strategic Development Contract	Feasibility study to determine cardiovascular health in Maori communities	13	University of Otago	\$ 125,000	There is a major disparity between Maori and non-Maori in cardiovascular mortality, and currently the available data on cardiovascular disease in Maori has mostly been obtained from mortality or hospital statistics. There are few studies of the prevalence and incidence of cardiovascular disease in the community. The current Strategic Development application will perform initial consultation with runanga and obtain consensus on methodology prior to a subsequent project in which we will collect prevalence data of established heart disease diagnosis and levels of undiagnosed diabetes and cardiovascular disease from two diverse Maori communities. It is proposed to identify the best indicators of risk and surrogate markers that can be used as guidelines for monitoring risk in Maori. Evidence suggests there will be significant patient benefits from early screening of Maori, leading to early detection, and then risk factor management of those who are at high risk of cardiovascular disease.
Project	Te Whaangai UU - Te Reo o te Aratika / Whanau Infant Feeding Study	23	University of Auckland	\$ 314,289	This project will investigate Maori women's decision making around breastfeeding within the context of whanau decision-making. We will look at why and how individual women and their whanau choose a kaupapa Maori breastfeeding advice service versus a generic breastfeeding advice service. Up to 12 kanohi ki te kanohi interviews will be conducted with women who chose a kaupapa Maori breastfeeding advice service and up to 12 women who did not. Up to 12 whanau members will also be interviewed. The information will be subjected to a general inductive analysis identifying factors that encouraged women to continue/discontinue breastfeeding within the first three months of birth and service choices. Analysis will investigate and describe the dynamic of individual versus whanau decision-making. The proposal will contribute to a better understanding of how services can be delivered to whanau as promoted in He Korowai Oranga.
Project	Hospital oral health services use in the Wellington region	29	University of Otago	\$ 132,561	There have been very few investigations of outpatient use of hospital oral health services in New Zealand. Substantial ethnic oral health inequalities have been identified between Māori and non-Māori with Māori reported as having a lower level of oral health than non-Māori. Māori children have been reported to be less likely to be enrolled in child oral health services than non-Māori. The objectives of this research are to 1., investigate the use of hospital oral health services by ethnicity; 2. describe the use of hospital oral health services for Māori and non-Māori. The principle methodology will be retrospective analysis of outpatient hospital records held within Capital and Coast DHB. A kaupapa Māori methodology will be used. The significance of this research is that it will contribute to the little known area of publicly funded oral health services; therefore, it will contribute towards oral health policy and service development for Māori and non-Māori groups.
Strategic Development Contract	Improving Maori health wellbeing through kaitiakitanga	24	Tipa and Associates	\$ 120,000	We will undertake research that: (1) defines cultural based experiences in the environment that can be used as a preventive intervention to enhance Maori health & wellbeing (2) develops tools to assess the effect of different types of cultural based experiences in the environment on Maori health and wellbeing; and (3) develops a framework for applying the tool and collecting data about health outcomes for Maori resulting from application of such an intervention. Our goal is to use cultural based experiences in the environment as an intervention to improve Maori health & wellbeing. Internationally the health benefits of interaction with the environment are well founded and have led to a proliferation of services that include environmental experiences as part of their intervention e.g. outdoor education as part of a mental health service. The goal of this research is to determine how the improvements to the health & wellbeing of Maori from environmental experiences can be maximised.

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Strategic Development Contract	Socio-political impacts of health policies on Maori within Te Waipounamu	18	Te Tai O Marokura Tr	\$ 123,525	Objectives - (a) to increase knowledge on the socio-political impact of public health policies and their effectiveness in decreasing inequalities between Maori and non Maori within Te Waipounamu (b) examine the inter-face between Maori provider development and the public health sector within Te Waipounamu (c) identify strategies for the sustainable development of Maori provider services within Te Waipounamu. Methodology - Qualitative methods within a Kaupapa Maori approach that includes; (a) literature review/evidence base synthesis of the public health sector and Maori provider development within Te Waipounamu (b) Case study of Te Tai o Marokura provider service development between 1984-2004 (c) Key informant and focus group interviews to explore socio-political impacts of health policies in reducing Maori health disparities and to develop strategies for sustainable Maori provider development within Te Waipounamu. Potential health outcomes are to improve Maori health disparities, build Maori research capacity and to make a contribution to Maori health development within Te Waipounamu.
Project	Unequal treatment - the role of health services	36	University of Otago	\$ 1,030,160	Reducing inequalities in health outcomes, especially inequalities between Māori and non-Māori, is a high level goal of the New Zealand health sector. A recent US publication has compiled compelling and comprehensive evidence of unequal treatment by ethnicity across diverse parts of their health system. This project will explore the role of unequal treatment in the New Zealand health system and how it contributes to disparities in: cervical cancer; obstetric procedures and adverse birth outcomes for mothers and babies; and ischaemic heart disease. Currently, interventions to reduce inequalities are largely focused at the patient or policy level. This work will engage with health systems and health service providers to assist them to understand their role in the maintenance of inequalities and how they can contribute to their elimination.
Emerging Researcher First Grant	Whanau bioethical decision making - genetic disorders and Maori health	24	Massey University	\$ 74,650	This collective case study explores decision-making at the interface of science and matauranga Maori, by examining the insights/experience/opinions of three whanau and their decision-making. These whanau have/are participating in established research into rare disorders. Results relevant to each whanau have contributed to new scientific knowledge. The results have been published internationally and it is in this context that all three whanau have featured on separate television documentaries. Diversity of moral values is core to decision-making in genetic research specifically and has become increasingly contentious for members of the public because new and emerging technologies are challenging traditionally held moral positions. This study applies a matauranga Maori analysis to decision-making and explores the potential at the interface with science to develop our understanding of the decision process as it applies to Maori and genetic research, thereby assisting researchers, scientists, ethics committees and health professionals at the forefront of ethical decision-making.
Project	Partnership: refocusing successful interventions for Maori deaf/hearing impaired children	36	Victoria Link Limited	\$ 196,924	In 2002, 49% of children diagnosed with deafness were Maori. Upon diagnosis the typical whanau response is grief then bewilderment at the complexity of the choices presented to them. Medical intervention options are encouraged, ignoring social/cultural options such as learning New Zealand Sign Language (NZSL) and being socialised within the kaupapa whanau of the New Zealand Deaf community. Project HIEDI (Hearing impairment: early diagnosis and intervention) promotes early diagnosis and intervention but it is based on medically informed assumptions about disability. Input from Deaf community groups and Maori organisations are minimal. The principal investigator speaks te reo Maori, is fluent in NZSL and has established networks within the professional and grass roots Deaf community as well as relevant stakeholder groups. We propose to test the notion of 'successful interventions' by interview and observation and to develop outcomes that balance the medical, social and linguistic objectives from the Maori child and whanau perspective.

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Project	Workplace safety for Maori nurses	18	Massey University	\$ 50,690	<p>This study will further examine "Workplace Safety for Maori Nurses". A national study on 405 Maori nurses has already been completed in 2005. This study successfully tested sampling strategies and data collection tools including face-to-face interviews and telephone interviews.</p> <p>In 2006, 40 of the 400 Maori nurses (registered and enrolled) will be further surveyed using the piloted tools to:</p> <ul style="list-style-type: none"> a) describe the distribution of occupational exposures and hazards; b) investigate the associations between exposures/hazards and adverse health outcomes; c) identify changes in workplace determinants of health for nurses over time, for them personally. <p>The nurses will come from the sample areas (Hutt, Auckland, Wellington, Northland, Lakes and the South Island.) used in the national study and identified as having high occupational exposures and hazards. Importantly this additional study will further explore workplace safety issues at a more personal level. A Maori nurse will complete doctoral training within this project.</p>
Project	Health, cultural and social experiences of Maori affected by chemical related illness	24	Te Runanga o Ngati Apa	\$ 275,625	<p>This project aims to describe the views of Maori toward involuntary chronic chemical exposures (as workers, whanau, and community), and their views of appropriate healing that needs to take place as a result. The project will incorporate kaupapa Maori research principles in designing case-study driven methods of enquiry and analysis. As exploratory studies, data relative to the topical scope of each case study will be gathered by: (1) literature review and statistical data collection; (2) preliminary survey; (3) in-depth interviewing; (4) focus groups; (5) film, photography.¹</p> <p>The health outcomes of this project will be the construction of a framework for implementing health interventions based upon a model of public health that is underpinned by Maori principles, innovations and practices. This model will inform appropriate Maori medicinal and healing practices that could be utilised to treat people and communities affected by chemical-related illness and disease.</p>
Project	Health measurement and knowledge translation for improved Maori health outcomes	18	Auckland University of Technology	\$ 417,189	<p>Existing Maori health monitoring frameworks and indicator sets in place, largely determined in a top down way and with limited Maori input. This research will provide direction for enhancing existing monitoring frameworks and indicator sets to enable the monitoring of Government progress towards addressing inequalities and Maori health needs, and to provide a basis for informed local planning and decision-making by Maori health stakeholders. Effective mechanisms that enable local Maori health providers and communities to access Maori health information for planning and decision-making will be identified. The research will involve literature review, interviews with key Maori health measurement stakeholders, and case studies with local end-users of Maori health information (e.g. Maori health providers). This research will support the provision of a comprehensive and accessible Maori health information base to inform the local planning and delivery of health services for Maori and will thereby contribute to improved Maori health outcomes.</p>

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Project	The Maori community heart study	60	University of Otago	\$ 1,919,504	There is a major disparity between Maori and non-Maori in cardiovascular mortality, and currently the available data on cardiovascular disease in Maori has mostly been obtained from mortality or hospital statistics. There are few studies of the prevalence and incidence of cardiovascular disease in the community. This application aims to collect prevalence data on established heart disease, levels of previously undiagnosed diabetes, cardiovascular disease and their risk factors from two diverse Maori communities, Ngati Kahungunu ki Wairoa in Hawkes Bay, and Ngai Tahu ki Waitaha in Canterbury. The project will also identify objective markers (biochemical and cardiac imaging) for monitoring cardiovascular disease risk in Maori. We will document the implementation of treatment programmes, interventions, and outcomes for study participants. Evidence suggests there will be significant patient benefits from early screening of Maori, leading to early detection, and management of risk factors in those at high risk of cardiovascular disease.
Emerging Researcher First Grant	Older Maori and medication: management, regulation and facilitation	24	Massey University	\$ 120,519	A Study of 400 Kaumatua/Older Maori confirmed that kuia and koraua are significant users of health services and medication. This research project will detail and examine the medication taking practice behaviours, characteristics, influences, indicators, experiences and understandings of up to 40 kaumatua, their management and regulation of medication as well as exploring the relationship with other determinants such as personal factors, health provider/service awareness and illness perception, as well as quality of life. The development of a Maori specific, culturally appropriate medication management audit tool will be undertaken and applied based on previous validated measurement and audit tools from current 'gold-standard' international studies. Potential health outcomes are more appropriate, specific and sensitive health services to improve safe and effective use of medicines based on actual patients' needs and beliefs.