

He Oranga Hauora



# Recommendations for Theme 1 Research: Healthy Food and Physical Activity Environments



# Report on the Research Scoping and Prioritisation Workshop

# 22 March 2019, Te Papa, Wellington

# Acknowledgements

Thank you to the workshop participants who shared their time, expertise and research ideas so generously. Appendix 1 contains details about the workshop participants.

Workshop facilitator: Andrea Thompson, Catapult Leadership Workshop preparation and organisation: Jean Cockram, Fleur Templeton, Claire Ashford Mihi whakatau welcome: Toa Waaka Stocktake and report writing: Dr Sarah Gerritsen, University of Auckland Healthier Lives Director and Deputy Director: Professors Jim Mann and Cliona Ni Mhurchu

One week on from the terrorist massacre of 50 people in mosques in Christchurch, New Zealand, the workshop stopped at 1.30pm to join the rest of the country in the call to prayer (adhan) and two minutes of silence.

### Words for the waiata to open the workshop

Tūtira mai ngā iwi Tātou tātou e Tūtira mai ngā iwi Tātou tātou e Whai-a te marama-tanga me te aroha - e ngā iwi! Ki-a ko tapa-tahi, Ki-a kotahi rā. Tātou tātou e.

Tā - tou, tā - tou E!! Hi aue hei !!! (Line up together, people All of us, all of us. Stand in rows, people All of us, all of us. Seek after knowledge and love of others - everybody! Be really virtuous And stay united. All of us, all of us.

All of us, all of us!! Hi aue hei !!!)



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# Introduction

The Healthier Lives–*He Oranga Hauora* National Science Challenge held a workshop on Friday 22 March 2019 with 35 academics and policy makers to scope and prioritise research topics related to healthy food and activity environments, with the purpose of informing decisions about Theme 1 (Population Scale) in Phase 2 of the Challenge (Figure 1). Theme 1 is distinct from the other two themes as it is focused on altering the underlying conditions that reduce risk in the population, in contrast with the other two themes, which are focused on community and individuals, respectively.



Appendix 1 contains details about the participants and their areas of expertise.

This report summarises the processes used at the workshop and the outputs from the day, which prioritise research areas related to healthy food and physical activity environments. The report ends with the workshop participants' agreed recommended priority research areas, and the top ranked topics to be considered by the Healthier Lives Governance Group and Kāhui Māori for commissioning in Phase 2.

# Inputs to the workshop – the stocktake of international evidence and New Zealand research

Prior to the workshop, participants were asked to read a stocktake of the international evidence and New Zealand research on healthy food and activity environments. The stocktake was commissioned by Healthier Lives National Science Challenge and written by Dr Sarah Gerritsen, highlighting:

- policies and interventions with the strongest evidence for equitably reducing the burden of non-communicable disease and preventing premature death
- implementation of policies in NZ and similar countries, and
- remaining gaps in the evidence.

### International evidence summary

The stocktake found that the population-level interventions with strongest evidence for improving diet and physical activity were: taxation of unhealthy foods and beverages, subsidizing healthy food, front-of-pack-labelling on pre-packaged foods and beverages, mandatory and voluntary reformulation of foods high in salt, improving or adding parks and playgrounds, and installing recreational facilities. Additionally, the following aspects of the built environment were shown in the international research to be strongly or moderately associated with diet and/or physical activity: residential density (the number of destinations, walkability), multiple streetscape components, public transport options, and the density of fast food restaurants in lower socioeconomic areas.

Other environmental aspects had weaker evidence of associations with diet and/or physical activity behaviours, mostly due to methodological weaknesses in the research to date: infrastructure for cycling and walking, environmental interventions in workplaces, perceptions of safety and aesthetics, food marketing and availability/placement in store, and reducing food portion sizes. Aspects of the built environment that most likely have little or no effect on diet or activity and/or body size were: community wide multi-strategic interventions to increase physical activity, menu labelling in restaurants, and the density of fast food restaurants or supermarkets generally.

Very limited evidence was available on the equity impact of policies related to the food and physical activity environment. However, the following policies showed particular promise to improve equity of health outcomes, or at least not widen inequities: subsidizing healthy food, reducing the density of fast food outlets in areas of high deprivation, sugar-sweetened beverage tax, mandatory front-of-pack labelling of pre-packaged foods and beverages, and food reformulation programmes (both mandatory and voluntary). Concerns were raised in reviews that the following policies may widen inequities: new infrastructure for cycling and walking, and improving the streetscape, parks and recreation facilities.

### **Policy implementation**

The international evidence about what is most effective to reduce the overall burden of disease arising from NCDs through improved population nutrition and physical activity does not always align with current policies and programmes. For example, there was strong evidence that front-of-pack labelling on packaged foods has an effect on diet and encourages reformulation. However, New Zealand, Australia and the UK have voluntary labelling

systems rather than mandatory, which limits the effectiveness of the intervention. In contrast, there was little evidence that displaying calories on menu labels have an effect on diet, but the US and parts of Australia and Canada have introduced mandatory menu labelling.

The policies shown to most likely improve equity of health outcomes (or at least not widen them), that are not implemented in NZ but have been implemented in similar countries are: healthy food subsidies, reducing the density of fast food outlets in low income areas, a sugar-sweetened beverage tax, mandatory labelling of pre-packaged food/beverages, and both voluntary and mandatory food reformulation programmes. All of these are potential areas for policy development in New Zealand, but may require greater public support and/or strong government leadership to counter industry opposition.

### New Zealand research strengths

New Zealand research within the broad topics of the stocktake has typically followed the topics and emphasis in the international research. A considerable proportion of New Zealand studies have been in the areas of: food taxes and subsidies, labelling of pre-packaged foods and beverages, food reformulation opportunities, infrastructure changes for cycling and walking, and the neighbourhood food environment.

The most common type of study conducted in the New Zealand on food and physical activity environments is cross-sectional, either surveys or administrative data analysis. When repeated, these analyses are useful for monitoring and reporting progress. Several NZ studies on the food environment (and a couple on the physical activity environment) have used macro-simulation models, which are useful to explore policy alternatives.

### Gaps in the research

Many of the systematic reviews in the stocktake call for more evaluation of natural (realworld) experiments and quasi-experimental research to test associations found in crosssectional or modelling studies. Given the scale and importance of the two main government policies to affect the food and physical activity environments (HEHA and Healthy Families), it was surprising that more research was not found related to these initiatives.

Most of the reviews noted a need for more high quality research, using objective measurements and established/agreed definitions, tools and methods to improve the evidence base. Longitudinal studies, or long-term follow up after experiments, were also recommended, so that effects on body size and disease outcomes could be adequately assessed.

Topics where little or no published New Zealand research has been undertaken were: the effects of the introduction or improvement of parks and playgrounds or recreational facilities on adult physical activity, perspectives of the built environment, portion size reduction initiatives, outdoor and in-store advertising, and workplace policies. Most New Zealand studies considered differential effects by ethnic group and neighbourhood deprivation, but this was not always the case, and only one kaupapa Māori research study was found. Only two relevant large randomised controlled trials have been undertaken in New Zealand, one on food labelling and the other on price discounts and education in supermarkets. There were conflicting findings on the effects of public transport on physical activity, which warrant further investigation.

# Suggested priority research areas and pre-work

Based on the stocktake, the following six priority research areas were suggested to the participants in advance of the workshop:

- 1. National monitoring systems and tools that facilitate independent, robust evaluation of natural experiments (or new policies) that impact on food environments
- 2. National monitoring systems and tools that facilitate independent, robust evaluation of natural experiments (or new policies) that impact on built environments and physical activity
- 3. Healthier food reformulation across the national food supply, principally sodium reduction in conjunction with consideration of other adverse nutrients
- 4. Effects of food advertising, marketing and price promotions on adult food choices and behaviours
- 5. Food environments that support access to affordable and healthy food
- 6. Large-scale workplace environment interventions to improve diet and physical activity

Achievement of equity is at the heart of the Healthier Lives–He Oranga Hauora National Science Challenge vision, and therefore all of the research areas have the reduction of inequity as a key aim and measureable outcome.

Participants were asked to undertake some pre-work, detailed in Appendix 2, considering these priority research areas by answering the following questions prior to the workshop:

- Do you agree with the recommended priority areas? If not, why not?
- In your view, are there other priority research areas (or emergent research areas) that were not identified in the stocktake? e.g. integration of research on the built/food environment and planetary/environmental health
- What current systems and measures exist to monitor and evaluate food and physical activity environments? What additional systems or measures are needed?
- How can we capitalise on natural experiments of policy changes when the opportunities arise?
- How can we better align New Zealand actions and policies with international best practice and evidence?

# Feedback on the original priority research areas

Two international guests, Professors Mike Rayner (University of Oxford) and Jenny Mindell (University College London) were asked to provide their thoughts on the stocktake and priority areas at the workshop.

Jenny Mindell noted that the two frameworks in the stocktake (the Nuffield and the Health Impact pyramid) are contradictory, and cautioned that the Nuffield Intervention Ladder has been used as an argument by government for inactivity at the population level and an emphasis on individual-focused, educational approaches (despite good evidence that these increase inequalities). The most effective interventions require governmental action to address socio-economic factors. The least effective are those aimed at individuals, requiring substantial input and effort from the individuals themselves. Jenny noted that the Healthier Lives Challenge focuses on research priorities for adults aged 18-64 but in practice, if planners (and thus researchers) get the environment right for active travel by older people and young children, it helps everyone. She noted that there were striking similarities between the UK and New Zealand regarding the research and political environments, their constraints on public health, and the ups and downs of the prevalent ideology of political parties.

Mike Rayner commented that a limitation of the stocktake was that it segments the research into topics but there are actually crosscutting themes. He would instead focus on strengths, weakness, opportunities and threats with regards to research on healthy food and physical activity environments. From his perspective, NZ has a strength in modelling research (e.g. BODE3) and our unique databases of food composition, labelling and purchasing data (e.g. Nutritrack and Nutrisales). Our weakness is that we are a small country so cannot do research on everything; we need to team up with similar small countries. Mike noted that there are few opportunities for research in NZ, and what is glaring is the lack of a Nutrition Survey. We need up-to-date data for modelling, monitoring and evaluation of interventions. Research and policy development is hampered by this lack of data. Mike concluded by noting that we must recognise the relationship between health and the environment and sustainability (green house gas emissions from the food and transport sectors particularly). Planetary health is critical to our health and must be prioritised.



Professors Jim Mann, Jenny Mindell, Cliona Ni Mhurchu and Mike Rayner

A group discussion followed about the priority areas and participants collectively decided to redefine the research priority areas.



Group discussion and consensus building around the priority research areas

# **Redefining the priority research areas**

A subgroup of 10 workshop participants was tasked over the lunch break to redevelop the priority areas, based on the morning's discussion.

The final priority research areas were:

- 1. Healthy and sustainable food supply
- 2. Food affordability and accessibility
- 3. Natural experiments and scaling up
- 4. Monitoring food and physical activity environments
- 5. How to get evidence-based policy adopted
- 6. Māori and Pasifika community interactions with environments<sup>1</sup>
- 7. Healthier and more sustainable physical activity environments



Small group work to redefine research areas

# Research topics within the priority research areas

Participants then moved around flipcharts in the room, one under each of the new priority research headings, adding post-it notes with their ideas for research topics and projects.

Participants were then asked to work in small groups at the flipchart most aligned to their area of interest, to sort the post-it notes into themes. Appendix 3 presents the research ideas and themes from the post-it notes, under each prioritised research area.



Brainstorming research topics under the priority research areas

<sup>&</sup>lt;sup>1</sup> The original intention was that this would be a key aim and outcome for all priority research areas. Workshop participants felt this needed to be a separate priority area; however, reducing inequity for Māori and Pasifika remains integral to all priority research areas.

# **Prioritising research topics**

Each workshop participant (excluding the international guests) was then asked to pick the top three topics they would like to see prioritised by Healthier Lives in Phase 2, placing three red stars on a chart summarising the topic they had selected.

The following factors were to be considered when prioritising topics:

- Is there a clear gap in the evidence base?
- Does it build on NZ research strengths and capability?
- Does it have the capacity to reduce inequities?
- Is it a population-level intervention?
- Are stakeholders likely to be interested in implementing it?
- Is it likely to be cost-effective?

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Voting to prioritise research areas

The six research topics that received the most votes were then developed further in small groups, to synthesise the post-it notes and give direction for future research.

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Synthesising research topics and creating research questions

# Top six prioritised research topics

The final top six research topics chosen by the workshop participants (in order of number of votes) were:

- 1. Interventions for physical activity and sustainability
- 2. Maori and Pasifika communities and environment
- 3. Food cost, affordability and sustainability
- 4. Factors that impact on design and adoption of healthy environment policies
- 5. The power of community voice in policy adoption
- 6. Food formulation and reformulation

See Appendix 3 for more details on all of the research questions/topics suggested throughout the day and further contributions from the workshop participants on the six prioritised topics.



# Concluding reflections on the workshop

Participants were asked to 'check out' for the day, reflecting on what they had appreciated about the workshop and what they hoped would come from the day's work (over page).

Caroline McElnay summarised progress made during the workshop, noting that there had been a great sense of energy in room, lots of listening, and a true co-design, participatory process, which was a great opportunity for researchers and policy makers to collaborate. She noted that the facilitation was very skilled and the process was not derailed by a change to the priority areas. Reflecting on the six prioritised research topics, Caroline noted that they speak to the issues that we need to address in our environment: incorporating kaupapa/mātauranga Māori, the high cost of food, the role of industry and big business, and sustainability in both transport and food. There was a strong desire to harness the power in community voices and stories, and that we also want to know what factors will lead to better design and adoption of policies.

The Challenge Directors concluded the day by explaining the process from here in taking the outputs from this workshop to the Healthier Lives Governance Group and Kāhui Māori for commissioning in Phase 2. All the promising ideas generated at the workshop will be considered in the mix. Some proposed research topics may fit better under Theme 2 (which focusses on health interventions tailored for Māori and Pacific communities) and will now be considered there. Professor Jim Mann noted that in addition to discovering priority research areas for Phase 2, it is the role of the Healthier Lives National Science Challenge to now help set the broader health research agenda for New Zealand. The Challenge itself will not be able to fund all of the research ideas generated at the workshop but can recommended some of these to other funders.



**Professor Jim Mann** 

**Caroline McElnay** 



Word art of what participants appreciated about the day



Word art of what participants hoped would come from the day

# **Appendix 1: List of participants**

# Donnell Alexander

Donnell Alexander is a New Zealand registered dietitian who has worked across the public and private sector in New Zealand. Her current role as Senior Adviser, Food Claims at the Ministry for Primary Industries, has responsibilities for both setting and implementing labelling claims on foods. In particular, within the Food Science Team, she coordinates the scientific assessment of dossiers of evidence for self-substantiated general level health claims against the requirements of the Australia and New Zealand Food Standards Code, for the New Zealand jurisdiction. She works closely with other Australian jurisdictions in updating and implementing aspects of the common Standard for Nutrition, Health and Related Claims (Standard 1.2.7) and other nutrition-related food regulations. She also works closely with a range of food manufacturers and exporters to provide advice about meeting the regulatory requirements for food labelling and promotion.

# **Ruth Berry**

Ruth Berry is Challenge Director of the Building Better Homes, Towns and Cities National Science Challenges. She has played several significant roles within the building sector, most recently in the BRANZ Research Strategy Group as the Construction Systems Working Group Project Manager. She was also Secretary for the Independent Research Association of New Zealand as well as being one of the BRANZ representatives on the IRANZ committee.

# Harriette Carr

Harriette Carr is Deputy Director of Public Health at the Ministry of Health. She is a Public Health Medicine Specialist who has spent much of her career working on nutrition, physical activity and obesity issues. Areas of work have included measurement of physical activity, overseeing evaluation of nutrition and physical activity programmes, providing physical activity, nutrition, sleep and obesity policy advice and guidance, and working with other agencies to effect change.

## Mary-Ann Carter

Mary-Ann Carter is the Manager of the Wellness, Nutrition and Physical Activity team in the Public Health Group of the Ministry of Health. She joined the Ministry following her role as Manager Nutrition and Physical Activity at the Health Promotion Agency. Originally qualifying as a Dietitian, she has spent her career working in a range of roles across the health sector with a focus on public health nutrition. Mary-Ann's PhD from Otago University explored the marketing and availability of food in sports settings.







### Tane Cassidy

Tane Cassidy (Ngapuhi) is General Manager Communications and Capacity at the Health Promotion Agency. He has experience in the areas of health marketing, funding and contracting and policy development, and has worked with a wide range of Government and non-Government organisations, Māori, private businesses and community groups.

# Ofa Dewes

Of a Dewes has a health science, public administration and business management background and has worked in the public, private and international sectors. She has strong personal and professional links with a number of Pacific countries and people which have influenced the direction of her mixed methods ethnic-specific research into diabetes and obesity prevention, treatment and management. As a Pacific health researcher at the University of Auckland, and Affiliate Investigator of the Maurice Wilkins Centre for Molecular Biodiscovery, Dr Dewes is leading a study to understand the differences in fructose absorption among Pacific high school students. She has led the Pacific consultations on the development of the clinical guidelines for weight management in New Zealand, a randomised controlled trial on weight management for Pacific children, and implementation of the NZ weight management guidelines for children, young people, adults and older adults in Pacific church communities.

## Scott Duncan

Scott Duncan is Head of Department (Physical Activity, Nutrition, and the Outdoors) at the School of Sport and Recreation, AUT University. Areas of expertise include the measurement and classification of physical activity, programme design and evaluation, curriculum-based health and wellbeing interventions for children, and determining the effects of the built environment and daily mobility on health outcomes. He is particularly interested in engaging children in healthy lifestyles through traditional unstructured play and independent mobility. Current research includes several large-scale lifestyle interventions in school, community, and workplace settings.

# Hilda Fa'asalele

Matafanua Hilda Fa'asalele is the Chief Advisor Pacific Health, Ministry of Health. Hilda is primarily responsible for leading and contributing to Pacific health policy strategy and supporting the development and capability of Pacific Health Providers and Pacific Workforce development across the Ministry and health sector. She has over 30 years of experience in nursing, well child health, health auditing, evaluation and tertiary education. Prior to the role in the Ministry, she was the General Manager for Pacific Health at Auckland DHB. Hilda is of Samoan descent, a matai,











### **Riz Firestone**

Riz Firestone is a Senior Researcher and Associate Dean (Pacific, College of Health). Her research involves investigations on social-cultural and health inequalities specifically among young Pasifika people with noncommunicable diseases in NZ. She also has a wider focus in co-developing community-based interventions with Pasifika and Māori communities to: (i) tailor interventions to ensure the community's' needs are met and; (ii) ensure the interventions are relevant, and adaptable for long-term uptake by people within their communities.

## Sarah Gerritsen

Sarah Gerritsen is a social scientist at the University of Auckland's School of Population Health, working in the field of public health nutrition and child health. Her PhD (2017), was on the potential for early childhood education services to assist with obesity prevention, and is currently being used to inform obesity prevention and nutrition policies in the ECE sector. Sarah previously worked at the Ministry of Health as a Senior Advisor in Population Health Research, and was the Research Manager for a crossparty think tank at the Royal Society of Arts in London, The Commission on 2020 Public Services. She has experience in both quantitative (survey design and statistical analysis including regression and multilevel modeling) and qualitative research methods (semi-structured interviews, content analysis, and group model building using a community-based systems science approach). Sarah has written two umbrella reviews: How We Eat (2017), a review of the evidence on food and eating behaviours for the Ministry of Health, and Healthy Food and Physical Activity Environments (2019) for the Healthier Lives National Science Challenge. This year she is leading the review of the Maternal, Infant and Toddler Dietary Guidelines for the Ministry of Health, and undertaking several research projects aimed at improving children's nutrition (funded by the Health Research Council and the Ministry of Social Development).

## Matt Hobbs

Matt Hobbs is an Early Career Researcher with a passion for improving health. As a researcher in the GeoHealth Laboratory (GeoSpatial Research Institute) at The University of Canterbury, New Zealand, he aims to provide policymakers with high-quality evidence, to plan healthier places while considering health inequity. His research is often conducted within multidisciplinary teams including research within public health, geography, sports science and physical activity. He was recently invited to the Editorial Board and International Advisory Panel for Perspectives in Public Health, the flagship journal of the Royal Society for Public Health (UK).







# Simon Kingham

Simon Kingham is Professor of geography a the University of Canterbury, where he also directs the Geohealth Laboratory, a collaboration between the Ministry of Health and the University that does geospatial health research for the Ministry of Health. He is currently seconded two days a week to the Ministry of Transport as their Chief Science Advisor.

# Geoff Kira

Geoff Kira is a Senior Lecturer with the School of Health Sciences, Massey University. He has a background in exercise physiology and biochemistry with a strong emphasis in practical applications and translational research. He is a senior Maori health researcher in the fields of exercise, nutrition and sleep and applying them for optimal health and wellness. Dr Kira specialises in applying matauranga Maori and science to obtain the most promising outcomes from that interface. Given the low number of Maori health researchers in his field, Dr Kira enthusiastically promotes postgradute study and the utility of science and matauranga Maori for the benefit of those that are disadvantaged.

# Sally Mackay

Sally Mackay is a Registered Nutritionist working as a lecturer and research fellow. She is currently monitoring the healthiness of the NZ packaged food supply and is interested in reformulation of packaged foods, food affordability, monitoring food companies commitments to health and monitoring the wider food environment. She recently completed a PhD at the University of Auckland on the INFORMAS (International Network for Food and Obesity/non-communicable diseases, Research, Monitoring and Action Support) methodology of monitoring food prices. She has previously worked as a public health nutritionist for a wide range of organisations including the Ministry of Health for the 2008/09 Adult Nutrition Survey.

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# Jim Mann

Jim Mann has been Professor in Medicine and Human Nutrition at the University of Otago and Consultant Physician (Endocrinology) in Dunedin Hospital for the past 30 years. He is Director of the World Health Organisation (WHO) Collaborating Centre for Human Nutrition, the Healthier Lives National Science Challenge and the New Zealand-China Non-Communicable Diseases Research Collaboration Centre and; co-Director of the Edgar Diabetes and Obesity Research Centre. He is principal investigator for the Riddet Institute, a national Centre of Research Excellence at Massey University. He is a Fellow of the Royal Society of New Zealand and has been awarded the Hercus Medal of the Royal Society and the University of Otago Distinguished Research Medal. He was appointed a Companion of New Zealand Order of Merit for services to Medicine and medical research.

# Caroline McElnay

Caroline McElnay is a Public Health physician and is Director of Public Health at the Ministry of Health. Prior to this she was the Director of Population Health at Hawke's Bay DHB. She has also worked in the UK and the Pacific.

# Fran McGrath

Fran McGrath is a specialist public health physician, currently serving as Chief Advisor in the Population Health and Prevention Directorate in the Ministry of Health, New Zealand. In that capacity, Dr McGrath advises ministers and colleagues on public health issues, and serves as a key advisor on matters such a population health and public policy, prevention of long term conditions/NCDs. Dr McGrath has comprehensive experience in public health, public policy and senior management in many different parts of the health sector including as senior health advisor to a number of Ministers of Health, has been key advisor for national emergencies such as the Pandemic Influenza outbreak in 2009/10, and has represented New Zealand at a number of meetings of the World Health Assembly, and at Regional Committee Meetings of the Western Pacific Region of WHO. She has worked in developing countries including Central America, Thailand, and in the Pacific, working for a year as Director of Planning and Funding in the Cook Islands Ministry of Health. Dr McGrath previously worked as a GP in rural and high need areas in New Zealand.







# Jennifer Mindell

Jennifer Mindell is Professor of Public Health at UCL, where she conducts research on transport and health, particularly community severance (the barrier effects of busy roads) and road casualty rates for different travel modes. Her main role is leading the UCL team working on the Health Survey for England, the secondmost downloaded government dataset on the UK Data Service. A public health doctor, she is based in UCL's Research Department of Epidemiology & Public Health but works across faculties, for example to develop tools to measure the effects of busy roads on local communities. She is Editor-in-Chief of the Journal of Transport and Health. Jenny is on the Executive of the International Professional Association for Transport & Health (IPATH) and of the Transport and Health Science Group (THSG), and is convenor of the network for Mobility for wellbeing and health in Latin America, MoBiSaL. Professor Mindell's visit to New Zealand is supported by the University of Otago's William Evans Fellowship.

# Dave Monro

Dave Monro is Food and Nutrition Manager at the New Zealand Heart Foundation. He is responsible for overseeing the Foundation's food and nutrition work, including nutrition position statements and also a number of award winning food and nutrition related programmes focused on environmental change. As a member of the Heart Foundation's senior management team he provides advice and direction across the business on food and nutrition matters including nutrition messaging, front of pack labelling, food and nutrition related advocacy and public private partnerships.

# Cliona Ni Mhurchu

Cliona Ni Mhurchu is principal investigator of the Healthier Lives project, *OL@-OR@, a Māori and Pasifika mHealth approach*. She leads a programme of nutrition research at the National Institute for Health Innovation, University of Auckland. Her research programme evaluates effects of population dietary interventions and policies, such as food taxes/subsidies, nutrition labels, healthier food reformulation, and food marketing. Current studies use a range of innovative technologies to deliver or evaluate interventions including smartphone apps, a virtual supermarket, and automated wearable cameras.

Cliona serves on a number of national and international advisory committees including the National Heart Foundation Food and Nutrition Advisory Group, Food Standards Australia New Zealand Social Sciences and Economics Advisory Group, and the New Zealand Health Star Rating Labelling Advisory Group. She is author of more than 160 peer-reviewed journal papers and Director of the "Dietary Interventions: Evidence & Translation" (DIET) programme.







# Holly Novis

Holly Novis is a Portoflio Manager for Healthy Families NZ at the Ministry of Health.

# Mike Rayner

Mike Rayner is a Professor of Population Health at the Nuffield Department of Population Health and Director of the Centre on Population Approaches for Non-Communicable Disease Prevention, based in the department. The Centre, which Mike founded in 1993, is a World Health Organisation Collaborating Centre and carries out research into the promotion of healthier and more sustainable environments particularly those related to diets and physical activity.

Professor Rayner's visit to New Zealand is supported by a University of Auckland Distinguished Visitor Award.

# Caroline Shaw

Caroline Shaw is a Public Health Medicine Specialist and epidemiologist. She is a Senior Lecturer at the Department of Public Health, University of Otago – Wellington. Her current research is at the interface of transport, health and climate change, particularly around the health opportunities offered by decarbonising the transport sector. She has undertaken research in the ethnic and socio-economic determinants of health, cancer control, population screening and obesity prevention.

# Louise Signal

Louise Signal is a Director of the Health Promotion and Policy Research Unit at the University of Otago, Wellington. She has worked and done research in the field of health promotion for over 30 years in a range of roles, including Senior Advisor (Health Promotion) for the New Zealand Ministry of Health. Louise is a social scientist with a PhD in Community Health from the University of Toronto. She is the Regional Director of the South West Pacific Region of the International Union for Health Promotion and Education (IUHPE).

Professor Signal's research focuses on identifying and addressing environmental determinants of health. Her research has a strong focus on addressing inequities, particularly for Māori, Pacific and low-income communities. Key foci include obesity prevention, addressing harm from alcohol and gambling and tackling inequities in cancer treatment. Her research utilises qualitative research methods, policy research and mixed method research design. Professor Signal is principal investigator on an innovative research project that studies the world children live in, Kids'Cam. It utilises automated cameras to record children's worlds.







# Melody Smith (nee Oliver) – unable to attend

Aspirations for neighbourhoods where children can be independently mobile, where people can get around safely by walking and cycling, and where social and physical well-being is prioritised and facilitated are key drivers of my work. My research involves understanding relationships between environments and health, with a particular focus on physical activity and active travel. I lead the Neighbourhoods for Active Kids study, using participatory geographic information systems, accelerometry, and parent and teacher surveys to understand environmental supports for healthpromoting behaviours in over 1100 children. I am leading a study to gather community-identified needs and strengths-based solutions for promoting child health and wellbeing in urban neighbourhood environments and am co-investigator in the Te Ara Mua - Future Streets and Pacific Islands Families studies. My research can be found at https://www.researchgate.net/profile/Melody\_Smith11

### Boyd Swinburn

Boyd Swinburn is Professor of Population Nutrition and Global Health at the University of Auckland and Co-Chair of World Obesity Policy & Prevention section.

He trained as an endocrinologist and has conducted research in metabolic, clinical and public health aspects of obesity. His major research interests are centred on community and policy actions to prevent childhood and adolescent obesity, and reduce, what he has coined, 'obesogenic' environments. He is currently leading an initiative (www.informas.org) to monitor and benchmark food environments in over 30 countries. He established WHO's first Collaborating Centre on Obesity Prevention at Deakin University in 2003, led two Lancet Series on Obesity and co-chairs the Lancet Commission on Obesity. He has been an advisor on many government committees, WHO Consultations, and large scientific studies internationally.

# **Rachael Taylor**

Professor Rachael Taylor is Director of the Edgar Diabetes and Obesity Research Centre, and leader of the Healthy Weight theme in A Better Start. She is interested in developing different approaches to effective weight management in children from infancy through to adolescence via sleep, diet and activity.







# Lisa Te Morenga

Lisa Te Morenga (Ngapuhi, Ngāti Whātua, Te Rarawa) is a Senior Lecturer in Māori Health and Nutrition in the School of Health at Victoria University of Wellington. She specialises in the role of diet in the treatment and prevention of obesity, diabetes and cardiovascular disease, with a particular interest in nutrition and hauora (Māori health). She completed a doctorate in human nutrition at the University of Otago in 2010. She was subsequently a Senior Research Fellow and Associate Dean Māori for the University of Otago Division of Sciences, and has received funding from the Health Research Council, the Riddet Institute Centre of Research Excellence, and Healthier Lives National Science Challenge. Dr Te Morenga combines her research with community and international outreach, and has worked with organisations including the World Health Organisation, Toi Tangata, Ngāti Porou Hauora, the National Health Foundation, and the Royal Society Te Apārangi.

# **Dougal Thorburn**

Dougal Thorburn is a medical doctor with a commitment to unleashing the power of communities to improve outcomes for Māori. Of Waikato descent, he works both as the Clinical Director Population Health at Te Awakairangi Health Network and as a General Practitioner in Wainuiomata (Hutt Valley, Wellington). He loves running, biking, mountains and his whānau.

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# Ngarangi Walker

Ngarangi Walker is Kaihautu Rangahau Maori at ESR.

She has was the Project Manager of an integrated child health project in Tairawhiti, E Tipu E Rea. The project focussed on -9months to 6years of age working and was a collaboration between Ngati Porou Hauora, Midlands Health Network, National Hauora Coalition and Tairawhiti District Health.

Ngarangi comes to the workshop as a voice of whanau, hapu and iwi to ensure their aspirations are recognised and they are party to the design and doing of NSC Healthier Lives as change agents in their own communities especially their physical activity environments where mahinga kai activities take place.







## Mat Walton

Mat Walton's research looks at the application of complexity theory and systems thinking to social and public health policy, intervention design and evaluation. Much of this work has considered the multiple ways to support nutrition and physical activity practices, both within particular settings, and across communities. Systems methodologies are also an interest. Mat works as Technical Lead for the Social Systems Team at ESR based in Porirua, and has previously worked as a lecturer at Massey University. Prior to becoming an academic, Mat worked in both central and local government as a policy analyst.

### Jesse Wiki

Jesse Wiki is a PhD candidate and temporary lecturer at the University of Canterbury. She is a part of the GeoHealth Laboratory and her research interests focus on spatial epidemiology and health geography.

### Nick Wilson

Nick Wilson is a Research Professor at the Department of Public Health, University of Otago, Wellington and programme director of the Burden of Disease Epidemiology, Equity and Cost-Effectiveness Programme (BODE<sup>3</sup>). He trained as a medical doctor and subsequently specialised as a public health physician. His research covers a broad range of interests including epidemiological modelling and health economics, tobacco, diet, infectious diseases, and climate change.

## Karen Witten

Karen Witten is a geographer with expertise in how neighbourhood infrastructure, amenity access and social environments influence the everyday mobility, health and wellbeing of residents. Her work is interdisciplinary and has had a particular focus on the wellbeing of children and people with disabilities. She is a Professor of Public Health at Massey University.

## Alistair Woodward

Alistair Woodward is a Professor Epidemiology and Biostatistics at the University of Auckland. He works on environmental issues and the social determinants of health. Current projects include studies on street design and active transport, and the causes, consequences and promotion of riding a bicycle.









# **Appendix 2: Pre-work for participants**

# Healthy food and physical activity environments research and prioritisation workshop



Priority research area			What specific topics should be researched within this area?		For each specific topic, please consider (Y / N):					
		Do you agree this is a priority area for research? Y / N			Is there a <b>clear gap in</b> the evidence base?	Does it have the capacity to reduce inequities?	Is it a population-level intervention?	Will stakeholders be interested in implementing findings?	Is it likely to result in economic benefits?	
1	National monitoring systems and tools that facilitate independent,		a							
	robust evaluation of natural experiments (or new policies) that		b							
	impact on <b>food environments</b>		c							
2	National monitoring systems and tools that facilitate independent,		a							
	robust evaluation of natural experiments (or new policies) that		b							
	impact on <b>built environments</b> and physical activity		c							
3	Healthier food reformulation across the national food supply,		a							
	principally sodium reduction in conjunction with consideration of	-	b							
other adverse nutrients			c							

				For each specific topic, please consider (Y / N):					
Priority research area		Do you agree this is a priority area for research? Y / N	What specific within this ar	e topics should be researched rea?	Is there a <b>clear gap in the</b> evidence base?	Does it have the <b>capacity to</b> reduce inequities?	Is it a population-level intervention?	Will stakeholders be interested in <b>implementing</b> <b>findings</b> ?	Is it likely to result in economic benefits?
4	Effects of food advertising, marketing and price promotions		a						
	on adult food choices and behaviours		b						
			c						
5	Food environments that support access to affordable and healthy		a						
	food		b						
			c						
6	Large-scale workplace environment interventions to		a						
	improve diet and physical activity		b						
			c						
7			a						
			b						
			c						

# Appendix 3: Research themes, questions and notes developed by workshop participants

### 1 HEALTHY AND SUSTAINABLE FOOD SUPPLY

### 1.1 Modelling impact

- 1.1.1 Model health impact of climate-related policy decisions on NCDs.
- 1.1.2 Model healthy sustainable diets for NZ to flow into new guidelines.
- 1.1.3 Lifecycle analyses of foods for sustainability modelling.
- 1.1.4 What is the impact of meat and dairy industry on the environment and what environmental levers can be used?
- 1.1.5 Model food supply interventions with co-benefits (e.g. on greenhouse gasses).
- 1.1.6 Model impact of environmental support in agriculture and horticulture.

### 1.2 Guidelines

- 1.2.1 What would sustainable dietary guidelines for NZ look like?
- 1.2.2 Investigate ways to normalise healthy eating behaviour (e.g. through societal change).
- 1.2.3 Develop food labelling that reflects health and environmental impact.

### **1.3** Food formulation and reformulation

- 1.3.1 What are the best buys in terms of improving composition and sustainability of food products?
- 1.3.2 Can we develop healthier, affordable staple foods, eg bread?
- 1.3.3 How can we incentivise manufacturers and producers to reformulate common/core foods to be healthier (in terms of salt, sugar, fat, energy, fibre etc)?
- 1.3.4 What is the impact of food reformulation on diets and health outcomes? (RCT)
- 1.3.5 Where can the biggest gains be made in food reformulation?
- 1.3.6 What food should be reformulated to a) achieve the best health gains andb) be politically feasible?
- 1.3.7 Investigate the feasibility of reformulation by the food industry (including progress to date and future opportunities) by looking at sales data, market share and contribution to intake.
- 1.3.8 What are the political and industry levers to achieve food reformulation?
- 1.3.9 Investigate (monitor) food company performance in terms of sales and exports of reformulated foods.
- 1.3.10 How can we achieve salt reduction targets?
- 1.3.11 Should we approach food reformulation via regulation or taxation, e.g. to replace sodium with potassium?

- Where are the biggest gains for population health in terms of improving composition and sustainability of food products?
- What are the political and industry levers to achieve food reformulation?
- How can we achieve salt reduction targets? Should we approach food reformulation via regulation or taxation, e.g. to replace sodium with potassium?
- What is the impact of food reformulation on diets and health outcomes?

**Note:** NZ urgently needs new child and adult national nutrition surveys in order to undertake research in this area.

### 1.4 System design

1.4.1	Investigate sustainability of kai moana as a food supply source.
1.4.2	Does a sustainable diet impact our country's carbon footprint as an
	exporting nation?

- 1.4.3 How can disadvantaged groups overcome the barrier of 'Is my seafood safe for me to eat? Is it healthy?'
- 1.4.4 What is the impact [of healthy and sustainable food supply and systems] on high deprivation communities?
- 1.4.5 Investigate physical activity environments of mahinga kai.
- 1.4.6 How can we increase healthy and sustainable food supply using a Kaupapa Māori lens?

### **1.5 Industry role and performance**

- 1.5.1 Evaluate voluntary food industry initiatives.
- 1.5.2 Do drive-throughs at quick serve restaurants increase consumption of foods with high fat, salt, and sugar? What avenues are there to reduce drive-throughs?
- 1.5.3 What is the effect of advertising on consumption?
- 1.5.4 Do food advertising marketing bans for foods high in fat, salt and sugar alter the consumption of these foods in adults?
- 1.5.5 Investigate the role of retailer 4Ps (pricing, promotion, positioning, placement) for health and sustainability.
- 1.5.6 Evaluate (government and business) progress against commitments to sustainability and health.

### 1.6 Fiscal policies

- 1.6.1 What are the best ways to incentivise food producers and manufacturers to reformulate foods (less salt, fat and sugar, more healthy grains)?
- 1.6.2 How do we manage sustainable food production and maintain economic growth?
- 1.6.3 What are the impacts of the carbon tax on food supply and improving the environment?
- 1.6.4 What transport pricing strategies and subsidies could be used to impact positively on equity, food supply (price and availability) and physical activity levels?

- 1.6.5 What incentives would encourage diversification of food production in NZ that is pro-equity and encourages healthy food choices and availability?
- 1.6.6 What priority is placed on the cost and quality of the planetary food supply?

### 2 FOOD AFFORDABILITY AND ACCESSIBILITY

2.1	Food cost and affordability (addressing the social determinants of healthy eating)					
	2.1.1	Investigate food delivery to increase access to healthy foods in low- income neighbourhoods.				
	2.1.2	How can we make culturally and socially acceptable healthy foods affordable?				
	2.1.3	Investigate non-stigmatising alternatives to food banks.				
	2.1.4	Is a sustainable diet affordable and acceptable to low-income families?				
	2.1.5	Investigate food affordability and accessibility for non-car owning individuals and groups?				
	2.1.6	Monitor whether healthy foods and diets are becoming more or less expensive.				
	2.1.7	Monitor the proportion of income spent on food.				
	2.1.8	Investigate options for, and the value of, subsidising healthy food.				
	2.1.9	Examine the intersections of spatial and economic accessibility of food.				
	2.1.10	Investigate welfare policies that recognise the cost of food and protect food budgets.				
	2.1.11	Investigate effective approaches to increase income to drive healthier lifestyles.				
	2.1.12	Investigate living wage/living benefit to enable food affordability.				
	2.1.13	Investigate provision of fruit and vegetable vouchers for all low-income New Zealanders.				
	•	How can we redistribute income effectively and fairly to facilitate healthier lives?				
	٠	How can we redistribute the food that we produce in Aotearoa in a socially acceptable non-stigmatising way?				
	٠	How can we make sustainable and healthy diets affordable and acceptable to low-income families?				
	•	Can we change societal food norms to encourage prioritisation of health (over other pressing areas) for low-income groups?				

### 2.2 Local food

2.2.1 How can junk food saturation in low-income areas be reduced?

- 2.2.2 What lessons can be learned across community-level food security interventions?
- 2.2.3 What is the importance of 'local' on healthy food access?
- 2.2.4 Investigate factors affecting the accessibility to healthy, sustainable food for people living in rural locations.
- 2.2.5 Evaluate food waste and opportunities for redistribution.
- 2.2.6 Investigate features of local sustainable food systems.
- 2.2.7 What is the effect of growing food locally on sustainability, biodiversity and food security?

### 2.3 Methodology

- 2.3.1 What really drives peoples eating choices?
- 2.3.2 What are the differences that food affordability and access has on diverse communities? What are the spatio-temporal differences? Identify mechanisms (causality). What differences arise from Kaupapa Māori approaches?
- 2.3.3 Undertake qualitative research in low-income areas to identify barriers to healthy eating.
- 2.3.4 Evaluate iwi-led initiatives to address viable options for neighbourhoods with poor food availability.

### 2.4 Climate change

2.4.1 How will climate change impact food affordability and accessibility, and change our approach?

### **3** NATURAL EXPERIMENTS AND SCALING UP

### **3.1** Cycle infrastructure

- 3.1.1 What is the impact of infrastructure (e.g. cycle ways) on physical activity and health outcomes, using an equity lens?
- 3.1.2 What is the impact of e-bikes and e-scooters on physical activity?

### 3.2 Speed limit

3.2.1 What is the impact of speed limits on physical activity? e.g. the effect of proposed 30km/hour speed limit in Auckland as a natural experiment

### 3.3 Community

- 3.3.1 What are the characteristics of successful community initiatives?
- 3.3.2 Support evaluation of community-level interventions, and then learn what works to inform scaling up and policy development.
- 3.3.3 Understand use of community-based 'pop-up' fitness groups.

### 3.4 Māori and Pasifika

- 3.4.1 Review success of and potential to scale up cultural initiatives that promote and implement healthier and sustainable environments, e.g. Taranaki Mounga.
- 3.4.2 Develop tools for Māori and Pasifika to participate in policy making.

- 3.4.3 Investigate Pasifika values and beliefs for communities' response to policy change.
- 3.4.4 Mahinga kai and Māori kai.
- 3.4.5 Ko taku taiao, taku oranga wairua.
- 3.4.6 Māori led, Māori aspiration, Māori community/population health.

### 3.5 Policy changes

- 3.5.1 What are the impacts of the new ASA (Advertising Standards Authority) code, Health star rating changes, and food policies in DHBs etc.?
- 3.5.2 What is the impact of the healthy housing policy change?
- 3.5.3 Evaluate lessons learned from the plastic bag ban, how it occurred, and how lessons can be applied to food and physical activity areas.
- 3.5.4 What is the impact of the changing nature of work, lifestyle and technology e.g. micro-mobility?
- 3.5.5 Evaluate the impact of petrol taxes/prices, lack of public transport and making healthy options local.
- 3.5.6 Remove food marketing in the environment, e.g. from shop fronts, to reduce exposure to junk food marketing (undertake a natural experiment with a council).
- 3.5.7 Does the price of carbon in NZ alter physical activity or food behaviour in the population?

### 3.6 Methods/data

- 3.6.1 Trial and develop effective portion size tools for NZ population, especially Māori and Pasifika.
- 3.6.2 Use existing data (e.g. NZ Health Survey, Household Economic Survey data) in evaluations.
- 3.6.3 Consider the timeliness of funding for baseline data collection as well as post-change evaluation.

### 3.7 Evaluating urban regeneration/development

- 3.7.1 Investigate urban transformation as a lever for better diets and healthy physical activity.
- 3.7.2 Evaluate major urban regenerations.
- 3.7.3 Evaluate the impact of urban regeneration initiatives what works, what doesn't, what are the surprises?
- 3.7.4 Evaluate natural experiments in street design for active travel (via flexible research fund).

### 3.8 Socio-economic

- 3.8.1 Test an approach like UBI (universal basic income) that increases income and choices.
- 3.8.2 How is the policy focus on 'added value' foods adversely affecting low income New Zealanders?
- 3.8.3 Assess impact [of natural experiments] on high deprivation communities.

- 3.8.4 What are the effects of socio-economic disadvantage (education, income, housing) on NCD risk factors?
- 3.8.5 What effect will increases in the minimum wage (or policies for a living wage) have on health, diet, physical activity?

### 4 MONITORING FOOD AND PHYSICAL ACTIVITY ENVIRONMENTS

### 4.1 Monitoring changes in food environment

- 4.1.1 What changes is the government making to food policy and implementation?
- 4.1.2 Is our food supply getting healthier or not?
- 4.1.3 Are food environments in and early childhood education centres getting better or worse? Where are the high and low spots?
- 4.1.4 What progress are food companies making on healthy sustainable food?
- 4.1.5 Are food industry commitments flowing into food environment changes?
- 4.1.6 What are the changes in food supply that positively affect low-income families?
- 4.1.7 Is food marketing to children getting more or less ethical?
- 4.1.8 Monitor food environments regularly using tested methods.
- 4.1.9 How to measure food quality, level of processing in New Zealand.
- 4.1.10 Help measure policy-level (national) differences.

### 4.2 Monitoring behaviours

- 4.2.1 What are we eating and why?
- 4.2.2 Focus on behavioural time-use as an outcome.
- 4.2.3 Survey physical activity in population.
- 4.2.4 Evaluate impact of sleep on food intake and physical activity.
- 4.2.5 Undertake a national nutrition survey.
- 4.2.6 Support longitudinal and experimental research not more cross-sectional.

### 4.3 Community engagement with monitoring

- 4.3.1 How can we use monitoring to empower communities?
- 4.3.2 Amplify the community voice and lived experience.
- 4.3.3 Evaluate the food supply of rural communities, i.e what products are locally grown, sold, eaten?
- 4.3.4 Focus on what communities consider worth monitoring.

#### 4.4 Methods

- 4.4.1 What cost-effective food/diet monitoring databases and surveys exist?
- 4.4.2 Utilise integrated data system to facilitate cohesive body of research.

#### 4.5 Capturing Māori health values in monitoring

4.5.1 What outcomes should we be capturing to measure Māori health values?

- 4.5.2 How can we decolonise data collection?
- 4.5.3 Use a whānau ora approach across all aspects of health.

#### 4.6 Food system

4.6.1 Understand the food system – paddock to plate.

### 5 HOW TO GET EVIDENCE-BASED POLICY ADOPTED

### 5.1 Food industry

- 5.1.1 What is the uptake and impact of the adoption of healthy food and drinks policies?
- 5.1.2 What are the drivers for food companies to improve the sustainability and healthiness of their products?
- 5.1.3 What is the influence of commercial interests on policy making?
- 5.1.4 How can we identify and curtail the food industry's conflict of interest in the policy making process?
- 5.1.5 What are the pitfalls of having industry at the table?

### 5.2 Factors that impact on design and policy adoption

- 5.2.1 What stops individuals/agencies implementing new ideas and making changes?
- 5.2.2 How can we learn from 'whole systems' work in UK?
- 5.2.3 What works to affect policy? (implementation research)
- 5.2.4 Compare successful and unsuccessful adoption of government health policies.
- 5.2.5 Investigate the assemblage of factors (regulations, professional norms, organisational practices) that maintain current policy settings and resist innovation.
- 5.2.6 How to stop the food industry from halting progress in ending obesity?
- 5.2.7 Understand policy entrepreneurs in food and physical activity areas.
- 5.2.8 How can we embed innovation in 'business as usual'?
- 5.2.9 How can we develop policies with a Pacific lens?
- 5.2.10 How to implement evidence-based policies? (local practitioners/policy makers)
- 5.2.11 Consider importance of integrated data system/management to build cohesive research base.
  - How can we strengthen the evidence-based voice to stop the industry voice from over-riding it?
  - Undertake systems analysis on barriers and levers to achieving policy adoption and overcoming policy inertia and the maintenance of 'business as usual' policy settings.

### 5.3 Knowledge translation

- 5.3.1 What are the most effective ways of disseminating evidence to decision makers?
- 5.3.2 How can central government and local government interact to support change?
- 5.3.3 How can we transfer knowledge and initiatives beyond trials (roll-out)?
- 5.3.4 What is the use and value co-design in public health research?
- 5.3.5 Introduce more translational research hubs.
- 5.3.6 Ensure links between research/ers and policy makers.
- 5.3.7 Understand diverse perspectives on policy options (e.g. through Qmethodology collecting differing viewpoints of key stakeholders).

### 5.4 Power of community voice in adoption

- 5.2.1 How can we get good policies to come through community voice (citizen juries, voters)? Test mechanisms (such as citizen juries) for activating and translating community voice to inform adoption of food and physical activity policies.
- 5.2.2 Set up community reference groups to work WITH policy writers.
- 5.2.3 Establish better engagement between researchers, communities and policy-makers (create movement in community).
- 5.2.4 How can we enable more Māori citizens to participate in policy making for Māori?
- 5.2.5 What are the most cost and time effective methods to get the community voice to influence politicians to adopt good policies?
  - What engagement approaches are most effective (including resource effective) for different population groups and communities (e.g. based on ethnicity, age group, geographic location)?
  - What will make local and national politicians act on the community voice?
  - How can engagement processes be respectful and authentic so that they encourage future engagement?
  - How can the community voice be sustainably resourced?

#### 5.5 Co-benefits and economics

5.6	Causal	ity
	5.5.2	Investigate how policies interact to understand co-benefits.
	5.5.1	Demonstrate economic model [for adoption of health-enhancing policies]. i.e. wealth savings in 5, 10, 20 years' time.

5.6.1 What is the mechanism [for policy adoption]? Move to causality.

### 6 MĀORI AND PASIFIKA COMMUNITY INTERACTIONS WITH ENVIRONMENTS

### 6.1 Māori and Pasifika communities and environment

- 6.1.1 How do environments impact on different populations? What actually, significantly and sustainably changes Māori/Pasifika diet and physical activity?
- 6.1.2 What is the impact of transport (or lack of) on Māori/Pasifika physical activity and health? What are Māori priorities in physical activity and transport?
- 6.1.3 What is the intersection between Māori/Pasifika food choices, and the cost and sustainable and healthy food/diets? What success has mahinga kai and maara kai achieved in improving community nutrition?
- 6.1.4 Evaluate iwi/hapu led initiatives that have economic benefits from food production or physical activities.
- 6.1.5 How can we support the emergence of community led and owned initiatives? ? Build on and evaluate what's currently happening in 'community pop-ups', e.g. fitness groups, iwi/community led initiatives to address food poverty, and iwi/hapu led initiatives that have economic benefits from food production or physical activities.

### Notes:

- Utilise and build on Phase 1 research.
- Increase funding for research that reflects the values and aspirations of the community, and acknowledges the time communities put into it.
- Research should:
  - use Māori and Pacific definitions around values;
  - employ a Māori lens: Tino rangatiratanga that accounts for Māori aspirations;
  - employ a Pasifika lens: strengths-based, diversity of cultures and populations;
  - o focus on social wealth and social capital;
  - redistribute power and control to whanau, hapu, iwi and community, who have the ability to unite and bring others along, leading to engagement;
  - o examine intergenerational whakapapa to address the lifecourse;
  - o be interdisciplinary; and
  - consider identity, belonging and connection as indicators of wellbeing.
- We want sustainable and empowered Māori and Pasifika communities (mahi that whakamana people) → strength

whānau ora	$\leftrightarrow$	research	$\leftrightarrow$	policy and practice			
whānau ora capacity and capability							
research, engagement, policy, practice							

### 6.2 Improving physical activity, healthy food options

- 6.2.1 What is the impact of transport (or lack of) on Māori/Pasifika physical activity and health?
- 6.2.2 What is the intersection between Māori/Pasifika food choices, and the cost and sustainable and healthy food/diets?
- 6.2.3 What are Māori priorities in physical activity and transport?
- 6.2.4 What success has mahinga kai and maara kai achieved in improving community nutrition?
- 6.2.6 How to expand range of physical activity that is culturally relevant.

### 6.3 Kaupapa Māori methods

- 6.3.1 How can we utilise the stories and learnings already in these communities for greater impact?
- 6.3.2 Integrate concepts of whānau ora/ola to enhance health more pragmatically.
- 6.3.3 What infrastructure is needed to support kaupapa Māori research?
- 6.3.4 Capture Māori voices about the challenge of eating healthy and the best way to address it. Focus on Kaupapa Māori solution to healthy eating
- 6.3.5 Increase value of Māori Mātauranga for nutrition and physical activity.

### 6.4 How to transform knowledge from Māori and Pasifika into action

- 6.4.1 What is the role of Māori knowledge systems for nutrition and physical activity interventions?
- 6.4.2 What policies have had the greatest impact on these communities?
- 6.4.3 Undertake research to impact policy development at community level.
- 6.4.4 Undertake implementation research on and with priority populations.
- 6.4.5 Build on current research don't repeat.
- 6.4.6 Undertake research to inform iwi health policy and initiatives.

#### 6.5 Cross-cutting theme

- 6.5.1 Take account of intersectionality (multiple disadvantage).
- 6.5.2 What about other inequities e.g. poverty, other minority ethnic groups?
- 6.5.3 Focus on social determinants of health.

### 7 HEALTHIER AND MORE SUSTAINABLE PHYSICAL ACTIVITY ENVIRONMENTS

### 7.1 Access and affordability

- 7.1.1 What is the impact of role models on healthy behavioural change?
- 7.1.2 Evaluate perceived and objectively measured environments.
- 7.1.3 Map and monitor inequities in access to active and public transport networks.
- 7.1.4 Examine the intersections of spatial and economic accessibility of active and public transport.
- 7.1.5 Investigate affordability and access to physical activity.
- 7.1.6 Investigate integration of current lines of action in schools, gyms and communities.
- 7.1.7 Investigate the interface of alcohol, food and physical activity, and positive policy actions for each area that complement each other.

### 7.2 Interventions for physical activity and sustainability

- 7.2.1 Policies to reduce carbon in transport sector and improve health, equity and cost-effectiveness.
- 7.2.2 Policies to promote equitable and healthy transformation to zero carbon in transport.
- 7.2.3 How to fast track low or no carbon transport modes and systems?
- 7.2.4 How do we better plan transport networks as we build housing?
- 7.2.5 How can we increase population density and improve physical health?
- 7.2.6 Examine financial and policy barriers to faster urban intensification.
- 7.2.7 Investigate impact of changing climate (and climate variability) on environments and physical activity.
- 7.2.8 Understand impact of climate policy on equity, food and physical activity.
- 7.2.9 What is the impact on climate mitigation and adaption on NCDs?
- 7.2.10 Investigate pricing strategies for more active lifestyles.
- 7.2.11 Pricing strategies (including taxes and subsidies) for physical activity and transport, incorporating impact on equity and food availability (price and rural locations).
- 7.2.12 Understand barriers to ending car dependence.
- 7.2.13 Understand the impact of third spaces (formal and informal) on physical activity and social interaction.
- 7.2.14 Undertake qualitative research in disadvantaged groups to identify barriers to healthy environments, and how these are being overcome.
- 7.2.15 Investigate active transport and sustainability.
- 7.2.16 Investigate longstanding food and physical activity initiatives.
- 7.2.17 Investigate role of transport planning on physical activity.
- 7.2.18 Investigate population exposure to low physical activity and high carbon.
- 7.2.19 Investigate the co-benefits and synergies of physical activity and sustainability.

- How do we achieve more diversity in physical activity and sustainability policy making?
- Which e-vehicle strategies will maximise physical activity and sustainability and, at the same time, reduce inequalities?
- Does the link between densification and increased physical activity hold for all communities? What are the modifiers and confounders?
- How do we achieve radical change in a socially equitable way?
- How do we measure outcomes? What is the link between mental and physical health and wellbeing?

#### Notes:

- In this context the physical activity environment includes transport systems, urban design and the physical environment.
- Access to destinations and density of housing are important factors, which vary between urban, suburban and rural locations different solutions may be needed in different types of area.

#### 7.3 The physical environment

- 7.3.1 What is the impact of green and blue space?
- 7.3.2 What is the impact of transport on social cohesion and physical health?
- 7.3.3 What is the impact of workplace environment and employee initiatives?

#### 7.4 Social and cultural determinants for physical activity

- 7.4.1 Examine the commercial determinants of physical inactivity.
- 7.4.2 What is the role of Māori knowledge systems in improving environments?
- 7.4.3 How can the diversity of cultural norms and expectations be reflected in policy and implementation?
- 7.4.5 Trial and evaluate initiatives to reduce the impact of alcohol in sports settings.
- 7.4.6 Investigate cultural and social norms that affect physical spaces and activities (and not just built environments), eg drivers' attitudes.
- 7.4.7 Investigate use of health impact assessment.
- 7.4.8 Investigate what can be applied from tobacco policy changes to physical activity environment changes.