CONGRESS ABSTRACTS

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Sunday 5 October

Short Course: Cultural Competency

Trevor Simpson (Trevor@hauora.co.nz), Health Promotion Forum of New Zealand

The aim of this course is to introduce participants to shared understandings of traditional Maori concepts, ideologies, customs and practices in relation to health and wellbeing. Additionally, the course will consider how these ideas may be used to inform contemporary approaches to health promotion and population health planning and implementation on a daily basis.

The short course programme will provide an introduction to key tenets of cultural competency and form a basis for discussion in terms of what constitutes holistic wellness in a Maori community and whether an understanding of tikanga, kawa and traditional custom has the potential to elevate Maori health status and improve Maori health outcomes.
Short Course: Reducing our health systems carbon footprint

Hayley Bennett\(^1\) (hayleyandcam@clear.net.nz) and Debbie Wilson (debbie.wilson@middlemore.co.nz)

\(^1\) Public Health Physician, Rotorua and executive group member of OraTaiao: The NZ Climate and Health Council

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By attending this course, participants will have better awareness and understanding of health system carbon footprint and associated determining factors and how to influence, enable and advocate for health promoting sustainability action within the health sector.

A picture of where the New Zealand health sector sits compared to other nations, with respect to health sector sustainability and carbon reduction will be reviewed. Case studies of selected DHB initiatives will be presented.

The course will suggest ways in which participants can engage with health decision-makers to get sustainability and carbon reduction on the agenda. It will also discuss how to become involved in the movement toward a more sustainable and health promoting NZ health system.
Short Course: Singing for your health

Julian Raphael (jraphael@xtra.co.nz), Director of Community Music Junction, Wellington (www.communitymusicjunction.co.nz).

This course provides a great way to engage musically with other people. Participants will find common ground through the culture of song/waiata of the four keynote speakers for Monday 6th October.

Participants do not need to have any previous singing experience. There will be a role for everyone, no matter what your abilities – guaranteed outcomes are enjoyment, fulfilment and a sense of achievement for all.
Monday 6 October

Building on the success of population health

Plenary: Pae Ora: Population Health in Aotearoa

Mason Durie (M.H.Durie@massey.ac.nz), Professor Emeritus, Massey University, Palmerston North

Traditional Māori approaches to health were essentially built around a relationship with the natural environment. But from the mid-1880’s a rapidly changing society generated new built environments and lifestyles that did not follow natural lore. New approaches were required and the first two Maori medical graduates, both practitioners of population health, were able to straddle the old and new worlds. In 1913, along with tribal leaders, they were instrumental in ameliorating the impacts of a smallpox outbreak that could have been disastrous. More than a hundred years later a new set of environmental risks pose threats to Maori health challenging tribal leaders and population health experts to work collaboratively to identify risks build protective factors.

Current population health challenges are more complex than those encountered a century ago, and are linked to global influences – climate change, excesses of food in developed countries and insufficient food in third world countries. Moreover, health no longer respects national barriers. New Zealand will encounter the same health risks as other OECD countries – Alzheimer’s disease associated with greater life expectancy, diabetes associated with abundance of fast foods, youth suicide associated with unstable relationships and peer pressures, infectious diseases that are unresponsive to antibiotics, and alcohol and drug misuse, the product of marketing techniques and government tardiness.

Māori have recently adopted a three-pronged approach to population health – Pae Ora. The revised Māori health strategy identifies three platforms for health action: mauri ora (healthy individuals), whanau ora (healthy families), and wai ora (healthy environments). The strategy recognises that population health cannot be isolated from other approaches or from wider built and natural environments.

Contemporary Māori approaches have also recognised that no single sector or discipline can effect the level of change needed to address the new risks. The Whanau Ora policy for example adopts multi-agency and multi-sectoral approaches to Māori wellbeing. It identifies the family as the main unit for interventions but is also concerned with whānau participation in communities and the ways that communities respond to whānau. Collective impact underlies much of whānau ora practice. The impact of one agency or one discipline acting in isolation is no match for the impact of inter-agency and inter-sectoral collaborative approaches. Because of their knowledge and skills, population health specialists can play important leadership roles in galvanising the promotion of collective action in local communities to improve health standards.
Public health reformers in the nineteenth century were tireless visitors of the poor, collectors of data and writers of reports. They worked closely with philosophers like Jeremy Bentham and John Stuart Mill, Whig and Tory politicians, writers like Charles Dickens and newspaper editors, to form active coalitions to improve social conditions. They were totally committed to reform.

By the end of his life, John Snow was in an insane asylum, driven mad by the indifference of his contemporaries. The doggedly outspoken lawyer Edwin Chadwick, who published *The Sanitary Conditions of the Labouring Classes* at his own expense, made many enemies and by the end of his life had universally fallen out with doctors, engineers, lawyers and politicians.

None of these groups had, he felt, seriously addressed the powerful evidence that the public’s health was being seriously comprised by shocking housing, contaminated water and appalling working conditions. Chadwick’s contemporary reformers in Scotland, France, and Germany also had to struggle against indifference before their efforts were embedded into the political system. All were prepared to risk their professional status and their health to draw to the attention of the public the consequences of laissez-faire capitalism. But it required a concerted effort from all these groups, working locally, nationally and globally over half a century to drive the legislative reform necessary to restore life expectancy to where it had been the century before. It took another half century to embed these reforms in the political system.

The main lesson from a European perspective is that we need to again re-establish strong links between doctors, nurses, social scientists, engineers, lawyers, politicians and the community if we are to improve children’s health and improve living and working conditions. We can learn from our forebears that we shouldn’t expect to be popular.
Plenary: Improving Population Health in Aotearoa/New Zealand – a Pacific Perspective

Colin Tukuitonga (colint@spc.int), Secretariat of the Pacific Community (SPC), New Caledonia

Several recent reports have shown that Pacific New Zealanders continue to show the worst health and social indicators in Aotearoa/New Zealand. In general, persistent inequalities in health in Aotearoa/New Zealand reflect unfavourable trends in the wider socioeconomic determinants of health (SDH). Furthermore, despite considerable health inequalities, Pacific New Zealanders continue to experience higher levels of unmet health needs. Several studies have shown that Pacific people receive sub-optimum care for most health conditions studied. While improvements have been made in some areas e.g. childhood immunisation, most indicators of Pacific population health are showing negative trends.

New Zealand faces two significant public policy challenges in the future – affordability of health care (mainly due to an ageing population) and reducing inequalities in health. Investments in reducing health inequalities are likely to result in significant health gains for ‘vulnerable’ groups and economic benefits for the whole country. Reduction in excess mortality associated with Non-communicable diseases is likely to reduce health inequalities. More investments are needed to address NCDs and associated risk factors among Pacific New Zealanders.

For Pacific New Zealanders, the main health challenges ahead relate to persistent inequalities in health, and improving access to and quality of health care received compared to other New Zealanders. In responding to these challenges, genuinely effective policies are needed to reduce inequalities in health, especially in relation to the wider SDH. Policies designed to improve education, employment, income distribution and other health determinants among Pacific people are also needed.

In addition, a number of Pacific health ‘models’ are available which could assist in better understanding and responding to health challenges in Aotearoa/NZ. In general, Pacific models of health adopt holistic socioecological perspectives where individual health and wellbeing is closely aligned to their family and community wellbeing and the environment in which they live. Most older Pacific peoples’ views of health are also heavily influenced by Judeo-Christian values and doctrine, which partly explain the fatalism which are often found in some Pacific communities. Pacific worldviews of health and wellbeing are as diverse as the communities are diverse. Younger generations of Pacific New Zealanders do not generally follow traditional views of health expressed by their elders.

The emergence of Pacific community-owned primary and community health clinics and related health promotion services provides additional opportunities for improving Pacific population health in Aotearoa/NZ. Considerable ‘social’ capital exists within many Pacific communities, including churches, sports and youth groups, which can be harnessed as partners for health improvement.
Plenary: In our arms we have many ways

Shanthi Ameratunga (s.ameratunga@auckland.ac.nz), School of Population Health, University of Auckland, Auckland

In the 2013 Census, 11.8% of people living in New Zealand identified with an “Asian” ethnicity, making this the third-largest major ethnic group. While Chinese and Indian people comprise the largest groups, those identifying with Filipino, Vietnamese, Korean and Japanese ethnicity (among others) make up increasingly greater proportions of New Zealand Asians. Collectively, this group represents countries of ethnic origin covering more than half the globe’s population. The richness of this diversity is reflected in a huge array of cultures, traditions, customs, languages, beliefs, ancestries and migration histories. While these distinctive identities are celebrated through festivals we enjoy, food we share, clothes we wear, and a myriad other ways, there have been, and continue to be, remarkable challenges to understanding how the health and wellbeing of these communities and their interactions within Aotearoa/New Zealand as a whole, are perceived, projected, and personalised. Race-based politics grab media headlines and stifle discussions of issues that can promote equitable health outcomes, particularly among refugee and other vulnerable communities experiencing social, economic and emotional hardship.

Migrant peoples more generally are at increasing risk of being seen merely as commodities relevant to the nation’s bottom line with neoliberal policies that can be turned on and off. Not surprisingly, short-term gains vie with long-term consequences that challenge the sense of citizenship and belonging that is vital for resilient communities (regardless of ethnicity and other axes of difference) in a socially-inclusive country. We are at a critical point in our nation’s history where a more nuanced public discourse on collective identities is required.

What is the legacy we wish to leave for our country’s increasingly diverse young people and their children? There are countless reasons to go beyond singular affiliations woven around exclusive identities, and acknowledge the responsibility we share to make our nation’s health all it can, and must be. A successful population health framework that addresses inequities would recognise that the layers we inhabit are linked together, regardless of differences in colour, creed and countries of origin. We would not balk at the institutional reforms required to achieve a fairer deal for those disadvantaged. And privilege would be recognised for what it is, wherever and whenever encountered. The test of our resolve to succeed may rest with our ability to walk in someone else’s shoes. This would happen every day, in workplaces, schools, neighbourhoods, towns and cities, and most importantly, in our hearts and minds.
Health and wellbeing inequities among students experiencing poverty and living in affluent neighbourhoods or attending high decile schools

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Issue: Poverty is a major determinant of illness, disability and death in New Zealand. Poverty also impacts on the wellbeing of children and adolescents through a number of pathways, especially through the stress and anxiety experienced by families trying to ‘make ends meet’. Recently it has been argued that inequalities in wealth also contribute to ill-health and poor social outcomes.

Aims: The aims of this study were to analyse the health outcomes of students experiencing poverty and to determine how the relationship between household poverty and neighbourhood deprivation influences health.

Methods/Action: Data were from Youth12; a nationally representative sample of 8500 secondary schools students who participated in a national youth health survey in 2012. Latent class analyses were used to group students based on 8 indicators of socio-economic deprivation: no car, no phone, no computer, their parents worry sometimes or often about not having enough money for food, more than 2 people sharing a bedroom, no holidays with their families, moving home more than twice that year and garages or living rooms used as bedrooms. Multilevel generalized linear models were then used to estimate the cross-level interaction between individual poverty and area deprivation (based on Mesh Blocks using NZCensus data and school decile) on depression symptoms, cigarette smoking and obesity.

Results/Achievements: Three groups of students were identified; 81% percent of students had low levels of poverty across all indicators, 15% experienced moderate poverty and 4% experienced high levels of poverty. Depression, cigarette smoking and obesity were 2 -3 times higher in the poverty groups compared to students not experiencing poverty. Students experiencing poverty and living in affluent neighbourhoods reported higher levels of depression and higher rates of cigarette smoking than students experiencing poverty and living in low socio-economic neighbourhoods. Similar results were found for students experiencing poverty and attending high-decile schools.

Conclusions: Inequities in wealth exacerbate the effects of poverty for students experiencing poverty in New Zealand

Implications: National policies that lessen the disparities and inequities in wealth are needed alongside efforts to lessen socio-economic segregation between neighbourhoods and between schools.
The Pacific early childhood community: From isolation to collective community strength

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Background: Regional Public Health (RPH) provides health promotion in centres as well as licencing health reports for the Ministry of Education. These reports focus on the centres physical environment, policies and procedures to minimise the spread of illness and ensure safety.

Issues for Pacific Early Childhood Centres (ECCs):
1) Lack of engagement between RPH and the ECC community. RPH was viewed as a policing agency, rather than a service which offered support, advice and professional development.
2) Isolation. Pacific ECC’s operated in isolation from each other; the negative impact of isolation includes: no networking between teachers, staff and parents across Pacific ECC’s; minimal partnership and financial support from other providers and organisations; lack of support for one another in a sector which has unique cultural differences.

Aims: RPH’s first priority was to build strong relationships with Pacific ECC’s through providing practical support with health messages. Ultimately the goal was to support the centres and their communities to take ownership of their professional development and to unite and support each other, creating environments where their children thrive.

Methods/Actions: Through a lengthy engagement and consultation process we learnt about their challenges, strengths, barriers and diversity as Pacific providers of early childhood education. Community ‘champions’ were identified; these people were passionate and driven to help their communities. RPH applied what was learnt from the consultation, and developed appropriate workshops on nutrition, skin health and managing illness. These were delivered at a time, place and in an environment that encouraged staff to attend and which provided a positive learning experience.

Further consultation revealed the need to improve networking and collaboration across all Pacific ECCs in the Wellington region. This resulted in RPH supporting the Pacific community to develop and deliver an ‘Inaugural Pacific Health and Education conference’ for all Pacific centre staff and parents. The conference organising committee, comprised of community leaders, saw the strength and value of a unifying body and became the Wellington Pacific Early Childhood Education Collective (WPEC).

Results/Achievements: Our presentation will describe how the Pacific ECC community is taking ownership of their needs, the challenges involved, and the many positive implications of collective strength through the establishment of the WPEC.

Conclusion: Developing strong relationships and providing support to key ‘champions’ and leaders were integral to enabling this community to take ownership and be empowered.

Implications: Learnings from our work with Pacific people include the importance of:
- Investing time in relationships
- Developing trust
- Listening to and responding to needs
- Reciprocity
- Relinquishing control to allow the community to grow and develop
**Equity of Health Care for Māori: A Framework**

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**Issue:** Māori have the right to equitable health outcomes. Equity can be defined as the absence of avoidable or remediable differences among groups of people. The concept acknowledges that not only are differences in health status unfair and unjust, but they are also the result of differential access to the resources necessary for people to lead healthy lives. For the health and disability sector however, equity is not always a reality. Life expectancy for Māori is significantly lower than that of non-Māori. Māori health status remains unequal with non-Māori across almost all chronic and infectious diseases, as well as preventable unintended and intended injuries.

**Aim:** The aim was to develop a framework providing people working within the health sector with a useful tool on key actions to achieve equitable health outcomes for Māori.

**Methods/Actions:** *Equity of Health Care for Māori: A Framework* (the Framework) has been developed by the Ministry of Health. It is based upon current evidence in the field of quality improvement and commissioned research on improving access to health services for Māori, indigenous peoples and minority ethnic groups. This research focused on diabetes, cancer and cardiovascular services, and involved international and national literature reviews, and key informant interviews.

**Results/Achievements:** The Framework identifies three levels of the health sector with the capacity to achieve equitable health care for Māori. These are the health system (such as the Ministry of Health, PHARMAC, and regulatory authorities); health organisations (such as DHBs, PHOs, and other health providers); and health practitioners (such as doctors, nurses and community health workers). It lists three types of action that each area can use to achieve equity of health care. These are: Leadership (by championing the provision of high quality health care that delivers equitable health outcomes for Māori); Knowledge (by developing a knowledge base about ways to effectively deliver and monitor high quality health care for Māori); and Commitment (to providing high quality health care that meets the health care needs and aspirations of Māori).

**Conclusion:** The Framework guides the New Zealand health sector on key actions that can be taken by people working within the health sector to achieve equity of health care for Māori.

**Implications:** Practice points for New Zealand public health workers are:

1. Māori have the right to equitable health outcomes through access to high quality health services that are responsive to their needs and aspirations.
2. *Equity of Health Care for Māori: A Framework* is a useful tool that helps people working in the New Zealand health sector to achieve equitable health outcomes for Māori and all New Zealanders. It can be downloaded from the Ministry of Health website: [www.health.govt.nz](http://www.health.govt.nz)
Farmers mental wellbeing strategy and action plan

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¹ Consultant to the New Zealand Mental Health Foundation
² Executive Officer Rural Women New Zealand

Issue: Farming is a complex business and people working in farming businesses routinely experience high levels of stress. Businesses are very focussed on looking after their stock, land and machinery but there is an inadequate response to improving and maintaining the mental health and wellbeing of the people working in farming businesses.

Aim: To increase local, regional and national commitment to improve and maintain the mental health and wellbeing of people working in farming businesses so that people are happy, pastoral communities flourish and businesses prosper.

Methods/Action: In 2013 five of the farmer networks; Dairy Womens Network, Federated Farmers of New Zealand, NZ Young Farmers, Rural Support Trust, Rural Women New Zealand and AgResearch met to discuss how they could work more effectively together. The idea of a Farmer Mental Wellness Strategy to guide and plan their collective efforts was given birth. The Mental Health Foundation, bringing funding support from the Movember Foundation joined the group, as did a number of other key stakeholders from health and the pastoral farming sector. The Farmer Mental Wellness Strategy and Action Plan was drafted via a working group of four people. The working group led a series of workshops and meetings over an eight-month period involving a stakeholder reference group of representatives from 17 different organisations from the rural and health sector

Results/Achievements: The strategy has three outcomes and five objectives with actions and lead agencies identified. Work supported by the strategy and stakeholder network that is so far underway includes, a review of literature, inclusion of farmer stories on the Depression.org website, development of training and resources for rural professionals and scoping measurement indicators.

Conclusions: This piece of work adds to learning for public health practice, particularly during the getting started stages of collaborative work between private sector, government and not for profit organisations.

Implications: Although the strategy and stakeholder group at this stage does not have a formal structure in place, being more organic than organisational; a shared desire to make a difference has given the group momentum and already produced some results. The presentation will reflect and provide insights on the process of agreeing population level goals and the focus of mental health promotion work. It will also discuss the important challenges of resourcing, sustainability and leadership.
Victory community health: Building capacity in the Victory community at many levels

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Issue: Victory Community Health (VCH) is a small charitable trust that runs a number of health-related activities and services out of a community centre at Victory Primary School in Nelson. Since its inception 8 years ago, VCH has offered nurse-led services to community members based around a public health nursing approach. In 2012 a further nurse-led service was established offering a volunteer after-hours clinic service to community members.

Aim: To evaluate the effectiveness of the nurse services offered by Victory Community Health.

Method: A mixed method approach was used drawing on interviews with nurses and community members, surveys, census and DHB data.

Results: Findings demonstrated an ethnically diverse community with a higher proportion of residents on benefits, and lower home ownership. DHB data showed community members admitted to hospital were more likely to be smokers and younger. Friendliness, ease of access, and the support offered were the main things people liked about the clinics. Participants believed the support and advice received enabled them to manage their own health more effectively and resulted in improvements to their health. Nurses who volunteered in the after hours clinic were involved because they wanted to give something back to the community, saw it as an opportunity to address inequalities and disparities in health, and as an opportunity for greater exposure to areas of clinical practice they had not previously been involved in.

Conclusions: Community-based initiatives use a variety of approaches to achieve their goals. This research demonstrates that nurse-led services are effective at improving self-reported health status amongst community members and empowering a self responsible approach to health for families in the Victory community. In addition, the particular approach utilised at Victory demonstrates how building on volunteer resources to meet the needs of community members creates capacity at many levels - amongst both those providing services and those receiving services.

Implications: Building capacity in communities can occur at many levels and in many differing ways. Nurse-led services should be considered an innovative and appropriate approach to improving health outcomes in communities, and reducing social inequalities and barriers to services for vulnerable people. In addition, community organisations can draw on volunteer approaches to build capacity amongst community members and professionals.
Lessons on local government decision making processes for health: an example of community water fluoridation in Hamilton, New Zealand

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Issue: Local government regularly have to make decisions on issues that impact public health. Community Water Fluoridation (CWF) has been a contentious issue internationally since its inception and this has included within Hamilton, New Zealand. The issues of efficacy, safety and the associated ethics have resulted in copious reports being generated, from anecdote to systematic review. In New Zealand, the decision as to whether to fluoridate a community’s reticulated water supply currently sits with local government. Over a 12 month period from December 2012 to November 2013, Hamilton City Council (HCC) undertook a tribunal process, followed by a referendum to deal with this decision.

Aims: The aim of this presentation is to articulate the learning experiences of these decision making processes from a public health perspective.

Methods/Actions: Publically available documentation and correspondence of the Council, Population Health and relevant stakeholders was reviewed. A debrief meeting was held to reflect on both the tribunal and referendum processes.

Results/Achievements: The HCC tribunal process involved public consultation through limited advertising inviting written submissions. Cessation of CWF was called for in 89% of written submissions. This was followed by the opportunity for people to support their submissions orally during a four day tribunal hearing from 28 May to 4 June 2013, along with presentations from substantive groups in support and opposition of CWF. A resident’s survey and citizen’s panel were conducted simultaneously by HCC, both showing majority support for continuation of CWF. The final stage of the tribunal process involved deliberation then voting by Councillors, which resulted in cessation of CWF. The process of CWF was ceased on 20 June 2013. Significant publicised community response followed, and a notice of motion was introduced to HCC calling for a community referendum on the issue. The Council decided on 12 July 2013 to proceed with a referendum in conjunction with the local government elections in October. The results of the HCC CWF referendum on 12 October showed 68% (24635/36412) of those who voted were ‘for fluoride being added to the water’ and 32% (11768/36412) ‘against fluoride being added to the water.’

Conclusions: From a public health perspective, working to advocate for improved health outcomes in local government decision making processes can be challenging. If public health units elsewhere are involved in tribunal or referendum processes, we suggest that: they collaborate at an early stage with all relevant stakeholders; they work to effectively mobilise community and health professional support; they strategize effective means of maintaining professionalism throughout these processes.

Implications:
1. The challenge of mobilising community members and health professionals to input into local government decision making.
2. The value of collaboration and efficient use of resources.
3. The skill of maintaining professionalism throughout decision making processes.
Understanding the mechanisms by which settlements of Te Tiriti o Waitangi contribute to Maori health development

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Issue: Maori do not enjoy the same level of health as other ethnic groups in Aotearoa New Zealand with ethnic inequalities between Maori and non-Maori the most consistent and compelling inequities in health. In response Maori have sought greater participation in politics and health development. Iwi have also played a part in health provision and wider holistic means of improving Maori health and wellbeing, some of these occurring following settlement of claims to the Waitangi Tribunal.

Aims: The aim of the research was to explore the mechanisms by which settlements of Te Tiriti o Waitangi contribute to Maori health development through an examination of the literature on the determinants of health combined with the perspectives of iwi leaders.

Methods/Action: This research was guided by a kaupapa Maori framework and used qualitative research methods. In-depth interviews were conducted with four iwi leaders. Thematic analysis of the interview data was performed using general inductive and saliency analysis.

Results/Achievements: Capabilities developed as a result of managing funds from settlements have increased iwi capabilities to address health and wellbeing for their members. Although it is early days for many since settlement, iwi development has, in many cases had a positive effect on member housing, income, employment and education. Iwi are also involved in collaborations and partnerships for health including integrated service provision, region-wide health planning, iwi and Crown treaty partnerships and iwi collectives to advance iwi health. Iwi are also increasingly involved in monitoring and analysis, research and in strengthening identity. Hapu and iwi knowledge systems, the notion of mana motuhake and self-determination and certainly tupuna legacy provide iwi with an enduring conviction to provide for the wellbeing of the people they represent and to do so in strength-based ways.

Conclusions: Approaches to improve iwi health and wellbeing and reduce intergenerational health inequities that acknowledge iwi self-determination and leadership, the Crown’s role in protecting Maori health and that prioritises children and their whanau, whanau self-determination, fair employment, a healthy standard of living, healthy communities, appropriate and accessible ill-health prevention and the protection and development of cultural taonga and resources will likely enhance Maori health development and reduce health inequities for Maori. Notwithstanding, iwi involvement is only one mechanism for Maori health development. National and international indigenous rights and breaches of these rights validate a continuing and significant obligation for the Crown to protect Maori health, address the determinants of health and to restore health equity.

Implications: In a post-settlement environment, iwi self-determination and leadership have an increasingly important role to play in the advancement of Maori health. It is important for public health to take into account the role of hapu and iwi self-determination in Maori health development alongside the Crown’s responsibilities to address health inequities.
Is the wahakura a safe sleeping environment: A randomized controlled trial

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Issue: Māori have reclaimed a traditional sleeping device called the wahakura as a response to the risk associated with bedsharing where there was smoking in pregnancy. This study aimed to evaluate the safety of the wahakura alongside the standard bassinet examining recognised dangers in sleep environments (bedsharing, infant sleep position, hypoxia and hyperthermia), other possible consequences (maternal sleep quality and quantity, maternal fatigue) and to investigate the potential benefits of this sleep device for promoting breastfeeding.

Methods: 200 mainly Māori participants were recruited through midwifery practices in deprived areas, and randomized to receive a wahakura or a bassinet during pregnancy. At one, three and six months, mothers completed questionnaires regarding their use of the allocated or other sleep devices, bedsharing, infant sleep position, maternal sleep quality and quantity, maternal fatigue, and breastfeeding. At one month, overnight video, oximetry and temperature recordings of 80 bassinet and 79 wahakura babies were completed.

Results: Participants’ mean age was 26.1 (SD 6.32) years, 75% of participants were Māori. Participants were relatively high risk with 59% living in the most deprived quintile, 43.6% smoked in pregnancy and 29% were single parents. An ‘intention to treat’ analysis was used.

Infant sleep position was not different between groups (p = 0.636) with 80.9 vs 82.8% sleeping supine. The numbers of mothers fully breastfeeding was equivalent across groups (p = .374) with 48% and 39% fully breast feeding at one and three months but at six months 22% of the wahakura group were fully breastfed compared with 11% of the bassinet group (p=0.043). Maternal sleep quantity (p =.835) and quality (p =.25) was also not different between groups with 59% of each group describing enough sleep at one month and good or very good sleep quality in 95%.

In the video studies mean study time (B:9.9 vs W:10.1h), mean asleep time (B:6.7 vs W:6.7h), head covered time (B:0.45 vs W:0.43h), and time spent breastfeeding (B:0.38 vs W:0.44h) were not significantly different. The number of head coverings (mean, B:2.1 vs W:1.5, p=0.4) and breastfeeding events (B:3.2 vs W:3.9, p=0.3) were not different between groups. On the study night babies slept in a bassinet (mean time B:6.7h vs W:1.9hr , p<0.0001), wahakura under adult bed-covers (B:0 vs W:0.4h), wahakura on bed-covers (B:0 vs W:1.8h), and wahakura off the bed (B:0 vs 2h). There was no difference in direct bedsharing (B:1.7h vs 2.1h, p=.48) or sleeping in a cot (B:0.4 vs W:0.5, p=.74).

Conclusion: Preliminary analyses show very little difference in risk/safety factors and benefits between the wahakura and a standard bassinet. The wahakura therefore appears to represent a safe, culturally-appropriate sleep device to offer to parents. The intersection between connecting with communities, connecting with science and connecting with policy and culture will be met in the use of the wahakura to prevent SUDI in the Māori community.
Journey of our ancestors, Waka Ama and Te Pae Mahutonga: A metaphor for Change

Clayton Wikaira (cwikaira@cognition.co.nz)

Issue: Maori still over represented in poor health outcomes

Aims: To build on the community’s strengths and the legacy of their ancestors in order to:

- Increase their belief in their ability to walk in the footsteps of their staunch ancestors
- Increase the number of Māori youth and their families making healthy choices that enhance their mana and wellbeing, enabling them to achieve their potential
- Increase the number of Māori youth and their families valuing, believing in and enhancing their physical, social, emotional and spiritual wellbeing so they can fulfil their hopes and dreams

Methods/Actions: Our ancestor’s beliefs, practices and models of health and wellbeing provided the foundations for our approach. Actions were strengths-based and were grounded in community development methodology.

In an isolated Northland east coast area called Te Tii, excellent outcomes have been through a multi-dimensional health promotion programme with youth and their families. Waka Ama (outrigger canoeing) was used as a vehicle for engagement and change in beliefs and behaviours.

Results/Achievements: Within two years of initiating this project;

- 100% of the youth in the area were smokefree and paddling over 20ms
- Since 2011 the Youth have been National Waka Ama Sprint champions and gold medal winners.
- In 2012 they won international races
- One of the young men went on to win the world championships
- To this day all the young people are still smokefree, active and healthy.
- Just over half the families signed up to the national Quit Smoking programme-Wero.
- Strong positive relationships were achieved between the young people and their families.

Conclusions: It is important to take an approach that works for Māori. That is an approach that is strengths based, engaging and links them to the knowledge, skills and strengths of their ancestors.

Implications: As a result of my work I recommend that programmes and initiatives for Māori need to be based on an approach that connects them to their culture, who they are and the mana of their ancestors.
Cancer has its own language: An exploration of communication in specialist cancer treatment consultations between patients / whānau and clinicians

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Issue: There are significant inequalities in cancer survival between Māori and non-Māori, and evidence that service access plays an important role. Little is known about how communication or information sharing between Māori patients/whānau and clinicians in cancer consultations impacts on decision making.

Aims: This paper aims to explore Māori patients/whānau and clinician communications and information sharing in specialist cancer consultations. It also aims to identify interventions that would improve communication in treatment consultations.

Methods: Eligible patients, whānau and clinicians were invited to participate in the pilot qualitative study. Treatment consultations were recorded and patients/whānau participated in a semi-structured interview soon after the consultation. Clinicians identified eligible participants, agreed for consultations to be recorded and undertook a audio-debrief post consultation. Recordings were transcribed and thematically analysed. A narrative literature review was also undertaken.

Eighteen patients/whānau participated in this study, nine men and nine women aged between 32 and 74 years. Consultations occurred across three specialty areas: surgery, medical oncology and radiation oncology. All participants had whānau member/s or a support person in attendance.

This is Māori-centered qualitative research that draws on a kaupapa Māori research approach, which makes explicit the structural causes of inequalities, validates Māori reality and positions Māori at the centre of the research process. This is part of a larger study of cancer, comorbidity and care (C3) which consists of a qualitative study (C3: Cancer care journeys and clinical decision making) and a quantitative study (C3: Effect of comorbidity on cancer and cancer survival inequalities).

Results: This paper focuses on the Māori participants. They were generally complimentary of the clinicians and expected them, as the specialist, to recommend an appropriate course of treatment for consideration. A range of communication issues were identified including: information (amount, complexity), relationship development, time for effective communication, patient/whānau health literacy, and communication methods (language, web resources, drawings, scans etc) and support systems available to assist with communication and information sharing and analysis (whānau, cancer nurse specialists).

Conclusions: The ability to quickly develop an understanding of the language of cancer is required by people embarking on a cancer journey. Consultations where cancer treatment options are discussed likely benefit from effective communication because complex information must be conveyed between people unfamiliar to each other, often (in the case of Māori patients) with clinicians of a different culture and at a time of considerable stress. A range of factors operate at different levels influencing informed patient decision making in collaboration with specialists.

Implications: A range of potential interventions have been identified to improve communication in cancer consultations including: enhancing training of doctors, use of patient-centered resources and enhancement of the national treatment standards.
He awhina i nga wawata o nga whanau: Helping whanau achieve long term change

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Issue: Since 2011 our hapu, Ngati Hau has provided a whanau ora programme with a focus on those affected by whanau violence. We would like to show case a unique service and provide evidence of effectiveness through using the Result Based Accountability Outcomes Framework and Whanau Case Studies.

As we share the numerical measures of our success, it is important to remember that every number represents a person or family. The stories behind those numbers vary and are often difficult and painful. Our people are very resilient and often don’t seek help or support till they are in crisis. Our service has worked hard to provide excellent customer service that is caring and respectful. One of the strengths of Ngati Hau Health and Social Service Inc. is we are a whanau based and provide a place of refuge and care that comes in the form of a simple cuppa tea and a chat through to a comprehensive whanau ora plan.

Aims: Our Inaugural Whānau Ora Satisfaction and Outcomes Survey, determined whether or not they were delivering high quality and outcomes-focused services to families enrolled in their Whānau Violence Prevention Programme, funded by the Ministry of Social Development.

Methods/Action: The survey builds on Friedman’s Results Based Accountability methodology and is designed to ascertain two key issues. First, family satisfaction with the quality of services and second, outcomes achieved with individual and their families/Whānau. For the purposes of ascertaining satisfaction, respondents answered a series of open and closed questions linked to the theme: How well did Ngati Hau deliver services. For the purposes of client outcomes, Families answered a series of open and closed questions linked to the theme: Are families any better off as a result of using Ngati Hau service.

Results/Achievements: 27 whanau completed the survey resulting in the following 88% stated their overall first impression was very good, 81% value the service because it is hapu-based and whanau led, 85% experienced the Manaaki of the Kaimahi. When asked are the better off as a result of engaging with Ngati Hau Health and Social Services, 84% stated they have a more positive attitude and 74% feel more in control of their future.

Conclusions: This approach is one of our deliverables in an effort to ‘Help whanau achieve long term change’. Building on the momentum and rapport, we continue to provide frontline services and lead in engaging with whanau and wider community through innovative approaches coupled with Marae based and outreach services, creates realistic options for our whanau to access our services.

Implications: Investing in Hapu provides an opportunity to identify and grow the talent and skills of the whanau and utilise the vast networks whanau have across the health, social and justice sector. We recognise the role of Hapu in providing an alternative for whanau to access services that is based on the principles of Whanaungtanga and Manaakitanga, and executed through the values of Tika, Pono and Aroha.
Kotahitanga - we’re in this together: A community participation approach to inform primary care service development in Kere Kere, Horowhenua

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Issue: Provision of primary health care services in small towns and communities in New Zealand is often fraught with tensions. The development of Te Waiora, an integrated community health service in Kere Kere, provided an important opportunity to reconsider the delivery of primary care services to achieve health gains for the local population. There was a strong desire within the Te Waiora project team to ensure the availability of sustainable services that were responsive to community priorities and needs and inspired confidence in the quality and longevity of primary health care in the area. A comprehensive model of care that expressed the kaupapa tuku iho (the underlying values) of Te Waiora was fundamental to achieving this vision and a strong reflection of the community voice in the developing work plan was sought.

Aims: The purpose of this project was to identify opportunities for change in the way primary health care services were delivered in Kere Kere from a community perspective in order to improve patient experiences and health outcomes for the population. The main aims were to:
1. identify the key community priorities for primary health care services in Kere Kere
2. provide the Te Waiora project team with an analysis of the identified priorities that could be used to inform the model of care
3. establish meaningful alignment between the priorities of the community and the kaupapa tuku iho of Te Waiora

Methods/Actions: Face to face interviews were conducted with twelve people living and working in the Kere Kere area to collect a range of opinions about primary health care services that were relevant across the geographical communities of Kere Kere, across the life span, and from both Māori and non-Māori perspectives. Qualitative thematic analysis was used to examine the transcripts for themes emerging from the community interviews.

Results/Achievements: The foremost health needs and priorities identified in the community voice interviews were summarised under two main themes: access to health care, and service integration and co-ordination. Relationship building based on trust and partnership were highlighted as vital elements underlying service improvement and important insights were gained about how the expression of kaupapa tuku iho could be integrated into the everyday operations and professional conduct of Te Waiora. The analysis of community priorities was used to inform the model of care and key concepts from the analysis were evident throughout the work plan that was subsequently developed.

Conclusions: This project successfully brought the community voice into the primary care domain in Kere Kere through meaningful engagement with the community. The reflection of community priorities in the model of care work plan demonstrates a commitment by Te Waiora to adopt methods of working that address the needs of their patient population and the wider community and will contribute to improving health experiences and outcomes.

Implications: The successful inclusion of community priorities into a working model for delivery of primary care services in Kere Kere provides support for the role of community participation in primary health care service development and improvement.
HOPE - Healthy Options = Positive Eating: Reducing inequalities and prevention of diabetes in indigenous and migrant communities

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Issue: In New Zealand, recent Ministry of Health report confirms that there are 225,700 people now having been diagnosed with diabetes and 25.5% of adults having ‘pre-diabetes’ (MOH 2013). Almost half this national statistic resides within the Auckland region and recent statistics state that approximately 280,000 of Auckland’s population have pre-diabetes, based on an 18.6% incidence rate. (Coppell et al 2013) Increasing rate of obesity and the high prevalence of pre-diabetes suggests diabetes is likely to become more common, particularly in high risk groups which are Maori, Pacific and South Asians.

Aim: To foster healthier lifestyle amongst ‘at-risk’ communities, leading to a reduction on the incidence of diabetes and diabetes complications.

Methods/Actions: Diabetes NZ Auckland Branch (DNZAB) offers three levels of engagement in this methodology each with evaluation processes. Level one is a ‘Train the Trainer’ programme for key community people from ‘at risk’ communities. Graduates then become ‘Cultural champions’. Level two is the delivery of HOPE by the trained ‘Cultural Champions’ in their own communities with mentoring by DNZAB health promotion staff. Funding to engage their own community occurs to ensure participation. A minimum of 25 people are required to run a HOPE course. Level three is the delivery of HOPE courses independently with mentoring to ensure implementation, delivery and evaluation occurs to the required standards.

Results/Achievement: In 2013, 19 participants of whom four were Maori, eight Pacific, one South Asian, two Chinese and four new migrant Muslim women attended the HOPE ‘Train the Trainer’ course. From May to November 2013, HOPE was successfully delivered to eight different communities and 219 people enrolled and participated. Collated data indicate an increased in exercise participation and decrease in take-away consumptions in most participants at one month and three month follow-up evaluation.

Conclusion: HOPE made positive impacts in most participants such as increased knowledge and awareness of the importance of healthy food and physical activity. Feedbacks from participants illustrate the positive impact of ‘Cultural Champions’ delivering HOPE in their communities, to their own people and in their own languages. Findings showed evidence of positive changes in most participants behaviours, which included; increased or maintain physical activity, changing eating habits to healthier eating and feeling much more active and healthier.

Implications: The involvement of community organisations and key community people was crucial to the success of delivering HOPE programmes to eight different communities in 2013. HOPE reflects the need to train more ‘cultural champions’ to deliver HOPE programmes in their own communities.
Engaging communities in alcohol licensing and local alcohol policy (LAP)

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Issue: The Sale and Supply of Alcohol Act 2012 has given residents greater opportunity to influence individual license applications and encourages participation in the formation of local alcohol policies (LAP), which governs the supply of alcohol in communities.

Aims: The aims were to raise awareness of the legislative changes, foster interest in participation and increase community capacity to respond. An anticipated outcome was that this participation would be reflected in licensing decisions and local alcohol policies.

Methods/Action: A number of small case studies showed that we could demystify licensing matters and LAP development to aid community understanding. Terminology was changed to common language terms. Real life examples demonstrated to the community how they could influence licensing decisions. We outlined the opportunities to influence alcohol policy and the implications of such policy. Information was provided through meetings and workshops, and communities were actively supported to lodge objections to licenses and submit on LAP consultations. Succinct summaries of the key elements of the policy were provided for specific communities to improve understanding. Additional support was provided by assisting individuals and groups with writing skills, oral presentation and media skills.

Results/Achievements: The public are becoming increasingly aware of the licensing application process and are demonstrating greater levels of engagement. The degree of participation is determined by: the level of interest, peoples’ understanding of the issues and their ability to apply this directly to the application process. Communities and Regional Public Health have objected to four license applications since August 2013 in the Wellington region. Licenses for these applications were refused. Youth and community services were well represented in the Lower Hutt Local Alcohol Policy oral submissions. The resulting provisional policy indicated an influencing effect from community and health opinion with a reduction in trading hours of liquor and grocery stores between the Draft and Provisional LAP. Community concerns on density and proximity were not addressed.

Conclusions: The key to growing community participation is for those familiar with policy and legislation to provide encouragement and support. This represents a significant change in practice for some organisations. Whilst public health has had a key role in assessing the premises and public health impact, it is now important to extend practice towards a broader health promotion model that fully embraces community mobilisation.

Implications: The results demonstrate that communities are able to influence licensing matters and should be encouraged to participate. This change of practice also presents capacity issues for public health staff in alcohol licensing. It will be important for these staff to work more closely with health promotion staff and to respond in an integrated fashion.
Effects of lowering the alcohol minimum purchasing age on weekend hospitalised assaults of young Māori

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Issue: It has been 15 years since the New Zealand Parliament reduced the alcohol minimum purchasing age from 20 to 18 years and several studies show deleterious effects on the incidence of traffic injury [1] and assault [2]. There have been no studies of the effects of this policy on young Māori who bear a disproportionate burden of alcohol-related harm.

Aim: We sought to estimate effects of the law change on rates of assault on young Māori.

Methods: We used Poisson regression to examine hospitalised Friday-Sunday assaults from 1996-2011 separately by gender among 18-19 year-olds (the age group targeted by the law change), 15-17 year-olds (potentially affected by “trickle-down”), and 20-21 year-olds as a control for economic and environmental factors. We compare the pre-change period 1996-9 with three post-change periods: 2000-3, 2004-7, and 2008-11.

Results: We will present incidence rate ratios with 95% confidence intervals comparing assault rates between each of the younger age groups with the control age group for the three post-change periods versus the pre-change period.

Conclusion: The findings would be the first analysis of the effects of a major alcohol law change on Māori health.

Implications: This and other policies affecting youth alcohol consumption may have contributed to the gap between Māori and non-Māori in life expectancy and quality of life, particularly given differences in the age distribution of the two populations.


One community’s action to fight alcohol harm

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Issue: In December 2013, a temporary alcohol off-licence was granted in the Christchurch suburb of Aranui. The granting of the license meant five licensed premises were within a one kilometre radius of one another. Aranui is a low income area with a high Maori and Pacific population, which has been hard hit by the 2011 earthquakes. There was widespread concern another liquor outlet would be detrimental to the health and wellbeing of the community.

Aims: The aim of the community action was to close the premises in order to reduce alcohol harm to vulnerable populations and to promote a safer and healthier community.

Methods: Community action was mobilised through a variety of means including a community circulated petition and an online petition promoted through Facebook. Local MP’s and City Councillors were contacted regarding the community’s concerns. The Christchurch City Council (CCC) was invited to a community meeting to discuss the issue of the licence and provide insight to legislation. Local newspapers were contacted to raise awareness of the issue which resulted in coverage of the story.

Results/Achievements: The petition achieved over 900 signatures with 100+ online comments from current and past community members stating their opposition. One objector quoted “Aranui belongs to our families, our young people, our children, and our elderly who all need to be protected from the harmful effects that the presence of excess alcohol outlets brings. If we do not stand up for the health of our community, the presence of liquor stores will mutate our community into that which we are trying to protect it from. We need to promote health NOT habits”. A meeting with CCC Liquor Licencing Team resulted in the discovery that 90 day temporary liquor licenses could be granted to liquor store owners post-earthquake for any vacant store in any area within Christchurch without public consultation.

A subsequent public meeting was held to allow submissions on the granting of a permanent Liquor License. A groundswell of verbal and written submissions were made objecting to the granting of a permanent license by church leaders, alcohol and drug services, school principals, the Pacific Reference Group, the Medical Officer of Health, Christchurch Police and community organisations. Objections were collated and submitted to the CCC Liquor Licensing Team. Since this meeting, an application for a permanent Liquor License has been made, but it is understood the applicant is looking at other options. The store has remained closed since March 2013.

Conclusions: The NZ Law Commission review “Alcohol in our lives: curbing the harm” highlights alcohol as harm to population health and the increased risk to specific ethnicities those being Maori, Pacifica and low socioeconomic groups [1]. This paper re-inforces the issues faced in Aranui and the detriment to the community as a whole, therefore justifying our cause.

Implications: There are currently limited opportunities for communities to influence the density of liquor outlets in their communities. Despite this, mobilised community action can have a positive impact and influence decisions such as this. Furthermore, the promotion of autonomy and governance is of great importance as it empowers communities.

Whanau can’t cope with legal dope: The lows of highs

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Issue: The negative impact of psychoactive substances, in particular "legal highs", on Māori communities. These substances have the same negative impact in real terms on Māori whānau as alcohol abuse, gambling addiction and illegal drug use. Therefore, these hazardous substances need to be heavily regulated or illegalised to mitigate and reduce the harm that they have already caused and prevent them from affecting future generations.

Aims: The primary aim of this initiative was to influence policy and legislation at local and national levels to greatly restrict or ban public access to these substances through community action. Additionally, we aimed to document what affect legal highs were having on whānau, and their communities, to inform a public health campaign showing the real life affect of these substances.

Methods/actions: We attended several community events where we also undertook surveys, video interviews, and collected postcard submissions. We found that despite the negative impact of legal highs on whānau and communities, many people did not know how they could voice their concern. We subsequently used this data to inform our initiative and collaborate with organisations as equally concerned as ours. This collective used their extensive community networks to raise awareness of these problems and conversely provided a voice to rally for change to local legislation. We sought a ground up community driven approach to advocate for change supporting a public campaign that saw action on the streets.

Results/achievements: The public outcry generated from various efforts, including our own and around the country, brought about a change to the Psychoactive Substances Act to remove all remaining products for sale until they are proven to be safe. We submitted over 1500 postcards to local and national government calling for change. We collected data on the harm synthetic cannabis has in our communities which we will continue to utilise to support the development of local and national policy in this area and public health policy promotion.

Conclusions: The key to our success was our ability to identify and collaborate with pivotal members of the community and, using information we gathered through community engagement, act decisively to bring about change. The use of social media, as well as traditional mediums, public displays, and informed submissions to local and central government all provided a voice for communities to speak directly to politicians and policy makers.

Implications: Further work needs to be continued to influence policy at local and national levels. While products have been removed from shelves, it has the potential to return therefore, our efforts following this initiative need to focus on both addressing the fallout from these changes and that information is provided to communities about the harm these substances can cause. It is hoped that in doing so, the demand for these products will be reduced, and the illegal sale and distribution of products will be inhibited by community action.
WERO: Challenging communities to quit smoking together

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Issue: In Aotearoa/New Zealand, Māori (33%) and Pacific Island (23%) people have significantly higher rates of smoking compared to the rest of the population (15%). Whilst the range of current stop smoking programmes (like Quitline) work just as well for Māori and Pacific people, not enough Māori and Pacific people are using existing smoking cessation programmes to help reach our goal of halving smoking prevalence rates by 2020.

Aims: The aim was to test a smoking cessation intervention utilising mobile technology and incentives that could trigger mass quitting, especially among Māori and Pacific.

Methods/Actions: WERO (the Māori word for ‘challenge’) is a team-based smoking cessation intervention. Cultural practices incorporated into the intervention included having a holistic family or group-centred focus, inter-group competitiveness, and fundraising. Competition elements include social support, pharmacotherapy use, cash prize incentives and the use of a dedicated website, iPad & iPhone application. 10 people who smoke form a team and register on www.wero.me. Each team finds a coach (Kaihautu) to help them keep motivated and a stop smoking support worker (Kaiwhakatere) who can offer expert support. Teams within designated regions compete with each other with the most members not smoking at the end of the 3 months winning and their designated charity receiving $5000.

Results/Achievements: The initial WERO pilot with fifteen teams from three ‘regions’ ran from 31 May to 30 August 2012. Verified quit rates at three months exceeded expectations at 36%. Funding to roll out WERO nationally was gained in 2013 from the Ministry of Health’s Pathway to Smokefree New Zealand 2025 Innovation Fund. In September 2013, WERO was rolled out nationally with 66 teams (70% Māori) registering and 28% successfully quit at the end of the 3 month competition. In 2014 there are 3 further national competitions planned, and at least another 2 competitions will be held in 2015.

Conclusions: Marewa Glover’s presentation will share findings, ideas and participant feedback from the national roll-out of WERO.

Implications: Early indications show that a culturally appropriate smoking cessation intervention like WERO can be successful at attracting high numbers of Maori participants and achieving good quit rates.
Whanaui Nui (Big family swim)

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**Body:** Whānau Nui is a free water competency development programme to help families learn swimming and water safety messaging and skills over a five day period. A requirement of Whānau Nui is that a parent/caregiver must participate in the five day programme with their child. Parents who participate in Whānau Nui help their child learn these water skills more effectively as well as themselves developing new skills and understanding key water safety messages. The January 2014 programme was run Auckland wide for the first time in seventeen venues throughout the region.

**Issue:** The Whānau Nui programme was originally designed to target Māori and Pasifika due to the high drowning statistics of these two ethnic groups however Asian and New Settler communities are also being targeted due to the increase in their drowning toll in the past two years. Nationally, Māori and Pasifika are over-represented in drowning statistics with the two ethnic groups making up 23% of New Zealand’s drowning statistics in 2013 whilst only accounting for 21.5% of New Zealand’s total population. Other minority groups are also encouraged to partake in the programme as water skills and knowledge is something valuable for living in New Zealand.

**Aims:** The aims and objectives of the Whānau Nui programme are to:
1. Give children an opportunity to learn basic water safety skills and increase their confidence in water.
2. Teach parents/caregivers water safety skills which they can continue to reinforce with their children once the free lessons have finished.
3. Deliver water safety messages to parents/caregivers focusing on active child supervision when in, on or near water.
4. Deliver the programme in such a way that the water safety skills are fun and enjoyable for both the parent/caregiver and the children.
5. Target at risk population groups including Māori, Pasifika, Asian and New Settler.

**Results/Achievements:** A total of 825 students and 472 adults participated in the January Whānau Nui 2014 programme which is the highest amount of participants to ever be involved with this project. The evaluation of the 2014 Whānau Nui programme showed the following findings:
- At 1297, participant numbers were the highest since the programme began eight years ago
- 44% of participants could float at the end of the programme, compared to 15% at the start of the lessons
- 30% could swim 15 metres compared to 10% at the start of the lessons
- 83% of parents said they would now enrol their child into paid swimming lessons
- After the programme 92% of parents said they could now teach their child more about water safety and 71% of caregivers reported that water safety and water safety knowledge was the most important aspect they learned.

**Conclusion:** The change in learning from participants, both caregivers and their children, has shown significant change in both skills and knowledge.

**Implications:** A challenge of Whānau Nui has been to deliver a standardised regional programme run across the Auckland region with different swim schools.
An endgame for sugar sweetened beverages? Rationale and progress to date.

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Issue: New Zealanders (NZ) and in particular youth intakes of sugar currently exceed recommendations for good health. Sugar sweetened beverages are the leading contributor of added sugar to the diets of both NZ adults and children. Sugar sweetened beverages are not a necessary part of a healthy diet and sugar sweetened soft-drinks in particular (fizzy drinks) contain no goodness.

Aims: The aim of this presentation is to present a comprehensive rational as to why sugar sweetened beverages should be prioritised as a leading Public Health issue for New Zealand. Furthermore, recent initiatives that have worked towards this will be described including the founding of a new Public Health Advocacy group FIZZ, a community partnered interventional pilot study, and the establishment of the New Zealand Beverage Guidance Panel.

Methods/Actions: This paper reviews the evidence relating sugar sweetened beverages to unhealthy weight and adverse health effects. Current initiatives aimed at reducing sugar sweetened beverage consumption both internationally and in New Zealand are reviewed. A brief explanation will be described in relation to the setup and methods with respect to the new Public Health Advocacy group FIZZ, the community partnered interventional pilot study, and the New Zealand Beverage Guidance Panel.

Results/Achievements: Epidemiological evidence consistently links sugar-sweetened drink intake with unhealthy weight and other risk factors for cardiovascular disease, such as diabetes, gout, and raised blood pressure. The FIZZ Public Advocacy group has been successful in profiling the issue of sugar drinks, the community partnered interventional study successfully engaged with community and will inform a larger study proposal, the NZBGP has authored a policy brief on Options to reduce sugar sweetened beverage intake in New Zealand and was presented to politicians in June 2014.

Conclusions: We argue that an ‘endgame’ to the consumption of sugar-sweetened beverages be supported as a means to address the issue of unhealthy weight at a population level.
Rethink your drink: implementing a sugar-free drink policy at a large-scale Auckland event

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Issue: Consumption of sugar sweetened beverages has been linked with poor health including obesity, type-2 diabetes, tooth decay, gout and other risk factors for cardiovascular disease.

Aims: The aim of this project was to increase awareness of the amount of sugar in sugar sweetened beverages amongst attendees and food stallholders at the ASB Polyfest, to reduce availability of sugar sweetened beverages and to implement a healthy food and drink policy at the event. We also aimed to collect attendee feedback on the availability of sugar sweetened beverages at venues and events in the Auckland region.

Methods/actions: In 2012 Te Runanga o Ngati Whatua and Hāpai Te Hauora worked with the event’s organisers to implement a healthy food policy for one stage area of the event. In 2013 this policy was extended to include a sugar-free drinks policy, information and awareness raising for attendees and stallholders. Leading up to the event Te Runanga o Ngati Whatua and Hapai Te Hauora worked with stallholders to inform them of sugar-free drink options. As a result stallholders were willing to support the healthy drinks policy. During the event, only sugar-free drink options were available at the Māori stage area. Alongside this, 6000 litres of free water was supplied to attendees.

Results/achievements: As a result of this project, there was an increase in awareness amongst attendees and food stallholders of the content of sugar sweetened beverages. Food stallholders complied with the healthy drink policy. What’s more the event organisers took ownership of the policy and in many instances monitored the implementation of the policy amongst stallholders. The event organisers have now committed to an event-wide healthy food and drink policy in the future.

Conclusions: This project adds to the momentum developing around food and drink public health interventions. Although at times challenging, with perseverance it is possible to implement healthy food and drink policies and have buy-in for these at large-scale events.
Food, nutrition and physical activity in childcare: Preliminary results from the Kai Time in ECE survey

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**Issue:** Early Childhood Education (ECE) is an increasingly important part of young New Zealanders’ lives; at least 95% of our three and four year olds attend ECE, and for an average of 22 hours a week. The ECE environment has the potential to influence a child’s diet, food preferences, eating behaviours and physical activity for a lifetime, yet we have little information in New Zealand about how ECE food, nutrition and physical activity education contribute to child health outcomes.

**Aims:** The “Kai Time in ECE Survey” aims to: 1. Assess the quality of diet and foods served to children at ECE services; 2. Evaluate the ‘obesogenic’ nature of ECE environments (do they encourage high energy intake while promoting sedentary behaviour for children); 3. Examine the enablers and barriers to effective health promotion in the ECE sector, and discover the key predictors of ‘good practice’ in obesity prevention within ECE settings; 4. Inform the analyses of Growing Up in New Zealand data, specifically, the influence of childcare on preschool body size.

**Methods:** All licensed day care centres, Kindergartens, Kohanga Reo and Playcentres in the Auckland, Counties Manukau and Waikato District Health Board areas were invited to take part in the 20-minute online survey in May-July 2014.

**Results:** Preliminary descriptive analyses of the 257 survey responses have focussed on data relating to the obesogenic nature of ECE environments, that is, the extent to which high energy intake is encouraged (through certain eating behaviours during kai-time and on special occasions, fundraising, use of food for rewards, etc.) and sedentary activities are promoted (TV/computer use, space and equipment availability, free play time and structured physical activity education). Results will be presented for the total sample and by ECE service type where appropriate.

**Conclusions:** Preliminary findings from the Kai Time in ECE survey describe the extent to which New Zealand childcare environments support healthy eating and physical activity, and the ways in which some may be contributing to our childhood obesity problem.

**Implications:** The next stage in this research is to explore ‘what works’ in assisting ECE services to promote healthy behaviours. Dietary analyses of the menus from participating ECE services will also be undertaken. The Kai Time in ECE data will then be used with Growing Up in New Zealand longitudinal data to explore whether an ‘obesogenic’ or ‘health promoting’ ECE environment has an impact on a child’s body size, while accounting for their home food environment. This type of research has never been done before in New Zealand and adds to international public health discourse on healthy environments.
Saving the world one apple at a time – 10 years on

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Successful social systems, changing population health behaviours
This project was first presented at the Public Health Conference in 2008 and this presentation will cover what has happened in our community over the entire length of the project from 2004-2014

Issue: A number of the key determinants of health were compromised in our population and were evident in; food security issues, low skill levels and low social cohesion.

Aim: The aim of the project is to improve access and provide education to the community, to enable people to grow their own fruit and vegetables. We used a special apple tree, the Monty’s Surprise, as a tool to inspire the community to change their attitude towards gardening. The project also aims to draw communities and whānau together, and convey healthy messages.

Method / Action: Over the last 10 years the Whanganui Regional Health Network (WRHN), Central Tree Crops Research Trust (CTCRT) and partners have distributed 12,000 Monty’s Surprise trees to our community (a highly nutritious heritage apple discovered by CTCRT). The project has expanded since 2006, now distributing thousands of heritage tomato plants, many varieties of heritage fruit trees, bean seeds and heritage vegetable plants.

The project has a specific focus on Māori, Pasifika and high needs communities. These communities distribute the plants and seeds to their whānau, hapū and iwi, and determine the crops that need to be bulked up for distribution the following year. WRHN and CTCRT provide specific plants requested by the community, such as; tomatoes, kūmera, Māori potatoes, branching broccoli, Māori corn, rainbow chard, beans, cauliflower, cabbage, peas and heritage fruit trees.

Schools, Kohanga Reo, Kura and Early Childhood Centre’s who put in gardens under the government’s Healthy Eating Healthy Action funding, have been able to continue their garden projects with the donated plants and seeds. Many groups have joined the communities ‘grow your own’ movement and have started their own gardens with the distributions. We have multiplied the distribution sites from two or three per year, to hundreds of different community venues every year.

Results / Achievements: The community owns the project; they determine where the distributions go to, which project they are going to put their energy into, have started micro industries, have built bridges within their whānau and developed community relationships, are supplying vegetables to whānau in boxes every week, are supplying whole portable raised beds to people in rental housing, are using plants as an introduction to difficult messages about quitting or having health checks, and are helping to put raised vegetable beds into homes. The community is in charge.

Conclusion: Changing a community’s attitude to eat more fruit and vegetables happens slowly, it is like turning an ocean liner. From the beginning of the project, distributing Monty’ Surprise apple trees and all the other heritage varieties, our community has discovered a sustainable method of inspiring people to grow kai for their whānau.

Implications: The discovery and distribution of a single apple tree has led the way towards a community leading a movement that will provide food for all the generations that follow.
Evaluation of the Christchurch Fruit and Vegetable Co-op

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**Issue:** The Fruit and Vegetable Co-op is a health promotion partnership between Community and Public Health (C&PH), the Christchurch Anglican Cathedral, and the communities of Christchurch. The aim of the Co-op is to increase the quantity and variety of fruit and vegetables consumed among participating families by providing access to low cost fresh produce. Each week a selection of fruit and vegetables is purchased from a supplier, and volunteers pack and distribute the orders to distribution hubs. Members collect pre-ordered packs ($10 each, ≈8kg) from one of these hubs. Co-op membership has increased greatly since it began in September 2011, from 86 to 1850.

**Aims:** To conduct an evaluation to assess the impact of the Co-op on members, and guide C&PH’s future involvement.

**Methods/Actions:** A paper-based questionnaire was developed including questions relating to demographics, motivations for membership, changes resulting from membership, fruit and vegetable intake, and food security. Eighteen of the 40 distribution hubs were randomly selected, and all members present at the selected hub on the day orders were picked up were asked to participate.

**Results/Achievements:** 345 out of 511 invited members participated in the survey (response rate = 67.5%). One quarter of respondents lived in the most deprived areas (NZDep2006 deciles 9-10), and a further 40% lived in moderately deprived areas (deciles 6-8). One quarter of respondents stated that they relied on others to provide food and/or money for food for their household. The main motivations for using the Co-op were to save money (82.3%) and eat more healthily (67.8%). Many respondents reported that they ate more fruit and vegetables, and had tried new varieties of fruit and vegetables (73.3% and 81.7%, respectively), since joining the Co-op. Most respondents reported using the recipes and reading the health information provided in the packs. One in five respondents had become a Co-op volunteer since becoming a member.

**Conclusions:** Through active community involvement this cross-organisational collaboration provides greater access to fresh produce at low cost to members who may otherwise struggle to afford fruit and vegetables. As a result, members report an increase in the quantity and variety of fruit and vegetables consumed. The Co-op has increased opportunities for volunteering and social interaction, and for C&PH to distribute healthy cooking and general health information more widely.

**Implications:** This community-focused model has the potential to further enhance well-being and food security in areas of high need. It is recommended that C&PH continue to provide community networks, recipes, health information and support to this valuable project.
Eat and Enjoy

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Issue: Maintaining good nutrition is vital for healthy ageing. Under nutrition, low Body Mass Index and weight loss among older people are all predictors of poor health status. Higher rates of disability, hospitalisation, and mortality can all be associated with poor nutrition in older people, as can a decline in quality of life. Moreover, this is largely preventable. A 2010 study found that nutritional risk was evident amongst the 56.5% of community dwelling older people in Hawkes Bay. Māori were 5.2 times more likely to be at nutritional risk.

Aims: Implement a multi-faceted population health programme, ‘Eat and Enjoy’ to improve the nutritional status of community dwelling older people in Hawke’s Bay.

Methods/Actions:
- Workforce development
- Trial nutrition screening
- Work alongside Māori providers to better understand nutritional issues for older Māori
- Increase community awareness

Results/Achievements: 450 people accessed workforce development program with an increase in knowledge and confidence to apply learnings.
Over 300 older adults screened in community-based pilot. Results four weeks post screening identified some sustained change in knowledge and behavior. The setting highlighted that community-based aged care workers may not always have the confidence, knowledge and skills to deliver effective interventions after the screening process is finished.
Older Māori more receptive to skills-based learning, workforce development needs to focus on practical suggestions. Work is needed to clarify the messages for Māori aged 50-64 years, compared with the messages for Māori aged 65+ years.
Over 1000 older people (31% Māori) attended 24 Eat and Enjoy presentations. Senior Chef translated well into the Māori setting, with the addition of a specially designed module.
Collated data from a recent nutritional status of Hawke’s Bay Hospital patients audit report showed a decline across all age groups in the percentage of patients who are malnourished.

Conclusions: The Eat and Enjoy Program evaluated extremely well, showing progress towards short-term outcomes of raising awareness, building collaborative relationships and improving workforce competency.

Implications: Resource needed to maintain the momentum of Eat and Enjoy
Primary care and allied health most appropriate workforce for nutrition screening for older adults
Prioritise workforce development.
Need to clarify and disseminate the key nutritional messages for older Māori, particularly those who are obese, overweight or suffering from a long term condition
Potential for Senior Chef to be incorporated into DHB-funded day programme models
Household experience of gambling-related harm by socio-economic deprivation in New Zealand: increases in inequality between 2008 and 2012

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Issues: The New Zealand economy entered a recession in early 2008 and was then affected by the global financial crisis (GFC). Recessions have an impact on the overall participation levels in some forms of gambling and other health behaviours, such as problematic drinking. In 2012 nearly 18,000 (0.5%) New Zealanders aged 15 and over were classified as ‘problem’ gamblers. They make up a small proportion of the New Zealand population but the harm caused by problem gambling behaviours extends to families, friends, businesses and the community. The New Zealand Ministry of Health aims to reduce the disproportionate levels of gambling harm among specific at-risk population groups, which include Māori, Pacific people and people living in the most deprived areas.

Aim: The aims were to assess whether New Zealanders’ gambling participation and experiences of gambling related harms have changed during a period of increased economic stress. Bearing in mind the relationship between deprivation and adverse social and health consequences, and the possible exacerbation of inequalities between areas of differential deprivation, we investigated the changes in reports of individual gambling and household experience of gambling harm, by deprivation, between 2008, 2010 and 2012.

Method/Actions: Three nationally-representative survey datasets from in-home face-to-face Health and Lifestyles Surveys in 2008, 2010 and 2012 were analysed to investigate changes in gambling behaviour, experiences of household-level harms related to gambling, and the association with other demographic measures including socio-economic deprivation in New Zealand.

Results/Achievements: Although the proportion of New Zealanders who took part in gambling activities declined from 2008 to 2012, the experience of gambling harm at the household level was significantly higher in 2012 compared with 2008 and 2010. The increase in harm was experienced disproportionately by those in more deprived areas. The people living in the most deprived areas were 4.5 times as likely to experience a gambling-related argument or money issue compared with people living in the least deprived areas in 2012.

Conclusion: People in more deprived areas are more likely to have experienced household-level gambling-related harms, so we argue that while inequalities with regard to individual problem gambling might be reducing, inequalities in gambling harm at the household level have actually increased. We consider several possible explanations for the increase and concentration of gambling harm on households in more deprived areas: the idea that people who are living in deprivation may be impelled to gamble more in times of economic stress; the issue of households’ relative resilience to times of economic stress; and the placement of risky forms of gambling in more deprived areas.

Implications: The causes of gambling harm in deprived communities, including placement of electronic gambling machines (EGMs) in poorer areas, need to be addressed if inequalities are to be reduced. In addition, gambling-related harms should be considered as just one experience that households in poorer areas are more at risk of during difficult economic times. Efforts to minimise gambling-related harm may need to include a wider consideration of the need for people in relatively deprived households to have enough emotional and financial resilience to withstand...
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The Salvation Army, Addiction Services – Gambling

“Tama tu tama ora, tama noho tama mate”: Using the game and legend of Ki o Rahi, students explore, compare and contrast cultural messages to keep healthy, and values and identity intact.

Issue: Youth, Maori and Pacifica especially, are vulnerable to problems of addiction, poor health, suicidality and high rates of imprisonment and unemployment. By using a game, legend and whakatauki we look at some of the cultural values and practices we can reclaim to inspire a healthier, happier lifestyle. Options for healthy choices for eating, exercise and spiritual and physical growth are encouraged. This programme is delivered as part of the Taita College Social Studies curriculum for year nine students.

Aims: To build

- Resiliency, closer more harmonious community, without the ravages of addictions
- Respect for ourselves and others so we stand stronger together.
- Reclaim and promote some of the games, arts, and knowledge lost to us all, especially Maori
- Encourage choices for happier healthier lives in the future.

Methods/Actions: We juxtapose values of hard work, community living, and fun, against the addictive behaviours of problem gambling (PG), drinking alcohol and taking drugs. We use this whakatauki to reinforce core requirements of traditional Maori living. We tell the legend of Ki o Rahi and explore some of the kaupapa imbedded in it; nature, negotiation, competition as opposed to war. Similarities and differences of Maori and other cultures, predominantly European, are explored. We learn and play the game. We share a meal at the end lesson to celebrate, look at diet, how it has changed from traditional times.

Results/Achievements: We collected evaluation forms from both students and teachers involved in the classes. Qualitative and quantitative results were collected. Students gave insightful feedback, and beautiful examples of increased pride in their cultures. Teachers were impressed at the students’ level of involvement. Taita College were the Wellington regional champions and came third in the National Ki o Rahi Competitions this year. One of their players was picked for the National College team.

Conclusions: Students showed high levels of awareness to the dangers of addictions, poor health and other social issues. They responded strongly and positively when healthy and culturally relevant options were offered. Teachers in this school show huge commitment, and because of the wider promotion of Ki o Rahi across the school, values are reinforced.

Implications: The incorporation of this programme into the school curriculum benefited students and teachers, by giving a practical example of how Maori values and practices can lift performance and expectations. Taita College and the teachers involved were crucial in agreeing to pilot this programme. Their advice and generosity were critical, especially the Maori Head of Department.
Hand sanitiser provision for reducing illness absences in primary school children: a cluster RCT

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**Issue:** The opportunities for transmission of infectious diseases offered by the school environment are likely to be an important contributor to the rates of infectious disease experienced by children.

**Aim:** This study aimed to test if the addition of hand sanitiser in primary school classrooms compared with usual hand hygiene would reduce illness absences in primary school children in New Zealand.

**Methods/Action:** This parallel group cluster-randomised trial took place in 68 primary schools, where schools were randomly allocated to an intervention or control group. All children in attendance at participating schools received an in-class hand hygiene education session. Schools in the intervention group were provided with alcohol-based hand sanitiser dispensers in classrooms for the two winter terms. Control schools received only the hand hygiene education session. The primary outcome was the number of absence episodes due to any illness among 2443 “follow-up” children whose caregivers were telephoned after each absence from school. Secondary outcomes measured among follow-up children were the number of absence episodes due to specific illness (respiratory or gastrointestinal), length of illness and illness absence episodes, number of episodes where at least one other member of the household became ill subsequently (child, adult) and experience of a skin reaction. The number of absences for any reason and the length of the absence episode were measured in all primary school children enrolled at the schools.

**Results/Achievements:** Of the 1301 and 1142 follow-up children in the hand sanitiser and control groups, the rate of absence episodes due to illness per 100 child-days was similar (1.21 and 1.16 respectively, incidence rate ratio 1.06, 95% confidence interval 0.94 to 1.18). The provision of an alcohol-based hand sanitiser dispenser in classrooms was not effective in reducing rates of absence episodes due to respiratory or gastrointestinal illness, the length of illness or illness absence episodes, or the rate of subsequent infection for other members of the household in these children, and the percentage of children experiencing a skin reaction was similar (10.4% hand sanitiser versus 10.3% control, 95% risk ratio 1.01, 0.78 to 1.30). The rate or length of absence episodes measured on all children also did not differ between groups.

Limitations of the study include that the study was conducted during an influenza pandemic, with associated public health messaging about hand hygiene, which may have increased hand hygiene among all children, limiting any additional effectiveness of sanitiser provision.

**Conclusions:** The provision of hand sanitiser in addition to usual hand hygiene in primary schools in New Zealand did not prevent disease of severity sufficient to reduce school absence.

**Implications:** This study does not show that hand hygiene itself is not important, nor that hand sanitizer as a method of hand hygiene is not useful, but the results suggest that in a developed country, putting resources into extra hand hygiene by providing hand sanitiser in classrooms may not be effective in reducing illness absences.
Reducing harm to children using school buses

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Issue: Several coroners’ reports, the National Council for Women of NZ, New Zealand Society of Paediatric Surgeons, Rural Women NZ, Safe Kids, NZ Automobile Association, NZ School Trustees Association, local authorities, bus operators and other groups and individuals have raised their concerns about the number of children that have been killed or seriously injured when crossing the road to and from school buses. Applying the principles of the Safe System approach to road safety, having school children (as pedestrians) without physical separation from high speed passing traffic is unacceptable. Very few motorists currently slow down for school buses that are dropped off or picked up children and many motorists are unaware of the 20km/hr speed limit despite it being a legal requirement for over 50 years.

Aims: 1To develop measures that increase compliance with the speed limit by improving driver knowledge of the speed limit and raising their situational awareness through the use of 20 km/h variable speed limit signs on school buses, supported by education and enforcement. 
2 To develop a better understanding of the relative effectiveness of awareness campaigns, active signs and enforcement by undertaking a step-wise intervention study to evaluate the effects of these various components. This is important not only for school bus safety, but also for road safety in general.

Methods/Action: The 12 month trial consisted of three stages:
1. Awareness Campaign to increase the knowledge of the legal speed limit past a school bus that has stopped to pick up or drop off children.
2. The installation and use of 20km/h LED-based speed limit signs on all of the 30 school buses in the Ashburton District.
3. Targeted enforcement of the legal speed limit past a school bus. 

The stages were delivered cumulatively so that at stage three all three measures were in use. The speed past the school buses was measured throughout the trial using a bus mounted speed radar unit. Community, school and road user surveys were undertaken. Expert focus groups were used to assess the conspicuity of the signs, and the distance at which motorist’s notice the signs was measured under normal traffic conditions.

Results/Achievements: The trial has shown substantial decreases in median and modal vehicle speeds past school buses. The sign installation stage (stage 2) had the largest impact on vehicle speeds in both 100km/h and 50km/h zones. These speeds were further reduced by enforcement (stage 3) and the reductions in speeds in reaction to the school bus signs were sustained in the longer term.

Conclusions: The trial has proven to be highly effective at reducing vehicle speeds when passing school buses that have stopped to drop off or pick up children in both 100km/h and 50km/h zones. The awareness campaign on its own had a relatively minor effect on speeds, but is a necessary behaviour change tool given the low level of awareness of the speed limit past school buses.

Implications: Given the trial’s success, the use of LED-based school bus speed limit signs on school buses, supported by awareness raising and enforcement, will lead to major reductions in the fatal and serious injury of children using school buses.
**Why is the risk of bicycle crash injury higher in the Auckland region?: findings from the Taupo Bicycle Study**

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**Issue:** Regular cycling plays an important role in increasing physical activity levels but raises safety concerns for many people in New Zealand. Cyclists bear a higher risk of injury than most other types of road users but the risk differs geographically and is highest in Auckland, the country's largest and fastest growing metropolitan region.

**Aims:** This study aimed to assess the contribution of individual, neighbourhood and environmental factors to the differential risk of bicycle crash injury in Auckland relative to the rest of New Zealand.

**Methods/Action:** The Taupo Bicycle Study is a prospective cohort study designed to examine factors associated with regular cycling and injury risk. A total of 2590 adult cyclists were recruited from the Lake Taupo Cycle Challenge in 2006 and followed over a median period of 4.6 years through linkage to insurance claims, hospital discharges, mortality records and police reports. The Auckland participants were compared with others in terms of baseline characteristics, crash outcomes and perceptions about environmental determinants of cycling. Cox regression modelling for repeated events was performed with multivariate adjustments.

**Results/Achievements:** Of the 2554 participants whose addresses could be mapped, 919 (36%) resided in Auckland. The Auckland participants were less likely to be Māori but more likely to be socioeconomically advantaged and reside in an urban area. They were less likely to cycle for commuting and off-road but more likely to cycle in the dark and in a bunch, use a road bike and use lights in the dark. They had a higher risk of on-road crashes (hazard ratio: 1.47; 95% CI: 1.22, 1.76) but had a similar risk of off-road crashes (hazard ratio: 0.96; 95% CI: 0.77, 1.21). About 53% of the differential risk of on-road crashes was explained by differences in participant characteristics, particularly cycling off-road, in the dark and in a bunch and residing in urban areas. The Auckland participants were also more concerned about traffic volume, speed and drivers’ behaviour, suggesting that the remaining risk differential may be contributed by the region’s car-dominated road environment.

**Conclusions:** The Auckland cyclists had a higher risk of on-road bicycle crashes, which was partly explained by their cycling patterns and urban residence and may also be mediated through the region’s transport environment.

**Implications:** The findings underscore the need for multidisciplinary systems approaches to prevent bicycle crash injuries and address geographic disparities. Particular attention should be given to developing sustainable transport systems that ensure mobility, accessibility and safety for all road users.
A waterborne outbreak of Campylobacteriosis in the South Island of New Zealand due to a failure to implement a multi-barrier approach.

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Issue: Outbreaks of waterborne gastroenteritis continue to occur in developed countries. Darfield, a rural town in the South Island of New Zealand experienced an outbreak of Campylobacteriosis following a transgression of *E. coli* on 16 August 2012, which could have been prevented if a multi-barrier approach had been implemented.

Aims: The aim of the investigation was to identify the source of the outbreak and to prevent a similar future outbreak occurring.

Methods/Actions: A descriptive outbreak investigation was performed. Case investigation was carried out utilizing a questionnaire. Symptomatic cases were requested to provide stool samples for testing. In addition water was sampled from the Waimakariri River, the well in use at the time of the transgression, a residential water tank and stool samples taken from sheep in nearby paddocks. Information was also requested from the District Council regarding water supply monitoring including treatment parameters and water usage and information on rainfall and Waimakariri River flows from the regional council, Environment Canterbury (ECan).

Results/Achievements: One hundred and nine cases met the definition for probable campylobacteriosis. Thirty-five cases submitted stool samples of which 29 were positive for campylobacter. All water samples collected were negative for campylobacter. Sixteen sheep stool samples were taken, four of which were positive for *C. jejuni* and one for *C. coli*. The *C. coli* strain isolated in sheep was very closely related to the strain isolated from human cases, differing by only a single locus. At the time of the transgression the chlorine cylinder was empty and the ‘empty’ alarm mechanism had been disconnected. Heavy rains had fallen in the area prior to the outbreak with recorded turbidity levels in the water supply doubling.

Conclusions: Heavy rains, contamination of water with animal effluent from nearby paddocks and failures in the treatment of drinking water led to pathogens being distributed through the town’s water supply.

Implications: A multi-barrier approach is advocated to ensure the quality of water and many countries have legislation or programmes to address this. However, despite the awareness of the importance of such an approach, competing interests, including those from the agricultural industry and financial restraints on water suppliers, can prevent it from being implemented. Governments need to be more willing to enforce legislation and standards to protect the public from waterborne disease.
Relationships between exposure to nature and health and wellbeing benefits in New Zealand

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Issue: There is significant and growing international research on the positive associations between exposure to nature, and measures of health and well-being (HWB), but very limited research in this area in New Zealand until recently. Some groups of New Zealanders are experiencing deteriorating measures of HWB, but have good access to green space, ‘natural’ areas and coastlines, so there appears to be potential for such areas to contribute more specifically to HWB outcomes.

Objectives: To review relevant international and New Zealand literature pertaining to relationships between exposure to nature and HWB benefits, and explore the implications of this work for better HWB outcomes in New Zealand.

Methods: Literature searches using PubMed and Google Scholar, and selected analysis of relevant New Zealand studies. The literature review summarised New Zealand research relevant to the topic and critically reviewed the evidence base for a relationship between direct exposure to natural environments or green space and measures of human HWB.

Results: Our review took a broad approach both to the scope of HWB and the types of natural or green spaces that may offer HWB benefits. We found that relevant recent research suggests, overall, that exposure to green space has direct positive effects on human HWB, particularly through: 1) reduction in psychological stress, and 2) offering conducive settings for physical exercise. However, much of the research on potential benefits is anecdotal, ecological or descriptive. Of the relatively small number of experimental studies rigorously testing differences between green and non-green settings, many of the positive effects are not statistically significant or relate to very small sample groups. Two recent studies in New Zealand urban areas find positive associations between access to and visibility of natural environments and mental health outcomes. There are significant gaps in the literature concerning the influence of private green space (gardens etc), and more generally, the influence of the type or quality of green space on HWB outcomes.

Conclusions: Some specific positive associations between contact with natural environments and better HWB outcomes have particular applicability in New Zealand because of its high accessibility of green space and natural environments.

Implications: There seems to be considerable potential to improve the alignment between green space management and potential HWB benefits in New Zealand, including the need for an integrated approach to HWB between managers and stakeholders in the health and volunteering sectors, and those involved in green space management such as the Department of Conservation and local government park managers. More detailed investigation of activities undertaken in New Zealand green spaces and natural areas, and their HWB outcomes, would allow better understanding of green space / human HWB relationships in New Zealand.
Kids in the City: designing neighbourhoods for active kids

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Issue: The Kids in the City research is set in the context of decreasing levels of physical activity and rising obesity rates amongst New Zealand children, coupled with an urban intensification which is changing their neighbourhood environments. Children’s independent mobility (i.e., outdoor play and traveling to destinations unsupervised), an integral component of physical activity in childhood, has also declined radically. Physical activity is essential for children’s healthy development and wellbeing, yet a combination of safety-conscious parenting practices, car reliance and auto-centric design sees children leading ever-more sedentary lives. How can urban neighbourhoods be designed to facilitate children’s everyday physical activity?

Aims: We aimed to access the neighbourhood perceptions and experiences of inner-city and suburban children, to track where they went in their neighbourhoods (independently and accompanied by an adult) and to measure their independent mobility and physical activity levels in varying neighbourhood locations.

Methods: We worked with 260 children aged 9-12 from nine Auckland schools. Objective measures (global positioning systems, accelerometers, geographical information systems, observational audits and trip diaries) assessed children’s levels of independent mobility and physical activity, neighbourhood destinations, neighbourhood infrastructure, and streetscape attributes. Children’s neighbourhood perceptions and experiences were accessed during neighbourhood walking interviews and individual and group discussions.

Results: A striking finding was the diversity of children’s lives in both suburban and urban neighbourhoods. While some children never left home unsupervised, others had great license to freedom. The temporal and spatial boundaries of children’s mobility were largely determined by parental fears for their safety. Trips to school were the most frequent (and provided most opportunities for independent mobility – 41% unsupervised), followed by trips to shops. Informal physical activity trips (e.g., to parks) were twice as likely as formal physical activity trips (e.g., organised sport) to be made independently. Results were patterned by the socioeconomic characteristics of children’s neighbourhoods.

Conclusions: Parental (and children’s) fears of the dangers of traffic and strangers restrict independent mobility and render children’s outdoor physical activity an increasingly adult-dependent activity. This provokes questions about the extent to which children’s wellbeing and their right to play and move about safely in the public domain has been disregarded in urban design and planning practice.

Implications: Considering the impacts of planning decisions on children’s and parents’ perceptions of safety, and children’s mobility and opportunities for play in the city is imperative, both for children’s wellbeing in the here and now and their longer term health and wellbeing.
Views from the street: participatory practices to inform a street redesign intervention in Mangere

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Issue: Transport planning in New Zealand prioritizes car travel and infrastructure support for active travel modes such as walking, cycling and scootering is generally poor. Re-designing our streets to make it safer and easier to get around on foot and by bicycle has the potential to reverse declining rates of physical activity, reduce traffic-related injuries and increase children’s independent mobility.

Aims: Future Streets – Te Ara Mua is a street redesign intervention study that aims to make walking and cycling easier and safer around Mangere Central. The specific aim addressed in this presentation is to demonstrate a participatory design process in which knowledge is shared – between mana whenua, Mangere residents, local government and the research team – on how local streets are currently experienced and used, traffic and personal safety hotspots, and ideas for modifying street and off-road infrastructure to improve safety, prioritise walking and cycling, and enhance sense of place.

Methods/Actions: Various participatory processes were used: stalls in the mall, using street maps as a point of departure for conversations; hui at local marae; school-based community meetings; Go-Along walking interviews; discussion groups with school children; community design workshops; stalls at local events; partnership meetings with Local Board, Auckland Transport and Auckland Council stakeholders.

Results/Achievements: Mana whenua, Mangere residents and other stakeholders have been successfully engaged in conversations and a range of values, concerns and ideas relating to neighbourhood streets and walkways have been canvassed and recorded. Traffic and personal safety hotspots have been identified, along with aspirations for neighbourhood change. Initial options for intervention designs that bring together local knowledge and research-based evidence of effective street design have been investigated, presented and discussed.

Implications: In this presentation we reflect upon the various participatory methods used, their relative success in engaging with different stakeholder groups, as well as variation in the type and depth of information shared in the different settings. Key learnings from this process include:

- Taking advice from local people on where, when and how to engage local people
- Going to the places, and at the times, people naturally congregate (eg the mall on market day)
- Engaging directly with communities of interest, including people of cultures and populations who are most affected as active transport users of urban streets (such as disabled people, children and young people, and older people)
- Using in-depth conversations with individuals to complement the more general understandings rendered in groups sessions
Retrofitting neighbourhood routes to optimise public health

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Issue: The social and financial burden of road traffic injury in New Zealand is high compared with many other developed countries. In addition, the population is affected by chronic diseases such as obesity, diabetes and cardiovascular disease, all of which share physical inactivity as a risk factor. Road safety is currently a major objective of transport policy, while other public health outcomes are often ignored. There is a need to better understand the integrated outcomes that may arise from neighbourhood streets and routes that facilitate active travel through evidence-based design.

Aims: We aimed to combine best evidence from the literature with a participatory process to design the retrofitting of urban streets. The intervention design is one part of Te Ara Mua - Future Streets, which aims to make walking and cycling safer and easier in the streets and off-road routes around Mangere Central, while reflecting the identity of Mangere people.

Methods: A programme of route improvements in Mangere Central, South Auckland, is planned to improve road safety and increase active travel. The design approach combined ‘Self Explaining Roads’ and ‘Safe System’ principles with evidence from the peer-reviewed and grey literatures about effective interventions to encourage walking and cycling. A comprehensive participatory design and data collection process underpinned the intervention development. From this process, key community issues and perspectives were identified and design principles developed. Design concepts were then developed for the area and following a ‘design review’ process a scheme will be confirmed for detailed design. The project has also involved a mana whenua design process, to incorporate into the design Mātauranga Māori as well as allowing mana whenua to broker wider cultural input.

Achievements: Design features include iconic off-road shared paths, road space re-allocation for active modes, inherently safe and user-friendly crossings, highly legible accesses to key destinations and a very legible road hierarchy for motorists. Where appropriate, vehicles speeds will be managed to reflect the importance and vulnerability of active road users.

Implications: The project has implications for community street design practices in Auckland and New Zealand, along with the economic considerations that might lead to street and route design choices by local authorities in the future. In addition, we are demonstrating a generalizable process for successful participatory neighbourhood design.
Towards a minimum housing standard for rentals: Results from New Zealand’s first warrant of fitness pre-test

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**Issue:** New Zealand housing is of a lower quality than most OECD countries and several national surveys and research studies have shown that private rental housing is in poorer condition than either social housing, or houses that are owner occupied. Living in substandard housing is seriously damaging the health of New Zealanders with children from low-income families, Māori and Pacific peoples disproportionately affected.

The current regulatory arrangements for rental housing have not been amended since 1947. Recently the Children’s Commission’s Expert Working Group on Solutions to Child Poverty recommended the introduction of a Rental Housing Warrant of Fitness (WOF), as a means to addressing the health and safety of a large proportion of children living in poor quality private rental housing.

**Aim:** To test the feasibility, reliability and acceptability of a WOF tool to assist in improving the quality of New Zealand’s rental housing.

**Methods:** This project is a joint collaboration between the University of Otago, Wellington, the New Zealand Green Building Council, ACC and five councils (Auckland, Tauranga, Wellington, Christchurch and Dunedin). Each council recruited a minimum of 25 rental houses to be part of a voluntary WOF assessment. The assessment included a broad set of housing features that were considered to have an impact on health, safety and energy efficiency.

**Results:** This presentation will report results from New Zealand’s first pre-test of a housing WOF which involved 144 homes. Of the sample 94% failed at least one of 31 checklist items. The most common reasons for houses failing were having water too hot or cold, not having security stays, not having working smoke alarms, not having a fixed form of heating or not having suitable handrails/balustrades. If houses fixed low-cost items (smoke alarms, security stays, hot water) 44 extra houses would have passed the housing WOF assessment, which would have given a pass rate of 36%. Two-thirds of landlords supported the WOF and three-quarters felt that the WOF gave a fair and accurate assessment of their rental house. Few landlords (12%) said that they would put up rent as a result of a WOF.

**Conclusions:** The contents of the final WOF, which is a pass/fail test, will be finalised after the results of the pre-test have been discussed with key agencies.

**Implications:** A WOF for housing would provide a minimum standard for rental dwellings and would provide an information tool for tenants and landlords to understand the performance and safety of a dwelling. Improving housing quality in New Zealand would result in improved health outcomes for the occupants and a reduction in injuries occurring in the home.
Can changes in our behaviour and homes make a difference our health?: the implementation of an effective Eco Design Advisor program

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Issue: New Zealand homes are cold, damp and unhealthy which negatively affects the health, financial resilience and comfort of the occupants. There are over 900,000 existing homes that have average winter temperatures 6°C below World Health Organisation recommended minimum temperatures [1]. The state of New Zealand homes reflects our health statistics. We have one of the highest rates of asthma in the world and an excessive winter mortality rate. We need to address how we live in our homes and the benefits that changes in our behaviour and home environment can effect.

Aims: The New Zealand Eco Design Advisor (EDA) Program (www.ecodesignadvisor.org.nz) was established to provide free, independent, tailored advice to promote warmer and healthier options in both new and existing homes to the homeowners, tenants, community groups and building professionals.

Method: The EDAs are employed by local authorities and provide a free two-hour consultation which covers building health and design, material sustainability, energy efficiency, water and waste management and includes information on the government insulation subsidies. The program was initiated in 2006 by BRANZ (Building Research Association of New Zealand) to promote the concept of healthy homes. There are now EDAs in seven local authorities and the program is expanding.

Results: The EDA national survey 2012-2013 [2] found that 94% of people who had used the service found it useful, quite useful or very useful with 81% already having made changes in their homes. In addition, 83% of survey participants wanted to make further changes to their homes with 62% making changes to their behavior within the home. The survey highlights the positive effects participants noticed to their comfort and energy usage.

Conclusions: There are many barriers associated with introducing the concepts of healthier and more sustainable homes to the home occupier and to building professionals [3]. The EDA educates by providing current information on building practices and design options and is able to translate the science into a language that can be easily understood. The face to face nature of the consultation allows an exchange of ideas and provides an opportunity to discuss questions as they arise.

Implications: By increasing peoples expectations and awareness of the potential in their homes during the consultation and motivating them to make the changes, there is a direct benefit to the comfort and the health of the occupants.

Housing and the health of tamariki in Te Tai Tokerau; a pilot study in Whangarei hospital.

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Issue: New Zealand research has identified exposure to poor housing and household crowding as important risk factors for many potentially avoidable diseases, such as close contact infectious diseases and rheumatic fever.

Aim: This pilot aimed to assess the levels of household crowding and detrimental housing conditions experienced by Northland children who had been hospitalised, and to trial questions that could be used to routinely identify children living in crowded households whilst they are in hospital.

Methods: A short questionnaire was developed based on housing related questions adapted from the 2013 ‘Wellington Paediatric admissions audit of potential risk factors’ [1]. Forty interviews were conducted with parents/guardians of children admitted to the paediatric ward of Whangarei hospital in September 2013.

Results: Children under 12 months and of Māori ethnicity were over represented in all housing risk factors investigated. Functional and/or structural over-crowding was reported in 40% of households. Twenty eight families were living in houses with damp mould or mildew. 18 houses were described as always or often colder than wanted over winter, 16 of which were Māori whānau. 8 families were not able to afford any heating. Housing New Zealand (HNZ) tenants all reported houses colder than they wanted, all were crowded, 6 of 8 were always damp, and 5 could not afford any heating. Home ownership was associated with overall better housing conditions.

Conclusion: Functional crowding contributed significantly to the total crowding experienced by households, crowding was difficult to assess rapidly with targeted questioning. Māori children were disproportionately living in crowded and poor quality housing. Housing New Zealand tenants were consistently exposed to greater health risk than private renters and home owners.

Implications: Housing is a significant determinant impacting on the health of children admitted to Whangarei hospital. An inter-agency healthy housing strategy for Tai Tokerau could be developed, focusing on housing as a key modifiable determinant of health outcomes, particularly for tamariki Māori. This study also identifies significant quality issues with HNZ housing in Northland. As the largest social housing provider, this has implications for when developing referral pathways to better quality housing for children identified as living in crowded or ‘at risk’ housing.

Warm homes for elder New Zealanders?

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Issue: There is considerable socioeconomic patterning of Chronic Obstructive Pulmonary Disease (COPD). Although risk factors for the disease are known, once developed there has been little success in reducing the progressive decline in lung function. Despite considerable recent work on the prevention, management and causes of COPD, the contribution of housing has not been well researched. It is plausible that improved heating would reduce exacerbations of COPD as many New Zealand households are living in fuel poverty with winter indoor temperatures regarded as unacceptable in other countries.

Aims: The overall aim is to evaluate whether targeted fuel subsidies reduce recurrent exacerbation rates (including those leading to hospitalisation) among older people with COPD, and therefore whether providing such subsidies is a cost-beneficial policy initiative. A sub-analysis will examine the effectiveness of the fuel subsidy at increasing the temperatures measured in the participants’ homes.

Methods/Action: 522 participants with a clinician diagnosis of COPD were recruited to the Warm Homes for Elder New Zealanders (WHEZ) study from communities in the wider Christchurch, Wellington and Whanganui areas between 2009 and early 2011. After baseline data were collected the participants were randomised to receive the intervention of a $500 fuel voucher applied to their electricity account during either their first or second winter in the study. Data-loggers were placed in the participant’s homes to monitor the temperature of the living room, and sometimes the bedroom. Spirometry was measured during study visits. Questionnaires collected subjective health measures and reports of in-home comfort.

Results/Achievements: This paper will present preliminary results of the study.

Conclusions: The WHEZ study shows that it is possible to evaluate the merits of targeted welfare benefits for the health of people with chronic and debilitating diseases such as COPD, for whom an inability to keep warm is a common problem.

Implications: Aging in place policies implicitly assume that it is possible for a person to be healthy while aging in the community. This study examines some of the constraints to doing so.
Marketing health to NZ men

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Issue: Men have higher rates of morbidity and mortality than women. Women are more likely to be the primary health driver within the family/community or workplace setting. How can the health sector make information more accessible and appealing to the wide diversity and demographics of kiwi men? How can men be better motivated to become pro-active with their health?

Aim: To create a space for blokes that serve as a hub of relevant men's health tools, services and information by thinking outside of the traditional health sector paradigm and develop relevant website, messaging, branding, strategies and programmes for men.

Methods/Action: The “Get The Tools” programme (GTT) evolved from a workplace programme developed with Mitre 10 Mega staff which used kiwi humour, metaphors and non-clinical language to engage with the largely male staff. This pilot evolved into the Cancer Society national men’s health strategy (GTT) which focuses on health promotion, supportive care, volunteering and research. The “bloke friendly’ website houses tools from many providers and services to form the A-Z of men’s health and supports and partners with existing community and national men’s health initiatives and organisations.

Results / achievements
- The implementation of the national Cancer Society men's health strategy 2013-16
- www.getthetools.org.nz was a finalist in the Writemark Plain English awards and was the first for any health website
- Increased divisional uptake of men’s health and GTT programme
- Increased growth of male community volunteers in particular Māori and Pacific Island
- Continuation of the roll out of the GTT Facilitator programme throughout NZ with 100 community men’s health volunteers by the end of 2014.

Conclusion: Thinking outside of the square and ensuring that the language, branding, resources and engagement is appropriate for NZ men whilst accepting that it is an on-going and ever changing process that needs to be met with these changes. Key to the success of this programme is the partnering of community innovations, initiatives and services that already exist.
Beyond the poster: utilizing an integrated digital media strategy to increase condom use among gay men in New Zealand.

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**Issue:** HIV transmission in New Zealand is concentrated among gay and bisexual men. Although past HIV prevention efforts have kept HIV prevalence and incidence low compared to other countries, evidence suggests gay and bisexual men have rapidly adopted the Internet for sexual purposes: for health information; dating; cybersex; and pornography; creating new threats and opportunities. In response, the New Zealand AIDS Foundation (NZAF) identified the need to have an engaging presence online that would influence behaviour to prevent HIV transmission.

**Aims:** The aims were to engage gay and bisexual men across a wide range of digital media platforms to influence perceptions of condom-use as a community norm, inspire conversations, increase consumption of sexual health education videos and increase orders of free condoms. The interventions had to achieve sustained long-term dialogue and be consistent with the existing Love Your Condom (LYC) social marketing programme.

**Action:** Digital resources were developed including sexually explicit ‘how-to’ videos, and video blogs that discuss frequently asked sex and sexuality questions. Resources were promoted through advertising on smartphone apps, websites, social media and Google search. Community members were also engaged through social media to add their voice to the movement by hash tagging a selfie that would then appear in a LYC advertisement. Independent and in-house evaluations assessed key indicators.

**Achievements:** Evaluation of the LYC programme showed very encouraging results across a range of key indicators, including online and social media:

- 81% prompted recall of LYC messages in online spaces
- A growing and engaged Facebook community of 16,000
- An average of 140,000 Facebook users reached and 4,600 engaged each week
- Facebook engagement rate reached an average of 3.3%, well above market average of 0.96%
- LYC educational videos have been viewed more than 2 million times over a 3-year period
- LYC appears to be contributing to an increase in condom use among gay and bisexual men. For each additional LYC message seen the odds of using a condom with casual partners increases by 5% and with regular partners 3%.

**Conclusions:** NZAF’s use of digital resources and online channels has effectively delivered community-based peer-driven HIV prevention messages to gay and bisexual men, contributing to an increase in condom use with both casual and regular partners.

**Implications:** For digital media engagement strategies to be successful, they must reflect the wants and needs of the target audience and invite that audience to be part of an ongoing dialogue. NZAF’s success has resulted in more resources being allocated to this important channel and away from more traditional channels including print media.
Issue: Tobacco use is the single most preventable cause of non-communicable disease (NCDs) globally. In the Pacific region environmental, demographic and social risk factors for tobacco uptake and sustained use present a significant challenge to health and economic outcomes. Legislation to support reductions in tobacco use is now in place in many Pacific nations. However, there are few programmes to support these commitments despite the urgent need to introduce, accelerate or scale-up initiatives that have political resonance and community impact, and that align with the WHO Framework Convention for Tobacco Control (FCTC) and mPOWER framework. In particular, there is currently little being done to promote and support smoking cessation in many Pacific nations. Mobile phone technology has the potential to be transformative in this situation. Mobile phone health (mHealth) interventions for smoking cessation have been proven successful in promoting smoking quit attempts in NZ, the United Kingdom (UK) and US. However, there is little evidence on how acceptable and effective they might be in low income countries.

Aims: Our research aims to determine the feasibility and acceptability of an mHealth cessation programme in the Pacific and to develop the process required to adapt an existing, proven acceptable and effective cessation intervention for Pacific settings (Samoa, American Samoa and Guam).

Actions: The initial step was consultation with key stakeholders in health and telecommunications to ensure alignment with country priorities, processes and resources. An in-country working group and wider Pacific Advisory group has been established to ensure effective communication and ownership of the initiative. Focus group interviews with smokers will be used to generate an appreciation of attitudes towards tobacco use and quitting, and towards a potential text message cessation programme as well as preferences for language, tone and graphics. The next stage will be the development of a Pacific programme and a pilot study with 100 participants in each country to evaluate the programme.

Achievements: There appears to be the willingness amongst stakeholders to explore the potential for taking a mobile phone based cessation programme in the Pacific. This work has highlighted the need for early, active and consistent engagement with government, telecommunications and local community to ensure that co-ownership is established at the earliest. An evaluation of the process of adapting the mHealth cessation concept within a low resource, Pacific settings is underway.

Conclusions: The challenges include the importance of in-country staff/support people, regular face-to-face visits, sufficient funding, transparency on funding, and timing to ensure priorities are aligned.

Implications: If evaluations demonstrate positive outcomes, the Ministry of Health (Samoa) and the Department of Health (American Samoa) will be in a position to consider the practical roll out and inclusion of mHealth cessation as part of the wider tobacco control and NCD programme.
Tapuaki: Pacific pregnancy and parenting innovation tools - website & smartphone app

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Issue: A third of pregnant Pacific mothers do not seek out a midwife during their pregnancy and less than one percent of all Pacific people participate in childbirth education programmes. The Tapuaki smartphone application and website is a prevention-focused Pacific maternal and infant health intervention designed to engage with Pacific mothers, fathers and their families through social innovation. Integral to this process is the development of evidence-based, engaging tools and resources to improve health literacy of Pacific families of pregnancy and parenting health.

Aims: Improving health outcomes for Pacific pregnant women and babies is the motivation behind the Tapuaki innovation tools. The aim is to make information more accessible for Pacific pregnant women of all ages, and their family, which in turn helps to empower this high risk group to talk about pregnancy and parenting, ask questions, seek advice and care, and make more informed choices about the care of pregnant women and infants.

Methods/Actions: The new Tapuaki smartphone app and Tapuaki website is a first of its kind in New Zealand, and will allow Pacific mothers and other members of the family to find relevant information leading up to, during and post pregnancy. The app provides a convenient way of learning about oneself and the development of baby through the duration of pregnancy. It also provides a ‘Find a midwife’ (by suburb) feature for Auckland midwives only. The website is designed to be user-friendly with the main point of difference being that it specifically caters to the Pacific communities by having translated terms in four different Pacific languages (Samoan, Tongan, Cook Island & Niuean). More Pacific languages will follow later in the year (Fijian, Tuvalu, Tokelau, Kiribati). It is important to note that the tools form part of a comprehensive programme that includes face-to-face pregnancy and parenting education workshops for Pacific families.

Results/Achievements: During this presentation, the new Tapuaki website (www.tapuaki.org.nz) and Tapuaki smart phone app will be introduced, and key features demonstrated. Both success factors and challenges during both the development process and launch of this intervention will be shared.

Conclusions: No amount of tools, resources, clinical systems and capacity will make a difference to Pacific health outcomes without a focus first on engaging with Pacific families. We also acknowledge that there is no single approach for engaging with Pacific families. Consideration needs to be given to several strategies required to reach all Pacific families.

Implications: The Tapuaki smartphone application and website is the only known programme of its kind for Pacific peoples in New Zealand. It has the potential to improve Pacific women’s access to, and use of, maternity services and antenatal education. Through the use of evidence-based and culturally relevant content and materials, Pacific engagement, health literacy, empowerment and participation in antenatal and maternity care can be achieved.
Keep on brushing: a longitudinal study of motivational text messaging in young Christchurch adults receiving Work and Income Support

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Issue: Oral health is a complex and challenging issue for health systems and services worldwide. Overall, oral health in New Zealand has improved; however, large inequalities which urgently need addressing remain, particularly among males, Māori and Pacific people, and those in lower socioeconomic groups. Oral disease is among the most prevalent chronic diseases in New Zealand and among the most preventable in all age groups.

Aims: Using text messaging, underpinned by the Health Belief Model (HBM), this study aimed to improve tooth brushing frequency amongst unemployed young adults aged 18-24 years.

Methods/Action: Set within Work and Income’s Linwood Community Link offices, Christchurch, unemployed young adults aged 18-24 years with access to mobile phones were recruited using either a purpose built computer kiosk or Work and Income’s Basebook internet. Participants completed a baseline survey and then received and responded to a series of motivational text messages over ten weeks. Self-reported tooth brushing frequency was the primary outcome variable. Important socio-demographic (age, gender, ethnicity, employment status) and method-specific (level of attrition, distribution of successful text deliveries, active withdrawal) variables were also collected. Longitudinal analyses of these responses employed generalised estimating equation (GEE) models.

Results/Achievement: 403 registered for the trial, of whom 171 (42%) were eligible. Self-reported tooth brushing twice or more per day significantly increased from 51% at baseline to 70% at week 3, 74% at week 6, and 73% at week 9; an increase significant in crude (p<0.001) and adjusted (p<0.001) GEE analyses. No important differences were noted between age, gender or ethnic groups, although attrition was relatively high with only 26% participating by week 9. However, no evidence of differential attrition was observed.

Conclusions: Invention through motivational text messaging improved the measured oral health self-care behaviour in a hard-to-reach group carrying a disproportionately heavy oral health burden. This intervention warrants further investigation.

Implications: We posit that the combination of motivational text messaging and concepts from the HBM have potential for changing oral health self-care and beliefs in priority and hard-to reach populations. If these results can be replicated elsewhere, the intervention is likely to be cost-effective and relatively easy to implement, and provide health providers with an additional mechanism for redressing the disparities in oral health status within New Zealand.
TeleDOT: Using technology for sustainable directly observed therapy for tuberculosis

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Issue: The World Health Organization recommends that the optimal dosing frequency for people with tuberculosis (TB) is daily dosing throughout the course of treatment, or alternatively daily dosing during the intensive phase (the first eight weeks) of treatment followed by three times weekly dosing by directly observed therapy (DOT) for the remainder of treatment. Daily dosing does not always have to be provided by daily DOT – some people can self-administer their drugs with education, regular review and supervision. However the increasing evidence for, and recommendations to use daily dosing, is likely to result in more people requiring daily DOT, for example people who are unlikely to adhere to treatment and people with side effects who require closer monitoring. Auckland Regional Public Health Service (ARPHS) is responsible for TB treatment supervision, including DOT, in the greater Auckland region.

Aims: The aim of the TeleDOT project was to increase the number of ARPHS’ TB clients able to be treated with DOT within current ARPHS staffing levels by taking a client-centred approach to using new technology.

Methods/Actions: In late 2012, Auckland Regional Public Health Service (ARPHS) successfully bid for one of two Foundation Projects under Auckland District Health Board’s (ADHB’s) Telehealth Strategy. The Foundation Project aimed to enrol two clients in the initial phase of the TeleDOT roll out, with the overall goal of ten clients being monitoring remotely for DOT. Eligible TB clients who could benefit from TeleDOT entered into formal agreements to participate in a pilot project during 2013. Formative and summative evaluations of the ARPHS Foundation Project were completed, using a variety of methods to capture qualitative and quantitative data, including staff, client and stakeholder surveys. From December 2013 at the end of the Foundation Project, TeleDOT was transitioned to business as usual alongside traditional face to face DOT, with the aim of delivering TeleDOT to at least 10 clients by June 2014. The technology progressed from initially using video telephones to using software applications downloaded onto clients’ personal computers or mobile devices.

Results/Achievements: TeleDOT proved an effective and efficient means of providing DOT to clients who are reliable, have some confidence using IT equipment and are already established and medically stable on DOT treatment. The Foundation Project achieved a 10% increase in the number of clients receiving DOT within existing staffing resources and demonstrated the potential for future expansion of DOT. Since transition to business as usual, TeleDOT has been increasingly well accepted by staff and clients and will continue to be an integral part of ARPHS’ TB medicine delivery mechanisms.

Conclusions: The TeleDOT project has demonstrated the potential for technology to improve treatment delivery to TB clients and achieve sustainable cost and other resource efficiencies for ARPHS.

Implications: Emerging technologies can improve service delivery models while achieving positive outcomes for clients and the public health workforce. The need to continuously improve the quality of client care within the context of a challenging economic environment will drive the adoption of new technologies.
Healthcare interactions among young immigrants in New Zealand: potential use of health information technology

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**Issue:** In New Zealand, the three censuses recorded an increasing proportion of youth born overseas from 14% in 1996, 22% in 2006 to 25.2% in 2013. Migration holds opportunities and challenges, particularly to young immigrants who remain vulnerable to a vast array of unmet health needs. One approach to addressing known gaps for under-served youth is to improve health literacy incorporating the extent to which developments in health information technology (HIT) and their comfort with these technologies align.

**Aims:** The aim of this paper was to analyse healthcare interactions and information technology use among immigrant adolescents to explore the potential use of HIT to improve their healthcare experiences.

**Methods/Actions:** The Youth’12 survey was carried out among a nationally representative sample of secondary school students. Three comparative groups were created; foreign-born students (first-generation), New Zealand-born students with at least one parent born overseas (second-generation) and New Zealand-born students with New Zealand-born parents (reference, non-immigrant). Logistic regression models were used to investigate associations between immigrant status and healthcare experiences and technology use. Significant interactions by prioritised ethnicity were examined when there were important differences in the primary relationships of interest (reference group; non-immigrant New Zealand European (NZE)).

**Results/Achievements:** Of the 8,500 students in the Youth’12 survey, 1,872 (22.1%) were first-generation immigrants, 2,041 (24.1%) were second generation immigrants and 4,543 (53.7%) were non-immigrants. Immigrant students were more likely to be older, from less affluent neighbourhoods and have parents or family worry about not having enough money to buy food often or all the time. Immigrant students were less likely to have used healthcare in the previous year (OR=0.80, 95%CI=0.71-0.91) and receive private and confidential healthcare (OR=0.85, 95%CI=0.76-0.96) compared to non-immigrants. This was particularly evident among Asian and Pacific immigrants compared to non-immigrant NZEs. Mobile-phone use was lower among first- (OR=0.48, 95%CI=0.39-0.59) and second-(OR=0.57, 95%CI=0.46-0.69) generation immigrants compared to non-immigrants, but there were differences in this relationship by ethnicity. Internet use was similar (93%) among immigrant and non-immigrant students in general (OR=1.09, 95%CI=1.04-1.14). However, Pacific immigrants were less likely to use the internet compared to NZE non-immigrants (OR=0.43, 95%CI=0.33-0.56). Overall, less than 10% of immigrant and non-immigrant youth used the internet to access health information (OR=1.09, 95%CI=0.97-1.23).

**Conclusions:** Compared with non-immigrants, immigrant youth were less likely to utilise health services, report private and confidential healthcare, and use mobile phones. Overall, less than 10% of youth reported using the internet for health information.

**Implications:** Immigrant status and ethnicity are demographic characteristics that require particular consideration when exploring opportunities for developing HIT to address unmet health needs of young people in Aotearoa/ New Zealand.
An audit of the Toi Tu Kids Service: Tamaiti Tu, Tamaiti Ora The child that expresses strength is a well child.

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Issue: The inequalities in health and social outcomes for Maori and Pacific children are worryingly high in New Zealand. The Toi Tu Kids Service (TTKS) aims to reduce these inequalities and supports children and their whanau by providing a bridge between community, primary care and hospital services to improve access to care.

Aim To conduct a two-year retrospective audit of the TTKS focusing on the demographic of children and families seen, types of conditions managed and to identify if the service reduces hospitalisations and DNA rates.

Methods: The TTKS targets Maori, Pacific and high needs families who may be struggling with attending appointments, managing a child’s health or behavioural condition, navigating the health system and requiring other social supports. The team includes a partnership between Te Hononga Nurse Practitioner, Whānau Support Worker and two paediatricians from Starship Hospital. We conducted an audit of children seen by our service from 2012-2013, looking at hospital data around admission and DNA rates as well as examining more closely the complexity of the needs of the children and families we saw.

Results: 247 children and their whanau were referred to and seen by the team in a 2 year period. A large proportion of the children referred had other issues such as poverty, violence, parental mental health issues and other complicated health and social needs. The nurse practitioner was able to manage 1/3 of the referrals and therefore the patient did not require a hospital appointment but instead was managed at home. A sub group analysis of enrolled Māori and Pacifica children (n=111) was completed, 38 had in the past had a high number of presentations to the hospital for avoidable issues and 39 had multiple previous missed hospital appointments. Since being enrolled in the service 5 children have represented to the hospital for a similar condition and 4 have not attended an organised hospital outpatient appointment. In terms of whanau ora outcomes we have supported a large number of families with advocacy and support around, housing, financial and personal issues such as family violence.

Conclusions: Our audit indicates that this unique collaborative model of service was able to support families with complex care needs. Importantly we found a third of referrals to the TTKS could be managed in the community and the support reduced representations and missed appointments in secondary care.

Implications: The results of the audit have huge implications for the families but also for potential cost savings for the DHB and other health services. We hope that the model will be adopted by other DHBs who will also see the benefit for children, whanau and communities.
Aim: Parenting programmes have been shown to improve children’s relationships with their parents/caregivers, and reduce problem behaviours, however little research has focused on outcomes for indigenous families.

In response to requests from Maori mothers participating in Hoki ki the Rito / Mellow Parenting, to provide support for their partners in parenting, the Mellow Dads programme was also culturally adapted to support both indigenous fathers and mothers. This 14 week parenting programme employs attachment theory and cognitive-behavioural methods to promote change and improve parent-child interaction. Video feedback and group dynamics are key techniques employed throughout the group-based intervention.

The aim of this study was to evaluate the acceptability and effectiveness of Hoki ki te Rito/Mellow Parenting programme, for Maori and Pacific mothers and fathers in New Zealand.

Participants: Five groups comprising 32 fathers and 48 mothers, with children aged between 0-5 years, where there were relationship difficulties, adult addiction issues or child behaviour problems, were delivered in South Auckland, NZ.

Main outcome measures: Mother's and father’s self reported competence, stress and wellbeing, and coded videos of parent child interactions on home videos. Children’s behaviour and development was assessed using parents’ self reports and observation of videos. Focus groups were held with participants towards the end of each programme.

Results: Parents attending Hoki ki te Rito parenting programme reported a significant increase in their own well being, their ability to cope with their parenting role/children’s behaviours, their feelings of self esteem and adequacy, along with a reduction in unwanted problematic behaviours from their children, and an increase in children’s social skills. The programme also led to greater movement from the clinical range to the non-clinical range for mean child behaviour scores on all measures. Effects were primarily maintained at a 3 month follow up. Qualitative data showed extremely positive responses to the programme resources, content and process.

Conclusions: This study provides empirical support for the effectiveness and acceptability of this culturally adapted version of Mellow Parenting – Hoki ki te Rito, delivered by Ohomairangi Trust, in their community settings. The outcome of this study may be seen as a significant step in increasing appropriate service provision for Maori and Pacific families and reducing barriers to accessing available services in the community.
Whanau Pack – Tools for families and parents with teenagers

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Issue: Statistics show that a significantly higher proportion of Northland secondary school students reported currently drinking alcohol than that found for the rest of New Zealand. Binge drinking was very common among students with 45% of all Northland students (or 64% of those who were current drinkers) reporting that they had drunk to this extent at least once in the previous 4 weeks [1]. Recent studies demonstrate the significant, enduring, and protective influence of positive parenting practices on adolescent development. In particular, parental monitoring, open parent-child communication, supervision, and high quality of the parent-child relationship deter involvement in high-risk behaviours such as drinking and self-harm [2]. For example, research shows that rangatahi who share meals with their whānau at least five times a week are less likely to smoke, abuse alcohol, become overweight or have suicidal thoughts and behaviours. They are more likely to feel better about themselves, do better at school and feel more connected with their parents and family [3].

Aims: To develop a unique Tai Tokerau (Northland) resource that provides simple, positive parenting strategies for use by people who work with whānau; to enable parents/care givers to strengthen their relationships, communication, role-modelling and quality time spent together with their rangatahi.

Actions: We examined traditional Maori parenting strategies [4] along with the latest international and local evidence on parenting and results from the Youth2000 series of National youth health and wellbeing surveys. Key information on the developing adolescent brain was assessed together with evidence on the impact of early drinking of alcohol by young people. Current information on alcohol, drinking guidelines and the Sale and Supply of Alcohol Act 2012 was collated.
A rationale highlighting the importance of delaying the onset of early drinking was established in the opening chapters of the resource. A process-based approach was used to highlight the areas of time, boundaries, monitoring, communication and role-modelling as key parenting factors with simple everyday strategies promoted in each area. Strategies for delaying the early use of alcohol by rangatahi and staying safe are also explored.

Achievements: The Whanau Pack is a 60-page booklet produced featuring local imagery from Tai Tokerau. A set of four posters highlighting key messages from the resource were also produced. An electronic version was created and made available through a number of websites.

Conclusions: Presenting simple parenting strategies in a visually spacious manner has resulted in a much sought after resource by both those working with whānau and parents/caregivers. They have indicated feeling inspired by the simplicity of the resource and a relevance to them from the use of local people and locations from Tai Tokerau which has given the resource a distinctly New Zealand feel.

The Wellbeing Game: E-mental health promotion using the Five Ways to Wellbeing

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Issue: How can we improve overall mental wellbeing in the New Zealand population? The lifetime prevalence of mental illness in New Zealand is estimated to be 46.6% [1]. Optimal mental health (flourishing), which can act as buffer against common mental health problems, is only experienced by 24% of New Zealanders [2]. These high rates of mental illness and the relatively low rates of mental wellbeing pose a threat to New Zealand’s social and physical health and, the economy. We need strategies to improve overall mental health across the population.

Aims: The wellbeing game (TWBG) is a web-based activity-logging game designed to improve wellbeing by making people more aware of things they do to support their mental health. TWBG enables participants to use The Five Ways to Wellbeing to record and reflect on their wellbeing activities in an online community. The Five Ways to Wellbeing (5WW—connect, keep learning, be active, take notice, give) are a set of evidenced-based principles meta-analysed by the new economics foundation (nef) for the UK Government Foresight Project [3].

Methods: TWBG has been run over three consecutive years during Mental Health Awareness Week (MHAW) in October and has been played nationally since 2012. The 2013 game had 1483 players (up from 994 in 2012), in 252 teams, with 157 organisations, workplaces and schools participating. Players logged a total of 32,944 wellbeing activities and 46,205 hours of wellbeing. In 2013 TWBG was evaluated using the short Warwick-Edinburgh Mental Wellbeing Survey (SWEMWBS; N = 249) administered pre-game and at follow-up after game close.

Results: People who played on at least three days experienced an average wellbeing increase of 2.1 SWEMWBS points, from 24.4 to 26.5 (maximum score of 35; \( p < 0.0001 \)). People who played fewer than three days experienced a non-significant average wellbeing increase of 0.9 SWEMWBS points, from 25.2 to 26.1 (\( p = 0.1 \)). Changes in well-being were not associated with gender, age, or ethnicity.

Conclusions: TWBG—a highly scalable internet based mental health initiative utilising gamification and evidence-based wellbeing promotion principles—shows promising results as a means of improving participant’s wellbeing. TWBG is also successful in increasing awareness and understanding of positive mental health at a population level.

Implications: TWBG strategic future focusses on nation-wide promotion, further evaluation research, a mobile app and a tailored product for workplaces. TWBG is an example of e-mental health at the intersection of new technologies, wellbeing science, and public mental health promotion.

The Canterbury roller coaster: Examining the impact of the All Right? mental health promotion campaign on the Canterbury population

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Issue: Evidence indicates that psychosocial recovery from a major disaster can take five to ten years. Local populations continue to experience the secondary stressors of the Canterbury earthquakes of 2010 and 2011, most notably in the form of damaged houses, lost or damaged infrastructure, unresolved insurance and EQC claims.

Aims: All Right? was launched in March 2013 to promote mental wellbeing across the Canterbury region. The campaign name is deliberately a question as it aims to start a population wide conversation about wellbeing and resource the conversation through simple evidence based messages. The vision is ‘A Canterbury that’s more than just all right’.

Methods/Actions: The campaign integrates international evidence on disaster recovery and mental health promotion. The five ways to wellbeing (New Economics Foundation) underpin the campaign but significant market research is undertaken to ensure a thorough understanding of the local psychosocial landscape. The campaign has now progressed through five distinct phases – checking in on how people were feeling, offering tips for managing wellbeing, asking people to share their own wellbeing tips, a compliments campaign and a revisiting of the checking in stage, which reassures Cantabrians that the range of feelings we are experiencing are normal. The campaign has successfully partnered with many organisations and festivals, including Red Cross, the Walking Festival and Body Festival among others. This creates broad stakeholder ownership and encourages sustainability over the long term.

Results/Achievements: A year after the campaign launch, fifty seven per cent of people across Christchurch, Selwyn and Waimakariri are aware of All Right? and of these, 52% state that the campaign has had an impact on how they feel or what they do. The campaign continues to elicit large amounts of positive, unsolicited feedback which indicates that it resonates well with the mood of many people. As a world first, it has attracted significant attention from overseas.

Conclusions: All Right? is a successful population-wide campaign playing a significant role in people’s recovery in Canterbury. For a population focused social marketing campaign to be successful it requires significant local ownership and the integration of international and local evidence.

Implications: The success of the All Right? campaign provides lessons for development of mental health promotion campaigns, not only for those affected by disasters but for all populations seeking improved wellbeing.
VEGE-CATION: A Pacific vegetable garden in your backyard with no smoking allowed

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**Issue:** Cost in accessing health and other services is the major contributor to health inequalities among the Pacific population in Marlborough.

**Aims:** The aims were to develop a sustainable, effective and low cost Pacific community programme which allows the service providers to a) have a foot at the door and build relationship; b) provide services closer to where the Pacific people live; c) encouraged Pacific families to be healthy by leading a healthy lifestyle through growing vegetables in their backyard and exercise at the same time d) develop effective and supportive networks through sharing information, seeds knowledge and gardening skills

**Methods/Action:** In 2011 KHW MPHO funded a Pacific Health Needs Analysis to ascertain any gap or barrier to access in services for the Pacific population in Marlborough. The main findings from the research project can be summarised into four main categories: cost, leadership, communication and information about accessing services. In response to the findings and its recommendations, a three year pilot programme called ‘vege-cation’ was developed to provide free vegetable seedlings to the Pacific community. The vegetable seedlings act as a bartering tool to gain access to Pacific homes and for them to plant the seedlings for themselves and thereby develop and build relationships. A full time Pacific Fānau Advocate (PFA) was employed to provide leadership, manage the vege-cation and to develop an engagement framework with the Pacific community and service providers. The main eligibility criteria for the vege-cation are that you must register with a genuine address and contact phone number. They were also provided with a list of 20 vegetables to choose from and delivered to their home free of charge!

**Results/Achievements:** 85 families registered in the first season of 2011-2012, and 125 in the second seasons of 2012-13 (40) and 185 (60) in 2013-14 seasons. Eleven people quit smoking, improved enrolment numbers with GP services, improved engagement with service providers, and a noticeable reduction in the food bill on the table; share the excess vegetables with friends, relatives and neighbours over the fence. The vegetable seedlings help build strong and cohesive social relations and capital.

**Conclusion:** The collaboration between service providers and Marlborough Pacific community through vege-cation provides an environment conducive to build sustainable relationships which will drive change and growth naturally in the future.

**Implication:** Key implication for policy include: Good qualitative research based on local knowledge and experiences proved to be invaluable when developing low cost programme such as ‘vege-cation’ which can be transferable to fit other context and geography [1].

Say 'Yeah, Nah' to alcohol in a uniquely Pacific way

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**Issue:** One in three Pacific adults (35%) exhibits a hazardous alcohol drinking pattern which is about 20% of all Pacific adults. Pacific drinkers are 1.5 times as likely to have hazardous drinking patterns as non-Pacific drinkers.

**Aims:** To provide young Pacific adults with a verbal shorthand that they can use to refuse alcohol (say ‘Yeah, Nah’), to provide them with social permission to refuse a drink and encouragement to back their mates who are trying to ease up.

**Methods/Action:** A group of young Pacific adults from across the country were engaged to help spread the Health Promotion Agency’s (HPA) ‘Say Yeah, Nah’ alcohol moderation message in a uniquely Pacific way. Nine ‘tribes’ each created a video in a very short space of time with their take on the ‘Say Yeah, Nah’ message. These videos (produced by Pacific people for Pacific people) were then spread through the tribe’s social media networks in a competition to get the most views.

**Results/Achievements:** The videos produced by the tribes all had a uniquely Pacific take on the ‘Say Yeah, Nah’ message. Tribes promoted the Y Tribe Challenge well in advance of the video release without exposing the underlying message in an attempt to raise interest from their social media communities. One tribe got the attention of Tagata Pasifika who filmed a live interview when the videos were released raising further interest from the Pacific community. In total the videos were viewed 60,750 times during the four weeks of the official competition. Conversation about the challenge reached a potential audience of 29,288 on Twitter alone and loads of positive comments and feedback were received from community members and celebrities. The winning video was viewed over 11,800 times.

**Conclusions:** Involving Pacific young adults in creating and distributing alcohol moderation messages themselves has proven to be a successful strategy for Pacific community engagement. There are further opportunities to harness the efforts of the tribes in future that should be explored to maximise the relationships that already exist.

**Implications:** Given the success of the Pacific engagement strategy, other target audiences should also be looked at to see if a similar approach would be equally successful.
Puataunofo Come Home Safely: an evaluation of Pacific solutions for Pacific issues

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Issue: Alcohol harm disproportionately affects Pacific peoples in New Zealand. While a significant proportion of Pacific peoples are non-drinkers, those who drink often binge drink. The resulting harm is significantly greater than in the general population, particularly for Pacific men.

Puataunofo Come Home Safely (Puataunofo) is a collaborative which engages and empowers employers and workers to enhance their understanding and commitment to Pacific peoples’ health, safety and wellbeing. Puataunofo members are representatives from government, the private sector, NGOs and community groups who work together to ensure Pacific workers come home safely.

Aims: The project aimed to:
• increase Pacific workers’ awareness of binge drinking and alcohol related harm so that it becomes visible and constructively talked about,
• increase Pacific workers’ understanding of alcohol related harm and its many impacts
• create a climate for Pacific workers that supports behavioural change that supports the moderate use of alcohol
• evaluate the above

Methods/Actions: Between August 2013 and May 2014, 26 workshops were delivered to at least 490 participants in six workplaces with majority Pacific workforce.
The target groups were Pacific men aged 25-45 years and 24 years and under.
Evaluations were completed by participants of each workshop, and on the completion of the project.

Results/Achievements: Over 26 workshops, there were 490 participants, 75% male, 64% Pacific and 20% Maori. Results showed participants had an increased awareness and understanding about binge drinking and alcohol related harm, and that the workshops had created a climate where participants could acknowledged a desire to reduce consumption and identify ways to do so.

Conclusions: Pacific issues require Pacific solutions. Puataunofo workshops achieve more than just pitching a health and safety message at people, they reinforce and honour cultural values by using a holistic approach that acknowledges the importance of the spiritual, emotional, social, financial and physical. A major factor to the success of Puataunofo workshops was the way participants embraced the presenters and their messages, actively participated in the workshops, and took the messages home.
**Pasifika Suicide Prevention Programme 'Le Va**

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**Issue:** Pasifika people in New Zealand are disproportionately affected by suicide. Furthermore, there is a growing concern that suicidal behaviour is increasing in Pasifika communities in New Zealand. Although suicide deaths of Pasifika peoples occur at a lower rate than for the population as a whole, Pasifika peoples have higher rates of suicidal ideation, suicide plans and suicide attempts than all other ethnic groups in New Zealand. In fact, Pasifika peoples have a 12-month prevalence of suicide attempts that is three times the rate of the general population.

**Aims:** The aim of this presentation is to explain the Pasifika component of Waka Hourua. Waka Hourua is the **Māori and Pasifika Suicide Prevention Program** funded by the Ministry of Health. Le Va is delivering the Pasifika component of **Waka Hourua**. Le Va strive to deliver Pasifika solutions to health and well-being that are traditionally grounded with contemporary execution. **Waka Hourua** represents the first Pasifika focussed resources that are tagged specifically for suicide prevention.

**Methods/Actions:** The Pasifika Suicide Prevention programmes objectives include:

- Building the capacity and capability of Pacific families and communities, to prevent suicide and to respond safely and effectively when and if suicide occurs
- Building the evidence base of what works for Pacific families and communities to prevent suicide, through research carried out by, with and for these groups
- Ensuring that culturally relevant education and training are available to Pacific families and communities that focus on building resilience and leadership

To accomplish the above objectives a number of actions have been developed and fall within the broad areas of: community engagement, research and analysis, developing resources and training, and establishing a national hub for Pasifika suicide prevention.

**Results/Achievements:** The programme was launch in February 2014 by Minister Turia. To date a number of achievements have been made, including: establishment of a Pasifika Suicide Prevention Ambassador network, and the development of Pasifika suicide prevention resources, tools and information that have been the direct result of research, community led consultations, and best practice. Le Va has also funded prioritised research and various community initiatives across New Zealand that aim towards preventing suicide in our communities.

**Conclusions:** The provision of significant resource specifically to address Pasifika suicide is an important milestone towards addressing suicide prevention for Pasifika communities in New Zealand. Progress in a short amount of time is encouraging and has seen the emergence of a number of innovative initiatives to address this issue in a uniquely Pasifika way.
A social determinants of health approach to addressing road traffic injuries in the Pacific

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Issue: Efforts to address the burden of road traffic injuries (RTI) in Pacific Island countries and territories have been based on a range of initiatives identified by the global road safety community. These have drawn on epidemiological constructs and public health approaches encouraging a comprehensive multi-sectoral, integrated systems response. The social determinants of health that influence RTI in the Pacific have received less attention in the policy debate. A case-control analysis of data from the Traffic Related Injury in the Pacific (TRIP) research project showed a three-fold increase in the odds of injury-involved crashes for motor vehicles driven by people who reported alcohol use 12 hours prior (OR 3.2, 1.1-9.4). We address this issue using the social determinants of health approach, acknowledging that as in the global context, the disparities in occurrence are inherently systematic, avoidable, unfair, and unjust.

Aim: To apply a social determinants of health (SDH) approach to address alcohol-associated RTI in Pacific Island countries and territories.

Methods: We applied the five-level framework recommended by the WHO Commission on SDH, which identifies important social parameters that influence health inequities that are prevalent in multiple public health spheres in Pacific settings.

Results: We identified important influences of differential socioeconomic position, differential exposure, differential vulnerabilities, differential health outcomes and differential consequences on the inequities associated with RTI in the Pacific. Addressing these requires attention to data collection that can monitor differential exposures and impacts of prevention interventions designed to reduce RTI. Action on the SDH needs to be explicitly acknowledged and addressed taking particular account of the critical connections between RTI prevention and other key social, cultural, environmental and economic development priorities for the Pacific.

Conclusions: Addressing the burden of alcohol-associated RTI in the Pacific with a social determinants approach enables the identification of root drivers, the size of the problem and its distribution. This framework assists in identifying high risk groups that should be prioritised for RTI prevention efforts, and broader policy interventions.

Implications: A social determinants perspective applies an equity lens to RTI in the Pacific, and provides a more holistic rights-based approach to RTI prevention. Without explicit consideration of root structural and social drivers, the status quo of inequity will prevail and potentially widen.
The Talanga Project: Understanding the issues, concerns and challenges experienced by disabled Pasifika children, youth and their families in accessing health and support services

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Introduction: Pacific children and youth experiencing disability and their families need to negotiate services in the Health, Education and Social Welfare systems. The healthcare and disability services systems are complex and changing with multiple points of entry and significant barriers for Pacific families with disabled children [1].

Aim: The aim of this study was to determine the effectiveness of Ministry of Health funded disability health and support services for Pacific children, youth and their families in New Zealand. The first part of this study aimed to understand the issues, challenges, barriers and successes that children, youth and families experience with services.

Methodology: This research used the concept of ‘Talanga’ when gathering Pacific people to talk in focus groups as a way to facilitate understanding of the focus group process. Talanga is a Tongan word for ‘interactive talking with a purpose’. It incorporates Talanga fakamatapule’ (talking together with respect); Talanga fevētokai’aki (reciprocal/reciprocity - bringing our stories and wisdom to share); and Talanga mafana (inspiration - talking together to inspire one another [2]. Separate male and female young people’s focus groups were held in Auckland. Focus groups of parents and caregivers were held in Auckland, Tokoroa and Christchurch. Some groups were ethnic specific (Cook Islands, Samoan, Tongan, Niue) and some Pan-Pacific.

Findings: There were “Pockets” of effective care characterised by the professional or community organisation establishing a trusting relationship with young people and families, where they (the family) felt valued and heard. The barriers, issues and challenges were broadly grouped into access issues, organizational and services structure challenges, poor quality of services including lack of cultural competency and unmet needs and gaps in service. Organizational and services structural challenges were a notable concern for youth and parents and caregivers. The Needs Assessment and Services The Needs Assessment and Services Co-ordination (NASC) process provided multiple barriers to care. Needs assessments were seen to be superficial, with little cultural competency resulting in a lack of care and a lack of access to services. Poor information sharing was a major concern. Parents and families had to find out about entitlements and services themselves or from other parents, even after having seen a NASC worker or health professional. There was a lack of timeliness and responsiveness of services. This impacted on independence and participation. This social exclusion extended to parents who could also be “housebound” without necessary support or technology assistive aids for their child. Notable unmet needs included a lack of behaviour management support for children with cognitive disability and Autistic spectrum disorder, a lack of transitional services for Youth with disabilities and lack of funding for Pacific Parent support groups.

Conclusion: Pacific children and young people with disabilities and their families are experiencing a lack of responsiveness and effectiveness of disability health services and support. This impacts on participation and is contributing to the social exclusion of a very vulnerable group of New Zealanders.
Implications: Systemic issues need to be addressed to improve access and quality of support and services. These include reviewing NASC processes, improving the disability skill base of providers and organisations and addressing a widespread lack of cultural competency.

A transnational syndemic: Cook Islanders and their experiences of TB and type 2 diabetes

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Issue: The type 2 diabetes epidemic is accelerating the risk of TB globally. The study of this issue is complex given the multiple layers of biological, social and political disadvantage facing those affected. This paper argues that a syndemic approach to TB and type 2 diabetes research provides a way to explore the range of harmful social and biological forces acting upon a population.

Aims: This research positions transnationalism as a complicating factor in health service access and a contributing factor to unequal living conditions for Cook Islanders. The overall aim of this research was to understand the role that transnationalism plays within the interaction of structural, political, and biological threats that produce vulnerable environments where type 2 diabetes and TB cluster.

Methods: Interviews for this research were conducted across a range of locations in New Zealand and the Cook Islands over the course of two years. The narrative data collected produced two key outputs. The first was a diagrammatic summary of the existing syndemic forces exerting influence on the TB, transnationalism, and type 2 diabetes syndemic. This summary was a crucial part of shaping the second output, a selection of five key case studies that address the overall experiences of all of the participants.

Results: The interplay between the ethnographic research and the construction of a syndemic framework produced interesting research results. Transnationalism was revealed as one of the key contributing factors to disrupted health service access, poverty and household overcrowding. In addition, stigma and masculine responses to type 2 diabetes were also found to be a significant obstacle to diagnosis and treatment.

Conclusions: This study advances research in the areas of health and migration by demonstrating that both fluid and bounded responses to health and transnationalism exist. The fluid responses highlight the positive health linkages that extend between New Zealand and the Cook Islands. The bounded responses illustrate the fractures in the social and political structures which are influencing type 2 diabetes and presenting risk factors for the TB and type 2 diabetes syndemic in the future.

Implications: Analysing more deeply the inherent connections between diseases, including the range of biological, social, and political forces at play, raises questions about health service delivery for transnational populations. In the future, research concerned with the health of the Cook Islands population needs to consider both the positive and negative impacts of transnationalism upon health outcomes.
TAPUAKI: Pacific pregnancy and parenting programme

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Issue: Pacific peoples in New Zealand have a low uptake of antenatal education despite it being integral to successful pregnancy and birthing experiences. The limited research indicates that less than 1% of participants attending childbirth education in 2009 were of Pacific ethnicity. This is despite Pacific peoples’ comparatively higher birth rate than for all other ethnic groups. The reasons for Pacific peoples’ low engagement in antenatal education are not known as little research has been conducted in this area. However, most antenatal education courses in New Zealand are delivered by non-Pacific peoples, with variable knowledge and understanding of Pacific cultural beliefs which may help to explain this.

Aims: Improving health outcomes for Pacific mothers and babies is the motivation behind the Tapuaki Pacific pregnancy and parenting programme. The purpose is also to assist with better engagement of Pacific pregnant women, fathers, their families and care providers and to improve access to and delivery of pregnancy and parenting education. By participating in this programme, it is hoped that Pacific pregnant women of all ages, and their families are empowered to talk about pregnancy and parenting, ask questions, seek advice, and make more informed choices about pregnancy and infant care.

Methods/Actions: The programme comprises a number of key features which sets it apart from prevailing antenatal education programmes. It is primarily designed for Pacific women, their partners and families. Strategies include:
- A six-module curriculum tailored for Pacific pregnant women and their families
- Community-based setting
- Partnerships with existing primary health care providers and other pregnancy support services

Results/Achievements: During this presentation, findings will be discussed in relation to three pilots of the Tapuaki Pacific pregnancy and parenting education classes that were delivered in Auckland in partnership with Pacific providers during November and December 2013. Both success factors and challenges during both the development process and piloting of this programme will be shared. Feedback from participants include:
- Increased knowledge about pregnancy and parenting
- Increased confidence
- Developed personal relationships with other mothers in the group – and learning from peers (vicarious learning)
- Prescribed curriculum that incorporated science and culture of pregnancy and parenting

Conclusions: The piloted Tapuaki pregnancy and parenting programme has been successful in increasing pregnant Pacific women’s knowledge and confidence about pregnancy and parenting. The Tapuaki pregnancy and parenting programme is not a stand-alone tool, but one intervention which is can assist with better engagement of Pacific pregnant women, fathers, their families and care providers.

Implications: The Tapuaki Pacific pregnancy and parenting education programme is the only known programme of its kind for Pacific peoples in New Zealand. It has the potential to improve Pacific women’s access to, and use of, maternity services and antenatal education. Through the use of evidence-based and culturally relevant content and materials, Pacific engagement, health literacy, empowerment and participation in antenatal and maternity care can be achieved.
Family Planning use among Fijian women in New Zealand and Fiji

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Issue: The World Health Organisation (WHO) recommends family planning as an integral service needed to improve the health of mothers and reduce maternal deaths [1]. However, family planning uptake amongst Pacific women in New Zealand is low [2]. In the Pacific, improvements in family planning utilisation are restricted by the lack of research into unmet need. The lack of research in this area, low utilisation rates and health implications provides basis for further investigation.

Aims: This study focused on ethnic Fijian women in New Zealand and Fiji comparing influences on their family planning behaviour. Specifically, the study aimed to investigate how the following differ between Fijian women living in New Zealand and Fiji:
   I. the level of unmet need for family planning services; and
   II. the main barriers to adequate access to family planning services.

Methods/Actions: A cross sectional survey of a representative sample of Fijian women aged 18 years and over in New Zealand and Fiji was undertaken to gather information about women’s knowledge, practice, and unmet need for family planning and to identify access barriers to family planning services. Overall, 352 women completed a survey questionnaire, 212 from Fiji and 140 from New Zealand. Statistical analysis was carried out using Stata13 software.

Results/Achievements: The study found no significant difference in unmet need between women in New Zealand (27.2%) and women in Fiji (24.2%) (p=0.608). Problems such as not having a facility nearby (NZ 22.03%, Fiji 39.29%, p=0.002), concern that there would not be a female provider (NZ 35.59%, Fiji 50.90%, p=0.010) and talking to husbands or partners (NZ 16.10%, Fiji 30.95%, p=0.004) were significantly different between the two countries. More women in Fiji reported problems with these factors compared with women in New Zealand.

Conclusion: According to WHO recommendations, no unmet need for family planning should exist within populations. Although the difference in unmet need between countries was not statistically significant, both countries showed at least 20% unmet need. Additionally, even though a higher proportion of women living in Fiji reported issues with distance to health facilities and concerns for lack of female providers, at least 20% of Fijian women in New Zealand reported problems with such barriers. Discussion with husbands or partners about seeking medical advice was reported to be problematic for women in both countries, however, even more so among women in Fiji. Investigating the differences in husband/partner relationships of Fijian women living in New Zealand and Fiji may improve our understanding of family relationship barriers that may affect the accessibility of services.

Implications: Service delivery models that provide acceptable family planning services in closer proximity to Fijian women may improve uptake. Health promotion initiatives that deliver outreach programmes into Fijian communities could raise awareness of health providers, improve familiarity with health professionals and encourage husband/partner involvement.

1 WHO, Maternal Mortality in 2000; estimates developed by WHO, UNICEF and UNFPA. 2004
Prospects for advancing tobacco control in Tokelau

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Issue: Tokelau has high smoking rates (46% of adults in one survey) and like other jurisdictions, a growing chronic disease burden. To effectively deal with the high prevalence of non-communicable diseases in Tokelau, reducing this smoking rate will need to be a high priority. Given New Zealand’s close relationship with Tokelau there are good arguments why this country could do more to assist Tokelau with this task. In terms of tobacco control, New Zealand has already provided some support to Tokelau in terms of assisting in drafting tobacco control legislation (Allen 2012), but much more could be done. There are also good self-interest reasons why New Zealand should offer more help to Tokelau in this regard as New Zealand already indirectly pays (via development assistance) for some of the health care in Tokelau.

Aims: We aimed to gauge the level of support in Tokelau at a community and official level for enhanced tobacco control policies and to review the overall context for advancing tobacco control in this setting.

Methods: The lead author (AK) spent eight weeks working in Tokelau on a medical elective (December 2013/January 2014) and conducted informal interviews with community members and leaders, health workers, Government officials and Police. A literature search focused on tobacco control in Pacific Island jurisdictions.

Results: From the informal interviews conducted it appears that members of Tokelauan society are concerned with the impact cigarette smoking is having on the community and are in favour of additional support for quitting. There is also strong support at official levels for enhanced tobacco control policies. At the societal level, a number of factors were identified that favour advances in tobacco control in Tokelau:

• There is only a single point of entry via boat from Samoa and no airport (so tobacco smuggling is relatively easy to prevent);
• There is only one store on each atoll and thus only one place to purchase cigarettes; tobacco is not grown in Tokelau;
• Innovative public health policy already exists – there is ban on soft drink sales, restrictions on alcohol sales, and a fully solar powered electricity grid.

Conclusions: Our impression from conversations with people at all levels of Tokelauan society is that there is strong support for enhanced tobacco control. Tokelau’s remoteness makes reducing smoking prevalence and even eventual elimination a feasible goal in the coming years, but it may benefit from New Zealand’s assistance to achieve this.

Implications: The New Zealand Government has the goal of becoming a Smokefree Nation by 2025. It has also supported work to facilitate some Pacific nations meeting their obligations under the Framework Convention for Tobacco Control. The New Zealand Government (or tobacco control non-governmental organisations in New Zealand) could provide more assistance to Tokelau to help reduce the high rate of smoking. Furthermore, if Tokelau became a smokefree jurisdiction in the medium term, then this could provide a valuable example to other countries in the Pacific and island nations worldwide.
Pacific people kick the habit for live show An innovation project to achieve Smokefree 2025

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Tala Pasifika, Auckland, New Zealand

Issue: Current approaches and services to reduce smoking prevalence amongst Pacific people are not achieving at the desired rate of decline. Although Pacific smoking rates decreased from 30.3% in 2006 to 23.2% in 2013 (Census 2013), Pacific smoking rates remain the second highest in the country. The Ministry of Health established a smokefree innovation fund to support new ideas for a faster decline in smoking rates towards the achievement of the Smokefree 2025 goal.

Aims: This pilot project follows the journey of 10 Pacific people trying to kick the habit of smoking. The story of their quit journey will be told via a live theatre performance in South Auckland on World Smoke Free Day, Saturday 31st of May. It is hoped high impact innovative intervention programmes like #Kick Butt will lower numbers smoking in Pacific communities.

Methods/Action: The #Kick Butt smokefree innovation pilot project recruited 10 Pacific smokers to take up the challenge of becoming smokefree. The 10 recruits where supported in their journey by access to an intense personal physical training, nutrition information support and Pacific specialist cessation support. A project facebook page was established and allowed wider online support from family, friends, workmates and the public. The live show was inspired and written based on the stories of tribulations and triumphs experienced by the 10 recruits. The live show was performed in the Pacific “traditional methods” of Pacific of comedy, dance, drama and song.

Results/Achievements: The tickets to the live show are sold out with 915 likes on the #Kick Butt Facebook page (https://www.facebook.com/kickbuttproject) as at 30 May 2014. The facebook activity shows the number of people reached who have looked at the page is in excess of 18,000. The youtube promotion has had more than 4,000 views. The evaluation of the pilot project following the show will provide learning and future recommendations. Eight out the ten bloggers have quit smoking and their inspirational stories have had a much wider reach.

Conclusions: Project evaluation is yet to be completed. The preliminary findings support the benefits of the approach to promote a smokefree environment and support of quit attempts by the use of a holistic framework (nutrition, physical activity and cessation support), group approach, traditional methods of promotion and use of online engagement tools e.g. Facebook.

Implications: Learning from this pilot project will inform what can be done differently to reduce the high smoking rates amongst Pacific people in New Zealand.
**Ola Lei Conceptual Framework – traditional context of ‘living well’ in Tuvalu**

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**Issue:** *Ola leʻi* is the conventional translation used in Tuvalu for the English word ‘health’. However, officially the Tuvalu Department of Health uses the World Health Organisation (WHO) definition of health. There is a need for the Department of Health to understand and consider how community people understand health and living well, in order to deliver effective health services and programs.

**Aim(s):** The aim was to document and discuss community people’s understanding of *ola leʻi*, through the *Ola Leʻi* Conceptual Framework.

**Methods/Actions:** Community people (including health professionals, teachers, students, traditional healers, government and NGOs officials, church leaders, community leaders and elders, and men and women) on Funafuti and Vaitupu Islands were interviewed about *ola leʻi*. The patterns of ideas voiced by the interviewees with reference to their personal experiences, age, and status in family and community were analyzed. Participant observation was also done in schools, a few families’ households, at communal activities and festivities, and in hospitals.

**Results/Achievements:** *Ola leʻi* is inherently broad and complex and covers many aspects of Tuvaluan life. This means that while *ola leʻi* shares with the WHO definition of health a holistic perspective, it also differs significantly. That is, *ola leʻi* does not just concentrate on the physical, mental and social wellbeing of individuals, but integrates a range of aspects relating to both physical health and the broader environment. *Ola leʻi* goes beyond the individual and extends to the family, community and nation as a whole. As a result of my analysis of the views and practices of research participants, the *Ola Leʻi* Conceptual Framework – visualized as an octopus – was synthesised.

**Conclusion(s):** The *Ola Leʻi* Conceptual Framework is an outline that symbolises how Tuvaluans view health. Hence, it can be used to address health issues and problem, such as prevalence of diabetes, in Tuvalu.

**Implications:** Key policy implications include: local worldviews such as the *Ola Leʻi* Conceptual Framework to be considered and included in health strategic plans and policies.
Malakai Ofanoa (m.ofanoa@auckland.ac.nz)

**Issue:** This paper discusses a participatory action research project conducted with Tongans living in Mangere, a suburb of Auckland, New Zealand.

**Aims:** The primary aim was to develop and test a community development/health promotion model to guide Tongans living in urban areas on how best to address the health and well-being issues affecting them.

**Methods/Actions:** The primary researcher initially determined whether a model of community health and wellbeing action called the PEOPLE System (Raeburn, 1998), successfully used in a non-Tongan New Zealand environment to organize community development projects, could be adapted for Tongans in Mangere, and in the wider New Zealand society.

This adaptation was to be called the “TONGAN System Model”, with the letters TONGAN standing for; Talking, Organisation, Needs Assessment, Goal Setting, Action and Negotiated Evaluation (Each of these can be represented by an equivalent Tongan word). These designate steps in an operational systems approach to setting up and running empowerment-based community projects, where the community itself is in control. The possibility that this model might work with Tongans was especially interesting since its philosophy of empowerment and self-determination was different from the Tongan background from which many had come.

Assessing the acceptability of this model was part of a wider qualitative study of assessing the need for a Tongan health and wellbeing community project in Mangere, including what were seen as the priorities for action. This was done with 19 key stakeholders from the Mangere Tongan community, selected by a unique “grid” method. This process is described in this paper, together with the results relating to the development of the TONGAN Model.

This is followed by a fuller description of the TONGAN Model that arose from this process. It was clear from this research that the stakeholders were strongly in favour of this approach, and provided excellent information for its development and direction.

**Results/Achievements:** Overall, the research showed strong support for the TONGAN Model approach, and the final form of the Model presented here reflects fully the cultural and community requirements and views expressed by the participants.

**Conclusions/Implications:** It is felt that this Tongan System Model is not only applicable to Tongans in Mangere, but is also potentially useful for Tongans in other parts of New Zealand, and perhaps also for other Pacific and migrant groups both in New Zealand and elsewhere.
Short Course: Health promotion in Aotearoa New Zealand: critical reflections and future challenges

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² Taumata Associates

While health promotion in this country is conceptually consistent with global understandings, it has distinctive qualities of an increasingly localised approach - forged on our unique identity. This short course presents the findings from a forthcoming text ‘Health Promotion in Aotearoa New Zealand’ edited by Louise and Mihi, with input from 22 leading thinkers active in health promotion in this country. Key aspects of this New Zealand approach to health promotion will be presented. Course participants will have the opportunity to reflect on these findings, explore the future challenges facing health promotion in New Zealand and identify potential responses to them.
Interactive Workshop: Mindfulness promotion in Aotearoa/New Zealand: a strategic approach

Convenor: Grant Rix (grant.rix@mentalhealth.org.nz)1,2,3

1Mental Health Foundation of New Zealand, 2 The University of Auckland, 3 Auckland University of Technology

Issue: Mindfulness, or the practice of paying attention to what is immediately occurring with qualities of kindness, non-judgement and curiosity, has attracted substantial attention from researchers and media in recent years. The growing evidence base shows significant benefits for health across treatment, preventative, and strength-building settings, and there is clear potential for mindfulness training in a range of contexts. However, the enthusiasm for mindfulness is currently out-pacing the research and there are some challenges arising including diverse opinions about what mindfulness is and is not, particularly in regard to modern versus classical understandings of mindfulness.

Recognising the potential as well as the challenges, the Mental Health Foundation of New Zealand (MHF) has developed a strategy for promoting mindfulness in education, workplaces and healthcare in Aotearoa/New Zealand. This strategy has grown out of previous work including the development, delivery, and research of a New Zealand specific mindfulness in schools programme, the compiling of international and local research looking at the benefits of mindfulness in a range of settings, and the development of an online directory of New Zealand mindfulness trainers. Due to the potential for significant mental health benefits, the MHF views mindfulness as a core strategy for contributing to its vision of creating a society where all New Zealanders flourish.

Aims:
• Introducing the mindfulness strategy and inviting dialogue that may inform future developments,
• Exploring emerging issues, potential implications, challenges and opportunities for a ‘whole community’ approach to mindfulness promotion and practice in Aotearoa/New Zealand.

Provisional Format: Presentations, discussions, and guided mindfulness practice.

Programme (120 mins)
• Introduction to mindfulness: Grant Rix (10mins)
• Interactive session – Group Mindfulness Practice: Grant Rix (10mins)
• Overview of the MHF’s mindfulness strategy: Grant Rix (20mins – including Q & A)
• First case study – development, delivery and findings of the mindfulness in schools pilot study: Grant Rix and Ross Bernay (15mins – including Q & A)
• Second case study – update on ‘The effects of a mindfulness-based intervention programme on the wellbeing of children across a range of New Zealand primary schools’: Ross Bernay (15mins – including Q & A)
• Third case study – ‘Testing the effect of a mindfulness-based programme on the wellbeing of New Zealand primary school children: An experimental study’: Daniel Devcich (15mins – including Q & A)
• Exploring emerging issues, challenges and opportunities: Grant Rix (15mins)
• Group breakout session – opportunity to feedback on the strategy (10mins)
• Interactive session – group mindfulness practice (10mins)
Interactive Workshop: Time for action: what will it take to eliminate child and youth poverty and inequity in Aotearoa?

Convenors: Jean Simpson (jean.simpson@otago.ac.nz), Director, New Zealand Child and Youth Epidemiology Service, University of Otago, Joanne Baxter and Amanda D’Souza, University of Otago.

Issue: For a decade, the New Zealand Child and Youth Epidemiology Service (NZCYES) has provided detailed and comprehensive analyses of the health status of children and young people in Aotearoa/New Zealand. In 2013 the NZCYES partnered with the Children’s Commissioner and JR McKenzie Trust to establish the Child Poverty Monitor to help progress the work of the Children’s Commissioner’s Expert Advisory Group on Solutions to Child Poverty.

NZCYES’s analyses in the 2013 Child Poverty Monitor Technical Reporti and the 2014 Te Ohonga Ake reportii reinforce the growing concerns about unacceptable levels of child poverty and persistent ethnic, socioeconomic and regional inequities in child and youth health and wellbeing. Regardless of the measure used, disparities in child health status in New Zealand are of grave concern. In particular, Māori and Pacific children and those living in more deprived areas bear the greatest burden of mortality and morbidity. A number of health outcomes have been shown to be significantly higher for children from more deprived areas, for example, sudden unexpected death in infancy and hospital admission for many infectious and respiratory diseases. The data presented in the Child Poverty Monitor highlight associations between macro-economics, child poverty and child health that require attention.

Elimination of child poverty and inequity are high priorities for public health action in Aotearoa/New Zealand today. This prioritisation is driven by evidence of current child and youth health need, the far-reaching implications of poverty and inequity, Te Tiriti o Waitangi and human rights obligations, and a commitment to social justice.

The data provide an essential witness to child poverty and inequity in Aotearoa/New Zealand and are a valuable and reliable starting point for the critical storytelling necessary for planning for change within New Zealand services and society. Valuing the collection and analysis of these data is critical for ensuring that they continue to be collated, scrutinised, and used to inform action and monitor progress. There is an urgent need to address childhood poverty and inequities, however, data on their own cannot be expected to reduce child poverty. The critical question from here is what further action to take so the necessary change will happen? How do we become “witnesses, engineers and storytellers”iii who sustain effective social action to reduce child poverty and inequities?

Aims: The aim of the workshop is to support the public health sector to take effective action to address child poverty and inequities. The workshop aims to provide participants with:

- Increased understanding of the powerful role that the NZCYES plays in informing child and youth health in Aotearoa/New Zealand.
- A critical analysis and commentary of a selection of NZCYES data on Māori tamariki and rangatahi wellbeing from the recently-released NZCYES Te Ohonga Ake report.
- An update on the state of child poverty and inequities in Aotearoa/New Zealand 2014 and an overview of progress and achievements to date.
- A platform to discuss the way forward and consider actions for the coming months and years, particularly:
  - What role do we in public health have in addressing child poverty and inequity in Aotearoa/New Zealand?
  - The different contexts and levers that can be used in our efforts to address poverty and inequities, including Te Tiriti o Waitangi, indigenous rights, and the UN Convention of the Rights of the Child.
• What actions can we take as members of the public health community and as a member of the many other organisations and communities of whom we are a part?

**Format for the workshop:** This 2-hour workshop will consist of short presentations, an expert panel discussion, and small group discussion. The expert panellists, who collectively bring a variety of skills and experience, will share ideas and engage with workshop participants to explore practical strategies and actions to increase individual and collective effectiveness to reduce child poverty and inequity. The workshop will conclude with facilitated small group discussions to develop further some of the specific actions that we can each do within our own multiple spheres of influence.
Interactive Workshop: Untapped potential of healthy universities in New Zealand

Convenors: Karen Hicks (karen@hauora.co.nz), Health Promotion Forum; Heather Came (heather.came@aut.ac.nz), Auckland University of Technology; Keith Tudor (Auckland University of Technology; Gil Barton (g.barton1@rgu.ac.uk), Robert Gordon University, Therese Ireland-Smith (tireland-smith@cognition.co.nz), Cognition Education Ltd.

Issue: The settings based approach to health promotion is increasingly being recognised as an effective method of engaging individuals and specific communities in targeted health promotion interventions. Defined by the World Health Organization the key principles of the approach are equity, supportive environments, empowerment, community participation and partnership.

Globally, it is estimated that by 2025 the number of students enrolling in higher education will reach 262 million and so given the significant number of both students and staff within universities, as a setting, it has the potential to make a positive impact on the health and wellbeing of the university community as whole. The workshop presents the settings based approach via national and international case studies, research and an interactive session with participants.

Aims: The workshop will provide a facilitated discussion on the healthy universities concept to ascertain if this underutilised approach is appropriate for the New Zealand context and to identify next steps if participants wish to establish New Zealand based Healthy Universities network.

Provisional format: The workshop will introduce the health promoting settings concept by providing national health promoting schools and international health promoting universities examples. Health promoting universities research findings will also be presented to inform discussions and actions. Presentations will be followed by a question and answer session and a facilitated interactive session to identify if the approach is appropriate for the Aotearoa context. If so, discussions will inform the actions necessary to establish a New Zealand based Healthy Universities network and identify the next steps in moving this network forward.

Programme and contributors:
- Health Promoting Settings – Karen Hicks
- The Healthy University Opportunities to Improve Population Health and Wellbeing – Gil Barton
- Health Promoting Schools – Therese Ireland-Smith
- Health Promoting Universities: Concepts, critique, and strengthening practice – Heather Came & Keith Tudor
Plenary: Working with communities to improve population health

Michael Sparks (Michael.Sparks@canberra.edu.au), University of Canberra, Canberra, Australia

Issue: Communities are a critical adjunct to the individual and policy-level efforts undertaken to address population health issues. As health promotion and population health efforts trend toward both individual behaviour change and policy-level change, the importance of maintaining efforts at a community level can be overlooked.

Main points: In this presentation Michael Sparks will discuss how the elements of community development and health promotion combine with more traditional elements of population health to effectively engage communities in addressing health and wellbeing issues. Links will be made to key recommendations from the Alma Ata Declaration, the Ottawa Charter, and the report of the WHO Commission on Social Determinants of Health. Michael will discuss the utility of the construct of community in assisting population health practitioners to better understand the contextual factors affecting the target population and how a better understanding of community dynamics can lead to better health outcomes. He will illustrate how a better understanding of community characteristics, values, and traditions can help population health practitioners to more accurately understand issues affecting health at the community level and to work with communities to address those issues. The complexity of working with multiple communities with differing needs within a single population will also be addressed.

Michael will demonstrate different models of working with communities and will provide examples of successful community-based interventions from a number of international case studies. He will then discuss the current trend towards policy-level population health activities, frequently diminishing community-based efforts. Michael will urge a balanced approach that maintains a community focus while continuing to advance policy level and individually-focused activities.

Implications: Population health practitioners and those in attendance should be aware of the trend away from community-level work, should endeavour to maintain this important level of work and should advocate for a balanced approach in population health.

Conclusions: Michael will end his presentation with a discussion of the importance of maintaining a focus on working with communities even as greater emphasis is placed on policymaking and regulation through approaches such as Health in All Policies. He will emphasise the importance of understanding and working with communities in determining priorities for action on determinants of health, particularly among the most vulnerable communities in a population.
Plenary: Good government and population health: tussling politics, industry and NGOs

Michael Moore (mmoore@phaa.net.au), Public Health Association of Australia, Canberra, Australia

Issue: As governments across the world oscillate from the centre to the right of the political spectrum industry argues that there are too many regulations, too much red tape and too much interference by government. On the flip side, many NGOs seek more regulation, increased taxation and tougher regulation in order to contain the excesses of parts of industry that are creating significant population health problems.

Poor health outcomes arise from increasing availability of alcohol, increasing obesity and a constant ‘push back’ by industry on the regulation of tobacco. Good governments should be able to find ways to minimise the harms associated with these three main enablers of poor population health. The speaker, Michael Moore, will discuss his own experience of the influence of industry on government and the different ways in which NGOs and government can engage to achieve better health outcomes.

Main points: By drawing on examples such as: the Food and Health Dialogue and the Health Star Rating system; the role of the National Alliance for Action on Alcohol; attempts to introduce a Needle and Syringe Program into the ACT gaol; and efforts by Big Tobacco to remain influential; the speaker will identify the extent to which government should engage or stand up to industry for better population health outcomes.

Moodie et al in the Lancet [1] argue NGOs should not work with the tobacco, alcohol and the junk food industry if there is going to be appropriate protection of public health. Industry argues that business friendly ‘liberal’ governments should not “interfere” but should leave businesses as much freedom as possible. An understanding of freedom and the difference between interference and domination, as published by Pettit [2], provides a foundation for achieving better government and better population health outcomes.

Parts of industry have been hugely effective in influencing governments. It is important to have a nuanced understanding of what happens in government and the role of NGOs in achieving gains in population health in areas such as plain packaging of tobacco products, increased taxation on tobacco and alcohol and the role of collaboration with industry to reduce sugar, fat and salt in food.

Conclusions: Voluntary codes do play a role in containing the excesses of the vast majority of industry. However, there are times when it is appropriate to use regulatory methods, including legislation, in order to achieve the best health outcomes.

Implications: This paper uses an understanding of political philosophy, political experience and engagement with NGOs to provide an insight into the role that population health practitioners might play to influence governments, to counter industry lobbyists and to build networks of common interest to achieve better population health outcomes.

Relationships between socially-assigned ethnicity, racism and health in New Zealand

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Issue: While evidence of the contribution of racial discrimination to ethnic health disparities has increased significantly, there has been less research examining relationships between ascribed racial/ethnic categories and health. It has been hypothesized that in racially-stratified societies, being assigned as belonging to the dominant racial/ethnic group may be associated with health advantage.

Aims: To investigate associations between socially-assigned ethnicity (how an individual is classified by others ethnically/racially), self-identified ethnicity, and health, and to consider the role of self-reported experience of racial discrimination in any relationships between socially-assigned ethnicity and health [1,2].

Methods: We analysed data from the 2006/07 adult New Zealand Health Survey for the Māori sample (n=3160 participants who self-identified as Māori) and the total sample (n=12488). Socially-assigned ethnicity was classified as either dominant group (European) or non-dominant group (non-European). Racial discrimination was measured based on self-reported individual-level experiences across five domains. The associations between socially-assigned ethnicity, individual experience of racial discrimination and health were assessed using logistic and linear regression analyses (for self-rated health and psychological distress outcomes respectively).

Results: In the Māori sample, Māori who were socially-assigned as European-only had significantly lower experience of racial discrimination than Māori who were socially-assigned as non-European. Being socially-assigned as European-only was also associated with health advantage: more likely to respond with self-rated very good/excellent health (age, sex adjusted OR = 1.39, 95% CI = 1.10, 1.74), and lower Kessler 10 scores (age, sex adjusted mean difference = -0.66, 95% CI = -1.22, -0.10). In the total sample, individuals who reported both self-identifying and being socially-assigned as always belonging to the dominant European grouping tended to have more socioeconomic advantage and experience less racial discrimination. This group also had the highest odds of reporting optimal self-rated health and lower mean levels of psychological distress. These differences in health by socially-assigned ethnicity were attenuated when adjusting for socioeconomic measures and individual-level racial discrimination.

Conclusions: Results suggest that being socially assigned as ‘European’ in New Zealand is associated with health advantage that operates, in part, through differential access to socioeconomic resources and exposure to racial discrimination.

Implications: The findings provide insights into the ways in which processes of racialisation operate at both structural and interpersonal levels. This has implications for addressing racism as a health risk both at a population level and at the level of individual patients or communities. This broader approach to racism extends the focus from patient self-identified ethnicity to an understanding that, in a race conscious society, the way people’s ethnicities are viewed by others also impacts on access to health determinants and on health risk.

Towards health equity: institutional racism as a policy issue

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Issue: Institutional racism is an often neglected issue and a critical determinant of health and wellbeing for both indigenous and non-indigenous New Zealanders. It is a severe impediment to health equity – the elimination/absence of health disparities. Institutional racism can manifest as both action and inaction and evidence suggests it is widespread in the administration of the public sector.

Aims:
• To make people in the public health sector aware of institutional racism as a critical determinant of health
• To mobilise action to detect, prevent and minimise institutional racism.

Methods/Actions: In September 2012 the Public Health Association (PHA) unanimously passed a remit to take action to address institutional racism within the public health sector. In part this was in response to emerging research on the prevalence of racism within the administration of the health sector and to critical commentaries from high-profile visiting experts on racism.

The following year a Special Interest Group of the PHA was formed to advance work in this area. The Special Interest Group is undertaking a programme of research and advocacy on eliminating institutional racism within public health policy making and funding practices.

In support of this work the Special Interest Group is developing a policy position paper on the reach and impact of institutional racism as a public health issue. In this presentation we will discuss our development process to date and present the key elements of the proposed policy paper for deliberation and debate.

Results/Achievements: Draft policy position statement on institutional racism presented for which we will seek ratification by the New Zealand PHA and promote via the World Health Organization and other international networks to establish an international benchmark.

Conclusions: While this is a daunting task we feel that it is vital to take steps to begin serious public debate and policy change to reduce and eliminate this significant problem in public health in this country and elsewhere.

Implications: Developing a policy position on institutional racism is a timely pathway to raise awareness of this key public health issue and make progress in the broader goal of health equity. With the development of social media and the internet the potential reach of this work is vast and it is an opportunity for New Zealand to be world leaders.
Patently Obvious: A public health analysis of pharmaceutical industry statements on the Trans Pacific Partnership International Trade Agreement

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Issue: The Trans Pacific Partnership Agreement (TPPA) is a large regional trade agreement being negotiated by twelve countries, including New Zealand (NZ) and the United States of America (US). The patent-holding pharmaceutical industry (the Industry) has lobbied hard for enhanced intellectual property protections and rules affecting pharmaceutical pricing and reimbursement schemes in the TPPA. These provisions would likely impact public health by reducing access to affordable medicines.

Aim: The purpose of the study was to inform public health advocacy by exploring how the Industry has used language to frame the TPPA, in order to influence opinion and exert leverage.

Methods: Drawing on a framework for critical policy analysis, we undertook a thematic analysis of the language used in publicly available statements about the TPPA from the Industry’s US and NZ peak bodies. Data included press releases, submissions and other statements, dated 2008-2013.

Results: The Industry framed the TPPA as contributing to the public good. The TPPA was portrayed as redressing inequitable pharmaceutical management policies, which limit people’s access to new medicines. Further, the TPPA was constructed as the route to economic growth for the USA, and ultimately for all TPPA countries, through increased intellectual property protection for the patent-holding pharmaceutical industry.

Conclusions: This framing obscured the inherent tensions between the interests of the Industry and public health goals. The Industry remained silent on the issue of affordability, a key dimension of equitable pharmaceutical access. The use of rhetoric, such as ‘win-win outcomes’ (for TPPA countries and the Industry), hid the vested economic interests of the Industry in the TPPA.

Implications:
• Language used by corporations engenders sympathy and support from clinicians, policymakers, and politicians
• Thematic analysis is valuable for exploring industry ideology
• Understanding the Industry’s framing of issues can assist public health advocates in challenging prevailing discourses and exposing vested interests.
Fair global sharing of benefits, because pandemics respect no borders - the contribution of the Pandemic Influenza Preparedness Framework to global solidarity.

Fran McGrath1 (Fran_mcgrath@moh.govt.nz), Member of the Pandemic Influenza Preparedness Framework Advisory Committee to the Direct-General of the World Health Organisation

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Issue: Pandemic influenza, such as the A(H1N1) influenza pandemic of 2009-2010 (commonly called ‘swine flu’) are caused by new viruses to which populations have no immunity, and so they spread rapidly and cause significant illness.

During the outbreak in 2006 of the avian influenza (A(H5N1), Member States of the World Health Organisation (WHO) agreed that a formal arrangement was needed to improve the speed of access to vaccines during influenza pandemics, and to ensure access to these vaccines for developing countries which often found the cost unaffordable. At the same time it was clear that globally we needed improved national surveillance to detect new influenza viruses, and timely sharing of the genetic characteristics to enable development of safe and effective vaccines against pandemic influenza. In 2007 the Member States of WHO came together to begin discussions, amongst themselves, and with the vaccine industry, and with representatives of civil society. Discussions continued over four years, resulting in the Pandemic Influenza Preparedness (PIP) Framework, which was formally adopted by the 194 countries of the World Health Assembly on 24 May 2011.

Aims: This presentation will discuss the PIP Framework as an example of a global agreement designed to achieve greater equity and to share benefits amongst countries and companies with quite different needs and contributions.

It will be based on a review of the documentation of the PIP Framework, and present insights from the perspective of a member of the Director-General’s Advisory Group about the achievements, and challenges of ensuring the PIP Framework operates in the spirit intended by the original landmark agreement.

Methods/Action: Based on the available literature, and my experience on the Advisory Group, the presentation will describe the three components of benefit-sharing and how the framework is constructed:

1. global sharing of viruses that have pandemic potential in a timely and transparent way
2. benefit sharing of access to pandemic vaccines, and enhancement of the national surveillance and response capacity in developing countries
3. partnership contribution from vaccine manufacturers paid to WHO to fund capacity development in countries that need support.

Results/Achievements: The PIP Framework has been in place since May 2011.

Its achievements and ongoing challenges will be described, from my perspective as a member of the Director-General’s Advisory Group. Specifically these will include

- progress in the timely transparent sharing of information about influenza viruses with pandemic potential, for example the A(H7N9) influenza virus identified in China in March 2013
- agreements to enable benefit sharing of vaccines and enhancement of national capacity
- the number and value of partnership agreement contributions from manufacturers and other companies

Ongoing challenges will be discussed.
Conclusions and Implications: The PIP Framework is one of the most ambitious and far-reaching examples of collaboration between countries, and with commercial companies. While it is specifically developed to enhance pandemic preparedness, it is a significant achievement by WHO and the Member States to improve public health and contribute to greater global equity.
The difference a ‘living wage’ makes

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Issue: New Zealand has a high number of workers on minimum or close to minimum wage levels at $14.25 an hour. Low wages have high social costs in the form of poorer health and education outcomes, increased debt and also higher crime rates. The Living Wage Aotearoa campaign has established support for the proposition that workers should be paid a wage adequate for their and their families’ social and economic needs and the wage should provide enough to enable them to participate in society. The New Zealand Living wage rate is set at $18.80 an hour.

Aims: The research has two aims:
• To review findings from the implementation of Living Wages in the United Kingdom and the United States;
• To assess the impact in New Zealand of the Living Wage campaign and Living Wage policies.

Results/Achievements: The implementation of Living Wages in the United Kingdom and the United States have produced productivity gains, improved staff morale and reduced staff turnover. It is too early to assess any macro-economic impacts of the Living Wage in New Zealand. However, what is evident is that the campaign has demonstrated a mechanism to address very low wages. An alliance of faith-based groups, community organisations and unions has collaborated to push for the implementation of the Living Wage in their communities. As of June 2014 there are 20 New Zealand employers who are accredited Living Wage employers and pay their employees no less than the Living Wage sum of $18.80 an hour. There are also many other employers in the country who have been influenced or are commencing a process to implement Living Wage policies including Wellington City Council who have agreed in principle to implement living wage policies. Other councils are also investigating the implementation of Living Wages.

Methods: The impacts of the implementation of Living Wages in the US and UK are reviewed. Interviews are used to study the impact of the Living Wage on workers in New Zealand who have moved from minimum wages to a Living Wage. Interviews with employers who have become Living Wage employers explore the reasons why they have become Living Wage employers, what they hope to achieve and the difference that being a Living Wage employer has made to their firms.

Conclusion: Living Wages have been successful in the US and in the UK in reducing absenteeism, staff turnover and improving productivity. Though still in early stages in New Zealand the Living Wage campaign is influencing employers to lift wage rates. Collaborative action can results in changes and employers delivering socially just wages.

Implications: The implementation of a Living Wage can reduce poverty and hardship among low wage workers in New Zealand and can play a significant role in reducing inequality.
Estimated effects of health-related food taxes and subsidies on mortality from non-communicable disease in New Zealand

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Issue: Health-related food taxes and subsidies may promote healthier diets and reduce the burden of diet-related disease.

Aim: Our aim was to estimate the effects of food taxes and subsidies on mortality from non-communicable disease in New Zealand.

Methods: A macrosimulation model based on household expenditure data, demand elasticities and population impact fractions for 18 diet-related diseases was used to estimate effects of five health-related food taxes and subsidy regimens. We used price elasticity values for 24 major commonly consumed food groups in New Zealand, and food expenditure data from national Household Economic Surveys. Changes in mortality from cardiovascular disease, cancer, diabetes and other diet-related diseases were estimated. No time lags from dietary change to mortality were included.

Results: A 20% subsidy on fruit and vegetables would potentially avert 581 (95% uncertainty interval 339 to 647) early deaths annually (2% annual all-cause mortality). A 20% tax on major dietary sources of saturated fat would delay 1,583 (1,095 to 2,217) deaths (5.4%), and a 20% tax on major dietary sources of sodium would delay 1,968 (1,283 to 2,734) deaths (6.7%). Combining taxes on saturated fat and sodium with a fruit and vegetable subsidy would delay 2,460 (1,908 to 3,126) deaths or 8.4% mortality annually. A tax on major dietary sources of greenhouse gas emissions would delay 1,275 (867 to 1,793) deaths annually (4.4%). Taxes modelled would increase average weekly household food expenditure by 1.5-2.2% (NZ$2.18-$3.25), and annual government tax revenue would be approximately NZ$24.9-37.1 million. The fruit and vegetable subsidy would decrease average weekly household food expenditure by 1.4% (NZ$2.07) and would cost approximately NZ$23.7 million/year.

Conclusions: Health-related food taxes and subsidies would improve diets and avert early deaths from non-communicable disease in New Zealand.

Implications: Health-related food taxes and subsidies merit consideration as components of a multifaceted government strategy to tackle New Zealand’s high burden of diet-related disease. Further work is needed to refine effect estimates and improve certainty.
Evaluating action of the New Zealand government on food environments against international best practice: results of the Government Healthy Food Environment Policy Index (Food-EPI)

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Issue: Effective government policies are essential to increase the healthiness of food environments and reduce diet-related non-communicable diseases (NCDs). A Healthy Food Environment Policy Index (Food-EPI) has been developed to assess the extent of government policy implementation on food environments against international best practice. The Food-EPI comprises a ‘policy’ component with 7 domains (food composition, labelling, promotion, provision, retail, affordability, trade), and an ‘infrastructure support’ component with 7 domains (governance, leadership, workforce, monitoring, funding, platforms, health-in-all-policies). Good practice indicators have been proposed for each domain, and international benchmarks are being collected for each of those.

Aims: Actions of the New Zealand Government on food environments were evaluated against best practice and priorities for the Government identified.

Methods/Action: Policy documents and budgets were retrieved from websites and through official information requests, and evidence on the extent of implementation of policies and infrastructure support was comprehensively documented, and fed back to government officials to verify completeness and accuracy. Two workshops were convened of 52 public health experts, who independently rated, after presentation of good practice, evidence and benchmarks, the degree of implementation against best practice for each indicator on a Likert scale from 1 to 5. Through plenary discussions, concrete actions were proposed for the Government and prioritized according to importance (need, impact, equity, other positive and negative effects) and achievability (feasibility, acceptability, affordability, efficiency).

Results/Achievements: Indicators within the domains of governance, funding and workforce were found the most difficult to rate, while indicators within the domains of food composition, labelling, promotion, prices and leadership were found the easiest to rate. The degree of implementation towards best practice was evaluated as ‘high’ (>75% implemented) for 2 out of 19, ‘very little, if any’ (≤ 25% implemented) for 10 out of 19 and ‘low’ (26-50% implemented) for 4 out of 19 policy indicators. The degree of implementation towards best practice was evaluated as ‘high’ for 4 out of 23, ‘very little, if any’ for 1 out of 23 and ‘low’ for 10 out of 23 infrastructure support indicators. Inter-rater reliability was 0.78 (95%CI=0.76-0.79). Fifteen policy actions and 19 infrastructure support actions were proposed by the raters, of which 7 for immediate implementation.

Conclusions: For 74% of the policy and 48% of the infrastructure support indicators the level of implementation towards international best practice was evaluated as ‘very little, if any’ or ‘low’. Highest levels of implementation towards best practice were found for food labelling and governance. Low levels of implementation across most policy indicators show the need for government action on food environments in New Zealand.

Implications: International benchmarking of the extent of government policy implementation on food environments has the potential to catalyze greater government action to reduce obesity and NCDs, and increase civil society’s capacity to advocate for healthy food environments.
Positive mental health in children: A public health concept whose time has come.

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Issue: Child mental health promotion has predominantly been described in terms of preventing or reducing problems; yet we know that positive mental health is not simply the absence of disorder. Failing to understand and report healthy psychosocial functioning significantly limits intervention possibilities.

Aims: To develop and implement a population-based indicator of positive child mental health.

Method/Actions: Concepts of positive mental health are largely absent from public health thinking; thus, the first requirement of this investigation was to develop a suitable conceptual model of positive child mental health, drawing on individual expertise and the public health, psychology and social science literature. We examined constructs such as competence and concepts of ‘the good life’ and ‘the good society’ to develop robust criteria for population-level measurement of positive child mental health. A novel indicator, mental health competence, was derived from positive constructs in the Australian Early Development Index (AEDI), a three-yearly national census of child development at school entry. Using linked data from the AEDI and the Longitudinal Study of Australian Children (LSAC), the measure was validated against the Strength and Difficulties Questionnaire. We then investigated the predictors of this outcome, and compared the findings with previously published competence research.

Results/Achievements: The conceptual model: Epidemiologists should adopt the dual continuum model, in which positive mental health and mental health disorders are seen as separate though correlated states. Concepts and measures of positive child mental health for public health purposes should be founded on psychosocial competencies, should be developmentally contextualised, and should have a multilevel perspective, taking into account the complex and reciprocal relationships between children and the societies in which they live. The indicator: Mental health competence has a strong conceptual basis and has performed well in validation tests. The pilot study demonstrated that individual- and family-level correlates were consistent with the psychology literature. In logistic regression models, maternal education and mental health emerged as strong predictors of child mental health competence and may also protect against the adverse effect of family hardship.

Conclusions: Effective promotion of child mental health (as opposed to prevention of illness) requires the public health community to develop concepts of optimal mental health and to measure and report positive outcomes. In addition to understanding how to strengthen individual competence, we also need to address society-level determinants of child mental health.

Implications: We now have an indicator of positive child mental health that can be applied at the population level to report on early childhood inequalities or to monitor child health promotion efforts. Data on mental health competence are already available for several hundred thousand children through the AEDI and its global antecedent, the EDI. Opportunities for further research using this indicator include investigating the causal mechanisms by which disadvantage affects positive mental health and the role of oral communication in supporting mental health competence in young children.
Bringing Disability and violence services together to address the abuse of disabled people

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Issue: Disabled people are marginalised in the New Zealand community. There are high unemployment rates and, in New Zealand, up to 90% of disabled women have been sexually, physically and/or emotionally abused, which has a significant effect on their wellbeing, mental health and overall health and social outcomes. Yet the disability and violence sectors remain siloed in understanding and response.

Aim: This research is investigating the barriers to collaboration across the sectors and what constructive collaboration and service responses would be.

Method: Literature review and eighty qualitative interviews have been completed with key informants from the disability and violence sectors and people working in related government ministries.

Results: Preliminary analysis suggests that sectors are aware of the high rates of abuse of disabled people but feel constrained by resources, capacity and lack of understanding of the other sector from engaging in the development of constructive cross sector responses.

Conclusions: This presentation will present ideas for organisational and government level policies that would facilitate cross sector understandings and partnership that would result in a more constructive response for abused people and the initiation of prevention initiatives.

Implications: Violence and abuse has many negative health effects on individuals, families and communities. These include mental and physical illness and long term incapacity. Ignoring, or not constructively responding to the abuse of disabled women further marginalises them and prevents women achieving their full potential. The findings of this study will enable the development of an alliance between the violence and disability sectors and result in policy development for an effective service response.
Developing a dementia-friendly Christchurch: Perspectives of people with dementia

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Issue: Dementia is a condition that is becoming increasingly prevalent both globally and within New Zealand, largely as a result of people living for longer and populations as a whole aging. Dementia-friendly communities are a concept being embraced worldwide to improve the quality of life of people living with dementia. Davis et al (2009) define a dementia-friendly community as “a cohesive system of support that recognises the experiences of the person with dementia and best provides assistance for the person to remain engaged in everyday life in a meaningful way”. Christchurch, post 2010-11 earthquakes, is in unique position to re-build as a dementia-friendly city. Imperative to establishing what a dementia-friendly Christchurch should entail is input from Christchurch residents living with dementia.

Aim: To gather insights from people with dementia about what would make it possible for them to live better in their Christchurch community.

Methods: 26 participants, aged 60-95 with various stages of dementia were interviewed using a semi-structured questionnaire aimed at evaluating how dementia-friendly participants local communities were and what could be improved. Each interview ranged from 40 minutes to 3 hours in length and was transcribed in order to identify common themes by thematic analysis.

Results: Three major themes arose from this research project.
1. The importance of belonging to a network to facilitate social interaction, community outings and an opportunity to learn from other’s living with dementia.
2. The need to increase dementia awareness in the wider community.
3. Attributes of the physical environment including the materials, design and layout of buildings and streets, the importance of outdoor spaces, the accessibility of shops and public transport and the use of appropriate signage were highlighted as requiring consideration in the rebuild.

Conclusion: Local consultation with people with dementia has identified a range of important attributes that must be considered by all parties involved in the physical rebuild of Christchurch city, in addition to those involved in service provision and community engagement, to ensure Christchurch’s rebuild is dementia-friendly. If we can do it right, it will only have to be done once.

Implications: The messages from people with dementia gathered in this project are being shared with organisations involved in the rebuild to help share a vision of how we can better rebuild Christchurch as a dementia-friendly Christchurch. Planning for environments that are easy to access, navigate, use, and enjoy can benefit everyone, not just people living with dementia. The valuable insights highlighted in this research should be considered in all polices and community developments across New Zealand.
Health promoting hospice initiative: Foundations of Spiritual Care professional development programme

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Issue: Often missing from the public health discourse is how to die well; or as the hospice approach suggests living well until you die. This approach is based on the ‘total care’ model for patients and family members; which parallels Te Whare Tapa Wha, attending to the physical, mental, social and spiritual dimensions of ill-health and well-being. A national study [1] identified spiritual care, while mandated, was not well understood, assessed or addressed.

Aim: Improve the understanding and approach to spiritual care in New Zealand Hospice care

Actions: Hospice New Zealand (HNZ) have developed a capacity building, professional development programme to improve the understanding and knowledge of spirituality and spiritual care with and for the wider hospice team; thereby improving the spiritual well-being of their organisations and spiritual care for patients, families and whānau.

Results: Based on evidence, collaboratively designed and piloted, HNZ have produced a professional development programme targeting foundation spiritual care training needs of NZ hospice teams (all staff and volunteers). Early evaluation has been very positive and the programme has led to the development of roles and employment of spiritual care and cultural care staff in some places.

Conclusions: The HNZ programme is the first of its kind in New Zealand and important internationally as a whole organisation approach to raising awareness of spirituality and improving such care for patients and family members.

Implications: In health promotion we claim holistic approaches and models but struggle to change to collaboraoperationalise them fully. The HNZ programme offers a settings-based approach to conscientization and operationalization of spirituality that may be transferrable to other settings.

What are we talking about when we ask about cultural needs in palliative care

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Issue: The 2001 New Zealand Palliative Care Strategy sought to address inequities in access to palliative care services experienced by Māori, by reducing cultural barriers and ensuring services were culturally appropriate. In 2005 when the Liverpool Care Pathway for the Dying Patient (LCP) was introduced into New Zealand, ‘cultural goals of care’ were included in recognition of the importance of cultural care.

Aims: Our research aims were to: investigate how the LCP ‘cultural goals’ guided the delivery of culturally appropriate end-of-life care (EOL) for Māori within the MidCentral District Health Board region; explore the experiences of EOL care of whānau whose relatives have received care guided by the LCP; and with Māori communities, stakeholders, and providers, develop and pilot a culturally appropriate New Zealand version of the LCP.

Methods: We undertook retrospective chart audits of LCPs from four settings (home, hospice, hospital and hospice) investigating the documentation of ethnicity and cultural care. 40 stakeholders who used the LCP were interviewed or participated in a hui. 70 Māori health service providers, community members, or whānau members of a person who had received palliative care participated in hui exploring what culturally appropriate EOL care would look like in any setting. Pilot projects were then developed, including a toolkit of interventions for residential aged care, education packages for nurses, and revised ethnicity codes and ‘personalised care’ components in the LCP to replace the original cultural goals.

Results: Findings demonstrate the complexity around talking about culture, documenting cultural care, and clients’ experiences of that care. Two audits (100 and 258 LCPs) demonstrated poor ethnicity documentation, with no ethnicity recorded in 39% and 43% of LCPs. Stakeholders placed much emphasis on the need for culture to be overt in care documentation, however, while identifying the cultural goals as ‘more difficult’ to assess than other care goals (for example those of symptom management), cultural goals were documented as ‘achieved’ for both patients and relatives 99% of the time in 1360 entries, a much higher rate than for other care goals. Participants in the hui wanted palliative care to be integrated and coordinated, based on respectful and empathetic communication, with whānau involvement in decision-making and care, enabling tikanga to form the basis of holistic care.

Conclusions: Finding the shared language to talk about, document, and integrate health care that relates to personal and family beliefs, values and traditions, including culture, is a key component in progress towards developing culturally appropriate services.

Implications: Culturally appropriate palliative care must be based on an understanding of the complexities inherent in the word culture and the ways in which different stakeholders understand and apply the concept within care provision, and for whānau, experience that care.
Adults using mental health services die earlier than other New Zealanders

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Issue: People with experience of mental illness, in particular those accessing mental health services, have been shown internationally to have increased mortality compared to the general population, but no studies have examined the situation in New Zealand.

Aim: To estimate mortality rates from natural and external causes for adults using psychiatric services compared to the general New Zealand population, using a complete national dataset.

Methods: Routinely collected data on adults aged 18-64 using secondary mental health services between January 2002 and December 2010 were linked to death registrations over the same period. Indirect standardisation was used to estimate the mortality ratio (SMR) for those with any contact with mental health services over this period compared to the New Zealand population. Mortality risks from specific causes of death were explored.

Results: Both men and women using mental health services in New Zealand have more than twice the mortality rate of the total population (combined SMR 2.14 (95% CI 2.09-2.19), with an increased risk of death from cancer and cardiovascular disease (SMRs= 1.31(1.24-1.37), and 1.69 (1.60-1.79) respectively), and external causes (suicide and accidents) (SMR 3.11 (3.00-3.23)). People with a diagnosis of a psychotic disorder had three times the overall population death rate.

Conclusions: This study shows that those using mental health services in New Zealand are dying prematurely from both natural and external causes, information not previously available.

Implications: This is important evidence in support of current calls for urgent coordinated action on the physical health of people with severe mental illness in New Zealand. However more evidence about the causes of the mortality gap and the effectiveness of interventions, including interventions in primary care and mental health services, is needed. The present study provides a baseline for ongoing monitoring of the physical health of people with mental illness, and will inform the policy and research needed to address these highlighted inequalities.
The physical health of people with a serious mental illness and/or addiction: an evidence review

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Issue: There is long-established international evidence on the relatively high mortality and physical health problems of people with a serious mental illness (SMI) and/or addiction compared with the general population, and recent New Zealand work on this. However the evidence needed to understand the situation sufficiently to inform a New Zealand-wide response to this inequity has not previously been brought together.

Aim: To provide a summary of good quality research evidence and facilitate application of that knowledge to action which can improve the physical health of New Zealanders with a SMI and/or addiction within New Zealand.

Methods: A narrative review of the international and New Zealand evidence on the physical health status of people with SMI/addictions, the drivers of inequalities and identification of evidence-based interventions to improve the physical health of this group. The review included recent systematic review studies and meta-analyses together with relevant NZ research published after 2000. A ‘call for evidence’ was also undertaken within NZ to identify unpublished work and promising interventions in this area.

Results: New Zealanders with a serious mental illness (SMI) and/or addiction have significantly higher rates of physical health problems including metabolic syndrome (a disorder of energy utilization and storage, diagnosed by a co-occurrence of three out of five of the following medical conditions: abdominal (central) obesity, elevated blood pressure, elevated fasting plasma glucose, high serum triglycerides, and low high-density cholesterol (HDL) levels), viral and oral health diseases, cancer, respiratory diseases, diabetes and cardiovascular disease, and die much earlier than their counterparts in the general population, with a two to three times greater risk of premature death. Two-thirds of this premature mortality is due to cardiovascular disease, cancer and other physical illnesses. The disparity cannot be explained by socio-economic status alone and appears to have worsened in recent decades. The drivers are multi-faceted and include greater exposure to known risk factors, particularly tobacco smoking, and the side-effects of psychotropic medications, primarily weight gain, along with reduced access to and quality of health care treatment. The review has also found that although there is limited evidence on effective interventions, there is sufficient to inform action at multiple levels.

Conclusions: Identifying the disparities is a crucial first step but the next step needs to involve all those who can effect change to work together to improve the physical health outcomes of this vulnerable group, and to monitor mortality and morbidity on a routine basis, to enable understanding of the impact of these changes.

Implications: This evidence review is being used to inform, Equally Well, a collaborative programme of action across New Zealand.
Supporting resilience in Te Tai Tokerau communities: A response to youth suicide

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Issue: In 2012, Northland lost 19 young people to suicide; 15 of these rangatahi identified as Māori. High and inequitable rates of youth suicide in Northland are a critical issue for our communities.

Aims: To build resilience, support protective factors and reduce vulnerability for youth suicide in Northland communities, with a specific focus on rangatahi Māori and their whānau.

Actions/methods: Recognising the complexity of issues and risk factors for youth suicide, Northland DHB developed a three-stranded approach to intervention. This included support for whanau, community, and front-line staff training in risk factors, warning signs, risk assessment and support of youth (QPR and ASIST training); and secondly, supporting schools to train staff and implement the “Travellers” youth resilience programme (Skylight) for Year 9 students. The third element used a “drama in education” approach. The play “Matanui” was written specifically for the programme and toured secondary schools and four community venues over five weeks. Over 3000 students (“25% of youth aged 13-18 years in Northland) and community members participated. A “drama in education” workshop was held after each performance, where students could discuss the issues raised, and “re-write” or “re-direct” sections of the play to create different scenarios. Through role-play, improvisation and group process the students investigated the characters’ actions and the plays themes, drawing from and relating them to their own experiences. The workshops were followed by introductions to local community support services, their networks and the pathways for accessing help.

Results/Achievements: An independent, external evaluation of the programme was carried out, which included youth focus groups, surveys of students attending “Matanui” and interviews. The evaluation found that the training was highly valued and the response to “Matanui” was very positive. Youth identified with the play and engaged with the issues raised; the workshops allowed them to discuss issues that concerned them, and helped them to identify support mechanisms in their communities. Overall teachers and community members reported greater confidence in recognising and supporting youth in need, strengthened relationships between services and in schools, and greater knowledge of the support services available to youth. Youth suicide rates for 2013-2014 to date have shown a marked reduction from 2012.

Conclusions: This programme successfully addressed some known key factors in reducing risk of youth suicide: building youth resilience, identifying support mechanisms and enhancing the confidence of whanau and communities in identifying and supporting youth in need.

Implications: Preventing youth suicide requires a multi-faceted strategy, given the complexity of the issue and multiple risk factors involved. Using a drama in education approach, “Matanui” was particularly successful in engaging youth, and this approach should be considered in designing future youth-focused interventions.
The link between perceived wellbeing and lifestyle behaviours of young adults

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Issue: Unhealthy Lifestyle behaviours such as harmful alcohol use, risky driving behaviour, sexual risk taking peak during young adult years, which has short and long-term implications for health. Despite Many interventions and campaigns being implemented these behaviours remain persistent and some are on the increase. Understanding What drives or prevents young adults from engaging in health-compromising behaviours is limited. One’s self-perception of wellbeing has been identified as a factor that influences lifestyle behavioural choices. A Few recent studies have found an inverse relationship between perceived wellbeing and engagement in risky behaviours such as drink driving, illicit drug use and sexual risk taking. Yet, This relationship has only recently attracted research attention and is not well understood.

Aim: The aim of this study was to investigate the relationship between self-perception of wellbeing and lifestyle behaviours of young adults aged 18—25 Years living in South-East Queensland And Northern New South Wales, Australia.

Methods/action: Cross Sectional quantitative online and paper-pencil survey was conducted with over 1000 Young adults on the basis of convenience sampling. Participants Completed measures of social, emotional and psychological wellbeing and answered questions on a range of lifestyle behaviours including smoking, alcohol and illicit drug use, driving and sexual behaviour. Data Was analysed using SPSS 21.

Results/achievements: Preliminary Analysis of the collected data suggests significant relationships between some dimensions of wellbeing and lifestyle behaviours. The Strength of relationship varied across lifestyle behaviours. Of Particular note are the associations identified with the lifestyle behaviours that are considered to involve greater individual risk.

Conclusions: The Study provided evidence on the association between perceived wellbeing and lifestyle behaviours of young adults.

Implications: Further Research to unpack this association is needed which in turn can then inform the development of interventions to promote health in this population.
Advances in health service information technology systems – opportunities to better understand populations

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Issue: The sophistication of health services information systems has seen major progress in New Zealand over the past 15 years. For instance the establishment of Primary Health Organisations (PHOs) in conjunction with population based enrolment registers has meant that a set of metrics is collected about all people enrolled – the great majority of the population. This has enabled better understanding across populations, in particular about coverage of population health programmes (screening and immunisation programmes) and access to services. More recent information technology (IT) innovations have the potential to increase the usefulness of health service data. This study’s objective was to identify how recent health service IT innovations can enhance our understanding of population health.

Methods: The study was undertaken by a combination of a literature review (including IT programme documents of Canterbury Clinical Network stakeholders) and key informant interviews in Canterbury.

Results/Achievements: Health service IT systems have the potential to impact on population health outcomes through a better understanding of populations; however this is contingent on the availability of a wide breadth of high quality health status and demographic data that is integrated across the health system. PHO enrolment registers have required standardised recording of a set of demographic information (age, address, gender and ethnicity). Data querying tools have been developed to enable PHOs and general practices to analyse population data at a local level. Though this has been useful, the data has been limited to that collected by general practices. Recent innovations such as electronic referral systems and shared care record systems that are accessible to health professionals (and soon to be widened to patient portals) have had the effect of widening the breadth of data available and also have had an impact in the quality of the data. On a larger scale, innovative IT systems (such as Safezone) are being developed that will be able to link anonymised data from a much wider range of health services.

Conclusions: PHO population-based enrolment registers have formed a foundation that has increased our ability to understand populations. The potential of this register is being increased by the addition of IT systems that allow for the integration of other health system data sets, allowing for a wider breadth and higher quality of data.

Implications: Increasingly health services data will be able to contribute to population level information that can inform not only health service provision, but wider health promotion, public health and population level responses to health need.
Children’s exposure to food and beverage marketing in public places

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Issue: The ubiquitous marketing of energy-dense, nutrient-poor (EDNP) foods and sugar sweetened beverages is a key modifiable influence on childhood dietary patterns and obesity. Food and beverage marketing impacts children’s consumption patterns by shaping their food preferences, purchase requests and nutritional knowledge. Regulation to restrict the marketing of EDNP foods and beverages to children has been identified as a cost-effective population-based approach to reduce the prevalence of non-communicable disease associated with childhood obesity. Very little is known about children’s exposure to food and beverage marketing other than via television, and there is no quantifiable evidence of the extent of children’s exposure to the full range of marketing media in public places throughout their day. What is known has been collected by third parties or recalled by participants. Cameras that automatically capture images of people’s everyday surroundings now make it possible to objectively capture children’s daily exposure to food marketing.

Aims: To investigate the frequency, duration and nature of children’s exposure to food and beverage marketing in public places.

Methods: As part of a larger HRC-funded study (Kids’Cam) investigating children’s exposure to food marketing (n=224), a pilot study was conducted with 10 randomly selected Year 7/8 children from a Wellington school. The children wore an automated camera and a GPS device for four days to collect images of their everyday surroundings. Image data was analysed using content analysis. The image and GPS data were initially coded to identify the marketed food and beverage brands and products the children were exposed to, and the location of those features. The nutritional value of the identified food and beverage products or brands was assessed and categorized as healthy or unhealthy using the Food Standards Australia and New Zealand nutrient profiling calculator.

Results: Preliminary findings from the pilot study indicate that children are exposed to food and beverage marketing in the following locations: during the journeys to and from school, whilst out in the community, at sports stadiums, and across the spectrum of everyday environments. Results of the pilot study and preliminary findings from the main study will be presented.

Conclusions: Food and beverage marketing to children is entrenched in children’s everyday environments.

Implications: The findings of this study will inform local and central government policy on restricting food marketing to children in outdoor spaces. A particular focus is reducing the visibility of this marketing in areas children most frequently congregate and spend time. It will also contribute to, and advance the knowledge base on, methods of collecting data on children’s exposure to food marketing.
Do children have a sporting chance? Children’s and parents perspectives on the sport-related food environment

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Issue: Children have a right to live and grow up in a healthy food environment, and for their parents to be supported in providing that environment. Sport, as physical activity, partners food and nutrition in the energy balance equation, and as such presents an ideal setting for health promotion. However, an emerging body of evidence demonstrates that the sport-related food environment is dominated by EDNP foods and beverages. Sport is an integral part of many children’s lives and therefore also constitutes an important part of their food environment.

Aims: This study aimed to explore children’s and parents’ perspectives on the sport-related food environment, specifically:

a. What does the sport-related food environment look like from the perspective of children and parents?
b. What are children’s and parents’ opinions, attitudes and beliefs about the sport-related food environment?
c. Does the sport-related food environment support parents in providing a healthy food environment for their children?

Methods/Actions: Children (n=75) and parents (n=28) were purposively selected from rugby, netball and football clubs in Wellington, New Zealand, and given cameras to record the food and beverage-related items they associated with sport. The children’s and parents’ photographs were used in focus groups to their beliefs, attitudes and opinions on the sport-related food environment. The Analysis Grid for Environments Linked to Obesity (ANGELO) framework was used to conceptualise the sport-related food environment. The data were analysed using thematic analysis and the findings contextualised using the UN Convention on the Rights of the Child.

Results/Achievements: Children and parents described an environment dominated by EDNP foods and beverages. They reported that the sport-related food environment conflicts with the positive physical activity nature of the sport setting and the food-related health promotion messages the children receive. Children and parents both report that aspects of the sport-related food environment influence children’s food and nutrition behaviours. Young people and parents recognise that children are deliberately targeted by food companies for commercial gain. Most parents said that the current sport-related food environment was unsupportive of their efforts to provide a healthy food environment for their children, and presented a barrier to positive eating behaviours among their children.

Conclusions: Overall, the findings demonstrate that the current sport-related food environment does not support children’s rights.

Implications: The findings indicate a comprehensive policy approach is required to improve the sport-related food environment, using UNCROC as a framework for policy development. Strategies include establishing food policies at sports-settings, from club level through to professional sports, the implementation of healthy food initiatives at sports clubs, and replacing food industry sponsorship of sport with health promotion advertising. Broad public health strategies, particularly the marketing of EDNP foods using sport, would support these strategies, and also have a positive impact on children and parents. Parents, sports coaches and administrators, and health professionals have a role to play in this arena, guided by local and central governments, and the global community.
An examination of pre-school aged children’ perceptions of health and knowledge of healthy lifestyle behaviours

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Issue: Childhood obesity is one of the most serious public health challenges of the 21st century. Early childhood is considered a key target age in the prevention of overweight and obesity, as this is a critical life-stage in which children accumulate knowledge and information about lifestyle behaviours, which may influence health behaviours later in life. Thus, it is important to initiate health education before unhealthy behaviours are established as habits. In order for effective health programs to be designed and implemented, it is crucial that health promotion professionals have a better understanding of children’s knowledge and perceptions of health and health behaviours. This will enable early childhood educators and early years health promoters to design and implement interventions that are developmentally appropriate.

Aim: The aim of this study was to examine pre-school aged children’s (aged 3---5 years) understanding of health and knowledge of healthy lifestyle behaviours including physical play and food choices.

Methods/Action: The study included quantitative pre and post impact evaluation of a healthy lifestyle intervention using a computerised photo---pair food and exercise questionnaire and an age appropriate test of executive function. Qualitative semi---structured interviews were conducted to explore children’s perceptions of health. The study included 80 children aged 3---5 years and was structured with an intervention and a control group. To determine if results varied with socio-demographic characteristics a demographic questionnaire was completed by parents. Qualitative data was analysed using a thematic analysis process and quantitative data was analysed using SPSS v22.

Results/Achievements: Preliminary analysis of quantitative and qualitative data suggests significant relationships between socio-demographic characteristics, executive function and preschool children’s perceptions of health and knowledge of healthy lifestyle behaviours. Results also indicated that there was a significant improvement in the identification of healthy and unhealthy nutritional habits and physical activities post intervention.

Conclusions: The study provided evidence on the association between socio-demographic characteristics, executive function and pre-school aged children’s perceptions of health and knowledge of healthy lifestyle behaviours. The study also highlighted that age-appropriate lifestyle interventions with pre-school aged children can lead to improved knowledge and understanding of healthy lifestyle choices.

Implications: Pre-school is a critical age for early formation of lifestyle habits including physical activity and food choices. Day care centres represent an under-utilised setting within which age-appropriate interventions could be delivered to a broad cross section of pre-schoolers with the potential for long-term positive impacts on lifestyle and wellbeing.
Measuring food literacy in New Zealand primary school children

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Issue: To date, public health strategies have failed to curb the increasing prevalence of obesity in children. This reflects, in part, declining knowledge about food and poor food skills; tools that are needed to navigate an increasingly complex food environment. Food literacy is an emerging term to describe the knowledge, skills and behaviours required to achieve a healthy and environmentally friendly diet. Improving food literacy will facilitate individuals to make healthier food choices with subsequent improvements in nutritional and health outcomes. However, an accepted measure of food literacy does not exist at present.

Aim: To develop a questionnaire to assess food literacy in primary school children and subsequently evaluate the questionnaire for validity and reliability.

Methods/Action: An online questionnaire for school children aged 9---10 years was developed based upon the components of food literacy identified from the literature. The questionnaire consisted of 65 items in three sections: food origins, nutrition knowledge and food knowledge and skills as well as a demographics section. The questionnaire underwent three phases of testing with revisions made after each phase. In Phase 1 the questionnaire was reviewed by an expert panel (n=11) to assess content validity. In Phase 2 the questionnaire was pre-tested with children using cognitive interviews (n=4) and a focus group (n=4) to assess face validity. In Phase 3 the questionnaire was pilot tested with n=85 children in two New Zealand primary schools on two occasions to assess reliability and conduct item analysis. Internal reliability was assessed using Cronbach’s $\alpha$ and test retest reliability using kappa statistics (for individual items) and intraclass correlation coefficients (for each section and the overall questionnaire). Item analysis involved determination of item difficulty and item discrimination for each item.

Results/Achievements: In Phase 1, the overall questionnaire achieved a Content Validity Index of 0.83, indicating good content validity. In Phase 2, the questionnaire was revised to ensure children were correctly interpreting items and achieve face validity. In Phase 3 items that failed to meet item difficulty and discrimination criteria were removed from the questionnaire. The internal consistency of each questionnaire section was acceptable to good (Cronbach’s $\alpha 0.69---0.79$) and Intraclass Correlation Coefficients showed good test retest reliability for each questionnaire section 0.69---0.83) and the overall questionnaire (0.89). Each phase of questionnaire development progressively improved the questionnaire, resulting in a final 42---item questionnaire.

Conclusions: This study describes the development of a self---administered questionnaire that comprehensively assesses food literacy in 9 ---10 year old New Zealand children. To our knowledge, this is the first valid and reliable method to assess food literacy in any population group.

Implications: Possible future applications of the food literacy questionnaire developed in this study include: observational studies to identify associations between food literacy score and health outcomes including overweight and obesity; cross sectional research to identify areas of poor food literacy performance to guide public health strategies and to inform national food and nutrition school curriculum; and as a tool to assess the effectiveness of food literacy interventions.
Does food literacy influence adolescents' dietary intake?

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**Issue:** During the past three decades, many epidemiological studies have presented evidence for the essential role of dietary intake in the prevention and control of morbidity and premature mortality resulting from chronic diseases and obesity. However, attempts to reduce the prevalence of overweight and obesity in adolescents have resulted in minimal to modest outcomes. It has been suggested that these outcomes have occurred because previous interventions have failed to connect food knowledge, skills, and critical decision making about dietary intake. Collectively, these concepts are called “food literacy”, and could be the key to improving the outcomes of future interventions.

**Aim:** to investigate the evidence on the association between food literacy and adolescents’ dietary intake.

**Methods/action:** This study employed a systematic review of the literature approach. The review included searches of six databases with no restriction on the year of publication or language. Studies were limited to adolescent population aged 10 to 19 years.

**Results/achievements:** Thirteen studies were eligible for inclusion. None of the studies investigated all aspects of food literacy. Eight studies reported a positive association between food literacy and adolescents’ dietary intake. For example, adolescents with greater food knowledge and frequent food preparation behaviours were shown to have healthier dietary practices. Three studies found a mixed association of food literacy and adolescents’ dietary intake. For example, adolescents who frequently helped to prepare dinner had healthier dietary intake, but food shopping tasks were associated with less healthy food choices. Two studies found no association between measures of food literacy and adolescents’ dietary intake.

**Conclusions:** Food literacy may play a role in shaping adolescents’ dietary intake. More rigorous research methods are required to effectively assess the causality between food literacy and adolescents’ dietary intake in order to confirm the extent of the relationship. None of the studies incorporated a holistic and comprehensive tool to measure food literacy. Rather, studies measured only one or two aspects of food literacy. However, findings suggest that food skills and behaviours learned in adolescence are sustained later in life. In addition, the review suggests that improving food literacy may improve individual’s food skills and healthier dietary behaviours. Evidence recommends public health practitioners and policy makers to consider new public health strategies which focus on increasing understanding of food literacy in adolescence.

**Implications:** Systematic review identified numerous gaps in the literature and will inform the development of further research in this area.
The relationship between health literacy and alcohol consumption patterns among young adults in Australia: Implications for health policy

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Issue: Alcohol consumption is intrinsically part of Australian culture. One of the prominent features of the drinking culture among young adults in Australia is binge drinking, which represents a serious threat to health, especially in combination with the emerging trend of alcohol energy drinks (AEDs). The predominant strategy to promote moderation in drinking by young adults is to increase their awareness of the negative consequences of excessive alcohol consumption. Such strategies are based on the established behavioural models linking health knowledge, and more recently health literacy, with behaviour. Yet, limited research has examined the relationship between alcohol consumption and health literacy in young adults.

Aims: The aim of this study was to examine the association between health literacy and alcohol consumption patterns, and more specifically AED consumption patterns, in Australian young adults.

Methods/Action: A cross-sectional study design was used to collect data on health literacy and alcohol consumption. University students aged 18-24 years were approached in person on Gold Coast and Brisbane university campuses in Queensland, Australia. 271 participants completed the Health Literacy Survey (HLS-EU) to assess health literacy levels, and the Standardized Measurement of Alcohol Related Troubles (SMART) questionnaire to determine alcohol consumption patterns. Alcohol consumption patterns and health literacy relationships were analysed using SPSS.

Results/achievements: Results showed that of the participants who were current drinkers (N = 204), 67.6% (N = 138: 66 men, 72 women) engaged in binge drinking at least once in the previous four weeks, whereas 29.4% (N = 60: 30 men, 30 women) reported binge drinking at least once a week, and 9.8% (N = 20: 12 men, 8 women) at least three times a week. In addition, 18.1% (N = 37) of the current drinkers had consumed AEDs at least once in the previous four weeks. Statistical analysis showed that the frequency of binge drinking was significantly higher for AED consumers (median = 6.0 AED consumer vs. median = 1.0 non-AED consumer, p <0.001). Health literacy was not related to riskier alcohol consumption patterns. Additionally, no difference was found in health literacy between AED consumers and non-AED consumers (mean = 35.816, S.D. =6.682, mean = 36.377, S.D. =6.513 respectively, p = 0.641).

Conclusions: The results suggest that risky alcohol consumption is highly prevalent among Australian young people and that the emerging trend of AED consumption is not an isolated development. Whilst it has often been argued that increased health literacy among young adults will lead to safer alcohol consumption practices by this age group, the results indicate this may not be the case.

Implications: From a public health policy perspective, it is of utmost importance that both binge drinking and AED consumption are addressed. The findings of this research indicate that the focus should not solely be on health literacy. Rather than investigating the potential effect of presenting different health-related messages on alcoholic consumption, research should be directed towards developing innovative age relevant strategies targeting the drivers for youth alcohol consumption.
Improving the health literacy of secondary school students through engagement in health promotion activities with student nurses

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Issue: Porirua is an ethnically diverse area with more than 60% of youth either Maori or Pacific. Many of the youth who live in Porirua are living in one of the most socio-economically deprived areas of New Zealand. This has an impact on their health, education and potential employment opportunities.

Main aims: The aim of the project is to firstly increase the health literacy of secondary students in low decile schools by providing age appropriate health information in a positive, fun and interactive learning environment. The second aim is to enable Student nurses enrolled in the Bachelor of Nursing programme at Whitireia Polytechnic to learn how to apply knowledge of health promotion and health literacy to nursing practice within a specific population group.

Method: Student nurses have organised and run a health promotion day at two Porirua colleges as an annual event. The student nurses worked in groups and provided interactive stands on a range of health topics that teach and inform secondary students about improving and maintaining positive health habits. The health promotion exposition was held in the school hall for one day. During each school period two to three classes of secondary school students visited and participated in the health promotion activities.

Achievements: The success of each day has been twofold. The college students benefited from the range of activities and methods that were used to learn more about their own health and wellbeing. The student nurses gained skills in the implementation of an appropriate health literate, health promotion programme of relevant health issues, as well as practicing communication skills with a range of adolescents.

Conclusions: When health information is presented in a fun, interactive way, college students are engaged and open to learning new information. Feedback indicates that the health promotion day is beneficial to college students and potentially increases their level of health literacy. The student nurses are often surprised at the low levels of knowledge and ability of college students in relation to their own health. By being able to put into practice the knowledge student nurses learned in class they can actively provide appropriate and meaningful learning experiences for youth.

Implications: These health promotion days provided an excellent avenue for College students to learn about their own health and wellbeing, as well as the provision of opportunities for student nurses to apply theory to practice. The positive feedback and outcomes from the day show that it is a meaningful project and worthwhile continuing.
Will New Zealand achieve a smoking prevalence under 5% by 2025 under current trends? Results of an updated Tobacco Forecasting Model

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Issue: The New Zealand Government has a goal to reduce smoking prevalence and become ‘essentially a smokefree nation by 2025’ (i.e., smoking prevalence of under 5%). It is useful for policy making to have projections of what the smoking prevalence will be as we progress to 2025, under current rates of change in initiation and cessation — or what we term business as usual (BAU) projections.

Objectives: To forecast smoking prevalence by sex and ethnicity out to 2025 and beyond under a BAU scenario.

Methods: We used census smoking prevalence data from 2006 and 2013 (the latter adjusted to estimated prevalence had there been no tax increases since 2010), background mortality data, relative risks of death between current/ex and never smokers, and population count data. These data were brought together in a dynamic population Markov model. We calculated changes between 2006 and 2013 in initiation by age 20 years and net annual cessation rates at older ages, by sex, age, and ethnicity. We then used these initiation and cessation rates to forecast future smoking prevalence, adding back in the ‘tax effect’ till 2014, then forecasting forward in time assuming no further tax increases.

Results: Between the 2006 and 2013 censuses (adjusted for no tax increases since 2010), initiation by age 20 years decreased annually by 3.4% (95% uncertainty interval 3.2% to 3.6%) and 2.7% (2.5% to 2.8%) for non-Māori men and women, and by 2.9% (2.6% to 3.2%) and 3.2% (2.9% to 3.5%) for Māori respectively. Annual net cessation rates ranged from 3.7% to 7.7% across demographic groups. The projected smoking prevalence in 2025 (with tobacco tax increases to 2014 then constant tax), was 8.3% and 6.4% for non-Māori, and 18.7% and 19.3% for Māori men and women respectively. Under this BAU forecasting scenario, an under 5% smoking prevalence will be achieved by non-Māori males and females in 2040 and 2031, and for Māori females by 2060 and males sometime after 2060. Only in one scenario analysis with relatively optimistic changes in initiation and cessation rates, did one population group (non-Māori women) achieve the 2025 goal (i.e., 50% increase in net annual cessation rates, and 50% increase in the annual percentage reduction in smoking prevalence by age 20 years).

Conclusions: The 2013 census showed notable reductions in smoking prevalence since 2006, especially for Māori. But even using these data, and allowing for taxes to 2014, the current forecasting suggests that the New Zealand Government’s smokefree 2025 goal will not be achieved for any demographic group and large inequalities will remain.

Implications: For New Zealand and countries in a similar phase of the tobacco epidemic it is likely that more intensive existing tobacco control interventions, or entirely novel ones (e.g., gradually phasing down nicotine levels to a non-addictive level or major reductions in the number of tobacco retail outlets), will be needed to achieve tobacco endgame goals.
Advocacy strategies for public health policy gains

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Issue: Engaging in local and central government consultation processes is an important strategy to improve population health outcomes. In recent years Cancer Society Auckland Health Promotion team has focused its capacity on influencing political processes for public health gain. This has included leading a Smokefree Auckland campaign aimed at local government level.

Aims: Cancer Society Auckland (CSA) will outline their Smokefree Auckland campaign processes and strategies that have influenced and underpinned Auckland Council’s adoption of tobacco control goals aimed at achieving a Smokefree city.

Methods/Actions: Policy advocacy can be a powerful tool. Using research to highlight public opinion can effectively engage high profile media and put pressure on politicians to strengthen public health policy. This presentation highlights the results from the research and CSA’s approach to effectively influence Auckland Council. Strategies included a non-funded media campaign timed carefully to be a few days before council voted on the policy. This resulted in two hard hitting Herald articles and National Radio interview. Community members added weight to the key messages, through Breakfast TV airing a CSA video with families voicing strong support for a comprehensive Smokefree policy and a Smokefree vision for Auckland.

Effective collaborations and the planned timeliness of the research dissemination through the media ensured the research results could not be ignored by Council. This example of policy advocacy demonstrates how a carefully planned, focused campaign, customised to the different policy actors put pressure on local government politicians and policy writers and as a result strengthened the contents? Of the Smokefree policy as well as helping to ensure that it was adopted.

In addition, this presentation will highlight how recruiting and training a group of Community advocates is an effective strategy for CSA to extend its reach and influence decision makers to prioritise tobacco control as an important public health issue. It was also a way to support local people to have a voice on important issues in their local area. The community advocates were trained to make written and oral submissions, use their networks to generate submissions and be proactive in local media.

Results/Achievements: The advocacy strategies utilised in this campaign were highly effective. Overall, Auckland Council set bold Smokefree goals and this was underpinned by the adoption of a comprehensive Smokefree policy. CSA will demonstrate the impact of research as a mechanism to generate media. CSA will also present measures of the impact community mobilisation had on Council prioritisation of Smokefree.

Conclusions: Utilising media, research and community engagement are effective strategies to influence political processes and ultimately population health outcomes.

Implications: CSA will share key decisions, learnings and successes of campaigns they have undertaken to achieve broad change on a population health level. These advocacy strategies will be transferable and relevant across public health issues.
Some effects of tobacco brand descriptors on smokers perceptions and behaviours

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Issue: Plain packaging of tobacco products removes evocative brand imagery.[1, 2] Australian tobacco companies have responded by developing novel and appealing brand descriptors that recapture connotations formerly communicated by brand livery.[3] New Zealand could close this loophole when finalising the Smoke-free Environments (Tobacco Plain Packaging) Amendment Bill, but will require evidence documenting how descriptors affect smokers’ perceptions and behaviours to justify regulatory action.

Aims: We estimated the effect different categories of descriptors had on smokers’ choice behaviours, and their perceptions of harm and quitting ease, and provided policy makers with evidence to inform the final Act’s provisions and.

Methods/Action: We undertook an online survey of 254 self-defined daily smokers or occasional smokers aged between 18 and 34. A within-subjects choice experiment used a 2 x 4 x 4 x 4 design with four attributes: quality, taste, connotation, and colour, and compared packs featuring different variant combinations; respondents viewed showcards featuring four options and identified the ones they would be most and least likely to select. A balanced incomplete block design resulted in 16 blocks, each comprising 16 choice sets, which were presented randomly to respondents. In a between-subjects phase, respondents viewed one of two alternative packs that featured simple and compound descriptors, and evaluated these according to the pack’s perceived harm and ease of quitting. We used Scale-Adjusted Latent Class Models (SALCMs) to identify a statistically defensible number of preference and scale classes from the choice experiment data.

Results/Achievements: Overall, the most important attribute was the connotation, followed by taste, colour and quality; within these attributes, the most attractive descriptors were “classic” and “smooth”. Further analyses identified four distinct respondent segments whose members differed significantly in their attributes, choice patterns and preferences. For example, one segment, which constituted 21% of the sample, was predominantly female and contained more Maori or Pacific respondents; members smoked roll-your-own tobacco on a daily basis and preferred red cigarettes. The largest segment (39% of the sample) had an older, female profile and contained more social smokers who preferred any cigarette colour other than red. Members were more likely to have made a quit attempt in the last six months, though had lower quit intentions.

Conclusions: Some descriptors significantly enhance the appeal of tobacco products and ensure these resonate with different groups of smokers. These effects could counter-act plain packaging’s dissuasive intent and should be addressed in legislation enacted in other countries.

Implications: Plain packaging regulations should explicitly regulate brand descriptors to disallow the “poetry on a package” increasingly evident in Australia. Given the difficulty of anticipating every brand descriptor that may emerge, policy makers should consider banning descriptors altogether.

The newest and best thing since sliced bread! A case study of the challenges the health sector faces while formulating a response to new and emerging products such as e-cigarettes

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Issue: There is a market for products, which claim to help people quit smoking tobacco or reduce the harm associated with smoking. Such claims have been made about electronic cigarettes (EC), which recently appeared on the market and are based on a new technology. Subsequently, the health sector is being asked for an opinion and advice on their safety and efficacy. This is challenging because in the beginning, there is a lack of information on the products and on their short-term and long-term effects. It takes time for researchers to gather evidence and in the meantime, decisions are often made on the basis of ‘best guess’ or opinion.

EC have polarised the tobacco control sector with some believing that these devices may play an important role in contributing towards a Smokefree New Zealand/Aotearoa 2025, by assisting people either to quit or to replace smoking. Others have concerns that EC may impact adversely on individual and population health, perpetuating nicotine addiction, re-normalising smoking behaviour, promoting dual use, and fearing that they might be a gateway to smoking tobacco. Concern has also been expressed about the tobacco industry diversifying and buying up companies producing nicotine delivery devices.

Aims: One of the Ministry of Health’s functions is to provide robust advice to the Government and the health sector. While considering conflicting opinions and evidence, policy options and a regulatory framework need to be developed that will support the health of all New Zealanders and support the Government of the day’s priorities and goals.

Actions: The Ministry took note of the World Health Organization’s advice, recommending a precautionary approach, and the emerging knowledge base. We have been wading through advertising images, propaganda, misinformation, blogs and media articles quoting anecdotal experiences with EC. Like other countries, New Zealand has applied its existing regulations to provide a regulatory framework for the new products: the Medicines Act 1981 and the Smoke-free Environments Act 1990.

Achievements: Our initial assessment has identified a range of concerns on EC, which need addressing, such as their quality and safety. The complexity of issues and unknowns, which need consideration, is a case study on the challenges, which the health sector may face when a new product is introduced with possible impacts on the health of consumers and non-consumers.

Conclusions: How a society determines its approach to a new nicotine product is the outcome of many influences. The tobacco control sector has been leading the way in New Zealand on how to effectively and comprehensively address a major health issue. We have learned many valuable lessons, which have informed our progress towards our aspirational goal as a country. The sector is now at a critical point to decide whether EC will help or hinder further progress.

Implications: Ongoing policy debate on and additional measures for EC and any other nicotine products that might be introduced in the future are needed so that valid concerns are addressed. The Ministry will receive direction for the national health priorities by the newly-elected Government in the near future, which may include its position on electronic cigarettes.
Taking the ABC to the community - engaging other sectors in the tobacco endgame

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Issue: Smoking kills around 5,000 New Zealanders a year and is a risk factor causing significant morbidity. The New Zealand Government has ratified the goal of a Smokefree Aotearoa by 2025, and to achieve this, a range of sectors need to be engaged to actively work towards this goal. The ABC (Ask, Brief Advice, Cessation) Strategy for Smoking Cessation has been successful in involving health professionals in primary and secondary care to identify patients who smoke and provide them with advice and support to quit. Progress towards the 2025 goal requires all sectors to make changes to denormalise smoking and reduce smoking prevalence to <5%.

Aims: To develop a flexible approach supporting a range of social sector organisations, TLAs and workplaces to engage with the 2025 goal by developing policies, building the ABC Strategy into their routine work and providing cessation support both to their staff and to their clients, as appropriate.

Action: A range of organisations were approached and an ABC intervention designed in a collaborative, dynamic way, reflecting the particular needs of the organisation, its staff and clients, and the opportunities to incorporate a version of the ABC into their work. The intervention was a mix of policy development, education of staff and system development. A full evaluation of the first organisation which became engaged (the Salvation Army) measured baseline attitudes to implementing an ABC initiative (quantitative and qualitative), and delivery of the intervention some months after the pilot period. It was envisaged that the systems developed to embed the ABC into routine care and to document the intervention would be available to other organisations as they became engaged.

Results/Achievements: Efforts to systematise the documentation of ABC within social service organisations have not really been realised, thus it proved difficult to measure delivery. Qualitative data showed clear and positive changes of attitudes in staff after the establishment of the intervention. Each agency that became engaged required an individual response, and transfer of the systems promoted in the Salvation Army were not easily transferred to other organisations.

Conclusions: Delivery of ABC in the community requires a flexible and collaborative approach, and development of an intervention tailored to the specific organisation. This presentation outlines the various ways that the ABC Strategy for Smoking Cessation can be incorporated into social service, statutory and community organisations using work done with the Salvation Army, the Christchurch City Mission, the Christchurch City Council and some mental health NGO groups as illustrations.

Implications: Engaging the community in the Smokefree Aotearoa 2025 goal takes time to develop relationships, understand the structure and operation of the organisation / group, and negotiate the most appropriate way that smokefree can be embedded in practice. The outcome can be very powerful, as other sectors become active in the journey to 2025.
National mental health services smokefree guidelines development: Shifting the culture

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Issue: The Ministry of Health is funding innovative projects that target vulnerable populations with high smoking prevalence. This project targets people with mental health illness (PWMHI) who are less likely to receive smoking cessation advice (1), despite being more likely to be nicotine-dependent, to have smoked for longer and to smoke more heavily than the general population (2). A contributing factor has been a strong historical culture of acceptance and tolerance of tobacco use across mental health services (MHS), which in turn has influenced the 32% prevalence rate.

Aims: The main aim of this project is to develop national smokefree (SF) guidelines and educational resources specifically for MHS, with a view to improving smokefree support to PWMHI. Achieving this cultural shift requires an attitudinal change across MHS and a high level of understanding of this issue.

Methods/Action: We engaged with a wide range of MHS and their workforce from six District Health Boards inclusive of their contracted MHS non government organisations: Hawke’s Bay; Tairawhiti; Taranaki; Counties Manukau; Invercargill and Dunedin. During focus groups and interviews we asked what works and what the specific challenges are, when supporting PWMHI to be SF. A demonstration phase includes collaborative programme development. The programme implementation phase will be evaluated to measure its effectiveness.

Results/Achievements: Key findings from the project engagement phase are: poor general communication and inconsistent SF messaging, attitudes and practice amongst individuals within each service and between all the MHS a PWMHI accesses; how role-modelling smoking behaviour undermines organisational SF commitment; and smoking harm and nicotine addiction are perceived as less of a health risk than the presenting MH issue. The demonstration phase involves a working group formed from representatives from each HB MHS. They are tasked with developing tools to consistently track SF journeys across MHS and coordinate their staff’s attendance at a mandatory smokefree educational programme designed specifically to address the themes identified.

Conclusions: Thematic analysis coupled with a brief evidence review (BER), indicate that much SF progress has been made within the MH sector which is indicated by some staff and some services, demonstrating a strong SF commitment. However, it is clear that inconsistent SF practice and attitudes are continuing to undermine SF progress.

Implications: Due to the diversity of MHS locally and regionally, it is clear that a one-size-fits-all approach is not possible. Therefore this project is facilitating a local process to find local solutions to implement and achieve national best-practice. In this way, whilst the desired change may be expressed through individuals, the focus is primarily on organisational change.

The main aim of this project is to develop national smokefree (SF) guidelines and educational resources specifically for mental health services (MHS), to improve SF support to people with mental health illness. Achieving this cultural shift requires an attitudinal change across MHS and a high level of understanding of this issue. We engaged with a wide range of MHS and their workforce from six District Health Boards inclusive of their contracted MHS NGOs. During focus groups and interviews we asked what works and what the specific challenges are, when supporting PWMHI to be SF.
Quickmist – a Smokefree initiative with adults with serious mental illness

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**Issue:** People with a mental illness have smoking rates two to three times the rate of the general population, with many also identified as heavy smokers. There is limited evidence of effective smoking cessation interventions targeted at this population group.

**Aim:** To understand the effectiveness of Quickmist, the nicotine mouthspray in supporting adults using mental health services as well as the staff supporting them to quit smoking.

**Methods:** One hundred and seventy eight people responded to an email asking who wanted to trial Quickmist. Of these, 73 people decided to attempt to quit. A mix of quantitative and qualitative methods were used to gather data. Interviews were conducted to understand people’s views on the product along with carbon monoxide monitors to measure levels of carbon monoxide in exhaled breath to determine smoking status at 4 weekly intervals.

**Results:** Out of the 73 trying to stop smoking, 37 were successfully Smokefree 4 weeks later 51% (48% of staff who indicated intent to quit and 62% of people using services who indicated intent to quit). Another 42% of people who remained smoking (38% of staff and 41% of people using services) reported having significantly reduced their tobacco consumption. Both outcomes were validated with carbon monoxide monitors. Overall, the product was generally liked and preferred over traditional types of nicotine replacement. It seemed to be less aversive so more likely to be used, more convenient to use and strong enough to relieve cravings quickly.

**Conclusions:** This study shows that those using mental health services in New Zealand can be supported to stop smoking or reduce their smoking using Quickmist mouthspray, a population group that had access to traditional forms of nicotine replacement therapy products that had not been evidenced as helpful in the past.

**Implications:** This is important evidence in support of calls from people using mental health services to be supported to quit smoking by providing subsidised access to the new nicotine replacement product, Quickmist. This NRT is not currently subsidised and there are concerns that the price is a barrier for people to try it compared to traditional forms of NRT (Patch, Gum, Lozenge) which are subsidised.
Climate change and the right to health for Maori in Aotearoa/New Zealand

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Issue: Climate change threatens to exacerbate existing inequities in health between Māori and non-Māori in Aotearoa/New Zealand. Yet the challenges posed by climate change are accompanied by considerable opportunities to advance indigenous rights and reduce health disparities. New Zealand, having ratified human rights treaties that include the right to health, must be accountable to its obligations relating to climate change and Māori health.

Aims: We sought to elucidate the relationships between climate change and Māori health from a right-to-health perspective, and to identify obligations for the New Zealand government.

Methods/Actions: We examined issues related to climate change and Māori health using a right-to-health analytical framework. The scope for this analysis included the effects of climate change itself, approaches to minimise climate change by limiting greenhouse gas emissions (mitigation) and future adaptations to a warmer climate (adaptation).

Results/Achievements: Climate change, if allowed to continue unchecked, is incompatible with progressive realisation of the right to health for Māori in Aotearoa/New Zealand. It is also clear that both mitigation and adaptation to climate change pose serious threats to the right to health for Māori if equity is not prioritised.

Conclusions: The New Zealand government has obligations arising from the right to health to address a broad range of issues at many different levels. The analysis we have conducted identifies a number of important areas where the government is currently failing to meet these obligations, as well as future measures that are required in order to avoid further encroaching on the right to health for Māori.

Implications: Based on the findings of this work, there is a clear obligation on the New Zealand government to dramatically and urgently reduce domestic greenhouse gas emissions. Climate change mitigation strategies with clear health and equity co-benefits should be adopted immediately with appropriate monitoring and evaluation. Other interventions need to be designed, implemented and evaluated carefully in partnership with indigenous communities. It is important that these efforts are underpinned by a commitment to self-determination for Māori communities and respect for indigenous philosophies and knowledges.
Health co-benefits of policies to mitigate climate change in the transport sector: systematic review

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Issue: Theory, common sense and modelling studies suggest that some interventions to mitigate greenhouse gas (GHG) emissions in the transport sector can, in addition to the long term benefits from stabilising the global climate, have substantial short term benefits for population health. Policies that encourage active modes of transportation, for example, may increase population physical activity or decrease air pollution exposure. This can reduce the population burden of a number of conditions including some cancers, diabetes, heart disease and dementia.

Aims: To review the evidence on whether policies that decrease transport sector GHG emissions have a measurable effect on health determinants, population health and/or health inequalities under ‘real world’ conditions.

Methods: Design: Systematic review. Data sources: We included published and unpublished reports, identified from searching 12 electronic databases, reference lists, existing reviews, websites and contacting experts in the field. Eligibility: Observational or experimental studies with a control group and time series studies were included. Studies were included if they examined a ‘real life’ intervention/policy/natural experiment in the transport sector, and measured health behaviours or outcomes, and calculated GHG emission change.

Results: We included 22 studies of 11 interventions in four countries. Most studies were of quasi-experimental design and published in the grey literature. Eight were interventions of personalised travel planning, two involved legislative changes (one to enable a congestion charge in Stockholm, one a ‘cash-out’ of employee parking benefits), and one was a multifaceted intervention in three towns to promote sustainable modes of travel. Studies were focused on land transport only and almost exclusively on policies that try to change individual behaviour. There was little assessment of how these interventions could impact on health inequalities. All studies reported decreases in GHG emissions as a result of their interventions; however methods to assess emission changes varied in robustness. Health benefits reported from the studies included modest increases in physical activity (for example an average increase of two to three minutes a day walking for transport purposes) and reductions in mortality from air pollution. Study quality, with one exception, was poor.

Conclusions: The observational evidence supporting the concept that changes in transport policy can impact positively on population health while reducing GHG emissions is limited and of poor quality.

Implications: Research quality urgently needs to improve, as does the breadth of the types of interventions studied. There are exciting opportunities for innovative study designs and methodologies to answer research questions in this important area. The need for public health practitioners to work more closely with the transport sector is paramount [1].

Integrated decision-making about housing, energy and wellbeing

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Issue: The UK Government has an ambitious strategy to reduce greenhouse gas (GHG) emissions from housing, as part of its commitment to reducing overall GHG emissions by 80% by 2050. Meeting these ambitious goals will require major shifts in the structure of houses and energy use behaviour. The complexity of the housing stock, the importance of houses in people’s lives, and the breadth of agencies responsible all make housing an important area of policy failure and unintended consequences. A variety of government departments are working towards separate housing goals, including: reducing fuel poverty; climate change adaptation and improving housing affordability. Integrated thinking about these sometimes-contradictory goals is largely missing. Novel methods are needed to support policy-making in such complex systems.

Aims: The Integrated decision-making about housing, energy and wellbeing (HEW) project aims to
1. Develop a complex system understanding of how housing, energy and wellbeing are inter-related dynamically over time
2. Increase the capacity of a range of stakeholders to influence policies about housing in response to that growing shared system understanding
3. Develop small strategic simulation models to support policy-making about housing, energy and wellbeing and use these within repeated policy cycles

Methods: We are using participatory system dynamics (SD) modelling to in a collaborative learning process about housing, energy and wellbeing in the UK. We invited participants across government departments, industry, non-government organisations, community groups and academics. We used qualitative semi-structured interviews with cognitive mapping and SD workshops to develop a qualitative SD model of housing, energy and wellbeing, as well as a set of shared criteria for assessing policy options. We tested the usefulness of the qualitative model by exploring the future impacts of a real policy proposal on the agreed set of policy assessment criteria. We have been assessing the effectiveness of the research through a range of reflective methods.

Achievements: We have recruited over 50 stakeholders from 35 organisations. The group includes cross-sectoral government players with influence on a range of policies. We interviewed 35 stakeholders. From the interviews and workshops we developed a shared overall framework for wellbeing related to housing and a set of nine policy assessment criteria. We also developed a collaborative qualitative system dynamics model comprising seven sectors (community connection and quality of neighbourhoods; household crowding; housing affordability; fuel poverty and indoor temperatures; ventilation and indoor air pollution; energy efficiency and climate change; and land ownership, value and development patterns).

Implications: For the first time, this policy-oriented research has brought together stakeholders working on different objectives for UK housing. We have demonstrated shifts in thinking across the stakeholder group, as well as shown the usefulness of the qualitative model for considering new policy options. This is the start of a programme of research to develop strategic simulation modelling using UK data and research to validate the qualitative model; explore the dynamic effects of policies in the future and support integrated policy decisions.
Planning for healthy environments: The interface between public health and environmental planning in New Zealand

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Issue: The urban environment in which people live, work, learn and play influences the decisions we make, and directly affects health outcomes. Poor urban form can include a lack of access to facilities; unhealthy air, water, and soil; ineffective waste disposal; and lack of community cohesion. These contribute to obesity, diabetes and other health problems, as well as to poor mental health and wellbeing. Research and experience has found opportunities for incorporating health into planning. So why are cities often not planned and designed to promote good health? And how can the public health sector contribute to making this happen?

Aims: The aims of this research were to:
1. Identify existing innovative initiatives between public health and urban planning to promote healthy environments.
2. Highlight reasons for success, opportunities, and barriers to planning for healthy environments in Aotearoa.
3. Identify ways the Public Health Association, its networks and other organisations it works with, can contribute to healthy urban planning.

Methods/Action: An initial literature review, using material from Aotearoa and overseas, confirmed the importance of urban form and design to healthy lives. The review confirmed the overlapping interests of public health and urban planning and identified key barriers and opportunities. Stage 2 will build on these findings with key practitioner national interviews, followed by Stage 3 exploring local case studies of healthy environment initiatives. Factors that made these cases successful will also be examined and analysed.

Results/Achievement: The literature review identified a number of planned healthy environment activities and collaborations between public health units, local authorities, and government agencies. However, there is no clear consistent approach to planning for healthy environments in Aotearoa. Further, there is a perceived lack of incentives for planners to encourage and provide healthy environments. The literature review highlighted benefits including collaboration, and opportunities for planners to develop healthy environments.

Conclusions: Given changes in New Zealand’s legislation, population, and environment (e.g. climate change), it is becoming increasingly critical that the health and planning sectors work together. Both sectors have a responsibility to develop and/or promote healthy environments, and there are many New Zealand initiatives to achieve this. However, further work is needed to:
1) Develop an overarching framework to encourage and plan for healthy environments.
2) Identify ways that best practice and lessons learnt from existing planned healthy environment initiatives can be shared.
3) Identity ways that Aotearoa’s public health sector, including NGOs, can work more effectively towards healthy urban planning.

Implications: Key implications of the results are that both public health practitioners and environmental planners need to work together more collaboratively to plan for and fund healthier environments.
Accessibility and promotion of active lifestyles in the design of urban environments in the Christchurch rebuild

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Issue: The design of buildings and streetscapes influences the health of the people using them. Universal accessibility and design to promote physical activity are two factors that significantly impact health. Universal access allows all individuals to participate in public life, and participation in society is linked to improved health. Physical inactivity is a major contributor to morbidity and mortality in developed nations. The design of urban environments may promote or discourage active lifestyles.

In 2010 and 2011, Christchurch experienced major earthquakes that caused severe damage to buildings and streetscapes. The rebuilding of Christchurch presents a rare opportunity to dramatically improve urban environments, benefiting the health of the people who live, work in and visit Christchurch. However, with opportunities come risks.

Aims: We aimed firstly to identify the opportunities and risks for promoting health and wellbeing in Christchurch, with particular reference to universal accessibility, promotion of active lifestyles and participation in public life. Secondly, we aimed to consider the implications of our findings for the continuing rebuild of Christchurch.

Methods/Actions: We examined recent literature, current planning documents and building projects with regard to universal accessibility and promotion of physical activity. Information was also obtained by visiting recently built facilities and streetscapes, and through discussions with those involved in the design and build processes.

Results/Achievements: A number of opportunities and risks were identified. Some of the key planning documents do incorporate health promoting features, but supporting processes are required to enable these aims to be realised. There does not appear to be widespread appreciation of the importance of accessibility and physical activity, nor an understanding of how to best design and build in a way that promotes these in the community. This has led to a high degree of variability in the accessibility of buildings and streetscapes, and in the extent to which they promote physical activity.

Conclusions: There is a risk that the opportunities presented by the Christchurch rebuild will not be realised. Buildings may comply with the Building Act 2004, yet not be truly accessible to many users. Buildings and their surrounds also vary in their encouragement of physical activity and there is potential for a far greater degree of promotion of active lifestyles.

Implications: The vision for Christchurch, as outlined in the Christchurch Central Recovery Plan, is to become a city that is vibrant, accessible and that encourages active transport. Recently completed buildings and their surrounds vary in their contribution to the achievement of this vision. For the vision to become a reality, changes in the approach to the design of buildings and public space will be required.
Environmental health indicators for climate change in New Zealand

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**Issue:** Climate change has been described as the biggest global health threat of the 21\(^{st}\) century. In New Zealand (NZ), it has been difficult to determine whether climate changes are having an effect on health because climate and health/disease data are not usually considered together.

**Aims:** We aimed to develop and implement environmental health indicators (EHIs) relating to climate change. This project is part of an on-going EHI work programme funded by the Ministry of Health.

**Methods:** We reviewed literature on EHI development and existing EHIs in other countries to establish our methodology. We developed selection criteria for potential data sources, and then reviewed a wide range of data sources against our selection criteria. A shortlist of recommended EHIs was reviewed by external experts to produce the final list.

**Results:** The EHIs relating to climate change are ambient temperature, drought, giardiasis, cryptosporidiosis, salmonellosis and vulnerable populations. EHIs will be shown as part of the presentation.

**Conclusions:** High quality indicator development is challenging but can be done. The main limitation of the current indicator set is that source datasets tend to change collection methods over the 20-30 year periods required to assess the impact of climate change. This initial suite of EHIs relating to climate change will be updated and extended as more data becomes available. Further work is also planned using the current data as a baseline.

**Implications:** Our conclusions reflect those of the Intergovernmental Panel on Climate Change. The first health impacts of climate change in NZ are likely to be an exacerbation of diseases already affecting the population - particularly vulnerable sub-groups. Recommendations for future work are to consider (1) whether ‘retrospective’ indicators or ‘prospective’ models will best achieve desired outputs, (2) the trade-off between a wide suite of indicators/models and an in-depth single indicator/model, and (3) distinguishing ‘climate’ from ‘climate change’ depending on the time period of available data.
A framework for understanding how cities can promote wellness among Maori

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Issue: The urban Māori population is diverse, with different histories, needs, and expressions of what it is to be Māori. Recognising this diversity and meeting the needs of urban Māori is often framed in terms of improving wellbeing. However, wellbeing is a broad concept, with potentially conflicting definitions, applications and foci. Confusion about wellbeing can lead to different expectations among decision makers about what wellbeing is, how it can be achieved, and potentially marginalise sectors of Māori society.

Aims: The purpose of this project was to develop a practical framework for understanding how urban communities can enable wellbeing for Māori. The framework is intended to be used as a tool to aid decision making for any organisation interested in the welfare of Māori living in urban areas.

Methods/Actions: We reviewed key literature on frameworks, values and measures of wellbeing for Māori. We also reviewed international literature on wellbeing and its links to urban environments. Common themes were summarised and used to identify key wellbeing domains for Māori. We then critiqued these themes in terms of how: they reflected the diverse realities of urban Māori; focused on the environments in which Māori live in; and, they could be practically applied. The critique was used to develop six wellbeing domains.

Results/Achievements: Our conceptual model uses a capability approach to defining wellbeing uniquely applied at the level of Māori communities and in the context of urban sustainability. Thus the key outcome of the model is that “cities are able to sustain a way of life that collectively Māori have reason to value”. The six wellbeing domains were related to urban governance, social contexts, collective identity, wealth, environment, and supportive living environments. We will present a full description of these domains and the Māori concepts/values each are derived from. We will also discuss our initial work on developing indicators for each of these domains.

Conclusions: The framework we have developed resonates with the existing literature and Māori conceptions of wellbeing. We are currently testing indicators and concepts within the model using secondary data and key informant interviews to see whether they are plausibly related to, and predictive of, outcomes related to wellbeing.

Implications: The model will provide a valuable resource for understanding the determinants of wellbeing for Māori in the urban context and aiding decision making for planning our cities to be healthy, vibrant and well places for all people to live in.
Ecosystems threats and fossil fuels: implications for public health

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Issue: The current focus on the social determinants of health has eclipsed the ‘older’ public health focus on infectious agents and toxic chemicals as important influences of health. Yet the more fundamental supporting, provisioning, regulating and cultural functions of the environment (natural and built) are taken for granted. Recent research combined with an improving understanding of the impacts that humanity is collectively having on the natural environment and how the natural and built environment affects us, across multiple dimensions, requires the public health community to re-appraise its focus.

Aims: To promote discussion within the public health community about the priority and urgency of this topic area and how to re-integrate protection of the environment into public health’s core scope of practice and public education.

Methods/Actions: The effect of energy choices on population health is an example of this more traditional, ‘old’ public health, environmental / ecological focus. Within this context, the public health profession has an important role in promoting the transition of our energy system from one based on greenhouse gas emitting fossil fuels to one based on more efficient energy use and renewables. Educating the public and decision makers about the links between energy choices and health is of a novel but necessary field of public health promotion.

Results/Achievements: n/a

Conclusions: Collectively human impacts on the biophysical systems of the planet that support human society are called global environmental changes. These are of such magnitude that humans have become a force of nature. Because climate is a major influence on the viability of human civilisation, the climatic effects of greenhouse gas emissions pose an immediate threat to human wellbeing. There is a time-critical period within which to take action to curb greenhouse gas emissions. Public health action to promote energy transitions is critical.

Implications: How public health at individual practitioner and organisational / institutional level takes up the challenge, including novel or unconventional forms of advocacy, to ensure long-term health, prosperity and wellbeing for our generation and future generations, needs to be discussed. Consequent planning for action to address global warming and other environmental threats to health can be informed by this discussion.
Identifying pockets of obesity: A spatial microsimulation approach

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Issue: Adult obesity prevalence in New Zealand is 31% [1], however, this varies nationally and within cities and towns. Research on which areas have high obesity rates is important in order to effectively target interventions to reduce obesity. At present, information about obesity prevalence is only available at the District Health Board (DHB) level. This is a very coarse scale which does not allow for the likely variation in obesity rates between neighbourhoods within DHBs.

Aims: The aim of this research was to estimate obesity rates at a scale where DHBs can better allocate resources for obesity interventions within their region.

Methods/Actions: Spatial Microsimulation Modelling was used to generate a synthetic population based on data from the 2013 New Zealand Census and the 2012/13 New Zealand Health Survey (NZHS). For each small area, this simulated population closely matches the demographic characteristics for the area as described by the census, but contains additional variables available in the NZHS. The simulated population data set was validated by comparing the small area estimates of diabetes prevalence created as part of the model to the national diabetes register. Once validated, the data were then interrogated to provide estimates of obesity prevalence for each area.

Results/Achievements: The Spatial Microsimulation Model was successfully constructed and validated. This enabled obesity rates for each small area to be estimated and mapped, as well as compared to other areas.

Conclusions: Preliminary results suggest that obesity is not necessarily high only in the areas one would expect. For example, in Auckland, high obesity rates around Mangere and Otara were expected, however, the model also estimated high obesity rates in West Auckland, the southern part of Auckland Central and parts of northern Auckland.

Implications: The information generated by this model can now be used to more specifically target interventions in areas with high predicted obesity rates. This has the potential to enable scarce public health funding to be spent more effectively. Spatial Microsimulation Modelling may also be a useful tool to understand and target common public health issues (such as Asthma or Chronic Obstructive Pulmonary Disease) which lack detailed spatial data.

Toward a sustainable, health promoting health-care system

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Issue: Aotearoa/New Zealand’s health-care system is unsustainable. It is a largely disease-focussed system that faces an ever increasing and costly burden of chronic disease and health inequity, and through its activities creates a large environmental and carbon footprint.

Aim: To conceptualise a model of a health-care system that is environmentally sound, health promoting, and supportive of health equity.

Methods: Attendance at an international workshop on sustainable health-care; along with review of the literature and key documents from a leading organisation working toward sustainable health-care systems.

Results: The New Zealand health care system, like other developed nation health systems, faces the huge challenges of an ageing population with an increasing burden of chronic disease. Public health care spending continues to grow much faster than GDP and the system is recognised as fiscally unsustainable. At the same time the health care system generates a large environmental footprint, with some particularly intense carbon ‘hotspots’. Comparable health systems overseas generate up to 25% of total public sector greenhouse gas emissions. A sustainability lens has the potential to not only improve the environmental performance of the health-care system, but also to challenge the disease-focussed paradigm, to save health dollars, and to improve health, equity and social outcomes.

Conclusions: Re-conceptualising our health-care organisations as sustainability and health/wellness leaders will aid the kind of societal transformation that is required to meet our national and global 21st century challenges.

Implications:
- Current health-care system models are not sustainable
- Transformative change is required for health systems to meet the health and environmental challenges of the 21st century
- Health-care organisations, and those working within them, can play a leadership role in society with respect to promoting health-focussed and sustainable services.
Greening our healthcare system: doing good, engaging staff and saving money

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Issue: In the environmental space, healthcare systems are energy intensive consumers, produce significant amounts of waste, user of toxic chemicals and procure many goods and services. In the realms of corporate social responsibility healthcare providers and those in charge of decision making need to carefully consider the effects their actions may have on the surrounding community and environment. By focussing on reducing our Greenhouse Gas emissions we have set up a range of work streams as a means of improving the health and wellbeing of our current and future population.

Aims: Overall aim: Reduce our overall carbon footprint by 20% by 2017
In order to achieve our overall aim:
1. Establish a baseline measurement using CEMARS (Certified Emissions Measurement and Reduction Scheme)
2. Develop a programme designed to reduce the carbon footprint
3. By using an engaging approach gain the support of employees at Counties Manukau District Health Board
4. Contribute and promote the health and wellbeing of our community
5. Save money helping the organisation to become financially sustainable

Methods/Actions: Once we identified the main emission sources (via CEMARS) we set out a programme aimed at reducing our footprint thereby greening our practice. Target areas to date include waste, energy, procurement, food, and leadership. We are currently working with CEMARS to refine our measurement process to include the supply chain (as an additional Scope 3 emission source). To put the programme into practice a strategic approach has been adopted by formulating business cases when needed, and using a transparent process with clear governance. Clinical champions and ‘green teams’ have been developed as a means of engaging and empowering clinicians. Various avenues of communication have been developed as tools of engagement and as a means of keeping the momentum going.

Results/Achievements: The Environmental programme is relatively new which means achievements to date have greater social and environmental benefits as opposed to financial. Successfully establishing active green teams in the Radiology Department, in Theatres and in Women’s Health has led to many great projects. Some of these projects include setting up and designing purpose made recycling systems, successfully using worm farms for food waste, discontinuing the use of polystyrene cups and promoting reusable kitchenware, measuring the levels of nitrous oxide exposure to clinicians in the delivery suite and developing a means of capturing data comparing single use surgical instruments to reusable instruments within the operating theatre. One of the major achievements from a financial and environmental perspective came from work undertake in in the Radiology Department, introducing a way of safely delivering contrast medium which uses far less consumables (Transflux).

Conclusions: This work clearly shows the complex nature of sustainable healthcare practice. There are many obstacles but there are many more opportunities. We are part of a growing global movement and are optimistic that the Environmental programme will continue to add value in many ways.
Implications:
1. All District Health Boards should be and be accountable for their Greenhouse gases by measuring and reducing.
2. Using a standardised approach would allow District Health Boards to meaningfully benchmark their green practices.
3. Health care systems are powerful organisations with influential purchasing power. By joining forces, health care systems should be purchasing products where possible, made in New Zealand, supporting the local economy and reducing Greenhouse gas emissions related to the production and transportation of those goods and services.
4. Health care systems have the duty to ensure their practices promote the health and wellbeing of the population they serve and safeguard the wellbeing of future generations.
Understanding and improving the sustainability of the Canterbury Health System

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\textbf{Issue: }Environmental sustainability is legislatively mandated for DHBs in New Zealand, but to date little attention has been paid to addressing excessive emissions, energy efficiency and waste management. The health system should be role modelling best practise for the community it serves.

\textbf{Aims: }To understand the footprint and impact of the Canterbury Health System on a variety of environmental health issues and then to find ways to mitigate that impact.

\textbf{Methods/Actions: }
1. The current environmental footprint of the Canterbury Health System was quantified using the CEMARs process.
2. Individuals who were undertaking environmental sustainability initiatives were identified and provided with appropriate support.
3.Existing groups and networks were supported and strengthened
4. A communications and engagement plan for health systems staff was developed

\textbf{Results/Achievements: }Significant uptake and support from staff has been achieved. The CEMARs process was a useful tool with which to engage all layers of the organisation and provided a good framework to guide the priorities for sustainable initiatives. Many staff were already working on isolated localised initiatives and benefited from this framework and assistance. A baseline of carbon emissions and waste was calculated and the CDHB was found to have a large environmental footprint. A support network for staff who are already engaged in sustainability initiatives was established.

\textbf{Conclusions: }The health system has a large environmental footprint. Strong leadership is needed to realise environmental improvement. The Canterbury Health System has begun a programme of work to ensure the Canterbury Health System’s responsibilities to community and environmental health are achieved.

\textbf{Implications: }These initiatives should be able to be replicated in other district health boards across the country resulting in financial savings that can then go towards patient healthcare. There will be further benefits to the health and well-being of the community.
**Cultural and linguistic diversity (CALD) training for the health workforce in the Auckland region: An evaluation of the benefits and effectiveness of online and face to face training**

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Northern Regional Alliance, Auckland, New Zealand

**Issue:** Asian, Middle Eastern, Latin American and African peoples are a quarter of the Auckland region population. Since 2010 to March 2014, 9,000 health practitioners in the Auckland region have enrolled in the accredited Cultural and Linguistic Diversity (CALD) cultural competency training programme developed by Waitemata District Health Board (WDHB) Asian Health Support Service (AHSS). The training is part of the regional programme of work for the Auckland Regional Settlement Strategy, Asian, Migrant and Refugee Health Action Plan s administered by the Northern Regional Alliance (NRA) on behalf of Waitemata, Auckland and Counties Manukau District Health Boards.

**Aims:** An evaluation study was undertaken to measure the benefits and effectiveness of the online and face to face CALD cultural competency training programme in terms of:

a) Cost effectiveness and uptake

b) Participant’s immediate impression of the CALD cultural competency training programme in terms of content, delivery, sharing of learning and intention to apply the learning in practice

c) Participants’ feedback about the content and quality of the CALD 1 Culture and Cultural competency course and the longer term attitude and behaviour changes in practice

**Methods/Action:** A mixed methods approach was used including:

a) Evaluating immediate participants’ satisfaction ratings (quantitative) and feedback (qualitative) of all the CALD courses, using a post questionnaire for the period 1st July 2011 to 30th November 2011

b) Conducting an independent evaluation of participants’ ratings quantitative) and feedback (qualitative) about the CALD 1 Culture and Cultural competency course using pre and post questionnaire and telephone interviews for the period 1st March 2011 to 30th September 2011

**Results:** In terms of the of the immediate impression evaluation, there were a total of 527 respondents. Overall all the CALD courses have scored above 80% for content, delivery, and quality of resources. The qualitative of findings supported the quantitative scores and overwhelmingly positive. For the independent evaluation, there were 249 participants, of these 108 (65%) completed the post questionnaire. Seventy-eight percent of those completing the pre questionnaire were enrolled in the online version of the course. Approximately half of the participants had undertaken prior cultural competency training. The findings show that, overall, completion of Module 1 of the CALD training programme had a significant impact on participants’ cultural competence. In particular, participation in CALD Module 1 positively impacted on those who had previous cultural training by reinforcing or consolidating prior learning. Importantly, the courses demonstrate the achievement of long-term attitude and behaviour change in health practitioners.
Conclusion: The findings of the evaluation of the CALD cultural competency training programme provides evidence for the effectiveness and usefulness of the courses and of changes to participants’ attitude and behaviour change in practice.
Cost-utility analysis of existing and novel dietary salt reduction interventions

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Issue: The New Zealand (NZ) Burden of Disease Study reported that a diet high in sodium (salt), accounted for 1.7\% of population health loss in 2006 (mostly through coronary heart disease and stroke). Accordingly, salt is also an important contributor to health inequalities by ethnicity and sex, given differences in cardiovascular disease rates.

Aims: We aimed to model the cost and health (inequality) impacts of four salt reduction interventions in NZ: (i) a 25\% mandatory reduction for all processed food; (ii) a 25\% mandatory reduction for bread, processed meats and sauces; (iii) the health endorsement logo (the “Tick Programme”) run by the Heart Foundation; and (iv) dietary counselling by dietitians at the current intensity in NZ.

Methods: We conducted a cost-utility analysis using a Markov macro-simulation model of all adult New Zealanders alive in 2011, modelled out to death, with a health system perspective and 3\% discounting. Data were included for baseline parameters (disease incidence, case fatality and mortality), for health system costs (using individual-level administrative data [HealthTracker]), and for the modelled intervention costs and sodium reduction effects. Health impacts were reported in quality-adjusted life-years (QALYs).

Results: The largest health gain arose from the 25\% reduction of salt in all processed foods with a mean of 149,000 QALYs gained (95\% uncertainty interval [UI]: 118,000 – 183,000). This intervention produced net savings of NZ$ 2.7 billion over the remaining lifetime of the NZ population alive in 2011. Health gains were 45\% less (82,000 QALYs) for a mandatory reduction of sodium levels by 25\% in only: bread, processed meats and sauces. Interventions that are currently in place delivered more modest benefits: the Tick Programme (about 9,900 QALYs, albeit with high uncertainty), and dietary counselling (233 QALYs).

The first three interventions above were all cost-saving (ie, dominant) compared with doing no salt interventions. Dietary counselling cost NZ$20,000 per QALY gained (95\%UI: 4,800 – 46,000), suggesting it is probably cost-effective (at least by the criteria of gaining a QALY at less than the $NZ GDP per capita). The interventions were all pro-equity in that they resulted in greater health gain for Māori (vs non-Māori) and for men (vs women).

Conclusions: In modelling work that had a range of improvements on previous models (particularly in terms of cost data), mandatory limits of sodium in processed foods delivered both major health gains and major cost savings. The Tick Programme and dietary counselling interventions in current use were cost-saving and cost-effective, respectively.

Implications: Policymakers wanting to improve health, reduce health inequalities and lower health costs could consider implementing (or enhancing) these sodium reduction measures.
E-notification of hazardous substances disease and injury

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Issue: Hazardous substances diseases and injuries are required to be notified to a Medical Officer of Health under section 143 of the Hazardous Substances and New Organisms (HSNO) Act 1996. Despite this requirement few cases to date have been reported as many medical practitioners are unaware of the requirement.

Aims: We have developed an electronic mechanism to allow general practitioners (GPs) to easily perform their legislative requirements. Including notifications from GPs into overall surveillance of hazardous substances diseases and injuries will help target actions to reduce the burden of disease from hazardous substances.

Methods: The new electronic notification system, the Hazardous Substances Disease and Injury reporting Tool (HSDIRT), was designed to report cases of disease and injury related to hazardous substances exposure. Following a pilot, development of online resources and training of public health unit (PHU) staff, a phased roll out across PHUs occurred in 2013. A national communications strategy has been implemented to raise awareness about hazardous substances notifications.

Results: The HSDIRT, funded by the Ministry of Health, is now operating in all health districts of New Zealand. The HSDIRT provides GPs with an easy mechanism for notification – a short electronic notification form linked to a Patient Management System (PMS).

Conclusions: The notification system will require the co-operation of GPs, and will develop over time. We expect that with education about the benefits of notification, feedback on cases that they do notify, and a reminder of the legislation underpinning the notification that the number of notifications will increase.

Implications: The HSDIRT is an important part of the overall hazardous substances surveillance system. Improving data collection about hazardous substances, by including notifications from GPs will result in more complete patterns of disease and injury and enhance the evidence for future prevention. The data from HSDIRT is invaluable for organisations engaged in developing policy around hazardous substances such as the Ministry of Health and Environmental Protection Authority.
Environmental health indicators programme

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**Issue:** Environmental health comprises those aspects of human health, including quality of life, that are effected by physical, chemical, biological, social and psychosocial factors in the environment. Monitoring the environmental health of New Zealand is pivotal to improving population health and addressing environmental health issues.

**Aims:** Through monitoring environmental health indicators, we can identify potential risks to human health, connect health outcomes with environmental hazards and exposures, compare environmental health status by areas, and provide evidence for, and monitor the effectiveness of policy development and decision making.

**Methods/Actions:** The criteria for selecting indicators were: data availability, scientific validity, sensitivity, consistency, comparability, methodologically sound measurement, easily interpreted, ability to be disaggregated and timeliness. Current and proposed new indicators are reviewed against these criteria by the Technical Advisory Group. CPHR collates and analyses data for the environmental indicators sourced from existing data collections, including several outside the health sector, reflecting the diversity of agencies involved in promoting the various aspects of environment health in New Zealand.

**Results/Achievements:** We are currently monitoring over 60 environmental health indicators in the domains of air quality, water quality, biosecurity, climate change, indoor environment, hazardous substances and population demographics. Factsheets are published and updated regularly on the Environmental Health Indicators New Zealand website.

**Conclusion:** There are a number of pressure factors on the environment, mainly from the effects of population growth, but also from increasing energy consumption and the increasing number of aged vehicles on the road. Although the majority of drinking-water is safe to drink, there is room for improvement as a proportion of drinking-water supplies are not meeting the drinking-water standards. In terms of air quality, a large number of air sheds exceed air pollution guidelines at least once each year. More findings will be presented on the Environmental Health Indicators New Zealand website (http://www.ehinz.ac.nz/).

**Implications:** Our findings provide policy and decision-makers, environmental health practitioners and the community with robust and reliable evidence and guidance to improve health outcomes and address current environmental health concerns of New Zealand.
Reducing health inequalities through land use planning: ARPHS submission on the Unitary plan.

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Issue: The Auckland Unitary plan provides the rules for land use practices and activities for the next 30 years. Council rules governing land use and activities influence a wide variety of the social determinants of health and health outcomes. Council decisions influence social determinants including:

- Urban form
- Transportation
- Housing quality / affordability.

These social determinants have major influences on health outcomes in the Auckland region. One example includes the influence of housing and transportation costs on household poverty. Poverty related illnesses (such as rheumatic fever) are a source of health inequalities within Auckland.

Aims: ARPHS examined the likely health implications of the rules described in the currently proposed Unitary plan document. ARPHS aimed to advocate for opportunities to improve these social determinants, such as the influences on household incomes.

Methods/Actions: ARPHS advocated for measures to improve the social determinants resulting from rules within the currently proposed Unitary plan.

Examples included:

- Transportation:
  - A phased reduction in private motor vehicle usage.
  - Prioritization of active and public transport.

- Housing:
  - Improved quality standards for all new housing.
  - Improved supply of affordable housing through; housing types, zoning requirements and urban design features.

Results/Achievements: ARPHS submission on the proposed Unitary plan that detailed a wide number recommendations which aimed to improve health outcomes. The ARPHS submission was widely supported by its stakeholders, including the three Auckland DHBs, Hauora public health and Manawhenua. Final decisions have not yet been reached on the Unitary plan.

Conclusions: Public health analysis of the wider implications public policy provide a significant means to improve health outcomes and the social determinants of health. Although final decisions have not been reached on the Unitary plan, ARPHS submission may provide a means for improvements to the social determinants of health within the Auckland region.

Implications:

Public health unit advocacy for improvements to the social determinants of health, such as housing costs) provide opportunities to improve health outcomes. Particular opportunities can be presented where health gains from social determinants can be highlighted in areas that are not regularly considered by policy makers.

One example of this are the influences to household poverty that can result from council land use rules and planning.
Short Course: Connecting with social media

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This course will look at the potential benefits of using social media in population health practice with examples from highly effective users. We will cover some tips and tricks on managing social media for knowledge management – from basic to advanced depending on the audience. The course will include:

- How to find out how many are already using social media and what they are doing
- How to sign on and get started on Twitter and LinkedIn
- Examples of highly effective users from public health/health promotion perspectives
- The Seek, Sense, Share framework for Personal Knowledge Mastery
- Personal knowledge management – finding it first, being a knowledge node
- Getting your message out there
Symposium: Taking the initiative: Promoting lifelong health for women and children through nutrition and physical activity

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Ministry of Health

Issue: Non-communicable diseases, several of which have a nutritional basis, are a major cause of morbidity and early mortality in New Zealand. Obesity rates in New Zealand children are increasing, and we have one of the highest rates of adult obesity in the world. Research into the developmental origins of health and disease demonstrates that early life – including the periods before and after birth - is the time of greatest developmental plasticity, during which patterns of maternal and child nutrition and physical activity may influence physiology in ways that contribute to disease risk, and establish a trajectory for life long health. A focus on pregnancy and early childhood has been endorsed by the World Health Organization and the NZ Health Select Committee as the best new healthcare system investment that policy makers should pursue. Investing in the health of women and children reduces burdens on families and communities, reduces healthcare costs later in life, and has intergenerational benefits too.

In 2013, the Ministry of Health contracted a number of providers to undertake work in three priority areas:

• Improving women’s health during pregnancy and the postnatal period through promotion of healthy eating and physical activity, and healthy gestational weight gain.
• Promoting healthy feeding of babies including encouraging and supporting breastfeeding
• Promoting healthy feeding (including the introduction of healthy first foods) and physical activity of children at pre-school age.

Aims of the symposium:
1. To highlight innovative, and evidence based approaches that are being trialled in New Zealand in the area of maternal and infant nutrition and physical activity.
2. To demonstrate collaboration and partnership between researchers, community workers, health promoters, health care providers and government agencies.

About the symposium: The programmes and initiatives presented in this symposium illustrate a mixture of innovative, and evidence based approaches to support health workers, mothers to be, children, whanau, early childhood workers, and the wider community. Different mediums and approaches are used, including: internet, phone/text, face to face, print, teaching, education, science, research, community know-how, on the job experience and kiwi can-do.

Format (2 hours): Presentations will be grouped by topic area into three sections, each followed by a short question time. This will be followed by a conclusion/summary and an open panel question time at the end.
Brief overview of evidence to support focus on early life

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¹Regional Public Health, Wellington

Aim: To summarise the evidence available to support interventions to improve nutrition and physical activity from pre pregnancy through the early years to age five years.

Methods: Evidence is categorized into seven clusters:
1. Evidence of rising obesity rates in all age groups but particularly in the younger ages
2. Evidence that early intervention is preferable in dealing with nutritional issues for infants before birth and in the first year of life to combat obesity in later years based on the work of Professor Sir Peter Gluckman
3. Equity policy interventions based on the work of Professor Sir Michael Marmot and the WHO European Equity group
4. Value of integrated, holistic service delivery – whanau ora approach
5. Current nutrition and physical activity messages published by Ministry of Health and others
6. Evidence for flavor preference development in foetal life and in infancy (breast feeding) and in eating patterns passed from parent to child
7. Gaps in service provision for clear and concise nutrition and physical activity messages.

Results: In general terms, there are no causative factors for obesity at any age or stage in life, only associations of varying strengths. The evidence points in some directions that are worth further exploration.

The summary of all the above leads to the conclusion that very early intervention, even preconception and prenatal, are worth exploring in terms of interventions.
Guidance for healthy weight gain in pregnancy.

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1Ministry of Health

**Issue:** Optimal weight gain during pregnancy is associated with improved outcomes for both the mother and the baby regardless of the mother’s existing weight. An estimated one third of women of normal weight, and 60 percent of obese women gain more than recommended during pregnancy.

**Aims:** The Guidance aims to:
- Update and replace earlier weight gain advice in the Food and Nutrition Guidelines for Healthy Pregnant and Breastfeeding Women (Ministry of Health 2006) to align with the Institute of Medicine’s (IOM) 2009 updated guidelines.
- Support the delivery of consistent advice to women through Ministry funded Maternal and Child Health Nutrition and Physical Activity contracts, and Healthy Families New Zealand [1].
- Support Lead Maternity Carers in the area of weight management advice during pregnancy.
- Support improved health and wellbeing of mothers and babies.

**Method:** The Guidance was developed following a review of international policy, a workshop of relevant health practitioners and on-going review and input from an expert working group that included representatives of The Royal New Zealand College of General Practitioners, New Zealand College of Midwives, the Royal Australian and New Zealand College of Obstetrics and Gynaecology, Dietitians New Zealand, and Gravida (Healthy Start Workforce Project). Based on an internal review of international guidelines, the Ministry recommended adoption of the Institute of Medicine’s 2009 advice for total and rate of weight gain during pregnancy.

**Results:** Published in June 2014, the Guidance includes key practice points for pre-pregnancy, during pregnancy and postpartum including linking with the Weight Management Guidelines for Adults, monitoring of weight during pregnancy, nutrition and physical activity tips, and advice regarding returning to a healthy weight. A variety of resources have been developed to support the implementation of the Guidance.

1 Healthy Families NZ is a new initiative that aims to improve people’s health where they live, learn, work and play in order to prevent chronic disease. The Ministry is leading the establishment of Healthy Families NZ communities in 10 locations across New Zealand.
Infant hunger and satiety

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¹Health Promotion Agency

Background: Part of HPA’s Nutrition and Physical Activity programme’s work includes providing information to new mothers on introducing new foods. Weight gain within the first two years of life is a significant risk factor for later child weight independent of birth weight [1]. Once a child or adult is overweight and obese it is very difficult to intervene and obese children are more likely to become obese adults. Given the lack of success intervening in older children, adolescents and adults, international interest is growing in the efficacy of obesity prevention initiatives for infants and children under the age of five years. Babies and infants have inbuilt mechanisms which allow them to detect their energy requirements and feed until those are met. However, these hunger and satiety mechanisms are often lost as the child grows up. There is growing evidence that if these hunger and satiety mechanisms can be maintained through to adolescence and adulthood, risk of developing overweight and obesity may be reduced.

There is currently a plethora of information about introduction of first foods. However, there is little New Zealand information that is produced independently of commercial interests and is consistent with Ministry of Health and World Health Organization guidelines. This presentation will provide an overview of the consultative approach used to develop visual resources communicating when to introduce first foods and which foods to introduce based on the Ministry of Health Food and Nutrition Guidelines for Healthy Infants and Children (Aged 0-2). Information about infant’s inbuilt hunger and satiety mechanisms and the cues they give to indicate they are full are also included. Key findings from research with health professionals and mothers will be a focus of this presentation.

1 Druet et al., (2012). Prediction of childhood obesity by infancy weight gain: an individual-level meta-analysis. Paediatric and Perinatal Epidemiology 26(1) 26-19
Healthy Start Workforce programme.

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GRAVIDA

Issue. A healthy eating pattern and regular exercise during the periods of pre-conception, pregnancy and post-partum influences developmental programming, and this has both short and long term health advantages for mother and infant. It is therefore crucial to provide the workforce with the latest knowledge from scientific research about nutrition and physical activity in pregnancy and early life, and provide training in skills to effectively communicate this knowledge to their clients. Pregnancy is a time when maternal and child health professionals have a central and trusted relationship with women and their families, with the opportunity to influence change. ‘Best practice’ public and population health strategies acknowledge that sustainable change occurs when the full spectrum of population groups, including relevant workforces, are part of the strategy.

Aims: To increase health literacy about the developmental effects of nutrition and physical activity during pregnancy and early life in health professionals providing care to women and young children. To provide tools to enable the workforce to engage in healthy conversations to support behaviour change. Healthy Start is also committed to supporting a system-wide approach by partnering with a range of maternity and child health providers to ensure consistency of key messages about healthy nutrition and physical activity in pregnancy and early life.

Methods/Actions: The Healthy Start Workforce Project will consist of two complementary professional development programmes:

- **Healthy Conversation Skills (HCS)** training to strengthen health care professionals practical skills and tools to support women and families to identify barriers and plan their own solutions to achieving sustainable healthy lifestyles (via a train-the-trainer model).

- **Healthy Start Education Programme** will translate scientific evidence for the developmental influence of nutrition and physical activity in pregnancy and early life on later health into relevant, practical education material (via online blended-learning modules or face-to-face workshops).

Both programmes will be backed by an online hub for access to the education modules, news, latest research, links to resources and other relevant websites and a forum to discuss and share best practice advice (www.healthystartworkforce.org.nz). The education programme is being developed in collaboration with, and peer reviewed by academic, advisory and cultural groups within the NZ population. Both programmes will be culturally appropriate for workforces serving our high needs populations.

Intended Outcomes: For workforce participants to have increased knowledge of the concepts taught and confidence in their ability to incorporate this knowledge into practise. Longer term outcomes include: increased awareness in women and their families of the need for a healthy eating pattern and regular exercise, and subsequent improvement in the health of mothers, infants and young children in New Zealand.

Results/achievements: The HCS programme has been shown to be a successful workforce development intervention in the UK. Both HCS and the new education programme will be formally evaluated at several key milestone points to ensure they are useful and sustainable in New Zealand.
Enabling behaviour change in the workforce: Health 4 Life’s social marketing approach to improve advice given in pregnancy and the first year of life

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1Health 4 Life Project, Regional Public Health, Wellington.

Issue: High body mass index during pregnancy is associated with an increased risk of adverse health outcomes. Making healthy change during pregnancy is beneficial, especially for overweight and obese women. Being overweight or obese during pregnancy has been well recognised with increased risks of adverse health outcomes for both women and their infants. While observational studies [1] suggest that healthy diet and lifestyle advice given during pregnancy has been associated with improved outcomes for women and infants, vulnerable pregnant women and new parents often receive inconsistent advice on how to stay active and eat healthily.

Aim: Health 4 Life’s goal is to enable and support the maternal and early childhood sector to deliver consistent messages on staying active and eating healthily to vulnerable pregnant women and new parents. Through providing tools and brief intervention strategies for the workforce, Health 4 Life can empower health workers to effectively engage with their clients to support positive behaviour change.

Method/Actions: A social marketing approach was selected to develop audience-focused messages that will lead to targeted behaviour change in the health workforce. Focus groups were conducted with our audiences to better understand the needs and priorities of health workers and their clients. Following data collection and review of existing evidence and clinical guidelines, a social marketing plan was developed. This plan outlines Health 4 Life’s marketing objectives, the behavioural goals for the workforce in the Wellington region and includes key messages and recommendations for their promotion.

Intended Outcomes: The outcomes we want to see are focused on developing key messages for health workers to use in their routine consultations with vulnerable pregnant women and new parents. We will co-create resources in partnership with health workers and consumers, test and refine the content and undertake cultural review of consumer information. Key to our success is health workers working better together through collaboration and action to improve the quality and uptake of our key messages.

Results/Achievements: Evaluation activity will report back to the workforce and communities on the impact of Health 4 Life interventions. The difference we want to see is that health workers better promote and protect maternal and child health through promoting healthy eating, breastfeeding and physical activity advice and motivating more women to make healthy behaviour change.

TextMATCH: Development of a text message programme targeting healthy eating and physical activity for pregnant women and families of young children

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Background: Addressing rising rates of childhood obesity in New Zealand is a priority. The National Institute for Health Innovation (NIHI) has been contracted by Auckland/Waitemata District Health Boards to work with a consortium of community based organisations to develop a text message programme for pregnant women and families of young children. NIHI developed a process that started with developing key messages from national guidelines, forming them into text messages using behaviour change theory as a basis, incorporating advice from a technical advisory group and results of focus groups with members of the target population. Cultural adaptation of the messages for the target groups (Māori, Pacific, Asian and South Asian) was carried out in collaboration with the community organisations. Once developed these messages were translated into target languages before being pretested. The result of this process and collaboration is TextMATCH (Text Mothers And Their Children’s Health), a mobile phone text messaging information and education system, specific to the nutritional and physical activity needs of New Zealand women and families. TextMATCH is being piloted in Auckland in 2014-2015 during which its acceptability and reach will be evaluated.
Services to Improve Maternal and Child Nutrition and Physical Activity – Hawkes Bay

Tracy Ashworth (tracy.ashworth@hawkesbaydhb.govt.nz)

Aim: Reduce the impact of unhealthy lifestyles in the preconception, antenatal, postnatal periods for childbearing women and the early years of life for their children.

Methods/Action: The Hawkes Bay project comprises 5 components which feature across the Maternity and Child Health Services continuum from Preconception to 6 Years as independent but interlinking.

1. Maternal Green Prescription (GRx): Sport Hawkes Bay has developed a specialised program based on the fundamentals of GRx, tailored to meet the needs of women during and after pregnancy. Innovative engagement across a variety of community settings and services is occurring with the intention to provide supportive healthy lifestyle approaches around pregnancy for Maori, Pacific and in particular young mothers to be.

2. Gestational Diabetes Mellitus (GDM): Workforce Development and Healthy Lifestyle package: Implementation of the new GDM Guidelines in practice; alongside redesign of the management of GDM patients, a concentrated workforce development package for local health practitioners and an identified referral pathway to the Maternal GRx program.

3. Hawkes Bay Breastfeeding Action. Alignment of community based breastfeeding services to actively engage in breastfeeding innovation and achievement for Hawkes Bay, promoting stream less service provision through antenatal, midwifery, and WellChild Tamariki Ora services.

4. Healthy First foods: Development of first foods health promotion package in conjunction with the Health Promotion Agency. Linkages with Wellchild Tamariki Ora providers to understand and promote best practice approach to first food initiation.

5. B4SC Active Families: Extension of the referral pathway established from the B4SC to an under 5’s Active Families program at Sport Hawkes Bay to include a wide variety of health and social services providing increased access to healthy lifestyle supports, such as swimming lessons and family cooking classes.

Results/Achievements: Formative and outcome evaluative processes are occurring throughout the project.
The Taranaki Mama Pepe Hauora (MPH) Service

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¹Tui Ora Ltd

Aims:
- Improve women’s health during pregnancy and the post-natal period through promotion of healthy eating and physical activity
- Promote healthy feeding of babies including encouraging and supporting breastfeeding
- Promote healthy feeding (including the introduction of healthy first foods) and physical activity of children at pre-school age

Objectives: During the two-year contract period the Taranaki Mama Pepe Hauora Service will:
- Support five priority communities to develop, implement, and evaluate at least one new maternal and child physical activity and nutrition initiative in each community
- Expand the Breastfeeding Welcome Here (BFWH) framework to accredit a minimum of two workplaces, early childhood providers, or other settings in each of the five priority communities
- Maintain the accreditation of the Baby Friendly Community Initiative (BFCI) with the existing three providers and expand to include maternal and child physical activity
- Train a further six Breastfeeding Peer Support Counsellors (PSC) and continue to deliver the Peer Support Counseling service to 60 mothers per annum
- A Lactation Consultant Scholarship Programme with be promoted and supported and a Community Lactation Clinic established
- Training for Active Movement will be delivered to a minimum of four settings in each priority community

What groups is the service aimed at? The focus for the service includes:
- Teen mothers (less than 18 years)
- Maori women 15–44 years and children 0–5 years
- Low socio-economic women 15–44 years and children 0–5 years
- Women 15–44 years and children 0–5 years living in rural and remote areas
Under 5 Energize

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¹Under 5 Energize, Sport Waikato, Hamilton, New Zealand

Issue: Obesity rates among NZ children are increasing. Maori and Pacific children experience higher levels of obesity. The Waikato District Health Board area has a higher than average representation of Maori children and higher than average deprivation and socio-economic needs. Ninety five percent of all children (Maori 90.9% and Pacific 86.8%) attend some form of early childhood education.

Aims: The overall aim of the project is to reduce the rate of weight gain of pre-school children through better nutrition and regular physical activity.

Methods/Action: A health service has been developed and is in the process of being delivered in early childhood centres in Hamilton, South Waikato, North Waikato and the Thames/Hauraki areas. It is modelled on the successful Project Energize programme in schools. Early Childhood Centre’s conduct a needs assessment of food, nutrition and physical activity provided and develop a six monthly action plan detailing agreed Centre improvements. Energizers work alongside to provide support, nutrition and physical activity resources and workshops to achieve action plan goals.

Results/Achievements: There are 121 ECC’s enrolled involving 4939 children and 3035 families. The reach is 93% of the ECC’s approached to be a part of this project. Under 5 Energize ECC’s include more Maori and Pacific children. An evaluation plan is in place using the RE-AIM framework and monitoring of the before check body size data. Anecdotal feedback from the Under 5 Energizers indicates the project process (stocktake, needs analysis and action plan) is raising the awareness of the current nutrition and physical activity environment and identifying areas for improvement.

Conclusions: Initial project reach is high and demonstrates ECC’s are engaging in the Under 5 Energize health service. Anecdotal feedback indicates ECC’s are making changes to improve the food brought from home or provided by the Centre and increase opportunities for planned and spontaneous play using fundamental movement principles. Further evaluation will provide detail of the progress and impact of the programme.

Implications: ECC’s are open to this type of intervention. There is potential for the project to expand to other Waikato ECC’s excluded from the original sample due to funding and capacity constraints. Regular review of action plans to refocus on areas identified for change will further enhance the potential for improvement to nutrition and physical activity environments within ECC’s.
Public health challenges and health system strengthening in China

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Issue: Public health system has been strengthened since SARS epidemic in China in 2003. However, urbanization, industrialization, ageing, and lifestyle change are bringing continuous challenges on public health system, especially threats from chronic non-communicable diseases (NCDs).

Aims: The aims are to summarize China’s efforts on health system strengthening to respond to public health challenges and issues and put forward future development strategy and policy direction.

Methods/Action: Important policy documents related to public health system strengthening were collected through literature review and key informant interviews. Impact of public health system strengthening was assessed through analysis of public health services delivery and key informant interviews. Effective NCDs prevention and control models were summarized through literature review and case studies.

Results: Cardiovascular diseases, cerebral vascular diseases, and cancers have been the top three death causes for Chinese population, either in urban or in rural areas. NCDs prevalence has increased significantly from 1993 through 2008, which brought heavy burden on the whole society. For example, the direct medical cost of diabetes has been increased rapidly, accounting for estimated 13.0% of the annual healthcare expenditure in China in 2010. Community-based comprehensive NCDs control programs have been extensively developed since 2009, with increasing government subsidy, infrastructure development and capacity building. Selfmobilization and -management, community monitoring and performance assessment have become the components of NCDs control in China.

Conclusions: China has done a lot to respond to NCDs threats, but need to do more. Integration of public health services and clinical treatment should be strengthened and health-oriented medical insurance should be emphasized and developed.

Implications: Prevention as priority is one of the principles of China’s health development. The way to effectively integrate financing, organization, regulation and behaviour intervention is key implication for policy.
Quality evaluation of hypertensive management through community health care

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Issue: There are more than 200 million of population with hypertension in Mainland China. Ensuring high quality of hypertensive management through primary health care is one of key solutions of NCD prevention and control.

Aims: The aims were to evaluate the quality of community health care center on hypertensive management based on a model including health outcomes, infrastructure and process of health care respectively.

Methods/Action: Utilization of community service, barriers to accessing health services, the quality of communication process between patients and physicians, and health outcomes were conducted in the quantitative study among hypertensives in communities of a district of Shanghai. And the personnel in-depth interviews were carried out among service-providers for hypertensive management to understand the access barriers to health services in the community health centers currently.

Results/Achievements: Because of its geographical access, short waiting time, good service attitude and reasonable price, the health services for the hypertensives were accepted by the majority of the patients. The results showed that 67.3% of the subjects preferred choosing the services in community health care centers for treatment, in which patients with new rural cooperative medical payment, low-income, combined with other chronic diseases were more willing to go to the community health care centers to get the service. Barriers to accessing health services analytical framework (4As) recommended by WHO were assessed, and the results indicated that the unsuitable list of essential medications and low-quality of medical equipment (availability), the lower level of diagnosis and treatment (acceptability) were the main factors in demand-side, which influenced patients’ access to community health care. Compared to men, women more preferred to choose community health care although the lack of medical equipment, and were more familiar with community health care centers and the physicians there. The results from providers showed that the access barriers to health services included followings as: the inadequate number and the lower qualification of service providers, especially the public health personnel; improving work-reward for the medical staff then promoting their work motivation; lack of opportunity (exclusion from services); late or no referral; less drugs and lower level of the medical equipment which could not meet the needs of patients, especially in urban areas. The association analysis among infrastructure, service processes and health outcomes as self-rated health showed that, compared with infrastructure or service processes, infrastructure combining with service processes had more explanatory power for health outcomes by controlling the effect of social and demographic factors.

Conclusions: Currently, community health care services in Shanghai were basically accepted by hypertensive patients. But the quality of the infrastructure and service process should be improved, especially for the young, male, rural hypertensives in future.

Implications: Patients-centred services and motivation of patients’ proactiveness as well as effective following-up for patients and qualified health professionals should be further addressed.
Passion, vision and action will always make us success - the story of the Chinese New Settlers Services Trust (CNSST)

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QSM, Founder & Executive Director of CNSST, Auckland, New Zealand

Issue: During the late 80s and early 90s, many Asian migrants arrived in New Zealand (NZ). This group of people encountered numerous problems in their initial settlement period, and there was very little appropriate assistance available to them from existing services due to language and cultural difficulties. This lack of support made it more difficult for new arrivals from Asia to settle into their local communities and slowed down their integration into wider New Zealand society.

Aims: In 1998, the Chinese New Settlers Services Trust (CNSST) was established as a charitable trust by a group of new migrant volunteers at Jenny Wang’s home garage in order to assist Asian migrants to settle well in New Zealand.

Methods/Action: CNSST provides culturally and linguistically appropriate services to local Asian new settlers and the community as a whole in NZ, such as Chinese, Korean, Japanese, Vietnamese and other Asian communities. The services include:

- Social services: social work & counselling, employment & settlement support;
- Education: cultural learning for local kids, vocational education & training for both local & international adults as a NZQA approved PTE;
- Social housing: social rental housing for local Asian seniors with wrap-around support to the tenants as a government approved social housing provider

Results/achievements: Nowadays, the Trust offers culturally and linguistically appropriate services to over 12,000 Asian migrants every year by the team consisting of 45 paid staff & 88 contractors, as well as over 50 unpaid volunteers. CNSST was approved by Child, Youth and Family Services as a community service provider in 2002; by the New Zealand Institute of Chartered Accountants as an ATO (Approved Training Organization) in 2010; by the NZQA approved as a PTE in 2013; by SHU approved as a social housing provider in 2013. CNSST has also received four times community awards from local council in past for the great contribution to local migrant communities.

Conclusions: Passion, vision and action will always make us success. Therefore, to fully address the issues of public health in New Zealand the following are required:

- The passionate involvement of academics and specialists in the field;
- The Long-term vision of government;
- Grass-roots action of the community.

Only a combination of these three elements will achieve sustainable results.

As an Asian-focused NGO in New Zealand, CNSST is delighted to be in a position to bridge the gaps between sectors, such as government, academic, business and community. CNSST aims to develop itself as an “Asian community hub” and achieve the goal of being “CNSST Group” which is a successful social enterprise including social services, education and social housing running in a financially sustainable way. Our Trust will therefore be capable of making a significant positive impact on local Asian communities and enabling Asian migrants to more and fully participate in and contribute to New Zealand society in social, economic, cultural and environmental aspects.
Implications: “Community engagement” is an increasingly important aspect for decision making in almost all sectors. It is a process whereby the public is intimately involved in solving problems or making decisions and as a result, and shares the responsibilities of the agreed solution. This process can also promote better integration, collaboration, and coordination of resources from multiple sectors to address complex social problems such as public health issues.
Imagined homelands: Smoking among Asian men, women and children in New Zealand and overseas.

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Issue: This presentation challenges perceptions that smoking rates among New Zealand Asian males reflect high smoking rates overseas; that traditionally low Asian female smoking rates will rise exponentially as tobacco companies woo a vast untapped market; and that Asian immigration threatens the smokefree Aotearoa 2025 goal.

Aim: To demonstrate that cultural, social and political factors work synergistically to maintain low Asian smoking rates in the New Zealand context.

Methods: Trends in Asian smoking rates in New Zealand and Asia are compared using analyses of census data and WHO and other reports. A literature review is synthesised with qualitative research which examines Asian parents’ perceptions of firstly, the role of family and culture in protecting children and women from smoking, and secondly, of tobacco control in New Zealand and traditional homelands.

Results: Asian smoking rates vary widely overseas. They are low in New Zealand. Traditional cultural factors protect New Zealand Asian youth from taking up smoking. Low Asian adult smoking rates may reflect support for tobacco control strategies and the “healthy migrant” effect.

Conclusion: Cultural, social and political factors affect initiation and maintenance of smoking differentially by life stage and gender among Asian New Zealanders. The smokefree Aotearoa 2025 goal is not threatened by Asian immigration.

Implications: Family factors which support low Asian youth smoking rates, and tobacco control interventions which normalise non-smoking and increase the price of tobacco, should be supported to maintain low and declining Asian adult smoking rates. The positive contribution of the Asian population to the smokefree Aotearoa 2025 goal should be celebrated.
Interactive Workshop: Do we need a new public health workforce development strategy?

Convenor: Warren Lindberg (warren@pha.org.nz), Public Health Association of New Zealand

Issue: We live in a changing world. New Zealand faces critical new public health challenges, including climate change, social and economic inequalities, new and re-emerging infectious diseases, along with burgeoning rates of preventable chronic health conditions. At the same time, in the last few years there have been significant changes to the context of public health, including the creation of Health Workforce New Zealand, new processes and priorities for public health funding. As well as challenging health issues and determinants, the demographics of the health workforce mean that succession planning has become a critical issue. This workshop is an opportunity for people from across the public health sector to come together to discuss future public health workforce development.

Te Uru Kahikatea: The Public Health Workforce Development Plan has guided public health workforce development in Aotearoa New Zealand since 2007. Its goals are:

- To develop an effective and sustainable public health workforce
- To support public health environments to grow and develop the public health workforce.

Apart from post-graduate qualifications in public health and health promotion, including the public health training programme managed by the NZ College of Public Health Medicine, there were no professional scopes of practice or qualification standards required for the majority of people employed in a “public health” position. Led by the Ministry of Health, Te Uru Kahikatea focused on the need for a staircase of qualifications to enable this diverse workforce to acquire the essential competencies required for delivery of effective public health action. The plan has delivered some significant achievements, but expires in 2016. New thinking is required for the work that needs to be done to ensure that the public health workforce is equipped to meet challenges of the 2020s.

Aims: Address the following questions:

- Do we need/want to renew or replace Te Uru Kahikatea or take a different approach?
- If a strategy is needed, who should or could lead its development?
- How should the public health sector engage with the development of a new strategy?

Programme and contributors: Chair - Maggie McGregor

1. Short reports on Te Uru Kahikatea and some of the initiatives it has supported, including the Public Health generic competencies (Public Health Association), a new Certificate in Public Health (Massey University), public health leadership programmes and new strategies for Maori (Te Rau Matatini) and Pacific (Le Va) public health workforce development

2. A panel to lead discussion on future developments will include
   - Graeme Benny, Director - Health Workforce NZ
   - Grant Pollard, Group Manager, Public Health, National Health Board
   - Julia Peters, NZ College of Public Health Medicine
   - Karen Hicks, Health Promotion Forum of NZ
   - Warren Lindberg, Public Health Association of NZ

3. Discussion and conclusions facilitated by Maggie McGregor.
Health in All Policies for Real-Turning rhetoric into action

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2Environment Canterbury

Issue: The CDHB has, for several years, been leading attempts to work with policy makers at the earliest stages of policy making to ensure population health issues are explicitly addressed. This approach is referred to as Health in All Policies (HiAP). This presentation will focus on the use of an organisational work-plan as a tool to achieve HiAP and to break through the barriers of language, lack of understanding and relationships.

Aims:
- To contribute to the improved health and wellbeing of Canterbury communities
- To improve working relationships on other areas of mutual interests
- To ensure that public communications were conducted respectfully and constructively.

Methods/Actions: An organisational work plan was developed between ECan and the CDHB. This was an iterative process guided by the governance of both agencies and led by management staff and project workers. A lead in each agency took responsibility for ensuring alignment and progress on milestones across three prioritised work streams. Common language and testing of jargon enabled the breaking down of barriers between the two agencies.

Results/Achievements: A sampling of achievements includes:
- An integrated impact assessment at very short notice on the Land Use Recovery Plan
- Incorporation of health perspectives early in policy development
- Each organisation now more familiar with each other’s roles and able to identify topics that would benefit from a joint approach as they arise.
- ECan and the CDHB now take shared responsibility for contentious issues in the public arena; such as air quality and contaminated land
- A communications guideline has been developed and is used by both parties

Conclusions: Organisational work plans are an enabling tool to support better inter agency collaboration and for achieving HiAP goals. To work, they require an understanding of each other’s organisational mandates and limitations, language and relationships. The work plan provides a structure for staff to work closely together and enables engagement with senior management and governance on shared concerns.

Implications: HiAP at the practical level is still in its infancy. This case study of a recognised HiAP tool, the organisational work plan, provides a model for others to follow. Some practice points include:
- Senior management support of the process is critical
- Paying attention to each agencies ‘language’ is a necessary part of early engagement
- The process of developing the work plan is literally foundational to the plans success – take as much time as needed
- Not every problem can be resolved at once – be prepared to ‘park’ some issues
- Grow relationships as well as strategies
Connecting health and welfare: applying scientific evidence to develop employment support services in primary care in New Zealand

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Issue: Unemployed patients with mental health issues often struggle to find and keep employment. Individual Placement and Support (IPS) is an evidence-based approach to supported employment proven in specialist mental health services. IPS efficacy trials show that two-thirds of adults with a serious mental illness achieved employment with this approach [1]. Several general practices, part of Midlands’ Health and Compass Health PHOs created a partnership with Workwise, a non-government employment service provider, and Work and Income. Drawing on this scientific evidence, they tested the integration of employment support services in primary care in New Zealand.

Aims: To examine the implementation and adaptation of integrated employment support; to understand patients’ choice to participate and stay engaged in the service; and to explore the creation of partnerships between health, welfare and employment agencies.

Methods: Site visits and interviews with patients, GPs, Work and Income case managers and other key stakeholders were conducted. The data were analysed using inductive and deductive techniques. Descriptive statistical analysis of referrals, employment outcomes, patient demographics and patient engagement activities was also undertaken.

Findings: It is possible to effectively integrate employment support services into general practice. The service is valued by patients and GPs. The service provides an integrated patient pathway, enables early intervention and bridges health and employment services.

Conclusions: Integrating an employment advisor in primary care is feasible, valued and is effective at supporting people with a mental health issue to return to and stay at work.

Implications: Commitment from each partner, organisational leadership, openness, cross-government funding, clear communication and pathways for information sharing are needed to successfully integrate services. Although effective, these types of integrated employment services are not currently routinely available in New Zealand.

Let's get employers working for us. The impact of diabetes on longevity in the workforce.

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Issue: Ageing populations have created substantial financial challenges in many high-income countries. Some countries have responded with policies that incentivize the labor force participation of older workers, such as raising the age of pension eligibility. An alternative is to target drivers of early exit, including those associated with ill health. There is evidence that illness and disease has implications for workplace productivity, absenteeism and retirement decisions. In this study we explored the association between health and labor force exit, focusing on diabetes.

Aims: We aimed to explore the impact of diabetes – a chronic, costly and internationally prevalent condition - on labor force exit in older workers, across 16 high-income countries.

Methods: We used data from 66,542 participants enrolled in the Survey of Health, Ageing, and Retirement in Europe, US Health and Retirement Survey, and English Longitudinal Study of Ageing. We matched individuals with and without diabetes on age, sex, and education. To ensure the temporal ordering of the exposure and outcome - that the timing of diabetes diagnosis preceded labor force exit - diabetes was treated as a time-dependent exposure in Cox proportional hazards models.

Results: Diabetes was consistently associated with an increased hazard of labor force exit across countries; this association was statistically significant for 9 of 16 countries. In a pooled model (with country included as a stratified variable) diabetes was associated with a 30% increased hazard of labor force exit (hazard ratio=1.30, 95%CI=1.24, 1.35). The greatest hazards of labor force exit were observed in Spain and Ireland; in these countries diabetes was associated with approximately 50% increased risk of labor force exit.

Conclusions: This study used data of 66,542 individuals from 16 countries, finding that those with workers diabetes had a 30% increase in the rate of labor force exit compared to those without. Our findings reinforce the inter-dependence between an individual’s health and working life, and the capacity for prevalent chronic diseases to affect labor force dynamics. We also show that the association is cross-national in nature, with elevated estimates found for all 16 countries.

Implications: The economic impact of diabetes due to medical care costs is well documented, however, the costs to employers and society due to lost labor has been under appreciated. Our findings show that workers with diabetes exit the labor force prematurely, which has the potential to impose additional costs on employers, including those associated with the recruitment and training of new workers.

This study provides an additional argument for policy-makers and employers to invest in strategies and programs targeting the risk of developing diabetes, management of the condition and its complications, and supporting those with diabetes to have productive working lives. There is the opportunity for contributions from both the public and private sectors (and potentially partnerships between these parties), as the benefits are likely to be shared by both.
Effective public health advocacy: An assessment of the strategies used to encourage adoption of the health star rating system

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Background: At a time when population health seems an easy target for budget cuts by governments, it is more important than ever for people who are interested in healthy communities to understand the importance of community and stakeholder engagement, and advocacy action. Effective action takes place when many people and organisations are working together to influence the broader community and government.

Issue: The front of pack labelling Health Star Rating system provides an interesting example of how to either plan or evaluate success in healthy advocacy work. Placing this example in the context of a framework for health advocacy provides an opportunity for public health practitioners to have a considered method to plan or evaluate their own advocacy efforts.

Aims: By drawing on examples, the aim is to encourage analysis, discussion and debate on how effective community and government engagement and advocacy action can be achieved. The action should be based on sound policy development but should also understand the political nature of effective advocacy and how to bring about influence.

Methods: The presentation will use a Framework for ‘Evaluating Success in Public Health Advocacy Strategies’ (Moore et al VJPH 2013). This framework may be used for either planning or evaluating public health advocacy strategies. The framework will be considered in the light of advocacy work to persuade Australian and New Zealand Food Ministers to adopt the Health Star Rating system to make clear to consumers the nutritional value of packaged food.

Results/Achievements
Minsters will make their final decision on the Health Star Rating system on 27 June 2014. The first author and presenter was integrally involved as an advocate for traffic light labelling, as a member of the project committee, a co-chair of the Technical Design Working Group and is now a member of the implementation oversight committee.

Conclusions: The Health Star Rating system being applied by companies to the front of packs will have significant ramifications for decision making by consumers and for encouraging reformulation by businesses.

Implications: This paper has significant implications for using science to establish policy and for provide a guiding framework for how to take the next step in ensuring the policy is implemented. The presentation will describe the process and outcomes against the framework and seek comment from the audience about the success of the particular project and the extent to which the framework can be generally applied.
Health Targets: A public health success

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Issue: Primary Health Organisations (PHOs) play an important role in improving the health of New Zealanders. They operate by supporting General Practitioners to deliver primary care services or by delivering primary care services directly, to PHO enrolled patients. Although, PHOs are funded by District Health Boards, the General Practices they represent are independent businesses. This creates an interesting dynamic in terms of tackling public health issues and implementing national priorities.

Aims: In 2009, the New Zealand government identified six national Health Targets to lift the health system’s performance in a number of priority areas. Three of these Health Targets - Better help for smokers to quit, More heart and diabetes checks and Increased immunisation - focus on increasing interventions in primary care (note: the focus of these Health Targets has evolved over time). These targets aim to:
  • offer brief advice and cessation support to 90 percent of the PHOs’ patients who smoke
  • assess the cardiovascular risk of 90 percent of the PHOs’ eligible populations
  • provide 95 percent of eight-month-olds with their primary course of immunisation.

Actions: The Ministry has developed a number of tools and resources to support PHOs to achieve the above targets. These tools and resources centre around the four tenets for changing clinical behaviour: leadership, training, systems support and audit and feedback. A subject matter expert has also been identified for each target (these experts are known as Target Champions) and in some cases financial incentives have been offered.

Achievements: The latest Health Target results for quarter three 2013/14 show that:
  • 71.4 percent of general practice patients were offered brief advice and/or support to quit smoking in the 12 months ending 31 March 2014.
  • 77.6 percent of eligible patients had their cardiovascular risk assessed in the five years ending 31 March 2014
  • 91.4 percent of eight-month-olds have completed their primary course of immunisation.

Conclusions: Although, these Health Targets have not yet been achieved, significant progress has been made since they were introduced. The translation of national health priorities into the primary care environment has been challenging, as PHOs operate different organisational and financial structures, use different IT systems and employ a diverse workforce. However, strong commitment from the primary care workforce and a systematic approach has helped New Zealand to achieve a level of screening and intervention that has not been replicated anywhere else in the world.

Implications: Following the success of these Health Targets, it is important to reflect on the lessons we have learnt and identify the extent to which these targets have improved the health of New Zealand’s population. It is possible that these successes could be replicated in other countries - Victoria, Australia is already considering a target to increase smoking cessation interventions in secondary care. It’s also possible that a targeted approach could be used in other sectors besides health, such as education or social development, to draw national attention to priority issues.
Reporting the quality of community based child health care – development of national comparative clinical indicators in the Well Child / Tamariki Ora programme?

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**Issue:** The Well Child Tamariki Ora (WCTO) Programme provides a universal health assessment, prevention, early intervention and health promotion service for children and families / whānau from birth to five years. The WCTO Quality Improvement Framework, published in 2013, seeks to ensure the WCTO Programme consistently achieves its aims. Continuous quality improvement relies on good data, but the WCTO sector currently lacks the data it needs to understand the status quo, and to improve.

**Aim:** To develop national comparative clinical indicators to measure the quality of delivery of the WCTO Programme, and to support local quality improvement efforts.

**Actions:** An expert advisory group made up of senior sector representatives developed a set of 27 comparative clinical indicators of the quality of WCTO programme delivery. The WCTO Quality Indicators were developed from available national datasets and largely from administrative data, which has benefits and limitations. The WCTO Quality Indicators were first published in October 2013 by the Ministry of Health and are updated every six months. Since late 2013, the data has been available via the Health Quality and Safety Commission (HQSC) Atlas of Healthcare Variation.

**Results:** The WCTO Quality Indicators reports have received high traffic on Ministry and HQSC sites. The WCTO Quality Indicators were designed to support DHBs and WCTO providers to identify areas for improvement, understand local populations and measure the impact of improvement activities, and are supported in principle by most WCTO stakeholders. However, given the lack of accessible child health data, including for performance monitoring, the WCTO Quality Indicators are at risk of becoming accountability measures. The impact of the WCTO Quality Indicators on the quality of WCTO service delivery is not yet known.

**Conclusions:** Data, and in particular comparative clinical indicators, are a powerful tool to support quality improvement. The WCTO sector does not have access to sufficient local data to inform quality improvement, so the WCTO Quality Indicators were developed using national data sources. The degree to which comparative clinical indicators - designed to support quality - become accountability mechanisms, appears to impact the utility of the indicators internationally. This is an area for further examination in the WCTO programme.

**Implications:** Many health care services struggle to easily access high quality local data to support improvement, and struggle to compare quality across providers and locales. Nationally developed comparative clinical indicators attempt to fill this void. Understanding how the WCTO Quality Indicators are perceived and utilised at both the national and local level supports future consideration of how quality improvement can be supported.
How much should public health workers consider future vs current lives?

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Issue: Much public health action focuses on current threats to existing people eg, from such risk factors as tobacco and the hazardous nutritional environment. But there is growing literature about the potential value of preventing existential risks – that is those risks involving a risk of human extinction eg, from a technological disaster or run-away climate change (Bostrom 2013), (Bostrom and Cirkovic 2008), (Matheny 2007). There is also a literature on intergenerational justice (Gosseries and Lukas 2009), albeit one reflecting the fairly early development of the field

Objective: To consider relevant literature around future lives and make “present value” comparisons (in terms of human life-years) between the present and the future.

Method: Recent literature around such risks was considered. Calculations of potential future lives and life-years were made; including with and without discounting to allow for “present value” comparisons between the present and the future.

Results: It seems plausible that astronomically large cumulative totals of human lives are possible in the future (eg, $10^{17}$ lives for a stable $10^9$ population for the planet’s expected $10^9$ year habitable lifespan; equivalent to 75,000 billion future New Zealanders). Even these numbers are potentially miniscule compared to population growth if future humans colonise other planets.

The issue of applying discounting when considering such future lives is debated in the literature. But there are certainly some plausible arguments against applying positive discount rates to whole future lives (Matheny 2007). Nevertheless, if a 3% discount rate is used (as per some health economic practice), there could be 328 billion future human life-years for the planet’s habitable life span (or 333 billion using hyperbolic discounting). That is, in present value terms, this analysis suggests that the number of future life-years is 47 times greater than that of the human population for this current year (7 billion life-years). The equivalent ratio using a 6% discount rate was estimated at 23 times.

But human life-years are only one way to value the future and another is to consider the continuation of key components of the “human project” such as science, technology, art, and culture. It seems that humans particularly value these projects (Scheffler 2013), and the long-term persistence of such projects of course depends on the avoidance of human extinction.

Conclusions: There are logical arguments for why public health workers (and policy-makers in general) should give more consideration of the future and hence invest more resources in reducing existential risks. Fortunately, some preventive measures (eg, measures to prevent run-away climate change) may benefit people immediately as well as lowering existential risks.

Implications: In addition to a stronger future focus for research and preventive interventions at the policy level, there could be more research (eg, surveys and citizen juries) to determine the public’s views on valuing future lives and lowering existential risks.
Gardasil vaccination for high risk men: Early policy and research responses

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Issue: The quadrivalent human papillomavirus (HPV) vaccine (Gardasil™) is commonly known as a cervical cancer prevention approach for women. However, a quarter of all vaccine preventable cancers occur in men and rates are especially high among gay and bisexual men (GBM). In New Zealand, HPV-related issues among men are poorly understood, including HPV vaccine access, awareness, delivery, promotion and monitoring. We sought evidence to inform early policy and research responses.

Actions: We undertook three exploratory reviews. Firstly, we examined the international literature to assess the burden of HPV-related sequelae among GBM. This included the prevalence of anal HPV infection, high grade anal intraepithelial lesions (HSIL), and anal cancer. Findings were stratified by age and HIV status where possible. Secondly, we reviewed published data on HPV among men and GBM in New Zealand. Thirdly, we considered options for HPV vaccine delivery and monitoring among GBM in New Zealand.

Results: Overseas the prevalence of anal cancer is approximately 20 times higher among GBM than the general population. Cohort studies have identified HSIL in almost half of HIV positive and a third of HIV negative GBM, with high rates of regression and progression. Treatment options for anal HSIL have no demonstrated efficacy and are painful and invasive. Anal HPV infection is almost universal among HIV positive GBM and very high among other GBM, with oncogenic HPV type 16 common. Nonetheless few GBM are infected with all four currently preventable HPV types. Recent overseas analyses suggest a targeted vaccine programme for GBM would be cost-effective. We found little data on HPV prevalence among men in New Zealand. Vaccine uptake monitoring programmes for GBM would require novel strategies as sexual orientation data are not recorded in official health statistics.

Conclusions: Evidence suggests GBM have rates of anal cancer that are higher than the rates of cervical cancer among women, yet they receive no protection from the current government funded Gardasil vaccine programme. Gardasil would likely be a highly effective intervention because of the strong link between anal cancer and HPV type 16, whereas screening is unlikely to be, unlike with cervical cancer. Vaccination of GBM adults would deliver benefits as few will have been exposed to all vaccine-preventable types and ongoing re-exposure to HPV appears to be high. Vaccine uptake monitoring options for GBM include sampling in primary care and outpatient settings, routine sexually transmitted disease surveillance and established community-based surveys.

Implications: The quadrivalent HPV vaccine can prevent 80-90% of anal cancers and over 90% of ano-genital warts. Gardasil funding should be extended to GBM in New Zealand, who are at elevated risk, and accompanied by research to identify appropriate delivery and surveillance strategies.
Indigenous monitoring of breast screening in New Zealand to close the equity gap

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Issue: Māori women have higher risk of breast cancer and lower survival than non-Māori women, with later stage at diagnosis contributing to the survival gap. BreastScreen Aotearoa (BSA) offers free mammography screening to women aged 45 to 69 years in New Zealand. Independent monitoring of the programme’s performance is conducted annually to ensure women receive high quality service. An effective screening programme should help to close the survival gap through earlier diagnosis and an organised approach to treatment.

Aims: To use equity-focused independent Māori monitoring of a breast screening programme to help improve screening outcomes for indigenous women in Aotearoa New Zealand.

Methods/Action: Unit record data are analysed annually to assess the performance of the breast screening programme for Māori and non-Māori women using standard performance indicators. Multiple dimensions are monitored, including coverage, screening and assessment quality, early diagnosis of breast cancer, treatment, and timeliness of service along the screening pathway. Trends and disparities at the national and regional levels are reported to and discussed with the National Screening Unit to support equity responsive policy, to the Māori Monitoring and Equity Group to make recommendations to the NSU, and to Lead Providers and the BSA Advisory Group. Further analyses are conducted where issues may be identified, such as factors associated with late rescreening.

Results/Achievements: Significant improvements in equity and results for Māori have been achieved over the past decade. Coverage has improved, the proportion of small breast cancer tumours has increased, detection rates are higher for Māori women. The proportion of small breast cancer tumours is similar to that of non-Māori, while the proportion of cancers that are ductal carcinoma in situ is lower. There is no difference between Māori and non-Māori in the treatment received by women diagnosed by BSA. There are still some improvements to be made in some regions for coverage and time to surgery.

Conclusions: Monitoring of quality by ethnicity and equity dimensions was essential and effective in improving breast cancer screening outcomes for Māori women, alongside other New Zealand populations.

Implications: Monitoring for equity, with clear feedback mechanisms to appropriate decisionmakers, can effect change in screening programmes. This may apply to other organised public health programmes, where there is a need to close gaps or maintain equitable outcomes.
BreastScreen Waitemata/Northland working in partnership with Hokianga Health for screening outcomes

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Issues: Hokianga is a Dep 10 area in NZ making it one of the most socio- economically deprived communities in NZ⁴. With 74% of the population being Maori it has one of the highest Maori populations in NZ.

Hokianga Health have a total of 982 eligible women with 636 of those being Maori. The challenges of taking a mobile bus to remote communities is a balancing act of required screens versus women actually living in the area.

Feedback we received from women stated that the location of the bus in Rawene meant the issue of breast screening and breast cancer was not “in their face” and felt they could ignore the issue of breast cancer.

Aims: To screen 70% of the eligible population for breast cancer.

Methods: In 2006 the BSWN service was established in the Hokianga. The service recognised the need to work closely with Hokianga Health. This meant consulting and planning along side the Kaimanaakitangata team (KMT) and implementing the strategies that they thought would best work for their communities.

The KMT team live in Hokianga with strong whanau links in their communities. This framework demonstrates the successful interweaving of Tikanga maori, community development and Te Pae Mahutonga.

Prior to the each mobile visit a plan is set up at meetings between BSWN and the KMT to review the last visit and make improvements. The service extended the mobile sites in Hokianga from 1 to 5 areas. By doing this we made the bus highly accessible and visible.

BSWN had to be flexible with its policy of 100 women ratio per site and made an exception for remote places, spreading this number across to 2 sites.

Results/Achievements: As of May 2014 91% of the population is enrolled on to the programme. 71% of maori and 70% of other women have been screened for the 2 year period of 2012/2013. This shows an increase of 46% of women screened from 2006 to 2013. The mobile sites have been extended from one site to five.

Conclusion: The screening outcomes indicate that partnerships with community providers are essential to gaining improved health outcomes in population health. This has been achieved by working in partnership with Hokianga Health to address issues and barriers for women to attend screening.

Implications: Key learnings from working in partnership and engaging with communities are:
1. Relationships are important, time should be invested into building relationships with stakeholders.
2. Stakeholders need to be included in planning and services should react to community need by thinking outside the square
3. Sometimes policies need to be flexible as each community is different
4. Services need to be taken to the people
Starting effective colorectal cancer screening within 12 months and the cost of waiting.

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Issue: One-off flexible sigmoidoscopy (one-off FS) screening is a very effective method of reducing colorectal cancer incidence and mortality. One-off FS has considerable advantages over immunohistochemical faecal occult blood testing (iFOBT) as a screening test in New Zealand.

Aims: To assess the benefits, logistical implications, and propose a method of introducing an evaluable one-off FS national screening programme in New Zealand within 12 months.

Methods: Using data from the randomised controlled trials of one-off FS screening the impact over each of 20 years of the introduction of a national screening programme in New Zealand has been estimated. The likely benefit of iFOBT compared to one-off FS screening has also been calculated using data available from randomised controlled trials, as part of a Health Research Council grant.

Results: The effectiveness of one-off FS screening, its advantages over iFOBT, what impact it is likely to have over the first 20 years compared to iFOBT, and how it can be introduced relatively seamlessly into the New Zealand health service will be presented. Using overseas experience a method of introducing a national screening programme that has a pilot phase embedded, so that delay in the introduction of a national programme is avoided, will be presented. The avoidable mortality and incidence of colorectal cancer from delay in the introduction of one-off FS screening has also been calculated. One-off FS is more feasible to introduce nationally than iFOBT, produces about a 25% greater reduction in the incidence of colorectal cancer and, over the long-term, reduces colorectal cancer mortality about 15% more than iFOBT screening.

Conclusions: A colorectal cancer screening programme can be introduced nationally in a manner that is effectively a pilot study over the initial years yet be a national programme from its inception without an undue burden on gastroenterological services. This is partly due to the one-off nature of the test.

Implications: Incomplete advice to government has resulted in unnecessary delay in the introduction of one-off flexible sigmoidoscopy (FS) screening and which represents a major failure to avoid preventable colorectal cancer and mortality.
The Prospective Outcomes of Injury Study (POIS): Predictors of disability and poor health service experiences among a cohort of injured New Zealanders

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Issues Most studies investigating disability outcomes following injury have examined hospitalised patients. It is not known whether variables associated with disability are similar for injured people who are not hospitalised. Further, while trouble accessing health services has been found to be a predictor of a range of poor outcomes, little is known about factors associated with reports of poor health service experiences reported by injured New Zealanders.

Aims To 1) determine the prevalence of disability 24 months after injury for participants in the Prospective Outcomes of Injury Study (POIS) who were hospitalised and not hospitalised, 2) identify pre-injury and injury-related predictors of disability and poor health service experiences.

Methods Participants, aged 18-64 years, were recruited from an injury claims register managed by New Zealand’s no-fault injury compensation insurer after referral by healthcare professionals. A wide range of pre-injury socio-demographic, health and psychosocial characteristics were collected, as well as injury-related characteristics. Disability 24 months after injury is assessed using the WHODAS; poor health service experiences three months after injury are assessed using five questions. Multivariable models estimating relative risks of poor outcomes were developed using modified Poisson regression methods.

Results Of 2856 participants, 25% were hospitalised. In both hospitalised and non-hospitalised groups, 13% experience disability 24 months after injury; higher than pre-injury (5%). Of 28 predictor variables, only four (pre-injury disability, two or more pre-injury chronic conditions, pre-injury BMI≥30 and trouble accessing healthcare services) were common to both the hospitalised and non-hospitalised groups. There is some evidence to suggest that among the hospitalised group, Māori have higher risk of disability relative to non-Māori (RR=1.69). A range of factors also predicted health service experiences three-months after injury. For example, inadequate household income was independently associated with four out of five poor health service experiences: not enough time to discuss health with professionals (RR=1.57), limited participation in decision-making (RR=1.29), insufficient information (RR=1.22) and health needs not being understood by health professionals (RR=1.39).

Conclusions At 24 months considerable disability is borne, equally, by hospitalised and non-hospitalised groups. It is of concern that Māori are at increased risk of disability. Injured New Zealanders with certain characteristics are at risk of reporting poor health service experiences three months after injury.

Implications Predictors of disability are not necessarily consistent between the hospitalised and non-hospitalised groups, suggesting caution in generalising results from one group to the other. Also, attention on mechanisms to reduce the risks of poor health service experiences appears to be warranted.
Ethnic inequalities in the use of statins after an Acute Coronary Syndrome in New Zealand

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Issue: Statins are a well-established safe and effective component of the secondary prevention of cardiovascular disease. Overseas studies have reported that statin use in people following an Acute Coronary Syndrome (Myocardial Infarction or Unstable Angina) is low, with as many as three-quarters of all patients discontinuing their medications by two years post-discharge. Few studies have assessed the maintenance of statin therapy beyond two years and fewer have examined whether statin dispensing differs among ethnic groups.

Aims: We aimed to assess patterns of statin use and predictors of poor statin maintenance, including the effect of ethnicity, over a three-year period in all people discharged from a New Zealand hospital with an Acute Coronary Syndrome.

Methods: We linked national hospitalisation, mortality and pharmaceutical dispensing data in people aged 35-84 years who had been discharged from hospital with an Acute Coronary Syndrome in 2007. A Medication Possession Ratio (MPR), representing the percentage of follow-up days that statins were dispensed, was calculated for each patient. Adequate statin maintenance was defined by a MPR of 80% or more.

Results: In 2007, 11,348 patients aged 35-84 were hospitalised for an Acute Coronary Syndrome. Ten percent of the cohort was Maori, three percent Pacific, two percent Indian and the remainder New Zealand European/Other. At one year post discharge, 76% of Indians and 70% of Europeans/Others were adequately maintained on statins, compared to only 58% of Maori and 57% of Pacific people. By the end of the three years of follow-up, these percentages had decreased to 71% of Indians, 68% of Europeans/Others, 55% of Maori and 54% of Pacific people. After adjusting for multiple factors, including age, gender, diagnosis and previous cardiovascular history, Maori were 12%, and Pacific people 18%, less likely to be adequately maintained on statins both one and three years following an Acute Coronary Syndrome.

Conclusions: Compared to other ethnic groups, Maori and Pacific patients were less likely to be maintained on statin medication following an Acute Coronary Syndrome.

Implications: Given that there are marked ethnic inequalities in cardiovascular health in New Zealand, it is essential that we prioritise efforts to increase the prescription and utilisation of evidence-based therapy, such as statins, in Maori and Pacific people.
**Gender differences in the treatment of Maori, Pacific and non-Maori/non-Pacific New Zealanders with end-stage kidney disease**

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**Issue:** Gender is known to influence access to healthcare and subsequent treatment patterns. Disparities in risk factors for cardiovascular disease, treatment utilisation and types of treatment received between Māori, Pacific and non-Māori/non-Pacific (other) New Zealanders with end-stage kidney disease have been described. However, gender differences in treatment patterns within these ethnic groups have not been extensively examined. Identifying any differences is essential to ensuring appropriate delivery of care in order to optimise treatment outcomes for all patients with end-stage kidney disease.

**Aims:** To examine gender differences in treatment patterns of end-stage kidney disease for Māori, Pacific and other New Zealanders.

**Methods/Action:** Adults aged ≥18 years who commenced kidney replacement therapy (dialysis or transplantation) between 2001 and 2010 in New Zealand (N = 4,856) were identified within the Australia and New Zealand Dialysis and Transplant Registry (ANZDATA). Patients within ANZDATA were categorised by treating clinicians as Māori (890 men, 639 women), Pacific (416 men, 379 women) and other New Zealanders (1,578 men, 954 women). Outcomes included late referral to nephrology care (i.e. within only 3-months of commencing treatment), initial dialysis modality and preemptive and non-preemptive kidney transplantation. We used Poisson regression with robust standard errors to calculate relative risks (RR) and 95% confidence intervals (CI) for outcomes by gender within each ethnic group adjusted for age, year of starting kidney replacement therapy, body mass index, late referral, primary cause of kidney disease, medical comorbidities and smoking.

**Results/Achievements:** There were no significant gender differences in late referral to nephrology care within each ethnic group. Compared to men, women within all ethnic groups were less likely to receive haemodialysis (Māori, RR 0.88, 95% CI 0.80–0.97; Pacific, 0.86, 0.83–0.89; other, 0.83, 0.76–0.90) and more likely to receive peritoneal dialysis (Māori, 1.27, 1.05–1.54; Pacific, 1.73, 1.49–2.01; other, 1.31, 1.18–1.46) as their initial dialysis modality. There were no gender differences in preemptive transplants within each ethnic group however Pacific (0.58, 0.41–0.82) and other New Zealand women (0.90, 0.84–0.96) were less likely to receive a non-preemptive transplant during the study period than men.

**Conclusions:** Gender differences exist in the treatment experiences of Māori, Pacific and other New Zealanders who have end-stage kidney disease. The extent of disparity appears to be more pronounced for Pacific women.

**Implications:** Exploration of the causes and impact of these gender differences on patient experiences and treatment outcomes has the potential to maximize patient benefit and avoid potential disparities in the delivery of care.
Enhancing health service access and responsiveness for Pacific people

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Issue: Faced with poor health outcomes for Pacific People, Auckland District Health Board (ADHB) undertook a Pacific Health Needs Assessment which revealed a need to improve health workers ability to engage with Pacific patients, families and communities who were receiving care from ADHB services.

Aims: To develop Pacific Best Practice (PBP) training workshops which aim to;
- Increase knowledge and understanding of who are Pacific people.
- Improve cultural knowledge, skill acquisition in order to better engage with Pacific patients/families/communities.
- Understand key values, attitudes & perceptions of Pacific people to health.
- Highlight key themes critical for successful engagement with Pacific patients/families/communities.
- Provide opportunities for participants to reflect and discuss provision of culturally competent service delivery and care.

Actions: An independent evaluation was commissioned to determine 1) the effectiveness of PBP training and 2) recommendations for further development of the training. Information sources included pre and post training tests, post evaluation feedback from each of the 36 training events, programme documents and reports, eight key stakeholder interviews, observation of a PBP training and an electronic survey of past PBP participants.

Achievements: Attendees (480) of the 36 PBP workshops run since 2011 reported in their post course evaluations they were enthusiastic about the PBP training and came away from the training full of hope for what they would change in their practice and engagement with Pacific. Surveys revealed half the respondents were now confident that they can engage their Pacific clients appropriately. Despite their earlier hopes only 43% manage to provide sufficient time to engage effectively during their encounters with Pacific patients and families. The scenario approach utilized during training was seen as very valuable for helping attendees to deal with situations they encounter.

Conclusion: Given the overwhelming support PBP receives and the anecdotal reports of change it would appear PBP is on the right track. Most attendees would say the training is too short to achieve all it intends to, yet key stakeholders would prefer shorter sessions. The experiential, highly interactive approach is much appreciated and significantly improves attendee understanding of the importance of Pacific-appropriate-engagement. There are currently insufficient PBP attendees to achieve organizational change within ADHB in the way all frontline staff engage with Pacific peoples.

Implication: If health professionals do not understand their Pacific patients and lack the skill to engage effectively with this important group of health service users the ideal of improved management of their chronic conditions will remain elusive. PBP is a unique training programme that when experienced changes the way frontline staff understand and interact with Pacific.
Te Pou; A bi-cultural framework for professional supervision

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Issue: Hauora workers are working in our communities and health environments meeting challenges and issues that impact on their own wellbeing of mind, body, spirit and relationships. Social Workers include supervision into their practice to support them through these challenges. Now other disciplines, such as Community nurses, Health Promotors, Community/whanau ora kaimahi, are realising the value of professional supervision.

Aims: The aim was to develop a supervision framework that recognises a Maori world view that can support the supervisee to feel valued and validated while building their confidence in problem solving and developing their skills and capability.

Methods/Action: Te Pou is a old Maori karakia that was used at the planting and harvesting of a food garden. This is used as a framework to guide the supervisee to recognise the areas that support his/her own growth in their work. Four Pou (areas of support) are identified by the supervisee and these are utilised to support the process of discovery, reflection or resolution. The four pou are: Whanau/whakapapa, Rangatira a mahi, Matauranga, Wairua.

Results/Achievements: This framework has been well received by those that have seen it. It was recently presented to Te Wananga o Aotearoa, Supervision in a Bi-cultural context’ students in Auckland and was requested to be available for the Gisbourne class as well. It has also been presented as professional development for the Waitemata DHB Child and Family supervisors. Te Pou has been used with non-Maori supervisees as well and received positive response.

Conclusions: A framework based on a Maori theme is appropriate for Professional supervision with Maori Hauora workers. It is also appropriate for non-Maori.

Implications: Professional supervision is a valuable tool to support hauora workers in today’s busy and challenging society. Appropriate frameworks for Maori add further value to their practice.
An unexpected socially accountable journey - Interprofessional health promoting practice in New Zealand

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Issue: The global consensus for social accountability of medical schools¹ specifically includes recognition that “regardless of their specialties future doctors need to be explicitly active in population health and its coordination with individual health, in health promotion as well as risk and disease prevention and rehabilitation for patients and entire communities”. Initiatives in interprofessional education are encouraged to be socially accountable.² However in practice, the concept of social accountability is given little weight in curriculum design.³

Aims: To foster socially accountability in a rural, clinically based interprofessional programme for final year undergraduate students from six health professions (Dentistry, Dietetics, Medicine, Nursing, Pharmacy and Physiotherapy). The programme also exposes students to a positive rural experience grounded in Tikanga Māori and all students are supported in aspects of Hauora Māori and cultural competence by the local team.

Actions: The interdisciplinary academic team recognised the need to devise a practical way by which key learning outcomes could be assessed. Educational challenges included ensuring specific assignment tasks were professionally neutral student contribution was equal and the process transparent. It was agreed the students would work closely with local service providers and communities on various community health promotion projects that could be of immediate benefit to the community and facilitate student learning. Projects were generated by community agencies that had identified a clear need within their group. Prior health promotion experience of each student was unknown at the outset.

Results/Achievements: Qualitative data analysis from 7 focus groups (the first 84 students) identified a ‘social accountability’ theme in relation to this key piece of interprofessional work. Initially, students gave mixed responses as to the value of the project in the end-of-run survey, but when student recollections of the project in the focus groups were analysed, the execution and production of those projects were increasingly reported as powerful learning experiences. Health agencies involved were very positive about the outcomes from the various projects, with developed resources from a number now being actively used in the communities. In a rural community with limited means, the social accountability of ‘giving something tangible back’ was key to engagement with the community and sustainability of the programme.

Conclusions: For some students the direct relevance of the projects, conceived as needed by community agencies, to their prospective role as health professionals initially proved challenging. As the courses progressed, students increasingly recognised not only the relevance of their project work to the community, but also their social obligation and secondary fulfilment to ‘give something back’ to a community where they could. In this situation it has been possible for student project work to be framed in a manner that is socially accountable.

Implications: Clinically-based interprofessional education programmes explicitly incorporate interprofessional competencies such as ‘active collaboration with families and community’; therefore such programmes have unusual potential to be socially accountable to the communities in which they take place. Opportunities to work with undergraduate health professional training programmes to devise locally appropriate and socially accountable population health activities are ripe for development in New Zealand.
How to develop a Health Promoting Schools (HPS) framework that accelerates equity, nationally consistency and provides evidence of impact via effect sizes?

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Issue: How to develop a Health Promoting Schools (HPS) framework that accelerates equity, nationally consistency and provides evidence of impact via effect sizes?

Aims:
1. To embed Kaupapa Māori and a culturally responsive approach into framework, tools, professional learning, national database and evaluation methodology
2. To develop a framework that supports national consistency and evidence-based best practice
3. To develop evaluation methods that can provide measurement of progress and evidence of impact via effect sizes

Methods/Actions: The New Zealand National Health Promoting Schools Strategic Framework was developed through a values –driven, evidence based methodology. It takes a systems and community development approach. Key elements in the development of the framework include:
• a partnership with Māori, where indigenous knowledge and approaches have been integrated into the framework
• an explicit focus on Māori, Pasifika and vulnerable whānau/families and those experiencing the greatest inequities in the school community
• a theory of change based on international and national evidence about how improvements in health and educational outcomes are best achieved in New Zealand school community settings
• process and outcome evaluation methods that provide evidence of impact via effect sizes

Results/Achievements: The New Zealand National Health Promoting Schools Strategic Framework
• builds on what communities already do and know
• uses a community development approach that responds to the prioritised needs and solutions that have been identified by the whole community
• focuses on those who are experiencing the greatest inequities
• provides health and wellbeing activators, bringing together agencies to collectively meet your communities needs
• transforms and enables sustainable change
• provides evidence of impact (effect size) at a local, regional and national level.

Conclusions:
1. Those who experience the greatest inequities need to;
   • play a key role in the development of health promotion programmes/initiatives, tools and evaluations
   • be a key focus for health promotion resources
2. The world views and approaches of indigenous people need to be integrated into health promotion frameworks
3. Evidence of impact (effect size) at a local, regional and national level tells us where we are now, where we want to be and the next steps
4. Evidence of impact (effect size) provides both a formative and summative evaluation tool

Implications: The New Zealand National Health Promoting Schools Strategic Framework development process, tools and evaluation methodology are transferable (and have been transferred across other health promotion initiatives nationally and internationally.)
Flourishing Schools: A best practice model for promoting mental, emotional and social wellbeing

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Issue: Childhood is seen as the platform for positive mental health and wellbeing in later life and children and young people who are mentally healthy will be more prepared to engage and learn at school. It is well known that poor mental health is commonly associated with low academic achievement and higher rates of school suspension and expulsion. There are also disparities in mental health and academic outcomes with Māori and Pacific experiencing poorer mental health outcomes across the lifespan.

Aims: To present a best practice model for low decile schools to design and develop initiatives to promote mental, social and emotional wellbeing.

Methods / Actions: A cluster of Hawke’s Bay Schools were approached to be involved in a pilot project. The HBDHB project leader engaged with pastoral care and senior management at the two selected schools and a leadership group was formed - the wellbeing team - which had representatives from the whole school community, including school staff, students and parents/whānau. The team was responsible for a comprehensive needs assessment; FEAT (Flourishing Environments Analysis Tool), Photovoice, and a School Community Survey were used to find out more about how well the school fosters “flourishing” [1]. FEAT provided the schools with a lens to review policies, practices, relationships and the whole school environment which positively affect the wellbeing of the school community. It is based on the Five Winning Ways to Wellbeing [2] a set of evidence based activities that promote mental wellbeing. Once the schools completed the needs assessment a report was presented to the school. This guided the planning phase including the development and implementation of initiatives. A formative, process and outcome evaluation was conducted to assess project design, implementation and outcomes achieved.

Results/Achievements Evaluation findings showed that children had increased self esteem and were more positive with their interactions with teachers and peers; personal and social skills were enhanced; increased understanding of the importance of wellbeing in school; positive impact on children’s understanding of behaviour; the wider school experienced improved tone and culture and fewer behavioural problems; decreased need to provide anger management support; children were more settled, tolerant, accepting and supportive toward each other.

Implications: The pilot project including the partnerships with the Mental Health Foundation and SHORE and Whariki Research and a comprehensive evaluation has provided the HBDHB with a robust evidence based model. Flourishing Schools is currently being implemented in four school settings in high deprivation areas with a high Māori population. The pilot schools are involved in an ongoing evaluation to measure medium and long term outcomes. We continue to investigate how we can create a more sustainable model and opportunities to work collaboratively across the health, education and social sector.

2 Aked, Marks, Cordon & Thompson (no date). Five Ways to Wellbeing, Centre for Wellbeing, nef (the new economics foundation).
Advancing health in all policies for children in New Zealand: Attitudes toward children and childhood

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**Issue:** The poor state of children’s health and wellbeing in New Zealand over the last twenty-five years has been well documented. While there have been some areas of progress, poverty, inequities and high rates of preventable disease persist. Within public health, there is growing use of political science theory to progress the “Health in all policies” strategy by increasing understanding of the many influences on the policy process, such as the roles of policy actors, institutions, the political and economic system, and ideology about the role of the state. However, underlying societal attitudes specifically relating to children may also have an important influence.

**Aims:** To identify key sociological theories on children and childhood and explore whether these may provide a useful lens through which to examine public policy decision-making processes.

**Methods:** A literature review was conducted by searching health and social science databases and reference lists from relevant articles, using search terms such as “children” or “childhood”, “sociology” or “history”, and “theory”.

**Results:** There is substantial sociological literature which may have relevance to child public health. Childhood is not a fixed, universal concept but is socially constructed and diverse. The “new sociology of childhood” views children as an integral part of any social system, holders of rights and active participants in society. It is argued that traditionally, children have been considered ‘human becomings’, incomplete and incompetent human beings, and members of an invisible and socially excluded group. Other theorists argue that children are seen as innocent and vulnerable (‘little angels’), or they are viewed as delinquent and out of control (‘little devils’). Theory continues to evolve, responding to criticism about the use of inflexible dichotomies, for privileging a Western paradigm, and for not incorporating diverse cultural perspectives and complexity.

**Conclusions:** Theories on societal attitudes toward childhood and the place of children in society may advance our understanding of the many influences on the public policy process, and particularly, why New Zealand public policy has not been more effective for children. This knowledge may be used to develop strategies to improve the way in which children are considered in public policy, including utilising Māori and Pacific views of children.

**Implications:** Healthy public policy is a major health promotion strategy however advances have been modest. Theories on childhood appear to offer another lens through which to examine the policy process; such a perspective may shed light on strategies to improve public policy for children.
The significance of healthy workplaces on health and wellbeing

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Issue: Health, work and wellbeing are inextricably linked [1]. To increase people’s wellbeing, it is imperative to understand the critical role of the workplace. ‘Good work’ is one of the influences of the societal determinants of health and wellbeing and health inequalities affecting individuals, families/whanau, communities, society, business and the economy. With an increase in chronic conditions, often lifestyle induced and an ageing workforce will present enormous challenges and burdens at numerous levels. The workplace is a microcosm of society, an ideal place to promote healthy lifestyle choices, but there has been little recognition in New Zealand (NZ) of this. Links to organizational and societal outcomes are often not made or understood.

Aims:
- To increase the awareness of the critical interface of ‘good work’ and healthy workplaces for improving health and wellbeing at multiple levels to inform policy and practice
- Recognition that there needs to be collaboration, partnerships, holistic and cultural alignments for the best outcomes
- To understand the key measures and outcomes, that will be able to demonstrate cost-effective analysis to support population health, organizational performance and sustainable health care

Methods/Actions:
- Recent Masters studies, ‘Examining Healthy Workplaces’ revealed an abundance of supportive evidence.
- These were reinforced through a ground level perspective, qualitative audit of a large number of healthcare staff and the ongoing developing qualitative and quantitative work within our organization. These were, aligned with a cultural perspective of health, Te Whare Tapa Whā and the World Health Organizations (WHO) definition of health and the Healthy Workplaces definition and Action Model.

Results/Achievements:
- It is time to move the evidence into practice and the practice into the evidence

Conclusions: Evidence supports that, “A healthy workforce is key to a healthy population” [2]. The NZ and Australian Treasuries are now looking holistically at the multiple factors necessary for wellbeing, which include the individual, family, society, economy, government and the natural environment. The World Health Organization (WHO) has recognized the workplace as having a valuable, critical and imperative role to play for moving forward. They have identified that creating ‘Healthy Workplaces’ is the right, legal and smart thing to do [3].

Implications: It is imperative to consider the importance of good work and healthy workplaces as part of a population health approach towards improving our increasing poor health and wellbeing statistics. We cannot afford to ignore the critical interfaces, as the cost of inaction is high at many levels.

1 Black, C. 2012, Personal Communication
WorkWell - creating supportive working environments

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Issue: Changes in technology and the ways in which we operate have meant that more people are sitting all day at work and going home to sedentary lifestyles. This increase in sedentary behaviour, coupled with an aging population and delaying of retirement means we are already seeing and, without proactive action, will continue to see, an increase in chronic health conditions within the New Zealand workforce. The cost of health care, sick leave and lowered productivity occurring as a result of these conditions is in the millions. The workplace is matched only by the education setting as the most effective for promoting wellbeing, improving health outcomes and reducing inequalities.

Aims: The WorkWell programme developed by Toi Te Ora – Public Health Service aims to improve employee wellbeing (and indirectly that of families/whanau) by supporting workplaces in the Bay of Plenty and Lakes district to develop and operate environments that support those working within them to make positive health choices.

Methods/Actions: WorkWell provides a framework that supports workplaces to develop and operate effective and sustainable employee wellbeing programmes and supportive environments. Based on best practice, the WorkWell programme emphasises the importance of employee consultation and participation, as well as a multi-level approach; meaning consideration is given to organisational factors, the physical environment, individual health attitudes and behaviours, and wider community wellbeing. WorkWell incorporates an accreditation scheme, which assists participating workplaces to ensure sustainable quality action and maintenance of momentum and achievement. Workplaces are provided with free professional support, and a website containing various resources and tools is available to support them every step of the way. To ensure WorkWell is aiding the reduction of health inequities, resource priority is given to large workplaces with high numbers of Maori, Pacific, low skill, low wage employees, and/or those based in areas of high social deprivation.

Results/Achievements: WorkWell is currently being implemented within 40 workplaces, potentially impacting around 10,000 employees across the Bay of Plenty and Lakes districts. 12 of these workplaces have successfully achieved the Bronze Standard Accreditation, with a further eight moving on to also achieve Silver. One organisation has reached the Gold Standard, which requires approximately three years of sustained engagement. Interest has been indicated by nation-wide organisations and other District Health Boards and Public Health Units and, as such, WorkWell is also being delivered by Canterbury Community and Public Health Service. A pilot was undertaken on behalf of the Ministry of Health to help inform a national workplace wellness approach.

Conclusions: WorkWell is the first comprehensive workplace wellbeing scheme to be offered free to workplaces in New Zealand. Through WorkWell, workplaces are supported to develop healthy working environments. The programme has proved very popular, and has been implemented within a wide range of industries and organisations of all sizes.

Implications: The development of healthy working environments will be essential to ensuring social and economic growth through a healthy, productive and sustainable workforce. The population is aging and people are working longer. Proactive action is required to ensure the working population is healthier for longer, and the workplace setting is the ideal avenue through which to implement this.
Move Aotearoa Pilot

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Issue: Only 51.7% of adults are currently meeting the New Zealand (NZ) physical activity guidelines (1). This means that just under half of the adult population is considered physically inactive which includes sedentary behaviour, both of which can contribute to poor health. One of the key barriers to being more physically active is lack of encouragement or support from others (2).

Background: Auckland Regional Public Health Service delivers a Workplace Health (WPH) Programme called Heartbeat Challenge (HBC) within which physical activity is one of the priority areas. A key objective of HBC is to reduce the potential risks associated with chronic diseases through the promotion of physical activity and its benefits in the workplace. An annual walking programme called Feetbeat is offered within HBC however, this is only offered from September to November. Feedback from HBC workplaces, the WPH team and Feetbeat participants indicated support for an additional physical activity challenge that was available for workplaces throughout the year, and which included pedometers and activities other than walking. Based on this, a board game called ‘Move Aotearoa’ was developed as a pilot programme. Move Aotearoa encourages HBC workplaces, family and whanau to get more active by challenging participants to achieve 10,000 steps a day over eight weeks, working their way around a board to 44 destinations in NZ. A leader board and additional family boards are provided to create a supportive environment that fosters motivation, competitiveness and camaraderie.

Aims: The aim of this pilot was to assess whether implementing an interactive board game in the workplace resulted in participants:
- being physically active
- achieving the NZ physical activity guidelines
- becoming aware of their current physical activity levels
- experiencing motivation to be active
- engaging their families in physical activity.

Methods: In April 2014, 76 HBC workplaces were invited to participate in the pilot and if interested were asked to complete a selection criteria form. Selection criteria included the provision of a challenge coordinator, at least 20 participants and management support. 16 workplaces indicated interest of which four formerly registered and were selected. 222 participants were involved in the pilot and 17 family boards were used. Programme coordinators provided overall feedback, participants completed a feedback form and four participant focus groups were held across the workplaces.

Results: 52% (115) participants completed the pilot and 23% (51) completed the feedback form. 51% (25) of respondents increased their physical activity levels with 61% (30) meeting the physical activity guidelines. 68% (35) felt motivated to exercise and 8% (4) had family members participate with them. Participants found new and innovative ways of being more active, those who were not active daily thought about it more, their awareness increased of how much activity they were doing and the 10,000 steps required extra effort and gave them something to aim for. Key recommendations to strengthen the programme included making the challenge team based, including incentives, reviewing how to engage families more effectively and sourcing new pedometers.
Conclusions: This pilot demonstrated the potential for physical activity initiatives in the workplace that are available any time of the year, include all types of activities and reduce sedentary behavior. The introduction of Move Aotearoa as part of HBC is currently being considered.

Heartbeat Challenge™: a successful comprehensive workplace health programme.

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Issue: Heartbeat Challenge™ is a health improvement programme supporting workplace environments that are conducive to health and wellbeing. It is a multi-strategy holistic workplace health programme based on a best practice framework (WHO), and underpinned by the Ottawa Charter, Te Tiriti o Waitangi, Te Whare Tapa Whā and Pacific Models of Health.

The programme is funded by the Ministry of Health and is free to companies of 50 staff or more, ‘where the need is most’ i.e. lower paid workers, and those with a high percentage of Maori, Pacific, and/or South Asian staff.

Aims: Heartbeat Challenge™ addresses lifestyle issues and chronic risk factors in the workplace. There are five priority areas; healthy eating, physical activity, smokefree, workplace wellbeing (including stress management), and harm minimisation from alcohol and other drugs. The programme aims to develop the commitment of workplaces to creating an environment that reduces barriers and increases opportunities to improve and maintain the health of their staff (increasingly, research is being published showing that workers who are healthier have a lower risk of worksite accidents [1, 2].

Methods/Actions: Enrolled workplaces implement a broad range of strategies that encompass the five priority areas already mentioned. A team of health promoters, a clinical partner (Public Health Medicine Specialist) and Dietitians work alongside the workplace to facilitate the programme, and help design interventions, programme indicators and measurements that achieve their desired objectives. Collaboration with community agencies is critical to the success of the programme. An award is achieved on meeting the necessary criteria. The award expires after two years, at which time the award can be renewed by completing additional health promoting interventions in each priority area, thus ensuring continual strengthening and sustainability of the programme.

Results/Achievements: Heartbeat Challenge has been successful in a wide variety of types and sizes of workplaces with the added benefit of improving staff attitudes about their place of work, the company and themselves. Structural and organisational changes have occurred which are sustainable, and created an environment which has the potential to improve the health of a large segment of the working population.

Conclusions: Heartbeat Challenge is currently active in 108 workplaces throughout the Auckland region. It is a workplace programme based on best practice, and tailored to the needs of each individual workplace. A feedback form is filled out by workplaces when they apply for their award/renewal and a survey of all active workplaces is carried out annually. The responses to these inform improvements to the programme, which is continually under review with a quality improvement programme in place. Some results from these surveys will be presented.

Implications: Workplaces are an excellent site for health promotion as time spent at the workplace exceeds that spent in other locations and opportunities exist for health messages to extend beyond the workplace gates to the extended family.

Southern hemisphere influenza and vaccine effectiveness research and surveillance (SHIVERS) in New Zealand

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Issue: Influenza and other respiratory infections have a large and potentially preventable impact on population health. The “Southern Hemisphere Influenza and Vaccine Effectiveness Research and Surveillance” (SHIVERS) project is a multi-centre and multi-disciplinary collaboration established in 2012 for a five year period. The SHIVERS project has 9 objectives: 1) understand severe acute respiratory infections; 2) assess influenza vaccine effectiveness; 3) investigate interaction between influenza and other respiratory pathogens; 4) ascertain the causes of respiratory mortality; 5) understand non-severe respiratory illness; 6) estimate influenza infection through a serosurvey; 7) determine influenza risk factors; 8) study the immune response to influenza; and 9) determine the healthcare and societal economic burden and vaccine cost-effectiveness of influenza.

Aims: The focus of this presentation is to describe the pattern of influenza-associated severe acute respiratory infections (SARI), influenza-like illness (ILI) and measure influenza vaccine effectiveness for the 2013 influenza season.

Methods: We established two surveillance systems for the 838,000 residents living in the Auckland and Counties Manukau District Health Board’s. The first is active, prospective, population-based surveillance for all hospitalised SARI cases (4 hospitals), a portion of non-SARI respiratory cases, all ICU respiratory admissions and deaths. The second is sentinel (18 providers) general practice-based, active, prospective, population-based surveillance (covering 12% of the catchment population) for ILI cases. A case test-negative design was used to estimate influenza vaccine effectiveness.

Results: During the 2013 influenza season (29-April to 29-September 2013), influenza-associated SARI rates were highest in infants (122/100,000 population in persons aged less than one year), in Pacific (51/100,000) and Maori (27/100,000) ethnic groups, and in those from the most deprived socio-economic status (SES) group (51/100,000). In contrast, influenza-associated general practice ILI consultation rates were highest in children aged 5-19 years (640/100,000) and 1-4 years (488/100,000), in the Asian ethnic group (573/100,000) and in those from the least deprived group (498/100,000). Influenza vaccination provided 52% (95%CI 32-66) effectiveness against laboratory-confirmed influenza hospitalization and 56% (95%CI 34-70) against laboratory confirmed influenza presenting to general practice.
**Conclusions:** Results from SARI and ILI surveillance during the 2013 influenza season showed contrasting socio-demographic patterns with inverse ethnic and deprivation gradients seen for influenza-associated ILI in sentinel practices compared with influenza-associated SARI in hospitals. This study found moderate effectiveness of influenza vaccine against medically-attended and hospitalised influenza, though the populations presenting with influenza are markedly different in general practices compared to those admitted to hospital.

**Implications:** The hospital-based SARI and sentinel practice-based ILI surveillance systems provide a research platform to comprehensively investigate influenza epidemiology, virology, immunology and vaccine effectiveness. Results from SHIVERS investigations will help to improve disease surveillance, guide targeted vaccination, inform vaccine design, optimize clinical management and laboratory diagnosis, identify risk factors, and understand host immune responses.
Estimating the contribution of influenza to hospitalisations in New Zealand

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Issue: While Influenza is a common respiratory infection, it is not systemically tested for in hospitalisations. Much of its disease burden is thought to come from triggering circulatory events (notably myocardial infarctions and strokes) where an influenza diagnosis is not suspected or investigated. Consequently, the recorded contribution of influenza to hospitalisations is likely to greatly underestimate the true burden of this largely preventable disease.

Aims: This project aims to estimate the total impact of influenza on hospitalisations for all age groups in New Zealand over the 1988 to 2013 period.

Methods/Actions: Weekly counts of hospitalisations were obtained from the national hospitalisation dataset and weekly counts of isolates of influenza and other respiratory viruses from ESR for the period 1988 to 2013. Influenza hospitalisations were categorised according to the following ICD-10 disease groups: influenza and pneumonia (J09-J18, 480-488), respiratory (J00-J99, 460-519), circulatory (I00-I99,380-459), medical illness (A00-N99, R00-R99, 001-629, 680-739, 780-799) and all causes (including childbirth, perinatal, congenital, injury) (A00-Y99, 001-999). For each cause of hospitalisation category, Poisson regression modeling will be applied to estimate the number of influenza related hospitalizations by age group (all ages; under 1; 1-4; 5-19; 20-34; 35-49; 50-64; 65-79; over 80) and ethnic group. Virology data (influenza A, influenza B and RSV) are inputs for the model. The number of influenza related hospital admission will be calculated by the discrepancy between the number estimated by the general model and the number estimated by the model if virus counts are set to zero.

Results/Achievements: Detailed results will be available in August 2014. They will show the estimated incidence and distribution of influenza-related hospitalisations for the 26 year period 1988 to 2013. They will also be estimated for major disease categories and compared with the coded incidence of influenza over that time. Rates will be calculated across age, ethnic and NZDep groups.

Conclusions: This research will provide, for the first time, a robust estimate of the impact of influenza on hospitalization in New Zealand, in total and for major disease categories.

Implications: This research has a number of important public health implications:

- It will provide valuable information on the burden of influenza in New Zealand and its health and economic impact.
- It will help identify opportunities for greater prevention efforts, particularly for young children and the elderly where disease burden is highest, eg provide guidance to inform vaccination policy for specific age groups.
- It will show whether influenza is making a large contribution to excess winter hospitalisations, which are a major cause of illness and pressure on health care systems.
- It will provide a partial validation of the modelling approach by allowing comparison with results from others studies, notably the SHIVERS project being run in the Auckland Region.
Improving rheumatic fever surveillance in New Zealand: Results of a surveillance sector review

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Issue: The New Zealand (NZ) Government has made a strong commitment to reduce the incidence of rheumatic fever (RF) by two thirds, to 1.4 cases per 100,000, by mid-2017. Despite this, it is unclear what the current true incidence of RF is, due to major flaws affecting every major relevant surveillance system operating on a national scale.

Aims: We reviewed the NZ RF surveillance sector, aiming to identify potential improvements which would support optimal RF control and prevention activities.

Methods: This review used a recently developed surveillance sector review method. Interviews with 36 key informants were used to describe the sector, assess it and identify its gaps. Priorities for improvement and implementation strategies were determined following discussion with these key informants, with policy advisors and within the research team.

Results: Key improvements identified included the need for a comprehensive RF surveillance strategy, integrated reporting and an online national RF register. At a managerial level this review provided evidence for system change and built support across the surveillance sector.

Conclusions: The surveillance sector review approach can be added to the small set of tools currently available for developing and evaluating surveillance systems. This new approach is likely to prove useful as we confront the challenges of combating new emerging infectious diseases, responding to global environmental changes, and reducing health inequalities.

Implications: A comprehensive RF surveillance strategy should be developed in order to communicate and coordinate improvements. A tangible way to begin integrating surveillance activities would be to implement a periodic, national RF surveillance report based on data compiled by a national rheumatic fever register.
Ethnic differences in rates of throat swabbing and detection of Group A Streptococcal (GAS) pharyngitis for the primary prevention of rheumatic fever in Auckland, 2010 - 2013

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Issue: Acute rheumatic fever (ARF) particularly affects Māori and Pacific children in New Zealand, with the highest regional incidence reported in Auckland. The Rheumatic Fever Prevention Programme (RFPP) was initiated in 2011 with a focus on targeted school-based throat swabbing for the detection and treatment of Group A Streptococcal (GAS) pharyngitis in 5-14 year old children at high-risk of ARF.

Aims: (1) To assess the effect of the RFPP on the targeting of throat swabbing for suspected GAS pharyngitis to Māori and Pacific children at high-risk of ARF.
(2) To assess the effectiveness of the RFPP in contributing to declines in ARF incidence based on: a) declines in ARF incidence; and b) whether index ARF cases are identified and swabbed prior to hospitalisation.

Methods: Microbiological culture results of throat swabs performed on children between 2010 and 2013 were collected from Auckland’s community laboratory. Ethnic differences in annual incidence rates of swabbing, GAS detection and percentage test positivity (number of GAS positive swabs/number of swabs) were calculated for 5-14 year old children. Multivariate analyses of differences in rates of throat swabbing and test positivity were performed. Index ARF hospitalisations in the study population were identified for 2010 to 2013 from the National Minimum Dataset, with National Health Index linkage to the swab sample.

Results: The incidence of throat swabbing and GAS detection in children with pharyngitis in Auckland increased between 2010 and 2013, particularly in Māori and Pacific children, and in both primary healthcare (PHC) and school programme settings. Percentage test positivity was lower in school-based than PHC swabbing in 2013 (13.3 % v 21.7%, respectively). Non-statistically significant increases in the annual incidence of index ARF hospitalisations in 5-14 year old children in Auckland, and in the proportion of index ARF cases with a preceding throat swab (0-63 days pre-admission) were found. 78% (76/97) of index ARF cases in 2013 had no swab prior to hospitalisation.

Conclusions: The RFPP improved alignment of sore throat swabbing practices in Auckland with national guidelines. This resulted in a marked increase in throat swabbing and GAS detection in children at high risk of ARF. However, increased swabbing was not associated with reduced index ARF hospitalisations in Auckland, nor with improved detection of presumed pharyngitis in ARF cases prior to hospitalisation.

Implications: The RFPP has improved the targeting of primary preventative strategies to children at high risk of ARF. However, there remains limited evidence supporting the effectiveness of throat swabbing strategies for ARF primary prevention in New Zealand. Ongoing research into the aetiology of ARF and alternative primary prevention strategies is recommended.
**General Practice making a change for good – ‘Rapid Response’ for sore throat management**

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**Issue:** General practice teams have been a focus in the Ministry of Health’s Acute Rheumatic Fever Prevention plan over the last year. Effective management of sore throats in the high risk population contributes to the prevention of acute rheumatic fever.

**Aim:** To improve sore throat management by practice teams in order to prevent acute rheumatic fever in the high risk population.

**Methods:** During 2014 general practice teams involved in the ‘Rapid Response’ sore throat management programme took part in a sore throat management clinical audit process using an approved tool. They then identified areas for improvement under the domains of assessment, clinical practice, care planning, support for high risk families, and resources. The audit tool draws on established processes of quality improvement and in particular the Institute of Healthcare Improvement’s Breakthrough Series. A training package for staff including a workbook, advanced form and e-learning was used to up-skill and refocus practice around sore throat management which includes trained nurses working under standing orders and giving appropriate antibiotics ‘on the spot’.

**Results:** Baseline audit results showed low scores in the domains of assessment, clinical practice, care planning and resources for most practices. All practices have implemented changes in practice including using up to date guidelines, understanding who is at risk, considering health literacy, an advanced electronic form in the patient management system, and utilising nurses for assessment, swabbing and provision of antibiotics. Nursing development was included in the areas for improvement for practice teams. It is predicted that the six month audit taking place in September 2014 will show improved scores in all domains. These score improvements will be presented and discussed. The use of enhanced nursing roles and the electronic form has already improved sore throat management and this is now measurable.

**Conclusions:** The process of self-assessment, identifying areas for improvement and re-assessment has been proven to improve the holistic management of population health issues. There has been a high uptake of the nurse-led model with early numbers also showing a good level of practice participation.

**Implications:** This method is far more resource intensive that just providing clinical updates and education sessions to practice teams. However, the process has already started to show obvious improvement in sore throat management for high risk children. This method can easily be replicated for other child health issues such as skin infections and acute respiratory conditions.
Economic evaluation of a school intervention to reduce the risk of rheumatic fever

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Issue: Rheumatic fever resulting from streptococcal infection of the throat, and consequent heart disease, are major issues for underprivileged Māori and Pacific children in New Zealand. Sore throat clinics (STCs) in schools are likely to reduce the risk of acute rheumatic fever and thereby improve survival of Māori and Pacific children.

Aims: To evaluate the cost effectiveness of STCs for prevention of acute rheumatic fever (ARF) in children in primary/intermediate schools.

Methods/Actions: A Markov model was developed to represent the lifetime impact of one year of primary prevention of ARF with STCs in high risk New Zealand (NZ) schools. It includes the incidence rate, natural history and costs of ARF and rheumatic heart disease; secondary prophylaxis; medical management of carditis; cardiac valve repair/replacement; the overall efficacy of community interventions to prevent rheumatic fever; and the annual cost per child of STCs. The model has a cycle of one year and terminates at age 95. It takes a healthcare payer perspective but excludes costs to families. Future costs and health benefits are discounted at 3.5% per annum.

Results/Achievements: If STCs are 59% efficacious and cost on average $NZ135 per child per year, for schools at an ARF incidence rate of 75 per 100,000, STCs can be expected to cost about $NZ60,000 per QALY gained or $NZ190,000 per ARF case averted or $NZ2m per death averted. These figures are sensitive to the efficacy and annual cost of the intervention and the incidence of ARF but robust to uncertainty in other variables. The main costs are for project workers and laboratory culture, and the main uncertainty is the efficacy of the intervention.

Conclusions: Sore throat clinics appear to be moderately cost effective from a NZ government perspective. Their cost effectiveness could be improved by containing staffing costs and/or reducing the cost of laboratory diagnosis of group A streptococcus. Implementation of this intervention would reduce the striking disparity between Māori/Pacific and others.

Implications: Sore throat clinics targeted to high risk primary and intermediate schools are a good investment in health.
Collaborative partnerships: Effective community engagement in rheumatic fever awareness campaigns in the Bay of Plenty

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Issue: Acute rheumatic fever (ARF) is an avoidable cause of illness and premature death in New Zealand, with high rates in Māori and Pacific children. Overcrowding, economic deprivation and decreased treatment opportunities increase the risk of a person developing ARF. Raising awareness of the disease, its consequences and how to prevent it has been a key focus for Toi Te Ora since 2009. Local understanding, partnership and collaboration within the whānau, hapū, iwi context has been central to this approach.

Aims: To increase awareness of the importance of getting children’s sore throats checked and treated quickly to prevent ARF. To increase general awareness of ARF across the Bay of Plenty (BOP).

Methods: Multi-media awareness campaigns were run by Toi Te Ora in 2010, 2011, 2012 and 2014. Funding was provided by BOP District Health Board. The key audiences were Māori and Pacific parents, families, whānau, of school-aged children. Activities included:

- Press releases, advertorials and commissioned articles in newspapers
- Locally voiced radio adverts on community/iwi radio stations (with a te reo mihi)
- Kanohi ki te kanohi (face to face) approaches
- Development and dissemination of English and te reo resources and panui
- Development of a rheumatic fever website

Innovative resources and messages incorporating local whakaahua were utilised for the campaigns. School based throat swabbing programmes, pamphlets and posters were fronted by local champions who generously shared their images and stories. By ensuring local ownership of the resources and messages, community health workers (CHWs) empowered their tamariki, schools and communities.

Results: Street surveys (n=732) undertaken in Tauranga, Whakatane, Opotiki and Kawerau in 2010 and 2011 demonstrated an increase in knowledge and awareness of ARF. A separate survey undertaken by Toi Te Ora in 2012 verified this result; with 65% of respondents answering that sore throats can lead to ARF and 82% reporting that if they had a sore throat they would ask for a throat swab. This was evidenced by a marked increase in the number of throat swabs taken across the BOP from 2010. An evaluation of the 2014 awareness campaign was undertaken in August. This coincided with the 2014 Winter Campaign run by the Ministry of Health and Health Promotion Agency. Preliminary results indicate that national television commercials featuring the Katoa twins were well received and clearly recalled.

Conclusions: The ARF awareness campaigns used a variety of communication modes to develop and disseminate culturally appropriate messages and resources. Running the multi-media campaigns in partnership with the school based swabbing programmes ensured messages built on existing relationships and maintained a presence after the media campaigns finished. Television adverts also appear to be very effective. This presentation will elaborate on lessons learned.

Implications: Collaborative partnerships, community and kanohi ki te kanohi engagement were crucial elements of effective awareness campaigns in the BOP. These approaches, messages and resources have been shared regionally and nationally. Working in partnership to address ARF will contribute to achieving equity for Māori and Pacific children.
MANA KIDS: School communities as a focus for a new nurse – led model of care

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Issue: Acute Rheumatic fever (ARF) and Rheumatic Heart Disease disproportionately affects Maori and Pacific children in New Zealand. ARF results from an autoimmune response following a group A streptococcal throat infection. Overcrowding, poverty and poor health literacy are key drivers to this condition. Nurse-led clinics provide preventive services, early identification of health issues, interventions, and referrals that foster health and educational success.

Aims: Mana Kidz, a school based health service within Counties Manukau provides a platform to meet the needs of those at risk of rheumatic fever. This collaborative integrated model of care illustrates an opportunity to use a Primary Care approach to improving population health. As the school is an effective setting for health promotion, health services provided will contribute towards the reduction in rates of ARF as well as other child health issues such as skin infections.

Methods/Actions: Our experiences show that building meaningful relationships with the school community are critical to the success of school based programs. Health services are delivered in low decile Primary and Intermediate schools five days a week by Registered Nurses and Whanau Support Workers. Barriers to the diagnosis, prevention and treatment of sore throats as well as other child health issues such as skin infections are addressed. Standing orders provides a safe and effective means of improving and increasing access to primary care. Impacts of the wider determinants of health such as poverty and housing are addressed through nursing advocacy and education. Staff training, robust clinical tools and support is essential to the delivery of a safe and effective nurse-led service. The development of training packages and resources has been an interesting journey. We were committed to ensuring that this contributes towards quality of service.

Result/Achievements: Mana Kidz was deployed across 61 schools in less than nine months through a formal Alliance that engaged 12 Providers including NGOs, the DHB and PHOs. This programme is now showing measurable impact on the wellbeing of high needs children. Key challenges we face are medication adherence and a transient population. Innovative strategies are implemented to help overcome these.

Conclusion: Nurse led clinics provide benefits not only to the community but also to health service systems and funding bodies.

Implications: Consideration for suitable funding that includes a career pathway for both nurses and Whanau Support Workers is necessary. A national level policy on nurse-led school health centres would be a worthwhile investment.
Prehospital treatment of meningococcal disease in New Zealand: Who gets it and does it work?

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Issue: Meningococcal disease is a devastating infection and early treatment is agreed to be essential in reducing the risk of death. For this reason, in many countries including New Zealand, general practitioners (GPs) are advised to give parenteral (ie intramuscular or intravenous) antibiotics to any person whom they suspect to have meningococcal infection, before referring them to hospital. However, two large studies have reported an increased risk of death for cases who had been treated in this way, compared to cases who had not received antibiotics.

Aims: The primary aim of this study was to resolve this controversy by estimating the effect of pre-hospital parenteral antibiotics on the case fatality risk in meningococcal disease.

Methods/Actions: This was an observational study of NZ meningococcal disease surveillance data for 1995-2006 (n=5340). A major challenge of the analysis was to minimise bias from confounding. Adjusting for multiple confounders in logistic regression analyses introduced the potential for selection bias because of missing data patterns across the model covariates. Missing data were therefore imputed using chained equations, and the findings were examined using quantitative bias analysis methods to assess the likely impact of bias from unmeasured confounders.

Results/Achievements: Among the 3403 meningococcal patients who were seen by a GP before admission the case fatality risk was 3%, and prehospital antibiotic treatment was associated with a reduced risk of death (adjusted and imputed OR 0.53; 95%CI 0.32 – 0.88).
New Zealand Medical Assistance Team support to the Solomon Islands following flash flooding, April-May 2014

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**Issue:** During the first week of April 2014, the Solomon Islands experienced severe flash flooding as a result of Cyclone Ita. 50,000 people on the main island of Guadalcanal were affected, and at least 9,000 had their homes destroyed. A New Zealand Medical Assistance Team (NZMAT) clinician was deployed on the first New Zealand Government relief flight to perform a rapid assessment of secondary care capacity. It was determined that facilities were coping at this early stage; however, likely that capacity could be overwhelmed with increasing acute disease presentations often seen following flash flooding and displacement. Subsequently, an increase in diarrhoeal case presentations was seen the following week. The New Zealand Government received an official request for assistance from the Solomon Islands Government on 14 April. The request was for medical staffing support to Honiara National Referral Hospital (NRH) Emergency Department to cope with the surge in acute disease presentations.

**Aims:** To describe the response of the New Zealand Medical Assistance Team (NZMAT) in the Solomon Islands, the effectiveness of a Foreign Medical Team (FMT) working within an existing healthcare facility post-disaster and the role of a public health physician within the deployed team.

**Methods/Action:** All relevant NZMAT deployment documentation was reviewed, including intergovernmental emergency taskforce meeting notes and daily situation reports. Hot and cold debriefs were held with NZMAT team members to reflect on achievements and areas for improvement.

**Results/Achievements:** NZMAT deployed a team including: emergency medicine physicians, paediatricians, public health physicians, emergency medicine nurses and logistics personnel. The team provided 24 days of support to Honiara NRH in their facility and treated in excess of 3,000 patients. A team rotation was successfully completed after 14 days. Public health physicians in each rotation provided critical assistance in multiple domains, for example: data collection and surveillance; monitoring and treatment guidelines; advice on sanitation, hygiene and vector control issues; strategic support to the NZMAT leadership structure.

**Conclusions:** This was the first NZMAT led deployment. The agreed mission objectives were successfully met with critical support provided to Honiara NRH for managing the surge in acute disease presentations. The deployment identified specific considerations for surge support within an existing health care facility, as opposed to within a temporary facility. The current NZMAT training and operational procedures provided an appropriate level of preparation for the environment. The deployment allowed exploration and clarification of the role and function of a public health physician within NZMAT.
Implications:
1. NZMAT provides a niche capability for New Zealand to provide targeted medical assistance, including public health expertise both domestically and internationally.
2. NZMAT continues to have the potential to deploy based on specific governmental requests from sudden onset disaster settings. Team composition will be appropriately matched to the request and relevant disaster epidemiology.
3. NZMAT will persistently remain cognisant of evolving international standards for FMTs, integrating these standards into operational procedures and future deployments.
Changing the cinderella status of sexual and reproductive health in New Zealand: Evidence for action on social and economic determinants

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Issue: Sexual and reproductive health has traditionally been the Cinderella of our health sector; overlooked and neglected. We lag behind other countries, lacking national strategy and leadership. Sexual and reproductive health outcomes show stark inequities, with Māori, Pacifika and GLBTI1 young people the worst affected. Yet research evidence increasingly supports the potential of sexual and reproductive health action to influence the major social and economic determinants of health.

1 Gay, lesbian, bisexual, trans and intersex

Aims: This presentation will discuss how sexual and reproductive health strategies can improve social and economic outcomes, reduce inequity, and save public money. We will synthesise research findings on the social and economic impact of investing in sexual and reproductive health, including estimates of cost-benefit.

Findings: International evidence links sexual and reproductive health intervention with health, social and economic benefits – and improvements in equity. A review of research over the past three decades, for example, concludes that access to contraception is associated with better educational achievement and employment outcomes for women, and reductions in the gender pay gap.

Conclusions: Based on appraisal of the evidence, we call for greater policy priority on sexual and reproductive health. A national approach should use a population-health perspective to promote wellbeing and address the multiple determinants of sexual and reproductive health.

Implications: There is an urgent need for the following priority actions:

• Stronger political commitment and leadership on sexual and reproductive health
• A national coordinated strategy and action plan with a focus on reducing inequities (Implement Recommendation 6 of the Health Select Committee report on improving child health and preventing child abuse)
• Nationwide implementation of comprehensive sexuality education in schools and communities that emphasises respectful relationships and skill development.
Collaboration in action: Implementing the sale and supply of alcohol act 2012

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Health Promotion Agency, New Zealand

Issue: Success is not the work of one but of many. A collaborative approach involving multiple stakeholders has been and continues to be a key element in the successful implementation of the Sale and Supply of Alcohol Act 2012 (the Act).

Aims: The object of the Act is that: the sale, supply and consumption of alcohol should be undertaken safely and responsibly; and that the harm caused by alcohol should be minimised. To help facilitate the successful implementation of the Act, the Health Promotion Agency (HPA) is providing a support role as well as leading a number of successful projects.

Method/Action: HPA has a statutory function to provide advice and research on alcohol-related issues, including the sale, supply, consumption, misuse and harm from alcohol. Its work to support the Act involves many of its alcohol staff including national and regional advisors, policy analysts, and researchers as well as staff skilled in social marketing, communications and resource production. The core approach is working collaboratively both internally and externally at multiple levels with government ministries, Police, public health services, territorial authorities, district licensing committees, community organisations, large event organisers, alcohol industry and the public.

Results/Achievements: This presentation will showcase the range and scope of HPA’s collaborative work and learning:

- from policy input into the Law Commission’s review to Select Committee submissions to government agency working groups
- from ‘Cool Dad’ TV ads on social supply to resources for parents
- from factsheets to guidance on alcohol promotions to an intoxication prevention tool
- from webinars to regulatory agency training to community workshops
- from online guidelines to submissions on local alcohol policies
- from support for alcohol management plans at large events to water stations
- from presentations to select committees and councils to industry conferences
- from research on alcohol outlet density to indicators to evaluate the Act.

Conclusion: A lot has been achieved in a very short time period and strong ongoing relationships built with multiple agencies involved in the Act’s implementation. Achievements include an increased knowledge about the changes in the Act by the public, regulatory agencies, territorial authorities and the alcohol industry.

Implications: Steeped in examples of population health policy and practice in action, HPA’s work undertaken so far has improved the implementation of the Act and has provided tools to assist those who are required to use it. HPA is continuing to identify gaps and provide guidance and advice to support all those now working with the new Act.
Getting more bang for your health buck: how cost-effectiveness research can help

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Issue: Deciding how best to spend limited health dollars is challenging for decision-makers at any level. How do you choose what to spend money on (and what not to spend money on) when everything seems important? Robust cost-effectiveness research is one tool in the decision-making toolbox.

Aims: The BODE³ research programme aims to provide decision-makers in health with cost-effectiveness information that can help inform how they allocate limited resources. We take any one health ‘intervention’ and investigate its costs, effects, and cost-effectiveness.

Methods/Action: We use disease and economic modelling to evaluate health interventions. New Zealand data is used to populate these models. The models allow for uncertainty (due to lack of perfect knowledge), for genuine variation (say by age, sex, or ethnicity), and can test different ‘what-if’ scenarios. For a given intervention, the models provide estimates of costs (health system costs), effects (health gains and inequality impact), and cost-effectiveness.

Results/Achievements: To date, we have investigated the cost-effectiveness of a range of health interventions: from tobacco taxes and cancer care coordinators, to HPV vaccination and salt reduction strategies. Selected results are being presented today. We disseminate results through a range of avenues, with the aim of making what is often complex research accessible and interesting.

Conclusions: The importance of considering cost-effectiveness is generally accepted, but the practicalities are tricky: there is sparse local information, substantial uncertainty, and it can be complex. The rationale behind BODE³ is to try and fill this gap using NZ data, rigorous methods, and investing in research translation.

Implications: Deciding how best to spend limited health dollars is difficult. It will only continue to become more challenging as the population ages, chronic conditions become more common, new health technologies become available, and public expectations rise. If value-for-money is the goal, then cost-effectiveness research helps make both the value and the money more palpable for the decision-maker.
Teaming up to take the pressure down

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Issue: Stroke is New Zealand’s third largest killer yet, around 80% of strokes are preventable. Keeping blood pressure at a healthy level is one of the most important things that people can do to reduce their risk of stroke. Around one in five New Zealanders have high blood pressure.

Aim: The aim of the Down with Blood Pressure Campaign was to raise awareness amongst New Zealanders about blood pressure, its relationship to stroke, and the importance of having regular blood pressure checks.

Methods: Working in partnership with Foodstuffs, blood pressure testing sites were set up at supermarkets nationwide along with some non-supermarket locations. Tests were carried out by St John and Wellington Free Ambulance volunteers from 10am-2pm on the 5th October 2013. Rotary volunteers distributed blood pressure information packs and recorded blood pressure readings along with participant demographics. Participant recall of their last blood pressure reading was also recorded. A telephone survey was undertaken three months later to evaluate short term campaign outcomes. The campaign has now run for four years allowing for analysis of changes in campaign measures.

Results: In 2013, nearly 20,000 shoppers had their blood pressure tested at 168 different sites, an increase on previous years. Demographics were close to the national average with slightly more females and people of European ethnicity.

Around 60% of participants had blood pressure falling in the ‘normal’ range, while 47% had ‘raised’ readings. These findings are similar to previous years. In 2013, 13% of participants were referred to a GP due to high readings.

Twenty eight percent of participants said they had at least some knowledge of their last blood pressure reading. This compares with 20% in 2012 and just 13% in 2013. Over 80% of participants had awareness of high blood pressure being the major risk factor for stroke in 2013.

Forty percent of participants in a follow up survey (n=367) said they were taking actions as a result of their blood pressure reading or due to information received on the day (mostly lifestyle related).

Conclusions: This collaborative campaign is far reaching and results suggest it is playing a part in raising New Zealanders awareness of blood pressure, its relationship to stroke, and the importance of having regular checks. Though behaviour change was not a primary aim of the campaign, we hypothesise that it may be related to the fact that high blood pressure is often asymptomatic. Readings therefore act to raise participant understanding of the ‘seriousness’ of high blood pressure and their ‘susceptibility’, which are both key pre-requisites to behaviour change in the Health Beliefs Model.

Implications:
• Further explore the logic behind the reported behaviour change to strengthen future campaigns.
• Explore the feasibility of contributing to the Governments health targets by using the campaign as a ‘sign post’ to drive participants to their GP for a full heart and diabetes check.
Medical students’ involvement in population health advocacy

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Issues: Health professionals have both the power and responsibility in advocating for key issues shaping the populations’ health. Advocacy is an important aspect of the work of health professionals. Many medical students want to do something on the issues shaping our health whilst still studying but feel that they lack the means to. We see student years as an important time to build advocacy skills of medical students both as future health professionals and also as youth.

Aims: We aim to create a platform for medical students to learn about and engage in advocacy for population health issues.

Methods/Actions: The issues we advocate on are strongly driven by current population health priorities as well as interest of the students on a grassroots level. From time to time, we come together to agree on topics for advocacy across all medical schools to further cohesion and effectiveness. We advocate in partnership with other population health organizations. We empower medical students through training in advocacy skills and education sessions on population health issues. We advocate on issues through many tactics such as meeting MPs, writing submissions, signing petitions and writing letters. On top of advocacy, we also build awareness and encourage medical students to take direct action on population health issues.

Results/Achievements: We have conducted advocacy campaigns on climate change, lignite mining, home insulation and TPPA over the past few years. Prior to the last general election, we partnered up with OraTaiao to meet MPs on climate change and health across the country. Our petition on climate change to the minister of health received over 500 signatures. We produced a comprehensive report on lignite mining and wrote over 100 letters to MPs. We have made submissions on Auckland unitary plan, Auckland low carbon plan, plain packaging, as well as home insulation and gambling in Dunedin. We are running a campaign on healthy housing in New Zealand leading up to this election. We have mobilized many medical students in advocacy and there are now a lot more conversations on advocacy at medical school.

Conclusions: There is great potential for medical students to engage in population health advocacy.

Implications: Engagement of medical students in advocacy can facilitate their involvement in advocacy throughout their future career as clinicians. Further work needs to be done in creating strong partnerships in advocacy with other population health organizations. There is also potential for integrating advocacy training into the medical curriculum.
What is the impact of running a public health blog in New Zealand?

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**Issue:** Non-traditional media is increasingly being used as a form of information dissemination for policymakers and health workers. The Public Health Expert (PHE) blog was created in order to inform these audiences, providing a means to distribute new information and commentary in a timely manner and to promote active discussion on public health issues.

**Aim:** To describe the initial impact of a new blog site on public health issues in New Zealand.

**Methods/Actions:** Two academics (Blakely and Wilson) regularly scan for relevant topics that arise from routine work. The blog site encompasses posts on public health issues such as cancer, cardiovascular disease, tobacco, obesity, alcohol and nutrition. Blogs themselves can be crafted in 30 minutes to an hour. The blog administrator (Sloane) processes the raw text using WordPress – ([https://blogs.otago.ac.nz/pubhealthexpert/](https://blogs.otago.ac.nz/pubhealthexpert/)), uploads them onto the site, and posts them when timely. Blog analytics are recorded through Google Analytics to show the activity of the blog site once a blog is posted. Twitter is also used to tweet about current blogs. Once a blog is posted, people are able to write comments and ask questions about the blog content. This needs to be screened so that the comments are appropriate and are not a form of spam.

**Results/Achievements:** The PHE blog site has currently posted 49 blogs since July 2013, with over 200 people having email subscribed to receive blog notifications and it has attracted about 200 Twitter followers as of May 2014. Blogs appear to receive up to 1000 hits. The blog site has triggered requests by other organisations for the use of material from relevant blogs in their dissemination of information such as brochures. The blog is also syndicated on SciBlogs, New Zealand’s leading science blogging site. One blog appears to have resulted in a briefing session with a multi-party group of parliamentarians, several appear to have resulted in media interviews, and two have generated related op-eds.

**Conclusions:** The PHE blog has allowed the dissemination of research results and discussion on topical public health issues by public health experts. The blogs enable the information to be distributed quickly. The blog site could be of use to policymakers, media, politicians, public health professionals and the public more generally.

**Implications:** The blog has proven useful for up-skilling colleagues, media and other policy audiences. As there appears to be a receptive audience to this public health blog, other public health groups (both in academia and in NGOs) could also consider trialling a blog site.
Waiting to see the doc: Exploring the journey into primary care

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Issue: Many people face barriers in accessing primary care. Most literature focuses on financial barriers however it is evident that a number of other barriers exist as well, including the acceptability of a practice. One of the key figures within general practice, that facilitates access for patients, is the receptionist.

Aims: This study focuses on the role of the receptionist and the space that they inhabit - the waiting room. It explores the journey that people make in attempting to make an appointment and waiting to see the doctor.

Methods: This is a qualitative study that is underpinned by a participatory visual methodology. 15 patients were interviewed around their experience in:
1. Making an appointment
2. Interacting with receptionists and
3. Waiting in a waiting room

Participants were recruited from demographic groups that historically report poorer access to primary care. These include youth, mothers with young children, elderly, mental health consumers, transgender people and Maori. Recruitment occurred through the assistance of non government organisations that are representative of the previously mentioned demographic groups. Participants were invited to draw a picture that represents their idealised journey. The drawings underwent shared analysis. The data, generated by interviews and discussion on the drawings, were thematically analysed. Dissemination of results will occur through a public display of drawings and quotes in which primary care providers and non government organisations will be invited.

Results: Results of the study indicate that people experience a number of barriers. Many people experience problems with using a phone, judgemental behaviour by receptionists impacts on a persons care, costs associated with seeing a GP can delay care, anxiety occurs throughout the entire journey into primary care and the waiting room is viewed in a negative light by many. Patients do however value the receptionists role and see them as providing healing care. The welcome that is provided by a receptionist and the embracing of patients in a non physical context by both receptionists and waiting rooms is a key component of a positive journey into primary care.

Conclusions: Receptionists and waiting rooms can act as a barrier to care for disadvantaged groups. This is an understudied area that deserves more attention. Implications Receptionists are historically an unregulated, untrained workforce that provide an important role in facilitating access into primary care yet there is very little policy that encourages training. This study indicates that policy focusing on improving the acceptability of practices, in the context of their waiting room and reception staff may decrease perceived barriers for some disadvantaged communities.
Books on Prescription: managing well-being using self-help reading

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Issue: New Zealand has a high prevalence of anxiety and mood and disorders, with significant unmet need. The NZ Mental Health Survey found that over a 12 month period only 39% of people with a mental disorder had visited health services. “Bibliotherapy”, or the use of high quality books and manuals to treat common psychological problems, is one of the key self-help strategies recommended in the treatment of depression and anxiety [1].

Aims: The overall aim was to make psychological treatments available to a wider range of people by extending the self-help method. The main aims were to provide evidence-based self help resources for patients and clinicians to improve mental health outcomes and to offer an appropriate level of treatment for the majority of people with common mental health problems, in an easily accessible setting which also facilitates connection to local services.

Methods/Action: The Southern PHO gained permission from Dr. Neil Frude [2] to implement the Books on Prescription (BOP) Scheme, a successful UK model, and first approached the Public Library and health professionals in Wanaka to pilot the scheme in 2011. Self-help books recommended and reviewed by health professionals were made available for anyone to borrow from the library. GPs and other health professionals are able to offer their clients helpful information and self-help books for mild to moderate mental health problems. BOP resources were produced and the scheme promoted and launched to health professionals and the public.

Results/Achievements: BOP has been progressively rolled out throughout Otago and Southland. It is now available in nearly all of the Public Libraries in this region and to staff and students at the University of Otago through their Medical Library. Monitoring of the libraries book lending records indicates it is used regularly by professionals and the public. In 2014 Southern PHO will evaluate the programme and results will be available later in the year.

Conclusions: The scheme has been well received by professionals, public and libraries. The scheme strengthens and complements our existing primary mental health services and supports the Stepped Mental Health Model. High quality mental well-being literature is available for free in 14 urban and rural libraries across Otago and Southland.

Implications: The Books on Prescription Scheme is now a national scheme in the UK and its popularity suggests that this could be good practice for New Zealand. The involvement of the public libraries and continual promotion of the scheme is crucial. Audio books were included for those with a basic level of literacy or visually impaired. The scheme could be further extended to cater for younger readers or those with a basic level of literacy or readers with English as a second language.

Interactive Workshop: The Smokefree National Action Plan (SNAP) 2016-2018

Convenor: Prudence Stone (director@sfc.org.nz), Smokefree Coalition

Issue:
Immediately following government’s commitment in 2011 to making Aotearoa New Zealand a smokefree nation by 2025, the National Smokefree Working Group (NSFWG) initiated nationwide consultation with the sector, to develop a logic model and series of action plans towards achieving that goal. The Logic Model may be found here. The current set of action plans (SNAP 2013-2015) may be found here. Lead agents (presenters of this workshop) were delegated by the NSFWG to monitor and report against the action plans, to identify gaps or duplications in the work or in each region.

Aims: For the lead agents to:
1. present progress against the SNAP 2013-2015,
2. and initiate consultation with the national public health community on the development of SNAP 2016-2018.

Provisional format and programme:
1. Copies of SNAP 2013-2015 will be disseminated and explained, with a brief summary of how the NSFWG has structured the monitoring and reporting (powerpoint presentation)
2. Audience will be split into 3 groups:
   - Bruce Bassett will lead an effective cessation group
   - Stephanie Erick will lead a policy/advocacy group
   - Skye Kimura-Paul will lead a health promotion/ community engagement group
   Each group will open the corresponding Part (1-3) of the current SNAP to discuss:
      - progress to date
      - progress following success, ie. the next actions
      - troubleshooting failure, or variance of success between regions
   Each group will be asked to notate their discussion for report back to larger group
3. As one group, presenters will facilitate discussion to draw the causal and collaborative links between actions in different parts.

Contributors:
- Prudence Stone, Smokefree Coalition
- Bruce Bassett, Quitline
- Stephanie Erick, ASH
- Skye Kimura-Paul, Cancer Society
Interactive workshop: A manifesto for planetary health; Do manifestos and declarations make a difference?

Convenors: Robert Beaglehole (r.beaglehole@auckland.ac.nz), Ruth Bonita (r.bonita@auckland.ac.nz), John Raeburn (jm.raeburn@xtra.co.nz): Prior Policy Centre; Doone Winnard (Doone.Winnard@middlemore.co.nz) and Members of the Congress Declaration Working Group

PART 1: From public to planetary health: a manifesto

Issue: The first half of the workshop will address the issues described in the Manifesto for Planetary Health and their relevance to New Zealand, in particular the disconnection between the preoccupations of the public health workforce and new and pressing issues such as global crises, that will determine the health of all populations both now and in the future.

Aims:
2. To explore the relevance of this manifesto to public health practitioners and health promoters and other sectors in New Zealand.
3. To identify steps we can take to promote planetary health in New Zealand and beyond.

Process:
- Introduction by chair: the purpose of the workshop - Ruth Bonita, 3 min
- Origins of the manifesto, its main points, and actions taken since publication of the manifesto, including a short (3min) video – Robert Beaglehole, 8 min
- Adding “heart and community” to the manifesto – John Raeburn, 5 min
- Small group discussion on next steps for the manifesto – 25 mins
- Plenary discussion of next steps – 15 min

PART 2: The role of manifestos, charters, declarations

The second and related half of the workshop will address the purpose, process and ‘public voice’ of manifestos, charters and declarations with special reference to this Congress. Over the years public health communities around the world have focused their voice in various ways (manifestos, declarations, charters), with different purposes. Similarly groups involved in other collective endeavours have articulated their voice on matters of relevance (e.g. the Talloires Declaration about university campus environmental sustainability efforts, the Paris Declaration on Aid Effectiveness). There are learnings from international and local processes used to develop these 'voices' which can usefully be applied to our population health practice.

Aim:
To explore international and local examples of the 'voices' of public health and groups involved in other collective endeavours to extract learnings for population health practice, drawing on the experience of Prior Policy Centre members and members of the Congress Declaration Working Group.

Process:
- 30 minute interactive presentations/whole group discussion led by workshop convenors on experience working on international and local ‘voices of public health’ (e.g. Ottawa Charter, Bangkok Charter, Helsinki Statement, IUPHE work) and the process of the Congress Declaration
- 20 minute small group discussions about the application of the wider issues regarding the development of ‘voices’ of public health to population health practice
- 5 minute summary of key learnings and next steps.
Working together to improve Asian and ethnic minority health and wellbeing: Lessons learned and future challenges

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**Issue:** The fast-growing Asian and other ethnic minority populations in New Zealand over the past two decades have brought significant changes to New Zealand’s demography, economic activities and cityscapes, and have impacted on the health delivery system. Ongoing development of culturally appropriate health care and continuous collaboration within the health systems, between sectors, and with Asian and ethnic minority communities are required to ensure that further policies, resources and programmes are leading toward greater equity in health for New Zealand’s diverse populations.

**Aims:** In July 2014 a national symposium was organised by the Centre for Asian and Ethnic Minority Health Research based in the School of Population Health, University of Auckland. The theme of the symposium was “Working together to improve Asian and ethnic minority health and wellbeing”. The event provided a timely opportunity for health practitioners, service managers, researchers, students, representatives from government and non-government sectors and communities to present research and discuss recent advances and issues in Asian and ethnic minority health. The presentations and discussions aimed to increase our understanding of what has been done, what is being done and what should be done to improve the health and wellbeing of our Asian and ethnic minority communities.

**Methods/Action:** One keynote presentation and 33 paper presentations were made at the symposium. The presentations were organised into the following topics: (1) child and youth; (2) women & family; (3) older people; (4) chronic conditions and disability; (5) mental health; (6) mental health promotion; (7) health promotion; (8) transnational experiences; and (9) research and evaluations. Over 80 people attended and shared knowledge and experiences in dealing with the health issues faced by ethnic populations.

**Results:** Access to equitable health and mental health services remain a major problem for Asian and ethnic minority communities. The pattern of under-utilisation of health care services can lead to under-reporting of health needs and delays in treatment. Some initiatives being developed to address these disparities were discussed at the symposium, including: programmes to raise awareness of family violence (e.g. “E tu Whanau”), problem gambling (e.g. Gamblefree Day) and mental health issues (e.g. Asian Plus+); using information communication technology to improve access to health information and services (e.g. textMATCH); utilising cultural models of health (e.g. spiritual and health beliefs meaningful to clients); developing resources (e.g. CALD Cultural Competency Training Programme) for health practitioners and working strategically in partnership with a wide variety of agencies and communities (e.g. UMMA Trust; Grandview community gardens). The age structure of the Asian population is changing. Between 2006 and 2013, the numbers of Asians under 5 years of age increased by 50%; those aged 25-34 years increased by 59% whereas older people aged 55-64 years and 65+ years increased by 85% and 70% respectively. The specific health issues faced by Asian children, young people (including the experiences of the 1.5 generation and international students), older people, women and families were discussed in a range of presentations at the symposium. These presentations capture the voices of the various population groups, their families and communities, as well as the views of health practitioners and service managers. Understanding these perspectives is vital to develop responsive services delivery that addresses the needs of diverse populations.
Conclusions: The symposium offered opportunities for attendees to learn about different models of practice, innovations and achievements. There is clearly more work to do. Some presenters raised the need to improve the health literacy of Asian and other migrant and refugee communities, and to build their capacities to advocate for their own needs.

Implications: Ongoing monitoring and reporting of health status of Asian and ethnic minority communities is vital. Studies have already indicated that Asian populations show particular risk factors for chronic illness, such as their low levels of physical activity and insufficient daily fruit and vegetable consumptions. Combined with their under-utilisation of healthcare services, the chronic disease burden in New Zealand’s Asian and ethnic minority populations could increase quite dramatically over the next decade or so. Strengthening communities and fostering interagency and inter-sectoral collaboration is vital for continuous policy and service development leading to greater equity in health and wellbeing for all New Zealanders.
Addressing health inequalities in Asian populations living in the Auckland region: a response by two District Health Boards (DHB)

Samantha Bennett (Samantha.Bennett@waitematadhb.govt.nz)

Issue: Although Asian life expectancy is higher than other ethnicities in Auckland District Health Board (DHB) at 84 years and Waitemata DHB 89 years, and highest in New Zealand at 89 years [1], Asian communities face inequalities in health status among the main Asian ethnic groups such as Chinese (9%), Indian (7%) and Other Asian (6%) living in the region. In Auckland DHB’s catchment, the Asian population makes up nearly a third (29%) of its total population and in Waitemata DHB, Asian is the second largest group (18%) of the total Waitemata DHB population. Key health issues among Asian populations in Auckland region include lack of preventive behaviours, high rates of chronic conditions such as cardiovascular (CVD) among South Asian people, diabetes prevalence, cervical screening coverage, mental health, and family violence [2].

Barriers [2] experienced across the Asian ethnic groups that contribute to health inequalities include access to health services, language and lack of knowledge about the New Zealand health system, cultural competence among health professionals and services, Primary Health Organisation (PHO) enrolments, cost issues, transport difficulties, ethnicity data collecting and reporting, and stigma associated with health issues.

Aims: The Auckland and Waitemata DHBs in collaboration with key partners is committed to addressing inequalities in health status across the Asian population by adopting a regional approach (where possible) to plan, deliver and monitor services and interventions across the priority areas that meet the health needs of culturally and linguistically diverse (CALD) communities.

Methods/Action: In the absence of a national Asian health plan to guide planning, three key groups have been established to lead implementation of the Auckland and Waitemata DHB Annual Plans (2014-15) – Asian, Migrant and Refugee chapter, and Mental Health & Addiction chapter, they are:
1. Asian & Middle Eastern, Latin American and African (MELAA) Health Governance Group
   (Auckland DHB and Waitemata DHB)
2. Auckland Regional Asian & MELAA Primary Care Working Group
3. Waitemata DHB Mental Health & Addiction Governance Group

Each Group is responsible for the development, implementation and monitoring of their respective Governance Plans to provide oversight across the priority areas and services. At a provider level, Waitemata DHB has established the Asian Health Support Services which delivers culturally appropriate, accessible, consumer-orientated and effective services to Asian migrant and refugee communities.

Results/Achievements:
Key results include:

Establishment of the Waitemata DHB Asian Health Support Services
- Appointment of an Asian, Migrant and Refugee Health Gain Manager, Planning, Funding and Outcomes Unit to oversee and drive Asian, migrant and refugee health gain across two district health boards
- Development of an Asian Health Action Plan 2014-15 for Auckland and Waitemata DHBs
- Childhood immunisation rates at 8 months and 2 years exceeding national targets of 95%
- Asian PHO enrolment rate: Auckland DHB (74%), Waitemata DHB (77%)
- Indian population who had an annual diabetes review: Auckland DHB (70%), Waitemata (51%)
• Cervical cancer screening rate for Asian women: Auckland DHB (61%), Waitemata (62%) (September 2013)
• Healthy Babies, Healthy Futures initiative developed to improve nutritional and physical activity outcomes for mothers (including pregnant mothers) and their infant children amongst high risk groups (Maori, Pacific, Chinese, Korean, Japanese and South Asian)

Conclusions: Despite Asian populations experiencing overall good health outcomes and higher life expectancy compared to other priority populations - issues of access, language and cultural competence of health services, and dedicated funding to targeted health services continue to impact on inequalities and disparities between Asian and European populations, and between Asian subgroups.

Implications: Key implications for policy, planners and funders of services include: establishing complete and accurate data on level 2 Asian subgroups to guide planning and monitoring of services, appropriate recognition of Asian health needs in regional and national health-related policy, planning and monitoring, targeted health services, and culturally competency training to the health workforce.

1. Internal report. Planning and Funding Team, Waitemata DHB. September 2013.
The Earth Moved

**Wayne Reid** (wayne.reid@pegasus.org.nz)

Pegasus Health (Charitable) Ltd, Christchurch, New Zealand

**Issue:** The earth moved - and kept moving - from September 2010 until December 2011. The psychological impact for many people has not abated. However, the cause of that emotional impact has changed from one of a natural disaster, to one that is man-made. For migrants from both Asian and refugee backgrounds, the overwhelming bureaucracy, level of form-filling, lack of cohesiveness and uncertainty lead to psycho-social problems far beyond the capability of many to understand. Mental health issues - coupled with chronic disease and unemployment – compound themselves.

**Aims:** Projects addressing mental health and chronic disease issues through education and socialisation were discussed, defined and refined and put into place.

**Methods/Action:** Mental Health, chronic disease and self-worth are not an easy fix. In Christchurch’s East and CBD, people are constantly reminded of nature’s destructive forces. After three years, visible evidence has had a long-lasting impact. The emotional toll has a direct impact on lifestyle. Some are able to throw themselves into work. For those who are unemployed, this weight is added to that of Mother Nature. People turn to cigarettes, alcohol and gambling. How to address this myriad of negatives becomes the work of many networked organisations. Nutritional and exercise programmes addressed chronic disease, ladies swimming classes, over 50s outings, ladies health day, Under 5s expo, youth fora and youth camps are just some of the initiatives that have been carried out over the past year.

**Results/Achievements:**

*I feel happy that I come today* – Afghani woman.

*My first time here, I like this and want to come again* – Somali man.

*We come with my family, I love it here* – Ethiopian woman.

Whilst the above comments may be seen as superficial, they are – to us – major steps in the right direction. Engagement, involvement, socialisation; all three are achieved through the simple act of getting people together. This also reduces any cultural barriers which may linger.

Nothing our organisations do in Christchurch is done in isolation. Regular meetings are held with the Canterbury Refugee Council, Christchurch Resettlement Services, many other agencies and community groups. It would be wrong for us to assume that what we think is good for other people, is in fact good.

**Conclusions/Implications:** Research has yet to be carried amongst refugee background residents as to whether they as a group responded more fearfully than the mainstream Christchurch population. This is a factor which has been assumed; by too many people. Yes, the initial destruction may bring back bad memories. It is in the aftermath that people learn to assert themselves. As long as positive communication has existed in the past, people are able to anchor him or herself in the knowledge that he/she is not in this alone. It is the same with mental health, social isolation and nutritional. Each has a part to play in the other. But by addressing each part in turn, the whole becomes smaller, easier to manage. It is a road we have all found to be well worth travelling.
Prolonging the Healthy Migrant Status (PHMS) of Asian migrants: focus on developing a culturally appropriate methodology

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Social and Community Health, School of Population Health, The University of Auckland, New Zealand

Issue: People of Chinese and Indian ethnicities are the largest Asian subgroups in New Zealand (NZ) and it is projected that by 2026, 15% of the NZ population will be people of Asian ethnicity, a figure similar to that projected for the Māori population but surpassing that projected for the Pacific population in NZ. Evidence indicates that the healthy migrant status (HMS) of new migrants due to selection mitigates as the duration of residence increases. Research has indicated an elevated risk for type 2 diabetes and coronary heart disease among South Asian and cancers among Chinese, more so among second generation migrants. Disparities in health between Asian subgroups have also been reported. However, very few studies have investigated the reasons for the loss of the HMS among Asian migrants and the disproportionate distribution of diet related disease prevalence within Asian sub-groups. Methodological challenges such as poor sample size are a bottle neck of such investigations. The PHMS project was a scoping exercise to address the issues raised however, this presentation focuses primarily on the development of a survey tool and a culturally appropriate survey methodology.

Aims: To develop a survey tool to investigate the factors that impact on the health of Chinese and Indian migrants with a particular focus on NCDs and a culturally appropriate methodology to increase response rate of Asian health research

Methods: Gaps identified from the secondary analyses of the 03/04 and 06/07 NZ Health survey datasets (social factors) and the 08/09 Adult National Nutrition survey (dietary factors), adapted questions from China Nutrition and Health Survey and the Demographic Health Survey contributed to developing the PHMS survey tool. Chinese and Indian sounding surnames were extracted from the Auckland white pages and a multilingual (Chinese/English or Hindi/English) letter outlining the purpose of the study was mailed out to 1017 addresses (Chinese = 507; Indian = 510). After one week, trained multilingual interviewers telephoned potential participants to recruit them to participate in the Migrant Health pilot study. Respondents were given the option of participating via a self-completion questionnaire or a face to face interview either in English or Chinese dialects or Hindi.

Results: The PHMS questionnaire developed had six sections namely 1) Nutrition 2) Physical activity 3) Health Status 4) Living Standard measures 5) Health care access and 6) Demographics. The methodology developed to increase response rate of Asian health research proved to be effective in recruiting 40% of those eligible. Using Chinese and Indian sounding surnames enabled correctly identifying the ethnicity of 76% of those contacted. Majority of participants chose to participate via a self-completion questionnaire. Nearly all Indians chose to participate in “English” in contrast 81% of Chinese participants chose to participate in “Chinese”.

Conclusions: The methodology developed seems appropriate to increase the response to Asian health research. Providing an incentive for participation is likely to increase this response rate further.

Implications: The loss of quality of life of migrants and the economic cost due to early loss of HMS has implications both at an individual and societal level. Hence investigating the reasons for and the pace at which the HMS declines among migrant subgroups is imperative to develop and implement interventions using a public health approach.
Hypothetical: Ending Childhood Obesity

Chair: Rod Oram (rod.oram@nz2050.com), Auckland

Aim: The aim of this ‘hypothetical’ is to increase understanding of a complex public health problem, and to work towards identifying solutions through a rational, nuanced and consensus-building discussion. It promises to be a lively, informative, entertaining, and constructive session.

Content: This discussion continues the day’s theme of “Connecting with policy, business and culture”. The topic is ending childhood obesity, with the emphasis on environmental factors, particularly the role of marketing and the portrayal of food in the media.

The hypothetical proposition is that:

*The most effective and sustainable way to ultimately end childhood obesity, is to change our obesity-promoting environment so that children can make healthier choices.*

The discussion will be facilitated by Rod Oram, and will explore some of the themes that cut across many public health challenges:

(1) How important is child obesity as a public health issue?
(2) Do we have enough evidence to take stronger action?
(3) What is the best approach?
(4) Who is responsible?
(5) And how do we address cultural values and differences?

Participants: The panel brings together a broad range of views from leaders in public health, clinical medicine, food marketing and advertising, ethics and the media. The members include:

- Boyd Swinburn – Professor of Population Nutrition and Global Health, University of Auckland and Alfred Deakin Professor; Co-Director, WHO Collaborating Centre for Obesity Prevention, Deakin University, Melbourne.
- Colin Tukuitonga – Originally from Niue, now Director General of the Secretariat of the Pacific Community and Commissioner on the WHO global inquiry into Ending Childhood Obesity.
- Nick Wilson – Associate Professor based in the Department of Public Health at the University of Otago in Wellington, with a particular interest in the public health uses of taxation.
- Robyn Toomath – Endocrinologist and physician at Auckland DHB, and founder of Fight the Obesity Epidemic.
- Patrick Wilson – Managing Director of McDonalds Restaurants (NZ) Ltd, which includes providing support to McDonald’s five Pacific Island markets.
- Lindsay Mouat – CEO, Association of New Zealand Advertisers, and a board member of the Food Industry Group.
- Donnell Alexander - a registered dietician who currently heads the Network Communications Foodgroup and Wellington Network team.
- Martin Wilkinson - Associate Professor in politics at the University of Auckland who has published extensively on public health ethics.
- Nadia Lim - qualified dietician, published chef and well-known television personality.
Plenary: Climate Change in the Afterlife

Kirk R. Smith (krksmith@berkeley.edu), School of Public Health, University of California Berkeley, USA

Issue: Climate change presents perhaps the most challenging case the public health community has faced in trying to motivate behavior change to protect health because actions are needed today to protect health many decades hence.

Main points: Protection against severe climate change poses challenges to decision making for two major reasons: 1) the needed actions today have their most important consequences many decades in the future; 2) climate change poses the greatest “tragedy of the commons” that can occur on this planet, thus favouring non-action by individuals. There are only a few examples of society of taking expensive actions for long-term benefits, e.g. national park systems. Public health also has a few examples of impressing on some societies the need to modify behaviour for health benefits many decades in the future, e.g., stopping teenagers from smoking. New framings taken from broader realms of investigation into human behaviour may be valuable in helping address the most difficult of all of these temporal challenges, climate change.

Using perspectives from the moral philosopher Samuel Scheffler and the social historian Steven Pinker, I will explore how the shift of human values needed to make difficult and expensive decisions today to protect the future may actually fit existing trends and values in society. Scheffler’s “Afterlife Conjecture” is that believable threats to even an indefinite human future would profoundly affect today’s values, i.e., we in a real sense care more for the future than the present. Some future climate scenarios would place humanity in a world very much altered from today, i.e. threaten Scheffler’s Afterlife and thus today’s values. Pinker documents the worldwide reduction in the rates of violence over human history that is still spreading in contrast to common perception. Climate change will harm many groups not able to protect themselves – arguably violence by one group on another that could be ameliorated by extending Pinker’s trend of violence reduction across time as well as geography, potentially changing the perceived nature of the “Global Commons”. Insights of philosophers and historians as well as climate scientists and epidemiologist may be essential to learn how to change values in time to avoid the worst impacts from climate change.
Master class: A history of life and death in New Zealand

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Life expectancy summarises the causes of disease and injury in a single number. It takes account of the credits as well as the debits: it embodies all the behaviours, circumstances and interventions that promote health or detract from it.

Aim: To explore reasons for the astonishing decline in human mortality that has occurred in, historically speaking, the bat of an eyelid, and to understand some of the implications for social policy, health care and disease prevention.

Content: This master class will review the long history of human life expectancy, with particular emphasis on the New Zealand experience. Comparisons will be made with trends in Australia and the wider Pacific. It will tackle questions such as: Why did Non-Maori in New Zealand live longer than anyone else in the world for 70 years? Why did the health of indigenous peoples crash, and then recover spectacularly in the first half of the twentieth century? Recently life expectancy in New Zealand and Australia has been increasing at roughly 2 to 2.5 years per decade—that is, a staggering six hours every day. Why? If we wish to maintain this trend, we need to focus on the health of children – true or false? The rise of obesity means today’s children will probably have shorter lives than their parents – true or false?

The class will include short presentations, exercises, discussion and debate. Speakers will introduce metrics, explain underlying concepts and elaborate calculations of life expectancy. We will look at comparisons between Australia and New Zealand, and within Australia, between States and Territories, given that these differences are sometimes more marked than those across the Tasman.

The class is based on a book “The Healthy Country? A History of Life and Death in New Zealand”, by Alistair Woodward and Tony Blakely, published by Auckland University Press. The book will be formally launched on October 22nd, but pre-release copies will be available at the master class.
Master class: Accelerating progress on reducing obesogenic environments

Boyd Swinburn¹(boyd.swinburn@auckland.ac.nz), Shiriki Kumanikya² (skumanyi@mail.med.upenn.edu) Cliona Ni Mhurchu¹(c.nimhurchu@auckland.ac.nz), Stefanie Vandevijvere¹(s.vandevijvere@auckland.ac.nz)

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Progress on reducing obesity has been very slow over the past two decades and the WHO global target for ‘no increase’ in obesity and diabetes will be the most challenging of all its NCD targets to achieve. What can be done to accelerate the pace of change?

Aim: This Master Class aims to present some examples of attempts to increase action in New Zealand, Australia and internationally. Participants will be brought up to date with these emerging directions and during discussion time, the most promising of these will be selected and debated.

Content: This master class will reflect on the past decade of modest action to address obesity and will examine future options for action, research, and monitoring. What needs to be done more, what needs to be done differently, and how can action be stepped up? The prestigious Institute of Medicine has just completed an extensive review on how progress can be accelerated in the US – what lessons can be translated to New Zealand and Australia? Lessons are also emerging from local and international research, monitoring and evaluation which need to be applied to policies and actions. Food policies and actions will form a major part of the presentations and discussions because they are at the heart of turning around the obesity epidemic.

The structured discussion period will extract from the presentations and participant debate the most promising directions for stimulating action – what can people do differently in their roles as researchers, health professionals, civil servants, teachers, and citizens to ensure that the next 10 years sees a substantial lift in action on obesity, especially childhood obesity.

Structure of this Master Class:
1. Approaches in the US to accelerating progress on reducing obesity - Shiriki Kumanikya
2. Ensuring that research is policy-relevant: examples from food studies - Cliona Ni Mhurchu
3. Role of monitoring, benchmarking and case study evidence in influencing decision-makers - Stefanie Vandevijvere
4. Structured discussion - Boyd Swinburn (Chair)
Master class: Strategies to reduce alcohol-related harm

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2 Department of Preventive & Social Medicine, University of Otago, Dunedin
3 SHORE & Whāriki Research Centre, Massey University, Auckland
4 Public Health South, Southern District Health Board, Queenstown

Alcohol consumption is a leading contributor to the burden of disease and injury in New Zealand, Australia, and globally. An effective response requires knowledge of risk factors, including emerging aspects of alcohol marketing, understanding of intervention strategy, an overview of the international evidence base on policy and other countermeasures, how public health practice happens at the community level, and what research methods can be used to investigate causes and evaluate interventions.

Aims: This master class aims to:
(1) Provide an overview of the burden of disease from alcohol consumption, relevant public health concepts, the influence of commercial interests through social media, and the evidence for countermeasures;
(2) Give a public health practitioner’s perspective on strategies to reduce alcohol-related harm; and
(3) Present a guide to researchers on methods for studying causes and countermeasures.

Content: This master class draws on two recent studies on the alcohol disease burden and the role of social media in the marketing of alcohol, presented by the researchers, followed by a summary of a WHO sponsored review of evidence on countermeasures. It will present a practitioner’s perspective on the regulation of the alcohol market at the community level, and finish with a review of research methods including an example of evaluating the effects of changes in pub trading hours. The programme will cover:

1. The range and magnitude of alcohol-related harm in New Zealand – Jennie Connor
   a. Alcohol-attributable mortality and disability adjusted life years (DALYs) lost
   b. Harm to others
   c. Broader impacts on society
2. Important concepts in alcohol epidemiology and prevention – Kyp Kypri
   a. Single distribution theory and social contagion
   b. The Prevention Paradox
   c. Population and high risk approaches
   d. Supply-side and demand-side strategies
3. Social media as a vector of alcogenic disease – Tim McCreanor
   a. Social media business model
   b. Drinking cultures go online
   c. Alcohol marketing in social media
   d. Policy implications
4. Evidence for intervention strategies – Kyp Kypri
   a. Price and availability
   b. Promotion
   c. Education and persuasion
5. A Public health practitioner’s perspective – Derek Bell
   a. Coordinated South Island Public Health Unit intervention strategies
   b. Opportunities in the new regulatory framework
6. Methods in alcohol policy research – Kyp Kypri and Jennie Connor
a. Measurement of consumption and harms  
b. Strengths and limitations of standard epidemiological designs  
c. Quasi-experimental methods: examples of studies examining changes in the minimum purchase age and pub trading hours

Who should attend: Public health practitioners and researchers interested in gaining an overview of the nature of the problem, the evidence base on countermeasures, examples of current practice, and research methods.

Master class: Understanding economic inequalities in health

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⁴ Centre for Housing, Urban and Regional Planning, University of Adelaide

There are strong associations between economic factors and inequalities in health status or disease states. However, most of these associations are correlations and do not provide information about the causal relationships between economic factors and health. Longitudinal data and analysis is needed to better understand the causal processes between changes in economic factors on changes in health states. Key questions to understand this are: do increases or decreases in income cause changes in health over time? Or do changes in the distribution of income cause changes in the distribution of health in a population?

Aim: The aim of this master class is to gain a better understanding of the causal relationships between economic factors on health over time.

Content: This master class will examine common understanding (and often mis-perceptions) around the causal relationships between economic factors and health. Causal frameworks will be applied to key questions on economic inequalities and health. Longitudinal data and analysis from the US, New Zealand and Australia will be used to examine the extent to which changes in economic factors such as income, poverty, deprivation, housing and tenure have an impact on changes in health over time. The master class will end with a discussion of the implications of the results for policy, practice and research.

Structure of this Master Class:
1. Economic inequalities and health – an overview – Kristie Carter
2. Taking The Spirit Level Seriously: Determinants of Health Outcomes across the US states – Tim Hazledine
3. Income, poverty, deprivation and health using NZ longitudinal data (SoFIE) – Kristie Carter
4. Housing, tenure employment, and health using Australian longitudinal data (HILDA) – Rebecca Bentley, Emma Baker
5. Discussion, health and policy implications
Master class: Building healthy, sustainable homes, communities and cities

Philippa Howden-Chapman\textsuperscript{1,2} (philippa.howden-chapman@otago.ac.nz), Michael Baker\textsuperscript{1,2}, Karen Witten\textsuperscript{2,3}

\textsuperscript{1} He Kainga Oranga/Housing and Healthy Research Programme
\textsuperscript{2} NZ Centre for Sustainable Cities, University of Otago, Wellington.
\textsuperscript{3} SHORE & Whariki Research Centre, Massey University, Auckland.

We spend most of our lives indoors in our homes, so the quality of this environment is critically important for supporting health and safety. This setting is also a major user of energy and other resources so interventions such as insulation can also contribute to sustainability objectives. The wider built environment of cities is similarly important for influencing our health directly through such things as exposure to pollutants and injury hazards and indirectly through facilitating health promoting behaviours such as walking and cycling.

\textbf{Aims:} This master class aims to enhance participants’ understanding of the many opportunities available to promote health and sustainability through improving the built environment. The interactive class will use a mixture of lectures and small group exercises to draw on participants’ experiences.

\textbf{Content:} We will begin by asking participants to give an example of what a healthy city means to them and a policy which would support this. The class will then briefly review evidence around the important avoidable illnesses and injuries linked with poor housing, some of the hazards associated with poor housing, and the ways in which poor housing increases health inequalities.

The major focus of the class will then be to discuss opportunities for improving public health and sustainability through (1) housing improvements and (2) enhancements to the city environment. As part of this discussion, we will explore the advantages and disadvantages of different policy frameworks (e.g. justice, social determinants, co-benefits, infrastructure investment) for promoting these improvements.

We will look at the rationale for some current public policies and evaluations:
\begin{itemize}
  \item Rental Housing Warrant of Fitness - a collaboration between five councils, ACC, the New Zealand Green Business Council and He Kainga Oranga
  \item Provision of social housing
  \item Government subsidy of energy efficiency retrofitting of existing housing
  \item Medium density development to counter urban sprawl
  \item Model Communities Programme - a New Zealand government-funded programme to build walking and cycle-ways in New Plymouth and Hastings
  \item Retrofitting suburban streets to slow traffic and encourage active transport
\end{itemize}

\textbf{Who should attend:} This master class will be of interest to those working in public health, architecture, urban planning and political science, as well as policy analysts and community workers. At the conclusion of this class, participants will understand several different frameworks for developing policy to improve the built environment and be able to identify opportunities for future research, policy development and action to make a difference in this field. We look forward to meeting you.

\textbf{Requirements:} No previous training or experience in this area is required.
Short Course: Using evidence effectively

Vanessa Jordan

Vanessa is the New Zealand Fellow of the highly regarded Cochrane Collaboration. She is a methodologist specialising in systematic reviews and holds a doctorate in epidemiology and physiology from the University of Otago. She undertakes the majority of training and promotional activities held by the New Zealand Branch of the Australasian Cochrane Centre. Vanessa is also an author with the Cochrane Menstrual Disorders and Subfertility group, the Cochrane Sexually Transmitted Infections group, the Anaesthesia group and the Depression Anxiety and Neurosis group. In addition, she is a member of the training working group, the statistical methods group, as well as the consumer network within the Cochrane Collaboration.

This course is designed to help those who are involved in public health use evidence effectively. Participants will be taken through an overview of how to search for, appraise and collate evidence using a systematic methodology within a public health setting for informing effective policies and programmes.
Short Course: Media savvy

Peter Griffin (peter@sciencemediacentre.co.nz)

Manager and founder of the Science Media Centre and the editor of Sciblogs.co.nz.

He is a science and technology journalist who formerly worked for the New Zealand Herald. He is currently a technology correspondent for the New Zealand Listener and Radio New

In this introductory course, attendees will learn the Science Media Centre’s 10 top tips for working effectively with the news media. They will also learn how to prepare key messages about their own areas of research, in preparation for when it ‘hits the headlines.’ Finally, advice on how to deal with controversial stories and communicating risk will be discussed.
Plenary: The science of tobacco products

Jeffrey Wigand (jwigand@jeffreywigand.com), Smoke-Free Kids, Mt Pleasant, Michigan, USA

Issue: Tobacco products when used as intended kill not only the user but the innocent bystander, and exact ca. 6 million lives per year while costing society billions in health care costs and lost productivity. A tobacco product is a scientifically understood drug delivery device specifically engineered with a plethora of additives to enhance the delivery and potency of addictive nicotine. An understanding of design characteristics of tobacco products provides the underpinning for effective regulatory control and consumer knowledge.

Abstract: Smallpox killed approximately 300 million people in the 20th century, three times the number of all war related deaths. Today, the scourge of smallpox has been eradicated. Smallpox has no animal reservoir and its infection is solely limited to humans. The congruency between smallpox and tobacco induced diseases is not trivial, and as smallpox did not discriminate between kings or serfs, neither does tobacco. The addicted adult user, the adolescent novice, and the innocent bystander are all vulnerable to the harms of tobacco.

In 2005, the World Health Organization (WHO) decided to take action to protect the public from the harms of tobacco by devising a regulatory model for tobacco, the Framework Convention for Tobacco Control (FCTC). The FCTC sets in motion a series of actions directed at "denormalizing" tobacco, such as restriction on advertising and sponsorships, changes in packaging, and the proliferation of smoke free environments. The Convention, through the Conference of Parties (COP), Article 9, identified the need "for testing, measuring and regulating the contents and emissions of tobacco.” The need is critical indeed.

Tobacco products are not “natural” products that contain harmless ingredients, either neat or combusted. Rather, a typical cigarette can contain hundreds intentional (>600) and an unknown quantity of unintentional additives (ingredients). However, virtually nothing is known about these ingredients. Even worse, nothing is known about the unintentional additives that is the by-products of the growing, handling and manufacture of tobacco products. These unintentional additives or contaminants include pesticides, herbicides and ink residues and solvents from the packaging materials. We are in the dark about how these unintentional additives are affected when burned in conjunction with tobacco, nicotine and when combusted with other intentional additives and their pyrosynthetic by-products. The objective of this presentation is to produce a scientifically relevant underpinning that will enhance the understanding of the role of both intentional and unintentional additives in the morbidity and mortality of tobacco products. Throughout this presentation the terms “additive,” “ingredient,” and “flavoring” will be used synonymously. Although I limit discussion to additives in conventional cigarettes, the use of additives in non-conventional cigarettes and in other tobacco products is also pervasive. The role of additives in the addiction process, initiation, cessation and pathogenesis are in need of attention and future research.

This presentation begins with a discussion about cigarette design. In order to understand how additives function, one must first understand the design features, blend composition and physical characteristics of cigarettes. As we will see, some of these design features directly affect the delivery of nicotine. For example, the introduction of reconstituted tobacco or RECON, is the primary means by which ammonia chemistry and other chemicals are introduced into a cigarette. RECON can be considered a “chemical delivery” system to convert bound nicotine into highly addictive free nicotine.

After outlining cigarette design, I will then address the topic of intentional additives. The industry argues that since all intentional additives are GRAS (“generally recognized as safe”) approved, then there is no need for disclosure of these additives. (GRAS is a US Food and Drug designation). I will
explain why this argument is bogus. I also discuss some of the pyrolytic chemical properties of several of the additives that are typically used in blended cigarettes (sugars, glycerol, etc.) that contribute directly to the overall toxicity of tobacco products. I then turn my discussion to unintentional additives. There are a variety of hazardous chemicals resulting not only from the soil in which tobacco is harvested, but also from the packaging in which cigarettes are housed. These chemical entities are typically ignored. However, any policy concerned with mitigating the harm caused by tobacco products needs to be mindful of the harm posed by unintentional additives.

The tobacco product is an elegant drug delivery device for addictive nicotine and is the carrier of the harmful toxicants responsible for morbidity and mortality. The use of specific additives enhances the addictive potential. In addition the evolving pathogenic role of nicotine is discussed.

The presentation concludes with a discussion of reduced ignition propensity (fire safe) of a burning tobacco product and novel new nicotine delivery devices, such as ORBS, e-Cigarette.

**Conclusions**: The tobacco industry (TI) is in covert drug delivery business. The TI targets at risk populations with a highly engineered drug delivery device that carries with it 4-8,000 toxic chemicals that are responsible for the morbidity and mortality of its users as well as the innocent bystanders. The role of nicotine in pathogenesis is evolving.

The science of tobacco products provides the knowledge base for effective regulations, educational program and cessation practices.

**Implications**: Effective regulations and consumer knowledge derived from the understandings of tobacco products will lead to the reduction of the toll to both human life and to the financial burdens caused by early in life addiction.
Master class: Smoke Free 2025

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In 2011, in response to the Māori Affairs Select Committee report on its investigation into the tobacco industry, the New Zealand Government adopted the goal of making New Zealand smokefree by 2025. New Zealand was the first country to adopt such an ‘endgame’ goal. Getting to Smokefree 2025 will represent one of the greatest public health achievements in New Zealand and will have global implications for tobacco control.

Aim: This master class provides an opportunity to learn from leading New Zealand experts about the Smokefree 2025 goal and how we might achieve it.

Content: We will describe the tobacco endgame concept and New Zealand’s 2025 smokefree goal. We will present the latest research from the BODE3 research team assessing the likelihood of achieving the Smokefree 2025 under various scenarios, modeling the impact of intervention strategies, and describing the likely health gain of achieving the goal. We will also present some possible strategies for achieving Smokefree 2025 – comparing radical and incremental approaches; and discuss some of the possible challenges on the road to 2025.

The class will comprise short presentations and discussion and including an opportunity to debate the material presented in a panel session.

We hope you will leave the master class better informed about the Smokefree goal and how it can be reached, and enthused to help contribute to its achievement.

Who should attend: The Smokefree 2025 master class will be of interest to all public health and epidemiology practitioners, advocates and researchers, whether or not they have a special interest in tobacco control.

Requirements: No specific expertise in tobacco control is required or expected.
Master class: Climate CHANGE: transforming threats into opportunities and science into action

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“We need to understand that human health is the bottom-line integrator of all the other environmental and social impacts that climate change will have and if human health begins to decline on a broad front, it’s a clear signal we’re weakening the planet’s life support systems. Climate change is going to impinge on all of us... and we need to find a simple language to talk about these things so that the sharing of understanding and the mobilization of concern within the community at large is increased.” Tony McMichael, Australian Academy of Science 2014

“What we all do matters, not least in how it influences others. Those who profess to care for the health of people perhaps have the greatest responsibility to act.” David McCoy, Hugh Montgomery, Sabaratnam Arulkumaran and Fiona Godlee, BMJ 2014

Aim: In this Master Class you will have the opportunity to further your knowledge and skills for research, communication and ethical public health action about climate change and health.

Content: The Master Class will start by providing a brief update for participants on the science, including focusing our attention on particular threats and opportunities for health. We will then be discussing the limits of current research and identifying promising methods to address knowledge gaps. A significant focus for the class will then be to wrestle with issues of effective public health action. We will use a mixture of short presentations from experts in the field; individual and small group exercises; interactive discussions and debate. Participants will emerge from the workshop armed with hopeful energy, new research questions, as well as personal, organizational and societal actions to bring to fruition.

Who should attend: The Class is open to everyone with a research, practice or action interest in climate change as arguably the most important and challenging public health issue facing current and future generations.

Requirements: No previous training or experience in this area is required.
Master class: Managing Land and Fresh Water for Public Health and Sustainability

Nicholas Jones¹ (Nicholas.jones@hbdhb.govt.nz), Garth Harmsworth (HarmsworthG@LandcareResearch.co.nz), Nicola DeWit³

¹ Environmental Health, Hawke’s Bay District Health Board
² Landcare Research, Palmerston North
³ Environmental Defence Society, Auckland

The sustainable management of our fresh water resources is increasingly recognized as a key issue for New Zealand. The National Policy Statement on Fresh Water Management, along with reports by the Parliamentary Commissioner for Environment, has focused attention on the need to manage land uses that affect fresh water quality.

Climate and agriculture trends are focusing attention on the economic value of water resources and a desire to maximize the economic utility of the resource. At the same time communities are increasingly concerned about the impact of water degradation on human, cultural, and ecosystem health and demands for water from agriculture can be perceived as being in conflict with other values.

Communities are also becoming concerned about the effects of other activities such as oil and gas mining that together with intensive agriculture are perceived as threatening the availability and quality of water for community needs such as drinking water and recreation.

**Aims:** This master class aims to enable participants to understand the competing interests in water resource management and to effectively promote and protect human health and sustainability through participation in water resource management processes. Participants will gain an understanding of:

1. The relationship between land use, water quality and quantity and public health
2. Where Public Health and Maori objectives are aligned and how to work effectively in partnership
3. How to work effectively within legal and planning processes including submissions, hearings and court proceedings
4. How collaborative water policy stakeholder processes work and how to participate effectively in these initiatives

**Content:** The class will include a mix of lecture and discussion. Presenters will use scenarios and case studies dealing with issues such as irrigation schemes and oil and gas mining to provide practical advice on how to approach water issues.

Topic areas to be covered will include:
- Recognition and prioritization of public health values within the RMA framework
- Recognition of Tangata Whenua values and how these overlap with those of public health
- Stakeholder collaboration groups and how they operate
- How and when to influence resource consents and plan changes
- How to maximise public health gain with limited resources
- Key health issues with intensive agriculture, irrigation and oil and gas mining

**Who should attend:** This master class will be of value to those working in public health services and agencies, environmental protection and management, regional and local government, Maori environmental management and environmental science.

**Requirements:** No previous training or experience in this area is required. A brief introduction to RMA processes will be provided as pre-reading.
Master class: Who’s working with big health data in New Zealand and Australia? A show and tell

Chaired by Rod Jackson (rt.jackson@auckland.ac.nz)

Big data is being sold as the next big thing in health research, but what can it deliver? There is a surprising amount of health research using big data underway in New Zealand and Australia and this master class will bring together a wide range of researchers working in the field to discuss their work.

Aims: The goals of the master class are to: i) give attendees an opportunity to find out what is going on in the field and to discuss their own work; ii) provide an opportunity for researchers working in overlapping areas to discuss possible collaborations; and iii) identify opportunities to share experiences, methodologies etc relevant to sourcing, extracting, managing and analyzing big health data.

Content: Presenters will give short (5 minute) presentations covering their data sources and how they manage, link and analyse the data, illustrated with examples of their work. The presenters are:

- Tony Blakely, University of Otago, Wellington (census mortality analyses and burden of disease and cost-effectiveness of intervention’s modelling)
- Cliona Ni Mhurchu, University of Auckland (big nutrition data)
- Barry Milne, University of Auckland (linked data in social health research)
- John Streeter, ProCare PHO Auckland (using patient data in primary care for quality improvement)
- Simon Ross, Analytical Services, MoH, Wellington (the national data collections)
- Catherine Gerard, Health Quality & Safety Commission Wellington (the New Zealand Atlas of Healthcare variation)
- Sue Wells, University of Auckland (PREDICT: using electronic clinical decision support in primary care to generate big data)
- Andrew Kerr, University of Auckland (ANZACS_QI: a nationwide acute coronary syndrome register)
- Jason Arnold or James Harris, Pharmac Wellington (analyzing national pharmaceutical dispensing data)
- Louisa Jorm, University of Western Sydney (big health data research in Australia)
- Lianne Parkin, University of Otago, Dunedin (using national pharmaceutical claims data for drug safety research)
- Michael Baker, University of Otago, Wellington (linked data for research on infectious diseases, environment, housing and health)

Who should attend: Anyone with an interest in big health data
Master class: Decolonising Epidemiology – Reclaiming Numbers

Paparaangi Reid¹(p.reid@auckland.ac.nz), Helen Moewaka Barnes², Shirley Simmonds³, Kathrine Clarke⁴, David Tipene-Leach⁵

¹ Department of Māori Health, Faculty of Medical and Health Sciences, University of Auckland
² Whāriki Research Centre, Massey University
³ Eru Pomare Research Centre, Department of Public Health, University of Otago Wellington
⁴ Whakawhetu, National SUDI Prevention for Māori, Auckland
⁵ Hauora Heretaunga, National SUDI Prevention for Māori, Auckland

Aim: The aim of this master class is to support indigenous public health researchers and practitioners critique how health statistics are used and learn how to re-present data in ways that support indigenous development.

Content: Using different examples from public health, the class will engage in group activities that
• Highlight the importance of epidemiology in public health practice
• Discuss the rights of indigenous peoples in statistical data
• Illustrate how data can be colonising and therefore distasteful to indigenous peoples
• Demonstrate options for presenting data of indigenous people
• Practice examples from their own work

Structure of this Master Class:
• Setting the scene topic overview
• Short panel presentations from experts in the field
• Smaller Group discussion/exercise
• Feedback and Combined discussion
• Feedback and Combined discussion

In the first half of the session participants will be able to select one of four workshop groups based on their experience and interest. Topics for discussion will include:
• Numbers in context – limiting the colonizing potential of statistics
• Seeing people in numbers – reclaiming quantitative analysis
• How to read a graph or table, big words and what they mean – numerator, prevalence and rate ratio –
• The importance of being counted – classification of ethnicity
• Marginalisation by numbers – Mana Whakamārama
• The indigenous standard and non–deficit framing

In the second part of the Master class, a case study of SIDS will be used/applied to bring together the topics discussed in the smaller groups.

Requirements: No previous training or experience is required, however attendees are encouraged to read background material to assist with their understanding of kaupapa Māori epidemiology - Simmonds S, Robson B, Cram F, Purdie G. Kaupapa Māori epidemiology. Australasian Epidemiologist 2008; 15: 3-6.

There is a limit of 25 participants for this Master Class
**Plenary: Using evidence to improve population health**

**Shiriki Kumanyika** (skumanyi@mail.med.upenn.edu), University of Pennsylvania Perelman School of Medicine, Philadelphia, USA

**Issue:** The obesity epidemic has created a demand for timely, relevant evidence to guide far-reaching and often controversial policy actions.

**Main points:** Experience with the obesity epidemic is an ongoing case study of how to resolve a complex population health problem. Many key lessons resulting from this experience relate to generating, evaluating and translating evidence to support changes in environments and policies that affect eating and physical activity. A 2010 US Institute of Medicine report on evidence to inform obesity prevention concluded that most of the published evidence then available and judged to be of high quality by the standards of evidence-based medicine was of very limited use for guiding effective interventions. Furthermore, the evidence reviewed was found to foster the perception that obesity prevention was a bad investment. This analysis of evidence issues led to the development of a framework, called “LEAD”, for Locate evidence, Evaluate evidence, and Assemble evidence to inform Decisions. Lessons learned from the development and subsequent use of LEAD and similar evidence-based public health approaches include the need to: 1) recognize that obesity prevention requires actions in the real world which are inherently characterized by less certainty than actions taken under controlled circumstances, and that perfect evidence is unlikely to appear; 2) balance the tensions between relevance and rigor and between objectivity and advocacy when designing and conducting research; 3) adopt a systematic approach for making the best possible of use the evidence that is available; 4) pose user-oriented rather than researcher-oriented questions, where the ‘users’ are decision makers, and search for evidence that is appropriate to answering these questions; 5) take full advantage of the traditions of producing knowledge in a range of disciplines, and triangulate these different types of evidence; 6) use appropriate standards to evaluate each type of evidence; 7) take a systems perspective by thinking about how various policies and programs are connected; and 8) be transparent about what you have done.

**Conclusions:** The effective use of evidence to inform solutions to population health problems involves challenging the framing of these problems as primarily clinical, combined with effective advocacy for utilization of a suite of evidence-based public health concepts and tools.

**Implications:** The methodological stress associated with addressing the obesity epidemic is forcing new learning and drawing attention to the limitations of evidence based medicine paradigms when applied to population health. The ultimate result may be to transform our field.
Greenspace and academic achievement: does exposure to natural environments in urban New Zealand influence learning outcomes

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Issue: Research exploring the relationship between natural environments and health outcomes has demonstrated a positive link between ‘greenspace’ exposure and physical and mental wellbeing. A number of case studies have demonstrated that green spaces can have a significant positive effect on improved concentration duration, behaviour in the classroom, and educational and social development for school-aged children.

Aims: This paper seeks to add to the case study literature by applying Geographical Information Systems (GIS) techniques to examine the relationship between greenspace exposure surrounding schools in New Zealand, and academic achievement.

Methods/Action: Greenspace within a mean school zone buffer was calculated for each non-integrated, urban primary school. National Standards data was obtained from the Ministry of Education. Using linear regression modelling, we examined the association between greenspace exposure and the percentage of children achieving ‘Above and ‘Well below’ National Standards, controlling for, gender, ethnicity and decile.

Results/Achievements: Our preliminary results showed that as greenspace exposure increased, school achievement decrease almost uniformly across all strata investigated, a trend that for most part relates to the fact that areas of low deprivation tend to have more greenspace. Decile is the most significant factor influencing school achievement, with our results varying little when modelling for other influences.

Conclusions: Decile is the most significant predictor of school achievement, and the presence of greenspace has virtually no effect on academic achievement when controlling for gender or ethnicity. Further analysis at smaller scales that allows for the quality, composition, and ‘viewsheds’ of greenspace to be accounted for is required to expand on these findings.
Investigating risk factors for severe acute respiratory infection and influenza hospitalisation in New Zealand

Michael Baker (michael.baker@otago.ac.nz)1, Sue Huang2, Debbie Williamson2,3,5, Cameron Grant3,5, Adrian Trenholme5, Nevi Piersel1, Tim Wood2, Nikki Turner2, Sally Roberts2, Caolin McArthur2, Conroy Wong4, Susan Taylor2, Ange Bissielo2, Graham Mackereth2, Don Bandaranayake2, Richard Hall2, Paul Thomas2, Richard Webbby7, Diane Gross7, Jazmin Duque7, and Marc-Alain Widdowson7, on behalf of the SHIVERS investigation team

1University of Otago, Wellington, NZ; 2Institute of Environmental Science and Research, Wellington, NZ; 3Auckland District Health Board, Auckland, New Zealand; 4Counties Manukau District Health Board, Auckland, NZ; 5University of Auckland, Auckland, NZ; 6WHO Collaborating Centre, St Jude Children’s Research Hospital, Memphis, USA; 7Centers for Disease Control and Prevention (CDC), Atlanta, USA.

Issue: Respiratory infections caused by influenza and other pathogens are amongst the commonest causes of hospitalisation, particularly for children. There is limited knowledge about non-pharmaceutical interventions to reduce the population risk of these diseases.

Aims: To identify risk factors for influenza, particularly those that are modifiable.

Methods: The Southern Hemisphere Influenza and Vaccine Effectiveness Research and Surveillance (SHIVERS) Project was established in October 2011. The study operates in four hospitals that serve a population of 838,000 people in Auckland, New Zealand. Year round hospital-based surveillance is undertaken for: (i) Severe acute respiratory infection (SARI) defined as onset of fever and cough within 7 days of hospitalisation, and (ii) Respiratory infections caused by influenza and/or other respiratory pathogens.

Results: Between April 2012 and April 2013, 7,178 inpatients with suspected respiratory infections were assessed. Of these, 2,341 (33%) met the SARI case definition, including 420 patients (18%) in whom influenza viruses were detected. The overall SARI rate was 294/100,000 person-years and the adjusted influenza rate was 54/100,000. The highest SARI and influenza hospitalisation rates were observed for the very young and elderly, Māori and Pacific Peoples, and those resident in more deprived neighbourhoods. Poor housing conditions were commonly reported by influenza cases, including: 45% who reported that their home was usually colder than they would like; 24% that their home smelled mouldy or musty; 25% that there was mould on the walls in bedrooms or living areas of their home; and 28% that there were damp walls in the bedrooms or living areas of their home. In addition, 54% lived in rental housing and 35% were living with someone who smoked. Almost two-thirds (70%) of influenza cases reported contact with someone coughing and sneezing and 8% had overseas travel within 7 days before hospital admission. Influenza socio-demographic risk factors were similar to non-influenza SARI, but with more marked risk in winter and higher risk in adults. Specific risk factors that appear more important for influenza were: co-morbidities, pregnancy, contact with infectious people and overseas travel.

Conclusions: Influenza is a common cause of severe respiratory disease in Auckland in the winter, affecting especially the very young, socially deprived and Maori and Pacific ethnic groups. A control population is needed to evaluate the importance of potential risk factors and is being added to the SHIVERS study.

Implications: Understanding the factors associated with severe influenza and SARI is important for developing evidence-based strategies to reduce the impact of these diseases, particularly for the most vulnerable populations. There may be potential to reduce health inequalities and the overall disease burden of influenza and SARI through interventions to improve housing conditions.
Public health issues around feral game animals in New Zealand: A review to inform eradication considerations

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Issue: Various options for a “pest-free New Zealand” or “predator-free New Zealand” have been promoted in recent years and have received attention from researchers as well as environmental organisations. There is widespread agreement around the problematic nature of some species (eg, possums and mustelids) but more controversial is the status of feral deer, pigs and goats that live in the conservation estate, marginal or abandoned farmland and plantation forests. The issue is also given extra focus by recent technological advances in pest control and initiatives for regional eradication. The widespread presence of feral game animals has both benefits and costs for population health in New Zealand.

Objectives: To review the public health issues arising from the presence of feral deer, goats and pigs in the wild in New Zealand.

Methods: Literature searches using PubMed and Google Scholar, and selected analysis of relevant New Zealand data.

Results: Recreational hunting of these feral game animals clearly provides health benefits including: physical activity, likely mental health benefits and access to a food source. One estimate is of 736,000 hunting days for “big game” per year in the country (albeit only around 0.2% of all leisure days for all adult New Zealanders).

But these feral animals impose various harms to health. The damage they cause in forests contributes to increased flooding risk to down-stream populations. Floods cause injuries and death, damage water and sewerage systems and have potentially substantive mental health impacts, a portion of all of which can be plausibly attributable to the impact of feral game animals on forests and farmland. These species are also reservoirs for zoonotic diseases including bovine tuberculosis and several enteric pathogens. There are also injury risks from associated firearms (hunting accidents and suicides) and from animals crossing roads. On a global health scale feral game animals also contribute to greenhouse gas emissions via ruminant methane from deer and goats, and from reduced carbon sequestration via damage to forests.

All these health-related aspects need to be considered alongside other costs, and other types of benefits (eg, the economic benefits of hunting and venison export). Costs include the damage to ecosystems, damage to agriculture and forestry, the high ongoing expense of sub-eradication level pest control, and maintaining the country’s “green brand” which supports food export and tourism industries.

Conclusions: There are both health benefits and health harms associated with these feral game animals. The size of these impacts could benefit from further quantification but there is probably overall net harm to health from a public health perspective. Health is just one dimension and there are many important other economic and environmental dimensions to this issue.
Implications: There seems to be a good overall case for additional health-related research to inform society-wide discussions about the benefits and costs of eradicating these feral game animals from wild areas in New Zealand.

Relationships between exposure to nature and health and wellbeing benefits in New Zealand

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Issue: There is significant and growing international research on the positive associations between exposure to nature, and measures of health and well-being (HWB), but very limited research in this area in New Zealand until recently. Some groups of New Zealanders are experiencing deteriorating measures of HWB, but have good access to green space, ‘natural’ areas and coastlines, so there appears to be potential for such areas to contribute more specifically to HWB outcomes.

Objectives: To review relevant international and New Zealand literature pertaining to relationships between exposure to nature and HWB benefits, and explore the implications of this work for better HWB outcomes in New Zealand.

Methods: Literature searches using PubMed and Google Scholar, and selected analysis of relevant New Zealand studies. The literature review summarised New Zealand research relevant to the topic and critically reviewed the evidence base for a relationship between direct exposure to natural environments or green space and measures of human HWB.

Results: Our review took a broad approach both to the scope of HWB and the types of natural or green spaces that may offer HWB benefits. We found that relevant recent research suggests, overall, that exposure to green space has direct positive effects on human HWB, particularly through: 1) reduction in psychological stress, and 2) offering conducive settings for physical exercise. However, much of the research on potential benefits is anecdotal, ecological or descriptive. Of the relatively small number of experimental studies rigorously testing differences between green and non-green settings, many of the positive effects are not statistically significant or relate to very small sample groups. Two recent studies in New Zealand urban areas find positive associations between access to and visibility of natural environments and mental health outcomes. There are significant gaps in the literature concerning the influence of private green space (gardens etc), and more generally, the influence of the type or quality of green space on HWB outcomes [1,2].

Conclusions: Some specific positive associations between contact with natural environments and better HWB outcomes have particular applicability in New Zealand because of its high accessibility of green space and natural environments.

Implications: There seems to be considerable potential to improve the alignment between green space management and potential HWB benefits in New Zealand, including the need for an integrated approach to HWB between managers and stakeholders in the health and volunteering sectors, and those involved in green space management such as the Department of Conservation and local government park managers. More detailed investigation of activities undertaken in New Zealand green spaces and natural areas, and their HWB outcomes, would allow better understanding of green space / human HWB relationships in New Zealand.

Tobacco use in New Zealand – how are progressing towards Smoke-free 2025?

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Issue: The New Zealand government has committed to a goal of reducing smoking prevalence and tobacco availability to less than 5%, essentially making New Zealand a smoke-free nation by 2025. The Government must also have regard to its obligations as a party to the World Health Organization’s Framework Convention on Tobacco Control (FCTC).

Aims: The findings of the 2012/13 New Zealand Health Survey (the Survey) shows a continuation of the decrease in smoking prevalence seen in New Zealand since 1996/97*. Results from the survey will be used to illustrate what is driving the decline in smoking prevalence (i) a decrease in smoking initiation and (ii) an increase in successful quitting rates.

Methods: The survey, conducted during July 2012 to June 2013, comprised a population of 13,000 adults and 4000 parents/caregivers representing 4000 children. The tobacco use questions explored current smoking, tobacco consumption, access to tobacco, quitting behaviour, support from health service and professionals, and exposure to second-hand smoke. Full details of the survey methodology can be found at www.health.govt.nz/publication/new-zealand-health-survey-methodology-report-2012-13

Results: The significant decrease in smoking prevalence in New Zealand seen since 1996/97 has continued. In 1996/97, a quarter (25%) of the adult population reported being current smokers and by 2012/13 this rate had dropped to 18%. Between 2006 and 2012, the largest relative decline in current smoking prevalence occurred amongst 15-19 year olds, from 20% to 13%. This decline is supported by a corresponding delay in the average age of first tobacco use (smoking initiation). The average age that current smokers over the age of 20 years tried or smoked their first cigarette was 14.8 years, with Māori youth being the earliest to start. At the other end, there has been an increase in the total number of people successfully quitting smoking, from 8% in 2006 to 11% in 2012/13.

Conclusions: New Zealand has made significant progress in the past 30 years to reduce smoking prevalence and tobacco availability. This has been achieved through implementation of a range of interventions including legislation (e.g. the Smoke-free Environments Act 1990, and tobacco taxation), mass media campaigns and smoking cessation programmes.

Implications: In order to achieve New Zealand’s smoke-free status by 2025, further action will be required. Continuing to focus on key groups such as Māori and Pacific people, who have high smoking rates, is essential to reducing disparities in tobacco-related health outcomes. Key implications for policy, which the Ministry of Health is committed to, include: sustained incremental tobacco tax increases, more targeted smoking cessation programmes, Government leadership surrounding phasing out of retail outlets and reducing the supply of tobacco released for sale.

*Please note that these results have yet to be published. The Tobacco Use in New Zealand report is due to be published on 27 October 2014.
Innovative ways for promoting child and family nutrition”: how a private NZ social entity called Munch Cooking has promoted child and family nutrition using new technologies, awards and private/public partnerships.

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Issue: Promoting child nutrition using traditional communication methods can be difficult. Health promotion needs to look at whether new technologies and private/public partnerships can be used to better connect with people, create engagement and change behaviours.

Aims: We aimed to improve child nutrition by creating engagement around child nutrition with parents, grandparents and caregivers (the target population), those working within the food industry and key funders through a variety of new technologies and linkages.

Methods/Action: We used a variety of social media strategies to create engagement. We initiated a blog written by mothers that grew into an online Food Magazine. To expand the topics covered in the Magazine professional nutritionists also now contribute content.

Other social media platforms such as Twitter, Google+, Instagram, Pinterest and the most popular one being Facebook was used to engage with the target population. We used novel media strategies such as competitions, live question and answers sessions and sharing of posts with related organisations. We also offered social media services to other health related organisations which enabled us to stay a breast with the issues and share content.

We established the Munch Awards to raise awareness of the ‘good’ and the ‘bad’ of the children’s food industry. A separate website was built whereby parents were asked to nominate and then vote in categories such as Worst and best kids food, Worst and best kids food marketing campaign, Best kids food blog and Best kids kitchen product. Sponsorship was sought through both public and private entities for this annual food campaign.

We monitored hit rates, like and follow rates, share rates, number of comments and search rankings over all our social media platforms. The rates were then compared to comparative organisations. To enhance the physical relationship with the brand and to work with the community, product display boxes were offered to schools. The Munch Boxes contain display items from Litterless lunch wraps to our internationally award winning Munch cookbook and can include health promotional material. Parents can purchase the products and a portion of the sales is given to the school.

Results/Achievements: Munch Cooking is the top NZ food online magazine for children’s food based on hit rates and comparison with other blog/websites. It has been sucessful in generating a large following and high engagement on all social media platforms shown through likes/comments/shares and hit rates. Munch Cooking now has it’s own ‘community’ who are engaged on their platforms. The 2013 Munch Awards was a success with over 2000 participants in the first year. Media coverage included four article’s in both the Dominion Post and the NZ Herald.

Conclusions: The use of new technologies to connect and create engagement on nutrition for children and families has been a great success for a private socially driven company called Munch Cooking. Drawing linkages between private and public organisations has assisted with the conversion of expert knowledge into the target groups language and wider exposure for the issues at hand.
Implications: New technologies can be very effective in connecting and forming engagement with target markets/key population groups. Linkages between private and public entities provide good opportunities for greater buy-in and financial support. Employing those within the target market to promote the initiative ensures the approaches used speak to others.

The New Zealand Guidelines for Helping People to Stop Smoking: a new breed of Guidelines for the busy health practitioner

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Issue: Health care workers are uniquely placed to motivate and support people to stop smoking. The New Zealand Smoking Cessation Guidelines (first published in 1999 and revised in 2002 and 2007) have shaped how health care workers have delivered stop-smoking advice for over a decade. These Guidelines have, however, followed the traditional structure of guidelines, containing information that is beyond the needs of frontline health care workers and lacking simple instruction on how to offer support to people who smoke (1).

Aims: To revise New Zealand’s Smoking Cessation Guidelines to ensure they (a) are based on recent evidence and (b) are as succinct and user-friendly as possible.

Actions: The recommendations included in the 2007 Guidelines were updated using evidence summaries from a recent international review (2). The Ministry of Health also clarified the Guidelines’ core audience, and sought feedback from key stakeholders on the information required to enable health care workers to systematically screen for tobacco use and make an offer of evidence-based stop-smoking support in keeping with the ‘ABC’ approach (3).

Achievements: In May 2014, The New Zealand Guidelines for Helping People to Stop Smoking were published. These Guidelines are only six pages in length (compared to the 66 pages of the 2007 Guidelines) and have been divided into three parts (each part contains information that is relevant to a different part of the health/tobacco control system). Three supplementary documents were also developed for people who want further information: (a) the Background and Recommendations of the New Zealand Guidelines for Helping People to Stop Smoking; (b) the Guide to Prescribing Nicotine Replacement Therapy; and (c) The ABC Pathway: Key messages for frontline health care workers.

Conclusions: The publication of The New Zealand Guidelines for Helping People to Stop Smoking represents an important shift in how guidance is presented to those working on the frontlines. In a sector where competing priorities are abundant, it is becoming increasingly important to identify each subject’s key messages, and to develop guidance/tools that support health care workers to deliver them.

Implications: There are a numerous New Zealand Guidelines covering a wide range of health subjects, the majority of which are over 50 pages long. The sentiment behind this review could be applied elsewhere making guidelines more accessible to their intended audience.
Evaluation of the Canterbury under-18 seasonal influenza vaccination programme

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Issue: Following the February 2011 Canterbury earthquakes the Christchurch District Health Board (CDHB) explored strategies to reduce admissions to its hospitals in Christchurch which had been extensively damaged by the earthquakes and had significantly reduced capacity as a result. The expectation was that a targeted seasonal influenza vaccination campaign for the under 18 year olds would reduce the number of people with seasonal influenza and this in turn would reduce the number of hospital admissions over winter in Christchurch.

Aim: To evaluate the performance of the 2013 Canterbury under-18 seasonal influenza vaccination programme.

Methods: Routinely collected under 18 influenza vaccination uptake data were analysed to determine levels of vaccination uptake and equity of uptake across ethnic groups (NZ European, Māori and Pacific) and by level of deprivation. Qualitative data were collected to identify strategies that helped to achieve high uptake in primary care practices and schools.

Results: Overall uptake of influenza vaccination in 2013 was 32.9%, (compared to 18.5% in 2012), close to the target of 40%. Overall uptake in primary care was higher than in the school-based programme (29.2% versus 19.7%). Māori students had a higher uptake than NZ European students in the school-based programme. In primary care, uptake for both Māori and Pacific children was lower than overall uptake and there was a marked gradient in uptake by socioeconomic quintile, with 30.2% uptake in the least deprived quintile compared to 21.9% uptake in the most deprived quintile.

Conclusion: The cumulative effect of three years’ consistency in offering the under-18 influenza vaccination in primary care practices, assisted by a timely media campaign and additional awareness generated by the school-based programme, has resulted in a marked increase in uptake of the vaccine in primary care in 2013. However, this was not equitably distributed. The school-based programme achieved better equity of uptake by deprivation and ethnicity. The challenge is to achieve both high and equitable uptake.

Implications: The findings of this evaluation have resulted in the CDHB making an earlier decision about the 2014 school-based programme and communicating their decision to schools during term four of 2013 to enable them to incorporate the vaccination programme in their planning for the following year. There will also be some additional resources made available in 2014 so that the vaccine can be delivered in a shorter, more concentrated programme before the onset of the influenza season.

Pre-Adolescent Cardio-Metabolic Associations and Correlates: PACMAC Methodology and Study Protocol

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6 Research Centre for Maori Health and Development, Massey University, Wellington, New Zealand.

Issue: Obesity, and co-morbid complications, are occurring at an increasingly younger age, particularly among Māori prolonging the burden of disease. This results in lost years of productivity, a decreased quality of life, and a growing economic burden on children. Recent research has postulated that it is lifestyle behaviours rather than genetic factors, which have largely contributed to the worldwide obesity epidemic. While commonly cited causes of obesity include declining physical activity and fitness levels, poor nutrition and poor sleep habits; no study in New Zealand has comprehensively assessed all of these components together.

Aims: (1) using a cross-section study design, this study will investigate the relationships between obesity, lifestyle behaviors and cardiovascular health in pre-pubescent (8-10 year old) children; and (2) using objective measures, will investigate whether there are differences in the correlates of cardiovascular health between Māori and Caucasian children.

Methods: Using a cross-sectional study design the relationship between obesity, lifestyle behaviours (nutrition, physical activity/fitness, sleep behaviour, psychosocial influences) and cardio-metabolic health will be investigated in a sample of 400 pre-pubescent (8-10 year old) children. Children’s sensitivity was considered, so previously validated broadly applicable research instruments used in large-scale national and multi-national epidemiological studies will be utilized. The study will also investigate (in a sub-group of 50 Caucasian and 50 Māori children) additional measurements of cardio-metabolic health and lifestyle behaviours through laboratory based scientific assessments.

Results: As a protocol paper no results will be presented; our purpose is to disseminate our study design to the scientific community.

Conclusion: The findings from PACMAC will inform the design of appropriate interventions for children in order to promote sustainable obesity-preventing lifestyles and to improve cardiovascular health.

Implications: Short-term, the findings from this study will elucidate targets for decreasing obesity and improving cardiovascular health among pre-adolescent children in New Zealand. Long-term, this research will facilitate larger-scale prospective and interventional studies, focusing on potential ethnic differences, changes with/across age groups, comparisons between nations, and implications on health care systems.
The PATU© initiative as cultural praxis: Constructing tools to appropriately evaluate health and fitness programmes developed by and for Māori

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Issue: The 2011/12 New Zealand Health Survey highlighted persistent health inequities for New Zealand Māori, identifying challenges for improving Māori health such as reducing obesity rates, diabetes detection, intervention and education, and improving health services access especially in high deprivation communities. Primarily due to these health concerns, Levi Armstrong, an EIT graduate, created the PATU© initiative in the Hawke’s Bay. Focusing on healthy lifestyle education for overweight and clinically obese Māori, PATU© utilises traditional te reo me ōna tikanga Māori concepts and a high-intense fitness regime. Anecdotal indications of PATU© reveal potential for positive outcomes for individuals and whānau; with increasing numbers of communities engaging in PATU© around Hawke’s Bay and beyond. These results are extremely encouraging particularly in light of the typically low uptake by Māori to other programmes, such as Green Prescription.

Aim: To be able to develop new research tools appropriately aligning with Māori philosophy and cultural practice to evaluate the PATU© initiative and provide a means for future research in this area.

Method /Action: Individuals and groups engaging in the PATU© have been interviewed to capture qualitative phenomenological data. As standard practice, PATU© tracks participant kinanthropometric measures.

Results /Achievements: This research investigates PATU© as a health initiative from a Māori perspective acknowledging that Tinana (body), Hinengaro (mind), Wairua (spirit) and Whānau (family) are all critical elements of any Māori health intervention. In order to do this, participants were asked what, and how, they would like PATU© to be evaluated. The interviews reflected that whānau were highly motivated, individually and collectively, in providing a plethora of rich data. Moreover, in exploring differential data collection methods, responses varied dependent on the cohort interviewed. Workplace participants favoured traditional approaches, whereas those attending the PATU© gym, which was perceived as an ‘Urban Marae’, preferred using smart phones, Facebook and other apps, with an immediate and extensive uptake of ‘The Patu Crate’ app. Whānau felt compelled to engage in written surveys because of PATU© loyalty, however they often required support in understanding written questions. Thus the research suggests that there are preferred approaches to gathering qualitative data and that a variety of methods should be explored further.

Conclusion: The results indicate Westernised written questionnaires are better placed in a workplace environment, whereas PATU© whānau preferred technological approaches, which are intrinsically lifestyle oriented. Moreover, findings have highlighted that there is also scope to develop non-western approaches such as incorporating metaphorical image based tools to investigate PATU© health outcomes in future research.

Implications: The development of culturally appropriate contemporary research tools to evaluate the impact of Māori health initiatives, such as the PATU© initiative, are vital in the search for new knowledge to combat health inequities in New Zealand. Furthermore, it is imperative that ‘ownership’ for Māori health-related outcome-based research be conducted in collaboration with Māori for it to be meaningful and successful.
The home front: how renters contribute to public health

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**Issue:** Population health is in large part determined by social factors. The supply and quality of the houses people live in, for example, affects their susceptibility to infectious and respiratory illness, and the extent to which they feel secure in their homes affects their mental wellbeing. In New Zealand, state and private renters are more likely than homeowners to live in poor quality housing and experience insecure occupancy. This means they are more likely to experience the accompanying negative effects on health.

Housing and occupancy conditions are not randomly assigned, but are produced by inequitable access to power. For this reason, “any serious effort to reduce health inequities will involve changing the distribution of power within society, empowering individuals and groups to represent their interests” (Commission for Social Determinants of Health, 2008, p.18). This presentation investigates the links between inequities in health, rental housing, and power in New Zealand.

**Aims:** The research aimed to explore the extent to which renters as individuals and as a group are able represent their interests in order to improve population health.

**Methods/Actions:** I surveyed renters and renter advocates to establish the limitations and possibilities for representing their interests under present tenancy and legislative arrangements. I undertook archival research to ascertain how renters have contributed towards improving houses and housing policy in New Zealand’s history.

**Results/Achievements:** Though renters are currently able to affect the quality of their house or occupancy through representation to their landlord or the courts, they often choose not to. This is due to a variety of reasons, including: lack of confidence that the situation will change, fear of damaging the relationship with the landlord, low expectations for housing quality, lack of alternate options, and lack of knowledge or capacity. However, tenants who were supported by an advocate to represent themselves were more likely to see results.

Renter collective action has historically only manifested in certain political and economic contexts. Actions like eviction resistance, rent strikes, pickets, marches have for the past century improved the condition of individual tenancies and houses, and correlated to advances in policy which improved conditions for renters. These include rent restrictions, the state housing building programme, the Residential Tenancies Act, and income-related rents for state tenants. Through comparative historical research we can draw conclusions on what makes renter collective action for health possible and effective.

**Conclusions:** Inequities of health are partly the result of inequities of power. Understanding power helps us understand why problems such as poor housing and insecure occupancy persist. Challenging those power dynamics has improved and can further improve housing and occupancy conditions, which contribute to better health.

**Implications:** Improving public health requires empowering disadvantaged individuals and groups to represent their interests. In the case of housing, increasing renters’ access to power – through funding advocates, through improving secure occupancy in order to strengthen tenant voice, or through collective action – can challenge health inequities.
Moving on: engaging teen parent networks in education to protect older, more mobile babies from sudden infant death

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**Issue:** This programme responds to an increased risk of sudden unexpected death in infancy (SUDI) for infants of teenage mothers, and to the numbers of older, more mobile infants dying in New Zealand.

**Aims:** To test the concept of using an infant sleep bag as a ‘leaflet’ to enable discussions with young mothers about safer sleep for the older baby.

**Methods:** Teen Parent Units (TPU) were invited to participate in the concept test. A targeted approach to education was developed using recycled infant sleep bags as a mechanism to discuss safe sleep for the older baby. In addition, staff were supported with a facilitation guide and a picture card modelling safe sleep. These materials were used in discussions about potential hazards for babies who roam about the sleep space. Staff used the infant sleep bag to demonstrate how to reduce the chance of head covering, and a recycled bag was offered to mothers to keep. To measure the impact of using a sleep bag as a tool to enable discussions, data was collected on mothers’ ratings of confidence with safe sleep, and the spread of safe sleep awareness to others. Staff were interviewed to determine their perceptions of participating in the programme.

**Results:** Of 45 sleep bags distributed to families between October and December 2013, data was received from 40 mothers. Of these, 85% of mothers rated highly (7-9/9) their increased confidence in sleeping their older baby safely. Spread of awareness to others within their networks was high, with over 100 ‘others’ spoken to about safe sleep within the first two weeks. Feedback from staff suggest the sleep bag ‘leaflet’ facilitated a non-judgemental discussion that may otherwise not have taken place.

**Conclusions:** This work is about more than just ‘distributing sleep bags’ to a high risk population. It is an approach that focuses less on messages and more on enabling. Using a sleep bag as a leaflet, engaged staff and parents in a topic that may otherwise not have been discussed. Parents have been enabled to sleep their baby safely, and empowered in their role as promoters of safe sleep. By creating an approach of value to teen parents, and to TPUs, we have strengthened the alignment of safe sleep practices with developing mobility.

**Implications:** The innovation of this program is not in using the sleep bag as a leaflet, but in the ability of the innovation to be scaled. This work aligns with diffusion of innovation theory, and sits within a broader context of aligning evidence with practice, creating approaches of value and developing networks that influence [1]. These are principles that can be transferred to any population health issue that requires change.

Café culture and the normalisation of high noise levels

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Issue: Adults over the age of 40 now have almost universal noise induced hearing loss to varying degrees. Damage from recreational exposure to noise exposure is highly prevalent and constitutes a public health threat needing preventive and therapeutic strategies [1]. Wellington has been described as one of the eight great coffee cities in the world, and café-going is an important social activity for many residents of the city.

Aims: This study investigated how, and to what extent, noise levels influenced Wellington café patrons’ choice of cafés. How do people respond to high noise levels? Does noise result in social exclusion of those susceptible to hearing loss or sensitive to noise, including children? Would café managers/owners be willing to improve the acoustic environment?

Methods/Actions: Data was collected from 55 cafes in the Wellington central business district (CBD) in April 2014. Samples of sound measurements were obtained on three separate days from each café using calibrated iPhones. Data was obtained through interviews with 29 café managers or owners and 96 café patrons and observational data was collected on the acoustic environment of each café.

Results: The average decibel reading over three days was 66dB (with a range of 57.33-73.47dB) and 96 patrons were interviewed from the 29 cafes. Cafe patrons interviewed had an average age of 42.3 years, 50% were female, and 70.5% lived in Wellington. No patrons initially identified noise as a factor in their choice of café though 29.8% self-identified as being sensitive to noise or suffering from hearing loss. When prompted 62.8% did identify noise as a factor influencing their choice of café. This influence was more likely to lead patrons to choose louder cafes. The age profile of café patrons over the age of 40 did not differ from that of the Wellington population suggesting that this group are not being excluded from cafés by loud noise. Older patrons were however, more likely to have asked for music to be turned down, as were residents of higher income suburbs. Café owner/managers were willing to turn down music levels but, due to the absence of complaint, they were not willing to invest in improving the acoustic environment.

Conclusions: Our study found that noise levels did not influence café patronage. Population awareness of the negative health outcomes of high noise levels is low. Excessive noise is accepted as part of the recreational environment, much as smoking was until recently. Social norms lead to disregard of high noise levels even when individuals have found them unpleasant and some individuals even seek out high noise levels.

Implications: Population awareness of the negative outcomes of high noise levels needs to be raised. Further research is needed to explore the responses of café staff to high noise levels and the responses to high noise levels of those who do not go to cafés.

The implications of geographic mortality differences.

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**Issue:** Well-described differences in Maori and non-Maori mortality have been shown over many decades. There have also been major differences in trends in mortality. For many diseases it has been repeatedly shown that mortality is predominantly determined by the lifetime accumulation of impairments to good health, often starting in childhood, and these tend to determine today’s mortality rates. This is because a considerable amount of health care stalls death from disease by months or years but does not prevent death from the disease. This results in death from disease occurring at older ages but little reduction in overall death from the disease.

**Aims:** To assess the nature of Maori/non-Maori differences in mortality for the North and South Islands for the 1996–2010 time period.

**Methods:** A time-period and birth cohort analysis, using Poisson regression, of the variation in the causes of mortality between the North and South Islands will be presented.

**Results:** South Island mortality rates were 4.5% higher than for North Island non-Maori. For South Island Maori mortality rates were 31% lower than for North Island Maori. The magnitude and direction of these geographic differences for Maori and non-Maori differ among the different disease groups.

**Conclusions:** If differential access to health services has been an important contributor to Maori/non-Maori differences in mortality rates then incorporation of some features of South Island health services into the North Island health service may significantly reduce ethnic disparities in mortality. Significant reductions in mortality rates for many diseases in New Zealand would be achieved if mortality rates were more similar between North and South Island, Maori and non-Maori, residents.

**Implications:** The results provide important information to focus effective methods to reduce both the Maori and non-Maori disparity in mortality from various diseases and reduce some of the major geographic differences in mortality present.
Provider and Staff Ratings of Care Integration at US community Health Centers

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Issues: Health care providers are challenged to integrate care for their patients who obtain care across a variety of settings. Care integration includes elements of both care coordination and an explicit focus on patient centeredness. US Community health centers provide essential care for underserved populations, yet we know little about how providers and staff perceive integrated care in their health centers.

Aims: To describe provider and staff ratings of care integration and examine associations with reported job dissatisfaction, poor morale and burnout.

Methods: In this cross-sectional study a questionnaire was mailed to health care providers and staff at 100 health centers in 10 US midwestern states. The questionnaire included 21 questions on care integration (seven domains: care coordination within clinic, with external providers, with community resources, familiarity with patients, contacting patients between office visits, patient-centered care and patient empowerment) providing a total care integration score between 0 (worst) and 100 (best). Provider and staff morale, job satisfaction, and burnout were assessed with 5-point Likert scale single-question instruments. Total scores were trichotomized using lower and upper quartiles as thresholds to create groups with lower (total score <60), middle (60-74) and upper scores (≥75). We developed modified Poisson models with clustered robust standard errors to estimate risk ratios (RR) for associations between integrated care and each outcome. Covariates included: Electronic Medical Record use, health centre location, appointment availability, percentage Medicaid patients, provider/staff roles and years worked at health center.

Results: 784 providers and staff responded to the survey; 766 (98%) completed the care integration component. Respondents included: Physicians (31%), Advanced Practice Nurses (19%), Licensed Practical Nurses/Medical Assistants (16%), Nurses (10%) and Others (24%). Mean care integration subscale scores were highest for providing patient-centered care (74) and promoting patient empowerment (74) and lowest in coordination with external providers (65). Respondents in the lowest total care integration score group had a five-fold risk of reporting job dissatisfaction (RR=5.32) and poor morale (RR=5.38) relative to those in the highest group, and more than twofold risk of reporting burnout (RR=2.54).

Conclusions: Associations exist between provider and staff perceptions of care integration at their health centers and self-reported job dissatisfaction, poor morale and burnout. Prospective studies are needed to determine the direction of association.

Implications: The association between total care integration and provider/staff outcomes suggests that improved care integration may provide benefits for providers and staff alongside intended benefits for vulnerable patient populations.
Socioeconomic outcomes following spinal cord injury and the role of no-fault compensation: longitudinal study

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Issues: Loss of employment and income consequent to spinal cord injury (SCI) can lead to a decline in socioeconomic status and increased disadvantage. People who sustain an injury-related SCI are eligible for compensation through New Zealand’s no-fault compensation insurance scheme – Accident Compensation Corporation (ACC). Disease processes can also cause SCI (e.g. tumours and infections). Those with such non-traumatic SCI may only be eligible for limited means-tested government benefits.

Aims: To estimate socioeconomic and work outcomes over two and a half years following SCI, and to compare those in receipt of support from ACC – and those not.

Methods: This paper presents results from a longitudinal cohort study. Participants were admitted (2007-2009) with a SCI neurological impairment to one of New Zealand’s two spinal units. Interviews were conducted 6, 18, and 30 months after SCI and data collected on pre-SCI and post-SCI health and socioeconomic characteristics. Poisson regression, quantile regression and a linear mixed model regression were used to compare differences in outcomes.

Results: Of 162 eligible people, 118 (73%) participated, and 91(77%) were followed to 31 months; 79% received ACC support. Median personal income, self-reported standard of living and household income adequacy all fell slightly to 18 months and then stabilized at 30 months. At that time 49% had returned to paid work. Among those not eligible for ACC, income fell to less than half the ACC group (p<0.006 after adjustment), and return to work was lower (29% versus 54%). Results will also be contrasted with those from a larger comparative cohort study undertaken comparing socioeconomic outcomes for people experiencing a first-stroke (n=109) who were matched by age, sex and functional impairment to injured individuals (n=429) participating in the Prospective Outcomes of Injury Study. There, the odds of reporting low standard of living and income inadequacy at 12 months were significantly less for the Injury Group and the odds of being back at work were greater for the Injury Group compared to the Stroke Group (AOR 3.1; 95% CI 1.7-5.6).

Conclusions: These findings support the conclusions that earnings-related compensation and rehabilitative support, available to injured people via ACC, prevents the downward spiral into poverty and ill health and also enhances return to work.

Implications: Further consideration should be given to extending the ACC-type entitlements for those experiencing an injury to those experiencing serious illness events.
CLINICAL Exercise Physiology in New Zealand – effectiveness of exercise programmes for clients with Cardiovascular or Respiratory conditions

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**Issue:** The global burden of chronic disease is large and growing. Given the proven cardiovascular and wellbeing benefits of regular physical exercise it is advisable that patients with cardiopulmonary disease engage in structured supervised exercise programmes. Clinical Exercise Physiology is a discipline which collaborates closely with other health professionals and utilizes supervised physical exercise to improve the health of patients with diagnosed chronic disease. This service is largely non-existent in New Zealand and its feasibility and effect has not been tested on any section of the New Zealand population.

**Aims:**
1. Examine the role of, and referrer support for, a specialised clinical exercise physiology service in community health in Palmerston North.
2. Study the effect of a 12-week supervised clinical exercise physiology programme on physical exercise patterns and perceived barriers to physical exercise in a group of cardiopulmonary clients in New Zealand;
3. Determine the effect of a 12-week supervised clinical exercise physiology programme on client outcomes related to some cardiovascular, morphological and psychological variables of cardiopulmonary patients;

**Methods:** UCOL established a specialised clinical exercise physiology U-Kinetics Te Huinga Waiora clinic in collaboration with MidCentral DHB, Central PHO, and TBI Health (private physiotherapy company) in 2012. Clients referred to the programme are fully funded through MidCentral DHB. Individualized clinical exercise programmes, based on comprehensive prior exercise screening and testing, were provided to each and every client. Clients exercised three times per week under supervision for 12 to 24 weeks. Client education was integrated with exercises sessions.

**Conclusions:** As of the end of 2013, the UCOL U-Kinetics Centre has received 770 client referrals from MidCentral DHB and GP’s who fall under the funding criteria, with over 220 having already fully completed their 12 week exercise interventions, and 40% percent of these clients also completing a second 12 week referral. Very few of the clients engaged in physical activity prior to referral to the U-Kinetics programme. Clients report the major barriers to exercise as financial constraints, fear, and lack of knowledge on how to start – with exercise seen as a significant health risk. The programme has had a significant impact on exercise behavior, ability to exercise, knowledge on how to exercise, commitment towards exercise, weight loss, cardiovascular fitness and psychological health. Findings to date relating to client outcomes (physiological and psychological), and industry feedback, led to UCOL U-Kinetics being a recipient of the 2013 MidCentral DHB Peoples’ Choice Health Award.

**Implications:** This project emphasizes the importance of a supervised exercise in the management of clients with multiple health issues in a safe and supportive way. The general view of both clients and referring medical practitioners/clinics/institutions is that this clinical exercise physiology service -with a 98% client compliance and completion rate- should be rolled-out across larger New Zealand.
Attitudes to physical punishment of children: changes over time in New Zealand

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Issue: The physical punishment of children breaches a child’s right to freedom from violence, is not an effective mode of discipline, and when severe and frequent, has negative health outcomes. The use of physical punishment is shaped by many factors, including social norms. In 2007, New Zealand was the first English-speaking country to achieve legal prohibition of the use of physical punishment of children in all settings. The law change followed years of community advocacy, parent education, and considerable public and media debate about parental and child rights and the role of the State in family life.

Aims: To examine whether adult New Zealanders’ attitudes to physical punishment of children have changed over time.

Methods: We conducted a systematic search to identify studies describing New Zealand adult attitudes to parental physical punishment. We searched MEDLINE, Academic Search Complete, Google Scholar, the New Zealand National Library Catalogue, the Global Initiative to End all Corporal Punishment of Children website, and reference lists from relevant articles using search terms such as “child*”, “punishment” or “smacking”, “New Zealand” and “survey”. Studies were examined to see whether a similar question had been asked to allow comparison over time.

Results: Twenty-six studies were identified. Eight studies used a similar question to enable comparison over time: “There are certain circumstances when it is alright for a parent /parents to smack [or: ‘to use physical punishment with’] a child”. The surveys show a steady decline in approval of physical punishment from 89% (95% CI 84.8 to 92.2) in 1981 to 40% (95% CI 36.5 to 43.6) in 2013. Our findings suggest a decrease by almost one-third since the 2007 law change.

Conclusions: This review indicates that attitudes to physical punishment have changed over time in New Zealand. Law change appears to have accelerated a long-term trend of reduced approval of physical punishment. A significant proportion of New Zealand society continues to support its use; continued public education is still required.

Implications: The decline in approval of physical punishment is a positive development for children’s rights. The decline may be due to a combination of law change, community action, parent education, public debate, and increased awareness of children’s rights, however the precise contribution of each is unclear. Recommendations: (1) future surveys should continue to monitor change; (2) intensified effort is needed to educate families about the negative effects of physical punishment and more effective approaches to use when raising children.
Determining the health benefits of poultry industry compliance measures: the case of campylobacteriosis regulation in New Zealand

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Issue: A rising epidemic of campylobacteriosis in New Zealand was brought into check by poultry industry actions undertaken to achieve the targets of a regulatory compliance programme instituted by New Zealand Food Safety Authority (NZFSA, now included in MPI) commencing in 2007.

Aims: To estimate the economic benefit associated with the application of this regulatory compliance programme. It appears to be the first time in New Zealand that industry compliance costs have been assessed in relation to reduction of the disease burden.

Methods/Actions: The cost of illness (COI) and any resulting health benefits were estimated. Economic analysis was undertaken using a retrospective cost benefit analysis (CBA) to demonstrate the economic effectiveness of interventions applied by industry to ensure compliance with the microbiological programme.

Three tiers of costs are investigated: firstly the cost to industry to implement the compliance programme, change practices and processes to reduce the prevalence of Campylobacter in the final product to the market, secondly the costs to the regulator to undertake and continue oversight of the compliance programme and thirdly the COI in New Zealand due to campylobacteriosis is estimated from three previous studies.

The benefit is measured as a reduction in health care costs which include reduction in loss of life and disability. The immediate health benefit from actions undertaken by industry to meet the new compliance standards applied in 2007 and 2008 was a 58% reduction in notifiable cases of campylobacteriosis in New Zealand. This reduction has been maintained since then.

Results: The benefit:cost ratio was remarkable, showing a good return from the combined efforts of industry and the regulator in reduction of campylobacteriosis; in dollar terms a gain of at least $57.4 million per annum.

Conclusions: A clear positive linkage between the industry and regulatory cost of compliance and the internal social benefit to the New Zealand economy has been demonstrated.

Implications: By addressing the primary source of this foodborne disease a more economically efficient outcome in the reduction of disease has been achieved. Further significant reductions in the disease burden can be expected if further focus and investment can be undertaken by the poultry industry in collaboration with the regulator.
Health and well-being of teen parents and their whānau

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Issue: In New Zealand, there are between 4000-5000 babies born to young mothers under 20 years of age each year. There is much evidence to suggest that the factors associated with young parenthood such as unplanned pregnancy, low income and inadequate support can lead to lifelong negative impacts.

Aims: The aim of this research was to identify the support needs of teen parents, whānau and their children.

Methods/Actions: One-to-one interviews and focus groups were conducted with ten young parents (age <20) and eight whānau. Two specific groups were consulted during the course of this evaluation: young parents who had children under five; and whānau of young parents.

Multiple methods were used to ensure a robust triangulation of data. The methods were inclusive and participatory. Two focus groups were held, one for young parents and one for whānau members. The focus groups involved interactive activities which allowed participants to define whānau and whānau support from their own perspective. The activities encouraged participants to share positive and challenging experiences and to identify ways of support that they considered most valuable.

Results/Achievements: Overall the research found that the most effective support whānau can give young parents to promote their health and well-being is: to provide stability and connectedness, and support wellbeing; being a trusted person to talk to; to show kindness, respect and humanity; and monitor risk factors around the safety of the young parent and their child/ren.

Conclusions: The evidence from this research shows that whānau support initiatives need to consider the diverse cultural and geographical contexts of family and whānau members. It would suggest whānau support initiatives need to be non-judgemental, highly responsive to different whānau members and attuned to the likelihood of changing circumstances of where whānau support may come from.

Implications: Organisations which work with young parents should consider the following implementations when developing policies and programs to promote the health and well-being of teen parents and their whānau; connecting with whānau by acknowledging the essential role that whānau play in supporting young parents, involve whānau members in practice development. Context-driven practice should consider the needs of young parents within the context of their whānau and existing relationships within the whānau.
Achieving Smokefree 2025: evidence on the hardening hypothesis from New Zealand

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Issue: The ‘hardening’ hypothesis proposes that as smoking prevalence reduces the remaining smokers may increasingly consist of ‘hardened smokers’ who are less motivated to or find it more difficult to quit [1]. Possible facets of hardening which have been proposed and could be assessed include (i) smokers becoming more addicted and hence less able to quit; (ii) smokers becoming less motivated to quit and making less quit attempts; and (iii) the outcome of hardening reducing successful population quit rates among smokers. Data on whether hardening is happening in a country which has adopted a smokefree goal of reducing smoking prevalence to close to zero has not been presented.

Aims: To investigate whether there is evidence to support the hardening hypothesis in New Zealand using data from nationally representative surveys between 2008 and 2012.

Methods: The Health and Lifestyles Survey is a face-to-face population based survey using a nationally representative sample of around 2,000 adults aged 15+ years. Data is collected on a range of health behaviours including in-depth data on smoking and smoking-related behaviours. Data from the survey relevant to assessing the hardening hypothesis includes: daily smokers (as proportion of all current smokers), number of recent quit attempts, and recent quit rates (becoming an ex-smoker in the last 1-12 months).

Results: Current (at least monthly) smoking prevalence fell from 20.2% to 16.9% between 2008 and 2012. The equivalent figures for daily smoking were 17.8% and 15.3%.

The indicators of hardening changed as follows:

The proportion of daily smokers among all current smokers varied little and was between 86% and 90% between 2008 and 2012. The proportion of daily smokers who had made no quit attempts in the previous year was 53.7% in 2008 and 54.1% in 2012, with no trend apparent. The proportion of daily smokers who had four or more quit attempts in the previous year increased from 4.3% in 2008 to 8.7% in 2012. The successful quit rate among daily smokers (Defined as [number of ex-smokers who report quitting in last 1-12 months]/[number of ex-smokers who report quitting in last 1-12 months] + [number of current smokers]) increased slightly from 8.9% in 2008 to 12.0% in 2012. Findings were similar when stratified by gender and ethnicity (Māori and non-Māori).

Conclusions: This data is the first to investigate whether hardening is occurring in a country that has adopted an endgame goal for tobacco smoking. The findings suggests that over a period when there were marked declines in daily and current smoking there was little evidence of hardening, with a trend towards increases in recent quit rates over time.

Implications: This findings suggest that current tobacco control approaches are being effective and there is no evidence yet of the need to tailor interventions, including smoking cessation support, to address an increasingly hardened population of smokers. However, monitoring whether hardening is occurring will continue to be important and the policy and practice implications considered should it emerge on the route to Smokefree 2025.

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Speaking with One Voice Te Reo Kotahi

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\textbf{Issue:} Following the earthquakes, the NGO sector needed a voice, and so the NGO network of One Voice Te Reo Kotahi formed. Part of this network’s aim was to ensure that NGO voices were taken into account by decision-makers in the rebuild and recovery of Christchurch.

\textbf{Aims:} One Voice Te Reo Kotahi is the waka on which the NGO sector with its many faces (ngā matatini) carries community expectations and truths with integrity and has aimed to build relationships of trust and partnership with Government and Commerce and within the NGO sector, to facilitate communication. A significant aspect of this mahi was to ensure that the value of NGO voices be recognised within the Canterbury Earthquake Recovery Authority (CERA).

\textbf{Method/Actions:} One Voice Te Reo Kotahi was founded embracing Te Tiriti o Waitangi and uses a Treaty Relationships Framework, reflected in a Tangata Whenua and Tangata Tiriti caucus. Utilising a wealth of experience, collective expertise, and established and ever-expanding networks from work within the sector in Greater Christchurch over many years, One Voice Te Reo Kotahi emerged as a credible and valuable network.

One Voice Te Reo Kotahi organised several meeting and open Forums with staff from CERA as an action toward developing a formalised space for voices from the NGO sector be present within the Canterbury Earthquake Recovery Authority (CERA).

\textbf{Results/Achievements:} Through the work of One Voice Te Reo Kotahi, CERA invited identification of a panNGO delegate to serve on their Community Wellbeing Planners Group and its Psychosocial Subcommittee. This delegate role is jointly filled by representation of tangata whenua and tangata Tiriti. One Voice Te Reo Kotahi is a part of the five-network panel that serve as a conduit between the NGO sector, the panNGO delegates, and the two groups hosted by CERA.

\textbf{Conclusions:} The range of NGOs comprising One Voice Te Reo Kotahi and its leadership in actively promoting a Tiriti-based model of working enabled a space for two delegates, which offers the benefits of greater presence, depth, and insight.

The contributions of the delegates has often brought a public health focus to the conversation. Many of the NGOs the delegates report to via the support panel bring an awareness around structural inequalities and have given the delegates a mandate to speak up in other settings that essentially points to determinants of health and challenges reliance on bottom-of-the-cliff initiatives.

\textbf{Implications:} The successes of One Voice Te Reo Kotahi have implications for other organisations, networks, or agencies considering models of Tiriti-based partnership in their own mahi. Many in public health may benefit from the allied issues and values that the panNGO delegates have seen through their relationship with the NGO sector.
What does gambling harm have to do with climate change?

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**Issue:** In seeking to reduce gambling harm, one of the most significant barriers to achieving positive public health outcomes is the actions of the gambling industry. The tactics of the gambling industry, while powerful, are also aligned with other industrially-produced public health harms.

**Aims:** The Problem Gambling Foundation (PGF) engaged in a literature review in order to inform strategy around future work. Though initially it seemed the review could inform PGF’s work, the review could also inform strategy and future work of partnership or other collaborative efforts.

**Method/Actions:** The literature review began by comparing the tobacco industry to the gambling industry. In the ongoing review, the actions of the gambling industry fit into a much larger framework. Thus, the work widened to include comparisons between the gambling industry and the industries behind other industrially-produced public health harms.

**Results/Achievements:** The approach taken by the gambling industry (or “big gambling) matches those taken by the other “big” industries—tobacco, oil, alcohol, and even infant formula.

While comparisons between gambling and tobacco offered worthwhile comparisons in the short to medium-term, considering the ramifications of “big oil” on public health allows an examination of gambling harm from a more profound standpoint. For one, it shakes up a belief that harms can be reversed. Moreover, the idea of halting in climate change is a reminder that the ultimate goals of public health will not come through isolated projects and will not come without fundamental cultural changes that challenge deeply-entrenched worldviews.

**Conclusions:** Although each particular area retains some uniqueness or particular idiosyncrasies, it is possible to link the work being pursued in each of these sectors into a larger movement. Sectors may set sights on short to medium-term projects to reduce or minimise industrially-produced harms, but sustainable long-term impacts require commitment to an alternative world view that challenges the systems that condone harm production.

**Implications:** The field of public health is well-prepared to lead such a movement. The Public Health Association of New Zealand could be a useful sounding-board for how our field could incorporate a unifying, overarching into our core business.
Smokefree New Zealand - A Nation’s commitment to stop the damage caused by smoking

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**Issue:** Smoking is the single leading preventable cause of early death in New Zealand. Half of all long-term smokers will die of a smoking related illness, losing an average of 15 years of life. An estimated 4,500 to 5,000 New Zealanders die each year due to smoking or exposure to second-hand smoke. Smoking related disease is a major cause of health inequality for Māori compared to the rest of the population. The costs of smoking to New Zealand’s economy is also significant and includes premature mortality, lost productivity due to smoking caused morbidity and smoking related health care costs.

**Aims:** In March 2011 the Government adopted the Smokefree 2025 goal for New Zealand. This was in response to the recommendations of a landmark Parliamentary inquiry by the Māori Affairs select committee. This ambitious goal establishes New Zealand as one of the first countries in the world with such a strong commitment to reducing death and disease caused by smoking at a national level.

**Methods/Actions:** New Zealand is at the forefront of tobacco control internationally and has made steady progress in reducing smoking prevalence and tobacco consumption. To achieve the goal of Smokefree 2025, a comprehensive range of measures is needed to:
- protect children from exposure to tobacco marketing and promotion
- reduce the supply and demand for tobacco
- and provide the best possible support for quitting.

Many actions related to these measures have either been implemented or are under consideration in New Zealand. Some notable examples include: banning tobacco displays, plain packaging, tobacco tax increases, the Better help for smokers to quit health target and Pathway to Smokefree 2025 innovation fund.

**Results/Achievements:** According to the 2013 Census, 15 percent of the adult population in New Zealand smoke (463,000 adult smokers). This exhibits a drop of 23 percent from 598,000 at the last census in 2006. Even more encouraging is the fact that smoking prevalence among Māori has dropped from 42.2 percent in the 2006 Census to 32.7 percent in 2013.

**Conclusions:** Evidence suggests that the most successful approaches to tobacco control include those with a multifaceted and diverse range of activities that target legislation, health promotion and smoking cessation. Building on the success of the initiatives mentioned above, the Government will continue to employ such a combination approach to reduce the prevalence of tobacco use and the harm it causes.

**Implications:** The smoking rate in New Zealand is currently at its lowest point in history and one of the lowest in the world. Evidence indicates that increasing number of young people have never tried smoking.

Additionally, the outstanding leadership and commitment provided by the Government and New Zealand tobacco control sector over the past few decades could be used as a role model for other areas of health sector such as alcohol harm reduction, obesity prevention and problem gambling services.
The New Zealand Tobacco Control Data Repository (TCDR)

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**Issue:** The New Zealand government aims to reduce the prevalence of Tobacco Consumption to less than 5% of the population by 2025. Achieving this goal requires monitoring tobacco use trends over time to measure the effectiveness of policy-based government interventions. Central government agencies, some NGOs and all DHBs all monitor some aspects of tobacco use. The cost of all data collection channels concerning tobacco consumption is at least several million dollars per annum. Currently there is no single place to obtain data to monitor tobacco control sector activity.

**Aims:** The current project aims to: (1) provide a freely available website to communicate all of NZ’s tobacco control data in one location, (2) facilitate the uptake of that information by providing the information is an accessible form for all levels of users.

**Methods/Action:** With the support of the Ministry of Health (MoH), the Health Promotion Agency (HPA) undertook the design and creation of the Tobacco Control Data Repository (TCDR). Rather than a simple storehouse of databases tailored to academics and analysts, the project caters to a wide range of numeracy skills, and presents data as interactive graphs, to facilitate the uptake of the information by all sector users. Further, the TCDR provides data specific to requirements of the user, for example at the DHB level.

**Results/Achievements:** As of June 6, 2014, the TCDR is freely available online at tcdata.org.nz. The TCDR currently includes data from: the Cancer Registry (NZCR) and Mortality Collection (MORT), the Health and Lifestyles Survey (HLS), New Zealand Census 2013, the New Zealand Smoking Monitor (NZSM), Quitline data, tobacco sales data and the Youth Insights Survey (YIS). The site is flexible, catering specifically to users of different levels, allowing users to: (1) view a single summary report, (2) browse and interact with the graphed data either by dataset or by topic, and (3) create custom graphs. Each graph allows users to examine subsets of data, usually by key demographics, e.g. age, gender, ethnicity and DHB.

**Conclusions:** The TCDR gives tobacco control practitioners of all levels fast and freely available access to the latest tobacco control information. The architecture of the TCDR platform allows HPA to update each data source, which automatically updates the TCDR, ensuring the site is always current. We expect the interactivity, customisability and convenience of the TCDR will help sector users become more comfortable with the available data and lead to a more informed and effective anti-tobacco interventions.

**Implications:** The TCDR platform provides the tobacco control sector with tools and monitoring information to aid the sector and the government achieve their 2025 target
Marae food gardens – health and wellbeing through urban marae in Tāmaki Makaurau

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Issue: Targeted interventions like community food gardens are an example of a health promotion intervention that can have wide-ranging, holistic benefits and they have the potential to meet the often complex and diverse needs of indigenous peoples. The appropriate siting of health promotion can enable interventions to take advantage of their setting to reach specific individuals, families and communities.

Aim: My PhD research explores the influence of culture and the importance of locational context to indigenous participation in health promotion, as evidenced in food gardens situated on urban marae. I contend that the site of health promotion is pivotal to indigenous participation, and that co-locating the pursuit of healthier activities on culturally relevant sites can contribute to wellbeing through raising cultural efficacy. Food gardens can be utilised as an effective healthy activity that promotes wellbeing, and siting gardens on marae may ensure that cultural factors are incorporated into the activity.

Methods: Inspired by kaupapa Māori research and using a qualitative approach, I aim to provide an in-depth understanding of marae food gardens and their multi-dimensional outcomes. A narrative analysis approach will be undertaken to examine and describe the stories of the participants about their perceptions, motivations, benefits and achievements within the food gardens. I will analyse the multi-dimensional outcomes described by marae members in an effort to understand the appropriateness and effectiveness of siting food gardens on urban marae.

Results: The results of the proposed research will contribute to providing an understanding of the essential conditions needed to achieve wellbeing outcomes for indigenous people.
**Issue:** New Zealanders have among the highest rates of melanoma in the world. Sunbeds emit dangerous levels of ultraviolet radiation that increase the risk of melanoma. Sunbeds are poorly regulated in New Zealand and evidence shows that sunbed operators generally do not comply with voluntary industry standards. In December 2012 Auckland Council proposed to review the ‘health and hygiene’ bylaws of the legacy councils. These bylaws covered commercial services to the public that carry health and hygiene risks for customers including commercial services like tattooing, body piercing, hair removal, indoor tanning and pedicure/manicure.

**Aim:** Cancer Society Auckland aimed to have the licensing of sunbeds included in Auckland Council’s Health and Hygiene Bylaw and Code of Practice. Licensing alongside mandatory standards improves the regulation of sunbeds by identifying all operators, ensuring operators receive accurate information and advice, and putting the onus on operators to adhere to standards.

**Methods/Actions:** Cancer Society Auckland made several submissions to this bylaw review recommending that Council license sunbed practices and establish mandatory code of practise standards to help reduce the harms of sunbeds. These submissions included two written submissions to the proposed bylaw and an oral submission to the review committee.

**Result/Achievements:** As a result of Cancer Society Auckland’s submission, Auckland Council introduced a requirement for sunbed operators be licensed into the bylaw effective of July 2014. This license requires that sunbed operators adhere to minimum standards including (but not exclusive to) operator training and banning use to those under the age of 18.

**Conclusions:** This bylaw demonstrates the potential for the public/organisations to advocate to local councils to achieve better regulation of sunbeds and better protection of local communities in the absence of central government regulation.

**Implications:** The Auckland Council bylaw sets a precedent to other New Zealand councils as well as the New Zealand Government to take further steps towards better sunbed regulation.
Service users’ experiences of a physical activity programme in a community mental health setting

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Issue: Research indicates that physical activity interventions in community mental health settings mediate participants’ mental and physical well-being. However, little is known about participants’ experiences with such interventions.

Aims: The aim of the study was to reveal participants’ experiences with the Activity Based Experience (ABE) Programme of the non-government organisation Richmond Services Limited. This included the perceived benefits and barriers to physical activity, contributing factors to physical activity adherence and suggestions for service improvements.

Method: Findings draw on individual semi-structured interviews with 13 participants in the intervention.

Results: Service users’ described their perceptions of physical, psychological and social support benefits of the programme and barriers to physical activity. Factors affecting maintenance of physical activity included accessible community resources, being mentally well, taking personal responsibility and setting goals. Suggestions for improvements included a longer programme with more frequent sessions, more detailed communication with their support worker and the potential for group activities.

Conclusions: Qualitative findings suggest the ABE Programme provides multi-dimensional benefits, helps participants to overcome barriers to physical exercise and positively influences health beliefs and behaviours of some participants. Similar interventions could become integrated into mental health services and should focus on early intervention, multidisciplinary collaboration and person-centred approaches.

Implications: Physical activity interventions should be integrated part of mental health services and provided by a specialised support professional. It is recommended to tailor services to the participant in regards to contents, duration of service and frequency of sessions. Awareness of the availability of services needs to be risen, in particular for primary care providers to ensure early intervention. More research is needed to investigate how to diminish barriers to physical activity and maintain physical activity long-term for people with mental illness. Research projects should also incorporate suggestions and perspectives from mental health agencies, hospitals and medical centres. On the basis of this information, regional and national health policies could be created.

Obscure aetiology, unusual disparity: New Zealand’s key role in the fight against testicular cancer

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Issue: Testicular cancer (TC) is the most common cancer among young men, and rates of this disease are increasing rapidly worldwide. The causes of TC are still not well understood. A recent report suggests that New Zealand has the highest rates of TC in the world [1] – and our own recent research has shown that Māori men suffer the highest rates of TC in New Zealand [2]. The latter finding is completely at-odds with other developed countries, where it is White men who suffer by far the highest rates of this disease.

Aims: Our group is embarking on a programme of research that aims to understand the key drivers of this ethnic disparity – since explaining why Māori suffer the highest rates of TC in New Zealand could provide critical new information regarding the key exposures in the development of this disease. In the first of our studies, we hypothesized that ethnic trends in the incidence of cryptorchidism – or undescended testes, a condition which is an established risk factor for TC – would reflect those that we observed for TC itself [2].

Methods: We followed 318,441 eligible male neonates born in New Zealand between 2000 and 2010 for the incidence of orchidopexy-confirmed cryptorchidism. We linked routine maternity, hospitalisation and mortality records from the National Collections to create our dataset. Logistic regression was used to calculate Odds Ratios (OR) for the presence of known risk factors for cryptorchidism (low birth weight, short gestation, small size for gestational age) by ethnic group. Poisson regression was used to calculate the Relative Risk (RR) of cryptorchidism by ethnicity, adjusted for risk factors.

Results: Māori had higher rates of cryptorchidism than all other ethnic groups (adjusted RR: 1.20, 95% CI 1.11-1.30), with Pacific (0.89, 0.80-0.99) and Asian groups (0.68, 0.59-0.79) having the lowest rates.

Conclusions: Ethnic patterns of cryptorchidism incidence in New Zealand closely mirrored those previously observed for TC.[2] Since the principal risk factors for cryptorchidism are present in utero, the results of this study provide a key aetiological clue regarding TC development – by suggesting that at least part of the disparity in TC incidence is due to exposures that occur prenatally.[3]

Implications: The next logical step in our programme of research is to understand what is driving the significantly higher rates of both risk factor (cryptorchidism) and outcome (TC) among Māori men. By doing so, we will not only identify reasonable avenues of intervention to reduce this disparity, but also increase international understanding of the key exposures which lead to testicular cancer.

Voice of citizens in the primary health care system of Nepal: do citizens make complaints and are they heard?

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Issue: Patient and public voice is an important aspect of health governance. In recent decades the Government of Nepal has introduced different voice mechanisms such as health facility committees and clinic suggestion boxes into its primary health care system which comprises approximately 4000 public health facilities. To make the health system responsive and accountable to the citizens, there is a need for effective patient complaints mechanisms. However, little is known about how Nepali citizens make complaints to health service providers.

Aims: To explore the routes by which citizens make complaints about the health care services, and to gauge the responsiveness to complaints by health service providers.

Methods: Using a mixed methods case study design three groups of participants (220 patients, 100 health facility committee members and 80 health facility staff) were recruited from 22 of 39 public health facilities in the Dang District. Interviewer-administered structured questionnaires were used to collect quantitative data (Feb-March 2014). In addition, qualitative interviews were held with 39 key informants and six focus groups with in the community to provide more detailed and contextual information. Quantitative data were analysed using SPSS 16; qualitative interviews were transcribed and then analysed using QSR Nvivo 10.

Results: Of health facility patients, nine percent reported making complaints about the health facility services. Males were more likely to make complaints than females (p<.01). Most complaints were made directly to health providers. None of the health facility patients and less than two percent of committee members and staff mentioned use of suggestion boxes. More than two thirds of complainants said that they either didn’t know about the response or were dissatisfied with the response to their complaints. Complaints made were about availability and accessibility of medicines, health facility opening hours, staff behaviour and regularity. Reasons for not complaining were lack of knowledge regarding service entitlements and complaint mechanisms; fear of health workers; and perceived lack of responsiveness to complaints.

Conclusion: Very few citizens made complaints to primary health care services in Nepal, and they tended to follow direct informal approaches when complaining. The responsiveness to complaints was reported as poor.

Implications: There is a need to increase awareness among citizens about service entitlements and voice mechanisms; and to increase service provider responsiveness to complaints lodged.
Incidental physical activity: Improving health, wellbeing and quality of life

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Issue: Increasing health treatment costs continues to place excessive demands on both human and financial resources. Rather than increasing treatment provision there has been a call to the health sector and other service providers to identify intervention and prevention initiatives that may reduce the burden on overloaded systems and services.

Aims: This paper’s aim is to advance the concept that an increase in one’s daily incidental physical activity can improve significantly one’s health and wellbeing, thereby reducing the burden of treatment or care on both the health system, and the community within which the individual resides.

Methods/Actions: An extensive literature review (both national and international) was conducted to explore the contributions, costs and benefits of sport and physical activity to individual, their communities and to the nation. Particular attention was paid to studies that discussed the concept of incidental physical activity, that is, incorporating physical activity into daily routine and every-day activities. This information was then employed to construct the academic argument for a Health Promotion Campaign.

Results/Achievements: The studies indicated there were many positive health outcomes and benefits through participation in physical activity, sports and physical recreation. It was argued that sport is a key indicator of a particular community’s health and wellbeing [1]. Incidental physical activity was identified as a cost-effective way to improve physical activity levels, without meaning major life-style changes. A carefully constructed health promotion campaign, with the ‘right’ messages has the potential to not only raise awareness to the benefits of increasing incidental physical activity, but also has the potential to ensure long-term adherence to re-established practices. Successful health promotion campaigns involve the collaboration of many partners [2], and to ensure partners are able to provide necessary and coherent support/encouragement, meaningful and easy-to-use resources must be developed.

Conclusions: Incidental physical activity has the potential to contribute economically, and socially to the wellbeing, health and happiness of populations. For individuals there are associated direct benefits in the risk of reduced adverse health incidences, both in the short and longer terms. This further improves the individual’s sense of wellbeing across physical, emotional, spiritual and mental dimensions.

Implications: To ensure a health promotion campaign changes behaviour there are a number of critical actions that must be undertaken including; ensuring culturally relevant meaningful examples, visuals and language; and developing the pool of service providers with the competencies and capabilities to advocate the health promotion’s messages.

Youth preferences for roll-your-own versus ready-made cigarettes: Trends in repeated national surveys (2006-13) and implications for policy

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Issue: New Zealand (NZ) smokers consume more roll-your-own (RYO) tobacco than smokers in other countries. Observation of tobacco packaging suggests RYO tobacco may be less amenable to interventions such as plain packaging and pictorial warnings; the packaging may be viewed less often if RYO cigarettes are rolled in batches and stored or if the packaging is distorted by folding. Furthermore, as RYO tobacco is less expensive than ready-made (RM) cigarettes it may appeal to young people and be more readily supplied to them by others. Thus, RYO tobacco use may be inhibiting achievement of maximal declines in youth smoking initiation and maintenance.

Aims: To investigate youth RYO use over time in NZ, identify factors associated with youth RYO use, and explore possible implications for tobacco control policy.

Methods: We analysed data from a large annual school-based national survey of NZ’s Year 10 (14-15yo) students from 2006-2013. Participants were asked whether they usually smoked RYO or RM cigarettes, along with items relating to demographics, smoking status and source of supply. Analyses were performed using SAS v9.3. In addition to examining prevalence, we estimated binary logistic regression models for each year to explore determinants of RYO use.

Results: Between 6,663 (2006) and 3,143 (2013) year 10 students identifying themselves as current smokers (any regularity) responded to the question about type of cigarette usually smoked. Prevalence of ‘at least weekly’ smoking declined from 12% [95% CI ±0.5%] to 6% [±0.3%] between 2006 and 2013. Among smokers, around 80% each year reported usually smoking RYO or RM cigarettes (the remainder did not answer or answered ‘other’, possibly because they had no usual type). RYO use was high at 45% [±3%, vs 36% ±3% for RM] in 2006, reducing slightly to 40% [±3% vs 38% ±3% for RM] in 2013. More respondents reported usually smoking RYO than RM cigarettes in each year except 2012. Graphical analysis of the trends in the ratio of RYO:RM suggest RYO use declined after 2010, possibly corresponding to a differential increase in tax on RYO tobacco in that year.

Those of Asian or Pacific ethnicity, or who initiated smoking at a later age, were less likely to usually smoke RYO tobacco. However, RYO tobacco use was more likely amongst medium or lower SES groups, those whose main source of tobacco was a caregiver, and those who regularly smoked.

Conclusions: A very high proportion of Year 10 smokers smoked RYO cigarettes. Year 10 youth smoking of RYO tobacco appeared to decline relative to RM cigarettes following a differential tax increase in 2010. However, RYO remained at least as popular as RM cigarettes and was differentially preferred by longer-term, regular, and medium or lower SES youth smokers. These findings suggest RYO tobacco supports ongoing youth smoking initiation and maintenance.

Implications: Efforts to reduce smoking uptake among youth in New Zealand should take into account these high levels of RYO use. In particular, further differential excise tax increases for RYO tobacco appear warranted. Careful attention to plain-package design and the development of salient pictorial warnings, perhaps relating to social supply, may also be crucial to maintaining declining trends in youth smoking.
An evaluation of enhanced on-pack Quitline information formats

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Issue: Australian plain packaging legislation replaced attractive brand livery with aversive stimuli, thus increasing the dissonance smokers experience.[1, 2] Early evaluations suggest the experience of smoking has diminished and smokers are thinking more about quitting.[3] However, Australian plain packaging regulations did not alter the presentation of on-pack cessation information and so missed an opportunity to promote cessation at a point when smokers may be considering quitting.

Aims: We estimated how alternative Quitline information formats affected smokers’ perceptions, choice behaviours and likelihood of seeking cessation support with a view to providing evidence that could be drawn on when New Zealand policy makers draft the final version of the Smoke-free Environments (Tobacco Plain Packaging) Amendment Bill.

Methods/Action: A graphic artist prepared twenty two back of pack formats designed to enhance the visual salience of the Quitline information; using a qualitative study, we identified eight options that participants regarded as most effective. We then used an online survey of 608 New Zealand smokers to compare these options to the status quo (control). Respondents completed a choice experiment that used a two (number of panels) by three (panel position: above, middle, below) plus control (status quo) design. A between-subjects component of the study compared a two-panel format and the control using semantic differential scales and a novel heat map approach. We used Scale-Adjusted Latent Class Models (SALCMs) to identify a statistically defensible number of preference and scale classes from the choice experiment data.

Results/Achievements: The sample comprised two segments whose members had significantly different choice patterns. Nevertheless, relative to the current format, all respondents regarded each of the test formats as more effective in communicating cessation information than the current format (p<.0001), particularly the two-panel formats. Respondents found the two-panel format tested in the paired comparison significantly easier to read and more visually salient, and more likely to encourage them and other smokers to consider quitting than the control (all p<.0001). Heat map comparisons showed the Quitline number and affirming message were significantly more salient in the test format than the current format (p<.000), although the headline and warning explanation were more salient in the control.

Conclusions: Plain packaging could promote cessation support by enhancing the visual salience and readability of the Quitline information currently provided. Reformattting the Quitline information could capitalize on the dissonance plain packaging creates by foregrounding information that could help smokers to make quit attempts and affirming their decision to do so.

Implications: When policy makers draft the final plain packaging legislation, they should use this opportunity to enhance the visual impact of Quitline information on tobacco packages by reformattting to align with the optimal designs we identified.

Growing Public Health Nursing Aotearoa

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Public Health Association

**Overview:** Since the late 80’s, Public Health Nursing in New Zealand has faced a decline in visibility. Nationalised professional development to support Public Health Nurses in education and career development has been largely discontinued. A national framework of standards to guide Public Health Nurses through education and career pathways is needed, so that nurses can be adequately supported to carry out their essential population health roles in the community.

**Aim:** to develop a public health nurse education and competency framework, with the support of the Public Health Nursing community, by 2015.

**Methods:** A discussion document was developed by the public health nurse education framework project group and with the support and guidance of the advisory group. The document was sent out to representatives the public health nurse sector for review in August 2013, both in hardcopy and over online discussion forums.

**Results:** 32 written contributions were received by groups in the public health nurse sector. Initial results show strong support for a framework such as proposed.

**Conclusion:** The sector supports the development of a competency framework to help support public health nurses in professional and educational pathways. Developing this framework using comments gathered from circulation of the discussion document will be the next task of the Public Health Nurse Project group.
Little Lungs – Pūkahukahu Iti: Growing up Smokefree.

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Issue: Second-hand smoke exposure is responsible for around 500 deaths in New Zealand each year as well as long term morbidity for many others. The New Zealand Government has committed to a Smokefree Aotearoa by 2025; however in order to achieve this we need to move beyond the health care setting and seek support from other sectors. The early childhood setting has largely been ignored when it comes to implementing Smokefree projects, yet in NZ we have a 96% participation rate in early childhood education, making it a perfect place to promote Smokefree homes and cars messages.

Aims: The aims of this project were to re-orientate early childhood educators to the Smokefree agenda, familiarise them with Smokefree cars and homes messages and support them to integrate a consideration of Smokefree messages into their professional practice.

Methods/Actions: Following a successful pilot, early childhood centres were approached to participate in the programme. Centres located in areas of high deprivation or with high numbers of Māori and/or Pacific students were given priority. The programme involved a workshop delivered on-site during a staff meeting and covered topics such as the 2025 goal, second-hand smoke facts, practical ways to engage whānau and resources available to support this. A follow up visit was offered a month after the workshop for staff to discuss learning and plan action within their centre. Additional resources were provided electronically to all centres involved in the programme. Ongoing support is provided on an ‘as requested’ basis.

Results/Achievements: Evaluation forms were received from 149 early childhood educators from 32 centres (94% response rate). Some of the results included: before the training 59.1% of participants thought it was important or extremely important to incorporate Smokefree into their practice. This increased to 96.5% after the training. Before the training only 26.6% of participants felt confident or extremely confident to incorporate Smokefree into their practice; after the training 82.4% felt confident or extremely confident. There has also been some exciting activities happening in centres to promote Smokefree cars and homes such as surveys, newsletters, displays, policy development, quit card training, signage audits, and participation in World Smokefree Day events.

Conclusion: In the 12 months since the launch of the programme centres have provided encouraging and positive feedback. This represents a marked change from initial encounters where raising Smokefree cars and homes with parents and caregivers was seen as a ‘bridge too far’. Today there are many enthusiastic and supportive early childhood educators delivering Smokefree messages to whānau in our community.

Implications: The early childhood setting is an important place to implement health programmes as the educators have a unique relationship with parents, caregivers and extended whānau. Little Lungs – Pūkahukahu Iti is still evolving. We are currently incorporating more Maori philosophies and updating content in response to feedback from evaluations. We also plan to deliver it in other more rural parts of Otago and Southland.
Clean air and warm homes: Health impact assessment of Environment Canterbury’s Air Plan review

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**Issue:** Environment Canterbury (ECan)'s Air Plan is currently under review. The Air Plan sets out the regulatory approach for managing air quality in Canterbury, with the objective of reducing the number of high pollution days to meet the National Environmental Standards for Air Quality. Proposed changes include restriction or prohibition of wood burners for domestic home heating. While evidence supports reducing emissions to improve air quality, thousands of Canterbury households rely on wood to heat their homes. The health impact assessment (HIA) arose out of the joint work plan between ECan the Canterbury District Health Board (CDHB) to consider the potential impacts of regulatory changes on the health and wellbeing of wood burner users.

**Aims:**
- to assess the potential impacts on wood burner users of restricting or prohibiting wood burner use in Christchurch, particularly for vulnerable groups, such as the elderly and very young, people with chronic illness, and low income households
- to develop recommendations to minimise or mitigate any adverse health affects of the new Air Plan

**Methods/Actions:** The appraisal process included a literature review on heating, housing and health; a household heating survey; a heating options and costs report; an analysis of fuel poverty levels in Christchurch; and a Stakeholder Workshop to develop recommendations.

**Results/Achievements:** The outcome was an overview of current heating methods and associated costs; the age, size and level of insulation in dwellings; characteristics of household occupants; an estimate of the current level of fuel poverty in Christchurch and the potential impact of a wood burner ban on fuel poverty levels.

**Conclusions:** Wood burning is an affordable and effective form of heating that is currently being used by nearly 30,000 Christchurch households. The estimated level of fuel poverty in Christchurch is 22%, and it is projected that this could increase to 27%, with a further 5000 households entering fuel poverty, in the case of an outright ban on wood burner use with no supporting measures. Fuel poverty, and associated health impacts, is influenced by a number of factors, particularly housing quality and insulation levels, rental housing standards, electricity prices, and community knowledge and behaviour.

**Implications:** The HIA provides a foundation to redraft the Air Plan in a way that is reflective of the complex issues surrounding heating, housing, and health. The findings have already been incorporated into ECan’s Air Plan review document that will be released for public engagement in early June. A collaborative, inter-agency approach is recommended going forward to develop and deliver supporting measures, such as targeted heating and insulation subsidies and the rental warrant of fitness programme, to ensure that improved air quality and warm homes are mutually-achievable aims.
Community readiness for mHealth in rural Bangladesh

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Issues: Evidence in favour of mHealth for healthcare delivery where trained health workforce is limited or unavailable is accumulating. With a rapid growth of access to mobile phone and acute shortage of health workforce in the country, mHealth initiatives are also growing with 20 initiatives are in existence now. A systematic assessment of the community readiness for this technology based service in the country has been absent. This paper reports findings from a recent study conducted on this topic.

Aims: To assess the community readiness and acceptance for the use of mHealth interventions in rural Bangladesh

Methods: A combination of qualitative and quantitative methods was used to collect data during November 2012 to April 2013 in Chakaria sub district of Bangladesh. A total of 4915 randomly chosen respondents were interviewed in the survey and 28 in-depth interviews were conducted among the villagers.

Results: 45% of the respondents owned mobile phone and ownership was higher among male, younger age group, and people who were from higher socioeconomic group. Only 5% people used internet by phone, 50% people could receive and send SMS, and 37% could read SMS. 11% of the respondents read the SMS sent by the government for national immunization day and half of them went to the immunization centre. In-depth interviews revealed a low level of knowledge of mHealth and use of phone, however there was considerable enthusiasm among the villagers for mHealth. They were attracted by the convenience of accessing medical expertise at night or during an emergency. People like to visit a doctor for an initial consultation, then follow-up via mobile phones and they also found the cost of a consultation through mobile phone was of good value compared to face-to-face consultation. There was a trust issue as they could not see the doctors over phones.

Conclusion: Despite inequity in ownership, illiteracy and technological difficulties, people in this community are looking forward to accepting the mobile phones for healthcare. User friendliness, simplicity of technology, earning trust, and maintaining low cost are crucial for the success of mHealth.

Implications: The study findings have important implications for designing existing and future mHealth programme in Bangladesh and other developing countries.
Factors associated with delay in diagnosis and treatment of Pulmonary Tuberculosis in Bangladesh: A mixed methods study

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Issue: Delay in diagnosis and initiation of treatment of pulmonary TB results in severe disease and increased burden of the disease in Bangladesh where disease prevalence is high.

Aims: This study designed to explore the underlying socio-cultural factors that influence delay in TB diagnosis and treatment.

Methods: In this mixed methods study, we interviewed newly diagnosed TB patients aged ≥15 years attending selected urban and rural TB clinics with structured questionnaire during 2009 to 2010. The qualitative component includes free listing, severity ranking, pile sorting and in-depth interviews. We took 62 days cutoff points for total delay to dichotomize delay period as outcome variables. Bivariate and multivariate logistic regression analysis was performed. Qualitative data were transcribed and coded to classify themes and sub-themes.

Results: A total of 278 patients were enrolled. The median total delay was 62 days (IQR 37, 96 days). Higher degree of stigma (AOR 2.0; 95% CI 1.2-3.4; p=0.008, older age group (AOR 3.3; 95% CI 1.7-6.4, p<0.001) and rural residency status (AOR 3.7; 95% CI 1.9-7.3; p< 0.001) were associated with longer delay in TB diagnosis and treatment. Respondents knew about TB from television, could recall one symptom (cough > 3 weeks) and were aware that TB is a curable disease. However, they did not seek treatment until the local healthcare practitioners referred them to the TB clinic. The perceived social stigma related to TB resulted in delay care seeking and the patient diagnosed with TB concealing his/her status from family members.

Conclusion: There is an urgent need for improving comprehensive service delivery to reduce delay in diagnosis and treatment of TB in Bangladesh. Stigma prevents patients from seeking care and should be alleviated by public health information and counseling is needed to protect TB patients from the adverse impact of avoidable stigma.

Implication: These findings will help to national TB program to understand the social factors which delayed the care seeking.
A new framework for identifying cost-effective life-saving interventions by stage of the life course, a refinement on standard VSL approaches

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Issue: Limited funds are available for life-saving interventions and so there is a need for optimal allocation of health sector resources by policymakers. Questions about “what to invest in?” and “how much to spend on a single intervention?” are becoming increasingly important. Governments around the world (including New Zealand government agencies) use the value of statistical life (VLS) as a measure of the amount a state is willing to pay to save an individual’s life. However, the value and methodology of estimating VSL varies across countries as well as within countries by government agencies. In New Zealand for example, the Transport Agency uses a VSL of around $3.7 million, while the Fire Service Commission uses around $2.3 million.

Aims: We aimed to produce a new framework for identifying cost-effective interventions to prevent a sudden premature death by stage of the life course and in the New Zealand context.

Methods: We calculated the lifetime health care costs and HALEs (health-adjusted life expectancy) for each age-group of New Zealanders using data from HealthTracker (a Ministry of Health collation of datasets on all New Zealanders interacting with the publicly-funded health system). We then estimated the maximum plausible cost of hypothetical life-saving interventions that remain cost-effective under a willingness-to-pay (WTP) threshold of $45 000 (the New Zealand GDP per capita as per a range of WHO recommendations) per QALY (quality-adjusted-life-year) gained. In line with fairly standard health economic approaches, all values were discounted by three percent in baseline analysis as well as by zero and six percent in scenario analyses.

Results: Given these assumptions, the results indicate that the maximum value that the New Zealand Government might spend to prevent a sudden premature death, varies substantially with the age of the individual. For example, a new life-saving vaccine would only just be worthwhile if it typically prevented the death of a five year old at an intervention cost of $1.2 million, and similarly for $65,000 for preventing the death of a 90 year old.

Conclusions: This framework is potentially more useful for policymakers than a standard VSL approach in that it takes a life course perspective, incorporates health system costs, and is anchored in the ability of a country to pay for prevention (via the link with a QALY and GDP per capita).

Implications: Conducting detailed cost-effectiveness analyses for potential life-saving interventions can be time and resource consuming. This framework could provide an initial filter for deciding if potential interventions warrant more detailed health economic analysis. Nevertheless, it would be desirable if researchers also better established if the public support such metrics (eg, via surveys and citizens juries) which have a strong weighting towards younger ages.
Skin infections in young people (aged 14-18 years) – more than just hygiene?

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Issue: New Zealand experiences high rates of hospitalisation for skin infections, with Maori and Pacific people being particularly at risk. Distribution is bi-modal, meaning pre-schoolers and youth are more commonly affected. Health promotion resources available in New Zealand aimed at reducing skin infections recommend actions which are not supported by literature.

Aim: To improve understanding of risks factors for skin infections in young people (aged 14-18 years) and identify interventions to reduce infection rates.

Methods: An integrative review of the literature using the method described by Whittemore and Knafl was conducted in 2013. 20 primary studies met inclusion criteria. Data reduction was achieved by grouping the studies according to the settings in which they were conducted. Data analysis revealed that risk factors may be host specific, pathogen specific or transmission specific, or a mixture of these.

Results: Several risk factors for skin infections in young people were identified. Involvement in sports, breaches in skin integrity, sharing of personal items, existing skin conditions and a history of previous skin infections were all risk factors. The virulence of bacteria currently prevalent in our communities is also a contributing factor.

Conclusions: Current health promotion resources fail to address issues which put young people at risk of skin infections, and are not engaging for youth. Interventions which are likely to reduce the transmission of skin infections in young people are identified. Education of young people, sports coaches and school staff on ways to reduce the risk of skin infections may be effective in reducing the burden of disease in this group. Further studies in the New Zealand context, and including young women would add to knowledge in this area.

Implications: Young people are learning to take increasing responsibility for their health. Provision of health education and resources need to be relevant to them and based on evidence. Primary health workers are ideally placed to educate young people and communities on strategies to reduce skin infections, which may lead to reduced antibiotic usage and hospitalisation.
Lessons from Canterbury- Asian communities speak: the need for culturally appropriate research protocols

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Issue: There has been a growing body of literature discussing various public health needs by ethnic minority groups in New Zealand. At the same time, there has been a growth in developing culturally appropriate public health models and research protocols. Such protocols have been developed for some ethnic communities, such as the Pacific communities [1,2]. As the fastest growing population in New Zealand, it is critical to consider the ongoing public health needs of the Asian population in New Zealand. For these reasons, ongoing research that seeks to understand the needs of this diverse population group is vital. However, New Zealand currently lacks research protocols and guidelines sensitive to the cultural ways of individual Asian communities.

Aims: The purpose of this presentation will be to discuss challenges and lessons learnt from recently completing two research projects specific to Asian communities of the Canterbury region. The first research was the first in New Zealand that tried to understand palliative care and other end-of-life-care needs of elderly Asian migrants. The second project examined sexual health service needs of young Asian population.

Method: Community profiling may be defined as a research means of describing the needs of a defined population, by directly involving the community. Driven by the purpose of improving the quality of life for the community, community profiling focuses on inclusive and participatory approach. For the palliative research, the questionnaire was adapted and reviewed by New Zealand allied health professionals and health professionals of Asian backgrounds. The final questionnaire was translated into appropriate languages. The second project on sexual health service needs also employed quantitative research method. The project involved multilingual staff available to provide cultural support during after the distribution of the questionnaires.

Results: The questionnaires could initially not be distributed due to the time coinciding with the festive season of the Chinese New Year. It was also found that some of the Asian elderly migrant communities found the research culturally insensitive, as topics related to death and dying were discussed. The most appropriate distribution methods for the translated questionnaires were chosen after consultations with the ethnic communities.

Conclusions: In order to continue to carry out research on the Asian population in its broadest sense, there is a need to ensure that researchers are sensitive to the cultural ways and protocols of individual Asian communities.

Implications: It is important to recognise that there is a range of cultural norms for the diverse Asian communities, when conducting research that will lead to the development of population health policy and practice.

Equally Well: Taking action to improve the physical health of people with mental illness and/or addiction

Helen Lockett, WISE Group

**Issue:** The relatively poor physical health of people with a mental illness and/or addiction

**Aims:** To provide an opportunity for input to a collaborative advocacy project

**Provisional format:** Presentations on the physical health status of people with a serious mental illness and/or addiction, evidence for effectiveness of interventions to address this issue in primary and secondary care, and discussion

**Programme and contributors:** Helen Locket and Ruth Cunningham will present a summary of findings from their work in this area to inform discussions. These presentations will be presented in full elsewhere during the conference.
Fa’amagaloga (Forgiveness) – Samoan process of reconciliation and how it can play a role in Health and Healing

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**Issue:** It is accepted that people presenting at health services, hospitals and clinics are seeking wellness and yet more time is spent focusing on the illness rather than focusing on wellness and how to achieve. Assessment and diagnostic tools as well as treatment options are almost exclusively based on the western medical paradigm.

**Aims:** The presentations have the following aims:
- Briefly introduce four Samoan values of Compassion, respect, humility and forgiveness
- Assert the view that workers who exemplify these values will more easily establish and maintain strong relationships with patients, improve the quality and accuracy of assessment and diagnosis and consequently better health outcomes

**Methods/Actions:** Presentation will explore ways of how this have been achieved in practice and suggest how it can be done

**Results/Achievements:** Outcomes achieved will be presented

**Conclusions:** Through case examples draw conclusion of how better health outcomes can be achieved

**Implications:** Health practitioners will consider adjusting their work practice, more compassionate less stressed out workforce, improved clinician/worker: patient relationship

**Recommendation/Suggestion:** Introduce use of human values into policy and job description documents
Integrated research design for sustainable cities: Te Ara Mua – Future Streets

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Issue: Designing walking and cycling back into urban communities may be most effective at achieving a sustained shift from car trips to walking and cycling. Such a shift could deliver substantial benefits for mitigating climate change, public health, social and health inequities, and economic resilience. There is a lack of robust evidence about what designs successfully result in these integrated benefits and are generalizable.

Aims:
1. Assess the integrated public health, social and climate outcomes of retrofitting urban suburbs for walking and cycling
2. Demonstrate the process and intervention design necessary for these outcomes to contribute to hauora Māori and Pacific wellbeing and reduce inequities
3. Identify and disseminate a generalizable process for community design that brings community, policy-makers and research together

Methods: Te Ara Mua is a mixed methods project involving cross-disciplinary researchers. Two suburbs in Auckland were chosen based on similar urban form, socio-demographic characteristics and size. The epidemiologic study is a randomized cluster, controlled before-after study. We combined best evidence with a participatory design process to develop a street transformation intervention. Public forums, qualitative interviews and focus groups with schoolchildren underpinned the intervention design. Random sample quantitative surveys and pedometers; injury reporting; traffic speed and mode usage counts have provided baseline data on physical activity, travel patterns, sense of security, social connection, road user behaviour and injury. These measures will be repeated 2 years later at the same time of year. Simulation modelling will explore wider implementation of the intervention in Auckland and New Zealand cities.

Achievements: We have completed the initial qualitative research, the participatory intervention design and the baseline surveys, safety and physical activity measurements. The intervention infrastructure will be built in the summer 2014-15. The results of the research so far are presented in separate presentations of this symposium. The project has received Safe System Signature Project status from the New Zealand Transport Agency.

Implications: Despite having the potential to be most effective at achieving desired outcomes, urban infrastructure intervention studies are rare internationally because they are extremely difficult to do. Successful partnerships with transport agencies to undertake epidemiological research needs to build on long-standing relationships. Epidemiological studies of urban infrastructure interventions are high risk as local government infrastructure plans are subject to governance, funding and strategic shifts. Demonstrating the value of robust evidence, and communicating methodological design in clear and convincing ways is crucial to the success of such projects. Relationships between research and local government expose tensions between designing interventions likely to demonstrate effectiveness and generalizable cost effectiveness.
Associations between neighbourhood perception and physical activity and active transport in Mangere, Auckland: Findings from Te Ara Mua - Future Streets

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Issue: The built environment may have substantial and sustained effects on human health behaviours (particularly physical activity and active transport), however longitudinal and intervention research in this field is limited and challenging.

Aims: Te Ara Mua - Future Streets is a significant streetscape intervention being implemented in Mangere Central in 2014/2015. The overall project aims have been described elsewhere. As part of the study we will conduct survey-based measurement of neighbourhood perceptions and active travel behaviours to neighbourhood destinations, and objectively assess physical activity in over 2,000 children and adults residing in the Future Streets intervention area and a control neighbourhood that is geographically and ethnically similar.

Methods/Actions: All households in Mangere Central (intervention area) and Mangere East (control area) are being approached for enumeration of residents aged 7 and older. Post enumeration, participants are invited to participate using probability sampling procedures. Computer-based surveys (in English, Tongan, and Samoan) are undertaken in participants’ homes. Parents/caregivers of participants aged 7-13 years complete survey items on neighbourhood perceptions, child, parent, and household demographics, and proxy-report their child’s behaviours (with the child present where possible). Participants aged 14 years and older self-report their behaviours, neighbourhood perceptions, and demographic information. Neighbourhood perceptions are assessed using items from the Ranui Action Survey and the Neighbourhood Environment Walkability Scale. Travel behaviours are assessed using the iConnect survey (modified for local use), and physical activity is being assessed using 7 day pedometry. Associations between neighbourhood perceptions and 1) active trips, and 2) physical activity will be assessed using linear regression, including respondent demographics. We will present the findings of the baseline analysis.

Results/Achievements: Data collection is underway and due to be complete in July 2014.

Conclusions: Baseline data collected will provide important information on relationships between resident perceptions of their neighbourhood environment and key physical activity behaviours that may be influenced by the Te Ara Mua - Future Streets intervention.

Implications: Te Ara Mua - Future Streets is the first study internationally to assess the effects of a streetscape intervention on active transport and objectively assessed physical activity. This work will provide unique information from a low-income community with a high proportion of Māori and Pacific residents on perceived environmental factors that may be important for encouraging physical activity and active transport.
Healthier supermarkets, healthier lives

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**Issue:** The continued growth of obesity in New Zealand has placed greater numbers of individuals at an increased risk of chronic conditions. There is increasing recognition that a supportive nutrition environment is needed for people to make healthier food choices. Supermarkets are one of the most significant food environments influencing what foods are available to the individuals, and at what cost. Supermarkets generally influence consumer purchasing patterns in store through the placement of products in key prominence locations, locations that have been shown to increase consumers’ visual attention and subsequently purchases. However, relatively little attention has been given to what foods and beverages are being heavily promoted within the New Zealand supermarket environment.

**Aims:** The aim of this study was to examine what food and beverages were located in key promotional locations within the in-store New Zealand supermarket environment, and if this differed by socio-economic status (SES) of the area the supermarket were located in.

**Methods/Action:** An observational survey design was conducted to measure the placement of product categories in key promotional locations in-store using the GroPromo Tool [1] in three leading supermarket chains in New Zealand (Countdown, New World, Pak n Save). Food and beverage categories used in this study were selected to reflect the Ministry of Health’s Food and Nutrition Guidelines (2006) along with foods that contribute to childhood obesity. This data was collected during a six week period from September 2013 to October 2013. 12 supermarkets were chosen, four from each supermarket chain with two each from areas of high SES and low SES. The four major food categories chosen were: Unhealthy foods (included snack foods, ice-cream, crisps, soft drinks, fruit drinks, biscuits, cereals, pastry & cakes), Fruits & Vegetables, Alcoholic Beverages, Staple Foods (bread, meat & poultry)

**Results/Achievements:** Unhealthy foods as a major food category was significantly featured more at key prominence locations compared to all major categories (p<0.001). Snack foods were the most common type of food found in these locations (39%). Moreover, fruits and vegetables as a major food category was significantly featured more at key prominence locations in high SES compared to low SES store locations (p<0.05).

**Conclusions:** The present study found that promotions of less healthier foods such as snacks are overly represented in areas of key prominence. The dominance of these foods in these locations are of major concern as these foods contribute to obesity. The lower presence of fruits and vegetables in key prominence locations in low SES areas may further increase health inequality gap.
Implications: The supermarket environment presents an important focal point for public health intervention programmes to change the dietary habits of the population. The government can play a role in reducing the promotion of unhealthy foods by implementing a system of self-regulation and policies to restrict the size and proportion of snack foods to be placed in areas of high prominence, while implementing a minimum on the number of fruits and vegetables that must be displayed in these locations. The government could also monitor and restrict supermarkets from promoting differently based on SES of an area, such that the promotion of one food or beverage category should be not be to a greater extent in low SES areas compared to the high SES areas. The feasibility of these strategies should be explored.

Creating a Smokefree City-working with Council to develop a comprehensive Smokefree policy

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Issue: There has been significant progress with local authorities across New Zealand in making green spaces such as parks and reserves, playgrounds, and sports fields Smokefree. The success of Smokefree green spaces to date, and the 2025 Smokefree New Zealand goal prompted Cancer Society Auckland (CSA) to encourage Auckland Council to consider how else they might contribute to tobacco control, to improve the health and wellbeing of Aucklanders.

Aims: The aim of the ‘Smokefree Auckland’ project has been to align local government policy with central government’s goal of a Smokefree Aotearoa by 2025, and take tangible steps to ensure this goal is achieved.

Methods/Actions: Over the past two years CSA has focused its capacity on influencing Council processes for public health gain by strongly campaigning for a comprehensive Smokefree Auckland policy. This involved a concerted and well planned advocacy approach The whole-of-city model went far beyond green spaces and embraced the full extent of Auckland Council’s capabilities to support achievement of the SFNZ goals.

Results/Achievements: The Smokefree Auckland campaign resulted in Auckland Council supporting the Smokefree New Zealand 2025 goal and setting two visionary Smokefree targets: to make all public places Smokefree and to reduce smoking in the areas where smoking rates are highest to less than 3% by 2025. To fulfil these targets Auckland Council subsequently adopted a comprehensive Smokefree policy making all public spaces Smokefree, including high density areas. Most uniquely, their policy includes Council being a Smokefree organization, which supports their 7,000 employees. Council also adopted a role as an advocate to central government on tobacco control issues e.g. reducing supply, increasing tax and supporting plain packaging. Both of these aspects were part of the comprehensive Smokefree model that CSA developed and presented to Council throughout our SFA campaign. Smokefree Auckland is the first council policy of its kind in New Zealand. This presentation highlights how a carefully planned and focused Smokefree City campaign can influence Council to move beyond Smokefree green spaces and can potentially contribute to wider tobacco control legislative change.

Conclusions: Auckland Council has developed a visionary Smokefree policy. This leadership is a significant step towards achieving Smokefree New Zealand through inspiring other councils to go further, putting pressure on the government to continue to do more and also by making being Smokefree more normal in the Auckland region.

Implications: CSA will share key decisions, learnings and successes of the Smokefree Auckland campaign that could be utilised by other advocates working with their local and regional Councils to contribute towards Smokefree Aotearoa 2025.
Local Government as advocates to achieve increased national tobacco control

Kristina Marck (kmarck@akcansoc.org.nz), Beth Jenkinson

Issue: In 2010 the seven councils across Auckland were amalgamated into one governing body. The new Council’s planning processes provided an opportunity to highlight the importance of a Smokefree city to their vision of Auckland’s future. Advocacy undertaken by Cancer Society Auckland (CSA) and partner stakeholders resulted in Auckland Council committing to a comprehensive Smokefree policy and setting targets in their Long Term Plan including reducing smoking rates to less than 3% by 2025 in South Auckland. In recognising that effective tobacco control policy is required at both the local and national levels, Auckland Council also formally committed to advocating to central government for effective national policies.

Aims: Throughout Cancer Society’s work with Council as they developed the Smokefree Auckland policy, CSA emphasised the importance of utilising Council’s political influence. As the second largest decision making body in New Zealand, by advocating to central government for effective policy and legislation, it would help Auckland Council achieve its own targets. As far as we are aware this is the first New Zealand Council to formally advocate to the Government on tobacco control.

Methods/Actions: A number of strategies were undertaken to gain Council’s support for this to happen. This included working with stakeholder organisations to ensure we all reinforced the importance of their role as policy advocates. CSA developed a comprehensive Smokefree Auckland model that included Council’s advocacy role as a key component of this model. Once Council adopted the model, CSA worked with them to develop appropriate processes to respond within the short-times of many government consultations. Given the often long internal processes for Council sign-off, this was an important to ensuring Council could be responsive. CSA support Council by identifying upcoming submission opportunities, providing research evidence and assisting efficient solutions for document sign off.

Results/Achievements: Auckland Council recently made a comprehensive written submission to the recent Health Select Committee enquiry into plain packaging. This was supported with comments from all 21 Local Boards and a submission from Council’s Youth Advisory Panel was also included. In addition, Councillor Christine Fletcher delivered an oral submission to the Government’s Health Select Committee.

Conclusions: As the second largest decision making body in New Zealand Auckland Council are extremely powerful body representing a third of the country’s population. They are powerful advocates for effective tobacco control by central government and can contribute meaningfully to achievement of Smokefree New Zealand 2025.

Implications: Auckland Council leadership in this area has created a unique situation where Council are putting pressure on Government to deliver in this area. Similarly government is challenging Council to progress outcomes. This two-way pressure mechanism is an effective way for both Council and Government to be held account for taking their tobacco control policies to the next stage. Auckland Council leadership could hopefully inspire other Councils across New Zealand to also speak up in support of what their community want and need in terms of tobacco control legislation. This sort of leadership is critical if we are to achieve Smokefree New Zealand by 2025.
Utilising Public opinion research in the campaign for a Smokefree Auckland to influence Council policy decisions

Kristina Marck (kmarck@akcansoc.org.nz), Allan Wyllie

Issue: Cancer Society Auckland Division recently undertook a range of public opinion research to highlight to decision makers the degree of public support across Auckland for a comprehensive Smokefree policy. This regional data and the subsequent media coverage was a powerful advocacy tool to influence decision-makers. It also contributes local Auckland data to building a picture of public support nationally.

Aims: Public opinion research was undertaken to inform advocacy efforts through finding out the level of public support across Auckland Local Board areas for Smokefree across a wide range of public places, as well as assessing support for tobacco supply control and a Smokefree bylaw approach. Public awareness research was also undertaken to assess a baseline value for awareness of the policy, provide baseline in order to be able to track changes over time and also as an advocacy tool to the Council in the future.

Methods/Actions: CSA commissioned Wyllie and Associates to undertake three public opinion surveys over the last year:

- Public opinion research in the Southern Initiative region. This research was undertaken in 2013 across the Local Board areas in South Auckland – boards which have the highest smoking rates. The focus was to ascertain the level of support for Smokefree public places and tobacco policies. A CATI survey of 400 with ethnic quotas and a representative sample in each Local Board area ensured the data would not be questioned by the media or policy makers.
- Public opinion research across Auckland. This was followed up by research covering a broader Auckland-wide survey utilising the same questions and methodology. Data was collected from representative samples in four clusters of Local Boards. Maori and Pacific people were oversampled across Auckland.
- Public awareness baseline research. Most recently CSA have commissioned public awareness research about the Smokefree Auckland policy, again utilising similar methodology and data clusters.

Results/Achievements: The results have given Cancer Society Auckland and Auckland Council an insight into the community level support for Smokefree across a wide range of places, as well as guided planning, research and policy decisions to enhance effective Smokefree implementation across Auckland.

Conclusions: Overall there was strong support for Smokefree policies including all high density and low density Smokefree public places. The public wanted a consistent Smokefree policy across Auckland and a by-law versus voluntary approach to enforcement. Local research complements national level data and is a very valuable advocacy tool as it speaks to local decision makers about their own communities and what their constituents really want.

Implications: This research should help all tobacco control providers in the Auckland region gain an understanding about public opinion of Smokefree issues. Additionally the framework for the research undertaken, designed specifically to support policy decisions would be useful to other advocates across sectors looking to influence policy.
Obtaining health equity by utilising our community connections

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**Issue:** In New Zealand one in 15 adults over the age of 45 years has Chronic Obstructive Pulmonary Disease (COPD). These patients typically present at diagnosis with limited functional ability and slowly decline with several acute exacerbations of their condition, never fully gaining where they were before. Pulmonary Rehabilitation (PR) is the only non-pharmacological management option for respiratory disease and is the recommended pathway for all patients diagnosed with COPD.

Historically the connection between health care services has been superficial with most of the introductions to services, including PR, being made during the deterioration of patients as services react to the crisis that is at hand. Furthermore, if patients do not fit into the mainstream healthcare “box” they are often lost in the system and unable to attend PR leaving patients unable to participate in their own health care.

**Aim:** To illustrate how programmes can work with whanau, beyond the borders of the interdisciplinary health team to provide alternative treatment options and a continuum of care into the communities where the patients live.

**Action:** The pilot programme used a fluid tiered approach where the level of involvement by PR was dictated by the trajectory of the individual’s health status. The intention was to work across all sectors and community settings to encourage self management and proactive planning of expected changes in health status. Patients, families and providers were offered education and skills to promote positive outcomes. Settings for the programmes varied, dependent on circumstances and ability to participate and travel. Customised programmes, crisis plans and care plans were developed in partnership with all relationships and services involved. Local gyms, whanau, schools, churches, private and public health workers provided ongoing support in the community.

**Achievements:** The PR pilot proved successful in all areas explored with better communication between services and proactive care and crisis planning. Patients who did not want to participate in a traditional programme, patients living in rest homes and high risk patients provided the best anecdotal results preventing unnecessary admissions.

**Conclusions:** There is clear evidence showing the success of traditional PR programme but a tool will need to be developed to capture the impact this model has on non traditional PR patient outcomes and possible health care savings.

**Implications:** The pilot has developed relationships across primary, secondary and tertiary health which will promote a continuum of care and provide for pulmonary patients who do not fit into mainstream services.
Burden of disease from second-hand smoke in New Zealand

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Issue: Second-hand smoke is a major source of indoor air pollution. Exposure to second-hand smoke can lead to cardiovascular disease, stroke, sudden infant death syndrome (SIDS) and respiratory conditions. While New Zealand’s smoking rate has decreased over recent years, second-hand smoke may still be having an impact on people’s health, particularly the old and young.

Aims: We aimed to estimate the current burden of disease from second-hand smoke in New Zealand, how the burden is distributed in the population, and any changes in the burden over time. The project is part of an on-going Environmental Burden of Disease study funded by the Ministry of Health.

Methods: We estimated the burden of disease from second-hand smoke using a similar method as that used by the 2006 New Zealand Burden of Disease Study and the World Health Organization. We used recent New Zealand data on exposures, health outcomes and exposure-risk relationships, to calculate population attributable fractions and attributable burden. Continuing analyses include estimating health loss and differences by population group.

Results: Second-hand smoke exposure can cause a range of health impacts, including ischaemic heart disease, stroke, lung cancer and SIDS. The results presented from the study include the number of deaths attributable to second-hand smoke each year, number of hospitalisations (by health condition), overall levels of health loss, and whether the burden has decreased over time.

Conclusions: Second-hand smoke is highly likely to be continuing to impact on the health of New Zealanders. In particular, major health impacts from second-hand smoke include ischaemic heart disease, stroke and sudden infant death syndrome (SIDS). Results from this study indicate the health gains that could potentially be achieved by reducing exposure to second-hand smoke.

Implications: Continuing exposure to second-hand smoke suggests that public health messages around quitting smoking and not smoking in homes and cars need to be maintained. This is especially important for reducing the harm to young children, who are particularly vulnerable to the effects of second-hand smoke.
Improving web communications on environmental health indicators

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Issue: Environmental health indicators (EHIs) monitor the impact of the environment on human health. Environmental health indicators for New Zealand are currently published on the website www.ehinz.ac.nz, and provide important evidence for central and local government, policymakers, and the health and environment sectors. However, only releasing findings from research and monitoring in a PDF format can limit the accessibility and range of users of this information.

Aim: We redeveloped the existing EHI website, to make environmental health information for New Zealand more accessible, easy to read and engaging for a wider range of national and international users. This project was part of an on-going EHI work programme funded by the Ministry of Health.

Methods: We firstly identified our key target audiences and their needs. Key information and statistics about environmental health was then grouped and summarised from the EHI factsheets and the literature. Existing and new content was specifically prepared for the web context, according to web writing/publishing guidelines, and was reviewed by external experts.

Results: Environmental health information was grouped into the following domains: air quality, recreational water, drinking water, UV exposure, biosecurity and border health, hazardous substances, climate change and indoor environment. For each domain, we summarised the latest statistics on sources of exposure/pollution, state of the environment, population exposure and health impacts. This content was developed into a series of webpages for the EHI website. Interactive maps and data visualisations were developed, using readily available software.

Conclusions: In research and monitoring, emphasis should be placed on communicating key findings, including making this information accessible on the web. Key tools for redeveloping content for the web include: putting the most important information first, using plain English, using frequent headings, putting descriptive information into headings, keeping sentences short, using plenty of links, using hyperlinks (such as DOIs) in citations, and including interactive maps and data visualisations.

Implications: Increased use and value can be made from research and monitoring programmes by making information and key findings more accessible and engaging. A communications plan, including making key findings available on the web, is an important part of the research and monitoring process.
Disability in HIA

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Disabled people are a disadvantaged group, not only due to their impairment, but also due to the formal and informal institutional barriers that they contend with in Western societies. Their disadvantaged position is recognised in the social model of disability. This model emphasises that disability is a social construction imposed on people with impairments.

The Health Impact Assessment (HIA) is a Public Health policy tool used to assess how a proposed policy may affect disadvantaged groups. It is potentially a useful tool to aid policy makers to ensure their policies do not unintentionally disadvantage people with disabilities. Arguably, the New Zealand HIA guidelines acknowledge disabled people and reflect the underlying principles of the social model of disability.

This study addresses two sequential research questions: to what extent are the New Zealand HIA guidelines translated into practice when considering the effects of policy on people with disabilities and what factors explain this relationship?

These questions were addressed using a mixed methods research strategy: quantitative analysis of HIA reports to address the first question, followed by qualitative interviews with experienced HIA practitioners to address the second question.

This research presents an argument that there are barriers to translating the understanding about disabled people found in the HIA guidelines into practice. The three sets of inter-related barriers identified include: attitudinal barriers to people with disabilities, generic HIA barriers, and barriers related to the feminist interpretation of the construction of disability.

The research suggests that it is difficult to operationalise the disability awareness embedded in both the social model of disability and the New Zealand HIA guidelines. This difficulty is due to barriers which are related to the ‘othering’ of people with disabilities emphasised by the social model of disability. This research finding is explained by drawing on the feminist analysis of the construction of people with disabilities.

The research recommends that the barriers encountered by disabled people need to be addressed by wider societal reforms. This would involve a combination of approaches based on a national awareness-raising campaign. This campaign should be led by a cross government panel working with Disabled People’s Organisations. Furthermore, the reforms need to be supported by new regulatory policy mechanisms.
The burden of atrial fibrillation in NZ and the potential impact of risk-based prescribing on stroke and thromboembolism rates

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Issue: Aotearoa/New Zealand has a high incidence of stroke and thromboembolism (S/TE), especially for Māori; and atrial fibrillation/flutter (AF) is a major contributor to this. Antithrombotic agents (aspirin, warfarin and new oral anticoagulants) are prescribed to adults with AF to reduce the risk of S/TE, but community prescribing patterns and the potential benefits and risks of anti-thrombotics to the population are unknown.

Aims: To estimate for men and women ≥60 years of age: (1) the community prevalence and hospital cost of atrial fibrillation (AF); (2) the distribution of annual risk of S/TE by age, sex and ethnicity; (3) warfarin and aspirin prescribing patterns prior to public funding of new oral anti-coagulants; and (4) the potential for reducing S/TE events by changing to risk-based prescribing.

Method/Actions: The prevalence of AF was estimated for 795,211 men and women ≥ 60 years of age from 103 representative general practices for 2006-2009 using Read codes and text searching. Risk factors for S/TE and prescribing patterns for warfarin and/or aspirin were determined for 2143 men and 1777 women with AF using free text searching. CHA2DS2-VASc risk scores were calculated for each patient and annual population S/TE events were estimated from a large community study. Rates of major bleeding were obtained from large published studies.

Results/Achievements: The prevalence of AF increased steeply with age and the age-adjusted prevalence was higher for Māori versus European/Other (men 2.15-fold, women 1.93 fold) but similar for Pacific peoples. Hospital admissions for AF cost $20m annually. 81% of men and 97% of women with AF had >3.5% annual risk of S/TE. 28% of these men and women were prescribed aspirin alone, 27% of men and 24% of women had warfarin with or without aspirin, and the remainder had no antithrombotic. 46% of low risk men were prescribed warfarin and/or aspirin.

An estimated 31,705 men and 28,486 women ≥60 years of age in NZ in 2010 had AF in 2010 and these would have experienced 1718 and 2282 events (total 4000) under current prescribing patterns (relative risk reduction RRR=15%). If prescribing had been based on individual patient risk, there could have been 343 fewer S/TE events for men and 485 fewer events for women (total 829; RRR=33%), albeit with 820 additional major bleeding events.

Conclusions: Anticoagulant therapy with warfarin is under-utilised for patients with high risk of S/TE and over-utilised for low risk patients. Evidence-based prescribing of warfarin and/or novel anticoagulants could double their population effectiveness against S/TE and avert about 800 more S/TE events each year but cause similar numbers of additional major bleeding events.

Implications: The NZ Guidelines for management of AF urgently require updating and better implementation, to guide prescribing and reduce the annual numbers of potentially debilitating and fatal S/TE events.
Working with food industry to meet a global priority – are we on track?

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Non communicable Diseases (NCDs) are the leading cause of disease worldwide. The global framework for NCDs highlights a 30% reduction in salt by 2025 to the WHO target of 5g a day as one of nine global targets. High salt intake is strongly linked to increased blood pressure, which is a risk factor for heart disease.

New Zealand’s salt intake is similar to many Western countries and is estimated to be around 9.4g of salt per day, twice the suggested dietary target. With processed foods accounting for around 75-85 percent of salt intake, food manufacturers play a key role in reducing population salt intakes. Since 2006, the Heart Foundation has developed voluntary salt reduction targets to support reduced salt levels in packaged food products (particularly lower-cost high-volume packaged foods). Target setting is a collaborative approach with industry and considers a number of factors including public health impact, current levels, technical constraints, national and international benchmarks, and consumer acceptance.

A pilot with the bread industry was conducted in 2007, which resulted in reductions of around 18% in many low-cost high-volume white breads in just seven months. Following this success the Heart Foundation created HeartSAFE (Sodium Advisory & Food Evaluation). Through this programme the reformulation work was extended across other categories, in particular breakfast cereals, processed meats (sausages, bacon, and ham), savoury pies and soups. Targets are currently being set for butter and edible oil spreads, cheese, savoury snacks, cooking sauces and canned corn beef. The objective of the programme is to achieve least 80% of the market share (by sales volume) to meet the targets.

The effect of the programme on the New Zealand food supply has been over 210 tonnes of salt removed per annum from targeted food categories. In the majority of targeted food categories, 80% of the market has met the salt target. While this progress is positive, a great deal more work is needed across the food supply to further reduce salt intakes and meet global NCD targets. This presentation will discuss some of the important factors in working with food industry, the challenges in getting greater reductions more quickly, progress relative to other markets and some of the factors needed to support change.
Heartbeat Challenge: a successful comprehensive workplace health programme.

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Issue: Heartbeat Challenge is a health improvement programme supporting workplace environments that are conducive to health and wellbeing. It is a multi-strategy holistic workplace health programme based on a best practice framework (WHO), and underpinned by the Ottawa Charter, Te Tiriti o Waitangi, Te Whare Tapa Whā and Pacific Models of Health. The programme is funded by the Ministry of Health and is free to companies of 50 staff or more, ‘where the need is most’ i.e. lower paid workers, and those with a high percentage of Maori, Pacific, and/or South Asian staff.

Aims: Heartbeat Challenge addresses lifestyle issues and chronic risk factors in the workplace. There are five priority areas; healthy eating, physical activity, smokefree, workplace wellbeing (including stress management), and harm minimisation from alcohol and other drugs. The programme aims to develop the commitment of workplaces to creating an environment that reduces barriers and increases opportunities to improve and maintain the health of their staff (increasingly, research is being published showing that workers who are healthier have a lower risk of worksite accidents [1,2].

Methods/Actions: Enrolled workplaces implement a broad range of strategies that encompass the five priority areas already mentioned. A team of health promoters, a clinical partner (Public Health Medicine Specialist) and Dietitians work alongside the workplace to facilitate the programme, and help design interventions, programme indicators and measurements that achieve their desired objectives. Collaboration with community agencies is critical to the success of the programme. An award is achieved on meeting the necessary criteria. The award expires after two years, at which time the award can be renewed by completing additional health promoting interventions in each priority area, thus ensuring continual strengthening and sustainability of the programme.

Results/Achievements: Heartbeat Challenge has been successful in a wide variety of types and sizes of workplaces with the added benefit of improving staff attitudes about their place of work, the company and themselves. Structural and organisational changes have occurred which are sustainable, and created an environment which has the potential to improve the health of a large segment of the working population.

Conclusions: Heartbeat Challenge is currently active in 108 workplaces throughout the Auckland region. It is a workplace programme based on best practice, and tailored to the needs of each individual workplace. A feedback form is filled out by workplaces when they apply for their award/renewal and a survey of all active workplaces is carried out annually. The responses to these inform improvements to the programme, which is continually under review with a quality improvement programme in place. Some results from these surveys will be presented.

Implications: Workplaces are an excellent site for health promotion as time spent at the workplace exceeds that spent in other locations and opportunities exist for health messages to extend beyond the workplace gates to the extended family.

Management of a cohort of patients with poorly-controlled diabetes in a large general practice using a multidisciplinary nurse led approach

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**Issue:** A number of targets for Primary Health Organisations (PHOs) have been set for both identifying diabetes in their populations as well as follow-up and management. Glycosylated HbA1c levels are good indicators of diabetes control; however applying such figures at the population level is complicated. This is particularly so with constant turnover in patients in a busy practice, which renders analysis using anonymised time series inaccurate.

**Aims:** To find meaningful ways to identify high risk patients and then measure the success or failure of diabetes management in a practice population.

**Methods:** All patients with an HbA1c >74 mmol/l at the Karori Medical Centre (KMC) were counted during May 2012 and then 15 months later the number in the group was again calculated (anonymised time series) and this was used as one measure of the success or failure of the programme.

At same time the original cohort identified in May 2012 (the cohort) was followed for 15 months. Initial and final HbA1c levels were recorded, and efforts made to identify possible reasons why these patients’ control was poor.

**Results:** Of the 14,500 patients in the KMC, 471 patients with diabetes were identified at the start of the study period, of whom 55 (11.7%) had an HbA1c >74 mmol/l. Simple anonymised time series measurement showed size of the group decreased 11% over the 15 month period, from 55 patients down to 49.

However following the original cohort of 55 patients for the full 15 months revealed, for example, 28 (54 %) had lowered their HbA1c to <75 mmol/l, with 43 (78%) lowering their HbA1c by at least 10 mmol per litre during the study period.

Qualitative data showed that the main reported cause for the high initial levels of HbA1c was non-adherence with medication regimes. Deprivation and ethnicity were positively correlated with initial high HbA1c levels, although these figures should be treated with caution as the absolute numbers were small.

**Conclusions, Implications:** Following a cohort of patients over a reasonable time gives a much more accurate measurement of success or failure of a programme and allows useful feedback to those working in the field. The success of the project was undoubtedly due to the multidisciplinary nurse led approach along with acute feedback.

Qualitative data indicates deprivation/comorbidity and ethnicity to be important markers for those at risk of severe disease. Non-adherence with medication was found to be an important reason for poor diabetes control.

There are a number of software tools available which can be adapted to give useful data easily, and this type of software development should be encouraged.
Pathways for adolescents who witness or experience family violence.

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**Issue:** According to the Ministry of Health, family violence is a population health issue. Any experience of family violence can result in physical and mental health consequences for victims, perpetrators and children who are witnesses. Exposure to family violence increases the likelihood of other health risk-associated behaviours: smoking, substance abuse, overeating and unsafe sex.

**Aims:** The aim was to develop a safe pathway for staff members including the pastoral care team within secondary schools to assist in directing adolescents that disclose witnessing or experience, past or present family violence to the appropriate agencies.

**Methods/Actions:** As a public health nurse we work under the school based services programme and use the HEEADDSSS (Home, Education/Employment, Eating, Activities, Drugs and Alcohol, Sexuality, Suicide and Depression, Safety) assessment tool for all year nine students within deciles one to three secondary schools within our surrounding district. As a result of using this tool, comprehensive clinical skills and management, family violence has been identified as a population health issue for adolescents.

**Results/Achievements:** One of the major health issues identified through the HEEADDSSS assessment tool was adolescents who had witnessed or had personally been abused through family violence. This often contributed to the other health findings such as smoking, increased alcohol intake, low self esteem and risky sexual behaviours. Referral agencies and support networks are available within our community but not specifically for adolescents and not youth user friendly, inaccessible and don’t meet their needs. Many of the identified cases does not meet with Child, Youth and Family (CYF’s) threshold for further action and the cases are often discharged. Often the adolescents are reluctant in disclosing family violence as this may increase their risk of punishment, safety and child wellbeing.

**Conclusions:** By working and coordinating with the wider school community and surrounding agencies, a pathway is currently being developed for adolescents who do not meet CYFs threshold or require specific support or counseling. It is imperative that when we recognise a distressed adolescent we start the dialogue, encourage, support and give them the opportunity to disclose any family violence witnessed or involved in. We should then work alongside to access a range of appropriate services and support networks within our community that will assist the adolescents’ best needs.

**Implications:** By working with the school community it has been identified that further assistance is required to develop and work towards their policies and procedures around family violence and child protection. There is also an opportunity to coordinate agencies within our community to be involved in teaching opportunities within the school curriculum, training school staff and the wider community on “its not okay” and “not their fault”, what to do and not what to do, healthy relationships and keeping ourselves safe and our right to be safe. According to WAVES Trust recommendations for training staff is identifying and recognising the signs of family violence and trauma and the effects of family violence. Helping adolescents to develop resilience and use the pathway to refer to supportive networks.
Leading by example: taking steps to make your home a healthier place to live in.

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Issue: A large number of New Zealand homes are cold, damp and unhealthy which negatively affects the health, financial resilience and comfort of the occupants.

Aims: The aim of the workshop is to give a holistic overview of the homes we live in by taking a virtual walk through a typical home and explaining simple behaviour and physical building changes that can be made. Attendees will leave understanding how these simple changes, when aggregated together, have a direct benefit to the health and lifestyle of the occupant. Attendees will be able to implement these changes in their own homes, after which they will be able to speak from experience and share the information.

Provisional format: The PowerPoint discussion is designed to engage the attendees so that information relates directly to their own home situation - what people like and dislike about their homes, possible energy prices in ten years time, our requirements in five, ten, fifteen, twenty years time. There will be a questions and answers session with a hand out available at end of the workshop.

Program and contributors: The focus is on residential homes and topics covered including reducing heat loss, limiting indoor moisture, home heating, reducing energy and water use, ventilation and indoor air quality, product and material selection and detailing, recycling and waste disposal. The workshop will be presented by Richard Morrison, who has 7 years experience as an Eco Design Advisor with the Kapiti Coast District Council. The New Zealand Eco Design Advisor Program (www.ecodesignadvisor.org.nz) was established to provide free independent tailored advice promoting warmer and healthier options in both new and exis
Global Health Roles of the New Zealand Ministry of Health

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Issue: The New Zealand Ministry of Health (MOH) plays a multitude of global health roles. These are predominantly coordinated by the Global Health Manager, based in the Office of the Director of Public Health (ODPH). The Manager ensures international reporting obligations are abided by, as well as maintaining active relationships with global health organisations and supporting Ministers and Senior Officials in international fora.

Aim: To discuss the manifold roles and responsibilities of the MOH in the field of global health.

Methods/Action: Documentation from routine global health reporting and recent bilateral, regional and international meetings reviewed. Discussions undertaken with key MOH global health stakeholders.

Results/Achievements: The MOH has multiple relationships with regional and international organisations. New Zealand is one of 37 member states of the World Health Organization (WHO) in the Western Pacific region. The MOH reports data to WHO and their office in the Western Pacific Region. Representatives provide input into global and regional meetings on a regular basis, including the World Health Assembly and WHO Western Pacific Regional Committee Meeting. Global health priorities and action plans are determined in such settings, as well as provision of technical advice. The MOH provides specific health related advice on issues related to the United Nations and reports on health aspects of international human rights instruments. New Zealand also holds membership with, or MOH representatives contribute to regular meetings of the Organisation for Economic Co-operation and Development, the Health Working Group of the Asia-Pacific Economic Co-operation and the Commonwealth Fund.

With increasing global travel and trade in recent years, the International Health Regulations (IHR) were established to prevent and appropriately respond to acute public health risks that potentially threaten the global community. The MOH also has an active prevention modality through the National Focal Point of the IHR, positioned in the ODPH.

Training, coordination and deployment of the New Zealand Medical Assistance Team (NZMAT) is managed through the MOH. Their aim is to provide medical assistance in sudden onset disaster settings, when requested. The first full NZMAT deployment took place in April 2014, supporting Honiara National Referral Hospital Emergency Department in response to flash flooding in the Solomon Islands.

Conclusions: The New Zealand MOH has multiple bilateral, regional and international relationships. Through these, New Zealand contributes to managing global health issues and often plays a leadership role, particularly within the Western Pacific Region.

Implications: Maintaining active engagement in global health issues enables the MOH to:
1. Participate in developing and promoting effective strategies and policy for health protection, health promotion, delivery and management of health services globally.
2. Work towards protecting New Zealand and other countries from international health threats, through monitoring and reporting on matters of local, regional and global concern.
3. Advise on health development assistance and provide medical team support when requested, particularly within the Western Pacific region.
A Māori community voice on local alcohol policies

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Issue: Despite significant harm associated with alcohol for many in Aotearoa New Zealand, a collective Maori voice on this issue is scarce. As a result The Waipiro Harm Action Group was formed and was influential in ensuring a Maori voice was heard during the development of a Local Alcohol Policy specifically for the Auckland region.

Aims: The aim of this group was to build awareness of alcohol related harm in the community, equip Maori community leaders with the skills and knowledge to participate in and influence alcohol policy development and support communities to take action.

Action: In the lead up to the development of a local alcohol policy for the Auckland region, the Waipiro Harm Action Group was formed. Group members set about supporting communities to take action, get involved in and have a say on the development of the local alcohol policy. Activities included supporting youth facilitated video interviews with other youth, supporting marae leaders to have a voice on the sale and supply of alcohol in their respective areas and equipping Maori communities in general with the skills to have a voice on the issue.

Achievements: A variety of things emerged as a result of this group including an increase in youth health leadership, the validation of marae leaders as health champions, the development of creative ways to participate in health decision-making and the formation of a collective Maori voice on alcohol.

Conclusion: Maori communities face challenges to participating in submission processes and policy-making. Extensive support such as that provided by a collective group may equip them with the tools and knowledge to take action.
Quantifying smoking behaviour, cigarette butt disposal and rates of butt accumulation in public transportation settings – Novel approaches to inform smokefree policies

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**Issue:** Internationally transportation settings such as bus stops and train station platforms are increasingly covered by smokefree legislation. Relevant issues include secondhand smoke exposure (SHS), nuisance effects, litter, fire risks and the normalisation of smoking in these settings. National survey data for New Zealand indicates that SHS exposure in public transport settings is common and many users may be concerned by this.

**Objectives:** We aimed to quantify aspects of smoker behaviour at bus stops, and quantify the extent of new butt litter accumulation at selected Wellington bus stops.

**Methods:** Systematic observations of smoking and butt disposal by smokers at bus stops were conducted. Proportions of people smoking and the popularity of different sites for butt disposal were calculated. The selected bus stops comprised a mix of conveniently located stops, and purposeful sampling of bus stops in central business districts that were along major urban bus routes. When observing smoking, data recorded included smoker position, butt disposal and rubbish bins presence. For butt collection, in the first round of field work, cigarette butts in defined areas at bus stops were counted and removed. The second round of field work followed exactly the same route, with observations being as close to 24-hours later as possible. All new cigarette butts and their location within the bus stop area were recorded.

**Results:** From 27 hours of observation, a total of 112 cigarettes were observed being smoked at bus stops. Smoking occurred in the presence of children in 50% of occasions. An average of 6.3 adults and 3.8 children were present while smoking occurred, with average minimum distances of 1.7 and 2.2 metres from the smoker respectively. In bus stops that included an enclosed shelter, 33% of the cigarettes were smoked inside the shelter with others present. Littering was the major form of cigarette disposal with 84% of butts littered, including 5% of disposals into vegetation (which is of relevance to fire prevention).

In the three bus routes surveyed, a total of 123 new butts were identified at bus stops. More new butts accumulated in the gutters than on bus shelter floors, or on the adjacent pavement. On average, 2.5 new butts accumulated at bus stops with a rubbish bin less than five metres from the bus shelter or sign post denoting a bus stop (within 24 hours). In contrast, bus stops with no bin in sight accumulated an average of 1.3 new butts, though this difference was not statistically significant (p=0.062).

**Conclusions:** This study appears to be a first attempt to: (i) provide observational evidence around smoking and butt littering at bus stops; and (ii) document butt litter accumulation rates at bus stops.

**Implications:** Observational methods for describing smoker behaviour at bus stops and documenting butt accumulation at bus stops are feasible research approaches. These methods could provide information to inform the creation of smokefree bus stops and to evaluate any new smokefree policies at these locations.
Investigating the housing conditions of rheumatic fever patients: a case study

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Issue: Acute rheumatic fever (RF) is an autoimmune-like illness which may follow group A streptococcus (GAS) bacterial infection and can lead to rheumatic heart disease (RHD). Both RF and RHD impose an important burden of disease on New Zealand (NZ). Associations of RF with low socioeconomic status and with household crowding have been documented in some studies. There have been very few high quality case-control studies of RF, and there are considerable gaps in our knowledge about the aetiology, pathogenesis and risk factors for this disease.

Aims: To investigate environmental risk factors associated with RF, we conducted a case study focusing on exposure to poor quality housing conditions, household crowding (both structural and functional), tobacco smoking and access to healthcare. The goal was to provide an improved evidence base to support development of policies to prevent RF.

Method: Staff at the MoH requested that PHU staff explain the study to RF patients notified in 2012-13 (or their caregivers) and seek consent for passing on their contact details to a researcher. If consent was obtained, they were approached and invited to do a short telephone survey. The questionnaire contained sections on the RF patient’s demographics, socio-economic position, housing circumstances and conditions, household heating, household crowding and smoking. Descriptive statistics and the proportions of participants exposed to potential risk factors were reported.

Results: In total, 55 people were interviewed. One participant was NZ European, all others were Maori or Pacific. During the period prior to the RF diagnosis, just under 40% lived in Housing NZ (HNZ) homes, and just over 40% rented privately. Exposure to household crowding was common, with 55% of participants exposed to a bedroom deficit of one or more. Around 90% of participants living in rental housing (private and HNZ) reported living in cold, damp or musty homes, compared with just under half of those who owned their own homes (personally or family owned). Roughly similar proportions reported exposure to multiple indicators of financial deprivation. Nearly every RF case in rental housing reported at least one indicator of fuel poverty, compared with just under half of those who owned their own homes.

Conclusions: This study found that RF is associated with household crowding, fuel poverty, humidity and cold. However, as a case study, it is impossible to draw firm conclusions about what causes RF.

Implications: It appears plausible that a cold, crowded, humid home environment increases the risk of Maori and Pacific children developing RF. Exposure to cold and damp is known to impair respiratory function and crowded living situations enable GAS to spread rapidly. These findings support the need to create and enhance warm, dry, non-crowded home environments, particularly for Maori and Pacific children who are particularly vulnerable to RF. The Government has already demonstrated its capacity to deliver highly effective housing interventions to HNZ homes, as seen with the Healthy Housing Programme. This housing sector could lend itself well to further such interventions, before expanding them to the rental housing sector more generally. A case-control study would be useful to investigate the associations found in this preliminary study.
Does the establishment of specialist Transient Ischaemic Attack (TIA) Clinics improve quality of care for Transient Ischaemic Attack patients and prevent subsequent strokes?

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Objectives: Stroke is a leading cause of mortality worldwide and the third largest killer in New Zealand; it is the largest cause of long-term disability. In recent years a focus of research attention has been to look for strategies to recognise people who are at risk of a stroke. Effective management and treatment of people who have experienced a Transient Ischaemic Attack is one such strategy. In 2008 the Stroke Foundation of New Zealand developed Transient Ischaemic Attack Guidelines with evidence-based standards and recommendations for management and treatment of TIA patients. The current research is looking into organisational and quality changes in care “Before” and “After” the TIA Guidelines were introduced.

Methods: Quantitative analysis of TIA incident numbers in two major hospitals of the Central Wellington Region was conducted, with comparison of incident numbers before and after TIA Clinics were opened.

Lessons Learned: There is a significant difference in registered TIA incidents within hospitals since TIA Clinics were opened. It indicates that TIA patients at high risk of a subsequent stroke are treated in a timely and appropriate way, in concordance with NZ TIA Guidelines.

Implications: Further development of TIA Clinics in other New Zealand hospitals could be an effective means of decreasing the overall number of strokes, and associated mortality and morbidity across the country.
Under pressure: revoking the alcohol advertising ban in Lithuania

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Issue: Lithuania is the third heaviest drinking country in the world (15.4 litres per capita) suffering significant consequences for population health. Nevertheless, alcoholic beverages continue to be widely advertised and only partial advertising restrictions are implemented. A total alcohol advertising ban was set to take effect in Lithuania from the 1st of January 2012, however after 13 months of intensive lobbying by industry and allies the ban was revoked at the end of 2011.

Aims: The aims were to document and analyse actions of stakeholders and events during the alcohol advertising ban cancellation process in Lithuania.

Methods/Actions: Secondary data was reviewed to analyse policy context, develop time-line of events and to map key stakeholders’ actions.

Results/Achievements: To revoke the total alcohol advertising ban alcohol industry and interest groups used similar tactics as tobacco industry globally, such as creating strong front groups, lobbying within the legislative and executive levels of government, attempting to undermine scientific evidence and promoting social responsibility campaigns. Although, non-governmental organizations had an important role of a watchdog blunting industry’s efforts to overturn the proposed ban, unequal power distribution made it difficult to withstand combined local and international lobby to cancel the ban. Nevertheless, active involvement of the non-governmental organizations contributed to the increased societal and media attention to the alcohol policy problems and industry’s intervention to the policy making process.

Conclusions: The Lithuanian government was unable to uphold the total alcohol advertising ban despite compelling scientific evidence and successful policy experience in the past.

Implications: The case study showed that there is a need for systematic monitoring of industry’s influence on law-making exposing specific legal loopholes and systemic weaknesses. Given the global nature of alcohol industry, international regulation limiting influence of vested interests on national law-making aiming to restrict alcohol advertising could be useful to protect public health interest nationally and internationally.
Linking housing and health in the Hutt Valley: a housing coordinator pilot

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Issue: Housing conditions affect health, and the evidence for improving health by providing housing interventions is now strong. Despite this, few health services have effective programmes to link patients with housing solutions. The Government requires District Health Boards (DHBs) to consider housing as part of their Rheumatic Fever Prevention Plan.

Aims: To study the feasibility of a housing coordinator visit to enable patients admitted to Hutt Hospital with housing-related conditions, to access housing solutions.

Methods: From February to June 2013, we offered a housing coordinator assessment to selected children and adults admitted to Hutt Hospital with a housing-related condition. The assessment was carried out at home after hospital discharge, and was undertaken by a housing nurse experienced in housing, health and social assessment. Primary outcomes were advice and referrals to improve housing-related health outcomes for the householders. A mixed-method evaluation was completed, which included quantitative data relating to assessment and referral services, as well as interviews with participants, staff and providers involved in the pilot.

Results: 27 households were enrolled. On average, it required 2.4 hours for recruitment and 7.7 hours per household visited for the visit, referrals and follow-up. Household members had a young age distribution, and asthma and bronchiolitis were the most common admission diagnoses. Participants were satisfied with the housing nurses' approach, and their advice and referrals. Almost two-thirds of those enrolled (17/27) received a coordinator visit, and half the referrals resulted in service provision (20/41).

Conclusions: Housing solutions can be provided in healthcare institutions, in a short timeframe and with limited resources. The programme has been developed and expanded with simplified referral criteria and embedding of streamlined recruitment. Healthy Housing nurse expertise is essential to its success.

Implications: Key factors for the successful development of a DHB housing coordinator programme are: dedicated time ('FTE') for an experienced community nurse; an efficient referral process from health services; providers willing to offer solutions to improve housing-related health outcomes; and collaboration between health services, the housing coordinator, and external agencies. Upskilling of other primary and community health workers would enable this intervention to reach a larger number of households.
Getting down to brass tacks: values in governance at the interface between primary care and public health

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Issue: Improvements in population health require primary care and public health to work more closely together. While authors have already discussed potential barriers and common areas of interest for primary care and public health [1,2], there is an implicit assumption from policy makers that because primary care and public health have overlapping services and similar populations of interest they will naturally work well together. However, this is not always the case, particularly when the two groups come together to govern a shared project.

Aims: This study aimed to explore the nature of governance and the overlap between primary care and public health by investigating how people on both sides experienced governance.

Methods: The study used grounded theory as a method of data collection and analysis in two phases. The first phase investigated patterns of governance activity in New Zealand through interviews with participants in all parts of the health system who worked in primary care and public health. In the second phase, New Zealand results were discussed with UK and Netherlands experts to make comparisons with other jurisdictions to see whether phase one findings were applicable beyond New Zealand.

Results: The research found that contrary to the implicit assumption of ‘common’ ground between the two areas, ‘contested’ ground is a more accurate description. Political and philosophical tensions over ethics, training, and approaches are played out in and around decisions about how a project is directed. On the surface these tensions are discussed in terms of evidence or expertise, yet are underpinned by concerns about ethics, politics and values. In turn, the conflicts about values are played out in discussions about how shared projects are steered.

Conclusions: The overlap between primary care and public health is more complex than simply a service overlap for shared populations. It is simultaneously a domain of service, a set of relationships, and a space where different value sets weigh against each other. However, government policy and professional training does not address this complexity, or necessarily provide resource and skills to help people negotiate it when governing joint projects. This study highlights that the similarities between primary care and public health may have been overplayed, and the political and values based issues underplayed.

Implications: The research highlights that government policy for primary care/public health cooperation should be based on a more detailed understanding of the interface between primary care and public health, and the importance of framing it as a human experience as much as a service overlap.

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An update on housing pressures and community participation and resilience in the Canterbury earthquake recovery

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Issue: This project looks at how housing pressures in Canterbury are being addressed in the earthquake recovery and how this process is shaped (or not) by the resilience and democratic participation of communities as key stakeholders. This study concentrates on the formation of partnerships to build affordable and social housing, given its importance for well-being and health. It concentrates on the role of communities in housing renewal.

Aims: Describe the policy and the socio-political context of the recovery of the housing sector; Conduct a case study of public/private/community partnerships for housing development.

Methods: This project hopes to make a methodological contribution to the field of qualitative research. It contemplates a case study research design to develop an in-depth look at public/private/community partnerships to build social and affordable housing in Christchurch and nearby districts. This design rests on a series of qualitative data collection and interpretation methods that are being applied to develop an overall picture of the recovery of housing in Canterbury and of how communities become involved and to what end:

- Data Collection: semi-structured in-depth interviews with key informants/actors; participant observation; document review (policy and media analysis).
- Data Analysis and Interpretation: iteration and triangulation; directed content analysis (deductive coding based on a theoretical focus on power relations and democracy); critical discourse analysis (power and social and political domination).

Results/Achievements: At this point, the project has completed about half of all the data collection involved and is in the early stages of data analysis.

Conclusions: This research project is ongoing and will be able to present broad thematic trends based on the above but is yet to come to final conclusions or recommendations at this point.

Implications: The Treasury has estimated the cost of recovering housing after the earthquakes as one of the biggest contributors to disaster-related economic losses and housing as the biggest recipient of economic investment. The earthquakes also affected the accessibility of data and hindered the capacity of quantitative research to study the question of housing in traditional ways. Housing is a key social determinant of health and the adverse effects of poor housing are well established. From an emergency response and recovery perspective, ease of access to housing after a natural disaster is essential to safeguard the basic humanitarian need for shelter.

The earthquakes had devastating effects to the lower-end of the housing market and the great loss in housing capacity devolved into significant increases in house prices and rents. As a result, it is estimated that “the number of homeless may have doubled since the earthquakes, as has the number of households who are sharing accommodation”. This has been described as an example of the inverse care law, whereby “those who are most in need have the least resources to help themselves and are most likely to live in crowded or inadequate housing” with no security of tenure. This population is also the least likely to be insured and therefore ineligible to benefit from EQC coverage.
Until now, this policy has not been accompanied by significant interventions to house those that have fallen through cracks of this ‘insurance-led’ recovery scheme. In this vacuum, communities have been thrust to the front lines to confront the public health problems that have ensued by taking the lead in identifying solutions to what has finally been publicly recognized as a housing crisis.
Shade in Schools – permanent not temporary?

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While purpose-built shade sails in New Zealand schools have appealed to and been used by students, in 2014, the Ministry of Education has elected not to support this type of shade canopy because of its limited life span and costly installation. The need for UV protection for fair-skinned children is long term, so more permanent shade structures are required. In New Zealand, covered outdoor learning areas (COLA) must respond to different climatic zones to create UV protective and thermally comfortable spaces. This paper reviews designs of existing COLA in Australasia, and proposes shading materials to suit various sites in New Zealand.

In 2014, New Zealand schools lack effective shade. This is shade that provides effective protection from ultraviolet radiation (UVR) and is comfortable and desirable to use in New Zealand’s temperate climate. As part of the SunSmart Schools Accreditation Programme, the Cancer Society of New Zealand (CSNZ) is advocating to the Ministry of Education (MoE) for improved sun safety policy that can support practice in school settings. At a Ministry level CSNZ has been working with the Property and Infrastructure team to update the Property Toolbox on shade for schools. As this work progressed questions arose about shade that can enhance Modern Learning Environments in outdoor school settings.

Questions included:
1. What is the best shade design for covered outdoor learning spaces the in New Zealand climate?
2. When and where do we need warm shade? and,
3. What materials should be used to build effective shade with adequate UVR protection?

To investigate these questions, CSNZ worked with Christina Mackay and Catherine Hall in a jointly funded Victoria University of Wellington (VUW) Summer Research Scholarship project. This research analysed climate data to determine when ‘warm shade’ would be useful in schools in different locations around New Zealand.

Analysis has confirmed the benefit of designing warm shade for COLA in New Zealand schools, but more research and development of COLA designs, including alternative cladding materials and systems, is required.
Estimating the public health impact of leptospirosis in New Zealand

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Issue: Leptospirosis is the most common occupationally acquired infectious disease in New Zealand with an average of 100 cases per year notified. Leptospirosis often causes flu-like symptoms (fever, headaches, myalgia, etc.); therefore it may be confused as flu. This, among other reasons, may cause under diagnosis and underreporting, the extent of which is unknown. Mild cases of leptospirosis are associated with a variable number of days off-work, which suggest a potential for reduced quality of life and economic loss.

Aims: The aim of this work was to estimate the number of people in three high-risk populations that experience clinical leptospirosis each year.

Methods/Actions: From a previous study of meat workers, the duration of titres to *L. borgpetersenii* serovar Hardjo and *L. interrogans* serovar Pomona was estimated using the sero-prevalence and annual rate of new infections. We then used estimates of sero-prevalence to Hardjo and Pomona in farmers and veterinarians, and the estimated duration of titres to estimate the incidence of Hardjo and Pomona infections for these occupations. Incidence estimates and the total number of people working in abattoirs, farming or veterinary practice were used to estimate the number exposed to Hardjo and Pomona every year in these occupations. Information about the association between *Leptospira* sero-status and episodes of flu-like illness over 18 months was available from a study of *Leptospira* sero-prevalence in veterinarians. The risk of flu-like illness due to *Leptospira* exposure in people sero-positive to *Leptospira* (attributable risk) was estimated using this data.

Results/Achievements: The duration of titres (1:48, microscopic agglutination test) was estimated at 4.37 years for Hardjo and 1.04 years for Pomona. Annual incidence of *Leptospira* exposure was estimated at 0% and 2.8% for Hardjo and Pomona, respectively, in farmers, 2.0% and 5.2% for Hardjo and Pomona, respectively, in meat workers, and 0.5 and 2.5% for Hardjo and Pomona, respectively, in veterinarians. Considering the number of people working in abattoirs (14,475), farming (72,501) and veterinary practice (1,569); 3,098 people are estimated to be exposed to Hardjo or Pomona every year. From this total, about 493 people are estimated to suffer from clinical manifestations of the disease each year, a figure that suggests 9-times underreporting based on current notified cases.

Conclusions: This work suggests that leptospirosis is largely underreported in New Zealand.

Implications: Leptospirosis may impact far greater on disability-adjusted life years than assumed from notified cases alone. The additional negative effect of leptospirosis on the health and productivity of farmed livestock renders this disease a zoonosis of potentially large economic impact.
Impact of mammographic screening on ethnic and socioeconomic inequities in breast cancer stage at diagnosis and survival in New Zealand

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Issue: Indigenous Māori women experience a 60% higher breast cancer mortality rate compared with European women in New Zealand. Many factors are believed to be contributory to worse breast cancer outcomes in Māori, which include delay in diagnosis, inferior quality and delays in treatment, higher rates of comorbidity and possible adverse tumour biology.

Aims: We conducted this study to explore differences in rates of screen detected cancer by ethnicity and socioeconomic deprivation in a cohort of screening age women, and its contribution to ethnic and socioeconomic inequities in breast cancer survival in New Zealand.

Methods: All primary breast cancers diagnosed in screening age women (as defined by the New Zealand National Breast Cancer Screening Programme) during 1999-2012 in the Waikato area were identified from the Waikato Breast Cancer Register and the National Screening Database. Stage at diagnosis and survival were compared for screen and non-screen detected cancer by ethnicity and socioeconomic deprivation.

Results: Māori women were significantly more likely to be diagnosed with advanced stage cancer compared with NZ European women (OR=1.51) and a half of this difference was explained by lower rate of screen detected cancer in Māori women. For non-screen detected cancer, significantly lower 10-year breast cancer survival rates were observed for Māori compared with NZ European (46.5% vs. 73.2%) and for most deprived compared with most affluent socioeconomic quintiles (64.8% vs. 81.1%). No significant survival differences were observed for screen detected cancer by ethnicity or socioeconomic deprivation.

Conclusions: Low rate of screen detected breast cancer appears to be a key contributor towards higher rate of advance staged cancer at diagnosis and lower breast cancer survival in Māori compared with NZ European women.

Implications: Increasing mammographic breast cancer screening coverage needs to be recognized as a health priority for Maori women. Increasing screening coverage has the potential to majorly reduce breast cancer mortality inequity between Māori and NZ European women in New Zealand.
Older people in ‘unsuitable’ housing: Place attachment, suitability and ageing in place

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Issue: The social policy response to an ageing population reflects preferences for independence and continued community involvement among older people. Discussion of ‘ageing in place’ tends to focus on moving to suitable housing in later life or modifications required to make the homes of older people more suitable. Although ageing in place does explicitly acknowledge older people’s preferences, very little analysis has examined why older people make choices to remain in ‘unsuitable’ places in later life.

Aims: Older people’s housing stories are used to consider the factors which shape older people’s housing decisions and the importance of identity to understanding the places that older people age.

Methods: We examined the ways older people described their homes and their expectations for the suitability of their homes as they aged in 143 interviews with people aged 63 to 93 years across New Zealand. This paper presents narratives of those who remain in their housing in order to unpack the suitability of housing in later life.

Results: Although some older people described strategic decision-making in terms of housing choice in later life, moving to areas with public transport or to single-level dwellings with future needs in mind, many older people proudly described their homes as unsuitable to accommodate their ageing bodies. Rather than describing accessibility, they described features such as views that they were unwilling to sacrifice to improve accessibility. In particular, older people told stories of the pathways which brought them to live in such places, and the importance of homes in storying their identity, which made them unwilling to relocate in later life.

Conclusions: Although policy recommendations focus on the unsuitability of ageing in such places, a desire to reflect and reminisce in later life can make such aspects of homes particularly suitable places to age. This paper demonstrates the separation between personal and social policy versions of what it means to age successfully in place, and the many meanings of housing in later life.

Implications: To understand the limitations and the possibilities of ageing in place we need to see the multiple narratives that structure the lives of older people and consider nuances in the suitability of housing, ones that do not disrupt the strong identities older people have developed in and through their housing.
Kahuku: Health through Education

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**Issue:** The Early Childhood Education (ECE) sector is a complex and dynamic environment where the role of health providers remains ambiguous. Inconsistent delivery of key health information, an absence of public health leadership, limited collaboration and a paucity of professional development opportunities for ECE teachers are exacerbating health challenges within the sector.

**Aims:** To improve the health and wellbeing of children (0-5 years) by strengthening environments and building the capacity of Early Childhood Education staff in the Auckland region. In 2012 Auckland Regional Public Health Service (ARPHS) began development of Pūrerehua a comprehensive, evidence based health promotion programme targeting prioritised Early Childhood Education Services (ECES) in the Auckland region. Based on capacity building (New South Wales Capacity Building Framework (2001)) and cultural frameworks, the Pūrerehua programme aims to reduce health inequities through strong leadership and clear coordination, to build the capacity of health providers and strengthen ECE environments. Kahuku is a targeted health promotion professional development training programme modeled on the ‘Keeping Families and Communities Well’ project developed by Waikato District Health Board and is one of six key interventions under the Pūrerehua programme.

**Methods/Actions:** The Kahuku programme was developed through engagement with Manawhenua and key stakeholders from the health and education sectors. Self-identification was used to gauge involvement of stakeholders into overarching steering, working or module development groups. Needs analyses were conducted with 31 prioritised ECES by semi structured interview. A literature search and findings informed module design and a prioritisation process was undertaken to identify targeted ECES. Seven “Preventing Communicable Childhood Illnesses” professional development trainings were delivered in community venues with a total attendance of 133 participants from 40 prioritised Auckland ECES.

**Results/Achievements:** Evaluation criteria rubrics were developed and participants’ knowledge measured pre and post training against three objectives. On all three measures the rating of excellent was achieved with more than 85% of participants being able to demonstrate awareness, understanding and knowledge increases of between 45% - 57% post training. Process evaluation findings indicate that the training was well planned, delivered and useful.

**Conclusions:** Kahuku has contributed significantly to emerging partnerships between health providers and provided a platform for capacity building to ECE staff and environments across the Auckland Region. Kahuku provides further evidence of essential contributors to successful professional development particularly the use of a well-defined programme structure, innovative collaboration tools, external evaluation support, and expert knowledge solicited through joint planning and delivery.

**Implications:** Based on the evaluation findings further scope for professional development exists. Learnings will be utilised to inform future programme direction, planning, implementation and evaluation.
The role of comorbidity in cancer care decision-making in multidisciplinary teams

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Issue: There are significant inequalities in cancer survival between Māori and non-Māori, and evidence that comorbidity and service access play important roles. Multidisciplinary team meetings (MDMs) are increasingly the context within which cancer treatment decisions are made internationally. Little is known about how comorbidity is considered, or impacts decisions, in MDMs.

Aim: This study reports on a systematic literature review and observation of MDMs to assess the role of comorbidity in cancer care decision-making in multidisciplinary teams.

Methods: Eight original, heterogeneous studies of medium quality were included in the review. Ten MDMs (lung, breast, colorectal, upper gastrointestinal) discussing 115 patient cases were audiorecorded in two regional cancer treatment centres in New Zealand. Recordings were transcribed and analysed using the conventions of conversation analysis to identify how and what issues are ‘recognised’ and ‘attended to’ by the participants.

Results: Review results suggest that comorbidity is rarely explicitly considered in MDMs and, when it is, results in more conservative treatment, despite evidence that such treatment may be well tolerated and effective. In contrast, comorbidity was commonly discussed in the ten recorded MDMs. Considerable power for the treatment decision resided with the person who had ‘encountered’ the patient, usually their specialist. This ‘encountered authority’ particularly came into play when there were different treatment pathways being considered.

Conclusions: MDMs should systematically consider the comorbid status of patients in light of evidence of effectiveness of treatment for comorbid patients. They should also ensure that those with ‘encountered authority’ are aware of this evidence given their power in decision-making.

Implications: These findings have implications for work already underway to improve MDM decision-making. Further research is needed to assist clinicians to undertake MDM decision-making that addresses comorbidity consistently and appropriately to optimise outcomes for cancer patients with comorbidities.
A Framework for Prioritising Māori Health Workforce Needs

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Issue: Kia Ora Hauora is a Māori health workforce development initiative aimed at increasing the overall number of Māori in Health and Disability Services. The recently updated aims of Kia Ora Hauora include the identification of regional priority occupations, and their promotion to potential students. This research project sought to develop a framework for prioritising health professions for Māori in the Midland region of New Zealand.

Methods: Key stakeholders for each of the five District Health Boards in the Midland region were consulted. A literature review on health workforce needs assessment, and indigenous health workforce development was undertaken. Statistical data was obtained on the District Health Board (DHB) health workforce, and on secondary and tertiary student numbers for the region.

Results: A rights-based approach was taken in the development of the framework, recognising the right of all to the highest attainable standard of health, and the right of tangata whenua (the indigenous population of New Zealand) to self-determination. The framework therefore applies the following four key principles; equity, tino rangatiratanga (self-determination), demography, and Māori health need in order to produce numbers of Māori required in each profession in the next five years.

The principle of equity was applied to generate numbers of Māori required in each profession in the next five years. The relative level of need for each profession was estimated by applying the principle of tino rangatiratanga, by examining the local demography, and by assessing areas of Māori health need for each DHB region.

In addition, the relative level of need for each professional group was estimated following consideration of the potential Māori student supply, and the prioritised professions were finalised following an assessment of job opportunities for the highlighted occupations. Study pathways were developed for each of the final twelve prioritised professions.

Implications: This framework is distinguished from other health workforce needs analyses in that it applies key principles in an effort to prioritise professions for Māori health. User-friendly one-page study pathway fliers were developed which will be utilised by Kia Ora Hauora to promote the prioritised careers to potential students. While it has been used on data for DHB employees in a particular region, the framework and its implementation may be of interest to other regions, for application to non-DHB data, and to those in the area of Māori health workforce development in general.
Targeted Smoking Cessation support in a Primary Care Setting

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Robyn Ingleton – Clinical Programme Facilitator, Te Awakairangi Health Network

Issue: In order to achieve a Smokefree Aotearoa by 2025 goal, cessation providers need to increase successful cessation attempts. We need to offer engagement opportunities which appeal to those who are more ambivalent about accessing mainstream services

Aim: To reduce the number of smokers within primary care practice by proactively recruiting smokers registered on medical centre data base. In the past, flyers have promoted opportunities to attend group cessation programme with limited uptake. For this programme a process of personal invitation to registered smokers was trialled with a positive response.

Methods/Action: Group 1 results – (there will be results available from 3 programmes by conference date) 357 Registered current smokers, 30 – 50yr were contacted by text or personal invitation to attend a cessation support group, to be held at their local medical practice
43 responses
• 18 not interested
• 24 Interested
• 1 – why did you send me this???
Of the 24 who indicated an interest all were followed up with phone call or message left
Group commenced with 14 participants 77% male, 23% female

Results / achievements:
Results –
43 % smokefree at completion of 6 week programme
58% smokefree at 1 week post programme

Conclusion: Proactive recruitment of clients registered as current smokers in a primary care setting, respond best to personal, targeted intervention. The noticeable uptake from male patients, by this approach was significant, and worth further research.
Responding to the burden of alcohol-related injuries and violence in New Zealand.

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**Issue:** Alcohol is a major risk factor for the global burden of disease. The harmful use of alcohol is a component cause of more than 200 diseases and injuries. By 2020 injuries are predicted to be the third leading cause of death and disability worldwide. Injury and its alcohol component present a significant public health challenge for New Zealand.

**Aim:** To better understand the burden of alcohol-related injuries (intentional and unintentional) in New Zealand and to ensure alcohol-related injury and violence prevention policies, plans and practices are informed by the best available evidence.

**Method:** We undertook a comprehensive review of published literature on alcohol’s role in injuries, both intentional and unintentional, and the effectiveness of interventions to reduce the burden of alcohol-related injuries.

**Results:** Injuries (unintentional and intentional) are responsible for over 40% of alcohol-attributable deaths in New Zealand. Road traffic injuries are the most common cause of alcohol-attributable deaths for Māori and Non-Maori men. There is a clear dose response relationship between alcohol consumption and injury risk. Risk of an injury is almost 3 times greater when alcohol is consumed. We found that alcohol is a significant risk factor in a range of unintentional injuries including falls, fire, burns, drowning & near drowning, workplace injuries and poisoning, and intentional injuries including intimate partner violence, sexual violence/assault, child & elder abuse/neglect, suicide & self harm. There is a range of policies and interventions that are most likely to reduce alcohol-related injuries and violence.

The presentation will summarise the main findings of the review and put forward evidence based policies and strategies that are most likely to be effective in reducing alcohol-related injuries and violence in New Zealand.

**Implications:** Our findings show that in order to reduce the burden of alcohol-related injuries and violence and to better protect vulnerable population, New Zealand must improve its public health response. This will require wide cross-sectoral commitment and investment, a co-ordinated and strategic approach, political and public health leadership.
Te Kura Tapa Wha: A Health model in an Education setting.

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Health Promoting Schools Kaiarahi, CCHADs, Auckland District Health Board

Issue: Health is a determinant of Education and Education is a determinant of Health. Te Whare Tapa Wha is a model intended for mental health service but it has broader applications. Using it in schools as a needs assessment is one such application. Fitting Te Whare Tapa Wha into a school context can provide a health lens for assessing the holistic wellbeing of the whole school community.

Aims: The aim was to develop a way of utilising Te Whare Tapa Wha in a school context to provide a holistic overview of what the school is doing well and where the gaps may be.

Methods/Action: Many schools have difficulty implementing Ka Hikitia Maori Education Strategy and have not known how or where to start. To address this issue we met with MOE to ensure we had a clear understanding of the document and then we provided a workshop for Principals, BOT’s, and senior management to attend. We included Te Whare Tapa Wha in the workshop as a tool to show what they are already doing and looking to see how they can build on that. As we evaluated, we also saw where we could provide a school specific fit for Te Whare Tapa Wha. This was greatly achieved through an engagement Hayley had with students from a school she worked in. Hayley grouped the things the students felt important into four areas. We named these areas, “Runga, Raro, Waho, Roto”. We found that we could sit these into Te Whare Tapa Wha and visa versa and get a good overview of what is looking good and what we can focus to build on.

Results/Achievements: This framework has been well received by the schools we have used it in. The interacting dimensions of Runga, Raro, Roto, Waho and Wairua, Hinengaro, Whanau, Tinana, provide opportunities for education and health to blend.

Conclusions: A framework based on Te Whare Tapa Wha and the contexts within school settings works well.

Implications: Prof. Sir Mason Durie: “I thought the presentation was brilliant. You have captured the full meaning of whare tapa aha iand have been able to link those themes to the interacting dimensions of runga, raro, waho, roto. I am happy for you to continue using the model in your work.” 17/3/2014
Te Kura Tapa Wha: A Health model in an Education setting.

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**Issue:** Health is a determinant of Education and Education is a determinant of Health. Te Whare Tapa Wha is a model intended for mental health service but it has broader applications. Using it in schools as a needs assessment is one such application. Fitting Te Whare Tapa Wha into a school context can provide a health lens for assessing the holistic wellbeing of the whole school community.

**Aims:** The aim was to develop a way of utilising Te Whare Tapa Wha in a school context to provide a holistic overview of what the school is doing well and where the gaps may be.

**Methods/Action:** Many schools have difficulty implementing Ka Hikitia Maori Education Strategy and have not known how or where to start. To address this issue we met with MOE to ensure we had a clear understanding of the document and then we provided a workshop for Principals, BOT’s, and senior management to attend. We included Te Whare Tapa Wha in the workshop as a tool to show what they are already doing and looking to see how they can build on that. As we evaluated, we also saw where we could provide a school specific fit for Te Whare Tapa Wha. This was greatly achieved through an engagement Hayley had with students from a school she worked in. Hayley grouped the things the students felt important into four areas. We named these areas, “Runga, Raro, Waho, Roto”. We found that we could sit these into Te Whare Tapa Wha and visa versa and get a good overview of what is looking good and what we can focus to build on.

**Results/Achievements:** This framework has been well received by the schools we have used it in. The interacting dimensions of Runga, Raro, Roto, Waho and Wairua, Hinengaro, Whanau, Tinana, provide opportunities for education and health to blend.

**Conclusions:** A framework based on Te Whare Tapa Wha and the contexts within school settings works well.

**Implications:** Prof. Sir Mason Durie: “I thought the presentation was brilliant. You have captured the full meaning of whare tapa aha i and have been able to link those themes to the interacting dimensions of runga, raro, waho, roto. I am happy for you to continue using the model in your work.” 17/3/2014
2013 Census: 60% NZ children exposed to tobacco in the home

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Smokefree Coalition

Issue: New Zealand government made a commitment in 2011, to making Aotearoa New Zealand Smokefree (prevalence <5%) by 2025. Census 2013 indicated prevalence was already falling rapidly, from 23% (598,000 adult smokers) in 2006, to 15% (463,000) in 2013. Since 2006 much has changed to bring about this decline in prevalence: a series of annual 10% tax increases, a retail display ban, innovations in cessation methods as well as a population-based approach to brief advice and referral to quit through primary and secondary healthcare services. Based on the Census data the assumption might be made that the fall in prevalence among adults determines a declining rate of children exposed to tobacco inside their homes, a factor that will contribute to our likelihood of achieving the 2025 Goal.

Aim: To review the number of children in New Zealand living in households where at least one adult smokes. To determine from these statistics whether preventive tobacco control measures are necessary. To determine whether children’s exposure to tobacco in the home is related to household income. To assist regional Smokefree networks in understanding the risk of uptake inside their regions.

Method: The Smokefree Coalition requested data from Statistics NZ on the number of children living in households where at least one adult smokes, with cross-variables of household income and DHB region. We broke household income into three categories: <$50K, $50-100K, >$100K to test for association, both nationally and by DHB region. We allowed a threshold <$25K to define a household in poverty. We created an infograph that documented this information, to accompany national and regional press statements on the data, and distributed it to the Smokefree networks.

Results: We found 603,807 children were living in households where tobacco is smoked by a resident adult. 12% (71,875) of these children also lived in households under the poverty threshold. There was no association nationally between child exposure and low income: 33% lived in homes where total income is below $50K; 39% where total income is $50-100K; and 28% where total income is >$100K. When the population was split regionally, however, association between child exposure and low income was found in Northland, Tairawhiti and Whanganui. Incidentally, association between child exposure and high income was found in Waitemata, Auckland, Counties/Manukau and Wellington.

Conclusion: Around 6 out of every 10 New Zealand children are exposed to tobacco use inside their homes. Children living in households where tobacco is smoked outnumber adult smokers in New Zealand 3 to 2. Children are just as likely to be exposed to tobacco use in the home whether their household is wealthy or live below the poverty line, however there is a strong indication that association of income is determined by urban/rural conditions.

Implications: The Census 2013 prevalence data gives us a false sense of security that we can achieve the 2025 Goal. Previous studies have demonstrated that the greater exposure to tobacco use, the more likely it is a child will take up smoking. Preventive measures are necessary to mitigate the higher risk of uptake among this majority of children.
Does e-learning need to be boring?

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**Issue:** The ABC pathway for smoking cessation prompts healthcare workers to Ask about and document every person’s smoking status, Give Brief advice to stop to every person who smokes, Strongly encourage every person who smokes to use Cessation support, to their patients/clients. Training is a key component in helping healthcare workers to implement ABC within their everyday practice. E-Learning has become a common approach to providing training and has the advantage of been able to be completed at anytime from anywhere. The previous ABC e-learning was primarily aimed at Doctors and had video clips, which whilst contained very good information, were not inspiring to a wider audience.

**Aims:** To update and revitalise the online ABC e-learning tool to help healthcare workers to help their clients/patients who smoke to stop.

**Methods/Actions:** The Ministry of Health contracted a specialist e-learning designer to develop a new e-learning training tool for a range of healthcare workers, including midwives, dentists, physiotherapists, pharmacists, mental health workers as well as General Practitioners and Practice Nurses. A novel and more interactive template was used and the instructional designers worked with a subject matter expert to create a module that covered the key components of the ABC pathway. More detailed information on nicotine replacement therapy was also included in response to sector feedback. To ensure the information in the e-learning resource is correct, we engaged with a range of clinical professionals to make sure the language and settings used were appropriate and ‘real life’. The e-learning resource will collect and collate user information that can be used by DHBs, and in turn DHBs can use this information in their quarterly Health Target reporting.

**Results/Achievements:** The redesigned e-learning tool is anything but boring, and now has cutting edge graphics, interactive text and continuous scrolling as well as showing a wide range of examples of how ABC can be incorporated into interactions with patients/clients. The new e-learning tool was launched in June. Data from the first few months of use will be presented.

**Conclusions:** Healthcare workers have a duty of care to their patients who smoke, but do not need specialist knowledge in smoking cessation to make a difference. They should however feel confident in motivating a quit attempt, encouraging people who wish to stop to use effective treatments (a combination of pharmacotherapy and support is best) that will increase their chances of stopping for good. This e-learning tool helps to achieve this goal.

**Implications:** All health professionals will, after completing the e-learning will feel more confident about talking to their clients/patients about stopping smoking. This in turn will increase quitting attempts and the use of effective smoking cessation treatment, and this subsequently will contribute towards the Smokefree New Zealand 2025.
Ecosystem threats and fossil fuels: implications for public health

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**Issue:** The current focus on the social determinants of health has eclipsed the ‘older’ public health focus on infectious agents and toxic chemicals as important influences of health. Yet the more fundamental supporting, provisioning, regulating and cultural functions of the environment (natural and built) are taken for granted. Recent research combined with an improving understanding of the impacts that humanity is collectively having on the natural environment and how the natural and built environment affects us, across multiple dimensions, requires the public health community to re-appraise its focus.

**Aims:** To promote discussion within the public health community about the priority and urgency of this topic area and how to re-integrate protection of the environment into public health’s core scope of practice and public education.

**Methods/Actions:** The effect of energy choices on population health is an example of this more traditional, ‘old’ public health, environmental / ecological focus. Within this context, the public health profession has an important role in promoting the transition of our energy system from one based on greenhouse gas emitting fossil fuels to one based on more efficient energy use and renewables. Educating the public and decision makers about the links between energy choices and health is of a novel but necessary field of public health promotion.

**Results/Achievements:** n/a

**Conclusions:** Collectively human impacts on the biophysical systems of the planet that support human society are called global environmental changes. These are of such magnitude that humans have become a force of nature. Because climate is a major influence on the viability of human civilisation, the climatic effects of greenhouse gas emissions pose an immediate threat to human wellbeing. There is a time-critical period within which to take action to curb greenhouse gas emissions. Public health action to promote energy transitions is critical.

**Implications:** How public health at individual practitioner and organisational / institutional level takes up the challenge, including novel or unconventional forms of advocacy, to ensure long-term health, prosperity and wellbeing for our generation and future generations, needs to be discussed. Consequent planning for action to address global warming and other environmental threats to health can be informed by this discussion.
What patients really want: Nurses responding to the voices of whānau who smoke.

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Issue: Around 80% of people who smoke want to quit and will try many times to stop before they succeed. As a population however, smokers have not yet had an overt voice in any previously developed smokefree campaigns in the effort to reduce the health burden on smokers and their families or to achieve Smokefree 2025 goal.

Aims: To encourage more responsive brief stop smoking interventions in General Practice (GP) settings by providing an opportunity for smokers, ex-smokers and whānau to let health practitioners know what is working, and what they would like from them.

To provide stop smoking practice exemplars which address patients’ expressed needs.

Methods/ Actions: We conducted five focus groups with 35 Māori, Pacific, European and other smokers, recently quit smokers, and family members to explore experiences of stop smoking interventions, provided in GP settings and what patients really want.

The data were used to determine key messages for an education/ awareness raising campaign. A series of short videos were made featuring patients who smoke, whānau of people who smoke, currently practising nurses, the Chief Nurse, Smokefree Nurses Aotearoa/New Zealand, and the Hon Tariana Turia. Participants answered questions spontaneously and participated in unscripted, unrehearsed stop smoking interventions.

Resources will be distributed via smokefree networks, the internet, PHOs, Schools of Nursing, conference presentations and nursing media.

Results/ Achievements: Focus group results: Most participants who smoke want to quit although some cannot imagine a life without smoking. All expect their practitioners to ask them about smoking. Participants want:

- Caring, warm, personalised encouragement at every encounter
- Brief phone follow-up from their own GP practice staff
- Choices - cessation support options
- To understand how to use nicotine replacement therapy and other medications
- Information and advice about electronic cigarettes

The practice exemplars show that the points raised by focus group participants can be addressed in the context of brief stop smoking cessation interventions. A wide variety of nurses demonstrate a range of relationship building skills tailored to the different needs of patients who smoke (Māori, Pacific, European, pregnant, male, female). They role-model a repertoire of partnership building and communication skills providing patients with hope, self-belief as well as information and strategies to move forward. Patients expressed they experienced the encounters positively.

Conclusions: Smokers have expressed their needs. Nurses have provided clear, engaging exemplars showing how the profession can deliver responsive interventions by reflecting the evidence-based revised Stop Smoking Guidelines, the Nursing Council of New Zealand’s Code of Conduct for Nurses and Competencies for nurses and the caring component of nursing practice. Exemplars also demonstrate many ways this can be achieved.
Implications: The videos will develop nursing practice by supporting nurses to deliver evidence-based stop smoking interventions which capitalise on nurses’ individual personalities and skills, respect the uniqueness of every patient and are time efficient.
New Zealand excess winter hospitalisation: An opportunity for disease prevention?

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Issue: In temperate climates, adverse health events are more likely in winter. Excess winter health events are commonly expressed as an index of the event rate for the four winter months over the event rate for the four months each side of winter. In New Zealand, the excess winter mortality index has been measured at 1.19. Excess winter hospitalisations have only more recently started to be measured, and have not previously been described in New Zealand.

Aims: We aimed to measure the difference between New Zealand winter and non-winter hospitalisation rates for the period 2000 to 2006. We were interested in any differences between demographic groups, for all-cause hospitalisations and individual ICD-10 chapters.

Method: A retrospective cohort study was conducted of 1,596,126 acute overnight hospitalisations, over 11,477,510,015 person days, between 1 February 2000 and 31 January 2006, using the full National Health Index (NHI) database as a population cohort. Winter was defined as 1 June to 30 September. Poisson regressions with robust standard errors were used to calculate winter:non-winter incidence rate ratios (also known as the excess winter hospitalisation index, or EWHI) and relative rate ratios (RRR). RRRs were used to identify differences in EWHI within demographic variables earlier found to be associated with level of winter excess (sex, age, ethnicity, and Census meshblock rurality, NZDep decile, and annual average minimum outdoor temperature.

Results: The all-cause EWHI was 1.08, with 7,166 excess winter hospitalisations per year. Indices were highest for ICD-10 chapters 9 (Respiratory) and 10 (Circulatory). All-cause EWHIs were highest in the very young and older people, higher for women than for men, and higher in Māori and Pacific Peoples than in NZ Europeans. However, the higher EWHI for Māori was due to higher rates of respiratory illness (which has the highest EWHI). EWHIs increased with increasing socio-economic deprivation (NZDep decile) and with decreasing annual average minimum temperature, but were lower in Rural Centres than in Main Urban areas. Similar patterns for age, gender, NZDep and temperature were observed in respiratory EWHIs, but while Pacific Peoples had higher respiratory EWHIs than NZ Europeans, Māori did not. Only age showed significant differences in circulatory EWHIs.

Conclusions: Variations in EWHI by ethnicity, NZDep and rurality suggest some excess winter hospitalisations may be preventable.

Implications: Winter illnesses are common and place a significant strain on hospitals. Differences in hospitalisation rates by season may help identify preventable hospitalisations, improving population health, health inequalities and health service delivery. Further research is needed to identify the specific causes of excess winter hospitalisations and whether they are modifiable by interventions such as housing improvements.
Trends in smoking cessation in high income countries 1985 - 2010: how does New Zealand compare?

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Issue: Tobacco control at global or national level requires a comprehensive understanding of the dynamics of the tobacco epidemic. Yet there are no cross-country comparable estimates of smoking cessation.

Aim: To estimate cross-country variation in smoking cessation by age, sex and five-year period, among high income countries from 1985 to 2010.

Method: Smoking cessation among adults aged 35 or more years was estimated using a multi-state transition model in which current smoking prevalence for a cohort is a function of previous smoking prevalence, smoking initiation, excess tobacco-attributable mortality, and smoking cessation (i.e. successful long term quitting net of relapse). Analysis was limited to 33 high income countries with mature tobacco epidemics and regular, high quality national behavioral risk factor surveys. For these populations, smoking initiation rates at ages >35 years can be assumed to be close to zero.

Results: In 1985, the overall annualized average net longterm smoking cessation rate across these countries was estimated to be 1.97% per year. This rate increased to 2.55% per year in 2010. Thus net longterm smoking cessation increased at an estimated rate of 1.25% per year on average over the study period.

Males were slightly more likely to quit than females at all ages and in all periods; in 2010 the overall male cessation rate (2.60% per year) was 4.6% higher than the female rate (2.49% per year). In 2010, 65-69 year-olds had the highest cessation rate (6.58% per year).

In 1985 New Zealand ranked 3rd best among the 33 high income countries included in our study, with an average annualized net longterm smoking cessation rate of 2.65%. In 2010 New Zealand continued to rank 3rd, with a rate of 3.92%. New Zealand’s high rank in 2010 reflects both its good ‘starting’ position in 1985 and an above-average rate of increase in cessation (1.56% per year) over the study period.

Conclusion and implication: New Zealand has a high overall smoking cessation rate compared to other high income countries, and has shown above average improvement in cessation rates over the study period. Nevertheless, if New Zealand is to achieve the national goal of <5% daily smoking prevalence by 2025, much higher rates of cessation will be needed over the next decade than were experienced over the past one to two decades.
Food references and marketing in popular magazines for children and adolescents in New Zealand:
A content analysis

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Issue: Food marketing is recognized as an important factor influencing children’s food preferences and consumption. Previous studies on food marketing through television and sport sponsorship in New Zealand consistently showed that food marketing communications that children are exposed to are predominantly for unhealthy foods. This raises concerns about whether unhealthy food marketing in popular children’s magazines is similarly an issue. Unlike in several other industrialized countries, there are currently no regulations or effective policies in place by the New Zealand government to reduce exposure of children to advertising of unhealthy food products through any type of medium.

Aims: The purpose of this study was to examine the level of exposure of children and adolescents to unhealthy food marketing and non-branded food references in popular magazines.

Methods/Action: A content analysis was conducted of all food references (including food advertisements) found in the five most popular magazines read by, and the three magazines targeted to, 10-17 year olds in New Zealand. All issues (n=72) of these magazines, published between December 2012 and January 2014, were included. Food references were classified according to the Fuelled4Life food and beverage classification system.

Results/Achievements: Branded food advertisements (30% of total references) were more frequently for unhealthy (43%) compared to healthy (25%) foods. Magazines specifically targeted to children and adolescents contained a higher proportion of unhealthy food advertisements (72%, n=51/71) compared to the most popular magazines among children and adolescents (42%, n=133/317), of which most were targeted to women. ‘Snack items’ such as chocolates and ice creams were advertised most frequently (n=104; 36%), while ‘vegetables and fruits’ were advertised the least frequently (n=9; 3%). McDonald’s products such as happy meals and McFlurry ice cream were the most commonly advertised food products (7% of all branded advertisements). Direct advertisements accounted for 27% of food advertisements and 25% of the food advertisements featured health or nutrition claims.

Conclusions: Both branded and unbranded food references were common within popular and targeted child and adolescent magazines and skewed towards unhealthy foods.

Implications: These results raise concerns about the effectiveness of self-regulation in advertising and emphasize that government regulations are needed in order to curb children’s current high exposures to unhealthy food marketing. In addition, magazine editors could take socially responsible editorial positions in regards to healthy eating.
Kohunga Aituaua Ohorere: Reducing SUDI rates for tamariki Maori in Northland

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Northland has one of the highest rates for SUDI in New Zealand with significant disparity between Maori and non Maori rates.

Our aim is a trend toward reduction in the 5 year rolling average of SUDI related deaths per 1000 live births for Maori (3.48:1000) as experienced for non Maori (<0.5:1000) by December 30 2017. Kohunga Aituaua Ohorere is a SUDI Prevention initiative.

The purpose is to undertake a multi pronged approach to reducing the risk of SUDI occurring by addressing some of the factors that potentially impact on the vulnerable infant. Actions are toward strengthening consistency, alignment and collaboration of existing services to pregnant Maori women and their whanau.

Areas of focus are smoking cessation services, breast feeding support, maternal alcohol and drug and mental health. We have partnered with Whakawhetu (National Maori SUDI) to improve both the cultural relevance of the resources we distribute and the consistency of health professional safe sleep conversations with whanau. Opportunities for the development and expansion of kaupapa Maori models of antenatal/parenting preparation and support are a priority.

A pilot project was completed during April and September of 2013 in both Whangarei and Kaitaia. Key components of the pilot included; a SUDI risk factor assessment tool, targeted additional safe sleep discussion, (particularly the increase risk associated with smoking and bed sharing) and the offer of a PHA Conference Abstract May 13
How much should public health workers consider future vs current lives?

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Issue: Much public health action focuses on current threats to existing people eg, from such risk factors as tobacco and the hazardous nutritional environment. But there is growing literature about the potential value of preventing existential risks – that is those risks involving a risk of human extinction eg, from a technological disaster or run-away climate change (Bostrom 2013), (Bostrom and Cirkovic 2008), (Matheny 2007). There is also a literature on intergenerational justice (Gosseries and Lukas 2009), albeit one reflecting the fairly early development of the field

Objective: To consider relevant literature around future lives and make “present value” comparisons (in terms of human life-years) between the present and the future.

Method: Recent literature around such risks was considered. Calculations of potential future lives and life-years were made; including with and without discounting to allow for “present value” comparisons between the present and the future.

Results: It seems plausible that astronomically large cumulative totals of human lives are possible in the future (eg, $10^{17}$ lives for a stable $10^9$ population for the planet’s expected $10^9$ year habitable lifespan; equivalent to 75,000 billion future New Zealanders). Even these numbers are potentially miniscule compared to population growth if future humans colonise other planets.

The issue of applying discounting when considering such future lives is debated in the literature. But there are certainly some plausible arguments against applying positive discount rates to whole future lives (Matheny 2007). Nevertheless, if a 3% discount rate is used (as per some health economic practice), there could be 328 billion future human life-years for the planet’s habitable life span (or 333 billion using hyperbolic discounting). That is, in present value terms, this analysis suggests that the number of future life-years is 47 times greater than that of the human population for this current year (7 billion life-years). The equivalent ratio using a 6% discount rate was estimated at 23 times.

But human life-years are only one way to value the future and another is to consider the continuation of key components of the “human project” such as science, technology, art, and culture. It seems that humans particularly value these projects (Scheffler 2013), and the long-term persistence of such projects of course depends on the avoidance of human extinction.

Conclusions: There are logical arguments for why public health workers (and policy-makers in general) should give more consideration of the future and hence invest more resources in reducing existential risks. Fortunately, some preventive measures (eg, measures to prevent run-away climate change) may benefit people immediately as well as lowering existential risks.

Implications: In addition to a stronger future focus for research and preventive interventions at the policy level, there could be more research (eg, surveys and citizen juries) to determine the public’s views on valuing future lives and lowering existential risks.
Managing suspected cancer in primary care in New Zealand: international study of barriers to access & GP perspectives in cancer care

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Issue: Cancer survival may differ between countries with similar systems of health care and wealth. Cancer outcomes are negatively associated with delays in the diagnostic pathway, from first presentation in primary care, through to waiting times for tests and specialist services. The International Cancer Benchmarking Partnership (ICBP) is an international study which aims to identify specific causes of performance differences and disparities in cancer outcomes between participating countries. Module Three of the ICBP focuses on beliefs, behaviours and systems of cancer management in primary care.

Aims: This study represents the New Zealand arm of the ICBP Module Three study. Study aims are:
1. To determine potential barriers to primary care access for the diagnosis of cancer, access to cancer investigations, and access to specialist review
2. To determine reasons for ethnic and geographic disparities in diagnosis and management of suspected cancer in primary care
3. To clarify GP knowledge and attitudes regarding the management of suspected cancer

Methods: The study involves a national, self-administered, online survey of vocationally registered GPs, general-registrant doctors working in general practice, and GP registrars. The study is currently live, and participants are being recruited through snowball sampling and study advertising throughout the national GP networks (recruitment to close in September 2014). The survey includes questions relating to participant and GP practice demographics, practice administration and organisation of appointments, GP cancer education and training, access to specialist advice, investigations and care, patient management and the use of cancer guidelines. Participants are also asked a series of patient vignettes relating to the diagnosis and management of suspected cancer.

Results: The study is in progress and will have complete data and results by October 2014.

Conclusions: The survey results will be part of the international study as well as provide a core body of knowledge to inform and improve local cancer pathways and services.

Implications: Knowledge of the patterns of cancer care by GPs in New Zealand will provide pivotal information to improve population health in particular cancer management in primary care. The study will contribute to improving cancer management in primary care by revealing the issues relating to diagnostic delays including inequalities, barriers to access and GP knowledge and attitudes.
The impact of colonialism on the accessibility of healthcare and health outcomes for New Zealand Maori: Understanding historical processes within a contemporary context

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Issue: In Aotearoa/New Zealand, Maori have higher disease incidence with increased morbidity and mortality rates compared to their non-indigenous counterparts. This is due to inequality and inequity of health resources including access to effective health care. Traditionally, low rates of health care utilisation and poor health outcomes for Maori have been explained using a Maori-deficit model instead of examining the deficits of the New Zealand health care system. Understanding the actual barriers to accessing health care, as perceived by Maori, is essential in reducing the gross disparity between Maori and non-Maori disease morbidity and mortality.

Aims: The aims of this study were to:
• Explore the concept of health care ‘access’ – structural, procedural and clinical
• Explore the concepts of institutional, interpersonal and internalised racism and how each impact on health care access for Maori
• Explore the relationship between colonialism and health care access in modern-day Aotearoa

Methods/Actions: An integrative literature review was conducted to explore the impact of colonialism on the accessibility of health care and outcomes for Maori. Databases CINHAL and Proquest Central were searched for relevant articles published after 2000 using the key words Maori, Indigenous, health, barriers, healthcare and discrimination.

Results: Processes of colonialism including land dispossession, forced acculturation and assimilation, social marginalisation and political oppression have resulted in unacknowledged cumulative and prolonged exposure to institutional and interpersonal racism. The consequences of these include intergenerational psycho-social distress and post-traumatic stress disorder, internalised negativism and high risk behaviours, all of which continue to influence Maori health and access to health care.

Conclusions: A critical review of contemporary literature suggests that the process of colonialism produces significant personal and structural barriers to the accessibility and utilisation of effective healthcare for Maori. Entrenched historical, socio-political and psycho-social influences continue to marginalise this group and the associated trauma of colonialism continues to impact on health and well-being, from generation to generation. Unfortunately, research indicates that Maori are still subjected to a low quality of care, perceived racial discrimination and that health professionals still view Maori health disparities as evidence of a Maori deficit.

Implications for practice: This presentation explores the impact of both historical and current racial discrimination and social marginalisation on Maori health and health care decision making. The authors argue for a greater emphasise on mandatory cultural competency training for health care professionals working in Aotearoa and that the evaluation process of training needs to be assessed. In addition, research is needed to identify institutional and interpersonal racism and ways to address this from a Maori perspective.