2013
Cancer Society Social & Behavioural Research Unit
Te Hunga Rangahau Ārai Mate Pukupuka
Annual Report

Department of Preventive and Social Medicine
University of Otago, New Zealand
Our Vision

A unit which provides quality social and behavioural cancer research

- Strategic Plan 2010-2015
Contents

Foreword 3
SBRU Staff and Students 5
SBRU Collaborators 7
Project reports 9
  1. Tobacco Control 9
  2. Psycho-Social-Spiritual (PSS) Cancer Research 17
  3. Ultraviolet Radiation (UVR) related studies 20
  4. Healthy Physical Activity and Nutrition 25
  5. Hauora Māori 30
  6. Alcohol 31
Contributions to Teaching 32
Contributions to Student Supervision 33
External Representation 34
2013 Publications 36
For the SBRU, 2013 was another eventful and exciting year, and one during which our partnerships with the Cancer Society and other agencies went from strength to strength. Highlights included visits from the Cancer Society National Health Promotion Staff in June and members of the Cancer Society National Board and National and Otago offices in November (photo below).

We welcomed several new staff members to the Unit. Anne-Cathrine Petersen joined us as our Research Support Officer; Brett Maclennan to lead our new alcohol focus area and Ella Iosua as a post-doctoral biostatistical consultant. We also said farewell to Nathalie Huston, as her family set off for new adventures in Wellington.

Our teams were very involved in national and international conversations about our areas of expertise. Bronwen McNoe and Tony Reeder continued to work with CDC (Atlanta) staff as part of the team overseeing a series of systematic reviews on primary prevention of skin cancer for the US Community Preventive Services Task Force. Tony presented some key interim conclusions to the NZ Skin Cancer Primary Prevention and Early Detection Steering Committee to assist identification of effective primary prevention priorities for their 2014-17 strategy. Tony also presented at the inaugural Forum on Workplace Carcinogens, with the goal of ensuring that protection against harmful occupational UVR exposure was on the Worksafe NZ agenda. To coincide with that meeting, Tony and Bronwen co-authored an article for Safeguard journal, in collaboration with the CSNZ national office Skin Cancer Advisor, Barbara Hegan. With ex-patriot UK-based Professor John Hawk, Tony led the workshop on primary prevention at the NZ Melanoma Summit and presented at the 11th Behavioural Research in Cancer Control Conference in Adelaide and 2nd International Conference on UV and Skin Cancer Prevention in Berlin – both meetings identified occupational skin cancer as an issue deserving greater attention. Bronwen McNoe won a PBRF grant to study adolescent sun exposure and sun protection behaviours in organised outdoor sporting events.

The tobacco research team continued their efforts to help progress towards the goal of NZ becoming a smokefree nation by 2025. Louise Marsh and Anna Dawson completed focus group research with young people around the country which resulted in two peer reviewed publications about the social supply of tobacco and cessation among young people, a priority group. Louise and Lindsay, with input from Cancer Society health promoters Martin Witt and Heather Kimber, also led three projects on increasing smokefree outdoor areas to de-normalise tobacco smoking for young people. Rob McGee and Louise supervised a summer research student, Sophie Bang, who explored how tobacco is portrayed in the NZ media, producing important information on how best to promote the smokefree 2025 goal through the media. Work in the area of tobacco retailing with Crile Doscher of Lincoln University, culminated in the development of the first national spatial database of tobacco retailers, a paper published in Health and Place, and dissemination to assist District Health Boards in their smokefree enforcement roles. Lindsay was awarded a PhD scholarship from Lottery Health Research and project funding from the Asthma Society to investigate the implementation of a registration or licensing system for tobacco retailers. Research findings were presented at three international conferences: the International Conference on Public Health Priorities: The Endgame for Tobacco, in India; the Behavioural Research in Cancer Control Conference, in Adelaide, and the Oceania Tobacco Control Conference in Auckland. Our team is part of the successful tobacco research collaboration, Aspire 2025. The tobacco team look forward to continuing their research in 2014 to provide future generations of NZ children with a smokefree Aotearoa.
In the physical activity and nutrition area our new focus on alcohol was further developed, with Brett McClennan working closely with the Physical Activity and Nutrition Operational group to develop the evidence base. Robin Quigg presented her work on physical activity among primary school students at the Japan Society for the Promotion of Science’s Fifth Hope Meeting for Life Sciences with Nobel Laureates in Japan and the International Society of Behavioral Nutrition and Physical Activity Annual Meeting in Belgium. Masters and summer students also played an important part in this area, carrying out innovative and practical work in food environments, active transport and Pacific Health.

Our supportive care research focused on two major projects, an innovative consumer led co-design project, the Cancer Stories Project, which looked into what ‘got people through’ their cancer experience, and the evaluation of a patient diary. Across the two projects the stories and experiences of people who have experienced cancer were gained. Such qualitative projects are growing our understanding of the cancer experience in New Zealand and how to better meet supportive care needs. Richard Egan was invited and fully funded to attend The International Consensus Conference on Improving the Spiritual Dimension of Whole Person Care in Geneva, Switzerland, to discuss spirituality in healthcare.

We take this opportunity to congratulate Anna Dawson on successfully completing a demanding MPH project around SBRU staff and student cultural competency training. The documentation of our learning experiences has potential significance for all NZ health researchers, given the need to address inequities in health outcomes, including cancer. Anna presented her findings as a keynote speaker at the 3rd European Transcultural Nursing Association Conference, Hagoshrim, Israel.

As for previous years, our extensive backlist of publications is produced separately and available from our website, where further information is also available about our staff and postgraduate students.

March 2014
Principal Investigators

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ELLA IOSUA  
(from August 2013)  
PhD  
Biostatistical Support

Assistant Research Fellows

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DPH, DipTchg, BA

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Joshua Sua (HRC summer student)
Judith Sligo
Dr Sheila Williams

Other University of Otago Departments

Professor Andrew Bradstock, Theology and Religion
Dr Tamlin Conner, Psychology
Professor Janet Hoek, Marketing
Dr Lisa Houghton, Human Nutrition
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Professor Rob Walker, Medicine, Dunedin School of Medicine
Dr Simon Walker, Bioethics Centre
Dr Sue Walthert, Dunedin School of Medicine

Other New Zealand Organisations

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Aspire 2025 Research Collaboration
Associate Professor Chris Atkinson, Medical Director Cancer Society New Zealand, Radiation Oncologist and Director, St George’s Cancer Care Centre
Grant Berghan, Te Pūari Matua o Raukawa
Joanne Doherty, Doherty & Associates
Dr Crile Doscher, Lincoln University
Kathryn Fletcher, St Hilda’s Collegiate School, Dunedin
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Rose Trappitt, Health Promotion Agency
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Dr Christine Walsh, Chair National Cancer Consumer Representative Advisory Group, Deputy chair Breast Cancer Aotearoa Coalition
Dr David Welch, Chair National Cancer Consumer Representative Advisory Group, Deputy chair Breast Cancer Aotearoa Coalition
Dr Martin Witt, Canterbury Cancer Society of NZ

Overseas Collaborators

Dr Suzanne Dobbinson, Cancer Council Victoria, Melbourne, Australia
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Professor Rod MacLeod, Hammond Care and University of Sydney, Australia
Jen Makin, Manager, SunSmart, Cancer Council Victoria
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Dr Lucy Selman, Department of Palliative Care, Policy & Rehabilitation, Cicely Saunders Institute King’s College, London
Craig Sinclair, Director, Cancer Prevention Centre, Cancer Council Victoria, Australia Director, World Health Organisation Collaborative Centre for UV Radiation
A/Professor Shane Sinclair, Spiritual Care Coordinator, Alberta Health Services, Cancer Care, Tom Baker Cancer Centre; Adjunct Assistant Professor, Division of Palliative Medicine, Department of Oncology, Faculty of Medicine, University of Calgary, Canada
US Centers for Disease Control and Prevention (Atlanta) Coordination Team for Community Guide Skin Cancer Systematic review
Dr Caradee Wright, Senior Researcher CSIR Climate Studies, Modelling and Environmental Health Research Group, Pretoria, South Africa
1. Tobacco Control

The New Zealand Government has commitment to making Aotearoa/New Zealand smokefree by 2025. To reach this goal a national working party has been established by the tobacco control sector and a pathway for achieving the goal has been developed. It is critically important that the tobacco-control sector, including research, contributes to achieving this goal.

SBRU project research, conference and workshop presentations, and advocacy continued to make significant contributions to this area in 2013. While maintaining a broad interest in all aspects of tobacco control, our research team focused on youth smoking issues. Many of the research projects which were undertaken in 2012 have now been published in peer reviewed journals and presented at national and international conferences. This included focus groups with young people regarding their access to tobacco through social sources and what they see as key smoking cessation issues for young people, and the development of a database of tobacco retailers throughout New Zealand. A number of new projects were able to be developed during the year following successful funding applications. These are now either accepted for publication or under review for publication. These include three projects on smokefree environments (two examining smokefree universities and the other looking at smokefree outdoor areas for councils); the media portrayal of tobacco control policies in the media; and the relation between quitting smoking and weight gain. Four new research projects are underway examining tobacco price and tax increases, social smoking and smoking and alcohol consumption among university students. Lindsay Robertson received PhD funding from the Asthma Society to examine interventions in the retail environment, and has submitted a review of point of sale display bans for publication.

1.1 How do young people get tobacco from social sources?

Over the last decade there has been an increase in restrictions on young people purchasing tobacco from commercial outlets, which have been considered successful in reducing adolescent purchases from commercial sources, but not in reducing smoking prevalence or perceived access to tobacco. As restrictions on commercial purchasing of tobacco increase, young people develop complex approaches for acquiring and purchasing cigarettes through alternative sources, including social sources of tobacco. An infringement notice scheme was implemented in NZ in July 2012 to enforce the prohibition on the sale of tobacco to minors and increase the maximum fine for selling to minors. Combined with annual tobacco price rises, this may give rise to a reduction in young people accessing commercial sources of cigarettes and social sources may become an increasingly popular way for young people to source their cigarettes.

**Study Aims**

To examine young New Zealand smokers’ access to social supplies of cigarettes.

**Progress**

This qualitative study involving 10 focus groups with young smokers explored how they obtained their tobacco through non-commercial sources. One of the main sources of tobacco for the young smokers in this study was family members, and parents were the leading source, often purchasing tobacco for their children to smoke. Sharing tobacco amongst groups of friends was also very common. Additional methods were used when young smokers were desperate, including stealing, ‘butt scabbing’, and asking strangers. Both family and other social networks continue to support smoking and supply tobacco to young people. Consequently, while these networks operate, young people will continue to smoke, despite increased regulations on commercial sales to minors.

This research was published by the *Australian and New Zealand Journal for Public Health* in April 2013, and was also presented at the 11th Behavioural Research in Cancer Control Conference, Adelaide Australia, in May 2013.

**Project Team:** Louise Marsh, Anna Dawson, and Rob McGee.

**Funding:** Dunedin School of Medicine Dean’s Bequest Fund, University of Otago, CSNZ.
1.2 What do young people want in smoking cessation?

Most people who smoke want to quit, including 69% of NZ 15- to 19-year-olds who regret their decision to start smoking. Despite wanting to quit, many young people are unable to successfully do so. There are a wide range of resources to support quitting that are potentially available to young people, but at present there are few youth specific services available in NZ. Providers such as The Quit Group do offer some resources for young people, including the youth-focused Txt2Quit programme. However, few appear to be accessing these products and services, with only around one-third of 15- to 19-year-olds reporting accessing any cessation support, quitting products or advice during their last quit attempt. A better understanding of young people’s cessation behaviour would help inform the development of effective strategies to support young smokers quitting.

Study Aims

The purpose of this research was to examine what young people need to help them quit smoking.

Progress

This qualitative study involving focus groups with young people explored what they thought would help young NZ smokers to quit smoking. The focus group participants developed an array of ideas for how to help young people quit smoking. These encompassed a range of options including legislative changes, having supportive family friends and community, quitting as a group, making personal changes such as keeping active, adopting alternative behaviours to smoking, and personalised health warnings. Many of these suggestions were interlinked and included the idea of a quit smoking camp. The importance of the camp was that they would be away from their family and social environments where smoking occurs. The time period was linked to what the young people felt was the biggest temptation period, if they could get through 6 weeks without smoking, they would be able to remain smokefree. They also discussed going back to their family and social environments where they would be faced with smoking – but, having learnt new skills on their camp.

This research was published by the Journal of Smoking Cessation in October 2013.

Project Team: Louise Marsh, Anna Dawson, and Rob McGee.

Funding: Dunedin School of Medicine Dean’s Bequest Fund, University of Otago, CSNZ.

1.3 Support for a smokefree university

Data from the NZ Tobacco Use Survey indicate that the time between the ages of 15 and 24 years, when young people are entering tertiary education, is crucial for taking up smoking. This may be especially so from around 18 years on when individuals have more discretionary spending power to purchase tobacco. Smoking bans at universities and colleges in the United States (US) are now being instituted more often. The aims of smokefree policies at tertiary institutions are to promote positive social norms, reduce the harm from exposure to others smoking, de-normalise smoking as a normal behaviour, reduce smoking uptake, and increase smoking cessation. In the US, research has shown that college students and staff generally support policies restricting smoking, however, students are less supportive of campus-wide smoking bans.

Study Aims

This study examines the level of support for a completely smokefree campus policy and other smokefree policy initiatives amongst staff and students at a New Zealand University.
Progress

Attitudes to smoking on campus, smokefree campus policies, implementation and enforcement of smokefree policies were assessed using an online survey of 650 staff and 650 students. Most participants had never smoked, or were past smokers; few reported being current smokers. Participants agreed that exposure to second-hand smoke is harmful, disliked being exposed to second-hand smoke on campus, and felt the university should promote a healthy work and study environment. Results indicated strong support from staff and students for smokefree policies at the university. Participants made a range of recommendations for implementing smokefree policies. Most agreed that compliance with a smokefree policy should be voluntary, but felt that Campus Watch should warn people who breach campus smokefree policy. The results of this survey provide a sound basis for university administrators to implement such policies.

This research has been submitted to the *Australian and New Zealand Journal for Public Health*. This research was also presented as a poster at the International conference on public health priorities: *The Endgame for Tobacco*, India, September 2013.

**Project Team:** Louise Marsh and Lindsay Robertson.

**Funding:** Department of Preventive and Social Medicine PBRF internal grant, University of Otago, CSNZ.

1.4 Smokefree Tertiary institutions

The NZ Government has set the goal of making NZ a smokefree nation by 2025. In order for this goal to be realised a number of legislative, regulatory, community, voluntary, education and health promotion approaches are needed. Smokefree outdoor areas help to de-normalise smoking, as well as reducing exposure to secondhand smoke. In NZ there is significant support for restricting smoking in various outdoor settings. Education institutions provide ideal settings for tobacco control initiatives. In 2010, approximately 506,000 students aged 15 and older were enrolled in tertiary education in NZ, and around 28,000 full-time equivalent staff were employed by tertiary education institutions. Six years ago, almost half of the tertiary education institutions in NZ had a policy restricting smoking on all outdoor campus areas. Little is known about the enabling factors affecting the development of smokefree policies at tertiary education institutions in NZ or the challenges associated with implementing these policies.

**Study Aims**

The aim of this research is to undertake a stocktake of smokefree policies at NZ tertiary institutions and to explore how these institutions have developed, implemented, enforced and evaluated their smokefree campus policies.

**Progress**

Semi structured interviews were conducted with the Health and Safety Manager at 22 of the 29 universities, polytechnics and Wananga throughout NZ. Of the 29 TEIs, 12 had a smokefree campus policy and thirteen had policies that permitted smoking on campus, although six of these were progressing a smokefree campus policy. Perceived barriers included effective enforcement and perceived opposition from staff and students. TEIs with smokefree campus policies reported few challenges when implementing policies. Support for a smokefree policy from within the university, and poor compliance with designated smoking area policies were among the facilitating factors. The increase in smokefree TEI campuses is an encouraging step towards NZ’s 2025 goal, though there is a need to expand these further, and enhance enforcement of existing policies.

This research is currently under review by the *New Zealand Medical Journal*. This research was also presented as a poster at the International conference on public health priorities: *The Endgame for Tobacco*, India, September 2013.

**Project Team:** Louise Marsh and Lindsay Robertson.

**Funding:** Department of Preventive and Social Medicine PBRF internal grant, University of Otago, CSNZ.
1.5 Spatial characteristics of tobacco retailers in New Zealand

Tobacco marketing is a major contributor to tobacco use and addiction. It has recently been suggested that tobacco control policies should be broadened to reduce the supply and availability of tobacco products. The ubiquitous nature of tobacco retailing may represent a major form of tobacco promotion, particularly in countries that restrict other forms of industry marketing. Certain restrictions on the retailing of tobacco products are already in place in NZ, such as legislation prohibiting retailers from selling tobacco to people under the age of 18 years. However, there is scope for increased intervention in the retail environment. Currently, no licence or registration is required for selling tobacco in NZ; any type of outlet is permitted to retail tobacco, and tobacco products are also available at many non-retail premises, such as alcohol-licensed premises. By contrast, access to alcohol in NZ is more strictly regulated through a licensing system. Evidence suggests that reducing alcohol outlet density is an effective strategy to reduce alcohol consumption and related harm, and many researchers believe a similar approach may also be effective for tobacco.

Stakeholders’ views are often influential in the policy making process, but research regarding attitudes to tobacco control interventions in the retail environment is scarce, both in NZ and internationally. Aside from research on removing point-of-sale tobacco displays, only a limited number of NZ studies of tobacco retailing have been conducted.

**Study Aims**

This study aims to describe the number and types of tobacco retail outlets throughout NZ, and to examine the distribution of outlets according to neighbourhood deprivation, their proximity to secondary schools, and the extent to which tobacco is sold alongside alcohol.

**Progress**

Using data on known tobacco outlets throughout NZ, GIS was used to map outlets, deprivation and secondary schools. A total of 5008 tobacco outlets were identified, giving a density of 1 outlet per 617 people or 1 outlet per 165 smokers. One-half of secondary schools had at an outlet within 500m. Tobacco outlets were more densely located in areas of higher socioeconomic deprivation. A third of all tobacco outlets had a license to sell alcohol. This study indicates the widespread retail availability of tobacco and the need for a mandatory system of registration for better enforcement of smokefree legislation.

This research was published in Health and Place in July 2013, and was also presented at the Behavioural Research in Cancer Control Conference, Adelaide Australia, in May 2013.

**Project Team:** Louise Marsh, Crile Doscher, and Lindsay Robertson.

**Funding:** University of Otago Research Grant, CSNZ.

1.6 Smokefree outdoor areas: council policies

Some research evidence suggests that reduced exposure to smoking through smoke-free environments means young people are less likely to be exposed to smoking; view smoking as a normal adult behaviour and, potentially less likely to take up smoking themselves. De-normalising tobacco smoking is one of the main goals of smokefree outdoor areas. In addition, exposure to adult smoking behaviour is a risk factor for young people starting smoking, whereas restrictions, such as smokefree outdoor areas, can reduce smoking uptake in youth. Additional benefits of these policies include that they assist those quitting by reducing exposure to the smell of other people smoking, potentially preventing relapse; reduce littering and environmental impacts; and empower non-smokers to speak up when people smoke in designated smokefree areas.

Smokefree outdoor policies have been successfully implemented internationally to cover a range of areas including parks, playgrounds, beaches, bus shelters, sports fields, building entrances and outdoor dining areas. In NZ there is significant support for restricting smoking in various outdoor settings. However, only half of NZ local authorities have voluntarily enacted smokefree outdoor policies, and it is unknown what areas these cover.

**Study Aims**

The aim of this study is to undertake a stocktake of smokefree outdoor areas (SFOA) policies for all territorial authorities in NZ.
Progress
An online survey with territorial authorities was undertaken at the end of 2012. SFOA policies had been enacted by a total of 47 councils, 31 of which responded to the survey, covering a combination of playgrounds, sports grounds, parks, and council run events. Lack of public health priorities, and resources were common issues preventing other councils from developing a policy. Letters from health advocacy groups strongly influenced councils to introduce SFOA policies. The biggest barriers to implementation of SFOA policy were time and resource commitment required from staff, and the financial cost for signage. Voluntary compliance was used to ensure compliance with the policies; no councils used active enforcement. Few councils have evaluated their policy, but most felt that it had been successful.

This research has been accepted for publication by the New Zealand Medical Journal. This research was also presented as a poster at the International conference on public health priorities: The Endgame for Tobacco, India, September 2013, and an oral presentation at Oceania Tobacco Control Conference: A Smokefree Oceania: Getting There Together, Auckland, in October 2013.

Project Team: Louise Marsh, Lindsay Robertson, Martin Witt, and Heather Kimber.
Funding: University of Otago, CSNZ.

1.7 Media portrayal of tobacco control policies in New Zealand

The media constitute among the most powerful sources of influence in modern society, and media coverage can help determine what readers perceive as the ‘norm’, what we view as being “good”, “bad”, “important” or “insignificant”. The media have a powerful role in determining the effectiveness of public health policies such as tobacco control through influence on individuals and policymakers. The types of events and issues published in newspapers are ones which journalists and news editors have deemed to be newsworthy. In addition, issues can be portrayed in specific ways, expressing support in varying degrees, and this can greatly influence their public perception.

Study Aims
This study examined the media portrayal of tobacco issues over a one year period, focussing on proposed actions to achieve the Smokefree 2025 goal.

Progress
Tobacco related articles from NZ newspapers published between 1 November 2011 and 31 October 2012 were assessed under 19 tobacco-related themes. Article content was analysed in two ways – event and opinion. The event variable examined the impact of the tobacco-related event being reported on smokefree objectives, whereas the opinion variable looked at the opinion being expressed towards tobacco control policies. There were 537 articles related to tobacco; ninety of these articles were repeated in different newspapers. Thematic analysis identified 19
different tobacco themes in the newspaper articles. The most common themes were: “Smokefree”2025 (27%); smokefree areas/cars (11%); pricing/tax (11%); tobacco industry (9%); plain packaging (9%); and Quitline/cessation (6%). Overall, significantly more articles covered stories about events with a positive impact on tobacco control objectives in comparison to articles of negative impact to smokefree goals. Of the top five themes, ‘tobacco industry’ was the only theme that had more negative than positive event articles. All other themes had significantly more articles with a positive than negative event.

This research is now completed and results have been presented at the NZ Oceania Smokefree Conference October 2013. A paper describing the findings has been accepted for publication in Australia and New Zealand Journal of Public Health.

**Project Team:** Sophie Bang, Rob McGee, and Louise Marsh.

**Funding:** Health Sciences Summer Student Scholarship University of Otago, CSNZ.

### 1.8 Weight gain following smoking cessation

A recent meta-analysis reported that successful smoking cessation was associated with weight gain: on average, individuals gained 4-5kg one year after quitting. However, these findings were based on clinical trials and only short-term weight gain was measured. This area of research is important because weight gain following cessation may act as a barrier to deter some smokers from trying to quit.

**Study Aim**

This study examines the extent of weight gain in the short- and long-term following smoking cessation and the factors associated with this.

**Progress**

We used longitudinal data from the Dunedin Multidisciplinary Health and Development Study to identify those participants in the study who were daily smokers at age 21 years, but who had quit by age 38 years. Forty percent of the 335 smokers had quit. On average they gained about 5 kg in comparison with continuing smokers, but this weight gain was not different to that of never smokers. That is, their weight gain takes them back to the weight they would have been if they had never smoked in the first place. This moderate weight gain was also short lived and did not extend over the longer term. A paper describing these findings has been published in Nicotine and Tobacco Research, and engendered a great deal of media interest.

**Project Team:** Rob McGee, Lindsay Robertson, and Bob Hancox.

**Funding:** Department of Preventive and Social Medicine PBRF internal grant, University of Otago, CSNZ.

### 1.9 Price of Tobacco in New Zealand

Price is one of the few marketing tools left for tobacco companies in NZ. Recent evidence from Australia shows that cigarette prices are lower in areas with more price sensitive smokers, consistent with targeted discounts being used as a tobacco marketing strategy. Price increases are the most likely intervention to reduce inequalities in smoking as there is a greater responsiveness to price and tax increases among those with low socio-economic status and greater price elasticity among young people. Research in the UK suggests that tax increases are not being added to ‘discount’ brands, but are differentially shifting tax increases between brands. This undermines the effect of tobacco tax policy. However, there is little research on the price of tobacco in NZ, and the effect of the annual tobacco tax increases on the price of tobacco to consumers.
Study Aims

1. To examine variation in the price of three classes of cigarettes ("value", "mainstream" and "premium") and one brand of "roll your own";

2. To determine how the 10% tax increase on January 1st 2014 is applied to the retail price of three classes of cigarettes varying in market position (value, mainstream and premium) in NZ.

Progress

The collection of price data for part 1 of this study was completed by December 31st 2013. Smokefree Enforcement Officers (SFEOs), Cancer Society staff, and the researchers collected price data from a sample of tobacco retailers in regions throughout New Zealand. Stage two of data collection is currently underway to enable a comparison to be made before and after the tax increase.

This research will be submitted as two scientific papers by mid-2014.

Project Team: Louise Marsh, Claire Cameron, Robin Quigg, Rob McGee, and Janet Hoek.

Funding: Department of Preventive and Social Medicine PBRF internal grant, University of Otago, CSNZ.

1.10 Smoking among university students in New Zealand

In New Zealand, young adults aged 20 to 29 years have the highest smoking rates, and recent New Zealand research has shown that substantial initiation occurs among older youth and young adults. University students, as young adults, are therefore a high risk group. Ten years ago a New Zealand study reported the rate of daily smoking among Otago University students was 10%, with a further 10% of students reporting smoking non-daily. Nationally, research suggests that current smoking among young adults. However; evidence also shows both nationally and internationally, that non-daily smoking has increased among this age group. Non-daily smoking is common among university and college students, and includes social smoking, where smoking occurs only or mainly in social situations. Heavy alcohol consumption among New Zealand university students is high, and there is ample evidence which shows alcohol consumption among young adults and university students is a paired behaviour with smoking.

Study Aims

To estimate current daily and non-daily smoking among university students in New Zealand, and to examine associations with demographics factors, whether they consume alcohol, and if they attend a smokefree university.

Progress

Data for this research comes from a wider study of health behaviours among university students in New Zealand. The data has been collected and is currently being analysed.

This research will be submitted to a scientific journal by mid-2014.

Project Team: Louise Marsh, Kim Cousins, Kyp Kyri, Jennie Connor, and Janet Hoek.

Funding: Department of Preventive and Social Medicine PBRF internal grant, University of Otago Research Grant (UORG), Health Promotion Agency.
1.11 The impact of point of sale tobacco promotion on smoking

As restrictions on tobacco advertising in traditional media have increased, the industry has become more reliant on the retail environment as a marketing medium. The vast majority of the tobacco industry’s expenditure on advertising and promotion is in the form of retail incentives and tobacco promotion at the point-of-sale (POS). In 2009 a systematic review found evidence of a positive association between exposure to point-of-sale (POS) tobacco promotion and increased smoking and smoking susceptibility. However, the review also identified limitations in the evidence base and given the implementation of bans on POS tobacco displays in several jurisdictions, there is a need to update the evidence in this area.

Study Aims

The aim was to review and critically appraise recent evidence on the influence of POS tobacco promotion, and of POS tobacco display bans, on smoking-related behaviour and cognitions. We reviewed original quantitative and qualitative research that examined the relationship between POS tobacco promotion and smoking prevalence, individual-level smoking, quitting, and tobacco purchasing behaviour, smoking susceptibility, and smoking-related cognitions.

Progress

The systematic review was completed in January 2014. Twenty peer-reviewed studies (18 quantitative and 2 qualitative) met the inclusion criteria, and each study reported findings consistent with a positive association between exposure to POS tobacco promotion and smoking or smoking susceptibility. A manuscript has been submitted to Nicotine and Tobacco Research.

Project Team: Lindsay Robertson, Louise Marsh, Rob McGee, and Janet Hoek.

Funding: NZ Lottery Health PhD Scholarship, NZ Asthma Foundation, CSNZ.

1.12 Social Smoking

While daily tobacco consumption is declining in NZ and other countries, social smoking (i.e. occasional/low frequency) is becoming increasingly prevalent. Social smoking is particularly common amongst young adults (18 – 29 yr olds), and appears to be a long-standing pattern of behaviour amongst some smokers. Social smokers tend to self-identify as non-smokers when asked, they show fewer signs of nicotine dependence, may be more motivated to quit smoking, and make more quit attempts than daily smokers. Therefore, these smokers may be an important group for cessation efforts, though certain methods to screen for nicotine dependence may under-identify them, and NRT may not be the most appropriate approach for this group (given less nicotine dependence). Existing research into the characteristics of social smokers is limited and much of the available evidence is based on samples of US college students as opposed to population-based samples.

Study Aims

The aims of this research are: i) to examine the demographic and smoking-related characteristics of social smokers, ii) analyse how social smoking at age 21 progresses over time, iii) to examine whether social smoking is associated with impairments in lung function and iv) to examine whether social smoking is associated with excessive alcohol consumption.

Progress

Data for this study comes from the Dunedin Multidisciplinary Health and Development Study. Data will be analysed during 2014 and it is anticipated that a manuscript will be submitted to a peer-reviewed journal by end of 2014.

Project Team: Lindsay Robertson, Rob McGee, and Bob Hancox.

Funding: Department of Preventive and Social Medicine PBRF internal grant, University of Otago.
2. Psycho-Social-Spiritual (PSS) Cancer Research

Supportive care in cancer has a broad brief, defined as “The essential services required to meet a person’s physical, social, cultural, emotional, nutritional, informational, psychological, spiritual and practical needs throughout their experience with cancer.” The PSS team aims to add evidence for those working in supportive care in cancer to work more effectively. In 2013 the SBRU psycho-social-spiritual (PSS) research group worked on two major projects and contributed to a range of smaller projects. The major project was an innovative consumer led co-design project, the ‘Cancer Stories Project’, which looked at what got people through their cancer experience. The second major project was an evaluation of a patient diary. Other projects included ongoing work with the Bridge to Health programme and Hospice New Zealand. Presentations and workshops were provided on a range of topics including euthanasia, neoliberalism and health promotion, spirituality and cancer care, and the ‘Cancer Stories’ supportive care project. A highlight of the year happened in January when Dr Richard Egan was invited to a fully funded international collaboration conference in Geneva, Switzerland, to discuss spirituality in healthcare worldwide.

2.1 Aotearoa / New Zealand narratives of encounters with cancer (‘The Cancer Stories Project’)

Study Aims
The Cancer Stories Project aimed to identify factors that empower people who have been affected by cancer.

Methods
This project used participatory research, a novel methodology that involved ten cancer survivors and family members of cancer survivors as active co-researchers. The full project team also included a kaumatua/kuia advisory group and two academic/clinical advisors. Qualitative methods were utilised to interview 38 people affected by cancer purposefully selected from the Central Districts and Wellington areas. The interviews focused on identifying the things that worked for people along their cancer pathways – whether it was a situation with their employer, family/whānau, healthcare professional, or within themselves. The key question explored was ‘what helped you get through your cancer experience?’ Other issues explored included use of language, help-seeking strategies, and what participants would recommend for those in a similar situation.

Progress
Work began in March 2012 with the development of the co-design group and kaumatua/kuia advisory group. The project team began finalising planning and the full research processes from October 2012 to November 2013.

Findings
The findings of this project come from the generously given stories of 38 people experiencing thirteen main primary cancer types: 15 Māori, 18 European/Pakeha, 4 Pacific and 1 Asian (Korean); their ages ranged from 18 – 88 years; 27 were female and 11 male. Common themes and recommendations that arose from the interviews are discussed in the report in the light of existent literature. The ‘meta-theme’ or over-arching theme of this study is empowerment; further themes are discussed in the full report.

Throughout the discussion there are many ‘ways to get through’ (tips, ideas and strategies) which may either help inform existing resources or be developed into a new ones based on these findings. It is hoped that the many ‘tips’ provided from the reflections of cancer survivors who have already travelled from diagnosis to remission will assist other survivors at any stage of the survivorship journey to improve what is a challenging and often life changing experience. Importantly, all information sources from this study (co-designers, participants and the literature) highlight the unique needs of each individual with cancer, and that a ‘one-size-fits-all’ approach has its limitations; the need for opportunities for self-determination around cancer care are apparent.

Dissemination

Dissemination of this project includes a report presented to the funders, a lay summary report and (subject to further negotiations) recommendations for resources (targeting healthcare professionals, patients/whānau, employers). Articles will be submitted for publication in peer-reviewed journals. Other dissemination opportunities will be considered, such as making these stories available in written or audio-visual form. It is envisaged that the findings may help those affected by cancer to maintain or develop resiliency and empowerment, with family/whānau, in the workplace and also as they traverse the medical system and the course of their illness. The co-design team has advised on all aspects of the work, including recommendations and dissemination.

Project team: Richard Egan, Pam McGrath, and Chris Atkinson. Also Ten people affected by cancer (three Māori, one Pacific person, six Pākehā consumers): Tira Albert (Mana Wahine Manager, Kokiri Marae Health and Social Services, Seaview, Wellington), Teresea Olsen (General Manager, Kokiri Marae Health and Social Services, Seaview, Wellington), Christine Pihema (National Whānau Centred Practise Manager, Violence Intervention Programme – Jigsaw Family Services), Phil Kerslake (7-time cancer survivor; author, speaker and mentor on coping with cancer; national ambassador, Relay For Life), Joanne Doherty (Health policy advisor and project manager), John Kramer (Cancer survivor and member of ‘Wednesday Loafers’ support group), Al Frost (died in 2012 during the project and founding member of ‘Wednesday Loafers’), Marie Retimanu-Pule (Carer of family members who passed with cancer; Member of the Mary Potter Hospice, Consumer Research Group), Chris Walsh (Chair National Cancer Consumer Representative Advisory Group, Deputy chair Breast Cancer Aotearoa Coalition), Joanne Doherty (National Manager – Relay For Life and Community Development, CSNZ).

Funding: Central Districts Cancer Society Research Trust, an Otago University Research Grant and Cancer Society National Office.

2.2 ‘My Health Matters’ patient diary evaluation

The “National Report; Preliminary Results from the 2009 Cancer Care Survey in NZ”\(^2\) identified a need to hear from patients about their care experience in order to understand how to improve the service provided. The survey findings supported the concept of a toolkit to encourage patient involvement in their own care through the use of the diary as a physical place in which to record treatment, notes from clinicians and other staff and carers and as a way to encourage patients to journal their own thoughts and experience.

As a result, the Cancer Society of New Zealand developed “My Health Matters” a toolkit “to support cancer patients’ information needs and to support a shared decision making approach to their care.” The toolkit was intended to contribute to factors such as a patient’s understanding of the information they were given, to increase self-management of their condition, and to optimise their relationship with their health care team.

The MMH toolkit was mainly distributed to people newly diagnosed with cancer. The MMH contained a ring binder in which there was basic information about cancer, a glossary of terms, suggested questions to ask the health professionals or care team and where to obtain extra help. It provided a specific place in which to keep test results, and information on medications. It also contained a section in which to list who was who in the person’s health care team. An undated diary offered a defined place in which to schedule appointment, track medication, and include information about the person’s diagnosis, whether these were notes from the health professionals or by the person them self. A personal journal was included in which the recipient could record whatever they wished, for example, a narrative on their experience with cancer, or how they were feeling at various stages of their cancer journey.

Study Aims
This aim of this formative evaluation of the My Health Matters (MHM) toolkit was to investigate the value of the toolkit to people with cancer, and ascertain how they thought it did or did not contribute to their ability to engage positively in decisions about their treatment and to the management of their care. The toolkit pilot was from September 2012 into 2013 in the Mid Central region. In undertaking a formative evaluation, insights were sought to provide information, feedback and guidance for the ongoing development of the toolkit.

Methods
The method was an “improvement oriented evaluation”3. This is different to an evaluation that is focused on overall effectiveness, merit or worth. The focus for an improvement oriented evaluation is on identifying the strengths and weaknesses of what is proposed. Examination of the research question: Does the “My Health Matters” diary impact on patient engagement with their own care and if so, how? Secondary questions address the patients’ experience in using this resource, whether it has a positive impact on patients’ active involvement in their care, and how could it be improved?

Progress
This project is complete and the report has been submitted to the CSNZ. The intent of the evaluation was to inform the further development of the toolkit by identifying how people used the different components of it, what they thought of it and how, if it was relevant, it could be better designed or delivered.

Creating a toolkit such as My Health Matters to engage people with cancer in their own care is a constructive concept. This evaluation indicated that the provision of information, a diary, a journal and a storage space in the MHM folder was helpful to the majority of the participants in our study.

Dissemination
The research has been presented as a report for the funders and an article will be submitted to a peer-reviewed journal.


Funding: CSNZ.

3. UVR-related studies

International Agency for Research on Cancer statistics identify NZ women as having the highest age standardised cutaneous melanoma incidence rates, with NZ men second only to their Australian colleagues. Both NZ and Australia have elevated rates which stand out from the rest of the world. In NZ, melanoma registrations showed an upward trend, 2000-2010, with melanoma the 4th most commonly registered cancer and 6th most common cause of cancer death. In addition, non-melanoma skin cancers are common in NZ and may be increasing. Overall, skin cancer treatment places a substantial burden on the healthcare system and wider NZ society, with significant economic costs from lost production and personal impact on those affected. Yet most skin cancers are potentially preventable, which makes primary prevention a priority, particularly with strengthening evidence that primary prevention interventions can be effective in increasing UVR protective practices and reducing sunburn.

3.1 Quantifying the association between sun exposure & vitamin D status

In NZ, the South Asian population and the elderly are particularly at risk of low vitamin D levels, but Māori and Pacific peoples and some other New Zealanders are also at risk. Since the primary source of vitamin D is exposure of the skin to solar ultraviolet radiation (UVR), this can have negative implications for skin cancer control. Achieving both positive vitamin D and skin cancer outcomes requires some UVR exposure, but also protection against excess.

Study aims
1. To relate sun exposure, measured by electronic UVR dosimeters, to changes in blood vitamin D levels among 500 NZ adults (330 in Auckland, 170 in Dunedin);
2. To determine the wavelength dependence of UVR that produces vitamin D, and the extent to which vitamin D levels may be influenced by artificial UVR sources;
3. To estimate how much UVR exposure is required by major ethnic groups in the adult NZ population to maintain vitamin D levels considered necessary for good health.

Progress
In 2013, a number of scientific papers were drafted and one (related to Aim 2) was published in Photochemical and Photobiological Sciences. It was concluded that an approximately 2 Standard Erythemal Dose (SED) full-body exposure to an artificial UVR source reversed the mean seasonal decline in 25(OH)D3. Ethnicity was the only statistically significant factor related to serum vitamin D levels, not age, BMI, gender or skin reflectance. Those of Asian ethnicity produced the least, and Māori the most vitamin D. Further analysis and writing up of this complex dataset is scheduled for 2014.

Project Team: Tony Reeder (with Vanessa Hammond, Jan Jopson, Kenneth Gibbs, Nathalie Huston and Andrew Gray), in collaboration with teams led by co-principal investigators Richard McKenzie (NIWA), and Robert Scragg (Auckland University).

Funding: Health Research Council of New Zealand (to end of 2010), CSNZ, University of Otago.

Photo courtesy of Dave Allan from NIWA
3.2 Sunburn in a New Zealand urban population, 1994-2006

To help raise public awareness and reduce harmful UVR exposure, skin cancer health promotion programmes have been supported in NZ since 1988. The Cancer Society of New Zealand (CSNZ) initiated the Triennial Sun Protection Survey series in 1994 in order to better understand their audiences for targeting primary prevention messages and interventions. Data from five survey waves (1994, 1997, 1999/2000, 2002/03, 2005/06) were analysed for this project. Initial feedback helped influence the Health Promotion Agency (formerly Health Sponsorship Council) to launch a modified Sun Exposure Survey series in 2010.

**Study aims**

1. To describe patterns of sunburn and their association with demographic variables across the survey years;
2. To investigate predictors of sun protection and sunburn using multivariable modelling and addressing potential confounding by climatic factors.

**Progress**

A paper on summer weekend sun exposure and sunburn, 1994-2006, was published in the *New Zealand Medical Journal* in 2013 and results presented in Berlin at the 2nd International Conference on UV and Skin Cancer Prevention. Weekend sunburn was reported by 21%, was more common among males, young adults and those with highly sensitive skin than females, older adults and those with less sun sensitive skin. The head/face/neck was the body area most frequently and severely sunburned. Sunburn was associated with greater time spent outdoors and occurred most frequently during water-based and passive recreational activities and paid work. This suggests that sun protection messages can usefully be targeted not only towards identified at-risk population groups, but also those activities and contexts most strongly associated with potentially harmful sunburn. A paper on public perceptions regarding sun tanning is scheduled for publication in early 2014. A further publication, which takes climatic data into account, is in preparation.

**Project Team:** Geraldine McLeod, Tony Reeder, Andrew Gray, Rob McGee, and Jean-Luc Bulliard (advisor for initial PhD project).

**Funding:** Health Sponsorship Council (SunSmart scholarship to 2010), CSNZ, University of Otago.

3.3 SunSmart Schools Accreditation Programme (SSAP) Evaluation

Exposure to harmful levels of ultraviolet radiation during childhood, particularly when it results in sunburn, is a risk factor for subsequent skin cancer. Since children may spend significant time outdoors during school time, school sun protection policies and practices represent important skin cancer prevention strategies. The CDC (Atlanta) led review for the US Community Preventive Services Taskforce found ‘strong evidence’ for the effectiveness of primary prevention interventions in primary and middle schools for increasing sun protective behaviours and reducing sunburn and melanocytic mole formation among children.

**Study aims**

The 2005 baseline survey of a randomly selected, national sample of primary schools allowed us to describe sun protection policies, practices, curriculum content and environment prior to SSAP implementation. Subsequent research aims were:

1. to describe the situation in 2009, using an enlarged random sample;
2. to evaluate, after four years, the impact of the SSAP on schools which participated in the baseline survey;
3. to identify potential barriers and facilitators of accreditation.
Progress
Papers on the translation of this research into practice were presented by Louise Sandford in Adelaide at the 11th Behavioural Research in Cancer Control conference and Berlin at the 2nd International Conference on UV and Skin Cancer Prevention. Data analysis and the dissemination of findings from this project have now been completed, but further work is likely in this area.

Project Team: Tony Reeder with Jan Jopson, Andrew Gray, and Nathalie Huston.
Funding: CSNZ, University of Otago.

3.4 GP’s advice about sun exposure and vitamin D
Balancing the risks and benefits of ultraviolet radiation (UVR) exposure is a challenge. Vitamin D insufficiency has been detected among a sizable proportion of the NZ population and there is evidence that vitamin D status may impact on health outcomes, possibly including some cancers. The main source of vitamin D is exposure of the skin to solar UVR. However, solar UVR can reach extreme levels in NZ and excessive UVR exposure is associated with skin cancer, particularly among vulnerable skin types. Given this situation, it is important to know about the perceptions that health professionals have and the advice they provide about vitamin D and UVR exposure.

Study Aims
1. describe the advice currently provided by GP’s with respect to vitamin D insufficiency / deficiency and sun exposure;
2. identify the information and resource needs of GPs around these issues;
3. help inform and guide health education and health promotion.

Progress
The results of multivariable analyses, carried out to investigate plausible factors associated with GP knowledge and practices, were published in 2012. A second paper on advice provided by GP’s regarding vitamin D insufficiency and deficiency was published in the New Zealand Medical Journal in 2013. Almost all GP’s identified sun exposure as the main source of vitamin D, although winter supplementation was also commonly reported. The relaxation of sun protection practices was identified, by some, as a factor for potentially preventing deficiency. However, there was widespread agreement that exposure to sunlight should be at times of day when UVR was not at its peak. Patient requests for vitamin D testing were commonly reported.

Project Team: Jan Jopson, Tony Reeder, and Andrew Gray
Funding: CSNZ, University of Otago.
3.5 Systematic review of interventions for the primary prevention of skin cancer

A 2004 Centers for Disease Control (Atlanta) systematic review of interventions designed to increase UVR protective practices / reduce harmful UVR exposure identified that there was only sufficient evidence of effectiveness for educational and policy interventions implemented in primary schools and for adults in recreational and tourism settings. However, that review only included studies published up to 2000, so 10 years of additional interventions remained to be critically reviewed. Substantial new evidence may require extension of these findings to other settings and intervention types.

Study Aims
1. To update the existing review;
2. To provide timely, evidence-based recommendations to help guide health promotion practice and identify research priorities.

Progress
Our initial literature search identified more than 100 additional intervention studies with the potential to meet rigorous US Centers for Disease Control (CDC) Community Preventive Services Task Force review criteria, providing justification for conducting a review update. In 2010, the SBRU team was invited to join the CDC review team and collaboration continued through 2011 and 2012, resulting in draft updates to three reviews, subject to peer review. There remained insufficient evidence in support of mass media campaigns on their own, but there was now sufficient evidence for multi-component community-wide programmes and stronger evidence in support of interventions in primary school settings. The review process will continue in 2014.

Project Team: Bronwen McNoe and Tony Reeder in collaboration with an international team coordinated through the US Centers for Disease Control and Prevention and reporting to the US Preventive Services Task Force.

Funding: CSNZ grant, University of Otago.

3.6 Sun protection policies and practices of Territorial Authorities

Individual behavioural change is most likely to be achieved and sustained when public policies and institutional practices help create supportive contexts and reinforce appropriate protective behaviours. Territorial Authorities have wide responsibilities which include administering recreational and sports facilities, employing outdoor workers and managing public spaces and events. Focusing on optimising their sun protection policies and practices is a logical skin cancer prevention strategy.

Study aims
1. To follow-up the 2004 SBRU-conducted survey of Territorial Authorities;
2. To report findings and identify strategies for improvement.

Progress
Tony Reeder collaborated with Kerri Kruse (Health Promotion Agency) to help update survey instruments and procedures for the survey carried out mid-2012. A report on the findings of the 2012 survey was released by the HPA in 2013. Significant differences were identified between practices promoting sun protection among council staff and those which promoted sun protection among the general public, with the latter being less supported. Nevertheless, there was a substantial increase in the frequency of comprehensive sun protection policies for outdoor activities, throughout council, and a moderate increase in shade provision. This and other information obtained will be used to help guide future sun protection work with councils.

Project team: Kerri Kruse and Tony Reeder (external peer reviewer).

Funding: Health Promotion Agency, (CSNZ grant, University of Otago).
3.7 Solar ultraviolet radiation exposure and workplace sun protection in outdoor occupational groups: forestry workers

Excessive exposure to UVR is a recognised occupational health and safety issue for outdoor workers because it is associated with increased risk of skin cancer, eye diseases and immune suppression. Workplace mitigation is the recommended preventive strategy.

Study Aims

The main project aim is to develop a sun protection intervention for key outdoor occupational groups that is theoretically linked and capable of rigorous evaluation. This will help meet NZ needs and contribute to the relatively sparse international evidence.

Progress

Initial funding was obtained in 2011 and a comprehensive literature search to help inform project development has been completed. An initial qualitative study focusing on forestry workers (an occupational group identified as among the least sun protective) was carried out in 2013. Good preliminary contact was established with an Otago forestry employer. Preliminary observational work indicated that good inter-rater agreement could be obtained between observers in the field. A presentation was given to the 2nd International Conference on UV and Skin Cancer Prevention in Berlin.

Project Team: Kirsten Lovelock, Bronwen McNoe, and Tony Reeder.

Funding: University of Otago Research Grant, CSNZ.
4. Healthy Physical Activity & Nutrition

Food, nutrition, physical activity and body composition (overweight and obesity) have been identified as playing a central part in the prevention of cancer. While this is a very broad field, SBRU work to date has focused on three of the priority recommendations in this field, that is; to support physical activity, limit foods and drinks that promote weight gain, and eat mostly foods of plant origin.

Physical activity and healthy nutrition are complex behaviours. Over the years, SBRU work has explored individual and societal influences on physical activity and nutrition, developed and tested new interventions and supported the translation of this research evidence into policy and practice. While, to date, the majority of the SBRU research programme has focused on physical activity and healthy nutrition for cancer risk reduction, our research has also highlighted the benefits of physical activity for cancer survivors, and has explored barriers and opportunities for the provision of physical activity services for cancer survivors by the Cancer Society.

In 2013, we continued to examine the role of family, schools, neighbourhoods, and cities in supporting healthy physical activity and nutrition.

4.1 Re-LOCATE – determining the place of children’s physical activity

A rich set of data was collected for the Location of Children’s Activity in Their Environment (LOCATE) Study. Only a small portion of the data was analysed for a PhD thesis with the remainder of the data used for this project.

Study Aims

1. To determine the relationship between potentially modifiable factors of the individual, parental, family and built environment and the associations between the quantity and intensity of children’s physical activity levels;

2. To translate the research findings into intervention strategies to inform and guide policy and evidence-based practice.

Progress

This post-doctoral research project is nearing completion with three journal manuscripts under-going final revisions prior to submission. Key findings of one paper include measuring the clusters of physical activity of participating Dunedin children in the city and their relationship to parks, roadways and residential areas. The second paper focuses on the relationship between moderate to vigorous physical activity and the data collection interval on the accelerometers. The third paper focuses on the questionnaire used to determine parental perspectives of the neighbourhood.

Research findings have been shared in a variety of forums including the 2013 Japan Society for the Promotion of Science’s (JSPS) Fifth Hope Meeting for Life Sciences with Nobel Laureates in Japan; Dunedin’s Physical Activity Network and at the International Society of Behavioral Nutrition and Physical Activity Annual Meeting in Belgium.

Project Team: Robin Quigg, Sarah Lovell, Tony Reeder, and Andrew Gray.

Funding: Dr Quigg is supported by a University of Otago Health Sciences Division Postdoctoral Fellowship.

4.2 Are NZ adults aware of the roles of alcohol, physical inactivity and poor nutrition in cancer risk?

A decade ago, the SBRU carried out a study of perceptions of cancer risks among New Zealand adults. At the time, most of the sample believed that behavioural and lifestyle choices could affect cancer risk. Nutritional factors were mentioned by 68% of respondents, but only 43% of respondents specifically mentioned eating more fruit and vegetables. In addition, only around one-quarter of respondents said that they could reduce their risk of cancer by being more physically active. At the time the study authors suggested that there was still work to be done on the dissemination of consistent and clear messages that reflect current evidence of the potentially modifiable risk and protective factors for cancer.

Since this study, there has been considerable work done by the Cancer Society, Cancer Control Council and other agencies to lift awareness of these and other cancer risk behaviours. The proposed project will replicate and extend the previous survey carried out in 2001. The replication portion of the sample (n = 400) will allow us to identify if there have been any changes in patterns of perceptions since baseline. The extension portion of the survey (n = 400) will focus on perceptions of risk factors among Māori, providing descriptive information for programme planning and a baseline for future surveys.

Study aims

This study aims to describe public perceptions about risk factors for cancer, overall, and for common fatal cancers in New Zealand, specifically: bowel cancer, lung cancer, cutaneous melanoma, breast and cervical cancer (among female respondents), and prostate cancer (among male respondents).

Progress

Grant applications to support the costs of this project have been submitted to multiple funding agencies.

Project Team: Rosalina Richards, Anna Dawson, Tony Reeder, and Claire Cameron.

Funding: Salary for Drs Richards & Reeder will be supported by the CSNZ Core grant, funding for project costs is being sought from external funders.

4.3 Cancer perceptions among university students: evaluating the impact of a targeted Relay for Life event on awareness of cancer risk factors?

Currently there is little information about awareness of cancer risk factors among young adults in NZ; however, international research suggests that such awareness may be even lower than that observed among adults. This project is being developed in partnership with the CSNZ Otago Southland Division and the “Cancer Core”, a recently established group of Otago University students who are supporting the CSNZ to organise a Relay for Life Event for university students in March 2014.

Study aims

This study will examine awareness of cancer risk behaviours before and after that Relay for Life.

Progress

This study is still in its development stage. Grant applications to support the costs of this project have been submitted to multiple funding agencies.

Project Team: Rosalina Richards, Mike Kernighan, and Cancer Core members.
4.4 Following their footsteps? Active transport among adolescents and their parents

Active transport to school is associated with increased physical activity, a healthier body composition and better cardiorespiratory fitness among youth. In addition, there are broader health benefits associated with shifts from motorised to active transport, such as reducing air pollutants and greenhouse emissions. One New Zealand study estimated that a 5% shift from car use to bicycling would result in net annual savings of $200 million in combined health costs. Unfortunately, in New Zealand and internationally, active transport appears to be declining in favour of motorised transport.

**Study Aims**

1. To describe the use of active transport among two cohorts of New Zealand adolescents (Dunedin Multidisciplinary Health and Development Study and Next Generation Study) to school, sports and recreation activities, social events and part-time work;
2. To describe associations in use of active transport between a subsample of linked parents and adolescents from the two cohorts.

**Progress**

The findings suggest that active transport was an important feature of adolescent travel and those who used active transport modes to one destination were also likely to use these for other destinations. A strong association between parent and adolescent car travel to school suggest possible additional barriers to active transport for adolescents whose parents were not active commuters.

**Project Team:** Rosalina Richards, Aroha Bolton, Judith Sligo, Claire Cameron, and Bob Hancox.

**Funding:** The project costs for the Next Generation study are supported by a Health Research Project Grant to Associate Professor Hancox. Dr Richard’s salary is funded through CSNZ core grant.

4.5 Evidence based facilitation of safe utilitarian cycle use in NZ: a case study

In this research project, Master’s student Craig Davis will compare the current cycling infrastructure in Dunedin with the international best standards for infrastructure that promote safe utilitarian cycling. Differences will be assessed and areas of concern identified.

**Study Aims**

This study aims to explore potential opportunities for improvements in cycle infrastructure will be highlighted and, along with the views of key stakeholders, possible barriers identified.

**Progress**

This project is in its beginning stages, with a literature review underway.

**Project Team:** Craig’s MPH project is supervised by Dr Rose Richards and Professor Rob McGee.
4.6 Edible gardens in schools and preschools in Aotearoa/New Zealand

School gardens are used in teaching across a variety of academic areas, including science, language, arts, maths, physical activity, environmental studies, nutrition and agricultural studies. Studies suggest that school gardens may improve children’s fruit and vegetable knowledge, preferences and consumption. Although gardens have been identified as a potentially valuable educational resource, barriers to school gardening initiatives have been reported. These include a lack of time, teacher experience/training, resources linking to the curriculum, funding, and gardening supplies. While there is a growing literature about the role of gardens in schools, to date, there has been no research into the role of gardens within preschools or Early Childhood Education Services (ECES).

Study Aims
To examine the proportion of New Zealand ECES, primary and secondary schools with projects that involve children/adolescents in either growing food or other types of gardening initiatives.

Progress
The survey explored how edible gardens are supported and funded, why they were initiated, as well as examining barriers, student participation and the distribution of harvested crops. Links to current curriculum areas were also investigated, with a focus on the provision of cooking lessons and healthy eating messages based around edible garden initiatives. A national postal survey of randomly selected early childhood education services, primary and secondary schools was conducted. Preliminary findings suggest that 71% of preschools and over half of primary and secondary schools have a garden which involves students in growing edible crops, including vegetables, berry fruit, tree fruit, edible flowers and nut trees. Most gardens had been established in the last three years. Four factors emerged as having generated the most interest in edible gardens: potential curriculum links, links with environmental education and sustainability, links with life skills and interest from staff members. Time constraints, lack of money and other resources were barriers to starting edible gardens.

A paper has been published in the Australian Journal of Health Promotion. Another paper is in the final stages of preparation for submission.

Project Team: Carly Collins, Anna Dawson, Rosalina Richards, Tony Reeder, and Andrew Gray.

Funding: CSNZ, Department of Preventive and Social Medicine Masters Student Support
4.7 Breaking the walls: What is preventing Pacific Peoples from accessing healthcare?

Cancer is a major cause of mortality and morbidity among Pacific peoples in New Zealand, and there is evidence that the burden of cancer for Pacific people may be increasing. Unfortunately, there is currently little information available about how best to support cancer risk reduction, early diagnosis and survivorship among Pacific peoples. Accessibility and appropriateness of health services is an area of interest in this area, as health providers seek to better meet the needs of the Pacific community.

Study aims

The proposed study is of a qualitative nature looking to identify the barriers that the 30-50 year old Pacific population within Dunedin face when accessing healthcare as well as identifying the ideal solutions implemented against them and it’s appropriateness from a Pacific point of view.

Progress

Interviews have been undertaken with key informants and analysis is underway.

Project Team: Joshua Sua, Rosalina Richards, and Richard Egan.

Funding: Health Research Council Pacific Summer Studentship.
5. Hauora Māori

Cancer has a significant and disproportionate impact on Māori. Māori are 18% more likely to be diagnosed with cancer than non-Māori and have a 93% higher mortality rate than non-Māori. In addition, there are differences in the distribution of risk and protective factors for cancer.

The SBRU has an ongoing process of professional development of all Unit staff to increase understanding of Te Ao Māori and allow reflection on the place of cultural competency in social and behavioural research. On-going development of these competencies is central to our desire to be a Unit that can contribute to cancer control among Māori populations by having research staff who are able work confidently and safely within Māori contexts. These competencies are an important foundation for achieving research excellence in the New Zealand health context.

5.1 Cultural competence training for health researchers: A journey to Aotearoa

Cultural competence is an issue that has been identified as important by the SBRU. The SBRU has identified in its strategic plan a desire to a) identify and honour Te Tiriti o Waitangi (the Treaty of Waitangi) in all research, b) become more responsive to Māori and advance the goals of the University of Otago’s Māori Strategic Framework and c) support professional development that contributes to quality research relevant to cancer-related health outcomes among Māori. This project has been developed in response to these goals. The intervention consists of a series of three wānanga (seminars) run at Te Kura Kaupapa o Ōtepoti (Dunedin Māori Immersion School) with additional workshops to prepare for these. Intervention content is informed by existing frameworks for cultural competency, questions/goals identified by participants and input from the research team and advisory group.

Study aims

The aim of this project is to explore the effectiveness of a tailored intervention to support culturally competent practices within a university based research unit (Cancer Society Social and Behavioural Research Unit, SBRU). The study objective is to support the SBRU through action research to plan, implement and evaluate evidence-informed actions that address cultural competence issues.

Progress

This project formed the basis of a successfully completed MPH for Miss Dawson which was submitted in 2013. The findings have also been presented as a keynote presentation at the 3rd European Transcultural Nursing Association (ETNA) Conference, Hagoshrim in Israel in June 2013. Papers based on this study are in preparation for publication.

Project team: Anna Dawson, Rosalina Richards, and Joanne Baxter.

Funding: CSNZ, Quality Advancement Unit Project Grant, Manu Ao Development Grant and Department of Preventive and Social Medicine Masters Student support.

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6. Alcohol

Alcohol is the most widely used psychoactive substance in New Zealand. Over half the population aged 16-64 years consume alcohol at least weekly and 15% percent of adults aged 15 years and over (530,000 New Zealanders) drink in a way that is hazardous to their health. This has important implications for cancer control. Alcoholic beverages are classified as a Group 1 carcinogen by the International Agency for Research on Cancer. Scientific evidence for a causal relationship between alcohol use and cancer is strong. Any amount of alcohol increases the risk of developing cancer and the level of risk increases with the amount consumed. Even if used in moderation, the volume of alcohol one drinks in their lifetime contributes to their risk of developing cancer. It was recently estimated that, among New Zealanders aged less than 80 years, 242 (30%) of the 802 alcohol-attributable deaths in the year 2007 were due to cancer. This equated to 4% of all cancer deaths recorded in this age group that year. Reducing the amount of alcohol people consume is an important cancer prevention strategy.

Dr Maclennan joined the SBRU in August as a principal investigator in the area of alcohol. He currently has a grant application pending with the Health Research Council of New Zealand which proposes to evaluate the effectiveness of New Zealand’s new Sale and Supply of Alcohol Act (2012) in 1) reducing the availability of alcohol and 2) reducing hazardous drinking and alcohol-related harm in New Zealand communities. If successful, Dr Maclennan’s salary for this project will be partially funded through the CSNZ core grant. Alongside this, the SBRU will develop a programme of research over the coming years to inform policy and practice aimed at reducing alcohol consumption and related harm in New Zealand.
Contributions to Teaching

Dr Richard Egan
Preventive & Social Medicine, University of Otago, HEAL 202 Health Promotion – presentations on Mental health promotion, planning and evaluation.
Preventive & Social Medicine, University of Otago, PUBH 705 Health Promotion – teaches the whole post graduate course on Health Promotion.

Ms Anna Dawson
Centre for Hauora Māori, University of Otago, Advanced Learning in Medicine (ALM) 5 – Convenor of the Haoura Māori Vertical Module.
Centre for Hauora Māori, University of Otago, Advanced Learning in Medicine (ALM) 5 – Lecture Māori Child Health: An Overview.
Centre for Hauora Māori, University of Otago, Advanced Learning in Medicine (ALM) 4 – Lecture Māori Public Health.
Centre for Hauora Māori, University of Otago, Advanced Learning in Medicine (ALM) 4 – Lecture Māori Mental Health.
Centre for Hauora Māori, University of Otago, Early Learning in Medicine (ELM) 2 – Lecture into the Haoura Māori Vertical Module.

Dr Louise Marsh

Professor Rob McGee
Preventive & Social Medicine, University of Otago, HEAL 202 Health Promotion – presentations on Tobacco Control and Sun Protection.
Preventive & Social Medicine, University of Otago, HEAL 203 Health Policy and Politics – Tobacco Policy presentation 2012-2013.
Preventive & Social Medicine, University of Otago, MICN6 Trainee Intern Health Care Evaluation Project: group supervisor; “Travel for patients needing cancer treatment”.
Preventive & Social Medicine, University of Otago, MICN4 Public Health Attachment: presentations on Tobacco Control 2012-13.
Preventive & Social Medicine, University of Otago, Master of Science Communication, Media and Public Health presentation 2013.

Dr Robin Quigg
Guest tutor for Evidence-based Practice and Public Health tutorials for ELM2 and ELM3.

Dr Rosalina Richards
Health Promotion – HEAL 202, Brockville Community Development Project. University of Otago, 10 September 2013.

Ms Lindsay Robertson
Course tutor for HEAL 202 Health Promotion.
## Contributions to Student Supervision

### Dr Richard Egan
- Lisa Pohatu (Master) - Iron Māori, a positive health promotion initiative that increases the awareness of Māori Health
- Rebecca Llewellyn - University of Otago Summer Studentship
- Jamie Sinclair - University of Otago Summer Studentship
- Joshua Sua - HRC Summer Intern Student

### Professor Rob McGee
- Lindsay Robertson (PhD) - Regulation of Tobacco Retailing
- Sophie Bang - University of Otago Summer Studentship

### Dr Louise Marsh
- Lindsay Robertson (PhD) - Regulation of Tobacco Retailing
- Sophie Bang - University of Otago Summer Studentship

### Dr Robin Quigg
- Wikki Wood - University of Otago M Diet student
- Emma Clark - University of Otago PGDip student
- Brittany Davidson - University of Otago Summer Studentship

### Associate Prof Tony Reeder
- Maria Polak (PhD) - Vitamin D and emotional well-being. (Advisor on sun protection / exposure).

### Dr Rosalina Richards
- Anne Dawson (Masters) - Cultural Competence training for health researchers: A journey to Aotearoa – current
- Craig Davies (Masters) - Developing an evidence-based guide to facilitate safe utilitarian cycle use in New Zealand, with Dunedin as a case study
- Katherine Graham (Masters) - Developing a National Strategy for reducing community-acquired skin infection in NZ
- Jamie Sinclair - University of Otago Summer Studentship
- Joshua Sua - HRC Summer Intern Student
Dr Richard Egan
- Member of Otago District Health Board Suicide Prevention Advisory Committee
- Ian and Elespie Prior Trust for Health and Well-being (founding Trustee)
- Trustee – The New Zealand Institute for Cancer Research Trust
- Member Psycho-oncology New Zealand
- Member Psycho-oncology Cooperative Research Group (Australia/New Zealand)
- Chairperson – Spirituality and Well-being Strategy Group
- **Reviewed papers submitted to:** *Journal of Primary Health Care; NZ Medical Journal; Health & Social care in the Community; Focus on Health Professional Education*
- Examiner: Master’s thesis for Otago, Auckland and Massey Universities

Ms Anna Dawson
- Member of CSNZ Haepapatanga ki te Māori – Responsibility to Māori Plan Group
- Member of CSNZ Tobacco Operational Group
- Member of ASPIRE 2025

Professor Rob McGee
- Member of Board, Cancer Society NZ Otago & Southland Division
- Member of Research Coordinating Group, New Zealand Youth Tobacco Monitor; Health Promotion Agency
- Trustee of NZ Drug Foundation
- Member of ASPIRE 2025
- Member of the Adolescent Health and Mobility Consortium (University of Otago)

Dr Brett Maclennan
- **Reviewed papers submitted to:** *Drug and Alcohol Review, Contemporary Drug Problems, Health Education Research, Social Psychiatry and Psychiatric Epidemiology, Alcohol and Alcoholism*

Mrs Bronwen McNoe
- Member of Coordination Team for the Community Guide Skin Cancer Review update (convened by the Centers for Disease Control and Prevention, Atlanta)

Dr Robin Quigg
- Research leader for Science Wānanga, Division of Sciences, University of Otago
- Te Poutama Māori, University of Otago
- PhD examiner, AUT
- Physical activity and Health Sandpit, School of Physiotherapy, University of Otago
Associate Professor Tony Reeder

- Member of Coordination Team for the Community Guide Skin Cancer Review update (convened by the Centers for Disease Control and Prevention, Atlanta)
- International scientific advisory panel for 3rd International Conference on UV and Skin Cancer Prevention, Melbourne, 2015
- Consensus Statement on Vitamin D and Sun Exposure in NZ (member of consulting group convened by ACC & MoH)
- The NZ Skin Cancer Primary Prevention and Early Detection Steering Committee (co-ordinated by HPA with CSNZ, MelNet and other agencies)
- NZ Skin Cancer Prevention and Early Detection Research Advisory Group (HPA & CSNZ)
- Sub-Committee for the 2013 Melanoma Summit primary prevention stream (CSNZ, HPA, Melanoma Foundation)
- Member of National Health Promotion Advisory Committee (CSNZ)
- Member of SunSmart Operational Group (CSNZ)
- Member of SunSmart Schools Accreditation Programme Operational Group (CSNZ)
- Member of Research Coordinating Group for the NZ Sun Exposure Survey (HPA)
- Member of UVI Redevelopment Project Working Group (HPA)
- Member of Territorial Authorities Research Project Coordinating Group (HPA)
- Reviewed papers submitted to: Journal of Medical Internet Research; Photodermatology, Photoimmunology & Photomedicine; Australian & New Zealand Journal of Public Health; Health Education Research; British Journal of Dermatology; NZ Medical Journal
- Reviewed grant applications for: CSNZ Scientific Committee

Dr Rosalina Richards

- Member of CSNZ Physical Activity & Nutrition Operational Group
- Member of Reference Group for Parents’ Voice
- Member of the Adolescent Health and Mobility Consortium (University of Otago)
- Member of PHA
Refereed papers


Thesis


Reports


Conference contributions (published proceedings)


Conference presentations


Quigg, R., Reeder, A. I., & Gray, A. (2013). Determining the effect of individual and environmental factors of child physical activity at playgrounds, Japan Society for the Promotion of Science (JSPS) 5th HOPE Meeting. Tokyo, Japan, 26 Feb–2 March.


Reeder, A. I., McCool, J., & Gray, A. (2013). Workplace culture and support for occupational sun protection – a quantitative study of 1,061 workers from nine occupational groups, 11th Behavioural Research in Cancer Control Conference. Adelaide, Australia, 8-10 May.


**Workshop presentations**


Reeder, A. I., McCool, J., & Gray, A. Getting in on! Occupational sun protection among New Zealand outdoor workers, Department of Preventive and Social medicine In-house Convention, University of Otago, 15 February 2013.

Reeder, A. I., & Sandford, L. (2013). Shade in New Zealand Schools, Workshop and proceedings of The New Zealand Melanoma Summit. 5 April.


Public seminars and lectures

Baxter, J., Egan, R., Hayward, J., & Potiki, T. (2013). How can Te Tiriti o Waitangi be applied to reduce health inequalities?, Panel discussion at the Public Health Seminar, Department of Preventive & Social Medicine, University of Otago, Dunedin, New Zealand, 15 August.


Maclennan B. Local Government Alcohol Policy: Community sentiment and the policy development process. University of Otago Department of Preventive and Social Medicine and the Public Health Association Otago/Southland Public Health Seminar, Dunedin, New Zealand, 28 May.

Quigg, R., Reeder, A. I., & Gray, A. Playgrounds, parks and children’s physical activity. Seminar presented at the Physical Activity Network Meeting, Dunedin, 26 August.

Professional publications


Media Releases

Reeder AI. NZ outdoor workers poorly protected from the sun: Otago research, Otago University media release, 23 April 2013.

Submissions to government agencies

### Media Reports 2013

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>22-02-13</td>
<td>International fame. Cancer Society News</td>
</tr>
<tr>
<td>28-03-13</td>
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</tr>
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<td>NZ’s poor health results ‘embarrassing’, Otago Daily Times</td>
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<td>Cigarettes for teens on family shopping list, Southland Times</td>
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<td>Parents supply young smokers, <a href="http://www.stuff.co.nz">www.stuff.co.nz</a></td>
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<td>Outdoor workers need more sun protection, NZ Herald</td>
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<td>‘Get’ serious in providing sun protection, Otago Daily Times</td>
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<td>Need to increase occupational sun protection in New Zealand, Melnet website</td>
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<td>Farmers pay price for neglect of sunrays, Hawke’s Bay Today</td>
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<td>Important New Study from NZ on outdoor Workers, Sunaware.org website</td>
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<td>Take care out there, Wairarapa farmers urges, Wairarapa Times Age</td>
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<td>Farmers defensive over sunsmart, Northern Advocate</td>
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<td>Farmers told to protect against skin cancer, Rotorua Daily Post</td>
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<td>14-06-13</td>
<td>Sun safety promotion in NZ territorial authorities, Melnet website</td>
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<td>21-08-13</td>
<td>Call for ban on tobacco sales at dairies, <a href="http://www.stuff.co.nz">www.stuff.co.nz</a></td>
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<td>21-08-13</td>
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<td>Cigarette Sales under fire, Bay of Plenty Times</td>
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<td>Tobacco ban near schools unfair to shop owners, Bay of Plenty Time, opinion piece</td>
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<td>Move to ban cigarettes sales near schools, Hawke’s Bay Today</td>
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<td>Editorial: Sense needed on cigs, Rotorua Daily Post, opinion piece</td>
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<td>Sun exposure and sunburn among a New Zealand urban population, Melnet website</td>
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<td>International conference on skin cancer prevention, CSNZ National News</td>
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<td>29-11-13</td>
<td>Cancer warning for shift workers, The Dominion</td>
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<td>Telephone interview about sun protection (recorded 4 December 2013 by Ceinwen Curtis for use during the summer period by Radio NZ)</td>
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<td>UVR Hazard to New Zealand outdoor workers, Melnet website</td>
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