CANCER SOCIETY SOCIAL & BEHAVIOURAL RESEARCH UNIT (SBRU)

Te Hunga Rangahau Ārai Mate Pukupuku

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

ANNUAL REPORT

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Annual Report
2008

Cancer Society Social & Behavioural Research Unit,
Te Hunga Rangahau Ārahi Mate Pukupuku
research projects, activities, publications and media reports
January to December 2008.

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With support from:  the Cancer Society of New Zealand Inc. (see also specific projects/activities for details of support from Centres and Divisions);  Health Research Council;  University of Otago;  University of Otago Health Sciences Career Development Programme Postdoctoral Fellowship;  Genesis Oncology Trust;  Health Sponsorship Council;  Ministry of Health HEHA Innovations Fund;  Southland District Health Board;  Sport Southland;  University of Otago Māori Postgraduate Scholarship and Dunedin School of Medicine PhD Start-Up Scholarship;  HealthCare Otago Charitable Trust;  Otago District Health Board;  SPARC;  University of Otago Research Grant;  University of Otago Post Graduate Scholarship
Foreword

On 7 June 2008, at the University of Otago Centre for Innovation, we celebrated the first 18 years of work by our Unit. This allowed us to acknowledge the importance of the core funding received during that period from the Cancer Society and the significant increase in support from April 2008. That funding, along with the support received from the University of Otago, has provided the continuity which made possible the development of our increasingly comprehensive programme of social and behavioural research in cancer control. This is an area in which the New Zealand Cancer Control Strategy acknowledges the need to build research capacity. In addition to our core grant, we currently receive project funding from a number of other agencies, including the Health Research Council, the Ministry of Health and two District Health Boards.

The success of the postgraduate students who are supervised by Unit staff continues to demonstrate our contribution to research training in cancer control. This year, Vanessa Hammond is to be commended on her MPH thesis, Occupational solar ultraviolet radiation exposure among New Zealand outdoor workers, for which she was awarded a distinction. That Masters research measured ‘real time’ UVR exposure as well as protective practices, thereby providing information which was lacking in New Zealand and scarce internationally, but which is potentially important for the development of appropriate protective practices. During 2008, Unit staff provided supervision for another MPH candidate, working on youth nicotine dependence, as well as five PhD candidates working in the areas of healthy physical activity and nutrition, UVR exposure, and psycho-oncology.

In 2008, apart from working on specific research projects, Unit staff and students participated in some significant activities around the development of health promotion strategies relevant to cancer control. These included participation in Ministry of Health and Cancer Society workshops on the promotion of healthy physical activity and nutrition, particularly at the community level; facilitating the process of developing an integrative approach to psycho-oncology; and grappling with issues around minimising the risks while obtaining the benefits of exposure to solar ultraviolet radiation. In addition, submissions were made about the revision of the Australian and New Zealand Standard on solaria, and to Statistics New Zealand in support of continued inclusion of questions about tobacco in the New Zealand Census. We also endeavoured to remain informed about the experience of participation in research, with several of us taking part in research projects. Our participation in all of these activities helps to ensure that, while maintaining a scientific, evidence based approach to our work, we remain connected with everyday experience and opportunities for promoting public health at the policy, community and personal levels.

Tony Reeder, March 2009
Part I

SBRU activities by major topic area
1 Healthy Physical Activity & Nutrition

A recent highlight in the physical activity and nutrition sector has been the publication of Policy and Action for Cancer Prevention - Food, Nutrition, and Physical activity: a global perspective.\(^1\) Achievement of appropriate food, nutrition, physical activity and body fatness at population level was associated with substantial gains for cancer control, with a quarter of all cancers estimated to be potentially preventable. The report also documented the complexity of issues surrounding physical activity and nutrition and the substantial efforts that will be needed to achieve change. Action is necessary on multiple dimensions, including personal, social, economic and physical environment dimensions; and from different agencies such as schools, non-government organisations, health professionals, government and industry.

The physical activity and nutrition research programme within the SBRU includes a variety of population groups, social and physical environments and methodological approaches. As demonstrated in the following pages, we are fortunate to have a highly skilled and motivated team of researchers working in this area and benefit greatly from collaborative partnerships with community stakeholders and colleagues in other research disciplines.

1.1 **Project Reports:**

Healthy Physical Activity and Nutrition

1.1.1 **Children’s activity in their local environment**

**Staff, Student & Collaborators**

Robin Quigg (PhD Candidate), Dr Tony Reeder (Principal Investigator and Primary PhD Supervisor), with Dr Debra Waters (PhD Co-supervisor) and Andrew Gray (PhD Co-supervisor, biostatistician), Dept. of Preventive & Social Medicine, Alec Holt (PhD Co-supervisor, Dept. of Information Science), and Ros Herbison (Research Assistant) and Nathalie Huston (Research Support), Dept. of Preventive & Social Medicine.

**Funding**

Otago District Health Board through the Ministry of Health’s Healthy Eating Healthy Activity (HEHA) Evaluation Fund, University of Otago Maori Postgraduate Scholarship, Dunedin School of Medicine PhD Start-up Scholarship, Healthcare Otago Charitable Trust, Dunedin City Council (DCC) and Sport and Recreation New Zealand (SPARC).

**Rationale**

Little is known about the amounts and types of activity undertaken by ‘free-living’ children, nor where these activities happen – at home, in parks and playgrounds, or at school and other places. There is also little information about variation in the amount and site of such activities that may be attributable to potentially modifiable community characteristics.

**Study Aims**

To quantify the physical activities of children living in two spatially defined communities (intervention and control) and improve understanding about the environmental settings of their activities.

**Progress / Results**

The study intervention proceeded on time. Potential loss to follow-up did not exceed the level of attrition allowed for in the study design in order to permit statistically valid comparisons. Baseline (2007) and follow up (2008) anthropometric and physical activity data were collected from 184 and 162 children, respectively. Accelerometers and GPS units were the instruments used to obtain objective data about the amount and site of activity.
Approximately equal numbers of children were retained in both the control and intervention groups, and around equal numbers of completed caregivers’ questionnaires were received. Initial data checking suggests that there were 75 ‘compliant’ children in the control group (91%) and 68 in the intervention group (85%), when ‘compliance’ was defined as simultaneously meeting three criteria:

1. providing a completed caregiver questionnaire;
2. wearing activity monitoring equipment for 2 days or more;
3. remaining as a resident in the respective community.

The combined data are now being prepared for analysis.

**Dissemination**

During 2008, the study aims, methods and baseline results were presented in four forums: Department of Preventive and Social Medicine Research Student Seminar 1 July, NZ Geographical Society 24th Conference 2-5 July, Centre for Physiotherapy Research Seminar 22 July, and the MOH HEHA Research, Evaluation and Monitoring Conference 3-4 November. In 2009, it is intended to further analyse the data and prepare reports and papers for publication.

### 1.1.2 Evaluating the Southland HEHA Programme for primary caregivers of children under 5 years in home settings.

**Staff, Students & Collaborators**

Leanne Liggett (PhD Candidate), Rob McGee (primary PhD supervisor), Winsome Parnell (co-supervisor, Dept. of Human Nutrition), Andrew Gray (co-supervisor, biostatistician, Dept. of Preventive & Social Medicine), Yvette McKenzie (Physical Activity Advisor), Stephanie Thurlow (Dietitian), Nikki Willis (Childcare Advisor), Katie Dunn (Research Assistant).

**Funding**

The Southland Healthy Eating Healthy Action (HEHA) Programme has three funding sources; nationally via the HEHA Innovations Fund (Ministry of Health) and locally from the Southland District Health Board and Sport Southland. Funding varies between 30–36 months.
Rationale
The HEHA Strategy and Implementation Plan addresses three of 13 priority population objectives in the NZ Health Strategy - improving nutrition, reducing obesity and increasing exercise. The Southland HEHA Programme was developed to assist addressing these objectives in Southland and this research aligns closely with its second phase, which is a short, comprehensive healthy lifestyle programme entitled Healthy Me and You. This six-week programme has been specifically designed for primary caregivers of children (3–4 years), in particular Māori, Pacific or low socioeconomic families.

Evaluating programme effectiveness in relation to fruit and vegetable consumption and activity levels is the primary focus of the related doctoral study of Leanne Liggett.

Study Aims
The proposed research aims to evaluate the effectiveness of the Healthy Me and You programme. Two of the eight HEHA Strategy population objectives are being investigated through the PhD project: fruit and vegetable intake (for children, foods offered rather than consumed) and daily exercise levels.

Potential outcomes for caregivers and children from the evaluation will be:
- improved fruit and vegetable consumption for target audience (caregiver and child);
- improved uptake of physical activity messages (caregiver and child);
- enhanced attitudes and behaviours around lifestyle physical activity and healthy eating with target population (caregiver and child).

These outcomes will subsequently increase the likelihood of caregivers and children making the healthy eating and physical activity choices by increasing the capability and capacity of the target audience so that the above outcomes can be achieved.

Each caregiver and study child will be followed up for six months. Data will be collected at baseline and six months through: 1) face to face interviews with the participating caregiver; 2) seven day pedometer activity minutes on both the study child and caregiver; 3) five day fruit and vegetable tick-list for foods offered to children by the caregivers. Caregiver fruit and vegetable intake questions were incorporated into the interview schedule.

A comparison group in the wider Dunedin metropolitan region will also be recruited and the same measures captured for them however they will not attend a healthy lifestyle programme (i.e. the intervention).

Progress / Results
The Southland HEHA Programme formally began in November 2006. Key activities undertaken in 2007 included the design and delivery of the phase one workforce development component and the completion of phase two formative evaluation activities including: 1) validating the NL1000 activity monitor against a modified Child Activity Rating Scale (CARS); 2) development of a fruit & vegetable tick-list to capture foods offered to preschoolers; 3) programme content and design based on the social cognitive theory and influenced by a literature review and five focus groups; and 4) programme piloted.
**Healthy Me and You** is a two hour programme which ran weekly over six weeks and provided transportation and childcare for participants during 2008. Ethical approval for this programme was obtained from the University of Otago and the Royal New Zealand Plunket Society. There were 12 **Healthy Me and You** courses offered throughout Southland with 67 parents/caregivers and their preschool children participating in the study. Six month follow-up data is still being collected and this process will be completed by June 2009. The comparison group was matched at an individual level based on ethnicity and gender of the child and NZDep06 census area units (CAUs). Six month follow-up data is also being collected and this process will be completed by August 2009.

**Dissemination**

A programme website was developed mid ‘07 ([www.southlandheha.co.nz](http://www.southlandheha.co.nz)) and every 6-8 weeks a newsletter full of helpful hints and tips is developed and circulated to recruiting agencies in Southland. Local media articles were published in March and July 2008 and reporting is completed to funding agencies as required. **Healthy Me and You** was featured in both the Southland District Health Board and Sport Southland 2008 Annual Reports.

In July 2008, an oral presentation and poster were presented at the “Public Health Congress 2008” in Brisbane. An oral presentation was given at the “Aotearoa New Zealand Evaluation Association Conference” in Rotorua in July 2008.

### 1.1.3 Advocacy for cycling and walking in New Zealand

**Staff**

Dr Rose Richards, Marieah Rosenby, Dr Linda Murdoch.

**Funding**

Department of Preventive and Social Medicine PBRF Grant, Cancer Society SBRU Core funding grant.

**Rationale**

There is a growing body of evidence that suggests aspects of the built environment are associated with participation in active transport (cycling and walking). As this evidence base grows, a key concern is how to advocate for these research findings to be translated into policy and practice. The health sector has the potential to make a significant contribution to the creation of city environments that support active transport. An appreciation of the ‘advocacy landscape’ in our cities is an important step in ensuring we are as effective as possible in our advocacy activities.
Study Aims
The aim of this study is to describe current approaches to advocacy for cycling and walking in New Zealand, from the perspective of local advocates and city council staff.

Progress / Results
Semi-structured telephone interviews were carried out with local representatives from the Cycling Advocates Network, Living Streets Aotearoa and City Councils and themes in responses were identified. The findings include the variety of methods used by advocates and councils to work together, common barriers for city councils to the promotion and support of active transport, and suggestions from participants about how the health sector can contribute to supporting local efforts to create supportive environments for walking and cycling.

Dissemination
Preliminary findings from this study have been presented to the Cancer Society Health Promotion Hui and at the ‘Physical Impact: Supportive Environments for Physical Activity and Nutrition Symposium’.

1.1.4 Gardening as a public health initiative: A feasibility study

Staff & Collaborators
Qa-t-a Amun (Assistant Research Fellow), Dr Rose Richards (Principal Investigator), Dr Tony Reeder (co-investigator), Andrew Gray (biostatistician).

Funding
Cancer Society SBRU Core funding grant.

Rationale
Recommendations for cancer prevention include being physically active as part of everyday life and eating at least 5 servings of fruit and vegetables every day. Gardening, particularly that which involves growing fruit and vegetables for consumption may be an activity which can contribute to these goals. Gardening is already one of the most popular forms of physical activity among New Zealand adults, with 37% of men and 49% of women reporting that they had been gardening in the past year and the development of community gardens in low income communities is one of the potential targets identified in the New Zealand Cancer Control Strategy for improving nutritional outcomes among this group.
Study Aims
In May 2008, a six month scoping study was initiated in the SBRU to explore the potential of gardening as a public health initiative, particularly as it relates to nutrition and physical activity. A key outcome of this process was to identify potential avenues for research based in the SBRU. The feasibility study included a) a review of the research literature relating to gardening and health and b) contacting representatives from Dunedin-based community gardening groups to discuss their programmes and the issues that they felt were important.

Progress / Results
The key objective of the gardening feasibility study was to investigate potential avenues for developing gardening research projects. Through preliminary investigations and discussions with key community groups, some initial areas for focus were identified: edible gardening projects within NZ schools, the efficacy of home and community gardens in vulnerable populations to reduce food insecurity, and the role of gardens to promote healing in cancer survivors and their carers. A Technical Report including a rapid review of the research literature relating to these areas and suggestions for potential partnerships with community groups is in preparation. Specific research projects in the areas of edible school gardens and therapeutic gardens will be developed in 2009.

1.1.5 Childhood neighbourhood environments and later physical activity

Staff & Collaborators
Dr Rose Richards, Professor Richie Poulton (Director, DMHDRU; Co-Director, National Centre for Life-course Research) and Dr Karen Hartshorn (Director, Translational Research, National Centre for Life-course Research).

Funding
The scoping study for this project was funded by the National Centre for Life-course Research (NCLR). Support is also provided by the DMHDRU.

Rationale
There is growing evidence to suggest that levels of physical activity are influenced by features of the neighbourhood environment, such as availability of parks and open spaces, interesting destinations and neighbourhood aesthetics. There is a unique opportunity to examine this issue from a longitudinal perspective among members of the DMHDS cohort.
Study Aims
The aim of this study is to examine how proximity to schools, parks and other recreational spaces during childhood and adolescence is associated with concurrent and long-term participation in physical activity.

Progress / Results
Support for this project has been provided by the DMHDRU in the form of a staff member to conduct data entry and checking of the address information from the study. This is a lengthy process that should be completed in early 2009. From here, the information will be geo-coded in preparation for further analysis.

1.1.6 The Climate and Physical Activity Project

Staff & Collaborators
Dr Rose Richards, Mr Andrew Gray (biostatistician, Dept. of Preventive & Social Medicine), Grant McLean (Manager Research, SPARC), Maea Hohepa (SPARC), Paula Jones (SPARC), Dr Richard McKenzie (NIWA), and Dr Tony Reeder

Funding
Feasibility study funding for the development of this project was obtained from the Cancer Society of New Zealand (National Office).

Rationale
Many forms of physical activity take place outdoors, meaning that participation is likely to be influenced by the climatic conditions experienced in that location. However, very few studies have looked at this issue in depth. Those that have used objective measures of climate (such as rain, temperature, snowfall, wind speed) have reported substantial weather dependent variation in physical activity, in one case, up to 2,000 steps/day among individuals whose usual activity was around 10,000 steps/day.\(^2\)

If physical activity in New Zealand is also strongly linked to climatic variables there are important implications for the encouragement of daily activity. As we have a temperate climate, individuals are unlikely to achieve recommended levels of activity if only active when climatic conditions are ideal. An additional complication in the New Zealand context is the presence of high levels of solar ultraviolet radiation during summer months and consequent high risk of sunburn during outdoor activity.

**Study Aims**

The aim of this study is to examine associations between a broad range of climatic variables and physical activity participation and the implications of support for participation that takes into account climatic conditions. In collaboration with researchers from Sport and Recreation New Zealand (SPARC), data from their 2007/08 New Zealand Sport and Physical Activity Survey will be linked with objective climate measures from the National Climate Database, which is collated by the National Institute of Water and Atmospheric Research (NIWA).

**Progress / Results**

Project funding for this study has been achieved from the Cancer Society National office. Unfortunately, there has been an unforeseen delay in the release of the SPARC dataset until late 2009, meaning further progress is delayed until then.

### 1.1.7 Screen-time & relationships with family & friends

**Staff & Collaborators**

Dr Rose Richards, Dr Bob Hancox (DMHDRU), A/Prof. Sheila Williams (biostatistician, Dept. of Preventive & Social Medicine), A/Prof. Rob McGee (Dept. of Preventive & Social Medicine), Dr D Welch (DMHDRU).

**Funding**

Dr Richards is co-funded by the Cancer Society of New Zealand Inc. core grant and the Health Sciences Career Development Postdoctoral Fellowship.

**Rationale**

Over the last twenty years there has been a marked expansion in the screen-based education, communication and entertainment options available to adolescents. In addition to existing technologies such as television, video and computer games, it is now common for adolescents to have access to console games, text messaging, email, online instant messaging and social networking websites.
The availability and attractiveness of screen-time activities has provoked both excitement at the opportunities afforded by these options and concern about whether these activities displace or diminish other activities that are important for health and development. One area of interest is how screen-time may impact on social relationships.

**Study Aims**

The aim of this study is to examine associations between ‘screen time’ and parent attachment among two groups of adolescents, 16 years apart, one from the Health Sponsorship Council’s Youth Lifestyle Study (2004) and the other from the DMHDS cohort (1987/88).

**Progress / Results**

Preliminary findings suggest that adolescents who watch more television, spend more time on a computer (not for homework) and spend less time reading and doing homework are more likely to report poor parental attachment. These findings are currently being written up for publication.

**Dissemination**

Preliminary findings from this study have been presented to the National Board of the Cancer Society of New Zealand and the Physical Activity and Nutrition Operational Group.

1.1.8 Interest in sports among inactive adolescents: an opportunity for public health?

**Staff & Collaborators**

Dr Rose Richards and Dr Helen Darling (Forensic Solutions, Dunedin).

**Funding**

University of Otago (Dunedin School of Medicine Strategic Research Initiatives Award).

**Rationale**

This study builds on previously published work from the 2002 Youth Lifestyle Study, which identified interest and participation in selected sports and recreational activities among young New Zealanders. Some sports (e.g. rugby union, rugby league, basketball, soccer, and surfing) were identified as having substantial untapped potential, as large groups of adolescents reported interest in these sports codes, but not participation. The focus of the current study is to examine patterns of interest in sports and recreational activities among inactive adolescents. From a public health perspective, we are most interested in recruiting new sports code participants from the ‘inactive’ population, rather than just encouraging those who are already active to transfer between codes. It is likely, however, that there are additional barriers to participation among this inactive group and that initiatives may need to be developed that specifically target this group.
Study Aims

The aims of this exploratory study are to: a) describe demographic characteristics and sporting interests among inactive Year 10 and 12 students in New Zealand and; b) discuss some of the issues for programme development specifically to target these individuals.

Progress / Results

This study has been published as a technical report.

1.1.9 Physical Environment and Physical Activity Pilot Study (PEaPA)

Staff & Collaborators

Dr Tony Reeder (Co-investigator) with Dr Hilda Firth (Principal Investigator, Dept. of Preventive & Social Medicine) and A/Prof. Peter Herbison (Co-investigator, biostatistician, Dept. of Preventive & Social Medicine); and co-investigators Dr Debra Waters (School of Physical Education); Dr Claire Freeman (Dept. of Geography); Dr Nancy Rehrer (School of Physical Education and Glenys Forsyth (Research Assistant).

Funding

University of Otago Research Grant.

Rationale

Personal perceptions and some characteristics of the neighbourhood physical environment are potentially modifiable influences on physical activity participation.

Study Aims

The pilot study has three main aims, namely, among the population of selected Dunedin suburbs to: (1) quantify adult participation in physical activity, in relation to recommended levels; (2) investigate some specific potential predictors and barriers to participation, in particular, attitudes, perceptions and preferences with respect to characteristics of the neighbourhood physical environment. A goal is to inform the development of a more comprehensive study.
Progress / Results
Overall, 240 participants were recruited from three Dunedin suburbs (53% participation rate) of whom 35% were 30-49 years, and 68% were female. Just under half (49%) rated their general health as being either excellent or very good. However, just over half of all the men and women, and almost equal proportions of each sex, reported low levels of physical activity that did not meet current recommended criteria for good health. Approximately one fifth of each sex reported high amounts of activity that exceeded recommended levels.

Participants’ perceptions of the physical environment were generally positive, with 96% indicating that they considered it was safe to walk alone during the day, and 94% that they had a park or public open space within walking distance. Equally high proportions rated their local environments as pleasant to walk in, attractive and friendly.

For the group as a whole, perceptions of safety at night, living near a park and dog ownership were significantly and positively associated with higher levels of physical activity. Interestingly, proximity to the beach was not, although only women were analysed for this variable because of the small number of male participants. This finding is not consistent with some Australian studies.

Dissemination
Study findings have been disseminated to participants and will be made available to agencies interested in advancing public health, including local authorities. A variety of means will be used including oral presentations and reports and, if possible (given the restricted scope of the study) a paper in a peer-reviewed journal.
1.2 Other Activities:

Healthy Physical Activity and Nutrition

1.2.1 Conference and workshop attendances

In 2008, Dr Rose Richards attended and gave presentations at the Physical Impact: Supportive Environments for Physical Activity and Nutrition Symposium, the DMHDRU Dissemination Hui, the CSNZ PANOG meeting and the CSNZ Health Promoters National Hui. Robin Quigg attended and gave presentations at the NZ Geographical Society 24th Conference and the HEHA Research, Evaluation and Monitoring Conference. Associate Professor Rob McGee presented a poster at the Fifth Annual Scientific Conference of the Australian Society for Behavioural Health and Medicine (ASBHM) in Sydney. Leanne Liggett attended and presented at the Population Health Congress 2008 Conference and Aotearoa New Zealand Evaluation Association 2008 Conference.

1.2.2 Teaching, training, postgraduate supervision and scholarships

In July 2008, Robin Quigg gave a Departmental student seminar on ‘Pace & place: Using accelerometers & GPS units to measure children’s physical activity’ and at the Centre for Physiotherapy Research. In September 2008, Robin was also a guest lecturer on ‘Children’s physical activity in their local environment’ for the PUBH703 Health and Environment paper. In May 2008, Leanne Liggett gave a Departmental student seminar on ‘Habits for Life: Practical programme for caregivers of the next generation’.

Dr Richards continues to be supported by a Health Sciences Career Development Postdoctoral Fellowship. Robin Quigg continues to be supported by a University of Otago Māori Postgraduate Scholarship replacing the Dunedin School of Medicine PhD Start-Up Scholarship for her PhD studies. Robin was also awarded a University of Otago Māori PhD Student Conference Grant of $4,500 to attend a conference in the USA in 2009.
1.2.3 Collaboration, consultation and advocacy

Unit staff and postgraduate students continued to collaborate with CSNZ, SPARC and Ministry of Health staff. Dr Richards attends meetings of the Cancer Society Physical Activity and Nutrition Operational Group. Robin Quigg is a member of the Childhood Outdoor Reference Group, hosted by Manukau Institute of Technology. Leanne Liggett has supervision of Southland HEHA Programme staff: including a Dietitian, Physical Activity Advisor, Childcare Advisor, Research Assistant (comparison group).
2 Ultraviolet Radiation Studies

The process which included the 2007 revision of the *Position Statement on the Risks and Benefits of Sun Exposure* continued in 2008 with further significant developments in this area of research and related health promotion practice. On the ‘risks’ side, the launch of clinical practice guidelines for the management of melanoma was a heartening culmination to groundwork initiated in NZ by the Early Detection Advisory Group, on which the SBRU was represented by Tony Reeder. However, the brief primary prevention section in the published guidelines was disappointing, as was the overwhelming emphasis on clinical treatment at the associated Melanoma Summit, given evidence of the potential for reducing the skin cancer burden through primary prevention. Nevertheless, there was an opportunity, albeit brief and truncated, to present the case for prevention.  

It is to be hoped that the CSNZ commissioned revision of an earlier report on the cost of skin cancer in New Zealand, overall, (i.e. not just melanoma) will provide evidence to strengthen the case for advocacy in support of increased funding for primary prevention programmes which are designed so that they can be convincingly evaluated. This follows evidence for the cost effectiveness of the Australian skin cancer prevention programme, the effectiveness (in changing risk behaviours) of programmes implemented in primary school, recreational and tourism settings, and the need for research into the effectiveness of programmes in other settings, for example, among outdoor occupations. In New Zealand, the SunSmart Schools Programme is the only intervention programme scheduled for rigorous quantitative and qualitative evaluation - Jan Jopson and Tony Reeder begin that work in 2009. Concurrent assessment of adult sunburn experience, protective attitudes and practices continues with analysis of Triennial Sun Survey data, 1994-2006 (Geri Horsburgh-McLeod’s PhD project) scheduled for completion in early 2009.

In relation to the ‘benefits’ side, Tony Reeder contributed to drafting a Cancer Society Information Sheet of advice for people with dark skin, and gave an invited presentation to a national vitamin D conference, organized by the Australasian Association of Clinical Biochemists. An IARC review concluded that there is currently a lack of convincing evidence in support of a causal relation between serum vitamin D levels and cancer outcomes, so that ‘before changing existing recommendations on vitamin D requirements, we should wait for the results of new randomized trials.’

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6 O’Dea D. The cost of skin cancer to New Zealand. Wellington School of Medicine, University of Otago, 2000.

7 Shih STF, Carter R. Economic Evaluation of a National SunSmart Program. Melbourne: Health Economics Unit, School of Health & Social Development, Deakin University; 2008.


2.1 Project Reports: UVR Studies

2.1.1 Quantifying the association between sun exposure and vitamin D status in New Zealanders.

Staff, Students & Collaborators
Dr Tony Reeder (co-investigator and primary PhD supervisor), Andrew Gray (Dept. Preventive & Social Medicine, biostatistician and PhD co-supervisor), Vanessa Hammond (PhD candidate & Assistant Research Fellow) and Jan Jopson (Assistant Research Fellow), Nathalie Huston (research support) in collaboration with A/Prof. Robert Scragg (School of Population Health, Auckland University, principal investigator and PhD co-supervisor), Dr Richard McKenzie (NIWA, Lauder, co-investigator and PhD co-supervisor), and co-investigators Mr Alistair Stewart (School of Population Health, Auckland University), Mr Ben Liley (NIWA, Lauder), Dr Lorna Dyall (Māori Health, School of Population Health, Auckland University), Mr Malakai ‘Ofanoa (Pacific Health, School of Population Health, Auckland University), Debbie Rara, Carol Taylor, Sandar Min (Epidemiology & Biostatistics, School of Population Health, University of Auckland), Dr Michael Kimlin (Institute of Health and Biomedical Innovation, Queensland University of Technology), and Mr Paul Johnston and Dr Gregory Bodeker (NIWA, Lauder).

Funding
A three-year, Health Research Council (HRC) project grant.

Rationale
Many New Zealanders have low vitamin D levels, particularly Pacific, Māori, South Asian and older European people. The primary source of vitamin D is exposure to ultraviolet radiation (UVR) from the sun. Low levels of vitamin D have been implicated in a wide variety of health outcomes including cancer, diabetes and cardiovascular disease.

Study Aims
The study aims are to: (1) relate outdoor sun exposure, measured with UVR dosimeter badges over 8 week periods, to changes in blood vitamin D levels in 500 adults aged 18-80 years (equal quotas of Māori, Pacific, Asian, & European ethnicities) in Auckland (330) and Dunedin (170); and (2) determine the wavelength dependence of UVR that produces vitamin D, and the extent to which vitamin D levels can be sustained through supplementation from artificial light sources. Results from this study will provide information on how much UVR exposure is required by all sections of the adult NZ population to maintain the vitamin D levels considered to be consistent with optimum health.
Progress / Results
The first wave of data collection was completed in 2008, with 85 Dunedin, and 165 Auckland participants recruited. The second wave of data collection is scheduled to begin in February 2009.

Dissemination
Participants receive direct, personal feedback about their vitamin D levels. In collaboration with researchers at the University of Auckland, and NIWA, the results of this study will be written up for publication in international peer reviewed journals and reported in other appropriate contexts.

2.1.2 Sunburn in a New Zealand population, 1994-2006.

Staff, Student & Collaborators
Geri Horsburgh-McLeod (PhD candidate), Dr Tony Reeder (primary PhD supervisor), Andrew Gray (co-supervisor, biostatistician, Dept. of Preventive & Social Medicine), A/Prof. Rob McGee (co-supervisor, Head of Dept. of Preventive & Social Medicine), Dr Jean-Luc Bulliard (Technical Advisor, Unité d’épidémiologie du cancer, Institut universitaire de médecine sociale et préventive, Switzerland), and Nathalie Huston (research support).

Funding
Geri is supported by a PhD scholarship from the SunSmart partnership of the Health Sponsorship Council (HSC) and the Cancer Society of NZ (CSNZ). Additional support is provided by the University of Otago.

Rationale
Most skin cancers are potentially preventable through the avoidance of excessive, harmful exposure to ultraviolet radiation (UVR). Sunburn, in particular, has been associated with an increased risk of developing skin cancer. To help increase awareness of skin cancer and reduce excessive UVR exposure, both national and regional health promotion programmes have been implemented in NZ since 1988. The Health Sponsorship Council (HSC) and the Cancer Society of New Zealand Inc. (CSNZ) as key implementing agencies have undertaken the Triennial Sun Protection Survey (Sun Survey) series with the aim of better understanding their audiences. The addition of meteorological data from the National Institute of Water and Atmospheric Research (NIWA) would enable confounding by climate to be controlled for in analyses.
Study Aims
The primary aim of this research was to describe population change over time in sunburn occurrence with respect to a range of factors including socio-demographics, outdoor behaviour and knowledge and attitudes towards tanning. Another aim was to further this description and develop statistical models to reveal associations with sunburn occurrence while controlling for year and time of the survey in addition to climate factors.

Progress / Results
The results have shown that: primarily younger respondents (≤ 29 years), males and those with more sun-sensitive skin types (types I and II) were most at risk for sunburn. Sunburn was primarily reported as occurring on the head and arms/hands. Respondents participating in water-based, passive and active recreation and/or who were attempting to obtain a suntan were also more at risk of sunburn. Body coverage is important to prevent sunburn. Sunburned respondents reported lower average body coverage through the use of clothing, hat and sunscreen on remaining areas of exposed skin.

Dissemination
The 9th Behavioural Research in Cancer Control Conference Melbourne, 9-11 April 2008 was attended and a presentation was given. Support was provided to attend the Melbourne conference by the Department of Preventive & Social Medicine and the CSNZ.

A presentation was given to the Health Sponsorship Council and Cancer Society of New Zealand on the 21st April 2008 and a version of the presentation was also given by Tony Reeder to the CSNZ SunSmart Operational Group, Wellington, May 2008. A student seminar for the Department of Preventive and Social Medicine was also presented in August.

Four outputs have been prepared for the HSC, including three results summaries to be presented on the HSC website and one technical report of “lessons learnt” based on challenges in managing and analysing the Sun Survey data. Two papers, in addition to those begun in 2007 are planned for 2009. This PhD will be completed and submitted for examination in 2009.
2.1.3 Solar ultraviolet radiation exposure and workplace sun protection in outdoor occupational groups

Staff, Student & Collaborators
Vanessa Hammond (Postgraduate research student), Dr Tony Reeder (primary supervisor) with Andrew Gray (biostatistician and co-supervisor, Dept. of Preventive & Social Medicine), and Dr Greg Bodeker (co-supervisor, NIWA, Lauder), and Nathalie Huston (research support).

Funding
University of Otago, Otago University Postgraduate Award, CSNZ (core grant), NIWA.

Rationale
Exposure to solar ultraviolet radiation (UVR) is an occupational health and safety issue for outdoor occupations, since excessive exposure is associated with negative health outcomes, including eye diseases, and skin cancers.

Study Aims
The main aims of this Central Otago based pilot project were to: (a) obtain data that would help to inform and guide a proposed national study and (b) further the development of sun protection and skin cancer prevention programmes for outdoor workers. These aims were to be achieved by quantifying actual UVR exposure of outdoor workers and identifying the most appropriate targets and strategies for intervention and evaluation.

Progress / Results
The personal UVR exposure of participating workers was often high, but did not simply follow the pattern of ambient UVR, suggesting the influence of behavioural, not climatic factors. It appears that shade seeking at lunch time is leading to decreased exposure for some. However, work tasks involving substantial sun exposure are happening within the high UVR period, in particular, between 14h00-15h00, thereby adding to the daily exposure burden. There were no occupational differences in UVR exposure, but horticulture workers’ were better protected than builders and road workers. Sun protective practices were related to attitudes towards suntans and perceived skin cancer risk. Sun-related knowledge was not associated with sun protective behavior, but increasing knowledge was associated with less favourable attitudes towards suntans. The provision of protective products/equipment was associated with better protective practices. Greater perceived workplace social support for sun protection was associated with increased protection.
Dissemination
This study has been accepted as a Master of Public Health thesis, awarded with Distinction. Participating workers received personalised reports of their actual occupational UVR exposure and sun-protective practices, including suggested areas for improvement. A paper containing the analytical findings of the sun-protection data has been published in the *Health Promotion Journal of Australia*. A second paper, containing the UVR findings is scheduled to be published in *Public Health*. Results from the study were presented at a conference in Melbourne, a workshop for CSNZ health promoters, and a seminar for Otago occupational health nurses. An article on the protection of outdoor workers was also published in the NZ *Health and Safety Guide*. There were widespread reports in the media.

2.1.4 An audit of solaria services in New Zealand

Staff & Collaborators
Jan Jopson and Dr Tony Reeder with Andrew Gray (biostatistician, Dept. of Preventive & Social Medicine) and Nathalie Huston (research support).

Funding
CSNZ commissioned project.

Rationale
Exposure to excessive solar ultraviolet radiation (UVR) is associated with negative health outcomes, including eye conditions and skin cancers. The purpose of the present study is to help inform advocacy among the suppliers of solaria services, the customers utilising those services, and others concerned about potential health issues.

Study Aims
To document the number and variety of indoor tanning facilities and services in New Zealand, and to analyse the data for any changes from 1992 – 2006.

Progress / Results
Substantial growth occurred in the number of businesses that advertised some form of indoor tanning service in the NZ Yellow Pages telephone directories. There was also a large increase in the number of wholesale trade providers, indicative of significant expansion in the industry, and hire services also increased. Nevertheless, the reported findings are likely to represent an underestimate of both facilities and providers because there was evidence that some services were offered without associated Yellow Pages advertising.
Dissemination
A technical report was provided to the CSNZ and a paper was published in the *Australian & NZ Journal of Public Health* during 2008. A Public Seminar was presented and, in response to a media release, numerous media interviews and reports were generated.

2.1.5 Validity and reliability of population measures for assessing skin photosensitivity

Staff & Collaborators
Dr Tony Reeder, Vanessa Hammond with Andrew Gray (biostatistician, Dept. of Preventive & Social Medicine), and Nathalie Huston (research support).

Funding
University of Otago Research Grant.

Rationale
In large population studies skin photosensitivity is usually obtained either by self-report questionnaire responses or measurement by instrument. It may also be possible to use the Munsell colour charts®. However, with respect to the use of the questionnaire items and colour charts for this purpose, there is a lack of evidence about both their *validity* (i.e. do they measure what they are intended to measure?) and *reliability* (i.e. can they be relied upon to produce the same results on different occasions?), and no such evidence for the NZ population.

Study Aims
To compare two population measures (brief self-report questionnaire items and Munsell colour charts) with a criterion measure (photospectrometry), among a sample of students at Otago University Residential Colleges.

Progress / Results
A sample of 288 students with a broad range of skin types was recruited through University of Otago Residential Colleges early in 2008. Each student attended two brief assessments during which their skin colour was measured using a photospectrometer and each of the other two instruments (brief questionnaire and colour charts) were administered twice, with a proportion of colour chart readings being taken by two separate interviewers. The data are currently being analysed and prepared for publication.
Dissemination

All participants were provided with feedback which included: 1). a brief personal report about their skin type, and 2). summary guidelines about UVR exposure under NZ conditions for reducing the risks associated with that exposure. It is intended to prepare scientific papers for publication in peer reviewed journals and a conference presentation.

2.2 Other Activities: UVR Studies

2.2.1 Conference and workshop attendances

In April, Tony Reeder, Vanessa Hammond and Geri Henry all gave presentations at the 9th Behavioural Research in Cancer Control Conference in Melbourne. During 2008, Dr Reeder was an invited speaker at the Melanoma Summit, Wellington and the Scientific Education Symposium (The Evolving Status of Vitamin D) in Auckland. A presentation was given to the Dept. of Preventive & Social Medicine/ Public Health Association (Jan Jopson and Tony Reeder) and to a national forum to review health promotion advice for sun protection and sun exposure in NZ (Tony Reeder). Tony Reeder gave presentations on Sun exposure and vitamin D status among NZ adults to the SunSmart Operational Group and CSNZ National Board and Vanessa Hammond to the CSNZ Health Promoters National Hui and the Dept. of Preventive & Social Medicine. Vanessa also gave an invited presentation to the Otago Occupational Health Nurses on Occupational Solar UVR Exposure among NZ Outdoor Workers.

Geri Henry gave a presentation to the Dept. of Preventive & Social Medicine and HSC and Tony to the CSNZ and the SunSmart Operational Group on Sunburn and tanning in the NZ population, 1994-2006. Both Geri and Vanessa attended the Workshop on Academic Careers for Postgraduate Women in Sciences and Health Sciences, University College, Dunedin.

2.2.2 Teaching, training, supervision and scholarships

Tony Reeder, A/Prof. Rob McGee and Andrew Gray continued to provide supervision for Geri Henry-McLeod’s PhD study, Population trends in sun protection knowledge, attitudes and behaviours, 1994-2006, which is scheduled for completion in 2009. Tony Reeder and Andrew Gray continued to provide supervision for Vanessa Hammond’s PhD project.
2.2.3 Collaboration, consultation and advocacy

Tony Reeder continued to contribute to the Cancer Society’s SunSmart Operational Group (SOG) through involvement in regular teleconferences and collaboration with National Office staff, Dr Judith Galtry (Sun Protection Advisor) and Mary Duignan (SunSmart Schools Programme Advisor). The SOG, especially the outdoor workers' subgroup (Raewyn Sutton, Penelope Scott and Tony Reeder), made a particular contribution to the development of the Cancer Society’s Outdoor Workers’ Sun Protection Resource Kit, due to be launched early in 2009. These resources will be the result of a comprehensive, collaborative effort between CSNZ health promotion staff and the labour sector, involving a high level of input and feedback, including from both Business NZ and the NZ Council of Trade Unions.

Tony Reeder was thanked for his contributions to the revision of the CSNZ Position Statement, *The Risks and Benefits of Sun Exposure in New Zealand* and to drafting the Information Sheet on *Ultraviolet (UV) radiation and vitamin D – A special note for people with dark skin*. Tony Reeder was invited to join the NZ UVI Redevelopment Group and participated in one face to face meeting in Wellington, followed up by teleconferences. The goal is to iron out issues around the use of the UVI as a means of informing the population UVR risk. The HSC, NIWA, CSNZ and MetService are among the agencies involved.

Tony Reeder and Geri Horsburgh-McLeod prepared a submission to the Joint Standards Australia / Standards NZ Committee CS-064 on the proposed revision of the AS/NZS 2635:2002 *Solaria for cosmetic purposes*. One particularly useful outcome of this revision process was a note in the preface of the revised Standard that ‘given the evidence of failure to follow best practice, there is a need to implement effective regulation on the industry in New Zealand.’ In association with media reports, linked to publication of the SBRU audit of solaria services in NZ, this helped support further advocacy efforts in NZ. These activities, and an earlier submission (drafted by Tony Reeder and submitted by the CSNZ SunSmart Operational Group in 2003) to the Ministry of Health, in response to the review of the NZ Radiation Protection Act (1965), prompted the likely inclusion in future legislation of sources of potentially harmful non-ionising radiation, including commercial solaria.

Tony Reeder has also continued to collaborate with researchers linked to the Cancer Council Australia, in particular, Dr Suzanne Dobbinson (Centre for Behavioural Research in Cancer, Cancer Council Victoria) and researchers at the Centre for Health Research and Psycho-oncology (CHERP) who are involved in testing alternative methods of presenting the UVI to the public in a range of contexts. During 2008, Tony Reeder reviewed a paper for the *American Journal of Preventive Medicine*, a conference presentation for the Australian Institute of Physics, and a grant application for the Cancer Council NSW.
3 Tobacco Control

Under the leadership of A/Prof Rob McGee, the SBRU increased its tobacco control research in the past year. Jackie Guo, supervised by Rob McGee, Andrew Gray and Tony Reeder, and with the support of the CSNZ, looked into the early stages of nicotine dependence in adolescents, using information from the 2004 HSC Youth Lifestyle Survey. Tony Reeder continued his work with the Whanau Auahi Kore (WAKA) project which is focused on effective smoking interventions for Māori. Both topics were in the areas of need identified by the Tobacco Control Research Strategy (TCRS).

With the renewal of our core contract with the CSNZ, we hope to develop collaborative projects with other tobacco control entities in 2009. Together with Belinda Keenan from the CSNZ, we identified several policy-related issues, one of which is tobacco marketing. This coincides with the 2009 arrival in the Department of Marketing of the University of Otago of Prof. Janet Hoek, who is widely known for her past work in tobacco marketing regulation. We look forward to this excellent opportunity to work with her.

The Dunedin Multidisciplinary Health and Development Study (DMHDS) enters its next assessment phase in 2010, and provides further opportunities for collaboration. Dr Richard Edwards, from the Otago University School of Medicine in Wellington, has already expressed an interest in collaborating on analysing the data from the DMHDS.

We are also discussing future research opportunities with the Quit Group. The Quit Group operates Quitline, a free telephone smoking cessation support programme that has been operating in New Zealand for a number of years.
3.1 Project Reports: Tobacco Control

3.1.1 Understanding nicotine dependence among New Zealand secondary students

Staff and Collaborators
Jackie Guo (MPH candidate) and Associated Professor Rob McGee (primary supervisor), Dr Tony Reeder (co-supervisor), and Andrew Gray (co-supervisor, biostatistician, Department of Preventive & Social Medicine), and Nathalie Huston (research support).

Funding
University of Otago; Cancer Society of New Zealand Inc. (core grant).

Rationale
The majority of smokers begin using tobacco products during adolescence. The major physiological, psychological, and sociological influences faced by adolescents may put them at a greater risk of experimenting with tobacco products, and rapid progression to nicotine dependence can follow. In New Zealand, more than 50% of young people have tried smoking before the age of 15 years. It is increasingly recognised that adolescents who smoke can experience nicotine dependence symptoms prior to becoming daily smokers, even with a relatively short history of smoking. Nicotine dependence and associated withdrawal symptoms play an important role in the maintenance of smoking from adolescence into adulthood. Epidemiological evidence suggests that nicotine dependence constitutes a severe barrier to the cessation of tobacco use. Therefore, understanding the risk factors that cause nicotine dependence in adolescents will allow the development of a sensible and effective tobacco control strategy.

Study Aims
The two primary objectives of this study were to: (a) describe patterns of nicotine dependence among NZ secondary school students, and (b) examine the associations between levels of nicotine dependence among NZ adolescent smokers and a range of potential predictors. The secondary objectives of this study were to assess the measurement properties of the HONC, and to identify the relation between self-reported nicotine dependence and quitting attitudes and attempts among adolescent smokers.

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Progress / Results

There were 663 current youth smokers who participated in the 2004 Youth Lifestyle Study included in the analysis. The majority (87.9%) reported at least one of the symptoms from the Hooked on Nicotine Checklist (HONC), indicating the onset of nicotine dependence. The HONC scores were fairly evenly distributed from 0 to 10 with a mean of 4.9 points. It appears that youth smokers are vulnerable to the addictiveness of nicotine. To reduce nicotine dependence in adolescents, it is necessary to reduce the initiation of smoking in adolescents.

Three domains of potential explanatory factors of nicotine dependence development were identified: socio-demographic characteristics, smoking behavioural factors, and smoking context factors. Under the socio-demographic domain, school decile was significantly related to level of nicotine dependence. Three smoking behaviour factors were significantly related to nicotine dependence: smoking frequency, total lifetime consumption and typical daily consumption. This study also found that higher HONC scores among smokers with closest friends smoking.

A significant proportion of youth smokers expressed an interest to stop smoking, and many had already made at least one attempt to do so. The findings showed that over half of the youth smokers who smoked at least once a week wanted to quit, and a similar proportion of them reported that they tried to stop smoking at least once during previous year. The proportion of youth smokers who desire to quit, or attempted to quit were significantly higher among more frequent smokers.

Dissemination

This study has been written up, and will be submitted for examination as a Master of Public Health thesis in March 2009. Two presentations have been made: one to a research student seminar, and another to the Cancer Society Health Promotion Workshop. A journal article containing the key findings will be prepared for submission in mid 2009.

3.1.2 Smoking cessation in early adulthood

Staff and Collaborators

A/Prof. Rob McGee and Dr Tony Reeder, in collaboration with Dr David Welch (DMHDS) and A/Prof. Sheila Williams (biostatistician, Department of Preventive & Social Medicine).

Funding

University of Otago; Cancer Society of New Zealand Inc. (core grant).

Rationale

An understanding of those factors which predict quit attempts and, ultimately, successful cessation, has the potential to be useful in developing public health actions to reduce smoking. Smoking cessation has been related to several variables including higher socio-economic status, lower alcohol intake, partner support for quitting, and lower nicotine dependence. However, much of the research on quitting has involved relatively short-term follow-up. Data relating to quit attempts
among young adult smokers and successful quitting are available from the Dunedin Multidisciplinary Health and Development Study. These data cover the period from childhood to age 32, the most recent assessment. This research programme has collected a large amount of information enabling an investigation of socioeconomic, health, attitudinal and behavioural factors which might be associated with persistence or cessation of tobacco smoking.

**Study Aims**
To examine predictors of quit attempts and successful quitting in a sample of young NZ adult smokers. The nature of the data will allow us to examine quitting from a number of perspectives, including childhood variables relating to exposure to smoking.

**Progress / Results**
All data are now available. The proposed analyses will build on previous work on quitting that we have published.

**Dissemination**
Two papers have now already been published on smoking cessation. One has examined predictors of quitting smoking in a sample of older women over a thirteen year period in *Addictive Behaviors* (TP18). The second examined parents’ smoking behaviour and its effects on subsequent smoking and cessation among their children in *Addiction* (TP19). A third paper examining physiological tolerance of discomfort and ability to quit smoking, is now about to be submitted for publication.

### 3.1.3 The Whanau Auahi Kore (WAKA) project: Developing strategies to reduce smoking uptake and SHS exposure in children.

**Staff and Collaborators**
Tony Reeder (co-investigator) in project team led by Dr Richard Edwards (Dept. Public Health, Wellington School of Medicine, Otago University) with Dr. George Thomson, Dr. Nick Wilson, and Professor Philippa Howden-Chapman (Dept. of Public Health, Wellington School of Medicine, Otago University); Dr. Heather Gifford (Whakauae Research Services), Dr. Judith McCool (Dept. Psychological Medicine, Faculty of Medicine and Health Sciences, University of Auckland), Andrew Waa (Quigley and Watts Ltd.) and Dr. Sue Walker (Research Manager, Health Sponsorship Council).

**Funding**
Health Research Council of New Zealand Partnership Programme.

**Rationale**
Tobacco smoking and exposure to second hand tobacco smoke (SHS) remain substantial public health problems in New Zealand (NZ), particularly among Māori communities. Reducing smoking initiation and the exposure of children to SHS, particularly among
Māori, are key aspects of NZ tobacco control strategies. There is evidence that caregiver behaviours may be important influences on the prevalence of smoking and SHS exposure.

**Study Aims**

To develop empirically based explanatory models, ‘change’ strategies and community intervention strategies for reducing smoking initiation and the SHS exposure of NZ children, focusing particularly on Māori communities. A structured and systematic development process will include: systematic reviews, reviews of NZ datasets, additional dataset analysis, and primary research to fill priority information gaps, model/strategy building, feedback to key stakeholders and revision of models and strategies.

**Progress / Results**

Phase one of the 27 month project started in November 2007. An initial face-to-face meeting of researchers was followed by a number of teleconferences and regular email interaction among the research team. A literature review was prepared on the determinants of uptake of smoking and second hand tobacco smoke exposure among children. Additional analysis of existing datasets is ongoing and two qualitative studies investigating views and potential barriers and opportunities to measures to reduce smoking uptake and second hand smoke exposure in household settings among Māori communities are underway.

**Dissemination**

Findings will be written up and reported for academic audiences in journal papers, conferences and seminars. A report will be prepared for service providers, iwi and policy makers.

### 3.2 Other Activities: Tobacco Control

#### 3.2.1 Conference and workshop attendances

With support from the Department of Preventive and Social Medicine and the conference organiser, Jackie Guo attended the National Tobacco Control Hui in Wellington, 25-27 June 2008. In August 2008, Jackie Guo gave a departmental student research seminar on *Understanding nicotine dependence among NZ secondary students*. In October 2008, Jackie Guo attended the Cancer Society of New Zealand Health Promotion Workshop in New Plymouth, where she gave a presentation on *The Youth Lifestyle Study and Understanding nicotine dependence among NZ secondary students*.

#### 3.2.2 Teaching, training, supervision and scholarships

Rob McGee, Andrew Gray and Tony Reeder continue to be supervisors for Jackie Guo’s MPH project on youth nicotine dependency. Rob McGee teaches 5th Year medical students’ tobacco module.
3.2.3 **Collaboration, consultation and advocacy**

Tony Reeder reviewed a paper submitted for publication in the New Zealand Medical Journal. A submission was made to Statistics New Zealand in support of keeping in the Census the question about tobacco use. Support was maintained for the campaign to control tobacco displays in retail premises. Rob McGee continues to serve on the Board of Trustees for the NZ Drug Foundation. He is also the Deputy Chair for the Board.

4 **Psycho-Social-Spiritual (PSS) Cancer Research**

*When someone develops cancer, its impact extends beyond the physical effects of the disease to include psychological, social, economic, sexual and spiritual consequences*\(^\text{15}\).

*If health professionals are well-informed about the psychosocial issues facing patients with cancer, they are in a better position to make appropriate enquires and respond sensitively to the needs of their patients*\(^\text{16}\).

Cancer affects the whole person: physically, mentally, socially and spiritually.\(^\text{12,17}\) Based on overseas research\(^\text{18}\) and some New Zealand research\(^\text{12}\) we know that psycho-social-spiritual (PSS) factors are critical on the cancer journey for all those affected by cancer: patients, family and whānau, and the wider community. There is a dearth of New Zealand based research in this area, with the Ministry of Health (2003) and, more recently, the Cancer Society\(^\text{19}\) calling for more psychosocial research and evaluation to help “minimize the impact of cancer”.\(^\text{14}\) In recognition of this need, the development of SBRC capacity in this area has been a new focus for the 2008-2009 year, with a scoping paper to assess research priorities for CSNZ Support Services done in this period. This developing area is lead by Mr Richard Egan, who, in 2009-2010 will take up a research fellowship focusing on PSS research for CSNZ Support Services.

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19 O’Brien I. Request for Psychosocial Research. Email to Dr Tony Reeder, University of Otago, NZ (2008).
4.1.1 Spiritual well-being concepts and practices in Aotearoa New Zealand palliative cancer care

Staff, Student & Collaborators
A/Prof. Rob McGee supervising Richard Egan (PhD candidate) in collaboration with Prof. Rod McLeod (University of Auckland), Dr Chrystal Jaye (Dept. of General Practice, Dunedin School of Medicine), and Dr Joanne Baxter (Ngāi Tahu Māori Health Research Unit, Dunedin School of Medicine).

Funding
Genesis Oncology Trust PhD Scholarship, University of Otago (Departments of General Practice and Preventive & Social Medicine), CSNZ (Canterbury & West Coast Division).

Rationale
Palliative care aims to meet the needs of the whole person dying from cancer: including the physical, social, mental and spiritual dimensions. This integrated approach to health is increasingly recognised as best practice in both end of life care and other areas of medicine. Current research suggests that spirituality is a key aspect of end of life care, but that it is not well attended to, and under researched. The topic is broad so as to be exploratory and hypothesis generating.

Study Aims
Within a context where the incidence of cancer is increasing, this research aims to investigate, explore and improve spiritual well-being concepts and practices in Aotearoa New Zealand hospice / palliative cancer care. Specific objectives include:
- literature search and review of overseas and New Zealand literature;
- exploration of understandings concerning spirituality and spiritual care in hospice settings held by staff, patients with cancer and families;
- select / develop a valid instrument to measure spiritual well-being and spiritual care;
- investigate the relations between staff concepts and practices of spiritual care and spiritual well-being of patients.

Progress / Results
Data collection for Stages 1 (qualitative) and 2 (quantitative) are complete. That is, fifty two interviews (patients, family members, staff and Māori experts) have been done across various NZ hospice / palliative care sites; and a survey of 25 hospices has been completed. This PhD thesis will be finished early in 2009.

Dissemination
The results of this work will be made available to all respondents, including New Zealand hospices, in both written and oral forms. Lay and academic presentations will be made, both nationally and internationally, at conferences and hui. Articles will be prepared for publication in national and international journals.
4.1.2 Identifying Priorities for Psycho-social-spiritual Cancer Research in New Zealand: Perspectives from the Cancer Society of New Zealand Support Services

Staff, Student & Collaborators
Dr Tony Reeder (co-investigator) Richard Egan (PhD Candidate and Assistant Research Fellow) & Qa-t-a Amun (Assistant Research Fellow).

Funding
National Office, CSNZ Support Services

Rationale
In a context where both the burden of cancer and survivorship rates are increasing, there is a need for increased capacity for support services. We know that for those who are diagnosed with cancer, up to half will have depressive and anxiety symptoms\(^20\) that often go undiagnosed\(^21\) and untreated.\(^22\) Holistic care is widely recommended,\(^23\) and if psychological, social and spiritual needs are addressed significant quality of life improvements are possible.\(^19\) A US Institute of Medicine (IOM) report titled, ‘Cancer Care for the Whole Patient: Meeting Psychosocial Health Needs’ (2007) suggested “for effective delivery of care to occur, processes need to be in place to:

1. identify psychosocial needs;
2. link patients and families to needed psychosocial services;
3. support patients and families in managing the illness;
4. coordinate psychosocial and biomedical care; and
5. follow up on care delivery to monitor the effectiveness of services and make modifications if needed.”\(^19\)

This provides some direction and focus for psychosocial care processes. The CSNZ Support Services National Office Manager recognised the need to grow their evidence base. The first step was to assess research priorities by asking the staff who work in this area. Thus using qualitative methods, a study was designed to canvass the opinions of the ‘experts’ who do this important work.

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Study Aims
In partnership with the Cancer Society of New Zealand, this research aims to understand:

How can the Cancer Society of New Zealand Support Services best understand and meet the psycho-social-spiritual needs of people / families / whanau affected by cancer in an ethnically diverse New Zealand?

To develop answers to this research question, Stage One of this research aims to:

Determine the psycho-social-spiritual (PSS) research priorities of CSNZ support staff.

Progress / Results
A scoping paper entitled “Identifying Priorities for Psycho-social-spiritual Cancer Research in New Zealand: Perspectives from the Cancer Society of New Zealand Support Services” is in its final drafts, due to be completed 31 March, 2009. Based on this paper, a journal article and conference presentation will be developed, in consultation with CSNZ.

Dissemination
Richard Egan has written an ‘Interim Report’ for CSNZ Support Services which was presented to the Divisional Managers in November, 2008.

4.2 Other Activities: PSS Cancer Research

4.2.1 Conference and workshop attendances

Conference presentations
In September 2008, Richard Egan gave seven presentations at the New Zealand Healthcare Chaplains’ Conference in Wellington.

Workshop presentations
In June 2008, Richard Egan gave a presentation to the CSNZ board on Psychosocialspiritual Cancer Research- An emerging field.

4.2.2 Teaching, training, supervision and scholarships

In August 2008, Richard Egan gave an invited lecture: Spirituality in (Health) Education, Why and How at the Otago University, College of Education. Rob McGee continues to be a supervisor for Richard’s PhD project.
5 Other Issues in Cancer Control and Health Promotion

5.1 Project Reports:

Cancer Control & Health Promotion

5.1.1 Colorectal cancer control in New Zealand

Staff & Collaborators
Dr Tony Reeder, co-investigator, as part of a team of investigators now led by Dr Diana Sarfati, Dept. of Public Health, Wellington School of Medicine and Health Sciences with co-investigators Mr Angus McGee, Dr Ian Sheerin, Mrs Gillian Abel, Dr Lee Thompson and Dr Phil Hider (Dept. of Public Health and General Practice, Christchurch School of Medicine and Health Sciences); A/Prof. Bridget Robinson (Dept. of Medicine, Christchurch School of Medicine and Health Sciences); A/Prof. Brian Cox (Hugh Adam Cancer Epidemiology Unit, University of Otago; Dr Terri Green (Dept. of Management, University of Canterbury); Dr Susan Parry (Dept. of Gastroenterology, Middlemore Hospital, Auckland), and Mr Ian Bissett (Dept. of Surgery, University of Auckland).

Funding
HRC (Health Research Council) project grant.

Rationale
Currently, NZ health services are challenged to provide both timely investigation and treatment for people with colorectal cancer (CRC), and surveillance for individuals at increased risk of CRC. Given the proposal to introduce population screening for CRC in NZ, this research will provide information that is essential for health service planning. It will also produce a powerful research tool for NZ, because the approach will be capable of being adapted to other disease outcomes in order to determine the requirements of new interventions. The approach is being applied to CRC initially, because information in this area is urgently needed.

Study Aims
In order to obtain information that is essential to help reduce the impact of colorectal cancer (CRC) in NZ, a computer model will be developed which, when combined with epidemiological, clinical, economic, and qualitative data, will estimate the future services and costs required for appropriate treatment and follow-up for people with CRC, surveillance for those at increased risk, and CRC screening in NZ.
The specific SBRU contribution to this project is thematic analysis of semi-structured interviews related to the perceptions of 1) health professionals (ten GPs and ten specialists) and 2) the general public - through telephone interviews with four groups (50-74 years), those considered at: (i) high risk (referred to a specialist for colonoscopy or other tests and have taken up this referral and been assessed by a specialist), (ii) high risk (referred to a specialist for colonoscopy or other tests but have not taken up this referral), (iii) moderate risk and (iv) low risk. Māori participants as well as additional GPs and specialists from regions with high numbers of Māori patients will be purposefully selected as although the incidence of CRC is higher among non-Māori, Māori are more likely to die as they are less likely to be diagnosed early.

**Progress / Results**

Ann Delwynen was appointed as research assistant to carry out the interviews and, by the end of 2008, 7 interviews had been conducted with GP’s and 30 with other participants. Difficulties were experienced with recruiting participants for group (ii), above. Interviewing will be completed in 2009, but Ann Delwynen has been unable to continue that work. An interviewer has been appointed in Auckland to carry out the interviews booked by Anne and an interviewer in Christchurch will complete interviews there and in Wellington. A meeting of the full research team was held in Christchurch on 24 October 2008. Prof. Ann Richardson (initial principal investigator), Ms Suzanne Pitama and Dr Lisa Fitzgerald resigned during 2008. Dr Lee Thompson was appointed to the Christchurch team to replace Dr Lisa Fitzgerald and will manage the qualitative arm of the study in 2009.

**Dissemination**

Wide dissemination is planned to participants, the Ministry of Health, District Health Boards, NZ Cancer Control Trust and CSNZ. Papers will be prepared for publication in journals and presentations for conferences.

### 5.1.2 The history of health education posters in NZ

**Staff**

A/Prof. Rob McGee and Juanita Ketchel with Dr Warwick Brunton (Dept. of Preventive & Social Medicine).

**Funding**

Dept. of Preventive and Social Medicine.

**Rationale**

Posters have been used as tools for health education in NZ for a considerable period of time. They usually have a high visibility in terms of attracting attention. They provide information for people who may have difficulty reading. They may be very cost effective. They can serve a function as reminders or cues at various behavioural choice-points (e.g. to encourage fruit and vegetable purchase in supermarkets). However, there has been no comprehensive examination of this material.
Study Aims

The project had aimed to provide a systematic examination of the nature of health education posters in the context of health education in NZ. The second aspect will involve using coding frames based upon the visual qualities of the posters together with a communication framework to examine the way health messages were delivered. (e.g. appeals to fear, humour, safety, good citizenship, and so on); and the target audiences (e.g. children, parents, workers, health professionals). We will be able to trace changes over time, and relate content to historical Dept. of Health (DoH) concerns.

Progress / Results

All posters have been photographed and documented, and articles in the Health Bulletin, published by the DoH from 1948-1993 have been recorded in category groups in order to document any shifts in focus on health. This search has also aided the dating of some of the posters from earlier years. Further work will be done during Rob McGee’s upcoming study leave.

5.1.3 Perceptions of cancer risk, prevention and treatment

Staff and collaborators

Dr Tony Reeder (Co-supervisor) with Christina Bocock (Dunedin School of Medicine, Summer Research Scholar), Dr Judy Trevena (Primary supervisor, Dept. Psychological Medicine), and A/Prof. David Perez (Co-supervisor, Dept. of Medical and Surgical Sciences).

Funding

Dunedin School of Medicine Summer Research Scholarship, University of Otago.

Rationale

There is evidence of wide use of CAM (complementary and alternative therapies) by cancer patients seeking a holistic approach to treatment. It is important that patients feel that these therapies can be discussed with the physicians who provide treatment, yet there seems to be a low rate of communication about CAM between patients and their doctors. Our previous research indicated that many people lack knowledge about CAM and may benefit from guidance from physicians. Physicians’ views about CAM are likely to influence communication.


**Study Aims**
To document the views of physicians about CAM as part of the developing discipline of Integrative Medicine.

**Progress**
Ethical approval was obtained from the Lower South Regional Ethics Committee. The questionnaire was adapted with permission from an existing instrument. Lists of all GP’s in the Otago region (236) and physicians on staff at the Dunedin Public Hospital (174) were obtained. Invitations, including an introductory letter, information sheet, questionnaire and freepost envelope, were sent to all 410 physicians. Overall, 230 (58%) returned the completed questionnaire.

**Dissemination**
Preliminary results will be prepared by Christina Bocock as a brief report to the Dunedin School of Medicine early in 2009. A paper reporting the full analyses will be prepared for publication in a scientific journal.

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### 5.1.4 Researcher engagement with non-academic audiences

**Staff**
Dr Rose Richards with Dr Karen Hartshorn (National Centre for Lifecourse Research).

**Funding**
Dunedin Medical School Dean’s Bequest Fund.

**Rationale**
An important part of the research process is discussing study development and results with other interested parties. This may include diverse groups, such as policy makers, practitioners, community groups and media representatives. The need for appropriate and effective engagement between researchers and other stakeholders is an area of significant interest nationally and internationally, however, it is unclear what constitutes ‘good’ engagement and how this can be supported in the current research environment.

**Study Aims**
The aim of this project is to explore the types of engagement that are common among academic staff in the Faculty of Medicine, University of Otago. Included in this, are issues relating to engagement with non-academic stakeholders, perceptions of things that have worked well or have been difficult, and things that would help support engagement.

**Progress / Results**
Over half the interviews have been carried out in Dunedin, Christchurch and Wellington branches of the Faculty of Medicine. Analysis and write-up of the findings will take place in 2009.
5.2 Other Activities:

Cancer Control and Health Promotion

5.2.1 Teaching, training, supervision and scholarships

Dr Tony Reeder co-supervised Christina Bocock’s Dunedin School of Medicine, Summer Research Scholarship project on the views of physicians about Complimentary and Alternative Medicine (CAM) with Dr Judy Trevena (Primary supervisor, Dept. Psychological Medicine) and Assoc. Prof. David Perez (Co-supervisor, Dept. of Medical and Surgical Sciences).
Part II

Staff publications by major topic area, 1992-2008
2.1 Healthy Physical Activity and Nutrition

In chronological order, with the most recent listed last in each sub-section

Refereed papers


Part 2


**Letters published in scientific journals**


**Theses**

PT01 Richards R. *Predictors of physical activity participation during adolescence and young adulthood*. A thesis submitted for the degree of Doctor of Philosophy (PhD), University of Otago, Dunedin, 15th December 2006.

**Reports**

PR01 Reeder AI, Chalmers DJ, Begg DJ, Langley JD. *Participation in physical activity and selected sports, the use of protective practices, and sports injury experience of the Dunedin Multidisciplinary Health and Development Study cohort at age 21 years*. A report prepared for the Accident Rehabilitation and Compensation Insurance Corporation, February 1997. Injury Prevention Research Unit, Department of Preventive and Social Medicine, Otago Medical School, Dunedin. (20p + appendices).

PR02 Reeder AI. *The development and implementation of the Otago Lifesaver host responsibility programme for licensed club premises*. Occasional Report 36, ISBN 0-0908958-37-4. Injury Prevention Research Unit, Department of Preventive & Social Medicine, Dunedin School of Medicine, Dunedin, November 1998. (54p).

PR03 Richards R, Reeder AI. *Physical activity: its measurement and health benefits, and the participation and opinions of young New Zealand adults*. A report to the Cancer Society and Hillary Commission, Social & Behavioural Research in Cancer Group, Department of Preventive & Social Medicine, Dunedin School of Medicine, January 1999. (60p + appendices).


PR05 Richards R, Reeder AI. Physical activity for cancer prevention. A report prepared for the Cancer Society of New Zealand. Social & behavioural Research in Cancer Group, Department of Preventive & Social Medicine, Dunedin School of Medicine, August 17, 2001. (6p).

PR06 Richards R, Reeder AI. *Participation in vigorous physical activity, decisional balance scores and health status among young New Zealand adults*. A report to the Cancer Society of New Zealand. Social & Behavioural Research in Cancer Group, Dunedin School of Medicine, September 2003. (20p + appendices).

Part 2

PR08 Richards R, Darling H, Reeder AI. A discussion document to report and seek feedback on the Preliminary findings from the ‘Sponsorship and Fundraising in New Zealand Schools Study’: Challenges and opportunities. Social and Behavioural Research in Cancer Group, Department of Preventive & Social Medicine, Dunedin School of Medicine, Dunedin, February 2004. (15p + appendices).


PR12 Richards R. Neighbourhood and physical activity: a scoping study. A technical report to the National Centre for Lifecourse Research, Dunedin Multidisciplinary Health and Development Research Unit, Department of Preventive & Social Medicine, Dunedin, 31 March 2008 (7p).


Conference presentations (since 1998)


PC04 Richards R, Reeder AI, Poulton R. Tracking sport participation among a New Zealand birth cohort from ages 7 to 21 years. First Australasian Nutrition, Physical Activity and Cancer Conference, Sydney Convention and Exhibition Centre, Darling Harbour, NSW, Australia. 24-26 June 2002


PC08 Richards R, Reeder AI, Poulton R, Williams S. Predictors of patterns of physical inactivity among New Zealand adolescents. Fifth National Physical Activity Conference, Melbourne, October 2005.


Workshop presentation


5. Richards R. You’ll get square eyes: TV, computers and gaming during adolescence. Presented to the meeting of the National Board of the CSNZ, Dunedin Airport, NZ. June 7, 2008.


**Tertiary seminars and lectures**

1. Richards R, Reeder AI, Poulton R. *Longitudinal patterns and tracking of sport participation from childhood to early adulthood*. Student research seminar, Department of Preventive & Social Medicine, Dunedin School of Medicine. May 8, 2003.


3. Quigg R. *Children’s activity in their local environment: An explanation of the study design*. Student research seminar, Department of Preventive & Social Medicine, Dunedin School of Medicine. 27 March 2007.


9. Liggett L. *Habits for Life: Practical programme for caregivers of the next generation*. Student research seminar, Department of Preventive & Social Medicine, Dunedin School of Medicine. 20 May 2008.


11. Quigg R. *Pace & place: Using accelerometers & GPS units to measure children’s physical activity*. Student research seminar, Department of Preventive & Social Medicine, Dunedin School of Medicine. 1 July 2008.

**Media Releases**

PMRI Richards R. Getting kids active may not be enough to make active adults. Otago University media release, 28 December 2007.  
PMR2  Reeder A, Gray A. Survey reveals what makes kids more likely to walk to school. Otago University media release, 4 April 2008.  

Submissions

PS01  Begg DJ, Reeder AI, Simpson J. Submission on Alcohol and Young People - comments on proposed ALAC strategic approach. Submitted to Alcohol Advisory Council, 23 October 1996.


2.2 UVR Studies

Refereed papers


http://www3.interscience.wiley.com/cgi-bin/fulltext/42145/PDFSTART


http://www.blackwell-synergy.com/action/doSearch

http://www.blackwell-synergy.com/action/doSearch


http://her.oxfordjournals.org/cgi/reprint/19/6/677
Part 2


**Letters published in scientific journals**


**Book chapters**


**Theses**


UT03  Kime NH. Sun protection information in summer weather reports: perceptions and practices. A thesis submitted for the degree of Master of Science in Health Promotion, Leeds Metropolitan University, UK, 2nd June 2003.


Professional publications


Reports

UR01  Morris J, Elwood M. How effective are sun exposure modification programmes? Social & Behavioural Research in Cancer Group / Hugh Adam Cancer Epidemiology Unit, Department of Preventive and Social Medicine, University of Otago, May 1995. (56p).


UR04  Reeder AI. Results from the Māori respondents included in the national survey of awareness, understanding and response to sun protection messages in media weather reports. A report to the National Health Promotion Committee, Cancer Society of New Zealand. Social & Behavioural Research in Cancer Group, Department of Preventive and Social Medicine, Dunedin School of Medicine, March 2001. (12p + appendices).

UR05  Reeder AI. Skin cancer prevention in New Zealand: A discussion document to help guide future SunSmart programme directions. A report prepared for the Cancer Society and Health Sponsorship Council Joint Working Group. Social & Behavioural Research in Cancer Group, Department of Preventive and Social Medicine, Dunedin School of Medicine, August 2001. (68p).

MR06  Kime N, Reeder AI. Sun protection information in summer weather reports: perceptions and practices. A report prepared for the Cancer Society of New Zealand Inc., and the Health Sponsorship Council. Social & Behavioural Research in Cancer Group, Department of Preventive & Social Medicine, Dunedin School of Medicine, December 2002. (29p + appendices).

UR08  Jopson JA, Reeder AI. Sun protection in New Zealand secondary schools: obstacles and opportunities. Social & Behavioural Research in Cancer Group, Department of Preventive & Social Medicine, Dunedin School of Medicine, June, 2004. (42p + appendices).


UR10  McCool J, Petrie K, Gorman D, Reeder AI. Non-melanoma skin cancer: outdoor workers’ perceptions of risk and sun protection use. Final report prepared for the Cancer Society of New Zealand (Wellington Division) Inc. Department of Psychological Medicine, Faculty of Medical and Health Sciences, University of Auckland, December 2004. (40p + appendices).


UR13  Jopson JA, Reeder AI. Are NZ Primary Schools SunSmart? A Baseline study prior to the implementation of the National SunSmart Schools Accreditation Programme. A report to the Cancer Society of New Zealand, August 2006. (36p + appendices).


Conference presentations (from 1998)


UC14 Reeder AI, Jopson JA. *Sun protection policies and practices of NZ territorial authorities: Rationale and preliminary findings.* Oral presentation at the Public Health Association of New Zealand Conference, Wellington, July 2005.

UC15 Wright CY, Reeder AI, Bodeker G, Allen A, McKenzie R. *Linking real-time solar UV radiation exposure with the social and physical environment, activities, knowledge and attitudes of New Zealand school children.* 6th World Congress on Melanoma, Vancouver, Canada, 6-10 September 2005 (poster).


UC21 Jopson JA, Reeder AI. A baseline study prior to implementation of a New Zealand primary schools’ National SunSmart Accreditation Program. 8th Biennial Behavioural Research in Cancer Control Conference: Fortitude Valley, Queensland, Australia, 27-29 September 2006.


Public seminar presentations (from 1998)

UPS1  McGee R. Fun in the sun. Otago Branch of the Public Health Association of New Zealand and the Department of Preventive and Social Medicine, University of Otago, Dunedin, 30 April, 1998.


UPS3  Jopson JA, Reeder AI. Sun protection in New Zealand secondary schools: obstacles and opportunities. Department of Preventive and Social Medicine & Otago Branch of the Public Health Association of New Zealand, University of Otago, Dunedin, September 9, 2004.

UPS4  Reeder T, Jopson J. Yellow Pages advertising of indoor tanning industry services in New Zealand, 1992-2006. Public Health Seminar, Department of Preventive & Social Medicine, University of Otago and the Public Health Association, Otago/Southland, 2 October 2008.

Workshop presentations (from 2003)

1. Reeder AI. Current commitment to population monitoring of sun protection in New Zealand. Australian Sun Protection Survey meeting, Melbourne, 8 April 2003.


8. Reeder AI. Snakes and Ladders: Picking a safe path for UVR and vitamin D health promotion in NZ. Presented at the Round Table on Vitamin D, UVR exposure and health, Wellington, 26 July 2007.


12. Reeder AI, Hammond V.. Sun exposure & vitamin D status among New Zealand adults. Presented to the meeting of the National Board of the CSNZ, Dunedin Airport, NZ. 7 June 2008.


**Student seminar presentations (from 2007)**

1. Henry G. *Attitudes towards suntanning in NZ, 1994-2006 and Application of Item Response Theory (IRT) to a ProTan Scale*. Presented at the Department of Preventive & Social Medicine, University of Otago, 10 July 2007.

2. Hammond V. *Outdoor workers and sun protection: Workplace or worker?* Presented at the Department of Preventive & Social Medicine, University of Otago, 10 July 2007.


4. Hammond V. *Predictors of serum vitamin D status among NZ adults*. Presented at the Department of Preventive & Social Medicine, Dunedin School of Medicine. 5 August 2008.

**Media releases**

UMR1 Reeder AI, Richards R. Sun protection information in weather reports helps everyone. December 8, 2000.

UMR2 Reeder AI, Richards R. When it rains – it pours, when it shines – it radiates. December 2001.


UMR8 Reeder AI. Large increase in New Zealand sunbed services. Otago University media release, 21 August 2008.  

Submissions

US1 The SunSmart Operational Group of the Cancer Society of New Zealand Inc. (Reeder AI). The need for legislation and regulations to control and monitor harmful exposure to ultraviolet radiation from equipment used for cosmetic tanning or other non-medical purposes. A submission to the Ministry of Health in response to: A Review of the New Zealand Radiation Protection Legislation: A Discussion Document. 2003.


2.3 Tobacco control

Refereed papers


http://heapro.oxfordjournals.org/cgi/reprint/9/2/89


Darling H, Reeder AI. Tobacco advertising on mini-motors. *Tobacco Control*, 2006; 15(1): 34. [http://tc.bmj.com/cgi/reprint/15/1/34](http://tc.bmj.com/cgi/reprint/15/1/34)


Invited editorials


TE3 Connor J, McGee R. Raising nonsmokers New Zealand Medical Journal, 2007; 120(1267):2865

Letters published in scientific journals


Theses

TT1 Darling H. Personal, family, school and other factors that protect young people from cigarette smoking. A thesis submitted for the degree of Doctor of Philosophy (PhD), University of Otago, Dunedin, 3rd December 2005.

Professional publications / non-refereed (recorded from 2003)


TN02 Reeder A. How things have changed. Link. Otago-Southland Division of the Cancer Society of New Zealand, Dunedin, May 2003.


TN05  Darling H, Reeder AI. Exposure to secondhand smoke (SHS) is associated with adverse health outcomes for children and adolescents, including increased risk of invasive meningococcal disease, respiratory and middle-ear infections, and exacerbation of asthma symptoms. *Health Promoting Schools Magazine*. May 2004.


**Reports**


Conference presentations (from 1998)


TC04  Reeder AI, Blair A. Views from the hospitality industry on smoking bans. The Environmental Tobacco Smoke / Passive Smoking Conference, Wellington, 30 November 1999.

TC05  Reeder AI, Blair A. Environmental tobacco smoke: New Zealand legislation & hospitality industry views on the prohibition of smoking in licensed premises, Dunedin (poster). 11th World Conference on Tobacco or Health, Chicago, August 2000.

TC06  Reeder AI, Blair A. Environmental tobacco smoke: Views from the hospitality industry on prohibition of smoking in licensed premises, Dunedin, New Zealand. 6th International Congress of Behavioural Medicine, Brisbane, November 2000. International Journal of Behavioral Medicine, 2000; 7:569 (abstract).


TC08  Reeder AI, McGee R. Is the New Zealand youth access programme “a failed strategy”? Tobacco Control Research Symposium, Wellington, September 2002.


TC11  Darling H, Reeder AI. Student quit attempts, smoking sanctions and cessation programmes in New Zealand schools. Oral presentation at the 12th World Conference on Tobacco or Health, Helsinki, Finland, 3-8 August 2003.

TC12  Darling H, Reeder A. Youth smoking and exposure to second hand tobacco smoke: A New Zealand study. Oral presentation at the 12th World Conference on Tobacco or Health, Helsinki, Finland, 3-8 August 2003.

TC13  Waa A, Darling H. Risk factors associated with smoking among indigenous youth: Findings from a survey of New Zealand Maori youth. Poster presentation at the 12th World Conference on Tobacco or Health, Helsinki, Finland, 3-8 August 2003.

Understanding nicotine dependence among New Zealand secondary students.

Workshop presentations (from 2003)


Tertiary seminars and lectures
1. Reeder Al. Tobacco control. Seminars for 5th year medical students public health attachment (four seminars throughout year to 2007).


3. Guo J. Understanding nicotine dependence among New Zealand secondary students. Student research seminar, Department of Preventive & Social Medicine, Dunedin School of Medicine. 5 August 2008.
Public seminar presentations (from 1998)

TPS1  Reeder AI. Youth smoking: A burning issue. Public Health Association, Otago Branch, and Department of Preventive and Social Medicine. Department of Preventive and Social Medicine, Dunedin, September 9, 1999.

TPS2  Darling H. School influence on behaviours: The example of tobacco smoking. Public Health Association, Otago/Southland, and Department of Preventive and Social Medicine. Department of Preventive and Social Medicine, Dunedin, April 6, 2006.

Media releases


TMR02  Reeder AI. Smoky bars, like sawdust and spittoons, are “a thing of the past.” November 24, 2000.

TMR03  Reeder AI. Study underlines continuing need for quit smoking services. September 14, 2001.


TMR07  Darling H, Reeder AI. Smoke-free homes help youth stay smoke-free. Otago University media release, 30 May 2003.


Submissions


TS2  Social and Behavioural Research in Cancer Group staff submissions supporting ASH’s submission on MP Grant Gillon’s Cigarettes Fire Safety Bill, 2001.
2.4 Other research in cancer control and health promotion

Treatment/ screening issues

Refereed papers


Theses

Media Releases


Reports

Child and adolescent health

Refereed papers


Invited editorial


Professional publications


Conference presentations


Workshop presentations (from 2003)


Media Releases

Psychosocial factors

Refereed papers


PSP5  Trevena J & Reeder A. Perceptions of New Zealand adults about reducing their risk of cancer. New Zealand Medical Journal, 2007; 120 (1258)

Book chapter

Book review

Invited Editorial


Report
PSR1  McGee R. Comment on “Cannabis: the PHC’s advice to the Minister.” A report to the Cancer Society of New Zealand, Department of Preventive & Social Medicine, Dunedin School of Medicine, August 1995. (This report formed the basis of the Society’s submission on Cannabis and Health to the Minister of Health).

Professional publications


Conference presentations


Workshop presentations


2.  Egan, R.  Spirituality in NZ End-of-life Cancer Care: Mid-PhD research discussion.  Department of Preventive and Social Medicine, Otago University.  Research Student Seminar.  April 17, 2007


Tertiary seminars and lectures


Submissions

Part III

Media Reports, 2007-2008
Media Reports

2007
29-12-2007 Child sport no guide to active childhood, *The Dominion Post Weekend*.
29-12-2007 Research quashes beliefs, *Otago Daily Times*.
29-12-2007 Good start not always enough, *Weekend Herald*.
29-12-2007 Sport may fall off adult timetables, *Weekend Press*.
29-12-2007 Active adult lifestyle not guaranteed, *Weekend Guardian*.

2008
9-4-2008 Fewer children go to school on foot study, *The Press*.
11-4-2008 Survey reveals what makes children more likely to walk to school, *NZ Education Review*.
9-5-2008 Research cost, *NZ Herald*.
9-6-2008 Cancer research unit renamed, *Otago Daily Times*.
8-8-2008 Early detection strategies for melanoma have been unsuccessful, *Radio NZ*.
8-8-2008 Rate of melanomas on the rise, *Radio LIVE*.
8-8-2008 Advertising campaigns about the risks of skin cancer have done nothing, *Radio NZ*.
8-8-2008 Early detection strategies for melanoma have been unsuccessful, *Radio NZ*.
10-8-2008 Number of NZers being diagnosed with melanoma static, *TV3 News*.
11-8-2008 Skin cancer still unabated, *Thaindian News*. 
11-8-2008  Skin cancer still unabated, The Times of India.
13-8-2008  Safety in sun issue for work, Otago Daily Times.
13-8-2008  Melanoma remains a major threat in NZ, Daily News.
13-8-2008  Protection support, Timaru Herald.
13-8-2008  Leadership key in war on skin cancer – study, NZ Herald.
16-8-2008  Employers can help prevent skin cancer, Risks e-bulletin.
18-8-2008  Don’t ignore skin checks – researcher, Otago Daily Times.
19-8-2008  Workplace approach key to sun safety, Bay of Plenty Times.
20-8-2008  Thick melanomas are the real problem, Wonca Global Family Doctor.
22-8-2008  Curbs sought as NZ embraces sunbeds, Otago Daily Times.
22-8-2008  Big rise in sunbed salons raises cancer fears and calls for regulation, NZ Herald.
22-8-2008  Big rise in sunbed salons raises cancer fears and calls for regulation, Newstalk ZB.
22-8-2008  The number of sunbeds is increasing, Newstalk ZB.
22-8-2008  Social Science and Behavioural Unit, The National News, CSNZ.
26-8-2008  Sunbed industry hits back at ‘skewed’ study, NZ Herald.
6-9-2008  Increasing the risk, The Listener.
22-9-2008  Improving worker sun safety, Safeguard Update.
12-10-2008  Tan or Ban? Sunday Star Times.
Oct/Nov 08  Thick melanomas still not decreasing, Healthwise Magazine
13-11-2008  Concern over vitamin D fears, Otago Daily Times.