

**Healthy Eating:
Rapid Evidence Review
of Nutrition Social Marketing Interventions
to
Prevent Obesity**

Prepared for the Health Sponsorship Council



by
Quigley and Watts Ltd
Louise Thornley, Robert Quigley, Carolyn Watts,
Catherine Conland, Rachael Meikle, Jude Ball

April 2007

Foreword

This rapid evidence review has been commissioned by HSC to inform the development of a new nation-wide Healthy Eating Programme. The programme is being developed for the Ministry of Health and contributes to its strategy *Healthy Eating – Healthy Action - Oranga Kai – Oranga Pumau*.

A rapid evidence review follows the principles of a systematic review, but concessions are made in order to complete reviews in a shorter time scale. In this case tight criteria were set for the inclusion of literature in the review and a comprehensive search of grey and unpublished literature was not carried out. A rapid review was undertaken because of the time available to develop the first phase of the Healthy Eating Programme. Work to develop the programme began in May 2006 and it will be launched in May 2007.

The review forms one part of the preliminary research being carried out by HSC and should not be viewed in isolation. Other key components include key informant interviews and advice from an Expert Reference Group. The findings in this report should be read and interpreted in the context of the findings from these other sources. The report on the key informant interviews and other background information is available on the Healthy Eating section of the HSC's web site – www.hsc.org.nz.

Further research and literature reviews to inform subsequent stages of the programme are being carried out as gaps in information and knowledge are identified.

To complete the review in the available time, it has been written by a number of authors and HSC thanks the team at Quigley and Watts for carrying out this work on its behalf. The views in this report do not necessarily represent those of the HSC. Any queries about this report should be sent to the Manager, Research and Evaluation Unit, HSC, P.O. Box 2142, Wellington.

HSC, 2007

Acknowledgements

This report was commissioned and funded by the Health Sponsorship Council (HSC), New Zealand, and was undertaken by Quigley and Watts Ltd.

The authors would like to thank the Wellington School of Medicine librarians who assisted in the searching and retrieval of manuscripts for this work.

The HSC established a Public Health Reference Group for Improving Nutrition (the Reference Group) to guide and advise on the scope of this report, and to continue with the development of the social marketing programme.

The Reference Group members are:

- Jim Mann - **Chair** (nutrition and obesity)
- Tai Matenga-Smith (PIFNAG - Pacific, nutrition and obesity)
- Winsome Parnell (nutrition, food security, inequalities)
- Leonie Matoe (Maori, nutrition and physical activity, inequalities)
- Christina McKerchar (Maori, nutrition, community, sector networks, Agencies for Nutrition Action representative)
- Janet Hoek (social marketing)
- Gerard Vaughan (social marketing)
- Ruth De Souza (Asian health)
- Robert Scragg (nutrition and obesity)
- Rachel Taylor (obesity prevention in children)
- Adrian Te Patu (Maori, public health, health promotion, communities)
- Sitaleki Finau (Pacific)
- Pefi Kingi (Pacific, nutrition)

The HSC also acknowledges the feedback on the final draft report provided by Dr Colin Bell, Director - Kids Healthy Eating and Physical Activity Program, Population Health, Hunter New England Health, Australia, and Professor Gerard Hastings, Laura McDermott and Martine Stead of the Institute for Social Marketing and Centre for Tobacco Control Research, University of Stirling and the Open University in the UK.

Executive Summary

New Zealand is experiencing a rapid rise in the rate of obesity in both adult and child populations, with significant implications for public health. Major causes of death and disease are associated with obesity, including cancer, coronary heart disease, stroke and diabetes. The burden of disease affects the whole spectrum of New Zealand society, but has a disproportionate influence on Maori, Pacific peoples, and those on low incomes.

The HSC has been contracted by the Ministry of Health to develop a social marketing programme to promote healthy nutrition practices and environments related to the maintenance of healthy weights and prevention of obesity. Social marketing is the systematic application of marketing concepts and techniques to achieve specific behavioural goals relevant to social good.

The purpose of this report is to summarise the findings of a rapid review of evidence on nutrition-related social marketing, in order to inform the development of social marketing approaches to promote healthy nutrition practices and environments. The focus of the work has been to investigate effective social marketing interventions for five known factors identified by the World Health Organization (WHO) as causally related to obesity:

- High intake of energy-dense, micronutrient-poor foods.
- High intake of sugar-sweetened soft drinks and fruit juices.
- High level of television viewing.
- Home environments that support healthy food choices for children.
- School environments that support healthy food choices for children.

This rapid evidence review was undertaken with clear research questions, a comprehensive search of the published literature using appropriate search terms and databases, revision of abstracts and sourcing of papers. Inclusion and exclusion criteria were applied, along with a standard set of questions to help decide on the quality of each paper. Three of the six categories from Andreasen's criteria of social marketing were required for the intervention to be defined as social marketing (see methodology section for further detail on the criteria).

In total, 83 social marketing papers were selected from an initial identification of 238 abstracts. There was variation in the number of references located for the various topics, with very few papers on social marketing in relation to high intake of sugar-sweetened drinks or television viewing.

Theories and models of behaviour change are used to help design effective interventions, as they provide a basis for understanding behaviours. A number of theories are presented in this review, and several could be drawn upon to inform social marketing. Importantly, environmental factors are an acknowledged influence on obesity, and are continually interacting with personal factors and behaviour. With a recent emphasis on the 'obesogenic environment', ecological and social models have been applied to obesity prevention.

The evidence for effectiveness of nutrition-related social marketing appears strong for school environments and moderate for energy-dense, micronutrient-poor foods. Evidence is limited or weak for sugar-sweetened beverages, home environments, and television viewing. For sugar-sweetened beverages and television viewing, it is more a case of lack of evidence due to small numbers of studies, rather than evidence that the approach is ineffective. Overall, the findings reflect the reality that social marketing interventions aimed at improving nutrition are relatively new and an empirical evidence base is still emerging. There was some relatively stronger evidence for interventions targeted to low income populations in both home and school environments.

The papers reviewed show that effective nutrition-related social marketing can occur with nearly any target group (whole population, ethnic groups, children, low income) and in nearly any setting (schools, home, workplaces, churches, and the wider community). The most important aspect is not likely to be the particular 'topic chosen', but to ensure there is a quality process for developing and undertaking the programme.

A number of process factors are important for effective social marketing practices related to nutrition, as identified across the five topic areas:

- Simple messages that are tailored to a target group, culturally appropriate, and acceptable to a wide range of stakeholders and service providers.
- Use of a comprehensive approach with multiple intervention strategies and communication channels.
- Development of strong partnerships between government, industry, non-government organisations (NGOs), and communities.
- A national approach that is coordinated with, and supports, local programmes.
- Interventions that are of a sustained duration.
- Culturally specific and tailored interventions set within a population approach that includes community control, community participation and leadership.
- Monitoring and evaluation of social marketing programmes to inform and modify programmes over time.
- A focus on foods rather than nutrients.
- A focus on environmental barriers, for example through legislative, pricing and policy changes, alongside efforts to change behaviours.

The review also identified key barriers to a potential social marketing programme. Again, the environment was highlighted as crucial, with a need to restrict the marketing of unhealthy foods, especially the pervasive marketing aimed at children. Another set of barriers to address is the financial incentives for schools to offer unhealthy foods, and incentives to be part of sponsorship and fundraising schemes involving energy-dense foods.

A key population group in this review was children, and there is good evidence that social marketing can be effective with children and families, especially in school environments. Social marketing in home environments has a less developed evidence base but is potentially a setting for interventions for children and families.

Additional research could be undertaken on the many single interventions that were excluded from this review for being outside the definition of social marketing, as these may include learning that would be useful for a social marketing programme. Furthermore, this review did not include an exhaustive search for unpublished work. Once a topic area and target group/s is chosen as the focus for the HSC's social marketing campaign, a more extensive review of unpublished literature could be undertaken.