

**A Social Cognitive Theory based examination of the
behavioural change role played by Let's Move's website and
social media applications**

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Abstract

It is of key importance to find ways to combat the growing global obesity epidemic. This thesis investigates, using the basis of social cognitive theory, the behavioural change role played by the obesity prevention campaign Let's Move's online channels, including their website and social media sites. The investigation utilises qualitative content analysis to examine three key areas: how the official social media sites and website of the Let's Move campaign work together to facilitate behavioural change; how Let's Move uses its online channels in their attempt to change the audience's behaviour; and how the audience interacts on using the online channels. The thesis concludes that the use of online channels in Let's Move's campaign allows the official campaign messages and the messages posted by the audience to work together to foster behavioural change.

Keywords: *Social Marketing; Social Cognitive Theory; Social Media; Obesity*

Certification of authorship/originality

I certify that this thesis does not, to the best of my knowledge and belief:

- i) incorporate without acknowledgement any material previously submitted for a degree or diploma in any institutions of higher education;
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Signed:

Date: 14 October 2011

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Introduction

“The physical and emotional health of an entire generation and the economic health and security of our nation are at stake. This isn’t the kind of problem that can be solved overnight, but with everyone working together, it can be solved. So, let’s move.” -Michelle Obama at the Let’s Move! Launch on February 9, 2010

Overweight and obesity is a global epidemic with serious economic, social and individual consequences. It is currently the fifth leading cause of global deaths and it increases the risk for a number of non-communicable diseases including diabetes mellitus, cardiovascular disease, hypertension and stroke, as well as certain forms of cancer. The prevalence of obesity in America has almost tripled within a generation with approximately one in three children suffering from overweight or obesity. Childhood obesity is particularly disturbing because obese children are more likely to grow up to be obese adults and are prone to the life threatening diseases associated with obesity from a young age (World Health Organisation, 2011).

The medical supply side, which is the provision of medical interventions, has limited resources and cannot be relied upon to cope with the rising costs of providing care for those affected by overweight and obesity. Overweight and obesity is, however largely the result of unhealthy lifestyle habits and can be prevented by better food choices and a more active lifestyle. Approaches focusing on the demand side, that is reducing the demand for medical interventions by promoting effective self-management of health habits, can reduce the prevalence of overweight and obesity and reduce the burden on the medical supply side (Bandura, 2004). Social marketing is one

intervention, which reduces demand for medical interventions by changing unhealthy lifestyle habits. To maximize their efficacy social marketing interventions should be based on behavioural change theory. One such theory is social marketing theory. It is a theory of behavioural change that focuses on how the dynamic interplay between behavioural, environmental and personal factors causes human behaviour.

The Let's Move campaign, initiated by the American First Lady Michelle Obama in February 2010 is an example of a theory based social marketing campaign that will be examined as part of this study. It is a comprehensive social marketing initiative with the aim of solving the problem of childhood obesity within one generation. It focuses on five pillars: 1) creating a healthy start for children; 2) empowering parents and caregivers; 3) providing healthy food in schools; 4) improving access to healthy affordable foods; and 5) increasing physical activity. This thesis will focus solely on the online components of Let's Move's campaign. The campaign uses its online components including a website¹, Facebook page², Meetup page³ and YouTube⁴ channel to change the audiences' behaviour in the five areas outlined above.

Social marketing is a popular area for research, but researchers have only recently started examining the use of online channels in social marketing campaigns.

Consequently, research does not yet address how the use of social media channels

¹ Let's Move Official website retrieved from: <http://www.letsmove.gov/> (Accessed on 14 August 2011).

² Let's Move official Facebook page retrieved from: <https://www.facebook.com/letsmove> (Accessed on 14 August 2011).

³ Let's Move official Meetup page retrieved from: <http://www.meetup.com/Lets-Move> (Accessed on 14 August 2011).

⁴ Let's Move official YouTube channel retrieved from: <http://www.youtube.com/letsmove> (Accessed on 14 August 2011).

and websites, in a social marketing campaign, by both the audience and campaign creators facilitates behavioural change. This study aims to fill that gap by examining this question through a social cognitive theory based examination of the online channels, including the Facebook, YouTube, Meetup and website, of the Let's Move childhood obesity prevention campaign. The findings of this study will provide insights into whether and how social media sites and websites create behavioural change when used as part of a social marketing campaign. This study is guided by the following research question; from the point of view of social cognitive theory, what is the behaviour change role played by Let's Move's website and social media applications?

This thesis will use social cognitive theory as the basis of a qualitative content analysis to examine the Let's Move social marketing campaign. The thesis begins with a literature review that gives a brief introduction to the field of social marketing focusing in particular on social marketing in obesity prevention and the use of online and social media channels in social marketing campaigns. The second half of the literature review discusses the importance of theory in social marketing interventions and gives an in-depth introduction to social cognitive theory, the theory upon which this study is based. Chapter two introduces qualitative content analysis, the method this study uses. It justifies the use of a qualitative method for research in a field that is dominated by quantitative studies and explains how the qualitative content analysis is to be carried out in this study.

Chapters four to six contains the analysis of the online components of the Let's Move campaign. Chapter four examines the different online channels used by Let's Move and explains each channels strengths and weaknesses. Chapter five solely examines the messages posted by Let's Move to determine the behavioural change role they play. Chapter six examines how the messages posted by the audience members on the official Let's Move social media channels compliment the messages sent by Let's Move and thus facilitate behavioural change.

This study is significant because it contributes to the very limited existing literature on the use of websites and social media in obesity prevention campaigns. Researching social media components of social marketing campaigns is important because it potentially offers cheap and effective ways of changing unhealthy lifestyle behaviours, which are costly both financially and in terms of human suffering.

Chapter 1

Literature Review

Social marketing is one technique that is being proposed as a method to combat the obesity epidemic. This chapter begins by giving a very brief introduction to the field of social marketing followed by a discussion of the academic literature available on the emerging use of the Internet and social media in social marketing campaigns. As social marketing is such a large field the literature review focuses on the use of social marketing for campaigns related to obesity. Theories of behavioural change play an important role in increasing the efficacy of social marketing interventions. This chapter concludes with an overview of Bandura's social cognitive theory because this theory of behavioural change has been chosen as the basis of the following qualitative content analysis of Let's Move. The chapter concludes that there is a gap in the research on the use of social media as it does not address how the use of social media and websites, in a social marketing campaign, by both the audience and campaign creators facilitates behavioural change.

Social Marketing

Social marketing refers to a range of interventions for managing behavioural change. It draws from principles of commercial marketing and involves altering the environment to make a healthy behaviour more attractive than an unhealthy behaviour (Rothschild, 1999). The idea that commercial marketing techniques

can be used to promote pro-social behaviour originated in 1951 when Wiebe asked, “why can’t you sell brotherhood and rational thinking like you sell soap?” (p. 679). In his seminal article Wiebe evaluated four social change campaigns and concluded that the more similar the campaigns were to commercial marketing campaigns the more successful they were. He proposed five factors that are important for motivating behaviour. These are the social mechanism, which is the place where audience members go to attain the desired behaviour. The force of the motivation, which is a combination of the audience members’ original predisposition to certain behaviours and the motivation, provided in the campaign communications. The direction of the audience members to the mechanism involves the audience members’ access to and knowledge about the social mechanism. The adequacy and compatibility of the mechanism, refers to the ability of the mechanism to facilitate the goal behaviour. Lastly, the distance of the audience members from the mechanism refers to how difficult it would be for the audience members to change their behaviour.

Social marketing is a not a theory in itself. It is a framework that draws from other fields such as, psychology, sociology, anthropology and communication theory to develop an understanding of how to effectively create behavioural change (Stead, Hasting & McDermott). There are several definitions of social marketing, the most useful of which is Andreasen’s (1995): “The application of commercial marketing technologies to the analysis, planning, execution and evaluation of programs designed to influence the voluntary behaviour of target audiences in order to improve their personal welfare and that of society” (p. 7).

This definition is particularly useful as it encompasses three key aspects of social marketing (Stead, Hastings & McDermott, 2007). These are: the idea of voluntary behaviour change which, unlike other approaches to behavioural change, such as law enforcement or policy development, social marketing does not use coercion or enforcement to create behavioural change (Rothschild, 1999); the principle of exchange, which is the acknowledgement that there must be a clear benefit to the customer if change is to occur (Bagozzi, 1975); and the idea that social marketing can have effects both 'downstream' and 'upstream' so that it does not merely have to aim to change the behaviour of individuals, but it can also change the behaviour of professionals, organisations and policymakers (Andreasen, 2006).

The features of commercial marketing that are seen as key to social marketing include exchange theory, audience segmentation, competition and the marketing mix (Grier & Bryant, 2005). In exchange theory individuals act out of self-interest, seeking what gives them the greatest value at the least cost. The role of marketing is to create the exchange of goods or services for a cash outlay by consumers (Bagozzi, 1975). In social marketing health behaviour is exchanged for desired outcomes, but the payback to the target audience for adopting healthy behaviour is not immediate. Social marketers must keep this in mind and facilitate exchange by offering benefits that the consumer truly values and by acknowledging that when changing their health behaviour consumers often have to pay intangible costs like psychic discomfort (Donovan & Henley, 2003).

Audience segmentation involves dividing populations into segments, which share similar lifestyles, behaviours and values. Social marketers usually use variables like current behaviour, future intentions, readiness to change and other psychographics to segment the target population. This allows social marketers to discover the segments of population with the highest need and to focus the resources in a way that will maximize the impact of the intervention (Forthofer & Bryant, 2000).

In commercial marketing competition refers primarily to competition between companies that aim to fulfil similar wants and needs. In social marketing competition is also important, but it refers to competing behavioural options. Social marketers need to know which behaviours compete with the behaviours they are trying to promote. This allows them to maximise the attractiveness of the behaviours they are trying to promote by differentiating it from other, less desirable behaviours (Hastings, 2003a). Knowing the competition is also important in campaign development because it is useful when deciding which behaviour to promote and which audience segments the behaviour should be promoted to (Novelli, 1996).

The marketing mix was adopted from commercial marketing. It is made up of four elements and is key to the planning and implementation of behaviour change campaigns. The marketing mix is sometimes referred to as the four Ps. It consists of product, which refers to either the core product, or what people will gain when they perform the behaviour, and the actual product, or the desired

behaviour (Kotler, Roberto & Lee, 2002). Social marketers must discover the needs and wants of a consumer and provide a product that will appeal to the target audience. Price refers to the cost to the consumers of modifying their behaviour. These could include financial costs as well as intangible costs like psychological stress, loss of pleasure and embarrassment. When setting the price social marketers need to think about what the target population would be willing to do to obtain value added benefits, and if they think products given away at a low price are inferior (Kotler, et al., 2002). Place in social marketing refers to where and when the target audience will perform the desired behaviour and receive any associated services. Research is needed to reach the target audience in the right place to maximise the likelihood that there will be behavioural change. Promotion is the type of communication marketers use to convey information to the audience. Promotional strategy involves a carefully designed set of activities intended to influence change and usually involves multiple elements (Kotler, et al., 2002). When designing a social marketing campaign all four Ps must be addressed in an integrated strategy where each element supports and reinforces the others.

There is debate as to how reliant social marketing should be on commercial marketing. Andreasen (2003) states that, "the assumption that commercial sector concepts and tools ought to migrate seamlessly into social marketing is... just an assumption" (p. 299). Peattie & Peattie (2003) argue that social marketing should develop unique tools, theories and vocabulary and not be completely reliant on commercial marketing. The use of concepts from

commercial marketing has been challenged for several reasons. The centrality of exchange for social marketing is questioned because of a shift in emphasis away from exchange in commercial marketing. Where the individual transaction was once seen as key, emphasis has shifted to the formation of long-term relationships. Hastings (2003b) argues that social marketers have largely ignored these developments in commercial marketing to the detriment of their behavioural change programs. He argues that focusing on relationships has the potential to revolutionise the field of social marketing just as it has commercial marketing (Parvatiyar, Sheth & Whittington Jr, 1997). The concept of exchange is often also inappropriate in the context of social marketing. Peattie and Peattie (2003) argue that in social marketing there is often no genuine exchange as the provision of attributes by social marketers is done to change behaviour, not in exchange for behavioural change. They argue that, it is more appropriate to use the concept of 'interaction' as: "social campaigns aim to alert, inform, educate, incentivise, influence and support their targets in moving them towards behavioural change" (p. 370). This is not to say that exchange never forms a part of social marketing campaigns; rather exchange does not have to be part of a campaign for it to be considered social marketing.

When it comes to the marketing mix promotion is the concept that translates most readily into the social marketing context. Social marketers have found it difficult to apply the concept of product to social marketing. There has been some confusion as to whether the product is the desired behaviour or the tools of the campaign like information and supporting technologies (Peattie & Peattie,

2003). Price is seen as an inappropriate concept because what it really means in social marketing is cost, that is the cost of changing one's behaviour. Place in social marketing is not always a physical location. Peattie and Peattie (2003) argue that product, place and price in social marketing are really "metaphors for social propositions, their accessibility, and the relative costs in adopting them" (p. 378). The use of these concepts as metaphors may be undesirable for two key reasons. Firstly, because it increases the likelihood that there will be misunderstanding of the meaning of concepts between different practitioners and secondly, there is a possibility that the use of metaphors will result in counter-productive unintended meanings (Peattie & Peattie, 2003).

Social marketing was originally widely used for interventions in the developing world (Fox & Kotler, 1980), however it is now regarded as a popular tool for public health interventions by governmental and non-profit organisations in the United States and other developed countries (Donovan & Henley, 2003). Social marketing is a tool that has been used effectively to combat a range of public health problems, particularly as a strategy for changing voluntary lifestyle behaviours such as smoking, drinking, drug use and diet (Stead, Gordon, Angus & McDermott, 2007). Generally it has been found that the effects of social marketing interventions are positive in the short-term, but this generally dissipates in the medium to long term (Stead, Gordon, et al., 2007). A review of social marketing nutrition interventions found that social marketing campaigns successfully influenced a range of factors implicated in behaviour change, including knowledge and psychosocial variables such as, self-efficacy. The

interventions were also effective at both narrow and broad goals, that is they were able to effect change in multiple domains as well as successfully focusing on one domain (Stead, Hastings, et al., 2007).

Social marketing has previously been used to increase physical activity in adolescents with great success. The VERB™⁵ campaign encouraged tweens⁶ to engage in physical activity every day. After one year the campaign resulted in a 34% increase in weekly free-time physical activity sessions among 8.6 million children aged between the ages of 8 and 9. The increases in physical activity were even more dramatic in communities that were exposed to higher levels of VERB interventions (Huhman, et al., 2007).

Websites and the Internet in Social Marketing Interventions

The Internet is a medium that is starting to be used in social marketing interventions. It has been found to be a successful medium for implementing physical activity and anti-obesity interventions (Steele, Mummery, & Dwyer, 2007; Winnett, Tate, Andreason, Wojcik & Winnett, 2005). Interventions that use the Internet as their medium have some advantages over interventions using the face-to-face medium. Its advantages include that it is novel, appealing, flexible, convenient to use, interactive and facilitates social support (Fotheringham,

⁵ VERB™ was a United States wide social marketing campaign, which used a combination of mass-media advertising, public relations, guerrilla marketing, partnerships and celebrity role models to achieve its aims. It aimed to increase and maintain physical activity among tweens. It was a five-year strategic campaign launched in June 2002. The VERB campaign was seen as effective. It achieved high awareness among the target audience, positively influenced tweens attitudes towards physical activity and increased the self-reported physical activity levels of the target audience.

⁶ Tweens are youth aged between 9 and 13.

Owies, Leslie & Owen, 2000). Internet-based interventions are also available 24 hours a day and can be accessed by anyone with an Internet connection meaning that they have widespread accessibility and have the potential to achieve this accessibility in a cost effective manner (Vandelanotte, Spathonis, Eakin, & Owen, 2007). Despite the potential of Internet-based campaigns there is still the challenge of access. The digital divide, which has been defined as, “the differential access to and use of the Internet according to gender, income, race and location.” (Rice, 2002, p. 106) means that even within developed nations not everyone has equal access to the Internet. Social marketers must keep this in mind when designing campaigns.

Internet-based interventions may be more efficacious if they involve a lot of contact with participants. It was found that interventions that communicated with participants more than five times throughout the period of the intervention using methods such as, e-mail, discussion boards, chat sessions or online coaches resulted in more positive changes to the physical activity of participants than those with five or less contacts (Vandelanotte, et al., 2007). The amount of exposure participants have to intervention materials is also an important factor. Studies have found that subgroups of participants who used the behavioural change website the most experienced the strongest effects on their behaviour (Lewis, et al., 2008; Vandelanotte, et al., 2007). Similar findings were reported by Cugelman, Thelwall, & Dawes (2007) who developed an online version of Wiebe’s five criteria to examine online social marketing campaign websites. They considered frequency of visits to the website as one factor that determines

force, one of Wiebe's criteria for campaign success. The authors argued, "A person's disposition towards a social issue is the same online or offline" (p. 2).

Users of physical activity websites have indicated that they have certain preferences for their functions and content (Ferney & Marshall, 2006). The usability of a website is extremely important to users. Information should be easy to find and the website should download and respond quickly. Cugelman, et al. (2007) believe that the usability of a website is related to Wiebe's variable of direction defined in the online context as, "The clarity of an email, hyperlink, site design or web advertisement that directs people to a website" (p. 2).

Users also want more interactive features on websites like the ability to contact an expert and access to peer-directed forums. Peer-to-peer forums were seen as a desirable feature because they offer access to a social network of like-minded individuals who can provide helpful advice and suggestions (Ferney & Marshall, 2006). This is supported by the findings of another study, which found that interventions that provide peer-to-peer access have a statistically significant effect on behaviour (Webb, Joseph, Yardley & Michie, 2010). Online interaction is part of Wiebe's Social mechanism defined for the online environment as, "A website or online application where users can interact to complete behavioural goals" (Cugelman, et al., 2007, p. 2). Users also wanted practical tools and locally relevant information that could aid them in attaining their physical activity goals to be available on websites. These tools included heart rate calculators and information on local parks or other local opportunities for exercise. Users

wanted web content to be continually updated to maintain their interest and wanted to be kept informed about new developments and events in their local community through emails or newsletters. Users also appreciated Video and other multimedia content (Ferney & Marshall, 2006).

Cugelman et al. (2007) also defined Wiebe's other two criteria of distance and adequacy for the online context. Distance was defined as, "The amount of time energy and hassle to find a website and complete an online task" (p.2). And adequacy is defined as, "The degree of credibility, and intuitiveness of a website's social mechanism" (p. 2).

The emergence of Social Media and their use in social marketing

The Internet has developed beyond simple websites in recent years. Social media, also known as web 2.0, is the second generation of web applications. In contrast to web 1.0 applications, social media treat the Internet rather than the desktop as a platform. This has allowed a number of new features including, participation, interactivity and social networking, as well as the possibility of collaborative learning and user generated content (Flew, 2008). Social media applications hold great potential for social marketers. They are increasingly popular with the public, for example the proportion of adult American Internet users with a profile on a social networking site grew from 8% in 2005 to 35% in 2008 (Lenhart, 2009). The popularity of these applications is predicted to continue growing as personal wireless devices become increasingly prevalent (Chou, Hunt, Beckjord, Moser, & Hesse, 2009). Social networking sites are very

popular with teens with 73% of American teens using a social networking site like Facebook, Myspace or Twitter (Lenhart, 2011). These new technologies hold great potential for health promoters and users of social networking sites have been found to be receptive to receiving health information through their social networking site (Uhrig, Bann, Williams, & Evans, 2010). Despite this there has not been much research into how social media can be employed effectively as part of a social marketing campaign. Nor does the current research address how the use of social media and websites, by both the audience and campaign creators, in a social marketing campaign, facilitates behavioural change.

The way that people send and receive information, as well as the channels through which people access information has changed in the last 25 years as a result of the emergence of social media (Bernhardt, Mays, Ero lu & Daniel, 2009; Thackeray & Neiger, 2009). This has implications for social marketers. Thackeray and Neiger (2009) argue that the Internet, in particular social media, is changing the way information is sent and received from a traditional unidirectional model to a multi-directional communication (MDC) model and that this will affect the social marketing process. The traditional model is a top down or vertical model where the sender relays a message to the receiver through a media channel. In this model the social marketer is the gatekeeper of information and the consumer plays a less active role. The vertical communication process that dominates the traditional model is still used in the MDC model, but there are several additional communication processes that also occur. In the MDC model communication also occurs from the bottom-up, that is the receivers in the

traditional model also generate information in the MDC model. Communication also occurs horizontally when the consumers share messages amongst themselves without the influence of a gatekeeper. Finally, consumers actively seek the information they require in the MDC model. To most effectively utilise these new channels social marketers should not think of them as new channels with which to do the same thing. They should shift the way they think about communicating with the audience (Lefebvre, 2007).

Mainstream marketers are using social media applications to enhance the reach and efficacy of their communications with great success. Social marketers need to learn from these campaigns' uses of new technologies and change the way that they design, deliver and evaluate health promotion programs (Abroms & Lefebvre, 2009; Bernhardt, et al. 2009). A television network's coverage of the 2008 Olympic games and Barack Obama's 2008 presidential campaigns are two examples of the effective use of new communication channels that social marketers should look to, to see the potential of these new channels for health promotion campaigns (Abroms & Lefebvre, 2009; Bernhardt, et al. 2009).

Television network NBC used multiple channels, including the Internet, social media and mobile technology in their coverage of the 2008 Summer Olympic games. It was found that the use of these new channels increased exposure to the content with the coverage reaching previously unsurpassed audiences for Olympic games taking place outside the United States. Consumers were also found to have reached content through new channels. These findings are significant for health marketers because it means that a multichannel approach

can significantly increase the exposure of the communicated messages and that new channels like social media offer additional means to engage consumers. This indicates that it would be valuable for health communicators to develop ways to utilise these new channels in their disease prevention campaigns (Bernhardt, et al. 2009). The election campaign for Barack Obama in 2008 illustrates how web 2.0 applications can be used to reach, engage and inspire supporters. The new channels used in the Obama campaign include a campaign website, the campaign TV channel, social networking sites, mobile phone and unofficial campaign materials produced by supporters. The success of these campaign communications can be analysed through the lens of health communication theory (Abrams & Lefebvre, 2009). To generate health behavioural change successfully it is best to present health messages to people multiple times, from multiple sources and in multiple settings (McGuire, 1984). The Obama campaign's use of new media facilitated this because it allowed people to be reached through different channels including, their mobile phones and computers in addition to traditional channels like television (Abrams & Lefebvre, 2009).

These campaigns and further academic research demonstrate the potential benefits these new technologies hold for behavioural change campaigns. The promotional aspects of social marketing campaigns are those that are concerned with key messages, messengers and communication channels (Kotler, Lee & Lee, 2008) and this is the process some argue has benefited most from the introduction of new communication channels (Thackeray & Neiger, 2009;

Thackeray, Neiger, Hanson & McKenzie, 2008). Promotion is one of the components of the marketing mix. The aim of promotions is to produce messages so as to increase awareness about a product, remind consumers that a product exists and to persuade people to purchase the product (Donovan & Henley, 2003). Social marketers' role is no longer solely to produce messages. New channels allow messages to be distributed between consumers as well as to be produced by consumers. This means that social marketers need to monitor these messages spread by consumers and modify their campaign and messages appropriately. In this environment it is easy for messages to spread quickly and widely with little control from gatekeepers. Social marketers need to capitalise on this by creating messages that will go viral, spreading rapidly between consumers (Thackeray & Neiger, 2009; Thackeray, et al., 2008). Another advantage of this is that consumers are more likely to get messages about health information from their friends or acquaintances who they trust rather than from traditional sources like campaign spokespeople and news reports (Abroms & Lefebvre, 2009). This is especially important for health behavioural change campaigns because individual's health behaviour, beliefs and attitudes are influenced by those in their social network (Heaney & Israel, 1997; Lefebvre, 2007). Social media applications allow consumers to share messages about a campaign that they create themselves (Abroms & Lefebvre, 2009). This is beneficial because it increases consumers' loyalty to the product, and may make it more likely that they will talk to their friends and acquaintances about the campaign. Consumer generated content is also more cost effective to communicate and may be more likely to resonate with the target audience as it

was produced by the target audience for the target audience (Thackeray, et al., 2008). Consumers actively seek the information that they require and social marketers need to make sure that the information they are trying to promote is available and easy to find, for example through creating a well-designed website and implementing strategies to make sure the website can be easily found (Thackeray & Neiger, 2009).

Social marketing campaigns have started incorporating some web 2.0 tools to complement traditional media channels (Hamilton, Dennings, & Abrams, 2008; Hoff, Mishel, & Rowe, 2008; Plourde, Cook, Mitchell & Jennings, 2008). VERB used an interactive website, mobile phones and blogging as part of its obesity prevention campaign. The campaign evaluation did not look at the behavioural or attitudinal effects of one channel in isolation, but it was found that a large number of tweens interacted with the new media component of the campaign. Another benefit was that awareness of the campaign online remained high even 18 months after paid media ceased, which was not something campaign planners anticipated before the new media became popular (Huhman, 2008).

Social marketers need to take into account the demographics of their target audience as social media use is not spread evenly across all groups even within one country. For example in America 65% of online teens and 75% of online adults aged 18 - 24 use social media sites while usage for over 34 year olds drop sharply with only 7% of online adults aged 65 and over using social media sites (Lenhart, et al., 2009). Social marketers need to take this into account when

designing campaigns to ensure that their campaign messages reach their target audience. Social marketers must segment their target audience using psychographic and lifestyle variables to determine its motivation to use web social media applications before using social media applications as part of a social marketing strategy (Thackeray, et al., 2008). The participatory nature of content creation in web 2.0 applications and the speed at which information can be passed between users mean that non-credible and incorrect health information can spread widely and quickly (Chou, et al., 2009).

The Role of Theory in social marketing

Regardless of advancements in the media used by social marketers, campaigns should still be based on established theories of behavioural change. A theory is defined as, "A set of interrelated constructs, definitions, and propositions that present a systematic view of phenomena by specifying relations among variables, with the purpose of explaining and predicting phenomena" (Kerlinger, 1986, p. 9). Theories are testable and can be generalized across circumstances. This is useful to health promoters as a generalizable theory can be applied to the wide variety of clients and settings within which they work. A campaign based on a testable theory also has a high likelihood of success when compared to a campaign based on an untestable belief system (Van Ryn & Heaney, 1992). Health communicators who understand theory can make the best use of their resources and design campaigns that are likely to create change in their target community (Glanz, Rimer, & Viswanath, 2008). The application of recognized theories of behaviour change has been used as an indication of the quality of

websites aiming to increase the physical activity of visitors (Doshi, et al., 2003).

Theory has also been implicated in the success of Internet-based health behaviour change interventions. Internet-based interventions that use theory extensively have been found to have greater effects compared to those that use less theory (Webb, et al. 2010).

There are a variety of behavioural change theories that can be used in health communication or social marketing campaigns. Choosing the appropriate theory is important for the success of the program because different theories are designed to achieve different goals. Van Ryn & Heaney (1992) advise on the steps social marketing practitioners should take to identify which theory would be the most appropriate theory for them to base their campaign on. Firstly, theories are often specific to certain types of interventions therefore the goals and targets of the programme should be established first to narrow the number of potential theories. Secondly, the potential theories should then be evaluated in terms of the evidence available for each of them. This includes whether they have been effectively applied to similar problems in the past and whether they have been used in populations similar to the target population. Finally, practitioners must also choose a theory that makes sense to them given their beliefs and prior experiences. A review found that the most commonly used theories in health behaviour change programs were The Transtheoretical Model, Social Cognitive Theory and Health Belief Model (Painter, Borba, Hynes, Mays, &

Glanz, 2008). The health belief model⁷ and transtheoretical model⁸ both focus on the beliefs and actions of individuals (Brewer & Rimer, 2008). Internet-based interventions based on social cognitive theory have been found to be successful in preventing weight-gain (Winett, et al., 2005).

A combination of constructs from different theories and models often inform behavioural change campaigns, but due to time and space limitations the focus of this thesis will be on social cognitive theory. Bandura (2004) has also been critical of the use of multiple constructs from various theories in the same intervention because he argues that this can lead to replication of the same determinants under different names, redundancy and theoretical disconnectedness. The focus of social cognitive theory on the dynamic interplay between behavioural, environmental and personal factors fits well with the aims of the Let's Move campaign which includes environmental aims like providing healthy food in schools and improving access to healthy, affordable foods as well as personal and behavioural aims like empowering parents and caregivers and increasing physical activity. Social cognitive theory has also been used successfully as the theoretical base for anti-obesity campaigns similar to the Let's Move campaign most notably the VERB campaign (Huhman, Heitzler, & Wong, 2004)

⁷ The Health Belief Model was developed in the 1950s and is made up of several concepts that are said to predict whether people will take action to prevent or screen for illness. These concepts include perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action and self-efficacy.

⁸ The transtheoretical model uses stages of change to assess an individual's readiness to change their behaviour.

Social Cognitive Theory

Social cognitive theory has been applied in a wide variety of different areas including health. It provides a well-supported conceptual framework for understanding the factors influencing human behaviour and the processes through which learning occurs (McAlister, Perry & Parcel, 2008). Social cognitive theory evolved from social learning theory, which was renamed to reflect the incorporation of concepts from cognitive psychology (Bandura, 1986). Social cognitive theory is a model of triadic reciprocity for explaining human functioning. Behaviour, cognitive and other personal factors, and environmental factors all operate as interacting determinants of each other. According to Bandura (1986), humans also have a number of capabilities that function within this framework and contribute to their nature. These are:

- **Symbolizing capacity.** The ability of people to assign symbols to experiences and use these symbols to process and transform experiences into cognitive models that can guide future judgement and action. Humans also use the medium of symbols to communicate with each other across distances in time and space. This is key for social learning.
- **Self-regulatory capacity.** The ability of people to regulate their own behaviour without relying on external sanctions and demands. Self-monitoring, goal setting, feedback, self-reward, self-instruction and the enlistment of self-support are all part of self-regulatory capacity.
- **Self-reflective capability.** The ability to reflect upon one's own thoughts, feelings and actions to examine their adequacy.

- Vicarious capability. Humans not only learn through their own actions, but also through the information conveyed by models; that is observing other people's actions and the consequences of those actions. Modelling can also be symbolic, for example the modelling that takes place in the symbolic environment of the mass media.

Social Cognitive Theory and Health

There are three components to sociocognitive health interventions. A theoretical model specifying the determinants of psychosocial change as well as the mechanism through which they will produce their effects. A translational and implementational model, which converts the theoretical principles into an operational model specifying the content and strategies of the campaign as well as how they will be implemented. The third component is a social diffusion model, which provides the adaptations that need to be made to programmes to increase the likelihood that individuals in a variety of contexts will adopt them (Bandura, 2001; 2004). Social diffusion will not be examined in this thesis due to time and space constraints.⁹

Social cognitive theory specifies five core determinants that are needed for health behavioural change as well as the mechanism through which they work and the optimal ways of translating this knowledge into effective health practices. These are (Bandura, 2004):

⁹ For a discussion on the role of the mass media in the social diffusion of new behaviours see Bandura (2001). For a discussion of the theory underpinning the diffusion of innovation see the work of Everett M. Rogers.

- Knowledge of the health risks and benefits associated with behaviours.
If people do not have knowledge of the health risks and benefits associated with behaviours they will have no reason to change their behaviours. Knowledge alone is not enough to overcome the difficulties associated with behavioural change in most people.
- There are several different forms of outcome expectations that affect behaviour. The physical outcomes are the pleasurable and aversive effects, which result in material losses or benefits. Social outcomes are the social reactions that behaviours evoke in one's interpersonal relationships like social approval or disapproval. Self-evaluative reactions are the final type of outcome. Self-evaluative reactions are important because self-satisfaction and self-worth are derived from these types of reactions if they are positive and self-dissatisfaction if they are negative. Behaviour change must be framed in ways that are congruent with an individual's self-interest and highly valued goals.
- Long and short-term personal goals that are in line with an individual's value system provide motivation. Long-term goals set the course of personal change, but these distal goals cannot control current behaviour because there are too many competing influences. This is why short-term goals are important. They guide action in the current moment.
- There are a number of impediments and facilitators to change that influence health behaviour. Impediments and facilitators can be both personal and societal. Societal impediments reside in how health services are structured socially and economically (Bandura, 2004).

- Self-efficacy is the belief that one can produce the desired effect through one's actions. It is the most important of the core determinants because all the other factors that guide change are rooted in one's personal beliefs of efficacy, or one's personal belief to be able to produce change. As self-efficacy is so important it will be discussed in detail separately.

Socially oriented approaches to health

Social cognitive theory is not just concerned with the role of the individual in health promotion. Factors associated with the social structure like social, environmental, political and economic conditions also have a role to play in health promotion. Social cognitive theory aims to change the behaviour of individuals as well as the practices of the social system. Bandura (2004) says, "socially oriented approaches seek to raise public awareness of health hazards, to educate and influence policy makers, to build community capacity to change health policies and practices, and to mobilize the collective citizen action needed to override vested political and economic interests that benefit from existing unhealthful practices." (p. 159). The social cognitive theory on personal agency and self-efficacy can be extended to collective agency and collective efficacy (Bandura, 1982).

Self-efficacy in Social Cognitive Theory

Self-efficacy is a construct in a number of different behavioural change models or theories (Doshi, et al., 2003) According to social cognitive theory, self-efficacy is a focal determinant for health behavioural change (Bandura, 2004). Self-efficacy

relates to the beliefs individuals have about their capability to perform specific behaviours in specific situations. Self-efficacy is not a personality characteristic, it is fluid and changeable over different behaviours and situations (Strecher, McEvoy DeVellis, Becker, & Rosenstock, 1986). Self-efficacy motivates change because without the belief that one can produce the desired change through one's actions one will not be motivated to persevere (Bandura, 2004). An individual's efficacy beliefs affect all three basic processes of personal change. That is: the adoption of new behaviour patterns; their generalized use under different circumstance; and their maintenance over time (Bandura, 1986). Self-efficacy also affects health behaviour both directly and through its influence on the other core determinants (Bandura, 2004).

The higher an individual's perceived self-efficacy, the higher his or her goals will be and the firmer his or her commitment to change. Perceived self-efficacy effects an individual's outcome expectation. If an individual's perceived self-efficacy is high, he or she will believe that their actions will result in a positive outcome. The opposite is true of someone with low self-efficacy. Perceived self-efficacy also influences how people deal with impediments to changing their behaviour. If an individual has low self-efficacy they will give up in the face of obstacles while if an individual has high self-efficacy they will view impediments as surmountable and therefore persevere in the face of difficulties (Bandura, 2004).

There are five sources of information that contribute to the construction of an individual's self-efficacy beliefs; vicarious experiences; enactive mastery experiences; social or verbal persuasion; and physiological and affective states (Bandura, 1997).¹⁰ Vicarious experiences exert their influence on self-efficacy beliefs in several ways. People judge their performances in comparison with the performance of other similar individuals and in this way they diagnose their own abilities. Efficacy beliefs are heightened when performance is above average and lowered by low performance in comparison to the performance of associates in similar situations (Bandura, 1997).

Factors influencing self-efficacy: Vicarious Experiences

Self-efficacy beliefs can also be influenced vicariously by seeing another person either succeeding or failing at a task. If the model succeeds at the task an individual is persuaded that they too can succeed. Self-efficacy is influenced more if the model is seen as very similar to the self (Bandura, 1997). Models also have the power to influence an individual's behaviour. Whether an individual's behaviour is influenced by modelled behaviour depends on three factors: the attributes of the models; the attributes of observers; and the functional value of what is modelled. Bandura (1986) argues that, "models who have status, competence and power, are more effective in prompting others to behave similarly than are models of lower standing." (P. 207). Bandura (1986) explains that this is because high status models have gained their status through success

¹⁰ Physiological and affective states fall outside the scope of this investigation. For information on how physiological and affective states are involved with self-efficacy beliefs see (Bandura, 1997). The physiological and affective states related to self-efficacy also have an impact on health independent of the effects of health behaviours (O'Leary, 1992).

indicating that they are high in vocational, intellectual or social competence and thus have a high functional value for observers. All types of people are susceptible to modelled behaviours. This includes both people who have low self-confidence and talented individuals who are aiming to develop specific skills (Bandura, 1982). The functional value of a modelled behaviour is the largest influence on whether or not a modelled behaviour will be performed (Bandura, 1982).

Modelling is also important because it teaches people new and better ways to cope with different situations. Aspirational modelling guides self-development especially if the models are determined and show that problems are surmountable, and valued goals are achievable. This encourages continued effort. Modelling also affects motivational processes. Three types of incentives influence performances of observationally learnt behaviour: direct, vicarious and self-produced. People are more likely to perform behaviour if the behaviour has a positive outcome than if it has a negative outcome. The same is true for behaviour modelled by others. Personal standards of behaviour also influence which modelled behaviours will be performed. People are more likely to perform behaviours, which they see as self-satisfying than those behaviours of which they disapprove. This will add to their sense of self-worth. The affective states aroused by comparative self-evaluations affect the self-appraisal of efficacy. The characteristics of models have an influence on the observer's affective state. Seeing the accomplishments of similar others will either gladden or depress individuals depending on their own comparative performance.

Insecure individuals will avoid comparisons, which can be threatening to their self-esteem. Under conditions of self-esteem threat individuals will compare themselves either with subordinates who will make them feel better about themselves or with eminent figures who are too far removed to pose any serious evaluative threat (Bandura, 1997). Modelling can occur with direct associates or through symbolic modelling provided by visual media like television. When individuals are exposed to actual or symbolic models exhibiting useful skills and strategies their own belief in their capability will be raised (Bandura, 1982).

Factors influencing self-efficacy: Enactive Mastery Experiences

Enactive mastery experiences provide the most effective evidence of whether one can succeed. Enactive mastery experiences provide stronger, more generalized efficacy beliefs than modes of influence relying solely on other sources of self-efficacy (Bandura, 1997). Generally successes build a robust sense of self-efficacy while failures undermine it; however, some difficulties and setbacks are beneficial because a resilient sense of self-efficacy requires overcoming obstacles through perseverance and hard work. Enactive mastery experiences teach individuals cognitive, behavioural and self-regulatory tools that allow an individual to create and enact effective courses of action for effective performance in a wide and varied range of life experiences. Changes in perceived efficacy results from cognitive processing of the information that performances convey about capability rather than the performances themselves. The extent to which people alter their perceived self-efficacy through performance experiences depends on among other factors: an individual's

preconceptions of their capability; the perceived difficulty of the task; amount of effort expended; amount of external aid received; the circumstances under which the task takes place; and the way enactive mastery experiences are stored and organized in the memory. Therefore efficacy beliefs are not simply reflections of past performance (Bandura, 1997).

Factors influencing self-efficacy: Social or verbal persuasion

Social or verbal persuasion strengthens individual's beliefs that they have the ability to succeed. Maintaining a sense of self-efficacy in the face of difficulties is easier when others express their faith in one's abilities than if they express doubts. Social persuasion can bolster self-change, but only if the appraisal is within realistic bounds. If positive appraisals of an individual's capabilities are unrealistically positive then failure is likely and this will discredit the persuaders and undermine the recipient's beliefs in their capabilities. The way in which persuasive influences are framed can affect the appraisal of personal efficacy. Long-term benefits are less compelling than current losses (Bandura, 1997).

When health messages are framed in terms of losses, people with a high sense of self-efficacy will intensify their efforts at self-directed change, but the efforts of those with low self-efficacy will be undermined (Van't Riet, Ruiters, Verrij, & de Vries, 2008; Verrij, Ruiters, Van 'T Riet, & De Vries, 2010). Negative feedback after poor performance undermines an individual's self-belief. At the same level of performance disparaging feedback will lower self-efficacy while constructive criticism upholds or even bolsters an individual's sense of self-efficacy (Baron, 1988).

The importance of self-efficacy for health behaviour change

Self-efficacy has consistently been found to be a predictor of short and long-term success in changing a variety of health related behaviours including weight control and exercise (Kerlinger, 1986). A review of studies that aimed to increase self-efficacy as part of physical activity interventions found that the largest increases in self-efficacy were in interventions that used feedback on past performance or feedback in comparison to other's performance, and vicarious experiences as methods to raise self-efficacy. Interventions that used persuasion, barrier identification and graded mastery led to smaller increases in self-efficacy compared with interventions that did not use those techniques (Ashford, Edmunds, & French, 2010). A later review examined which techniques were associated with increases in both self-efficacy and physical activity. It found that action planning, which involves making a detailed plan of the steps needed to successfully create behavioural change; the provision of strict instructions on when and how to perform desired behaviour; and praising or rewarding participants for attempting to change their behaviour all caused significant increases in self-efficacy and physical activity. Relapse prevention, which involves planning on how a behaviour that has already been changed will be maintained by identifying potential barriers to behavioural maintenance was found to have significantly lower effects on physical activity and self-efficacy when compared to the other types of experiences (Williams & French, 2011).

Interactive Technologies and social cognitive theory

The implications of new technologies, like the Internet, for health promotion by social cognitive means has started to be examined (Bandura, 2002). There has not however been much examination of the role that web 2.0 social media can play. Bandura (2004) argues that new interactive technologies provide the potential for health communicators to increase the scope and impact of their campaigns through their affects on both the input side, and behavioural adaption side. On the input side health messages can now be tailored and individualized, but this does not guarantee better outcomes. Relevant factors that are based on social cognitive determinants known to affect health behaviour should be used in tailoring strategies. Individualized interactivity on the behavioural adaptation side can also enhance the impact of health promotion programs (Bandura, 2004). Social support and guidance that aims to raise people's self-efficacy in coping with their current situation has been found to be beneficial during early periods of personal change as well as long-term maintenance of new habits (Bandura, 2002).

Health communication campaigns use two pathways to alter health habits: the direct pathway and the indirect pathway. In the direct pathway the media promotes behavioural change by informing, modelling, motivating and guiding personal change, while in the socially mediated pathway the media links individuals to social support networks and community settings (Bandura, 2004). This is important because social networks can provide individuals with continued personal guidance, natural incentives and social supports for desired change

(Bandura, 2004). Interactive Internet technologies can play a role in health promotion through the socially mediated pathway. It is important that Internet-based campaign material is designed in a way that builds motivational and self-management skills as well as guiding habit changes because otherwise individuals who cannot motivate themselves will not be able to take advantage of what they have to offer (Bandura, 2004). Different people have different self-management capabilities and motivational preparedness and this affects the type of guidance they need to make desired behavioural changes. It is therefore important that health promotion programs follow a three step implementation model where the type of interactive guidance is tailored to the individual's needs. The first level includes people with a high sense of self-efficacy and positive outcome expectations for behaviour change who can succeed in accomplishing desired changes with minimum guidance. The second level includes people who need additional support and guidance to assist them through tough times because they have self-doubts about their efficacy and the likely benefits of their efforts. These individual's efforts to change are half-hearted and are impeded when they run into difficulties. Some guidance provided through tailored print or telephone consultation is beneficial to these individuals. The third level includes individuals who need a great deal of guidance in a structured mastery program because they believe that their healthy habits are beyond their personal control and they need help building belief in their ability to cope in the face of difficulties and setbacks (Bandura, 2004). The findings of a recent study examining the sedentary lifestyles of young Australians concluded that social marketing aimed at reducing the sedentary

behaviour of the participants would have to go beyond traditional methods like television and print advertising and include additional support and guidance by interactive means like web-based, print-media or telephone consultation to ensure that health habits were adopted (Hawley, Harker, & Harker, 2010).

A self-management model for health promotion based on the self-regulatory mechanisms of social cognitive theory has been found to be successful in changing health behaviours and decreasing disease risk (Bandura, 2004). In the self-management system individuals were asked to monitor their health habits, set-short term goals and report the changes they made. The individual's were then provided with feedback on their progress towards their goals as well as feedback on how to overcome obstacles to attaining their goals. Efficacy ratings were also used to determine which self-regulatory skills needed to be developed to achieve and maintain beneficial changes. The benefits of this self-management model is that it allowed a single implementer to reach large numbers of people with the help of communication technologies like the telephone (DeBusk, et al., 1994). Technology has developed greatly since DeBusk and colleague's (1994) intervention. Linking the self-management model to Internet technology could expand its utility. Bandura (2004) writes, "By linking the interactive aspects of the self-management model to the Internet, one can vastly expand its availability to people wherever they may live, at whatever time they may choose to use it" (p. 154,156). A study of physical activity websites found that most of the websites studied did not provide individualized assessment, feedback or assistance to users. "A handful of

websites outperformed the majority, but there is clearly room for improvement in providing more interaction and tailored assistance for users” (Doshi, et al., 2003).

Chapter 2

Methodology

Research methods in health behaviour change research

Health and social marketing research has traditionally been dominated by quantitative research methods (Bosticco & Thompson, 2008). Research into theory based campaigns that aim to change users' physical activity behaviour and research into users' responses to these campaigns also commonly use quantitative methods, including content analysis and surveys (Doshi, et al. 2003; Wadsworth & Hallam, 2010). This does not mean that there is no place for qualitative research in health and social marketing. The research question rather than the tradition, paradigms or schools of thought should determine the research architecture, strategy and tactics. In this environment different methods should be accepted equally since they have features that overcome the limitations of others when addressing the research question (Kreps, 2008).

Qualitative content Analysis

Content analysis is a method that aims to "provide knowledge and understanding of the phenomenon under study" (Downe-Wamboldt, 1992, p. 314). Content analysis is traditionally done quantitatively (Zhang & Wildemuth, 2009) with some authors arguing that it is not possible for content analysis to be qualitative because content analyses should aim to produce numerical data to be analysed using statistical analysis (Neuendorf, 2002). Researchers have used

quantitative content analysis successfully to identify the theoretical concepts underpinning behavioural change campaigns (Abraham & Michie, 2008; Doshi, et al., 2003; Michie & Prestwich, 2010). When content analysis is used qualitatively it is able to provide a richer interpretation of the meanings, themes and patterns that are manifest or latent in the text, in comparison to merely counting the occurrences of words or phrases as quantitative content analysis does.

Qualitative content analysis is useful for forming hypotheses and discovering new relationships while quantitative content analysis is a “systematic content analysis for purposes of testing hypotheses” (George, 2009, p. 144). Zhang and Wildemuth (2009) say, “it [qualitative content analysis] allows researchers to understand social reality in a subjective, but scientific way” (p. 308).

Qualitative content analysis uses the same systematic classification methods as quantitative analysis, but does not quantify the results. It is defined as, “A research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns” (Hsieh & Shannon, 2005, p. 1278). Qualitative content analysis is well suited to gather data to answer the research question of this study. It allows for the use of social cognitive theory in the design of the categories used to examine the text, but at the same time recognises scope for the development of new categories when the text dictates a need for them. As the research in this study is exploratory, it makes sense to use a qualitative method that allows for deeper exploration rather than a more rigid quantitative method.

Content analysis involves condensing the text into categories or themes and this can be done either using induction or deduction. When the categories and themes used in a study emerge from the text being studied, the process being used is inductive; whereas if the categories or themes used in the research are taken from previous research, or based on theory, deductive reasoning is being used (Zhang & Wildemuth, 2009). There are a variety of approaches that are classified as qualitative content analysis. Hsieh and Shannon (2005) discuss three approaches: conventional; summative; and directed. They are differentiated from each other based on the degree of involvement of inductive reasoning. Conventional content analysis is used to describe a phenomenon especially if there is not a lot of existing theory or research on that particular phenomenon. Researchers do not use preconceived categories to analyse the text. They immerse themselves in the text and determine the categories they will use in their content analysis inductively. Summative content analysis aims to determine the contextual use of words or content within the text. It begins by identifying certain words and counting their frequency. At this point its analysis is very similar to the analysis used in quantitative content analysis. Summative content analysis goes beyond quantification of the manifest meaning by interpreting the context of the quantified words and aiming to discover the latent meanings of the texts. Directed content analysis is the method used in the current study. The directed approach uses existing theory or prior research as the basis of the coding scheme. The aim of this type of research is to validate or extend an existing theoretical framework. The text is examined using a coding scheme based on an existing theory. Any sections of text that do not fit into the

pre-determined coding scheme are assigned to a new category, an existing category, or a subcategory of an existing code. This is useful for this study as it allows the content of the Let's Move campaign to be categorised according to Social Cognitive Theory, but also leaves room for new categories to emerge from the text. This is especially useful when examining the audience's responses, which do not always conform to categories drawn from social cognitive theory.

There are no systematic rules for conducting qualitative content analysis (Elo & Kyngas, 2008). The research question determines how rigid or flexible the content analysis will be. There are eight broad steps, starting with preparing the data and proceeding through to reporting methods and data, which can be used as a guide when carrying out qualitative content analysis (Zhang & Wildemuth, 2009). These eight steps are used to guide this study.

Step 1: Data Preparation. In this step the data should be prepared to be analysed and a choice should be made about what to analyse and why (Zhang & Wildemuth, 2009). This study examines the official Let's Move website, as well as the official social media sites that link from the website. This includes the YouTube Channel, the Facebook page and the Meetup site. Each of these sites is examined as they offer a unique way for Let's Move to engage with its audience. The website is the space where all the information about the *Let's Move* campaign, how to be active and how to eat healthy is accessible to the public. The website is examined as it was on 14 August 2011. All the content hosted on the Let's Move server is examined; links that are hosted off the Let's Move server

are not included in the analysis. The blog posts are also not examined as part of the website because they make up the majority of the Facebook posts and thus they are examined as part of Facebook. The YouTube channel allows Let's Move to post videos to their fans and allows fans to comment on these videos. All the videos posted on the YouTube channel before 14 August 2011 as well as the associated comments are examined as part of the analysis. The Facebook site allows Let's Move to post information to their fans and allows fans to start discussions. Let's Move is very active on Facebook. Due to the large amount of content only Facebook activity that occurred in the six months before 14 August 2011 is examined as part of this analysis. As the discussion forums contain large amounts of advertising only discussions threads that do not have an advertisement as a subject are examined.

The Meetup site allows users to organise face-to-face meetings that support the aims of Let's Move in their own local community. Only Meetup communities with more than 15 members are examined as the communities with 15 or fewer followers were found to be mostly inactive. Let's Move also has an official Twitter account that is not examined in this study due to space limitations. The decision was made not to include Twitter, as it has fewer followers than the YouTube and Facebook pages. The content and function of the Twitter page is also similar to the Facebook page as both provided similar information and aim to stimulate user engagement with the content. Further guidelines that are used for coding are included in the coding manual in appendix one.

Step 2: Define the unit of analysis. The unit of analysis is the unit of text that will be classified in the content analysis. Examples of the unit of analysis include syntactical units, referential units and thematic units (Neuendorf, 2002).

Defining the unit of analysis is very important because it affects coding decisions as well as whether one study on the same topic can be compared with another.

The unit of analysis in qualitative content analysis is often thematic (Zhang & Wildemuth, 2009) and a thematic unit of analysis was used in this study.

Thematic units are defined by their expression of an idea. A common thematic unit in this study is a thematic unit based on a category drawn from social cognitive theory, such as verbal persuasion or aspirational modelling.

Step 3: Development of categories and a coding scheme. As previously discussed the coding scheme can be developed inductively or deductively. The constant comparative method should be used when creating categories inductively from the raw data (Glaser & Strauss, 1967). In this method each text is compared to other texts already in the category to which it will be assigned to aid in the understanding of the theoretical properties of that category. The categories in a coding scheme should be designed in such a way that they are internally homogenous and externally as heterogeneous as possible (Lincoln & Guba, 1984); but unlike in quantitative content analysis, a unit of text can be assigned to more than one category simultaneously (Tesch 1990). This study is based on Hsieh and Shannon's (2005) directed approach to content analysis. The text is coded using categories derived from social cognitive theory. New categories are created when there are parts of the text that do not fit into the existing

categories. Constant comparison is used to ensure that the categories remained internally homogenous and externally heterogeneous.

Step 4: Test the coding scheme on a sample of text. A sample of coded text should be checked through inter-coder agreement. If the level of consistency is low, the coding rules should be revised (Schilling, 2006). “Coding samples text, checking coding consistency, and revising coding rules is an iterative process that should be continued until sufficient coding consistency is achieved” (Zhang & Wildemuth, 2009, p. 311). A sample of the Let’s Move website and each official social media site was first coded by the author. A colleague unconnected to the study was then trained in the coding method and used the coding manual¹¹ to code the same samples. Disagreements between the two coders were discussed and adjustments were made to the coding rules and coding manual where necessary.

Step 5: Code all the text. When sufficient coding consistency is achieved in the sample the coding rules can be applied to the entire text (Zhang & Wildemuth, 2009). During the coding process the codes need to be checked constantly (Schilling, 2006). Coding of all the texts proceeded after consistency was achieved on all the sample texts. Coding is constantly checked to ensure correct use of the categories.

¹¹ The coding manual is available in Appendix one.

Step 6: Assess coding consistency. Coding consistency needs to be rechecked at the end of coding for a number of reasons. Firstly, new codes may have been added since the coding schemes consistency was assessed on the first sample of text. Secondly, human error is a possibility especially since coders may suffer from fatigue during the coding process. Finally, the coders understanding of the categories and coding rules may change over time leading to inconsistencies (Miles & Huberman, 1994; Weber, 1990). At the completion of coding the author recoded a sample of each of the texts. There was a high level of agreement between the two coding attempts indicating that there is coding consistency in this study.

Step 7: Draw conclusions from the coded data. Conclusions should be drawn from the themes, patterns and categories that emerge from the data. This can be done through exploring the properties and dimensions of categories, identifying relationships between categories, uncovering patterns, and testing categories against the full range of data (Bradley, 1993).

Step 8: Report Methods and Findings. The method a study uses, including how data is gathered and the procedures used in analysing the data, must be reported to ensure that the study is replicable (Patton, 2002). This study uses the procedures of qualitative content analysis reported above to gather its data. Data collection and data analysis are carried out concurrently. The concurrent analysis and collection of data is beneficial as it allows the researcher to go back and collect better quality data using new strategies of data collection informed

by the data analysis process (Miles & Huberman, 1994). Qualitative content analysis should be presented using a combination of description and interpretation. A good report “provides sufficient description to allow the reader to understand the basis for an interpretation, and sufficient interpretation to allow the reader to allow the reader to understand the description” (Patton, 2002, p. 503 -504). Data analysis of qualitative data is difficult because there is not many well formulated methods for carrying out analysis. “For quantitative data there are clear conventions the researcher can use. But the analyst faced with a bank of qualitative data has very few guidelines for protection against self-delusion” (Miles, 1979, p. 590). Qualitative data analysis uncovers patterns, themes and categories that help to answer the research question (Zhang & Wildemuth, 2009). This study uses a number of tactics to ensure that the conclusions drawn from qualitative data are meaningful. This includes the use of counting, while qualitative content analysis does not directly involve statistical analysis it is useful to use counting when identifying themes or patterns. This helps to isolate things that happened a number of times or that consistently happened in a specific way (Miles & Huberman, 1984). It is not enough to draw a conclusion simply because it seems plausible. Other conclusion drawing tactics are used to verify conclusions. Rival explanations for the patterns are checked. This is done through examining extreme cases, countervailing evidence and checking for intervening variables, which are underlying unseen factors, which may be causing the results (Miles & Huberman, 1984). There must also be methods in place to ensure the trustworthiness of a study.

Ensuring the trustworthiness of the study

Qualitative research is sometimes accused of being inexact or subjective therefore it is important for qualitative researchers to take steps to demonstrate the trustworthiness of their study (Miles & Huberman, 1984). Lincoln & Guba (1985) write that, “the basic issue in relation to trustworthiness is simple: how can an inquirer persuade his or her audiences (including self) that the findings of an inquiry are worth paying attention to?” (p. 290). There are four important issues that need to be addressed to establish the trustworthiness of a study: confidence in the truth of a study’s findings; the ability to establish the applicability of the study to other contexts or with other subjects; the consistency of the results across replications of a study with similar subjects in a similar situation; and the neutrality of the research or confidence that the results of the study are due to the respondents and conditions of enquiry, not the biases, motivations or interests of the researcher.

In quantitative research internal validity, external validity, reliability and objectivity are concepts that are used to judge the trustworthiness of the study. Internal validity is related to truth-value and is defined as “the approximate validity with which we infer that a relationship between two variables is causal or that the absence of a relationship implies the absence of a cause” (Cook & Campbell, 1979, p. 37). External validity is “the approximate validity with which we infer that the presumed causal relationship can be generalized to and across alternate measures of the cause and effect and across different types of persons, settings and times” (Cook & Campbell, 1979, p. 37). It is related to applicability.

Reliability is usually tested through replication. In a reliable study one can “assume that each repetition of the application of the same, or supposedly equivalent, instrument will yield similar measurements” (Ford, 1975, p. 325). This concept is related to neutrality. Objectivity means that the results are free of subjective judgements.

However, these concepts are not suitable for qualitative research as the assumptions, processes and research purposes underlying qualitative research are different to those underlying quantitative research. As a result of this Lincoln & Guba (1985) proposed an alternative set of four criteria for judging the trustworthiness of qualitative studies. Credibility is the “adequate representation of the constructions of the social world under study” (Bradley, 1993, p. 436). To increase the credibility of qualitative content analysis, the data collecting strategies must be designed in a way that allows them to adequately uncover the information that is being sought. The process of coding and drawing conclusions should also be transparent. The coders must be well trained and work from a comprehensive coding manual that contains precise coding definitions and clear coding procedures. In this study credibility was established by firstly checking inter-coder reliability on a sample of text to establish the credibility of the coding manual and secondly, recoding a sample of text after coding was completed to establish that coding was consistent over all the texts. Transferability refers to rich data sets and descriptions of categories that make it possible for other researchers to adequately judge how transferable the findings of a study are to other contexts. The current study provides a description of

method and a detailed coding manual, which will allow future researchers to judge the transferability of the current study (Zhang & Wildemuth, 2009).

Dependability refers to “the coherence of the internal process and the way the researcher accounts for changing conditions in the phenomena” (Bradley, 1993, p. 437). It can be established by external audits of the consistency of research processes. Confirmability is “the extent to which the characteristics of the data, as posited by the researcher, can be confirmed by others who read or review the research results” (Bradley, 1993, p. 437). It is also established by external audits, which should focus on determining whether the data, interpretations and recommendations’ are coherent (Lincoln & Guba, 1985). As discussed above this thesis provides a detailed methodology, coding manual and description of results obtained. This will allow future researchers to carry out an external audit to determine the dependability and conformability of the present study.

Chapter 3

The power of collaboration: The strengths and weaknesses of Let's Move's online channels

This thesis examines the online strategies of Let's Move in particular its official website, YouTube channel, Facebook page and Meetup page. This chapter will examine the strengths and functionalities that each different online channel provides by describing the most prevalent messages posted by the Let's Move campaign and its audience on each online channel¹².

The Let's Move Website

The messages on the official Let's Move website are one-sided with only the official Let's Move campaign being able to post messages. Even though audience interaction in a behavioural change campaign is advised by social cognitive theory, it is beneficial to the campaign that the website remains one-sided. This is because the website functions as a hub of credible information and strategies for those wishing to live a healthier and more active lifestyle, which is important considering there is a large amount of potentially inaccurate information posted by the audience members on Let's Move's official social media sites.

The most prevalent message types help the audience by providing ways to change behaviour and motivation for change by focusing on facilitators and

¹² The summary of all the posts on each online channel can be seen in Table one to four in appendix one. All examples used are taken from Let's Move's official online channels.

successes that the campaign has already achieved. This is demonstrated by the most common message types posted on the campaign website. Messages about short-term goals that will lead to beneficial behavioural changes are the most common with 94 of these messages posted.

The second most common message type is messages about facilitators in the health system. This message type was posted 51 times. These messages are primarily about systematic changes that have been put into place to make it easier for all members of the community to change their health behaviours. These messages include messages about what people could do to ensure they have systematic facilitators in their community, as well as examples of systematic facilitators that Let's Move and its partners have already successfully implemented. There are 42 messages about perceived personal facilitators. These are factors that will make it easier for individuals, rather than whole communities, to live a healthy lifestyle. These are often tools provided by the Let's Move website to facilitate personal action. These are, for example, tools showing people where the parks are located in their local area. The 40 messages about vicarious experiences of success show what has already been achieved through the work of the campaign.

The usability of the website is high as the content is organised in a way that makes it easy for audiences from different groups to find the content that is the most relevant for them. There are a number of clear sections, such as for eating healthier, getting active, and simple steps to success. Within these sections there

are subsections for different relevant target audiences, such as communities, children and parents. These target groups each have a part to play in creating change and achieving the goals in the key campaign areas. This increase the usability of the website, a factor that users have identified to be very important. Cugelman, et al. (2007) believe that the usability of a website is related to Wiebe's variable of direction defined in the online context as, "The clarity of an email, hyperlink, site design or web advertisement that direct people to a website" (p. 2).

The Let's Move Facebook page

Let's Move posts updates most commonly in the form of links to their blog posts on the Let's Move website. The audience members can then comment on the campaign's posts and there is a space where the audience can start or participate in discussions. Let's Move has over 74 000 people following them on Facebook. These people will be notified through their newsfeed when Let's Move posts new content on their Facebook page. There are audience comments on every Facebook post.

The Facebook page is mainly used by Let's Move to provide information about its campaign activities and promote other normal individuals' and communities' successes. This enhances the audiences' self-efficacy. This is clear in the most common types of messages Let's Move sends on Facebook in particular: information about Let's Move with 47 sent; vicarious experiences of success with

46 posted; physical activity information with 35 posted; positive social reactions with 25 posted; and realistic short-term goal setting with 22 posted.

The comments section of the Facebook page is the area of the Let's Move campaign's online channels where the most meaningful audience interactions occur. The audience commonly sends messages about: suggestions for improvement with 117 posted; comments to another audience member with 120 posted; and vicarious experiences of success with 119 posted. The most common message category is positive social reactions with 8245 posted. This message category allows the audience to see how many of their peers endorse Let's Move. Positive social reactions are so prevalent partly because the design of Facebook facilitates them through the provision of a 'like' button. Most of the positive social reactions come from people pressing the like button, but there are also some comments where the audience has a positive social reaction to Let's Move or another audience member's comment. Advertising of related products and services are a common message type with 153 of these messages posted by the audience. This category of messages is not always positive for behavioural change especially in the discussion section. The discussion area of the Facebook page had the potential to be a useful forum for audience interaction. Let's Move does not use the discussion boards to interact with the audience, but there is one notable exception early on in the Let's Move campaign where Let's Move initiated a discussion on factors that are contributing to the challenge of childhood obesity in audience member's communities. This elicited some useful discussion between the audience

members. The potential of the discussion boards as a forum for useful discussions is not realised partly due to the overwhelming amount of advertising on the discussion boards.

The Let's Move's YouTube page

Let's Move mainly uses the YouTube channel for modelling desired behaviours. Only Let's Move can post videos on the official channel and the audience can make comments on the videos. The messages in the videos are most commonly vicarious experiences of success with 47, realistic short-term goals with 42, pleasurable physical outcomes with 37, long-term goals at 34 and physical activity information and diet information at 31 messages each.

These messages are mainly conveyed by models (Bandura, 1986) and have the effect of showing the audience how to live a healthy lifestyle and motivating them to change their behaviours. The models in most of the videos are prestigious members of society including Michelle Obama and sports stars such as Olympic athletes and champion tennis players. Using models with status to capitalise on the high regard in which they are held is a tactic commonly used by commercial marketers. Bandura (1986) argues that audiences are more likely to emulate high status models because they have gained their status through success, indicating that they are high in vocational, intellectual or social competence and thus have a high functional value for observers. Bandura (1986) says, "models who have status, competence and power, are more effective in

prompting others to behave similarly than are models of lower standing.” (P. 207).

The YouTube channel is not very effective at stimulating meaningful audience interaction. The most prevalent responses from the community are positive social reactions with 1440 such messages posted and negative reactions with 189 such messages posted. These messages are mainly in the form of people clicking the ‘like’ or ‘dislike’ button. The next two most common message types are comments and nonsense, with 130 and 128 messages posted respectively. Despite the lack of community interaction it is clear that the videos are reaching a wide audience with more than 450 000 people having seen at least one of the videos.

The Let’s Move’s Meetup page

On the Meetup page the Let’s Move audience members have the opportunity to organise events in their own geographically local communities. There is very little interference from the official Let’s Move campaign other than the Let’s Move! Anniversary Meetup Day, which is a suggested event that appeared on all Meetup communities’ pages, but was not directly organised by Let’s Move.

89 Meetups have components that are related to physical activity. Only 41 have a component related to diet. 14 Meetups associated themselves directly with the Let’s Move campaign. The Meetup could play an important role in behavioural change because, unlike all the other online tools, it facilitates offline interaction.

It is not known how successful these Meetups are in the real world as most Meetups leave the audience with many questions for the organisers, with 52 of those type of messages posted. At the same time many people are eager to help with 57 people posting messages indicating that they would like to help out with an event. Only 859 people had a positive reaction to a meetup or planned on attending meetups. This is quite a small number considering there are 724 Let's Move communities. There are a few cases of the Meetups being successful and this can be seen when people comment after the Meetup saying it was fun or in one case where a video was posted after the event showing that it was a success. There was however one case where someone organised a Meetup and then commented later saying his Meetup had failed because no one else had attended.

Conclusion: The benefits of having multiple online channels

To generate health behavioural change it is best to present health messages to people multiple times, from multiple sources and in multiple settings (McGuire, 1984). The Let's Move online activities do this by using multiple online platforms that have different strengths and functionalities. The website provides credible information; the Facebook page informs the audience about the latest developments and facilitates user interaction well; the YouTube channel models desirable behaviour using prestigious models; and the Meetup page allows users to plan their own events in their own communities.

Chapter 4

Official Communication: The behavioural change role of the messages sent by the Let's Move campaign

This chapter will examine, from the point of view of social cognitive theory, how the type and pattern of messages Let's Move sends posts through its online channels work together to change its audience's health behaviour. For a summary of all the messages posted by Let's Move through its online channels¹³.

Providing Information

Individuals will not exert effort to change their behaviours if they are not informed about the risks and benefits of their behaviour (Bandura, 2004). Let's Move provides information that could be classified into five key areas: Let's Move's initiatives; practical; obesity; physical activity; and diet. Let's Move posted 74 messages informing the audience about Let's Move's initiatives. This included examples of what the Michelle Obama had been doing, the latest initiatives the campaign had developed and stories about how people and organisations were participating in the campaign. This information is important because it establishes Let's Move as a credible and successful organisation to take health behaviour advice from. Let's Move also provides 34 counts of practical information for people who wanted to achieve the same thing, like where to register to take part in programs.

¹³ All examples in this chapter are taken from the official Let's Move website, Facebook page and YouTube channel. A summary of Let's Move's posts across all these channels can be seen in Appendix one table 5.

Information about the dangers and prevalence of obesity are only given 38 times by Let's Move, which makes it one of the least prevalent message types. The messages include information about the prevalence of obesity; how obesity is measured; lifestyle factors that contribute to the obesity epidemic; and the diseases that obesity has a known link to, such as heart disease and type 2 diabetes. It may seem surprising that an obesity prevention campaign spends such little time informing its audience about the dangers of obesity, but information—particularly information with the aim of scaring its audience—is not the most effective way to change health behaviour (Bandura, 1997; 2004). Health promotion campaigns that focus on fear, by depicting the ravages of disease and personal susceptibility to disease, as a motivator for change have different effects on people with low self-efficacy compared to those with high self-efficacy. Following exposure to a fear-based campaign, individuals with low self-efficacy will be less likely to adopt the desirable behavior compared to those with high self-efficacy. Bandura and Simon (1977) explains that fear-based campaigns result in too much fear without a sense of personal control in individuals with low self-efficacy. Individual's who feel this way will see behavior change as futile and will focus instead on tuning out the threat since they perceive it as outside their control. In light of this finding it makes sense that Let's Move's campaign communications are based on increasing self-efficacy rather than inducing fear because this will allow it to foster behavioral change in vulnerable individuals with low self-efficacy who are the most resistant to behavioral change.

Information about physical activity and diet appears more often than information about obesity at 73 times and 65 times respectively, but these are also not the most prevalent message types. The information about physical activity provided by Let's Move includes information about the benefits of physical activities as well as examples of different ways to be physically active and their benefits. These messages are conveyed in a variety of ways including videos on YouTube showing people engaging in different sports like tennis and hockey; posts on Facebook about how different groups are engaging in physical activity, for example a 14 April 2011 Facebook post that presents lacrosse as a means for urban native youth to get fit; and facts and figures related to physical activity are presented on the website. The messages about diet include recipes and information on what is needed to increase the health of diets of individuals in a number of different contexts: families, schools, communities and for expectant mothers; examples of different healthy foods; and information on national guidelines for healthy eating.

Knowledge of the risks and benefits of behaviours only creates the precondition for change. To successfully motivate individuals to change their behaviour their self-efficacy must be increased (Bandura, 2004). An individual's self-efficacy also influences how he or she deals with knowledge about health behaviours. Those with high levels of self-efficacy will be more likely to act on the knowledge they have about health behaviours compared to individuals with the same level of knowledge, but lower self-efficacy (Rimal, 2000). Social marketing that aims to

change health behaviour should focus on raising individuals' beliefs in their personal efficacy by equipping them with the self-management skills and self-beliefs needed to take control of their health habits (Bandura, 2004). It can also be argued that many Americans are already well-aware of the dangers of obesity and the benefits of a healthy diet and physical exercise from media coverage of the obesity epidemic and previous social marketing campaigns like the VERB campaign. For this reason it makes sense that the Let's Move campaign does not expend too many resources informing the audience about the dangers of obesity and the benefits of healthy diets and exercise.

Increasing Self-efficacy

Let's Move posts a variety of messages that could increase the self-efficacy of its audience. Vicarious experiences mediated through modelled attainment provide information to individuals that help them in making appraisals of their self-efficacy. The achievements of others are often used as an indication of the observers' own abilities. When people who are judged to be similar to the self succeed at a task, the self-efficacy of the observer is typically raised because it fosters the beliefs in an individual that if others can do it, they too have the capability. If the similar individual fails at the task however the observer's judgement of his or her own capability will decrease (Bandura, 1997). The Let's Move campaign commonly utilises vicarious experiences through symbolic modelling on the Let's Move website and social media sites showing the models attaining success. It is the second most common message with 133 messages depicting vicarious experiences of success. These experiences are successes that

the Let's Move campaign and individuals, communities, schools and organisations have had in achieving Let's Move's goals so far in key areas including supporting healthy schools, making healthy food accessible and affordable, increasing physical activity and spreading the message. The Let's Move Facebook posts provided information on the successes that specific communities and individuals had when participating in healthy activities. For example individual schools that entered the Recipes for Healthy Kids competition and won, how schools have made physical education inclusive successfully for those with disabilities and students with disabilities winning the Presidential Active Lifestyle Award. The successes of various programs are also shown on YouTube where community leaders like the Mayor of Bolan Park talks about how his city worked to create a healthier community with better access to physical activity and fresh healthy food. YouTube videos also show people engaging successfully in healthy habits, for example playing sports and growing their own vegetables.

Motivating the audience to try healthier lifestyles

Individuals will not automatically perform all modelled behaviours that they are exposed to. Motivational processes determine whether observationally learned behaviours will be performed. People are more likely to perform modelled behaviour if it results in positive outcomes compared to negative outcomes. The messages posted by the Let's Move campaign aims to maximize the performance of the beneficial modelled behaviours by emphasising the positive outcomes rather than the negative outcomes (Bandura, 1997). There are 59 counts of

messages about pleasurable physical outcomes and 37 counts of positive social reactions compared to no messages about negative social reactions or negative self-evaluative reactions; and only one count of aversive physical outcomes. The messages about pleasurable physical outcomes focuses on how living a healthy lifestyle can be fun. This is emphasised through videos on YouTube showing people having fun while doing a variety of physical activities and in Facebook posts introducing new recipes and foods saying that they are delicious. The social reactions take the form of praising the individuals who have achieved successes and presenting them with prizes or a blog post dedicated to their efforts.

Let's Move posted 37 messages of verbal persuasion, which mainly took the form of messages to the effect; that everyone can make a difference in solving the problem of childhood obesity. Verbal persuasion can have differing effects on self-efficacy depending on the context. If verbal persuasion raises unrealistic beliefs about personal capabilities it will result in failures that will discredit the persuader and diminish the recipient's beliefs in their own capabilities (Bandura, 2004). However, Let's Move's messages are believable as they are accompanied with realistic goals and vicarious experiences of success. In this case verbal persuasion, while not bolstering perceived self-efficacy in the long-term, will bolster self-change in the short-term (Bandura, 1997).

To strengthen the staying power of self-beliefs, social marketing campaigns should emphasise that success requires perseverant effort and recovery from

temporary behavioural breakdowns, so that an individual's sense of efficacy is not undermined by a few setbacks (Bandura, 1997). One way to increase the resilience of self-efficacy beliefs is through enactive mastery experience where a resilient sense of efficacy is built through structured demonstration of trials in the exercise of control over progressively more challenging tasks (Bandura, 1997). Continued effort in the face of difficulty can also be learned through aspirational modelling, where the models show how problems are surmountable and that valued goals are achievable (Bandura, 1997). In aspirational modelling, models demonstrate how to cope and reinstate control should setbacks occur; they also make it clear that successes usually require perseverant effort. Such knowledge can increase the self-belief of others struggling with similar problems. Let's Move does not post any messages that encourage enactive mastery experiences. They also only post 50 messages of aspirational modelling. These messages include how schools overcame difficulties to win prizes in the Healthy Schools competition and how people went on to achieve in sports after suffering a debilitating illness.

Emphasising facilitators and removing impediments

Let's Move does make an attempt to remove impediments to health behaviour change. The perceived facilitators and impediments associated with a behaviour influences an individual's self-efficacy to change that behaviour. Self-efficacy beliefs are measured in relation to the gradation of challenges that an individual expects to encounter while trying to change their behaviour (Bandura, 2004).

Let's move posted 71 messages about perceived facilitators in the health system

and 49 about personal facilitators. These messages are often about changes that are being made to the health system, for example enabling local councils to build paths that will allow people to walk to school, and building supermarkets to eliminate food deserts. There are nine messages about personal impediments, which are mainly examples of the reasons people give for maintaining unhealthy behaviours, such as being too busy and not having enough money to buy fresh foods. There are 15 messages about perceived impediments in the health system. These were mainly systematic problems that Let's Move had identified as standing in the way of creating behavioural change, such as food deserts, food in schools and lack of infrastructure for physical activity. The effect of Let's Move's focus on facilitators rather than impediments could be to increase the audience members' sense of self-efficacy and motivation to change their behaviour as it leads individuals to believe that the factors facilitating their achievement of a healthier lifestyle are greater than the factors impeding their achievements of a healthier lifestyle.

Further material that are not classified as a facilitator sometimes acts in similar ways to facilitators for people by helping them achieve behavioural change. This includes related advertising in which Let's Move's provides links and informed people about like-minded organisations like the food pyramid and the Parks Department where people can go to get information. There are 49 of these messages posted. There is another category of advertising which is unrelated advertising and 14 of these messages are posted. These messages are often links to other organisations endorsed by Let's Move, but not directly related to the

goals of better diet and more physical activity. Since these messages made up such a small proportion of the overall messages they will not really have an effect on behaviour.

Setting realistic goals

To be most effective health communications should be framed in ways that instil in people the belief that they have the capability to alter their health habits and should instruct them in how to do so (Bandura, 1997). An individual's behaviour is guided by the health goals they set for themselves and the plans and strategies they use to realize these goals. Realistic goals about behavioural change can enhance self-regulation of the behaviour that is needed to improve the individual's lifestyle (Bandura & Simon, 1977). Messages about realistic short-term health goals are the most common type of messages posted by Let's Move with 158 posted. These are mainly goals that Let's Move suggests people should adopt to help them live a healthier lifestyle. The goals are presented across Let's Move's social media sites and websites, but are exemplified on the 'Take Action' section of their website where there are five simple steps to success presented for each: parents, schools, local officials & mayors, community leaders, chefs, kids and healthcare providers. These tips aim to provide strategies for these different groups to "help kids be more active, eat better and grow up healthy." Let's Move also posted 64 messages about realistic long-term goals. These goals are bigger, more abstract, goals that a combination of short-term goals can work together to achieve. Long and short-term personal goals that are in line with an individual's value system provide motivation. Long-term goals set the course of

personal change, but such distal goals cannot control current behaviour because there are too many competing influences. This is why short-term goals are important. They guide action in the current moment (Bandura, 2004). Let's Move provides a variety of different goals to suit a variety of different people with varying interests, skills and needs, for example the short-term goal of pre-cooking dinner for all the weekdays on a Sunday night with accompanying instructional YouTube videos is useful for parents of children as it will urge them to provide a healthy meal for their children every night of the week. Both short-term and long-term goal setting have been found to enhance self-directed change. Both types of goal setting can yield comparable results, but only if individual's break their long term goals into smaller short-term goals. If they do not do this short-term goals will be more effective (Bandura & Simon, 1977). Let's Move functions this way offering 64 long-term goals, but offering many more short-term goals, which will ultimately result in achieving the long-term goal of the Let's Move campaign: eliminating the problem of childhood obesity within one generation. The Let's Move campaign also produced additional materials to help individuals keep track of their goals. One goal of the Let's Move campaign is for children to aim to reduce their screen time, that is time spent using the computer or television. This is important in helping children to be more physically active. Let's Move produced a screen time log¹⁴ to help children and families track the amount of screen time they spend every day. The log says, "If screen time for you or your family is less than 1-2 hours a day, pat yourselves on the back!" Let's Move also produced materials to encourage

¹⁴ The Screen Time log can be accessed from http://www.letsmove.gov/sites/letsmove.gov/files/Screen_Time_Log_1.pdf

families to achieve the goals of eating more healthily and increase their activity levels. The Let's Move Family's Activity table¹⁵ presents specific activities that families can undertake to be more active and presents check boxes after activities have been completed. A Healthy Family Calendar¹⁶ where the family writes down their physical activity and healthy diet goals, when they will engage in the activity and who will engage in the activity. There is a space at the end for people to give themselves a star if they engaged in a healthy behaviour. These tools are important because they encourage feedback and rewards, two components of goal-setting that are important because they make goal setting effective in promoting motivation, self-efficacy and behaviour change. One way to present feedback is through participants tracking their progress as the Let's Move tools allows them to do (Shilts, Horowitz, & Townsend, 2004).

A lack of interaction between Let's Move and its audience

The messages posted by Let's Move are mainly one sided with only nine messages where it responds to questions from audience members. These questions mainly focus on asking Mrs Obama advice about overcoming impediments like having limited time and getting schools to recognise the importance of physical exercise as part of the curriculum. These messages are all in one video of the first lady answering user questions. This is a negative aspect of the Let's Move campaign and could have impeded its ability to drive behaviour change. The fact that Let's Move's communications are based on a

¹⁵ The Family activity table can be accessed from http://www.letsmove.gov/sites/letsmove.gov/files/Family_Activities.pdf

¹⁶ The Let's Move Healthy Family Calendar can be accessed from http://www.letsmove.gov/sites/letsmove.gov/files/Family_Calendar_1.pdf

one-way mass communication model is detrimental to the scope and impact of this initiative (Bandura, 2004). Social marketing campaigns work through two pathways: the socially mediated pathway and the direct pathway. Let's Move's communicates to the audience using the direct pathway, which is where the media promotes behavioural change using modelling, motivation and guiding personal changes (Bandura, 2004). The socially mediated pathway is the pathway that drives the majority of behavioural change. In the socially mediated pathway the media links participants to supportive social networks. These provide personalised guidance, natural incentives, and social support for behavioural changes (Bandura, 2004). The Let's Move campaign utilises the power of the socially mediated pathway by providing the space for audience engagement and discussion on their YouTube channel, Facebook page and Meetup site.

Conclusion: Facilitating action on health behavioural change

Let's Move uses its website and social media sites to send out a combination of messages that work together to change the audiences' health behaviour by fostering self-efficacy. Let's Move has five key aims and requires the participation of a variety of members and groups in society to be successful. Let's Move's messages are targeted at different groups and focus on the different aims to achieve the behavioural change needed in all of these areas from all these people to attain the ultimate goal of solving the problem of childhood obesity. Let's Move's communications have several strengths, but two weaknesses may hinder its ability to change behaviour. Firstly, it does not

provide much information about the difficulties audience members may encounter and it does not emphasise the idea that change is hard and requires perseverant effort. This could be detrimental to the resilience of the self-efficacy beliefs it aims to instil. Secondly, the campaign does not engage directly with individuals in the audience and does not provide personalised information for individuals in the audience. This may not however be detrimental to the campaign as a whole because the Let's Move campaign is designed in a way that allows audience discussion on the social media sites.

Chapter 5

Audience Interactivity: The behavioural change role of the messages sent by the audience

One-way mass communication's power to change behaviour is limited.

Interactive technologies like Let's Move's social media sites increase the scope and impact of the campaign because they allow for interactivity (Bandura, 2004).

The social media applications allows Let's Move to reach their audience through the socially mediated pathway, which fosters behavioural change by linking individuals to social support networks and community settings (Bandura, 2004).

This section exclusively examines the responses of the audience across all the Let's Move online platforms and explores how the audience's interactions compliment Let's Move's official messages to facilitate behavioural change¹⁷.

Interactivity between audience members

On Let's Move's official YouTube Channel, Facebook page and Meetup page members of Let's Move's audience can have discussions, comment on the materials produced by Let's Move and organise events in their own communities. The inclusion of these features allows the Let's Move campaign to go from being based on a traditional unidirectional model to a multi-directional communication model where communication occurs from the bottom-up and horizontally among consumers, as well as from the social marketer to the

¹⁷ All examples are taken from the official Let's Move YouTube channel, Facebook page or Meetup page. A summary of the audience's posts across all these channels can be seen in Appendix one table 6.

audience (Thackeray & Neiger, 2009). Studies on social marketing have found that campaign audiences like to have access to peer-to-peer forums because it allows them to access a community of like-minded individuals who can provide helpful advice and suggestions (Ferney & Marshall, 2006). Interventions that provide peer-to-peer access have also been found to have statistically significant effects on behaviour (Webb et al., 2010).

The Let's Move audience members take advantage of the ability to interact with their peers. One of the most common types of messages posted by the audience on Let's Move's social media sites, with 341 messages posted, are comments in response to other audience members. These take a variety of different forms including defending the Let's Move campaign from critics, answering other audience members' questions and discussions of how to eat healthier and be more active. These types of messages have a role to play in changing health behaviour according to social cognitive theory's argument that support and guidance with the aim of fostering self-efficacy is beneficial in the early stages of personal change as well as the long-term maintenance of new habits (Bandura, 2002).

The ability of audiences to share messages has some drawbacks. There are 178 cases of nonsense messages, which are messages that use language so poorly it cannot be understood, messages that are completely unrelated, which no one

responded to, or messages written in another language¹⁸. Individual's with businesses to promote sometimes use Let's Move's interactive spaces to advertise their businesses for free. There are 221 cases of advertising for related businesses or events. This is mainly advertising for programs or products that encourage exercise or healthy eating. Examples include Karate schools, dance classes and children's exercise equipment. The advertising can, in some cases, be useful to people who were trying to change their behaviours. In one case an individual publicised the Let's Move Meetup they were holding by commenting on Facebook. There is less unrelated advertising at 120 messages. This was advertising for products that were not congruent with the goals of Let's Move. The problem with any form of advertising is that it has the potential to stop people using the social media sites for useful communications. This is mostly not the case as there are more messages that can be classified within the other categories compared to messages that are classified as advertising. In the discussion forums on the Facebook page there are so many unhelpful messages such as advertising and nonsense that it was almost impossible to use it for helpful communications¹⁹.

The participatory nature of the social media sites also mean that incorrect information could spread widely and quickly between users (Chou, et al., 2009).

The audience members sent 99 messages about physical activity information, 52

¹⁸ The Nonsense category does not include messages written in Spanish. Let's Move targets Spanish speakers, but this is outside the scope of this study, therefore messages written in Spanish were not included in the qualitative content analysis.

¹⁹ Facebook has subsequently announced that the discussion forums on Facebook pages will no longer be available as they are not deemed as useful for fostering discussion. See <https://www.facebook.com/help/?faq=254646391237470> for more information

messages about diet information and 18 messages with information about Let's Move. In some cases these messages provided inaccurate information or information that wasn't congruent with the goals of Let's Move. For example individuals often gave their opinion on what could be considered a healthy diet. These ideas were often in contradiction to the recommendations of Let's Move. Audience member Archie Robertson believes that Let's Move recommended too many vegetables and whole grains and not enough fat and protein He writes:

Giving them "whole grains" is an excellent way to block their absorption of nutrients and develop all kinds of allergies in later life...and salads and veggies are useful sources of minerals, but they're hardly nutritious. Whole grains are not essential for anybody—the white part consists of pure starch, rapidly hydrolysed to sugar in the gut, and the brown part contains anti-nutrients, particularly phytates, which block the absorption of many minerals.

This type of comment can be particularly detrimental because the language seems very scientific, which could make it more believable to someone who is unsure about what a healthy diet is. In the case of this commentator other commentators criticize his point of view. These cases of inaccurate information provide support for the idea that it is beneficial that the Let's Move website provides credible information without any audience input. Any audience members who are unsure about what is right after reading comments like the one above can visit the Let's Move website.

Interactivity between audience members and Let's Move

Individuals do not want to use the social media sites to communicate exclusively with the other audience members; they direct some of their comments at Let's

Move. Three categories of responses are aimed at Let's Move. There are 139 questions for Let's Move posted, 184 suggestions for improvement and 276 negative social reactions, which include criticisms of Let's Move's actions. The questions are often from people wanting to know how they can contact the campaign organisers to volunteer or ask questions. Let's Move never uses the social networking sites to respond to the questions the users ask. Other audience members often take it upon themselves to answer questions directed at Let's Move, but their answers may not be accurate and this could be detrimental to fostering behavioural change.

Within the negative social reaction category there is a small subsection of audience responses that criticises Let's Move's campaign or activities. Most examples are isolated individuals with different ideals to the campaign saying things criticising Let's Move. Other audience members often defend Let's Move in these cases. However, there are some cases where there is widespread discontent with Let's Move. One notable example is the response the audience has to a Let's Move's public service announcement (PSA) encouraging mothers to find creative ways to keep their children active and healthy. In the PSA the mother sends her daughter running all over the house to look for her purse, when in reality the mother has the purse with her. Audience members see this as the mother lying to her daughter. Nine people dislike the video on YouTube and comments on the social media sites are generally negative exemplified by the comment from audience member 'UvBeenPwn':

Really? You just could have had her earn the money instead of lying about it. You basically just told moms to lye [sic] to your kids to make them pointlessly run around instead of being right to the point and tell [sic] them to exercise or play outside with some friends or the kids in the neighborhood.

The negative comments were not restricted to the YouTube site. Comments were also found on the Facebook page criticizing Let's Move and citing the video, which they may have seen when it ran as an advertisement on television. This is a good opportunity for Let's Move to adjust their campaign to suit the needs of the audience. It is not known if Let's Move responded by removing the PSA from air, but Let's Move did not remove the PSA from its YouTube channel.

There are 184 cases of people making suggestions, which they believed would improve the Let's Move campaign or concerns, which are not criticisms, but just things they thought needed to be addressed. For example several commentators thought it would be a good idea for Let's Move to partner with Jamie Oliver, who was also promoting healthy food in schools through his 'Jamie Oliver's Food Revolution' Television series²⁰. Several commentators applauded Let's Move's use of the artists Beyoncé's song 'Move Your Body'²¹, but a lot of these commentators were concerned because they felt that Beyoncé's clothes and dance moves were too provocative.

²⁰ Jamie Oliver is a British celebrity chef. In his television series 'Jamie Oliver's Food Revolution' he tries to educate the American public about healthy eating by visiting communities and schools to reform their unhealthy attitudes and behaviours.

²¹ 'Move Your Body' is a rerecorded version of one of Beyoncé's earlier songs produced especially for the Let's Move! Flash workout campaign. In the music video Beyoncé demonstrates some easy aerobic exercise moves that anyone can do at home. The video was distributed to schools across the country and on 3 May 2011 participating schools performed a workout to the song simultaneously.

While these types of responses are not directly related to social cognitive theory they can still affect the campaign's ability to encourage behavioral change. One of the strengths of the Let's Move campaign is that it allows peer-to-peer communication, but it does not respond to the audiences' desire with official Let's Move sources. It is not enough in a multi-directional campaign model for interaction to be merely between audience members. Social marketers should be attentive to horizontal and bottom-up messages and respond in real-time. Social marketers should also act on feedback by updating campaign strategies and messages as this has the power to increase the efficacy of the campaign (Thackeray, 2009).

Modelling and self-efficacy

The audience, like Let's Move, also post messages that could have an affect on other audience members' self-efficacy. Messages about vicarious experiences of success are not as prevalent as they are in the messages sent by Let's Move with only 139 messages posted. These messages are individuals talking directly about their own achievements, which is different to the style of vicarious success messages posted by Let's Move, which focus on discussing other people's achievements. This difference in style could be beneficial for increasing self-efficacy and driving behavioural change. Bandura (1997) says that, "the greater the perceived similarity between the model and the self, the more persuasive the model's successes and failures will be" (p. 407). The audience may feel that there is a greater similarity between themselves and the audience than

themselves and the models shown by Let's Move and thus the audience's posts could be more influential.

The models in the audience are also accessible and it is possible for other audience members to ask them questions about how to achieve the same thing or how to cope with difficulties if they arise. The danger of this situation is that because Let's Move does not have control over what people post, the site could be overwhelmed by negative vicarious experiences. This would be counterproductive as these posts would be very influential and could undermine the credibility of the campaign's message that change is achievable. Fortunately, this was not the case with only four messages about a vicarious failure posted. One example is someone having holding a Meetup where nobody showed up.

The 16 messages of positive aspirational modelling, like the vicarious experiences of success, are modelled by audience members. In some cases the discussions stemming from the vicarious experiences of success and positive aspirational modelling could function as a form of personalised guidance. This is particularly useful for audience members who have self-doubts about their efficacy and the likely effects of their efforts. Bandura (2004) argues that members of this group need some tailored guidance especially when they run into difficulties. One example of aspirational modelling where the model is able to provide guidance is in the comments of the April 30 Facebook post. The commentator Josh Troy praises the Let's Move campaign and reveals that he himself has already achieved weight loss and is hoping to lose more weight.

Other commentators give positive social reactions to what he said and one commentator asks him how he had achieved it. He gives information about his diet and exercise regime, but most importantly he gives first-hand advice about the difficulties of weight loss and about how you have to persevere through the difficulties to make a difference to your weight. He says:

Just be patient and don't get overly ambitious. I worked my way into it and am not afraid to get the footlong instead of six-inch. I'd rather take baby steps, lose a little at a time and be better off in the long run!

Indicating that even when there are setbacks, such as if you eat a bigger meal than you planned to, in the long run you can still maintain your diet.

Motivation to perform modelled behaviours

As discussed in the previous chapter, modelled behaviours will only be performed if there is an incentive to do so (Bandura, 1997). The social media applications make it very easy for audience members to give positive or negative reactions to other posts. Overall there were 10,559 positive social reactions, but only a fraction of these are related directly to a performed behaviour, most were just pressing a 'like' button or pledging to attend an event. The same is true for the 250 cases of negative social reactions, which are commonly the result of pressing a 'dislike' button, though some negative reactions are criticisms of Let's Move as discussed earlier. Social reactions include those generally positive or negative towards the Let's Move campaign; those positive or negative towards a specific aspect of the campaign for example where a woman says she loves one of the healthy foods recipes; and those that are commenting on another

commentator either giving a positive or negative reaction, for example when commentator says he has lost weight and the other commentators commend him.

There are 15 posts about pleasurable physical outcomes and one post about aversive physical outcomes. The pleasurable physical outcomes include people saying they enjoyed a Meetup event or enjoyed doing something suggested by Let's Move. One notable example is the YouTube clip and Facebook post about the 'Move your Body' song written by Beyoncé. A lot of commentators talk about how much they enjoyed doing the dance at their school and some people even posted links to videos of their school doing the dance and having fun, which are both a positive vicarious experience and a pleasurable physical outcome.

There are 44 comments of verbal persuasion. These comments are most effective when they enforce prior messages especially messages sent by Let's Move. One example of this is a Facebook post from the 12th of May where Let's Move reports on the experiences of a Chef in the Chefs Move to schools program. He says that he felt the program was really rewarding and that he encouraged other chefs to participate. The audience messages further enforced this with Vicki Carlson saying:

Keep it up. Good nutrition and exercise in the schools can make a great difference in the health of our children who will then pass it on. Thank you for your efforts.

Goals, impediments and facilitators

The realistic goal setting by the audience is different to that in Let's Move's messages. The audience posted 16 messages about short-term goals and 9 messages about long-term goals. The audience's messages are more about people saying what their own goals are. Let's Move's posts often inspired these goals. The role this plays is firstly as modelling for other people to also adopt these goals. Secondly, it allows people to get social support for their goals for example people often were given positive social reactions, verbal persuasion or hints on how to achieve their goal. This could increase their self-efficacy and make it more likely that they will achieve their goals.

Impediments and facilitators are important because they help people make their self-efficacy assessments (Bandura, 2004). The audience posts 32 messages of perceived systematic impediments; 4 messages of perceived facilitators in the health system; 8 messages of perceived personal impediments; and 11 messages of perceived personal facilitators. These messages are more negative than positive, which could result in individuals making a lower assessment of their self-efficacy. However, these messages only make up a very small proportion of all the messages posted by the audience on Let's Move and so they probably will not affect other audience members desire to attempt to change their behaviour.

Conclusion: Increasing the scope and impact of the campaign

The audiences' use of the social media sites allows the Let's Move campaign to go reach the audience through a socially mediated pathway. This increases the

scope and impact of the campaign from the uni-directional communication model that Let's Move's communications, discussed in the previous chapter, are based on. The audience embraces interactivity and holds many conversations that could facilitate behavioral change. It also allows the audience to model healthy behaviors, goals and the consequences of changing their health behaviours. This compliments the official Let's Move campaign communications as it provides more accessible models and thus facilitates the long-term resilient efficacy beliefs that are lacking in the Let's Move communications.

Chapter 6

Conclusion

"In the end that really is the true spirit of Let's Move. It's not about what happens here in Washington. It's about you. It's about people all across the country taking initiative and doing their part." -Michelle Obama talking about the first year of Let's Move

This thesis examines the behavior change role played by the Let's Move campaign's website and social media applications. As it is known that it is important for the efficacy of campaigns that they are based on behavioral change theory, Albert Bandura's Social Cognitive theory forms the basis of this examination. The aim of this study is to fill a gap in the current research, which does not address how the use of social media and websites, in a social marketing campaigns, by both the audience and campaign creators, facilitates behavioural change.

This thesis begins by identifying a need for finding ways to make social marketing interventions for obesity prevention more effective. The literature review in chapter one provides an introduction to social marketing, focusing in particular on social marketing for obesity prevention. It then reviews in depth the literature on using the Internet and social media for social marketing. As this thesis is based on social cognitive theory the literature review also provides an explanation of social cognitive theory, in particular how social cognitive theory can be used to change health behaviour. Chapter two justifies the choice of qualitative content analysis as the methodological approach for this study. This methodological approach is useful for this study because it allows for the use of

social cognitive theory in the design of the categories used to examine the text. It also allows for the development of new categories if the text indicates a need. The nature of qualitative content analysis allows for a deep analysis of the meanings, themes and patterns in the text and this suits the exploratory nature of the current study. The methodology also clearly explains the procedures used to carry out the qualitative content analysis and the steps taken to ensure the study is trustworthy.

Chapter three examines Let's Move's use of online channels including their website, Facebook page, YouTube channel and Meetup page. It concludes that the use of multiple channels is beneficial for behavioural change as each channel has unique strengths and weaknesses, which compliments the other channels. The website provides credible information; the Facebook page informs the audience about the latest developments and facilitates user interaction well; the YouTube channel models desirable behaviour using prestigious models; and the Meetup page allows users to plan their own events in their own communities.

Chapter four examines, from the point of view of social cognitive theory, how the type and pattern of messages Let's Move posts through all of their online channels work together to change its audience's health behaviour. It concludes that Let's Move uses its website and social media sites to send out a combination of messages that work together to change the audiences' health behaviour by fostering self-efficacy. Let's Move's messages target different groups that are key in reversing the childhood obesity epidemic. It also focuses on the different

areas in which change must occur to attain the ultimate goal of the campaign: solving the problem of childhood obesity within a generation. The strengths of Let's Move's communications are that it focuses on motivating behavioural change by fostering self-efficacy, rather than by using fear-inducing information. However, two weaknesses may hinder its ability to change behaviour. Firstly, it does not provide much information about the difficulties audience members may encounter and it does not enforce the idea that change is hard and requires perseverant effort. This could be detrimental to the resilience of the self-efficacy beliefs it aims to instil. Secondly, the campaign does not engage directly with individuals in the audience and does not provide personalised information for individuals in the audience.

Chapter five examines the audience interactions on Let's Move's social media sites. These include messages posted by the audience on the official Facebook page, YouTube Channel and Meetup page. It concludes that the audiences' use of the social media sites allows the Let's Move campaign to reach the audience through a socially mediated pathway. The audience embraces interactivity and holds many conversations that could facilitate behavioral change. It also allows the audience to model healthy behaviors, goals and the consequences of changing their health behaviors. This compliments the official Let's Move campaign communications as it provides more accessible models and thus facilitates the long-term resilient efficacy beliefs that are lacking in Let's Move's communications.

The findings of this study indicate that from the point of view of social cognitive theory, Let's Move's website and social media applications work well together to provide goals and incentives for the target audience to change their health behaviour. The communications posted by Let's Move through its online channels has an important role to play in changing behaviour, but the facilitation of audience participation is key for achieving widespread resilient behavioural change, because it makes up for the shortcomings of the one-way communication style used in the official communications.

This study is exploratory and the findings should be used as the basis for further research into this very important area. The current study was not able to examine social diffusion due to space limitations, but while carrying out this study there was some evidence that the use of online channels aids the diffusion of health behavioural change campaigns. Examples include audience members sharing the Let's Move posts on their personal Facebook pages and creating their own YouTube videos inspired by the Let's Move campaign. Further research is needed to examine whether and how the use of online channels in social marketing campaigns aids the diffusion of healthy behaviour. This research could, in conjunction with the current findings, help social marketers to utilise social media in a way that will maximise behavioural change and the diffusion of healthy behaviours through the target population.