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Symposium on 'The challenge of translating nutrition research into public health nutrition'

Session 5: Nutrition communication Obesity and social marketing: works in progress

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Internationally, socio-economic trends reinforce the complex physiological mechanisms that favour positive energy balance, leading to an accumulation of excess body weight and associated metabolic disorders. This so-called 'obesogenic environment' is characterised by increasing accessibility and affordability of energy-dense foods and declining levels of physical activity. In the face of such rapidly-rising obesity rates there is general consensus that strategies to address trends in weight gain must go forwards in the absence of complete evidence of cause or effective prevention strategy. Thus, strategy implementation and evaluation must contribute to, as well as be informed by, the evidence base. Social marketing research and practice has a track record that strongly indicates that it can contribute to both the evolving knowledge base on obesity and overweight control policy and the development of effective intervention strategies. Social marketing draws pragmatically on many disciplines to bring about voluntary behaviour change as well as requisite supporting policy and environmental change. Key objectives include: generating insights into the drivers of current behaviour patterns; important barriers to change; client-oriented approaches to new desirable diet and lifestyle choices. Social marketing recognises that target clients have the power to ensure success or failure of obesity control policies. Social marketing seeks to identify genuine exchange of benefits for target adopters of behaviour change and the advocates of change, and how they may be developed and offered within an appropriate relevant context. Social marketing adopts a cyclical approach of learning, strategic development and evaluation, and therefore is well placed to integrate with the multi-disciplinary demands of obesity prevention strategies.

Social marketing: Obesity and overweight: Behaviour change: Obesogenic environment

Global context

Changing patterns of food production, distribution, marketing and consumption and declining physical activity levels in many parts of the developing world are driving the global trend of weight gain⁽¹⁻³⁾. Overweight and obesity affects more than half the adult population in the developed world, and is now more prevalent in the developing world than chronic undernutrition⁽⁴⁾. Furthermore, prevalence is increasing overall at a faster rate in developing economies than in developed economies. In Mexico, for example, obesity prevalence is accelerating faster than anywhere in the world, leading to $28\cdot1\%$ of females and $18\cdot6\%$ of males >15 years of age classified as obese in

2006⁽⁴⁾. Alongside the trend towards excess weight gain are multiple changes in nutrition quality of the diet, some contributing positively, and some negatively, to epidemiological trends. Complex starchy carbohydrates are being replaced with more protein, more total and saturated fats and more refined simple carbohydrates and sugars^(3,5). These dietary changes, along with changes in consumer perceptions of food, food consumption norms and body image, commonly described as a nutritional transition, often co-exist with continued undernutrition (particularly micronutrient deficiencies). In many instances this double burden of malnutrition can be found in the same household⁽¹⁾ and raises unique public health and communication challenges.

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Table 1. Benchmarking criteria for social marketing (adapted from Andreasen⁽¹³⁾)

1	Behaviour change	Intervention seeks to change behaviour and has specific measurable behavioural objectives
2	Consumer research	Intervention is based on an understanding of consumer experiences, values and needs. Formative research is conducted to identify these factors. Intervention elements are pre-tested with the target group
3	Segmentation and targeting	Different segmentation variables are considered when selecting the intervention target group. Intervention strategy is tailored for the selected segment(s)
4	Marketing mix	Intervention considers the best strategic application of the 'marketing mix', which consists of the four 'Ps' of 'product', 'price', 'place' and 'promotion'. Other 'Ps' might include 'policy change' or 'people' (e.g. training is provided to intervention delivery agents). Interventions that only use the promotion 'P' are social advertising, not social marketing
5	Exchange	Intervention considers what will motivate individuals to engage voluntarily with the intervention and offers them something beneficial in return. The offered benefit may be intangible (e.g. personal satisfaction) or tangible (e.g. rewards for participating in the programme and making behavioural changes)
6	Competition	Competing forces to the behaviour change are analysed. Intervention considers the appeal of competing behaviours (including current behaviour) and uses strategies that seek to remove or minimize this competition

The growing evidence base on the key factors contributing to patterns of 'globesity' in nutritional transition countries and those in the developed world is contributing to the convergence in thinking internationally on causal factors. This process in turn is generating promising insights into more effective preventive measures against excess weight gain.

The recently-completed Foresight review of obesity and overweight in the UK⁽⁶⁻⁸⁾ provides a very comprehensive and thorough summary of current understanding. A culture that promotes energy-dense foods and increasingly sedentary lifestyles, combined with a biological predisposition towards modest overconsumption of energy is creating an emerging norm of excess weight gain and metabolic abnormalities. The drivers are systems-wide and influential throughout the life cycle. Thus, strategies that promote and support healthy weight management must also be consistent with, and relevant to, a broad range of circumstances and unique nutritional needs. This task is huge and requires the engagement and resources of many stakeholders. The goals include enabling and incentivising individual choice, supporting with appropriate information and policy controls, and shifting the distribution curve for body weight and activity levels towards more healthful norms.

The challenge of how this objective can be achieved at a population level, sustainably and equitably, is most definitely still considered a work in progress⁽⁷⁾.

The evolving nature of social marketing

Social marketing can offer insights into many of the interrelated constituent parts of what has come to be known as the 'obesogenic environment': it offers a unique approach to understanding interpersonal factors that influence pre-existing behaviour patterns and which of these factors may be responsive to behavioural change levers. Most crucially, social marketing research is rooted in the pragmatic aim of generating insights into bridging the intention–behaviour gap⁽⁹⁾.

Social marketing has its origins in efforts to deliver public health interventions to resource-poor communities and individuals in the developing world. A core principle of early social marketing initiatives was the leveraging of both the logistic and engagement expertise of the commercial sector to achieve key public health goals^(10–12). Social marketing cut its teeth developing strategies and techniques that influenced both the supply and demand side. The marketing efforts for products such as barrier contraceptives and hand soap, as well as services such as immunisation, were designed to improve awareness of their benefits, increase real and perceived accessibility and most crucially enable and promote voluntary behaviour change. Soon afterwards, the infant concept of social marketing began taking steps in the direction of behaviour change independent of any associated products or services.

The potential of the social marketing prodigy to bring about behaviour change purely through the use of marketing techniques and thinking began to be recognised. This recognition was not, and is not, a blinding light of revelation. The emerging marketing skill set for behaviour change is based on a growing understanding of the power of marketing to bring about voluntary behaviour change. Marketing uses client-focused research techniques such as segmentation of target groups. Segmentation concentrates on identifying which groups of interpersonal and external factors are most influential (positively or negatively) in behavioural change. For example, these factors may include aspirational values, real-life behaviours and real or perceived barriers to change. These findings may have little obvious link to fundamental health objectives such as reducing fat content of the diet, but do provide the mechanism to facilitate desired change by linking to lifestyle choices of broad groupings of individuals. Marketing methods then use this knowledge to develop and refine genuine exchange of benefits 'offers' to the target groups. The principle of exchange is critical to the success of marketing and is based on the recognition that any voluntary change incurs costs (such as inconvenience, uncertainty of outcome), is optional and must therefore offer valued benefits (e.g. immediate outcomes not long-term risk reduction). Table 1 provides a summary of key characteristics of social marketing principles, as defined by Andreasen⁽¹³⁾.

Social marketing researchers and practitioners are not only honing skills in the use of their own tool box. They are also finding where these tools fit in, complement or indeed challenge the approaches and methods used by their more traditional public health peers and colleagues (and indeed other social sectors concerned with behaviour change). For example, a description has been given of the use of the social marketing and response tool to position and adapt diabetes interventions to be more effective in reaching, and being adopted by, ethnic minority groups than 'more traditional top down approaches' (14). Interventions that last from 12 weeks to 1 year have achieved better clinical outcomes, improved knowledge levels and positive dietary change by investing in preliminary social marketing research, culturally-sensitive modification of programmes (psycho-demographic segmentation) and further development informed by audience-focused evaluation.

As social marketing continues to forge early career paths in fields such as public health, an extent of experimentation and reflection is both necessary and desirable. Social marketing is best understood as a pragmatic framework for understanding how and why individuals make lifestyle choices (that result in unintended as well as intended consequences) and for devising and marketing desirable alternatives. Good-quality social marketing is theory based and goal driven, but also critically reflective, seeking creative insight from multiple disciplines including psychology, sociology, communications, behavioural economics, business and commerce^(9,15).

The pragmatic and multi-disciplinary approach of social marketing fits well with the current demand for new thinking and responses to the complex multi-factorial global trend of excess weight gain and associated ill health and disease.

Better understanding of how and why overweight and obesity have become the most prevalent form of malnutrition in the world can both learn from, and inform, social marketing as an evolving paradigm for behaviour change.

Competitive analysis and effective responses

Enabling and bringing about voluntary behaviour change is the core objective of social marketing. To be effective social marketing, like commercial marketing, must start by understanding the competition. Competition may come in many guises: commercial marketing activities; perceptions of the expectations of influential others; other demands on time and resources encouraging maintenance of existing behaviour patterns (the status quo). These factors are all examples of what may be influential competition to desirable behaviour change.

Commercial marketing activities may be benign, even beneficial, presenting consumers with greater choice and novel routes to healthful lifestyle choices. Conversely, choices available may create subtle but powerful barriers to change through their influence on awareness, motivation and environmental infrastructure. Low priced well-targeted promotion of, and ready availability of, energy-dense and/or low-satiating-power foods is an example of competition against more healthful choices. Geographic studies

have found higher density of quick-service restaurants in less-affluent neighbourhoods⁽¹⁶⁾. This area of research provides interesting examples of how commercial marketing practices make less healthful food choices so easy that they become almost 'monopolistic' for those with restricted purchase options such as lack of transport and tight budgets. A further illustration of this kind of competitive analysis is the 2003 Hastings Report, a systematic evidence review of the effect of food promotion targeting children⁽¹⁷⁾. The review finds that the content of food promotion focuses heavily on foods that do not fit with recommended dietary guidelines and is adversely influential in children's food health perceptions and preferences.

The evidence generated from critical analysis of market forces may indicate that competitive forces are so powerful that policy change is required to enable large-scale behavioural change to occur. Just as social marketing research has been highly influential in providing the evidence base for policy change on tobacco marketing, analysis of the commercial influences on consumers' diet and weightmanagement perceptions and behaviours may provide evidence for appropriate obesity control policy^(6,8,17).

Alternatively, analysis of the impact of commercial marketing influences may generate evidence for alternatives to legislative intervention. For example, understanding the reasons for the success of commercial marketing of food and beverages can inform and guide more effective counter-marketing strategies. Research on consumer response to commercial marketing can provide insights on how to most effectively shift perceptions (such as cool, fun, convenient) around desirable but lesshealthful foods and food groups. Commercially-focused market research such as the LifeChoices survey(18), which examines the relationship between heuristic decisions about out-of-home eating and drinking choices and weight management concerns, bring an alternative perspective on consumer priorities to more academic research methodologies. Such research highlights consumer preferences for food choices that save time, meet social needs and fit with existing taste preferences and expectations.

Engaging the multiple agents of change

Social marketing also seeks to change the behaviour across the broad stakeholder base, e.g. public health and education professionals, parents, peer groups and of course mass media. The rationale for this approach is rooted in social cognitive theory, which recognises interaction of the internal environment and interpersonal influencers on behaviour choice. For example, the Walk to School campaign provides the stimulus for schools and parents to create safer easier opportunities for children to walk or cycle to school and increase levels of physical activity⁽¹⁹⁾.

Message intermediaries such as the media can be highly influential in moderating perceptions of norms and values. Media messages and themes may reinforce existing behaviours and perceptions (e.g. it is not safe for children to walk to school) or become part of the impetus for change (e.g. walking to school is not only safer than using the car, but educationally, socially and physically beneficial for children)⁽¹⁹⁾.

Trust is recognised in innovation diffusion theory as an essential component of the behaviour change process^(20,21). Change is risky, unpredictable and inconvenient; in general, requiring individuals to temporarily step outside their 'comfort zone'. Tools and strategies that reduce sense of unease and discomfort are therefore very valuable. Campaigns and organisations that are successful and establish trust not only achieve their immediate objectives but also establish brand value⁽²²⁾.

Brand value is one of the most powerful tools of the marketing tool box. An established brand is a hugely influential symbol encouraging both repeat behaviour (in the commercial world, for example, repeat purchase) and new behaviour (e.g. a willingness to buy and try a new commercial product). As long as the brand continues to deliver on perceived promises, it conveys and reinforces commitment, a sense of relationship, and is interpreted as a guarantee to deliver a bundle of values. Conversely, poor brand image or a brand image that does not fit with perception of what is desirable discourages the risky business of change. For some individuals the brand image of 'Weight Watchers' may be more attractive than the image of NHS-based weight-reduction advice; for others, the converse. The 'brand image' of former US President Bill Clinton was used to great effect to promote walking and active lifestyles for better health and weight management⁽²³⁾

Social marketing may also be used to enhance the effectiveness of the professional skills of stakeholders who seek to promote behaviour change. Social marketing techniques such as segmentation and consumer insight research framed within the diffusion of innovation theory enable resources to be targeted and customised to enhance relevance and impact by identifying key perceived barriers and motivators for broad-target adopter groups⁽²⁰⁾. For example, active lifestyle campaigns based on increased uptake of community facilities may use messages focused on health benefits, delivered through healthcare services, to target those individuals with current health concerns. To reach those individuals who are currently non-users because of childcare and work commitments, personal transport or financial constraints, adaptation of the community services supported with advertising communicated through local socially-based channels may be more effective.

Delivering value to the target adopters

Segmentation, targeting, positioning and building brand value are not just valuable tools in the implementation of social marketing research and interventions, they are also useful in putting client orientation at the heart of behaviour change thinking.

Voluntary behaviour change is by definition under the control of the target adopter. Not only does the choice to try new behaviours lie with the target adopter, he or she also determine its sustainability. Diet and lifestyle choices that impact health such as weight management must be maintained for years, through the multiple stages of the life cycle and/or changes in life circumstances in order to improve health outcomes^(6,8,24,25). Social marketing aims to engage and establish strong and valued relationships

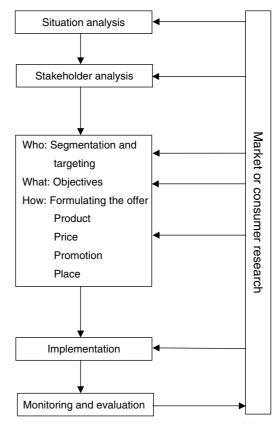


Fig. 1. Social marketing plan. (Adapted from Hastings⁽²⁶⁾.)

with the client or client groups. Social marketing recognises that productive and resilient relationships must offer something to both parties, a mutually-beneficial exchange. The concept of value exchange is perhaps the most definitive characteristic of a social marketing approach to any public health or social behavioural change issue. Social marketers recognise that behaviour change ultimately delivers benefit to the end consumer but also presents a cost^(15,26).

Obvious potential tactics are minimising cost (e.g. by identifying routes to more active lifestyles and healthier diets that involve acceptable levels of disruption) and maximising delivery and communication of benefits (e.g. by highlighting immediate changes to health rather than focusing on long-term risk reduction).

Additionally, however, to be effective a social marketing approach would aim to root direct intervention within an overall strategic plan. Direct interventions are most effective when linked with weight-management influencers on multiple levels (individual, sectoral and environmental) and multiple stakeholder channels (consistent messaging, via multiple channels and engaging support of stakeholders who might otherwise inadvertently represent barriers)⁽²⁷⁾. For example, changes to school food services will be more effective if they consult and respond to students, staff and family. Food service planning might also consider how best to address local competition such as the chip van or corner shop, build brand value through local media and quality service delivery and employ a continuous cycle of feedback, adaptive response and communication (see Fig. 1).

Similarly, programmes to encourage more active lifestyles might offer clear incremental goals, consider fiscal implications and offer flexibility with a range of uptake options. Communication of short- and long-term benefits, and starting with a needs assessment from the target audience perspective would also be recommended from a social marketing perspective.

Critical research questions from a social marketing perspective

From a client-oriented perspective, a current situation analysis raises questions such as:

- as overweight and obesity becomes more prevalent than healthy weight, how does this trend contribute to perceptions and tolerance of unhealthy body weight as the norm;
- who are the key stakeholders from a professional perspective, and who or what are key opinion leaders, motivators and barriers to change from a layperson perspective; how do these perspectives differ and what are the implications for these differences;
- what are the most effective potential and current motivators for weight control and how can they best be marketed:
- how can the most influential stakeholders become more fully engaged;
- what are the unintended consequences of obesityfocused interventions and communications, and might these factors impact on the credibility of future initiatives;
- what are the barriers, incentives or catalysts for multisectoral policy alignment. How can new thinking and approaches in support of behavioural change be 'marketed' at this sectoral level;
- what are the key criteria for measuring efficacy and progress.

Many of these questions fit well with the proposed iterative implementation and research cycle of policy action and interventions to address the current trends in overweight.

Conclusion

Operationally, social marketing takes a 'work in progress' approach. Conceptually, social marketing is an evolving framework through which original insight on the global challenges of obesity may both inform and learn. Obesity research and practice is also a 'work in progress'. There is consensus that strategies to prevent and treat weight gain must go forwards in the absence of complete evidence; experience of implementation and evaluation of impact will contribute to the evidence base.

Social marketing in partnership with other approaches and disciplines can bring new and creative thinking and practice to this collective effort. Reviews of social marketing effectiveness in bringing about diet- and lifestyle-based behaviour change as well as requisite environmental and policy level change have found clear evidence of success (27,28) Almost certainly the relationship between

social marketing and obesity is yet to come of age, so watch this space!

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References

- Popkin B (2001) The nutrition transition and obesity in the developing world. J Nutr 131, 871S–873S.
- Lang T (2004) Food Industrialisation and Food Power: Implications for Food Governance. International Institute for Environment and Development National Resources and Sustainable Agriculture and Rural Livelihoods Programme Gatekeeper Series no. 114. London: IIED.
- 3. James WPT (2008) The fundamental drivers of the obesity epidemic. *Obes Rev* **9**, Suppl. 1, 6–13.
- 4. World Health Organization (2008) World Health Statistics 2008. Geneva: WHO.
- 5. Astrup A, Dyerberg J, Selleck M *et al.* (2008) Nutrition transition and its relationship to the development of obesity and related chronic diseases. *Obes Rev* **9**, Suppl. 1, 48–52.
- Butland B, Jebb S, Kopelman P et al. (editors) (2007) Foresight Tackling Obesities: Future Choices – Project Report, 2nd ed. London: Department of Innovation Universities and Skills.
- Jebb SA, Kopelman P & Butland B (2007) Executive summary: FORESIGHT 'Tackling Obesities: Future Choices' project. *Obes Rev* 8, Suppl. 1, 6–9.
- 8. Brown T, Kelly S & Summerbell C (2007) Prevention of obesity: a review of interventions *Obes Rev* **8**, Suppl. 1, 127–130.
- 9. Prendergast J, Foley B, Menne V *et al.* (editors) (2008) *Creatures of Habit? The Art of Behavioural Change.* London: Social Marketing Foundation.
- Walsh DC Rudd RE, Moeykens BA et al. (1993) Social marketing for public health. Health Aff (Millwood) 12, 104–119
- 11. Meadley J, Pollard R & Wheeler M (2003) *Review of DFID Approaches to Social Marketing*. London: DFID Health Resources Centre.
- 12. Brown JM (2002) Futures Group 3rd Generation Social Marketing Approaches Briefing Paper. Bath, BANES: Futures Group Europe.
- 13. Andreasen A (1995) Marketing Social Change: Changing Behaviour to Promote Health, Social Development and the Environment. San Francisco, CA: Jossey-Bass.
- 14. Thackeray R. & Neiger B (2003) Use of social marketing to develop culturally innovative diabetes interventions. *Diabetes Spectrum* **16**, 15–20.
- Lefebvre RC (2000) Theories and models in social marketing. In *Handbook of Marketing and Society*, pp. 506–518
 [PN Bloom and GT Gundlach, editors]. Thousand Oaks, CA: Sage Publications, Inc.
- Macdonald L, Cummins S & Macintyre S (2007) Neighbourhood fast food environment and area deprivation substitution or concentration? *Appetite* 49, 251–254.
- 17. Hastings GB, Stead M, McDermott L *et al.* (2003) Review of research on the effects of food promotion to children final report and appendices. http://www.food.gov.uk/multimedia/pdfs/foodpromotiontochildren1.pdf

- Nielsen AC (2005) LifeChoices: out-of-home consumption and the impact of weight gain on choice: a 21 country DeltaQual study. http://www2.acnielsen.com/reports/documents/ 2005_lifechoices.pdf
- Living Streets (2008) Walk to school 2008. http://www.walktoschool.org.uk/content/wow_scheme.php (accessed June 2008).
- Crawford D & Ball K (2002) Behavioural determinants of the obesity epidemic. Asia Pac J Clin Nutr 11, 718S– 721S.
- Oldenberg B, Hardcastle D & Kok G (1997) Diffusion of innovations. In *Health Behaviour and Health Education*, 2nd ed., pp. 270–286 [K Glanz, F Lewis and B Rimer, editors]. San Francisco, CA: Jossey-Badd.
- 22. Evans D & Hastings G (editors) (2008) *Public Health Branding Applying Marketing for Social Change*. Oxford: Oxford University Press.

- America on the Move Foundation (2007) http://aom. americaonthemove.org/site/c.krLXJ3PJKuG/b.1524889/k.BFFA/ Home.htm (accessed November 2007).
- 24. Swinburn B & Egger G (2004) The runaway weight gain train, too many accelerators, not enough brakes. *Br Med J* **329**, 736–739.
- Wardle J (2007) Eating behaviour and obesity. Obes Rev 8, Suppl. 1, 73–75.
- 26. Hastings GB (2007) Social Marketing: Why Should the Devil Have all the Best Tunes? pp. 29–33. Oxford: Butterworth-Heinemann.
- 27. McDermott L, Stead M, Gordon G et al. (2006) National Social Marketing Centre Effectiveness Review Paper 2: Nutrition and Social Marketing. London: NSMC.
- 28. Stead M, Gordon R, Angus K *et al.* (2007) A systematic review of social marketing effectiveness. *Health Educ* **107**, 126–140.