

# The commercial marketing of healthy lifestyles to address the global child and adolescent obesity pandemic: prospects, pitfalls and priorities

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## Abstract

Public- and private-sector initiatives to promote healthy eating and physical activity, called 'healthy lifestyles', are a relatively recent response to the global obesity pandemic. The present paper explores different views about marketing healthy lifestyles with a special emphasis on private-sector initiatives and public-private partnerships designed to reach young people. We discuss aspects of these initiatives and partnerships from three perspectives: (i) the potential for commercial marketing practices to have a favourable influence on reversing global obesity trends (termed prospects); (ii) unresolved dilemmas and challenges that may hinder progress (termed pitfalls); and (iii) the implementation and evaluation of coordinated and systematic actions (termed priorities) that may increase the likelihood that commercially marketed healthy-lifestyle initiatives and public-private partnerships can make a positive contribution to reverse the rise in overweight and obesity among young people globally.

**Keywords**  
 Healthy lifestyles  
 Obesity prevention  
 Children  
 Adolescents  
 Commercial marketing  
 Social marketing  
 Public-private partnerships  
 High-energy and nutrient-poor  
 foods and beverages

'Healthy-lifestyle' initiatives are being implemented in response to the global obesity crisis. Although some are undertaken by government agencies at global, regional and national levels<sup>(1-4)</sup>, many are also undertaken by private-sector companies and corporate foundations<sup>(5-10)</sup> and through public-private partnerships involving the food, beverage and entertainment industries<sup>(11-13)</sup>. In 2004, the US Congress directed an Institute of Medicine (IOM) expert committee to examine the influence of food and beverage marketing on the diets and health of American children and adolescents, and to identify effective marketing of foods and beverages to promote healthful choices<sup>(14)</sup>. The IOM recommended that companies use their creativity, resources and full range of marketing practices to promote and support healthful diets for children and youth<sup>(14)</sup>. Other international expert groups have also identified the potential to use market forces to support healthy behaviours to prevent obesity<sup>(15,16)</sup>.

The current paper analyses different views about industry-supported marketing activities that promote healthy lifestyles with a particular focus on reaching children and adolescents. Given the recent emergence of industry-supported healthy-lifestyle initiatives, we explore the merits and shortcomings of these activities drawing from insightful reviews, relevant industry and

government policy reports, corporate websites and media releases. We provide a brief summary of current global commercial marketing patterns reaching young people. We then discuss how healthy-lifestyle initiatives and partnerships may favourably influence global obesity trends (termed prospects); the complex and unresolved challenges inherent in such initiatives (termed pitfalls); and the implementation and evaluation of coordinated and systematic actions (termed priorities) to increase the likelihood that commercially marketed healthy-lifestyle initiatives and partnerships can positively contribute to reversing overweight and obesity rates among young people globally.

## Global trends in commercial marketing to young people

Commercial marketing is a powerful force that shapes our lives and futures, influences social norms, and can provide societal benefits<sup>(17,18)</sup>. The traditional marketing mix – product, place, price and promotion – represents many activities that net substantial revenue for transnational corporations and their shareholders<sup>(18,19)</sup>. Diverse industry sectors use many media and marketing channels to ensure that all promotional activities reaching young

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**Table 1** Components of a company's branding strategy

Component	Purpose
Brand personality	To develop image attributes and raise consumer awareness about a brand and its competition
Brand differentiation	To distinguish one brand from another in the same product or service line
Brand philanthropy	To support community initiatives that advance the interests of a company or organization
Brand performance and brand advantage	To build consumer familiarity and perceived quality and to determine whether customers think a brand is improving or whether their interest in a specific brand is declining
Brand loyalty and brand equity	To sustain the degree to which consumers will consistently purchase the same brand within a product category or select the same service over time

Source: references 29–32.

people produce unified, customer-focused messages. Children use many types of electronic media concurrently<sup>(20)</sup>; yet television remains the dominant form young people use in the USA<sup>(20–22)</sup> and Europe<sup>(23)</sup>. Newer techniques include product placement across diverse media, school-based marketing, digital television, mobile phones, Internet-based advergames, social networking sites and viral marketing<sup>(14,23–27)</sup>.

Branding is a primary objective of the integrated marketing strategy of companies, representing a name or symbol that legally identifies companies, products or services that consumers differentiate among marketplace competitors. Companies strive to maintain consumer trust in their brand reputation and brand equity<sup>(28)</sup>. Table 1 summarizes branding strategy components<sup>(29–32)</sup> used by companies to market products and behaviours that support both healthy and unhealthy products and lifestyles.

Children's brand awareness develops around 2 years of age and the majority of their food requests are for branded products<sup>(33)</sup>. Branding influences children's and adolescents' choices, purchase requests and taste preferences<sup>(33,34)</sup>. Companies use branded spokescharacters to market high-energy and nutrient-poor foods and beverages to children, although there has been a recent shift to link characters to products with better nutrient profiles. Using brand strategies to promote healthy lifestyles to children is complex. Market forces alone are not sufficient to create and sustain young consumers' demand for healthy lifestyle products and behaviours because they favour consumers' short-term preferences for energy-dense foods, sweetened beverages and physical inactivity over foods and beverages conducive to achieving a healthy weight over the long term<sup>(35)</sup>.

Industry's role in marketing both healthy and unhealthy images and products that influence lifestyles is important because marketing channels and strategies

reaching young people are distinct from those reaching adults<sup>(14,36)</sup>. Marketing to young children is controversial because of their inability to understand the persuasive intent of advertising messages and to older children because of certain highly sophisticated integrated marketing strategies used to influence their behaviours<sup>(14,37)</sup>. This concern is paradoxically countered by a growing interest to effectively use marketing both to improve the quality and content of commercial messages and to design more effective social-marketing campaigns<sup>(38,39)</sup>.

Global commercial marketing trends, practices and regulations relevant to children have been comprehensively reviewed and analysed<sup>(14,23,40–44)</sup>. A growing scepticism about voluntary industry self-regulation has led to support for using regulatory or legal instruments to address the marketing practices of unhealthy products to young people<sup>(45)</sup>. In 2006, the WHO documented concerns about marketing to children and a plan to explore developing an International Code on Marketing of Foods and Non-alcoholic Beverages to Children<sup>(40)</sup>. In early 2008, WHO released a draft action plan for member countries with a regulatory framework to limit marketing to children<sup>(46)</sup> and Consumers International and the International Obesity Taskforce recommended that WHO develop an International Code<sup>(47)</sup>. Plans to present the Code at the World Health Assembly meeting<sup>(48)</sup> were thwarted by leading transnational corporations pledging support for the Global Strategy on Diet, Physical Activity and Health (DPAS)<sup>(49,50)</sup> and publicly committing to improve global business practices such as reformulating products, disseminating nutrition information, and adopting voluntary advertising and marketing practices to children. While a six-year action plan was endorsed to implement the DPAS<sup>(51)</sup>, no action was taken to adopt an International Code. Actions are underway to identify policy options by 2010<sup>(52)</sup>.

## Prospects, pitfalls and priorities

### *Prospects for commercially marketed healthy lifestyles to young people*

The potential benefits of industry-sponsored, healthy-lifestyle initiatives include leveraging extensive resources, diverse expertise, and the capacity to reach millions of consumers through diverse marketing channels and media platforms. Industry-sponsored business strategies and public-private partnerships are discussed separately, although relevant initiatives often overlap.

#### *Industry-sponsored business strategies*

Some companies have modified business models to align with consumer demand for healthy lifestyles by identifying new target markets and marketing niches whereby healthy lifestyles can be profitable. Relevant business strategies include: developing new products with healthier

nutrient profiles; reformulating existing products; using front-of-pack symbols to identify healthier products; packaging smaller portions; supporting employee and community wellness programmes; providing information to encourage healthy diets and active lifestyles; and merging with companies whose products are in healthier market segments<sup>(14,53,54)</sup>. For example, Danone has produced detailed nutrition maps and modified the formulation of its products in eight countries where it has markets<sup>(28)</sup>. The Walt Disney Company has committed its brands and spokescharacters to support products and healthy behaviours across all global media businesses including parks and resorts, media networks, third-party licensed products and new child-targeted branded products<sup>(55)</sup>. Transnational companies can potentially increase their reach and influence health-related consumer behaviours by making commercial messages consistent across all media and marketing venues, and investing resources in environments that sustain mutually reinforcing behaviours (i.e. improving dietary intake, increasing physical activity levels and reducing leisure screen time)<sup>(53)</sup>.

Many transnational companies have their own branded healthy-lifestyle initiatives and marketing campaigns. Such approaches may convey that a company is addressing obesity while concurrently raising brand presence and highlighting healthier portfolio products<sup>(53,54)</sup>. While most initiatives focus on influencing individual consumer behaviours, certain brand-philanthropy activities and public-private partnerships also support healthy lifestyles at the community level.

#### *Public-private partnerships*

In the USA, the Coalition for Healthy Children<sup>(56)</sup> and the Small Step campaign<sup>(57,58)</sup> are two public-private partnerships that use research-based messages to 'sell healthy lifestyles' to Americans. The Convergence Partnership's Healthy People in Healthy Places encourages market-based changes to create opportunities that enhance access to healthy food and physical activity<sup>(59)</sup>. Shape Up Europe is a partnership supported by the European Commission's Health and Consumer Protection Directorate (DG SANCO) and Kraft Cares, which promotes healthy lifestyles to children and parents through programmes in twenty-five cities within EU countries<sup>(13)</sup>. While these approaches are promising, their benefits will depend on addressing several pitfalls discussed in the next section.

#### ***Pitfalls that may hinder progress***

Corporate-sponsored initiatives and public-private partnerships present complex challenges that may limit obesity prevention benefits. Challenges involve factors influencing consumer and industry behaviours, and also the emergence of obesity in low- and middle-income countries where undernutrition remains an unsolved public health issue.

#### *Consumer behaviour*

Several factors may limit the effectiveness of commercially marketed healthy-lifestyle initiatives and social-marketing campaigns. For child-oriented marketing these include the combination of: innate eating-related predispositions; certain culturally based child-feeding practices; and social and economic environments that reinforce dietary excess and physical inactivity. Children's eating behaviours are now often developing under unprecedented conditions of dietary abundance, where palatable, inexpensive, energy-dense and nutrient-poor foods and beverages are readily available<sup>(60)</sup>. Infants are born with biological preferences for sweet, salty and fat flavours, and high energy-dense foods. Yet they also have inadequate behavioural control mechanisms for self-regulating their energy intake and satiety in the presence of dietary abundance<sup>(60)</sup>.

Consumer research indicates that children and their parents value taste, cost and convenience over health in making purchasing and consumption decisions, especially if the healthy choice is more expensive<sup>(61)</sup>. Secular trends show an increase in portion sizes and consumption norms, revealed by larger product packages and portions sold in grocery stores and restaurants, and larger kitchenware at home, that collectively influence young consumers' perceptions of what is normal and appropriate to serve their families and consume for themselves<sup>(62)</sup>. Effective marketing of larger energy-dense food portions undermines children's diet quality and appropriate energy intake to achieve energy balance and a healthy weight<sup>(63)</sup>.

#### *Industry behaviour*

Despite industry innovations to promote healthy lifestyles, the predominant marketing of products, aspirations and behaviours to young people is currently inconsistent with healthy lifestyles. An evaluation of the leading twenty-five food and beverage, food retailer and restaurant companies found that not one has yet publicly conveyed a clear strategy or set of objectives applicable to its entire business to respond to consumer health and obesity issues worldwide<sup>(64)</sup>. An analysis of food and beverage products targeted to American children and youth by leading companies from 1994 to 2004 found that most products were high in total energy, sugar and fat and low in nutrients<sup>(14)</sup>.

Some assessments have found egregious industry practices. A tendency to alter information about potential adverse health effects of some products has been reported, where companies sponsoring research on their own products are less likely to report unfavourable effects or may modify the study design to highlight product benefits and minimize adverse effects<sup>(65)</sup>. Although industry self-regulation is undergoing positive changes, some companies continue to engage in misleading advertising to children. An analysis of thirty-seven child-targeted product brands found that two-thirds of the product packages

advertised to children and parents promoted images or references to fruit but contained little or no fruit and added sweeteners, thereby delivering minimal nutritional benefits<sup>(66)</sup>. Assessments of Nickelodeon, the television network most watched by American children, found that a majority of foods marketed by this entertainment company are of poor nutritional quality despite public commitments to change their marketing practices<sup>(67,68)</sup>. Limited data are available to independently assess the speed and magnitude of industry's progress towards achieving commitments to reformulate and promote healthier products<sup>(14,53,64)</sup>.

Food, beverage and restaurant companies may focus attention and resources primarily on physical activity, implicitly de-emphasizing the role of food quality and portion size in achieving energy balance and reducing obesity risk. An exclusive focus on physical activity is insufficient to offset the excess energy consumption associated with marketing practices that promote unhealthy diets<sup>(69)</sup>. Furthermore, sponsorship of international sporting events by fast food and beverage companies has raised scrutiny about whether physical activity events should be used to promote unhealthy products and behaviours. Such sponsorship may also produce other adverse effects including corporate expansion in countries with emerging markets and undermining domestic health legislation<sup>(70)</sup>. Corporate philanthropy motives reveal that companies support programmes to enhance corporate reputation and gain knowledge about potential new markets<sup>(71)</sup>.

Although public health practitioners and advocates recognize that social marketing can positively influence health behaviour<sup>(38,39)</sup>, commercial marketing motives are often mistrusted. Historically this was not always the case. During the 1920s and 1930s, US public health practitioners partnered with food companies to develop reinforcing messages that strengthened emerging social norms to address childhood undernutrition<sup>(72)</sup>. Addressing undernutrition involves producing and distributing more food, which are more compatible responses with current industry business models than reducing food and beverage consumption to prevent childhood obesity. Childhood obesity poses a dilemma for the food, beverage and restaurant industry sectors if solutions lead to reduced food and beverage product sales, profits and market share<sup>(69)</sup>. In this sense, scepticism about industry motives is appropriate; companies must make a profit to remain economically viable. Sedentary entertainment company profits (e.g. advertising revenue or sales of games and devices) may also be adversely affected by initiatives that limit young people's screen time. Interactive videogames may increase children's physical activity levels<sup>(73)</sup> but inadequately to offset excessive energy consumption to achieve a healthy weight.

Although justified, scepticism about industry motives may complicate public-private collaborations. When

public health and corporate goals conflict, corporate profit imperatives often trump public health imperatives<sup>(74)</sup>. Some have questioned whether industry should be entrusted to convey public health education by using advertising as a solution to address a problem attributed to excessive advertising<sup>(75)</sup>. Others have advocated for a new social norm that eliminates marketing to children<sup>(37,76)</sup>, and for instituting appropriate checks and balances to align the financial interests of industry with the goals of public health<sup>(69)</sup>. There is also controversy over using branding, celebrity endorsement and licensed cartoon spokescharacters to market to children who are not cognitively mature enough to understand the purpose of persuasive intent<sup>(14,37,77)</sup>. The concern relates to the use of these strategies to promote high-energy and nutrient-poor products<sup>(78)</sup> and messages inconsistent with healthy lifestyles, and also to any strategy that may directly or indirectly increase children's brand loyalty for a company's unhealthy product line.

Companies may pressure non-profit organizations to enter cause-related marketing relationships that use co-branding to promote unhealthy food and beverage brands in exchange for unrestricted funds that support all programmes. The results may undermine the credibility of non-profit organizations and may facilitate access to clients to enhance the marketing of energy-dense products. Using non-profit organizations as marketing liaisons may be particularly problematic for organizations supporting anti-hunger, child development, education and emergency response programmes. Failure to partner with companies in ways that facilitate marketing of certain products may result in overall loss of financial support from companies or corporate foundations. Thus, non-profit organizations will need to negotiate different terms of engagement to support effective partnerships.

In the current childhood obesity context, there are examples of branded, healthy-lifestyle social-marketing campaigns funded by both public and private sources<sup>(12)</sup>. However, campaign messages may differ from commercial marketing messages, even those supported by the same company. Overall, social-marketing campaigns are unlikely to compete with transnational company marketing investments because most are not commercially driven and do not have comparable resources to support long-term population health goals<sup>(76,79)</sup>. Social marketers also do not have easy access to proprietary commercial marketing research to design effective programmes to influence young people's behavioural changes<sup>(14,53)</sup>. Developing a mechanism to share proprietary commercial marketing data with the public sector may help to design effective healthy-lifestyle initiatives for young people to deliver coordinated commercial and social-marketing messages and interventions with greater transparency across diverse media channels and national borders.



### *Emergence of obesity in low- and middle-income countries*

A substantial challenge for developing countries is the unsolved problem of undernutrition (i.e. underweight, stunting and micronutrient deficiencies), which may coexist with obesity in the same communities or households<sup>(80,81)</sup>. Commercial marketing should address both undernutrition and obesity prevention in a coherent and strategic manner<sup>(82-84)</sup>. Marketing strategies that encourage consumption of high-energy foods may be encouraged in communities where hunger and food insecurity exist. Transnational companies that have adopted healthy-lifestyle marketing practices in affluent countries may not employ these practices consistently in low- and middle-income countries<sup>(85)</sup> where there are limited self-regulatory codes<sup>(43)</sup>.

### ***Priorities for achieving positive outcomes***

Industry-supported healthy-lifestyle initiatives are an important feature of the marketing and media environments. Market forces may have positive impacts on consumer health<sup>(53,54,86)</sup> and diverse industry sectors have potential to profitably create consumer demand for products and opportunities that support healthy lifestyles<sup>(14,53,87)</sup>. Priorities involve implementing and evaluating coordinated and systematic actions to position commercially marketed healthy-lifestyle initiatives and partnerships to make positive contributions to decrease overweight and obesity rates among young people globally. As discussed below, needed actions involve connecting individually focused healthy-lifestyle initiatives to environmental and policy changes that support healthy communities, ensuring effective accountability mechanisms, evaluating a range of outcomes, and leveraging adequate resources comparable to the need to shape the globalized marketing and media environments to promote healthy lifestyles.

### *Connecting healthy lifestyles to healthy communities*

Institutionalizing and connecting healthy-lifestyle initiatives to those that aim to create healthy communities will assist young people to achieve energy balance and a healthy weight. Individuals and interest groups can be effectively mobilized to influence policy makers to develop healthy communities and expand the range of healthy choices<sup>(88)</sup>. Changing people's environments can lead to conflicts between and among different sectors and interest groups due to altering the access, use and distribution of resources or by creating constraints on preferred behaviours; however, these conflicts must be effectively addressed<sup>(89)</sup>.

### *Ensuring effective accountability mechanisms*

Accountability mechanisms should be established for corporations by representatives of governments, industry sectors, public health and consumer advocacy constituencies. These mechanisms should be transparent, reinforcing and receptive to diverse stakeholder input.

One mechanism is for companies to publically report progress for integrating healthy-lifestyle initiatives consistently across all business strategies and promotional activities. Available evaluations have found that few companies have established key performance indicators relating to the use of external groups to assess their progress or publicly communicated a coherent response for marketing across all product lines and divisions<sup>(28,53,64)</sup>.

Strengthening industry self-regulatory codes for advertising and marketing to children is a second accountability mechanism. In Canada, sixteen leading food and beverage companies pledged to market more responsibly through the Canadian Children's Food and Beverage Advertising Initiative and focus their advertising on healthy active living by the end of 2008<sup>(90,91)</sup>. Although Advertising Standards Canada will audit compliance and publish annual reports, concerns have been raised to increase transparency and ensure company commitments because there are no clear enforcement mechanisms or penalties for non-compliant companies, and the information used to assess compliance will not be publicly released<sup>(91)</sup>.

In the EU, eleven leading food and beverage companies pledged to make voluntary changes affecting advertising to children and to publish the policy commitments by the end of 2008<sup>(92)</sup>. Several steps have been documented by the EU's Platform on Diet, Physical Activity and Health to strengthen industry accountability, which include: providing training to establish self-regulatory organizations; encouraging stakeholder involvement; and raising awareness to adopt the International Chamber of Commerce's Framework for Responsible Food and Non-Alcoholic Beverage Communications<sup>(93)</sup>.

In the USA, the US Council of Better Business Bureaus (CBBB) and the National Advertising Review Council announced revisions to the Children's Advertising Review Unit's Self-Regulatory Guidelines<sup>(94)</sup> and established the Children's Food and Beverage Advertising Initiative (CFBAI)<sup>(95,96)</sup>. The CFBAI represents fifteen of the largest food, beverage and restaurant companies advertising to children that have pledged to shift advertising messages to encourage healthy diets and lifestyles to children younger than 12 years<sup>(97)</sup>. In July 2008, the CBBB released its first compliance report for thirteen CFBAI-participating companies<sup>(98)</sup>. A Federal Trade Commission (FTC) report was also released, acknowledging company improvement<sup>(99)</sup> that aligned with recommendations in an earlier government report<sup>(100)</sup>. However, the FTC Commissioner noted that further industry improvements are essential to ensure that company pledges apply to all forms of marketing directed to children<sup>(101)</sup>. Industry-supported self-regulatory codes that address only selected advertising practices, instead of the full range of companies' marketing practices, are unlikely to have broad-reaching effects to reduce unhealthy products and behaviours. Independent assessments of industry commitments are critical to evaluate progress and to improve the effectiveness of healthy-lifestyle marketing.

A third accountability mechanism would be for WHO to adopt an International Code on Marketing of Foods and Non-alcoholic Beverages to Children<sup>(40)</sup>. However, the code would need to address a vast array of energy-dense, low-nutrient food and beverage products, many types of marketing vehicles and venues, and the role of the sedentary entertainment industry in marketing products to children with unhealthy nutrient profiles. Enforcing professional codes of conduct with respect to public–private partnerships is a fourth accountability mechanism. Guidelines are available to assist organizations to clarify the purpose, terms and management of private-sector engagement<sup>(102)</sup>. Academic institutions have developed similar guidelines for industry interactions<sup>(103)</sup>, and foundations are establishing criteria for prospective grantees making them ineligible for obesity prevention research support if they receive funding from businesses that market low-nutrient food or beverage products to children<sup>(104)</sup>.

#### *Evaluating healthy-lifestyle outcomes*

Government and private-sector healthy-lifestyle initiatives and public–private partnerships should be evaluated to assess the collective progress made towards achieving positive outcomes. Monitoring and evaluating a range of outcomes can provide insight into anticipated progress and unintended consequences. Frameworks have been developed by the WHO<sup>(105)</sup>, the EU Platform<sup>(106)</sup> and the IOM<sup>(53)</sup> to assess progress made towards achieving a range of obesity prevention outcomes across different sectors and settings.

#### *Leveraging resources to promote healthy lifestyles*

Adequate resources must be identified and mobilized over the next several decades to reorient the globalized marketing and media environments to promote healthy lifestyles. Resources supporting an optimal policy response must reflect a country's specific context, including social, political and legal environments, and must be sufficiently resilient to respond to future policy needs as the global marketplace changes. There must be potent and consistent embedding of healthy lifestyles to transform societal expectations, social norms and consumer behaviours over a sustained time frame. Resources can be generated through public–private partnerships and industry innovation but transparency and accountability mechanisms must be firmly established. If we are to have a measurable impact we must plan for a global public–private investment in healthy lifestyles and obesity prevention that is adequate to address the scope of the problem. The combined government and private-sector resources totalling more than \$US 50 billion leveraged to address HIV/AIDS, tuberculosis and malaria in developing countries<sup>(107,108)</sup> provides a potentially relevant precedent for obesity prevention in resource-constrained countries experiencing undernutrition and obesity as a double burden.

## Conclusions

Public- and private-sector healthy-lifestyle initiatives and partnerships have recently emerged in the USA and internationally. The present paper examined the prospects, pitfalls and priorities related to commercial marketing practices promoting healthy lifestyles to help reverse obesity trends for children and adolescents. To be effective, marketing approaches must support environments for young people to engage regularly in healthy lifestyle behaviours, across cultures, geographic locations and social contexts. Prospects include industry-sponsored business strategies and public–private partnerships that have the potential to harness extensive resources, diverse expertise, and the capacity to reach millions of consumers through diverse media and marketing channels. Pitfalls include consumer and industry behaviours that may hinder achieving positive outcomes related to healthy-lifestyle marketing initiatives and public–private partnerships. In middle- and low-income countries, a substantial challenge is to apply strategies that effectively address the double burden of undernutrition and obesity. Priorities include connecting healthy lifestyles to healthy communities, ensuring effective accountability mechanisms, evaluating healthy-lifestyle initiatives against a range of outcomes, and leveraging adequate resources over the next several decades to support evidence-based, population-based interventions that adequately address the scope of the obesity problem among young people globally.

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## References

1. World Health Organization (2004) *Global Strategy on Diet, Physical Activity, and Health*. WHA57.17. Geneva: WHO; available at [http://www.who.int/gb/ebwha/pdf\\_files/WHA57/A57\\_R17-en.pdf](http://www.who.int/gb/ebwha/pdf_files/WHA57/A57_R17-en.pdf)
2. World Health Organization (2006) *European Ministerial Charter on Counteracting Obesity*. Istanbul, Turkey. November 15–17, 2006. Copenhagen: WHO Regional

- Office for Europe; available at <http://www.euro.who.int/obesity/conference2006>
3. US Department of Health and Human Services, Centers for Disease Control and Prevention (2007) Steps to a Healthier US Program. Preventing Chronic Diseases through Local Community Action. <http://www.cdc.gov/nccdphp/publications/AAG/pdf/steps.pdf> (accessed October 2008).
  4. MRD Human Research Nutrition (2007) *The Healthy Living Social Marketing Initiative*. Cambridge: UK Department of Health; available at [http://www.dh.gov.uk/en/Publication-sandstatistics/Publications/PublicationsPolicyAndGuidance/DH\\_073044](http://www.dh.gov.uk/en/Publication-sandstatistics/Publications/PublicationsPolicyAndGuidance/DH_073044)
  5. McDonald's Corporation (2005) 'it's what i eat and what i do™ ... i'm lovin' it™'. McDonald's® Launches New Worldwide Balanced, Active Lifestyles Public Awareness Campaign. Press release, 8 March. [http://www.mcdonalds.com/corp/news/corppr/2005/cpr\\_03082005.html](http://www.mcdonalds.com/corp/news/corppr/2005/cpr_03082005.html) (accessed October 2008).
  6. Coca-Cola Company (2008) Promoting a Healthy Lifestyle. [http://www.coca-cola.co.uk/yourhealth/promoting\\_a\\_healthy\\_lifestyle/](http://www.coca-cola.co.uk/yourhealth/promoting_a_healthy_lifestyle/) (accessed October 2008).
  7. General Mills (2008) Nourishing Healthy Lifestyles. [http://www.generalmills.com/corporate/health\\_wellness/healthy\\_lifestyles.aspx](http://www.generalmills.com/corporate/health_wellness/healthy_lifestyles.aspx) (accessed October 2008).
  8. Kraft Foods (2007) Kraft Foods Expands its Healthy Living Initiative. News release, 18 April. <http://www.kraft.com/newsroom/04182007.html> (accessed October 2008).
  9. PepsiCo (2007) Annual Report. <http://www.pepsico.com/Downloads/2007-Annual-English.pdf> (accessed April 2009).
  10. PepsiCo (2007) Oxford Health Alliance Launches World's Most Comprehensive Chronic Disease Prevention Research Programme. PepsiCo Foundation Funds \$5.2 Million Grant for Implementation and Evaluation of Community-Based Interventions in China, England, India and Mexico Impacting More Than Two Million People. News release, 26 September. <http://www.oxha.org/about/media-resources/CIH%20announcement%20release.pdf> (accessed May 2009).
  11. Ad Council (2007) HHS Partners with Ad Council and DreamWorks to Combat Childhood Obesity. News release, 1 February. <http://www.adcouncil.org/newsDetail.aspx?id=190> (accessed October 2008).
  12. Boys & Girls Club of America (2004) Boys & Girls Club of America, The Coca-Cola Company and Kraft Foods Launch \$12 Million Youth Health & Wellness Initiative. Press release, 28 April. <http://www.bgca.org/news/2004andOlder/200404028.asp> (accessed October 2008).
  13. PAU Education and Danish University of Education (2006) Shape Up Europe Launched to Investigate and Influence Childhood Obesity Determinants. Groundbreaking School-Community Project Covering all 25 EU Member States. News release, 11 May. [http://www.paueducation.com/shapeup/pdf/SHAPEUP\\_pressrelease.pdf](http://www.paueducation.com/shapeup/pdf/SHAPEUP_pressrelease.pdf) (accessed May 2009).
  14. Institute of Medicine (2006) *Food Marketing to Children and Youth: Threat or Opportunity?* [JM McGinnis, J Gootman and VI Kraak, editors]. Washington, DC: The National Academies Press.
  15. Doyle J, Waters E, Yach D, McQueen D, De Francisco A, Stewart T, Reddy P, Gulmezoglu AM, Galea G & Portela A (2005) Global priority setting for Cochrane systematic reviews of health promotion and public health research. *J Epidemiol Community Health* **59**, 193–197.
  16. Beaglehole R, Ebrahim S, Reddy S, Voûte J & Leeder S & Chronic Disease Action Group (2007) Prevention of chronic diseases: a call to action. *Lancet* **370**, 2152–2157.
  17. Wilkie WL & Moore ES (1999) Marketing's contributions to society. *J Mark* **63**, 198–218.
  18. Boone LE & Kurtz DL (2006) *Contemporary Marketing*, 12th ed. Belmont, CA: Thomson South-Western.
  19. Vignali C (2001) McDonald's: 'Think global, act local' – the marketing mix. *Br Food J* **103**, 97–111.
  20. Foehr UG (2006) *Media Multitasking Among American Youth: Prevalence, Predictors and Pairings*. Menlo Park, CA: Henry J. Kaiser Family Foundation; available at <http://www.kff.org/entmedia/upload/7592.pdf>
  21. Roberts DF, Foehr UG & Rideout V (2005) *Generation M: Media in the Lives of 8–18 Year Olds*. Menlo Park, CA: Henry J. Kaiser Family Foundation; available at <http://www.kff.org/entmedia/upload/Generation-M-Media-in-the-Lives-of-8-18-Year-olds-Report.pdf>
  22. Rideout VJ, Vandewater EA & Wartella EA (2003) *Zero to Six: Electronic Media in the Lives of Infants, Toddlers and Preschoolers*. Menlo Park, CA: Henry J. Kaiser Family Foundation; available at [http://www.kaisernetwork.org/health\\_cast/uploaded\\_files/102803\\_kff\\_kids\\_report.pdf](http://www.kaisernetwork.org/health_cast/uploaded_files/102803_kff_kids_report.pdf)
  23. Matthews A, Cowburn G, Rayner M, Longfield J & Powell C (2005) *The Marketing of Unhealthy Food to Children in Europe. A Report of Phase 1 of 'The Children, Obesity and Associated Avoidable Chronic Diseases' Project*. Brussels: European Heart Network; available at <http://www.mnsz.hu/marketing%20of%20unhealthy%20food%20to%20children.pdf>
  24. Cassady D, Townsend M, Bell RA & Watnik M (2006) Portrayals of branded soft drinks in popular American movies: a content analysis. *Int J Behav Nutr Phys Act* **3**, 4; available at <http://www.ijbnpa.org/content/pdf/1479-5868-3-4.pdf>
  25. Moore ES (2006) *It's Child's Play: Advergaming and the Online Marketing of Food to Children*. Menlo Park, CA: Kaiser Family Foundation; available at <http://www.kff.org/entmedia/upload/7536.pdf>
  26. Weber K, Story M & Harnack L (2006) Internet food marketing strategies aimed at children and adolescents: a content analysis of food and beverage brand websites. *J Am Diet Assoc* **106**, 1463–1466.
  27. Chester J & Montgomery K (2007) *Interactive Food and Beverage Marketing: Targeting Children and Youth in the Digital Age*. Berkeley, CA: Berkeley Media Studies Group; available at <http://www.digitalads.org/documents/digiMarketingFull.pdf>
  28. Langlois A & Crossley R (2008) *The Proof of the Pudding... Benchmarking Ten of the World's Largest Food Companies' Response to Obesity and Related Health Concerns*. London: JPMorgan Chase & Company and Insight Investment Management (Global) Limited; available at [http://www.insightinvestment.com/global/documents/riliterature/367922/proof\\_of\\_the\\_pudding\\_pres](http://www.insightinvestment.com/global/documents/riliterature/367922/proof_of_the_pudding_pres)
  29. Roberts K (2004) *Lovemarks: The Future Beyond Brands*. New York: PowerHouse Books.
  30. BrandWeek (2005) A special report: superbrands. Plus: America's top 2000 brands. <http://www.brandweek.com> (accessed October 2008).
  31. Survey Value Inc. (2008) Brand loyalty. <http://www.surveyvalue.com/services.html> (accessed October 2008).
  32. Lippincott Mercer (2008) Branding glossary. <http://www.lippincottmercer.com/pdfs/glossary.pdf> (accessed October 2008).
  33. John D (1999) Consumer socialization of children: a retrospective look at twenty-five years of research. *J Consum Res* **26**, 183–213.
  34. Robinson TN, Borzekowski DL, Matheson DM & Kraemer HC (2007) Effects of fast food branding on young children's taste preferences. *Arch Pediatr Adolesc Med* **161**, 792–797.
  35. Moodie R, Swinburn B, Richardson J & Somaini B (2006) Childhood obesity – a sign of commercial success, but a market failure. *Int J Pediatr Obes* **1**, 133–138.
  36. Booth SL, Sallis JF, Ritenbaugh C *et al.* (2001) Environmental and societal factors affect food choice and physical



activity: rationale, influences, and leverage points. *Nutr Rev* **59**, 3 Pt 2, S21–S39.

37. Swinburn B, Sacks G, Lobstein T, Rigby N, Baur LA, Brownell KD, Gill T, Seidell J & Kumanyika S (2008) The 'Sydney Principles' for reducing the commercial promotion of foods and beverages to children. *Public Health Nutr* **11**, 881–886.
38. Grier S & Bryant CA (2005) Social marketing in public health. *Annu Rev Public Health* **26**, 319–339.
39. Grantmakers in Health (2004) Selling Healthy Lifestyles: Using Social Marketing to Promote Change and Prevent Disease. Issue Brief No. 20. [http://www.gih.org/usr\\_doc/Selling\\_Healthy\\_Lifestyles\\_Issue\\_Brief.pdf](http://www.gih.org/usr_doc/Selling_Healthy_Lifestyles_Issue_Brief.pdf) (accessed October 2008).
40. World Health Organization (2006) Marketing of Food and Non-Alcoholic Beverages to Children. Report of a WHO Forum and Technical Meeting. Oslo, Norway. <http://www.who.int/dietphysicalactivity/publications/Oslo%20meeting%20layout%2027%20NOVEMBER.pdf> (accessed October 2008).
41. Hawkes C (2002) Marketing activities of global soft drink and fast food companies in emerging markets: a review. In *Globalization, Diets, and Non-Communicable Diseases*, pp. 98–185. Geneva: WHO; available at <http://www.who.int/hpr/NPH/docs/globalization.diet.and.ncds.pdf>
42. Hastings G, Stead M, McDermot L, Forsyth A, MacKintosh AM, Rayner M, Godfrey C, Caraher M & Angus K (2003) *Review of Research on the Effects of Food Promotion to Children*. Glasgow: Centre for Social Marketing; available at <http://www.foodstandards.gov.uk/multimedia/pdfs/foodpromotiontochildren1.pdf>
43. Hawkes C (2007) *Marketing Food to Children: Changes in the Global Regulatory Environment 2004–2006*. Geneva: WHO; available at [http://www.who.int/dietphysicalactivity/regulatory\\_environment\\_CHawkes07.pdf](http://www.who.int/dietphysicalactivity/regulatory_environment_CHawkes07.pdf)
44. Hawkes C (2007) Regulating and litigating in the public interest: regulating food marketing to young people worldwide: trends and policy drivers. *Am J Public Health* **97**, 1962–1973.
45. Alderman J, Smith JA, Fried EJ & Daynard RA (2007) Application of law to the childhood obesity epidemic. *J Law Med Ethics* **35**, 90–112.
46. World Health Organization (2008) Prevention and control of noncommunicable diseases: implementation of the global strategy. Report by the Secretariat, 16 January. [http://www.who.int/nmh/B122\\_9-en.pdf](http://www.who.int/nmh/B122_9-en.pdf) (accessed October 2008).
47. Consumers International, International Association for the Study of Obesity & International Obesity Taskforce (2008) Recommendations for an International Code on Marketing of Foods and Non-Alcoholic Beverages to Children. [http://www.consumersinternational.org/shared\\_asp\\_files/GFSR.asp?NodeID=97478](http://www.consumersinternational.org/shared_asp_files/GFSR.asp?NodeID=97478) (accessed October 2008).
48. Consumers International & International Obesity Taskforce (2008) Consumer groups and health bodies launch new code to ban junk food marketing to children. Global Code could save junk food generation. Press release, 15 March. [http://consint.live.poptech.coop/shared\\_asp\\_files/GFSR.asp?NodeID=97496](http://consint.live.poptech.coop/shared_asp_files/GFSR.asp?NodeID=97496) (accessed October 2008).
49. Powell K, Mackay D, Rosenfeld I, Michaels P, Bulcke P, Nooyi I, Kent M & Cescau P (2008) A global commitment to action on the Global Strategy on Diet, Physical Activity and Health. Letter to Dr. Margaret Chan, Director General, World Health Organization, 13 May. <http://www.nestle.com/Resource.axd?Id=AB07212C-14E2-4945-AFF4-7B1B1D0569AE> (accessed October 2008).
50. Oxford Health Alliance (2008) Food/drink companies move on obesity. Global commitment on ads for under-12s. News release, 21 May. <http://www.oxha.org/alliance-alert/2008-q2-april2013june/alert.2008-05-21.3316102955/?searchterm=Food/drink%20companies%20move%20on%20obesity> (accessed October 2008).
51. World Health Organization (2008) Action plan for prevention and control of noncommunicable diseases. Issues paper. [http://www.who.int/mediacentre/events/2008/wha61/issues\\_paper2/en/print.html](http://www.who.int/mediacentre/events/2008/wha61/issues_paper2/en/print.html) (accessed October 2008).
52. Norwegian Directorate of Health (2008) European Network on reducing marketing pressure on children. Report from the 2nd meeting, Belgrade, Serbia, 29–30 September. [http://www.helsedirektoratet.no/vp/multimedia/archive/00090/Final\\_report\\_second\\_90369a.pdf](http://www.helsedirektoratet.no/vp/multimedia/archive/00090/Final_report_second_90369a.pdf) (accessed April 2009).
53. Institute of Medicine (2007) *Progress in Preventing Childhood Obesity: How Do We Measure Up?* [JP Koplan, CT Liverman, VI Kraak and SL Wisham, editors]. Washington, DC: The National Academies Press.
54. Bennett J, Boles O & Crossley R (2007) A Recipe for Success: How food companies can profit from consumer health. <http://www.iblf.org/docs/RecipeforSuccess.pdf> (accessed October 2008).
55. The Walt Disney Company (2008) Corporate Responsibility Report. [http://a.media.global.go.com/corporateresponsibility/pdf/Disney\\_CR\\_Report\\_2008.pdf](http://a.media.global.go.com/corporateresponsibility/pdf/Disney_CR_Report_2008.pdf) (accessed March 2009).
56. Ad Council (2008) Coalition for healthy children: combating childhood obesity. <http://www.adcouncil.org/healthychildren/index.html> (accessed October 2008).
57. Arthur H & Ad Council (2007) *Selling Healthy Lifestyles*. Washington, DC: Federal Trade Commission; available at <http://www.ftc.gov/bcp/workshops/childobesity/presentations/arthur.pdf>
58. US Department of Health and Human Services & The Advertising Council (2004) Healthy Lifestyles and Disease Prevention Media Campaign. Take a Small Step to Get Healthy. [http://www.smallstep.gov/pdf/obesity\\_whitepaperfinal\\_71205.pdf](http://www.smallstep.gov/pdf/obesity_whitepaperfinal_71205.pdf) (accessed October 2008).
59. Robert Wood Johnson Foundation, W.K. Kellogg Foundation & Kaiser Permanente (2006) Overview of Healthy Eating–Active Living Convergence Partnership. [http://www.wkcf.org/DesktopModules/WKF.00\\_DmaSupport/ViewDoc.aspx?LanguageID=0&CID=383&ListID=28&ItemID=5000324&fld=PDFfile](http://www.wkcf.org/DesktopModules/WKF.00_DmaSupport/ViewDoc.aspx?LanguageID=0&CID=383&ListID=28&ItemID=5000324&fld=PDFfile) (accessed October 2008).
60. Savage JS, Orlet Fisher J & Birch LL (2007) Parental influence on eating behavior: conception to adolescence. *J Law Med Ethics* **35**, 22–34.
61. Wansink B & Huckabee H (2005) De-marketing obesity. *Calif Manag Rev* **47**, 6–18.
62. Wansink B & van Ittersum K (2007) Portion size me: downsizing our consumption norms. *J Am Diet Assoc* **107**, 1103–1106.
63. Colapinto CK, Fitzgerald A, Taper LJ & Veugelers PJ (2007) Children's preference for large portions: prevalence, determinants, and consequences. *J Am Diet Assoc* **107**, 1183–1190.
64. Lang T, Rayner G & Kaelin E (2006) *The Food Industry, Diet, Physical Activity and Health: A Review of the Reported Commitments and Practice of 25 of the World's Largest Food Companies*. London: Centre for Food Policy, City University; available at <http://www.city.ac.uk/press/The%20Food%20Industry%20Diet%20Physical%20Activity%20and%20Health.pdf>
65. Lesser LI, Ebbeling CB, Goozner M, Wypij D & Ludwig DS (2007) Relationship between funding source and conclusion among nutrition-related scientific articles. *PLoS Med* **4**, e5; available at [http://medicine.plosjournals.org/archive/1549-1676/4/1/pdf/10.1371\\_journal.pmed.0040005-S.pdf](http://medicine.plosjournals.org/archive/1549-1676/4/1/pdf/10.1371_journal.pmed.0040005-S.pdf)
66. Mikkelsen L, Merlo C, Lee V & Chao C (2007) *Where's the Fruit? Fruit Content of the Most Highly-Advertised Children's Food and Beverages*. Oakland, CA: Prevention Institute; available at <http://www.preventioninstitute.org/sa/fruit/wheresthefruit.pdf>
67. Batada A & Wootan MG (2007) Nickelodeon markets nutrition-poor foods to children. *Am J Prev Med* **33**, 48–50.



68. Center for Science in the Public Interest (2008) Nickelo-deon. Food marketing little improved between 2005 & 2008. [http://cspinet.org/new/pdf/nickelodeon\\_fact\\_sheet\\_2008.pdf](http://cspinet.org/new/pdf/nickelodeon_fact_sheet_2008.pdf) (accessed October 2008).
69. Ludwig DS & Nestle M (2008) Can the food industry play a constructive role in the obesity epidemic? *J Am Med Assoc* **300**, 1808–1811.
70. Collin J & MacKenzie R (2006) The World Cup, sport sponsorship, and health. *Lancet* **367**, 1964–1966.
71. McKinsey & Company (2008) The state of corporate philanthropy: a McKinsey global survey. [http://www.mckinseyquarterly.com/the\\_state\\_of\\_corporate\\_philanthropy\\_a\\_mckinsey\\_global\\_survey\\_2106](http://www.mckinseyquarterly.com/the_state_of_corporate_philanthropy_a_mckinsey_global_survey_2106) (accessed October 2008).
72. Lovett L (2005) The Popeye principle: selling child health in the first nutrition crisis. *J Health Polit Policy Law* **30**, 803–838.
73. Lanningham-Foster L, Jensen TB, Foster RC, Redmond AB, Walker BA, Heinz D & Levine JA (2006) Energy expenditure of sedentary screen time compared with active screen time for children. *Pediatrics* **118**, e1831–e1835.
74. Lewin A, Lindstrom L & Nestle M (2006) Food industry promises to address childhood obesity: preliminary evaluation. *J Public Health Policy* **27**, 327–348.
75. Schor J & Ford M (2007) From tastes great to cool: children's food marketing and the rise of the symbolic. *J Law Med Ethics* **35**, 10–21.
76. James WPT, Rigby NJ, Leach RJ, Kumanyika S, Lobstein T & Swinburn B (2006) International Obesity Taskforce. Global Strategies to Prevent Childhood Obesity: Forging a Societal Plan that Works. A discussion paper prepared for the Global Prevention Alliance McGill Integrative Health Challenge, October 26–27. <http://www.iof.org/documents/iotsocplan251006.pdf> (accessed October 2008).
77. Gosliner W & Madsen KA (2007) Marketing foods and beverages: why licensed commercial characters should not be used to sell healthy products to children. *Pediatrics* **119**, 1255–1256.
78. Linn S & Novosat CL (2008) Calories for sale: food marketing to children in the twenty-first century. *Ann Am Acad Pol Soc Sci* **615**, 133–155.
79. Kraak V & Pelletier DL (1998) How marketers reach young consumers: implications for nutrition education and health promotion campaigns. *Fam Econ Nutr Rev* **11**, 31–41; available at <http://www.cnpp.usda.gov/Publications/FENR/V11N4/fenrv11n4.pdf>
80. Barquera S, Peterson KE, Must A, Rogers BL, Flores M, Houser R, Monterrubio E & Rivera-Dommarco JA (2007) Coexistence of maternal central adiposity and child stunting in Mexico. *Int J Obes (Lond)* **31**, 601–607.
81. Garrett J & Ruel MT (2005) The coexistence of child undernutrition and maternal overweight: prevalence, hypotheses, and programme and policy implications. *Matern Child Nutr* **1**, 185–196.
82. Ezzati M, Vander Hoorn S, Lawes CM, Leach R, James WP, Lopez AD, Rodgers A & Murray CJ (2005) Rethinking the 'diseases of affluence' paradigm: global patterns of nutritional risks in relation to economic development. *PLoS Med* **2**, 0404–0412; available at [http://medicine.plosjournals.org/archive/1549-1676/2/5/pdf/10.1371\\_journal.pmed.0020133-L.pdf](http://medicine.plosjournals.org/archive/1549-1676/2/5/pdf/10.1371_journal.pmed.0020133-L.pdf)
83. Hawkes C (2006) Uneven dietary development: linking the policies and processes of globalization with the nutrition transition, obesity and diet-related chronic diseases. *Global Health* **28**, 4–22; available at <http://www.globalizationandhealth.com/content/pdf/1744-8603-2-4.pdf>
84. Popkin BM (2007) The world is fat. *Sci Am* **297**, 88–95.
85. Nuffield Council on Bioethics (2007) *Public Health: Ethical Issues*. UK: Cambridge Publishers Ltd; available at [http://www.nuffieldbioethics.org/fileLibrary/pdf/Public\\_health\\_ethical\\_issues.pdf](http://www.nuffieldbioethics.org/fileLibrary/pdf/Public_health_ethical_issues.pdf)
86. Majoras D (2007) Food for thought. The FTC and market influences on consumer health. *Food Drug Law J* **62**, 433–449; available at [http://www.ftc.gov/speeches/majoras/070412FDL\\_DK.pdf](http://www.ftc.gov/speeches/majoras/070412FDL_DK.pdf)
87. Institute of Medicine (2005) *Preventing Childhood Obesity: Health in the Balance* [JP Koplan, CT Liverman and VI Kraak, editors]. Washington, DC: The National Academies Press.
88. World Health Organization (2002) *Regional Framework for Health Promotion 2002–2005*. Manila: WHO Regional Office for the Western Pacific; available at [http://www.wpro.who.int/NR/rdonlyres/127E56D5-8B3D-4078-8CEE-B77619C7564C/0/Regional\\_Framework\\_for\\_HP\\_20022005.pdf](http://www.wpro.who.int/NR/rdonlyres/127E56D5-8B3D-4078-8CEE-B77619C7564C/0/Regional_Framework_for_HP_20022005.pdf)
89. Dorfman L & Wallack L (2007) Moving nutrition upstream: the case for reframing obesity. *J Nutr Educ Behav* **39**, 2 Suppl., S45–S50.
90. Advertising Standards Canada, Concerned Children's Advertisers & Foods & Consumer Products of Canada (2007) Canada's Food and Beverage Industry Unveils Integrated Children-Focused Initiatives: New social marketing campaign and advertising commitment focused on healthy active living. Media release, 16 April. <http://www.fcPMC.com/mediaroom/releases/2007/ca041607-eng.pdf> (accessed October 2008).
91. Cook B (2008) Food and Beverage Marketing to Children. Toronto Public Health report to the Board of Health, 8 February. <http://www.toronto.ca/legdocs/mmis/2008/hl/bgrd/backgroundfile-11151.pdf> (accessed October 2008).
92. *International Herald Tribune* (2007) Food makers in Europe volunteer to cut ads directed at children. News release, 11 December. [http://www.ihT.com/articles/2007/12/11/technology/adban.php?WT.mc\\_id=techal](http://www.ihT.com/articles/2007/12/11/technology/adban.php?WT.mc_id=techal) (accessed October 2008).
93. EU Platform on Diet, Physical Activity and Health (2008) 2008 Annual Report. [http://ec.europa.eu/health/ph\\_determinants/life\\_style/nutrition/platform/docs/eu\\_platform\\_2008frep\\_en.pdf](http://ec.europa.eu/health/ph_determinants/life_style/nutrition/platform/docs/eu_platform_2008frep_en.pdf) (accessed October 2008).
94. Children's Advertising Review Unit (2006) Self-Regulatory Program for Children's Advertising. <http://www.caru.org/guidelines/guidelines.pdf> (accessed October 2008).
95. Council of Better Business Bureaus (2006) New Food, Beverage Initiative to Focus Kids' Ads on Healthy Choices: Revised Guidelines Strengthen CARU's Guidance to Food Advertisers. Press release, 14 November. <http://www.bbb.org/alerts/article.asp?ID=728> (accessed October 2008).
96. Council of Better Business Bureaus (2006) Children's Food and Beverage Advertising Initiative. <http://www.cbba.org/initiative/> (accessed October 2008).
97. Council of Better Business Bureaus (2008) Company pledges. <http://us.bbb.org/WWWRoot/SitePage.aspx?site=113&id=dba51fbb-9317-4f88-9bcb-3942d7336e87> (accessed October 2008).
98. Council of the Better Business Bureaus, Inc. (2008) Changing the Landscape of Food & Beverage Advertising: The Children's Food and Beverage Advertising Initiative in Action. <http://us.bbb.org/WWWRoot/storage/16/documents/CFBAI/CFABI2008BBBReport.pdf> (accessed October 2008).
99. Federal Trade Commission (2008) Marketing Food to Children and Adolescents. A Review of Industry Expenditures, Activities, and Self-Regulation: A Report to Congress. <http://ftc.gov/os/2008/07/P064504foodmktngreport.pdf> (accessed October 2008).
100. Federal Trade Commission & Department of Health and Human Services (2006) Perspectives on Marketing,

- Self-Regulation & Childhood Obesity. A Report of a Joint Workshop of the Federal Trade Commission & the Department of Health & Human Services. <http://www.ftc.gov/os/2006/05/PerspectivesOnMarketingSelf-Regulation&ChildhoodObesityFTCandHHSReportonJointWorkshop.pdf> (accessed October 2008).
101. Concurring Statement of Commissioner Jon Leibowitz (2008) Marketing Food to Children and Adolescents. A Review of Industry Expenditures, Activities, and Self-Regulation, 29 July. <http://www.ftc.gov/speeches/leibowitz/080729foodmarketingtochildren.pdf> (accessed October 2008).
  102. UN Standing Committee on Nutrition (2007) A Draft Proposal for Initiating SCN Private Sector Engagement, 12 February. [http://www.unsystem.org/SCN/Publications/html/private\\_sector.htm](http://www.unsystem.org/SCN/Publications/html/private_sector.htm) (accessed October 2008).
  103. Rudd Center for Food Policy and Obesity (2008) Yale University: Guidelines for Funding and Interacting with the Food Industry. <http://www.yaleruddcenter.org/default.aspx?id=258> (accessed October 2008).
  104. Robert Wood Johnson Foundation (2009) Communities creating healthy environments. Improving access to healthy foods and safe places to play in communities of color, 26 February. [http://www.rwjf.org/files/applications/cfp/cfp\\_CCHE2009.pdf](http://www.rwjf.org/files/applications/cfp/cfp_CCHE2009.pdf) (accessed January 2009).
  105. World Health Organization (2006) *Global Strategy on Diet, Physical Activity and Health: A Framework to Monitor and Evaluate Implementation*. Geneva: WHO; available at <http://www.who.int/dietphysicalactivity/Indicators%20English.pdf>
  106. EU Platform on Diet, Physical Activity and Health (not dated) Monitoring Framework. [http://ec.europa.eu/health/ph\\_determinants/life\\_style/nutrition/platform/docs/eu\\_platform\\_mon-framework\\_en.pdf](http://ec.europa.eu/health/ph_determinants/life_style/nutrition/platform/docs/eu_platform_mon-framework_en.pdf) (accessed April 2009).
  107. PEPFAR Watch (2008) Historic BIDEN/LUGAR AIDS bill becomes law. News release, 30 July. <http://www.pepfarwatch.org/images/PEPFAR/biden-lugar.statement.hiv-aids.bill.becomes.law.pdf> (accessed October 2008).
  108. The Global Fund (2008) Current Grant Commitments & Disbursements. Global Fund Grants – Progress Summary Report. [http://www.theglobalfund.org/en/funds\\_raised/commitments/](http://www.theglobalfund.org/en/funds_raised/commitments/) (accessed October 2008).