

Food Marketing and Obesity in Developing Countries: Analysis, Ethics, and Public Policy

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Obesity and the chronic diseases with which it is associated constitute a serious global health problem that will rapidly worsen given current trends. This article introduces a model of how development processes, biological factors, and food marketing practices are influencing the human energy equation in the less affluent world. The discussion then turns to an ethical analysis of food marketing and obesity and to a formulation of broad ethical guidelines derived from marketing theory. Finally, alternative public policy and social marketing strategies are considered.

Keywords: food marketing; obesity; developing countries; ethics; public policy

Escalating rates of overweight and obesity¹ during the past twenty-five years have alarmed public health officials worldwide. The problem is especially acute in the United States and certainly prevalent in many other affluent nations but has become global in scope with more than one billion overweight adults, more than 300 million of them obese. Of this total, 115 million live in developing countries—up from virtually none two generations ago—and every indication suggests that this number should continue to grow rapidly (World Health Organization [WHO] 2000). Figures 1 and 2 show that the percentages of the population who are overweight rise across levels of development and, for women only, vary across selected regions.

Obesity is especially pronounced within some communities in the South Pacific, Latin America, and China (Caballero 2001; Martorell 2001; WHO 2003). Pacific islanders are the fattest people in the world with 55 percent of Tongan women, 74 percent of Samoan woman, and 77 percent of Nauruan men and women considered obese (BBC 2001; Gill et al. 2002). According to a recent study by the Organization of Economic Cooperation and Development, 64 percent of women and 60 percent of men in Mexico are now overweight and 24 percent of the population is obese (Boudreaux 2004). In China, with its much larger population, 15 percent of men and 16 percent of women are overweight, with as many as

33 percent overweight in cities such as Beijing (*The Economist* 2003). Unlike the rich nations, where obesity is more common among the lower social classes, especially in women, developing country obesity is more often found among comparatively better off city dwellers (WHO 2003; Fezeu et al. 2006). Throughout the world, excessive weight is becoming more and more noticeable among children (WHO 2000).

Obesity is associated with higher rates of Type II diabetes, cardiovascular disease, stroke, hypertension, sleep apnea, and some types of cancer (WHO 2003). These chronic conditions are already being detected in developing countries and, after a lag period following current weight gains, should become even more prevalent. Treating them will put a heavy burden on poorly funded health care systems and will divert limited resources away from the prevention and treatment of rampant infectious diseases such as malaria and HIV-AIDS. As has been the case in rich nations, spreading obesity will reduce productivity because afflicted workers will experience more limited physical mobility, days missed because of attendant illnesses, and premature mortality. For the individuals involved, obesity may worsen quality of life along the dimensions of poor self-image, employment prospects, social ostracism, and the routine difficulties their condition entails, such as finding suitably sized clothing and seating.

This article explores some of the interrelationships among economic development, food marketing, and obesity in less affluent nations.² Figure 3 illustrates the major groups of macrovariables and their probable causal influences. At the core of the model is a basic energy equation showing that people gain weight when they take in more calories than they expend. Above this equation are four correlates of development—less physically demanding manual labor, urbanization, rising purchasing power, and modernized food marketing—that affect energy intakes and expenditures

The author thanks the reviewers from the 9th International Conference on Marketing and Development and from the *Journal of Macromarketing* who gave their time and intellect to improve this article.

Journal of Macromarketing, Vol. 27 No. 2, June 2007 126-137
DOI: 10.1177/0276146707300076
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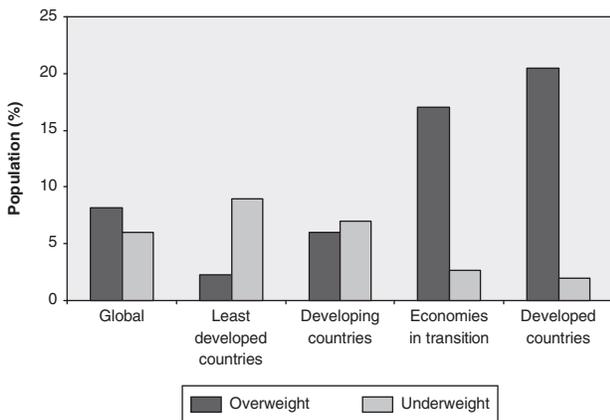


FIGURE 1 OVERWEIGHT RATES AND LEVEL OF DEVELOPMENT
 SOURCE: Food and Agriculture Organization (2002)

directly and through the intervening variable of dietary changes. Beneath the equation are two biological factors especially pertinent to developing countries, namely genetic predispositions and early life malnutrition, that put some populations at greater risk of obesity. A cluster of food marketing practices—increased food availability, variety, value, and convenience; adaptation to local conditions; promotion of a global fast-food culture; and targeting children—will be examined for their potential to influence dietary preferences that ultimately may lead to overweight and obesity.

Obesity may not be the most pressing health problem confronting developing countries. In many places the scourges of disease, genocidal war, and environmental degradation are certainly far worse. The United Nations estimates that 831 million people are undernourished (United Nations Development Programme [UNDP] 2004). More than 20,000 people die every day from the effects of abject poverty (Sachs 2005). Nevertheless obesity is serious enough in its own right and its growing incidence raises important questions about the unintended consequences of global food marketing for consumers in the relatively more successful emerging nations where the condition is most prevalent.

Thus the first objective of the research is to bring the global problem of obesity to the attention of macromarketers. A second goal is to explore potential relationships between food marketing practices and the dietary changes that may lead to obesity. The intent is not to accuse food companies of misconduct but to encourage macromarketers to be alert to the possible health consequences of all marketing practices on societies, even seemingly innocuous ones. This precautionary stance complements the consumer policy literature that has identified several marketing and development downsides, including economic dependency, social inequality, and materialism (Hirschman 1986; Ger 1992, 1997; Belk 1993; Ger and Belk 1996) and perhaps will stimulate further basic research.

Obesity and development have further significance because timely implementation of intelligent prevention and control

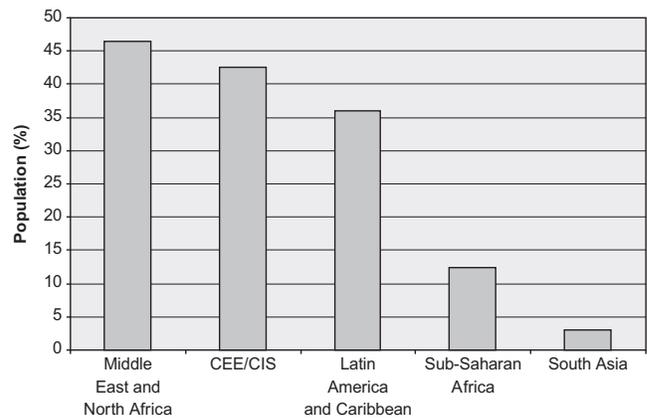


FIGURE 2 FREQUENCY OF OVERWEIGHT IN WOMEN ACROSS REGIONS

CEE/CIS = Central Eastern Europe and the Commonwealth of Independent States.

SOURCE: Food and Agriculture Organization (2002)

programs may forestall the far worse problems that the rich nations are now experiencing. Two additional objectives, therefore, are to show how food companies might help by adhering to the ethical standards inherent in marketing principles and to present and assess alternative public interventions and new social marketing strategies in developing countries. These ethical, public policy, and social marketing issues will be examined following the description of the macromodel in Figure 3.

DEVELOPMENT PROCESSES AND THE ENERGY EQUATION

Less Strenuous Manual Labor

Development entails processes of economic and social change that affect both sides of the energy equation. As economies grow and countries move up the development ladder, their jobs typically require less physical energy. Human toil becomes more productive through the introduction of capital goods or, in the case of trade liberalization, through specialization. In agriculture the need for exhausting labor declines because of mechanization and the substitution of local production by imported foods. Indeed food imports sometimes make subsistence livelihoods untenable and, like the diffusion of new technologies, result in surplus labor. Some of these displaced workers may end up as day laborers in fields such as construction, whereas others move into factory jobs, and still others find work in occupations such as transportation or the hospitality industry.

At the same time, jobs in the manufacturing and service sectors may themselves become less physically demanding as labor-saving capital equipment and information technology are introduced, often by foreign investors. The new types of work that accompany development may not be

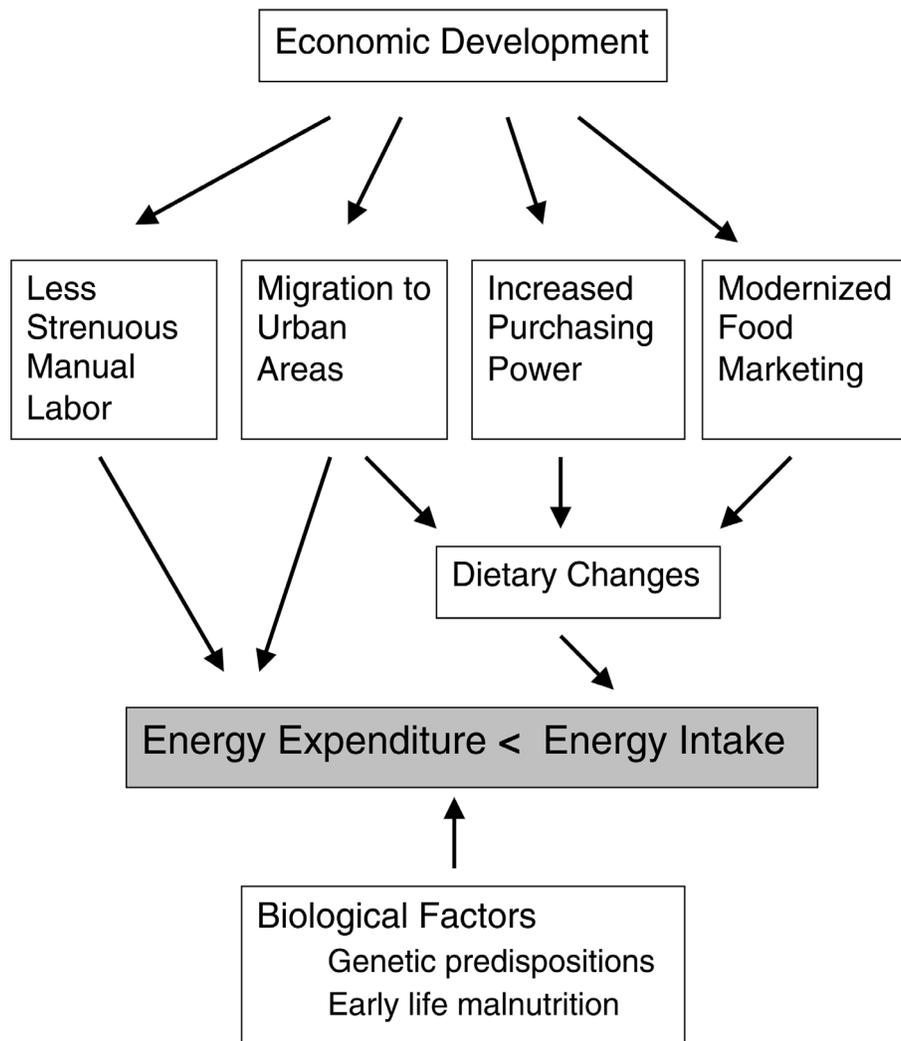


FIGURE 3 INFLUENCES ON THE ENERGY EQUATION IN DEVELOPING COUNTRIES

particularly easy or attractive by rich nation standards, and the transformation process itself frequently raises serious questions about labor standards and social justice, but the net result is a reduced expenditure of energy, perhaps as much as 1,000 calories a day (Hoffman 2000). Compared to earlier eras of industrialization, these changes are happening very quickly (Popkin 2004). In the late nineteenth century redundant farm laborers may have found jobs in heavy industries such as mining or steel that still required a good deal of brawn and physical exertion. After more than 100 years of technological evolution and automation, however, even working in these occupations is no longer so physically taxing.

Increased Purchasing Power

Economic development usually produces, albeit not invariably and certainly not for all, rising incomes and purchasing

power. As workers and their families begin to earn additional money, they alter their diets by increasing their intake of animal and vegetable fats and caloric sweeteners at the expense of grains, fruits, and vegetables. Researchers refer to this pattern as the “nutrition transition” (Drewnowski and Popkin 1997; Popkin 1999, 2001). In China, for example, the typical meal two generations ago consisted of rice or wheat—and even coarser grains for the poor—and vegetables with some soy sauce. Today most meals include meat, fish, or eggs and ample amounts of vegetable oils (Burslem 2004). Furthermore, as expanding employment opportunities attract the labor of women, the time available for food preparation decreases (Boudreaux 2004) and households may substitute more convenient and calorie-laden processed foods and prepared meals for traditional staple fare. Food manufacturing, packaging, storage, and preparation technologies have progressed enormously throughout time. Foods are less seasonal than they once were, and the immediate gratification provided by heating

foods in microwave ovens was not available at the turn of the past century. Most important, cheap sugar and vegetable oils have become so widely available that even low-income societies have access to high-fat diets (Drewnowski and Popkin 1997; Popkin 2001). Thus people in developing countries are experiencing a much greater and more rapid dietary adjustment than did past generations (Popkin 2004).

Urbanization

Although urbanization is often associated with increased purchasing power, these two variables need to be analyzed separately in low-income countries where contrasts between urban and rural eating patterns are greater than in higher income countries (Drewnowski and Popkin 1997; Popkin 1999). Mass migration to large cities may not necessarily alleviate poverty—squatter and slum areas are often extensive—but it does bring behavioral and dietary changes (Popkin and Bisgrove 1988). Lifestyles become more sedentary than in the countryside. People watch television rather than hunt, fish, and collect firewood. Instead of walking, they use public transportation, ride on motor scooters, or drive automobiles. Car sales are soaring in India and China. In larger Chinese cities, cycling is becoming so dangerous that many people are opting for motorized transport (Lobstein 2004).

In terms of energy intake, the urban poor are often forced to purchase prepared food away from home because they lack fuel and proper cooking facilities (Popkin and Bisgrove 1988). Equally important, urban consumers are simply exposed to a wider array of fresh, packaged, and prepared foods in cities than they would see in small towns and villages. Food sellers ranging from street vendors to hypermarkets are everywhere. Moreover, through contacts with people from different places and social classes, urban dwellers are exposed to entirely new types of tasty foods and beverages. Mexicans who move to the burgeoning border cities of Tijuana and Juarez, for example, meet migrants from other states who bring their own cuisines. They may also be influenced by their close proximity to the United States. A recent study by the Pan American Health Organization (2004) showed that 74 percent of men and 70 percent of women in the largely Hispanic U.S.-Mexico border region are overweight. It seems reasonable to hypothesize that for many people greater variety in the food supply may trigger greater consumption.

Ironically urban dwellers may be enabling weight gain in rural areas. Based on his experience working in rural Gambia for more than twenty-five years, Prentice (2006) has witnessed the impact of the “remittance economy.” People who have migrated to cities at home and abroad send back money that “has transformed the range of goods sold in the village shops” (p. 96). Imported vegetable oils in yellow plastic containers are especially prominent according to Prentice. The very large amount of remittances sent to Mexico and Latin America from relatives working in the United States may be effecting similar dietary changes.

BIOLOGICAL FACTORS AND THE ENERGY EQUATION

Although an analysis of the specific metabolic processes implied by the energy equation is beyond the scope of this article, two biological factors present in some developing countries are well worth discussing because they may assist responsible food marketers and public policy makers in identifying populations that may be especially vulnerable. One factor is genetic. Most animals, especially young ones, rarely get fat; humans of all ages do all too frequently. Yet not all people become obese. In 1962 geneticist James Neel theorized that humans possess a “thrifty gene” that makes them particularly good at storing energy and surviving famine (*The Economist* 2003). The effect of this gene varies from individual to individual within any one population. However, some native peoples may have this trait in abundance and are thus unusually susceptible to obesity when sufficient and high-fat food supplies become available. For example, the Pima Indians living in the United States often are morbidly obese and suffer high rates of diabetes, whereas their genetic counterparts in Mexico do not manifest these tendencies (Hoffman 2000; Marchand 2002; Baier and Hanson 2004). The very high rates of obesity among Pacific Islanders may also be attributable to widespread thrifty genes.

The other factor involves early life experiences. Undernutrition in early life may trigger hormonal and metabolic changes that put an individual at risk of excess fat accumulation. Evidence of stunting being associated with overweight and obesity in young children has been found in Brazil, China, Russia, and South Africa (Popkin, Richards, and Montiero 1996). Several speculative explanations for this relationship have been offered, including a mechanism similar to what is known as the “yo-yo dieter” syndrome. Normally humans only absorb about 80 percent of the nutrients from food, but under conditions of deprivation, the body becomes superefficient, extracting as much as 100 percent of available nutrients. When people who were once undernourished begin to eat normally, the body does not adapt but continues pulling high levels of nutrients from food (Hoffman 2000; Frisncho 2003). Sadly many of the world’s 831 million undernourished people may become overweight or obese if and when their food supplies and economic circumstances improve. *The Economist* (2003) observes that Chinese “grandparents were brought up short of food, so they think children should eat a lot. They tend to overfeed boys especially” (p. 5).

MODERNIZED FOOD MARKETING AND DIETARY CHANGES

An environment containing stimuli that encourage obesity is said to be “obesogenic” (Swinburn, Egger, and Raza 1999; Lobstein 2004). Urbanization, as discussed earlier,

creates such stimuli. This section considers some of the ways in which modernized food marketing might independently facilitate an obesogenic environment in the less affluent world. That is, how might the new types of food marketing that accompany development induce dietary changes affecting the energy equation?

Availability, Variety, Value, and Convenience

Establishing viable and efficient food distribution channels has long been viewed as a positive contribution of marketing to economic development (Klein and Nason 2001; Shultz et al. 2005). Although severe problems still exist in many of the world's poorest nations, economic liberalization following the retreat of communism and other restrictive systems generally has led to more reliable and abundant food supplies. During the Mao era, for example, the Chinese state completely controlled agriculture and limited the amount and selection of food available to consumers. Today the food infrastructure has been mightily transformed. The number of retail outlets and food choices has greatly multiplied and self-service has become common (Veeck 2000). In China and other countries, the spread of global retailers such as Carrefour and Wal-Mart or big national chains such as Mexico's Gigante present consumers with even greater selections than do small, local shops and public market vendors. The scale of large supermarkets, their buying power, and their investments in information technology and control of data have enabled them to push down prices (*The Economist* 2003). The combination of greater availability and variety with lower prices at the wholesale and retail levels makes it possible for less affluent consumers to increase their energy intake.

By and large, improved channel management enhances customer well-being and further stimulates economic development. However, competition to offer greater value to consumers may be adding problematic stimuli to the environment. Presenting the option of larger portion sizes at minimal additional cost, popularly known as "supersizing," encourages people to consume more (Wansink 1996). In the U.S. food industry, these practices began in the 1970s (Young and Nestle 2002) and now may be afoot in the developing world. In Thailand, for example, the sugar packages served with coffee contain eight grams of the sweet, compared to four grams in Malaysia and three in Japan and England (Wipatayotin 2006). Thailand's 7-Eleven stores sell their own versions of "Big Gulps," and McDonald's Thailand emphasizes its "extra value meals." Marketing convenience, through packaging and other means, and vending high-fat/calorie snack foods in schools may also lead to increased consumption (Seiders and Petty 2004). Japanese instant noodles have become a big hit among Mexico's urban and rural poor who consumed one billion servings in 2004. Ramen noodles are filling, quick and easy to prepare (dubbed *sopa para florjos* or "lazy people's soup"), and relatively cheap at about \$0.37 a serving. Traditional *frijoles*

cost far less but can take days to prepare. An eighty-five-gram package of noodles contains 385 calories and 14.5 grams of fat versus 145 calories and 4.4 grams of fat for an equally sized portion of rice and beans (Dickerson 2005).

Adapting Global Food Products to Local Tastes

The marketing management literature generally respects cultural differences as an important environmental variable. Textbooks take great pains to explain how the local adaptation of the marketing mix is the *sine qua non* of international marketing:

Adaptation is a key concept in international marketing, and willingness to adapt is a crucial attitude. Adaptation, or at least accommodation, is required on small matters as well as large ones. In fact, the small, seemingly insignificant situations are often the most crucial. More than tolerance of an alien culture is required. There is a need for affirmative acceptance, that is, open tolerance of the concept "different but equal." Through such affirmative acceptance, adaptation becomes easier because empathy for another's point of view naturally leads to ideas for meeting cultural differences. (Cateora and Graham 2005, 124-25).

Similarly, Czinkota and Ronkainen (2004), whose text devotes an entire chapter to the topic, justify adaptation "because meeting and satisfying customer needs and expectations is the key to successful marketing" (p. 248). As laudable as product adaptation may appear on the surface, this principle may have unintended consequences by adding more and more powerful obesogenic stimuli to eating environments.

Companies regularly modify their so-called "global" products to quite literally suit the tastes of consumers in different markets. Coca-cola is said to use different formulae in different markets. In China, Nestlé has about 100 different flavors, including some, such as red bean and sesame-flavored chocolate, that are sold nowhere else (*The Economist* 2003). A visit to the McDonald's country/region site (McDonalds 2006) will show menus that vary from country to country. McDonald's India, for instance, promotes "McVeggies," "McAloo Tikkis," and "Maharaja Macs"; McDonald's Uruguay sells "Dulce de Leche" pancakes. KFC in China has switched from white meat to dark for its chicken burgers and is replacing coleslaw and mashed potatoes—side dishes popular in the West—with seasonal vegetables, shredded carrot salads, fungus and bamboo shoots, and rice porridge (*congee*) (Adler 2003).

Packaging, pricing, distribution, and advertising are also tailored for different cultures. Restaurant architecture frequently incorporates native motifs, and global trade characters can take on a local flavor. A Starbucks in Shanghai has a Ming Dynasty façade, and the entrances of some Chinese KFC restaurants are guarded by full-size, fiberglass models of Colonel Sanders, who, in his Asian reincarnation, looks a little portly like a Happy Buddha (Witkowski, Ma, and

Zheng 2003). In short, food is marketed not as a commodity but as a cultural good (Jing 2000), and what are otherwise normal marketing adaptations to local conditions may also be encouraging levels of energy intake potentially excessive for more and more consumers.

Promoting Global Fast-Foods

Global fast-food chains offer very competitive value propositions to the world's consumers because of economical acquisition of inputs (e.g., raw and processed foods; food preparation and serving equipment), standardized production and management processes, and the ability to test new offerings (Alon 2004). They provide sales training to service workers and frequently introduce higher service standards from the first world (Watson 1997; Witkowski 2005). However, evidence is beginning to establish a relationship between eating fast food and weight problems. Results of a recent national survey (Bowman et al. 2004) indicate that fast-food consumption among U.S. children has an adverse effect on dietary quality that plausibly could increase risk for obesity. One of the reasons the French activist José Bové and his accomplices vandalized the construction site of a new McDonald's in Millau in 1999 was their (apparently prescient) belief that the company symbolized the proliferation of *le malbouf*, or junk food (Woodruff 2001).

Perhaps every culture has its indigenous "fast foods" (Watson 1997), and traditional snacks, such as Mexico's calorie-laden *chatarra* (Boudreaux 2004), remain very popular. Yet contact with global fast-food chains has increased, and many consumers, even some of the less affluent, appear strongly attracted to these products. American fast-food chains are among the very first Western companies to arrive when a country opens its market. Grand openings can be huge events. Thousands queued for hours when the first McDonald's opening in Beijing in 1992 (Yan 2000), and two years later, a line of cars waiting at the drive-through window of a new McDonald's in Kuwait stretched for seven miles (Schlosser 2001). Chinese dining at KFC or McDonald's in Beijing can taste a bit of Americana within clean and cheerful surroundings (Yan 2000), and rest assured that they will have a similar experience at any other such restaurant in their city. Global brands may confer some additional status on the user and his or her family in some cultures, as well as help enhance social ties and maintain traditional role relationships (Eckhardt and Houston 1998, 2001).

A comparative study of young consumers in China and the United States found that the Chinese rated KFC restaurants higher on twenty-three out of twenty-six brand identity items than did their American counterparts (Witkowski et al. 2003). They had higher opinions of building décor, restroom cleanliness, food appeal and freshness, service interactions with employees, and advertising. Ironically the item with the single greatest cross-cultural difference stated "KFC

food is healthy for you." On a 7-point scale (7 = *strongly agree*), the Chinese mean was 4.68 ($SD = 1.73$) versus 2.72 ($SD = 1.60$) for the U.S. sample. The Chinese were more satisfied overall with going to KFC for food and were more likely to visit again in the next few months. No wonder that a 2000 survey, conducted by AC Nielsen Media International in thirty Chinese cities based on 16,677 questionnaires, ranked KFC the most famous international brand in China (*People's Daily Online* 2000). By the end of 2005, KFC had 1981 restaurants in China in every province and in 360 cities (Yum! Brands, Inc. 2005).

As one headline glibly put it, "West exports obesity to developing world" (BBC 2000). However, modern fast-food culture also originates in and disseminates from developing countries. Jollibee, a Philippine-based fast-food company noted for its spicy hamburgers and exotic desserts, has nearly 1,000 outlets in seven countries, including seven in California, and is one of the most admired corporations in Asia (Jollibee 2006). Local restaurant chains may learn lessons in competitive food marketing from their American rivals (Watson 1997).

Targeting Children

In some developing countries, children's eating habits are undergoing a profound and rapid transformation. Because of China's one-child policy, families with "little emperors" (*xiao huangdi*) are defined by the "4-2-1 syndrome" (*si-er-yi zonghezhen*), where four grandparents and two parents pamper one child (Jing 2000). Yuhua's (2000) fieldwork shows a decline in parental authority over their offspring's food consumption. Chinese children now acquire a marketing-mediated knowledge of food and use pocket money to consume foods their parents prohibit. In fact, the very phrase, "children's food" (*ertong shipin*), is relatively new (Jing 2000), and through commercialization, the meaning of eating is being transformed into something associated with fun rather than just mere nutrition (Lozada 2000; Watson 2000; Yuhua 2000). To little kids in Beijing, "Uncle McDonald" (a.k.a. Ronald) has become as Chinese as the mythical characters of their folklore (Watson 1997; Yan 2000). Children have become favorite targets for the fast-food companies, in part because they are less attached to traditional fare (Schlosser 2001). McDonald's Web sites in developing countries typically have content designed for children (McDonalds 2006). According to its Web site, Jollibee's marketing strategy for children is clear: "Jollibee owns the children market and will endeavor to keep its stronghold on this segment" (Jollibee 2006).

Advertising strategies and executions that have worked well for rich nation food marketers have been equally successful in developing countries. A study of children's television in four emerging markets of Central Europe—Hungary, Poland, Slovakia, and Slovenia—showed advertising frequencies

approaching the range typical for Western European nations. Commercials emphasized toys and food products, mainly confectioneries, sweetened breakfast cereals, savory snacks, and soft drinks (Consumers International 1999). A more recent report for India, Indonesia, Malaysia, Pakistan, the Philippines, and South Korea found a substantial increase in commercials for foods high in fat, sugar, and salt. In India, 40 to 50 percent of commercials shown during children's programming were for food; in Pakistan, the Philippines, and Malaysia, the percentages varied between 50 and 75 percent (Consumers International 2004). Marketing to children has been a thorny issue for decades in rich countries and is one of several concerns raised by the obesity epidemic deserving of further ethical analysis and policy consideration.

THE OBESITY PROBLEM AND MARKETING ETHICS

A Marketing Perspective

Marketing theory—or, to be specific, the dominant managerial paradigm—provides a strong rebuttal to allegations that marketing practices contribute to rising obesity rates in the less affluent world (Witkowski 2005). As rational decision makers, consumers have the right to ingest whatever legal substance they choose, and if they overeat or neglect to exercise, that is their own personal responsibility. Consumers should be given sufficient information to make informed choices, but then they are on their own (Associated Press 2006). Food marketers, in turn, have the right—and even a duty to shareholders—to compete for customers globally whether through new snacks, larger portion sizes, or lower prices. Where national regulations allow the practice, aiming advertising and promotions toward young consumers constitutes a legitimate strategy.

Marketing theory offers a second line of justification. According to the concept of market segmentation, if enough consumers are truly diet conscious and this group can be identified, targeted, and profitably served, then marketers will respond with the appropriate marketing mix. Unmistakably this has occurred. Diet foods and a plethora of slimming products and services have become a multibillion-dollar industry in the rich world. Moreover, prominent packaged goods and fast-food companies such as Kraft, Frito-Lay, and McDonalds have introduced new “healthier” menu choices around the world. Of course, the threat of product liability lawsuits, at least in the United States, may be motivating their switch in marketing tactics, but these firms are undoubtedly responding to trends in consumer demand.

In many of the world's poorest nations, the much more serious problem is insufficient food security—physical and economic access to food—not food abundance and obesity (WHO 2000; Bone and France 2003). Thus the real marketing issue is inefficient distribution caused, in large part, by

corruption and other breakdowns in law and order (Klein and Nason 2001; Shultz et al. 2005). Developing countries agree with some of this analysis. In early 2004 the United Nations Food and Agricultural Organization together with the WHO proposed a new strategy to combat global obesity by encouraging governments to discourage intakes of sugar and fat and to instead promote increased consumption of fruits and vegetables. Representatives from the G77 group of developing nations faulted the report for shoddy science and urged better nutrition education, not limits on foods (Ross 2004).

Finally some researchers question whether the connection between global marketing and dietary changes, even if it exists, makes that much of a difference. According to Drewnowski and Popkin (1997),

the globalization of human diet does not appear to be driven at this point by meat imports, fast foods, or eating away from home, at least in the Asian countries studied in depth. . . . Analyses of food import data for lower-income countries do not back up this claim. The nutrition transition in China has been based until now on greatly increased domestic production and imports of vegetable oils, and not on imports of Western foods and a Western way of eating. (p. 42)

As fashionable as eating out at McDonald's may be in the urban areas of China and of other developing nations, this consumption up to now represents just a minuscule portion of the total dietary energy their populations put away. Besides, fast food restaurants are not always so successful. KFC in Bangalore, India, has come under attack for supposed cruelty to chickens (Alon 2004), and some boycotts of American fast foods in the Muslim world have been reported (Johansson 2004).

Ethical Analysis and Guidelines

The above rationales may appear compelling, but they are far from bulletproof. The implication that overweight and obese people are personally irresponsible, that they suffer in effect from a moral failing, may contain a painful grain of truth. However, adult consumers in the less affluent world may not be as well informed about their eating habits or as adept at seeing through and resisting marketing blandishments as their rich nation counterparts, who themselves are confused about food health claims (Redmond 2005). In other words the assumption of a “rational consumer” may be rather tenuous and, when it comes to children, may not pass scrutiny at all (Cawley 2006). Overly efficient metabolisms resulting from childhood undernutrition, as well as the possible presence of dominant thrifty genes, may make matters worse. As far as diet foods and health clubs are concerned, if too few developing country consumers are aware of the consequences of obesity, or have the wherewithal to purchase these products even when they are, marketers may not make them available. Lack of information and alternative food

choices constitute market failures (Seiders and Petty 2004). The bane of insufficient food supplies is real but tends to occur in the least developed countries (see Figure 1). The obesity problem is more prevalent in “middle-income” nations. In any event “malnourishment” may result from consuming cheap foods deficient in micronutrients (vitamins and minerals) as well as not having enough food (Food and Agriculture Organization 2002). Finally the extraordinary increase since 1980 in obesity, especially in rich nations that already had made the nutrition transition, suggests that marketing factors should not be underestimated. The WHO (2003, 63) concludes that heavy marketing of energy-dense foods and fast-food outlets is a probable factor behind weight gain and obesity. Perhaps the full impact of such marketing in the less developed world has yet to be felt.

If marketing is truly concerned about the needs of consumers, then this basic precept becomes an ethical standard on which marketing should be evaluated. When marketing fails to respond to the consumer’s welfare, it becomes unethical according to its own mission. From the above discussion, two ethical principles can be derived. First, although marketing thought recognizes that purchasing decisions are influenced by all sorts of impulses, the highest ideal is that of a rational consumer (Redmond 2005). Ethical marketers should help consumers make informed choices. They should not wait for government mandates or legal actions before providing consumers with health information about any product, especially the foods they eat. Visible and understandable nutritional and content labeling should not be in question, even if it leads some consumers to choose a competitor’s brand or to not purchase at all. Second, ethical marketers should present consumers with alternatives. If special menus and other products for weight control are being offered in rich nations, they should also be made available in developing countries. Best marketing practices should be applied to consumers everywhere. Marketers have a moral obligation to adhere to the principle of a true customer orientation.

Although primarily concerned with the obesity problem in the United States, Wansink and Huckabee (2005) make recommendations for responsible food marketing that may be applicable globally. Companies, the authors argue, should make efforts to reverse four drivers of food consumption—convenience, low cost, good taste, and nutritional knowledge. Solutions might include downsizing packaging, reducing serving sizes, and formulating foods to decrease energy density (caloric content). These changes need not be drastic and costly—small modifications can make a difference in energy intakes that do accumulate—and should be introduced gradually and quietly to existing products rather than to new ones. To its credit, McDonald’s China has made plans to list nutritional information on most of its packaging using an easy-to-understand, icon-and-bar chart format (Min 2005).

OBESITY POLICY AND SOCIAL MARKETING

Public Interventions

Deriving ethical standards from marketing theory is a rather narrow “within the paradigm” approach that presupposes a more or less privatized discourse on marketing and obesity. Clearly one could argue that obesity is a social problem requiring public solutions that may impose limitations on food marketing practices. Public health advocates argue that nations everywhere need to immediately develop obesity prevention and control programs (WHO 2003). Regulatory approaches might range from taxes on fats and sweets to restrictions on advertising to children to new labeling requirements to modifications in farm subsidies to encourage production and consumption of fruits and vegetables (Nestle 2003; Seiders and Petty 2004; Cawley 2006). Given the economic importance of the food industry, antagonism from media conglomerates that benefit from food advertising expenditures, and the mission of numerous governmental agencies to promote agriculture, such initiatives surely will face vigorous political resistance around the world. Even some academics have raised questions about the actual prevalence of obesity and its purported effect on mortality, seeing instead a socially constructed “moral panic” encouraged by widespread media alarms and in the interest of the weight loss industry (see, e.g., Campos et al. 2006 and rejoinder by Kim and Popkin 2006). Product liability litigation or its threat may change corporate behavior in some rich nations (Lobstein 2004) but would seem a fruitless endeavor in most developing countries where legal systems are usually not well established nor very transparent (de Soto 2000).

Social Marketing Strategies

Assuming funding can be secured—and this will require communicating the magnitude of the problem to policy makers (Kennedy 2005)—less threatening social marketing campaigns may be the most feasible intervention to control obesity. Social marketing entails more than just providing information. It requires consideration of all elements of the marketing mix, as well as market research (Kotler and Zaltman 1971; Fox and Kotler 1980). The importance of thorough research and analysis cannot be overstated. The factors causing overweight and obesity may differ in their prevalence and interactions across developing countries. Just as “differential diagnoses” should be the first step for national poverty reduction strategies (Sachs 2005), social marketers will need to calibrate their campaigns according to their deep understanding of local conditions. A potentially useful tool is ANGELO (analysis grid for environments linked to obesity) that posits micro- and macroenvironments on one axis and physical, economic, political, and sociocultural environments on the other (Swinburn et al. 1999).

Microsettings include local markets and food service outlets, whereas macroenvironments consist of food production, processing, distribution, and marketing systems. The authors pilot-tested this 2 X 4 framework on Pacific Island communities and in New Zealand and found it “a flexible and robust instrument for the needs analysis and problem identification stages of reducing the obesogenicity of modern environments” (p. 563). This model appears capable of scalability, the ability to transport successful programs or program elements across developing countries, cultures, and languages (Prahalad 2004, 25).

The following are three broad goals, as well as some strategic recommendations, for dealing with the problem of obesity in developing countries:

1. *Create awareness of health risks.* People in the less affluent world too often have a poor understanding of the connection between obesity and chronic illness. Customarily foods have been perceived as more beneficial (nutritional, hedonic) than risky, and in any event, the harms related to excess weight are long deferred from the moment of consumption choice (Seiders and Petty 2004). In the South Pacific, being big has been a symbol of health, well-being, status, and beauty, and therefore larger bodies have been viewed favorably (Gill et al. 2002). Pacific Islanders need to be taught the difference between size because of muscularity and size resulting from flabbiness. Similar misconceptions may be present in other societies (Watson 2000). Among Mauritanian Arabs, fat women traditionally have been seen as more desirable, and to achieve this end, girls are still sometimes force-fed (BBC 2004). Further research on various market segments within and across nations will be needed to provide the cultural understanding necessary for crafting and placing appropriate messages. For example, it may not be necessary to target elites in some developing nations, such as Brazil, who seem as averse to large bodies as their counterparts in rich countries.
2. *Increase energy expenditure.* Populations enjoying the economic benefits of development must be reminded that an active lifestyle is conducive to good health. The preference for convenience, “the law of least effort” (Wansink and Huckabee 2005), may be universal. Younger adults and children who are experiencing a middle-class lifestyle may need to become less sedentary perhaps, like their rich nation counterparts, by watching less television and playing fewer computer games. This is always easier said than done. Children are difficult to motivate, and urban parks and streets in developing countries may not be safe places for them to keep fit. Women who desire to control their weight may face additional hurdles. For example, some may live in male-dominated societies that forcefully restrict their ability to move about outside the home. Even in places where these social and cultural barriers are less daunting, people may not have the financial resources to indulge in interesting physical activities. Finding ways to facilitate this behavior change will be a major challenge for social marketing.
3. *Decrease energy intake.* Not only is the human appetite for fats, salts, and sugars deeply ingrained biologically (Wansink and Huckabee 2005), but dietary habits are a central element

of culture, learned early, and sometimes very resistant to change (Watson 1997). Nevertheless educational programs could discourage consuming some processed foods and fructose-sweetened soft drinks in favor of fruits and vegetable and lower calorie beverages. There is a further need to explain the relationship of portion size to energy intake, weight gain, and health (Young and Nestle 2002). Special attention needs to be directed at children and at middle-aged women and stunted population groups who show higher incidences of obesity (WHO 2003). Advocates of local culture (see, e.g., Cavanagh and Mander 2002) can use the obesity epidemic as a reason for consuming simpler, traditional foods that may be less fattening than the highly processed products of multinational corporations.

Social marketing programs are no panacea. Marketing ideas have been applied to developing world family planning, recycling, and microcredit programs with some success, albeit with nagging issues of appropriate target selection and incentive design on one hand and worries about cultural disruption on the other (Dholakia 1984; Dholakia and Dholakia 2001). Furthermore social marketing sometimes poses ethical dilemmas of its own. Obesity control campaigns run the risks of paternalism and asymmetric moral relationships between sponsors and target audiences and may present opportunities for corruption (Brenkert 2002). One might argue further that having first blessed developing countries with dubious foods and eating habits, the rich nations are now trying to impose their new enthusiasm for proper exercise regimens, diets, and body size.

CONCLUSION

Obesity in the less affluent world is indeed a health problem too big to ignore. Ironically it has to a great extent resulted from improved prosperity. With economic development, manual work has become less physically demanding, discretionary incomes have risen, and men and women have sought opportunities in big cities where they have become less active and have had more opportunities to eat energy-rich foods. Genetic predispositions and early life undernutrition have added another layer of causes. Finally the rampant economic liberalization and globalization of the past quarter century have enabled food marketers to introduce a great variety of new products, distribute them widely, price them reasonably, adapt them to local cultures, and promote them to the most responsive target audiences, especially children.

Few would disagree that the food industry shows more virtue than tobacco companies, but everyday food marketing mix decisions ultimately may have equally serious consequences for the health of hundreds of millions of consumers worldwide. Despite several justifications for a laissez faire position inherent in marketing management theory, ethical analysis based on these same principles indicates that food companies should accept some responsibility for informing

developing nation consumers about nutrition and health and for providing affordable, less energy-dense food alternatives. Public policy initiatives will be resisted by vested interests. As Nestle (2003) wryly notes, "gaining weight is good for business. Food is particularly big business because everyone eats" (p. 781). Political conflicts may limit obesity control to educational and behavioral change programs that will present social marketers with another opportunity to do some good.

NOTES

1. The WHO defines a person as overweight (or preobese) if his or her Body Mass Index (BMI)—a measure of weight relative to height—is equal to or greater than 25 kg/m² (25 lb/in.² x 730). When BMI equals or exceeds 30 kg/m², that person is labeled obese. A BMI less than 18.5 kg/m² is undernourished. Note that BMI provides guidelines but is not a direct measure of body fat.

2. "Less affluent" or "developing" countries, "emerging" markets, and other similar terms are used synonymously to refer to all but the world's thirty richest nations. The United Nations Human Development Index (UNDP 2005) ranks 177 countries as follows: 1 to 57 have "high human development," 58 to 145 have "medium human development," and 146 to 177 have "low human development." Among the top group are nations such as Argentina (#34), Poland (#36), Cuba (#52), and Mexico (#53) that most observers would not consider affluent.

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