

THE CURSE OF ABUNDANCE:

What the crisis in children's nutrition
means for food and beverage companies

Management Summary

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INTRODUCTION

By some measures Americans today are healthier than they have ever been. Yet, our average daily caloric intake, fueled by higher incomes, “value” products and advances in convenience foods is now 30 percent higher than it was in 1970. At the same time,, our activity levels, bogged down by the same advances and a less *physically* active labor force, have sunk to new lows.

Americans are bombarded daily by often conflicting dietary advice and information from the government, university research centers, trade associations, and the media, all bent on trying to tell us who is right, who is wrong and what we need to do about it. We are more knowledgeable about the nutritional benefits and risks of foods than 20 years ago, but we are also wary of “new” findings. Consequently, food marketers face an audience that is by turns fatalistic, trusting and skeptical about product claims.

Recently, criticism has been aimed at the US food industry for allegedly encouraging poor nutrition. The more extreme critics have demonized food manufacturers and foodservice providers.

Among the chief criticisms of the food industry is that it has consistently mis-nourished America’s children. And obesity is the major point of attack. According to the National Center for Health Statistics, 6 percent of elementary school aged children were considered obese in 1980. That number had nearly doubled to 11 percent by 1996. About one-third of obese preschoolers and half of obese school-aged children grow up to become obese adults, most with the associated health risks of high blood pressure, heart disease, and diabetes.

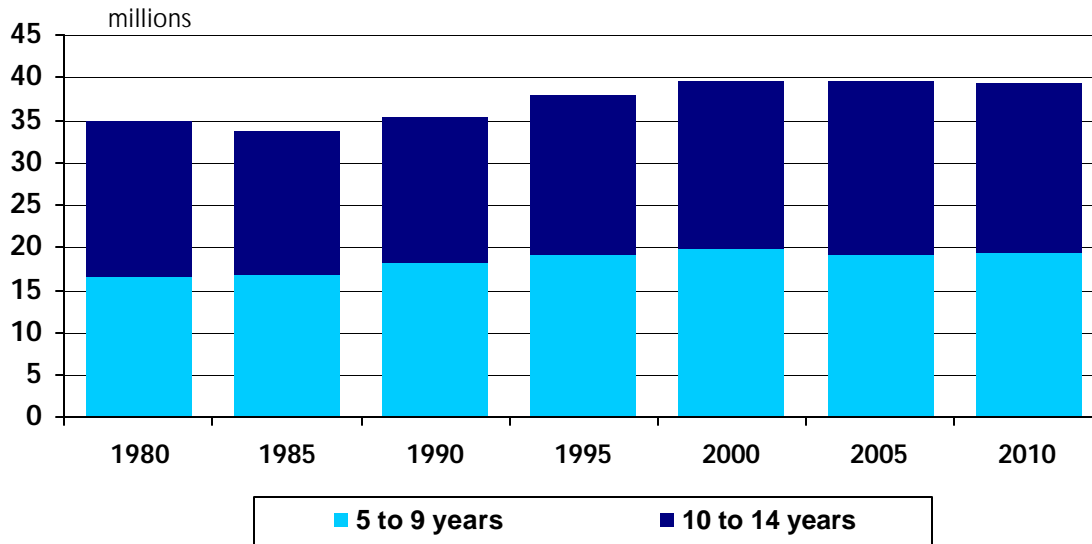
SECTION 1: CHILDREN AND NUTRITION TODAY

This study will concentrate on children between the ages of 6 and 12 because that is the group most at risk. They achieve this dubious status for the following reasons:

- Between 6 and 12 children develop and refine tastes, preferences, and behaviors which will influence purchase and consumption decisions for years to come.
- Their direct access to cash combined with their **influence** on purchasing decisions of their parents make them formidable consumers.
- They are old enough to have opinions but are not too old to be overruled.
- Nutritional concerns surface at this time, but they can also be most easily addressed with children in this age group.

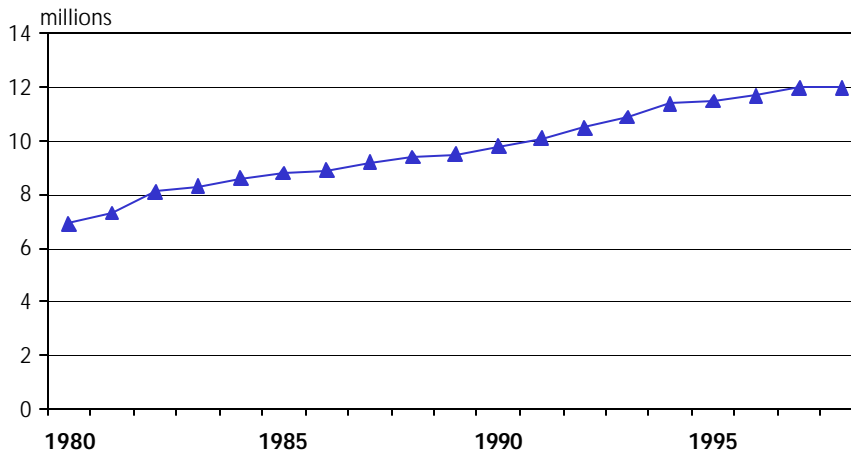
The number of children between the ages of 5 and 14 has increased significantly in the last twenty years, rising from 33.8 million in 1980 to 39.7 million in 2000. However, in the next decade, their combined population will actually decrease slightly

Population of Americans, ages 5 - 14, from 1980 to 2010



The lure of suburban life has transformed the way Americans live and work. Between 1960 and 1990, the population of America's 213 urban areas increased by 47 percent but the urbanized land area increased by 107 percent. That means, the majority of kids see the world through a windshield. Everyone spends more time in cars or indoors. Neighborhoods are more spread out in suburbia and less safe in the central cities.

Growth in single parent households, 1981-98



The nation has moved west and south. In most instances this growth has been unexpected or unplanned for. As a result, overwhelmed local governments have often been strapped to offer crucial community services including education, health care, parks and recreation, and public transportation. The consequence: more sedentary lives.

Over 11 percent of American households are headed by single parents. By 2010, single parent households will represent nearly 41% of the total.

Millions of mothers, once the primary care givers for children, have gone back to work, leaving many children with idle time between the end of the school day and the end of the working day about 3 hours later. Convenience foods and "fast food" have become routine parts of many households' meals.

Small families have become the norm in the US. Today, the highest percent of children in US history have no siblings. For many children active play with brothers or sisters has been replaced by solitary activities such as watching television, playing video games, reading and, of course, eating are a part of daily life.

As our population climbs over 275 million people, almost 100 million (over a third) Americans are minorities.

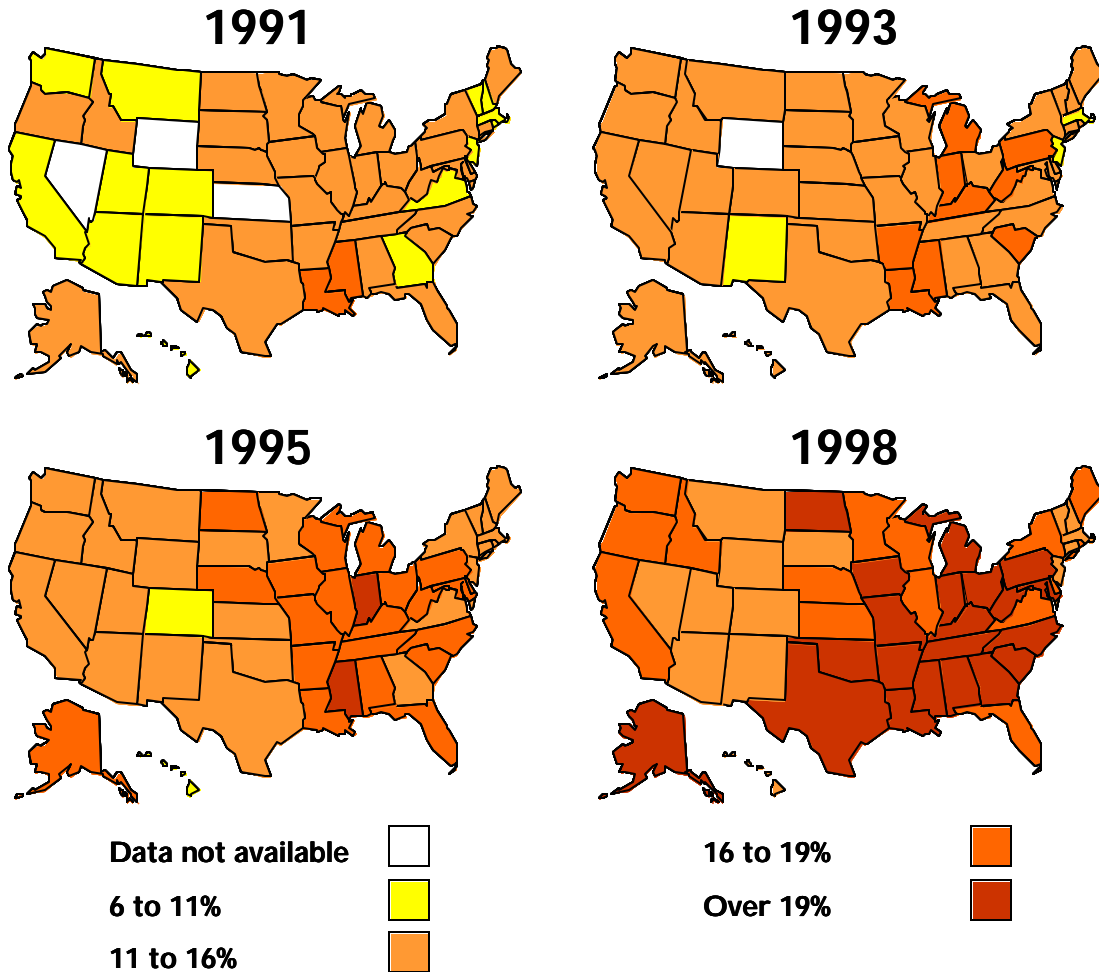
Children in America today are the richest in the history of the world. While children are not able to consistently buy big-ticket items, they easily have the means to buy smaller items such as packaged snacks, fast food and soft drinks.

These are the factors that contribute to a national struggle with obesity in children. We believe it will be the single most important public health issue of the next decade.

More than half of all Americans are considered "overweight." One in five (22 percent) – more than 50 million people - is considered obese. The percent of obese Americans to total population has nearly doubled in less than 10 years. Some experts estimate that the financial burden of obesity in the United States has already cost the health care industry as much as \$6 billion, and the costs will only continue to mount.

Obesity prevalence in children mirrors the occurrence in adults. However, whereas obesity prevalence in adults tops 20 percent of the population, a little over 10 percent of 6 to 11 year-olds are considered obese. Fast growing bones and high metabolism are generous but short-lived disguises for unhealthy diets and inadequate activity levels.

Spread of Obesity in the United States (percent of total population)



Children are eating and drinking more calories than ever before, but many of them are still not receiving enough of the vitamins and minerals necessary for maintaining long-term good health. The symptoms of these deficiencies are often not obvious in childhood. The table below lists five of the most commonly skipped vitamins and minerals and the possible repercussions of chronic low intake.

Most common vitamin & mineral deficiencies in children

	RDA (for children)	Common sources from foods	Symptoms associated with deficiencies
Vitamin A (retinol)	400-700 RE*	Fish oils, butter, cream, egg yolks	Growth retardation, night blindness, increased susceptibility to infections
Vitamin C	45 mg	Fruit, vegetables, fortified manufactured foods and beverages	Weakness, irritability, weight loss. More advanced symptoms include swollen and bleeding gums and ultimately scurvy.
Iron	10 mg	Meat	Most common nutritional deficiency in the world. Deficiency inhibits blood regeneration causing chronic fatigue.
Calcium	800 mg	Dairy, meat, cereals, fruits, vegetables, fortified packaged foods	Porous bone development - high risk for osteoporosis later in life. More serious a deficiency in women than men.
Zinc	10 mg	Meat, eggs, peanuts, fortified manufactured foods	Growth retardation, weaker immune systems

*Vitamin A levels in foods are expressed as retinol equivalents (RE). Retinol equivalents account for the fact that the body can convert only one-third of the beta-carotene in fruits and vegetables to retinol.

Concerns about food related allergies have become very important in the 1990s. While only an estimated three percent of children have medically verified food allergies, almost half of parents worry about possible reactions their children have to foods.

While only a small share of the population has physical allergic reactions to certain foods, many more believe they do. Still, more people shy away from other foods because of “sensitivities” and perceptions. Some sensitivities can be actual physical reactions much like reactions caused by food allergens.

Food companies face a new environment in which “word-of-mouth” travels via the Internet and cable television. Rumor or misrepresentation can travel from country to country at the speed of thought these days and a food scare in India can echo in Wisconsin.

SECTION 2: ROOTS OF POOR NUTRITION AND CHILDREN

Some nutrition problems are associated with poverty, others with affluence. Genetic predispositions and cultural phenomenon are linked to others. Ultimately, however, the problem can be expressed simply as either too much food or too much of the wrong kind of food. And the suppliers and marketers of the “wrong” foods are likely to be blamed for encouraging children to consume unhealthy foods in unhealthy quantities.

Broken down by age group and calorie guidelines, the Pyramid recommends the following servings for children and young adults:

Recommended number of USDA Food Guide Pyramid servings/calories per day

	Energy	Grains	Vegetables	Fruits	Milk	Meat
	<i>Kcalories</i>	<i>Recommended number of daily servings</i>				
Children 2 to 3	1,300	6.0	3.0	2.0	2.0	2.0
Children 4 to 6	1,800	7.0	3.3	2.3	2.0	2.1
Children 7 to 10	2,000	7.8	3.7	2.7	2.0	2.3
Females 11 to 24	2,200	9.0	4.0	3.0	3.0	2.4
Males 11 to 14	2,500	9.9	4.5	3.5	3.0	2.6
Males 19-24	2,900	11.0	5.0	4.0	2.0	2.8

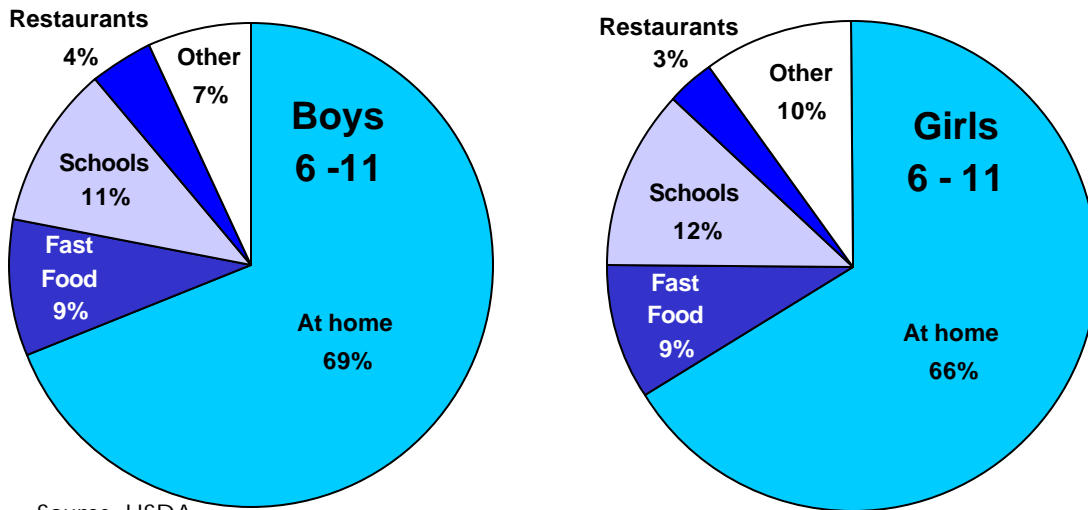
Source: USDA and HHS

The US government has been issuing health recommendations for more a century. Public nutrition education programs in health departments, and schools along with promotion efforts from several non-profits and the media have tried the keep the public up to date on the latest in nutrition and health research.

Americans love a bargain and food is a big one. In the last twenty years, food manufacturers and foodservice companies have capitalized on this by increasing portion sizes for standard items (fast food combos, soft drink and salty snack packages). The result? Food companies are now feeding us snacks and meals 50 percent larger than at the beginning of the 1980s.

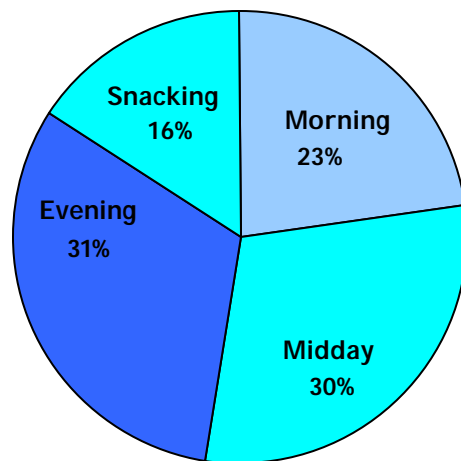
Kids get about two-thirds of their calories from home – with dinner constituting the largest single source of calories each day. Those calories eaten away from are often taken without parental supervision or without the parental control in preparation. Food away from home has a higher ratio of fat to calories and lower fiber and calcium than food prepared at home.

Percent of children's average daily caloric intake



Source: USDA

Daily calorie distribution for children, ages 6 to 11



Source: USDA, 1991

The traditional daily meal routine – “three squares a day” has changed gradually into a streaming channel of eating. Still, the three meals remain the bedrock of mainstream nutritional planning, for children. According to the USDA, breakfast (or any morning ‘meal’ taken before 10:30am) accounts for 23 percent of a elementary school child’s total daily calories, lunch (or any midday ‘meal’ taken between 10:30 and 3:30) and dinner (or any ‘meal’ taken after 3:30) each account for almost a third of total daily calories. Snacking provides the rest of a child’s daily calories.

Children who eat breakfast have healthier diets overall than their peers who skip breakfast. According to a USDA study, children who ate breakfast scored an average of 8 points higher on the Healthy Eating Index (HEI) than children that did not eat breakfast. In addition, among lower-income children, the study found that those who ate school breakfasts had higher HEI scores

than those who ate at home. For high-income children, diets that included school breakfasts had less influence.

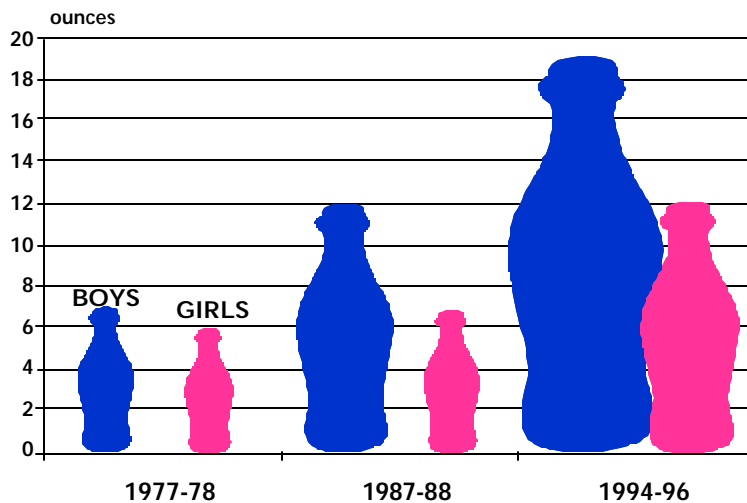
Lunch is considered the “midday meal,” yet in a large percentage of public schools throughout the country, lunch is served at a time more closely resembling a later breakfast. Serving the midday meal so early is not inherently unhealthy, but the timing does create potentially hazardous nutrition decisions after school lets out.

The mid-morning “lunch” throws off calorie distribution for the day. If children are eating between 500 and 600 calories for breakfast and then another 600 calories for lunch, they have eaten almost two-thirds of their recommended calories for the day. Again, that in itself is not unhealthy, but when the children have eaten 1200 calories before noon they are still likely to be hungry when school ends around 3:00pm.

By the time school ends, most children are ready for a snack to tide them over until the evening meal. Many go home to empty houses and full refrigerators. Still others do not have time for a snack because of music or dance lessons or sports practice. What they eat is largely determined by what activity they engage in when they leave school

Between breakfast and lunch, children have already eaten between 1,000 and 1,200 calories. That leaves them between 600 and 800 calories left of their theoretical daily allowance. That equates to a meal roughly equal to what was eaten during lunch without taking into consideration any snacks eaten between meals.

**Consumption of non-diet soft drinks,
12-19 year-olds (ounces per day)**



Throughout the year, boys and girls both average about 2.8 meals per day, while boys average slightly more snacks a day (1.8) than girls (1.7). Many of these eating moments are spent consuming foods that lack balanced nutritional value; according to 1994-1996 children's diet survey, 88 percent of children ages 6 to 18 have "poor" diets.

On the other side of the equation, children are not getting enough exercise to balance out their added calories. Because they are drinking, on average, a soft drink more than they were twenty-years ago, children need to be active enough so that the extra can of soda is burned away. Unfortunately, caught between increasingly sophisticated forms of sedentary entertainment and a culture that seems to encourage isolation, American children are less active than they ever have been.

Across the country school ends between 2:00 and 3:00 each day, about halfway between lunch and dinner. Most kids are hungry when they get out of school because they have not eaten since noon, at the very latest. But they still have three hours to go until their evening meal.

There are several factors contributing to obesity that cut across every American cultural, regional and economic subgroup. The characteristics that lead to increased susceptibility to obesity include:

- **Obese parents:** Genetic pre-disposition to be large does not mean that the child will be large. However, environmental cues from obese parents (gorging, low activity levels) in combination with the child's body type greatly increase risk for obesity.
- **African-Americans and Hispanics:** The reasons for higher than average obesity rates among African-Americans and Hispanics are complex and involve several factors. Both these groups are more likely to have higher fat/calorie diets than the average American diet. Overall education levels in these groups are below the national average as well.
- **Low income:** Low-income households are at higher risk for obesity than their higher income peers. They are less likely to be physically active, and their incomes limit them from the higher ticket more healthful food products.
- **Immigrants:** The children of U.S. immigrants are more than twice as likely to be overweight than their foreign-born parents. These new Americans and their parents apparently go overboard in assimilating to American culture. Public health expert, James O. Hill from the University of Colorado said in an interview with the *Arizona Republic*, "Becoming obese is a normal response to the American environment."

SECTION 3: FORCES FOR CHANGE

Today's children built stronger bonds with their favorite brands than previous generations. They have also established tighter connections to food itself. Children relate to food as entertainment, as something to fill time, perhaps as a friend.

These emotional ties to food will only grow stronger in the next decade. American parents will work more hours in the future, and marketers will find additional ways to build relationships between food products and tomorrow's children.

The search for convenience has created a revolution in retailing. The corner store and supermarket have evolved in response to changes in consumer lifestyles. Convenience stores provide the essentials: fuel, top selling grocery items, limited food service, cigarettes, soft drinks, beer, and lottery tickets. Little wonder that the convenience store has become a hallmark of the suburban main street and one of the first places where children make food purchases on their own.

The relationships formed early in childhood are likely to endure. Convenience stores may not be the place where most young children buy food or see it bought on a regular basis, but as those children become teenagers, the convenience store with its seductive array of high calorie foods will be a comfortable place to shop.

The revolution in information technology has increased the ability of manufacturers to reach children with just the right product. The power of segmentation through cable television and the Internet make it possible for food and beverage companies to target specific ages and interests. Regardless of the category, the products emphasized will have to offer convenience, interactivity and an element of control to appeal to tomorrow's sophisticated junior consumer.

Structural changes within the US economy favor further polarization between the "haves" and "have nots." These changes include:

- The shift from an economy dominated by a goods producing sector with high paying manufacturing jobs to one dominated by services with jobs demanding higher educational levels and technical skills,
- Increases in personal wealth, and
- Declines in job security as reflected in lower job tenure rates.

Although the pace of change may slow due to an economic downturn, these forces will continue to drive dramatic changes in US income distribution in the decade ahead. What little extra cash low-income households will have to spend on their families will be spent on mass brands and

private label foods. Excluded from their market basket will be many of the higher-ticket specialized health foods and nutraceuticals available to higher income families. Low-income children will be presented with many of the same higher calorie and fat options that they see today, and without major changes in lifestyles will be destined to continue in a vicious circle of poor nutrition and high obesity rates.

What role will the government play in the obesity crisis? At this time federal regulatory officials are disinclined to interfere. And in point of fact, they probably lack the power to do so. But this is not to say that they will not attempt to influence the choices that consumers make and to provide information on foods that could cause health problems.

While the government is unlikely to restrict the manufacture of obesity-inducing foods, but their powers over new foods and food ingredients could actually thwart well-intentioned manufacturers trying to introduce lower-calorie foods or newly created food ingredients.

Special “junk food” taxes levied at the local level have become a major topic of debate between the food industry and public health advocacy groups in the last five years. One advocacy group, The Center for Science in the Public Interest has published several research studies examining the way tax policy can be used to influence consumer purchases of food products. However, the taxes currently in place carbonated soft drinks, candy and other packaged snacks were not intended to punish or deter purchases. This is not to say that they will not be used that way in the future.

In the next several years the role of advocacy groups will continue to expand in childhood nutrition. Special interests focused on additives will push in one direction. Groups claiming to speak for consumers or children will pull in another. How consumers react to these arguments will say a great deal about the flexibility food and beverage companies will have to follow their current approach to childhood health and nutrition. The louder the outcry, the more likely it is that the food industry will have to respond with positive programs and products that meet the needs articulated by advocacy groups.

The statistics showing high rates of obesity in minority populations ought to give food and beverage marketers pause. Ethnic consumers are among their most loyal customers. And they are among the most heavily targeted. Failure to be sensitive to the problem of obesity and remain complicit is potentially disastrous. This is a key vulnerability for all mainstream companies today.

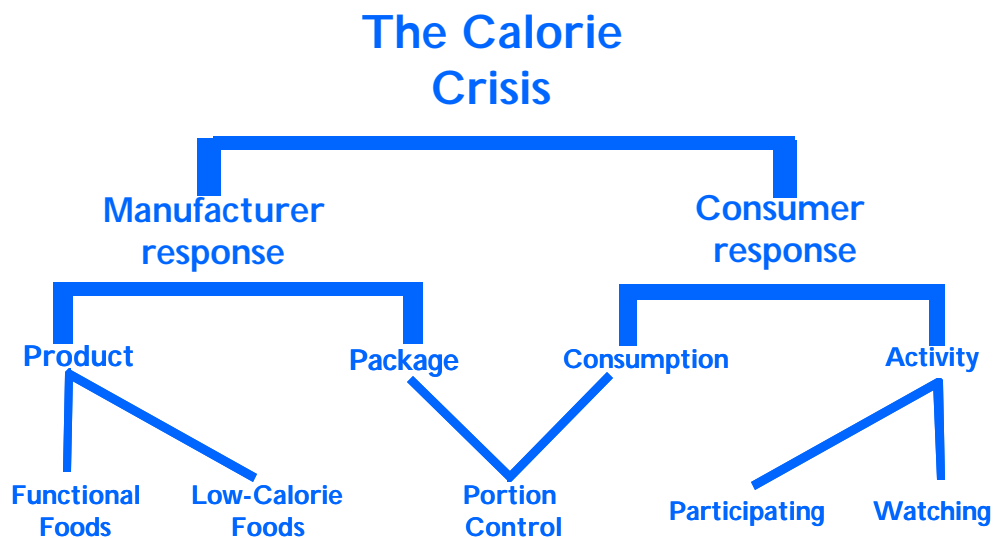
Obese Americans have found a political voice as well. Obese Americans now view themselves as a minority group struggling with discrimination from their countrymen, chief among them

lenders, employers, merchants and lawmakers. They feel "sizist" is a crime guilty on par with any other racial prejudice.

SECTION 4: STRATEGIES AND PRACTICES

The crisis in children’s nutrition in its most basic form is simply an issue of balancing calorie intake with calorie expenditure. The case can be made that at-risk children are eating too much of certain foods and not enough of others, but that argument will take years to resolve, and the noise from diet gurus catering to adults will soon drown out sensible discussion about children’s eating habits. Food companies should not take a position in this fight. Instead they should focus on what is known: Children are consuming too many calories in relation to activity levels.

**Usage and intake dictate responses
To childhood nutrition problems**



Focusing first on the intake side of the calorie equation, companies can make real headway in three areas:

- Developing low calorie foods to cut calorie consumption,
- Developing more nutrient dense functional food products from ingredients like soy that provide added benefits for long-term wellness, and
- Repackaging products to assist consumers with portion control.

The usage side is firmly in the hands of the consumer, but there are opportunities for food companies to have an impact on consumptions without jeopardizing their business:

- Consumers are free to ignore recommended portion sizes, but more emphasis from manufacturers could help stiffen will power.
- Encouraging activity through public relations programs and community development efforts can generate positive consumer response during the coming calorie wars.

The real challenge in children's nutrition (particularly the problem of obesity) comes in confronting how people live. This takes us beyond products into an area where food and beverage companies will feel considerably less comfortable. If food companies are to emerge from the debate over kid's nutrition relatively unscathed, they will have to participate in fostering a major change in the average consumer's personal behavior.

A key issue for both food and beverage companies is managing portion size. The difficulty of selling smaller portion sizes to consumers is that products sold in smaller packages will be viewed as **low-value** by consumers. Companies that cut back on package or portion size risk being ambushed by competitors willing to maintain the super size despite pressure to rein in obesity.

Encouraging activity is no easy task either. Some children are by their nature active; others are not. Conditions also affect activity levels, as we have seen. Safety in an urban neighborhood may limit outside play. Suburban sprawl can make playmates hard to reach. These constraints are difficult, but not impossible to overcome, and food companies can play a positive role.

One approach might be to sponsor local sports leagues or skills clinics geared to beginners, providing jerseys, arranging for coach training programs: these are all grassroots efforts. Stealth marketing some might call it; the objective is not so much to sell the product as to demonstrate the company's commitment to staying active and combating obesity.

Loyalty programs offer an exceptional path for linking products to physical activity. Why not use box tops, wrappers, labels or frequent purchase points to generate funds for physical education equipment?