

Soft Drinks, Childhood Overweight, and the Role of Nutrition Educators: Let's Base Our Solutions on Reality and Sound Science

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ABSTRACT

The percentage of overweight children in the United States and other countries has now reached epidemic proportions. Both physical activity and food intake contribute to the energy equation, but research increasingly points to physical inactivity as the primary culprit in weight gain. Singling out and restricting specific foods and beverages are unlikely to be effective in reducing the prevalence of overweight children. Nutrition educators need to emphasize overall lifestyle, including physical activity, as well as caloric intake, in childhood overweight intervention efforts. Long-lasting solutions to the obesity epidemic must be comprehensive and must include all of the key stakeholders: children, parents, schools, health professionals, businesses, and community leaders and organizations. Nutrition educators can play a key role in developing wide-ranging and diverse coalitions, including food and beverage companies, designed to affect social change aimed at achieving healthy weight for children.

KEY WORDS: obesity, child nutrition, nutrition education, soft drinks, school nutrition services

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INTRODUCTION

The growing prevalence of overweight children in the United States and other countries has risen to the surface as one of the top public health issues in the 21st century. Federal government data from 1999 to 2000 show that 15.5% of 12- to 19-year-old adolescents are overweight and 15.3% of children ages 6 to 11 years are overweight, up from 10.5% and 11.3%, respectively, when compared

with figures from 1988 to 1994.¹ In the same data set, the percentage of overweight children is higher among those with lower income and less education and among certain ethnic populations, including African Americans, Hispanics, and Native Americans.

In recent years, soft drinks have been targeted as a culprit in the rising rates of obesity, despite a lack of solid cause-and-effect evidence. The setting that has received the most scrutiny is schools, although soft drinks are consumed by children in smaller quantities there than in other settings, such as home and restaurants.² The comprehensive joint position of the American Dietetic Association (ADA), Society for Nutrition Education (SNE), and American School Food Service Association (ASFSA) regarding school nutrition services addresses school meals and other foods and beverages available in the school setting, nutrition education, and physical activity.³ The position advocates state-level action regarding competitive foods (not specifically soft drinks) yet does not clarify why the action should be at the state versus local or national level. An SNE member resolution regarding soft drinks in schools resulted in the organization submitting a letter to US Department of Agriculture (USDA) Secretary Anne Veneman in November 2003 calling for a stronger policy.^{4,5} In early 2004, the American Academy of Pediatrics (AAP) issued a policy statement on soft drinks in schools, calling for district-wide policies.⁶ Many of the AAP policy recommendations are already occurring in many school districts across the country owing to cooperative efforts. AAP's focus on local, district-level guidance contrasts to the ADA/SNE/ASFSA joint paper calling for state-level action.

These organizational positions and resolutions downplay the fact that federal regulations already prohibit the operation of soft drink machines in school cafeterias and food-service areas during breakfast and lunch. The soft drink industry supports these federal regulations through education and distribution of vending machine timers. Beverage companies also advocate for the prerogative of local educators, in consultation with parents and students, to determine the placement of vending machines, the hours of operation, the variety of beverages to be sold, and the allocation of proceeds from the machines.⁷

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Reducing the prevalence of overweight children requires reality-based action that is collective and cooperative versus adversarial. Nutrition professionals should advocate for both nutrition and physical activity, not just nutrition. Further, if nutrition educators are interested in working with schools to promote children's nutrition and fitness, they need to understand what is currently happening in schools and have a clear understanding of the science.

This article explores (1) the science regarding trends in childhood obesity and the role of soft drinks in that trend with an emphasis on empirical evidence seldom presented by soft drink critics and (2) beverage partnership practices currently occurring in the school setting.

DISCUSSION

Calories In or Calories Out?

In the simplest terms, obesity results from an imbalance of caloric intake and expenditure. Based on recent obesity trends, Hill et al postulate that caloric imbalance in the US adult population is relatively small: approximately 100 calories per day.⁸ The authors advise a 2-pronged approach: "increasing lifestyle physical activity" and "reducing portion size" of foods consumed rather than changing the types of foods eaten. Further, they indicate that closing an energy gap of similar magnitude among children could be done without major restructuring of the school environment.

When examining the etiology of pediatric overweight, research increasingly points to physical inactivity as the predominant issue, not caloric intake.⁹⁻¹² In fact, analysis of federal data spanning 20 years found that among adolescents ages 12 to 17 years, physical activity decreased 13%, whereas caloric intake increased by only 1%.¹⁰ The USDA's Continuing Survey of Food Intakes by Individuals (CSFII), 1994-1996 and 1998, indicates that energy intake has remained stable among children.¹³ In a randomized controlled trial of 878 adolescents ages 11 to 15 years, of 7 dietary and physical activity variables that were measured, insufficient vigorous physical activity was the only risk factor for higher body mass index (BMI).⁹ Weight status among high school students is correlated with selected physical activity behaviors, especially among adolescent boys.¹⁴

Strauss et al found that children spend an average of only 12.6 minutes per day in vigorous exercise.¹⁵ Of teenagers in grades 9 to 12, one-third do not participate in sufficient vigorous or moderate physical activity on a weekly basis, and 11.5% do not participate in any moderate or vigorous physical activity during any given week.¹⁶

The decline in physical activity among children involves many factors: the decrease or elimination of physical education in schools, the lack of safe play space in many neighborhoods, increasing reliance on the automobile, and the growth of media options, leading to increased "screen time." This last factor is especially important. In 2000, children spent an average of 6.37 hours using media (television,

videos, video games, and computers) each day, a total of 44.57 hours per week—a 6% increase over the previous year.¹⁷ Contrast 6.37 hours (382 minutes) of screen time to 12.6 minutes of vigorous exercise; the difference is 30-fold. The link between screen time and overweight among children is well established, having been identified almost 20 years ago. Dietz and Gortmaker found that the incidence of obesity increased 2% for every additional hour of television watched.¹⁸ Children with televisions in their bedrooms are at 31% greater risk of overweight or obesity.¹⁹ A recent Canadian study reported that "more than 60% of overweight incidence can be linked to excess TV viewing time."²⁰ As of 2000, nearly half (48%) of US families own all 4 media hardware (television, videocassette recorder, video game equipment, and computers), up from 1 in 3 in 1997.¹⁷ In this context, therefore, the conclusions expressed in the *Mayo Clinic Proceedings* make sense: "We believe that the evidence suggests that declines in physical activity are more likely than increases in energy intake as the explanation for the recent increase in obesity prevalence."¹¹

Soft Drinks and Children's Health

Recent efforts to restrict carbonated soft drinks (CSDs) in schools may seem like a reasonable strategy to reduce the number of overweight children. However, when one considers the low consumption levels of such beverages in schools^{2,21} and marketplace changes that are already occurring, these approaches may be unlikely to have any positive effect. More importantly, they could detract from the more comprehensive efforts that are more likely to have a meaningful impact.

Myths abound related to beverage companies' business practices with schools and soft drink consumption and health, including their influences on childhood overweight. When such misperceptions draw on limited public health resources, nutrition educators have a responsibility to present factual, science-based information to redirect community efforts toward meaningful change. Some of the more common misperceptions about soft drinks, as they relate to health and school business practices, are as follows.

Myth 1. Soft drinks cause obesity. Several studies analyzing national food consumption data have found no association between soft drink consumption and excess weight in children. Researchers analyzed CSFII 1994-96 and 1998 and found that among children ages 6 to 19 years, BMI is not related to consumption of regular soft drinks but is weakly related to consumption of diet carbonated beverages.²² National Family Opinion Research/Share of Intake Panel (NFO/SIP) data analysis shows that during the years 1987 to 1998, the amount of soft drinks consumed by age and gender groups did not change, except for a decrease in consumption among children ages 1 to 5 years, whereas milk consumption was stable for all age groups.²³ Interestingly, although the prevalence of childhood overweight is

higher among certain minority populations, those same groups consume lower amounts of CSDs than do their white counterparts.^{22,24}

A few studies are widely cited as being supportive of a link between CSDs and childhood overweight. Yet the studies have limitations worth noting. In one short-term study, Mrdjenovic and Levitsky showed an association between consumption of sweetened drinks and higher daily energy intake and greater weight gain.²⁵ However, the small sample size (N = 30) and the fact that the authors did not account for key confounding variables, such as exercise or screen time, limit the findings. Another study, cited by White et al,²⁶ examined soft drinks in relation to body weight among 11- to 12-year-old children using a prospective, observational analysis, which precludes establishing cause and effect; the authors themselves caution against drawing cause-and-effect conclusions.²⁷ In this investigation, researchers measured a wide range of sugar-sweetened drinks, including sweetened fruit drinks and iced tea, not just carbonated beverages, relying on self-reported data from adolescents on dietary, physical activity, and menarcheal status, which are highly prone to error. Only 37 new cases of obesity occurred among the total sample of 548 children. Although the article focuses on the 37 subjects who became obese during the 6-month follow-up period, 25 other subjects were obese at baseline but not at the end of the study; beverage consumption and other data were not provided for the latter group. Beside beverage intake, no other dietary factors were considered; thus, the researchers ignored nutrients that previously have been associated with weight gain among children. White et al also cite Krebs-Smith's study examining sources of added sugar in the American diet²⁸ to support their argument that drink consumption has been found to be a contributing factor in the rising incidences of overweight and obesity among school-aged children.²⁶ However, Krebs-Smith cautions, "It is very difficult to demonstrate a link between added sugar intake and obesity using self-reported dietary intake data."²⁸

The contribution of sugar to weight gain has received close scrutiny as obesity has risen as a public health concern. However, the National Academy of Sciences' *Dietary Reference Intakes on Macronutrients* concludes,

*There is no clear and consistent association between increased intake of added sugars and BMI. Therefore the data cannot be used to set an Upper Limit (UL) for either added or total sugars. . . Although a UL is not set for sugars, a maximal intake of 25% or less of energy from added sugars is suggested based on the decreased intake of some micronutrients of American subpopulations exceeding this level.*²⁹

Researchers have postulated that high-fructose corn syrup, a sweetener used in soft drinks and other foods and beverages, could somehow be driving increasing obesity rates. Unfortunately, the name "high-fructose corn syrup" implies that it is composed primarily of fructose, which is not so. High-fructose corn syrup has several formulations, and

the most widely used forms in the United States are 42% or 55% fructose, with the remainder being mostly glucose. Table sugar is a 50-50 mixture of fructose and glucose.

Another common argument, noted by White et al,²⁶ is that liquids somehow fail to trigger physiological satiety mechanisms, so energy compensation for liquid calories is less complete or less precise than solid calories. However, a recent within-subjects study showed that liquid cola and solid cookies had exactly the same effects on hunger, appetite, and the amount of food consumed at lunch.³⁰ Food consumption was lower when the snack was given just before lunch versus further away from mealtime. The research shows that timing is more important than the physical form of calories consumed.

Myth 2. Soft drinks displace more nutritious beverages. In an analysis of CSFII data of 2- to 20-year-old subjects, regular and diet CSDs and other nondairy beverages had a very small, statistically significant, positive association with calcium consumption.³¹ The authors concluded that CSD consumption among adolescent girls is modest and does not appear to be linked to decreased calcium intake.

Just as the volume of food intake increases with age, total beverage intake increases with age. From third to eighth grade, average daily beverage intake increases from 29 to 41 oz, whereas the amount of milk consumed remains stable.³² In fact, milk is the most consumed beverage, accounting for over half of beverage consumption, even for eighth-graders. Because total beverage consumption increases with age, milk represents a decreasing percentage of total fluid intake over time, but it is important to note that the actual volume of milk does not decline.

Fitzpatrick and Heaney offer the following advice in their editorial addressing the popularity of disparaging foods and beverages that taste good, in particular soft drinks:

*The good news is that you can have soda and good bones too, so long as you drink your milk. Not only is the seeming effect of low-nutrient beverages on the calcium economy relatively small, but, if as seems likely, the effect is mediated through milk displacement, the solution lies not in 'viewing with alarm' consumption of things that taste good, but with encouraging and promoting higher dairy intake.*³³

Myth 3. Eliminating soft drinks from schools will make a significant contribution to reducing childhood overweight. Considering the small amounts of CSDs consumed in school, restricting such beverages at schools is unlikely to be effective in reducing childhood overweight; more long-term research is needed in this area. A study comparing Nationwide Food Consumption Survey 1977/78 data with CSFII 1994-96 and 1998 data indicates that of total soft drink consumption among youth, soft drinks from vending machines (in all locations, not just schools) went from 2.8% to 4.1% (change statistically significant at $P < .05$ for girls only), and the percentage of soft drinks consumed in

school cafeterias remained stable at 3% (no significant change).² Although the study shows increased percentages of youth consuming soft drinks over time, the greatest percentage point increases were seen in the home and restaurant and fast-food settings versus the school setting. Yet White et al refer to an “alarming 200%” increase for the school cafeteria and vending machine sources.²⁶ Considering that the 200% increase is from 1% to 3% of children, such emphasis entirely misses the larger issue of how much influence parents exert over children’s food and beverage choices.

NFO/SIP data for 2716 12- to 18-year-old adolescents show that 20% of students consume beverages (any beverage) from secondary school vending machines during the school week. Among students who consume beverages from school vending machines, the average weekly intake of regular CSDs was only 12.5 oz, or slightly more than one 12 oz can.²¹

CSDs are not available to any great extent in the elementary and preschool settings; thus, any legislative or regulatory attempts for outright bans of CSDs in these settings are not likely to have much impact. The Coca-Cola Company’s *Model Guidelines for School Beverage Partnerships*

(Table) spell out very specifically elementary schools’ practices already commonly in place with their school partnerships: “CSDs should only be available in teachers’ lounges and after school hours for community use,” and “CSDs should not be available to students during the school day.”³⁴

Myth 4. Soft drinks cause cavities. Like obesity (or any issue involving human health), tooth decay is a complex subject. It is the result of many factors, including the types of foods that are consumed and frequency of eating occasions. Foods that are “sticky” and cling to the teeth are more likely to cause tooth decay. The amount of time that sugar remains in contact with teeth is another important variable. Soft drinks and other sugar-containing liquids pass over the teeth very quickly. Analysis of Third National Health and Nutrition Examination Survey (NHANES III) data shows that among people under age 25 years, soft drink consumption is not associated with increased dental caries, which could be due, in part, to widespread fluoridation.³⁵

A recent study examined dental caries and beverage consumption among 1- to 5-year-old children and found an association between soft drinks and increased caries.³⁶ It is important to note several details of this study. The amount of

Table. Summary of *Model Guidelines for School Beverage Partnerships*^{*†}

Topic Addressed	Elementary Schools	Middle and High Schools
Product availability guidelines	Products for students in elementary schools should include 100% juices, milk-based products, and water. Other products that may be available in addition in elementary schools include juice drinks and rehydrating sports drinks.	Products for middle school and high school cafeterias should include 100% juices, milk-based products, and water. Other products that may be available in addition include juice drinks, teas, and rehydrating sports drinks.
	Carbonated soft drinks should be available only in teachers’ lounges and in vending machines designated for community use after school hours. Carbonated soft drinks should not be available to students during the school day.	Products available in middle schools and high school vending machines may include 100% juices, milk-based products, water, juice drinks, teas, rehydrating sports drinks, and carbonated soft drinks. A full array of juices, water, and other products must be available wherever carbonated soft drinks are sold.
Contracts and financial arrangements	Respect the rights of parents, teachers, and school officials to choose the beverage selections for their schools and vending machines.	
	Be structured to offer schools a steady stream of resources for the length of the partnership, as opposed to relying on an advance payment.	
	Discourage the use of brokers or “third-party” intermediaries because they charge fees to schools/school districts that diminish the revenues that can directly enhance the education of students.	
	Take every measure to ensure that student access to beverages meets federal, state, and local laws and guidelines.	
Machine timers	Timers will be made available to school partners to place time constraints on specific vending machines to meet their local needs.	
Company logo visibility	Beverage company logos and other marketing graphics must not be used in textbooks, in curriculum materials, or on book covers.	
	Venues that may be appropriate for product logos include scoreboards, menu boards, coolers, student publications, and materials to promote educational activities, physical activity, and athletic events.	
Vending graphics	All vending equipment in schools should move toward featuring graphics that show a wide variety of beverage options.	
	As new equipment is placed in schools, signage on vending machines must feature graphics that promote educational activities, physical fitness, and noncarbonated beverage choices.	

Adapted from The Coca-Cola Company.³³

*Recognizing the value that the education community places on local decision making, the *Model Guidelines for School Beverage Partnerships* are strictly voluntary for adoption by schools and school districts; however, it is the intention of The Coca-Cola Company for the guidelines to govern its activities in schools.

†For more information, visit www.corpschoolpartners.org.

soft drink carbohydrates consumed by the subjects was very small. Although the median amounts of CSDs consumed were statistically different between the caries-free group and those with caries, 28 g (0.82 oz) versus 46 g (1.36 oz), the actual difference in volume was small, 18 g (0.53 oz) of beverage. The amount of carbohydrate in this volume of CSD is minor—about 2 g. Second, the authors did not assess the timing of beverage consumption or whether beverages were consumed alone or with other foods. Third, although the authors did explore exposure to fluoride, they did not account for differences in personal hygiene, such as regular tooth brushing.

The relationship between the acidity of soft drinks and dental health is the focus of an “urban legend” that has circulated over the Internet, unfortunately including some well-known nutrition listservs. Although CSDs have a lower pH than orange juice or pineapple juice, they contain far less titratable acid, which has been shown to be a better indicator of dental erosive potential than pH.³⁷ In fact, citrus juices have been found to be potentially more erosive to tooth enamel than soft drinks.³⁷

Myth 5. Caffeine’s addictiveness may keep people hooked on soft drinks. The previous sentence, practically void of science, is taken straight from the SNE member resolution on soft drinks.⁴ People have come to use the term “addiction” loosely to describe an affinity for something, such as “I’m addicted to chocolate” or “He’s addicted to football.” The term, however, does have scientific and regulatory definitions. The US Food and Drug Administration (FDA) specifically addressed this issue in a 1996 final ruling: “Studies estimate that as many as 92% of all smokers are addicted to the nicotine in cigarettes. There is no evidence that either caffeine or alcohol poses this kind of health problem.”³⁸ The American Psychiatric Association’s most recent diagnostic manual (*Diagnostic and Statistical Manual of Mental Disorders-IV-TR*) does not list caffeine with drugs that cause dependency.³⁹

Caffeine, along with about 600 other substances, was placed on the FDA’s Generally Recognized As Safe (GRAS) list in 1958.⁴⁰ In 1978, in accordance with federal government regulations regarding periodic review of GRAS substances, the Select Committee on GRAS Substances reviewed the data on caffeine.⁴⁰ In 1987, the Institute of Food Technologists’ Expert Panel of Food Safety and Nutrition affirmed that caffeine, including that found in carbonated beverages, does not create adverse effects in adults.⁴⁰

A 2002 National Institute of Mental Health (National Institutes of Health) literature review on the behavioral effects of caffeine in infants and children concluded that although little recent work has been conducted in this area, generally, caffeine is well tolerated by children in usual dietary amounts. Overall, the effects of caffeine in children seem to be modest and typically innocuous.⁴¹

Cola beverages contain about 70% less caffeine than coffee and about 50% less caffeine than tea. Eight ounces

of regular cola contains about 24 mg of caffeine, whereas 8 oz of brewed tea typically provides twice that amount—around 40 mg.⁴² The same amount of coffee typically contains 85 to 100 mg. Thus, even a 12 oz can of cola contains less caffeine than one 8 oz cup of tea or coffee. Nonetheless, for those wishing to limit caffeine intake, a wide range of noncaffeinated soft drinks is available, and noncaffeinated beverages are offered as a choice for schools.

Myth 6. The caffeine and phosphorus in soft drinks damage bone health. The main causes of osteoporosis include insufficient calcium intake, hormonal changes, and a lack of weight-bearing physical activity. Leading researchers in the fields of osteoporosis and bone and dental health concluded in 1994 that phosphorus does not affect calcium absorption or excretion significantly.⁴³ The US National Institutes of Health Consensus Development Conference on osteoporosis reaffirmed in 2000 that dietary phosphorus, as well as caffeine, is not an important factor in osteoporosis for individuals consuming a balanced diet.⁴⁴ Specifically, the phosphorus and caffeine found in carbonated beverages do not affect calcium absorption or retention.⁴⁵ In fact, cola actually contains very little phosphorus—only about 2% of total dietary phosphorus.⁴⁶ The vast majority—98%—of dietary phosphorus comes from high-protein foods such as meats, cheeses, nuts, and grains. Further, among female teenagers, milk drinkers consume over 4 times more phosphorus than do non-milk drinkers, regardless of soda consumption.⁴⁷

Myth 7. Soft drink companies market to young children. For nearly 50 years, The Coca-Cola Company has adhered to a policy not to market soft drinks to children under the age of 12 years. Recently, the company expanded that policy to apply to all of its beverages, including juices, sports drinks, and water.

The Coca-Cola Company has issued beverage guidelines for school partnerships that stipulate what, how, and when beverages are accessed in the school setting (see Table).³⁴ The company worked hand in hand with several educator organizations to establish these guidelines, which emphasize adherence to federal, state, and local regulations; school choice; and limitations on commercial branding. Included are separate, specific guidelines for elementary, middle, and high schools. Timers are available to all schools. Additionally, use of logos and commercial materials is restricted from textbooks and classrooms.

Myth 8. “Exclusive” contracts force schools to serve soft drinks. Exclusive contracts do not force the sale of soft drinks; rather, exclusive contracts restrict the sale of certain beverages to those of one supplier. Further, the decision to require exclusivity in a contract rests entirely with schools, not vendors. Schools often decide to work with one vendor, exclusively, owing to ease of management and logistics. The most important point for nutrition educators to understand is that beverage marketers offer a wide variety of beverages

from which to choose, and schools and/or districts (not the beverage marketers) make the choices about which products to offer, when, and where, based on local needs and preferences, in addition to existing regulations.

Working Together to Remove Barriers

Certainly, as with all complicated public health issues, nutrition educators must avoid the temptation to promote simplistic solutions that do not tackle the real problem. Pointing blame at other stakeholders or targeting a single food or beverage conflicts with building effective, community coalitions that can achieve long-standing social change related to healthy weight.

Such adversarial, restrictive efforts are counter to parental attitudes, nutrition education theory, and sound science. Of all of the key stakeholders in children's health, nutrition educators may be most familiar with research showing that restrictive dietary approaches are ineffective for developing healthy relationships with food and maintaining healthy weight. Further, a 2002 study conducted at Michigan State University indicates that most parents believe obesity to be an issue resolved in the home, not through government intervention.⁴⁸

I have observed many local nutrition organizations signing on to previously existing proposed legislative or regulatory frameworks; thus, instead of rising to leadership in the fight against rising obesity by creating constructive solutions, nutrition professionals may end up in a "me too" position. Additionally, community efforts centered on banning certain foods or beverages in the school arena may usurp community capital that could be applied to meaningful action, such as working toward increasing physical activity in schools. Finally, one has to ask, "If nutrition educators have to resort to legislation to ban foods, have they simply failed in their efforts to affect change through education?"

Nutrition professionals have an important role to play, both with the public and with food and beverage companies, to create an environment that can help reduce obesity rates. Effective, long-lasting solutions to the obesity epidemic must be comprehensive and cooperative and must include all of the key stakeholders: children, parents, schools, health professionals, community leaders, and businesses.

IMPLICATIONS FOR RESEARCH AND PRACTICE

1. Nutrition educators should emphasize physical activity in addition to caloric intake in childhood overweight intervention efforts. The widespread inactivity of American youth, coupled with parents' lack of awareness of this trend, points to a need for improving parental education and community resources regarding physical activity.
2. Parents need science-based and actionable educational resources to be able to work effectively with their children around achieving and maintaining healthy

weight through nutrition and fitness. With regard to CSDs,

- a. The lack of solid cause-and-effect evidence connecting CSDs with BMI suggests that individual intervention may be more appropriate than public intervention.
 - b. The limited amount of soft drinks consumed in schools versus other settings in which parents exert more control points to parental education rather than school-based restrictions.
 - c. Banning and restricting certain foods and beverages perpetuates the "good foods/bad foods" paradigm and may lead to unhealthy relationships with foods.
3. Continued research addressing environmental influences related to childhood overweight is needed, particularly long-term studies that examine nutrient intake, food intake, and physical activity. In particular, research is needed to explore the following areas:
 - a. The long-term effectiveness of school-based food and beverage restrictions on children's overall food and nutrient intake (across all settings) and weight status, as well as the impact on school attendance, considering that secondary students may leave campus to purchase foods and beverages no longer available at school.
 - b. The link between school-based and community-based physical education and recreational activity and BMI, with regard to frequency and duration, age, types of activities, and motivational approaches.
 - c. The influences of parents' food and beverage choices on their children.
 - d. Parental influence and motivation with regard to physical activity among children.
 4. Given the amount of emotional debate that surrounds the public health obesity problem, nutrition educators need to seek out diverse sources of information and keep abreast of the most recent scientific research related to obesity.
 5. Decisions that stand the test of time are based on consensus and inclusion, not adversity and exclusion. Nutrition educators need to collaborate with all key stakeholders, including food and beverage companies, to work toward social change aimed at achieving healthy weight.

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SNE Elections 2005 will be On-Line!

Again in 2005, SNE members will elect officers by voting on-line. The procedure was easy and smooth with last year's elections, so we will continue to use this method. Look for more information about voting procedures:

Via e-mail

On SNEEZE

www.sne.org

Voting will occur during February and March.

Can't get on-line?

Members without e-mail will be notified by mail. Paper ballots will be available. If you have concerns or questions, contact Jackie Williams at **800-235-6690**.