Healthy Students, Healthy Schools:

Revised Guidance for Implementing the Massachusetts School Nutrition Standards for Competitive Foods and Beverages

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Developed by: Massachusetts Department of Public Health Massachusetts Department of Elementary and Secondary Education John C. Stalker Institute of Food and Nutrition at Framingham State University Harvard School of Public Health Boston Public Health Commission

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Together with the Massachusetts schools that contributed successful examples for promoting healthy eating policies and practices for this guidance document, we would also like to recognize the significant efforts of the Massachusetts Public Health Association, the Massachusetts Farm-to-School Project, and the Massachusetts School Nutrition Association in helping us translate the standards into practical guidelines that may help all public schools in the Commonwealth be successful in promoting healthy nutrition.

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Introduction

The "Act Relative to School Nutrition," signed into law on July 30, 2010, requires the Massachusetts Department of Public Health to establish standards for competitive foods and beverages sold or provided in public schools during the school day. **The goal of the standards is to ensure that public schools offer students food and beverage choices that will enhance learning, contribute to their healthy growth and development, and cultivate life-long healthy eating behaviors.** The standards are part of the Commonwealth's broad-based, collaborative initiative to reduce childhood obesity and prevent its complications in childhood and later in adulthood.

The Massachusetts Department of Public Health worked with the Massachusetts Department of Elementary and Secondary Education, the Harvard School of Public Health, the Boston Public Health Commission, the John C. Stalker Institute of Food and Nutrition at Framingham State University and other key partners to develop the nutrition standards which are based primarily on the Institute of Medicine's *Nutrition Standards for Foods in Schools* and the *Dietary Guidelines for Americans, 2010.* Schools must comply with the nutrition standards beginning on **August 1, 2012**, unless otherwise noted.

The standards apply to competitive foods and beverages defined below, sold or made available in public schools. These are foods and beverages sold or provided in:

- School cafeterias offered as à la carte items
- Vending machines
- School stores and snack bars

The standards apply to competitive foods and beverages sold or provided to students 30 minutes before the beginning of the school day until 30 minutes after the school day ends. However, foods and beverages sold in vending machines must comply with the standards at all times.

The standards do not apply to foods and beverages sold as part of a federal nutrition program such as the School Breakfast Program, School Lunch Program, or the Child and Adult Care Food Program (all of which follow USDA national guidelines). The standards also do not apply to foods or beverages sold or provided at booster sales, concession stands, and other school-sponsored or school-related fundraisers and events.

School districts have the discretion to go beyond these standards and establish local policies that apply to all settings and/or at all times to promote a healthy school environment throughout the entire day. For example, schools may determine if the standards apply to classroom lessons and parties.

Additional school nutrition food and beverage standards listed in the act include: making water available to all students during the day without charge; offering fresh fruits and non-fried vegetables at any location where food is sold, except in nonrefrigerated vending machines and vending machines offering only beverages; prohibiting the use of fryolators for competitive foods; and, by August 1, 2013, making nutrition information available to students for non-prepackaged competitive foods and beverages served in the cafeteria.

The information in this guide is intended to offer practical ideas for implementing these standards for school administration and staff, parent groups, student groups, and youth and youth-serving organizations. It is also available electronically at www. mass.gov/dph/healthierschools.

School-specific communication plans can help school staff, teachers, food service personnel, school nurses, athletic department staff, students, parents, booster clubs, vendors, etc., understand their roles in working together to put the standards into practice. Many Massachusetts school districts have already implemented several of the law's requirements on their own, and examples of their thoughtful and creative initiatives can be found throughout this guide. Additional resources can be found at www.mass.gov/dph/healthierschools.

Definitions

À la carte entrée means a single food or combination of foods offered as a main course or central focus of a meal, generally a protein source. When applying the standards, the food product should be analyzed as a whole, not by the individual ingredients that make up the product. For example, a turkey sandwich would include the bread, condiments, turkey, etc.

Artificial sweeteners means substances added to food or beverages to provide a sweet taste while providing few or no additional calories, including aspartame, sucralose, acesufame-K, neotame, sugar alcohols and saccharin.

Competitive foods are defined as foods and beverages provided as à la carte items in school cafeterias, school stores, school snack bars, or in vending machines.

Standards for fluid milk and milk substitutes are defined by the USDA: All milk served must be pasteurized fluid milk which meets state and local standards for

such milk. All milk must have vitamins A and D at levels specified by the Food and Drug Administration and must be consistent with state and local standards for such milk. Nondairy beverages must provide the nutrients listed in the following table. Milk substitutes must be fortified in accordance with fortification guidelines issued by the Food and Drug Administration.

Nutrients Required for Non-Dairy Beverages and Milk Substitutes (USDA)*			
Nutrient	Nutrient per 8 Ounces		
Calcium	276 mg		
Protein	8 g		
Vitamin A	500 IU		
Vitamin D	100 IU		
Magnesium	24 mg		
Phosphorus	222 mg		
Potassium	349 mg		
Riboflavin	0.44 mg		
Vitamin B-12	1.1 mcg		

Fresh means fresh, frozen, dried or canned without added sugar, fat or sodium for the purpose of these standards.

Grain-based products means food products in which the primary ingredient is grain, including pasta, crackers, granola bars, chips and bakery items.

Item means one serving of a product; packaged items can contain no more than one serving per package.

*Source: http://edocket.access.gpo.gov/cfr_2011/janqtr/pdf/7cfr210.10.pdf

Low-fat means 3 grams or less per Reference Amount Customarily Consumed (RACC) standards established by the federal Food and Drug Administration.

Natural flavorings means the essential oil, oleoresin, essence or extractive, protein hydroplysate, distillate, or any product of roasting, heating or enzymolysis, which contains the flavoring constituents derived from a spice, fruit or fruit juice, vegetable or vegetable juice, edible yeast, herb, bark, bud, root, leaf or similar plant material, meat, seafood, poultry, eggs, dairy products, or fermentation products thereof, whose significant function in food is flavoring rather than nutritional.

Public school means an elementary, middle, high, charter, innovation or comparable school operated by a public school district or board of trustees pursuant to Chapter 71 of the Massachusetts General Laws.

Reduced fat means at least 25% less fat per Reference Amount Customarily Consumed (RACC) than an appropriate reference food.

School day means the hours of the day that students must attend school.

Sweetener means a substance derived from a natural product that is added to food or beverages to provide a sweet taste. Such a substance may be nutritive or nonnutritive. A nutritive sweetener may be either naturally occurring, such as honey, or refined from plants, such as sugar from sugar cane. Nonnutritive sweeteners include products that may be regarded as natural.

Trans fat-free means less than 0.5 grams of trans fat per item, or as otherwise specified by the federal Food and Drug Administration.

Whole grains means grains or the foods made from them that contain all the essential parts and naturally occurring nutrients of the entire grain seed. If the grain has been processed, the food product should deliver approximately the same balance of nutrients found in the original grain seed. For purposes of these standards, whole grain should be the primary ingredient by weight (i.e., whole grain listed first in the ingredient statement).

Massachusetts School Nutrition Standards for Competitive Foods and Beverages At-a-Glance

The following standards apply to all public elementary, middle and high school students. To view the Act Relative to School Nutrition signed into law in 2010 and the amendment to this Act passed in June, 2012, see www.malegislature. gov/Laws/SessionLaws/Acts/2010/Chapter197 and www.malegislature.gov/Laws/SessionLaws/Acts/2012/Chapter96. To view the complete standards as originally published in 2011, see www.lawlib.state.ma.us/source/mass/cmr/cmrtext/105CMR225.pdf.

Category	Standards
Juice	100% fruit and vegetable juice, with no added sugar.
Juice – Portion Size Limit	No more than 4-ounce servings.
Milk (Including alternative milk beverages such as lactose-free and soy)	Low-fat (1% or less) and fat-free milk.
Milk – Portion Size Limit (Including alternative milk beverages such as lactose-free and soy)	No more than 8-ounce servings.
Milk – Flavored, Sweetened (Including alternative milk beverages such as lactose-free and soy)	Flavored milk with no more than 22 grams total sugar per 8 ounces.
Water	No added sugars, sweeteners or artificial sweeteners. May contain natural flavorings and/or carbonation.
Beverages with Added Sugar or Sweeteners	Any beverages with added sugar or sweeteners not already prohibited will be phased out by August 1, 2013 . However, a school may provide or sell flavored milk or milk substitutes that contain the same amount or less sugar than plain, fat-free or low-fat milk.

Category	Standards
Other Beverages (Soda, sports drinks, teas, waters, etc.)	No beverages other than juice, milk, milk substitutes and water shall be sold or provided.
Calories	Foods shall not exceed 200 calories per item.
	À la carte entrées shall not exceed the calorie count of entrée items offered as a part of the National School Lunch Program (e.g., equivalent portion size).
Fat	No more than 35% of total calories from fat.
Saturated Fat	No more than 10% of total calories from saturated fat.
Trans Fat	All foods shall be trans fat-free.
Fat Exemptions (All other categories apply, e.g., sugar and calories.)	1-ounce servings of nuts, nut butters, seeds and reduced-fat cheese.
Sugar	No more than 35% of total calories from sugars.
Sugar Exemptions (All other categories apply, e.g., fat and calories.)	100% fruit with no added sugar. Low-fat or non-fat yogurt (including drinkable yogurt) with no more than 30 grams of total sugars, per 8-ounce serving.
Sodium	No food shall contain more than 200 mg of sodium per item. À la carte entrées shall not contain more than 480 mg of sodium per item.
Grains	All bread or grain-based products shall be whole grain, i.e., whole grain should be listed first in the ingredient statement. These include crackers, granola bars, chips, bakery items, pasta, rice, etc.
Caffeine	No food or beverage shall contain more than trace amounts of caffeine. Note: Some foods and beverages, such as chocolate, contain small amounts of naturally occurring caffeine. These products are allowed as long as they comply with the rest of the nutrition standards.
Artificial Sweeteners	No food or beverage shall contain an artificial sweetener.

Competitive Foods and Beverages that Meet Massachusetts **School Nutrition Standards**

The John C. Stalker Institute of Food and Nutrition (JSI), a partnership of the Massachusetts Department of Elementary and Secondary Education and Framingham State University, publishes the "A-List" (or Acceptable List) which was first developed as a resource to find products that met the Massachusetts Action for Healthy Kids' Massachusetts À la carte Food & Beverage Standards. This list of products has been revised to reflect the Massachusetts School Nutrition Standards. Please see www. johnstalkerinstitute.org/alist.

JSI created a nutrition calculator, MassNETS (www.johnstalkerinstitute.org/alist/ MassNETS.php) that schools can use to determine if an individual product meets the Massachusetts standards. JSI is currently developing a tool to evaluate recipes as well. The recipe calculator is expected to be completed by the summer of 2013 and will also be featured on the JSI website.

It is important to note that some processed foods will meet the nutrition standards, however, processing food can reduce the naturally occurring trace nutrients – such as vitamins and minerals – as well as fiber in a product. Some products are enriched with these nutrients after processing, but never to the same degree as in the natural food. The objective of the Massachusetts School Nutrition Standards is to provide the opportunity for children to consume whole, minimally processed, nutrient-rich foods, such as fruits, vegetables, whole grains, lean protein and low-fat dairy.

Please see page 41 for frequently asked questions regarding the rationale that supports a number of these nutrition standards.



Law Facilitates Purchasing of Massachusetts-Grown Produce

The School Nutrition Law makes it easier for school districts to buy fresh produce directly from Massachusetts farmers. It clarifies that, as long as reasonable business practices are followed and that each purchasing contract is below \$25,000, local school districts can purchase fruits and vegetables from Massachusetts farms without going through the normal bidding process. In addition, this legislation allows multiple purchases to be made throughout the school year. This new practice is authorized through the amendment of Chapter 30B and is governed by the Inspector General's Office.

The Massachusetts Farm-to-School program can help support your school in buying directly from Massachusetts growers (www. farmtoschool.org/MA).

Procurement and Contracting

School districts and school programs need to follow federal, state and local procurement requirements for purchasing foods. In some cases, written quotes are acceptable, while in others it is necessary to follow bid procedures. Products grown or produced using products grown in the Commonwealth are supported by state law. Written specifications for all purchases should be used.

Massachusetts General Law Chapter 30B explains purchasing requirements: www.malegislature.gov/Laws/GeneralLaws/ Partl/TitleIII/Chapter30B.

Additional School Nutrition Food and Beverage Standards



1: Make water available to all students during the day without charge.

Water is essential for life. Although our daily fluid intake requirements can be obtained from a variety of beverages and foods, potable drinking water is the best calorie-free, thirstquenching option. According to the *Dietary* Guidelines for Americans 2010 released by the U.S. Department of Agriculture, consumers should forgo sugary drinks and make water their beverage of choice. Studies have shown that individuals without ready access to potable drinking water may consume more sugar-sweetened beverages, and students who participated in school-based interventions to promote water consumption showed decreases in overweight/obesity rates (www. eatsmartmovemorenc.com/TheEvidence/ Texts/StratstoReduce Sugar Sweetened Bevs.pdf).

Schools across the nation have implemented unique and innovative ways to bring water to students. No one solution fits all situations. Some schools use water dispensers and cups, while others depend on water fountains and provide each student with a re-usable water bottle to use throughout the school year.

For schools participating in the National School Lunch Program, the Healthy, Hunger-Free Kids Act of 2010 has established a requirement for making water available to children at no charge during the meal service where lunch meals are served. For more ideas and information on making water available for students, see the following resources:

Drinking Water Access in Schools, ChangeLab Solutions: Law & policy innovation for the common good

www.phlpnet.org/childhood-obesity/ products/water-access-in-school

The CDC Guide to Strategies for Reducing the Consumption of Sugar-Sweetened Beverages www.eatsmartmovemorenc.com/ TheEvidence/Texts/StratstoReduce_Sugar_ Sweetened_Bevs.pdf

Water in Schools Toolkit, California Food Policy Advocates

http://waterinschools.org

Proper Care of Bottled Water and Dispensers for Schools, Massachusetts Department of Environmental Protection www.mass.gov/dep/water/drinking/ dispcare.htm

Lead in School Drinking Water Program, Massachusetts Department of Environmental Protection

www.mass.gov/dep/water/drinking/ sclcatlg.pdf

Water Solutions in Somerville

Somerville Public Schools provides free drinking water to their students by placing insulated cambros with cold water in the cafeteria. They provide 7-ounce plastic cups next to the cambro and the students are allowed to take as much water as they want before, during and after school. If the school has working water fountains, cambros are not used.

For more information on offering fresh fruits and vegetables, see the following resources:

USDA Fresh Fruit and Vegetable Program – State and Local Resources www.fns.usda.gov/cnd/FFVP/locallydeveloped.htm

Creating Demand for Fruits and Veggies, Produce for Better Health Foundation www.pbhfoundation.org

UMASS Extension Nutrition Education Program Materials

http://extension.umass.edu/nutrition/ images/stories/publications/food_exp_ highschool_posters/March_banana_hs_ poster_09.pdf

The Massachusetts Farm-to-School Project helps to match local farmers and schools to build sustainable food purchasing relationships. They also sponsor the annual "Massachusetts Harvest for Students Week" in September. www.farmtoschool.org/MA

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For more information on this requirement, see www.fns.usda.gov/cnd/Governance/ Policy-Memos/2011/SP28-2011_osr. pdf#xml=http://65.216.150.153/texis/ search/pdfhi.txt?query=water&pr=FNS&prox= page&rorder=500&rprox=500&rdfreq=500&rw freq=500&rlead=500&rdepth=0&sufs=0&orde r=r&cq=&id=4ea1f2ac3b.

2. Offer for sale fresh fruits and non-fried vegetables at any location where food is sold, except in non-refrigerated vending machines and vending machines offering only beverages.

Every step taken towards eating more fruits and vegetables helps children's health. Fruits and vegetables are rich in vitamins and minerals as well as fiber, and are low in calories. They can help children maintain a healthy weight and reduce the risk of developing chronic diseases such as diabetes, heart disease, stroke and cancer. Some Massachusetts schools have offered fresh fruits and vegetables as snacks and have found that students choose more fruits and vegetables for lunch as well.

There are approximately 100 schools in 25 districts in Massachusetts participating in the USDA Fresh Fruit and Vegetable program. This program targets schools in which more than 50% of students are eligible for free or reducedprice meals. The goal of the program is to provide healthier food choices by expanding the variety of *free* fresh fruits and vegetables made available to students throughout the school day – outside of the meal service. Participating schools offer fresh fruits and vegetables in a variety of ways, including hallway kiosks or vending carts and baskets of fruit delivered to classrooms for mid-morning or afternoon snacks. For more information on the USDA Fresh Fruit and Vegetable Program, see www. fns.usda.gov/cnd/FFVP/FNSresources.htm.

3. The use of fryolators is prohibited for competitive foods.

Schools may choose to establish local policies that restrict the use of fryolators in other settings as well.

4. By August 1, 2013 make nutrition information available to students for non-prepackaged competitive foods and beverages served in the cafeteria. (This standard does not apply to fresh fruit or vegetables.)

Readily available nutrition information can help students make healthier choices. This information is most effective when it is right at the point-of-purchase, such as on school menu boards, but may also be provided on the school's website.

Recent studies conducted in several major restaurant chains have shown that many customers who used calorie information on menu boards made lower-calorie choices. A study commissioned by Healthy Eating Research examined whether New York City's menu-labeling requirement, which was implemented in 2008, changed what customers purchased for lunch. Researchers found that one in six customers

USDA Fresh Fruit and Vegetable Program – Massachusetts Examples

Cambridge delivers baskets of fresh fruits and vegetables to classrooms in four of its elementary schools. School Nutrition Services also partners with City Sprouts (www. citysprouts.org) and Tasty Choices, which is coordinated by the Cambridge Public Health Department, to provide nutrition education.

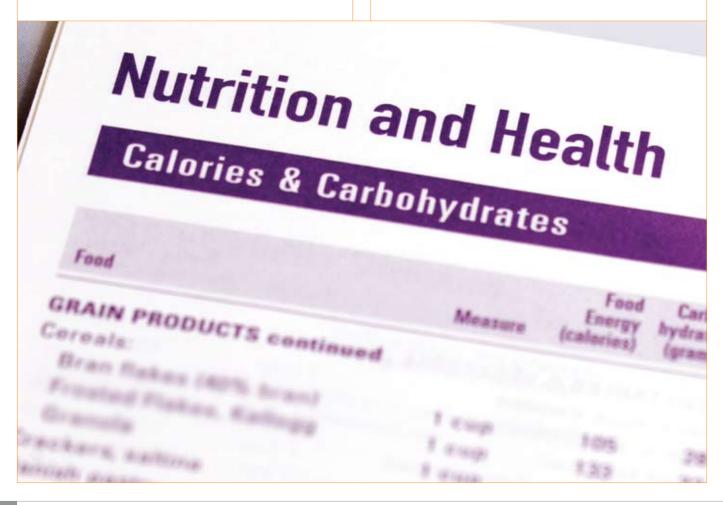
Thirteen **Worcester** schools work closely with the Massachusetts Farm-to-School Project to provide local produce to students. Snacks are served in classrooms and health and physical education teachers provide lessons on healthy eating.

At the William Greene School in **Fall River**, fresh fruits and vegetables are made available during morning recess in the classroom, in the main office and in other rooms visited by students. This school and four others partner with UMass Extension's Nutrition Education Program to provide students with classroom nutrition education and cooking demonstrations, a monthly nutrition calendar and video segments of healthy recipes on the local education TV station.

Pittsfield schools host nutrition and wellness activities two days a week as part of their health and physical education program. Baskets and trays of fresh fruit and vegetable snacks are served in the cafeteria and nutrition information on these healthy items is provided to students. At the Morningside Community School, Wednesday's "Mid-Week Lift" highlights snacking with healthy foods, and "Fresh Friday" promotes the benefits of healthy eating on weekends, encouraging families to spend time together.

As a result of the USDA Fresh Fruit and Vegetable Program in **Chicopee's** Stefanik Elementary School, the Bellamy Middle School's Nutrition Manager attributes increased consumption of fresh fruit to the exposure students received at the elementary school level. In addition, the Cook Manager at the Stefanik Elementary School noted, "Since introducing the fruit and vegetable grant, students are more open to trying all new foods and don't hesitate to ask for new foods to be on the menu!" used calorie information to purchase lowercalorie meals. They also found that customers who used the calorie information purchased on average 106 fewer calories than customers who did not see or did not use the information (www.rwjf.org/childhoodobesity/digest. jsp?id=24562).

The range of resources that will be necessary to help schools make nutritional information available to students, including software available; training time, resources and costs; and strategies for phasing in nutrition analysis, is currently being assessed. Further guidance will be made available to schools as the roll-out of the standards goes forward. Please visit www. mass.gov/dph/healthierschools for updates.



School Wellness Advisory Committees

The "Act Relative to School Nutrition" also requires the establishment of school wellness advisory committees within school districts. This provision was included to ensure that school districts put in place a key element of infrastructure necessary to carry out the intent of the School Nutrition Bill. The purpose of these standards is to set standards for the establishment and operation of School Wellness Advisory Committees. These committees are intended to ensure that each public school district has an established group of school staff and concerned community representatives to recommend, review and help implement school district policies addressing school nutrition, nutrition education, physical activity and related issues that affect student health.

We encourage local oversight of the Massachusetts School Nutrition Standards by the school wellness advisory committee, which can address promoting a healthy environment throughout the school. The committee could also take the lead in organizing school community meetings to educate and engage students, teachers, staff and parents.

For more information on Standards for School Wellness Advisory Committees: www.lawlib.state.ma.us/source/mass/cmr/cmrtext/105CMR215.pdf

For more information on wellness policies: www.fns.usda.gov/tn/healthy/wellnesspolicy.html

For local wellness resources: www.mass.gov/massinmotion www.mass.gov/dph/healthierschools

Recommendations to Create and Support a Healthy School Environment

While not required in the Massachusetts School Nutrition Standards, the following are practical strategies that have been shown to support healthy eating behaviors. The school wellness policy is an effective tool in helping school wellness advisory councils and districts establish specific standards such as the ones listed below to create healthy school environments.

To build community support around implementing these types of voluntary practices, it is valuable to share school-level health statistics with the community. Since 2010 every public school in Massachusetts has been required to measure the height and weight of students in grades 1, 4, 7 and 10 and use those figures to calculate their Body Mass Index (BMI) for age. BMI for age is a method of determining if a child has a healthy weight compared to other children of the same age and sex. This information is available at every school, and can be used as a compelling tool to illustrate the need for adapting these healthy recommendations.

Using Non-Food Rewards for Academic Performance and Behavior

Providing food based on performance or behavior connects food to mood and teaches children to reward themselves by eating even when they are not hungry. The article, *Do Food Rewards Make Kids Overweight?* (www.schoolnutrition.org/Content.aspx?id=7176) published in the December 2005 issue of the *Archives of Pediatrics and Adolescent Medicine*, concluded that policies in schools that allow students to snack frequently; to consume high-calorie, low nutrient-dense foods and beverages; and to have food as incentives and rewards were associated with higher body mass indices in middle-school students.

There are numerous alternative rewards that can be used instead of food to provide positive reinforcement for students such as holding class outdoors, giving extra credit, non-food items such as stickers and temporary tattoos, and awarding individual privileges like going first. For more ideas, see the following resources:

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Constructive Classroom Rewards, Center for Science in the Public Interest (CSPI) http://cspinet.org/new/pdf/constructive_ classroom_rewards.pdf

Alternatives to Food as Reward, Connecticut State Department of Education www.sde.ct.gov/sde/lib/sde/PDF/DEPS/

Student/NutritionEd/Food_Rewards.pdf

Classroom Rewards, North Carolina Action for Healthy Kids

www.actionforhealthykids.org/assets/ clubs/nc7-classrewards.pdf

Limiting Advertising to Foods and Beverages that Meet the Nutritional Standards

ChangeLab Solutions (the former National Policy and Legal Analysis Network to Prevent Childhood Obesity) asserts that "students' health-related choices are influenced by many factors, but advertising plays a key role in their decisionmaking. Schools' efforts to teach students how to make informed choices about nutrition can be impeded if students are subjected to advertising on school property that contains messages contrary to or inconsistent with the health information contained in the school's curriculum."

For more information on establishing policies that restrict food and beverage advertising, see the following resources:

District Policy for Restricting Food and Beverage Advertising on School Grounds, Change Lab Solutions

http://changelabsolutions.org/sites/ changelabsolutions.org/files/DistPlcy_Food-Bev_Advrtsng_FINAL.pdf

Captive Kids: Selling Obesity at Schools. An Action Guide to Stop the Marketing of Unhealthy Foods and Beverages in School, California Project LEAN

www.californiaprojectlean.org/ docuserfiles//Captive%20Kids2007.pdf

Ideas for Alternatives to Using Food as a Reward from Ludlow

Elementary Schools

- Make deliveries to office
- School or special art supplies
- Teach class
- Trip to treasure box filled with nonfood items
- Sit by friends
- Dance to favorite music in class
- Eat lunch with teacher or principal
- Paperback book
- Eat lunch outdoors with class
- Show and tell
- Be a helper in another classroom
- Teacher reads special book to class
- Play a favorite game or do puzzles
- Read or hold class out-of-doors
- Stickers, pencils, or bookmarks
- Extra art time
- Certificates
- \cdot Have "free choice" time at the end of class
- Fun video
- · Listen to book on tape
- Extra recess
- Walk with a teacher or principal

Middle School Students

- Sit together with friends
- Fun video
- Fun brainteaser activities
- Computer time
- Assemblies
- · Eat lunch outside or have class outside
- Listen to music while working at desk
- · Five minute chat break at end of class
- "No homework" pass
- Extra credit

High School Students

- Award of extra bonus points
- Fun video
- Reduced homework
- Late homework pass
- Donated coupons to video stores, music stores, or movies
- Drawings for donated prizes for students who meet certain grade standards

Marketing Healthy Foods

Product. Make healthy foods visually attractive to students. Use garnishes and display the contrasting colors and textures of a variety of foods. Offer finger foods that are convenient to pick up or cut foods into non-traditional shapes.

Price. Studies show that when schools lower the price of healthy foods, and raise the price of less healthy options, students buy more healthful items.

Place. Position healthy foods where they are easy for students to see and access. Create colorful displays with bright napkins or baskets to draw attention to the food.

Promotion. Post signs or make announcements advertising healthy foods. Enlist school and cafeteria staff to encourage students to try healthier items. Jazz up menus and use creative titles to describe foods.

Promoting Healthy Foods and Beverages in School

In addition to eliminating materials that promote unhealthy foods and beverages, it is also important to actively market the healthy items that are offered. Using various promotional strategies such as posters, flyers, giveaways and announcements will ensure that students know about these products and are motivated to try them.

Taste testing is a successful marketing method that enables students to try out and accept new foods. It can be as easy as offering free samples of new foods and/or surveying students on their food preferences. Many students are unfamiliar with whole grain products or fruits and vegetables and need encouragement and fun opportunities to try them. Another effective way to motivate the student body to eat healthier foods is to ask a student group, such as the student council, to get involved in student surveying or promotion of healthy eating policies.

For more information on promoting healthy foods and beverages, see the following resources:

Marketing Healthy Foods Tool Kit, Project Bread http://meals4kids.org/sites/default/files/ MKT_toolkit%20final.pdf

Students Taking Charge, a facilitator's guide for youth and adult leaders to develop youth advocates for healthier schools, Action for Healthy Kids

www.studentstakingcharge.org

A Guide to Taste Testing Local Foods in Schools, Vermont Food Education Every Day (VT FEED) www.vtfeed.org/materials/guide-tastetesting-local-foods-schools

Making It Happen! School Nutrition Success Stories: Adopt Marketing Techniques to Promote Healthful Choices, USDA's Team Nutrition and the Centers for Disease Control and Prevention's Division of Adolescent and School Health www.fns.usda.gov/tn/resources/k_app4.pdf

Smarter Lunchrooms 2011

Smarter Lunchrooms 2011 incorporates lunchroom changes (environmental changes) that can lead students to make healthier lunch choices without knowing they were "nudged" in that direction by the way the lunchroom was designed.

www.SmarterLunchrooms.org provides proven win-win ideas that help students make healthier foods choices and are easy and profitable for schools to implement. Some examples include:

- A checkout line that was originally laced with tempting chips, cookies and snacks was replaced with fruits that were cheaper and packable. As a result, the number of students eating fruit increased by 70%.
- Moving a salad bar to the middle of the lunchroom resulted in increased visibility, convenience and higher salad sales.
- Students were offered a choice between carrots and celery for their required vegetable (rather than mandating that they eat just carrots). As a result, waste from vegetables was reduced and students received higher nutritional content from food eaten.

Try It, You'll Like It: Kid-Approved Menu Items in Fitchburg

Schools in **Fitchburg** put their Fuel Up to Play 60 grants to work to give students a say about new menu choices. Students taste tested and voted on new foods, and popular items were added to the cafeteria meal line. Some students even submitted their own healthy recipes in a contest to garner kid-pleasing new menu options. Balloting was simple. Students were offered a sample and given a ticket which they placed in the appropriate box labeled "yes" or "no." Winning items added to the lunch menu include a banana split (banana cut length-wise and topped with cut fresh fruit), veggie kabob, whole wheat pita pizza and yogurt parfaits.

New Look of School Milk in Walpole

The new school nutrition director at **Walpole** Public Schools used Fuel Up to Play 60 to help make nutrient-rich milk more appealing to students. She started serving low-fat and fat-free milk in individual plastic bottles and purchased signage, recycling bins, and new coolers to help promote the change across the district. As a result, milk sales have increased by about 40 percent, and she has received positive feedback from teachers, administrators, parents and, most importantly, the students!





Healthy School Tool Kit, The Food Trust www.thefoodtrust.org/catalog/download. php?product_id=144

New Look of School Milk, New England Dairy and Food Council

www.newenglanddairycouncil.org/page/ new-look-of-school-milk

Supporting Healthy Celebrations

Classroom parties such as birthday and holiday celebrations do not need to have food a focus, just fun! Let the birthday boy or girl be the teacher's "assistant" for the day, have a celebration dance, give the class extra recess time, or have students create arts and crafts projects to decorate the classroom or bring home to their families, e.g., snow globes, holiday cards, collages or flower pots. Check out the following resources for additional healthy classroom celebrations:

Healthy Classroom Celebrations, Center for Science in the Public Interest

http://cspinet.org/new/pdf/healthy_ school_celebrations.pdf

Healthy School Parties, Alliance for a Healthier Generation

www.healthiergeneration.org/schools. aspx?id=3296

Guide to Healthy School Parties, Action for Healthy Kids of Alabama www.a4hk.org/filelib/toolsforteams/recom/ N&PA%2032%20-%20parties.pdf

Distancing Street Vendors

Many street food vendors sell items that offer "empty calories" without nutritional value. Children who fill up on these snacks will be less interested in the healthier breakfast and lunch options in school. Schools can work with municipal licensing authorities to establish if, when, or what foods and beverages may be sold by outside street food vendors near schools. Another way to handle this issue is to include it in the school district's wellness policy. **Boston Public Schools** recently added "Food Trucks on School Grounds" to their list of competitive foods that are covered by their nutritional guidelines.

For more information on policies restricting vendors near school campuses, see the following resources:

Policy Bulletin – Vendors at or Near School Campuses, Los Angeles Unified School District http://lausd-oehs.org/docs/Bulletins/BUL-4994.pdf

Model Ordinance: Healthy Food Zone, Change Lab Solutions

http://changelabsolutions.org/publications/ model-ordinance-healthy-food-zone

Providing Adequate Time for Lunch

Experts recommend that students be provided with at least 10 minutes to eat after sitting down for breakfast and 20 minutes after sitting down for lunch. The *Relationship Between the Length of the Lunch Period and Nutrient Consumption in the Elementary School Lunch Setting* study showed that when students have a longer lunch period they consume significantly more food and nutrients than when their lunch period is shorter; plate waste decreases as well (http://docs. schoolnutrition.org/newsroom/jcnm/04fall/ bergman/bergman2.asp).

Meals should also be scheduled at appropriate times, e.g., lunch should be scheduled as close to the middle of the day as possible between 11 a.m. and 1 p.m. so that students don't go for long periods of time without eating. Activities such as tutoring, clubs, and organizational meetings as well as school announcements should not be scheduled during meal times.

Healthy Celebrations in Dorchester

Codman Academy Charter Public School organizes innovative school-wide celebrations that involve fitness, art, or community service. As a winter holiday celebration, the whole school participated in Boston's *First Night* parade by making life-size puppets for the parade. Alumni were welcomed back to the campus to participate in the annual student-alumni basketball game. Spring is celebrated with a school-wide community service day, and year-end activities include an entertaining field day featuring everything from relay races to rap-offs.

Healthy Celebrations in Foxborough

Foxborough Regional Charter School celebrates MCAS by holding a "prep" rally for students before the initial testing week. Instead of a party, this prep rally includes a competition between teams in grades 3, 4, and 5 as well as a staff team of teachers. The teams compete against each other in active obstacle course races and academic challenge quizzes. The grade level winners receive extra recess time and a non-dress code day. Please see www.youtube.com/watch?v=9noQoC7WVp8.

Ideas for Food-Free Birthday Celebrations from Ludlow

For the birthday child...

- Select a book to donate to the library.
- Share a special item with classmates (e.g., favorite book, song, stuffed animal, picture or souvenir).
- Choose the game classmates play at recess.
- Serve as classroom "leader" for the day.
- Wear a special button for the day.
- Invite a special visitor to the class to read a story to classmates.
- Bring in photos illustrating family, neighborhood, pets, etc., and tell stories about the pictures.
- Bring in special gifts to share with classmates (e.g., pencils, stickers, notepads, erasers).
- Eat lunch with a friend and a teacher in the cafeteria.

For the school and the birthday child's classmates...

- Place the child's name and picture in the front of the book donated by the birthday child.
- Announce the birthday child's name over the school PA system during morning announcements.
- Announce the birthday child's name at lunch in the cafeteria and everyone sings "Happy Birthday To You."
- Have classmates design and decorate a birthday crown to be worn by the birthday child.
- Have classmates prepare a page about the birthday child; teacher compiles pages and then reads "book" to the class.



Recess Before Lunch in Wilmington

After hearing about the studies and benefits of holding recess before lunch, the West Intermediate School in **Wilmington** decided to pilot this program in 2010. School leaders switched the recess schedule for grade 5 students so that they would go out for recess before eating lunch. After the switch, students were observed as more settled during lunch and were eating more of their lunch and wasting less food. Teaching staff noticed that students are more attentive and quicker to get back to work when they return to class. Additionally, data from school nurse office visits indicate a significant decrease in illness visits for complaint of headaches and stomachaches. Due to the program's success, West Intermediate is planning to offer recess before lunch in all grades next year.

Scheduling Recess Before Lunch

When offering recess before lunch, students play – then eat! Research shows that students waste less food; behave better on the playground, in the cafeteria, and in the classroom; and are more ready to learn upon returning to the classroom immediately after lunch, so less instructional time is lost (www.nea.org/ home/43158.htm).

For more information on scheduling recess before lunch, see:

Recess Before Lunch Policy Implementation Guide, Montana Team Nutrition Program http://opi.mt.gov/Programs/ SchoolPrograms/School_Nutrition/ Wellness.html?gpm=1_3#p7GPc1_2

Implementing Farm-to-School Initiatives

When schools purchase produce directly from Massachusetts farms, students will have access to locally grown fresh fruits and vegetables which are generally fresher and tastier. This practice has the added benefit of supporting the state agricultural economy and helping create enhanced and steady revenue streams for Massachusetts farmers. Exposing students to a variety of fruits and vegetables gives them the opportunity to taste foods they may never have tried or seen before in their natural, fresh state.

For more information on farm-to-school strategies, see the following resources:

The Massachusetts Farm-to-School Project helps to match local farmers and schools to build sustainable food purchasing relationships. www.farmtoschool.org/MA

Farm-to-School Toolkit provides resources for farms, schools, families and communities to

help meet their farm-to-school goals, Washington State Department of Agriculture. www.wafarmtoschool.org

Providing Nutrition Education to Students

According to CDC, education that incorporates topics of healthy eating has been shown to improve student dietary behaviors. As required by law, every school district's wellness policy must include goals for nutrition education. This would include comprehensive health education as well as integrating lessons on nutrition into core curricula such as language arts, math and science. To reinforce these lessons and prepare students for getting used to the new foods, school nutrition services might collaborate with classroom teachers to provide nutrition-related learning experiences for students.

For more information on nutrition education for students, see the following resources:

Planet Health – An Interdisciplinary Curriculum for Teaching Middle School Nutrition and Physical Activity

http://planet-health.org

Eat Well and Keep Moving – An Interdisciplinary Curriculum for Teaching Upper Elementary School Nutrition and Physical Activity www.eatwellandkeepmoving.org

Fertile Ground creates comprehensive experiential learning programs that teach school children about growing food and create opportunities for them to delight in fresh vegetables through teaching gardens, classroom cooking, harvest celebrations, and visits to local farms. www.fertilegroundschools.org

Seeds of Solidarity is a nonprofit organization that provides practical tools for schools to use renewable energy to grow food.

www.seedsofsolidarity.org

Farm-to-School Programs in Massachusetts

Currently 194 public school districts and 77 colleges and private schools in Massachusetts said that they preferentially purchased locally grown food during the 2009-2010 school year. During that year 95 farms, including Czajkowski Farm in **Hadley** and Lanni Orchards in **Lunenburg**, sold directly to one or more institutions.

Lawrence Public Schools have had great success with their farm-to-school initiative. "Besides the natural win-win benefits of the collaboration," notes Lawrence's School Nutrition Services Director, "my favorite component of the project is the student interaction with the local farms. For example, the elementary students love having the Lanni Orchards farmers visit the classroom to learn about where the food comes from. At our high school, the students partnered with Jones Farm and started a garden, and last year students served the vegetables from the garden as part of our summer meals program as a 'Featured' Menu Item.' What a great way to emphasize local farms, and create excitement about eating fresh fruits and vegetables!"

Ware Public Schools celebrated Massachusetts Harvest for Students Week by serving fresh, locally grown food to students. The menu for the week included locally grown produce from McKinstry's Market Garden in **Chicopee** and Breezeland Orchards in **Warren**. Locally grown apples, salad greens, tomatoes, squash, and potatoes were among the sampling of fresh, seasonal produce that was served. During that same year, cabbage – in the form of fresh coleslaw and garden vegetable soup – was featured from the district's garden located at the SMK Elementary School.

Students Educate Themselves and Others in...

Dorchester

The Nutrition Action Club (NAC) at Codman Academy Charter Public School is an elite, student-run club that educates the student body about nutrition. They present their healthy messages at weekly school-wide assemblies, through informative public service announcements, and entertaining skits. One of their most impressive accomplishments was to petition the school's board of trustees to enact a policy making Codman Academy a Junk Food Free Campus, effective August 2011. Students, families, staff, and community members are asked to sign a pledge agreeing not to bring junk food on campus and students struggling to hold to their pledge are assigned buddies in the NAC to help them.

Quincy

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Elementary students participating in Community Service Learning in Quincy identified needs and problems to investigate after being taught a unit on healthful foods. As they learned more about the problem of hunger experienced by homeless children, the students became aware of their good fortune to live in a house and have a refrigerator with healthy food in it. Students decided to communicate what they learned about healthy eating to other children who were less fortunate than they are. These students decided to put together healthy snacks that could be bought and given to the homeless children. The students also created two-sided nutritional cards depicting the food pyramid, the food group the snack represented and its benefits for the body. Students made food pyramids for posting on refrigerators of local shelters. The school and local, broader communities became aware of these student efforts when the students presented the homeless children with their snacks and nutritional cards.

Providing Nutrition Education for Parents

Parents are important allies in the effort to improve students' nutrition. Schools that communicate with families about healthy eating initiatives create a greater understanding of school activities, which can increase their support and participation in school policies and practices. This information can be communicated at parent-teacher nights, PTA/PTO meetings and/or through written communications, e.g., school website, parent newsletters, email (see page 53 for an example of a parent letter template that could be used).

Family involvement can increase children's knowledge and attitudes about healthy lifestyles, influence behavior change, and provide social support for being healthy. To get families more involved, schools have been successful in sponsoring family nutrition nights where parents can actually see and taste the foods being offered to students. Parents can also learn new cooking techniques to prepare healthier food at home, either at school or from resources provided by the school, such as the Mass in Motion website (www.mass.gov/massinmotion).

For more information on nutrition education for parents and families, see the following resources:

Families as Partners: Fostering Family Engagement for Healthy and Successful Students, a resource to help school leaders effectively engage families in schools, particularly around school health issues, National School Board Association

www.nsba.org/Board-Leadership/ SchoolHealth/Family-Engagement-in-Health/ Families-as-Partners.pdf

Balancing Act provides healthy lifestyle ideas and resources for families, Harvard Pilgrim Health Foundation

www.harvardpilgrim.org/pls/ portal/docs/PAGE/FOUNDATION/ FOUNDATION-PUBLICATIONS/GROWING-UPHEALTHY-BALANCING-ACT.PDF *Fuel Up to Play* 60 "At Home" Tools for Parents, National Dairy Council[®] and the National Football League

http://school.fueluptoplay60.com/tools/ nutrition-education/at-home-tools.php

We Can, National Heart, Lung and Blood Institute www.nhlbi.nih.gov/health/public/heart/ obesity/wecan

Alternatives for School Fundraising Activities

Many schools across Massachusetts and the country have already started to implement healthy fundraisers with surprising results – the money raised was either equal to or exceeded funds brought in prior to initiating their healthy fundraising initiatives. There are countless healthy and profitable fundraising alternatives available for schools.

The following resources offer more ideas for healthy fundraisers that schools can easily implement:

Sweet Deals: School Fundraisers Can Be Healthy and Profitable, Center for Science in the Public Interest

www.cspinet.org/schoolfundraising.pdf

Family Health Nights in Brockton

Every year, staff from the University of Massachusetts Extension Family Nutrition Program facilitates a Family Health Night hosted by each school in **Brockton**. Parents and children are provided an educational cooking class with examples of food choices that can be easily replicated at home. The overall nutrition goal is to make parents and children aware of simple ways to increase healthier choices such as whole grains, fruits and vegetables in their daily meal plan. Information on local youth programs and snack idea recipes are also provided in parent take-home bags.

Gardens in Framingham

Thanks to the vision of the Nutrition Services Director of Framingham Public Schools, new vegetable, fruit, and herb gardens are in full bloom at Framingham High School. These community gardens promise to inspire student learning, healthy eating, and town pride. When fully completed, the Saxonville Gardens will include a large vegetable garden, a small herb garden, and blueberry/raspberry bushes in the courtyard behind the cafeteria at Framingham High School. The gardens will be watered by an irrigation system, creating a sustainable growing environment that will be a permanent part of the community. Like the Obama Garden at the White House, this garden will be organic and three times the size!

Organized by the Environmental Club at the high school, a group of 15 students work all summer with the lead grower, a senior who just graduated. Through this initiative, students from many organizations such as the Honor Society and football team are able to do community service as well.

The goal of the initial plantings (including plum tomatoes, peppers, eggplant, carrots, herbs and flowers) is to produce 1,200 gallons of tomato sauce as well as a large crop of cantaloupe that will be served in all schools in the 2011-2012 school year. Over the longer term, students throughout the District will participate in the Saxonville Garden Project and will eat vegetables, fruits, and herbs from the garden in the cafeteria as well as sell them at farmers' markets.



Healthy Fundraising Alternatives

- $\boldsymbol{\cdot}$ Walk-a-thons, jump-rope-a-thons, and fun runs
- Talent shows
- Raffles for spa treatments or sporting events, concerts, or movie tickets donated by local businesses
- Items with school logos
- Car washes
- Read-a-thons
- Auctions or garage sales
- Book fairs
- Bowling or skate nights
- Holiday cards, plants/flowers and gift wrap
- Community service projects
- Students and staff donate \$2 to wear jeans on Fridays

Students Raise Money with Their Heads in Woburn

Students in each grade at the Hurld Elementary School took a 30-question grade-level math test developed by their teachers and collected pledges for their correct answers. To get them even more excited about the "Math Challenge," students participated in scavenger hunts to find the answers to a series of grade-appropriate math questions. Adding to the novel fundraiser, students who returned their sponsor sheet had a chance to win a raffle. Prizes included a ride to school in a fire truck or police cruiser! The fundraiser had an extremely high participation rate and produced over **\$11,000** for the school.

For more information about the Math Challenge and other types of fundraisers, see www.ptoideas.com. School Fundraising Ideas, Association of State and Territorial Public Health Nutrition Directors www.astphnd.org/resource_read. php?resource_id=233

Healthy Fundraisers for Schools, Action for Healthy Kids

www.actionforhealthykids.org/assets/ clubs/healthy-school-fundraising.pdf

Resources for implementing fresh fruit fundraisers:

Florida Fruit Association Fundraising www.fundraisingfruit.com

Parker Indian River Groves Citrus Fruit Fund Raising www.citrusfruit.com

Fruit Fundraising Companies www.fundraisingweb.org/listings/citrus.htm

Offering Healthy Choices at All Times

Although the minimum requirement for applying the Massachusetts School Nutrition Standards is 30 minutes before the start of the school day through 30 minutes after the school day ends, schools or school districts may choose practices that support healthy eating at all times by applying the standards beyond this time frame. Below are some examples of how the standards can be used to promote health and wellbeing in other settings in schools:

Family and Consumer Science Curricula

The Massachusetts Comprehensive Health Curriculum Framework (which encompasses Family and Consumer Science) is centered on teaching students about making healthy choices. Many Family and Consumer Sciences curricula for Foods and Nutrition already use USDA's MyPlate and the US Dietary Guidelines as the basis for classroom lectures and activities; they feature labs for preparing fruits, vegetables, grains and low-fat dairy products. The new nutrition standards are a great fit as the message of healthy eating is consistent across the campus – in classrooms, cafeterias, vending machines, etc. One way students learn about healthy eating in the classroom is through the instruction of basic food preparation techniques. This is a great opportunity to teach students how to prepare recipes for healthy, tasty meals and snacks they can make at home, and help dispel the misperception that healthy food can't taste good.

Cultural Events

Teachers can think about how all of their education plans, including cultural events, fit with providing their students a healthy environment in which to learn. In order to provide a valuable, well-rounded learning experience for students, teachers may want to shift the focus of these events away from primarily food and on to other aspects of a world culture, including dress, music, art, and the cinema. For example, while the French have a reputation for cuisine that includes butter, cheese and white bread, the French lifestyle and eating habits are very different from a traditional American lifestyle and eating habits. Food and fuel are much more expensive in France than in the United States and even their refrigerators are half the size of those in the US. The result is that the French eat less processed food, eat more fresh fruits and vegetables and incorporate more physical activity into their daily lives because it is cheaper and easier to walk or ride a bicycle than to drive everywhere. Offering foods for these events that meet the new nutrition standards will impart a consistent message of healthy eating that is important to students' well being. For instance, teachers can focus on the fresh, less processed aspects of French cuisine such as fruits and vegetables and choose lower-fat selections from France's extensive cuisine. Schools can still provide a fun, educational event for their students and prioritize a healthy school environment.

Additional Fundraising Activities:

Chef Fundraiser in Ashland

Ashland Public Schools invited celebrity chef Ming Tsai to demonstrate quick, healthy and affordable recipes from his new book, *Simply Ming One-Pot Meals*. The program was open to the community. Premium seats, which sold out quickly, were priced at \$50 and general admission seats were \$10. Proceeds of the event were **\$7,950** which went directly to support Ashland's Food and Nutrition Department.

Billerica's Walk-a-thon for a Healthy Future

The **Billerica** School Nurses work on many healthy initiatives throughout the year and the Walk-a-thon for a Healthy Future was one of these initiatives at the Ditson Elementary School. In the past, the Ditson School's PTA group usually raised funds by selling sweet breads, cinnamon rolls, etc. However, the entire district has been striving to improve adherence to their healthy school policies, so they decided to sponsor a walk instead. The school nurse gave the PTA guidance, ideas, educational materials, pedometers and prizes. In advance of the walk, the Parker Elementary School's retiring nurse gave the gift of a visit from Mr. Slim Goodbody to do two presentations on healthy lifestyles for the whole school community. The students walked a course around the school grounds mapped out by the physical education teacher. Educational health facts were strategically placed along the course. The event was a great success as they reached their three goals: (1) raising school spirit, (2) educating on healthy habits, and (3) raising more sponsorship than they ever dreamed of – netting over **\$14,000**. The walk was such a success that it will be repeated next year, integrating supplementary disciplines and additional health activities into the day.



Field Trips

If a meal or snack will take place during a field trip, organizers can plan ahead so that students have access to healthy options. One option would be to have nutrition services make boxed lunches for students to purchase and take with them on the bus. A nutrition services director in one Massachusetts school district recently shared that their school was looking for creative new revenue streams, so they decided to provide healthy "grab and go" snacks for students who stay after school for athletics or other activities. This same approach could be applied to accommodate students traveling on school-sponsored field trips. Another idea would be to call the restaurant where a stop is planned beforehand and make arrangements for healthy options.

Financial Implications and Overcoming Barriers

Over the past few years, many states have created nutritional standards for competitive foods and beverages sold in schools. A growing body of evidence suggests that schools can have strong nutrition standards and still maintain financial stability (www.cdc.gov/ healthyyouth/nutrition/pdf/financial_ implications.pdf). In the cafeteria, while some of these schools have seen decreases in à la carte revenues, their school meals sales have increased leading to increases in overall profits. For instance, an evaluation of the impact of state legislation establishing nutrition standards for competitive foods found that of the 11 schools that reported financial data, 10 experienced increases of more than 5% in revenue from meal program participation, which offset decreases in revenue from à la carte food service (www.ncbi.nlm.nih.gov/ pubmed?term=20864696).

An equally important consideration is that there is a multitude of financially successful alternatives for food fundraisers (see page 30 for fundraising ideas).

Several Massachusetts schools have implemented healthier nutritional standards on their own without a negative financial impact on sales. Please see "Stories from the Field" for highlights of some of these efforts.

For more information on evidence that supports the implementation of healthier nutrition standards in schools without harming revenues, see the following resources:

Dispelling School Food Funding Myths, National Alliance for Nutrition and Activity www.schoolfoods.org/resources_Myths.pdf



Stories from the Field

The **Manchester Essex Regional Schools** began eliminating high-fat, high-sugar snacks in 2004 when the Nutrition Bill was first introduced. By 2006, the districts were all using only A-List snacks. There was an 18% drop in à la carte revenue the first year, 3% the second year and by the third year, their sales rebounded. Educating students, parents and administration on what the Food Service Department was doing and why was key to their success. Students are happy and satisfied with healthier choices and often suggest items they would like to try.

Starting in 2007, **Shrewsbury Public Schools** changed their à la carte selections to include yogurt, bagels, fresh fruit, 100% juices and milk, and closed the high school snack bar during lunch periods. As a result, sales in the cafeteria increased by \$400 per week.

Andover Schools' nutrition professionals have replaced high-fat, high-calorie chips and treats with hummus and pita bread, fresh produce, popcorn and fruit smoothies. To encourage kids to try the healthier cafeteria foods, Andover has made a point of getting students involved in the tasting and menu selection process. Their hard work has paid off – school meal sales have more than doubled in the past four years in the wake of improvements.

In **Lawrence**, the Director of Nutrition Services collaborated with the athletic department to switch all soda machines to water machines in 2007. Since then, they have seen an increase in revenues since water costs less to purchase – and more water is sold throughout the day.

Expanding Breakfast in Boston

Boston Public Schools' Food and Nutrition Services Department enlisted the help of a registered dietitian to improve access to and consumption of school breakfast. Innovative breakfast programs, including Grab 'n' Go and Breakfast in the Classroom, were implemented in schools with funding from Fuel Up to Play 60. Several schools have sustained an average increase of over 100 students participating in school breakfast each day. Boston plans to expand this Breakfast program by introducing new menu items, such as fruit smoothies in the high schools.



Dollars and Sense: the Financial Impact of Selling Healthier School Foods, the California Endowment

www.calendow.org/uploadedFiles/ Publications/Publications_Stories/4146_ tce_heac_program_midpoint.pdf

On the next page is a table of relevant studies documenting intervention effects on school revenue.



Making the Case for Breakfast

Approximately 70 percent of Massachusetts public schools have a school breakfast program. This is another great way to offer healthy foods to students and generate additional revenue.

A growing body of evidence shows that children who eat a good breakfast every day learn better, behave better, and perform better in school than children who do not eat breakfast. For example, in Massachusetts, a Project Bread-sponsored study showed school breakfast participation is directly correlated with higher MCAS scores among elementary school students. The study, conducted by the Center for Social Policy at the University of Massachusetts in **Boston**, focused on schools where 60 to 80 percent of the students were eligible for free or reduced-priced school meals. In all cases, a participation rate of 80 to 100 percent in the breakfast program resulted in higher English and math MCAS scores than participation at lower levels.

For more information on the USDA School Breakfast Program, see the following resources: www.fns.usda.gov/cnd/breakfast and

http://meals4kids.org/national-schoolbreakfast-program

For information on the *Project Bread* study, see: www.projectbread.org/site/DocServer/ ProjectBread_BreakfastStudy. pdf?docID=1861&AddInterest=1421

Study/InitiativeNNutrition ChangesStudy DesignArizona Healthy School Environment Model Policy Implementation Pilot4 Elementary schools 2 Middle schoolsVaried by school: replaced soda with water and juice, increased offerings of fresh fruits and vegetables, limit fats, portion sizes.Financial data was collected for 2-3 months prior to policy implementation and was collected for 4 and was collected for 4 months following policy implementation. The financial form was completed months following policy implementation.California Linking Education Activity and Food (LEAF) Program5 High schools 11 Middle schoolsLimit fats, sugars, portion sizes. Healthy fundraisers.Collected monthly food and 2003-2004 school years (September-June). Compared totals for year 1 (Sep 02-Jun 03) versus years (September-June). Compared totals for year 1 (Sep 02-Jun 03) versus year (Sep 03-Jun 04), representing a continuum of increasing adherence (not pre and post implementation).Connecticut Healthy Snack Pilot5 Intervention schools 3 Control schoolsLimit fats, sugars, portion sizes. norease offerings of whole grains, fruits, and vegetables.Data collected monthly for one year post implementation. <th>Summary of Relevant</th> <th>Studies Document</th> <th>ing Intervention Ef</th> <th>fects on School Revenue*</th>	Summary of Relevant	Studies Document	ing Intervention Ef	fects on School Revenue*
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Education Activity and Food (LEAF) Program11 Middle schoolsportion sizes. Increase offerings of fruits and vegetables as snacks. Healthy fundraisers. Healthy fundraisers. Healthy fundraisers. Healthy fundraisers. Year 2 (Sep 03–Jun 04), representing a continuum of increasing adherence (not pre and post implementation).and beverage sales and expenditures at each school for the 2002–2003 and 2003–2004 school years (September–June). Compared totals for year 1 (Sep 02–Jun 03) versus year 2 (Sep 03–Jun 04), representing a continuum of increasing adherence (not pre and post implementation).Connecticut Healthy Snack Pilot5 Intervention schools 3 Control schoolsLimit fats, sugars, portion sizes. Increase offerings of whole grains, fruits, and vegetables.Data collected monthly for one year post implementation.Wojcicki and Heyman (2006)1 Pilot school in San Francisco (859 students in grades 6–8); expanded to 40 middle/high schools in San Francisco Unified School DistrictLimit fats, sugars, portion sizes.Retrospectively compared school revenue and lunch participation data from the 2002–2003 school year (pre-implementation) vs. 2003–2004 school year (pre-implementation) vs. 2003–2004 school year (pre-implementation) for both the pilot middle school	Environment Model Policy	2 Middle schools	replaced soda with water and juice, increased offerings of fresh fruits and vegetables, limit fats, no foods of minimal	for 2–3 months prior to policy implementation and was collected for 4 months following policy implementation. The financial form was completed
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(2006)San Francisco (859 students in grades 6-8); expanded to 40 middle/high schools in San Francisco Unified School Districtportion sizes.school revenue and lunch participation data from the 2002–2003 school year (pre-implementation) vs. 2003–2004 school year (post implementation) for both the pilot middle school	-		portion sizes. Increase offerings of whole grains, fruits,	one year prior to changes and for one year post
		San Francisco (859 students in grades 6–8); expanded to 40 middle/high schools in San Francisco	portion sizes. Increase offerings of fruits and vegetables	school revenue and lunch participation data from the 2002–2003 school year (pre-implementation) vs. 2003–2004 school year (post implementation) for both the pilot middle school

*Provided by Harvard School of Public Health

Impact on Competitive Food Revenues	Impact on School Meal Participation and/or Revenues	Net Financial Profit/Loss
The 7 schools that offered foods via vending, à la carte or school stores showed no negative financial impacts after making healthy changes to their food selections.	Not reported.	No changes in overall revenue.
 8 of 14 sites eliminated à la carte food offerings (therefore decreasing à la carte revenues). 6 of 14 sites offering à la carte foods experienced decreases in à la carte sales of 29%–56% (due to lower profit margins for compliant items and fewer per capita purchases). 	14 of the 16 sites had gains in lunch sales of 1% to 122%. 12 of the 15 sites with breakfast programs reported increased breakfast sales of 2%–173%.	13 out of 16 sites had increases in food service per capita gross revenues (reimbursable meals plus à la carte) from year 1 to year 2.
The 5 intervention schools experienced decreases in à la carte sales of 11.8%–31.1%. 1 of the 3 control sites also experienced decreases in à la carte sales of 10.6% (the other two experienced increases of 2.0–2.5%).	Increases in school lunch participation.	No significant changes to revenues.
2 of 39 (5.1%) schools with available data had an increase in à la carte/ snack bar sales. Schools lost an average of \$13,155 in sales.	In 2003–2004 school year, overall participation in the lunch program increased at both middle and high schools. 22 schools (55%) showed increases in sales. Schools had a mean increase in sales of \$1,706.	Pilot school generated over \$2000 in revenue.Compiled data on profits for the other 40 schools were not available.

Other Resources

Grants

Massachusetts Agriculture in the Classroom www.aginclassroom.org/ Awards_Grants/awards_ grants.html

Fuel Up to Play 60, National Dairy Council and the National Football League http://school. fueluptoplay60.com/ funds/funds_for_futp60. php

School Garden Grants, Whole Kids Foundation www.wholekidsfoundation. org/gardengrants.php

Love Your Veggies[™] program, Hidden Valley[®] Salad Dressings www.hiddenvalley. com/veggies/gardenclassroom-about

Let's Move Salad Bars to Schools Grant Program, a collaboration of the Food, Family, Farming Foundation, the National Fruit and Vegetable Alliance, United Fresh Produce Association Foundation, and Whole Foods Market to support the Let's Move! initiative to significantly increase access to salad bars in schools across the country. http://saladbars2schools. org/?source=govdelivery

Obesity

Childhood Obesity in Massachusetts: Causes and Costs of Childhood Obesity, Susan Feinman Houghton, M.A., Ph.Dc., and Michael Doonan, Ph.D., MA Health Policy Forum

F as in Fat: How Obesity Policies are Failing in America, Trust for America's Health www.healthyamericans.org

HBO's *The Weight of the Nation*, a series of videos and educational resources about the obesity epidemic in the United States. http://theweightofthe nation.hbo.com

Nutrition

Mass in Motion was launched in January 2009 by the Commonwealth to promote wellness and to prevent overweight and obesity in Massachusetts. The website provides resources

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and information for individuals on how to eat more healthfully and how to be more physically active. The website also has resources to help develop and implement policies that support healthy eating and active living in schools, within communities and in the workplace.

www.mass.gov/ massinmotion

The John C. Stalker Institute of Food and Nutrition Resource Center connects you with a variety of online child nutrition and wellness resources.

www.delicious.com/ jsireflib

Dietary Guidelines for Americans 2010 with MyPlate Resources www.health.gov/ DietaryGuidelines

School Health Guidelines to Promote Healthy Eating and Physical Activity www.cdc.gov/ healthyyouth/npao/ strategies.htm

Making It Happen! School Nutrition Success Stories, from USDA's Team Nutrition and the Centers for Disease Control and Prevention's Division of Adolescent and School Health, shares stories from 32 schools and school districts that have made innovative changes to improve the nutritional quality of all foods and beverages offered and sold on school campuses.

http://teamnutrition. usda.gov/Resources/ makingithappen.html

The Action for Healthy Kids website features information, research, reports, facts and supporting materials to help you help a school become a healthier place. www.actionforhealthykids. org/resources

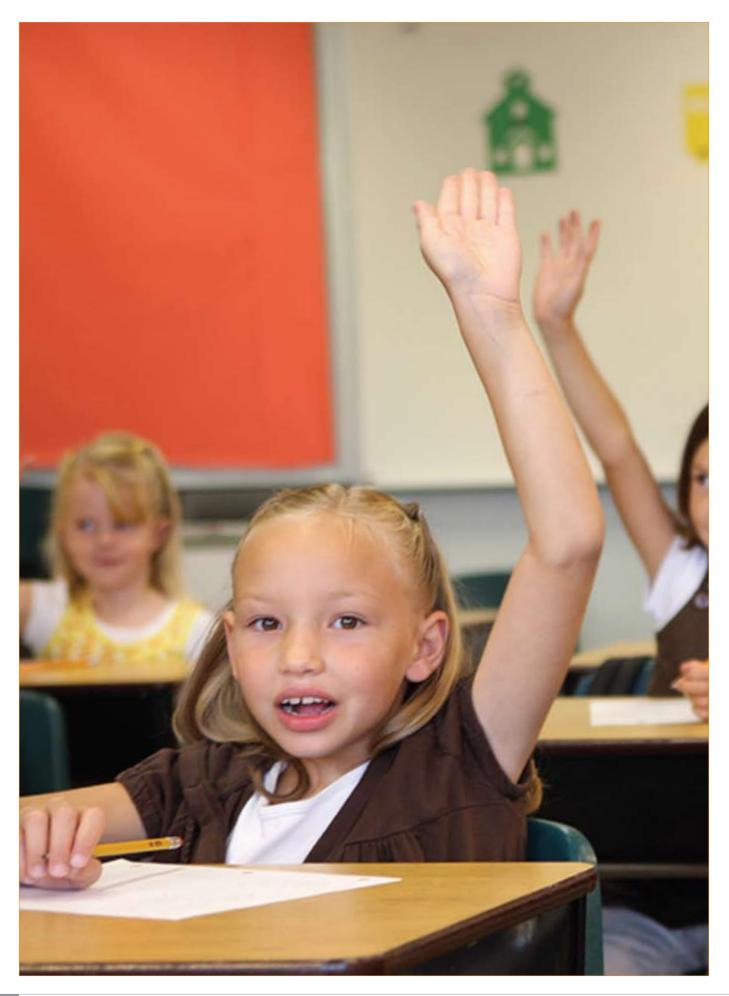
Let's Move! is a comprehensive initiative, launched by the First Lady, dedicated to "solving the problem of obesity within a generation, so that children born today will grow up healthier and able to pursue their dreams." The program combines comprehensive strategies with common sense and provides helpful information to foster environments that support healthy choices. www.letsmove.gov The Renegade Lunch Lady, Chef Ann Cooper, provides ideas, strategies, tips and recipes for schools to create healthy foods and beverages to ensure that kids everywhere have wholesome, nutritious, delicious food at school.

www.chefann.com

Fuel Up To Play 60 is an in-school nutrition and physical activity program by National Dairy Council (NDC) and National Football League, in collaboration with United States Department of Agriculture (USDA). www.newenglanddairy council.org/page/fuel-up-

to-play-60-2

OTHER RESOURCES





Q & A on the Massachusetts School Nutrition Standards

How did you determine the standards that would be used? In August of 2010 following the passage of the Massachusetts School Nutrition Bill, the Commissioner of Public Health convened a meeting of the Massachusetts Wellness Promotion Advisory Board to discuss the anticipated impact on schools from the newly passed legislation and to offer direction to the state in establishing school nutrition standards.

In October of 2010, the Massachusetts Department of Public Health (MDPH), in partnership with the Department of Elementary and Secondary Education (DESE), convened the first meeting of a new nutrition standards development work group. The group was charged to (1) research current evidence, (2) assess local, state and national practices, and (3) draft recommendations (standards) for competitive foods and beverages in Massachusetts schools to be presented to the Massachusetts Public Health Council. Under the direction of the Department's Medical Director, the core group included staff from school health and wellness programs, together with legal and administrative staff within MDPH; health and nutrition program staff from DESE; the Harvard School of Public Health; the John C. Stalker Institute of Food and Nutrition at Framingham State University; and the Boston Public Health Commission.

The work group then compared standards established in Massachusetts Executive Order 509 (requiring public health hospitals and state agencies serving meals to Massachusetts clients/ patients to implement healthy nutrition standards), and from the 2007 Institute of Medicine's (IOM) evidence-based *Nutrition Standards for Foods in School, Dietary Guidelines for Americans 2010,* Massachusetts Action for Healthy Kids, the Massachusetts Public Health Association, the Alliance for a Healthier Generation and states such as Connecticut, West Virginia and Michigan.

The final standards were based primarily upon the Institute of Medicine's *Nutrition Standards for Foods in School*. To review

	these standards and rationale for each, see www.iom.edu/ Reports/2007/Nutrition-Standards-for-Foods-in-Schools-Leading- the-Way-toward-Healthier-Youth.aspx.
	Earlier Efforts in Advocating for Statewide School Nutrition Standards
	During the year prior to the passage of the MA School Nutri- tion Bill, the Department of Public Health and Harvard Pilgrim Health Care Foundation convened an ad hoc advisory group to participate in a statewide dialogue intended to address school nutrition policy. Members of the advisory group included repre- sentatives from the Massachusetts School Nutrition Associa- tion, Massachusetts School Nurse Association, Massachusetts School Superintendents Association, the Massachusetts De- partment of Agricultural Resources, Project Bread, Massachu- setts Association of School Committees, the Massachusetts Chapter of the American Academy of Pediatrics, the Massachu- setts Academy of Family Physicians, Action for Healthy Kids, the Massachusetts Public Health Association, the Massachusetts Dietetic Association and the Friedman School of Nutrition at Tufts University.
Why don't the standards apply to the food in the federal nutrition program?	While there previously have been no standards for competitive foods, the federally reimbursable school meal program is regulat- ed by the USDA Food and Nutrition Service. For more information on school meals nutrition standards, see www.fns.usda.gov/fns.
Why don't these standards apply to preschools?	The "Act Relative to School Nutrition" does not apply to pre- schools. However, preschools are encouraged to adapt them. Preschool administrators and staff can utilize resources that are available for implementing on-site nutrition standards for child care centers, e.g., the Mass Children at Play Initiative, which uses the Head Start "I am Moving, I am Learning" curriculum and the NAP-SACC nutrition and physical activity policy develop- ment tool available for child care center directors.
	For more information see the following resources:
	MA Children at Play Initiative www.mass.gov/eohhs/docs/dph/com-health/school/mcap- provider-brochure.pdf
	I am Moving, I am Learning Curriculum (Head Start) www.choosykids.com/CK2/links/2008/10/i_am_moving_i_ am_learning_jour.html

	 Nutrition and Physical Activity Self-Assessment for Child Care (NAP SACC) www.napsacc.org Recommended Daily Meal Patterns with Description of Allowable Foods, IOM Child and Adult Care Food program www.iom.edu/~/media/Files/Report%20Files/2010/Child- and-Adult-Care-Food-Program-Aligning-Dietary-Guidance-for-All/ CACFP%202010%20Detailed%20Information.pdf Let's Move Child Care provides tools for parents and child care providers to help reach healthy nutrition and physical activity goals from infancy to preschool. www.healthykidshealthyfuture.org/welcome.html
How do the nutrition standards apply to students with special needs?	Offerings for students with special needs should comply with the new nutrition standards so long as the standards are not in con- flict with their individual education plan (IEP). A student's IEP can include accommodations for diet, which would take priority over any school nutrition standards. While in most circumstances, the new nutrition standards are appropriate for children with special needs, it is important to communicate with special education teachers and parents to ensure these students are accommodated.
Do the standards apply to before- and after- school programs?	The standards apply to competitive foods and beverages sold or provided 30 minutes before the beginning of the school day until 30 minutes after the school day ends, and foods and beverages sold in vending machines must comply with the standards at all times. Outside of this time frame, schools may choose whether to offer foods and beverages that do not meet the school nutrition standards for competitive foods. The time frame stated in the legislation establishes the <i>minimum standard</i> to be followed in applying the competitive food and beverage standards. School districts may choose to go beyond the minimum standards and establish local policies that apply the food and beverage standards at all times to promote a healthy school environment throughout the day.
Do the nutrition standards for competitive foods apply when students are not present (e.g., vending machines in teacher dining rooms or during parent/ teacher meetings)?	We recommend that adults in the school model healthy eating behaviors for students, however, the standards only apply to stu- dents. Therefore, it is up to each school or district to determine whether or not to adopt these nutrition standards for adults as well. This could be addressed in the school's wellness policy.

What kind of impact can a school expect to have on students when these nutrition standards are implemented in grades K through 12?	The greatest impact schools can have on students is to provide them with an environment where every food and beverage choice offered or sold in school is healthy. This can help students decrease their intake of "empty" calories during the school day which can have a significant impact on their ability to achieve and maintain a healthy weight. While the Department will review the overall statewide impact of the School Nutrition Bill, a school that is committed to providing healthy choices for their students and modeling healthy eating behaviors at school will go a long way to improve students' eating habits in and outside of school. Developing healthy eating habits early can last a lifetime.
How are you planning to monitor compliance and enforce the new standards?	The School Nutrition Bill is a state law and school districts must be in compliance. We encourage local oversight by school district administration and wellness committees. The responsi- bility for implementing and enforcing the standards should be a school-wide effort and includes all departments that oversee the purchase or provision of competitive foods, such as teachers, athletic directors, school nutrition services, principals, etc. Additionally, a monitoring process is currently in development in conjunction with the new USDA requirements for school meals and competitive foods.
What are the consequences if schools choose not to follow the new nutrition standards for competitive foods and beverages in public schools?	The new nutrition standards were developed as a result of the School Nutrition Law passed by the state legislature and signed into law by Governor Patrick in July of 2010. Like any other law, the expectation is that these standards will be implemented by all Massachusetts public schools. A monitoring process is currently in development in conjunction with the new USDA requirements for school meals and competitive foods, but this will not be in effect for a few years. To be most effective, the responsibility for implementing and enforcing the nutrition standards should be a school-wide effort, including parents and the local community, with everyone promoting the healthy growth and development of students. School wellness committees can play an important role in supporting the successful implementation of the standards. We encourage contacting the local board of health, PTA and other community organizations to get their support in helping schools offer nutritious foods and beverages for students.
How does this affect my current contract with suppliers?	School districts and school programs need to follow federal, state and local procurement requirements for purchasing foods, and this applies to the new nutrition standards start- ing August 1, 2012. Massachusetts General Law Chapter 30B explains purchasing requirements: www.malegislature.gov/Laws/ GeneralLaws/PartI/TitleIII/Chapter30B.

Is there technical assistance available?	Workshops and courses offered by the John C. Stalker Institute of Food and Nutrition at Framingham State University target professionals in the school nutrition environment. Visit www. johnstalkerinstitute.org for current training opportunities.
In order for these new nutrition standards to work, won't schools have to teach nutrition in the classroom?	As part of the National Healthy, Hunger-Free Kids Act of 2010, schools need to develop wellness policies which include goals for nutrition education. We recommend comprehensive health education, as well as integrating lessons on nutrition into core curricula such as language arts, math and science. School nutri- tion services can also collaborate with classroom teachers to provide nutrition related learning experiences for students.
How can parents find out what foods and beverages are served to their children at school?	Some schools post information on foods served in the cafeteria on their websites. But since all schools don't have the same resources and/or don't operate with the same formats, it's best to contact the school for specific information.
Will there be a limit on the number of competitive items students may purchase at a time?	One of the goals of the standards is to teach students about healthy portion sizes of foods and beverages. Students may pur- chase more than one package or beverage if they wish, but each package or beverage item must contain only one serving
How do these regulations address oral health issues?	Oral health practitioners note that while some foods and drinks may be considered healthy for the body, they may not be healthy for teeth. Tooth decay is the most common chronic disease of childhood and every child is susceptible. Bacteria in the mouth produce acids from sugary foods and beverages, which soften the outer surface of the tooth (enamel) and causes tooth decay. Therefore, it is important to choose foods that will not increase a child's risk for tooth decay. Foods and drinks made of simple carbohydrates, sugar and/or foods that are sticky to the touch will also stick to the teeth. Some examples of these foods are crackers and chips, as well as dried fruits, soda and other sugar- based drinks. They recommend serving foods that are not only healthy for the body, but that promote dental health as well.
What is the rationale behind the decision to limit sugar in sweetened flavored milk and milk substitutes in August 2013?	Establishing consensus regarding the standard to phase out sweetened, flavored milk was the result of a thoughtful and long- deliberated dialogue over the course of several months. Looking at the evidence available, the work group found that there are mixed study results on the short-term decrease of milk consumption when sweetened, flavored milk is removed from schools. There is one study (<i>The Impact on Student Milk Consump- tion and Nutrient Intakes from Eliminating Flavored Milk in Schools</i>)

conducted by the Milk Processor's Education Program in 2010 and a couple of small, time-limited case studies that indicated a drop in consumption of milk products when sweetened products were discontinued. On the other hand, a small number of case studies, including one school in Somerville and two in Boston, have found that there would be negligible, if any, drop in consumption. The most recent Boston study of 4 middle schools with a combined enrollment of 1,500 students showed that there was no difference between the proportion of students choosing milk as a beverage in the schools where there was only plain milk, compared to the schools where there was sweetened, flavored milk. More importantly, the researchers documented that the proportion of milk actually consumed in both settings was the same. It is important to note that in this study, students experienced the plain milk intervention for 2 years and so it is a more reasonable estimate of consumption changes over time, compared to studies that seek to assess change after only 2-3 months. Other school districts that have eliminated sweetened, flavored milk in the past year, including Washington, D.C., Minneapolis, MN, Berkley, CA and Boulder, CO, have not had any issues. The Los Angeles, CA Unified School District is planning to eliminate sweetened, flavored milk in the 2011-2012 school year.

While the Institute of Medicine and USDA allow sweetened, flavored milk to be included in their guidelines, the national Centers for Disease Control and Prevention (CDC) and the First Lady's Office (*Let's Move!* Campaign: www.healthykidshealthyfuture.org/ nutrition/beverages.html) consider sweetened, flavored milk a sugar-sweetened beverage as it has almost as much sugar as soda and, therefore, exclude it from their nutrition recommendations for schools and child care centers. The reduction and/or elimination of sugar-sweetened beverages in the diet is one of the CDC's five primary strategies to reduce the prevalence of overweight and obesity in children and adults in the United States.

"Sugar-sweetened beverages (SSBs) are the largest source of added sugar and an important contributor of calories in the U.S. diet. SSBs also tend to have few, if any, other nutrients. While the definitions used by researchers have varied, we define SSBs to include soft drinks (soda or pop), fruit drinks, sports drinks, tea and coffee drinks, energy drinks, **flavored milk or milk alternatives**, and any other beverages to which sugar, typically high fructose corn syrup or sucrose (table sugar), has been added ... Although the presence of protein and other nutrients differentiates sweetened milk and alternative milk beverages from other SSBs, **adding sugar to plain milk can substantially increase the calories per serving without increasing the overall nutrient value of the drink.**"

Centers for Disease Control and Prevention

www.cdph.ca.gov/SiteCollectionDocuments/StratstoReduce_ Sugar_Sweetened_Bevs.pdf Since we can't predict if students will or will not drink plain milk, and if milk is a key source for calcium, how will schools ensure that they will receive adequate nutrition if they're not drinking any milk at all? This was a major part of the discussion around limiting the amount of sugar in milk. As noted previously, the evidence available in the studies on the short-term decrease of milk consumption when sweetened, flavored milk was removed from schools, together with the experiences reported by the cities noted above, supported the expectation that there would be a negligible drop in consumption of milk, if at all. To help implement this standard, this requirement does not take effect until August 1, 2013, a year after the rest of the requirements. Schools can also help students become accustomed to drinking plain, low-fat or fat-free milk by gradually phasing out sweetened, flavored milk, e.g., serving sweetened, flavored milk only one to two times per week during the preceding school years.

The best way to maximize sales and consumption is to ensure milk is consistently served cold, fresh and in attractive packaging. Make sure milk is delivered directly to the school's walk-in refrigerator and stored in the coldest part – in the back, near the compressor. Also be sure to keep milk on ice or in refrigerated boxes. Another easy thing to do is sample the milk before you serve it. Any glitch in receiving or storage of milk will show up in the flavor, even if the date on the package indicates it is still all right to sell. Check out packaging options through your dairy supplier and try something new. Plastic bottles are popular with students and are recyclable as well! You can also offer other calcium-rich dairy products, such as low- and non-fat yogurt and string cheese. These simple steps can help boost sales and consumption of milk. Contact the New England Dairy Council for even more milk promotion ideas at www.newenglanddairycouncil. org. In addition, the John Stalker Institute at Framingham State University offers training programs for food service directors and staff on how to successfully market milk.

The new standard for milk under the National School Lunch Program does not prohibit sweetened, flavored milk. Does this mean brown baggers cannot buy flavored milk, but students getting the school lunch can? For school year 2012-2013, sweetened, flavored fat-free or low-fat milk sold as a competitive beverage will still be allowed as long as it contains no more than 22 grams of sugar per 8 ounces. However, for school year 2013-2014, the answer is yes. A public school may only provide or sell flavored milk or milk substitutes as a competitive beverage that contains the same amount or less sugar than plain fat-free or low-fat milk (about 12 grams of sugar per 8 ounces).

Many schools are phasing out sweetened, flavored milk entirely as it is a sugar-sweetened beverage with almost as much sugar as soda, and to prevent any confusion in the lunch line. A number of case studies, including one school in Somerville and two in Boston, have found that there would be negligible, if any, drop in consumption.

It is widely recognized that nutrition requirements of a 5-year-old and a 15-year-old are different. As it relates to beverages, why are the portion size limits for elementary and high school the same?	The Dietary Guidelines for Americans (DGA) 2010 has estab- lished the standard serving size of juice for both children and adults at 4 oz. Fruit juices should be consumed in small portions because, while they typically are a good source of vitamin C, they do not provide the fiber that fruit does and are high in sugar. As for milk, an 8 oz. portion of milk is the standard serving size for children and adults set by the DGA 2010.
Given the extent of the obesity problem, why aren't artificial sweeteners allowed?	There is little evidence on the long-term health effects of artifi- cial sweeteners, particularly from exposure initiated in childhood. Some research suggests that artificial sweeteners can increase cravings for sweet foods and lead to increased calorie consump- tion (www.ncbi.nlm.nih.gov/pmc/articles/PMC2892765 and www.hsph.harvard.edu/nutritionsource/healthy-drinks/sugary- vs-diet-drinks). Additionally, children need to enjoy the natural flavors of healthy foods that have not been artificially enhanced with a sweet taste.
Some national standards set limits on added sugar as a percent of total sugar by weight, where the total grams of sugar are compared to the total gram weight of the product. Why do you set limits on added sugar as a percent of calories instead of weight?	According to the IOM, "criterion based on weight unfairly fa- vors foods higher in moisture content at the expense of drier foods that may be rich in a variety of nutrients (e.g., cereals and granola bars). A standard based on calories, such as 35 <i>percent of calories as total sugar</i> is still a realistic calculation to do and would allow for a greater variety of products – es- pecially ones that are less moist in nature – to be provided. A measure based on total calories instead of weight is a reasonable option until analytical methods and labeling regula- tions are established to measure and label the added sugar content of foods and beverages" (www.nap.edu/openbook. php?record_id=11899&page=59).
I understand you're using the accepted FDA definition of whole grain, which does not require grain-based products to be 100% whole grain. Why don't you require 100% whole grains for all grain-based foods?	The FDA standard, which requires that the majority of the grains in products are whole grain, is consistent with federal regulations for whole grains. This requirement considers the availability of existing products, the costs of whole grain foods, as well as the texture and palatability of grain products. Schools are encour- aged to purchase 100% whole grain products when available.
Does corn meal meet the whole grain standard?	It depends on the way the cornmeal used has been processed. The standard grinding process that turns a grain (corn in this example) into a refined flour or meal removes the "germ" from the grain or kernel and takes away the outer layer, or bran, and leaves the refined, starchy "endosperm." After it is ground, it is

	"enriched" by putting some of the vitamins back into it that were lost through the grinding process. This is not considered a whole grain. However, cornmeal that has been "stone-ground" retains the outer layer and germ along with its naturally occurring vita- mins and trace minerals, and is considered a whole grain. It is also more perishable and should be kept refrigerated. So to be sure the corn meal you are using is a whole grain, look for the words "stone ground" on the product packaging. The following grains are whole grain:
	 whole grain [name of grain, such as wheat, oat, etc.] whole [name of grain, such as wheat, oat, etc.] flour stone-ground whole wheat flour, cornmeal, buckwheat, rye flour brown rice oatmeal (preferably steel-cut old-fashioned oatmeal or rolled oats rather than instant oatmeal which has been overly processed) wheat berries bulgur wheat cracked wheat crushed wheat graham flour
	 The following ingredients are not whole grains: white or wheat flour (white flour is wheat flour) all-purpose flour, unbleached or enriched flour enriched bromated flour instantized flour phosphated flour self-rising flour, enriched self-rising flour, enriched self-rising wheat flour bread flour cake flour Durum flour corn grits, hominy or hominy grits degerminated corn meal farina or semolina enriched rice rice flour
What's so bad about refined or white flour? If it's enriched, what's the difference?	The refining process takes away the bran and the germ, leav- ing only the endosperm. Without the bran and germ, about 25% of a grain's protein is lost, along with at least 17 key nutrients. Processors add back some vitamins and minerals to enrich refined grains, so refined products still contribute some nutri- ents. However, whole grains are healthier, and have more protein, more fiber and many important vitamins and trace minerals that refined products do not provide. That is why it is important that students (and adults) get most of their grains from whole-grain- rich foods. For more information about whole grains, see the

	HealthierUS School Challenge Whole Grains Resource: http:// teamnutrition.usda.gov/healthierus/HUSSCkit_pp25-35.pdf.
Why don't you address fiber in the standards?	IOM did not specifically mention a fiber requirement because of the emphasis on fruits, vegetables and whole grains, all of which contain a significant amount of fiber. Additionally, fiber is added to many products that are not made with whole grains.
How can you tell how much caffeine is in a product?	Caffeine is a natural chemical (and not a nutrient) found in such items as cacao, which is used to make chocolate. Since it occurs naturally in these products, it is not listed on their ingredients' labels. However, the amount of naturally-occurring caffeine in these items is minimal so they are allowed if the product otherwise complies with the standards. If caffeine is added to a food or beverage, it must be included in the listing of ingredients required on food product labels. These items would not be allowed as significant amounts of caffeine have the potential for adverse health effects such as physical dependency and withdrawal (http://books.nap.edu/openbook.php?record_id=11899&page=52).
Do fruit products that contain 100% fruit plus water meet the "100% fruit with no added sugar" exemption?	Yes, fruit products containing water, such as applesauce or 100% fruit juice/water mixtures, do meet the exception as long as no other ingredients are added.
Does frozen yogurt meet the "low-fat or non-fat yogurt" sugar exemption?	The Food and Drug Administration does not have a Standard of Identity for frozen yogurt. This means that frozen yogurt prod- ucts can vary greatly among manufacturers and still be labeled "frozen yogurt." In order for a frozen yogurt product to qualify for the sugar exemption for low-fat or non-fat yogurt, it would first have to meet the Standard of Identity for low-fat or non-fat yogurt. If a frozen yogurt product meets the Standard of Identity for low-fat or non-fat yogurt, it would qualify for the sugar exemp- tion, so would have to have less than 30 grams of total sugars per 8 ounces and meet other applicable nutrition standards for competitive foods such as no artificial sweeteners and not more than 200 calories per item.
	www.gpo.gov/fdsys/pkg/CFR-1999-title21-vol2/xml/CFR- 1999-title21-vol2-sec131-203.xml FDA Standard of Identity for non-fat yogurt: www.gpo.gov/fdsys/pkg/CFR-1999-title21-vol2/xml/CFR- 1999-title21-vol2-sec131-206.xml

Are frozen fruit bars with 100% fruit (no added sugar or juice) to be treated as ice cream or fruit?	Frozen bars made from fruit – that have no added sugar or artificial sweeteners – would be classified as fruit. Frozen bars made from juice must be made from 100% juice and have no added sugar or artificial sweeteners. These products would be classified as juice. John C. Stalker Institute of Food and Nutrition's resource, the "A-List", has many frozen fruit and juice products that meet the standards for these categories.
How can schools develop nutrition policies to promote a consistent message of healthy eating across the campus?	School wellness advisory committees are a great place to begin. Eating at school occurs both inside and outside of the cafeteria. Classroom lessons, classroom celebrations, birthday parties and fundraising activities happening during the school day can add additional calories to students' diets, often without their parents' knowledge. Wellness advisory committees consisting of parents, administrators, teachers, food service directors, student repre- sentatives and community members are in the best position to know the particular issues at their schools and to develop ap- propriate policies to provide a consistent message that student health is a priority. Other areas to consider include family and consumer science curricula, cultural events and field trips. See pages 31-32 for some recommendations.



Making the Case for Healthier Schools with Parents

Including and engaging parents in your implementation plan is crucial to its success. It is important that parents understand why we are putting these new standards in place and what they mean. All parents want their children to have the best chance at growing up strong and healthy. The focus should be on what the new standards will be promoting, not on what is eliminated.

On the next page is a sample letter that you can use as a template for communicating with parents. This letter can also be found on the Mass in Motion website (www.mass.gov/dph/healthierschools) and is available in Spanish and Portuguese. Feel free to modify and adapt it to the unique situation in your school. If you have already successfully implemented innovative policies or approaches, be sure to include those. Ideally, your wellness committee will provide opportunities for parents and students to learn more and to become active participants in making your school a healthier environment for learning and growing.

After the template, you will also find a one-page, parent-friendly version of the nutrition standards. You may decide that it would be helpful to include this in your communication with parents, or consider posting on your school's website.

Sample Letter: Notice to Parents and Guardians

[School Letterhead]

[Date]

Dear Parent or Guardian:

The [name of school district or region] wants to provide a healthy school environment for all students. That means offering nourishing food and drink choices that will promote students' growth and development, learning, and healthy life-long eating habits.

As part of the effort to improve children's health in Massachusetts, the State Legislature asked the Massachusetts Departments of Public Health and Elementary and Secondary Education to develop nutrition standards for our public schools. We would like to tell you about how these standards will be applied in your child's school beginning in August, 2012. The nutrition standards support our goals for student health and academic achievement by concentrating on serving nutrient-rich, minimally processed foods, such as fruits, vegetables, whole grains, lean protein and low-fat dairy products. The new standards were developed by health and education experts using the Institute of Medicine's *Nutrition Standards for Food in School and the Dietary Guidelines for Americans, 2010* and are focused on what are called "competitive" foods and drinks sold or provided in public schools during the school day. The standards do not apply to school meals programs, which follow USDA national guidelines. Competitive foods and drinks are those provided in:

- School cafeteria à la carte items (sold separately from school meals)
- Vending machines
- School stores and snack bars

The standards apply to items sold or provided from 30 minutes before the beginning of the school day until 30 minutes after the school day ends. However, foods and drinks sold in vending machines must meet the standards at all times. Attached please find an "at-a-glance" summary of the standards.

We invite you to join us in working with other parents, teachers, nutrition services, school staff and the community through our [insert name of School Wellness Advisory Committee] to put the new standards in place in our schools. We welcome your ideas and support in creating a healthier school environment for our students. Some of the activities you might consider becoming involved in include [insert school wellness activities]

Please feel free to call us at [insert phone number] with any questions and ideas you may have. More information about children's wellness and nutrition is available at www.mass.gov/massinmotion.

Sincerely,

[School Principal]

Massachus	Massachusetts Competitive Foods and Beverages Nutrition Standards "At-a-Glance"	verages Nutrit	ion Standards "At-a-Glance"
Category	Standards	Category	Standards
Juice	100% fruit and vegetable juice, with no added sugar.	Saturated Fat	Foods should have 10% or less of their total calories from saturated fat.
Juice – Portion Size	4-ounce servings or less.	Trans Fat	All foods should be trans fat-free.
Milk*	Low-fat (1% or less) and fat-free milk.	Fat Exemptions	1-ounce servings of nuts, nut butters, seeds, and reduced-fat cheese are exempt from the fat standards.
Milk – Portion Size*	8-ounce servings or less.	Sugar	Foods should have 35% or less of their total calories from sugar.
Milk – Added Sugar*	Flavored milk with no more than 22 grams total sugar per 8 ounces.	Sugar Exemptions	100% fruit with no added sugar, and low-fat or non- fat yogurt (including drinkable yogurt) with no more than 30 grams of sugar per 8-ounce serving, are exempt from the sugar standard.
Water	May contain natural flavorings and/or carbonation.	Sodium	Foods should have 200mg sodium or less per item.
	Should not contain added sugars, sweeteners or artificial sweeteners.		À la carte entrées should have a maximum of 480 mg of sodium per item.
Beverages with Added Sugar or Sweeteners	Any beverages with added sugar or sweeteners not already addressed will be phased out by August 1 , 2013 . Flavored milk or milk substitutes that have the same amount or less sugar than plain, fat-free or low-fat milk are allowed.	Grains	All breads or grain-based products should be whole grain (whole grain should be listed first in the ingredient statement). These include crackers, granola bars, chips, bakery items, pasta, rice, etc.
Other Beverages (Soda, sports drinks, teas, waters, etc.)	Only juice, milk, milk substitutes and water should be sold or provided.	Caffeine	Trace amounts of naturally occurring caffeine (such as that found in chocolate) are allowed as long as the item complies with the rest of the nutrition standards.
Calories	Foods should be 200 calories or less per item.	Artificial Sweeteners	Artificial sweeteners are not permitted.
	A la carte entrées should not exceed the calorie count of entrée items of the equivalent portion size offered as a part of the National School Lunch Program.		
Fat	Foods should have 35% or less of their total calories from fat.	*(Including alternative m	*(Including alternative milk beverages such as lactose-free and soy)



