Farm to School Research: Summary of Resources

Nutritional Trends

By 2030, 86.3 percent of American adults will be overweight or obese, and 51.1 percent obese. The prevalence of overweight in children will nearly double by 2030. By 2048, all American adults will become overweight or obese. Total health-care costs attributable to obesity/ overweight will double every decade, accounting for 16–18% of total US health-care costs (Wang et. al., 2008).

This prediction, published by the research journal *Obesity* (2008), is only a projection of what could happen if current trends continue, but the authors, Wang et. al., believe that in order to avoid such a reality we have to act now. "Timely, dramatic, and effective development and implementation of corrective programs/ policies are needed to avoid the otherwise inevitable health and societal consequences implied by our projections" (Wang et. al., 2008). We have reached a tipping point.

Perhaps the most disturbing trend in the obesity epidemic is the prevalence of childhood overweight. In the last 30 years, the prevalence of overweight in adolescents 6-19 years old has more than doubled (See Appendix A), and currently one in five US children are overweight (The Obesity Society).

Childhood overweight is regarded as the most common prevalent nutritional disorder of US children and adolescents and one of the most common conditions treated by pediatricians (The Obesity Society, 2008). The Center for Disease Control and Prevention (CDC) estimates that one in three US children born in 2000 will eventually

suffer from diabetes, and the Surgeon General has identified the obesity epidemic as one of the greatest health problems facing the country today (Wechsler et al., 2004).

Both the short and long term effects of childhood overweight are concerning because of the associated negative psychological and health consequences including: Depression and a risk for eating disorders, type 2 diabetes, hypertension, sleep apnea, early puberty, and orthopedic problems. In addition, obese children are more likely to be obese as adults, increasing their risk for a number of diseases such as stroke, cardiovascular disease, diabetes, and some cancers (The Obesity Society, 2008).

(See Appendix B for Montana students' health and nutrition profiles compared to the national average).

Not only does poor nutrition impact physical and psychological health, but as noted by the National Association of State Boards of Education, there also exists a link between proper nutrition and academic performance: "Health and success in school are interrelated. Schools cannot achieve their primary mission of education if students and staff are not healthy and fit physically, mentally, and socially" (Wechsler et al., 2004). Perhaps the most significant factor in childhood overweight is diet.

Recent USDA data has found that 80 percent of high school students do not eat fruits and vegetables 5 or more times per day. At the same time, 67 percent of U.S. youth aged 6-19 exceed the Dietary Guideline's recommendations for fat intake, and 72 percent exceed recommendations for saturated fat intake (CDC, 2008). (See Appendix C for more statistics from the CDC illustrating adolescent eating patterns).

The Center for Nutrition Policy and Promotion (CNPP, 2004) published a report titled "Nutrient Content of the US Food Supply." Using data from the USDA, the report

documents the occurrence and abundance of protein, carbohydrates, fat (total, saturated, monounsaturated and polyunsaturated), cholesterol, dietary fiber, as well as 10 vitamins and 9 minerals consumed in the US on a daily, per capita basis from 1909 to 2004. It is the only report of its kind with data from as early as 1909, and provides a useful tool for examining the relationship between health and consumption over time.

Three major changes between 1909 and 2004 stand out. Not surprisingly, the data shows a decrease in vegetables and non-citrus fruit consumption (citrus fruit consumption increased markedly over this time). What is perhaps less predictable are the trends in both the carbohydrate and fats groups (See Appendix D).

The carbohydrates group is comprised of grain products, fruits, vegetables, sugars and sweeteners. While the amount of carbohydrates consumed in the form of fruit and vegetables has not changed since the 1909-19 decade, grains now make up 40 percent of total carbohydrate consumption where they used to contribute 55 percent. The data also shows a significant increase in the consumption of sweeteners from 23 percent in 1909 to 37 percent in 2004 (CNPP, 2004). From this data, it seems we have exchanged grains for sweeteners.

UNC scientist Dr. Barry Popkin reports to *Science Daily* (2003) on the findings of his recent study: “US data showed an 83 calorie-per-day increase (between 1977 and 1996) in caloric sweeteners consumed, a 22 percent jump in the proportion of energy people got from these sweeteners." What is more, "Calorically sweetened beverages (fruit juices and soda) account for 66 calories out of the total per capita caloric increase of 83 calories over this period, or close to 80 percent of the increase in caloric intake from these sweeteners."

"This study," Popkin told *Science Daily* (2003), "clearly documents for this country that the increase in added sugar intake between 1977 and 1996 is caused mainly by soft drinks and fruit drinks." These findings would not come as a surprise to many researchers who have been pointing a finger at the unhealthy affects of consuming too much soda for some time.

According to the CDC, 85 percent of adolescent females do not consume enough calcium (CDC, 2008). The CDC attributes this deficiency to consumption of soft drinks. According to their data, "during the last 25 years, consumption of milk, the largest source of calcium, has decreased 36 percent among adolescent females" (CDC 2008). While at the same time, "From 1978 to 1998, average daily soft drink consumption almost doubled among adolescent females, increasing from 6 ounces to 11 ounces, and almost tripled among adolescent males, from 7 ounces to 19 ounces" (CDC, 2008).

The trend occurring in the fats category is no less indicative of the modern American diet. Although Americans were consuming half the amount of red meat in 2004 as they were in the early years of this study, total fat intake increased 49 percent (CNPP, 2004). Consumption of butter and lard also decreased significantly during this time. This data would seem contradictory except for the fact that during the course of this study consumption of fats in the form of mono- and polyunsaturated oil—oils commonly used in processed foods, and what the report ironically calls "salad" oils— increased enough to not only offset the decreased consumption of animal products in American diets, but increase overall fat intake to its current record high (See Appendix D).

In the last 15 years, consumption of monounsaturated fats—fats from olive, sunflower and canola oil—has increased from 47 grams to 79 grams per capita per day

(CNPP 2004). In 1909 consumption of polyunsaturated (soybean and corn oils) and monounsaturated oils totaled only 2 percent of total fat consumption, but steadily increased to 28 percent in 2004 (See Appendix D).

Michael Pollen, author of the new book, In Defense of Food: An Eaters Manifesto (2008), poses a theory that is especially interesting in light of the CNPP's data and current obesity trends. He contends that the problem with the American diet is an overconsumption of seed oils. Nearly all we eat contains seed oils, from the soybean and canola oil in processed foods to the corn-fed steak on our dinner plates. According to Pollen, this near-exclusive consumption of seeds has set the American diet cascading out of balance.

Is it a coincidence that obesity has reached unprecedented levels at the same time that Americans are consuming less red meat and more plant-based oils and sweeteners than ever before? Is the obesity epidemic due to an overconsumption of processed foods and sugar—or a lack of fresh fruits and vegetables in the American diet?

It is neither possible nor practical to try and pinpoint exactly what is causing the obesity epidemic. Most likely it is due to a combination of factors that can be generally summarized by the replacement of whole foods with processed food products, and mostly sedentary lifestyles. But one thing we do know is that the eating habits displayed in adulthood are most often established in childhood.

One response to the rising rates of obesity has been a push for healthier school meal programs. After all, over 95 percent of young people are enrolled in schools (Wechsler et al., 2004), eight hours a day, five days a week for nine months out of the year. While this way of thinking may make schools an easy culprit—what are children

being fed at school?—it more importantly points to the potential role schools could play in creating a solution.

Farm to School—sourcing foods served in schools from local farms—is one approach to improving nutrition in schools. Parents and schools choose this method because it addresses not only the issues at the heart of childhood overweight—how we are taught to conceive of food and nutrition in this culture—but also works to develop the vitality of local economies, and preserve open space and culture.

Farm to School

Farm to School programs now exist in 9% of US schools. Though commonly associated with California and Vermont, Farm to School exists all but six states. For many schools, Farm to School programs are a piece of a greater agenda that includes improving student nutrition and the local economy.

Because it has been found in several studies that children are more receptive to trying new foods when menu changes are accompanied with education (VT FEED, 2008), education is an integral piece of most Farm to School projects. Some projects also provide environmental and place-based education. The breadth of these projects, and the amount of time dedicated to education, depends on the individual schools' level of interest and willingness to become involved.

Some Farm to School programs work to integrate agricultural education into all classroom curriculums. For some schools, food/ nutrition education happens outside the regular curriculum. Special time is set aside for educators to come to the classroom and talk to students. For other schools, education happens outside the classroom, with

students going on farm-based fieldtrips, like visiting a local truck farmer or dairy producer. Other Farm to School projects include school gardens; some perform in-class taste tests or involve students in preparing and cooking meals. Many schools use some combination of teaching methods.

The ten Vermont schools involved with Vermont Food Education Everyday (VT FEED) partake in a wide range of activities, including the creation of school gardens, farm-based field trips, student taste tests, community-led food/ nutrition committees, nutrition and agriculture-education in the classroom, and purchasing local foods for the cafeteria (VT FEED, 2008).

VT FEED also uses the Food is Elementary (FIE) curriculum in schools to increase meal participation and acceptance of new foods in school meals. FIE uses cooking lessons to integrate food, nutrition, culture and healthy living education into classroom learning. By involving students in cooking and preparing meals, FIE draws on children's natural capacity for retaining knowledge through sensory based, hands-on experiences.

FIE has been successfully used in 450 schools around the country (Food Studies Institute, 2008). Research-based studies have been conducted on FIE's effectiveness. What follows is a brief summary of some of the results:

- After sensory experience in the classroom with 16 new nutritious commodity-based foods, the intervention students ate significantly greater amounts of these foods when served in the lunchroom. This was up to 20 times more than the control students, who rarely touched the new food over the course of the year.
- Each classroom evaluated showed children changing their favorite foods from

unhealthy to healthy options, with a total of 64 nutritious foods being added.

- 100% of students in the intervention group improved in their knowledge of food, nutrition, and multiculturalism during the year.
- Out of 120 parents responding to the survey, 81% reported positive changes in their child's eating behavior (VT FEED, 2008).

The ways of increasing student participation in school meals are as diverse as the programs that provide them. (See Appendix E for more examples and resources). Some examples of education and activities can also be found in healthier-school-meal programs that do not follow the Farm to School model.

FoodTrusts' School Nutrition Policy Initiative was implemented in urban Philadelphia public schools with a high proportion of children eligible for free and reduced meals (FoodTrust, 2008). The study included children grades 4 through 6. Based on the national center for education statistics guidelines, each student was required to receive 50 hours of nutrition education per year. Nutrition topics were integrated into various classroom subjects. Food labels, for example, were used to practice fractions, and nutrition topics were used for writing assignments (FoodTrust, 2008).

Students who bought healthy snacks and beverages or brought them from home were rewarded with raffle tickets. Winners received bicycles, jump ropes and calculators. To further encourage students, the campaign used the student-developed message "Want strength?...Eat healthy foods" paired with a character (also developed by students). One school also chose to have a weekly breakfast club with female athletes from a local university (FoodTrust, 2008).

Student buy-in is important, but these programs would not be successful without

staff training and parent support.

Professional Development, and Parent Outreach

Unless schools are hiring trained professionals to teach food and nutrition education in their schools, professional development for staff is a must. FIE offers a three-day course for teachers wanting to integrate the curriculum in their classrooms. Teachers participating in FoodTrusts' Policy Initiative were offered 10 hours/ year in nutrition education and received curricula and materials like "planet health" and "know your body" as well as packets designed to integrate classroom lessons, cafeteria promotions and parent outreach.

In many cases, when the Food Service is expected to make changes in the foods they serve, such as moving away from processed to whole foods, food service workers also need to receive training.

In some schools, food service staff and school administration see changing menus and adding new programs as an added burden to already overloaded budgets and schedules. Getting staff onboard can be as difficult as convincing students to prefer carrot sticks over Poptarts. Having a nutrition advisory group and nutrition policy in place can help teachers, food service staff and school administration create a shared vision and plan for the kind of atmosphere they want to create in their school.

The FoodTrust schools formed a nutrition advisory group of administration, teachers, nurses, coaches, and parents to 1) assess the current school environments using the CDC's school health index, and; 2) develop action plans to address issue areas identified in the assessment. Each school created its own advisory group.

A nutrition policy is a comprehensive plan that spells out a school's plan for encouraging healthier eating habits in students. A nutrition policy can be created for one school or an entire district. The schools using the FoodTrust model designed a policy that mandated all foods sold and served were to meet the nutritional standards set by the Dietary Guidelines for Americans and converted from the percentage of calories to grams per serving which is in alignment with information shown on nutrition labels.

A nutrition policy is a flexible document that reflects the unique vision and needs of individual schools or districts. The Berkeley Unified School District's Nutrition Policy is an often-cited example for many Farm to School programs. (Appendix F). Berkeley's Policy also includes the guidelines their district used for setting up advisory committees.

Because parents are not strapped with the same pressures as public schools, gaining their support is not usually as difficult a task, although sometimes convincing parents that there is a problem with the way children are being fed can be. Finding a way to reach parents with this information is an important step towards creating long-term change in children's eating habits.

In Philadelphia's FoodTrust schools, families were reached through home and school association meetings, report card nights, parent education meetings, and weekly nutrition workshops. Students participated in the "2-1-5 Challenge" to be less sedentary (less than 2 hours/ day T.V. watching, 1 hour or more physical activity, and 5 or more fruits and veggies per day) (FoodTrust, 2008).

FIE data showed that parents became informed through the "trickle up" effect. 35 percent of the parents from the intervention group reported positive changes in *family* eating behaviors. These improvements were based upon what the participating students

taught the family (VT FEED, 2008).

Improving student health is the central tenant of both FoodTrust and Farm to School, but there are fundamental differences in the way each program goes about attaining this goal. FoodTrust addresses overweight in urban schools by teaching students to count calories. VT FEED works to "promote healthier children and a healthier Vermont food system" by teaching students to value culture and their connection to food and the land that it grows on.

Both FoodTrust and VT FEED offer useful tools for encouraging students to make healthier choices and for creating healthier atmospheres at school. It may not be possible to comparatively analyze the effectiveness of the methods used because these programs vary so much in mission and structure, but the more integrative approach to education used by VT FEED and other Farm to School organizations seems in many ways more effective.

Although the FoodTrust study found that "Significantly fewer children in the intervention schools (7.5 percent) than in the control schools (14.9 percent) became overweight after 2 years," (a 50 percent reduction in overweight) the study concludes that "the 7.5 percent increase over 2 years suggests that stronger or additional interventions are needed" (FoodTrust, 2008).

Exactly what these 'stronger or additional interventions' are is not known, but it is possible to surmise that students in the FoodTrust schools may have benefited from a more integrative approach to education. Learning by preparing meals from whole foods as well as farm or garden-based learning teaches children to perceive food, not as the numbers of grams on a label, but as it comes from the ground. When a child's perception

of what food is changes—when a child learns to appreciate whole foods rather than food product—then you have a child who is going to make lifelong healthy eating choices.

Challenges

By far the greatest challenge for Farm to School programs is cost. While some locally produced foods are cheaper (or more efficient) than their non-local counterparts, a vast majority are more expensive. Already operating under limited budgets, it is difficult for schools to find the resources for improving nutrition and adding to curriculum. It is, after all, as Wechsler recognizes (2004), this very lack of funds that leads to "pressures to sell high-fat, or high-sugar foods and beverages to raise money for basic school functions" in the first place.

But while cost is an issue for most institutions, it should not be thought of as prohibitive. The first Farm to School program in Montana was started in Missoula County Public Schools (MCPS) in 2005. Also, the University of Montana runs a Farm to Cafeteria program. MCPS sources 26.7 percent of its food locally (dairy purchases represent 23 percent of this number), and UM sources 20 percent (mostly beef).

So far, both UM and MCPS report that buying locally has not caused their food costs to go up. Food costs have not gone up because both schools only purchase local food that either 1) does not cost more than the products they already purchase or, 2) costs more but is more efficient because of its higher quality. UM, for example, buys local beef, which is leaner and does not cook down as much as cheaper, commodity beef. The University also buys Montola cooking oil, which costs more but stretches further than the oil they used to purchase from Sysco.

The greatest challenge for UM and MCPS, is going to be expanding their programs to include more fruits and vegetables. Procuring these foods is difficult for at least three reasons: distribution, supply and processing. It seems hopeful that the problem of distribution will work itself out in the form of distribution networks, or piggybacking on FSA/ Sysco deliveries. Perhaps the greatest challenges Farm to School in Montana faces are processing and supply.

Currently, the Mission Market in Ronan is the only large-scale processing facility in Montana. They do not have vegetable processing capacity and do not seem to be in the market of acquiring the machinery it would require. Both Missoula and Bozeman school districts rely on a central kitchen to prepare the meals for the entire district. Neither Missoula nor Bozeman's central kitchen is capable of processing whole foods. Vegetables are purchased pre-cut and frozen, hamburger patties are ordered pre-cooked.

On one hand, having a central kitchen can be seen as an opportunity as redesigning one kitchen to process whole foods can enable an entire district to eat fresh and whole foods. But because the central kitchen deals in such large quantities of food, it is hard to find a producer, or even a cooperative of producers, who can consistently supply what is needed. In addition, if the central kitchen were to find the resources to redesign the kitchen, they would still be severely understaffed for preparing meals from scratch.

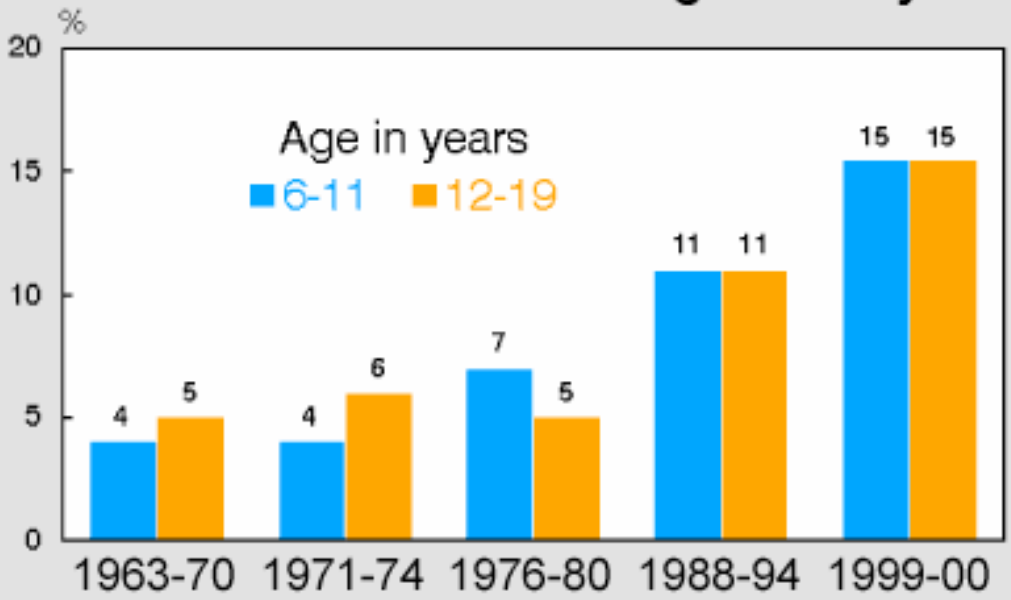
The lack of processing infrastructure and supply does not only affect large school districts. Even smaller kitchens would need to acquire more staff to process whole foods, and it is likely that even smaller kitchens would run into supply issues. Farm to School is a new market in Montana, which many farmers are not aware of. Most small-scale

farmers sell their produce at farmer's markets or as CSA's. More farmers growing specifically for institutions are needed in order to increase supply in Montana. Developing processing capacity in the state, whether that means redesigning school kitchens or investing in a processing facility, is also a priority.

But despite the barriers, awareness is growing. People are starting to find out that buying locally produced foods is not just for the elite, or Vermont or California, but a means towards creating healthier communities that can work in any state. "Often," John Ryan of VT FEED (2008) writes, "the first and biggest challenge is to make Farm2School initiatives important enough and achievable enough to get folks started. Respondents (of an interview conducted by VT FEED) talk about the need to provide achievable first steps, support incremental improvements, foster an atmosphere of appreciation, and communicate outcomes and impacts effectively."

Appendix A

Figure 1. Prevalence of overweight among children and adolescents ages 6-19 years



NOTES: Excludes pregnant women starting with 1971-74. Pregnancy status not available for 1963-65 and 1966-70. Data for 1963-65 are for children 6-11 years of age; data for 1966-70 are for adolescents 12-17 years of age, not 12-19 years.
SOURCE: CDC/NCHS, NHES and NHANES.

Appendix B

To view the Montana student health profile compared to other states and the national average, go to:
http://actionforhealthykids.org/state_profile.php?state=MT

Appendix C

- The prevalence of overweight among children aged 6-11 years has more than doubled in the past 20 years and among adolescents aged 12-19 has more than tripled.[7,8]
- Less than 40% of children and adolescents in the United States meet the U.S. dietary guidelines for saturated fat.[11]
- Only 39% of children ages 2-17 meet the USDA's dietary recommendation for fiber (found primarily in dried beans and peas, fruits, vegetables, and whole grains).[13]
- A large number of high school students use unhealthy methods to lose or maintain weight. A nationwide survey found that during the 30 days preceding the survey, 12.3% of students went without eating for 24 hours or more; 4.5% had vomited or taken laxatives in order to lose weight; and 6.3% had taken diet pills, powders, or liquids without a doctor's advice.[12]
- Overweight children and adolescents are more likely to become overweight or obese adults;[9] one study showed that children who became obese by age 8 were more severely obese as adults.[10]
- Research suggests that not having breakfast can affect children's intellectual performance.[16]
- The percentage of young people who eat breakfast decreases with age; while 92% of children ages 6–11 eat breakfast, only 77% of adolescents ages 12–19 eat breakfast.[11]
- Hunger and food insufficiency in children are associated with poor behavioral and academic functioning.[17,18]

Appendix D

To view charts from the CNPP's "Report on the Nutrient Content of the US Food Supply," go to: http://www.cnpp.usda.gov/publications/foodsupply/FoodSupply1909-2004Report.pdf (page 2o).

Appendix E

1. A How-To Guide for buying and serving local foods in schools—Very useful.
http://www.vtfeed.org/tools-resources/pdfs-tool/Farm2SchoolPrimer.pdf

2. VT FEED's form for students to use during in-class taste tests:
http://www.vtfeed.org/tools-resources/pdfs-tool/TasteTestGuide2005.pdf

3. School gardens clearinghouse: CSGN.org

4. Center for Ecoliteracy's new book: Big Ideas

5. Action for Healthy Kids' Healthy Foods Challenge (Game on!):
http://www.actionforhealthykids.org/gotuwc/index.php?page=program-at-a-glance

6. FoodTrust's How-To Guide for involving parent as health advocates:
http://www.actionforhealthykids.org/communitypartner/parent%20advocacy%20toolkit_complete.pdf

Other F2S projects:

KENTUCKY

The school districts around the state make their produce orders in May. The Department of Agriculture inspects and approves of contracted distributors before they become involved in the program. The produce is shipped from contracted distributors to other distribution sites (5 in Kentucky, one in Tennessee, and one in Ohio) where the food is shipped to the schools once a week. For the school districts with a central kitchen, the food service directors at each school place orders to their local distributor in addition to the food received by the central kitchen. The central kitchen places a produce request once a month for a bid. The bids are given to the local school food service directors who chose items from the bid list. (**www.foodsecurity.org/f2s_case_kentucky.pdf**)

NORTH CAROLINA

The Farm-to-School Program in North Carolina is a collective effort between the Food Distribution Divisions of the North Carolina Department of Agriculture and Consumer Affairs, the Department of Defense, and the Markets Division. The quantity of food the school district requires is assessed by the Food Distributions Division, which reports this amount to the Department of Defense. The Dept. of Defense coordinates with the Markets Division to purchase the produce from local farmers. Once the food is procured, the Food Distribution Division delivers it to the schools or the schools central kitchen on Mondays. The finances are handled by the Dept. of Defense which bills the schools and

distributes the payment to the farmers. (**www.farmtoschool.org/nc/**)

OTHER

"Farmers selling direct to schools should have substantial liability coverage. However, when a farmer provides food to schools through a commercial food distributor (who likely has a $5 million dollar policy), the distributor's coverage is in effect. It is not advisable for farmers to sell directly to schools without having liability insurance… Similarly, distributors that strive to carry local food…indicated that distributing fresh food to schools is barely profitable for them because of the small average size of the orders and the amount of travel time required. Sales to larger schools and/or districts have more profit potential"(Grubinger 5).

Appendix F

Berkeley Unified School District's Food Policy

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Responsibilities

The Board of Education recognizes the important connection between a healthy diet and a student's ability to learn effectively and achieve high standards in school. The Board also recognizes the school's role, as part of the larger community, to promote family health, sustainable agriculture and environmental restoration.

The Board of Education recognizes that the sharing of food is a fundamental experience for all peoples; a primary way to nurture and celebrate our cultural diversity; and an excellent bridge for building friendships, and inter-generational bonds.

Mission

The educational mission is to improve the health of the entire community by teaching

students and families ways to establish and maintain life-long healthy eating habits. The mission shall be accomplished through nutrition education, garden experiences, the food served in schools, and core academic content in the classroom.

Goals

Ensure that no student in Berkeley is hungry.

Ensure that a healthy and nutritious breakfast, lunch and after school snack is available to every student at every school so that students are prepared to learn to their fullest potential.

Eliminate the reduced-price category for school lunch, breakfast and snacks, so that all low-income children have healthy food available at no cost.

Ensure that all qualified children become eligible for free meals by frequently checking with Alameda County Social Services.

Ensure maximum participation in the school meal program by developing a coordinated, comprehensive outreach and promotion plan for the school meal programs.

Shift from food-based menu planning to nutrient-based planning (as set forth under USDA guidelines) to allow for more flexible food selection.

Ensure that the nutritional value of the food served significantly improves upon USDA Dietary Guidelines by providing nutritious, fresh, tasty, locally grown food that reflects Berkeley's cultural diversity.

Ensure that the food served shall be organic to the maximum extent possible, as

defined by the California Certified Organic Farmers.

Eliminate potential harmful food additives and processes, such as bovine growth hormones, irradiation, and genetically modified foods.

Serve meals in a pleasant environment with sufficient time for eating, while fostering good manners and respect for fellow students.

Maximize the reduction of waste by recycling, reusing, composting and purchasing recycled products. Each school site shall have a recycling program.

Ensure that a full service kitchen will be installed at school sites where public bond money is expended to repair or remodel a school.

Strategies

A. Integration into the Curriculum

Integrate eating experiences, gardens, and nutrition education into the curriculum for math, science, social studies and language arts at all grade levels.

Establish a school garden in every school. Give students the opportunity to plant, harvest, prepare, cook and eat food they have grown.

Establish relationships with local farms. Encourage farmers and farm workers to come to the school classroom and arrange for students to visit farms.

B. Student Participation

Solicit student preferences in planning menus and snacks through annual focus groups,

surveys, and taste tests of new foods and recipes.

Ensure that 5 students are represented on the Child Nutrition Advisory Committee.

C. Waste Reduction

Ensure that cafeterias are part of the environmental education of students and staff through reducing waste, composting, recycling and purchasing recycled material.

D. Sustainable Agriculture

Purchase food from school gardens and local farmers as a first priority, based on availability and acceptability. Child Nutrition Services will coordinate its menus with school garden production and provide to garden coordinators a list of the produce it wishes to purchase.

Work with the Alameda County Cooperative Bid (13 school districts) to increase the amount of products purchased from local farms and organic food suppliers.

E. Nutrition Education and Professional Development

Provide regular professional development to enable the Food Services Staff to become full partners in providing excellent food for our students.

Provide regular training, at least annually, to teachers and the Food Service Staff on basic nutrition, nutrition education, and benefits of organic and sustainable agriculture.

Provide Child Nutrition Services with USDA approved computer software, training and support to implement nutrient-based menu planning.

F. Business Plan

The Board of Education shall do a comprehensive cost/benefit analysis and business plan. The plan shall include an examination of different development models of increased fresh food preparation at the central and satellite kitchens.

G. Public Information

Each year in March, Child Nutrition Services shall prepare The Director's Annual Report for the Board of Education, which will include: a) Description of the level of service for each site and level of participation; b) Profit and Loss Statement for the past fiscal year; c) Outreach and Promotion Marketing Plan (with assistance from Advisory Committee) d) Budget for the future year; e) Report on the progress in meeting the food policy goals ; f) Nutritional quality of the food being served; g) Inventory of equipment; h) Budget for maintenance and replacement equipment; i) Accounting of Child Nutrition Services' financial reserve and a budget allocating the reserve.

The Berkeley Unified School District's Food Policy, Director's Annual Report, Monthly Menus and food policy information shall be available at District Office and on the Board of Education's Web site.

A summary of the Director's Annual Report shall be distributed as part of the April and May menus.

H. Public Policy

Advocate for label disclosure: a) Request State and Federal representatives support legislation that will clearly label food products that have been irradiated,

genetically modified or have been exposed to bovine growth hormones. b) Send a Board of Education resolution requesting support for labeling legislation to: 1. Every School Board in the State of California. 2. The State School Boards Association. 3. The Nation School Boards Association.

I. Establishment of a Child Nutrition Advisory Committee

Child Nutrition Advisory Committee shall be established to discuss food-related topics of concern to the school community and help make policy recommendations to the Board of Education.

The 24 Member Child Nutrition Advisory Committee shall be as follows: □□

a) 10 Community/Parent representatives appointed by the Board of Education; b) The Superintendent; c) The Director of Child Nutrition Services; d) 3 Classified employees appointed by their employee organization; e) 3 Teachers (elementary, middle and high school) appointed by their employee organization; f) 1 Principal appointed by their employee organization; g) 5 Students (3 middle school and 2 high school) appointed by student government.

The Advisory Committee shall meet at least six times a year at hours convenient for public participation.

The Duties and Responsibilities shall be as follows: a) Present to the Board of Education an Annual Report in April of each year on the status of meeting the food policy goals. The report shall contain: 1. Review and comment on the Director's Annual Report, Profit and Loss Statement, Marketing Plan and Business Plan. 2. Recommendations for improving the delivery and cost effectiveness of food services. b) Assist the Director of Child Nutrition Service in

the development and implementation of the Outreach and Promotion Marketing plan. c) Review and report by February 1 to the Board of Education on recommendations to eliminate potentially harmful food additives and processes. d) Make periodic reports, as the Advisory Committee deems necessary. e) Establish rules for decision-making.

J. Maintenance and Repair of Equipment

The Board of Education instructs the Maintenance Committee to include kitchen facilities, food preparation and storage of equipment as high priority in its comprehensive maintenance policy.

Modernize computer equipment and programs, and institute an automated accounting system.

K. Community Use of School District Property

District facilities, including school kitchens shall be available to community based groups for their use and enjoyment under terms established by the Board of Education.