Creating an Optimum School Health Environment in Your District: What Decision-Makers Need to Know

Catherine Strohbehn  
_Iowa State University_, cstrohbe@iastate.edu

Ruth E. Litchfield  
_Iowa State University_, litch@iastate.edu

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Creating an Optimum School Health Environment in Your District: What Decision-Makers Need to Know

Changing School Environment
Public education has always been a cornerstone of our society. Schools are a primary venue for the academic, social and physical development of our youth. It has long been established that proper nutrition is fundamental to the success of academic programs. The National School Breakfast (SBP) and Lunch Programs (NSLP) are key components of a long-standing national policy designed to safeguard and promote the health and well-being of the nation’s children, including obesity prevention.

Government regulations are continuously being revised to better improve recommended procedures, which evolve over time to reflect the most recent research. Education is now more than the three Rs. Efforts to reverse the rising trend of obesity among youth, and subsequent risk factors that follow into adulthood, have expanded nutrition education beyond the classroom to the school health environment. The Child Nutrition Reauthorization Act of 2004 required school districts across the nation participating in the National School Lunch Program to form a committee with designated stakeholders. The committee’s ongoing task was to develop a local school wellness policy, addressing physical activity, nutrition education, school-based wellness activities, and nutrition guidelines for all foods available during the school day (i.e. competitive foods including vending, bake sales, school stores, ala carte, classroom parties, and other venues). Effective policy development and evaluation begins with an assessment of the current situation. An online tool for schools to assess and monitor their local wellness policy is available at http://survey.hs.iastate.edu/schoolnutrition/homepage.htm.

In Iowa, where local control of school districts has a strong tradition, district decision-makers play a key role in molding the health culture of the district. Iowa recently passed the Healthy Kids Act (HKA) that:

1. Establishes rules for minutes of physical activity on a daily or weekly basis for students (effective July 2009).

2. Establishes rules for nutrition standards for food and beverages sold or provided on the school grounds during the school day (effective July 2010). See page 3.

3. Requires every student to complete a course that leads to certification in cardiopulmonary resuscitation (effective with the graduating class of 2012).

4. Requires area education agency(ies) to contract with one or more licensed dietitians.

Recipe Ingredients for Improving the School Health Environment
- Wellness Policy
- Child Nutrition Programs
  - Nutritious foods prepared and served safely
  - Adequate time for consumption
- Healthy Foods on Campus
- Nutrition Education
- Physical Activity
- Role Modeling
The intent of the HKA is to complement a district’s local school wellness policy. This publication provides strategies for the key elements of a good school health environment related to nutrition: school meals and nutrition education. Suggested action steps and resources on how to integrate the ingredients of a recipe for a health-promoting school environment are also given so that effective decisions can be made within your districts. Information about physical education and recess can be found in the Resources Section on page 8.

School Meals
School meals (those sold as part of the National School Breakfast and Lunch Programs) must comply with specific nutrition standards. The NSLP (established in 1946) and the SBP (established 1966) are based on the principle that good nutrition is essential for academic success and physical health and well-being. Child Nutrition Programs, including school meal programs, are administered by the Food and Nutrition Service of the United States Department of Agriculture, through the Iowa Department of Education Bureau of Nutrition, Health, and Transportation Services. Districts participating in Child Nutrition Programs may plan menus that meet the needs of their students, yet must also fit within the meal patterns for reimbursable meals and nutrition standards. In addition, district menu-planners are encouraged to work toward the 2005 Dietary Guidelines for Americans (DGAs).

In October 2009, the Institute of Medicine (IOM) released recommendations for the NSLP and SBP Programs to adopt a new set of nutrient targets and standards for menu planning. These recommendations are intended to bring the school meals in line with the latest Dietary Guidelines for Americans (2005) and Dietary Reference Intakes (current recommendations are based on the Dietary Guidelines for Americans 1995 and the 1989 Recommended Dietary Allowances). The recommendations focus on 24 nutrients rather than eight, and focus on limiting sodium, saturated fat and trans fat while encouraging unsaturated oils; and setting a maximum number of calories. Despite the nutrient recommendations, the report suggests that schools should continue to plan weekly menus around foods rather than a set of nutrients. These recommendations will likely increase the cost of providing school meals, particularly breakfasts, due to increased amounts of fruits, vegetables, and whole-grain foods. Although the report acknowledges the need for higher federal meal reimbursement, capital investment, and additional money for training foodservice operators, there will likely be financial challenges requiring the expertise of a professional administrator. See box at right.

These recommendations do not apply to competitive foods (food and beverages available through vending, ala carte, school stores, etc.). The IOM’s recommended nutrition standards for these products were released in a 2007 report, Nutrition Standards for Foods in Schools. It was this report that served as the basis for the nutrition standards in the Healthy Kids Act (HKA) standards. See more information about the HKA at http://www.tinyurl.com/iowa-hka.
Farm to School programs are encouraged as a means to provide students with exposure to fresh fruits and vegetables grown locally, new or unique varieties of produce items, a better understanding of how foods are grown (including environmental impacts), and stimulus to the local economy. Those purchasing local foods should ensure an open market approach (all producers have an equal opportunity to sell to the district) and that products are produced and handled safely on the farm. See the Iowa State University Extension Local Foods web site at www.iastatelocalfoods.org for more information, including a checklist of questions to ask producer vendors and an SOP for procurement, and the Farm to School page at the Iowa Department of Agriculture and Land Stewardship Web site http://www.iowaagriculture.gov/AgDiversification/farmToSchoolProgram.asp. The new USDA Farm to School Web site at http://www.fns.usda.gov/cnd/t2s/ has many resources also.

### Nutrient

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>A la Carte, Vending, and Regulated Fundraising Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calories</td>
<td>≤ NSLP entree items</td>
</tr>
<tr>
<td></td>
<td>OR</td>
</tr>
<tr>
<td></td>
<td>≤ 400 calories per entrée item</td>
</tr>
<tr>
<td></td>
<td>≤ NSLP sides</td>
</tr>
<tr>
<td></td>
<td>OR</td>
</tr>
<tr>
<td></td>
<td>≤ 200 calories</td>
</tr>
<tr>
<td>Sodium</td>
<td>≤ NSLP entree items</td>
</tr>
<tr>
<td></td>
<td>OR</td>
</tr>
<tr>
<td></td>
<td>≤ 600 mg per entrée item</td>
</tr>
<tr>
<td></td>
<td>≤ 480 mg/serving entrees (effective 2014)</td>
</tr>
<tr>
<td></td>
<td>≤ NSLP side</td>
</tr>
<tr>
<td></td>
<td>OR</td>
</tr>
<tr>
<td></td>
<td>≤ 400 mg/serving sides</td>
</tr>
<tr>
<td></td>
<td>≤ 200 mg/serving sides</td>
</tr>
<tr>
<td>Saturated fat</td>
<td>≤ 10% calories (excluding reduced fat cheese)</td>
</tr>
<tr>
<td>Trans fat</td>
<td>≤ 0.5 gm/serving</td>
</tr>
<tr>
<td>Total fat</td>
<td>≤ 35% calories (excluding nuts, seeds, nut butters and reduced fat cheese)</td>
</tr>
<tr>
<td>Sugar</td>
<td>≤ 35% calories (excluding fruits, vegetables and yogurts)</td>
</tr>
<tr>
<td>Dietary fiber/whole grain</td>
<td>50% of grains offered must be whole grain (50% or more whole-grain ingredients)</td>
</tr>
</tbody>
</table>

### Beverage

<table>
<thead>
<tr>
<th>Beverage</th>
<th>A la Carte, Vending, and Regulated Fundraising Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milk</td>
<td>Low/nonfat regular</td>
</tr>
<tr>
<td></td>
<td>Low/nonfat flavored, no nonnutritive sweeteners</td>
</tr>
<tr>
<td></td>
<td>In addition:</td>
</tr>
<tr>
<td></td>
<td>≤ 27 gm sugar/8 oz (2014)</td>
</tr>
<tr>
<td></td>
<td>≤ 24 gm sugar/8 oz (2017)</td>
</tr>
<tr>
<td></td>
<td>≤ 22 gm sugar/8 oz (2020)</td>
</tr>
<tr>
<td>100% Fruit/Vegetable Juice</td>
<td>No added sweeteners</td>
</tr>
<tr>
<td>Water</td>
<td>No added nonnutritive sweeteners</td>
</tr>
<tr>
<td>Sports Drinks, Flavored Water</td>
<td>None to be made available to elementary students during the school day as vending machine, a la carte, or regulated fundraising items</td>
</tr>
<tr>
<td>Caffeinated Beverages</td>
<td>None are to be made available to students in elementary grades during the school day as vending machine, a la carte, or regulated fundraising items, with the exception of beverages that contain trace amounts of naturally occurring caffeine-related substances (e.g., chocolate milk)</td>
</tr>
<tr>
<td>Sodas/Carbonated Beverages</td>
<td>None are to be made available to any students during the school day as vending machine, a la carte, or regulated fundraising items</td>
</tr>
</tbody>
</table>
A good school health environment will integrate the Child Nutrition Program into other school functions. Those in charge of district Child Nutrition Programs must possess basic knowledge and understanding in nutrition; food preparation; food safety; human resources management; equipment; kitchen layout and design; finances; procurement; marketing and merchandising; and all USDA regulations for the school meal program. Research has found that a district’s investment in a school foodservice director with these requisite knowledge and skills (usually requiring at least a four-year degree) resulted in programs that met the US Healthier School Meals Challenge (a recognition program for districts that achieve high nutritional standards) with a high level of self-sufficiency and financial success. Thus, less time and funding are required by school administration.

Many Iowa districts use a traditional model, or variation, for administering the Child Nutrition Program: the superintendent serves as the School Food Authority, an office member handles the free-reduced price meal applications, and a head cook prepares the meals with some assistance. While this model has worked in the past, new requirements such as the local school wellness policy requirements and HACCP-based food safety plans introduced with the 2004 Reauthorization Act, nutrition standards for competitive foods with the Healthy Kids Act, and pending new standards for NSLP and SBP as a result of the 2009 IOM report have increased the complexity of Child Nutrition Program Administration. Reauthorization in 2010 will possibly require some type of credential or certification for the Child Nutrition Program administrator. Schools should consider a new model of administration with a professional staff member to administer the Child Nutrition Program. A skilled Child Nutrition Program administrator can also serve as a resource for nutrition education efforts within the district. As demands increase on district decision makers, self-sufficiency in the Child Nutrition Program will likely result in improved nutrition of the foods offered, increased efficiencies and improved cost-effectiveness. For more information, see www.fns.usda.gov/tn/HealthierUS/index.html; Thornton; 2007, and NFSMI Competencies references listed in the Resources Section on page 8.

The School Food Authority (SFA) is the district representative who has the responsibility to ensure Child Nutrition Program requirements are met. In some districts, this may be the superintendent; in others, the Director of the Child Nutrition Program. Districts participating in SBP or NSLP receive reimbursement for each meal sold that meets defined standards. Districts in compliance receive complete ($2.68 per meal in 2009-2010 for free meals); partial ($2.28 for students qualifying for reduced price meals); and some reimbursement for all meals sold to students ($0.25 in 2009-2010). In addition, districts are eligible for commodity foods, at the school year 09-10 rate of .195 per lunch. Reimbursement flows from the USDA through the state agency (Bureau) assuming established regulations are followed. Bureau consultants review participating districts at least once every three to five years to ensure all federal requirements (procurement, financial management, nutritional standards, food safety, etc.) are met. In addition, each school’s meal production area is to be inspected twice a year by the local health inspector. In Iowa, about 37 percent of children qualified for free or reduced price meals during the 2006-2007 academic year, a figure which may no longer be accurate due to the recent economic downturn.
Nutrition Education

The U.S. Department of Health and Human Services included improved consumer health literacy as an objective in the report Healthy People 2010. “Health literacy is the degree to which individuals have the capacity to obtain, process and understand basic health information and services needed to make appropriate health decisions.” Health literacy is the ability to read, analyze and make decisions in all types of health situations. Changes to the health care system require consumers to take a more active role in health-care-related decisions, necessitating health literacy skills. The National Assessment of Adult Literacy (NAAL) report suggests that youth are less health literate and more dependent on unreliable health information sources (National Center for Education Statistics, 2006) traditionally used through marketing channels. In Iowa, the Department of Education has included health literacy as one of the required components in the 21st Century Skills of the Iowa Core Curriculum (See http://www.corecurriculum.iowa.gov/ContentArea.aspx?C=21st+Century+Skills.) The Core Curriculum Web site identifies essential concepts and skill sets for health literacy for grades kindergarten through 12. These concepts and skills provide a framework for thinking critically about the decisions that affect health status for themselves, their families and their communities. This foundation of knowledge influences attitudes and habits that lead students to take responsibility for their personal health. These skills will “bridge the knowledge, skills, and dispositions of students from the core academic areas to real life applications.”

Nutrition literacy is a vital component of health literacy. Research has suggested that it takes 50 hours of nutrition education to impact nutrition behavior (See Lytle reference in the Resources Section on page 8). The National Center for Education Statistics reported that the mean number of hours spent on nutrition education in the elementary setting falls significantly short of this recommendation. Time spent in nutrition education provides a school district the opportunity to not only meet concepts and skills in the Iowa Core Curriculum but nutrition education goals of the local school wellness policy as well. As a school district contemplates integration of nutrition education into the K-12 curriculum, the Healthy Eating module at the Health Education Curriculum Analysis Tool at the Centers for Disease Control and Prevention Web site http://www.cdc.gov/healthyyouth/HECAT/pdf/HECAT_Module_HE.pdf may be useful to analyze and score available curricula. This Web site also provides tools to analyze and score available curricula in other health topics (alcohol and other drugs, mental/emotional health, personal health and wellness, safety, etc…).

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In doing so, efforts address both Iowa Core Competency Skills and the local school wellness policy.

**Role Modeling**

The number of youth that school staff members interact with throughout their professional careers is staggering. Thus, school staff is a key target group for improving the health and nutrition status of our youth. Instructional staff members can provide nutrition and health education in the classroom while foodservice personnel oversee school meal programs, yet all messages should be consistent. In addition to communication of nutrition messages, and perhaps more importantly, these personnel also serve as role models for students.

The Food and Nutrition Service of the United States Department of Agriculture is encouraging role modeling through the school meals programs and has promoted the use of messages such as:

- Kids learn from watching you.
- Kids take their lead from you.

Targeting efforts to improve the health promotion of staff is one of the eight components of a coordinated school health program ([http://www.cdc.gov/HealthyYouth/CSHP](http://www.cdc.gov/HealthyYouth/CSHP)). Worksite wellness for school staff could reach 6.7 million teachers and staff nationwide (National Center for Education Statistics, 2005). Targeting school staff with health promotion efforts improves the health status of school staff, but also lowers health risks and possible medical intervention, and potential investment by districts in medical insurance costs. More importantly, role modeling reaches staggering numbers of youth with proactive messages about health and nutrition.

It is critical that teachers and staff within the district comply with the local school wellness policy; mixed messages received by students when they see staff modeling inappropriate behaviors can sabotage efforts to create an optimum school health environment and creates a double standard. Recent research (Hartline-Grafton et al. 2009) suggested schools can improve in role modeling efforts; 31% and 40% of a sample of elementary school personnel were overweight and obese, respectively. These rates exceeded state and national rates. These staff members also consumed more calories, fat, and less fiber than recommended. Only 7% of the staff met the MyPyramid recommendations for fruits and vegetables; 25% of staff did not eat fruit; 58% did not eat dark-green vegetables and 45% did not eat whole grains.
Resources

Iowa State University

ISU Extension Online Store at https://www.extension.iastate.edu/store/
PM 2048 What School Decision Makers Need to Know About School Meals
N3499 Food Safety Updates for School Administrators

HACCP Web site at http://www.iowahaccp.iastate.edu (click on Schools)

National Foodservice Management Institute at www.nfsmi.org –
Research reports on best practice foodservice administration, recess, lunch periods, nutrition education, etc.

Department of Education Bureau of Nutrition, Health and Transportation Services at www.iowa.gov/educate

HKA information at
http://www.iowa.gov/educate/index.php?option=com_content&view=%09article&id=1769&catid=838&Itemid=2545

Institute of Medicine Reports

2007 Nutrition Standards for Foods in Schools – Leading the Way Toward Healthier Youth
Available at:

2008 Nutrition Standards and Meal Requirements for National School Lunch and Breakfast Programs: Phase I. Proposed Approach for Recommending Revisions
Available at:

2009 School Meals: Building Blocks for Healthy Children
Available at:

(continued on page 8)
Resources (continued)

Research Publications


USDA Food and Nutrition Services
Team Nutrition
http://www.fns.usda.gov/tn/
USHSC

CDC Healthy Eating Module
at the Health Education Curriculum Analysis Tool

NCES (National Center for Education Statistics) Reports

Prepared by Catherine Strohbehn, PhD, RD, CP-FS, HRIM extension specialist and Ruth Litchfield, PhD, RD, extension nutritionist. Reviewed by Sandra Fiegen, CFCS, MS Ed, Consultant, Bureau of Nutrition, Health, and Transportation Services, Iowa Department of Education.

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