

Healthy School Toolkit



Introduction

The increasing prevalence and serious consequences of childhood obesity have prompted calls for broad public health solutions. Schools provide an ideal setting for starting to address the obesity epidemic. Children spend approximately half of their waking hours in school. Schools provide 1-2 meals daily and are a natural setting for education about healthy food choices and the benefits of physical activity. Through classroom nutrition education, changes in the foods sold and served, and increased opportunities for physical activity, schools can make a difference in the health of children.

Starting in 2001, The Food Trust and Temple University's Center for Obesity Research and Education established and managed a citywide Comprehensive School Nutrition Policy Task Force to develop and evaluate programs to fight obesity among urban youth. In 2002, the U.S. Centers for Disease Control and Prevention helped to formalize this relationship by supporting research to track changes in students' body mass index in a randomized controlled trial of a comprehensive school nutrition policy. This study found that the nutrition policy- and education-based intervention reduced the number of children who became overweight by 50% over 2 years. The study also found that preventing overweight in 4th -6th graders was associated with fewer absences from school.

This Toolkit was written to share some of our successes with other schools, parents, policymakers and community groups who are interested in improving the school environment to help prevent childhood obesity. The collaborative nature of our work in schools and communities has allowed us to create positive change at the community level and evidence that these changes can prevent youngsters from becoming overweight. The benefits we realized are a tribute to these partnerships. We hope the resources and information in this toolkit will help you create a program that will benefit the children and families in your community.

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The Food Trust is a private non-profit that was established in 1992 to increase the availability of fresh foods, develop a stable food supply in underserved communities, and improve the connection between urban and agricultural communities. Its goals are to provide nutritious and affordable fresh foods to underserved communities, to educate people about the importance of healthy diets, and to build healthy and sustainable rural and urban communities where everyone has access to locally grown, fresh and affordable food regardless of their income and where they live.

Chapter 1

Mission Critical: Healthy Schools for Healthy Kids

“American children may be the first generation in modern history to live shorter lives than their parents did.”¹

—Kelly D. Brownell, PhD, Katherine Battle Horgan, PhD

Now more than ever, students need schools to teach lifelong skills for healthy eating and physical activity. Young people are in the grip of an obesity epidemic. Since 1980, the rates of overweight have doubled in children and tripled in teens.² Almost one in every three children weighs more than is optimal for their age and height.³ The obesity epidemic has hit some children, such as black and Mexican American youth, especially hard.

Unless we take steps to reverse this trend, millions of children face an unhealthy future and prematurely shortened lives.⁴ Overweight during childhood and adolescence increases the risk of serious health problems, including:⁵

- **Heart disease.** Many overweight children already have high blood cholesterol and high blood pressure, increasing their chance of heart attack and stroke later in life.
- **Type 2 diabetes.** Once rare in children, type 2 diabetes has skyrocketed among overweight youth. Type 2 diabetes can lead to heart disease, blindness, kidney damage, and limb loss. If current trends continue, 1 in 3 children born today will develop type 2 diabetes during their lifetime.⁶
- **Other illnesses.** Overweight children have higher risks of developing asthma, sleep apnea, liver disease, and other conditions.
- **Psychosocial problems.** Because of obesity’s social stigma, many overweight children suffer low self-esteem, depression, teasing, and social isolation.

Time to Clean Up Our Environment

The main causes of the obesity epidemic—diets too high in fat, sugar, and calories, and too little physical activity—are no mystery. At home, school, and elsewhere, the environment often makes it hard for children to eat healthy and be physically active.

At school:

- **Junk food is still available in many schools.** Although foods provided through the federal School Lunch and Breakfast Programs must meet certain nutritional guidelines, many schools sell “competitive foods” in vending machines, school stores, a la carte cafeteria lines, and school fundraisers. Most competitive foods are low in nutrients and loaded with sugar, fat, and calories: chips, cookies, pastries, candy, soda, and ice cream.⁷
- **Fewer students take daily physical education classes.** Between 1991 and 1999, the percentage of students who took daily physical education dropped from 42% to 29%.⁸ In one study, the average elementary student spent only 3.5 minutes in aerobic activity during gym!⁹

On the way to school:

- **Fewer than 10% of children walk or bike to school regularly.** By comparison, 66% did so 30 years ago.¹
- **Many kids buy unhealthy snacks at food marts near schools.** In Philadelphia, elementary school students report spending up to \$2 per visit to corner stores on chips, candy, soda, French fries, and other snacks.¹⁰

Outside school:

- **Children spend an average of 5.5 hours daily on screen time**, such as TV and computer games—more than anything except school and sleeping.¹¹
- **The average child sees 10,000 food ads on TV each year.**¹ Most are for sugared cereals, fast food, soft drinks, and candy.
- **Supersized portions have become the norm.** Since most of us eat whatever is on our plate, extra calories can quickly turn into excess pounds.

A Failing Report Card on Student Health

It's no wonder that many children are flunking healthy eating and physical activity. According to national surveys:¹²

- Only 2% of children regularly eat diets that meet the recommendations of the Food Guide Pyramid.
- About 16% of children fail to meet *any* of the recommendations.
- Almost half of young people age 12 to 21 do not participate in regular physical activity.

Our Schools: Frontline in the Fight against Obesity

Schools are an excellent place to begin reversing the obesity epidemic. Children spend the majority of their time away from home at school. Also, children get at least one third of their daily calories at school (during lunch and snacks) and more than half if they eat breakfast at school.

Providing more education and making environmental changes to promote healthy eating and physical activity benefits students and schools. Good nutrition is crucial for ensuring that children succeed in school. Conversely, studies show that overweight or obese children have poorer academic outcomes and a higher rate of school absenteeism.^{13,14} Increased absenteeism among overweight students also can cost school districts thousands or millions of dollars, especially in states where school attendance helps determine district funding.¹⁵

Childhood Obesity is *Not* Inevitable

Healthy schools, which support good nutrition and physical activity as part of the learning environment, produce healthy students. By creating a comprehensive wellness policy for nutrition and physical activity, schools, parents, and students can work as a team to win the war against childhood obesity.

*“Together we really can make a difference in the health of our nation’s children. The stakes are too high to do nothing.”*¹²

—David Satcher, MD
Former U.S. Surgeon General

[sidebar for Chapter 1]

Understanding Body Mass Index (BMI)

The most common way to measure overweight in children and adults is body mass index (BMI). BMI is based on a person’s weight and height. Generally, the higher a person’s BMI is above the normal range, the greater the risk of obesity-related illnesses.

In children and teens, BMI depends on gender and age, because children’s body fatness changes as they grow. Also, boys and girls differ in body fatness at they mature.

The U.S. Centers for Disease Control (CDC), the main source of national health statistics, uses these definitions for overweight in children and adolescents:

- **At risk of overweight**—BMI between the 85th and 94th percentile for a child’s age and sex.*
- **Overweight**—BMI greater than the 95th percentile for a child’s age and sex.

Terms to describe overweight in children vary. The CDC avoids using the term “obesity” in children. Obesity can be used pejoratively and may hurt children. However, other researchers use “childhood obesity” for a BMI above the 95th percentile, because it better conveys the medical seriousness of this condition.

The bottom line: regardless of terminology, more and more children are becoming overweight, which can harm their health now and in the future.

* For example, if a child is in the 85th percentile, that means that 85% of other children who are the same age and gender have a lower BMI.

Chapter 2: The Philadelphia Story

The School District of Philadelphia’s School Nutrition Policy Initiative

In July 2004, the School District of Philadelphia adopted one of the toughest beverage policies in the nation, replacing soda in vending machines and cafeterias with water, 100% juice, and low-fat milk. Soon after, the School District adopted a stringent snack policy, eliminating candy from school premises and setting strict nutrition standards for snacks sold at school.

These school nutrition policy changes represent the culmination of years of work by health professionals, school officials, concerned parents, school staff, and others. Recently, a study of Philadelphia’s School Nutrition Policy Initiative has shown that healthful changes in the school environment can reduce the incidence of childhood overweight by 50%.¹

In Philadelphia, schools have responded favorably to the policy initiative, and many are going beyond the recommendations to implement additional school guidelines to promote healthy eating and physical activity. The following is the story of this amazing accomplishment!

Forming a Task Force

Philadelphia’s landmark healthy beverage policy grew out of concern over an alarming rate of childhood obesity and a proposed \$43 million exclusive “pouring contract” for Philadelphia schools. (In a pouring contract, a school district receives money—often, millions of dollars—in exchange for agreeing to market and sell specific brands of beverages.) In Philadelphia, parents and health professionals were concerned that the district’s proposed contract with Coca Cola would lead to sales quotas for soft drinks in schools and increased marketing of these products to children.

Parents and professionals were successful in defeating this contract, which served as a galvanizing force for the development of a nutrition policy. In 2000, The Food Trust convened the Comprehensive School Nutrition Policy Task Force to develop a comprehensive nutrition policy to promote healthier eating in schools and prevent future contracts being approved for the sale of unhealthy foods in schools.

Side bar:

The Task Force was comprised of over 40 groups and individuals, including the:

- Pennsylvania Departments of Health and Education
- Philadelphia Department of Health
- Presbytery of Philadelphia
- Archdiocese of Philadelphia
- University of Pennsylvania’s Schools of Nursing and Medicine
- Thomas Jefferson University’s Community Prevention Program
- School District of Philadelphia’s Food Services and Curriculum Divisions
- School nurses, teachers, and parents

Writing the Policy

The Task Force devoted a year to writing the school nutrition policy, which was modeled after the CDC's Guidelines for Healthy Eating and Physical Activity (see sidebar).¹ The major components of the policy included recommendations to promote healthy eating, a coordinated nutrition and physical activity curriculum, instruction for students, integration of school food service and nutrition education, staff training, family and community involvement, and program evaluation. Committees were formed to make recommendations based on the CDC guidelines and work with the school district's Food Services Divisions, as follows:

- **Committee on Nutrition Standards** to identify science-based nutrition standards to increase healthy foods at schools and reinforce nutrition lessons being taught in the classroom.
- **Committee on Curriculum** to identify standard-based instruction as part of a comprehensive integrative, interdisciplinary nutrition education curriculum. The group sought curricula that focused on helping students understand the relationship between personal behavior, individual health and the environmental impact of food choices.
- **Committee on Family and Community Involvement** to identify and create opportunities for healthy eating and physical activity in close proximity to schools, and to provide consistent messages through multiple channels (e.g., home, school, community, and the media) and from multiple sources (e.g., parents, peers, teachers, health professional and the media).
- **Research Team** to conduct a process evaluation to provide information on the extent to which the policy was being implemented and an outcome evaluation to evaluate the impact of the nutrition policy on BMI, food intake, physical activity, sedentary activity, body image/ eating disorders and self efficacy.

The committees recommended that the Task Force aim to improve students' growth and weight gain profiles by successfully implementing the school nutrition policy, including:

- Establishing School Health/Wellness Councils
- Completing the School Health Index and School Health Action Plan
- Initiating social marketing
- Ensuring that all foods meet the nutrition standards outlined in the policy
- Integrating 50 hours of nutrition education into classroom lessons
- Conducting 10 hours of teacher nutrition training, and
- Involving family members and the community.

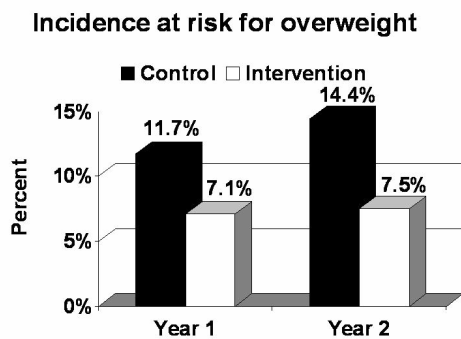
Piloting the School Nutrition Policy Initiative

The Task Force began piloting the new policy in several schools in 2001. Then, with federal grant funding, the pilot was expanded into a two-year study involving ten schools, five of which implemented the School Nutrition Policy Initiative and five that served as controls. The study

was conducted during the 2003/2004 and 2004/2005 school years, in partnership with Temple University's Center for Obesity Research and Education (CORE; previously with the University of Pennsylvania's Weight and Eating Disorders Program).

Each school that participated in the School Nutrition Policy Initiative implemented the following components (each described in more detail in subsequent chapters): 1) school self-assessment, 2) nutrition education, 3) nutrition policy, 4) social marketing, and 5) parent outreach. The goals of the Initiative were to change the school environment to support healthy eating, increase physical activity, and decrease the prevalence of childhood overweight and diet-related diseases.

The results of the study conducted by Temple University's CORE were impressive. The interventions in the five schools changed the school environment and, as a result, the incidence of overweight was reduced by half. As shown in the chart below, only 7.5% of children became overweight in intervention schools, compared with 15% of children who became overweight in control schools.¹



This Toolkit shares the story of how Philadelphia schools worked with parents, teachers, and community partners to create a healthier environment for children. Lesson learned from our work, and resources that may be helpful for other school systems, are provided. The successes addressed in this Toolkit are attributable to the Task Force's strong collaborative effort, which involved the School District, university-based researchers, school staff, health professionals, and parents.

[Sidebar for Chapter 2]

Philadelphia's School Nutrition Policy Initiative is based on the CDC's Guidelines for Health Eating and Physical Activity. These national guidelines are based on a review of research, theory, and current practice, and were developed by CDC in collaboration with experts from universities and from national, federal, and voluntary agencies.

The CDC guidelines summarize strategies most likely to be effective in promoting healthy eating among school-age youths. The guidelines also provide recommendations for nutrition education for a comprehensive school health program.

The guidelines are available online at: www.cdc.gov/mmwr/preview/mmwrhtml/00042446.htm.

[end of sidebar for Chapter 2]

Chapter 3

Team Up to Implement Your School Nutrition Policy

“Research shows that the most effective vehicle for interacting with the local community is through a School Health Council.”

--American Cancer Society¹

A School Health Council (SHC) is an advisory group of people who represent varied community views on school nutrition, physical activity, and other health issues. SHC members work as a team to advise the school (or district) on school health policy and build support for wellness programs. Parents, students, school staff, and community representatives usually are involved.

An SHC can advise the entire school system. Or, individual schools may each have their own advisory councils, providing more flexibility to make changes.

In Philadelphia, the Comprehensive School Nutrition Policy Task Force developed a district-wide policy to improve nutrition and physical activity. In addition, each school created its own School Health Council to set priorities to implement programs. These school-based councils worked to individualize the district-wide policy to meet the needs of their particular schools. While the Task Force brought together experts to guide the policy, decisions on how the program was implemented in individual schools were made at the school level. The councils were comprised of students, teachers, food service personnel, parents, and school administrators. They participated in all aspects of the program’s implementation and evaluation.

Through the work of its council, each school developed and carried out an action plan to create a healthy school environment. For example, council members developed school-wide policies that went beyond the district-wide policy, such as guidelines for avoiding use of food as a reward or punishment, methods for dealing with food at school fundraisers and after-school activities, and ways to increase breakfast participation.

All school staff became involved in promoting healthy and physical activity. Principals, teachers, nurses, food service staff, physical education teachers, and office and janitorial staff worked together to promote healthy foods in the cafeteria and to provide learning opportunities in the classroom and throughout the school environment. Staff actively participated in trainings to increase their knowledge and skills on nutrition and physical activity related topics. Everyone made a concerted effort to provide messages about healthy eating both in and outside of school. In Philadelphia, the positive outcomes of the SNPI in reducing the incidence of childhood overweight were attributable to schools’ enthusiasm at the staff and students levels.

Students were also active members of the councils. Students participated in testing new food products to be sold in the cafeteria, promoting healthy foods to their fellow students, designing and carrying out marketing plans to promote healthy eating and physical activity and serving as nutrition ambassadors for their schools.

Starting an SHC

SHCs have a crucial role in helping schools establish and implement school nutrition policies and other healthy changes. If your school does not have an SHC, these steps can help you start one:

- **Do some homework.** Find out if your school has established procedures for advisory councils. If your state mandates SHCs, be familiar with guidelines.
- **Build your team.** Gather interested people for an initial meeting to share views on the need for an SHC and its role.
- **Develop goals and objectives.** Decide on the general purpose and major functions of the SHC. Get support from your school's central office personnel.
- **Meet regularly.** Observe guidelines for effective meetings—agree on bylaws, send agendas before meetings, keep minutes, and train new members.
- **Turn policy into action.** Carry out planned programs. Create a plan to monitor progress. Be ready to adjust programs that do not work as well as expected.
- **Communicate.** Report regularly to school or district-level staff on planned activities and outcomes. Keep school staff, students, and parents informed.

Who Should Join the SHC?

An SHC should involve everyone who will be affected by the nutrition and physical activity policy. Including members with diverse backgrounds ensures wide community representation and support. Local wellness policies to promote good nutrition and physical activity should be developed by a broad representation of parents, students, school food personnel, the school board, school administrators, and the public.²

When choosing SHC members, important qualities include:

- **Strong interest and involvement,** such as participation in youth-related activities.
- **Commitment,** including the willingness to devote time and be a team player.
- **Openness and respect,** such as ability to listen to diverse viewpoints and observe policy procedures in the school or district.

A successful SHC is the voice of the community on good nutrition and other important school health issues. By involving concerned citizens and community groups, SHCs can help schools win the battle against childhood obesity.

“Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has.”

—Margaret Meade

[Sidebar for Chapter 3]

Find Out More

These Internet resources can help your school start an effective SHC:

American Academy of Pediatrics. School health leadership training kit. Section 6.

www.schoolhealth.org/trnthtrn/SECTION6/main6.html

American Cancer Society. Improving School Health: A Guide to School Health Councils.
www.fns.usda.gov/tn/Healthy/Ntl_Guide_to_SHAC.pdf

Public Schools of North Carolina. *Effective School Health Advisory Councils*.
www.nchealthyschools.org/docs/advisorycouncilmanual.pdf

[end of sidebar]

[Another sidebar for Chapter 3]

Sources of School Health Council Members

- School personnel (health or physical education teachers, school nurse, principal or other administrator)
- Parents (e.g., members of Parent Teacher Group)
- Students
- School board members
- Health professionals (e.g., pediatrician, dietitian, nurse)
- Local business people
- Representatives of faith-based institutions
- Hospital or clinic staff
- Public health or social service agencies
- Community government officials
- College or university staff with interest in health and program evaluation

Chapter 4: Give Your School a Health Check-Up

[draft introduction]

“Most people are aiming at nothing... and hitting it with remarkable accuracy.”
—Will Rogers

Once your school has a team in place to improve nutrition and physical fitness, participants may be understandably eager to move forward with launching new programs. First, though, take time to discuss the needs, strengths, and resources of your school or district. Take a look at existing school nutrition and health programs, discuss strong points, and identify areas that need improvement.

The School Health Index (SHI): A Self-assessment and Planning Guide is a useful, free tool to guide your assessment process (see sidebar). This easy-to-use tool can help you identify the strengths and weaknesses of your school’s nutrition and physical activity programs and policies. With good information about major health issues in the school system, your team will be able to set clear priorities and make an action plan. In Philadelphia, the school health councils in the five schools participating in the School Nutrition Policy Initiative each conducted the SHI, helping them decide on goals for change and develop an individualized action plan.

Two Step Process

The SHI contains two parts: the eight self-assessment modules and a planning for improvement process. The self-assessment process guides team members to identify strengths and weaknesses. The SHI encourages schools to assess the extent to which the school implements the types of policies and practices recommended by CDC in its research-based guidelines for school health and safety policies and programs.

After completion of the self-assessment process, the team meets again to identify recommended actions the school can take to improve its performance in areas that received low scores and to prioritize the recommendations. This step helps school health councils identify a few actions to be implemented within a school year. These recommendations lay the groundwork for a School Health Improvement Plan and ongoing process for monitoring progress and reviewing recommendations for change.

In Philadelphia, each pilot school participating in the School Nutrition Policy Initiative completed the SHI’s eight modules. While this work appeared to some to be a daunting task, we broke the steps down into a few one-hour meetings. Staff spoke freely about their school’s strengths and weaknesses. Food service staff listened to teachers express concern about the nutritional value of meals; teachers listened to parents discuss their concern over broken water fountains. In the end, everyone felt they had benefited from coming together to listen, learn and develop realistic recommendations.

[Sidebar for Chapter 4]

Find Out More

These Internet resources can help your school use the School Health Index:

CDC. School Health Index: a Self-assessment and Planning Guide.

<http://apps.nccd.cdc.gov/shi/default.aspx>

National Association for Sports and Physical Education. It's Time for Your School's Physical Education Check-Up.

www.aahperd.org/naspe/pdf_files/2004PEchecklist.pdf

[end of sidebar]

Chapter 5

Make an Action Plan

With your School Health Index complete, the next step is to create a school wellness policy that includes recommendations for healthy eating and physical activity. Congress now requires school districts that participate in USDA's school meals programs to have a local wellness policy that promotes healthy eating and physical activity. Writing a clear, concise policy will help ensure your goals and standards are effectively communicated. A written policy also serves as a roadmap to help you implement changes and track your progress.

To build support for the policy, use a team approach to create it, such as involving the School Health Council. Be sure the policy includes the five core components below:

- Goals for nutrition education
- Goals for physical activity
- Nutrition standards for all foods available on school campus during the school day
- Goals for other school-based activities designed to promote student wellness
- Goals for measurement and evaluation of the wellness program

Don't Reinvent the Wheel

Instead of writing a new wellness policy from scratch, an easier approach may be to adapt an existing policy to fit your district's specific needs and priorities. For example, the Philadelphia Comprehensive School Nutrition Policy was created using evidence-based CDC guidelines on school nutrition and physical activity.¹ The School District of Philadelphia's policy can be used as a template for other districts (a copy is available on The Food Trust Web site). Other sources for model school wellness policies include:

- **National Alliance for Nutrition and Activity (www.schoolwellnesspolicies.org)**. This nonprofit group convened more than 50 professionals to develop an online set of model wellness policies for school districts.
- **Action for Healthy Kids (www.actionforhealthykids.org)**. This association has an online tool that lets you search existing policies nationwide, then cut and paste to create your own policy.
- **Team Nutrition, USDA Food and Nutrition Service (<http://teamnnutrition.usda.gov/healthy-schools.html>)**. Team Nutrition provides examples of model wellness policies, as well as tools and tips for creating and implementing recommended changes.

Set Priorities

With your team, decide whether to phase in new policies over time or implement comprehensive changes all at once. Either approach may work, depending on the policy goal. For example, the district-wide soda ban in Philadelphia was a comprehensive reform that affected all schools (K-12) starting July 1, 2004. Other policy goals were phased in, with local schools deciding how best to implement changes.

Try to take a long-term view of improving healthy eating and physical activity. Use the completed School Health Index to identify key areas to improve student health. Then focus on changing a few high-priority items at a time.

Resources to Turn Your Policy into Action

Although federal law requires schools to create local wellness policies that address nutrition and physical activity, Congress did not provide new funds to help schools carry out this mandate. The good news is that policies to improve healthy eating and physical activity can be implemented even with minimal financial support. Be creative when looking for resources. For example:

- **Involve parents and community volunteers.** Parents can help with special events, and health professionals can share expertise with students or staff.
- **Look for ways to partner with local businesses and organizations.** Examples include small farmers, groceries, YMCAs, hospitals, and medical schools.
- **Consider applying for grants.** Grants to support school wellness programs are available from government agencies, community groups, and foundations. The Web has a number of helpful resources for finding grants, such as www.schoolgrants.org.

Better Student Health Is Good for Everyone's Bottom Line!

Be aware that school personnel may worry that food sales from the cafeteria and vending machines will suffer when wellness policies are implemented. Fortunately, recent studies provide reassuring findings on this concern. For example:

- The U.S. Department of Agriculture found that most schools *make money* from selling healthful foods. In a survey of 17 schools and districts that made healthy changes, 12 increased their revenue and 4 reported no changes.²
- In California, 13 out of 16 surveyed schools (81%) increased their food service revenues after implementing new standards for healthy foods and beverages.³ Although sales of a la carte foods fell, overall revenue increased, as more children bought school meals.

In sum, school wellness policies can be good for the bottom line—both for students and schools!

[Sidebar #1]

Switch to Healthy Fundraisers

A school nutrition/wellness policy that promotes healthy fundraisers (no candy or other junk food) sends a strong message that schools value student health. Sales ideas include:

- Fresh fruit & fruit baskets
- Greeting cards, stationery, gift wrap
- Holiday wreaths or ornaments
- Coupon books

- School cookbooks with healthy recipes
- Physical activity equipment, such as Frisbees, jump ropes, or balls
- “Fun” fundraising events, such as talent shows, fun runs, or dance-a-thons
- Craft sales

Chapter 6

Nutrition and Physical Education

Education about nutrition and physical activity go hand in hand. Education helps students understand the importance of choosing a healthier lifestyle, how to make healthier food choices, and safe places to be active. When education and access to healthy choices are both available, students can more easily choose nutritious foods and be more active.

Strive for 50 Hours a Year

The educational goal of the School Nutrition Policy Initiative (SNPI) was to provide 50 hours of food and nutrition education per student per year, based on guidelines from the National Center for Education Statistics.¹ This goal was key to ensuring that all students had the opportunity to learn about and discuss healthy eating and physical activity. Students who receive at least 50 hours of nutrition lessons annually have been found to experience more positive behavioral changes. In Philadelphia, SNPI schools achieved this goal through an integrated, interdisciplinary approach.

To maximize classroom time, nutrition education was integrated into math, reading, science, history, social studies, and foreign language lessons. By embedding information on nutrition and activity into a variety of subjects, the goals of nutrition are reinforced and the 50-hour goal is more easily reached.

Interdisciplinary Education Meets Multiple Goals

In addition to integrating nutrition education into the core curricula, an interdisciplinary curriculum that focuses on understanding the relationship between personal behavior, individual health, and the environmental impact of food choices helps students to better understand the value of healthy lifestyle choices. This interdisciplinary approach is important because:

- Unhealthy eating behaviors may be interrelated with other health risk factors (e.g., cigarette smoking, sedentary lifestyle, and substance abuse)
- Nutrition education shares many of the key goals of other health education content areas (e.g., raising the value placed on health, taking responsibility for one's health, and increasing confidence in one's ability to make health-enhancing behavioral changes)
- Nutrition education is an integral component of food system education, incorporating information on where food comes from, how it is grown, and how food production affects our environment.

The Food Trust found that 10-minute daily transition activities offered students a break and contributed towards the goal of 50 hours. In the SNPI, teachers were given activities that took less than ten minutes. Examples include a quick game of “bean bag throw” (in which children tossed bean bags signifying the different food groups), nutrition bingo, and stretch breaks in

which students were given 10 minutes to stretch and be active by their desks. Teachers inserted these 10-minute activities during transitions between subjects.

Teacher/School Staff Training

Teachers and staff need time to learn new information and become familiar with new materials to support their teaching. While health education and science teachers already teach healthy eating and the benefits of physical activity, teachers from other disciplines may need assistance in planning how to integrate these topics into their lessons and classroom activities.

All school staff in the SNPI pilot schools were offered 10 hours per year of training in nutrition education. At the trainings, staff received curricula and supporting materials such as *Planet Health*² and *Know Your Body*,³ as well as nutrition and physical activity theme packets designed to integrate classroom lessons with cafeteria promotions and parent outreach. The teacher trainings also provided ideas on how to access additional materials and opportunities for nutrition education training, while earning continuing education credit.

The Food Trust used a “whole-school approach” for all interested school staff. Some schools elected to have three sessions on Saturday mornings, while others chose to attend hour-long training sessions at the beginning or end of the school day. While the SNPI team provided curriculum-specific training to teachers in the pilot schools, time was also allotted for general discussion about nutrition. Many teachers said that training sessions were the highlight of the program. Teachers not only learned how to teach nutrition, but also how to improve their own diets.

The SNPI team found that the more hours that teachers/school staff participated in trainings, the more hours they taught nutrition in their classroom and the more involved they were in changing the school environment. Staff attended trainings both across and in intervention schools, giving them a chance to work together as a team and to share ideas with their counterparts in other intervention schools.

Using a Theme-Based Approach

The SNPI team used a theme-based approach for the nutrition and physical activity lessons. Each theme incorporated classroom education, a campaign to promote healthy foods in the cafeteria, and a parent-and-community component to alert parents to the information their children were learning at school.

This “whole-school” approach integrates the classroom with the school environment and home. The SNPI used a number of themes, which were linked with national health promotional efforts. For example, healthy lunches were the focus in weeks surrounding the National School Lunch Week. Schools focused on healthy beverages and physical activity in the spring, as youngsters were getting ready for summer vacation. By linking these learning topics with larger health promotion efforts, schools benefited from readily available materials, media spots, and school district campaigns. The following educational themes were taught:

- MyPyramid
- Healthy Lunches
- Healthy Snacks
- Healthy Breakfast
- Healthy Beverages
- Physical Activity/Body Image

Partnering with Local Organizations

There is great value for schools to partner with organizations and agencies that can provide nutrition education curricula, materials, and support. For example, USDA's Child and Adult Care Food Program provides funding for food used for educational purposes. Most state Departments of Education have grade-appropriate nutrition-education curriculum. USDA's Food Stamp Nutrition Education Program provides funding in many states for nutrition education for schools that have greater than 51% of their students eligible for free and reduced price meals. Local colleges and universities also have resources to support nutrition education in the schools.

The organizations participating in the Comprehensive School Nutrition Policy Task Force worked together to identify curricula and materials that contributed to the success of this project. Groups such as the American Cancer Society, American Heart Association, state education and health departments, and local universities all provided expertise, materials and support to the policy initiative.

Chapter 7

Encouraging Healthy Eating at School

Schools provide a place for students to learn about and practice healthy eating. While schools offer nutritious breakfasts, lunches and snacks, youngsters consume a third of their energy from snacks, often purchasing high-calorie snacks and drinks instead of participating in the school meal programs. The School Nutrition Policy Initiative (SNPI) initially focused its attention on what are called “competitive foods,” which are foods and beverages that fall outside of USDA's school meals programs (such as soda and snacks in vending machines or school stores).

Competitive Foods in Schools

Competitive foods “compete” for the attention and resources of children, diverting youth from the more highly regulated nutritional meals available through the federal Child Nutrition Programs. These competitive foods fall into two categories:

- Foods of Minimal Nutritional Value (FMNV) include carbonated beverages, water ices, chewing gum, hard candy, jellies and gums, marshmallow candies, licorice, spun candy, and candy-coated popcorn. Fundraisers for various clubs and organizations sometimes offer other foods for sale in schools. Current USDA federal school meal program regulations prohibit the sale of FMNV in the food service area during the school meal periods.
- Competitive foods also may be purchased by students in addition to, or in place of, a reimbursable school meal, such as a la carte sales on the cafeteria line and foods and beverages purchased from vending machines, school stores, canteens, and snack bars. Current federal regulations do not prohibit the sale of these foods during the school day anywhere on the school campus, including the food service areas.

USDA regulations for the federal school meal programs require that states and school food authorities prohibit the sale of FMNV in the cafeteria and other food service areas during the school meal periods. However, 43% of elementary schools, 74% of middle/junior high schools, and 98% of senior high schools have vending machines, school stores, or snack bars that sell competitive foods, according to national surveys. Before the SNPI was implemented in Philadelphia, soda, ice teas, chips, and other snack foods were available in most middle and high schools. Since the SNPI, all foods sold and served in Philadelphia schools meet the nutrition standards listed below.

Beverage and Snack Standards

The SNPI’s Committee on Nutrition Standards identified science-based nutrition standards to increase healthy food offerings at schools. The Committee also worked to provide an easily understandable platform for nutrition education efforts consistent with the policy, and to guide school food purchasing decisions. All foods and beverages sold and served in the pilot schools were changed to meet the following nutritional standards:

BEVERAGE STANDARDS

- Soft drinks will not be sold or served to youth in recreation centers
- Juice beverages must contain at least 100% real fruit juice
- All water or flavored waters without added sugar or artificial sweeteners
- Low fat milk and flavored milks are allowed

SNACK FOOD STANDARDS

- Total fat content must be less than or equal to 7 grams per serving
- Saturated fat content must be less than or equal to 2 grams per serving
- Trans-fats should be sharply limited
- Sodium content must be less than or equal to 360 milligrams per serving
- Sugar content must be less than or equal to 15 grams per serving
- Candy will not be served in the after-school program

Foods That Reinforce Nutrition Education Lessons

The SNPI's whole-school approach worked to ensure that food service offerings were consistent with classroom nutrition education. This approach helped students learn about and practice healthy eating by fostering a school environment that:

- Offered foods that reinforced nutrition education lessons
- Conducted promotional campaigns to encourage healthy eating (e.g., banners, posters, flyers on nutrition)
- Taught lessons that complemented the goals of the school food changes

Working Toward Change: The School District of Philadelphia Beverage Policy

Once the nutrition standards were approved by the SNPI Task Force, the group approached the Food Services Division of the School District of Philadelphia with a request to implement the standards first in the pilot schools. As an initial step, the Committee on Nutrition Standards worked with Food Services to remove all sodas from pilot schools in September 2001. All snacks in these schools were changed in accordance with the snack standards at the same time. By March 2002, the pilot schools also had removed all Fruitopia and Nestea drinks, as well as juice drinks and sweetened drinks that did not meet the standards set by the Committee. These beverages were removed from both school vending machines and cafeteria lines.

In February 2003, the School District of Philadelphia released a Request for Proposal for an exclusive beverage contract. Like many urban school districts, Philadelphia does not receive

sufficient funding to cover all its costs. Beverage contract revenues are one way to help offset funding gaps. The district received proposals for exclusive beverage rights from several beverage suppliers.

The Food Trust organized the Philadelphia Coalition for Healthy Children, a group separate from the SNPI Task Force, to work with the District and the School Reform Commission (the appointed body that governs the School District) to ensure that any beverage contract that was signed would not jeopardize the health of students. The Coalition focused only on beverages since an exclusive contract for snacks was not under consideration. Parents, health professionals, school personnel, and other interested persons joined the coalition. They also attended School Reform Commission meetings to express their interest in making child health and the prevention of childhood obesity priorities in the vending contract negotiations.

The Food Trust commissioned a poll showing that 9 out of 10 parents of Philadelphia schoolchildren wanted only water and 100% fruit juice in school vending machines. The Coalition worked with the Philadelphia City Council to pass a resolution calling on the School Reform Commission to hold public hearings and to allow only healthy beverages in vending machines.

The Coalition also met with School Reform Commissioners and state legislators to garner support for a beverage policy that allowed only water, 100% fruit juice, and milk in schools. In July, then District CEO Paul Vallas announced his support for banning soda and called on the School Reform Commission to enact the new policy.

The School Reform Commission held two days of hearings in August 2003 to invite comment on the need for a new beverage policy. Elected officials, nutritionists, doctors, obesity researchers, teachers, parents, and students testified in favor of banning soda and other sweetened beverages from schools. A smaller number testified against a soda ban, including researchers with funding from the National Soft Drink Association, one school principal, and a parent who thought students should have the freedom to choose their drinks.

After the hearings, the Coalition continued its efforts to garner support around a healthy beverage policy by contacting the media, e-mailing the CEO of the school district, and presenting the School Reform Commission with a petition signed by the Philadelphia Coalition for Healthy Children to implement a new policy based on the recommendations that gained widespread support at the hearings. By a 3-2 vote, in February 2004, the School Reform Commission banned soda and other non-nutritious beverages by passing the School District of Philadelphia Beverage Policy.

The Division of Food Services rejected all proposals it had received for an exclusive vending contract and instead implemented the new policy throughout the district on July 1, 2004. The new policy only allows 100% juice, water and milk to be sold in schools. The Philadelphia School District's beverage policy is one of the toughest in the nation and is viewed as a national model for improving school nutrition. The nutrition standards for snacks were implemented across the district at the same time, although the policy was not formally approved until a later date.

The Food Trust and its community partners are continuing to advocate for policy changes to improve the nutritional environment for children and their families. Policy work that has taken place since the implementation of this policy includes the development of a healthy after-school snack policy for the Philadelphia Department of Recreation and the Healthy Corner Store Initiative, a project aiming to change the corner store environment to encourage youth to purchase healthier snacks before and after school.

Chapter 8

Involving Families and the Community

Schools are on the frontline in the battle against childhood obesity, but they can't win the war alone. To create a healthier environment for children, schools need support from parents and the community.

Because parents are the strongest advocates for their children's health, they can have a major impact on changing school practices. However, many parents suffer from a disconnect between what they think schools are doing to help fight obesity, and what schools are *actually* doing.¹ In one survey, more than half of parents rated their child's school as "excellent" or "good" on providing nutrition education.¹ Yet, in reality, the average primary school teacher provides only 13 hours of nutrition education per year—a fraction of the 50 hours needed to change children's attitudes and behavior.²

Engage Parents as Partners in School Health

Parents need to understand and reinforce the healthy behaviors that the school is trying to help students develop. Providing parents with information and resources on good nutrition and physical activity can enhance the health of the whole family. In Philadelphia, schools that participated in the School Nutrition Policy Initiative used a variety of communications to reach out to families, including:

- A letter to parents to announce the program, sent home with students at the start of the school year in a colorful folder.
- Presentations and information tables at meetings of the Home and School Association (i.e., the parent-teacher group).
- Exhibits at Report Card nights and Back-to-School events.
- Parent education meetings and weekly nutrition workshops.
- Newsletters sent home to all parents.

Here are other helpful ways for schools to engage parents as allies in the fight against childhood obesity:

- **Work with the parent-teacher group at school.** An active parent-teacher group can be a strong advocate for programs to improve childhood nutrition and physical activity. For example, the group can sponsor non-food fundraisers and serve healthy snacks at school events.
- **Give parents resources to reinforce the healthy behaviors children learn in school.** For instance, send parents a list of healthy snacks they can bring to classroom parties or provide tips to reduce TV watching at home.
- **Get families involved in school health activities.** Invite parents to eat school breakfast with their children on occasion. Assign homework to prompt family discussion on healthy habits, such as asking kids to find low-fat snacks at home.

- **Involve parents in decision-making on school health issues.** Include parents on School Health Councils and Wellness Committees. Parents' feedback also can be solicited through surveys and at meetings.

Build Connections with Community Partners

Outreach to the surrounding community is another important way to strengthen school programs that promote good nutrition and an active lifestyle. Potential community partners include supermarkets, restaurants, youth-serving agencies, and local farms or farmers' organizations.

The Food Trust has created a number of model community initiatives to promote healthier communities through collaboration between schools and local businesses or other community partners. These programs can be implemented in virtually any school:

- **The Kindergarten Initiative.** This initiative teaches young children and their parents about food, farms, and nutrition. Kindergarten (and pre-kindergarten) students learn about nutrition in their regular school curriculum and enjoy healthy fruit and vegetable snacks grown by local farmers. The Kindergarten Initiative Toolkit, available at www.thefoodtrust.org, provides tips for implementing a similar program in your area.
- **The Corner Store Campaign.** This campaign aims to improve the snack food choices made by adolescents in corner stores. The campaign increases demand for healthy snacks, expands the availability of healthier choices in stores, and promotes the school meals program.
- **The Healthy Beverage Toolkit.** This free resource helps parents, school staff, and community leaders reduce childhood obesity by promoting healthy beverage consumption. The kit focuses on what beverages are sold and served to children at school, and how to work with beverage vendors to introduce healthy products.
- **The School Market Program.** Through this program, students create, own and operate markets in their schools, where they sell fruit and vegetable products to fellow students and teachers during the school year.

For more information on these and other programs, go to www.TheFoodTrust.org and click on "Programs and Initiatives." Or call The Food Trust at 215-575-0444.

Chapter 9

Marketing 101 for Healthy Eating and Physical Activity

An estimated \$10 billion a year is spent marketing foods to children.¹ The average American child sees about 10,000 food ads on TV a year, mostly for products loaded with sugar, fat, and salt.² Young children are especially vulnerable to persuasive food ads, because they are not mature enough to understand that advertisers are trying to sell them something. For example, in one study of children ages 6 to 8, 70% thought fast foods were healthier than home-cooked foods.³

Social marketing is a powerful way for schools to turn the tables on corporations that advertise low-nutrition foods to kids. Social marketing uses concepts from commercial marketing to benefit the public by “selling” healthy attitudes and behavior, such as good nutrition and an active lifestyle.⁴

Know Your Audience

Social marketing starts with listening to the needs and desires of your target audience—in this case, students—and building your program from there. You can learn about students’ needs and preferences in a variety of ways:

- **Get feedback from student groups.** For example, start a Student Nutrition Advisory Council. Student members can provide input and spread enthusiasm about activities to their peers (see Chapter 3).
- **Conduct student taste tests.** Pass out free samples of healthy items and ask students which they like best. Offer preferred products in the cafeteria.
- **Try other evaluation methods, as needed.** Conduct student focus groups or survey parents on ways to improve nutrition and physical activity.

Also, ask for feedback from other target audiences for your program, such as teachers, school food personnel, and parent-teacher groups. The more buy-in from the entire school community, the more successful the program will be.

Add Pizzazz to Health Promotion

Just as commercial marketers use captivating cartoon characters and catchy slogans to sell products, so can your school wellness program. In the School District of Philadelphia, students received colorful program materials emblazoned with a special logo (an orange character with sunglasses and flexed biceps) and the slogan, “Want Strength, Eat Healthy Food!”

Other campaign components that worked well in Philadelphia campaign and would be easy to do in other schools:

- **Hold contests and games to create excitement and reward students for healthy choices.** Raffle tickets were given to elementary students who bought featured healthy

meals or beverages. Weekly winners got prizes, such as jump ropes or indoor basketball hoops, to reinforce healthy behaviors.

- **Invite local “celebrities.”** A weekly breakfast club for students featured visits by uniformed athletes from a nearby university. Participation in the school breakfast program doubled in the first month.
- **Create tie-ins with classroom instruction.** In one class, children learned about plant parts by making and eating a salad in class. In another, they answered simple math problems by doing jumping jacks.

School Nutrition Policy Initiative Marketing

The social marketing campaign in the pilot schools was a healthy version of *McDonald’s Happy Meals* with prizes associated with the desired behavior. After purchasing healthy beverages or snacks, students receive raffle tickets for prizes that reinforce healthy eating, physical activity, and learning, such as:

- Bicycles,
- Indoor basketball hoops,
- Jump ropes, and
- Calculators

Create a Memorable Campaign Theme

To motivate students to change their behavior, create a special theme for your program. (See sidebar on the 2-1-5 campaign). A good campaign message is simple, strong, repetitive, and specific about the desired behavior.⁵ Keep the message upbeat to engage and excite students.

Other tips:

- **Involve students in the campaign.** Sponsor a contest for the best student campaign posters or slogan. Ask kids to create a video about the campaign.
- **Use multiple channels to send consistent messages.** Examples include flyers, posters, school announcements, classroom activities, information on school menus, articles in the school newsletter, and press releases to local media.

Tap the Power of the “P’s”

While **promotion** is the cornerstone of effective social marketing, other strategies to encourage healthy eating and physical activity are important, too.⁵ Consider these additional “P’s” to help market your program:

- **Product.** When practical, give students a say in the selection of healthy products, such as which types of 100% fruit juice to serve.
- **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.⁶

- **Place.** Put healthy foods where they are easy for students to see and access. For instance, vend healthy beverages in glass-front machines and put salads at the start of the cafeteria line.
- **Positioning.** For students, position messages about healthy eating and physical activity as fun and “cool.” For parents, position efforts to serve healthier meals and encourage activity as an act of love.

[sidebar]

The 2-1-5 Campaign: Watch Less, Move More, Eat Better

In Philadelphia, 2-1-5 is not just an area code—it’s also a simple formula for fitness. 2-1-5 is shorthand for no more than **2** hours of TV a day, **1** hour of physical activity, and **5** servings of fruits and vegetables.

The CDC has recognized the 2-1-5 campaign as an effective intervention message to curb childhood obesity. The Food Trust launched the 2-1-5 campaign in five Philadelphia middle schools in 2004. The campaign since has been replicated in more than 50 city schools and recreation centers.

[end of sidebar]

Chapter 10. Evaluating Your Policy: Looking Back, Moving Ahead

Evaluating your nutrition policy can yield information on the extent to which you have reached your goals and objectives, helping you decide on further changes to better meet the needs of your students.

The Research Committee of the Comprehensive School Nutrition Policy Task Force decided what was most important to assess and identified the measures used to complete the evaluation. Temple University's Center for Obesity Research and Education (CORE) partnered with The Food Trust to design and carry out the study. The Task Force sought to decrease the prevalence of overweight through changes in four target behaviors among children:

- Decreased consumption of high-fat foods and sugared soft-drinks
- Increased consumption of fruits and vegetables
- Reduced television viewing
- Increased moderate and vigorous activity

In Philadelphia, the evaluation consisted of:

- **needs assessment** to provide a baseline on each element of the nutrition policy
- **process evaluation** to provide information on the extent to which the policy was implemented
- **outcome evaluation** to assess the extent to which the project's goals and objectives were met (see sidebar for details)
- **policy analysis** to examine the cost of implementing the nutrition policy

The first step Philadelphia took was to assess the health and environmental impact of the nutrition policy on students and schools using the School Health Index (SHI), a self-assessment and planning guide for schools to assess healthy eating and physical activity. The SHI was used to both assess the environment and to evaluate changes in school policies over time.

The process evaluation was conducted by a multi-disciplinary team of researchers who assessed the many aspects of the school environment that affected student eating behaviors and physical activity. The researchers examined school food, the nutrition education curriculum and the number of teaching hours, opportunities and barriers for physical activity, teacher awareness and training opportunities, parent education and methods for reaching parents, and available community services. The results helped determine the most cost-effective way to implement the Comprehensive School Nutrition Policy to promote health and prevent childhood obesity.

Schools and community members participated in the assessment to evaluate the success of implementing the policy. Schools and policymakers worked with evaluation specialists, the school district and the state Departments of Education and Health to identify methods and materials for evaluating the effectiveness of their programs. The key to a strong research and evaluation component is a partnership with skilled researchers. Community and school-based groups and university-based researchers can work together to create valid evaluations that can increase parent and community support for school programs, help schools reward teachers for exceptional work, and support grant applications for enhancing school nutrition initiatives.

[Sidebar for Chapter 10]

Outcomes Information Collected by the SNPI Research Team

The outcome evaluation, carried out by Temple University's CORE, collected information on changes in children's weight, food intake, physical activity, and body image:

Heights and weights were measured annually on a digital scale and wall-mounted stadiometer by a trained research team with a standardized protocol. BMI z-scores and percentiles based on age and gender were calculated for each student.¹

Dietary intake, specifically total energy consumed (kcal), fat consumption (g), and the number of fruit and vegetable servings, was measured with the Youth/Adolescent Questionnaire, a self-administered 152-item food frequency questionnaire, which has been used to measure dietary intake in previous studies.^{2,3}

Physical activity and sedentary behavior, specifically television viewing, were measured by the Youth/Adolescent Activity Questionnaire, a self-administered 24-item questionnaire.

Body image was assessed using a body dissatisfaction measure.⁴

Measuring these outcomes may not be practical for many schools that want to evaluate the impact of new programs and policies to promote healthy eating. However, by teaming up with university researchers, much additional information can be gained from evaluating your school-wide policy changes.

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