Promoting Healthy Eating and Active Living: What Schools Can Do

The Childhood Obesity Epidemic

- Percentage of overweight children and teens has tripled since 1970’s
- Nationally, 16% of youth aged 6-19 are overweight; another 15% are at risk of overweight
- Rates higher in NYS, and increasing quickly (see below)
- Rates higher and increasing faster in minority children
- Indicator of unhealthy eating and activity patterns of most kids
- Contributes to poor self-esteem, increases risk of adult obesity, diabetes, chronic diseases
- If current trend continues, 1 in 3 children born in 2000 will become diabetic (CDC, 2003)

Cause: Energy Imbalance (Too many calories and too little activity)

Physical Activity Contributors:
- Lack of physical activity: less active play, PE, recess, or walking to school
- Excessive TV viewing, videos, computer games

Dietary Contributors:
- Over-consumption of sweetened beverages (soda, fruit drinks)
- Lack of vegetables, fruit, fiber, and low-fat dairy in diet
- Excessive portion sizes
- High consumption of fast foods
- Skipping breakfast

The School Food Environment

- Includes nutrition education, classroom snack times and parties, food used as reward, fundraising, advertising, lunch timing, vending and a la carte (during and after school), school meals, and role modeling.
- Food service must be self-sufficient, no district funding; Federal reimbursement rates declining while costs increasing.
- A la carte snacks/beverages increasingly sold to balance food service budget and bring in needed school revenue.
- Federal/state laws only forbid soda and hard candy, and only until end of last lunch period; little enforcement.
- Reimbursable school meals must meet nutrition guidelines, standard portions
- Challenge: Provide meals that are (a) low-cost, (b) healthy, (c) liked by students
- Compared to non-participants, kids who eat school meals:
  - Consume less soda, fruit drinks, and added sugars
  - Consume more vegetables, milk, dairy, and meat
- But many students choose to buy a la carte or vending items rather than a meal

The School Physical Activity Environment

- PE, recess time being cut due to tight budgets and emphasis on academics
- Few students walk or bike to school
- NYS mandates 120 minutes/week of PE for K-6th and 2-3 times/week for 7th-12th, but not enforced and few schools offer this much (those that do have lower rates of overweight even after control income)
- Physical activity is linked to academic achievement

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1 At or above the 95th and 85th percentiles of body mass index (BMI) for age and sex, respectively, based on CDC growth charts 2000 (Hedley et al., JAMA 2004)
School-Based Strategies for Improving Diet and Activity in Youth

- Cafeteria: Provide enough time to eat as well as socialize, schedule recess before lunch
- School meals: Offer tastes, classroom experience with new healthy items (takes 8-10 tries of new food before kids accept it), use local produce
- A la carte/vending: Increase healthy choices, replace sweetened beverages with water and low-fat milk
- School breakfast: Encourage participation and healthy choices
- Classroom food: Limit morning snack-times to fruits/vegetables/low-fat dairy, encourage healthy choices at parties
- Classroom teaching: Integrate skills-based education on diet and physical activity into curriculum
- Food as reward: Do not use food as a reward, try extra recess instead
- Physical education: Provide daily PE or increase to NYS mandated amount (120 min/wk K-6, 2-3 times/wk 7-12); Emphasize lifetime fitness skills; Share evidence that physical activity is linked to academic achievement
- Recess: Increase amount, encourage active play, have active indoor recess when can’t go outside
- Fundraising: Sell mostly non-food or healthy items, create guidelines
- School/PTA events: Include healthy choices such as fruits, vegetables, 100% juice, low-fat milk
- After-school: Provide programs that build food preparation skills and encourage lifetime fitness activities; Offer healthful snacks and opportunities for fun, non-competitive physical activities that children of diverse interest levels and physical abilities can enjoy
- Role modeling: Encourage staff to eat with students, wear pedometers; Work with staff to create an environment that enables them to model and encourage healthy behaviors; Help staff address their own issues and concerns related to weight and body image
- WOCS: Participate in Walk Our Children to School events, collaborating with community members and organizations

Community-Based Strategies

- Work with others to create safer play areas and walking/biking routes
- Encourage more healthy foods at community events
- Establish community or youth gardens

Prevalence of Childhood Overweight in New York State

Data from various sources show:

- 24% of New York City K-5th graders are overweight, and another 19% are at risk of overweight (2003, vs. 19% and 16% in 1990)\(^2\)
- 21% of 3rd graders in Upstate NY are overweight (2004, vs. 13% of 2nd & 5th graders in 1987)\(^4\)
- 17% of low income NYS 2-4 year olds are overweight (2003, vs. 12% in 1989)\(^6\)
- 28% of 9th-12th graders state-wide are overweight or at risk of overweight (2003, vs. 23% in 1999)\(^7\)

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2 NYC Dept. of Health and Mental Hygiene, 2003
4 NYS Dept. of Health survey, 2004
5 Wolfe et al., AJPH, 1994
6 NYS Dept. of Health, CDC PedNSS, 2002
7 CDC YRBSS, 2003 (based on self-reported heights and weights)
<table>
<thead>
<tr>
<th>Contributor to Childhood Overweight</th>
<th>Child Behavior Objective</th>
<th>Strategies for a Supportive School Environment</th>
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<tbody>
<tr>
<td>1. Excessive TV, video and computer use</td>
<td>Limit TV/video/computer to 1-2 hours per day; increase other activities instead</td>
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<tr>
<td>2. Lack of physical activity</td>
<td>Increase daily active play and other fun, lifestyle physical activity; National goal is 60 minutes/day</td>
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<td>3. Over-consumption of sweetened beverages</td>
<td>Replace sweetened beverages such as soda &amp; fruit drinks with water &amp; low-fat milk</td>
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<td>4. Excessive portion sizes</td>
<td>Eat standard portions, e.g., USDA serving sizes, or smaller portions</td>
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<td>5. High consumption of fast foods</td>
<td>Eat fast food no more than 1-2 times/week; supplement fast food meals with fruits, vegetables, milk/water</td>
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<td>6. Skipping breakfast</td>
<td>Eat breakfast daily</td>
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<td>7. Lack of low-fat dairy in diet</td>
<td>Consume 2-3 cups of fat-free or low-fat milk, or equivalent dairy per day (2 cups for ages 2-8 and 3 cups for ages 9+)</td>
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<td>8. Lack of vegetables, fruit, and fiber in diet</td>
<td>Consume 3-4 cups of fruit and vegetables per day. Consume whole-grain products often; at least half the grains should be whole grains</td>
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"A healthy weight is the weight you achieve when you have a healthy lifestyle" (Joanne Ikeda)
Youth Resources to Promote Healthy Eating and Active Play at School

Resources to Promote Youth Action

Playing the Policy Game: Preparing Teen Leaders to Take Action on Healthy Eating and Physical Activity
Developed by California Project LEAN, this field-tested training guide leads groups through the four stages of policy-making and highlights nutrition and physical activity policies in the school and community that teens can pursue with adult guidance. The toolkit includes a collection of activities and success stories of California teens making nutrition and physical activity policy changes in their communities. This booklet is designed for use with teens, with the goal of helping them develop leadership skills, eat healthier, and become more physically active. Available in Spanish. Download or order from California Project Lean, http://www.californiaprojectlean.org/

Food on the Run: Lessons from a Youth Nutrition and Physical Activity Campaign
This guide provides real life examples of how Food on the Run, a California-based project, worked with youth advocates to make healthy eating and physical activity easier to do at their schools. Steps for implementing a nutrition and physical activity youth advocacy program are described, including recruiting and working with teens, training teens on physical activity and nutrition, taking action for change and more. Download or order from California Project Lean, http://www.californiaprojectlean.org/

Generation Fit: Today’s Generation Advocating for Good Health
This Action Packet contains instructions and supporting materials for five health-related community action/service learning projects that focus on nutrition and physical activity. These activities are designed for young people aged 11-18 in schools or community youth groups. Order from American Cancer Society, 1-800-ACS-2345, www.cancer.org

www.fourthcouncil.edu
http://msucares.com/4h>Youth/health_rocks/

Elementary Curricula: Experiential Learning Activities

Youth Curriculum Sourcebook. 1999
Goals: To provide educational opportunities that will help youth choose and use food for good health, improve general health, and increase life skills. To help educators design and implement programs based on learner, teacher, and implementation goals.
Ages: 6 to 11 (primary grades)
Development: EFNEP, University of Wisconsin. Developed for after school and summer programs.
Theory/Rationale: Several educational theories/concepts define the Sourcebook. Piagetian theory emphasizes the importance of the child’s interaction with real world objects and events for his/her development. The focus is on pre-operational and concrete operational stages of development and how that is applied to choosing and designing activities to teach nutrition. Experiential learning, cooperative learning, and life skills concepts and approaches to teaching are also part of the design.
Content: The 500-page sourcebook contains seven activity sections based on the Food Guide Pyramid. Each section contains four content areas—food familiarity, food safety, food choices, and physical activity. Also included are tips for planning programs, working with youth, and evaluation tools.

TV Reduction: Middle School Age
Do More, Watch Less!
This TV reduction tool is targeted towards 10 to 14-year-olds in after school programs and other youth-serving organizations. The sessions aim to help youth incorporate more screen-free activities into their day while reducing the time they spend on screen-based activities such as watching TV, surfing the internet, and playing video games. California Obesity Prevention Initiative. www.dhs.ca.gov/ps/cdic/copi/

For more teaching tools, see www.cookingupfun.cornell.edu

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Resources for Promoting Healthy Eating and Active Play in Schools

School Wellness Policies

School Wellness Policy Legislation and Examples. At this USDA Food and Nutrition Service website, the new legislation is described, and tips and example policies are provided: www.fns.usda.gov/tn/Healthy/wellnesspolicy.html

Model Local School Wellness Policies on Physical Activity and Nutrition. Developed by the National Alliance for Nutrition and Activity (NANA), a collaborative effort of 60 health, nutrition, physical activity, and education organizations: www.SchoolWellnessPolicies.org


Action for Healthy Kids: Wellness Policy Tool. This searchable database was developed by Action for Healthy Kids in partnership with CDC to help districts identify policy options and write their own policies. Users can adapt or copy sample language from un-reviewed policies gathered from across the country. http://www.actionforhealthykids.org/devel/index.php

An Action for Healthy Kids Report: Helping Students Make Better Food Choices in School. This report outlines the work undertaken with 12 Illinois schools in which strategies were implemented to improve student food choices. It also includes several key findings regarding how we can best support our schools as they move from developing their local wellness policies to actually implementing and monitoring those policies. Action For Healthy Kids. http://www.actionforhealthykids.org/special_exclusive.php

Making It Happen! School Nutrition Success Stories. Tells the stories of 32 schools or districts that implemented innovative approaches to improve the nutritional quality of foods and beverages offered and sold on school campuses outside of school meals. www.fns.usda.gov/tn/Resources/makingithappen.html or www.cdc.gov/healthyyouth/nutrition/Making-It-Happen/
School Foods Toolkit: A Guide to Improving School Foods and Beverages. Designed to help local efforts to improve the nutritional quality of foods and beverages at school. Part I includes strategies, fact sheets, and techniques to affect change. Part II provides model policies, sample letters, and a list of resources. Part III presents examples of successes from around the country. Download free (83 pages) or purchase from the Center for Science in the Public Interest: www.cspinet.org/schoolfood

“Healthy Food, Healthy Kids: A busy parent's guide to banishing junk food from your child's school - and getting kids to eat the good stuff” Despite the title, this is a nicely written "how-to" guide developed by parents who have actually gone through this process, involving food service staff, students, school board, etc. and achieving change without losing money: http://pasaorg.tripod.com/nutrition/pdfs/QuickGuide.pdf

School Wellness Policy and Practice: Meeting the Needs of Low-Income Students. This guide is intended to supplement other wellness policy tools by providing strategies that address the special concerns of low-income students in local school wellness policies. Sample policies, model programs and key research are provided. Emphasis is on: Family and Community Involvement, Increasing Access to School Meals, Establishing Nutritional Guidelines for All School Foods, Addressing Cost Concerns about Changing Competitive Food Policies, and Increasing Physical Activity and Recreational Opportunities. Free to download from: http://www.frac.org/pdf/wellness_guide2006.pdf or http://www.frac.org/html/news/wellness_guide2006.html


Other Tools for Improving School Environments

The School Health Index. Self-assessment and planning tool for schools to identify the strengths and weaknesses of their physical activity and nutrition policies and programs, develop an action plan, and involve teachers, parents, students, and the community in improving school services. It can be completed in as little as 5 hours. Available free from: http://apps.nccd.cdc.gov/shi

Changing the Scene: Improving the School Nutrition Environment. This boxed kit can help local people take action to improve their school's nutrition environment. Order from Team Nutrition, FNS, USDA: www.fns.usda.gov/tn/Resources/changing.html
KidsWalk-To-School: A Guide to Promote Walking to School, CDC. A guide to help communities develop and implement a year-long walk-to-school initiative. Includes a step-by-step checklist, KidsWalk-to-School tools, including sample letters, surveys, evaluations, and a press release form, safety tips on walking, biking, school bus safety, and stranger danger tips, and ideas to make walking to school an active and exciting part of a child's day. Available free to download (printed copies no longer available).
www.cdc.gov/nccdphp/dnpa/kidswalk/resources.htm
See also: www.walktoschool-usa.org, www.walkingschoolbus.org

Recess Before Lunch
Guidebook (Montana Team Nutrition) www.opi.state.mt.us/schoolfood/recessBL.html
Brochure (Wyoming Action for Healthy Kids)
www.wdairycouncil.com/htmlpages/reproduciblehandouts.htm

The Learning Connection: The Value of Improving Nutrition and Physical Activity in Our Schools Summarizes research that supports making quality daily physical education and good nutrition priorities in our schools, to improve academic achievement. Available from www.actionforhealthykids.org

Alternatives to Food as Reward [1 page] Provides suggestions for effective non-food rewards for use in schools. Available from Michigan State University Extension:
www.tn.fcs.msue.msu.edu

Cornell Farm to School Program. Website with resources to help schools promote and serve locally produced foods in their cafeterias. www.cce.cornell.edu/farmtoschool

Healthy School Fundraisers. For ideas, see: www.actionforhealthykids.org (do search)

Additional Resources for Preventing Childhood Obesity

Resources for Working with Parents


Fit Families Novela Series: For Parents Who Want the Best for Their Families. 2005. Video and print foto-novelas to stimulate discussion among parents of young children on how to create healthy snacks, increase physical activity, and limit TV watching. Realistic characters are used to help parents understand how small changes can make a big difference. Order from www.anrcatalog.ucdavis.edu. Publication 3496, $65.00.

Resources for Working with Communities

Children and Weight: What Communities Can Do! 2002. This resource kit, developed by the Center for Weight and Health, UC Berkeley, is a “how-to” guide for community leaders who want to launch a local task force dedicated to reducing childhood overweight. It includes guidelines for identifying task force members, step-by-step guides for your initial task force meetings (including agendas, overheads, and handouts), and guidelines for setting goals and objectives and devising an action plan. Order from www.anrcatalog.ucdavis.edu


Background Materials


Preventing Childhood Obesity: Health in the Balance. 2005. This comprehensive report by the Institute of Medicine (IOM) reviews the behavioral, socio-cultural and other broad environmental factors involved in childhood obesity and identifies promising approaches for prevention efforts. Order from www.nap.edu. For downloadable Fact Sheets (e.g., on what Communities, Schools, and Parents can do), see: www.iom.edu.


Your Child’s Weight: Helping Without Harming. Kelcy Press, 2005. This is Ellyn Satter’s latest book. It provides guidance to parents on how to feed well, using the division of responsibility in feeding, parent well, and accept their child’s natural body shape and size. See also www.ellynsatter.com


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Promoting Healthy Eating & Active Living for Youth
Teaching Tools

**Cooking Up Fun! 1998-2006.**

**Goal:** To increase food skills of adolescents.

**Ages:** 9 to 14 (grades 4 - 9)

**Development:** Cornell University; developed with EFNEP, FSNE, and 4-H Youth Development staff in after school programs.

**Research:** Research suggests CUF! helps youth gain selected skills, knowledge, and behaviors related to food preparation. The program is structured with assets such as mastery motivation, personal efficacy, personal autonomy, and positive relationships with caring adults as guiding principles of positive youth development.

**Content:** Theme-based teaching guides contain collections of recipes and additional activities to promote food skills (reading recipes and food labels, kitchen and food safety, ingredient science, and nutritional choices). Designed for 90-minute sessions with small groups of youth (2 adults with 6-8 youth) working in independent or partner workstations. More detail on website: www.cookingupfun.cornell.edu

**Available from:** Resource Center, Cornell University.

**EatFit.** 2002.

**Goal:** To improve eating and fitness choices of adolescents.

**Ages:** 11 to 15 (grades 6-10).

**Development:** University of California, Davis; developed with EFNEP and classroom teachers.

**Research:** Research showed that youth who participated in EatFit improved dietary and physical activity practices. A “guided” goal setting approach is used to promote decision-making and facilitate behavior change, based on Social Cognitive Theory.

**Content:** A teachers manual, magazine-style workbook, and interactive website support a 9-lesson sequential program. Students choose one eating goal (increase calcium, increase iron, reduce fat, reduce added sugar, increase fruits and vegetables, improve general eating habits) and one fitness goal (stretching, strength, aerobic, lifestyle) based on computer-aided self-assessment. Lessons emphasize immediate benefits of making healthy choices: increased energy, improved appearance, and greater independence. More detail on teacher link of student website: www.eatfit.net

**Available from:** USDA-FNS, www.fns.usda.gov/tn
Binder with posters and computer disk available free to participants of USDA’s Child Nutrition Programs; all components except video available online.


**Goal:** To help youth understand how their decisions about eating and physical activity can affect their health now and in the future.

**Ages:** 11-14 (grades 6-9)

**Development:** USDA-FNS and HHS-FDA, Team Nutrition; for after school programs.

**Content:** Teaching kit includes ten 1-hour lesson plans, handouts, posters, video, and computer disc. Food and fitness activities are clustered by themes such as label reading, serving sizes, and fast food. After each session, youth review what they learned to complete a goal-setting form. More detail on Team Nutrition website.

**Available from:** USDA-FNS, www.fns.usda.gov/tn

Binder with posters and computer disk available free to participants of USDA’s Child Nutrition Programs; all components except video available online.

**yourSELF.** 1998.

**Goal:** To help youth understand how their decisions about eating and physical activity can affect their health now and in the future

**Ages:** 11-14 (grades 6-9)

**Development:** USDA-FNS and HHS-FDA, Team Nutrition; for classroom teaching.

**Content:** Teaching kit includes video, classroom magazine, worksheets, and poster. Two 7-minute video segments introduce and wrap-up a series of activities in the classroom magazine and worksheets; totals 5 hours of classroom time.

**Available from:** USDA-FNS, www.fns.usda.gov/tn
All components except video and poster available online.

**Jump into Food & Fitness.** 2003.

**Goal:** To help children develop healthier lifestyles that will improve their overall health.

**Ages:** 8 to 11 (grades 3 to 5)

**Development:** Michigan State University

**Content:** The 7 “Kangaroo Jumps” are designed for 60- to 90-minute sessions. Each session includes food, fitness, and food safety activities plus snack suggestions and a family letter. More details at the JIFF website: http://web1.msue.msu.edu/cyf/youth/jiff

**Available from:** MSU Bulletin Office, see JIFF website.
**Science Experiments**
- Kitchen Science for Kids. 1995. (ages 5-11)
- In the Bag! 1995. (ages 5-8)

**Children’s Storybooks**
- In the Bag! 1995. (ages 5-8).
- Theme lists in Kitchen Science for Kids and Cooking Up Fun!
- Children’s Storybooks to Teach Nutrition, P. Thonney. www.cookingupfun.cornell.edu

**Websites**
- www.fightbac.org FightBac! Promote food safety. Partnership for Food Safety Education.
- www.cdc.gov/nccdphp/dnpa/5aday 5 A Day for Better Health. Increase daily servings of fruits and vegetables to 5 or more. Center for Disease Control (CDC), Department of Health and Human Services (DHHS).
- www.verbnow.com VERB. Promote physical activity for ages 9-13. CDC, DHHS.

**Additional Resources for Educators, Parents, Mentors**
- BodyWise. Fact sheets and resource lists to help educators detect eating disorders among adolescents and promote positive body image and healthy eating behaviors. Available from: womenshealth.gov
- The New Normal? – What girls say about healthy living. 2006. This study reports girls’ attitudes about health, body image, diet, weight, and exercise and the impact of adult role models, demographics, and culture. Available from: www.girlscouts.org/research
- BodyTalk 1, 1999; BodyTalk 2, 2001; BodyTalk 3, 2004. Produced by The Body Positive: www.thebodypositive.org. This video series features student discussions about body image. In BodyTalk 1 teens, ages 12 and up, talk about messages they receive about their bodies and eating patterns and how they respond to them. In BodyTalk 2 children ages 8 to 11 talk about issues of puberty, teasing, and fitting in. In BodyTalk 3 children ages 6 to 9 talk about being teased, eating healthy foods, and why exercise is fun. Each video includes a facilitator’s booklet. Available from: www.gurze.net
- Healthy Body Image: Teaching Kids to Eat and Love Their Bodies Too! 2nd edition, 2005. Kathy Kater, LICSW. This 11-lesson curriculum for grades 4-6 empowers students to form a foundation for acceptance of their bodies, to resist unhealthy and unrealistic cultural pressures, and to develop a practical understanding of healthy eating and active lifestyle. Available from: www.edap.org
- How to Get Your Kid to Eat... But Not Too Much. 1987; Secrets of Feeding a Healthy Family. 1999; Your Child’s Weight: Helping without Harming. 2005. The connections between nutrition, feeding relationship, and food enjoyment are detailed in these books by Ellyn Satter, MS, RD. Available from: www.ellynsatter.com

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