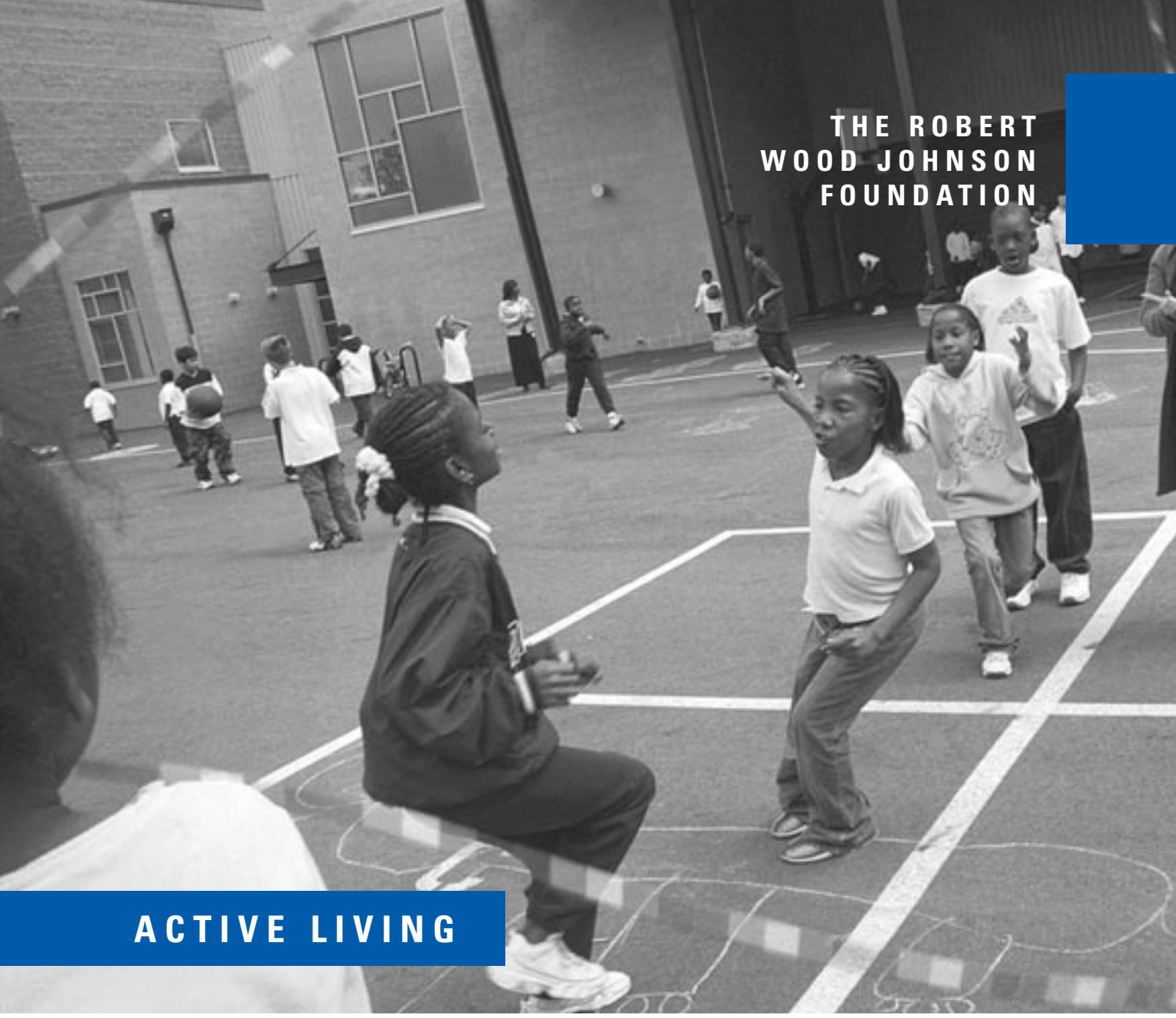

THE ROBERT WOOD JOHNSON FOUNDATION

ACTIVE LIVING

HEALTHY SCHOOLS FOR HEALTHY KIDS

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Produced by Pyramid Communications

EXECUTIVE SUMMARY

INTRODUCTION

Pyramid Communications was retained by The Robert Wood Johnson Foundation to identify opportunities for increasing children's physical activity and healthy eating in schools nationwide. To this end, we conducted an investigation of relevant policies and programs between November 1, 2002, and May 1, 2003.

METHODOLOGY

The following is a brief outline of the steps taken in this project:

National Opinion Poll of Teachers and Parents – Lake Snell Perry & Associates and Market Strategies polled 500 public school teachers and 800 parents in May and August of 2003.

Physical Activity- and Nutrition-Related Policy*

Federal-level Policy – Pyramid followed developments in the reauthorization of the Child Nutrition Act (CNA), reviewed United States Department of Agriculture (USDA) regulations governing competitive foods, interviewed legislative staff and child nutrition advocates, and reviewed relevant legislation introduced in Congress this session.

State-level Policy – Policies on school lunch, competitive foods, vending machines and physical education (P.E.) were obtained from 49 states, and legislative developments were tracked in 50 states.

District- and School-Level Policy – Policies on vending machines and school lunch from more than 25 school districts in 13 states were reviewed. Other inquiries and media reviews identified schools and school districts implementing innovative programs or policies.

Environmental Policy Change – Interviews, discussions and conversations were held with legislative staff, state agency staff and members of the Strategic Alliance for Healthy Food and Activity Environments in California (the Strategic Alliance).

Children's Physical Activity and Nutrition Programs

In-school Programs – Twenty-one programs were identified and reviewed, 15 program leaders were interviewed, and four programs were chosen for site visits.

After-school Programs – Twenty programs were identified and reviewed, and leaders of 14 programs were interviewed.

*Pyramid conducted research through May 1, 2003. Policy activity after this date may not be reflected in this report.

FINDINGS

CURRENT SITUATION

Rates of childhood obesity have skyrocketed over the past decade, resulting in an epidemic that shows no signs of subsiding. Schools can and should become part of the solution.

- In 2000, 76.3% of all U.S. schools offered soft drinks in vending machines.[1]
- Only 21% of public schools offer a salad bar at least once a week.[2]
- Only 8% of elementary schools, 6.4% of middle/junior high schools and 5.8% of senior high schools provide daily P.E. or its equivalent for the entire school year for students in all grades.[3]

TEACHER AND PARENT POLLS

Two polls conducted to assess the opinions of teachers and parents about physical activity and healthy eating in schools revealed extraordinary agreement rarely seen in any type of opinion survey. Teachers and parents overwhelmingly agreed that kids in school should have P.E. every day and have access to healthy foods.

Key Findings

- Teachers and parents overwhelmingly support converting the contents of vending machines to healthy foods and beverages.
- Teachers and parents believe students should be required to take P.E. every day at every grade level.
- Teachers and parents connect physical activity with improved academic performance and behavior.
- Teachers and parents oppose allowing vending machines with soft drinks and unhealthy foods in elementary schools.
- Teachers and parents are in favor of developing new "lifestyle" approaches to P.E. that include activities children can continue to do for the rest of their lives.
- Teachers and parents agree that P.E. should not be cut for budgetary or academic reasons.

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[1] Centers for Disease Control. School Health Policies and Programs Study; 2000. Accessed http://www.cdc.gov/nccdphp/dash/shpps/ 12/5/02.

[2] United States Department of Agriculture. School Lunch Salad Bars Executive Summary; 2002. Accessed http://www.fns.usda.gov/oane/MENU/Published/CNP/FILES/ SaladBars.htm 12/7/02.

[3] Centers for Disease Control. School Health Policies and Programs Study; 2000. Accessed http://www.cdc.gov/nccdphp/dash/ shpps/ 12/5/02.

POLICY

Pyramid examined physical activity- and nutrition-related policies at local, state and federal levels. We found these policies to be linked at all levels, but largely ineffectual due to lack of enforcement. However, we found exceptions throughout California, and in a number of schools and districts around the country, where communities are pressing ahead with their own changes to increase physical activity and healthy eating in schools.

Key Findings

- The USDA regulations, by which all schools participating in the National School Lunch Program must abide, limit some but not all unhealthy foods in schools.
- The definition of foods of minimal nutritional value (FMNV) is outdated and incomplete.
- Many schools say low federal and state reimbursement rates for school lunch and breakfast programs compel them to sell popular but unhealthy foods in order to break even.
- The USDA relies on state education agencies to enforce federal nutrition policies, but most enforcement responsibility for school policy is at the local level.
- The amount of relevant legislation introduced in state legislatures during the first five months of 2003 is almost identical to the amount introduced during a similar period in 2002. However, more of the bills introduced this year specifically addressed the presence of sodas, junk food and vending machines in schools.
- The majority of federal and state legislation on physical activity and nutrition in schools has failed to pass, with Arkansas, California, Mississippi and Texas being the only states to pass legislation between 2001 and 2003 that could drive change at the local level.
- Relevant legislation introduced in the U.S. Congress increased from three bills during the first half of 2002 to six during the first five months of 2003.
- P.E. policies vary greatly from state to state and are rarely enforced.
- The district and school levels are where policy decisions governing schools are most effective, but most current school board policies are out of date and demonstrate little initiative to make healthy foods or daily physical activity a priority.
- More schools and districts are trying to improve their policies on vending machines and school lunches, one step at a time.

IN-SCHOOL AND AFTER-SCHOOL PROGRAMS

Pyramid looked closely at a wide number of programs and approaches to increasing physical activity and healthy eating for children, as well as a variety of factors that program leaders and teachers believe make a program effective. We did not conduct scientific evaluations, but based our findings on reviews of program materials and evaluations, as well as our interviews and site visits.

In-school Programs

Key Findings

- Physical activity and nutrition programs in schools alone cannot solve the childhood obesity epidemic. But such programs can foster long-term healthy habits in children and contribute significantly to prevention.
- Programs need time to succeed.
- Training is critical to successful program implementation.
- "New P.E.," which emphasizes personal fitness and lifelong activities over team sports, is beginning to receive recognition as an effective alternative to traditional P.E. classes.
- Providing kids with a sense of program ownership increases learning and participation and helps maximize the success of in-school programs.
- Teacher buy-in is increased when programs incorporate academics.
- District-level support significantly increases teacher buy-in.
- Children take healthy behaviors home to their families.
- Schools without a strong program leader or cohesive planning team have greater problems with implementation.
- Program implementation is hindered by the increased emphasis on academics and testing.
- Many schools lack funding for equipment, in-class materials or additional training needed for successful implementation.
- Many program providers lack the capacity to provide implementation training and guidance to the growing number of inquiring schools.

After-school Programs

Key Findings

- There is no broad-reaching infrastructure to both disseminate and ensure implementation of after-school programs.
- Most after-school programs do not address physical activity and healthy eating.
- Many after-school programs are led by untrained staff.
- The frequency and duration of after-school programs are highly variable.
- Inconsistent attendance is an issue for many programs.
- Most after-school programs are not based on any model and are developed for and adapted to the communities in which they are implemented.

RECOMMENDATIONS

Pyramid's research on policies, programs and efforts to increase physical activity and healthy eating in schools revealed that change is slowly taking place and gaining momentum. For every school to become a healthy school, a number of steps must be taken. These are encompassed in our recommendations.

- Provide 30 minutes of P.E. for every child, every day in every grade.
- Implement "new P.E." programs.
- Conduct regular physical fitness testing in schools.
- Convert the contents of school vending machines to healthy foods and beverages.
- Improve school lunches.
- Strengthen competitive food standards.

PROMISING APPROACHES

The Strategic Alliance

The Strategic Alliance, a coalition of organizations in California, works to increase physical activity and healthy eating in schools through policy change.

Strategies
The ultimate goal of the Strategic Alliance is *to prevent childhood obesity by making healthy food choices easier and creating more active environments in California's communities.* (Samuels and Associates, *The Strategic Alliance: Theory of Action DRAFT*).

To accomplish this goal, the Strategic Alliance focuses on five areas of influence:

- Children's environments
- Government
- The health care system
- Industry practices
- Media

To achieve policy change within these focus areas, the Strategic Alliance has defined a set of strategies, most of which have been used to achieve their important early successes. These strategies include:

- **Research:** Conduct studies, collect data and develop tracking systems.
- **Standards:** Develop and promote standards, guidelines and regulations.
- **Dissemination:** Disseminate study results and promote strategies, recommendations and standards.
- **Collaboration:** Form a strategic collaboration and provide expertise.
- **Trainings:** Develop and implement materials and trainings.
- **Leadership Development:** Promote community and youth engagement and advocacy.
- **Organizational Advocacy:** Promote policy change and improved practices in organizations and industry.
- **Advocacy:** Support and promote policy changes.

The Strategies in Practice

The Strategic Alliance employed a mix of strategies to achieve the following successes:

- **California Senate Bills 19 (2001) and 677 (2003)**
  The Strategic Alliance was instrumental in passing this legislation that set strict nutritional standards for competitive foods and beverages sold in elementary, middle and secondary schools. Although funding has delayed implementation of the food-related portion of SB19, SB677 provides the opportunity for its implementation in the near future.
- **The 2000 California High School Fast Food Survey**
  The Strategic Alliance surveyed California school districts to ascertain the prevalence of fast foods in high schools, shared results with the media and set the stage for the passage of California SB19.
- **Analysis of the 2001 California Physical Fitness Test**
  The Center for Public Health Advocacy assessed and organized the data of this required test for students in the fifth, seventh and ninth grades to provide state legislators with the fitness results of their districts, putting the problem into focus for them.
- **Recommendations for Competitive Food Standards**
  The Center for Public Health Advocacy convened a National Consensus Panel on School Nutrition to develop competitive food standards in California schools. These standards have been used to educate policy makers and have contributed to policy change at the state and local levels.
- ***Taking the Fizz Out of Soda Contracts: A Guide to Community Action***
  California Project LEAN, a Strategic Alliance member, developed this guide to help parents understand the issues around vending machines in schools.
- **Los Angeles Unified School District soda ban**
  Members of the Strategic Alliance were involved in getting school board members to pass this ban on the sale of all carbonated beverages in every school in the district, the second largest in the country.

EXCEPTIONAL DISTRICT NUTRITION POLICIES

Los Angeles Unified School District, Richland One and Opelika City School System

Pyramid considers the policies of these three districts as exceptional for their stringency and clarity on healthy eating in their schools. Each district took steps to improve student health by developing and implementing strong policies on school lunch quality and/or vending machines.

The Los Angeles Unified School District instituted a district-wide ban on carbonated beverages in 2002 that is to take effect by 2004. Richland One in South Carolina implemented its Healthy and Nutritious School Environment policy in May of 2001, banning carbonated beverages and requiring healthy foods in lunches and vending machines. The Opelika City School System in Alabama has been improving its nutrition policy for over a decade, including healthier foods in lunches, the elimination of vending machines and a closed-campus lunch policy.

IN-SCHOOL PROMISING PRACTICES

Briefly outlined below are the promising practices consistently cited by program leaders, and P.E. and classroom teachers, as techniques they believe to be highly effective for increasing physical activity and healthy eating in schools.

Keys to Long-Term Healthy Behavior in Schools

- Change the school environment.
- Immerse children in healthy messages.
- Involve the whole family.

Program Implementation

- Conduct a needs assessment before implementing a school-wide program.
- Establish an inclusive planning team for school-wide changes.
- Involve food service staff.

Choose individuals with strong leadership skills to lead or coordinate programs within schools.

- Provide teacher training.
- Provide schools with long-term technical support.
- Use programs that are flexible and adaptable.
- Choose programs that are user-friendly.

Messages

- Develop clear, positive physical activity and nutrition messages.
- Create a school environment that reinforces those messages.

P.E. and Physical Activity

- Make physical activity fun.
- Kids of all ages respond positively to non-competitive games and activities.
- Teach younger kids the basic skills they need to participate in physical activity.
- Provide activities that encourage lifelong physical activity.

Nutrition Education

- Provide healthy foods at school; eliminate unhealthy choices.
- Integrate nutrition education across multiple disciplines.
- Engage kids in hands-on learning activities.
- Include children in the planning of healthy cafeteria menus.

After-School Program Promising Practices

Briefly outlined below are the promising practices consistently cited by program leaders as techniques they believed to be effective for implementing after-school physical activity and nutrition programs.

- Make the program fun.
- Make programs convenient.
- Include an appropriate amount of time for homework.
- Make the program social.
- Provide non-competitive activities.
- Cultivate the feeling of being part of a larger group or team.
- Allow kids to choose activities.
- Link autonomy with taking charge of one's health.
- Provide positive, relevant health messages.
- Provide a goal to engage and motivate kids.
- Involve role models.
- Include peer teaching.

SITE VISITS TO PROMISING IN-SCHOOL PROGRAMS

Pyramid conducted site visits to four of the 15 in-school programs reviewed. We made these visits to gain further insights into how programs are implemented and what practices can make implementation successful.

SPARK

SPARK (Sports, Play and Active Recreation for Kids) is a series of research-based physical activity programs. The goal is to increase kids' physical activity by helping teachers maximize the time kids are active in class and by providing fun and inclusive activities. The SPARK in-school programs include Early Childhood (ages 3-5), Elementary P.E. (grades K-2 and 3-5) and Middle School P.E. (grades 6-8).

Spokane Public Schools P.E. Program

P.E. in Spokane Public Schools is a fitness-based program with some health education, beginning in kindergarten and continuing through 10th grade. Heart rate monitors and fitness equipment are essential components of the program. Students rotate between fitness workouts and potentially lifelong physical activities each week. Spokane P.E. aims to maximize the use of P.E. time and increase overall moderate-to-vigorous physical activity in a fun and meaningful way.

Urban Nutrition Initiative

The Urban Nutrition Initiative (UNI) is a mutually beneficial relationship between Philadelphia schools and the University of Pennsylvania (Penn) with the purpose of bringing nutrition education and access to healthy foods to students. In each school, UNI staff, school teachers and Penn faculty partner to develop a curriculum and hands-on activities that are appropriate for each school. The schools welcome Penn students as service-learning volunteers to assist with the program's implementation.

Coordinated Approach to Childhood Health

The Coordinated Approach to Childhood Health (CATCH) is a comprehensive approach to exposing children to nutrition concepts and engaging them in physical activity. This elementary school program is composed of four main components: P.E., in-class nutrition education, healthy changes in school lunch and family involvement.

CONCLUSION

Our investigation of efforts, programs and policies to increase physical activity and healthy eating in schools found that, slowly, change is taking place. Yet there appears to be a need for energetic leadership to push these issues forward and to provide support to those who are working to make schools healthier.

We believe that healthy schools for healthy kids can become the norm. But, at minimum, it will take expanding the reach of quality programs and implementing good policies that foster lifelong physical activity and healthy eating habits in children.

I. INTRODUCTION

A. PROJECT OBJECTIVES

Pyramid's overall goal in the *Healthy Schools for Healthy Kids* project, conducted for The Robert Wood Johnson Foundation, was to identify opportunities for increasing children's physical activity and healthy eating in schools nationwide.

To deepen and refine the understanding of these issues, Pyramid closely examined relevant policies and physical activity and nutrition programs for in-school and after-school settings. As a result of our investigation, we developed our findings, a set of recommendations for increasing physical activity and healthy eating in schools and a collection of promising approaches.

B. METHODOLOGY

Pyramid investigated policies and programs to increase healthy eating and physical activity in schools between November 2002 and May 2003. We employed the following methodology.

NATIONAL OPINION POLL OF TEACHERS AND PARENTS

Pyramid contracted Lake Snell Perry & Associates and Market Strategies to conduct two national polls, one of public school teachers and one of parents of school-age children, about issues of children's physical activity and healthy eating in schools. The National Education Association (NEA) provided a random sampling of teachers from its membership list.

- Five hundred (500) public school teachers belonging to the NEA were polled between May 27th and May 29th, 2003.
- Six hundred (600) parents with at least one child in a public school, plus an oversample of 100 Hispanic and 100 African-American parents, were polled between August 4th and August 7th, 2003.
- Telephone numbers of the parents were drawn from a random-digit dial sample.
- For each group polled, the sample was stratified geographically by state, based on the proportion of teachers or parents in each region.
- Data in each poll was weighted by region and race to reflect the attributes of the actual population of teachers and parents.
- The oversample of Hispanic and African-American parents was weighted down into the base sample to their proper proportion.

PHYSICAL ACTIVITY- AND NUTRITION-RELATED POLICY

Pyramid undertook numerous activities to review local, state and national physical activity- and nutrition-related policies affecting children in schools. We took the following steps to gather and analyze the policy information in this report.

Reviewed local-level nutrition policies and efforts to ban or change contents of vending machines.

- Obtained and reviewed more than 25 school district policies on vending machines and school lunches from 13 states. The National School Board Association and school district Web sites served as sources of these policies.
- Examined successful efforts to eliminate or change the contents of vending machines in schools and districts.
- Monitored local, state and national media markets for relevant local policy activity.

Reviewed state nutrition and P.E. policies and relevant legislation.

- Made calls to all 50 state education agencies and identified the P.E., school lunch, competitive food and vending machine policies of 49 states.
- Retrieved policy texts from agency Web sites where available.
- Regularly reviewed the legislative Web sites of all 50 states and consulted with the National Council of State Legislatures for the introduction of relevant legislation.
- Informally interviewed state legislative staff in cases where bills appeared to be moving through the legislature.
- Developed a state policy database containing state education agency contact information, state policies on P.E., school lunch and competitive foods, recently introduced state legislation and key legislators, and information on schools or districts working to increase healthy eating and physical activity.
- Met with key California legislative staff.
- Monitored local, state and national media markets for relevant state policy activity.

Reviewed relevant federal legislation and nutrition policies.

- Reviewed USDA regulations for the National School Lunch Program, including those for competitive foods, reimbursement rates and commodity programs.
- Regularly reviewed the United States Congress's Thomas search engine for new and relevant legislation introduced in Congress this session.
- Informally interviewed key federal legislative staff about federal legislation.
- Monitored local, state and national media for relevant federal policy activity.

Investigated successful policy change efforts in California.

- Attended a meeting with the steering committee of the Strategic Alliance.
- Reviewed the materials and interviewed members of the Strategic Alliance.
- Examined successes resulting from the activities of the Strategic Alliance.

Examined current and potential actions around reauthorization of the CNA.

- Listened via the Internet to two CNA reauthorization hearings that took place on March 4 and April 3 in the Senate Agriculture, Nutrition and Forestry Committee.
- Informally interviewed the leadership of key organizations and legislative staff supporting changes to CNA and involved in the reauthorization process.

IN-SCHOOL AND AFTER-SCHOOL PROGRAMS

Pyramid surveyed in-school and after-school programs to identify and collect valuable information about promising programs that aim to increase children's physical activity and healthy eating. We employed the following methodology:

- Conducted research using phone interviews and Internet resources, such as the CDC's State-based Physical Activity Program Directory, article databases of academic journals and others, to identify promising in-school and after-school programs.
- Informally interviewed academics, program leaders, government agency officials, and after-school and education association representatives, including the YMCA, YWCA and Boys & Girls Clubs of America.
- Developed an inventory of 21 in-school programs and formally interviewed program leaders of 15.
- Developed an inventory of 19 after-school programs and formally interviewed program leaders of 14.
- Reviewed online resources, print materials, scientific evaluations, curricula and interview results relevant to each program.
- Conducted site visits to four in-school programs to gain further insights.
- Monitored local, state and national media for new programs or articles on those already identified.

We began our investigation with a broad search for programs, which was narrowed by looking more closely at each program's reach, program evaluations, longevity, perceived effectiveness and potential for replication. When looking at after-school programs, free or low-cost programs, rather than fee-based classes labeled as after-school programs, were given the greatest consideration. We also looked for the existence of a broader infrastructure through which to disseminate after-school programs to providers nationwide.

The interviews we conducted with program leaders included questions to elicit the background and structure of each program, practices believed to enhance program implementation and information that could indicate if programs have potential for sustainable replication.
We conducted site visits to view implementation of four in-school programs. After-school programs were not visited. For each program viewed, we:

- Observed programs for a total of six to 12 hours, at two to six schools.
- Talked with program directors for five or more hours about the program, reach, infrastructure, implementation barriers, promising practices and perceptions of replicability, sustainability and effectiveness.
- Interviewed school principals, P.E. teachers, classroom teachers, food service staff, students and academics who investigated these programs.

C. REPORT CONTENTS

In this report, Pyramid's findings and recommendations are presented over the course of four sections:

- The first section details findings on the current state of physical activity and nutrition in schools, the parent and teacher opinion polls, policy, and in-school and after-school programs.
- The second section includes recommendations.
- The third section contains promising practices for increasing physical activity and healthy eating in schools.
- The fourth and final section is a complete list of the programs reviewed for this project.

II. FINDINGS

This section contains findings on the current situation in schools, the teacher and parent opinion polls, relevant policy, and in-school and after-school programs.

A. THE CURRENT SITUATION

Today, physical activity and healthy eating in schools are the exception rather than the norm. P.E. is offered sporadically or is entirely absent, children eat school lunches that fail to meet USDA standards or are prepared by fast food chains, and sodas and high-fat snacks are available at all times in school vending machines.

Rates of childhood obesity have skyrocketed over the past decade, resulting in an epidemic that shows no signs of subsiding. Schools can and should become part of the solution.

Schools where students can purchase food or beverage in vending machines, school store, canteen, or snack bar

Type of Food or Beverage	Elementary schools	Middle/Junior high schools	Senior high schools
Soft or sports drinks or fruit drinks not 100% juice	58.1%	83.5%	93.6%
100% fruit or vegetable juice	49.4%	53.1%	65%
Cookies, crackers, pastries not low-fat	52.6%	61.2%	80.7%
Low-fat cookies, crackers, pastries	26.4%	37.7%	49.6%
Chocolate candy	29.2%	46.6%	72.2%
Salty snacks not low-fat	51%	62.4%	83%
Fruits or vegetables	20%	11.8%	22%

Source: U.S. General Accounting Office. 2003. *School Lunch Program: Efforts Needed to Improve Nutrition and Healthy Eating*. Report GAO-03-506. Washington, D.C. May 9.

"High availability of and easy access to high-fat, high-sugar, low-nutrient foods are inconsistent with and may negate health education in the classroom. High availability of such foods also conveys the message that these foods are acceptable 'anytime' foods and may encourage students to choose these foods in preference to the school meal program."

—2003. Food Environment in Secondary Schools: A La Carte, Vending Machines and Food Policies and Practices. American Journal of Public Health 93(7):1161-7.

- In 2000, 76.3% of all U.S. schools offered soft drinks in vending machines.[1]
- In 2000, 49.9% of districts had contracts that give a company rights to sell soft drinks at schools in the district.[2]
- In 2000, only 55.6% of schools offered 100% fruit or vegetable juice in vending machines.[3]
- In a recent study conducted in Minnesota schools, researchers found that, for every vending machine present on school grounds, students' daily fruit consumption dropped by 11%.[4]
- Only 21% of public schools offer a salad bar at least once a week.[5]
- Children receiving free or reduced-price lunches are less likely to be enrolled in a school offering a salad bar because salad bars are more often found in the more affluent public schools.[6]
- Fruit is offered 58% of the time in public schools participating in the National School Lunch Program.[7]
- Only 8% of elementary schools, 6.4% of middle/junior high schools and 5.8% of senior high schools provide daily P.E. or its equivalent for the entire school year for students in all grades.[8]
- During the 1990s, the percentage of high school students enrolled in daily gym classes dropped from 42% to 29%.[9]
- Today, Illinois is the only state that has a daily P.E. requirement for grades K-12, but many schools are exempted, and the policy is not strongly enforced.[10]

[1] Centers for Disease Control. School Health Policies and Programs Study; 2000. Accessed http://www.cdc.gov/nccdphp/dash/shpps/ 12/5/02.
[2] Ibid.
[3] Ibid.
[4] Kubik MY, Lytle, LA, Hannan PJ, Perry CL, Story M. The Association of the School Food Environment With Dietary Behaviors of Young Adolescents. *American Journal of Public Health*. 2003; 93(7): 1168-1173.
[5] United States Department of Agriculture. School Lunch Salad Bars Executive Summary; 2002. Accessed http://www.fns.usda.gov/oane/MENU/Published/CNP/FILES/ SaladBars.htm 12/7/03.
[6] Ibid.
[7] Ibid.
[8] Centers for Disease Control. School Health Policies and Programs Study; 2000. Accessed http://www.cdc.gov/nccdphp/dash/ shpps/ 12/5/02.
[9] American Council for Fitness & Nutrition. P.E. in Schools. Accessed http://www.acfn.org/balance/pe.html 1/13/03.
[10] Pyramid Communications. Telephone conversation with Illinois Education Agency, March 2003.

B. TEACHER AND PARENT OPINION POLLS

The two national polls, one of 500 public school teachers and one of 800 parents of school-age children, revealed an extraordinary level of agreement rarely seen in polls. Teachers and parents often have little agreement on school-related issues; however in these two polls they were almost unanimous. While some disagreement existed about sources of the problem and proposed solutions, teachers and parents overwhelmingly agreed that kids in school should have P.E. every day and have access to healthy foods. A sampling of key results follows.

P.E. is overwhelmingly supported by both teachers and parents.

- Teachers (81%) and parents (85%) favor schools requiring students to take P.E. every day at every grade level.
- 86% of both teachers and parents agree that, to be healthy, every child should get at least 30 minutes of physical activity at school every day from kindergarten through high school.

Teachers and parents believe P.E. should not be cut for budgetary reasons or academics.

- 97% of teachers and 88% of parents believe school boards should not eliminate P.E. for budgetary reasons.
- 82% of teachers and 73% of parents oppose reducing time spent on P.E. in order to focus on academics.
- 87% of teachers and 77% of parents believe that, in order to fulfill stricter academic standards, schools should look at alternatives other than eliminating P.E.

Teachers and parents are convinced physical activity increases or improves learning.

- 90% of teachers and 86% of parents are convinced that physically active children are better able to learn and are better behaved in the classroom.

Teachers and parents favor introducing new approaches to P.E.

- 94% of teachers and 89% of parents are in favor of developing new types of P.E. classes that include lifelong activities students can continue as adults.
- 86% of teachers and 79% of parents favor creating "fitness club"-like settings for P.E.
- 98% of teachers agree that students need a new P.E. that's about getting fit and staying fit for life, with a variety of activities so all children can find something they like to do.

Teachers and parents overwhelmingly support converting the contents of vending machines to healthy foods and beverages.

- 92% of teachers and 91% of parents favor converting the selections in vending machines to healthy foods and beverages.
- 86% of teachers and 83% of parents oppose allowing vending machines with soft drinks, unhealthy snacks and candy in elementary schools.

Teachers and parents are educated on the issues and support more stringent policies to get kids active and eating healthier. Teachers and parents demonstrated their awareness of the health consequences of obesity, physical inactivity and unhealthy eating. These poll results suggest that teachers and parents support policy change to increase physical activity and healthy eating in schools.

C. POLICY

Our review of local, state and federal policies on school lunch, competitive foods, vending machines and P.E. revealed intricate connections among policies at all levels. A single policy at the federal level can have far-reaching, and sometimes unintended, effects on policies at the local level. However, many policies are rendered largely ineffectual due to enforcement issues and the general leniency of policy language. Exceptions were found in California, and in a growing number of schools and districts, where tougher standards to increase children's physical activity and healthy eating are being put in place. Our key policy findings are outlined below.

USDA regulations limit some but not all unhealthy foods in schools.

- Most schools and districts do not have school lunch policies that go beyond USDA regulations.
- Schools participating in the National School Lunch Program must prohibit student access to FMNV only during mealtimes in areas where reimbursable meals are served and/or eaten.
- USDA competitive food regulations allow any non-FMNV food, sold separately from a National School Lunch Program meal, to be sold anywhere on school grounds during mealtimes, including many unhealthy foods not prohibited by the current definition of FMNV.

The definition of FMNV is outdated and omits many foods that would otherwise be considered FMNV.

- The current USDA definition leaves out many foods, such as candy bars, doughnuts, cookies and potato chips.

Low federal and state reimbursement rates drive school food service departments to sell popular but unhealthy foods in order to break even.

- Federal reimbursement rates for free, reduced-price and paid meals sold under the National School Lunch Program are $2.14, $1.74 and $.20, respectively. Some states provide smaller, additional reimbursements.
- Many school food service departments are forced to buy the cheapest bulk foods, passing up fresh produce because of the expense.
- To break even, many schools sell unhealthy competitive foods, which often become a child's lunch.
- Schools need creative technical assistance to help them determine economical ways to offer healthier meals.

The USDA relies on state education agencies to enforce its policies, but state education agencies have little capacity to do so.

- Enforcement capacity is absent in most states.
- A state nutrition audit most commonly serves as an "enforcement" scenario, although it is more often used to provide guidance to food service departments than to enforce regulations.
- States depend on school districts to enforce policies.

State policies on competitive foods and school vending machines are not prohibitive.

- Only five states have competitive food policies more stringent than USDA rules that include time limits and/or content regulations governing vending machines (Arkansas, California, Florida, Hawaii, West Virginia).

Most school districts will resist policies that completely ban vending machines unless lost revenues can be made up.

- Almost all school districts rely on some level of revenue from vending machine sales.
- Because many states are cutting education budgets, complete elimination of vending machines is not a likely option. However, the products offered in those machines can be converted to healthy foods and beverages.

Physical education (P.E.) policies vary greatly from state to state and are not enforced.

- State education agencies claim P.E. policies are not enforced because there are already too many mandated curriculum requirements.
- Many states defer to school districts on various elements of P.E. policy (minimum time in various grades, time per week and graduation requirements), but our research and discussions with teachers and principals revealed P.E. to be a low priority.

The policies of state education agencies are driven by the passage of federal and state legislation.

- Issues such as local control, new academic standards and decreased budgets inhibit state education agencies from independently strengthening their policies on P.E. and school nutrition.

The amount of relevant legislation introduced in state legislatures during the first five months of 2003 is almost identical to the amount introduced during a similar period in 2002.

- During the first half of 2002, 72 bills on obesity and children's physical activity and nutrition were introduced into the legislatures of 28 states.
- As of May 2003, 73 bills were introduced in 29 states.

In 2001 and 2002, only California and Texas passed legislation that could lead to stronger policies.

- SB19 in California would require the state's Department of Education to establish stringent policies on vending machines in schools.
- SB19 in Texas requires all schools to implement a coordinated school health program.

The amount of state legislation specifically addressing the presence of sodas, junk food and vending machines in schools was greater in the first five months of 2003 than in the first half of 2002.

- During the first six months of 2002, only 12 bills regulating the contents of vending machines in schools were introduced in various state legislatures.
- As of May 2003, 18 bills were introduced that attempt to improve the quality of foods available outside school lunches by limiting access or removing junk food and sodas altogether.

The majority of federal and state legislation on physical activity and nutrition in schools fails to pass.

- Few key bills introduced in Congress or the states in the past two years have made it through committee; none has passed.
- Only a few pieces of state legislation have passed as of May 2003. Mississippi passed a bill requiring the establishment of a child health advisory committee for the purpose of reviewing the physical activity levels and nutrition of children. Texas passed a bill providing funds to conduct a study on nutrition in schools. California passed a bill prohibiting sodas in elementary and middle schools, and allowing food standards set in SB19 to be put into effect as soon as funding is available. Arkansas passed a bill that establishes a committee to develop school nutrition and physical activity standards, bans vending machines in elementary schools and establishes a student health report card that will include a student's body mass index (BMI).

Relevant legislation introduced in the United States Congress increased from three bills during the first half of 2002 to six during the first five months of 2003.

- *Nutrition for School Children Act:* (Sen. Leahy (D-VT) and co-sponsors Sens. Lugar (R-IN), Bingaman (D-NM), Dodd (D-CT) and Jeffords (I-VT)) This act amends the CNA of 1966, requiring the secretary of agriculture to review and redefine FMNV and to prohibit access to these foods on all school grounds until the end of the last lunch period. Leahy has introduced this bill for consideration in the past three congressional years. Each time it has failed to move from committee to the floor.
- *Child Nutrition Initiatives Act of 2003:* (Sen. Leahy (D-VT)) This is primarily a funding bill, providing incentives for healthier schools and grants to support farm-to-cafeteria projects and nutrition education. It would extend CNA to 2008.
- *IMPACT Act:* (Rep. Bono (R-CA) and 44 co-sponsors) This act would provide grants to increase physical activity and improve nutrition in schools, train health professionals and health profession students, establish coordinated school health programs and conduct research on nutrition and obesity. The bill was reintroduced this year after failing to move through committee last year.
- *SMARTS Health Act:* (Rep. Johnson (D-TX) and 22 co-sponsors) This act would provide demonstration grants for the expansion of predetermined and specific school-based health programs addressing physical activity, nutrition and obesity.
- *Obesity Prevention Act:* (Rep. Castle (R-DE)) In addition to initiating a commission on obesity treatment and prevention, this bill would establish national health and physical fitness awards and fund pilot programs in schools to increase physical activity and healthy eating. The bill was reintroduced in early 2003 after failing to move through committee last year.
- *To Authorize the Director of the Centers for Disease Control….:* (Rep. Capps (D-CA) and 17 co-sponsors) This bill would authorize the director of the CDC to make grants to local educational agencies to support the purchase or lease and use of vending machines that sell healthy foods and beverages in schools.

The Better Nutrition for School Children Act is the only federal bill that establishes a federal policy on school nutrition and does not require funding.

- This bill calls for the secretary of agriculture to redefine FMNV and expand current regulations on these foods for schools participating in the National School Lunch Program.

Reauthorization of the CNA provides an opportunity for program improvements.

- Every five years, when CNA goes to the U.S. Congress for reauthorization, legislators have a chance to introduce changes to program regulations or administrative procedures.
- The 2003 reauthorization has been delayed until early next year. Program funding has been approved through 2004.

Specific legislators and organizations are working for a number of policy changes in the CNA reauthorization.

- American School Food Service Association, the American Dietetic Association, the Physicians Committee for Social Responsibility and the Food Research and Action Center would like to see healthy changes in the National School Lunch Program.
- Many would like to see a redefinition of FMNV, an increase in meal reimbursement rates to schools participating in the National School Lunch Program and an increase in funding for schools to purchase more fruits and vegetables.
- Sen. Harkin (D-IA) and Rep. Castle (R-DE) are advocating for improved nutrition standards and more funding for child nutrition programs.

The district and school levels are where policies governing school food have been successfully implemented.

- This is largely due to the inability of state and federal agencies to enforce policies.
- In cases where school board policy is unenforceable or vague, individual schools have the freedom to disregard or make their own policies.

However, most school board policies demonstrate little initiative to make healthy foods available in their schools.

- Many districts provide healthy guidelines, which they "encourage" schools to implement, or state their policies in the form of positions, without establishing any enforceable rules.
- Some policies do not address nutritional content of lunches, competitive foods or vending machines and merely give schools permission to operate school lunch programs.
- Most policies are ultimately a directive for schools to abide by the rules of the USDA.

Many district policies are old.

- Many district nutrition policies were adopted or revised 10 to 20 years ago.

School districts support local control and want to retain the ability to make their own policies.

- Attitudes on issues of nutrition and physical activity vary from district to district, and many oppose any effort from above to "run" their schools.

Some schools and districts are trying to improve their policies on vending machines and school lunches, one step at a time.

- More schools are studying the option of replacing vending machine contents with healthy foods and beverages.
- Regular media searches revealed an increasing number of stories on districts beginning to implement small but healthy changes.

Despite vendor opposition to nutrition policy changes, several companies have been willing to work with some districts to provide healthier products.

- After initial opposition, Coca-Cola was willing to work with the Los Angeles Unified School District when it established its prohibitive policy on vending machine contents.
- Snapple will be developing a 100% juice product for New York City schools, where sodas were recently banned.

While policy changes at the state and national levels have been difficult to realize and, once accomplished, difficult to enforce, they are important for driving policy change at local levels.

D. IN-SCHOOL AND AFTER-SCHOOL PROGRAMS

Pyramid looked closely at a wide number of programs and approaches to increasing physical activity and healthy eating in children, as well as a variety of factors that program leaders and teachers believe make programs effective.

We did not conduct scientific evaluations, but derived our findings from reviews of physical activity and nutrition programs; interviews with program directors, after-school providers, school administrators, food service staff and P.E. and classroom teachers; and information gained during site visits to four in-school programs.

IN-SCHOOL PROGRAMS

Physical activity and nutrition programs in schools alone cannot solve the childhood obesity epidemic. Rather, such programs are tools to foster long-term healthy habits in children and contribute to prevention.

- The majority of programs scientifically evaluated did not result in overall weight decreases in students.
- Most investigators, teachers and administrators see physical activity and nutrition programs as tools to foster long-term healthy habits and prevent childhood obesity and overweight.

Programs need time to succeed.

- Programs do best when given an appropriate, but set, time for implementation.
- Different schools should not be expected to implement programs at the same speed.

Training is critical to successful program implementation.

- The most successful programs include mandatory training for teachers and other staff who will be involved.
- Training demystifies the implementation process, instructs teachers how to be effective and increases the chances of program sustainability.

"New P.E.," which emphasizes personal fitness and lifelong activities over team sports, is beginning to receive recognition as an effective alternative to traditional P.E. classes.

- An increasing number of P.E. programs focus on cardiovascular health rather than sports and include aerobic types of exercise or lifelong activities like biking, rollerblading or rock climbing.
- The use of pedometers, heart rate monitors and fitness equipment creates a fitness club environment that is very popular with students.

Providing kids with a sense of program ownership increases learning and participation and helps maximize the success of in-school programs.

- Students learn and retain more when they have a sense of ownership over their education.
- Children can be asked to plan menus for their cafeteria, develop games for P.E., run an after-school produce stand, teach younger students about nutrition or run a family fitness night.

Teacher buy-in is increased when programs incorporate academics.

- Due to the increased emphasis on academics, teachers and administrators are often more receptive to programs that help them meet academic standards.
- Programs with reading or writing activities can increase teacher buy-in.

District-level support significantly increases teacher buy-in.

- Teacher buy-in is difficult to achieve without support from school- or district-level administration.
- Successful program implementation and teacher buy-in can be achieved by either a district mandate that provides accountability or with strong support from upper-level administration.

Children take healthy behaviors home to their families.

- Many teachers are enthusiastic because they have observed children taking physical activity and healthy eating messages home to their parents. Anecdotally, the result has been family-wide change in a number of cases.

Schools without a strong program leader or cohesive planning team have greater problems with implementation.

- Schools without a strong team leader or planning team generally have greater problems with teacher buy-in and have difficulty with or never achieve successful implementation.

Program implementation is hindered by the increased emphasis on academics and testing.

- Some teachers say they don't have time to teach P.E. or nutrition because of new academic testing requirements.

Many schools lack funding for equipment, in-class materials or additional training needed for successful implementation.

- Some schools find ways to work around the funding issue, but many lack the necessary tools that would make a program more effective.

Many program providers lack the capacity to provide implementation training and guidance to inquiring schools.

- Many programs are run as nonprofits or out of universities and have acute budgetary and personnel constraints.

We believe the 21 in-school programs reviewed for this project are among the most promising. They provide schools with many choices for addressing both physical activity and healthy eating in schools. However, it will take more than in-school programs to solve the problem of childhood obesity and overweight. But further evaluation and implementation of good programs, especially those listed in this report, could bring schools one step closer to increasing physical activity and healthy eating in children, potentially for a lifetime.

AFTER-SCHOOL PROGRAMS

There is no broad-reaching infrastructure to both disseminate and ensure implementation of after-school programs.

- No organization has the national infrastructure to both disseminate effective physical activity and nutrition after-school programs and ensure providers implement them.

Most after-school programs do not address physical activity and healthy eating.

- There are hundreds, if not thousands, of after-school programs in the U.S., with few focusing on physical activity or healthy eating.
- Most programs focus on providing supervised unstructured time, arts, academics, leadership skills or other activities not provided in school.

Many after-school programs are led by untrained staff.

- Many organizations employ untrained college students to run after-school programs.
- Because there is little funding for after-school programs, it is difficult for organizations to hire well-trained and experienced staff.

The frequency and duration of after-school programs are highly variable.

- Many programs run no more than two days a week.
- Some programs are of short duration and do not run the length of a school year.

Inconsistent attendance is an issue for many programs.

- Most programs do not require students to attend, resulting in irregular attendance.

Most after-school programs are not based on any model and are developed for and adapted to the communities in which they are implemented.

- Developing programs for specific communities has been shown to be effective, but tailored programs are not easily replicated.
- Programs are adapted to the infrastructure in which they are delivered (e.g., a school gym, YMCA or community center) and the tools available (e.g., kitchens, playgrounds, classrooms, equipment or books).
- Programs are often tailored to the cultures with which they are working.

Our investigation of after-school programs revealed no clear infrastructure for program dissemination and replication, nor any widely used standards for developing such programs. A few programs have been disseminated beyond where they originated. But, for the most part, these programs are locally developed and implemented.

After-school programs could be an effective tool for increasing physical activity and healthy eating if implementation of promising practices were coupled with a solution to address inconsistent attendance and program frequency.

III. RECOMMENDATIONS

A. RECOMMENDATIONS

Pyramid's research on policies, programs and efforts to increase physical activity and healthy eating in schools revealed that change is slowly taking place and gaining momentum. Every school has the potential to become a healthy school. But it will take a number of measures to achieve this. We recommend that schools, and the organizations and agencies that support them, take the following steps:

Provide 30 minutes of P.E. for every child, every day in every grade.

- Experts recommend that young people should participate in moderate-to-vigorous physical activity for 30 to 60 minutes on all or most days.

Implement "New P.E." programs.

- The P.E. paradigm currently in place in most schools includes competitive activities with much inactive or sedentary time and, as a result, few children get the recommended minimum of 30 minutes per day of moderate-to-vigorous physical activity.
- "New P.E." includes highly active fitness activities that are non-competitive, teach individual goal setting and maximize P.E. time to provide 30 minutes of moderate-to-vigorous activity.
- This approach has become very popular with students who have been exposed to it.

Conduct regular physical fitness testing in schools.

- Conduct school-, district- or state-wide testing to measure student fitness.
- Consider using California's Physical Fitness Test as a model.

Convert the contents of school vending machines to healthy foods and beverages.

- Include only low-fat snacks and non-carbonated beverages, such as 100% juice, water and low-fat milk.

Improve school lunches.

- Provide students with low-fat, healthy meals that are high in fresh produce and served in appropriate portion sizes.
- Serve healthy meals cooked in the cafeteria, instead of reheating pre-cooked foods.
- Engage the staff to encourage children's healthy choices.

Strengthen competitive food standards.

- Competitive food standards can be strengthened at federal, state and local levels.
- Consider using the competitive food standards developed by the Strategic Alliance.

B. CONCLUSION

Pyramid believes the time for action is now. Current media coverage, new policy initiatives and the results of public opinion surveys clearly demonstrate that parents, teachers and policymakers are concerned and informed about childhood obesity. Taking steps to increase physical activity and healthy eating in schools will contribute to preventing childhood obesity and its related diseases.

IV. PROMISING APPROACHES

In the course of our work, we discovered a variety of promising approaches to increasing physical activity and healthy eating in schools. This section includes an overview of the Strategic Alliance; examples of exceptional nutrition policies; promising practices for implementing in-school and after-school programs; and detailed descriptions of four promising in-school programs.

A. THE SRATEGIC ALLIANCE FOR HEALTHY EATING AND ACTIVITY ENVIRONMENTS

> *"The Strategic Alliance is remarkable because it's the perfect balance of the facets needed for a movement."*
>
> *—Dr. Harold Goldstein, Executive Director, Center for Public Health Advocacy*

Policy change can help reverse the trend of overweight and obesity in children. Combining good policies with effective programs can lead to school environments that instill healthy habits in children, potentially for their lifetimes.

The Strategic Alliance was founded by a number of organizations working on nutrition and physical activity issues in California. As their work brought them in contact, they realized they shared the idea that environmental policy change is ultimately more effective than educating the public. Recognizing the power of collaboration, they formed the Strategic Alliance.

Functioning as a coalition, the Strategic Alliance works "to prevent childhood obesity by making healthy food choices easier and creating more active environments in California's communities."[1] Policy change is its primary tool for achieving this.

The Strategic Alliance serves as a framework for member organizations to:

- Set an agenda for improving physical activity and healthy eating in California.
- Develop a cohesive strategy for changing policies.
- Collaborate with each other and outside partners.

[1] Samuels and Associates, *The Strategic Alliance: Theory of Action DRAFT*

The Strategic Alliance is led by a steering committee of organizations active around children's healthy eating and physical activity issues. These include:

- California Adolescent Nutrition and Fitness Program (CANFit)
- California Center for Public Health Advocacy
- California Food Policy Advocates
- California Pan-Ethnic Health Network
- California Project LEAN
- California WIC Association
- Child Care Food Program Roundtable
- Children's Advocates Roundtable
- Latino Health Access
- Prevention Institute
- Samuels & Associates

Almost all of these organizations track, or inform the public about, relevant legislation or local policies. But each one contributes a unique expertise, from nutrition and activity programs to student advocacy to research and policy change, which makes collaboration both possible and successful. At regular steering committee meetings, organizations clarify what they are working on to avoid duplication and ensure there is synergy in their work.

THE STRATEGIC ALLIANCE FRAMEWORK

Focusing on prevention, environmental change and reframing the problem from behavior change to community action and environmental policy change, the Strategic Alliance has built a framework that includes objectives for five sectors of influence and strategies for achieving them:

- **Children's Environments:** Establish healthy food options, quality P.E., facilities and equipment for active play in pre-school, school, after-school, summer and child care programs.
- **Government:** Encourage government to support and improve the availability and quality of foods and physical activity.
- **The Health Care System:** Encourage the adoption of principles and practices that model and promote obesity prevention through environmental change involving healthy eating and physical activity.
- **Industry Practices:** Eliminate industry promotion of unhealthy behaviors and encourage responsible marketing to children.
- **Media:** Encourage the adoption of responsible practices related to reporting on nutrition and physical activity.[2]

[2] ibid.

The Strategic Alliance has defined a set of eight strategies to accomplish these objectives. Employing the strategies for which they have capacity, member organizations work both independently and collaboratively to achieve a variety of policy changes in the state.

On the following pages we summarize each Strategic Alliance strategy and provide examples of how member organizations have employed them and collaborated to achieve results.[3]

Research

Strategic Alliance members conduct and use research (studies, data collection, development of tracking systems) to support their case for policy change and establish their credibility with the community and policymakers.

- *2000 California High School Fast Food Survey*
  Conducted by Samuels and Associates, this study found that 95% of responding California school districts (171 districts representing 20% of high school students in California) sell fast foods a la carte, most commonly Taco Bell, Subway, Dominoes and Pizza Hut. School districts reported they sell fast foods because "students like fast foods" (65%) and "fast foods keep food services out of the red" (29%). The widely disseminated survey results resulted in heavy media coverage and the introduction of Senate Bill 19.

- *Prevalence and Specifics of District-wide Beverage Contracts in California's Largest School Districts*
  This survey was conducted by the Public Health Institute, a supporter of California Project LEAN. Results revealed that soda is available in every participating district; that the district beverage contracts examined contain provisions limiting school district control over the beverages sold at school, directly affecting students' nutritional choices; and that some soda contracts mandate the number of vending machines required per student, as well as the location, hours of operation and inventory to be stocked at all times. A media frenzy erupted with the release of this report. Between the coverage of this report and the report on fast food in schools, the stage was set for passage of SB19.

- *Analysis of the 2001 California Physical Fitness Test*
  Students in the fifth, seventh and ninth grades are given a physical fitness test in California public schools. The California Center for Public Health Advocacy, assisted by Samuels and Associates and funded by a grant from The Robert Wood Johnson Foundation, analyzed the 2001 results and found that 26.5% of children were overweight and 39.6% were physically unfit. The data has spurred the interest of legislators, community advocates and the media and prompted the introduction of more state legislation addressing these problems.

[3] The Strategic Alliance strategies were developed in tandem with the five sectors of influence and are both detailed in *The Strategic Alliance: Theory of Action DRAFT* written by Samuels and Associates. The Strategic Alliance was generous in allowing us to access these materials.

Standards

Stating the case for change is not enough; providing standards developed and sponsored by credible groups provides policymakers and organizations with a real solution.

- *Recommended Competitive Food Standards*
  The California Center for Public Health Advocacy convened a National Consensus Panel of state and national experts to develop recommendations for competitive food standards in California schools. The panel's recommendations were published in March 2002 and covered competitive foods and portion sizes in elementary and secondary schools. These standards were the basis for the Los Angles Unified School District's new nutrition policy and were partially incorporated into SB19. Although standards in SB19 were limited to elementary schools, legislators are working to pass bills that would apply the standards to all grades.

Dissemination

Disseminating study results and providing recommendations and standards to policymakers and the public can increase awareness, garner support and give policymakers something to act upon. The Strategic Alliance uses a number of organizations to efficiently disseminate information to key audiences.

- *2001 Physical Fitness Test Results*
  In addition to analyzing the test results, the Center for Public Health Advocacy organized the data to provide state legislators the results for their assembly districts to bring the problem into focus for them. This information was disseminated to the media, resulting in local, state and national coverage reaching up to 50 million people. Local papers finally had access to data specific to their towns, so they wrote front-page stories and called legislators to ask what they would do.

- *2000 California High School Fast Food Survey*
  California Project LEAN conducted a public relations campaign when the findings of this survey were released. As a result, the survey was covered in all state major media markets and in other national media. The survey results reached California Senator Martha Escutia, who said they were the impetus for her introduction of SB19. The survey results are now widely available on numerous Web sites of health-related organizations.

- *Competitive Food Recommendations*
  The recommendations of the National Consensus Panel, convened by the California Center for Public Health Advocacy, were distributed to the media. Dissemination resulted in massive publicity in state and national media markets. Knowledge of the standards spread to policymakers elsewhere, who are now considering implementing or adapting them in their own states. Harold Goldstein of the Center for Public Health Advocacy believes the standards have become a model specifically because they were developed for California and are not generic national standards.

- *Taking the Fizz out of Soda Contracts: A Guide to Community Action*
  Developed by California Project LEAN, this guide outlines steps to take to address soda contracts and includes fact sheets on soda consumption and childhood obesity. This piece has been widely disseminated and was provided to the members of the Los Angeles School Board during their consideration of the soda ban. It is now cited as a resource for concerned parents and community members and is accessible through a variety of Web sites on the Internet.

Collaboration

Collaboration is the basis of the Strategic Alliance's framework. Member organizations work as a coalition and share expertise to achieve policy and institutional change around physical activity and healthy eating. This collaboration allows organizations to be more efficient and effective in their work to increase physical activity and healthy eating in the state.

- *Los Angeles Unified School District Soda Ban*
  One of the Strategic Alliance's greatest collaborative achievements was the Los Angeles Unified School District's soda ban and new nutrition policy. Collaborative efforts included Strategic Alliance members California Center for Public Health Advocacy, California Project LEAN and California Food Policy Advocates, as well as community organizations, such as the Center for Food and Justice and the Healthy School Food Coalition. Together, they built a coalition of supporters that included health advocates, teachers, students and parents. They ensured the support of school board members who understood the role of nutrition in learning and involved school district staff and students willing to advocate for change. The collaboration of all involved led to a new nutrition policy banning sodas and increasing healthy foods available to students.

Training

The Strategic Alliance provides targeted training and technical assistance, with organizations on the steering committee providing expertise. Plans for the future include conducting trainings on being a spokesperson for the Strategic Alliance. The coalition's vision includes having the resources to merge Strategic Alliance expertise and sponsor an in-depth leadership development program focused on environmental policy change to further efforts both within California and across the nation.

- *Issue Education*
  Strategic Alliance Steering Committee members have sponsored presentations around the state to raise awareness about the environmental factors contributing to rising obesity rates and the need for policy changes. Audiences have ranged from youth group leaders working with CANFit, to WIC directors and staff attending the California WIC Association Annual Conference, to local public health and school-based coalitions, and a session at the January 2003 California Obesity Conference on community advocacy to change food and activity environments.

- *Moving Local Policy*
  In partnership with the California School Board Association, California Project LEAN has developed a guide for school board members and school administrators on implementing policies to increase healthy eating and physical activity. The guide also advises local coalitions on successful advocacy steps to pass school district and school policies.

- *The Mechanics of State-level Legislative Advocacy*
  The Center for Public Health Advocacy provides training to local coalitions on the power and mechanics of utilizing local data to mobilize state policy.

- *Strategy Development and Coalition Building*
  The Prevention Institute provides training and technical assistance emphasizing the fundamentals of strategy development and coalition building, utilizing tools such as the *Spectrum of Prevention* and *Eight Steps to Effective Coalition Building.*

Leadership Development
The Alliance and its members work to promote community and youth engagement and advocacy around healthy eating and physical activity issues.

- *Food on the Run*
  California Project LEAN's Food on the Run program trains student advocates in nutrition, physical activity, advertising and working with the media. Student advocates in nearly 30 California high schools are leading efforts to improve food choices and increase opportunities for physical activity on their campuses.

- *Los Angeles Unified School District*
  Youth advocacy was an important factor in achieving the district's soda ban and new nutrition policy. Guided by Jacqueline Domac, a former Project LEAN site coordinator and current team leader for the Center for Public Health Advocacy's Grassroots Nutrition and Physical Activity Campaign, the Students for Public Health Advocacy Club at Venice High School presented research on food choices, information on soda contracts and testimony to school board members. In addition, board members also received letters of support from parents, students and community organizations as a result of the leadership and advocacy work conducted by organizations such as the California Center for Public Health Advocacy and California Food Policy Advocates.

- *Grassroots Nutrition and Physical Activity Campaign*
  Led by the Center for Public Health Advocacy, this campaign brought together teams of local residents—lay people, health professionals and youth—in four state legislative districts in Los Angeles County. These teams are heading up efforts to educate legislators and community leaders about the importance of nutrition and fitness in children and teens. Teams have held dozens of meetings with communities and legislative staff, conducted community events, researched chronic disease statistics for their districts and inspired three statewide pieces of legislation.

Organizational Advocacy
The Strategic Alliance believes the tactic of promoting policy change in California organizations and industry is important to establishing long-term environmental change. Organizational advocacy is part of the Strategic Alliance's long-term strategy. They plan to engage the health care sector in the near future at an event promoting environmental policy change to doctors and health care researchers. In the future, the Strategic Alliance would like to be the source of exemplary policies for use in workplaces, the health care sector, government and elsewhere.

Advocacy
Understanding that good policies can bring about real change, the Strategic Alliance supports and promotes policy changes. Almost all Strategic Alliance members are involved in tracking relevant policies. But it is the California Center for Public Health Advocacy that leads many of the policy change efforts, especially at the state level.

- *SB19*
  The California Center for Public Health Advocacy led the legislative advocacy effort around SB19. The Center worked with State Senator Martha Escutia to incorporate the results of its panel recommendations on competitive foods into the bill and also officially sponsored the legislation and lobbied for its passage. *The California High School Fast Food Survey*, authored by Samuels and Associates and widely disseminated by California Project LEAN, was also used to push for SB19's passage. All Alliance members formally registered their support for the bill.

- *ENACT 2003: Nutrition and Activity Lobby Day*
  Cosponsored by the Strategic Alliance and the California State PTA, this event brought together more than 100 parents, students and health advocates in Sacramento to lobby for increasing the availability of healthy food and fitness opportunities in California. Participants began the day with a training on how to conduct effective meetings with legislators. Armed with district-specific fact sheets on obesity prepared by the California Center for Public Health Advocacy, participants then rallied on the steps of the Capitol and spent the day meeting with legislators.

DIFFERENT SKILLS, A SHARED VISION

The Strategic Alliance's achievements are a prime example of the notion that there is power in differences. Member organizations each have a different focus, provide unique skills and have different outreach networks. One organization contributes research, another leads legislative advocacy efforts, another works with schools at the grassroots level. These differences are leveraged to accomplish shared goals and work toward a shared vision in which children live in environments conducive to physical activity and healthy eating. It is this collaborative balance within their strategic framework that makes the Strategic Alliance so successful.

ENVIRONMENTAL POLICY CHANGE

The Strategic Alliance has successfully incorporated credible nutrition standards in state policy, passed a new nutrition policy banning sodas in the state's largest school district and created the most effective coalition for achieving nutrition and physical activity policy change in the U.S. The Strategic Alliance is receiving inquiries from other states about its work, and has recently acquired a number of members from outside California.

A special thanks is owed to the Strategic Alliance for sharing not only their time and their thoughts but also their strategic plan and many other materials.

B. EXCEPTIONAL DISTRICT NUTRITION POLICIES

Pyramid's review of school district nutrition policies from around the country revealed that most tend to lack enforceable language. While many speak to the nutritional needs of students, most only promote or encourage schools to provide undefined healthy choices. However, we did find several policies that spell out specific standards and enforceable rules governing the foods made available in schools. And a number of schools and districts are taking the first steps to developing healthier and more stringent nutrition policies.

We identified several key elements of an excellent nutrition policy, the most important being specificity of how, what, when and where:

- A policy that includes language specific enough to be enforceable leaves little room for interpretation.
- A policy should be specific about what is healthy, clearly defining the types of foods that are prohibited.
- A policy should be specific when time limits are involved, such as prohibiting the use of vending machines until one-half hour after the end of the school day.
- And, a policy should be clear about where certain foods are prohibited (e.g., the entire school campus or the cafeteria).

The following pages include several case studies of districts that have developed nutrition policies that are worthy of evaluation and potential replication.

LOS ANGELES UNIFIED SCHOOL DISTRICT, RICHLAND ONE AND OPELIKA CITY SCHOOL SYSTEM

The district nutrition policies of the Los Angeles Unified School District, Richland One and Opelika City School System are exceptional for their stringency and clarity in fostering healthy eating in their schools. Each of these districts has taken steps to improve the health of their students by developing and implementing strong policies on school lunch quality and/or vending machines.

Los Angeles Unified School District
Passed unanimously, the new Los Angeles Unified School District nutrition policy, based on the competitive food recommendations of a national panel convened by the California Center for Public Health Advocacy, calls for eliminating all unhealthy beverages by 2004. The policy is a good model, as the language in the resolution is strong, unambiguous and enforceable:

> *"…effective January 2004, the only beverages authorized for sale at the Los Angeles Unified School District before, during and until one half hour after the end of the school day at all sites accessible to students shall be: fruit-based drinks that are composed of no less than 50 percent fruit juices and have no added sweeteners; drinking water; milk, including, but not limited to, chocolate milk, soy milk, rice milk and other similar dairy or nondairy milk; and electrolyte replacement beverages and vitamin waters that do not contain more than 42 grams of added sweetener per 20 ounce serving."*

Richland One, South Carolina
Richland One in South Carolina implemented its Healthy and Nutritious School Environment Policy in May 2001. Under the policy,

> *"…the district will prohibit the sale of foods of minimal nutritional value in vending machines, snack bars, school stores, concession stores and a la carte offerings in the food service program which students will have access to during the school day. Elementary schools are prohibited from having vending machines which students can access….Student access to the sale and service of carbonated beverages will be prohibited."*

Richland was smart enough to establish its own definition of FMNV that includes "chewing gum, flavored ice bars and candy bars." Any other foods "may contain no more than 40 percent, by weight, of sugar or artificial sweeteners." Defining FMNV in district policies is imperative, as the federal definition leaves room for interpretations that allow schools to sell candy bars and other high-fat foods.

Richland One also gives power to Student Nutrition Services by allowing them "to refuse service of any food or beverage item regardless of compliance of the policy guidelines…and the right to limit quantities and exercise portion control on any food/beverage item offered at school." While most nutrition policies give food service staff the ability to stray from healthy guidelines, Richland gives them broader authority to improve and enforce them.

Opelika City School System, Alabama
Alabama's Opelika City School System has been working on improving nutrition policies for over a decade. Many of the policies are institutionalized:

- Vending machines have been prohibited for 16 years.
- School cafeterias stopped frying food in the early 1990s.
- All school meal menus are analyzed to ensure nutritional appropriateness for the age and grade being served.
- Locally grown produce is included almost daily in school meals.
- A la carte items are limited to extra side items offered on the analyzed menu, and a sports drink at the high school level.
- The district implements a closed-campus policy at meal times.

Opelika's competitive foods policy is as follows:

> *"Opelika City School personnel will offer no competitive foods for sale during the school day. Sale of club items by students is discouraged during school hours. It is the intention of the Opelika City Board of Education that students eat well-balanced, nutritious meals in the school cafeterias."*

C. PROMISING PRACTICES

IN-SCHOOL PROMISING PRACTICES

Program leaders and P.E. and classroom teachers consistently cite a number of techniques they believe to be highly effective for increasing physical activity and healthy eating in schools. The following practices could be used as the basis for developing a framework to increase physical activity and healthy eating in schools or as a guide for successful implementation of in-school programs.

Keys to Long-Term Healthy Behavior in Schools

Change the school environment.

- An environmental approach that includes a fun and engaging P.E. program, regular and hands-on nutrition education, healthy food on school grounds and healthy messages from numerous sources has great potential to foster long-term healthy habits.

Immerse children in healthy messages.

- Healthy messages have a great impact on kids when they are consistent and occur throughout the school environment, including the cafeteria, hallways, classrooms, and from teachers and administrators.
- Healthy messages quickly lose their power when contradicted by the regular presence of unhealthy foods.

Involve the whole family.

- Family support is one of the crucial factors to establishing long-term healthy behaviors in children.
- Regularly involve the family through family fitness nights, cooking classes or other activities to increase the chances of establishing family-wide and long-term healthy behaviors.

Program Implementation

Conduct a needs assessment before implementing a school-wide program.

- A needs assessment helps a school adapt a program to its own circumstances and avoids imposing an unknown and poorly understood program.

Establish an inclusive planning team for school-wide changes.

- Bring together P.E. teachers, food service staff, nutrition teachers, nurses, classroom teachers and administrators as a planning team.
- Bringing together individuals who normally work in isolation from each other opens communication, makes coordinating school-wide healthy changes easier and leads to more successful implementation.

Involve food service staff.

- Involving the food service staff provides them with ownership and the children with another source of positive health messages.
- Some schools are beginning to train and directly involve food service staff in providing healthier meals and nutrition messages in the cafeteria and are achieving positive results.

Choose individuals with strong leadership skills to lead or coordinate programs within schools.

- A teacher or administrator with strong leaderships skills, dedication and willingness to try something new can inspire the same in students and other teachers.
- A strong leader can help to sustain and carry the program through more difficult periods of implementation.

Provide teacher training.

- Training is the most crucial aspect of program implementation.
- Training demystifies the process, increases the chances for sustainability and breaks down the resistance of teachers not completely bought into a program.
- Teachers learn how to direct physical activity effectively and teach concepts they may not be familiar with, giving them the tools and confidence to be effective.
- Trainers can help teachers take steps that are achievable within a set of adapted and concrete benchmarks.

Provide schools with long-term technical support.

- Schools need access to outside support and expertise until changes have been implemented and institutionalized.
- When schools are left alone to implement broad changes, they often fail to carry through.

Use programs that are flexible and adaptable.

- Schools are more likely to continue a program over the long term when it can be adapted to their own needs and timetable.
- Schools vary in equipment, facilities and teaching staff. Being able to modify the curriculum to adjust to limitations increases the likelihood of success.

Choose programs that are user-friendly.

- Teachers are more likely to buy into and implement programs that are easy to understand and use.
- User-friendly programs are more likely to become institutionalized, regardless of the training provided.

Messages

Develop clear, positive physical activity and nutrition messages.

- Children respond well to positive messages that are clear and direct, such as "eat fruits and vegetables," "everyone is a winner," "drink more water," or "join us at family fitness night."
- Simple, direct messages are more easily remembered and resonate well with kids.

Make the school environment the message.

- Environmental messages, such as the food available in a cafeteria, the presence of soda machines or the examples set by teachers, have an impact equal to or greater than those given in a lecture or textbook.

P.E. and Physical Activity

Make physical activity fun.

- When physical activity is fun, children want to participate.

Kids of all ages respond positively to non-competitive games and activities.

- Non-competitive, inclusive games and activities emphasizing one's personal best are popular with kids.
- Cooperative games engage kids in both physical activity and positive social interactions.
- Non-competitive activities can be very successful with adolescents who are experiencing difficult periods of social integration; even the act of choosing teams can dissuade some from participating.
- While competitive activities need not be eliminated, focus on providing fun activities that make kids feel included and confident.

Teach younger kids the basic skills they need to participate in physical activity.

- A skills-based curriculum teaches sequential, basic motor skills and movements needed for particular games and sports, and prepares elementary school kids for activities in future grades.
- Children with sequentially developed skills become more confident and competent participants and more willing to engage in physical activity.

Provide activities that encourage lifelong physical activity.

- Activities such as bicycling, rollerblading, dance, yoga, rock climbing and swimming are more popular than traditional P.E. activities and are more likely to become lifelong interests.

Nutrition Education

Provide healthy foods at school; eliminate unhealthy choices.

- Nutrition education coupled with healthy foods provides kids with a chance to practice what they learn.
- When high-fat, high-sugar foods are available in cafeterias and vending machines, the credibility of what kids learn in class about healthy eating is reduced.

Integrate nutrition education across multiple disciplines.

- Teaching nutrition concepts through core subjects reinforces the message of healthy eating and increases the likelihood of students becoming healthy eaters.
- Teaching nutrition from a variety of perspectives gives kids a more comprehensive understanding of what it means to eat healthy.

Engage kids in hands-on learning activities.

- Hands-on activities give children the experience to act on what they have learned in class.
- Gardening, cooking, food sampling, menu planning and attending farmer's markets engage kids at deeper levels and provide them with the experience and understanding of how to eat healthy.

Include children in healthy cafeteria menu planning.

- When kids have a chance to apply what they've learned about nutrition by helping to shape cafeteria menus, they respond more positively to changes in fare and buy more school lunches.

AFTER-SCHOOL PROMISING PRACTICES

After-school program leaders consistently cited techniques they believed to be effective for implementing after-school programs addressing physical activity and healthy eating. These promising practices are outlined below.

Make the program fun.

- Whether it's physical activity or nutrition education, make after-school programs fun to ensure participation.
- Framing activities as play rather than as exercise or learning creates enthusiasm and a positive, fun environment to which kids will want to return.

Make programs convenient.

- Make after-school programs convenient to cater to the needs of parents who may not be able to transport their kids to and from a program.
- Provide transportation to and from community centers or provide programs in the target neighborhood or at schools.

Include an appropriate amount of time for homework.

- Include an amount of time for homework or tutoring to ease parental concern that children won't complete their homework if they attend the program.

Make the program social.

- The social aspect of after-school programs is very important to kids.
- Provide physical activity and nutrition education through socially interactive, engaging activities to keep students coming back.

Provide non-competitive activities.

- Non-competitive, inclusive games and activities emphasizing one's personal best are popular with kids of all ages.
- Cooperative games provide a positive physical activity experience in which every child feels included.

Cultivate the feeling of being part of a larger group or team.

- Activities that foster the feeling of belonging to a larger group serve to motivate kids and increase their confidence, which can lead to the desire to return.
- An after-school program can cultivate these feelings by providing cooperative, team-building activities kids may not experience in school.

Allow kids to choose activities.

- When kids have multiple opportunities to choose activities, they gain a sense of ownership, which can be a crucial element to making a program fun and worthy of return.
- Giving kids a choice also creates the feeling that activities are not "required" and are more a treat or type of play.

Link autonomy with taking charge of one's health.

- Adolescence is about becoming independent. To interest kids in physical activity and nutrition, send the message that being in control of your body and your health is one of the steps toward the independence of adulthood.

Provide positive, relevant health messages.

- Kids respond well to positive messages and those relevant to where they are in life.

Provide a goal to engage and motivate kids.

- Having a goal, such as a participating in a dance performance or running a marathon, gives kids a reason to stay engaged, provides them with a sense of ownership and teaches them goal-setting skills while they learn about health.

Involve role models.

- Having young and hip role models can make a healthy lifestyle more desirable.
- Let adolescent participants serve as role models to younger participants.

Include peer teaching.

- Peer teaching is an excellent method for promoting lifelong learning and can be used to teach healthy eating and physical activity.
- In the process of teaching others, kids must become more knowledgeable about health issues. As a result, their position of responsibility can foster the healthier lifestyle they're teaching.

D. SITE VISITS TO PROMISING IN-SCHOOL PROGRAMS

Pyramid conducted site visits to four of 15 programs reviewed. We made these visits to gain further insights into how programs are implemented and what practices can make implementation successful.

Four programs were chosen for site visits:

- SPARK P.E.
- Spokane Public Schools P.E. program
- The Urban Nutrition Initiative
- Coordinated Approach to Childhood Health

The visits confirmed our belief that each of these programs can be successful in getting kids more active and/or exposed to healthy eating, is engaging and fun for students, and has potential for replication. These programs are not the only good programs, but we believe them to be among the most promising and believe further evaluations of their efficacy and replicability should be conducted.

It is important to note that the success of these programs is contingent upon many factors beyond the realm of the actual program. The implementation of the program, the commitment of the school and district, and a complete understanding of a program's mission are three critical factors to success. Additionally, successful programs by themselves may not be the solution to childhood obesity, but they can foster lifelong physical activity and healthy eating habits.

During site visits, we observed a variety of levels of effective program implementation. In most schools, the commitment of the administration and staff was clear. In a few cases, the commitment was clearly weaker, and it was obvious that implementation suffered as a result.

Most teachers and program leaders emphasized that district commitment and leadership is key to the success of a physical activity and/or nutrition program. This can be fostered and supported through continued training and technical assistance during the implementation process.

SPARK

Overview

SPARK (Sports, Play and Active Recreation for Kids) is a series of research-based physical activity programs available for use at a number of grade levels and in several environments. The SPARK in-school programs include Early Childhood (ages 3-5), Elementary P.E. (grades K-2 and 3-5) and Middle School P.E. (grades 6-8). There are also after-school and lifelong wellness programs. The goal of all SPARK programs is to turn kids on to movement and encourage lifelong physical activity.

SPARK P.E. for elementary school children is the most popular and widely distributed program. This program is available in two units: one for grades K-2, and one for grades 3-6. Thorough training and a simple curriculum make it easy for teachers to maximize the time kids are physically active in P.E. class and to provide activities that make moving enjoyable for all students.

The Program

The SPARK elementary curriculum is split into two units: one for grades K-2, and one for grades 3-6. The actual curricula come in a binder divided into three color-coded sections, providing the teacher with reference and resource chapters, warm-up activities and instructional units. Each activity is simply outlined and easy to teach.

SPARK P.E. instructional units are progressive, with each lesson leading to the next through:

- *Refinement* – Each lesson works to refine a skill.
- *Extension* – Each lesson is progressively more difficult.
- *Application* – Each lesson includes a skill to be applied to a real-world activity or sport.

A typical SPARK P.E. class begins with a fast-paced warm-up, proceeds to two or three games and then to a cool-down period. For some of the games, SPARK program developers modified typical sports (e.g., softball, kick ball, soccer) to be cooperative and to include greater activity for every participant. All SPARK activities are designed to be inclusive, non-competitive, highly active and fun.

Games use a variety of equipment, including bean bags, balls, hoola hoops and jump ropes. The equipment is a necessary part of the program. Games have names like Fat Snatchers, Freeze Ball and Houdini Hoops.

The SPARK curricula are designed to be:

- Flexible, allowing teachers to mix and match activities.
- Easy to teach, with directions teachers can read right from an activity card.
- Connected to core curricula by providing teachers with directions on how to integrate math, science or language arts into the various activities.

Once a school purchases the curricula and goes through training, SPARK teachers have access to career-long technical assistance from SPARK staff and receive updates and follow-up support.

While the curricula are the core of SPARK P.E., keeping kids active as long as possible during class is the key to the program. Teachers are trained to maximize their P.E. time by:

- Using short, clear directions.
- Having equipment spread out and ready to use before class.
- Having kids stay with consistent groups or partners to reduce wasted time.

Developers of SPARK P.E. have made activity accessible to all students by producing simple, fun and highly active curricula that are popular with both students and teachers.

Reach
SPARK staff have provided training to more than 2,000 schools and youth agencies that have chosen to adopt one or more of the SPARK programs. They have also trained thousands of teachers nationwide at SPARK workshops and summer institutes. SPARK staff continue to develop a nationwide infrastructure of highly qualified SPARK P.E. trainers who can travel to nearby districts to conduct regular or on-demand teacher trainings.

Measures of Success
Controlled studies conducted in the Poway Unified School District in San Diego County demonstrated SPARK's success in achieving its goal of increasing the time spent engaged in moderate-to-vigorous physical activity during P.E. class. They also demonstrated the importance of training: SPARK-trained teachers taught more P.E. and provided students with more physical activity during class than untrained teachers.

One of the barriers to implementation of any elementary school P.E. program is the concern of classroom teachers that providing P.E. will cut into teaching time, resulting in lower academic scores. In a study addressing this concern, SPARK found that academic scores were the same or improved after a period of regular implementation of SPARK P.E.

Replicability
SPARK is highly replicable and is currently being disseminated to schools and teachers around the country. Additionally, Nike and Boys & Girls Clubs of America are working with SPARK to disseminate the after-school program more widely. Nike also has contracted with SPARK to develop a Nike-branded version of SPARK P.E. for fourth and fifth grade students. This new program will be tested in five cities around the country.

Components of Success
SPARK is successful because of its simplicity, intention and training component. Unlike typical P.E. classes, SPARK was intended and designed to keep kids active as much and as long as possible during P.E. class and to turn them on to movement through fun and inclusive activities. Teachers are provided with a simple and extremely user-friendly curriculum with numerous activities that have been proved to be fun for children.

Developers of SPARK P.E. emphasize the importance of teacher training. When a school or P.E. teacher is interested in any version of the program, SPARK requires they receive at least six hours of training. Most receive more. Teachers are encouraged to return for summer institutes that last between two and five days. In addition to providing training on the actual curriculum, SPARK trainers help teachers work through three issues problematic to any P.E. program:

- *Infrastructure* – Acquiring and using equipment, finding storage and gaining administrative support
- *Implementation barriers* – Scheduling classes, adapting to size or lack of facilities, securing buy-in of other teachers
- *Institutionalization* – Making school environments conducive to SPARK for sustaining implementation

After the training, teachers are equipped with the tools to teach SPARK P.E. effectively and to address the barriers they may encounter in trying to implement and institutionalize a new program.

For more information go to: http://www.sparkpe.org

SPOKANE PUBLIC SCHOOLS P.E. PROGRAM

Overview

P.E. in Spokane Public Schools is a fitness-based program combined with basic health education beginning in kindergarten and continuing through 10th grade. Heart rate monitors and fitness equipment are essential components of the program. Each week, students rotate between fitness workouts and lifelong activities, such as tennis, rollerblading and rock climbing. Spokane P.E. aims to maximize the use of P.E. time and increase overall moderate-to-vigorous physical activity in a fun and meaningful way.

The Program

The Spokane P.E. program began when Karen Cowan decided to design a new fitness-based curriculum. She organized a committee that included herself, several P.E. teachers (some in support of and some opposed to her plan) and faculty from Eastern Washington University to develop the curriculum. After initial discussions, a core group from the committee worked to develop the details and write the final curriculum. The committee still exists and works on revisions and standards development.

The health and fitness curriculum is progressive, beginning with standard fitness skills and vocabulary in elementary school. By the time kids are in middle school, they know which activities will develop:

- Muscular strength
- Muscular endurance
- Bone density
- Core strength
- Cardiovascular endurance
- Flexibility

The curriculum emphasizes heart health, nutrition and healthy behaviors related to fitness and nutrition. Students in middle and high school keep logs to learn about the need for:

- Proper hydration
- Adequate sleep
- Good nutrition
- Physical activity

The basic model for P.E. classes at all grade levels throughout the district is participation in noncompetitive games and activities, rotation through fitness and activity stations, lessons on fitness and health, the use of heart monitors and pedometers, and the playing of popular music. All of these elements are present in every class.

Heart monitors have become the great equalizer here, demonstrating to overweight or out of shape students that, while they may be running slower, they're working just as hard as their more athletic peers. All students are required to be in their target zone for at least 20 minutes each class. Students are rewarded for staying in the zone for 40 and 50 minutes by having their names and photos posted on gym walls.

Middle and high school students rotate weekly between workouts on the fitness equipment and participation in a variety of activities beyond the scope of traditional P.E. sports. Some of these include:

- Roller-skating
- Ping pong
- Frisbee
- Indoor hockey
- Volleyball
- Circus activities (hacky sack, juggling, unicycling and stilts)

This equipment-heavy program was funded primarily by a federal Carol M. White Physical Education Program grant. The funding allowed the district to purchase fitness equipment for almost all middle and high schools and to place climbing walls in almost all elementary schools. While the cost may be an obstacle to replication, the district also has had success at engaging corporate sponsors.

Reach

The Spokane P.E. program is fully implemented in 20 elementary schools, five middle schools, three high schools and one alternative school, reaching approximately 18,000 students. Once the district receives further funding to complete implementation, the program will reach 29,000 students.

Measures of Success
A controlled study of the Spokane P.E. is being conducted. In addition, middle and high school students keep cumulative print or Web-based logs of their BMI, sleeping patterns, eating patterns and fitness test scores each year they attend Spokane schools. Anecdotally, teachers have observed in these records large improvements in student fitness.

Replicability
The Spokane P.E. program was initiated and replicated in 29 schools by the district P.E. coordinator, Karen Cowan. She has achieved almost total buy-in from P.E. teachers and administrators. The potential for replication in other districts is high. Ms. Cowan's model for replication would emphasize choosing a district-level leader who believes in the program, organizing and training all P.E. teachers in the district, developing a long-term timeline for implementation and involving all the champions of the program. She also stresses the importance of having strong support from school board officials and the superintendent.

Components of Success
This program was widely implemented in large part because it has strong leadership. Karen Cowan was persistent at getting her program into every school. She provides a high level of support and guidance to her P.E. teachers. She also took the unique step of getting the few teachers initially opposed to the program involved in curriculum and standards development, which ultimately resulted in their overwhelming support.

The technology component is another key to the program's success. Heart rate monitors bring relevance to regular lessons on fitness and heart health. The fitness equipment transforms the P.E. experience into a gym workout that is "cool" for kids. In each class we visited, students were highly active and involved, enthusiastically monitoring their heart rates.

For more information contact Karen Cowan: karenc@spokaneschools.org

URBAN NUTRITION INITIATIVE

Overview

The Urban Nutrition Initiative (UNI) is a mutually beneficial relationship between Philadelphia schools and the University of Pennsylvania (Penn) with the purpose of bringing nutrition education and access to healthy foods to students. In each school, UNI staff, school teachers and Penn faculty partner to develop a curriculum and hands-on activities around a number of program elements that are appropriate for each school. UNI program elements include school gardens, produce stands, peer teaching and curricula that incorporate real-world, problem-solving skills. The schools welcome Penn students as service-learning volunteers to assist with the program's implementation.

The Program

UNI began with a single produce stand at Drew Elementary School. Since then, UNI's activities and goals have expanded. UNI now aims to improve the nutrition knowledge and eating behavior of Philadelphia children through:

- Comprehensive nutrition education
- Access to healthy food
- Participation in numerous nutrition-related activities and projects
- Community involvement

University City High School's EcoTech program is UNI's greatest success. Two hundred students in ninth through twelfth grade are organized in this school-within-a-school that is based around urban agriculture and nutrition. Students in this primarily African American, low-income school learn about nutrition, gardening, food access and community health in almost all of their classes, including:

- Politics of Food
- Agricultural Science
- Cooking and Nutrition
- Statistics and Geometry
- Computers

The merits of nutrition, fitness and health are woven into classes through numerous student-run and initiated projects. Some of these include:

- School Garden (shared with neighboring Drew Elementary)
- School Greenhouse (herbs are grown and sold by students to local restaurants)
- Student-run Saturday Farmer's Market and Winter Buying Club (students netted $12,000 to $14,000 last year from retail milk and eggs, and the produce they grew and sold)
- Student-run Community Fitness Night (this weekly event is primarily run by students with support of staff)
- Peer Nutrition Program (EcoTech students teach Drew Elementary students in this after-school and summer program)
- Food Co-op Feasibility Study (students are working to open a food co-op in their community due to lack of access to healthy foods)
- Summer Nutrition and Gardening Program
- Senior Projects (necessary to graduate from the EcoTech program)

Next door to University City High School is Drew Elementary School, where children in kindergarten through fifth grade receive at least one hour each week of education in nutrition, health and gardening. Drew teachers work with Penn faculty and UNI staff to develop strategies for incorporating nutrition concepts throughout their weekly curriculum, although it is not mandatory.

The garden is a central learning point for Drew students. As early as second grade, working with Penn and University City High school students, children tend their own garden plots. Science and nutrition are taught through garden-related activities such as having class salad parties, cooking harvested vegetables, keeping diet logs and writing in "garden diaries."

Drew Elementary has the first UNI-initiated produce stand. Each day after school, children and parents gather outside, waiting for students to bring out tubs of apples, pears, kiwis, bags of baby carrots, bell peppers and other fruits and vegetables sold for 25 cents apiece. This is a subsidized, student-run venture meant to compete with bags of chips sold in nearby markets for a quarter and higher. And it succeeds.

Coordinating with university faculty, UNI places about 60 to 70 university students participating in service-learning courses at UNI schools each year. They assist with special projects, such as the produce stand, and work in the classroom and independently with students.

UNI staff emphasize the need for comprehensive, broad-based interventions connected to an integrated curriculum. They believe that nutrition education will only be embedded in the minds of young students when they are comprehensively engaged in numerous, reinforcing activities.

Reach

UNI currently reaches 1,000 students in Philadelphia, including 200 students at University City High School's EcoTech program and 350 students at Drew Elementary (both model UNI schools), and will be expanding into other schools this fall to reach a total of 2,000 students.

UNI is working with the University of New Mexico in Albequerque and the University of the Witswatersrand in Johannesberg, South Africa, to implement similar models in schools and community centers. Both universities are in early stages of implementation, but have successfully engaged students and communities in urban agriculture activities they intend to weave into school curricula.

Measures of Success

Little scientific research has been conducted on UNI's efforts. One study demonstrated the effects of student ownership on healthy eating. It was found that elementary school students involved in developing and running an after-school produce stand are more likely to choose healthy foods as an after-school snack. An evaluator was recently hired to assess program effectiveness over the next two years.

Replicability
UNI has many possibilities for replication. University City High School's UNI-developed EcoTech program could be wholly replicated, or specific classes and activities could be worked into a school's curriculum. It is UNI's university-school partnership model that has the greatest potential as a starting point for the replication of EcoTech or other physical activity and nutrition programs in schools. One of UNI's leaders, Dr. Ira Harkavy, believes that nutrition and physical activity are the two best organizing principles for university-school partnerships.

Components of Success
The university-school partnership model is the key element to UNI's success. The major benefits of this partnership include:

- Access to expertise, support and supplies the schools may not otherwise have.
- An invigorating exchange of ideas between university faculty and school teachers.
- Additional teaching assistance from the university students who come regularly to UNI schools as part of their service-learning courses.
- Support and encouragement from the university to reach out to the community.
- A relationship between learning institutions that provides the support for long-term, sustainable nutrition education in elementary, middle and high schools.

The wide number and range of hands-on activities that UNI incorporates into its program also make the initiative successful. Students are highly engaged, have a sense of ownership and directly experience healthy eating on a regular basis. Not only do students learn about nutrition, they grow and cook healthy food and learn about the culture and politics surrounding food.

For more information go to: http://www.upenn.edu/ccp/uni.shtml

COORDINATED APPROACH TO CHILDHOOD HEALTH

Overview
Coordinated Approach to Childhood Health (CATCH) is a comprehensive approach to exposing elementary school children to nutrition concepts and engaging them in physical activity. This program is composed of four main components:

- P.E.
- In-class nutrition and health curriculum
- Changes in school lunch menus
- Family involvement

The Program
The CATCH program is structured to coordinate school food service, P.E. and nutrition education in elementary schools to "help schools, children and their families adopt healthy eating and physical activity behaviors." Parental involvement is encouraged through school activities and pieces of the in-class curriculum.

A CATCH committee composed of a food service manager, a parent, a nurse, an administrator, a school counselor, a P.E. teacher and a classroom teacher oversees program implementation and provides support and resources to the rest of the school.

CATCH P.E. has four main objectives:

- Achieve 50% of class time in moderate-to-vigorous physical activity.
- Provide opportunities for every student to participate.
- Promote activity outside of P.E. class.
- Have fun.

CATCH P.E. classes are a whirlwind of activity accompanied by popular music. Kids begin moving the moment they enter the gym. There is almost constant vigorous movement, except for the few moments of stillness when students are learning a new skill. In addition to learning and developing new skills, students are taught why physical activity is so critical in their lives.

CATCH nutrition education reaches kids in grades three through five. Kids receive nutrition lessons combined with homework and take-home family activities. Kids are taught healthy eating and fitness through the adventures of a host of likeable characters: Hearty Heart, Flash Fitness, Salt Sleuth, Dynamite Diet and Tillie Telestar. These characters teach kids to keep a healthy heart, stay fit, look out for sodium and eat a healthy diet with lots of fruits and vegetables.

Students are first introduced to the easily memorable concepts of "go," "slow" and "whoa" foods in the third grade.

- *Go food:* It's okay to eat anytime.
- *Slow food:* It's okay to eat sometimes, in moderation.
- *Whoa food:* To be eaten only once in a while or on special occasions.

Some school cafeterias reinforce these concepts by labeling school meal components as go, slow or whoa.

The CATCH food service component aims to extend the classroom into the cafeteria, and to increase low-fat meals (no more than 30% of calories from fat) and provide generous offerings of fruits and vegetables. Each school is given the flexibility to accomplish this in their own way. Schools are making some of the following changes:

- Discontinuing the use of butter in cooking and as a condiment
- Providing fresh vegetables, such as broccoli and cauliflower, as side dishes
- Making the switch from regular to low-fat ice cream
- Introducing salad bars
- Setting low-fat content standards for competitive foods
- Switching from whole to low-fat milk
- Discontinuing frying
- Using fruit as a dessert

The CATCH program encourages food service staff to proactively interact with students by offering healthier choices first.

In a typical CATCH school, the success of this comprehensive approach can be observed in the high level of activity and in the conversations among the students.

Reach
The CATCH program is being used by schools in 30 states, Canada and around the world at schools on U.S. Department of Defense military bases. In Texas, where the program is based, over 1,000 schools have adopted the CATCH program. State organizations in Illinois, New Mexico, Maine, Ohio and Florida are pushing their schools to adopt the program.

Measures of Success
A number of controlled studies were conducted on original field trials and pilots of CATCH. The results demonstrated that the CATCH program is able to modify the fat content of school lunches, increase moderate-to-vigorous physical activity in P.E. and improve eating and physical activity behaviors in children. A follow-up study, looking at children's behaviors for three years after completion of the intervention, suggested that the behavioral change initiated during the elementary school years persisted into adolescence.

Replicability
The CATCH curriculum has been formally disseminated since 1997 and has been replicated in schools throughout the country. This replication process will continue.

Components of Success
The CATCH training model is a critical factor to its success. The concept of a "coordinated school health program" is demystified, and teachers are given the tools to coordinate with each other and take the first steps to implementation. The training emphasizes that change is a process, not an event.

CATCH trainers require that at least one P.E. teacher, one classroom teacher and the food service manager from each school attend the training. Parents, principals, administrators and other teachers are encouraged to attend. CATCH also provides opportunities for teachers and food service staff to attend booster trainings.

The training itself is interactive, emphasizes the importance of communicating and helps schools see what they're already doing, what more they can do and what they will do to implement CATCH. After one-on-one breakout sessions on the responsibilities and activities of food service, P.E. and classroom teachers, the team comes together to sit down with their calendars, pick dates for coordinating team meetings and set implementation goals.

Another component of CATCH success is the program's flexibility. Schools are given the curriculum, the tools and the framework, but can modify each to serve their needs and still be effective.

For more information, go to: http://www.sph.uth.tmc.edu/chppr/catch

V. PROGRAMS REVIEWED

A. IN-SCHOOL PROGRAMS

Pyramid identified 21 in-school for review. Following is a list of these programs.

Aldine School District P.E. Program (Tex.)
Sharon Sterchy, Ed.D.
Program Director for P.E. & Wellness

California Project LEAN
Food on the Run (Calif.)
Amanda Purcell, M.P.H.
Manager, Food on the Run

CATCH (multiple states)
Peter Cribb, M.Ed.
Program Coordinator

Clovis High School P.E. Program (Calif.)
Cliff Wetzel
P.E. Department Chair

Eat Well and Keep Moving (Mass.)
Lilian Cheung, D.Sc., R.D.
Lecturer and Researcher
Havard School of Public Health

The Edible Schoolyard (Calif.)
Marsha Guerrero
Program Coordinator

Exemplary Physical Education Curriculum Project (EPEC) (Mich.)
Glenna DeJong, Ph.D.
Director

Farm to School Program (multiple states)
Marion Kalb
National Director

Fitness Fun Forever (Fla.)
Stuart Ryan, Ph.D.
Program Director

Food Systems Project
Center for Ecoliteracy (Calif.)
Zenobia Barlow
Executive Director

Hip On Nutrition
Craven County Schools (N.C.)
Martha Hardison
Child Nutrition Director

PE4Life (Ill.)
Phil Lawler
Director, PE4Life Institute

Physical Activity and Teenage Health (PATH) (N.Y.)
Paul Fardy, Ph.D.
Program Director

Pathways (N. Mex.)
Sally Davis, Ph.D.
Director/Principal Investigator

Planet Health (Mass.)
Judy Fallows
Field Coordinator

Project Fit America (multiple states)
Stacey Cook
Executive Director

SPARK P.E. (multiple states)
Paul Rosengard
Executive Director

Spokane Public Schools P.E. (Wash.)
Karen Cowan
Coordinator, K-8 Fitness and Health and Activities

Take 10! (multiple states)
Debra L. Kibbe
Associate Director, Physical Activity & Nutrition Program
International Life Sciences Institute

Tulsa Schools "New P.E." Program (Okla.)
Barbara Marshall
District P.E. Coordinator

Urban Nutrition Initiative (Pa.)
Cory Bowman
Co-Coordinator

YMCA Feelin' Good Fitness Program (Calif.)
Terre Logsdon
Program Director

B. AFTER-SCHOOL PROGRAMS

We identified the following 19 physical activity- and/or nutrition-focused after-school programs for review.

Adiposity Prevention by Exercise in Black Girls (APEX) (Ga.)
Paule Barbeau, Ph.D.
Principal Investigator

Arts Corps (Wash.)
Tina LaPadula
Faculty and Curriculum Director

CANFit (Calif.)
Arnell Hinkle, R.D., M.P.H.
Executive Director

CATCH Kids (Tex.)
Steven Kelder, Ph.D.
Principal Investigator

First Choice (multiple states)
Thomas Collingwood, Ph.D.
Program Developer
Fitness Intervention Technologies

FitKid Project (Ga.)
Paule Barbeau, Ph.D.
Principal Investigator

Hands for Hope (Calif.)
Lydia Floyd
Founder and Director

Hawaiian Island Twisters (Hawaii)
Joe Rapp
Executive Director

Mission Girls (Calif.)
Gloria Romero
Program Director

Movin' With U (Utah)
Doris Watson, Ph.D.
Principal Investigator

Operation Fit Kids Inc. (Calif.)
Raniel "Ray" Trinidad
Program Manager
The American Council On Exercise

P.H.A.T. (Calif.)
Daniela Boykin, R.D.
Project Coordinator

Project Sozo (Calif.)
Bruce Bhird
Chief Professional Officer
Boys & Girls Club of Beuna Park

SMART Moves (multiple states)
Chris Cavazos
Business Manager
and
Peter Gomez
Volunteer Supervisor
Santa Fe Boys & Girls Club

Sport For All (N.Y., Va., Ga., Nebr.)
Judy Young, Ph.D.
Executive Director
National Association for Sport &
Physical Education

Sports4Kids (Calif.)
Jill Vialet
Executive Director

StepUp (Calif.)
Tom Martin
Program Director, YMCA of the East Bay
and
Chris Chatmon
Executive Director, East Lake YMCA

Students Run L.A. (Calif.)
Marsha Charney
Executive Director

Trips for Kids (Calif.)
Marilyn Price
Director