

Improving Nutrition & Physical Activity

The number of overweight children and youth has increased to reach epidemic levels in the United States. Many children come to school suffering from obesity-related conditions – asthma, diabetes, mental health, and other health issues – that seriously impact their ability to learn and to succeed in school. The roots of obesity are multi-faceted and often related to many aspects of a student’s life: lack of opportunities or safe places for activity; limited choices or availability of healthy foods; and mental health issues including depression, anxiety or stress. In order to be successful, programming must address all of these components and their relationship to one another.

School-based interventions have been identified as one of the “most efficient means the nation might employ to reduce four main chronic disease risks: tobacco use, unhealthy eating patterns, inadequate physical activity, and obesity.”¹ By bringing health care professionals and educators together, school health centers have the ability to link clinical services with opportunities to change lifestyles such as adventure clubs, dance classes, cooking classes, and availability of healthy snacks. Given the complexity of the issue and its causes, case management is also essential in order to identify and develop a complete, personalized plan for each student. The accessible, youth-friendly and community orientation of school health centers make them uniquely positioned to provide the comprehensive, individualized programming necessary to form healthy habits and improve nutrition and physical activity among California’s children and youth.

Program Components

CLINICAL

- Baseline physical examinations including BMI, blood pressure, and lipid levels
- Clinical recommendations and advice
- Annual follow-up exams to track improvements in these health measures

CASE MANAGEMENT

- Baseline assessment of the student’s food intake and eating habits
- Development of an individualized nutrition and physical activity plan (e.g., guidance on how to manage food intake and goal-setting for physical activity)
- Identification of individuals that can provide a support network for each student
- Ongoing monitoring of all program components and one-on-one meetings with students

NUTRITION/COOKING

- Nutrition education, including programs facilitated or co-facilitated by youth
- Support for students in tracking their food intake and making healthy choices (e.g., menu analysis, “food diaries” and tips to follow when eating out)
- Hands-on cooking classes where students learn how to prepare simple, healthy recipes for themselves and their families
- Distribution of healthy snacks at the school health center (e.g., fruit, water, etc.)
- Development of nutrition modules, curricula, and other teaching resources

PHYSICAL ACTIVITY

- After school programs including competitive sports and non-competitive activities such as salsa and hip hop dance classes, aerobics, weight training, yoga, walking and biking clubs, and other activities suggested or initiated by students
- Distribution of pedometers so students can monitor their physical activity
- Running/walking groups and other forms of social support

MENTAL HEALTH

- Assessment conducted by a mental health professional during the initial enrollment period to identify any contributing mental health factors and determine whether the student would benefit from treatment/counseling
- Ongoing counseling and support

STUDENT AND PARENT WORKSHOPS

- Parent nutrition education and cooking classes where parents can prepare recipes and learn skills such as how and when to use low-fat substitutions and how to read food labels
- Additional workshops on various topics according to student needs and interest

ADVOCACY AND YOUTH DEVELOPMENT

- Committee, board, club or other group where students discuss factors that affect healthy eating and exercise from a policy and social justice perspective
- Student-conducted needs assessment of community barriers to healthy eating and/or exercising, where the results are then presented to administrators and other policymakers
- Focus on environmental-level change (e.g., school lunch menu, access to safe playgrounds)

Staffing

- Full-time case manager/program coordinator
- Four part-time staff: mental health counselor; RN/NP; physical activity instructors (youth or adult; paid or volunteer); and a nutrition professional

Keys to Success

- Support of the school/school district including good relationships and communication with teachers, administrators and support personnel and access to facilities (e.g., cafeteria, gym, classrooms, etc.)
- Ability to implement a comprehensive, flexible, individualized, and youth-friendly program
- Cultural competence and input from participants including consideration of traditional foods and eating practices and appropriate language and cultural resources for non-native English speakers
- Parent education and involvement
- Ability to purchase and/or secure donations of program incentives (T-shirts, water bottles, sneakers, food, gift certificates, etc.)

Evaluation Measures

- Pre- and post-measurements of BMI and lipid levels
- Pre- and post-mental health assessments
- Number of students enrolled in the program and meeting minimum program participation requirements (e.g., maintain active relationship with the case manager and attend minimum number of workshops and physical activity sessions)
- Number and diversity of workshops offered
- Youth and parent satisfaction surveys
- Reported changes in behavior and attitudes (e.g., fruit and vegetable intake, self-efficacy, academic measures)
- Changes in policy and/or improved community access to nutrition and physical activity resources (e.g., more nutritious cafeteria food)

Past Successes

BALBOA HIGH SCHOOL HEALTH CENTER, SAN FRANCISCO

Balboa Bike-aneers Bicycle Club and Adventure Club. The Balboa Teen Health Center started the Balboa Bike-aneers, a bike club for Balboa students, after a survey of 269 students showed most youth enjoyed biking but did not own a bicycle. The objectives of the Bike-aneers were to: have fun and feel good; support good health through nutrition and physical activity; take group bike rides; and learn about bike safety/maintenance and bike paths in San Francisco. After its first year, the Bike-aneers began incorporating other types of physical activity, such as rock climbing and ice skating, and changed their name to “The Adventure Club.” Students participated in a series of brief nutrition education lessons, which would then be followed by an adventure. These lessons were youth-led and included topics on mental health and body image.

EDISON HIGH SCHOOL HEALTH CENTER, STOCKTON

Healthy Hearts. This obesity prevention and reduction program targeted 50 migrant students and their families, providing them with an intensive case management program. Each student received a comprehensive baseline health assessment before they began the intervention, including a mental health screening. The intervention phase had several components, including comprehensive case management, after-school fitness activities, nutrition education, group projects, and “Free Lunch Fridays,” where students were provided with healthy food to cook their own nutritious meals in a social environment. Nutrition education and food preparation classes were also offered for the parents and family members of student participants. Students with mental health or medical needs received ongoing care for those issues. A brief physical exam was conducted periodically to determine improvement.

LINCOLN HIGH SCHOOL WELLNESS CENTER, SAN FRANCISCO

Health Idol. “Health Idol,” an annual reality show-themed program run by Lincoln High School’s Wellness Center, pitted up to 30 participants, including students, teachers, and Wellness Center staff, in competition over the course of a semester. Students “auditioned” for the popular program by completing a short essay on why they wanted to compete. Finalists were grouped by the athletic department, academic counselors, and the Wellness Center into three teams—Body, Mind, and Heart—which represented a holistic model of health and fitness. The group model also promoted a sense of community, as team members trained together for difficult events such as the mile run. Each week, information was posted around campus describing the role of the next event in overall fitness. These events included standard tests, such as sit-ups and pull-ups, as well as unconventional challenges involving sudoku puzzles and health quizzes. Assessments of the program linked Health Idol to improved GPA, reduced truancy, and higher self-esteem.

MANUAL ARTS HIGH SCHOOL HEALTH CENTER, LOS ANGELES

Youth N Fitness. Manual Arts High School Health Center, a program of Childrens Hospital Los Angeles, created Youth N Fitness. The program began with several components including: 1) individualized hour-long goal setting sessions to help students adopt healthy eating and activity habits; 2) an eight-hour classroom curriculum taught to health education classes; and 3) after-school physical activity classes such as yoga or capoeira. Subsequently, the focus shifted from individual weight loss to focus on broader community goals and life-long healthy habits. Lunch group meetings provided students with local, healthy, affordable meals. Having fitness instructors reflect the demographics of the student population resulted in increased student participation. The program’s star Youth Health Action Board focused on promoting environmental level change. For example, the group led a movement to improve the quality of the school lunch menu through appeals to administrators. To help fund these healthier menu changes, the group organized a marketing campaign to increase student participation in the school lunch program, including a cafeteria menu tasting event that served more than 200 students.

SAN GABRIEL FAMILY RESOURCE CENTER, SAN GABRIEL

Nutrition Network. A nutrition network partnership with the Los Angeles County Office of Education helped to fund activities in targeted schools that promoted nutrition, physical activity, and federal meal programs. All five elementary schools had Walking clubs with incentives and “Harvest of the Month” educational materials for students, teachers and parents. Students in the elementary and middle schools were weighed and measured annually and clinicians worked closely with those students who were assessed to be at risk for diabetes and obesity. Parents were included in these sessions, and parents without access to medical providers were referred to the school-based health center for further evaluation and enrollment into “Fun and Fitness” family classes. The classes were run by a health educator/registered dietician and co-facilitated by the school site counselor and school nurse. In addition, pregnant high school students were supported by graduate nurses from CSU-LA who worked with them one-on-one to ensure their nutritional needs were met.

SANTA MARIA HIGH SCHOOL COMMUNITY HEALTH CENTER, SANTA MARIA

Nutrition Club. With the objective of promoting healthy foods on campus, the Nutrition Club was instrumental in removing soft drinks from the 3,000-student campus and ensuring fresh drinking water was available. Students also participated in the county-run collaborative “Partners for Fit Youth,” made presentations to the school board, organized a community “fun run” each year, and were trained to be nutrition peer educators for elementary schools in the area.

SCHOOL HEALTH CLINICS OF SANTA CLARA COUNTY, GILROY, AND SAN JOSE

Pediatric Weight Management Program. School Health Clinics of Santa Clara County’s Pediatric Weight Management Program was developed in an effort to make the child obesity curriculum developed by Stanford University more accessible to communities in need. The program recruited families for a six-month intervention, where parents and children met with behavior coaches for weekly hour and a half sessions. Both children and parents were encouraged to keep food journals and make healthier substitutions for everyday foods. Parents and children met separately in groups with behavior coaches to discuss challenges to eating healthy, cultural attitudes toward food, and tips to improve diet and exercise. While BMI was recorded weekly for participants, the emphasis of the program was on healthier lifestyles rather than weight loss itself. Six of the 25 sessions were dedicated to physical activity, where behavior coaches, parents, and children all participated in an activity such as an obstacle course.

TENNYSON HIGH SCHOOL HEALTH CENTER, HAYWARD

West Side Steppers and Danza Azteca. In partnership with community-based agencies, the Tennyson High School Health Center offered two different dance classes that each took place two afternoons per week. The West Side Steppers was an organized step team that practiced this form of dance and promoted exercise among students on campus. All students were invited to learn and create a number of step routines that were showcased at various events throughout the year. The Aztec dance classes strived to promote activity for the mind, body, and spirit. The program was open to the entire community.

ⁱ Kolbe L. Kann, L Patterson B, et al. Enabling the nation’s schools to help prevent heart disease, stroke, cancer, COPD, diabetes, and other serious health problems. *Public Health Rep.* 2004: 119:286-302.