



Latino Health Access Latino Childhood Obesity Prevention Initiative Demonstration Project

Accomplishments

Phase I - Building Common Ground

- Recruited and trained 37 parent program volunteers, referred to as the “core group.”
- Recruited four elementary schools in high-need areas.
- Added four school-based exercise programs, one at each participating school, which enrolled a total of 284 parents, including the 37 in the core group.
- Strengthened communication between parents and school administrators, as reported by administrators during focus groups at the end of the first year.
- Hosted meetings between parents and city officials to enhance awareness of the need for open spaces.

Phase II - Action

- 245 parents participated in exercise or nutrition classes at the schools.
- Continued working with three out of four schools from Phase 1 and recruited a fourth school for Phase II.
- Established a parent volunteer-facilitated physical education (P.E.) period in three schools.
- At least eight teachers per school in three schools used the parent volunteer-based approach to P.E.
- Increased the time allotted by schools for student physical education in the participating classrooms.
- In one of the four schools a part-time physical education teacher was hired and a total of thirty teachers participated.
- Started an after school program at one school for overweight children.
- Obtained access to a city-owned vacant lot for physical activities for use by children from the nearby school.
- Increased the number of days consuming fruits and vegetables and exercising among parents participating in an eight-week nutrition education program.

Introduction

Latino Health Access is a non-profit organization that specializes in health education and community mobilizing for Latinos living in Orange County, California. The Latino Childhood Obesity Prevention Initiative (LCOPI) engages parents, students, teachers, principals, and other professionals and stakeholders within and outside of the school system. The program helps local communities successfully respond to an obesity epidemic among its children through improvements in time spent by elementary school students in physical education, by parents in primarily school-based physical activities, and choices by families of more nutritious foods.

Participating elementary schools in Phase I were Roosevelt Elementary, Garfield Elementary, Davis Elementary, and Madison Elementary. In Phase II, Davis Elementary was replaced by Walker Elementary. Hoag Memorial Presbyterian Hospital was the lead agency for the project, which was funded by The Healthcare Foundation for Orange County for the first two phases. An advisory committee includes dietitians from the health department, physical education advocates, and other experts.

The LCOPI was initiated in three phases as a demonstration project. The project is currently ending Phase II and preparing to launch Phase III. The LCOPI was initiated in Santa Ana, California, an area that is 80% Latino and facing multiple challenges related to poverty, immigration, and urban density. The major challenges include overcrowded apartment buildings and school campuses, lack of parks and open spaces to play, high fat and highly processed foods in the school lunches for which nearly all of the students depend, budget problems resulting in the elimination of physical education programs on campuses, an abundance of neighborhood fast food outlets, lack of time and transportation, and parents who are unfamiliar with and hesitant to approach the U.S. school system.

Orange County, California now has the highest proportion of overweight youth ages five to 20 from low income families when compared to the United States and California averages and selected California counties.¹ Hispanic youth have the highest proportion of overweight in Orange County.² The effects of poverty, acculturation and inequality have a dramatic affect on the ability to make lifestyle changes based on options available in their communities, especially related to nutrition and physical activity. Lack of access to parks and easy access to fast food are particular problems.³ Culturally competent interventions are required to increase physical activity and encourage healthy eating patterns among children.⁴

Goals and Objectives

The primary goal of the LCOPI is to reduce chronic disease-related health disparities among Latinos by reducing the number of overweight children. The core objectives are to: 1) implement at least two significant changes in each school that address factors affecting child weight; 2) establish a physical activity program at each school; 3) implement at least one district-wide policy related to increased access to nutritional foods or increased opportunity for physical activity; 4) increase visibility of District leadership in addressing nutrition and physical activity concerns; 5) provide opportunities for parents to learn, participate and advocate for increase opportunities for physical activity and good nutrition.

Model

Phase I – Building Common Ground

Duration: 16 months

Cost: Approximately \$170,000 for four schools

Description: During Phase I, parents, teachers and principals are led through a series of awareness building activities that lay the groundwork for future action. The emphasis is on inclusion and respect, and on all parties gaining an understanding of the situation regarding childhood obesity. The school, community and home are assessed. A core group of parents is

recruited to serve as program facilitators, the binding force throughout all three phases. A key component of this phase, which becomes the foundation for the following phases, is the meaningful and active inclusion of parents. The project offers something relevant that will recruit and retain parents. For example, parents exercise on campus every day after they drop off their children. As a result, parents feel more connected to the school, and continue to participate as the project unfolds. These parents are trained on the basics of nutrition, physical activity, obesity, and the link to chronic disease prevention. Basic data is gathered and shared. Major stakeholders are also brought into the process and meaningful dialogue is facilitated. This phase culminates in a clear understanding of the community assets, barriers to achievement and maintenance of normal weight for children and families, and a common vision for how to move forward.

Table 1. A summary of core steps in phase-I of the LOCPI process and success indicators.

Process	Indicators of Success
Elementary schools are recruited in targeted areas.	Agreements are signed with participating schools.
An advisory group is formed.	The advisory group includes experts in nutrition, physical activity, cultural issues, and child weight.
Informational meetings are held for parents.	Parents attend.
A core group of parents is recruited and trained using culturally appropriate modules.	Consistent participation by members of the core group.
Volunteer parents assess schools, community and home using assessment tools.	Assessments are completed.
Meeting are held with food service personnel and superintendent.	A willingness to participate in future dialogues with parents is expressed.
Community meetings are held using Open Space technology. ¹ Data collected by parents is presented to participants. A plan of action is developed.	Participation of parents, principals, teachers, superintendent, and key stakeholders. Assets are recognized and identified. Top priority issues to improve are identified and agreed upon. A Written Action Plan is developed for each school.
Awareness activities are launched at the	Schools host activities such as interactive

¹ Open Space Technology, developed by Harrison Owen, is a large group exploratory process that brings together multiple stakeholders representing the whole system. Participants’ insights, reservations and experiences are considered data. No agenda is imposed. Participants self organize into groups to focus on a part of the issue that they feel most passionate about, are posed action oriented questions, self-record responses, and then report back to the large group on areas for which they have agreed to take action. The format ensures that those who are normally divided by hierarchy have an equal voice, fosters meaningful dialogue and reflection, facilitates intentional action and self-defined accountability, and promotes cohesion and synergy.

schools.	nutrition campaigns and school-wide Olympics.
Exercise classes are offered for parents.	Parents at all schools come on campus regularly for exercise. Parents begin to feel more comfortable on campus. School administrators report strengthened communication with parents.

Phase II - Action

Duration: 12 months

Cost: Approximately \$166,000 for four schools

Description: The main emphasis of Phase II is on action. A portion of the core group of volunteer parents continues to exercise together every weekday at the school. This group, in addition to new recruits, is now trained to actively help create opportunities for physical activity and improved nutrition during and outside of the school day. Parents are trained to advocate, and are supported and given opportunities to practice advocacy skills. The schools are assisted in making structural changes that allow for increased time for student physical activity. Students who are above normal weight are identified and assisted. To help avoid negative psychological impact, students are referred by the school nurse, their teachers or their parents. Students are privately asked by staff whether they would like participate in an exercise health club. Sessions are held after school in a separate area. Teachers are trained to conduct physical education activities, how to combine classes, and how to use parent volunteers to increase time for P.E. The activities of Phase I are continued, including the exercise classes for parents.

Table 2. A summary of core steps in phase-II of the LCOPI process and success indicators.

Process	Indicators of Success
Continue aerobics classes with Exercise Moms.	Parents spontaneously recruit other new parents.
Introduce eight-session nutrition education classes.	Parents graduate from classes. Parents help prepare healthy recipes.
Train parents to help facilitate P.E. classes in the schools.	Parents come on campus to assist teachers by conducting physical activities with children.
Assist teachers in preparing P.E. lessons and in structuring time for P.E.	Teachers increase time spent conducting P.E. with children.
Identify overweight children who refuse to participate in P.E. because of peer ridicule. Create a private area and incentives for them to exercise.	School provides space and time. Parents agree to student participation. Children participate.

Provide opportunities for parents to advocate, such as meetings with City Council members and other representatives.	Parents testify before decision-making bodies, such as the School Board and City Council.
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Phase III – Overcoming Critical Barriers

Duration: On-going.

Cost: Approximately \$175,000 per year for four schools.

Description: The primary focus of Phase III is on crafting very practical solutions to overcome critical barriers to maintaining or achieving normal weight in children. These barriers include lack of transportation, lack of time because parents are working multiple jobs, lack of open space for recreation, and certain school policies that may be difficult to change quickly. Solutions may include creating parent co-ops where parents transport children to physical activities; parents advocating for school lunch improvements; the local college providing physical education interns to lead activities; or the city donating or loaning space for the creation of “pocket parks” that are monitored by residents. Changes that have been pilot-tested in Phase II can be institutionalized or elevated from the school level to the district level. New partners can be added to existing structures to help them stabilize and become self-sustaining. The program leadership takes the local community situation and opportunities into account. During Phase III, the activities of the previous two phases continue, including the exercise classes for parents.

Table 3. A summary of core steps in phase-III of the LOCPI process and success indicators.

Process	Indicators of Success
Continue to offer exercise classes for parents.	Core group of volunteer parents is retained.
Remain alert for opportunities for action.	One or two opportunities for action are identified.
Work with core group of volunteer parents to maximize physical activity for children outside of school hours, based on identified opportunities. Ideas include forming a parent co-op to drive children to existing activities, or creating a park.	Children have increased opportunities for physical activity outside of school hours.

Conduct nutrition education home visits for families who have children that are obese or at risk of developing obesity or diabetes. ²	Parents implement nutritious changes in food shopping and food consumption patterns.
Coordinate outside resources such as community colleges to assist the school in creating additional opportunities for physical activity.	Children have increase opportunity for physical activity during school hours.
Work with trained parents to continue to assist teachers in providing additional P.E. periods using the approach already developed in Phase II (described under Phase II Outcomes Achieved).	Children have increase opportunity for physical activity during school hours.

Results

Phase I Outcomes Achieved

Four schools in the affected neighborhoods agreed to participate. Each school's student body was at least 92% Latino, and each had at least a 90% participation rate in the reduced or free lunch program. Parents who were normally marginalized became trained and assisted with the program. Major neighborhood and school needs and assets were identified. Existing assets were located and pressed into service. One such asset was an unused physical activity curriculum that belonged to the school district but had not been taken out of use due to lack of funds to pay P.E. teachers. Exercise classes for parents became institutionalized into the school schedule. School personnel reported strengthened communication with parents. City personnel became more aware of the need for open space.

Participatory evaluation of Phase I consisted of parents assessing their homes, schools, and communities for potential risks for obesity through an observational checklist. Community participation was assessed through the compilation of advisory and informational meeting minutes and actions plans. Focus groups were held with 28 parents and eight administrators (two in each school) across the four schools. Content analysis was used to evaluate the LCOPI outcomes.

Table 4. Major themes that emerged from focus groups with parents and school administrators across all four schools.

Parents Reported	Administrators Reported
Feeling more agile and more rested.	Parent exercise sessions have become a part of the school schedule.
Feeling healthier.	Administrators and teachers have strengthened

² The at risk group will be identified according to the following criteria: 1) The child has at least one parent diagnosed with diabetes; 2) The child is referred by the school nurse, the parent or the teacher, and has a BMI of the 85th percentile or greater; 3) A child with or without known risk factors volunteers to participate. Parental permission will be required.

	communication with parents.
Incorporating activities with their children.	--
Attempting to find more time and space to exercise at home.	--
Losing weight and increasing self esteem.	--
Feeling more active and energetic throughout the day.	--
Changing the way they prepare food.	--
Building friendships among class participants.	--
Supporting one another in matters beyond nutrition and physical activity.	--

Phase II Outcomes Achieved

A new group of parents joined the exercise group, which continued to serve as an anchor and incentive for parents to stay involved. The exercise sessions consisted of aerobic exercise, trading recipes for healthful cooking, and discussions about how to stay involved in the schools’ physical activity and nutrition efforts. Structural change was created within three schools at the targeted grade level that has allowed teachers to re-introduce P.E. using parent volunteers. The model allows for two teachers to combine classes. One teacher has an extra preparation period while the other teacher takes both classes outside with trained parent volunteers. As a result, all schools increased the time allotted for student physical education. One school hired a part-time P.E. teacher. Thirty-three teachers are participating at that school. The remaining three schools are using parent volunteers to increase time allotted for P.E., with at least eight teachers per school participating. All physical activity sessions for parents and children were held using pre-existing facilities and inexpensive equipment, such as balls, plastic jugs and ropes. A vacant lot that was loaned by the city has been secured to be used by the neighborhood school children for physical activity.

An outside and an internal evaluation were conducted to determine the effectiveness of Phase II. The outside evaluation consisted of evaluating policy-level changes at the community, school and district levels through a phone survey to participating parents, a mail survey of the members of LCOPI advisory committee and in-depth interviews of teachers participating in the exercise program. Results show the program has been successful in establishing a physical activity program in each participating school that increases opportunities for physical activity for children and their parents. Based on volunteers, this program is providing children with new role models, and increasing the engagement of parents in school activities. However, more time was needed to introduce changes in district-wide policies related to increased access to nutritional foods and increased opportunity for safe physical activity. Thus the program was limited in making changes in the school regarding improvements in the availability of healthful foods during breakfast or lunch.

The internal evaluation consisted of evaluating behavioral changes at the individual level. Parents participating in the nutrition classes and students participating in the after school program completed a self-reported behavioral change survey on general and specific aspects of healthful eating and exercise over the past seven days. Survey data were identified and entered

by a code number and results were reported as aggregate in order to maintain confidentiality. Data were analyzed using Student's t-test for paired samples.

A total of 142 parents across the four schools enrolled in an eight-week nutrition education program. Seventy-three parents completed the course. The retention rate was 51.4%. Parents who completed the course significantly increased the number of days per week consuming fruits and vegetables and exercising. Before the intervention, parents reported eating five or more servings of fruits and vegetables 3.96 days per week (SD = 2.4). After the intervention, parents reported eating five or more servings of fruits and vegetables an average of 5.1 days per week (SD=1.6) ($P < .006$). In addition, parents reported exercising at least 30 minutes an average of 4.5 days per week (SD = 2.1) before the intervention; after the intervention, parents were exercising at least 30 minutes an average of 5.5 days per week (SD = 1.3), ($P < .003$).

Forty students participated in the after school program. Although self-reported pre and post-tests were conducted, the number of paired pre- and post-tests was insufficient for comparison; however, students' responses provide the program with important baseline data for future comparisons. Preliminary baseline data showed that 47% ($n = 9/19$) of students reported receiving daily P.E. at their school, and 68% ($n = 13/19$) walked to school five days per week. More than a third of the students ($n = 7/19$) reported running, riding their bikes or playing after school for five days per week. Fifty-eight percent ($n = 11/19$) reported not drinking soda in a week, and over a third (47%) reported eating fatty foods only once or twice a week.

Conclusions

A community affected by high rates of childhood obesity can effectively respond, if led by a culturally matched team trained in public health concepts. Large systems such as school districts are complex and do not change in short time periods. By involving parents as volunteers and advocates, schools are better able to see the benefits of change. Practical solutions are needed both for the school system and the individual families affected.

Future

It is critical to help both school systems and families overcome common barriers to good nutrition and to increased physical activity. In Phase III of the project, we will attempt to accomplish the following:

1. Create parent co-ops so that trained parents can take turns driving children to physical activities and leading physical activities.
2. Locate at least one additional vacant lot. Plant grass to create a "pocket park." Organize resident teams to ensure safety and maintenance.
3. Reduce Body Mass Index for targeted overweight children through: 1) continuing after school exercise program; 2) hiring personal trainers to exercise with and motivate the children who are overweight and desire assistance; and 3) conducting home visits to assist parents in making changes at home.
4. Institutionalize P.E. at all grade levels in the four participating schools. This will be accomplished by further integrating the pre-existing P.E. curriculum owned by the district, and by supporting school/community partnerships, such as that of the trained parents and the local college resources.

5. Institutionalize parent exercise classes into the school schedule, by training parent volunteers to lead the groups, and supporting those parents.
6. Train parents on leadership and advocacy skills that can support a strategy of creating environments conducive to active living and better eating.
7. Develop a set of evidence-based recommendations for the entire district that the parents can present to the Superintendent and School Board, with the expectation that the recommendations will be considered for district-wide implementation.

References

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