



# Improvements In Physical Fitness Scores Achieved Following The CDC Coordinated School Health Model Through An Innovative School PE And Nutrition Program

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## ABSTRACT

A partnership between Antelope Valley Partners for Health (AVPH), the Los Angeles County Department of Public Health (LAC-DPH), and the Keppel Union School District (KUSD) resulted in a federal grant to improve PE programs, fitness, and health among rural elementary schools located in the Antelope Valley.

KUSD has a student body with greater than 50% ethnic minorities, including 31% Hispanic students. Methods: Interventions following the CDC Coordinated School Health Model (CSHM) were implemented including: hiring two certified PE teachers; adoption of the SPARK PE and health curriculum, the purchase of exercise equipment, the implementation of a nutrition program, providing opportunities for parents to learn and become involved, and providing staff development for teachers. Fitness scores were recorded based on the California Department of Education tests consisting of BMI and FITNESSGRAM® testing.

**Results:** The percentage of KUSD students meeting five of six fitness domains (cumulative) for students tested as fifth graders in 2004 improved from 39.4% in 2004 to 46.9% when tested as seventh graders in 2006. The fifth graders tested in 2005 improved from 42.6% in 2005 to 44.9% when tested as seventh graders in 2007 (Data available <http://data1.cde.ca.gov/dataquest/dataquest.asp> accessed 02/04/2007).

**Discussion:** Following an intervention based on the CDC Coordinated School Health Program Model, the KUSD demonstrated significant gains on State fitness exams in two cohorts of fifth grade students tested two years later in the seventh grade. Both a balanced diet and adequate exercise are necessary to achieve optimal health and help ensure kids learn health lifestyle choices that will benefit them in later life. Successful aspects of this project may serve as a model for comprehensive school-based health interventions in other rural and urban communities.



## BACKGROUND

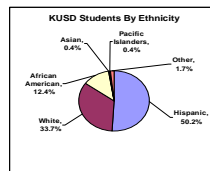
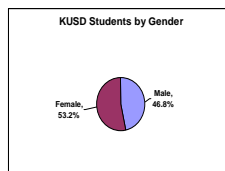
### Antelope Valley—Service Planning Area 1, Los Angeles County



- 1,640 square miles with 341,000 residents
- Rural in comparison with the rest of Los Angeles County
- 10% of population below the Federal Poverty Level (2002)
- 55% are ethnic minorities, 31% Hispanic (2002)
- 7% of AV residents diagnosed with diabetes
  - (Estimate: an additional 3% have not been diagnosed)
- 35% adults are obese; 39% adults are overweight (2000)
  - Both rates exceed national rates by at least 56%
- 11 School Districts

### Keppel Union School District (KUSD)

- 6 schools
- 3,024 students (2005-06 enrollments)
- 140 teachers, 200 support staff
- Student mobility range 15- 33%



### Carol M. White Physical Education Program (PEP) Grant

- GOAL:** Improve physical education (PE) programs, fitness and health among rural elementary schools located in the Antelope Valley (AV)
- Three-year project (2004-2007)
- Funded by US Department of Education, Office of Safe and Drug-Free Schools
- Utilized a community-based, school-focused approach to improve PE using the Coordinated School Health Model
- Partnership between:
  - Antelope Valley Partners for Health (AVPH)
  - Los Angeles County Department of Public Health (LAC-DPH)

## MODEL

### CDC Coordinated School Model



#### School Provided:

- School Health Services
- Psychological Counseling

#### Grant Funding:

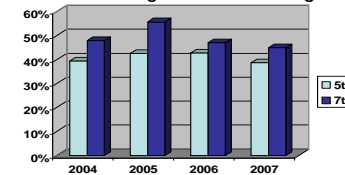
- Health Education
- Physical Education
- Nutrition Services

#### DPH and AVPH (in-kind):

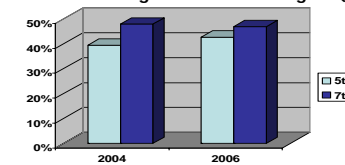
- Project coordination
- Expert consultation on physical activity & nutrition
- Healthy School Environment
- Health Promotion for Staff
- Family/Community Involvement

## RESULTS

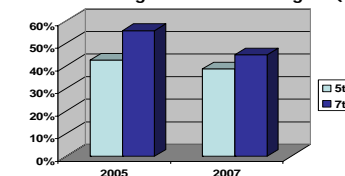
### Students achieving 5 of 6 fitness targets (Keppel)



### Students achieving 5 of 6 fitness targets (2004 cohort)



### Students achieving 5 of 6 fitness targets (2005 cohort)



## DISCUSSION

### Successes of project

- Effectiveness of the CDC Model
- Gains on State fitness exams by KUSD students
- Wellness policy for KUSD employees
- Nutritional changes in school menus
- Additional enhancement of SPARK curriculum by 2 certified PE instructors
- Increased family and community involvement

### Challenges in Implementation

- Low staff participation in wellness programs
- Teacher hesitance to assume PE instructor role in lieu of qualified PE instructors
- Declining fitness scores for other districts within SPA 1

### Keppel USD in Contrast with Area School Districts

- Declining outcomes in other area school districts within same time period

## TAKE-AWAYS

- Focus on Staff Wellness aspect of CDC model
- Potential to motivate staff with motivational speaker and training
- More attention to home environment and participation of parents
- Certified physical education instructors enhance outcomes

## FOR FURTHER INFORMATION:

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