

Evaluation of School Wellness Policies in South San Luis Obispo County

Report of the HEAL-SLO/ TCE School Wellness Grant

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Prepared by:

STRIDE
Cal Poly State University
Kinesiology Department
San Luis Obispo, CA 93407-0386
Administrative office: 805-756-0673



Project Director

Ann Yelmokas McDermott, Ph.D., M.S., L.D.N.
STRIDE Director and Associate Professor
amcdermo@calpoly.edu
direct phone: 805-756-6447

This evaluation and report represents the collaborative contributions of ten Cal Poly faculty and staff members with assistance from twenty Cal Poly students.

Component:

Key Informants

Project Leader:

David W. Hey, Ph.D., CHES
Assistant Professor

Walk/PA

Rosanna Taylor, MS
Advocate for Health, Nutrition and Physical Activity

Plate Waste

Arlene Grant-Holcomb, Ed.D., R.D.
Lecturer

Photo-documentary

Stephanie F. Teaford, BS
STRIDE Community Liaison

CAL POLY

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Executive Summary

The California Endowment (TCE) Grant

A two year grant (October 2008-2010) was awarded to the San Luis Obispo County Public Health Department (SLO-PHD) so that outside agencies could engage in school wellness policy (SWP) advocacy and community activities to aid in combating the growing epidemic of obesity among the county's high risk populations. Under SLO-PHD oversight, Healthy Eating Active Living (HEAL-SLO) proposed school district outcomes, objectives, and indicators.

In March 2009, a research team from the newly formed STRIDE Institute at California Polytechnic State University was contracted to review and evaluate the Oceano Elementary School eating and physical activity environments with the intent to create baseline measures for school wellness improvement. This report summarizes STRIDE's studies, observations and recommendations. Before diving into the results of this study, an overview of the childhood obesity issue and previous federal, state and school efforts undertaken to address this issue might be helpful.

Background--childhood obesity:

Childhood overweight is one of the most serious problems currently affecting individual and public health.¹ The prevalence of American children classified as "overweight" or "obese" has tripled in the past 20 years² and currently those numbers conservatively are known to exceed 30 percent.³ Moreover, Centers for Disease Control (CDC) data showed that Mexican American children, between the ages 6-11, were 1.3 times more likely to be overweight as Non-Hispanic White Children.⁴ (<http://www.cdc.gov/nchs/data/hus/hus08.pdf>)

San Luis Obispo County data also shows increasing rates of childhood overweight and obesity.⁵ Contributing to these increased prevalence rates are the fact that seventy four percent of children ages 6 to 11 in 2007 report they do not meet daily exercise requirements and 25 percent reported that they ate fast food the previous day (California Data Book, San Luis Obispo County, 2007). Physical fitness tests conducted in the 2007-2008 school year indicate 19.1 percent of San Luis Obispo 5th, 7th, and 9th grade children are not in the Healthy Fitness Zone, indicating "overweight" or "obese" students.⁶ During the same fitness testing year (2007), data showed that 33 percent of the Latino children were not in the Healthy Fitness Zone, indicating a health disparity correlating with the demographic distribution of low income families and the enrollment of Hispanic or Latino children in the north and the south portions of the county.⁷

Obesity occurs when a child consumes more calories than he or she uses. But this imbalance between calories consumed and calories used isn't merely the result of the child's behavior. It is the result of many different factors—including behavioral, environmental and genetic factors. (<http://www.cdc.gov/obesity/childhood/causes.html>). One such factor is what experts call an "obesogenic" environment. Americans live in an environment which is promoting weight gain. For instance, today the United States produces about 4200 kcals (kilocalories) per day for every man, woman and child; whereas a range of only 1500-2500 kcals is necessary for healthy weight maintenance in adults. Things like greater food availability, a decrease in home cooking, portion

distortion and decreased breakfast consumption, advertising regulations, car as the primary means of transport and sedentary pastimes all contributed to this change over the past thirty years.⁸ Our genetic makeup did not change over the past thirty years, but our environment including product marketing practices targeting children and families, certainly has changed.

Reasons for concern:

- 1. Being overweight or obese increases many health risks for children.** The CDC website points out that obese children and adolescents are at risk for health problems during their youth and as adults. For example, obese children and adolescents are more likely to have risk factors associated with cardiovascular disease (such as high blood pressure, high cholesterol, and Type 2 diabetes) than are other children and adolescents. (<http://www.cdc.gov/obesity/childhood/index.html>.) Additionally, a New England Journal of Medicine study concluded that “The prevalence of the metabolic syndrome is high among obese children and adolescents, and it increases with worsening obesity.” (<http://content.nejm.org/cgi/content/abstract/350/23/2362>)⁹ Metabolic syndrome is a “cluster of conditions that occur together, increasing the risk of heart disease, stroke and diabetes.” While having just one of these conditions — increased blood pressure, elevated insulin levels, excess body fat around the waist or abnormal cholesterol levels — isn't diagnosed as metabolic syndrome, it still contributes to the risk of serious disease. The risk is even greater if more than one of these conditions occur in combination.¹⁰ <http://www.mayoclinic.com/health/metabolic%20syndrome/DS00522>
- 2. Childhood obesity increases the risk of obesity in adulthood.** Obese children and adolescents are more likely to become obese as adults. For example, one study found approximately 80% of children who were overweight at ages 10–15 years were obese adults at age 25 years. The study also found that if overweight begins before 8 years of age, obesity in adulthood is likely to be more severe. (<http://www.cdc.gov/obesity/childhood/index.html>)¹¹
- 3. Obesity is starting at earlier ages, so we must take steps to prevent it sooner.** Nearly one in five U.S. four-year-olds are obese, according to a study published in the *Archives of Pediatrics and Adolescent Medicine*.¹² Yet, it's possible to prevent some negative consequences if people are informed about the problem and encouraged to make changes. Making lifestyle changes including increased moderate/vigorous exercise and improved nutrition can even delay or derail the development of serious diseases that may result from metabolic syndrome.¹³

Prevention—the logic of school intervention:

The serious and life-long health complications of excess body weight suggest that providing resources for primary prevention in children is advantageous. The economic costs incurred by the problem and its treatments are steep and may be underestimated.¹⁴ Schools represent a logical site for prevention because children spend approximately 6 hours a day attending classes much of the year, where 1-2 meals are consumed and resources such as school nurses and physical education programs are already in place.¹⁵

Given the current school climate of budget cuts and/or resource limitations, STRIDE has attempted to offer recommendations which are less cumbersome for teachers and administrators.

The real key lies in creating systems where the “easier” or “default” choice is the healthy choice—at no extra cost to the school. For example, schools could make tap water easier to obtain than juice and ensure salad bars are at the right height so that it's easy to grab the carrots and tomatoes. Regarding physical activity, schools could provide enough recreational equipment so that kids will be moving

instead of standing in line at recess. School districts could also work with the city to make the daily walk to school safe and fun so that more children and families choose that option. These small, incremental steps will make a big difference in the health of students and staff.

"...a small change builds on itself. Whatever movement occurs is amplified, producing more movement in the same direction. A small action snowballs, with more and more and still more of the same, resembling compounding interest.

Peter M. Senge
Director, Systems Thinking and Organizational Learning
MIT Sloan School of Management

Previous County School Interventions

Federal and state agencies (e.g., The CDC website - 2009 and The California Center for Public Health Advocacy – 2004) have already established a recommendation list containing very broad school wellness policies designed to slow down and reverse the childhood overweight epidemic. Recommendations are included in *Attachment A*. Moreover, school wellness policies for improving student nutrition and physical activity (in accordance with Public Law 108 - 265) were drafted and enacted fall 2006 for Lucia Mar school district. Although previous interventions have occurred, additional help has been provided through this grant.

Assessment Components and Model (part C of the 2008 TCE grant)

STRIDE's mission is to support your students and school in promoting a healthy weight across the lifespan by increasing healthy eating and levels of physical activity to improve health and reduce the risk of chronic disease. Components of the assessment were selected based on their alignment with and ability to impact the overall school wellness program. Components of the assessment included:

- Key informant interviews, Direct Observation and Modified School Health Index Score Cards
- Physical Activity Assessment
- Plate Waste Study
- Photo Documentary Analysis

A complete list of studies, observations and recommendations is included after each component, with a synthesis of recommendations at the end of the report.

When attempting to institute and maintain healthy lifestyle changes, an interwoven relationship exists between the student and their environment. Therefore, it is generally accepted that the most effective approach leading to healthy behaviors is to assess and intervene across all five levels of influence— student (usually referred to as “interpersonal”), family, school, community and public policy.¹⁶ (<http://www.dhs.state.or.us/publichealth/hpcdp/about.cfm#why>) Recommendations will be presented with this in mind. The five levels of influence are:

1. Student factors (example: individual attitude and knowledge of food, physical activity (PA) etc.)
2. Family factors (example: Socioeconomic status (SES), family role modeling, knowledge of food, cultural values etc.)

3. School/Work factors (example: school food, teacher and staff role-modeling and messages, built environment, water availability etc.)
4. Community factors (example: demographics, SES, walking and biking to school, cultural values etc.)
5. Public Policy (example: school wellness policy, budgetary resources allotted to wellness, school facilities and staff etc.)

Although the school cannot be responsible for all change, it's relatively easy to see that a strong public policy (example: school wellness policy) will have greater influence on resultant behaviors than one individual who just happens to bike or walk to school.

Definitions

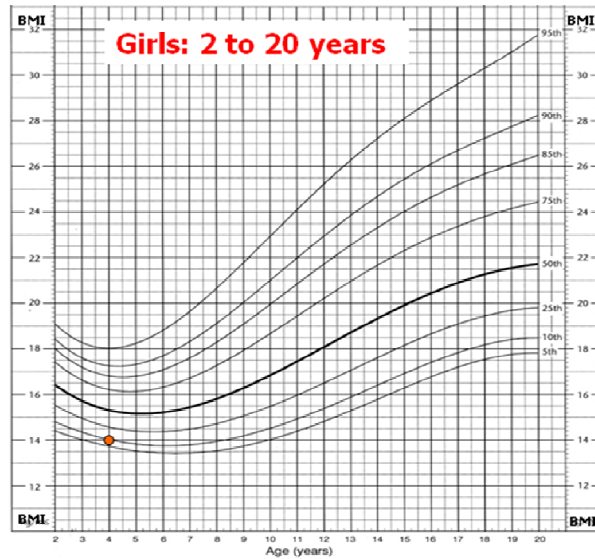
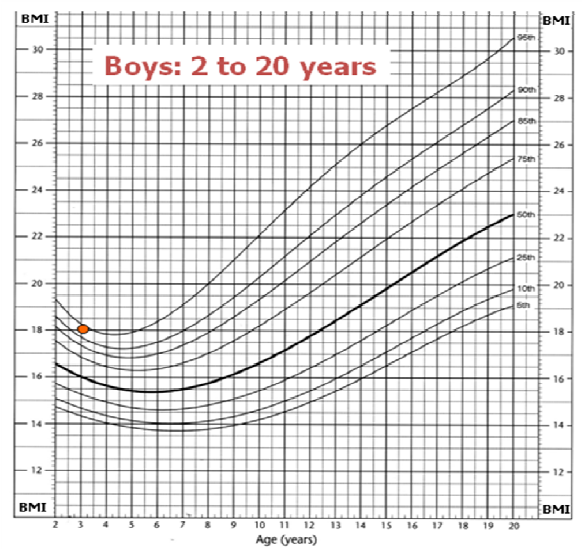
Body Mass Index (BMI) is a number calculated from a person's weight and height. BMI provides a reliable indicator of body fatness for most people and is used to screen for weight categories that may lead to health problems.

Weight classifications are defined in the chart below.

Weight Classifications using Body Mass Index (BMI)			
		http://www.cdc.gov/healthyweight/assessing/bmi/childrens_bmi/about_childrens_bmi.html http://www.cdc.gov/healthyweight/assessing/bmi/	
Children		Adults	
Use age sex-specific growth charts		BMI number calculated from a person's weight	
<i>Underweight:</i>	≤ 5 th percentile	<i>Underweight:</i>	BMI ≤ 18
<i>NORMAL Weight:</i>	6 - 84 th percentile	<i>NORMAL Weight:</i>	BMI 18-24
<i>OVERWEIGHT:</i>	85 - 94 th percentile	<i>OVERWEIGHT:</i>	BMI 25-29
<i>OBESE:</i>	≥ 95 th percentile	<i>OBESE (note 3 obesity classes):</i>	BMI 30+

www.cdc.gov/healthyweight/assessing/bmi/index.html.

CDC BMI-for-Age Charts for Boys and Girls



Summary of Assessment Results

School Health Policies/Nutrition:

At Oceano Elementary, school foods meet or exceed state mandates for nutritional quality and written school nutrition and physical activity policies are partially in place. The school does a good job of restricting access to foods and beverages of little nutritional value, while promoting healthy food and beverage choices—especially by kitchen staff personally offering students fruits and vegetables—which is great to see. The salad bar has been specially designed for shorter students, and demonstrates the school’s commitment to ensuring their students can view all of their choices and become healthier eaters. The school could do a better job of involving students and families in the food offerings at school. The school would also benefit by piloting recess time before lunch so that students don’t rush through their lunch but have an adequate amount of time to eat. Also, right after people have eaten they are often less likely to engage in moderate and vigorous physical activity.

Physical Education and Other Physical Activity:

Recess offered a good choice of activities, but 4th through 6th grade students engaged in less ‘vigorous’ activity than those in the K-3rd grade age group. Hooking up more tetherballs would help children become more active and spend less time in line. The school might also obtain greater utilization of their black top by painting the faded surface playing areas with a fresh coat of paint and committing to maintenance of painting.

As there were no PE classes observed at Oceano Elementary, it is difficult to recommend any changes. *However, the fact that it was difficult to find a class to observe suggests that a regular schedule of PE classes for all grade levels would be one way to increase physical activity in all students.* The California Department of Education website (<http://www.cdc.ca.gov/LS/fa/sf/peguideelement.asp>) offers many sample schedules for accomplishing the required 200 minutes of physical education instruction every ten days. It all adds up—even multiple 10 minute increments of activity in the classroom can accumulate and have a health impact. For class time and recess times, choosing activities that encourage continuous movement, such as soccer, jump rope, running, racing/walking clubs, Frisbee and hacky sack, four-square handball may be more beneficial than activities that encourage little movement, such as baseball.

Although more than half of Oceano students walk or bike to school, this represents a 25% decline from a previous study. Currently, even though the roads are wide, there are no bike lanes or center dividers, and no sidewalks or curbs. Also, the drop-off area in front of the school is congested and there is no crossing guard available to assist children while crossing. The school could increase physical activity and prevent excessive weight gain in students if it implemented a “walking school bus” where parents or other adults escort a group of children on a set route to school¹⁷ (<http://www.walkingschoolbus.org>). For a long-term strategy, the school could also advocate the creation of safe pathways to city planning.

Communication and Marketing:

Although Oceano has many positive examples of wellness communication, it is recommended that the school complete the establishment of a representative school health committee—at least at a volunteer

level since budget constraints have become a barrier in the past. This committee could help implement many of the marketing recommendations in the body of this report. A student-run committee could establish/handle non-food reward systems for student helpers, distribute “caught you being healthy” coupons for healthy meals from home, and run the fruit and vegetable taste tests and “fruit/vegetable of the month” campaigns. Student committee members would receive valuable experience and other students would possibly respond more readily to peer-led efforts.

In the end, schools address these challenging issues because we are entrusted with protecting the health and wellbeing of each child.

As you delve into the following full assessment and put these findings to use, please call us for support. Your school has already shown a great willingness to work on wellness. As you continue to invest time and energy toward this goal, you can expect increased student wellness and improved educational outcomes at Oceano Elementary school.

Full Assessment

Using the Ecological Model: Five Levels of Influence

Individually-based approaches to overweight and obesity prevention and treatment are widely viewed as ineffective by themselves; because they do nothing to alter the environmental factors believed to contribute to the population-wide overeating and inadequate physical activity.¹⁸ This study used ecological models for assessment and intervention because it takes the connections between people and their environments into consideration.¹⁹ The focus remains on environmental factors (barriers to healthy eating and physical activity) and moves away from simply “blaming the person” for their health status.²⁰ Researchers and practitioners systematically assess and intervene on each of the following five levels of influence:

1. Student factors (example: individual attitude and knowledge of food, Physical Activity (PA) etc.)
2. Family factors (example: SES, family role modeling, knowledge of food etc.)
3. School/Work factors (example: built environment, water availability etc.)
4. Community factors (example: demographics, SES, walking and biking to school etc.)
5. Public Policy (example: school wellness policy, budgetary means to accomplish objectives)

Broad Research Goals

Once baseline measures were collected and analyzed; overarching program goals were established to drive stronger school wellness policy recommendations. They included:

- a. Advance policy and environmental changes that promote healthy eating and physical activity options in school.
- b. Help initiate sustainable program initiatives which would help motivate students to eat healthier and engage in more physical activity.
- c. Strive to make the “easier” or “default” choice the healthier choice.
- d. Improve the health of the staff as well as the health of the students.

Data Collection Theory:

The newly formed STRIDE research team targeted socio-ecological domains in-line with national wellness policy recommendations and theory to guide data collection and ultimately provide intervention recommendations. Domains—health behavior thought most to influence eating and physical activity—included:

1. Individual – measured actual physical activity during recess and physical activity – data collection methods were direct observation using a standardized physical activity assessment instrument and photo documentary for communication clarity when presenting data.
2. Individual – measured actual amount of food consumed or thrown away – data collection method was a plate waste study. Photo documentary utilized to supplement recommendations.
3. Family – measured family involvement in food selections (school and home) – data collection method was key informant interview and modified school health index score card instrument. The photo documentary was utilized to supplement box lunch contents brought from home or purchased on the way to school; document volume and portion control, and provide clarity for presenting recommendations.
4. School – measured built environment of the physical barriers to healthy eating and physical activity -including access and promotion of healthy food options – data collection method was photo documentary, key informant interviews, and modified school health index score cards.
5. Community – measured built environment of the physical barriers to healthy eating and physical activity – data collection included: photo documentary including examples of safe routes to school and potential business or vendors near the school, and key informant interviews.
6. Policy – measured written school wellness policy – data collection method was key informant interview and modified school health index score card. Completion by key informants (N=5) specific to each school site. Specific interest areas included: identification of the barriers and successes to the school wellness policy since it was implemented in 2006.

Data Collection Methods

Data collection revolved around five measurement activities: photo documentary (built environment), direct observation (physical activity and cafeteria), key informant interview (n=10), modified elementary school health index score card (n=10), and a plate waste study. The photo documentary analysis will be presented at your school to your community members at a future date. Also, you will be given a copy of the photo-documentary in slide presentation and handout forms. Suggestions from the photo documentary analysis have been integrated with the component and overall recommendations.

Key Informant Interviews and Modified School Health Index Score Cards Lucia Mar School District. Oceano Elementary (K-6), Oceano, California

Oceano School Wellness Policy:

Research Technique: Key Informant Interviews and Modified School Wellness Score Cards

Person Responsible: David Hey, PhD, CHES
Cal Poly Kinesiology – STRIDE
Data Collection: March – July, 2009
Date of report: August 11, 2009

Key informant interviews: are qualitative (descriptive) in-depth interviews with people who know what is going on in a community; or in our case Oceano School. These “key leaders” or wellness “experts” (e.g., PTO moms, wellness committee members, health and PE teachers, food service managers, nurses and school district administrators) have first-hand knowledge, so we asked for their personal observations and unique expertise concerning the school’s wellness policy. As researchers, we were *very interested* in how the leaders view their school wellness policies, and if in fact, they view the policies *are working*, or *effective*.

As a result, these school experts have provided *valuable insight* on the nature of specific problems (real or in their own minds - *perceived*) and each “expert” gave recommendations for solutions that outsiders like the STRIDE research team could only speculate on. Since each “key informant” has special knowledge of their area of expertise, not all of the individuals sampled completed the three scorecard modules from the modified CDC score card index.

Readers are reminded that one obvious limitation to conducting research with a small sample size is that not all school wellness policy (SWP) successes and challenges will be brought to light. Findings here are not “all conclusive” but may prompt ideas for other existing opportunities, supports and services to teachers, staff, students and their families.

Key Informant Interviews

Results:

Key Informant Interview Oceano Elementary, Oceano (N=5)

Interviewees:

- a. 1 school board member – (conducted in person)
- b. 1 food service staff member – (conducted by telephone)
- c. 1 school nurse – (conducted by telephone)
- d. 2 teachers - (2nd grade and 5th grade) – (1 conducted by telephone and 1 conducted in person)

Key Informant Interview Results (n = 5)

Existing Successes since 2006 based on Key Informant Perceptions:

1. School foods are meeting or exceeding state mandates for nutritional quality (SB 12/965 requirements);
2. Meals include lower fat options;
3. Nearly unanimously, school experts cited that they commend food service manager (Judy Stephens) on implementing changes to the lunch room foods when the 2006 changes went into effect (she effectively communicated changes –thwarting possible dissention.)
4. Fundraising efforts supportive of healthy foods and eating in place;
5. Restriction of unhealthy foods are in place (namely, restriction of soda);

6. Low-fat milk is available;
7. Clean /Pleasant atmosphere to eat;
8. With 90% of students eating school lunch, less concern about what is in box lunches from home;
9. Quality PE program in place, although the number of days access is limited;
10. Quality PE instructor in place (highly touted);
11. Communication of wellness policy to students, parents, staff and visitors in place –statements alluded to the fact that there could be a survey developed to see if parents want to teach a health-related workshop specific to their interest area (i.e., cooking) afterschool – parent “buy in” critical for parents to be on same page with SWP;
12. Ongoing “Farmer’s Market” for fundraiser and “run-a-thon”/”jog-a-thon” excellent examples of a working SWP!
13. Selling gift wrapping instead of food is another excellent example of a working SWP!

Existing Challenges or Key Informant Perceived Barriers to Overcome:

*For the purposes of this interview, “concern” indicates that less than 3 of the 5 key informants felt the associated area had room for improvement, but some concern was still voiced. ** “Challenged” indicates that 3 or more of the 5 key informants felt that the associated area had much room for improvement.

1. School wellness committee temporarily not meeting due to budget constraints;
2. Salad bar is being utilized (with continued future efforts of making the salad bar more attractive to students);
3. Adequate time to eat (challenged - but not by all);
4. Student and family involvement in food offerings (challenged);
5. Offering food as reward during school hours (challenged);
6. Students bringing high calorie snacks from outside school (challenged);
7. All school staff acting as positive role models for food/soda (challenged);
8. District Wide School Wellness Committee meets as larger more encompassing body rather than having each individual school form a “healthy team” for unique school environment collaboration (challenged);
9. School wellness policy is solid working document (challenged – good start but requires further detail with benchmarks for success);
10. Although not many, there still were some unhealthy food fundraisers which caused some concern (challenged); See *Attachment B* for alternative ideas and resources;
11. Physical activity during recess (challenged); monitors could encourage more movement.

Modified School Health Index Score Cards were developed by the CDC in 2005 as a means to evaluate school wellness policies. California Project LEAN modified the score cards to better match with the California State Wellness Policy (SWP) mandates. The four SWP modules we utilized check and score various components (e.g., physical activity, nutrition, communication, and food service) as stated in the respective school wellness policy.

By completing the score cards, each school can easily identify and prioritize changes that will improve policies and programs related to student health. Again, with module score cards completed by “key leaders” schools can personally tailor their own programs to meet the needs of their schools.

Score cards included: Elementary School Physical Activity and Nutrition: Module 1: School Health and Safety Policies and Environment - Module 3: Physical Education and Other Physical Activity Programs - Module 4: Nutrition Services. Areas scored ranged from: Wellness Policy “Fully in place” (3) - Wellness Policy “Partially in place” (2) - Wellness Policy “Under Development” (1) - Wellness Policy “Not in Place” (0)

Lucia Mar (Oceano) Elementary Results

Results of Modified School Wellness Scorecards: Mean Scores for Oceano Elementary School (n = 5)

Module 1: School Health and Safety Policies and Environment (n = 5) Mean Score = X

Policy	Fully in Place 3	Partially in Place 2	Under Development 1	Not in Place 0
1. Written school nutrition and physical activity policies	X = 2.5			
2. Restrict access to foods and beverages of minimal nutritional value	X = 2.8			
3. Restrict access to other foods that do not meet SB 12 requirements	X = 2.9			
4. Communicate school policies to students, parents, staff, and visitors	X = 2.3			
5. Representative school health committee	X = 1.1			
6. Recess	X = 2.4			
7. Access to physical activity facilities	X = 2.1			
8. Adequate physical activity facilities	X = 2.2			
9. Prohibit using food as reward or punishment	X = 2.3			
10. Fundraising efforts supportive of healthy eating	X = 2.2			

Module 3: Physical Education and Other Physical Activity Programs (n = 5) Mean Score = X

Policy	Fully in Place 3	Partially in Place 2	Under Development 1	Not in Place 0
1. 200 minutes of physical education every 10 days		X = 2.5		
2. Sequential physical education curriculum		X = 2.3		
3. Students active at least 50% of class time	X = 2.8			
4. Adequate teacher/student ratio	X = 2.6			
5. Teachers avoid practices that result in student inactivity	X = 2.7			
6. Physical education is enjoyable	X = 2.8			
7. Promote community physical activities	X = 2.9			
8. Instruction for special health care needs	X = 2.6			
9. Credentialed physical education teachers	X = 3.0			
10. Professional development for teachers	X = 2.8			
11. Participation in extracurricular physical activity programs	X = 2.7			
12. Community access to school facilities		X = 2.2		

Module 4: Nutrition Services (n = 5) Mean Score = X

Policy	Fully in Place 3	Partially in Place 2	Under Development 1	Not in Place 0
1. Snack/a la carte and beverages meet SB 12 and SB 965	X = 2.8			
2. Promote healthy food and beverage choices	X = 2.6			
3. Student and family involvement in the food offerings at school				X = .8
4. Breakfast and lunch programs	X = 2.7			
5. Low-fat and non-fat milk available	X = 3.0			
6. Meals include appealing, low-fat items	X = 2.8			
7. Food purchasing and preparation reduces fat		X = 2.5		
8. Adequate time to eat school meals		X = 2.5		
9. Clean, safe and pleasant cafeteria	X = 2.8			

Physical Activity Assessment Results

Oceano Elementary

Mode of Transportation to School

On June 10, 2009, a team of three researchers observed three different entrances to Oceano Elementary from 8:00am until ten minutes after the start of the school day. Researchers observed and recorded how many students walked or bicycled to school, rode the school bus or arrived in a passenger vehicle. The purpose of this direct observation was to evaluate how many students were adding to their minutes of total daily physical activity by actively commuting to school. Careful attention was paid to defining the various categories within the modes of transportation—for example, if the student was dropped off at the corner rather than walking the entire way, it was noted as car transportation.

Results of Direct Observation of Student Transportation Mode (N=369) at Oceano Elementary on Spring 2009 morning commute.

Figure 6. Oceano Elementary Student Drop Off Tally

Mode of Transportation	Number Observed (N=369)	Percent
Walk	181	49.1
Bike	16	4.3
Scooter / Skateboard	1	0.3
School Bus	24	6.5
Car	147	39.8

Physical Activity at Recess

On June 10, 2009, a team of four researchers observed students engaged in physical activity during recess for children in a variety of grade levels. Researchers collected data on both ‘overweight’ and ‘normal weight’ male and female children, during the following recess periods:

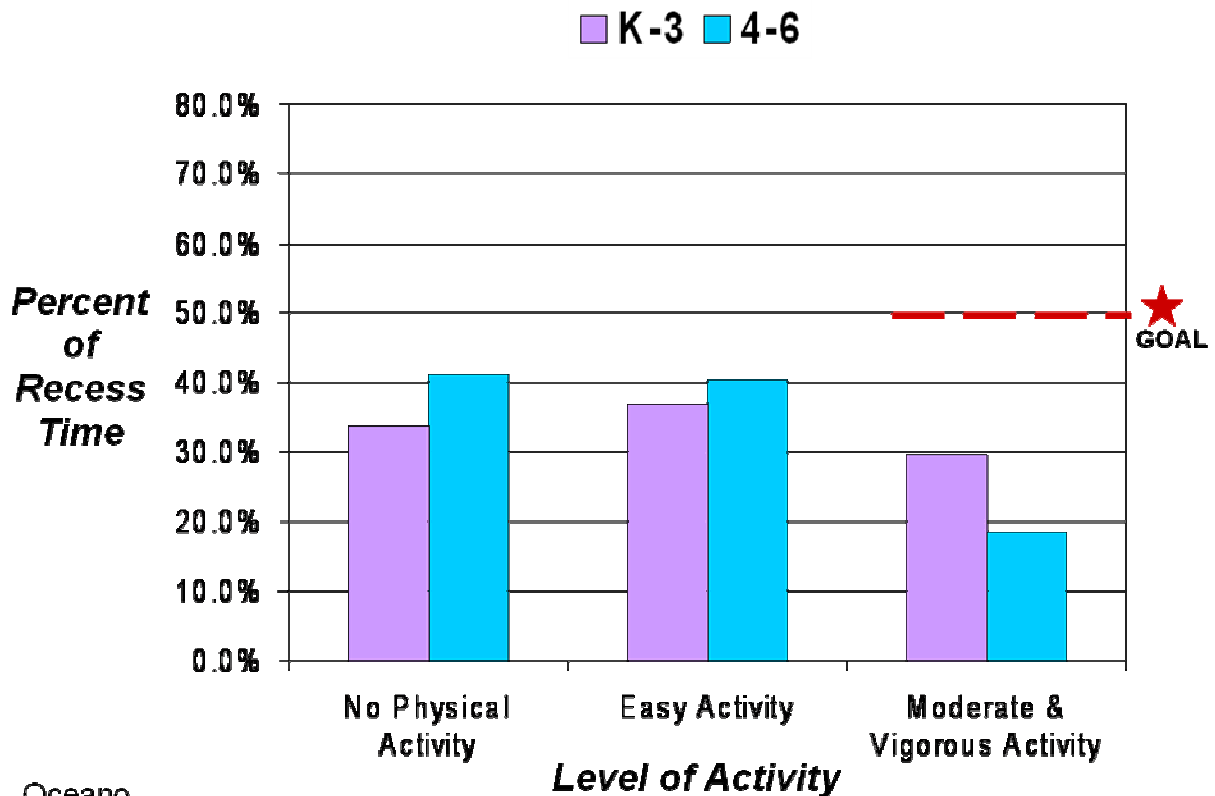
- 4th – 6th grade morning recess (10:50am)
- K-1st grade lunch recess (11:30am)
- 2nd-3rd grade lunch recess (12:15pm)
- 4th-6th grade lunch recess (12:40am)
- K-3rd grade afternoon recess (1:45pm)
- 4th-6th grade afternoon recess (2:00pm)

Four children were observed during each recess period; an overweight male, an overweight female, a normal weight male and a normal weight female. Each researcher chose one child to observe for the entire recess period, making certain the child was unaware of observation. Each 15 seconds, researchers recorded the intensity of the child’s activity (none, easy, moderate or vigorous) and their level of social

engagement (socially engaged or alone). For the purposes of this study, intensity was derived by observation, in accordance with the following criteria: ‘No Physical Activity’ was defined as standing still or sitting, ‘Easy Activity’ as walking, ‘Moderate Activity’ as jogging and/or jumping and ‘Vigorous Activity’ as running. The figures below demonstrate the results of direct observation and physical activity during recess. Detailed tables for figures 2 through 5 may be found in *Attachment C*.

Figure 2

Percent of Recess Spent in Activity Reported by Grade

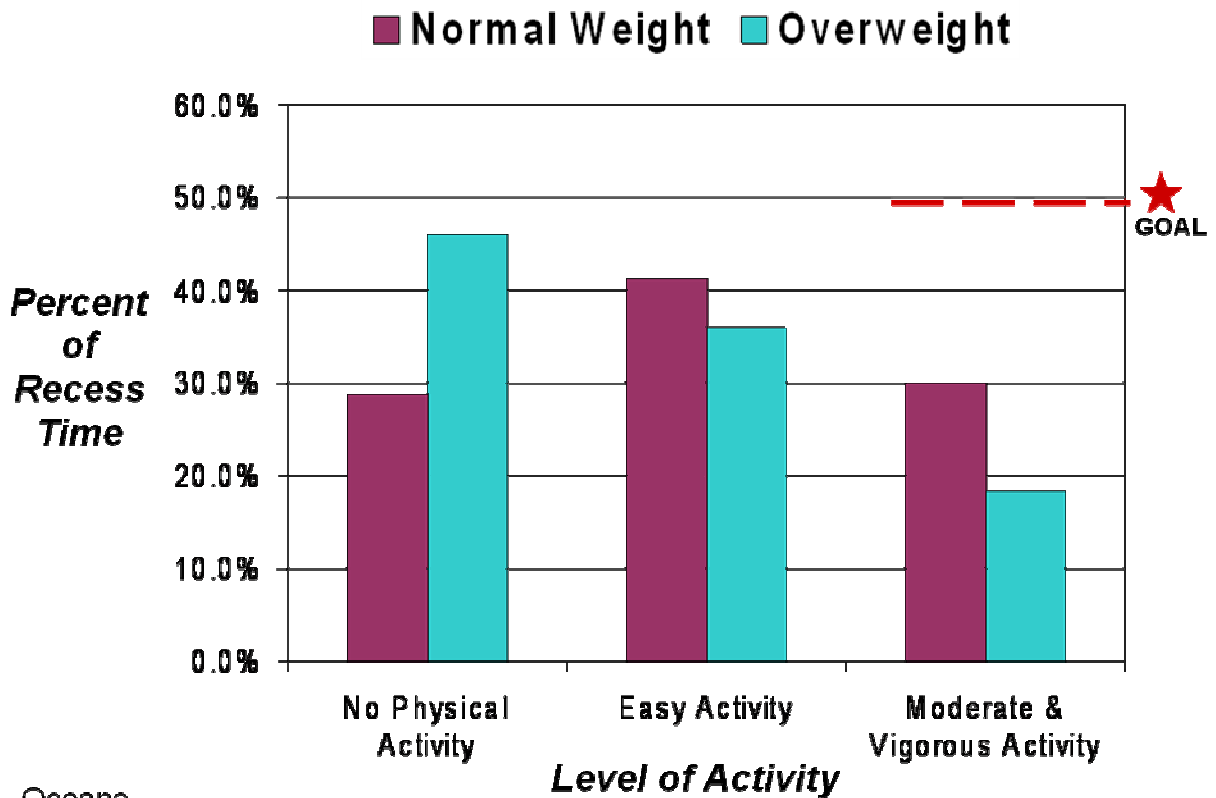


Oceano
June 10, 2009

Take Home Message: The minimum recommendation is that 50% of activity time should be spent in moderate/vigorous activity, with the ultimate goal being 80% of activity time spent in moderate/vigorous activity. Oceano has room for improvement in this area. Students in fourth through sixth grades engaged in less ‘vigorous’ activity than those in the K-3rd grade age group and they were not moving as much as the younger students when their activity levels were measured. When the older students don’t move during recess or PE, it sends a negative message to the younger students who watch and emulate the older kids. It is strongly recommended that the older students (as well as any adults involved) start moving and participating more during PE and recess and become leaders for change.

Figure 3

Percent of Recess Spent in Activity Reported by Weight

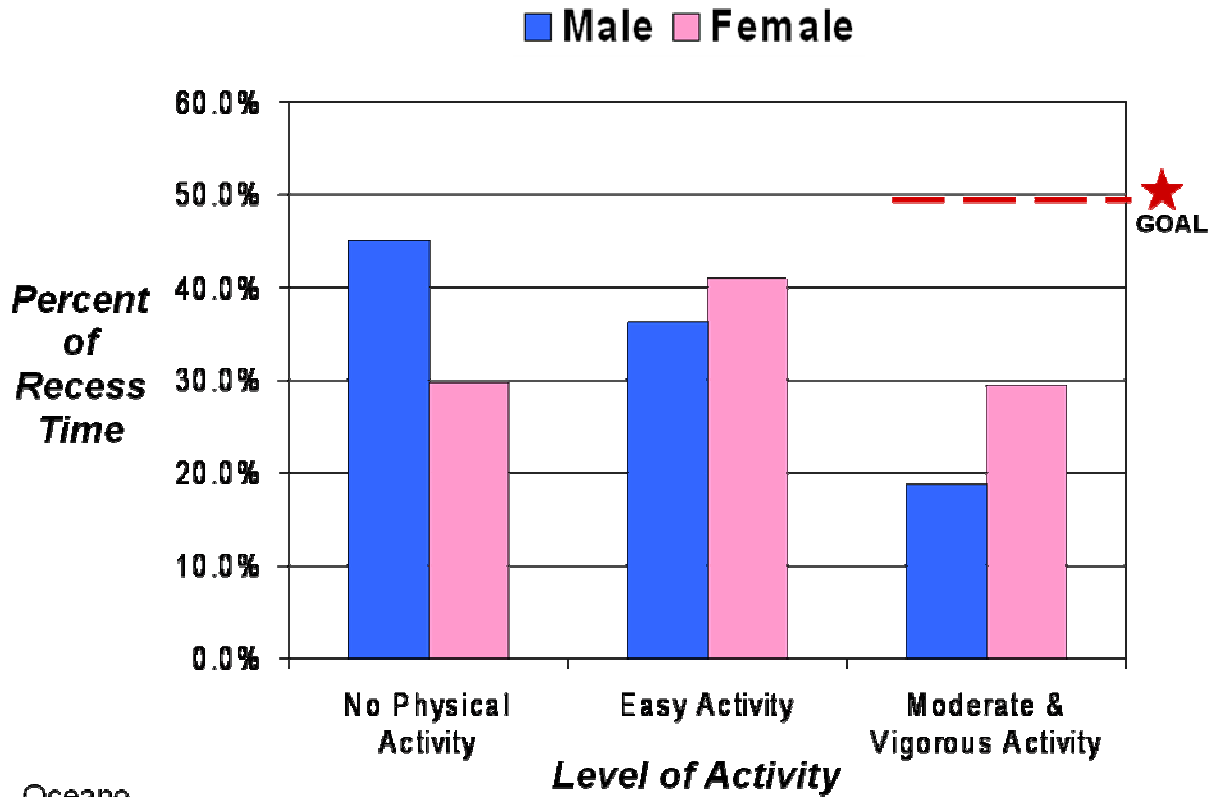


Oceano
June 10, 2009

Take Home Message: Overweight children spent much more time doing no activity than their normal weight classmates. However, neither the normal weight nor overweight students are getting enough moderate/vigorous activity. Both groups could move more. Although there were an adequate choice of activities at recess, students spent a lot of time standing in line. Hooking up more tetherballs would help alleviate lines and promote more activity for students. The development of a jump roping team for boys and girls has also become a very popular trend across the nation and the California central coast since the movie "Jump In!" was released in 2007. Other fun ideas include ultimate Frisbee and racing/walking clubs (Walk to San Luis Obsipo).

Figure 4

Percent of Recess Spent in Activity Reported by Gender

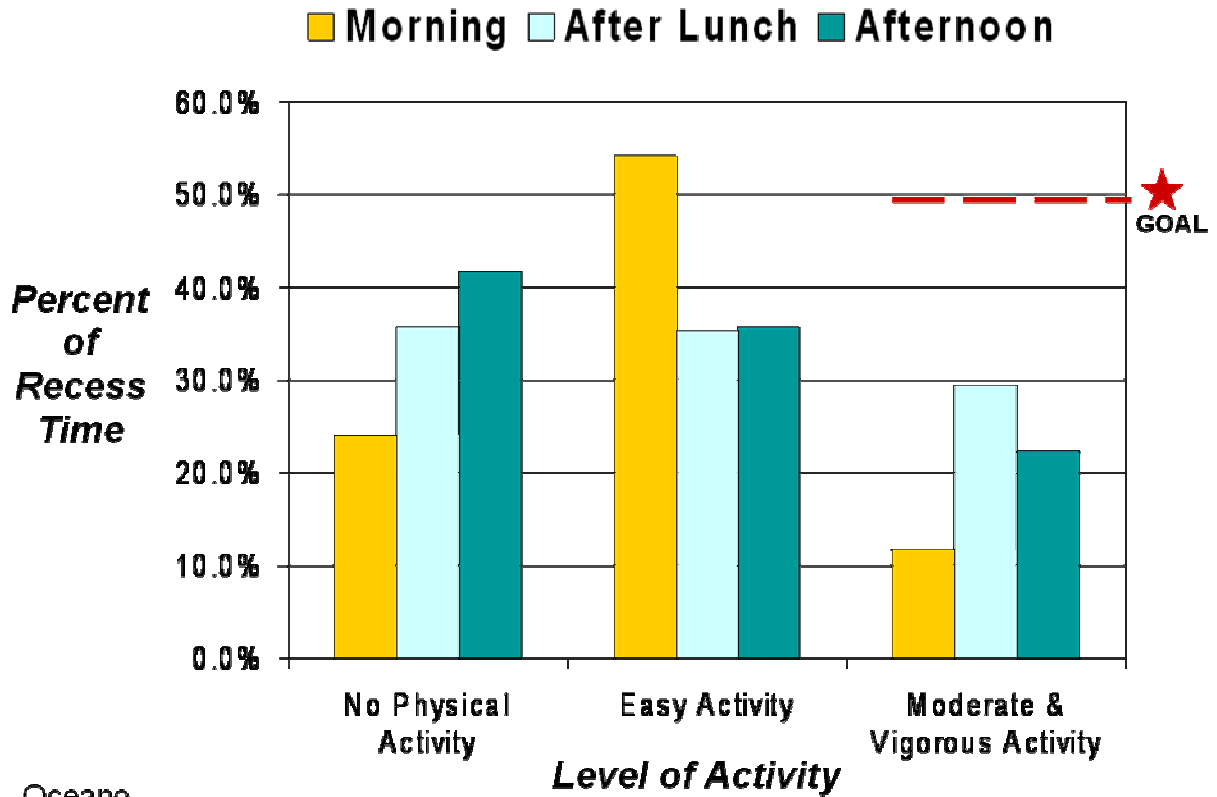


Oceano
June 10, 2009

Take Home Message: In this study, girls were more active than boys during recess. However, neither boys nor girls met the minimum recommendation of activity time during recess (50% of activity time should be spent in moderate/vigorous activity, with the ultimate goal being 80% of activity time spent in moderate/vigorous activity). Both boys and girls could move more—following ideas presented previously.

Figure 5

Percent of Recess Spent in Activity Reported by Time of Day



Oceano
June 10, 2009

Take Home Message: Children were the most 'vigorously' active during the after-lunch recess period. Steps could be taken to increase the level of activity during all recesses, but especially during the morning recess.

Physical Activity During Physical Education classes

There were no PE classes observed on assessment days at Oceano Elementary.

Observations & Recommendations

Mode of Transportation

According to a previous study, the percentage of children walking, biking, being driven and taking the bus at Oceano Elementary were 70.1%, 4.3%, 21.3% and 4.3%, respectively. Something has changed since this data was collected, because there are over 20% fewer children walking to school (49.1%) and those children are now being driven to school (39.8%).

The drop-off area for children in front of the school is very congested, and some students were being dropped off on the other side of the road. This poses a safety hazard, because there is no crossing guard available to safely assist children while crossing. With over half of the students walking or biking to school, Oceano ranks much higher than the national average of 13% (McDonald, 2008).²¹ However, with such a decline in the number of children walking, it would be a good goal to target a return to 75% of students actively commuting to school once again.

The sixth grade teacher at Oceano Elementary provides incentives to his students who walk or ride to school. While this is an excellent way to promote physical activity, appropriate incentives are essential to ensure the right message is being sent to the students. A ‘walking school bus’, where parents or other adults escort a group of children on a set route to school, is a practical and no-cost way to encourage children to walk to school while alleviating safety concerns for parents.

(<http://www.walkingschoolbus.org>).

Physical Activity at Recess

As shown by Figure 2, students fourth through sixth grades engaged in less ‘vigorous’ activity than those in the K-3rd grade age group. In addition, ‘overweight’ children spend much more time doing no activity than their normal weight classmates (Figure 3). Finally, Figure 5 illustrates that children are the most ‘vigorously’ active during the after-lunch recess period.

The majority of students engaged in some sort of ‘free play’ during recess. There seemed to be an adequate choice of activities. However, students spent a lot of time standing in line, waiting for their turn. This was especially prevalent in tetherball. Clearly, students enjoyed these activities but limited access leads to less time spent in movement. One way to eliminate lines and get more students involved during tetherball would be to hook up more than one ball. The development of a jump roping team for boys and girls has also become a very popular trend across the nation and the California central coast since the movie “Jump In!” was released in 2007. Ultimate Frisbee involves a team, lots of activity, and a single Frisbee per group. Four-square handball requires a grid painted on the ground and an inexpensive ball.

Also, children who ‘got in trouble’ were ‘posted’ and asked to sit with their back to a fence post. Four children were ‘posted’ for the entire recess period. They were very fidgety and had a hard time sitting still while being punished. Just as we discourage the use of food as a reward, withholding activity as a punishment is not recommended.

Physical Activity during PE

As there were no PE classes observed at Oceano Elementary, it is difficult to recommend any changes. However, the fact that it was difficult to find a class to observe suggests that a regular schedule of PE classes for all grade levels would be a way to increase physical activity in all students.

Plate Waste Study Results

With limited school funding, food service managers want to do their best to ensure students receive palatable food with the highest nutritional value. They want to ensure that children do not waste their lunch and then perhaps eat unhealthy food at a later point that day. Estimates of plate waste, based on Buzby and Guthrie's National School Lunch Program research, indicate about "12% of calories from food served to students in the National School Lunch Program (NSLP) goes uneaten."²² The same group reported that during a study, food waste decreased from 35% to 24% when recess was scheduled before lunch. Besides the actual dollar cost of plate waste, the indirect cost is the adverse effect on children who do not receive the full benefit of school meals. The NSLP is designed to provide ¼ of the RDA at breakfast and 1/3 of the RDA at lunch for participating students. *When students do not consume their entire meal these goals are not met and students are less able to optimize their physical and cognitive development.*²³ <http://www.ers.usda.gov/publications/efan02009/efan02009.pdf>.

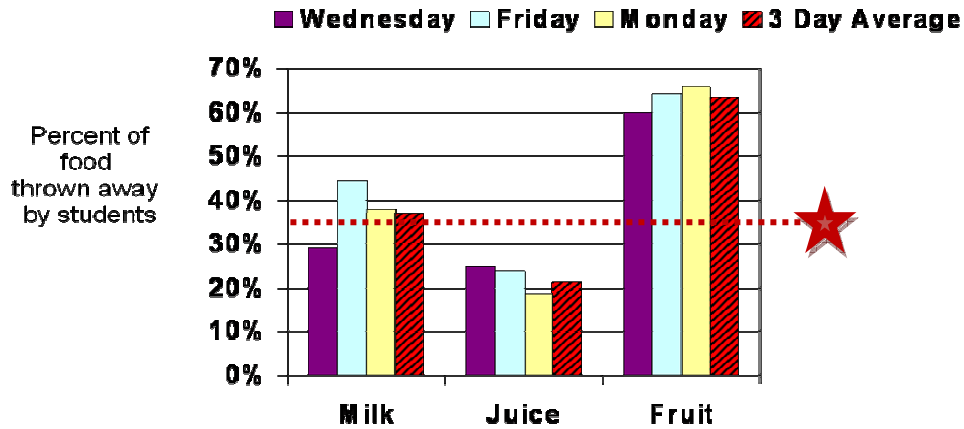
"In recent years, growing concern about hunger, resource conservation, and the environmental and economic costs associated with food waste have raised public awareness of food loss," reports the Economic Research Service (ERS) division of the United States Department of Agriculture (USDA).²⁴ According to ERS estimates, about 96 billion pounds of food, or 27 percent of the 356 billion pounds of the edible food available for human consumption in the United States, were lost to human use in 1995. (<http://www.ers.usda.gov/Publications/FoodReview/Jan1997/Jan97a.pdf>). This is especially disturbing news since the ERS also estimates that nearly 12% of the United States' homeless population with incomes below the poverty line reported that they 'sometimes' or 'often' did not get enough to eat.

Study and documentation of plate waste is a methodology used throughout the foodservice industry to measure actual consumption of food served. Plate waste in this study is defined as the portion of the food served to or selected by the student that was discarded after the meal. Plate waste data is useful to assess acceptance, nutrient intake, costs, behavior change and many other programmatic and operational questions related to foods and foodservice.

Commonly used methods include weighed plate waste (individual or aggregate), visual plate waste assessment and recall of intake by participants.²⁵ The weighed aggregate method was selected for this project considering the **HEAL SLO TCE** goal of creating baseline measures for school wellness improvement. Additional benefits are that differences in results, using the weighed aggregate method compared to other methods, are not statistically significant and that direct contact with students is not required. Moreover, all data collection occurs in the cafeteria environment and does not require any classroom time. There is also limited time and labor demand on the foodservice staff and the data collection does not require highly skilled research assistants.²⁶ Undergraduate nutrition students were recruited as research assistants and trained on the aggregate plate waste data collection method in a one-hour session. Additionally, detailed written instructions, logs, buckets and scales were provided to each team. The school provided hair nets, aprons, gloves and plastic liners for collection buckets.

Data collection at Oceano was conducted at breakfast and lunch on three days—taking into consideration student research assistant availability and the preference of the foodservice director. Every student meal served on study days was included in the plate waste study. Results are summarized in the following graphs:

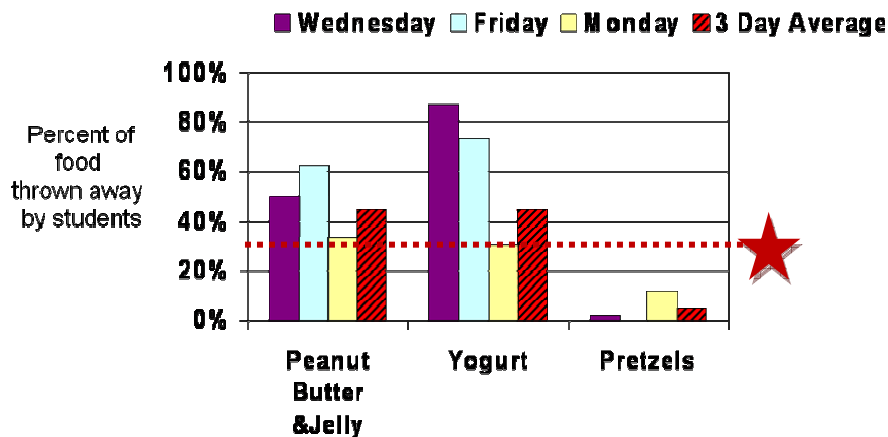
Breakfast Foods Served to Students and Discarded in the Trash by Students



Oceano: May 27, 29, June 1, 2009

★ *The goal is to develop strategies that result in 75% or more of food served being consumed by students and decreasing plate waste to less than 25%--thereby improving health and saving school money.*

Lunch Foods Served to Students and Discarded in the Trash by Students



Oceano: May 27, 29, June 1, 2009

Plate Waste at Oceano Elementary School:

Plate waste data at Oceano Elementary School was measured using aggregate weights of food served compared to foods discarded. Foods not served were not included. Total plate waste for all foods varied from a low of 28.2% to a high of 38.7% with an average of 33.9%. There was considerable variation among food groups.

Baseline data indicate:

Meal	Percent wasted	Food or Beverage	Number of days sampled
Breakfast	39%	milk	
	64%	fruit	
	21%	juice	
	41%	eggs	2 days
	51%	sunrise sandwich	1 day
	12%	cinnamon rolls	1 day
	47%	cherry crispy bars	1 day
Lunch	41%	milk	
	22%	entrée	
	45%	peanut butter & jelly sandwich, entrée alternate	
	33%	salad bar	
	60%	yogurt	
	5%	pretzels	
Total Waste	34%	from all food and beverages served	

Qualitative observations:

- Chocolate was the favorite flavor of milk
- Apple was the favorite flavor of juice
- Younger children seemed to waste more than older children
 - Portion sizes are the same for all children, even though caloric and nutrition requirements are less for younger children
- Whole fruit were frequently discarded without tasting
- Some milk cartons are discarded unopened (30 were counted on one day at lunch)

- Children who could not reach the salad bar were helped by the staff
- Weight of hard cooked eggs included shells in the weight served and in the plate waste
- Waste from hard cooked eggs seemed to be mostly yolks
- The foodservice director observed that waste of 8-oz cartons of yogurt was very high, believing that students took the yogurt so they could get the pretzels that accompanied the yogurt. The data supports her theory and she reports that, since the beginning of the 2009 school year, yogurt has been offered in 4 oz instead of 8 oz cups
- It is common to offer small amounts of foods leftover from a recent menu in addition to the menu of the day. Data was collected on these foods but was not included in the summary.

The school wellness policy encourages schools to allow students at least 20 minutes for lunch and to provide recess before lunch for all students through sixth grade.²⁷ It was reported that students are anxious to get outside and may be rushing through lunch - increasing plate waste and not consuming the nutritious school lunch items.²⁸

The menu at Oceano Elementary is planned using Nutrient Standard Menu planning which uses computer assisted menu planning and computer generated nutrient analysis of menus to assure that nutrient and calorie requirements are met. Calorie and nutrient requirements vary based on age/grade level. For example, calorie goals for lunch are as follows:

- Ages 3-6: 558 calories
- Ages 7-10: 667 calories
- Ages 11-13: 783 calories

Judy Stephens, the foodservice director of the Lucia Mar Unified School District (of which Oceano Elementary is a part), plans the menus so that the needs of the oldest students are met and portions are not reduced for the younger children. However, because the school uses the “*offer versus serve*” strategy, the children are not required to take every food offered and are able to serve themselves from the salad bar. This was a conscious decision on Ms. Stephens part based on the complexity and time required to develop and analyze menus with three portion size variations, the meal service schedule (which brings both older and younger students into the cafeteria at the same time), and her comfort with the “*offer versus serve*” system and self-serve salad bar that allows younger students to select smaller servings or fewer items. The foodservice director acknowledges that for the proportioned items such as burritos and pizza, the portions suitable for the older children are excess for most K-3 age children—which does result in greater plate waste among that age group.

Recommendations

1. Pilot a recess-before-lunch schedule change, allowing students more time to eat. This is a strategy that has been documented as effective, yet implemented in only about 10% of elementary schools. Students will get more nutrients and the school may save money from decreased food waste.
2. The school seems to have a high percentage of Hispanic students, yet the menus include 4 or less Hispanic-influenced entrees (burrito, nachos, taco) during the month studied. Consider a partnership with a local Hispanic restaurant or interested parents to incorporate more

traditionally prepared Hispanic foods. There may be current foodservice employees with a personal interest in healthy Hispanic foods who might have ideas.

3. Consider restaurant “celebrity” chef relationship to teach children basic cooking or food information and engage foodservice employees in new techniques. When children are involved in preparation of meals they are more likely to at least taste foods offered.
4. Listen and talk to children about foods and food choices, formally (in focus groups) and informally.
5. Invite adults (parents, volunteers or staff) to eat with children and model healthy eating behaviors.
6. Try a “local” salad bar/food day--perhaps tied in with recycling, composting and other sustainable activities. Invite a farmer to bring samples and talk about what he/she grows.
7. Try a “farmer’s market” on campus to expand availability of fresh fruits and vegetables to the community.
8. Consider other documented successes from the literature for reducing plate waste (see www.olemiss.edu/ or www.docstoc.com and also *Attachment D*). Have the parent/student network brainstorm “out of the box” ideas related to food offerings, community partnerships, nutrition promotion to students and parents and other creative program applications.
9. It is important to consider the current research on the effect of portion sizes on children which indicates that by age four, children are influenced by the portion size and will over-eat when given larger portions. For younger children, consider offering partial-portions of calorie-dense items such as burritos and pizza.

Overall Recommendations

Social learning through imitation, role modeling and reward were very important concepts “woven into” our recommendations.

1. Establish “Buy-In” from All School Staff

Key informants believe you are already in a great position to further garner support for this initiative. Staff and faculty serving as “healthy role models” will greatly benefit the school wellness policy and send a clear and concise message that there is staff “buy-in”. Providing incentives for the staff’s own wellness (and utilizing the resources of community partners and local businesses) will increase their enthusiasm and support. Utilize existing communication channels and networks, such as faculty meetings, daily announcements, bulletin board flyers, and informational discussions (invite reputable outside speakers) in the faculty lounge or lunchroom, to help inform others and create additional staff “buy-in” and a grass roots movement of sorts. Reminding staff of the following points may help in getting further “buy-in”:

1. A stronger SWP can better address the health-related interests, needs, and concerns of students, their families, and staff, and improve students’ academic performance.
2. A SWP which specifically addresses physical activity and nutrition (providing specific activities) can help attain almost a quarter of the 300 national health objectives (CDC/Healthy People 2010).
3. Improved health status improves school attendance and learning. National and California state data from the Youth Risk Behavior Survey (CDC, 1995) and data from the San Luis Obispo County Health Department can demonstrate the prevalence of health risk behavior among youth.

2. Have 1 or 2 Lunch Groups Pilot “Recess Before Lunch”

The school wellness policy encourages schools to allow students at least 20 minutes for lunch and to provide recess before lunch for all students through sixth grade. It was reported that students are anxious to get outside and may be rushing through lunch - increasing plate waste and not consuming the nutritious school lunch items. This recess strategy is also associated with a reduction in food waste.

3. Family Involvement: Establish Parent Network

It was mentioned that to address the diverse needs of the students and their families, maximize resources, and ensure that health-related messages are consistent in schools, at home, within the peer group, and the community, *successful schools involve students’ families and other members of the community*. Parents and other caregivers participate in school-based advisory groups and coalitions and often volunteer in the schools. Some schools offer parents opportunities to participate in health-related fairs or farmers’ markets. Community-based agencies often provide additional health-related activities for students and their families (e.g., ropes courses, wilderness trips, butterfly viewing, theatrical performances, nature hikes and fun runs etc). The “School Wellness Committee” should promote, and support the activity linkages for these events to impact Oceano students and their families. Promotoras/promotores training (offered by HEAL SLO) could increase participation of Spanish speaking families for all kinds of school programs, including wellness committees. What is that? *Promotores* and *Promotoras* are community members who promote health in their own communities. They provide leadership, peer education, support, and resources to support community empowerment, or *capacitación*.

4. Taste Testing Fruits and Vegetables

Continued collaboration must exist with the Wellness Committee, student run clubs and councils, superintendent/principal, teachers, and local media outlets to communicate with students and to encourage them to try different foods. In addition to monthly tasting events at which students will be offered samples of “fruits or vegetables of the month,” items should be re-introduced by being served weekly throughout the month in school meals. Student led clubs could construct posters, table tents or hold a classroom competition highlighting the “fruit or vegetable of the month” complete with the benefits and nutritional information and interesting factoids about food. (For instance, the tomato is really a fruit!) Holding recipe contests would be another fun way to involve students with using fruits and vegetables. Use of the school garden could be incorporated into the nutrition education program. Correct portion sizes could also be emphasized at nutrition stations and be accompanied with photos of food in the correct portion sizes. (For example, did you know that a ping-pong ball sized portion is the correct adult portion size for a piece of cheese?)

4a. Have Students and Families Evaluate “Fruits and Vegetables of the Month”

Tasting events could then be evaluated by all students, school personnel, and parents at Oceano. Students could be asked to vote on whether they liked the items served, and would choose them if offered as part of school lunch. They could describe what they liked about those items. At the final tasting (TBD), students would receive a list of all foods tasted throughout the year and be asked to circle their 3 favorites. (Optional) Surveys could be mailed--translated into Spanish to parents and guardians to assess their awareness of school food service events and changes.

Schools that offer physical activity programs that meet daily standards report positive effects on academic achievement, including concentration; improved mathematics, reading, and writing test scores; and reduced disruptive behavior...

5. Increase Physical Activity, Enhance Academic Outcomes

Schools that offer physical activity programs which meet daily standards report positive effects on academic achievement, including concentration; improved mathematics, reading, and writing test scores; and reduced disruptive behavior, even when time for physical education reduces the time for academics.²⁹ It is recommended that the school ensure the PE programs, recess, schedules and activity levels are sufficient in order to achieve those academic benefits. Brief bouts of activity (5-10 minutes each) in the classroom do add up.

It is also recommended that the school's physical activity programs include moderate/vigorous activity for a minimum of 50% (and preferably 80%) of class time.³⁰ Virtual walk-the-county programs that record and track walked distance around the school grounds have been successful in increasing physical activity as well.

5a. Promote Extracurricular Physical Activity

It is preferable to go beyond physical education classes and recess activity and promote cardiovascular fitness through lifelong physical activity. To do this, schools need to provide opportunities before, during, and after school hours for fitness activities, intramural programs, and interscholastic sports programs. Students could participate in other entertaining pursuits that promote physical activity such as “Jump Rope for Heart” or walk-a-thons. Check out a slice of the 2009 USA Jump Rope National Championship at www.youtube.com/watch?v=VKwo2hi-5xw to see how exciting some of these activities can be. Some schools develop partnerships with health clubs to expand the physical fitness facilities available to students and staff. *Walking school buses* are another great example for passive activity before and after school. Many of these activities require no money. With thought, economics doesn't have to play a significant role in preventing participation in extracurricular physical activities. In addition to addressing the role of activity, limits on sedentary behaviors and inactivity should be introduced—such as screen time at home.

6. Continue to Promote School Garden

Support the ongoing school garden to supplement the salad bar at lunchtime. Take advantage of other areas around the school site where there are raised beds, to involve more students of all ages. Older, more experienced student gardeners could serve as mentors for the younger students. Expand learning opportunities in the school garden during the school day to include science, math, creative writing and art.

7. Establish “User-Friendly” Identification System for Healthy Snacks and Correct Portions

Once an attractive flyer is developed, print out and place tier 1 and tier 2 snack nutrition information, with correct portion sizes, in Food Bank back packs and in the parent newsletter. Connect with student and parent groups to be certain they are emphasizing healthy snacks and correct portion sizes when they promote taste tests of “fruit or vegetable of the month” in the cafeteria. Since fruit is often preferred to vegetables, seasonal cut fruit can be morphed into a variety of salad recipes. The introduction of bite-size pieces (baby carrots) and fresh-cut fruits (pineapple and apple slices) and vegetables (broccoli florets) has been demonstrated to increase consumption by children and adults alike. Added purchase costs may be offset by a reduction in plate waste.

Ensure that equipment (salad bar) and tools (tongs and dressing dispensers) are easy to use—perhaps smaller than standard size. Daily positive encouragement reminds students “choose two-three colors” from the salad bar and to try a featured “Harvest of the Month” item. And remember the value of guilt-free perseverance when encouraging tasting- it may take 12 to 15 taste session before a new food taste is acquired.

Holding a “name that food contest” can apply the marketing strategies employed by all restaurants by creating fun, catchy names and descriptions— ‘broccoli’ becomes ‘dinosaur trees’; ‘salad’ can become ‘crunchy, garden-fresh apple salad. Stealth nutrition strategies include adding pineapple to pizza to create ‘Hawaiian pizza.’”

8. Limit Access to Competitive Foods. The phrase “competitive foods” typically refers to foods and beverages which are offered at school, outside of the school meal program. The usual culprits—chips, candy and cookies—are high in calories, fat, saturated fat and sugar. *Research shows that access to competitive foods in school reduces the quality of a student’s diets*, yet it’s easy to see that many students will pass up a eggs if there are donuts around for sale or for free. Pricing healthiest foods cheaper than less healthy foods, increasing variety of healthy foods to ensure more choices for students and eliminating all advertising of unhealthy foods are just a few ways to deal with this issue.

Top Five Lists

For ease of application, we’ve also synthesized all recommendations to create lists of the top five things that can be done to improve student wellness at each level of influence; beginning with the individual level and working up to the school and public level. These are available on *Attachment E*.

Summary

At Oceano, there is excitement and enthusiasm to promote and follow a strengthened SWP. Oceano is in a great position to further those initiatives. In the event there are individuals who are not familiar with the potential gains of a strengthened SWP, the attached list (*Attachment F*) of policy challenges and concerns may offer you a research “sound-byte” for those unconvinced.

With this assessment and the tools provided, we’re certain Oceano Elementary School can make great strides in its wellness program and achieve overall success.

Attachment A - CDC-Recommended School Wellness Policies

Federal and state of California agencies (e.g., The Center for Disease Control and Prevention CDC website and The California Center for Public Health Advocacy, 2009/2004) established a recommendation list containing very broad school wellness policies designed to slow down and reverse the childhood overweight epidemic. Recommendations included:

1. Implement healthy food and beverage standards for products sold in schools and other public facilities.
2. Ensure quality physical education for all children K-12.
3. Eliminate advertising of unhealthy foods and beverages on public property.
4. Make school recreation facilities available for before and after-hours use as well as during vacation periods.
5. Ensure public access to all public facilities that provide physical activity programs.
6. Provide financial incentives that bring grocery stores and recreation facilities to low-income communities.
7. Provide safe roadway access for walking and biking to school.
8. Require health insurance to cover nutrition counseling and physical activity.
9. Eat at least five servings of fruits and vegetables each day.
10. Establish a school wellness committee to implement and oversee the wellness policy.

Attachment B - Creative School Fund-raising Ideas

Instead of having Non-nutritious food fundraisers (per request of Oceano Staff Member)

Things to do (Students):

- Gift wrapping, such as gift wrapping for donations at bookstore during holidays
- Fun runs; Walk-a-thon (pre-kindergarten: each child gets sponsorship for each lap walked – up to 8 laps/\$1 per lap); Bike-a-thon; Jump-rope-a-thon; Sled-a-thon
- 3-on-3 basketball tournament (charge a team \$40 for entrance; local businesses donate prizes)
- Car wash (pre-sell tickets as gifts, ask for pledges per car in advance, operate a food stand with coffee, bagels and juice)
- “Chuck a puck at the rink” (A hockey team plays this game between the 2nd and 3rd periods of the hockey game. Each puck is numbered and sold for \$1. Everyone throws them on the ice and the one closest to the center gets half of the money sold.)
- Singing telegrams
- Talent shows/recital/lip-sync contest (local businesses donate items for raffle)
- Read-a-thon; Spelling bees; Science fairs
Carnivals (Halloween, Easter)
- Dances (kids, father/daughter, family, Sadie Hawkins)
- Bowling night/bowl-a-thon
- Skate night/skate-a-thon
- Raffles (teachers do a silly activity)
- Magic show
- Family/glamour portraits
- Penny wars (pennies +1 point, nickels +5, quarters +25, team with most points wins)
- Raffle (movie passes, theme bags, theme baskets assembled by students). Check your local laws governing raffles.
- T-shirts/caps
- Students volunteer for odd jobs to raise money, end of “work” day dinner and dance held for volunteers
- School event planners (includes all school event dates)

Things that involve the community:

- Catering (district food service department caters events)
- Workshop/class
- Conference
- Treasure hunt/scavenger hunt
- Tennis/horseshoe competition
- Recycling cans/bottles/paper/Christmas trees

- Soccer or golf tournament
- Rent-a-teen-helper (rake leaves, water gardens, mow lawns, wash dog)
- Auction or money jars for students to place money in (teacher does something for kids at set increments, e.g. dress as a cheerleader, do cheers, act out a scene from a play)
- Dinner fund-raiser with a live or silent auction (goods, services and talents)
- Community job fair (charge an exhibit fee)
- Bricks with engraved donor names
- Candles/crafts/books/plant sales
- Halloween insurance (\$1 insurance sold for guaranteed cleanup the day after Halloween. Usually minimal clean ups and volunteers tipped)
- Sell seat cushions at sporting events (sell advertisements on cushions for local businesses)
- School clothing or rummage sale
- Bingo nights (parents with kids in sports or involved in organizations man the tables)

Source: For more information contact: California Project LEAN at: www.californiaprojectlean.org
Ideas excerpted from Shasta County Public Health Department

Attachment C - Physical Activity Assessment Tables

Results of Direct Observation of Physical Activity During Recess at Oceano Elementary:

Figure 2. Percent of Recess Spent in Social Engagement and in Activity at Oceano School, reported by Grade Level (n=24)

Grade Level	Socially Engaged	Alone	No Physical Activity	'Easy' Activity	'Moderate' Activity	'Vigorous' Activity
K-3	71.8%	28.2%	33.7%	36.9%	21.5%	8.2%
4-6	89.3%	10.7%	41.1%	40.3%	17.0%	1.5%
TOTAL	80.5%	19.5%	37.4%	38.6%	19.2%	4.8%

Figure 3. Percent of Recess Spent in Social Engagement and in Activity at Oceano School for Normal Weight versus Overweight Students in K-6th Grades (n=24)

Weight Status	Socially Engaged	Alone	No Physical Activity	'Easy' Activity	'Moderate' Activity	'Vigorous' Activity
Normal Weight	81.8%	18.2%	28.8%	41.3%	24.1%	5.9%
Overweight	79.3%	20.7%	46.0%	35.9%	14.3%	3.8%

Figure 4. Percent of Recess Spent in Social Engagement and in Activity at Oceano School for K-6th Grade Students, reported by gender (n=24)

Weight Status	Socially Engaged	Alone	No Physical Activity	'Easy' Activity	'Moderate' Activity	'Vigorous' Activity
Male	81.6%	18.4%	45.1%	36.2%	15.1%	3.6%
Female	79.5%	20.5%	29.7%	40.9%	23.4%	6.1%

Figure 5. Percent of Recess Spent in Social Engagement and in Activity at Oceano School for K-6th Grade Students, reported by time of day

Time of Day for Recess	Socially Engaged	Alone	No Physical Activity	'Easy' Activity	'Moderate' Activity	'Vigorous' Activity
Morning	93.1%	6.9%	24.0%	54.2%	9.7%	2.1%
Lunch	72.7%	27.3%	35.6%	35.3%	21.4%	8.0%
Afternoon	86.0%	14.0%	41.7%	35.7%	20.8%	1.6%

Attachment D - Plate Waste Resources and Literature

Adams, M. A., Pelletier, R. L., Zive, M. M., & Sallis, J. F. (2005). Salad bars and fruit and vegetable consumption in elementary schools: A plate waste study. *Journal of the American Dietetic Association, 105*(11), 1789-1792.

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Attachment E - Top Five “Level of Influence” Recommendations

Top five things students can do to improve student wellness:

1. Learn about healthy eating and active living. Check your portion sizes, eat your colors (vegetables) and read the nutrition labels to find low-fat, low-sugar, and high-fiber healthy foods.
2. Pack healthy lunches and/or make healthy choices at the lunch line.
3. You’ve got to move it! Accumulate at least 1 hour of physical activity per day and limit screen time (computer, games and TV) to no greater than a total of 2 hours/day.
4. Tell your friends and family what you’ve learned and encourage them to be healthy.
5. Start or join a student committee that works on making your school healthy and fun.

Top five things families can do to improve student/school wellness:

1. Role model healthy eating and active living for your family. Turn off the TV and join your children for an outdoor activity.
2. Cook most of your meals and teach your kids how to cook meals and how to select correct portion sizes.
3. Use non-food rewards for your children.
4. Initiate the parent bus and begin influencing city officials to implement safe school walkways.
5. Start or join a parent committee to help the school implement their wellness policy.

Top five things teachers can do to improve student/school wellness:

1. Role model healthy eating and active living for your students.
2. Give non-food rewards; acknowledge healthy meals from home or other with a “Caught you being healthy” coupon to be included in weekly raffle drawings or Farmer’s Market bucks.
3. Factor physical activity into your daily work plan—keep kids moving and engaged.
4. Integrate nutrition and exercise modules into your curriculum whenever appropriate (science, art, use of school garden, etc.).
5. Put up posters and kids’ projects that encourage activity and nutrition.

Top five things the school can do to improve student/school wellness:

1. Role model and get “buy-in” from all school staff regarding the school wellness program. Enthusiastically describe its benefits to the staff without giving them too much paperwork. (Make it a grass roots effort, if possible.) Address any of your staffs’ concerns and recognize them for their efforts. Report your activities at the district level.
2. Kick start the School Wellness Committee and other groups who will implement many parts of your policy. Give them your expectations, ideas, and a lot of free rein. Follow their progress and reward them.
3. Establish recess before lunch or at least pilot one or two lunch groups with recess before lunch.
4. Ensure the PE program isn’t allowed to stagnate, but keeps everyone moving—changing activities or sports as necessary.
5. Promote healthy eating (taste testing fruits and vegetables or have “fruits or vegetables of the month”) and don’t allow unhealthy marketing and branding at school. Remove the Pepsi graphic from the vending machine and replace it with a water graphic produced by the same manufacturer. Support the implementation of nutrient standards, increase the variety of healthy foods to ensure more choices for the students, and price the healthiest foods cheaper than the less healthy food.

*Make the healthy choice the easy choice
by not offering junk/unhealthy foods—
foods which are in direct competition
with the good choices.*

Top five things the community/public can do to improve student/school wellness:

1. Collaborate with the superintendent/principal, teachers, local media outlets and community organizations to communicate the urgent need for wellness programs and ask them to reinforce the messages in their programs.
2. Influence the appropriate agencies to create a safe, walk-able route to school.
3. Provide fresh, local produce at local markets. Expand after school cooking programs for children and families.
4. Develop the capacity of the school kitchen to prepare more foods from “scratch”. (Refer to “Starts Aligning on School Lunches” New York Times online article at www.nytimes.com/2009/08/19/dining/19school.html)
5. Continue to provide extracurricular physical activities and programs for students. Raise money to support school wellness programs including garden-based learning, physical fitness and incentive and reward programs.

Attachment F - National School Wellness Policy Concerns As Voiced by School Administrators with Best Practice Response

Concern: “We have no money, no training, and few facilities.”

Response: “Funding and other resources are limited at Oceano and other schools; let’s look at what is already in place and what is new and different. By looking at what you already have and coordinating efforts (Healthy School Team) you actually might save money and use that new money to implement or promote additional programs.”

Concern: “There’s not enough time in the school day. I can’t do one more thing.”

Response: “In most cases, you will not have to do more than you do already. A truly integrated SWP takes less time because it reduces duplication of effort. That is why parents, staff, students and administrators need to be communicating the same message; healthy students are more academically prepared to succeed as youth and adults.”

Concern: “We’ve always done it this way.”

Response: “Just because you have done it a certain way does not mean it’s the best way. As the needs and concerns of youth and their families change, schools must change to meet those needs. Change is sometimes difficult, but by not changing you are not supporting your students.”

Concern: “When I was in school we didn’t have a SWP, and I still made it.”

Response: “The challenges that youth face today are very different from those in the past. Working in isolation, today’s teachers cannot meet the complex needs of students. In contrast to the ‘old morbidities’ (communicable diseases, for example), young people face ‘new morbidities’ (eating disorders, binge eating, depression, self image problems, sedentary lifestyle etc.) that are highly correlated to school failure and reduced quality of life as adults. The obesity epidemic is predicted to overtake tobacco as the number one preventable killer in the U.S.”

Concern: “We are in the business of education, not in the business of health.”

Response: “That is true. But students who are hungry, sick, troubled, depressed, malnourished, and inactive cannot function well in the classroom, no matter how good the school (Carnegie Council on Adolescent Development, 1989). Education and health are closely intertwined. By addressing nutrition and physical activity in students and their families now, we should see increases in academic achievement and in the numbers of students who are capable of addressing future challenges.”

Concern: “If it ain’t broke, don’t fix it!”

Response: “It is ‘broke.’ Students are heavier, fatter, and sicker. In short, students are not performing to their maximum potential. Not all students succeed; however, schools must provide additional opportunities, supports, and services that promote positive development of youth and their families to increase students’ academic success.”

Concern: “What is in it for me?!”

Response: “Your job will be easier. When students’ health-related needs are met, more students will arrive at school ready to learn. Their successes will make them more willing to participate and less likely to become disruptive. That – in the long run – will increase your success with more students.”

Source: “*Health is Academic: A guide to coordinated school health programs*” Marx, Wooley and Northrop, Teachers College Press, 1998. Concerns and Responses edited from Chapter 2: Implementing School Health Programs in Local Schools by Joyce V. Fetro, pp 38-39.

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