

Leveraging Community Assets and Partnerships

Development of a Youth Healthy Living Program at the Rochester Alternative Learning Center

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Disclosures/Conflict of Interest

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Objectives

- Attendees will be able to discuss:
 - Three school interventions to increase physical activity
 - Three school interventions to create a healthy food environment
 - Three ways to engage students in healthy living

ALC Background

Childhood obesity disproportionately affects minorities and low income families

- The Rochester Alternative Learning Center (ALC) serves vulnerable students who have not met success in the regular educational systems, or are homeless or in transition, pregnant or parenting, recovering from addiction, truant, or dealing with family or social issues.
- 400 students in grades 7-12
- Multiple programs: day school, night school, credit recovery, parenting, on-site daycare, on-site health clinic
 - High percentage of racial and ethnic minorities (62%, District Ave 40%)
 - 78% of ALC students qualify for Free and Reduced Lunch (District Ave 38%)
 - High prevalence of overweight and obesity in students at ALC (56%)

Site selection

ALC was chosen for a research study and intervention because

- 1 . Community Partnerships were already formed
2. Annual Health Screenings for ALC students at the clinic alerted us to the prevalence of overweight and obesity at ALC

In addition, the ALC was selected as a priority SHIP school to work toward health equity in a low income, high-risk youth population.

Healthy Living Program Development

1. As a result of the high numbers of overweight and obesity noted in the on-site clinic at ALC, shed light on the need to promote healthy living
2. Sought funding for a research grant was obtained to examine the association between BMI and health behaviors in students at ALC
3. Established partnership agreements for key partners: ALC, Mayo, WSU
4. Gathered baseline data, input from students, parents, teachers and community partners
5. Co-developed an age and culturally appropriate on-site program to promote healthy eating and active lifestyle

Plan

- Baseline survey development
- Informed consent
- Gather baseline student data including BMIs and health behaviors and accelerometer data
- Hold 3 focus groups for students, 1 focus group for parents and 3 staff input sessions
- Use focus group findings to rank top 5 components for implementation
- Develop plan based on interests and engage community partners
- Implement initiatives for healthy eating and physical activity
- Collect follow up data
- Analysis of data
- Establish continuation plan and sustainability

Goals Established for Healthy Living Program

- Long term goal
 - Develop a culturally and age appropriate healthy living program at ALC to prevent and treat obesity
- Research proposal
 - Aim 1. Examine the association between BMI and ethnicity, socioeconomic status and behaviors related to physical activity and eating
 - Aim 2. Co-develop an age and culturally appropriate on-site program that promotes healthy eating and active lifestyle

Consented Students Demographics and Anthropometric Measurements

- 128 students
- Mean age 15.9 years \pm 1.7 (range 12-20)
- 52% males
- 60% Caucasian, 17% Hispanic, 16% African American, 6% Asian
- BMI percentile 78.4 \pm 26.3, median 91.4
- 39.5% (approximately 2 times national average) obese and 18.5% overweight

5210 Healthy Habits Pre-implementation Survey Results

- Servings of fruits and vegetables per day: 1.8
- Screen time 4.2 hours
- 62% have a TV in bedroom
- 30% have a computer in bedroom
- Reported active play per day 2.3 hours
- Juice servings per day 2, Soda/punch 3.7, Sports drink 2.5
- At least one serving of dairy a day 46%

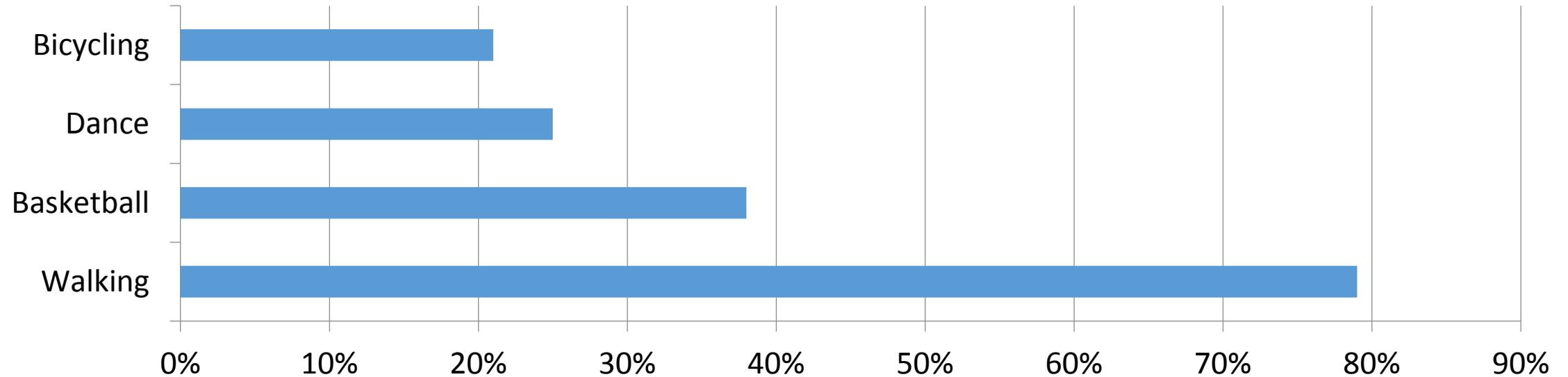
5210 Healthy Habits Pre-implementation Survey Results

- Breakfast eaten 3.6 times / week
- Takeout/fast food eaten 2.5 times a week
- 25% would like to drink more water
- 20% Desire to eat more fruits/vegetables, increase physical activity, eat less fast food, drink less soda, juice or punch

Physical Activity Questionnaire

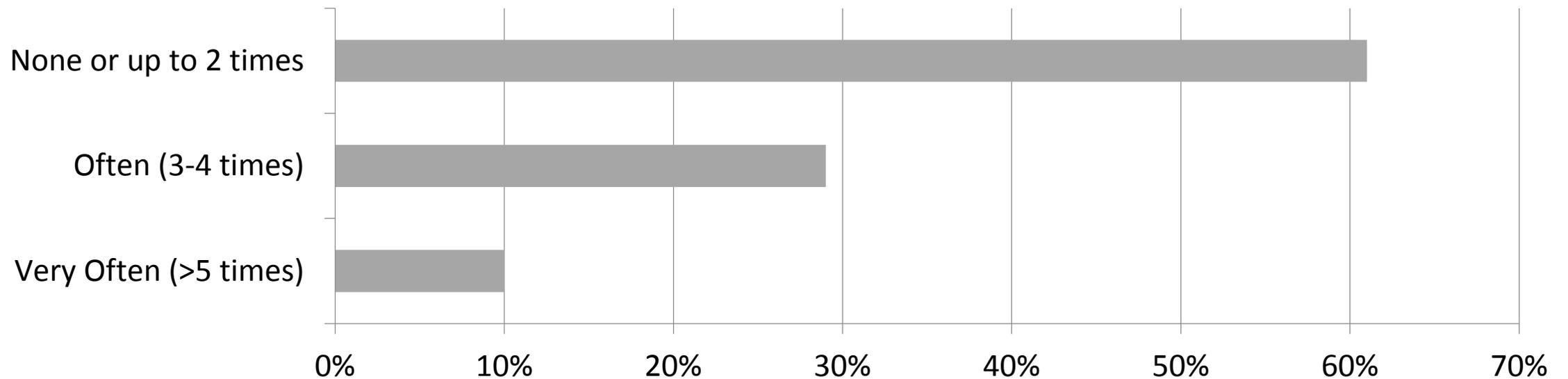
Most common physical activity

N=121



Physical Activity Questionnaire

Activity level in past 7 days
N=114



BMI and Behaviors

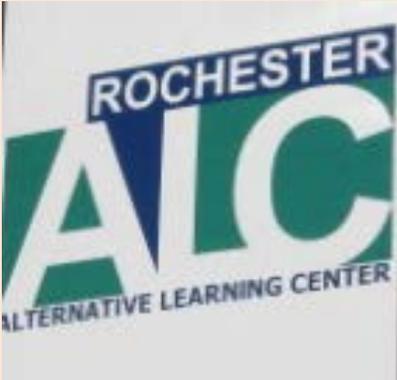
- No differences in rates of obesity /overweight with age, gender, race/ethnicity/ eating habits
- Obese students were likely to be less active during the previous week (9.1 times) compared to overweight (10.3 times) and normal weight children (12.9 times)
- Obese children were more likely to have “no activity” during the previous weekend (51% in obese vs 40% in overweight and 30% in normal weight)

Gender Differences

- No differences in rates of obese and overweight by gender
- Males more likely to have TV in bedroom (55% vs 23%)
- Males report more active play (2.8 hours vs 1.6 hours) and engaging in afterschool activity (65% vs 49%) drinking juice or sports drink 59% vs 35%)

Program Development

Partners Engaged



Listen and Learn through Focus Groups

- Identify barriers and facilitators of physical activity and healthy eating at ALC
- Obtain ALC stakeholders' recommendations to create together an ALC Youth Healthy Living Program

Student and Staff Focus Groups

- Students
 - 40 students (22 males, 18 females) ages 14 to 18 years
 - 8 Focus Groups stratified by age and gender
- Staff
 - 8 school staff including the Health and Physical Education teacher
 - 2 Focus Groups

Parent Focus Groups

- Parents
 - 3 parents – 1 Focus Group
 - A minority of parents participate in ALC activities
 - ALC School Principal's input key in deciding how to involve parents

Barriers to Physical Activity Themes

- ALC Factors
 - Issues with Space
 - Limited access to the gymnasium
 - Lack of “ALC” sports teams
 - Class structure – sitting time
- Problems to participate in school sports due to academic requirements
- Lack of funding to purchase basic equipment

Facilitators of Physical Activity Themes

- Outstanding Physical Education Teacher
- Active lifestyle of some peers and family members
- Mandatory physical activities

Focus Group Physical Activity Recommendations

- Gymnasium environment
 - Increase access to open gym
 - More variety of gym equipment
- Class environment
 - Exercise videos
 - Organized PA activities during Advisory
- School wide
 - Group/team walk after lunch
 - Fun and team activities or competitions
 - Dedicated days for exercise-fun days

Students Prioritized PA Options

1. Walking track / Climbing wall (tie)
2. Fitness equipment
(TRX, treadmills, elliptical, yoga mats)
3. Standing stations, pedaling desks, hand grippers

Barriers to Healthy Eating Themes

- School lunch -limited food choices that do not taste good
- Donated Channel One foods “aren’t healthy”
- Easy access to unhealthy foods and snacks
- Junk foods less expensive than healthy foods
- Healthy food is “gross” and “not cool” to eat

Facilitators of Healthy Eating Themes

- Fresh foods
- School garden
- Involving students in menu selections

Focus Group Healthy Eating Recommendations

- Provide more food options
- Integrate gardening into school and use produce in kitchen
- Make healthy foods easily accessible and edible e.g. easy bites such as sliced apples
- Engage students and their parents/guardians in healthy eating habits

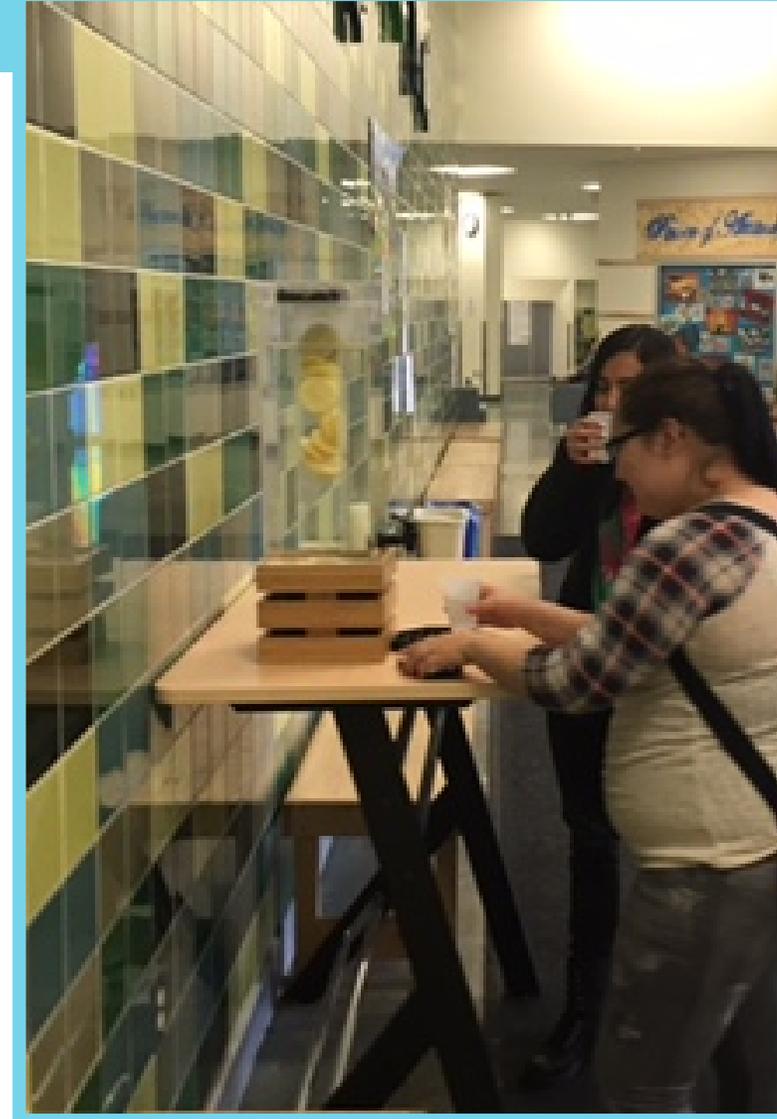
Students Prioritized Healthy Eating Options

1. Water infusion stations
2. Recipes for school garden produce for students to take home
3. Work with Student Nutrition Services to have healthier food options
4. Healthier snacks in the classroom
5. ALC family cooking events

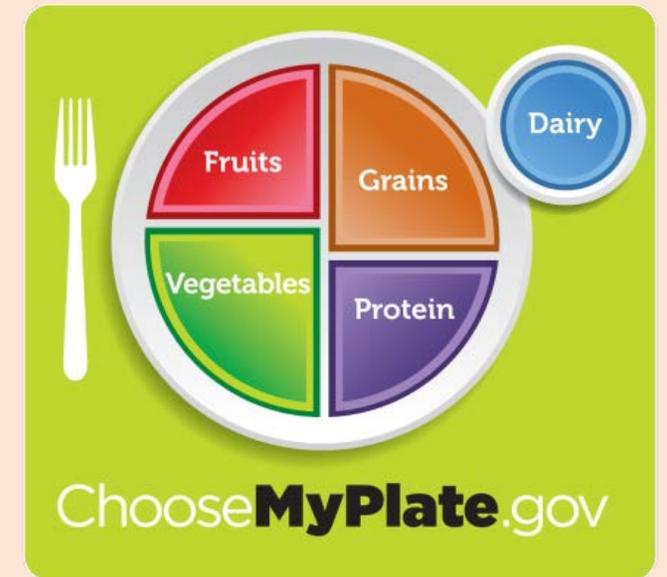


Implementation

Water infusers



Food Pantry



Garden Program



The Green Thumb Initiative
Still Growing...



Badges, Credit and Cash earned by Green Thumbs

<p>Reading English: literature, research</p>	<p>Weeding Science: Plant identification, species, competition</p>	<p>Watering Science: Research on the effect of water on plants, basic plant requirements</p>	<p>Tilling/ Soil Amendment Science: water conservation, nutrient composition, research on plant growth</p>	<p>Composting Science: biodegrading, Work experience</p>	<p>Marketing English: Researching facts about vegetables, make handouts, visual appeal, no spelling errors</p>
					
<p>Cooking Science: Chemistry English: find recipes, Math: fractions</p>	<p>Construction/ Repair Math: Analysis and Inquiry</p>	<p>Pheasants, Chickens, Bees Science: Biology</p>	<p>Butterfly Garden Science: insects, Conservation</p>	<p>Journaling English: Writing</p>	<p>Bullfrog Bags Work experience Math: money sense, division, profit/loss, time management</p>
					

Cooking Classes with SNAP-ed



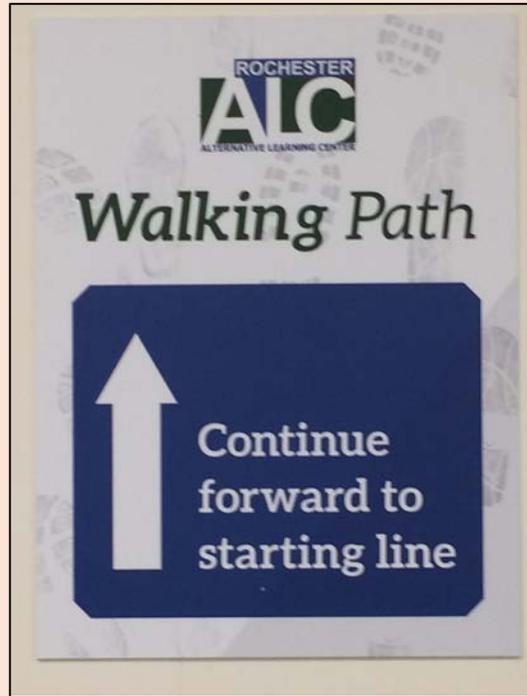
PE Equipment Installed



Active Classrooms



Walking track



Walking Pass – Policy / Practice Implementation



Evaluation

- Post implementation data collection
 - BMI
 - 5210 Healthy Habits survey
 - Physical Activity survey
- Program Evaluation
 - Student survey
 - Staff survey
 - Champion survey

Student Engagement

How were students engaged?

- Students participated in focus groups
- Students prioritized recommendations
- Students co-developed program
- Volunteer student champions
- Student led projects were incorporated into classroom
- School credit/work experience for water infusion filler and snack filler
- Classroom lessons on nutrition and cooking
- Taste testing of water infuser flavors, snacks and garden produce

Healthy Snacks Classroom Presentations

- Educate and engage:
 - What constitutes a healthy snack
 - Label reading and Smart Snack calculator
 - Advertising influence on food choices
- Students used Smart Snack guidelines to shop at Channel One Foodshelf and fill classroom snack baskets

Student Led Project: infused water



Student input via voting

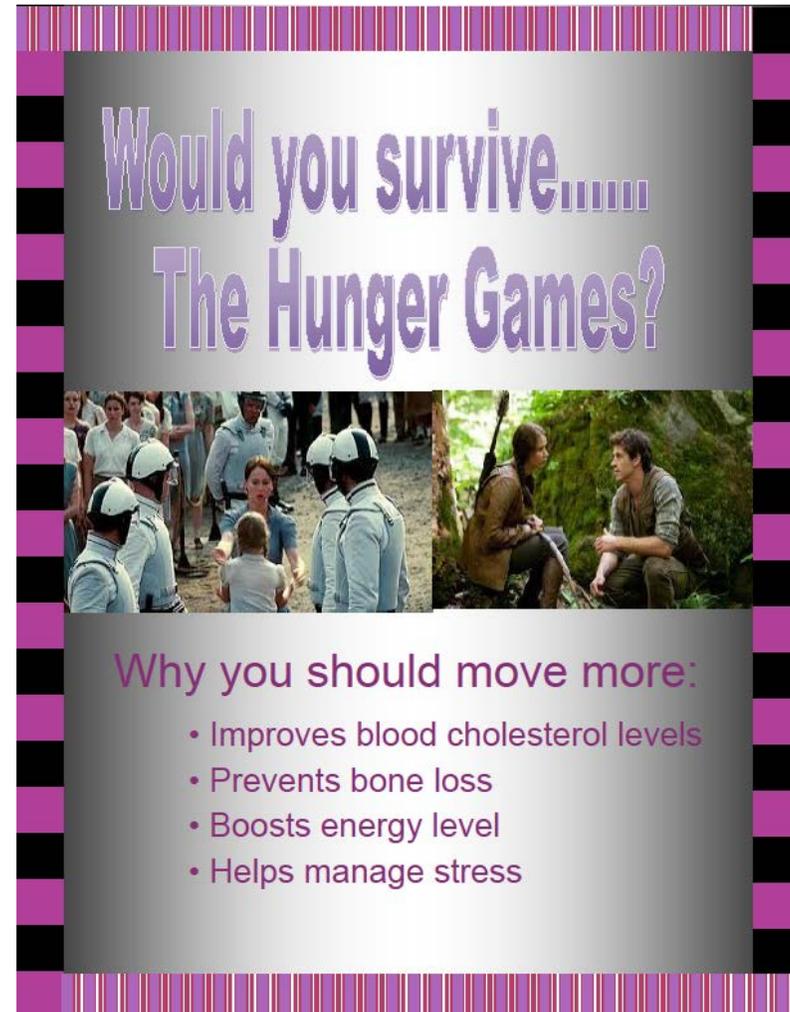


Healthy classroom snacks sampling



Student media campaign: Move more

Media campaign
designed
by students,
for students



Would you survive.....
The Hunger Games?

Why you should move more:

- Improves blood cholesterol levels
- Prevents bone loss
- Boosts energy level
- Helps manage stress

Student media campaign: Drink more water

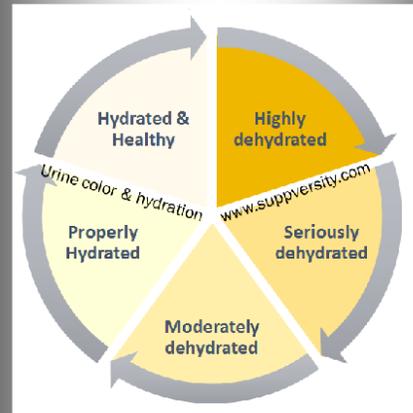
What's your color?

**CLEAR URINE IS
HEALTHY**



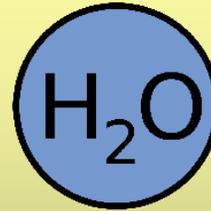
What is your color?

Dark urine is usually a sign that you're not drinking enough water.



**What is your
color?**

**THE DARKER THE
COLOR THE MORE
YOU NEED TO DRINK WATER.**



WHATS YOUR
COLOR ?

1. *MOTIVATE*
2. *HYDRATE*
3. *FEEL GREAT*



Student media campaign: healthy snacks

Healthy food doesn't
need a wrapper



Go Naked
and turnip tonight

Get Down
& *Dirty*



GO NAKED!
It's never too late to start over.
If you weren't happy with yesterday,
try something different today.
Don't stay stuck.
Do better!

Go Naked!!!

Draw me like one of you French fruits



Food without wrappers
is healthy!!

Healthy Celebration



Barriers to Healthy Living Project

- Community-based Participatory Research is different than clinical research. Different barriers to consider in a school setting
- Transient population in ALC made data collection difficult
- School calendar dictated implementation timing which influenced momentum
- Lack of engagement from Student Nutrition Services
- Food safety concerns for student-led project with infusers and garden
- Communication with classroom teachers and students
- No School-wide assembly for communication/kick off

What can we apply to other populations?

- Community based participatory research (engaging the community) often takes more time.
- Listen and learn. Know your population. Hear their priorities.
- Focus groups were crucial to gain information and support from staff and students
- Create together rather than provide a pre-set program
- Kids listen to student champions
- Students took pride in the changes and were pleased to be part of the development

Ongoing Sustainability

- Infrastructure is in place for movement and healthy food
- Lasting relationships have been forged
- Plans for 2016/2017 school year
 - Promotion
 - Culture change
 - School identifies with and promotes itself through the healthy environment
 - PE teacher schedule changed to include open gym
 - Gardening program has become year long credit course
 - Garden sustainability more secure with Bulldog Bag CSA sales
 - Student champions identified annually
 - Goals to create an outdoor walking track

Audience ideas...

What is working for you?

Suggestions

Success Stories

Questions?

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ALC students, staff, and administration

CHAMP Research Team

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- Community Partners
- WSU-Rochester Nursing Students

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