



Policy Approaches to Children's Health (PATCH)

A Community-Based Participatory Research project

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Principle Investigator

What is Community-Based Participatory Research ?

“A collaborative approach to research that equitably involves all partners in the research process and recognizes the unique strengths that each brings. CBPR begins with a research topic of importance to the community and has the aim of combining knowledge with action and achieving social change...”

~Kellogg Community Health Scholars Program

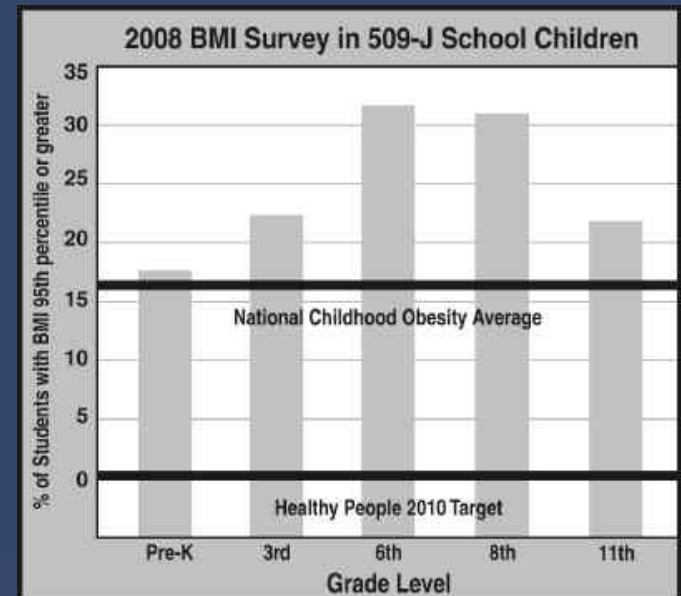
PATCH Details

- 18 Month CBPR Project
- Funded by the Northwest Health Foundation
- Partners
 - OHSU Academic partner (Monica Hunsberger and Paul McGinnis)
 - School district superintendent (Rick Molitor)
 - School nurse (Jamie Smith)
 - School food service director (Patti Jobe and Cassie Piercy)
 - School principals (Craig Morgan, Darryl Smith, Kathy Bishop)
 - Teachers (Margie Long, Vicki Anderson, Lola Hagman)
 - WIC
 - Head Start
 - Health Department (Carolyn Harvey and Tom Machala)
 - Mt View Hospital Foundation (Beth Ann Beamer and Annie Ayers)
 - Warm Springs Tribal Health and Welfare Committee

PATCH Rationale

A Uniquely Diverse Oregon Community

- 35% Non-Hispanic White
- 32% Hispanic
- 33% Native American
- Small numbers of non-Hispanic Black, Asian, and Pacific Islanders
- >65% minority population
- Many do not speak English
- Literacy is a major problem



PATCH Research Questions

- Policy Minded Research Questions:
 - 1) Do calorie labels at the point of purchase influence food choices of middle school students and what are their perceptions?
 - 2) Does scheduling recess before lunch, the reverse of the current system, improve nutrient consumption and change classroom behaviors among elementary age students?
 - 3) How do children and parents perceive body mass index (BMI) surveillance and notification?

PATCH Methods

- **Calorie Labels at Point of Purchase (Middle School)**
 - Mixed methods design
 - Gross Calories consumed with matched menus for one month
 - Interviews with 32 students from each grade
- **Reverse Recess (Elementary School)**
 - Mixed methods design
 - Control and intervention group within one school
 - ✦ 5 plate waste measurements across all seasons
 - Interviews with teachers, staff, and food service
- **BMI Notification**
 - Focus groups with parents and students
 - English and Spanish groups

PATCH Results Calorie Labels

Meal	Kcal consumed per Student		G Fat consumed per Student	
	Pre-Label	Post-Label	Pre-Label	Post-Label
1	740	766	26.0	27.2
2	725	602	28.3	23.5
3	596	576	16.3	16.2
4	807	748	34.0	30.9
6	819	672	24.6	20.8
7	669	662	27.6	26.9
8	570	545	17.1	16.2
9	430	441	11.7	13.1
10	745	767	27.9	28.5
11	711	617	23.5	20.0
12	617	579	19.7	17.0
13	773	745	33.4	31.4
14	689	641	25.1	22.5
15	559	467	17.8	13.4
16	868	737	23.6	17.2
17	366	363	13.4	12.1
Average	668±138	621±122	23.1±6.6	21.1±6.4
Kcal/student		Total Fat g/student		
Mean difference= -47		Mean difference= -2.1		
Std. Dev of difference=14		Std. Dev of difference=0.6		
95% CI= -77 to -18		95% CI= -3.3 to -0.9		
P=0.0040		P=0.0025		

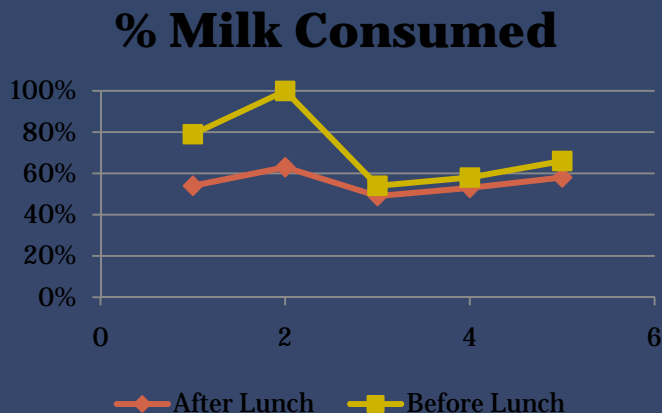
PATCH Results Calorie Labels Continued

- students want nutrition information, it's a schools duty to help achieve/maintain a healthy weight
- understanding /use nutritional information related to home environment
- taste , food appearance, nutrition and being a healthy weight are important to most students
- most but not all students admitted to noticing and using the calorie labels to make healthier food choices
- the calorie labels and nutritionally related topics in general were not discussed among students

PATCH Results Reverse Recess

Student Food Consumption by Day and Recess Order (Median)					
Day	Recess Order	% Entrée Consumed	% Vegetable Consumed	% Fruit Consumed	% Milk Consumed
1	Before Lunch N=92	71%	12%	6%	79%
	After Lunch N=135	71%	12%	0%	54%
2	Before Lunch N=108	74%	0%	27%	100 %
	After Lunch N=165	74%	0%	31%	63%
3	Before Lunch N=110	61%	36%	100%	54%
	After Lunch N=156	59%	50%	61%	49%
4	Before Lunch N=104	83%	100%	16%	58%
	After Lunch N=165	84%	100%	19%	53%
5	Before Lunch N=107	72%	100%	22%	66%
	After Lunch N=163	73%	100%	24%	58%

- The median percent of the standard portions of entrees and vegetables, and fruits consumed varied from day to day but did not differ by group.



- The median percent of milk consumed was higher in the group with recess before lunch than for the group with recess after lunch on all 5 days tested.

- The probability of drinking the entire carton of milk was significantly greater in students having recess before lunch (42% vs. 25%, $p < 0.0001$).

PATCH Results Reverse Recess Focus Groups

- Noted the children were better able to settle in to their work when transitioning from the lunchroom, instead of the playground, to the classroom
- Noise levels in the lunchroom were viewed as about the same: All transitions from the playground were considered '*noisy*'
- Most had a favorable opinion of the reverse recess trial, and noted that the grade split necessary to accommodate the intervention and control classroom division was beneficial to the lunchroom environment

PATCH Results BMI Focus Groups

- **Theme 1 : Generally viewed as a routine task**
 - ✦ Some discomfort among minority of students
 - ✦ Most students wished to know their weight at time of measurement
- **Theme 2: Perceived responsibility for maintenance of childhood weight**
 - ✦ Parent perceived as having main responsibility
 - ✦ Students perceived themselves as responsible
 - ✦ Some felt school was playing its part
- **Theme 3: BMI notification perceived as important, though of limited impact**
 - ✦ Most did not recall the letter or discuss it with their children
- **Theme 4: Identified Barriers to Effectiveness of BMI Screening**
 - ✦ Weight misperception, Lack of concern regarding overweight
 - ✦ Poor understanding of graph and BMI
 - ✦ Lack of communication between parents and school
 - ✦ Cultural issues

PATCH Conclusions

- Menu labeling was meaningful and well received; this will continue
- Reverse Recess did not have the impact on dietary intake we hypothesized but milk intake improved and there were other unintended positive outcomes
- BMI screening will continue but without notification at this point; culturally relevant and literacy level appropriate materials are needed

For Additional Information Contact

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