

CREATING HEALTHY SCHOOL FOOD ENVIRONMENTS IN THE US: OPPORTUNITIES AND CHALLENGES
Sund mad på skolen – en menneskeret?
 Mandag 29 juni, 2015 15:00-16:30, Åalborg Universitet, AC Meyersvænge 15, Sydhavn, Seminarrum 2.1.042

Punam Ohri-Vachopari, PhD, RD
 ASU | The School Nutrition Program

THE US CONTEXT

RIGHT TO HEALTHY FOOD vs RIGHT TO CHOOSE

New study "a wake-up call" on U.S. obesity epidemic

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Last Updated: June 22, 2015 4:03 p.m. PM EDT

Americans continue to struggle with obesity, and new research confirms how much the numbers have grown over the past two decades. A study published online today in JAMA Internal Medicine finds that more than two-thirds of Americans are either overweight or obese, indicating an epic public health epidemic. Read the full story for members, doctors and physicians.

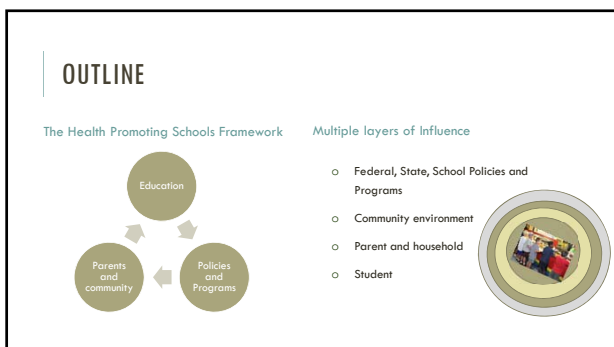
"We see this as a wake-up call to implement policies and practices designed to combat overweight and obesity, ..."

Study author, June 22, 2015

TEXAS AGRICULTURE COMMISSIONER REPEALS RESTRICTIONS ON DEEP FRYERS, SODAS IN SCHOOLS

"Our new nutrition policy promotes individual responsibility, freedom and liberty."

Texas Agriculture Commissioner Sid Miller, June 23, 2015



FEDERAL, STATE, AND SCHOOL POLICIES AND PROGRAMS

KEY US SCHOOL FOOD POLICIES AND PROGRAM

- National School Lunch Program
- School Breakfast Program
- Fresh Fruit and Vegetable Program
- Smart Snacks
- Nutrition Education
- Farm to School
- School Gardens



NEW GUIDANCE

- National School Lunch Program
- School Breakfast Program
- Fresh Fruit and Vegetable Program
- Smart Snacks



Table 1
Comparison of previous versus current school lunch standards^a

Food group	Previous requirements K-12	Current requirements K-12
Fruit and vegetables	0.5-0.75 cup of fruit and vegetables combined per day	0.75-1 cup of vegetables plus 0.5-1 cup of fruit per day ^b
Vegetables	No specifications as to type of vegetable subgroup	Weekly requirement for (1) dark green, (2) red/orange, (3) beans/peas (legumes), (4) starchy, (5) other (as defined in 2010 Dietary Guidelines)
Whole grains	No requirement	At least half of the grains must be whole grain rich as of July 1, 2012. Beginning July 1, 2014, all grains must be whole grain rich.
Milk	1 cup, variety of fat contents allowed, flavor not restricted	1 cup, must be fat free (unflavored/flavored) or 1% low fat (unflavored) ^c
Nutrient standards		
Calories	Minimum only (based on grade)	Minimum and maximum (based on grade)
Sodium	No requirement	Limits (based on grade), with the target levels decreasing through the 2012-2013 school year
Saturated fats	<10% of total calories	<10% of total calories
Trans fats	No requirement	0 grams per serving ^d

^a Cohen et al., AJPM, 2014; 46(4):388-394

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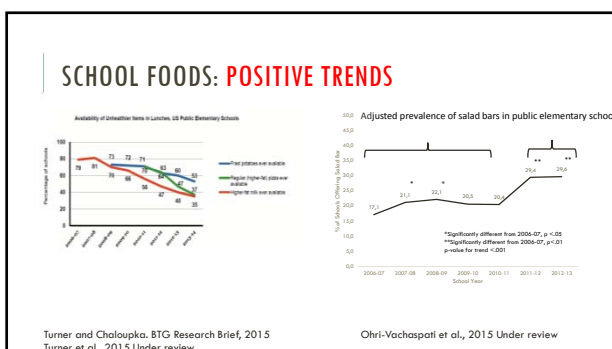
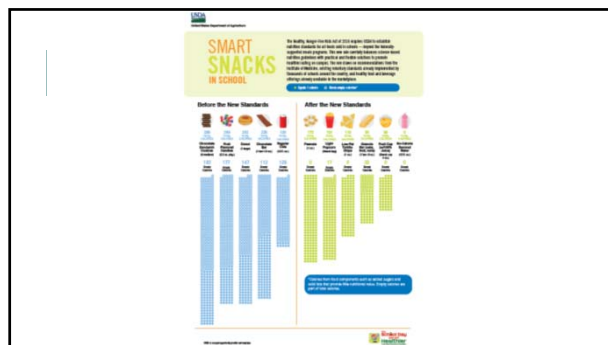
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Cohen et al. Page 9

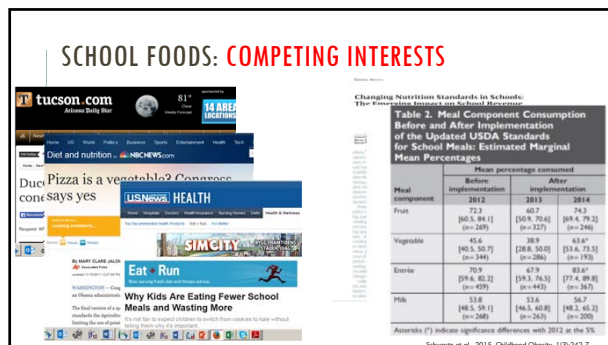
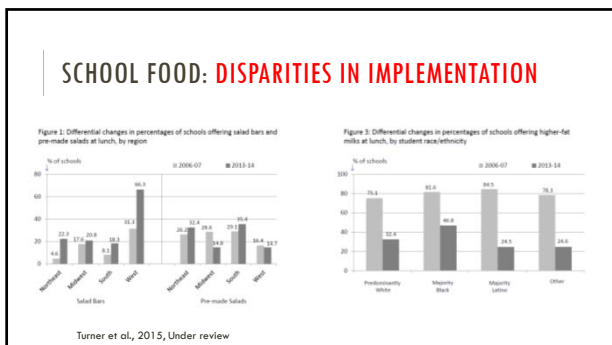
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Milk	1 cup, variety of fat contents allowed, flavor not restricted	1 cup, must be fat free (unflavored/flavored) or 1% low fat (unflavored) ^c
Nutrient standards		
Calories	Maximum only (based on grade)	Maximum and minimum (based on grade)
Sodium	No requirement	Limits (based on grade), with the target levels decreasing through the 200-250 L school year
Saturated fat	~10% of total calories	~10% of total calories
Total fat	No requirement	8 grams per serving ^d

Cohen et al., AJPM, 2014; 46(4):388-394



- ### SCHOOL FOODS: CHALLENGES
- Disparities in implementation
 - Competing interests
 - political
 - industry
 - advocates



SCHOOL FOODS: OPPORTUNITIES

Creating healthy norms and healthy nudges

- Behavioral economics
- Nudges to impacts consumption beyond school (unpublished data – not included in these slides)
- Leveraging resources

USING BEHAVIORAL ECONOMICS TO CREATE HEALTHY NORMS

Fresh F&V Taken by Location of Salad Bar during School Lunch

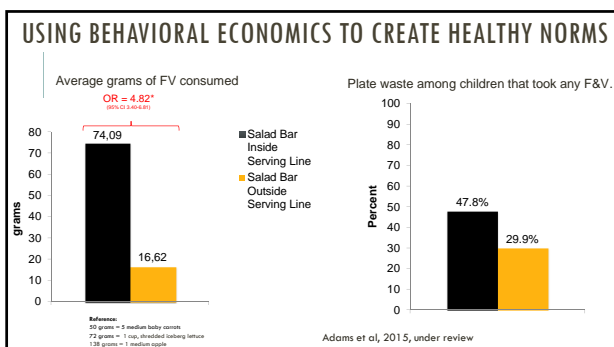
	Yes, Took Something	No, Took Nothing	
Inside Serving Line	290	4	294
Outside Serving Line	54	185	239
			533 students

Inside Line Prevalence = 98.6%
 Outside Line Prevalence = 22.6%
 Unadjusted Prevalence Ratio_{inside} = 4.36 (95% CI 3.65-5.52)

~4.4x More Students Took Fresh F&V
When Salad Bar Located Inside Service Line

Only 13 of 239 (5.4%) students took F&V from salad bars when the bar was located outside of the serving line.

Adams et al., 2015, under review



LEVERAGING RESOURCES: CAPITALIZING ON SYNERGIES

Participation in **technical assistance programs** such as Team Nutrition associated with healthier practices (Ohri-Vachaspati et al. *JNEB*. 2013, 45 (6), 733-738).

Presence of a **dietitian on staff** is associated with higher participation in Team Nutrition, the Fresh Fruit and Vegetable Program (Ohri-Vachaspati et al., *JAND*. 2012;112(6):921-926; Ohri-Vachaspati et al. *JNEB*. 2013, 45 (6), 733-738).

Participation in **FFVP, Farm to School, and Team Nutrition** associated with higher prevalence of salad bars (Ohri-Vachaspati et al. 2015, Under review)

OTHER EMERGING PROGRAMS AND INITIATIVES

- **Nutrition Education**
 - No current standards
 - Provided as part of federal, local, school programs (SNAP-ED, EPNER, Team Nutrition, FFVP, and local initiatives)
 - About 60% of elementary schools provide NE on a regular basis
 - Evidence on nutrition education only programs does not show positive results for behavior change
- **School Gardens (not enough data)**
 - A little over 25% of elementary schools report a school garden
 - Some studies show positive associations with changes in taste preferences
- **Farm to School Programs (showing positive initial results)**
 - About 30% of schools have some type of farm to school program

COMMUNITY

COMMUNITY LEVEL FACTORS



Food environment around schools

Students purchase significant amount of calories at stores around schools (Borradale et al., 2009; *Pediatrics*, 124,1293)

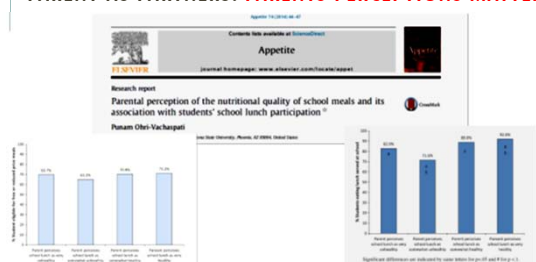
It does matter what store is located close to your school (Tang et. al. 2014, *Childhood Obesity*, 10 (6), 1; Rossen et al., *J. Urban Health*, 90(4), 653)

Next question under consideration

How does food environment around schools affect school meal participation

PARENT

PARENT AS PARTNERS: PARENTS PERCEPTIONS MATTER



PARENT AS PARTNERS: PARENTS PERCEPTIONS MATTER



* Analysis adjusted for child demographics, eligibility for free and reduced price meals

CHILD

CHILD PREFERENCES- NOT FORMED IN ISOLATION! **AND THE COMPETITION IS TOUGH!**

Child-Directed Marketing Inside and on the Exterior of Fast Food Restaurants

Punam Ohri-Vachaspati, PhD, RD, Tanya Iqbal, PhD, Leah Rimola, MPH, RD, Lisa M. Powell, PhD, Charise C. Barker, MEd, Frank J. Chaloupka, PhD

Results: More than 20% of fast-food restaurants used CDM inside or on their exterior. In ...chain restaurants and those located in majority black neighborhoods (compared to white) had significantly higher odds of having an indoor display of kids' meal toys. neighborhoods (compared to white) had significantly higher odds of having an indoor display of kids' meal toys. Conversely, with there was a significant decline in use of CDM in 2013, but the

HARNESSING MULTIPLE LEVELS OF INFLUENCE TO CREATE A CULTURE THAT PROMOTES HEALTHY EATING IN AND OUTSIDE OF SCHOOLS

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 Arizona School Food Studies: M. Adams, M. Bruening, E. Dachenhaus, K. Mollner, E. Pimental, M. Soto

ASU School of Nutrition & Health Promotion