Eating at School - Patterns, Challenges and Opportunities

Presented by: Allison Karpyn, PhD
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Overview

- Brief introduction to The Food Trust
- Overview of Eating at School
  - Summary of the many opportunities and challenges in making changes
- Brief discussion of other community based efforts of the Trust
  - Corner Store Initiative
The Food Trust

Mission - Ensuring everyone has access to affordable, nutritious food

- **Increasing access** - Supermarket Campaign, Corner Store Initiative, Farmers’ Markets

- **Nutrition Education** - School Nutrition Education, Kindergarten Campaign, Farm to School

- **Policy/Advocacy**: Menu Labeling, Trans fat ban, school beverage policy etc.

- **Research**: Internal and external

- **Consulting** – TA related to core programming and evaluation.
Eating at School: The Critical, Fundamental Question

Are our children, especially those at risk for hunger, eating the right amount of the right kinds of foods to maintain a healthy diet?
Eating at School: Where are the opportunities?

<table>
<thead>
<tr>
<th>REIMBURSABLE SCHOOL MEALS</th>
<th>COMPETITIVE FOODS</th>
<th>FOOD BROUGHT IN FROM OUTSIDE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breakfast</td>
<td>A la carte items</td>
<td>Corner Store Food</td>
</tr>
<tr>
<td>Lunch</td>
<td>School stores</td>
<td>Food Prepared at Home</td>
</tr>
<tr>
<td>Snack</td>
<td>Teacher rewards</td>
<td>Fast Food</td>
</tr>
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<td>Twilight meals</td>
<td>Vending</td>
<td></td>
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<td></td>
<td>Class parties</td>
<td></td>
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<td></td>
<td>Fundraisers</td>
<td></td>
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<tr>
<td></td>
<td>Etc.</td>
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</table>

26% daily energy obtained and consumed at school, for average child

47% REIMBURSABLE SCHOOL MEALS

35% COMPETITIVE FOODS

17% FOOD BROUGHT IN FROM OUTSIDE

Corner Store Youth Purchasing to/from School

- 53% shop once a day
- 42% shop 2 times/day
- 356.6 kcal per purchase from snacks/beverages
- Students spent $1.07 on 2 items per purchase from corner stores

Reimbursable School Meals

“Over 40 percent of children who are certified for free meals come from families earning under $10,000 a year.”
<table>
<thead>
<tr>
<th>Day</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
<th>19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>Rice Krispies</td>
<td>Cinnamon Raisin</td>
<td>Blueberry</td>
<td>Cherry Yogurt</td>
<td>Breakfast Round</td>
</tr>
<tr>
<td></td>
<td>Graham Crackers</td>
<td>Bagel Assorted</td>
<td>Muffin</td>
<td>Graham Crackers</td>
<td>Blended Fruit</td>
</tr>
<tr>
<td></td>
<td>Grape Juice</td>
<td>Jelly Orange</td>
<td>Pineapple</td>
<td>Apple Juice</td>
<td>Juice</td>
</tr>
<tr>
<td></td>
<td>1% Milk</td>
<td>Juice</td>
<td>1% Milk</td>
<td>1% Milk</td>
<td>1% Milk</td>
</tr>
</tbody>
</table>

CALORIES 406.9  
PROTEIN(GM) 14.4  
CALCIUM(MG) 358.2  
IRON(MG) 2.3  
VITAMIN A(RE) 163.5  
VITAMIN C(MG) 47.5  
SAT FAT OF % 7.4  
TOTAL FAT OF % 20.7
# Philadelphia Public School Lunch Menu

<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 Cheese Ravioli w/Creamy Tomato Sauce Peach Cup Milk</td>
<td>16 Chicken Nuggets Potato Rounds BBQ Sauce Applesauce Cup Milk</td>
<td>17 Meatballs &amp; Sauce or Beef Hot Dog w/Tri Tators Hot Dog Bun Mixed Fruit Cup Milk</td>
<td>18 Toasted Ham &amp; Cheese on White Bread or Turkey on a Seeded Bun Hot Dog or Beef Patty on a Bun Baby Carrots Ranch Dressing</td>
<td>19 5&quot; Round Pizza or Beef Patty on a Bun Baby Carrots Ranch Dressing Blended Fruit Juice Milk</td>
</tr>
</tbody>
</table>

- **CALORIES:** 556.2
- **PROTEIN:** 27.5g
- **CALCIUM:** 500.8
- **IRON:** 3.2
- **VITAMIN A:** 276.7
- **VITAMIN C:** 11.8
- **SAT FAT OF CAL %** 11.2
- **TOTAL FAT OF CAL %** 27.3
What’s in the bag? Top 10 items

10. Bottled Water
9. Doritos, Nacho Cheese (1oz)
8. Charms Blow Pops
7. Bubbaloo Gum
6. Andy Capps, Cheddar Fries (1oz)
5. Water Ice, small
4. Sour Patch Kids
3. Peanut Chews
2. Cheetos, Flamn Hot, cru
1. Hug (8oz)

“To Promote the Health and Wellbeing of our Nations Children”

<table>
<thead>
<tr>
<th></th>
<th>Lunch</th>
<th>Breakfast</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number participants 2009</td>
<td>31.3 mil</td>
<td>11.1 mil</td>
</tr>
<tr>
<td>Participation rate (free/red)</td>
<td>79% free, 71% reduced ADP</td>
<td>* 45% of those eating lunch</td>
</tr>
<tr>
<td>Federal Reimbursement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Free</td>
<td>$2.74</td>
<td>$1.76</td>
</tr>
<tr>
<td>Reduced</td>
<td>$2.34</td>
<td>$1.46</td>
</tr>
<tr>
<td>Paid</td>
<td>$0.28</td>
<td>$0.26</td>
</tr>
<tr>
<td>National Cost (2009)</td>
<td>9.8 Billion</td>
<td>2.9 Billion</td>
</tr>
<tr>
<td>* Most Needy Districts, &gt;60% Free/reduced lunch prior year, 40% Breakfast</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
School Lunch Participation Trends

School Breakfast Participation Trends

Effectiveness in Reaching Low-Income Students with School Breakfast

School Breakfast in America's Big Cities, FRAC, 2007
School meal participation and BMI
Do school meals contribute to, or protect from, overweight?

School Breakfast participation:
- Associated with lower BMI, but small effect (.75), (Gleason et al.)
- Others (Millimet, 2010) found null or modestly beneficial effects, selection bias a problem.
- Effect despite increased consumption of baked goods.
- BMI change likely due to more even distribution of daily energy intake.


Do school meals contribute to, or protect from, overweight?

Lunch participation associated with:

- No or detrimental connection to BMI
  - “the NSLP is contributing to the [obesity] problem” (Millimet, p. 653)
- But some find modest positive influences on dietary intake
  - Reduced intake of sugar sweetened beverages (Elem. and Sec.), Increased F & V intake in elem schools that offer it daily; NOT french fries. (Briefel et al)

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Do school meals contribute to, or protect from, overweight?

Cole and Fox (2008) NHANES analysis:

- NSLP participants ate
  - more nutrient-dense lunches.
  - More milk, fruits, and vegetables and less salty snacks and sweetened beverages at lunch.

Competitive Foods
Competitive foods

- Evidence that limiting access to competitive foods improves diets
- 99% of high schools, 97% of middle schools and 83% of elementary schools have vending machines, school stores or snack bars (FRAC)
- Largely exempt from federal standards now
- School wellness policies may regulate, but No Enforcement
- Competing priorities, cost contained operation and food sales = revenue

School Nutrition Policy Initiative

- Establishing School Health/Wellness Councils
- Completing School Health Index and School Health Action Plan
- Initiating social marketing,
- Insuring that all foods meet guidelines,
- Integrating 50 hours of nutrition education,
- Conducting 10 hours of teacher nutrition training, and
- Involving family members and the community.

Tool Kit Available online at: www.thefoodtrust.org
School Nutrition Policy Findings

- 50% decrease in the incidence of overweight
  - 15% became overweight in control schools vs. 7.5% in intervention
- No effect on obesity incidence, prevalence
- Intervention funded by SNAP Ed


![Unadjusted Incidence Remission and Prevalence of Overweight (85th-95th) at 2yrs](image)
Healthy Corner Store Initiative

- Youth leadership, education
- Mini-Corner Store Conversions
- Training and Technical Assistance for Corner Store Owners
- Local Distribution Systems
Promising Practices & Recommendations

1. Enforce wellness policies
2. Breakfast as part of the school day
3. Meal participation rates on school report cards
4. Increase reimbursement
5. Universal free
6. Re-evaluate procurement practices (School Food Focus)

7. School Nutrition Policy Initiative
   - Integrated nutrition education
   - School wellness councils
   - Standards and accountability for competitive foods
8. Farm to School Programming
9. Corner Store Campaign
Research Recommendations

1. What strategies are most effective in upgrading the food consumed from “the line”?
   - $, strategic procurement support, educational approaches, farm to school (and community engagement), taste testing

2. In what ways can marketing/merchandizing/placement influence consumption/participation in schools, and at stores?

3. Cross Disciplinary Studies – diet, educational achievement, behavioral outcomes

4. How do we engage the taxpayer?
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