Classroom parties: The potential for policies to reduce student exposure to sugary foods and beverages

Lindsey Turner, PhD
Research Article

Classroom Parties in US Elementary Schools: The Potential for Policies to Reduce Student Exposure to Sugary Foods and Beverages
Lindsey Turner, PhD; Jamie F. Chriqui, PhD, MHS; Frank J. Chaloupka, PhD

ABSTRACT

**Objective:** To examine associations among school, district, and state policies regarding classroom birthday and holiday parties.

**Design:** School-level policies assessed by survey during the 2009–2011 school years, with collection of corresponding district policies and state laws.

**Setting:** United States public elementary schools.

**Participants:** Surveys from 1,204 schools (response rate, 60.9%).

**Variables Measured:** Prevalence of school-wide restrictions on sugary items served during parties. Predictor variables included district policy and state law.

**Analysis:** Multivariate logistic regressions to examine associations between school-level restrictions (outcome) and district policies and state laws, controlling for demographics and school year.

**Results:** Approximately one-half of schools discouraged or prohibited sugary items during parties, or did not allow parties. Schools with a district policy and state law were 2.5 times more likely to restrict sweet items at parties than were schools with no corresponding policy or law. School-level limits were more common where policy and law addressed specific nutritional aspects of foods and beverages served in classroom parties (odds ratios, > 2.0; *P* < .001).

**Conclusions and Implications:** Prohibitions on sugary party fare were uncommon at all levels. Even though most policies were framed as recommendations rather than requirements, policy and law were associated with increased school-level restrictions, which demonstrates the value of policy.

**Key Words:** schools, health policy, child, sugar-sweetened beverages, overweight (*J Nutr Educ Behav.*, 2013;45:611-619.)
Presentation Overview

1. Description of the Bridging the Gap research project
2. Results of research on classroom parties
3. Potential directions for future research
4. Some implications for nutrition professionals
Bridging the Gap (BTG) is......

A collaborative effort to assess the impacts of policies, programs & other environmental factors on the health behaviors of children and adolescents

• Conducted at UIC and University of Michigan
• Funded by the Robert Wood Johnson Foundation since 1997
• Integrated across multiple disciplines: economics, education, epidemiology, law, nutrition, psychology, public health

Report finds unhealthy foods and beverages are still widely available and physical activity options lacking in U.S. elementary schools.

LEARN MORE >

Bridging the Gap

Bridging the Gap is a nationally recognized research program. Our goal is to improve the understanding of how policies and environmental factors affect diet, physical activity and obesity among youth, as well as youth tobacco use.

What We Do

- Identify the policy and environmental factors that have the greatest impact on diet, physical activity, obesity and tobacco use among youth.

- Track trends and changes in these factors over time at the state, community and school levels.

- Disseminate findings to help advance solutions for reversing the childhood obesity epidemic and preventing young people from smoking.

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New Research Products

Research Brief

Competitive Foods and Beverages in Elementary School Classrooms

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March 2013 Report


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February 2013 Report

School District Wellness Policies: Evaluating Progress and Potential for Improving Children’s Health Five Years After the Federal Mandate

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- **SHPPS**: School Health Policies and Programs Study (CDC)
- **SNDA**: School Nutrition Dietary Assessment Study (USDA)
- **BTG**: Bridging the Gap (RWJF)

**Key Events**

- **Child Nutrition and WIC Reauthorization (2004)**
- **District wellness policies required by first day of SY 2006-07**
- **Healthy, Hunger-Free Kids Act of 2010**
- **New USDA snack food regulations to take effect (?)**

**Years and Notes**

- 2000
- 2006
- 2006-2007
- 2007-2008
- 2008-2009
- 2009-2010
- 2010-2011
- 2011-2012
- 2012-2013
- 2013-2014
- 2014
- 2015
What are competitive foods?

- á la carte lines
- school stores/snack bars
- vending machines
- class parties/celebrations
- fundraisers
- classroom rewards

All images obtained from bing.com/images
**Prevalence of practices and policies in elementary schools**

**Classroom food and beverage practices (SY 2009-12)**

<table>
<thead>
<tr>
<th>Practice</th>
<th>% of Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Candy allowed to be used in lessons</td>
<td>69</td>
</tr>
<tr>
<td>Food coupons used as incentives</td>
<td>68</td>
</tr>
<tr>
<td>Sugary items allowed to be used as reward</td>
<td>65</td>
</tr>
<tr>
<td>No nutritional restrictions for fundraisers</td>
<td>61</td>
</tr>
<tr>
<td>No limits on sugary items at birthday parties</td>
<td>58</td>
</tr>
<tr>
<td>No limits on sugary items at holiday parties</td>
<td>57</td>
</tr>
<tr>
<td>No limits on sugary items at snacktime</td>
<td>38</td>
</tr>
</tbody>
</table>


These types of food practices (e.g., food-based fundraising, food/beverages in classroom) are associated with adolescent weight outcomes. Each additional practice leads to .10 ↑ in BMI score.

Linking Policies with School Practices

Schools that limit serving *sugary items at birthday parties*

- The so-called “cupcake bans”
- Very politically controversial
Linking Policies with School Practices
Schools that limit serving *sugary items at birthday parties*

- Limited data on party frequency, varies within schools (depends on the teacher)
- Party fare supplies a lot of energy-dense empty calories

Items served in elementary school parties (Isoldi & Dalton, 2012):
  - Students consumed 444 (± 221) kcal at the party
  - Students took home goody bags with an estimated 638 kcal

- Recommendations from national authorities (e.g., CSPI, NANA) regarding model school wellness policies suggest:
  - Non-food-based parties
  - Serve healthier fare
  - Limit parties to one per month
Linking Policies with School Practices
Schools that limit serving sugary items at birthday parties

Data from 1204 public elementary schools

2009-10 and 2010-11 school years

- 47% predominantly White students
- 62% urban/suburban
- 37% had >66% of students eligible for free/reduced-priced meals
Linking Policies with School Practices
Schools that limit serving *sugary items at birthday parties*

Are there any policies limiting sugar-sweetened items (e.g., candy, cupcakes, cookies) from being served or brought in either at **snacktime** or for **parties** during the school day? If no snacktime or parties, please check N/A.

*PLEASE CHECK ONE BOX ON EACH ROW*

<table>
<thead>
<tr>
<th></th>
<th>No policy</th>
<th>Decision is up to each teacher</th>
<th>Sweetened items discouraged school-wide</th>
<th>Sweetened items prohibited school-wide</th>
<th>N/A, no parties or snacktime</th>
</tr>
</thead>
<tbody>
<tr>
<td>Snack time</td>
<td></td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Birthday parties</td>
<td>22%</td>
<td>30%</td>
<td>32%</td>
<td>7%</td>
<td>9%</td>
</tr>
<tr>
<td>Holiday parties</td>
<td>21%</td>
<td>34%</td>
<td>36%</td>
<td>6%</td>
<td>3%</td>
</tr>
</tbody>
</table>
Linking Policies with School Practices

Policy coding scheme (district-level and state-level)

Examples of policy language:

“District encourages healthy snacks at parties.”

“The school food environment (including celebrations) on balance and over time should be consistent with healthy food guidelines.”

“The district shall provide parents with a list of foods that meet the Board’s snack standards for healthy celebrations/ parties, rewards, and fundraising activities…” (and no other mention of celebrations/parties included in the policy)

“Classroom parties, celebrations, etc. shall be limited to one snack and one beverage (100% juice, water or milk)”

“All F&B available will meet the 2005 Dietary Guidelines for Americans.”
Linking Policies with Elementary School Practices
Competitive Food and Beverage Practices

<table>
<thead>
<tr>
<th>State Law</th>
<th>District Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO</td>
<td>NO</td>
</tr>
<tr>
<td></td>
<td>YES</td>
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<tr>
<td></td>
<td>YES</td>
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<td></td>
<td>YES</td>
</tr>
</tbody>
</table>
Linking Policies with School Practices
School-level limits, by district/state policy status

% of schools

- No Policy (Referent):
  - Birthday Parties: 40.8%
  - Holiday Parties: 36.6%

- District Only:
  - Birthday Parties: 46.6%
  - Holiday Parties: 44.9%

- State Only:
  - Birthday Parties: 41.2%
  - Holiday Parties: 31.2%

- District & State:
  - Birthday Parties: 63.1%
  - Holiday Parties: 58.2%

OR = 1.42, p < .05
OR = 2.47, p < .001
OR = 2.54, p < .001
Linking Policies with School Practices
Specific restrictions in district/state policy (vs. no policy)

Birthday parties
- Limits on candy*
- Limits on sugar in foods
- Limits on fat in foods*
- Limits on soda*

Holiday parties

* p<.05 or better
Linking Policies with School Practices
School-level limits, by district/state policy status

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- District Only
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Statistical Significance:
- OR = 1.42, p < .05
- OR = 2.47, p < .001
- OR = 2.54, p < .001

Legend:
- Birthday Parties
- Holiday Parties
Linking Policies with School Practices
Which schools are (or are not) implementing policies?

Subset: schools subject to state law \textit{and} district policy (n = 218)

No differences by race/ethnicity, school size, or SES
Linking Policies with School Practices
Nutritional limits on items served at *school fundraisers*

% of schools

- No Policy (Referent) 31%
- District Only 47%
- State Only 35%
- District & State 55%

OR = 2.02, *p* < .05
OR = 2.78, *p* < .001

Linking Policies with Elementary School Practices
Sale of snack foods: sugary items (candy, cookies, ice cream)

Policies limiting sugar content

Linking Policies with School Practices
Summary of relationships

District policies and state laws are associated with school environments.

Often the combination of policy at both jurisdictions is the most powerful scenario.

Questions remaining:

- More-detailed data needed on prevalence of parties and impact on student-level dietary intake
- Why implementation is incomplete (and how to improve that)
- Enforcement requirements/incentives (carrot vs. stick)
- Technical assistance strategies to help schools with implementation
Encourage district-level policymaking to encourage healthful practices

Assisting with implementation: nutrition education

- Providing suggestions to teachers for healthier practices
- Communicating to parents why policies are worthwhile

Resources:
www.cspinet.org/nutritionpolicy/policy_options_healthycelebrations.html
http://www.cspinet.org/nutritionpolicy/nana.html
http://www.schoolwellnesspolicies.org/
For more information: www.bridgingthegapresearch.org

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