Evaluating School District Wellness Policies—Methodological Challenges and Results

Jamie F. Chriqui, Linda Schneider, Anna Sandoval, Sarah Hagin, Kristen Ide & Frank J. Chaloupka
Bridging the Gap Project
Health Policy Center
University of Illinois at Chicago

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Overview

• Review Federal wellness policy mandate
• Overview of the Bridging the Gap/Food & Fitness Study Component
• Describe policy collection methodology
• Describe coding methodology
• Review preliminary results
• Implications and next steps
Federal Wellness Policy Mandate (P.L. 108-265)

- Wellness policy required by 1st day ‘06-’07 school year
  - If participating in Natl. School Lunch Program
- Required components:
  - Goals for nutrition education, physical activity, other school-based activities
  - Guidelines for all foods/sold served (i.e., competitive foods)
  - Assurance that reimbursable meal guidelines at least meet Federal regulations
  - Implementation plans
  - Involvement of key stakeholders in policy development
**Bridging the Gap/Food & Fitness Study Overview**

- Nationwide study of policy-practice relationships

- Components
  - State policies
  - LEA wellness and related policies
  - Surveys
    - Primary school principals (UIC)
    - Secondary school principals (University of Michigan, YES)
Wellness Policy Study Overview

- Nationally representative sample of LEAs
  - Approx. 579 LEAs/year

- Policies collected and coded for ‘06-’07 and ’07-’08 SY

- Coding scheme adapted from the HER grantee-developed wellness policy coding tool (Schwartz et al.)
Methodology: Sample Design

- Nationally-representative sample of public local education agencies (LEAs)
  - By grade level (ES/MS/HS)
  - N=579 districts

- District groups
  - N=380 district groups
Methodology: Data Collection

• Mixed-methods:
  1. Internet searches
  2. Telephone/e-mail follow-up
  3. Mailed letter with AASA endorsement
Methodology: Policies Collected

• Policies collected
  – Wellness policies and associated regulations
  – Other LEA policies embedded by reference
  – State, model, national “policies” embedded by reference
    • E.g., State school board association models, AFHK, CSPI, NANA
## Methodology: Coding Constructs

<table>
<thead>
<tr>
<th>Construct</th>
<th># of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nutrition education</td>
<td>9</td>
</tr>
<tr>
<td>Reimbursable school meals</td>
<td>13</td>
</tr>
<tr>
<td>Guidelines for food sold/served outside meal program</td>
<td>29</td>
</tr>
<tr>
<td>Physical education</td>
<td>17</td>
</tr>
<tr>
<td>Physical activity</td>
<td>10</td>
</tr>
<tr>
<td>Communications and marketing</td>
<td>12</td>
</tr>
<tr>
<td>Evaluation and implementation</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total # Items</strong></td>
<td><strong>96</strong></td>
</tr>
</tbody>
</table>
Wellness Policy Coding Scheme

Adaptations

- Coding for grade-level distinctions
  - ES, MS, HS
  - Key for Competitive Food, selected PE/PA items

- Additional variables
  - Closed campus
  - Competitive food ban
  - Requirements that contracts meet nutrition standards
  - Farm-to-cafeteria/school provisions
  - BMI screening/reporting
  - Additional measures for implem./eval./reporting
## Coding Scheme—Item Coding Example

**Item: Food as a reward/punishment**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No policy/not addressed/only discourages unhealthy foods</td>
</tr>
</tbody>
</table>
| 1    | • Discourage using food as reward  
      • Only prohibits food as punishment (not add. reward)  
      • Only allows healthy food as a reward |
| 2    | Prohibits food as a reward |
Coding Scheme: Scoring

• Comprehensiveness (# with 1 or 2)
  – **Construct**: (Presence ea. item in construct/# items in construct) *100
    • NE Construct: (6/9) * 100 = 66.7
  – **Total**: Average compreh. construct scores

• Strength (# with 2)
  – **Construct**: (# items in construct=2/# items in construct)*100
    • NE Construct: (3/9)*100 = 33.3
  – **Total**: Average strength construct scores
Methodology: Analyses

• Preliminary data for 07-08 SY data
  – Sample characteristics, policy presence, response status on full sample (N=579)
  – Analyses of policy provisions on partial sample (471/579 LEAs)

• Bivariate and OLS regressions
  – Clustered by district group based on sampling methodology
  – Selected data presented by grade-level of policy applicability
## LEA Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of district</td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>27.4%</td>
</tr>
<tr>
<td>Large-/mid-size city</td>
<td>14.1%</td>
</tr>
<tr>
<td>Rural</td>
<td>44.9%</td>
</tr>
<tr>
<td>Town</td>
<td>13.6%</td>
</tr>
<tr>
<td>Region</td>
<td></td>
</tr>
<tr>
<td>Northeast</td>
<td>22.2%</td>
</tr>
<tr>
<td>Midwest</td>
<td>36.6%</td>
</tr>
<tr>
<td>South</td>
<td>23.8%</td>
</tr>
<tr>
<td>West</td>
<td>17.4%</td>
</tr>
<tr>
<td>Charter school district (only)</td>
<td>9.4%</td>
</tr>
</tbody>
</table>

Note: Weighted data; N=579, District Groups=380
<table>
<thead>
<tr>
<th>LEA Characteristics</th>
<th>Mean</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td># Schools</td>
<td>7</td>
<td>1-808</td>
</tr>
<tr>
<td># Teachers</td>
<td>200</td>
<td>8.5-34,029</td>
</tr>
<tr>
<td># Students</td>
<td>3593</td>
<td>103-986,967</td>
</tr>
<tr>
<td>Prop. White</td>
<td>.73</td>
<td>0-1</td>
</tr>
<tr>
<td>Prop. African American</td>
<td>.11</td>
<td>0-1</td>
</tr>
<tr>
<td>Prop. Hispanic</td>
<td>.12</td>
<td>0-1</td>
</tr>
<tr>
<td>Prop. Free/Red Lunch Eligible</td>
<td>.38</td>
<td>0-1</td>
</tr>
<tr>
<td>Median family income ($)</td>
<td>49,396</td>
<td>18,372-169,378</td>
</tr>
<tr>
<td>Per capita income ($)</td>
<td>20,164</td>
<td>7284-88,308</td>
</tr>
<tr>
<td>Title I Revenue/pupil ($)</td>
<td>200</td>
<td>0-1310</td>
</tr>
<tr>
<td>Instructional expend./pupil ($)</td>
<td>5417</td>
<td>741-97,614</td>
</tr>
</tbody>
</table>

Note: Weighted data; N=579, District Groups=380
## Respondent Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent</td>
<td>87.9%</td>
</tr>
<tr>
<td>% Responders – Wellness policy</td>
<td>88.7%</td>
</tr>
<tr>
<td>% Responders – No wellness policy</td>
<td>11.3%</td>
</tr>
<tr>
<td>Policy Source</td>
<td></td>
</tr>
<tr>
<td>Internet only</td>
<td>39.8%</td>
</tr>
<tr>
<td>District only</td>
<td>46.4%</td>
</tr>
<tr>
<td>Both (Internet &amp; District)</td>
<td>2.5%</td>
</tr>
<tr>
<td>National School Lunch Participation (overall)</td>
<td>94.5%</td>
</tr>
<tr>
<td>% NSLP – With Wellness Policy</td>
<td>90.5%</td>
</tr>
<tr>
<td>% NSLP – No Wellness Policy</td>
<td>9.6%</td>
</tr>
</tbody>
</table>

Note: Weighted data; N=579, District Groups=380
Most Communities Have Addressed the Federal Wellness Goals...

Note: Preliminary unweighted (clustered) data

Grade Level (E=Elem, M=Middle, H=High)
..But, On Average, the Policies are Not Very Comprehensive...

Note: Preliminary, unweighted (clustered) data BEFORE state laws applied
...and they are Relatively Weak

Note: Preliminary, unweighted (clustered) data BEFORE state laws applied
Factors Associated with Policy Comprehensiveness

- ↓ Instruction $/pupil
- ↑ Title I $/pupil
- ↓ Hispanic students
- Northeast (compared to the South)

Notes: Preliminary, unweighted (clustered) OLS regressions before state law applied. All items significant at p<.05 or lower.
Factors Associated with Policy Strength

- ↓ Instruction $/pupil
- ↑ Title I $/pupil
- ↓ Hispanic students
- Northeast (compared to the South) (ES/MS)
- West (compared to the South) (HS)

Notes: Preliminary, unweighted OLS regressions BEFORE state laws applied All items significant at p<.05 or lower
Summary

• In most cases, LEAs have adopted relatively weak policies
  – Evaluation/implementation provisions stronger than nutrition/
    physical activity items – evaluating/implementing weak policies

• Wellness policies stronger in communities with less resources
Limitations

• Preliminary, unweighted data
• Cross-sectional
• Does not measure policy implementation
• Not linked with student behaviors/attitudes
Next Steps

- Finalize data
- Conducted weighted analyses
- Examine changes from 2006 to 2007 school years
- Link to state statutes/regulations to see if state oversight/standards influence strength/comprehensiveness of district policies
- Link with surveys of school principals to examine policy-to-practice relationships