A School District (DC) – University (AU) Collaboration to Address Childhood Obesity

American Public Health Association
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School of Education, Teaching & Health & DC Office of the State Superintendent of Education
Overview

• DC’s Healthy Schools Act
• American University’s mission
• Collaboration between school district and the university
• Results on health indices
• Characteristics of the partnership
Community-based Participatory Research (CBPR)

• CBPR is an **applied collaborative approach** that enables community residents to more actively participate in the full spectrum of research.

• Community members and researchers partner to combine knowledge and action for **social change** to improve community health and often reduce health and education disparities.

• Academic/research and community partners work to develop models and approaches to building communication, trust, and capacity with the final goal of **increasing community participation** in the research process.

DC HSA Evaluation; Snelling, Belson, Malloy, Van Dyke, & Watts; 2014
• Partnerships are crucial for effective engaged scholarship.
• By engaging students, faculty, and community partners to establish a long-term community-university partnership we integrated it within the mission of our school.
• School health policies are being established and implemented to respond to childhood obesity rates.
• Schools as natural settings
• Policy often “leapfrogs” over research – evaluation is rarely empirical.
• DC is a leader in passing the DC Healthy Schools Act.
• Full implementation and empirical analysis will allow the Act to reach its intended results to reduce childhood obesity, thereby improving students’ health status and allowing them to achieve academic success.
Poverty in DC

• Living in poverty has a negative effect on academic performance (Kozol, 1991, Delpit, 2001)
• 21% of school age children in DC are obese (RWJ).
• 30% of DC children receive the majority of their meals at school.
The DC Healthy School Act
<table>
<thead>
<tr>
<th>District of Columbia Healthy Schools Act</th>
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<tbody>
<tr>
<td><strong>School Nutrition, Physical, and Health Education</strong></td>
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<tr>
<td>• Encourage schools to serve a vegetarian option each week</td>
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<td>• Require schools to serve a different vegetable and fruit daily</td>
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<td>• Require schools to serve 1% milk</td>
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<td>• Require schools to have only healthy foods in vending machines, for fundraising and for prizes</td>
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<td>• Require students in grades K-5 to have at least 150 minutes per week of physical education</td>
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<td>• Require students in grades 6-8 to have at least 225 minutes per week of physical education</td>
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<td><strong>Farm-to-School Program</strong></td>
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<td>• Encourage a preference for unprocessed foods grown in DC, Delaware, Maryland, North Carolina, New Jersey, Pennsylvania, Virginia, and West Virginia</td>
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<td>• Provide grants to establish curriculum-coordinated school garden programs</td>
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<td><strong>Wellness Policy and Health Profiles</strong></td>
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<td>• Require schools to annually assess and report on student achievement according to health and physical education standards</td>
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<td>• Require schools to develop a school health environment profile detailing health, nutrition, physical education programs and wellness policies</td>
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School Health Profile

• Due annually to OSSE by February
• A reporting requirement by HSA
• Self-report instrument
• Completed by a principal or someone designated at the school
• School-level data
• Completed online

DC HSA Evaluation; Snelling, Belson, Malloy, Van Dyke, & Watts; 2014
# Health Compliance and Environment Scores

<table>
<thead>
<tr>
<th>HSA Compliance Score</th>
<th>School Health Environment Score</th>
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<tbody>
<tr>
<td>• 28 questions from the school health profile</td>
<td>• 42 questions from the school health profile</td>
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<tr>
<td>• Maximum points of 38 points</td>
<td>• Maximum points of 53</td>
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<tr>
<td>• Most questions are yes (1) or no (0); 4 questions are on a sliding scale</td>
<td>• Most questions are yes (1) or no (0); 6 questions are on a sliding scale</td>
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<tr>
<td>• Reflects the provisions within the HSA</td>
<td>• Reflects the overall school health environment</td>
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DC HSA Evaluation; Snelling, Belson, Malloy, Van Dyke, & Watts; 2014
Elementary Schools

HSA Compliance Score

2013

2014
## Compliance Score Ranges

<table>
<thead>
<tr>
<th>Category</th>
<th>Elementary School Compliance Score</th>
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<tbody>
<tr>
<td>Bottom 25%</td>
<td>&lt;19.62</td>
</tr>
<tr>
<td>Middle 50%</td>
<td>19.62-23.36</td>
</tr>
<tr>
<td>Top 25%</td>
<td>&gt;23.36</td>
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</tbody>
</table>
2014 Elementary Schools CAS Math Scores grouped by HSA Compliance Score
2014 Elementary Schools CAS Reading Scores grouped by HSA Compliance Score

CAS Reading Score
3rd Grade DC CAS Math & Minutes of PE

CAS Math Score vs. 3rd Grade PE Minutes (Fitted Regression lines included)
3rd Grade DC CAS Reading & Minutes of PE

CAS Reading Score vs. 3rd Grade PE Minutes  (Fitted Regression lines included)

Minutes
CAS Scores
2012 3rd Grade PE Minutes
2013 3rd Grade PE Minutes
2012 Regression Line
2013 Regression Line
Conceptual Model for Evaluating the Healthy School Act

**Activities**

- Multi-level influence:
  - Wellness Champions
  - Minutes of PA
  - Health Education
  - Nutrition/Cafeteria
  - Parent engagement
  - Teacher PD

- Vision and engagement:
  - Leadership
  - Community values & Norms
  - Teaching Engagement

**Outputs**

- Improved student health (reduced obesity, increased FitGram)
- Improved teacher health and engagement

**Impact**

- Improved wellbeing of students and teachers

**Outcomes**

- Improved student health and well-being
- Improved teacher engagement
- Improved school morale
- Improved school performance
- Improved culture of health
- Improved school image
Thanks!

Collaborators:
Stephanie George, Michelle Kalicki, Lauren McGrath, Betty Malloy, Hugo Van Dyke, Celeste James

DC HSA Evaluation; Snelling, Belson, Malloy, Van Dyke, & Watts; 2014