An Implementation Study of Shared Use Agreements Between School Districts and Communities in an Effort to Control Childhood Obesity in the State of Mississippi

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Mississippi Facts

• Mississippi rank 51st for protective factors against childhood obesity including healthy neighborhood environments
• More than 39.0% of children in Mississippi are overweight or obese
• About a quarter of 2-5 year olds and one-third of school-age children (including adolescents) are overweight or obese in the United States
• Only 23.0% of children participate in some form of physical activity for one hour a day
Background on Shared Use Agreements

• A policy tool to deal with childhood obesity
• Formal or informal agreements between government or private entities establishing the terms and conditions for the shared use of public property
• Mississippi enacted a law (HB 540) in 2012 that encourages school districts to allow the public to use school property and facilities during non-school hours for recreational purposes
Shared Use Benefits

- Advances health equity
- An efficient and economical use of public resources
- Increases community comradery
- Promotes health benefits
- An almost effortless strategy to implement
- Directs us to consider multiple levels of social change that closes the gap between healthy lifestyles of the disadvantaged and obesity and its consequences
- Builds upon assets a community already has
Research Questions

- Has there been any impact of the HB 540 on shared use agreement expansion?
- Is there any relation between formal shared use agreements and poverty level?
- How can local communities encourage and facilitate active lifestyles for residents?
- How can we increase access to as well as the use of gyms and recreational facilities?
State Trends: From 2008 to 2011, obesity rates decreased among this age group in 18 states and the U.S. Virgin Islands, and increased in only three states.
Socioeconomics and Obesity Among Children

- No High School Diploma: 30.4%
- College Degree: 9.5%

Girls Ages 10 to 17 in Lower Socioeconomic Circumstances: 35.7%
Percentage of Students from Low Income Families

1989: 32%
2013: 51%
Percent of Students in Grades 9-12 Who Are Obese by Total†

† Obese is defined as body mass index (BMI)-for-age and sex ≥ 95th percentile based on the 2000 CDC growth chart; BMI was calculated from self-reported weight and height (weight [kg]/height [m²]) Data Source Youth Risk Behavior Surveillance System
Methodology

- Sample/Shared Use Agreements
- School districts, community organizations and state agencies
- Sampling size of 16 counties - Determination of high rates of obesity and lower socio-economic status and income in the state
- Survey of school districts
Findings

• Prior House Bill 504, 11 shared use agreements were implemented
• Post House Bill 504, 20 shared use agreements have been implemented in Mississippi

Location Analysis

• Counties selected due to the high rates of obesity (≥ 35%) and lowest income in the state (≥75%)
• Lower income status classified based on 50% or greater of students eligible for free and reduced priced school lunch
• Sample size too small for a quantitative analysis

Survey Results

• 10% of schools were willing to allow after-hours use but were not willing to sign a formal agreement
Findings

- Of 16 Mississippi counties, that also includes several school districts, 31 shared use agreements have been implemented formally or informally.

- Five Jackson and Clinton Public Schools have received funding to implement agreements that include: Pecan Park, East Side, Chastain, McCleod, and Forest Hill.
Findings

<table>
<thead>
<tr>
<th>Type of Agreement</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal</td>
<td>25 (80.6%)</td>
</tr>
<tr>
<td>Informal</td>
<td>6 (19.4%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>31 (100.0%)</strong></td>
</tr>
</tbody>
</table>

Promotion of HB 540 has been significant in encouraging formal agreements between communities and schools.
Findings
Policy Present Prior to 2012 (HB 540)

<table>
<thead>
<tr>
<th>Impact of HB 540</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing</td>
<td>11 (35.5 %)</td>
</tr>
<tr>
<td>Newly established</td>
<td>20 (64.5 %)</td>
</tr>
<tr>
<td>Total</td>
<td>31 (100.0 %)</td>
</tr>
</tbody>
</table>

Promotion of HB 540 has been significant in expanding the Shared Use Agreement statewide
## Results/Findings

### % reduced meals, 2010-2011

<table>
<thead>
<tr>
<th>Range (%)</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-100</td>
<td>16 (51.6%)</td>
</tr>
<tr>
<td>80-89</td>
<td>2 (6.5%)</td>
</tr>
<tr>
<td>70-79</td>
<td>4 (12.9%)</td>
</tr>
<tr>
<td>60-69</td>
<td>3 (9.7%)</td>
</tr>
<tr>
<td>50-59</td>
<td>0 (0.0%)</td>
</tr>
<tr>
<td>40-49</td>
<td>0 (0.0%)</td>
</tr>
<tr>
<td>30-39</td>
<td>2 (6.5%)</td>
</tr>
<tr>
<td>20-29</td>
<td>2 (6.5%)</td>
</tr>
<tr>
<td>10-19</td>
<td>0 (0.0%)</td>
</tr>
<tr>
<td>0-9</td>
<td>2 (6.5%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>31 (100.0%)</strong></td>
</tr>
</tbody>
</table>

The school districts with more than 90% reduced meals, takes 51.6% of the participating districts.
Findings

Any relation with poverty level?

<table>
<thead>
<tr>
<th>Range (%)</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>6 (19.4 %)</td>
</tr>
<tr>
<td>≥ 50% (a)</td>
<td>8 (25.8 %)</td>
</tr>
<tr>
<td>≥ 75% (a)</td>
<td>17 (54.8 %)</td>
</tr>
<tr>
<td>Total</td>
<td>31 (100.0 %)</td>
</tr>
</tbody>
</table>

(a) Lower income status classified based on 50% or greater of students eligible for free and reduced price school lunch
Findings

• Shared use agreements have been promoted in controlling children obesity nationwide
• The implementation of shared use agreements has been active after the HB 540 passed in 2012
• The implementation of shared use agreements forges relationships between communities and governmental entities to keep costs down and communities healthy
• Shared use agreements directs us to consider multiple levels of social change that closes the gap between healthy lifestyles of the disadvantaged and obesity and its consequences
Conclusion

- Mississippi has taken great strides to combat obesity
- Schools are now offering healthier lunches: combi-ovens have replaced deep fryers; more fruits, vegetables, and whole grains are offered at lunch; and skim or low-fat milk is offered instead of high-fat milk
- Opening schools for recreation reduces, and in many cases eliminates vandalism, theft, and burglary
- Mini grants for shared use implementation are great, but do not produce sustainable long-term results
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