 Availability of out-of-school physical activity programs in communities around the US

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Presenter Disclosure

Christopher M. Quinn

The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:

No relationships to disclose
A collaborative effort to assess the impacts of policies, programs & other environmental factors on a variety of adolescent health-related behaviors

Focus in recent years on youth eating practices, physical activity, and weight outcomes

Policy and environmental data linked to the ongoing, National Institute on Drug Abuse-funded, Monitoring the Future (MTF) study
Ecological Model of Health Behavior

Recreation Environment
- Parks, trails, programs,
- Private rec. facilities,
- Community orgs,
- Sports-amateur, pro,
- Sedentary options

Background

Study Objectives

1. Obtain information on the availability of out-of-school physical activity (PA) programs
   - Municipal/town/county (e.g., Park and Recreation Department)
   - Private businesses or organizations (e.g., sports instruction studio)

2. Determine whether there are systematic differences in PA opportunities by community characteristics

3. Assess the relationship between program and facility availability and youth self-reported PA and sports participation

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Methods

• **Cross-sectional Design**
  - Nationally representative

• **Community Sample**
  - Second year sample of public schools from Monitoring the Future (MTF), 2010 and 2011
  - Community defined as index school enrollment zone

• **Program Data**
  - PA business data from Dunn & Bradstreet and InfoUSA using 27 SIC codes
  - Local Park & Recreation Department or jurisdiction contacted
  - Conducted telephone survey with relevant businesses and jurisdictions

• **Youth Data**
  - MTF student surveys from 2010-2011
    - 8th, 10th, and 12th graders in public schools

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Methods

Measures

Telephone Surveys

• Questionnaire developed pertaining to availability of programs (instruction, classes or leagues) for youth ages 9, 13, 15, and 17

• Discounts

• Facilities and cooperative agreements (Park & Recreation survey only)

MTF Surveys

• PA questions include frequency of vigorous exercise and sports participation

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# Results

Sample n and response rates

<table>
<thead>
<tr>
<th>Year</th>
<th>Park &amp; Recreation Survey</th>
<th>Instructional School Survey&lt;sup&gt;a&lt;/sup&gt;</th>
<th>MTF Student Sample&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>154 (82%)</td>
<td>359 (52%)</td>
<td>20,479</td>
</tr>
<tr>
<td>2011</td>
<td>156 (92%)</td>
<td>NA</td>
<td>20,736</td>
</tr>
<tr>
<td>Total</td>
<td>310</td>
<td>359</td>
<td>41,215</td>
</tr>
</tbody>
</table>

<sup>a</sup> Data across 143 communities available for 2010

<sup>b</sup> PA questions vary by survey form, so response samples are smaller

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Results

Physical Activity Opportunities by Urbanization

- Community Recreation Facility: 33.0% (Rural), 64.9% (Suburban), 92.3% (Urban)
- "Park & Rec" PA Program (13 to 17 year olds): 37.6% (Rural), 68.6% (Suburban), 88.5% (Urban)
- Private Instructional Class/Program (13-17 year olds): 20.9% (Rural), 82.5% (Suburban), 89.1% (Urban)

*p < 0.0001
Results

Physical Activity Opportunities by Median Household Income

<table>
<thead>
<tr>
<th>Activity Type</th>
<th>Lowest Third</th>
<th>Middle Third</th>
<th>Highest Third</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community Recreation Facilities</td>
<td>51.2%</td>
<td>54.5%</td>
<td>66.1%</td>
</tr>
<tr>
<td>&quot;Park &amp; Rec&quot; PA Program (13 to 17 year olds)</td>
<td>50.4%</td>
<td>52.2%</td>
<td>74.2%</td>
</tr>
<tr>
<td>Private Instruction Class/Program (13-17 year olds)</td>
<td>31.0%</td>
<td>48.3%</td>
<td>89.7%</td>
</tr>
</tbody>
</table>

† p<0.01
* p<0.0001
Results

Public vs. Private Physical Activity Opportunities, 2010

Urbanization

- No Programs
- Private Instructional Program Only
- "Park & Rec" Program Only
- Private Instructional Program and "Park & Rec" Program
Results

Public vs. Private Physical Activity Opportunities, 2010

![Bar chart showing public vs. private physical activity opportunities by income level in 2010.](chart.png)

- **Highest Third**:
  - No Programs
  - Private Instructional Program Only
  - ”Park & Rec” Program Only
  - Private Instructional Program and ”Park & Rec” Program

- **Middle Third**:
  - No Programs
  - Private Instructional Program Only
  - ”Park & Rec” Program Only
  - Private Instructional Program and ”Park & Rec” Program

- **Lowest Third**:
  - No Programs
  - Private Instructional Program Only
  - ”Park & Rec” Program Only
  - Private Instructional Program and ”Park & Rec” Program
Results

Park and Recreation Survey - Cooperative Agreements (2011)

• “In Agreements”
  • Outside group utilizes municipal/town/county facilities for PA programs
  • Most common in urban communities (90.8%), compared to suburban (79.6%) and rural (50.3%) areas, \( p = 0.0121 \)

• “Out Agreements”
  • Partnership with outside entity to run Community PA programs at non-Park & Rec location (e.g., local business, school)

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Results

Youth Physical Activity Measures

“How often do you do actively participate in sports, athletics or exercising?”

Self-Reported Physical Sports Participation of Students in Communities With or Without Park and Recreation Programs, 2010 and 2011 (n=27,274)

No Park & Recreation Programs Available

- Never: 8.2%
- A few times a year: 8.6%
- 1-2 times per month: 8.7%
- At least once per week: 20.2%
- Almost every day: 54.3%

Park & Recreation Program Available

- Never: 8.8%
- A few times a year: 10.0%
- 1-2 times per month: 8.9%
- At least once per week: 21.4%
- Almost every day: 50.9%
Results

Youth Physical Activity Measures

“How often do you do actively participate in sports, athletics or exercising?”

Self-Reported Physical Sports Participation of Students in Communities With or Without Private PA Instruction Programs/Classes, 2010 (n=15,248)

- **Never**: 52.4%
- **A few times a year**: 18.0%
- **1-2 times per month**: 8.5%
- **At least once per week**: 9.1%
- **Almost every day**: 9.4%

**No Private PA Instruction Programs**

- **Never**: 52.4%
- **A few times a year**: 11.6%
- **1-2 times per month**: 9.4%
- **At least once per week**: 9.1%
- **Almost every day**: 8.5%

**Private PA Instruction Programs Available**

- **Never**: 51.0%
- **A few times a year**: 11.6%
- **1-2 times per month**: 9.4%
- **At least once per week**: 8.5%
- **Almost every day**: 22.0%
Discussion

• Significant disparities exist in formal PA program opportunities and public community recreation facilities by urbanization and PA programs by household income

• Cooperative agreements with local organizations, businesses, and schools are common and allow for more extensive PA program options

• Our preliminary analyses suggest that private PA programs are associated with a very modest but statistically significant increase in weekly sports participation, but a decrease in daily participation
  • Maintained when adjusting for gender, race/ethnicity, hours spent on homework, employment, parental education, urban locale, and income
Discussion and Conclusions

Limitations

• Unmeasured confounding – Physical education and interscholastic athletic program participation
• Self-reported PA and sports participation subject to recall bias
• Cross-sectional design

Future Research

• Include private instruction program survey data from 2011
• Additional multivariable analyses
  • Incorporate PE and school-based athletics
  • Stratified analyses by urbanization and gender
• Specific PA program offerings by activity and sports participation by activity type
• Compare community cooperative agreements with school district joint use policies

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Thank you!

Find out more at bridgingthegapresearch.org

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