Question

Who pays for physical education in your schools?

a. Our state
b. School district/s
c. The PTA
d. A combination of the above
e. Other; please specify in Q&A
f. Frankly, I don’t know
School-district Compliance with PE policy and children’s fitness in California elementary schools

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Overview

• Research
• Translational research
• Implications/recommendations
• Materials for advocates, policy and decision makers
• Dissemination
Focus on physical education policies in schools

- Improve physical activity levels
- Enhance physical fitness
- Strengthen academic performance
Current CA policy

- Elementary schools are required to provide:
  - At least 200 minutes of physical education every 10 days
- Since 2002, CA Dept. of Education (CDE) required to monitor compliance with physical education policy
Compliance at the school and district levels

- Critical for success of physical education policies
- Not well studied
Question

Does your state, district, or school collect compliance data on physical education?

a. Yes  
b. No  
c. I think so.  
d. I have no idea!
Research question

- Is school district compliance with state physical education policies associated with physical fitness among fifth-grade public-school students in California?
Methods

Additional details on study methods have been published previously
Sanchez-Vaznaugh et al 2012 AJMP
http://www.ajpmonline.org/article/S0749-3797%2812%2900052-9/abstract
Data Sources

- Students: FITNESSGRAM
- Schools
- School District
- PE Policy Compliance
- 2000 U.S. Census

Analytical Dataset ~90,000 observations
Results
Descriptive findings

- 28 (50%) of 55 districts were reported to be in compliance with PE policies
  - 216 (21%) of 1,028 schools in dataset
  - 16,571 (18%) of 91,236 fifth-grade students

**Overall, 82% of fifth-graders in the data attended schools in non-compliant districts.**
Schools differed according to district compliance with PE policies

<table>
<thead>
<tr>
<th>School level characteristics</th>
<th>Overall</th>
<th>Yes</th>
<th>No</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median household income of census tract residents</td>
<td>$40,130</td>
<td>$41,435</td>
<td>$39,883</td>
<td>0.005</td>
</tr>
<tr>
<td>% of census tract residents who are college graduates</td>
<td>15.1</td>
<td>11.4</td>
<td>16.4</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Racial/ethnic diversity of enrolled students</td>
<td>56.5</td>
<td>59.0</td>
<td>55.7</td>
<td>0.008</td>
</tr>
<tr>
<td>% of enrolled students w/ free or reduced price meals</td>
<td>75.9</td>
<td>70.6</td>
<td>77.9</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Median number of enrolled students</td>
<td>626</td>
<td>626</td>
<td>626</td>
<td>0.001</td>
</tr>
</tbody>
</table>
Compliance with PE policy

greater odds of physical fitness

<table>
<thead>
<tr>
<th></th>
<th>% Fit/above standard</th>
<th>Crude OR</th>
<th>Adjusted OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Overall</strong></td>
<td>57.8</td>
<td>1.26</td>
<td>1.29</td>
<td>1.03</td>
</tr>
<tr>
<td><strong>By Race/ethnicity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Whites</td>
<td>65.9</td>
<td>1.17</td>
<td>1.35</td>
<td>1.01</td>
</tr>
<tr>
<td>Hispanics/Latinos</td>
<td>55.9</td>
<td>1.34</td>
<td>1.38</td>
<td>1.07</td>
</tr>
<tr>
<td>Blacks</td>
<td>52.1</td>
<td>1.12</td>
<td>1.40</td>
<td>0.83</td>
</tr>
<tr>
<td>Asians</td>
<td>66.6</td>
<td>1.52</td>
<td>1.43</td>
<td>0.67</td>
</tr>
</tbody>
</table>
Summary and discussion

- In this data of 91,236 5th-graders in public elementary schools in 55 compliance-monitored CA districts
  - Students in policy-compliant districts were significantly more likely to be classified as physically fit
- Only a few population-based studies have focused on links between compliance with PE policies and physical fitness
  - Findings here add evidence about impact on younger students
Discussion

- Population-level approaches, including policy mandates for school PE, may contribute to overall improvements and reduce disparities in children’s physical activity and fitness levels, but...
  
  - *Success will likely depend on adequate funding to ensure full implementation of policies and monitoring of compliance in every school.*
Recommendations

- Recognize physical education as a pathway to academic achievement.
- Ensure that all schools comply with the state’s physical education laws.
Recommendations

- **Fully fund** physical education in all schools.
- Require that data be collected and made publicly available for health, education and policy research.
Research translation
When School Districts Fail to Comply With State Physical Education Laws, the Fitness of California’s Children Lags

Based on research published in the American Journal of Preventive Medicine, 2012
When School Districts Fail to Comply With State Physical Education Laws, the Fitness of California’s Children Lags.

Figure 1. Proportion of California fifth-grade students by school district compliance with state physical education mandates

Far too many children went to schools in districts that did not comply with state’s PE mandates.

Latino and African-American 5th graders more likely than their White counterparts to attend schools in non-compliant districts.
Dissemination
Dissemination

- Researchers and practitioners in Public Health and Education arenas
- Policy makers at state and local levels
  - California State Board of Education
  - California Public School Accountability Act Committee
  - Education Committees in California Senate and Assembly
Dissemination

- San Francisco Supervisors – leading soda tax legislation
- Proposes that part of the revenues are to be used to pay for physical education in SF schools
- Ballot initiative in November this year!
When School Districts Fail to Comply With State Physical Education Laws, the Fitness of California’s Children Lags.


- Or contact Emma Sanchez-Vaznaugh, ScD, MPH, (emmav@sfsu.edu) Associate Professor, San Francisco State University, Department of Health Education
Educating the Student Body: Taking Physical Activity and Physical Education to School
Acknowledgements

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☐ Brad Strong, Children Now
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- Salud America! Research Network to Prevent Obesity among Latino Children
THANK YOU!
Limitations

- Cross-sectional data
- Limited scope of the sample
- Lack of data on potentially important school- and individual-level characteristics
  - Actual provision of the minimum required PE time?
  - Quality of PE?
  - Availability of recreational opportunities and other sports or afterschool programs?
  - Other student differences related to physical fitness?
Whole of School Approach

Recommendation 1

At least 60 minutes/day of MVPA at school

- At least half (30 min) during regular school hours
  - Quality PE for 30 minutes/day (elementary schools) and 45 minutes per day (secondary)
    - At least half of which is MVPA
  - Additional MVPA to include recess, dedicated classroom PA, etc.

- Additional opportunities before and after school
  - Active transport
  - Before- and after-school programming
  - Intra and extramural sports, etc.
  - Accessible to all students