



RESEARCH TO IMPROVE PHYSICAL EDUCATION IN SAN FRANCISCO PUBLIC SCHOOLS

PARTICIPATORY ACTION

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EVIDENCE-BASED RECOMMENDATION

60 minutes of **MVPA** during school

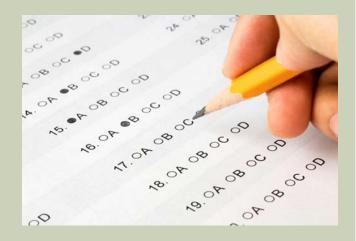
US Department of Health and Human Services, 1996; Institute of Medicine, 2013

WHY PE

PE is the most important public health tool to increase physical activity

PE just doesn't happen
 Particularly in elementary schools





Madsen et al, Arch Ped Adol Med, 2009; Institute of Medicine, 2013; Trudeau, Sports Medicine, 2005

PE LAWS AND RECOMMENDATIONS

California - 200 minutes/10 days (elementary schools)

Nationally = 300 minutes/10 days

Students spend 50% of PE class time in

MVPA



CA State Board of Education Policy #99-03, Ed Code Section 51210, june 1999; Institute of Medicine, 2013

WHY PARTICIPATORY ACTION RESEARCH

- Focuses on research to enable action
- Power deliberately shared between the researcher and the researched
- Those being researched are actively involved in the research process



Baum et al, J Epidemiol Community Health, 2006

GOALS

Immediate

To gather data on the state of PE in San Francisco schools, with a focus on elementary schools

Long term

- To improve PE in San Francisco
- Ultimate
 - To improve student health



SAN FRANCISCO UNIFIED SCHOOL DISTRICT

- 56,000 students
- **88%** non-white
- 60% qualify for free or reduced price meals
- **72** elementary schools



STUDY METHODS, TIME 1 – SPRING 2011

- 20 elementary schools
- **Collected 5th grade teachers' PE schedules**
- Systematic observations of 5th grade PE classes using SOFIT
 - 2-3 teachers per school
 - N = 30 teachers
 - **3 PE classes per teacher**
 - N = 91 PE class observations



Rowe et al, Pediatric Exercise Science, 1997; Scruggs et al, Med Sci Sports Ex, 2003, McKenzie et al, J of Teaching in Phys Ed, 1991

PRIMARY RESULTS - TIME 1 (2011)

- Only 20% of schools met the state PE minute mandate of 200 minutes of PE/10 days, based on teachers' schedules
- **71** scheduled minutes of PE/week
- **56 observed minutes of PE/week**
- **54% of class time in MVPA**
- Average of 7 minutes of MVPA/day from PE

WHAT WE DID NEXT

Presented our results to the district

- The Board of Education
- District administrators
- Principals
- Teachers

Publically disclosed data

- Newspaper articles
- TV news spots
- Radio





Study finds elementary school students not getting enough in-school exercise

COMMENT (2)

🏺 FAVORITE 🛛 🔄 VOTE (0)



SAN FRANCISCO — Getting good grades may be influenced by more than just focusing on academics, as several reports have noted that physical education programs in schools can boost academic performance.

Physical activity has also been linked to improved selfconfidence, self-esteem and memory performance. However, in San Francisco, a

SFUSD CHANGES FOLLOWING PUBLIC DISCLOSURE

Funding for PE specialists increased 25% from 2010-11 to 2011-12.



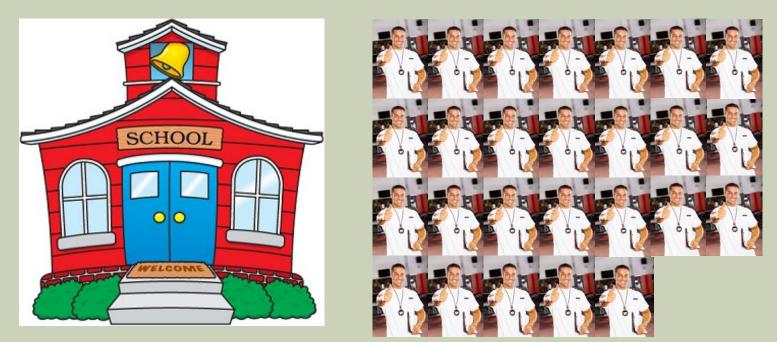


72 Elementary Schools

19 PE Specialists

SFUSD CHANGES FOLLOWING PUBLIC DISCLOSURE

Funding for PE specialists increased 78% from 2010-11 to 2012-13.



But did this impact PE quantity?

STUDY METHODS, TIME 2 – SPRING 2013

- 20 elementary schools from Time 1
- Systematic observations of 5th grade PE classes using SOFIT
 - N = 34 teachers
 - N = 101 PE class observations
- Key stakeholder interviews



DATA ANALYSIS

Linear mixed effects models

Account for clustering by school and teacher

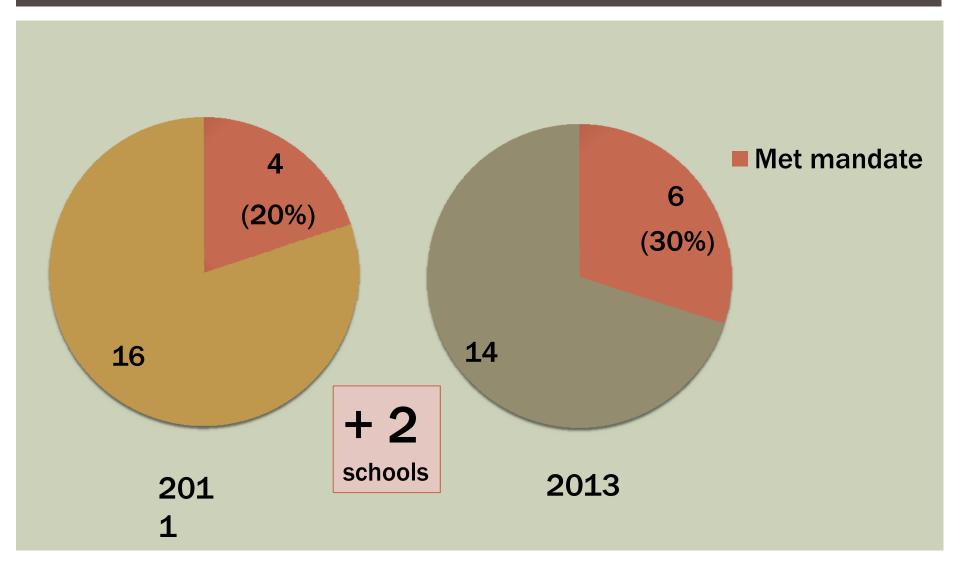


RESULTS

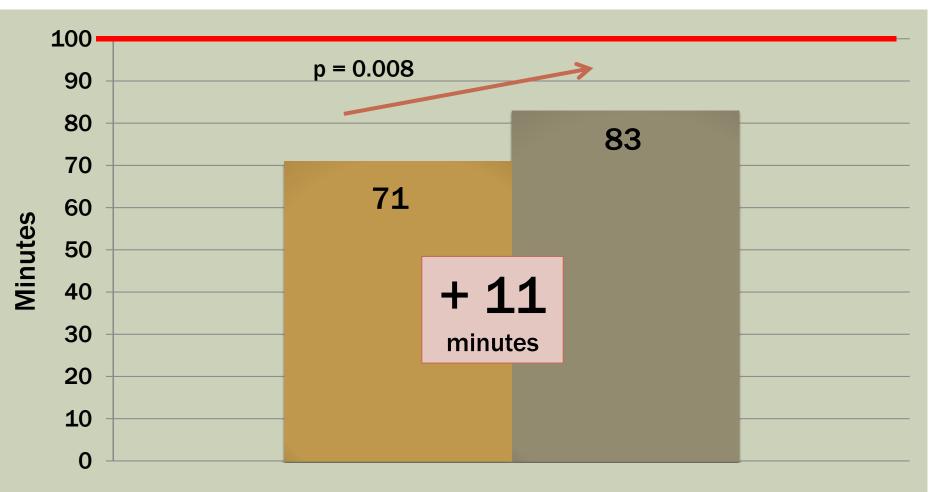
Changes from 2011 (Time 1) to 2013 (Time 2)



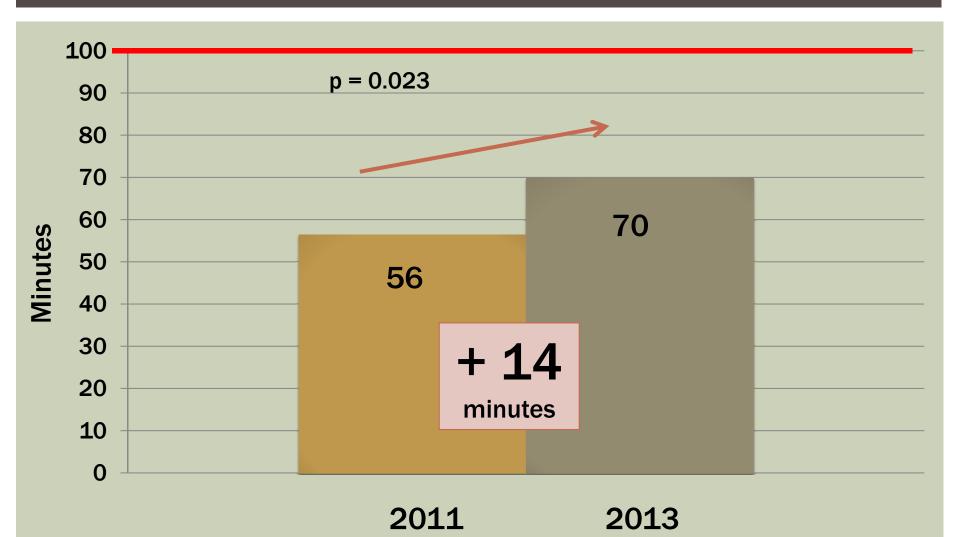
SCHOOLS MEETING PE MANDATE (BASED ON TEACHERS' SCHEDULES)



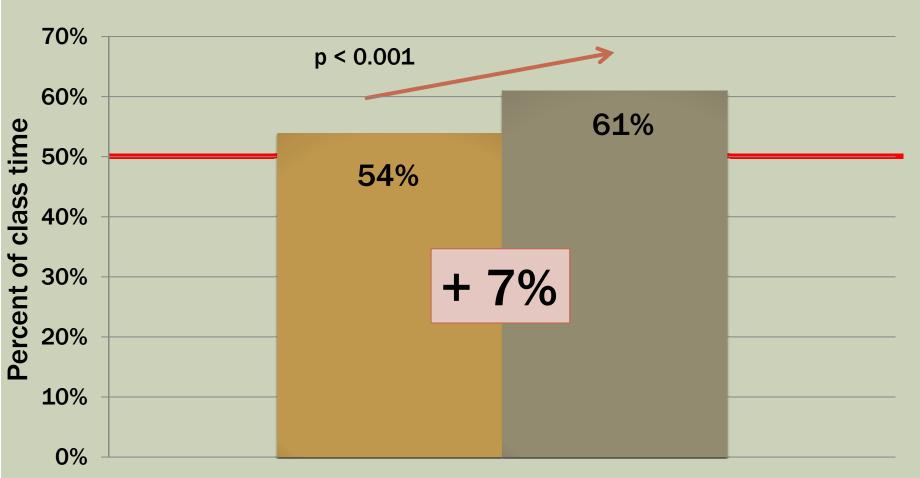
SCHEDULED MINUTES OF PE/WEEK



OBSERVED MINUTES OF PE/WEEK



% OF CLASS TIME IN MVPA

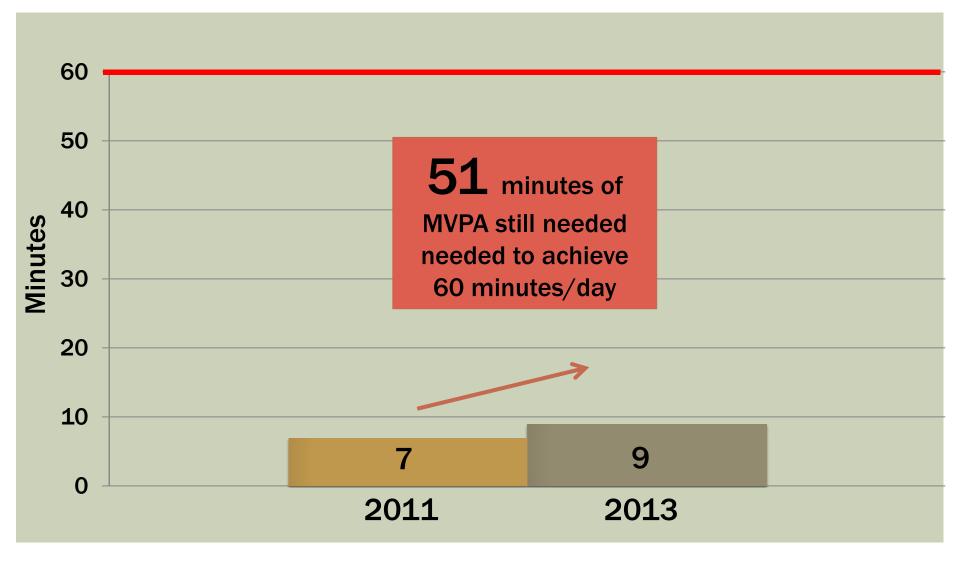


WHAT STAKEHOLDERS SAID

- "PE's now got a place at the table, so to speak, in terms of what's valued in terms of use of time." – District Partner
- "Having hard numbers and shining a really public light on it was really critical to the district paying more attention to PE." – District Partner



ESTIMATED DAILY MINUTES OF MVPA FROM PE



LIMITATIONS

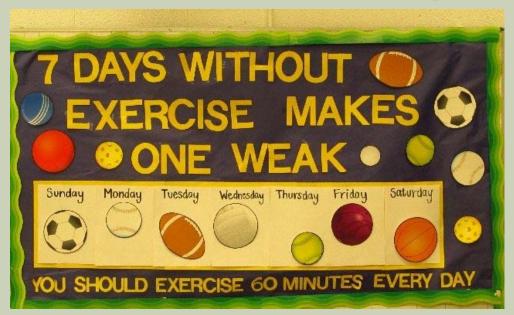
Drawing causal inferenceGeneralizability





CONCLUSIONS

Positive changes Still far from meeting PE mandates Methods to increase compliance



THANK YOU

SFUSD

- Michelle Zapata
- Desirae Feria
- Debbie Vasquez
- Gloria Sagastume
- Brent Stephens
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- Shape Up SF
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- Robin Haguewood, MPH
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