

### STUDY GOAL, DESIGN AND METHODS

**Study Goal:** Examine the extent to which children who participate in the *Network for a Healthy California - Children's Power Play! Campaign* intervention improve:

- 1) Fruit and vegetable intake
- 2) Physical activity, and
- 3) Related psychosocial factors.



**Study Design:**

- Cluster randomized control trial
- ~3500 4<sup>th</sup> and 5<sup>th</sup> graders
- Four San Diego county school districts

**School Eligibility:**

- 1) 50% or more students qualified for free or reduced price lunch
- 2) Not in any federal nutrition intervention program
- 3) No characteristics that would make results ungeneralizable

**Statistical Power:** Sample size was selected to be able to detect a 1/3 cup difference in change in intake of fruits and vegetables (primary outcome) between control and intervention groups.

### STUDY TIMELINE



### RECRUITMENT STRATEGIES

**Schools and Students:**

- District approval obtained prior to asking principals to enroll.
- Each school received \$500; each teacher received a \$200 thank you.
- An opt out form and letter from the principal explaining the study was sent home to families.
- Staff read an assent to let students know participation was voluntary.

**Field Staff:**

- 32 field staff with backgrounds in nutrition participated in a four day training and certification.

### STUDY INSTRUMENTS

*(Completed at Baseline and Follow-up)*

- **24-Hour Diary Assisted Recall:** Students learned how to describe all foods and beverages consumed over a 24-hr period (type, brand name, portion size) during a Motivational Training Session. Students recorded intakes and brought the food diaries back to school for the recall, where a structured multiple pass method was used to elicit further details and verify portion estimates using 2- and 3-dimensional food models.

- **Student Survey:** A 40-minute survey included a modified version of the Self-Administered Physical Activity Checklist (SAPAC) and questions on nutrition and physical activity knowledge, attitudes and behaviors, and individual-level demographics.



- **Teacher Interview:** The 10 minute interview included questions about nutrition and physical activity education and practices in the classroom and school.

- **Environment Inventory Tool:** An observational tool was used to assess food and nutrition and physical activity variables related to the school environment.

- **Food Service Manager Interview:** Detailed nutrition information about the foods served at school (breakfast, lunch and snacks) on the day that students recorded in their diaries was provided by the district and school food service staff.

### STUDY STRENGTHS

- High student participation rate (84%).
- Only 5 classrooms did not complete study (4 because of school fire).
- Gold standard 24-hour recall used to assess dietary intake.
- Well trained field staff and positive rapport with school staff.
- Teachers conducted the intervention with high fidelity.

### STUDY LIMITATIONS

- 10 week intervention period was brief.
- Unable to control for all aspects of school or community environment that may impact results.
- Physical activity minutes were captured using self-report and appeared to be over-reported by students.
- All student data were self-report and thus could be impacted by social desirability bias.

### KEY RECOMMENDATIONS AND LESSONS LEARNED

Although schools have competing demands and obligations, many schools were willing to participate in this study. We attribute this success to the following practices:

- Ensuring that district approval is granted.
- Providing schools and teachers incentives.
- Using a passive consent process for students.
- Training field staff using a rigorous certification process.
- Maintaining positive communication with schools.
- Minimizing burdens on teachers and school staff.

### PROJECT INFORMATION

Funded by USDA SNAP, an equal opportunity provider and employer.  
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