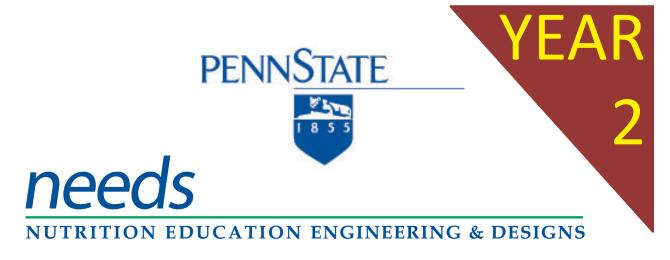


Fuel for Fun: Cooking with Kids Plus Parents and Play

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GOALS & OBJECTIVES

Long-term goals of Fuel for Fun (FFF), are to reduce the risk of childhood **obesity** by promoting healthful food and activity environments, policies, and behaviors through:

- 1. building and testing the efficacy of a 4th grade comprehensive school- and family-based intervention
- 2. applying it to an out-of-school setting
- 3. disseminating both versions through outreach efforts

Research Objectives (Years 1-3)

Accomplished

- 1. Conduct review of Cooking with Kids (CWK) curriculum and assessment tools for alignment with Colorado academic standards & tenets.
- 2. Revise CWK curriculum (CWK-CO) and research-derived assessment tools.
- 3. Develop a family-based companion **program** to *FFF* school intervention.

In Progress

- 4. Combine CWK-inspired school lunch recipes with a behavioral economics approach to improve student choices.
- 5. Implement school-based intervention: in 8 low-to-moderate-income schools for 2 years.
- 6. Test impact of FFF school-based intervention with and without Family FFF and online parent About Eating program against non-treatment groups.

Education Objectives (Years 1-5)

- 1. Develop, implement, and evaluate effective and sustainable FFF curriculum training sessions for 4th grade teachers, school foodservice staff, and SOPLAY and SPARK Active Recess training for students and community partners.
- 2. Provide evidence-based childhood obesity prevention training and research experiences to graduate and undergraduate nutrition/dietetics, exercise science, pre-service education and public health students.

Extension Objectives (Years 4-5)

- 1. Apply research-derived *FFF* products and processes to an out-of-school setting.
- 2. Provide Community Readiness training to Colorado communities.
- 3. Utilize Community Readiness strategies to identify school districts and communities **ready to adopt** the *FFF* school- or out-of-school program.
- 4. **Design, disseminate, and evaluate FFF** program and training resources for stakeholders at the local, state, and national levels.

Cooking with Kids Plus Parents And Play







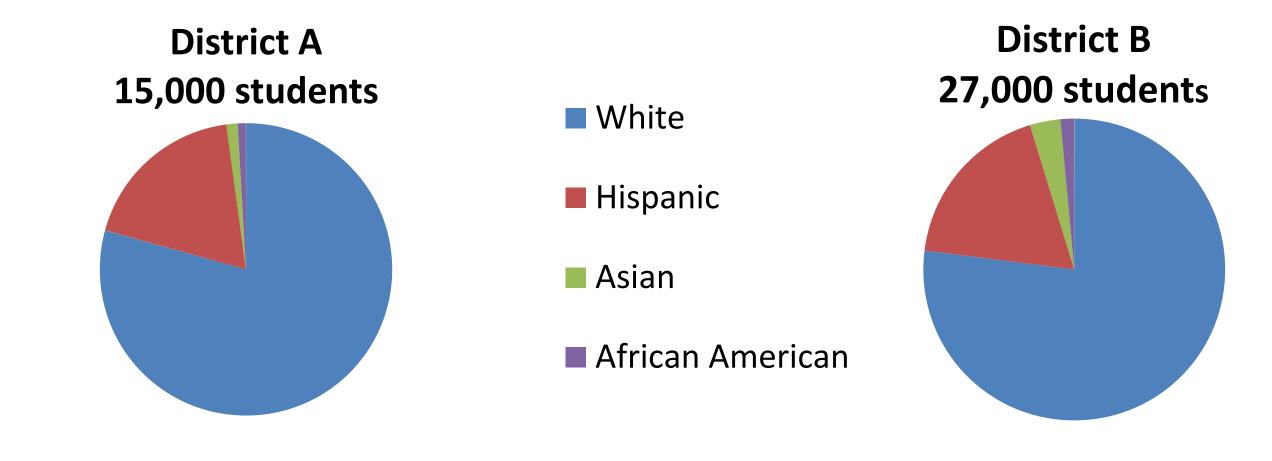


of Food and Agriculture

National Institute

PARTICIPANTS

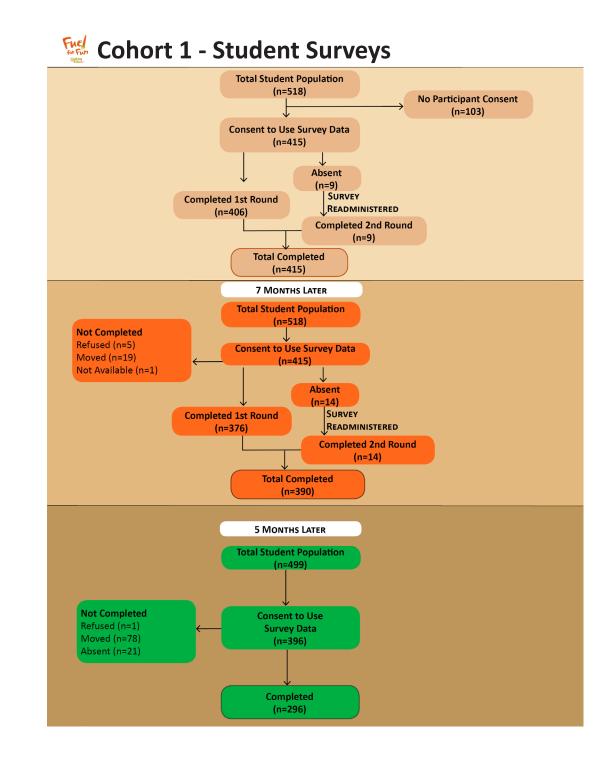
Eight schools (20-70%) of students eligible for free or reduce-priced school meals), four from each district. Approximately 440 4th and 440 5th grade students will participate each year.

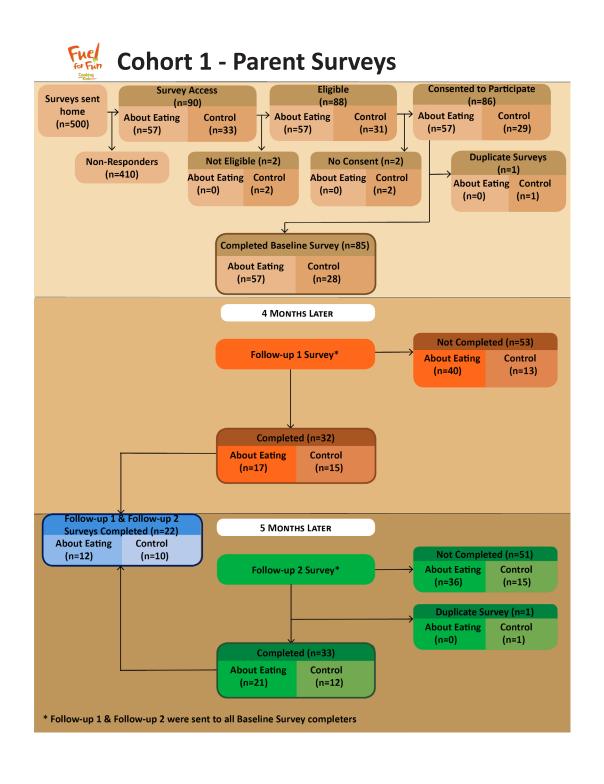


INTERVENTION COMPONENTS

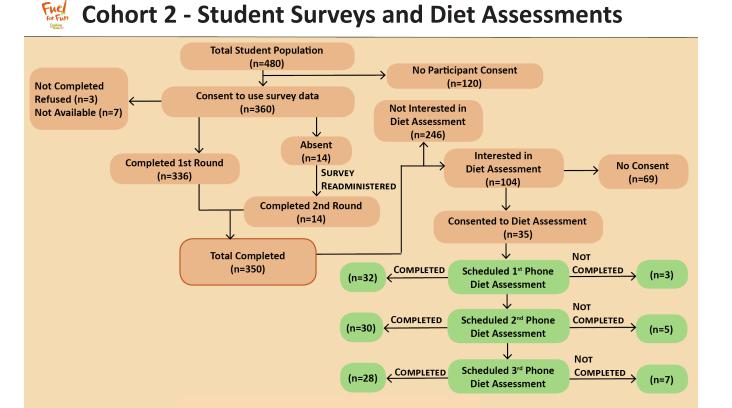
- 1. <u>CWK Colorado</u> hands-on cooking and tasting classroom lessons to enhance cooking skills and provide positive experiences with a wide variety of wholesome, healthy foods.
- 2. Sports, Play, and Active Recreation for Kids (SPARK) Active Recess program physical activity program designed to encourage maximum participation for every player, regardless of ability.
- 3. Fuel for Fun Cafeteria classroom lessons linked to healthful foods in the school cafeteria to encourage students to make more healthful choices.
- 4. Fuel for Fun Family program that engages parents and reinforces what students experience through the classroom, recess, and cafeteria components.
- 5. About Eating on-line healthy eating and activity resource for parents.

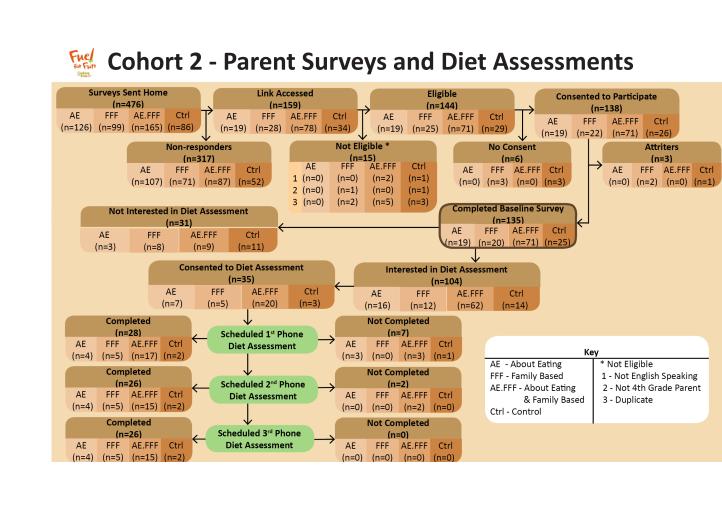
COHORT 1





COHORT 2





ACCOMPLISHMENTS

Data Collection and Analysis

- Average student participation rate of 73% for cohort 2 (C2, 80% for cohort 1 [C1]).
- 296 C1 students completed follow-up 2 (FU2) surveys and Ht/Wt (71% of cohort at baseline [BL]). 350 C2 students completed BL surveys and Ht/Wt.
- 85 C1 parents completed online BL survey, 32 at FU1, and 22 at FU2; 135 C2 parents completed BL survey.
- Enhanced research design with addition of dietary assessment. Goal to complete 9 24-hour recalls with 100 parent/child dyads over 1 year. 26 C2 student/parent pairs completed BL 24-hour recalls.
- Accelerometry data (ACC) gathered at 3 schools: 128 C1 students and 110 parents at BL, 118 and 97 at FU1, and 103 and 87 at FU2, respectively; 147 C2 students and 115 parents at BL.
- SOPLAY assessment of students' recess activity completed 12 times for each school.
- Plate waste assessed from 1,081 student lunch trays; 768 in fall 2013 and 313 in spring 2014.
- Process measures completed for all intervention components.
- All outcome data dual-entered, managed and analyzed in SPSS.
- 5 abstracts, based on analyses completed to date, accepted to professional conferences.
- Initial data included in 1 manuscript under review, other manuscripts in preparation.

Intervention Implementation

- Implemented 23 introductory, 92 tasting and 115 CWK-Colorado cooking lessons, representing 100% of project goal.
- Conducted SPARK during recess average of 4 days/week/school (100% of project goal).
- Implemented FFF cafeteria intervention: FV promotional signs, verbal prompts from staff, and staff clothing (chef coats and T-shirts).
- Implemented FFF family-based component in 4 schools (reaching 264 families). Elements included family nights, take-home action packs, and a weekly parent blog.
- Collected process and outcome data from parents participating in About Eating.

Education

- Conducted trainings for classroom teachers, school cafeteria staff, graduate student Food Educators, and undergraduate students on FFF program implementation.
- Enrolled 24 undergraduate Food Science and Human Nutrition students in FFF practicum, gained experience in implementation, evaluation, and data management.
- Trained 18 Health and Exercise undergraduate students to implement SPARK recess games and conduct SOPLAY observation.
- Completed 5 masters' student projects; 2 additional student projects to be completed.

Extension

- Began formative assessment for development of out-of-school/after-school version of FFF.
- 10+ interviews currently in process to determine considerations for best setting and format.
- Newsletter informational update to Advisory Committee.

LESSONS LEARNED

- Families are busy, committed to many activities. Increase focus on parent recruitment/engagement.
- Academic priorities make scheduling CWK-Colorado lessons, Family Nights, and data collection challenging. Build as much flexibility into research procedures as possible.
- Prioritize classroom lesson implementation to ensure most important activities are completed.
- Students are already active; impact of SPARK on recess activity levels could be low.
- Continuous communication and follow-up with school staff and administrators, students, parents and other program collaborators is critical to program success.
- During Year 2 we experienced 33%+ teacher and principal turnover, record flooding, changing school schedules, and the impact of standard tests on program implementation. Flexibility and adaptability are essential for implementing a multi-component program in 2 schools districts.

ACKNOWLEDGEMENTS

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