Parent engagement in *Fuel for Fun*

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Wegmans School of
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Scholars, students & citizens *walk the talk* to secure health for all

WSHN will:

Engineer effective health and nutrition education to be a *Reasonable Adventure* that is Feasible, Sustainable, Compelling, & Rewarding

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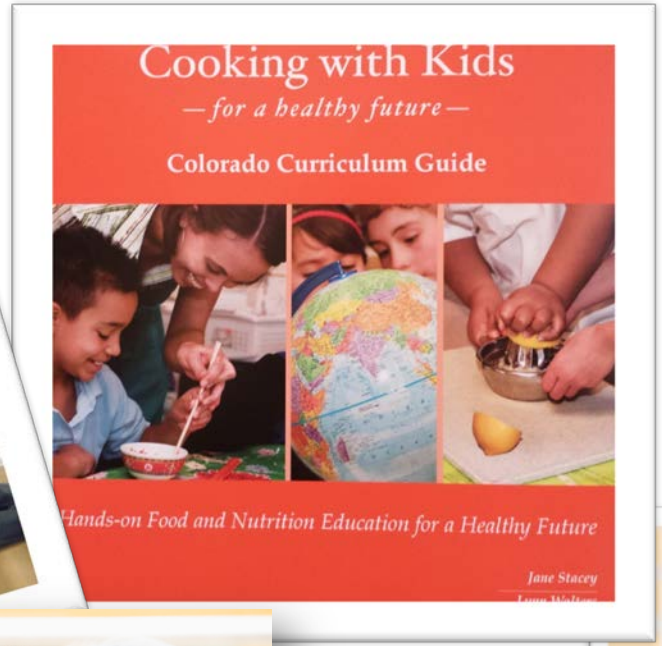
Students

Implementation in 8 schools in Fort Collins & Loveland, CO

Fuel for Fun

Cooking with Kids Plus Parents And Play



SPARK™

Fuel for Fun

Cooking with Kids Plus Parents And Play

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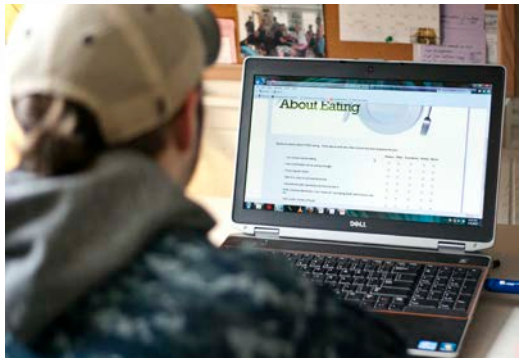
Implementation in 8 schools in Fort Collins & Loveland, CO

Action Packs

Family Fun Night



Parent treatments were randomly assigned to schools

Fuel for Fun In-School Components Only:

- Lincoln
- Beattie

Fuel for Fun In-School + About Eating:

BF Kitchen

Tavelli

Fuel for Fun In-School + Family:

Van Buren

Lopez

Fuel for Fun In-School + Family + About Eating:

Ponderosa

- Bennett

Options for Parents/Students

Accelerometry

Diet Assessmen

Research Design
Fall 4th Grade; Spring 4th Grade; Fall 5th Grade

Cohort	Treatment	Grade starting Fall 2016
Year 1 Fall 2012 – Fall 2013	Control	**8**
Year 2 Fall 2013 – Fall 2014	Intervention	**7**
Year 3 Fall 2014 – Fall 2015	Intervention	**6**
Year 4 Fall 2015 – Fall 2016	Control	**5**

Description of C1 – C3 Parents

- 85% female; 39.3 ± 5.8 y
- 93% white
- 7% HS or less; 28% some post HS training; 34% college degree
- 5% diabetes
- 17% SNAP; 21% WIC; 15% food pantry use
- 46% S,O,A worries about food $
- 30% uses ≥ 1 assistance program
- 59% confident to manage money for food
- 56% ≥ 7on stress scale [ranged from 1 (low) to 10 (high) stress]
- 51% eating competent
- 47% highly active on IPAQ
- 47% overweight/obese BMI

Online Survey: Baseline Participation

Cohort	Treatment	# Students	# Parents (%)
Year 1 Fall 2012	Control	413	85 (21%)
Year 2 Fall 2013	Intervention	349	135 (39%)
Year 3 Fall 2014	Intervention	374	116 (31%)
Year 4 Fall 2015	Control	261	106 (41%)

Online Survey: Spring (Follow-up 1)

Cohort	Treatment	# Students	# Parents (% BL)
Year 1 Spring 2013	Control	388	32 (38%)
Year 2 Spring 2014	Intervention	325	68 (50%)
Year 3 Spring 2015	Intervention	342	72 (62%)
Year 4 Spring 2016	Control	242	70 (66%)

Online Survey: Fall (Follow-up 2)

Cohort	Treatment	# Students	# Parents (% BL)
Year 1 Fall 2013	Control	294	33 (39%)
Year 2 Fall 2014	Intervention	287	73 (54%)
Year 3 Fall 2015	Intervention	317	66 (57%)
Year 4 Fall 2016	Control	?	?

SURVEY

Student Attrition: Baseline – FU 1	
Cohort 1	6%
Cohort 2	7%
Cohort 3	9%
Cohort 4	7%

Parent Attrition: Baseline – FU 1	
Cohort 1	62%
Cohort 2	50%
Cohort 3	38%
Cohort 4	34%

- Student attrition stable, parent attrition decreased each year; not related to treatment vs. control
- Our skills improved: Study promotion, Strategic emails, Reminders to open payment e-cards
- One school ramped up parent improvement for ALL school activities after a closure scare.
- Increased payment for Cohorts 3 and 4

SURVEY

Student Attrition: FU 1 – FU 2	
Cohort 1	24%
Cohort 2	12%
Cohort 3	7%
Cohort 4	0%

Parent Attrition: FU 1 – FU2	
Cohort 1	0%
Cohort 2	0%
Cohort 3	8%
Cohort 4	?

- Student attrition C1 and C2 related to family relocations.
- Our skills explaining the study and communicating with families improved.
- Several reminders about the survey and pre-survey reminders. Also reminders to open payment e-cards
- Lower parent attrition related to loyalty and belief in helping with health and nutrition education.

SURVEY

Student Attrition: BL – FU 2	
Cohort 1	29%
Cohort 2	18%
Cohort 3	15%
Cohort 4	?

Parent Attrition: BL – FU2	
Cohort 1	61%
Cohort 2	46%
Cohort 3	43%
Cohort 4	?

- In 4th grade treatment groups receiving an intervention (not a control), expect student attrition of 15- 18%.
- Expect initial participation by 31 – 39% of parents/carers.
- Expect continued participation in follow-up surveys by about 40% of parents that started and nearly no attrition in later measures.

Accelerometry: Baseline Participation

Cohort	Treatment	# Students	# Parents
Year 1 Fall 2012	Control	112	99 (88%)
Year 2 Fall 2013	Intervention	130	110 (85%)
Year 3 Fall 2014	Intervention	123	103 (84%)
Year 4 Fall 2015	Control	104	89 (86%)

ACCELEROMETRY

Student Attrition: Baseline – FU 1	
Cohort 1	10%
Cohort 2	15%
Cohort 3	0%
Cohort 4	0%

Parent Attrition: Baseline – FU 1	
Cohort 1	20%
Cohort 2	20%
Cohort 3	0%
Cohort 4	8%

- Student attrition similar to survey; parent attrition much less than survey attrition; not related to treatment vs. control.
- Requires commitment to continue but isn't time consuming and is done as a team with the child.
- Novel-people of all activity levels are interested in their activity level.

ACCELEROMETRY

Student Attrition:	FU 1 – FU 2
Cohort 1	0%
Cohort 2	10%
Cohort 3	0%
Cohort 4	?

Parent Attrition:	FU 1 – FU2
Cohort 1	8%
Cohort 2	9%
Cohort 3	4%
Cohort 4	?

- Attrition from FU 1 to FU2 is very low; 10% or less
- Commitment is high; shows interest in change from spring to fall activity level.

ACCELEROMETRY

Student Attrition:	BL – FU 2
Cohort 1	2%
Cohort 2	24%
Cohort 3	0%
Cohort 4	?

Parent Attrition:	BL – FU2
Cohort 1	26%
Cohort 2	31%
Cohort 3	3%
Cohort 4	?

- Baseline to FU2 attrition quite variable; not related to treatment type.
- Cannot use survey attrition rates to predict accelerometry attrition rates.

Diet Assessment: Baseline Participation

Cohort	Treatment	Students	Parents	# Parent DA
Year 1 Fall 2012	Control	413	85	NA
Year 2 Fall 2013	Intervention	349	135	28 (21%)
Year 3 Fall 2014	Intervention	374	116	23 (20%)
Year 4 Fall 2015	Control	261	106	32 (30%)

Diet Assessment: Spring (Follow-up 1)

Cohort	Treatment	# Parents	% of BL Parent Diet Assess
Year 1 Spring 2013	Control	NA	NA
Year 2 Spring 2014	Intervention	15	54%
Year 3 Spring 2015	Intervention	13	57%
Year 4 Spring 2016	Control	21	66%

Diet Assessment: Fall (Follow-up 2)

Cohort	Treatment	# Parents	% of BL Parent Diet Assess
Year 1 Fall 2013	Control	NA	NA
Year 2 Fall 2014	Intervention	9	32%
Year 3 Fall 2015	Intervention	15	65%
Year 4 Fall 2016	Control	?	?

DIET ASSESSMENT

Student Attrition: Baseline – FU 1	
Cohort 1	NA
Cohort 2	44%
Cohort 3	50%
Cohort 4	18%

Parent Attrition: Baseline – FU 1	
Cohort 1	NA
Cohort 2	46%
Cohort 3	43%
Cohort 4	34%

- Increased communication with diet assessment center
- Increased payment for Cohort 4
  - From $45 ($10, $15, $20) to $60 ($15, $20, $25) each recall period

DIET ASSESSMENT

Student Attrition: FU 1 – FU 2	
Cohort 1	NA
Cohort 2	0%
Cohort 3	25%
Cohort 4	?

Parent Attrition: FU 1 – FU2	
Cohort 1	NA
Cohort 2	40%
Cohort 3	0%
Cohort 4	?

- Variability suggests multiple factors involved in retention.
- Communication vital: Clerical communication error inviting only FU1 parents to complete DA, rather than all Baseline DA parents was corrected for Cohorts 3 and 4.

DIET ASSESSMENT

Student Attrition: BL – FU 2

Cohort 1	NA
Cohort 2	44%
Cohort 3	50%
Cohort 4	?

Parent Attrition: BL – FU2

Cohort 1	NA
Cohort 2	68%
Cohort 3	35%
Cohort 4	?

- Retention for diet assessment is challenging
- Suggests importance of significant and valued incentives

C1 & C2 baseline values of who continued compared with those who started.

- 86% female; 39.5 ± 5.9 y
- 91% white
- 6% HS or less; 29% some post HS training; 31% college degree
- 5% diabetes
- 17% SNAP; 21% WIC; 15% food pantry use
- 38% S,O,A worries about food $

- 90% female; 38.9 ± 5.8 y
- 94% white
- 4% HS or less; 28% some post HS training; 31% college degree
- 3% diabetes
- 16% SNAP; 19% WIC; 15% food pantry use
- 35% S,O,A worries about food $

C1 & C2 baseline values of who continued compared with those who started.

- 30% use ≥ 1 assistance program
- 59% confident to manage money for food
- 57% ≥ 7on stress scale [ranged from 1 (low) to 10 (high) stress]
- 54% eating competent
- 46% highly active on IPAQ
- 46% overweight/obese BMI

- 34% use ≥ 1 assistance program
- 62% confident to manage money for food
- 57% ≥ 7on stress scale [ranged from 1 (low) to 10 (high) stress]
- 58% eating competent
- 47% highly active on IPAQ
- 45% overweight/obese BMI

No significant differences between those who did ONLY the baseline and those who participated at ALL 3 time points for baseline measures of:

- Amount of stress
- Eating competence score
- Body mass index
- Amount of worry about $ for food
- Age

- Home fruit/vegetable availability
- Self-efficacy for preparing and serving fruits and vegetables
- Modeling healthful eating behaviors

No significant differences at baseline between those who did ONLY the baseline and those who participated at ALL 3 time points for:

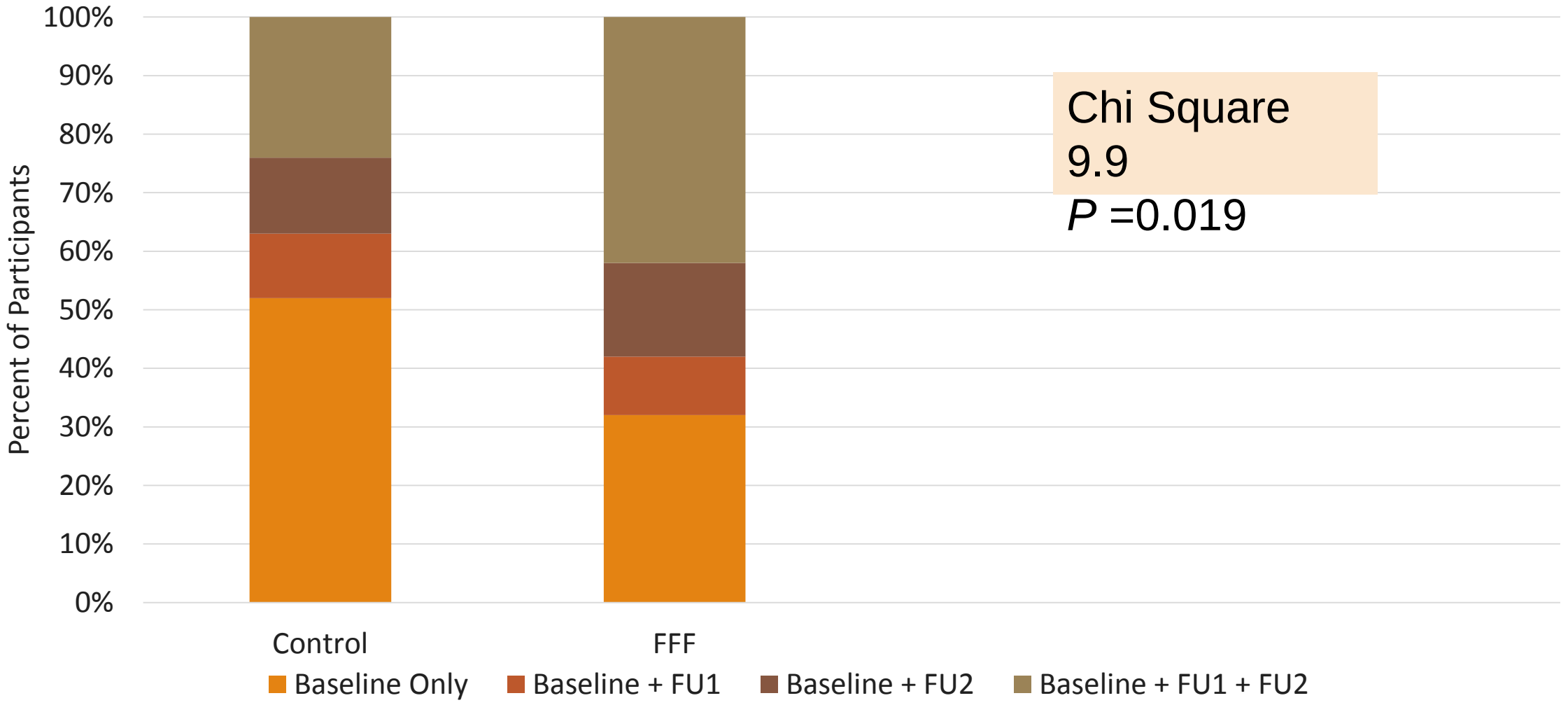
- SNAP use
- WIC use
- Food Pantry use
- Assistance program use
- IPAQ PA level

Males tended to leave the study more than females (*P* = 0.07)
ONLY Baseline: 82% female
Completed ALL: 92% female

The educational level of those only completing the baseline included more with a high school education or less and fewer with a post-graduate education than the sample of full completers (*P*= 0.97).

ONLY Baseline: 11% HS or less; 27% post-graduate
Completed ALL: 3% HS or less; 36% post-graduate

Amount of Participation by Cohorts 1 and 2



Chi Square
9.9
P =0.019

Cohort differences between baseline only vs. full participation

With 2 exceptions the relationships between baseline only and full participation respondents were similar for both control (cohort 1) and intervention (cohort 2) participants. Unlike cohort 2:

- more cohort 1 baseline only participants tended to be highly active than those who completed all 3 measurements (54% vs. 30%); fewer baseline only were moderately active (16% vs. 40%), (P =0.088)
- cohort 1 baseline only tended to have more males than those completing all 3 measurements (14% vs. 0%), (P=0.08).

Questions?

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