



Successful Evaluation Strategies: California

Sharon Sugerman, MS, RD, FADA

•Cancer Prevention and Nutrition Section;
California Department of Public Health

February 21, 2008

Network for a Healthy California: A Powerful Infrastructure to Reduce Chronic Disease Risk

138 projects, 11 regions

The *Network* “pillars”

↑ Fruit and Vegetable Consumption

↑ Physical Activity

↓ Food Insecurity

↓ Chronic Disease

Employs a comprehensive social marketing approach, framed around the social-ecological model





Network for a Healthy California: Statewide Interventions

- › 3 targeted population campaigns:
 - Children’s Power Play! Campaign – 11 Regions
 - Latino Campaign – 9 Regions
 - African-American Campaign – 6 Regions
- Retail and Worksite programs carry intervention further into the community
- 11 Regional Collaboratives –combine area resources to bring about positive change
- Providing FSNE in multiple channels, multiple methods
- ~10,000 eligible sites – low- resource schools and pre-schools, food closets/pantries/banks, community clinics, low-income housing sites, grocery stores, worksites, festivals, health fairs, etc.
- **Champions for Change** multi-media campaign





Champion Moms TV, Radio, Outdoor, Direct Mail, Consumer Web



**My kitchen.
My rules.**

Rule #1:
Eat more fruits
and vegetables.



**CHAMPIONS
for CHANGE**
Network for a Healthy California

For tips on obesity prevention or Food Stamp information, call 1-888-328-3483. A message from the California Department of Health Services. Funded by the U.S. Department of Agriculture's Food Stamp Program.



**My television.
My rules.**

Rule #2:
Turn it off and
go out and play.



**CHAMPIONS
for CHANGE**
Network for a Healthy California

For tips on obesity prevention or Food Stamp information, call 1-888-328-3483. A message from the California Department of Health Services. Funded by the U.S. Department of Agriculture's Food Stamp Program.

Empowering, Champions, Change Agents



**Our neighborhood.
Our rules.**

Rule #3:
We speak up for
healthy changes.



**CHAMPIONS
for CHANGE**
Network for a Healthy California

For tips on obesity prevention or Food Stamp information, call 1-888-328-3483. A message from the California Department of Health Services. Funded by the U.S. Department of Agriculture's Food Stamp Program.



Fruits & Vegetable School-Based Education – Cafeteria and Classroom



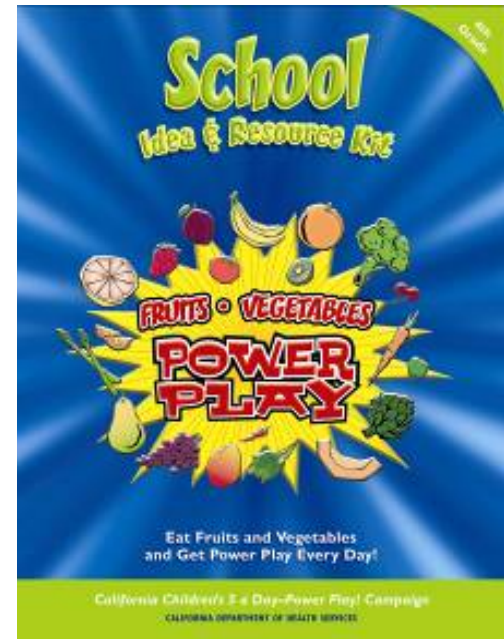
Harvest
of the
Month





Power Play! School Idea & Resource Kits

- 4th & 5th grade versions
- 10 F/V and PA activities
- Based on 2005 Dietary Guidelines for Americans
- Linked to California Content Standards
- Student handouts in both English and Spanish and student workbooks in English
- **Impact evaluation study conducted**





Harvest of the Month

Core Elements

- Educator newsletters
- Menu slicks
- Family newsletters
- Press release templates
- Poster *(must be ordered)*
- Strategies
- Resources
- **Major process evaluation and individual school impact evaluation projects conducted**





Network Approaches to Evaluation

- Surveillance – statewide population-based surveys, internal & external
- Process evaluation/activity tracking – Semi-Annual Activity Reporting (SAAR), Regional Network SAAR
- Formative – New project development & feedback
- Impact/outcome evaluation to evaluate and improve the operation of a given local project intervention
- Impact/outcome evaluation to rigorously test a social marketing campaign controlled intervention developed by the State
- Media/Communications strategy evaluation – Benchmark
- Case Studies – Non-profit LIAs, Regional Nutrition Networks
- Special Tools to enable evaluation – GIS and CX³ (Communities of Excellence); Compendium of validated tools; Food Behavior Checklist; Fruit and Vegetable Checklist
- Support of external research projects
- Technical assistance to awardees and collaboratives who request help in evaluating their projects



Evaluation of CPNS Projects: Key Behavioral Outcomes

- **Fruit and vegetable consumption and determinants in adults and children/youth, ages 9 and older, to recommended levels**
- Daily physical activity and determinants to at least 30 minutes in adults and 60 minutes in children and youth
- Access to and utilization of appropriate food assistance programs, especially Food Stamps





Surveillance research data CPNS surveys are used to:

...biennially monitor the current dietary and physical activity practices, and related habits, attitudes, and beliefs of Californians

- ***California Dietary Practices Survey***

- ***CDPS*** **Adults \geq 18 years**

- ***California Teen Eating, Exercise, and Nutrition Survey***

- ***CalTEENS*** **Teens age 12 – 17 years**

- ***California Children's Healthy Eating and Exercise Practices Survey***

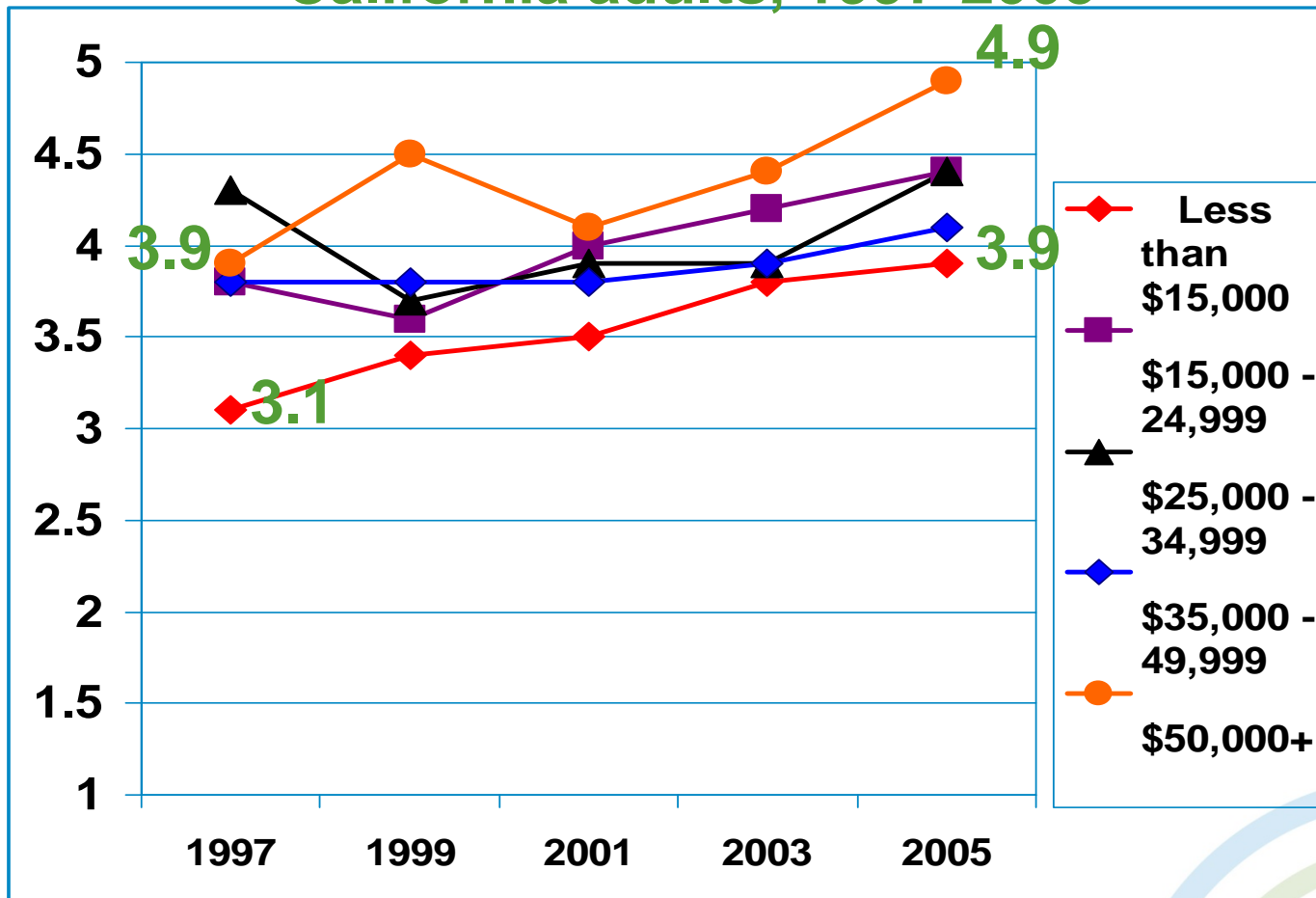
- ***CalCHEEPS*** **Children age 9 – 11 years**



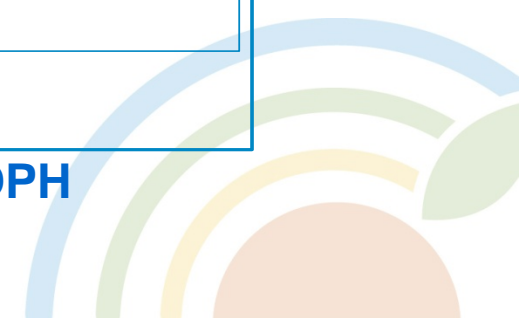


Surveillance – The challenge--and need--for funding the comparison group

Change in mean fruit and vegetable consumption, California adults, 1997-2005



Source: California Dietary Practices Survey, CPNS, CDPH – Network-planned; full control of questions



Surveillance – Maximizing external resources - BRFSS

INCOM01 (CDC-CORE)

INCOME.C.

Which of the following categories best describes your annual household income from all sources? Less than \$10,000; \$10,000 to less than \$15,000; \$15,000 to less than \$20,000; \$20,000 to less than \$25,000; \$25,000 to less than \$35,000; \$35,000 to less than \$50,000; \$50,000 to less than \$75,000; \$75,000 to \$100,000 or over \$100,000?

Nationally, data is analyzed by these income groupings



Surveillance – Maximizing external resources - BRFSS

THRESHO2 - Is your annual household income above _____ (table look up for income and household size)? (Income threshold is used for statistical purposes.) 2007 FPL HH1 = 9,800; 19,600; 29,400 for 100, 200, and 300% FPL

So, if someone from a one-person household answers “less than \$10,000,” to the prior question about your annual HH income, the next question, is it above \$9,800 lets them be categorized as above or below 100% FPL

We worked with our state BRFSS administrators to build the threshold cut-points for 130% and 185% FPL into this question and added “use of FSP past 12 months” question to BRFSS



Process Evaluation

CNN process evaluation:

- Includes activity tracking that encompasses the nine social marketing tools *Network* emphasizes
- Allows for the merging of similar information from a large variety of programs
- Helps programs and regions to measure their own progress



Semi-Annual Activity Report (SAAR and RN SAAR)

- Program information
- Summary of program activities
- Materials distributed
- Partnership development
- Formative research and planning



Social Marketing Activities as Reported by the Local and Regional Semi-Annual Activity Report

All Local Contractors California Statewide Reach of Sales Promotions Activities for Federal Fiscal Year 07 (Page 1 of 2)						
Reporting Period	October 1 - March 31		April 1 - September 30		Year Totals	
Activity	Number of Events / Activities	Number of Participants (Consumer Impressions)	Number of Events / Activities	Number of Participant s (Consumer Impression s)	Total Number of Events / Activities	Total Consumer Impressions
LOCAL CONTRACTS	124		133			
Grocery Stores						
# taste tests at grocery stores	61	7,305	37	20,660	98	27,965
# grocery store tours	35	860	57	1,316	92	2,176
# other grocery promotions	86	17,819	75	24,290	161	42,109
Total Grocery Store Events	182	25,984	169	46,266	351	72,250
Farmer's Markets						
# farmer's market taste tests	67	45,991	108	13,339	175	59,330
# farmer's market tours	74	1,500	125	4,812	199	6,312
# other farmers market events	127	18,319	160	17,628	287	35,947
Total Farmers Market Events	268	65,810	393	35,779	661	101,589

Reach of Sales Promotions Activities continued on the next page

2005 Regional Summary Report for the Behavioral Risk Factor Survey (BRFS) & Social Marketing Activities as Reported by the Local and Regional Semi-Annual Activity Report (SAAR)

2005 Regional Summary Report

2005 Regional Summary Report for the Behavioral Risk Factor Survey (BRFS) & Social Marketing Activities as Reported by the Local and Regional Semi-Annual Activity Report (SAAR)

This report is divided into two data collection parts: 2005 BRFS data and FFY 2005 SAAR Data. The report provides a picture of behaviors and nutrition education activities in each of the 11 *California Nutrition Network* regions, and for the State of California as a whole. The report begins with BRFS data that provides a profile of the population on behaviors/conditions that the *Network* and Collaborative interventions and activities address: fruit and vegetable consumption, physical activity, obesity, obesity + overweight, and food insecurity. The second portion presents each region's *California Nutrition Network for Healthy Active Families* activities for the Federal Fiscal Year 2005 (October 1, 2004 – September 30, 2005) as reported by the Local and Regional Nutrition Network (RNN) SAARs.

Section 1 - Introduction Information

Section 2 - A comparison of California Regional Nutrition Networks using the 2005 BRFS

Section 3 - Social Marketing Summary Report by Region - Federal Fiscal Year 2005

Section 4 - List of all Contractors

Section 5 - FFY 2005 All LIA Total Tables

Section 6 - FFY 2005 All RNN Total Tables

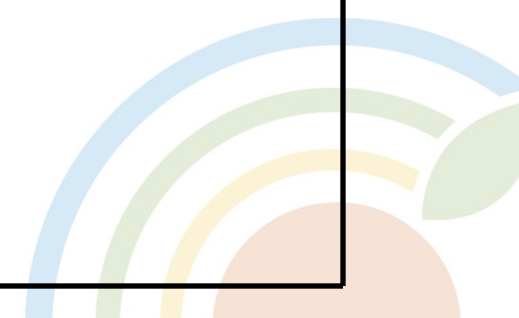
Section 7 - Bay Area LIAs

Section 8 - Bay Area RNN

Section 9 - Central Coast LIAs

Section 10 - Central Coast RNN

Section 11 - Central Valley LIAs



Formative Evaluation

- Development of social marketing campaigns, materials, and interventions
- Exploration of new target population or health problem
- Data sources: focus groups, key informant interviews, pilot tests, satisfaction surveys



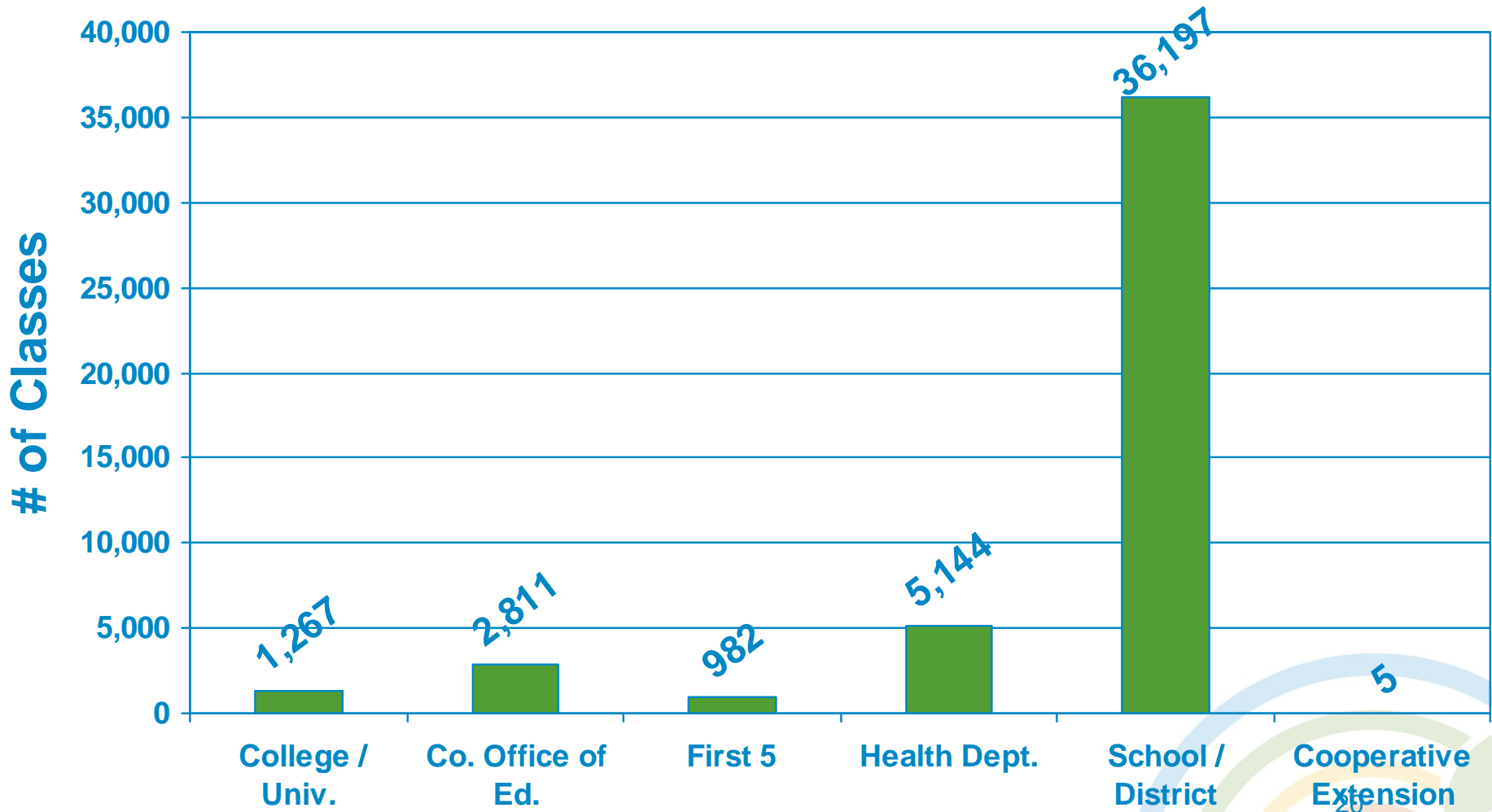
Impact Evaluation Studies of Local Contractor Interventions

- Contractors receiving \$350,000+
- Measure behavior or behavioral determinant, generally relating to FV
- Not only knowledge – must include psychosocial variable, e.g. self-efficacy, preferences
- Most recently conducted by 48 contractors
- Many findings have been positive
- Standardized general methods, but, since interventions differ, it is difficult to summarize findings across contractors even with increased use of validated, standardized measures
- Need to combine with more scope-of-work-specific process measures to identify dosage, content





Number of Classes



Behavioral Outcomes Measured 2003-07

Behavior	Number of contractors that measured change in behavior			
	03-04 (n=12)	04-05 (n=24)	05-06 (n=47)	06-07 (n=48)
Fruit and vegetable consumption	1	7	22	35
Physical activity			5	2







Cognitive Indicators of Success 2003-07

Factor	# that measured change in factor			
	03-04	04-05	05-06	06-07
Food preferences	10	13	22	30
Familiarity	1		2	3
Self-efficacy	3	4	18	27
Outcome expectations		2	2	5
PA preferences	0	1		0

Sample Food Preferences Question

How much do you like these fruits? Please check your answer.

<u>Fruits</u>	I do not like this 	I like this a little 	I like this a lot 	I don't know what this is 
1. Apple	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	1 <input type="checkbox"/>

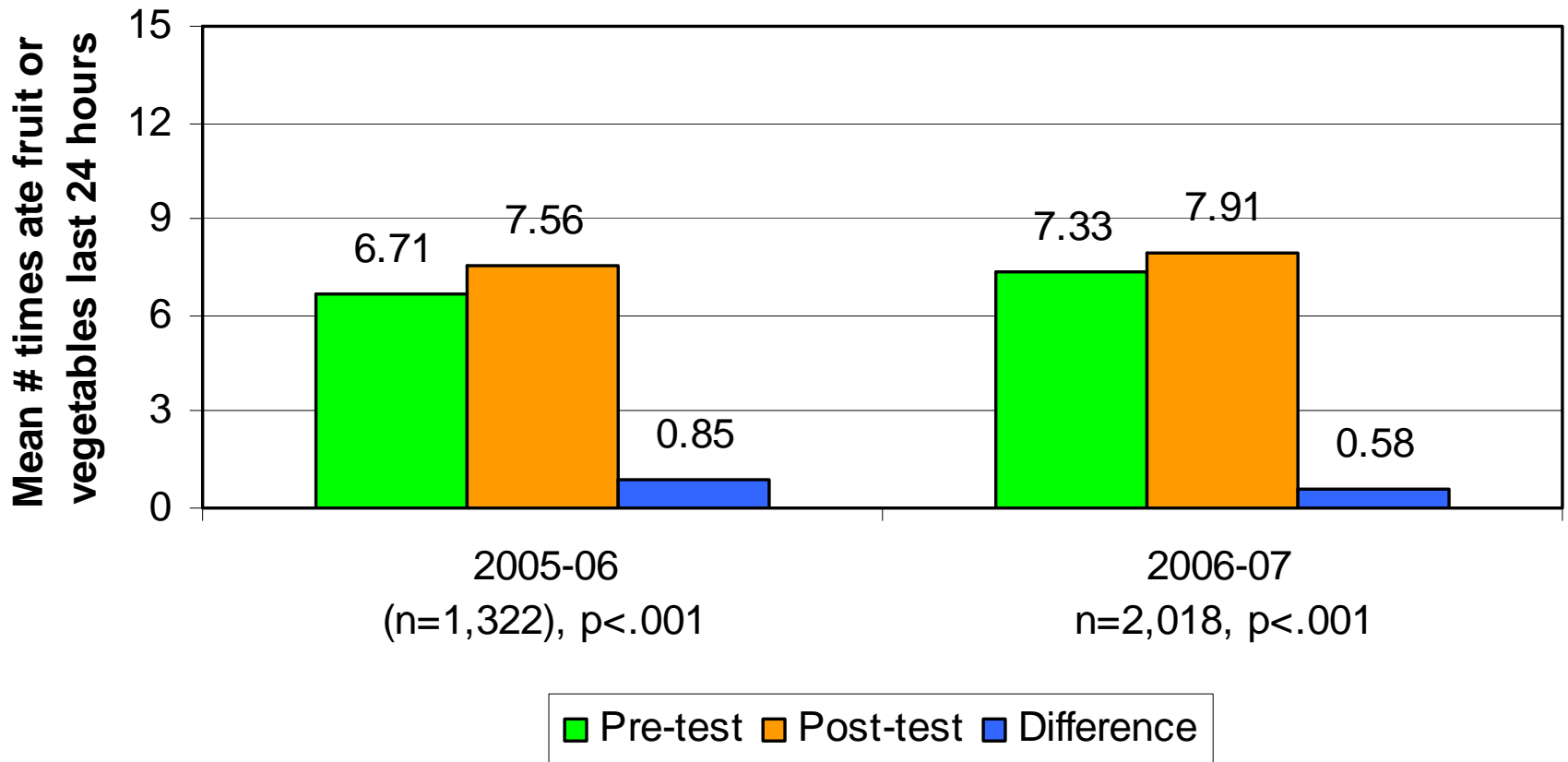
Response coding

Cullen K, Baranowski T, et al. Availability, accessibility, and preferences for fruit, 100% fruit juice, and vegetables influence children's dietary behavior. [Health Educ Behav 2003, 30\(5\): 615-26.23](#)



Results 05-07 – Consumption

Change in Consumption (range 0-15)



Biggest challenges for evaluating children – inadequate instruments

Impact Evaluation: Adult Population

- Biggest challenges:
 - Matching for pre-post; inadequate numbers of repeated encounters by clients
 - “You don’t have a validated instrument for our intervention or for our target audience”
- More short, validated consumption measures exist for adults, but may not be appropriate; more “predictors” instruments are needed
- Network co-funded with California Extension turning an orally-administered Food Behavior Checklist developed and validated by Marilyn Townsend into cognitively tested, validated, low literacy, full-color illustrated instruments:
 - 16-item Food Behavior Checklist
 - 7-item FV-only Checklist
- <http://townsendlab.ucdavis.edu/>



Food Stamp Program

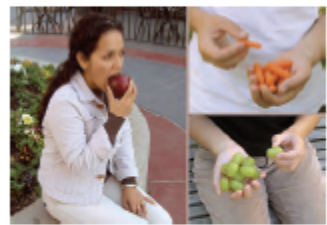
Fruit and Vegetable Checklist

These questions are about the ways you plan and fix food. Think about how you usually do things.

Name _____ Date _____ ID# _____ Entry Exit

Choose one answer for each question.

1.



Do you eat fruits or vegetables as snacks?

- no
- yes, sometimes
- yes, often
- yes, everyday

2.



Did you have citrus fruit or citrus juice during the past week?

- yes
- no

3. Fruit: How much do you eat each day?



- none
- 1/2 cup
- 1 cup
- 1 1/2 cups
- 2 cups
- 2 1/2 cups
- 3 cups or more



4.



Do you drink milk each day?

- no
- yes, sometimes
- yes, often
- yes, always

5.



During the past week, did you drink milk or use milk on cereal?

- no
- yes

6.



Do you eat more than one kind of fruit each day?

- no
- yes, sometimes
- yes, often
- yes, always

7.

What is the total amount of fruit you eat each day?



8.



Do you drink regular soda?

- no
- yes, sometimes
- yes, often
- yes, always





Evaluating Communications Strategy

- Benchmark Survey
 - Annual
 - RDD Food Stamp and (when non-USDA funding available), general population and mall-intercept low-income 130-185% FPL populations; mothers
 - Exposure to media messaging – TV, radio, and outdoor
 - Exposure to other CPNS programming
 - FV and PA behavior, attitudes, opinions, norms
- Grassroots Direct Mail Intervention
 - Quasi-experimental impact evaluation



Case Studies

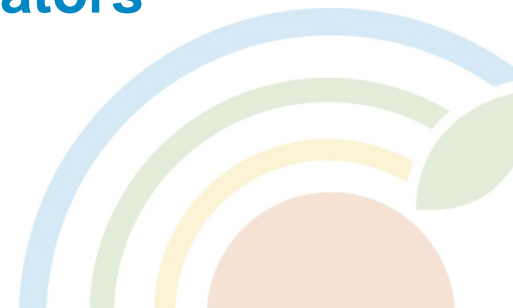
- **When more qualitative, descriptive information will provide the most through picture:**
 - Reaching the Other Eligible Californians: California Association of Food Banks' (CAFB) Food Stamp Outreach Project
 - A Case Study of Eight Food Security Nutrition Education Projects
- **Currently in progress:**
 - Central Valley Health Network's (CVHN) Nutrition Education Non-profit Demonstration Project: A Case Study Report
 - Nutrition Education and Farm to School Programs: A Case Study Report





Process and Impact Evaluation Studies of New CPNS Interventions and Resources

- **Formal evaluations are conducted of specific interventions and curricula**
- **Formal evaluations are conducted to see if a program works in specific channels**
 - **Very important for channels that are new to public health**
 - **Also vital if there are plans to widely disseminate the curriculum**
 - **African American Fruit, Vegetable and Physical Activity Toolbox for Community Educators**
 - **School Idea and Resource Kit**
 - **Harvest of the Month Evaluation**
 - **Food Stamp Office Resource Kit**



Bringing together the FFY 2007 and the FFY 2007 Final Report - Components

- Local Project Data Summaries
- State Level Data Summaries
 - Unduplicated Counts and Impressions
- Section B. Final Report Summary for Evaluations

Section B. Final Report Summary for Evaluations.
Provide the information requested below for any significant evaluation efforts (costing greater than \$400,000) that were completed during the previous year.

- No single State or Local project cost > \$400,000
 - All summaries completed by State staff
- 

Bringing together the FFY 2007 and the FFY 2007 Final Report – Section B

Section B: State Nutrition Education Final Report Summary FFY 07

Section B. Final Report Summary for Evaluations.

Provide the information requested below for any significant evaluation efforts

Unduplicated Counts and Impressions

(costing greater than \$400,000) that were completed during the previous year.

1. Name of Project or Social Marketing Campaign

If multiple projects or campaigns were part of a single impact evaluation, please list them all.

2. Key Evaluation 32)

Identify each impact being assessed by the evaluations. For example are FSNE participants more likely than non-participants to report they intend to increase their fruit and vegetable intake? Or do a greater proportion of FSNE participants choose low-fat (1% or skim) milk in the school cafeteria compared to non-participants?



Bringing together the FFY 2007 and the FFY 2007 Final Report –Evaluation Projects & Stakeholders

- **Summary of Outcome/Impact Evaluations - FV** consumption; variety of psycho-social predictors of FV behaviors; conducted by 48 diverse Local Projects – USDA, Local Contractors, Community Development Unit
- **Benchmark Survey** – Media recall, psycho-social predictors of FV/PA behaviors, saliency - USDA, Communications Unit
- **School Idea and Resource Kit (SIRK)** Psycho-social predictors of FV/PA behaviors – USDA, Power Play! Campaign, educators
- **Worksite Fruit Snack Study** – FV consumption; psycho-social predictors – USDA, Worksite Campaign, CDPH worksite project
- **Food Stamp Office Resource Kit Evaluation** – Intercept interview – video recall and intention; Observation of behavior – USDA, DSS, local contractors, other interested states

GIS - <http://www.cnngis.org/>

A Research Tool

- Interactive, internet-based Geographic Information System (GIS) that allows users to view and query mapped nutrition data
- **Used for identifying FSNE-eligible populations of interest**
- Data layers include, among others:
 - Nutrition and school health programs
 - WIC grocery stores and other local nutrition resources
 - Demographics (race and spoken language) of general and at-risk populations
 - RNN regions
 - Political (senate and assembly) districts
 - Grocery stores, restaurants, and fast food places



Identify Results for Proportion < 185% FPL - All Races

>> Feature 1 of 4

2000 U.S. Census Tract	06037242000
Total Pop. (Estimate)	3071
All Races < 185% FPL	1891
All Races Prop. < 185% FPL	0.6158
Regional Nutrition Network	Los Angeles

[zoom to this feature](#)

>> Feature 2 of 4

2000 U.S. Census Tract	06037240800
Total Pop. (Estimate)	3793
All Races < 185% FPL	2538
All Races Prop. < 185%	

- Clear Theme
- Query
- Measure
- Save Map
- Load Map

Current Map Tool: [Get Info](#)



[Jump to a new location](#)

[Summarize Data](#)

Pop-Up Box



Help? Contact Us Admin Tools About This Site

Layers Locate

Search Results

The following addresses match search criteria:

Address	Place
11120 S Central Ave 90059	Los Angeles
11120 S Central Ave 90059	Los Angeles
11120 S Central Ave 90059	Los Angeles
11120 S Central Ave 90059	Los Angeles
11120 S Central Ave 90059	Los Angeles
11120 S Central Ave 90059	Los Angeles
11120 S Central Ave 90059	Los Angeles

The value in the Score column shows how closely the address matches search criteria.

[Refresh the Map](#)

A pop-up box should appear.

CX³ – Communities of Excellence - Defined

- A planning model to assess communities in relation to a variety of obesity prevention benchmarks known as community indicators and assets.
- ³ = nutrition, physical activity and obesity prevention
- Standardized indicators & assets – big plus!
- Set standards of excellence.





Creating CX³

- **151 Indicators** organized in 6 Community Environments:
 - Neighborhood
 - Preschool
 - School
 - After-school
 - Worksite
 - Government
- **44 Assets** organized into:
 - Health department infrastructure
 - Political will
 - Community infrastructure



External Research

- These are projects that address emerging issues, but require time or expertise beyond what is available in-house
- Examples:
 - The Economic Costs of Physical Inactivity, Obesity and Overweight in California Adults (April 2005)
 - Does 5 a Day Pay?
- Influencing the field without having to collect the data
- Used for overarching research and individual projects



In-House Consultation: Facts and Figures

- Press releases
- LIA questions
- RN project evaluations – case study approach
- Grant applicant requests
- Information for the department and reporters
- Information for the Chief
- Training and meeting evaluations



A Key Evaluation Question

How to most effectively evaluate the combined efforts of local projects, targeted campaigns and media?

RWJF interviews held with “experts in the field” during 2007 – report in progress



For More on Interventions and Evaluation, Please Visit Us—

For partners, professionals and links to campaigns, programs and resources —

www.networkforahealthycalifornia.net

In particular, the Research and Evaluation web pages

<http://www.dhs.ca.gov/ps/cdic/cpns/research/default.htm>

New and growing! Consumer educational material for parents and youth, in English and Spanish —

www.cachampionsforchange.net

Sharon.Sugerman@cdph.ca.gov

916-449-5406

