

WELCOME!



The Center for Wellness and Nutrition is a program of the Public Health Institute.

The Sum of our Efforts: Telling the SNAP-Ed Story in the Southeast Region and California

Society for Nutrition and Behavior Annual
Conference 2019
Orlando, FL

July 30, 2019
2:15 p.m. - 3:15 p.m.
Grand Cypress Ballroom - AB



Today's Agenda. . .

- I. Background SNAP-Ed Framework**
- II. Southeast Regional Evaluation**
- III. California SNAP-Ed Statewide Evaluation**
- IV. Discussion Questions**
- V. Questions and Answers**
- VI. Adjourn**

PRESENTERS



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The Supplemental Nutrition Assistance Program Education (SNAP-Ed) Overview

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Southeast Regional Office (SERO)

United States Department of Agriculture (USDA)
Food and Nutrition Service (FNS)



Background

- The Supplemental Nutrition Assistance Program, commonly referred to by its abbreviation SNAP, is the largest program in America's hunger safety net.
- Section 241 of the Healthy, Hunger-Free Kids Act of 2010 amended the 2008 Food and Nutrition Act (FNA) and established a nutrition education and obesity prevention grant program.
- SNAP-Ed Goal: To improve the likelihood that persons eligible for SNAP will make healthy food choices within a limited budget and choose physically active lifestyles consistent with the current Dietary Guidelines for Americans and MyPlate.



SNAP-Ed Key Behavioral Outcomes

1. Maintain appropriate calorie balance during each stage of life – childhood, adolescence, adulthood, pregnancy, breastfeeding, and older age
2. Make half your plate fruits and vegetables, at least half your grains whole grains, and switch to fat-free or low-fat milk and milk products
3. Increase physical activity and reduce time spent in sedentary behaviors as part of a healthy lifestyle



SNAP-Ed Roles and Responsibilities

Federal

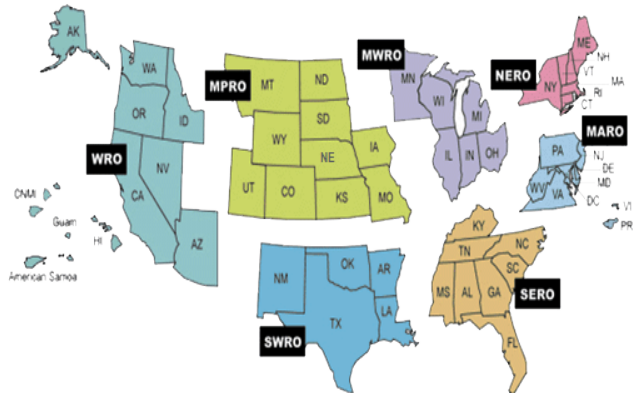
- ▶ SNAP-Ed policy
- ▶ Approves plan
- ▶ Monitors state projects
- ▶ Provides technical assistance

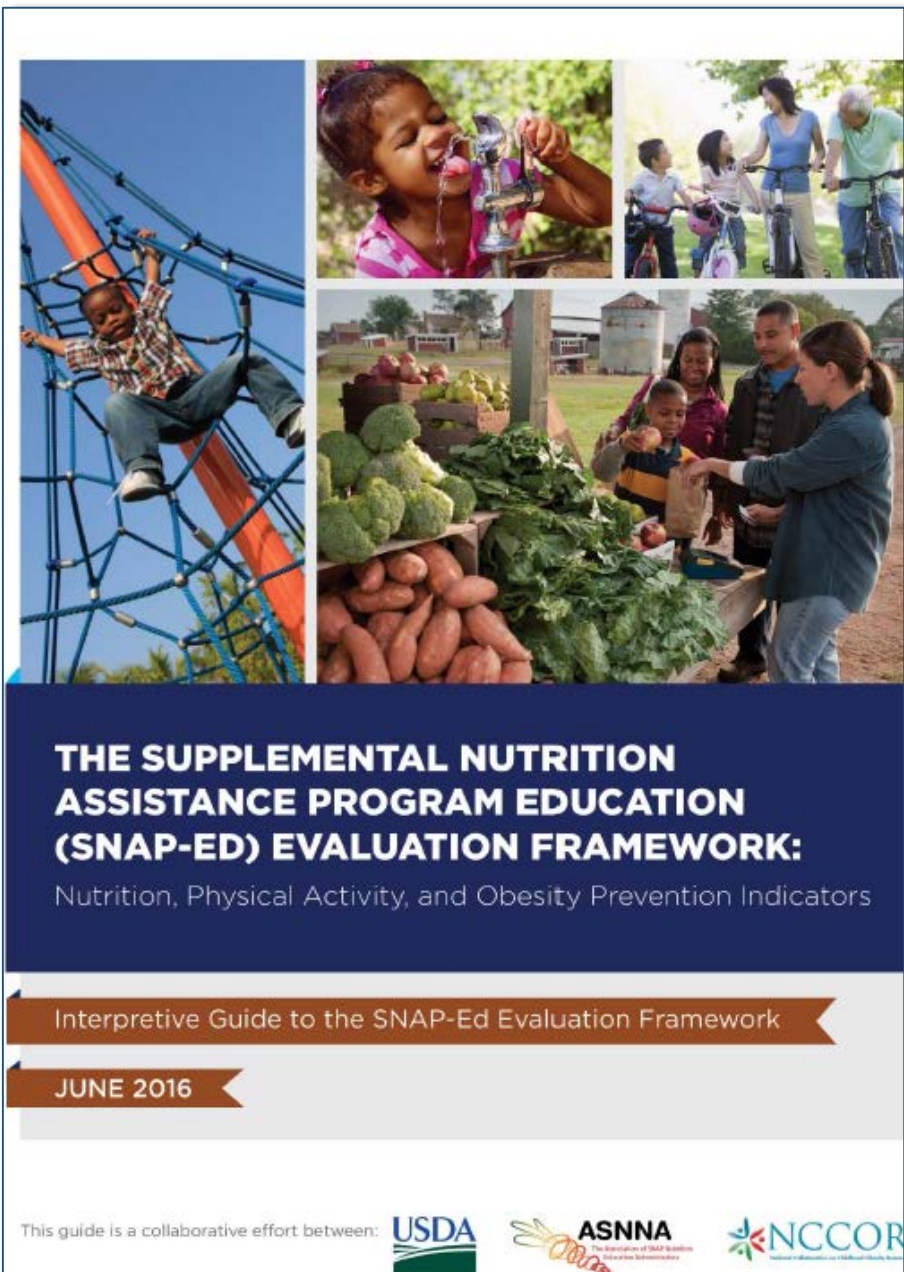
State

- ▶ Sets statewide goals
- ▶ Funds and monitors sub grantees
- ▶ Works in partnership with sub grantees to develop a coordinated, cohesive plan

Local

- ▶ Develops plans and projects for plan
- ▶ Implements and evaluates projects and interventions
- ▶ Coordinates with other nutrition education and obesity prevention program





SNAP-Ed Evaluation Framework Overview

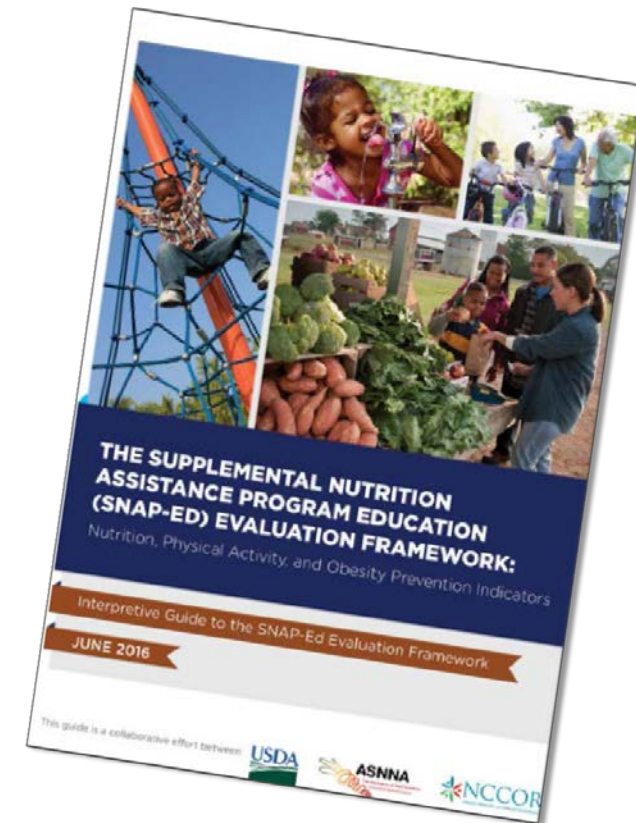
Source: SNAP-Ed Connection Website

<https://snaped.fns.usda.gov/program-administration/snap-ed-evaluation-framework>



Purpose of the SNAP-Ed Evaluation Framework

- Evaluate program effectiveness
 - Document policies, systems, and environmental changes
 - Support multi-level approaches
 - Consistent methodology
 - Evidence-based
 - Streamlined step-by-step guide



Framework Foundations

➤ The Social-Ecological Model of Food and Physical Activity Decisions.

- *Dietary Guidelines for Americans 2010/2015-2020.*
- Adapted from CDC social ecological model of health promotion.
- A tool that can help address the issue of obesity.
- Shown by research to impact food and beverage intake and physical activity shown at all levels of the SEM.



SNAP-ED EVALUATION FRAMEWORK

Nutrition, Physical Activity, and Obesity Prevention Indicators



APRIL 2016

Structure

SNAP-ED EVALUATION FRAMEWORK

Nutrition, Physical Activity, and Obesity Prevention Indicators



PSE: Organizations and coalitions

Collective impact

• Typically large scale evaluations

CHANGES IN SOCIAL NORMS AND VALUES

Structure

➤ Levels

SNAP-ED EVALUATION FRAMEWORK

Nutrition, Physical Activity, and Obesity Prevention Indicators



	READINESS & CAPACITY SHORT TERM (ST)	CHANGES MEDIUM TERM (MT)	EFFECTIVENESS & MAINTENANCE LONG TERM (LT)
INDIVIDUAL GOALS AND INTENTIONS ST1: Healthy Eating ST2: Food Resource Management ST3: Physical Activity and Reduced Sedentary Behavior ST4: Food Safety	BEHAVIORAL CHANGES MT1: Healthy Eating MT2: Food Resource Management MT3: Physical Activity and Reduced Sedentary Behavior MT4: Food Safety	MAINTENANCE OF BEHAVIORAL CHANGES LT1: Healthy Eating LT2: Food Resource Management LT3: Physical Activity and Reduced Sedentary Behavior LT4: Food Safety	POPULATION RESULTS (R) TRENDS AND REDUCTION IN DISPARITIES R1: Overall Diet Quality R2: Fruits & Vegetables R3: Whole Grains R4: Dairy R5: Beverages R6: Food Security R7: Physical Activity and Reduced Sedentary Behavior R8: Breastfeeding R9: Healthy Weight R10: Family Meals R11: Quality of Life
ENVIRONMENTAL SETTINGS EAT, LIVE, WORK, LEARN, SHOP, AND PLAY ST5: Need and Readiness ST6: Champions ST7: Partnerships	ORGANIZATIONAL ADOPTION AND PROMOTION MT5: Nutrition Supports MT6: Physical Activity and Reduced Sedentary Behavior Supports	ORGANIZATIONAL IMPLEMENTATION AND EFFECTIVENESS LT5: Nutrition Supports Implementation LT6: Physical Activity Supports Implementation LT7: Program Recognition LT8: Media Coverage LT9: Leveraged Resources LT10: Planned Sustainability LT11: Unexpected Benefits	
SECTORS OF INFLUENCE MULTI-SECTOR CAPACITY ST8: Multi-Sector Partnerships and Planning	MULTI-SECTOR CHANGES MT7: Government Policies MT8: Agriculture MT9: Education Policies MT10: Community Design and Safety MT11: Health Care Clinical-Community Linkages MT12: Social Marketing MT13: Media Practices	MULTI-SECTOR IMPACTS LT12: Food Systems LT13: Government Investments LT14: Agriculture Sales and Incentives LT15: Educational Attainment LT16: Shared Use Streets and Crime Reduction LT17: Health Care Cost Savings LT18: Commercial Marketing of Healthy Foods and Beverages LT19: Community-Wide Recognition Programs	
CHANGES IN SOCIETAL NORMS AND VALUES			

APRIL 2016

Evaluation Questions

- **Individual:** To what extent does SNAP-Ed programming improve and sustain participants' dietary and physical activity behaviors?
- **Environmental:** To what extent does SNAP-Ed programming create and sustain access and appeal for improved dietary and physical activity choices in the settings where people eat, learn, live, play, shop, and work?
- **Sectors of Influence:** To what extent is SNAP-Ed programming working with other sectors to collectively impact lifelong healthy eating and active living in low-income communities?
- **Population Results:** To what extent does SNAP-Ed programming improve the low-income population's achievement of the *Dietary Guidelines for Americans'* recommendations and other health risk behaviors, compared to the general population?
- **Social and Cultural Norms and Values:** To what extent do community-level obesity prevention strategies impact the public's priorities, lifestyle choices, and values for healthy living?

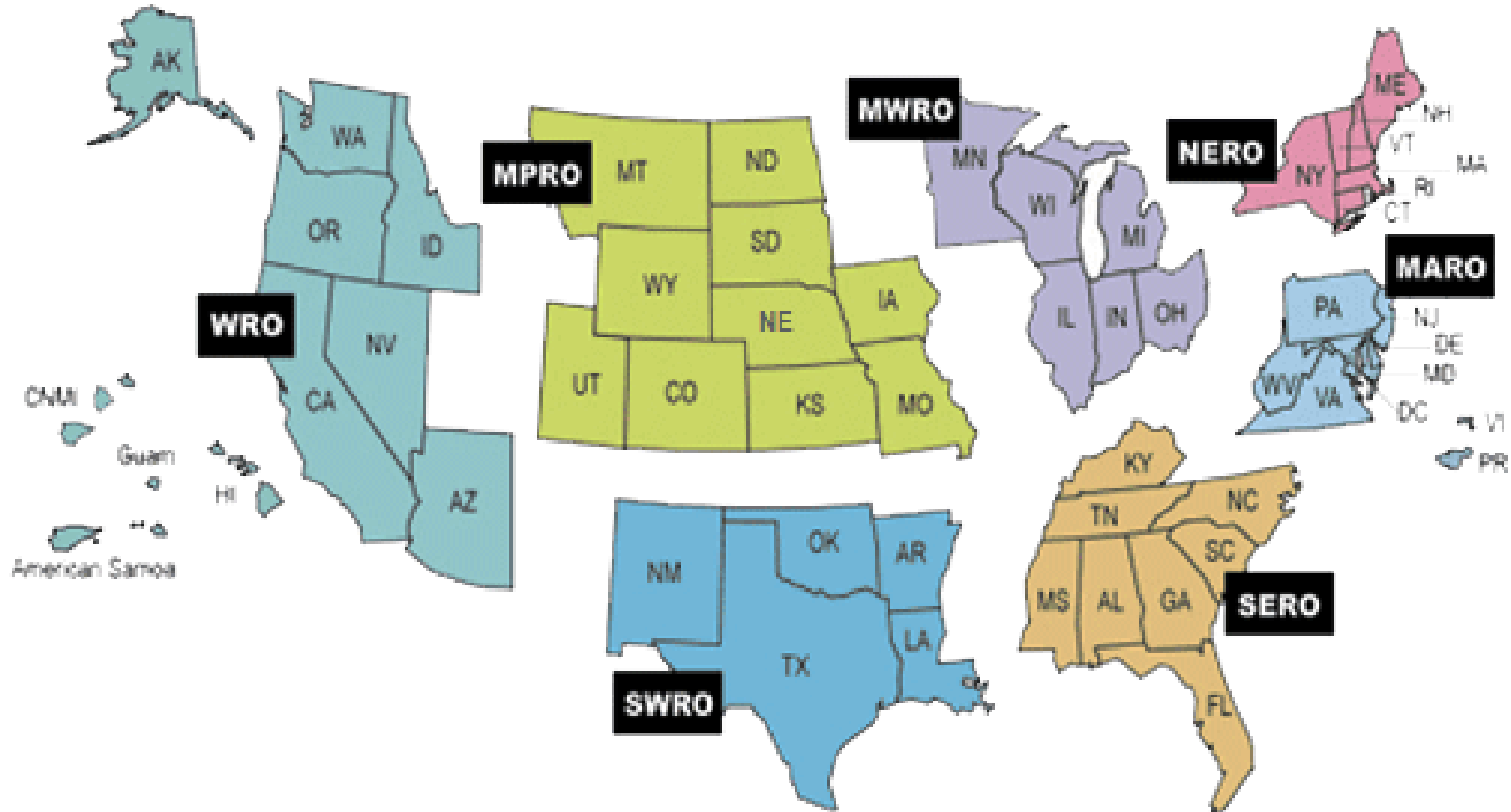


SNAP-Ed Priority Indicators

- MT 1 – Healthy Eating Behaviors
- MT 2 – Food Resource Management Behaviors
- MT 3 – Physical Activity and Reduced Sedentary Behaviors
- MT 5 – Nutrition Supports Adopted in Environmental Settings
- ST 7 – Organizational Partnerships
- ST 8 – Multi-Sector Partnerships and Planning
- R2 – Fruits and Vegetables



SERO Evaluation Efforts



Southeast Region FFY 17 SNAP-Ed Outcome Evaluation

Suzanne Ryan-Ibarra, PhD, MPH

Amy DeLisio, MPH, RD

Center for Wellness and Nutrition

Presenting on behalf of SERO Evaluation Workgroup



SERO Regional Evaluation FFY 17: The Beginning

- The Southeast Learning Community project was originally funded by CDC and implemented by Public Health Institute (PHI) in partnership with Southeast Regional Office
 - Currently funded through SERO SNAP-Ed
- A needs assessment was conducted to prioritize regional opportunities and support
- The majority of respondents were interested in using the **SNAP-Ed Evaluation Framework**
 - SERO Evaluation Work Group was formed

SERO Regional Evaluation FFY 17, Aim: Measure Individual-Level Changes

MT1 – Healthy Eating Behaviors	MT2 – Food Resource Management Behaviors
Ate more than one kind of fruit throughout the day or week (MT1c)	Choose healthy foods for my family on a budget (MT2a)
Ate more than one kind of vegetable throughout the day or week (MT1d)	Read nutrition facts labels or nutrition ingredients lists (MT2b)
Drinking water more frequently (MT1g)	Not run out of food before month's end (MT2g)
Drinking fewer sugar-sweetened beverages (MT1h)	Compare prices before buying foods (MT2h)
Consuming low-fat or fat-free milk, milk products, or fortified soy beverages (MT1i)	Identify foods on sale or use coupons to save money (MT2i)
Cups of fruit consumed per day (MT1l)	Shop with a list (MT2j)
Cups of vegetables consumed per day (MT1m)	

SERO Regional Evaluation FFY 17, Aim: Measure Environmental-Level Changes

MT5 – Nutrition Supports/Policy, Systems, and Environmental Changes

Total number of policy changes (MT5b)

Total number of systems changes (MT5c)

Total number of environmental changes (MT5d)

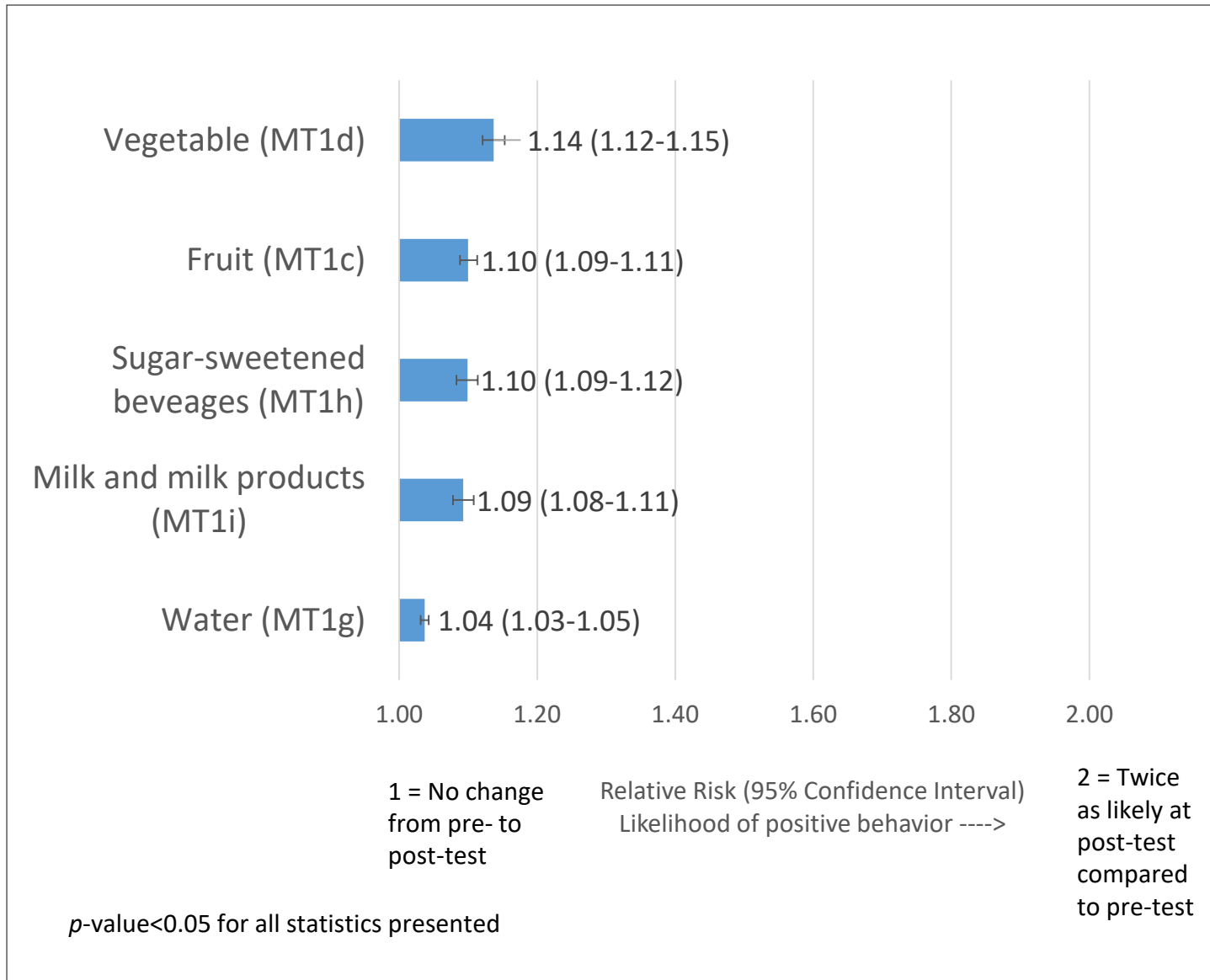
Total number of promotional changes (MT5e)

Reach (MT5f)

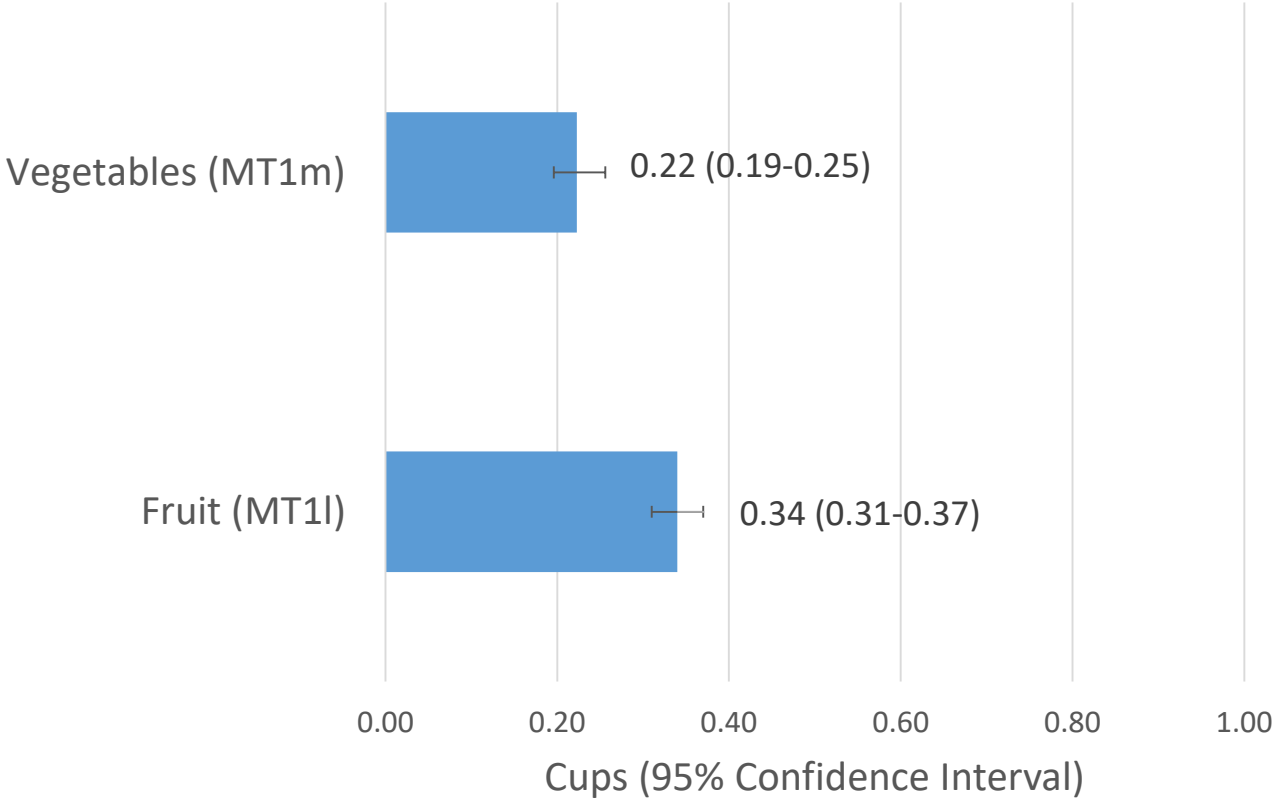
SERO Regional Evaluation FFY 17: Methods

- Individual-level indicators ($n= 43,303$ pre-test, $n=43,256$ post-test)
 - Standardize responses from multiple survey instruments
 - IAs submitted summary data, which was used to create analytical dataset (combined data from 25 implementing agencies)
 - Standard meta-analysis – pooled relative risk, 95% confidence intervals
 - Subgroup analyses – state, age group
- Environmental-level indicators
 - Descriptive analyses

Results from Pre- to Post-Test for MT1: Healthy Eating Behaviors, SERO Regional Evaluation FFY 17



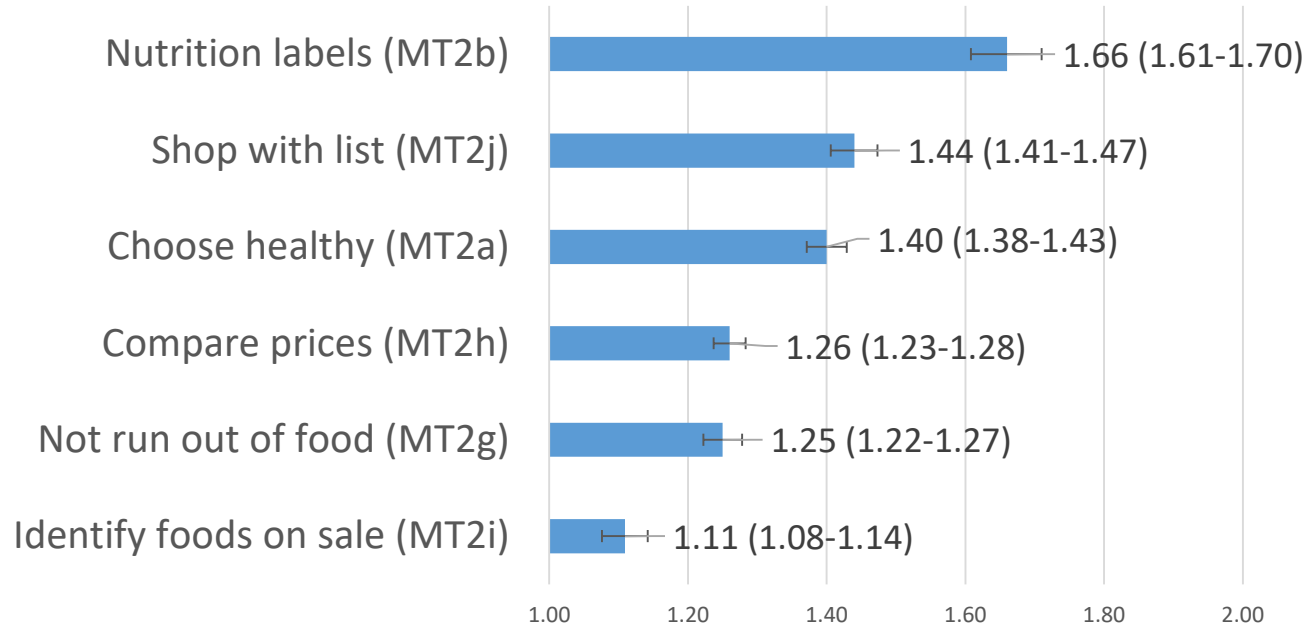
Results from Pre- to Post-Test for cups of fruit and vegetables, SERO Regional Evaluation FFY 17



p-value<0.05 for all statistics presented

Results from Pre- to Post-Test for MT1: Healthy Eating Behaviors, SERO Regional Evaluation FFY 17 (continued)

Results from Pre- to Post-Test for MT2: Food Resource Management Behaviors, SERO Regional Evaluation FFY 17



No change from pre- to post-test

Relative Risk Likelihood of positive behavior ---->

Twice as likely at post-test compared to pre-test

p-value<0.05 for all statistics presented

Results from Pre- to Post-Test for MT2: Food Resource Management Behaviors, SERO Regional Evaluation FFY 17

Indicator	Description	Number
MT5b	Total number of policy changes	99
MT5c	Total number of systems changes	245
MT5d	Total number of environmental changes	357
Total PSE adopted		701
MT5e	Total number of promotional changes for PSE	471
MT5f	Number of individuals touched by PSE changes	830,049

Reach counts do not include reach reported for promotional efforts (MT5e) only.

Results for MT5: Nutrition Supports, SERO Regional Evaluation FFY 17

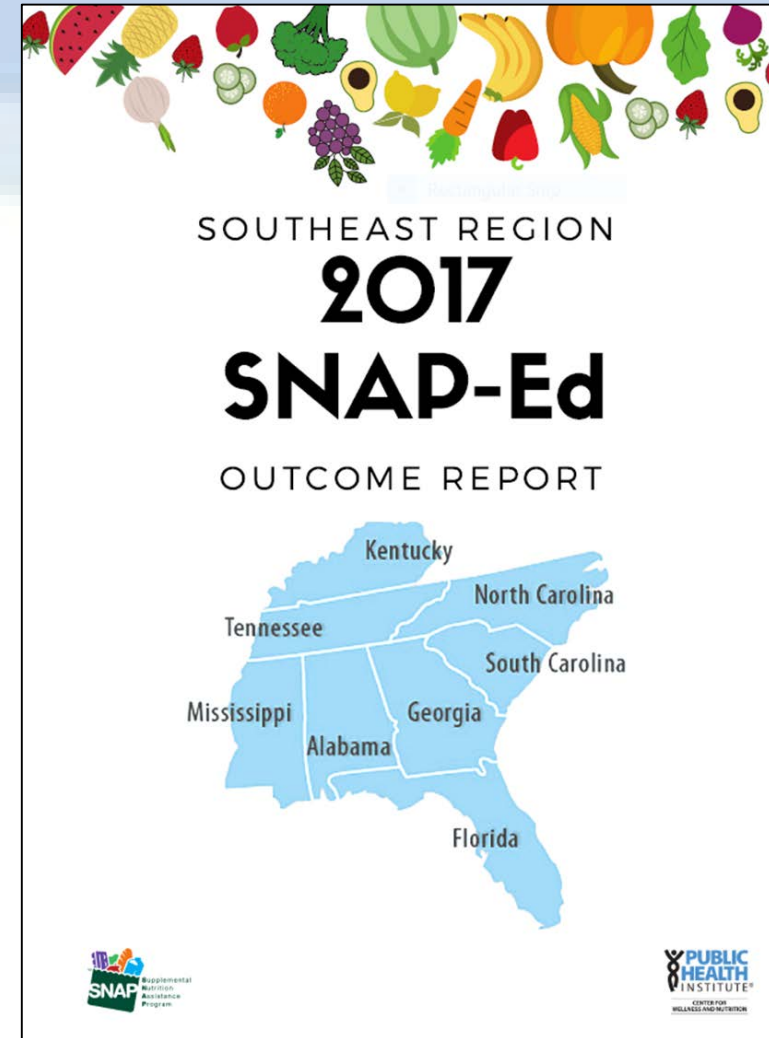
What improvements have taken place due to regional evaluation?

- Review of surveys
- State agencies review results and target IAs for technical assistance
- Quality improvement tool

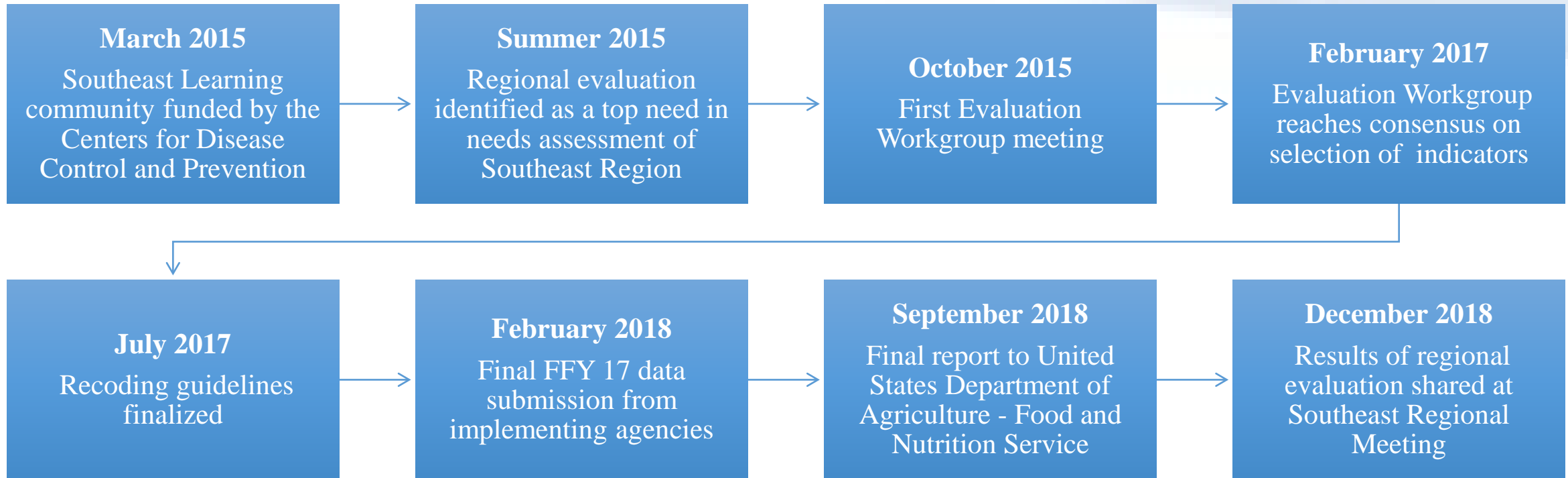
Promoting the Results

Topline report can be widely distributed:

- Begin conversations with partners, stakeholders and decision makers
- Improve current programming
- Prioritize technical assistance



Timeline



Next Steps

- SERO Evaluation Workgroup continues to meet
- Discussing updating methodology and regional priorities

Thank you

- Brittany Souvenir and Veronica Bryant, USDA FNS
- United States Department of Agriculture, Food and Nutrition Service Southeast Regional Office
- SERO Evaluation Workgroup
- Laura Kettel Khan, PhD, Centers for Disease Control and Prevention
- Sharon Sugerman, MS, RD, FAND, former Director of Research and Evaluation at the Center for Wellness and Nutrition, Public Health Institute

Thank you – Implementing Agencies

- **Alabama Department of Human Resources**
- Alabama Agricultural and Mechanical (A&M) University
- Alabama Department of Public Health
- Auburn University
- **Florida Department of Children and Families**
- University of Florida Extension Family Nutrition Program
- **Georgia Department of Human Services, Division of Family and Children Services**
- HealthMPowers
- Open Hand Atlanta
- The University of Georgia College of Family and Consumer Sciences
- **Kentucky Cabinet for Health and Family Services**
- Kentucky State University
- University of Kentucky Nutrition Education Program
- **Mississippi Department of Human Services**
- Mississippi State University
- **Tennessee Department of Human Services**
- Tennessee State University Cooperative Extension
- University of Tennessee Agricultural Extension Service
- **North Carolina Division of Social Services**
- Alice Aycock Poe Center for Health Education
- Down East Partnership for Children
- Durham County Health Department
- East Carolina University
- North Carolina Agricultural and Technical (A&T) University
- North Carolina State University
- Second Harvest Food Bank of Northwest North Carolina
- North Carolina Cooperative Extension- Surry Center (NCCE-Surry)
- University of North Carolina at Chapel Hill
- University of North Carolina at Greensboro
- YWCA of Asheville and Western North Carolina, Inc.
- **South Carolina Department of Social Services**
- Clemson University, Youth Learning Institute
- Lowcountry Food Bank
- South Carolina Department of Health and Environmental Control
- University of South Carolina School of Public Health

Funding acknowledgement

- Funding for the FFY 17 SERO regional evaluation was provided by the United States Department of Agriculture, Supplemental Nutrition Assistance Program, Southeast Region. These institutions are equal opportunity providers and employers.



The Sum of Our Efforts

The SNAP-Ed Story in California

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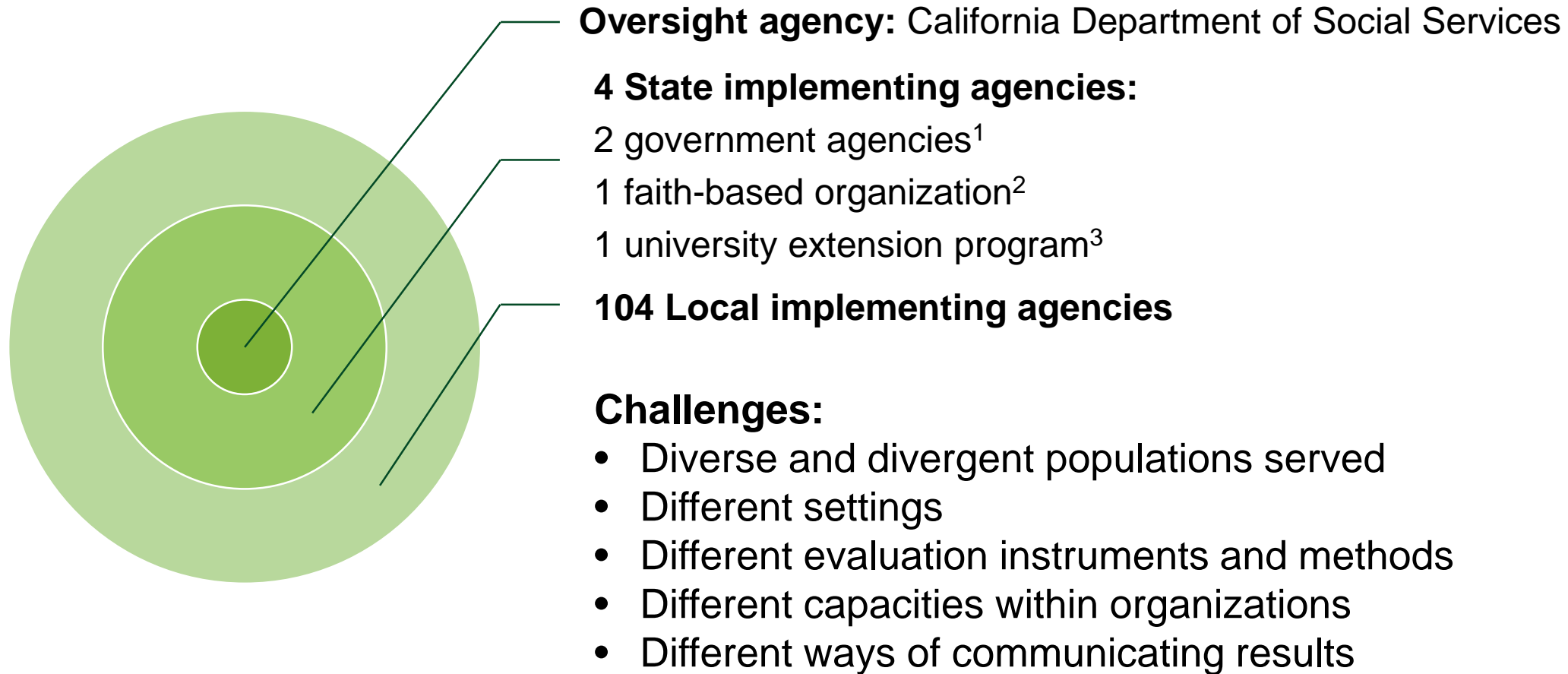
The Scale of our Efforts

- California's 2018 population estimated at 39.56 million
 - Similar to the population of Canada
 - Or 6 of 8 Southeastern states
- About 1/3 are low-income
 - 12.8 million
 - 1.4 million with diabetes diagnoses
 - 645,000 with heart disease diagnoses
 - 30.8% cannot always find fresh fruits and vegetables in their neighborhoods



The Scale of our Efforts

- California's *CalFresh Healthy Living* SNAP-Education Program



¹ CA Department of Aging, CA Department of Health; ² Catholic Charities of CA; ³ CalFresh Healthy Living – University of CA

- Before 2018
 - Early adopters of the PEARS database
 - Implementation pilot test 2015-2016*
 - Streamlines PSE reporting
- 2018 Methods
 - Process for 2018:
 - Download data
 - Run standardized data QC checks
 - Edit and run custom cleaning and analysis programs
 - Report descriptives

PSE Results 2018

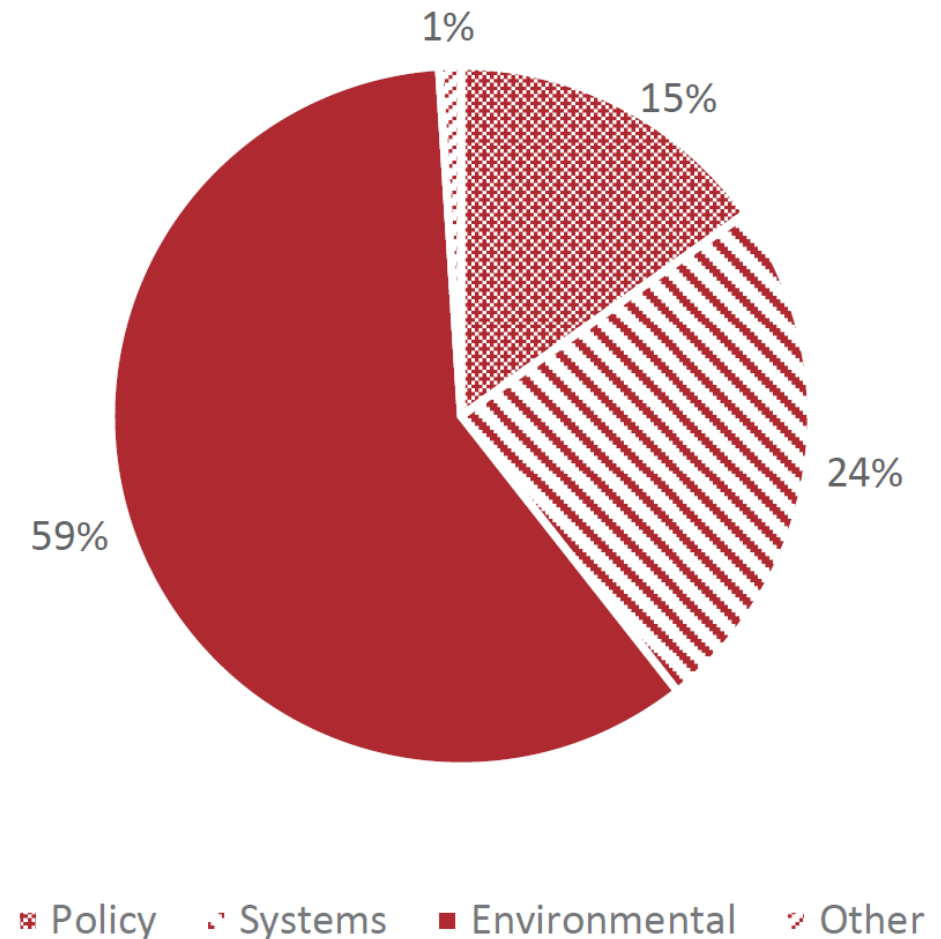
- 1,566 sites across 54 counties

Indicator	Description	Result
MT5a	Number of sites with at least 1 change to support healthy eating	1,291
MT6a	Number of sites with at least 1 change to support physical activity	699

PSE Results 2018

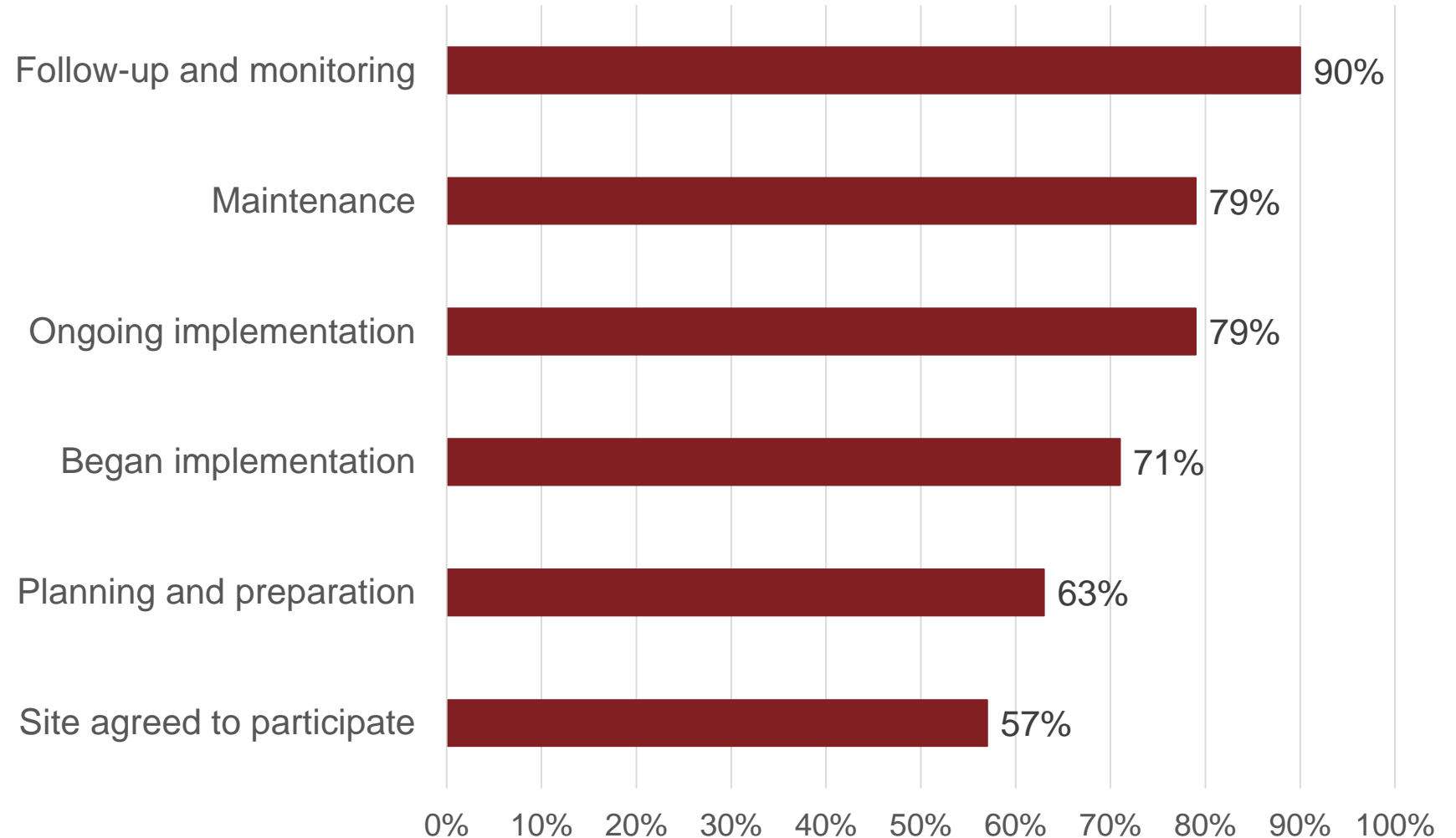
- 3,882 PSE changes
 - 2,779 nutrition-supportive changes
 - 997 physical-activity supportive changes
- Changes by type analysis
 - Not quite consistent with indicators MT5 and MT6 b, c, and d
 - Not broken down by nutrition vs. PA
 - But that is very possible
 - 1% “other”
 - 55 of 3,882 PSE changes fell outside of the main categories

PSE Changes by Type of Approach: Policy, Systems, and Environmental



- Planned sustainability (LT10)

Proportion of PSE Sites with a Sustainability Plan, by Implementation Stage



Direct Education Before 2018

- Implementing agencies submitted inferential results only
 - Differences in methods
 - Differing capacities for reporting among agencies
- Results were reported by indicator and numerous...
 - but often difficult to interpret
- No substantive formal or informal synthesis was possible prior to 2018

MT1i. Consuming low-fat or fat-free milk, milk products, or fortified soy beverages	Outcome Measure:			
	Survey / Data Analysis Tool			Population
	[Survey name]			[Age group]
	Outcome Measure Details:			
	Question(s)	Results		
Question: Yesterday, did you drink any kind of milk? What type of milk do you drink most of the time?	Results: Intervention <i>n</i> = 2,809 Comparison <i>n</i> = 512	Pre 35.99% 39.84%	Post 39.37% 37.11%	<i>P</i> -Value .208

- Methods
 - Questionnaires
 - State implementing agencies used 7 different pre-post questionnaires
 - 3 of the 7 contained identical questions
 - Questionnaires were not summative
 - Aggregated and analyzed data by item
 - 16 items could be combined and analyzed
 - Assessed medium-term nutrition, food resource management, and physical activity indicators
 - Implementing agencies collected 12,173 questionnaires; 7,629 could be analyzed
 - Used paired *t*-tests (continuous) and Wilcoxon signed-rank tests (ordinal)
 - Computed effect sizes
- Results
 - Of the 16 analyses, 12 revealed significant pre-post results

Direct Education Summary of Results

Behavior	Age Group	Indicator	Effect Size	Interpretation
Removing skin from chicken	Adults	MT1a	$r = 0.19$	Small
More than one kind of fruit	Adults	MT1c	$r = 0.22$	Small
Two or more vegetables at your main meal	Adults	MT1d	$r = 0.21$	Small
More than one kind of vegetable	Adults	MT1d	$r = 0.21$	Small
Fruit drinks and sports drinks	Adults	MT1h	$r = 0.15$	Small
Soda	Adults	MT1h	$r = 0.20$	Small
Cups of fruit per day	Adults	MT1l	$d = 0.49$	Small
Cups of vegetables per day	Adults	MT1m	$d = 0.44$	Small
Reading nutrition labels	Adults	MT2b	$r = 0.26$	Small
Not running out of food	Adults	MT2g	$r = 0.07$	Limited practical significance
Eating sweets (frequency)	Children	MT1k	$d = 0.04$	Limited practical significance
Physical activity (days)	Children	MT3a	$d = 0.17$	Limited practical significance

Conclusions and Future Directions

- PSEs over time
 - 2020 Objectives
 - Implement new changes to support *healthy eating* at existing sites; 30% of previously engaged sites will demonstrate at least one additional change support healthy eating.
 - Implement new changes to promote *physical activity* at continuing sites; 30% of previously engaged sites will demonstrate at least one additional change.
- Used PEARS data to develop realistic targets for additional objectives
- Findings are still difficult to interpret
 - Large n ...
 - but 37% unusable n
- Using effect sizes
 - Likely overpowered
 - Might be giving local implementers reporting more burden than necessary
 - Power calculations in colleagues' studies
- Problem solving with California SNAP-Ed Evaluation Work Group

Discussion Questions

How can you use the SNAP-Ed Evaluation Framework to strengthen your program evaluation?

Discussion Questions

What benefits do you see with aggregating data in your state or region? What challenges might you anticipate?

Questions?

Resources: SNAP-Ed Connection

Features many resources including:

- Educational resources and curricula
- Training materials
- Current guidance and policy memos
- Models of SNAP-Ed evaluations
- Evaluation Framework



<https://snaped.fns.usda.gov>

Thank You



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Have a question? Write to us at **info@wellness.phi.org**



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