



The Fruits of Our Labor

Six Months of SNAP-Ed Evaluation in Arizona

Laurel Jacobs, DrPH, MPH
Theresa LeGros, MA
Kay Orzech, PhD

Today's Harvest



1. Farmer's Almanac

National SNAP-Ed Evaluation Framework

2. An Early Harvest

Local Wellness Policy Scores to Date

3. A Bountiful Harvest

Adult DE Impact Evaluation

4. How's It Hangin'?

A Closer Look at the AzNN Youth Survey

5. Our Newest "Hub"

Introducing the AzNN Evaluation Website



Farmer's Almanac

National SNAP-Ed Evaluation Framework

National SNAP-Ed Evaluation Framework

- Released with FY17 Guidance
- Foundation of SNAP-Ed evaluation guidance from USDA
- *Interpretive Guide* forthcoming
 - Describes indicators and recommended tools in detail
- Priority indicators forthcoming



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 	ORGANIZATIONAL MOTIVATORS 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

SNAP-ED EVALUATION FRAMEWORK

Nutrition, Physical Activity, and Obesity Prevention Indicators

INDIVIDUAL

ENVIRONMENTAL SETTINGS

EAT, LIVE, WORK, LEARN, SHOP, AND PLAY

1+2=

SECTORS OF INFLUENCE

SNAP-Ed across the SEM levels

READINESS SHORT TERM (ST)	CITY MEDIUM TERM (MT)	CHANGES MEDIUM TERM (MT)	EFFECTIVENESS & MAINTENANCE LONG TERM (LT)	POPULATION RESULTS (R)
GOALS / OBJECTIVES ST1: Health Promotion 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	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	
ORGANIZATIONAL MOTIVATION ST5: Need Assessment ST6: Champion Identification ST7: Partnership Development	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		
MULTI-SECTOR CAPACITY BUILDING ST8: Multi-Sector 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				

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



ENVIRONMENTAL

SETTINGS

EAT, LIVE,
WORK, LEARN,
SHOP, AND
PLAY



SECTORS OF

INFLUENCE



SNAP-Ed achievements over time

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

ENVIRONMENTAL

SETTINGS

EAT, LIVE,
WORK, LEARN,
SHOP, AND
PLAY



ORGANIZATIONAL MOTIVATORS

- ST5: Need and Readiness
- ST6: Champions
- ST7: Partnerships

SECTORS OF

INFLUENCE



MULTI-SECTOR CAPACITY

- ST8: Multi-Sector Partnerships and Planning

CH

SNAP-ED EVALUATION FRAMEWORK

Nutrition, Physical Activity, and Obesity Prevention Indicators



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



Youth Survey

ST1: Physical Activity and Reduced Sedentary Behavior
ST4: Food Safety

Adult IE

MAINTENANCE OF BEHAVIORAL CHANGES

LT1: Healthy Eating
LT2: Food Resource Management
LT3: Physical Activity and Reduced Sedentary Behavior
LT4: Food Safety

ENVIRONMENTAL SETTINGS

EAT, LIVE, WORK, LEARN, SHOP, AND PLAY



NAPSACC
WellSAT 2.0
SFSP Checklist

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

Wilder

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

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



An Early Harvest

Local Wellness Policy Scores to Date



Who's Eating the Fruit?

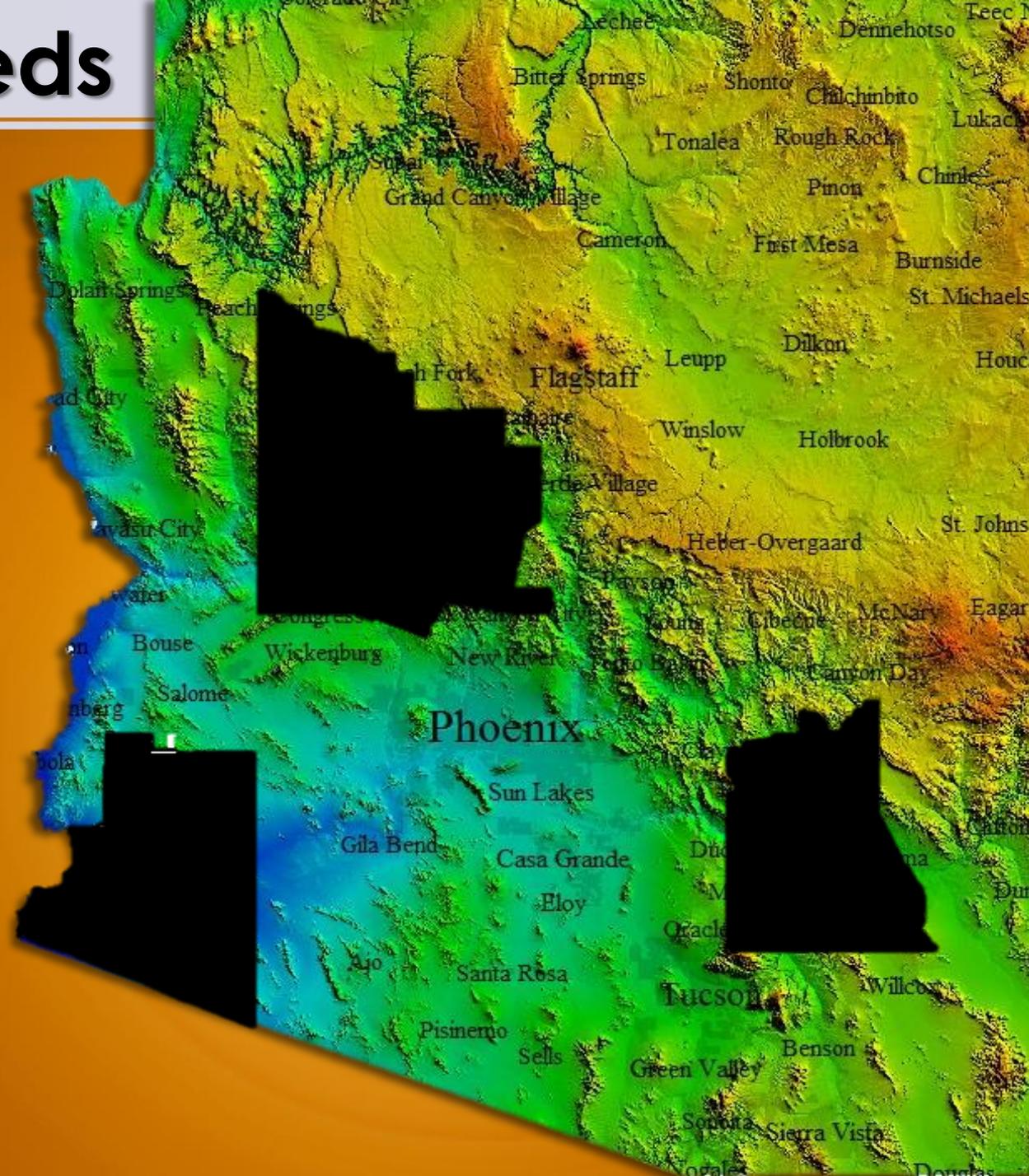
- Embed video here

Planting Seeds

48

LWPS!

20% vs. 5%





Scores and Sections

Comprehensiveness & Scope



Six Sections

1. Nutrition Education

2. Standards for USDA School Meals

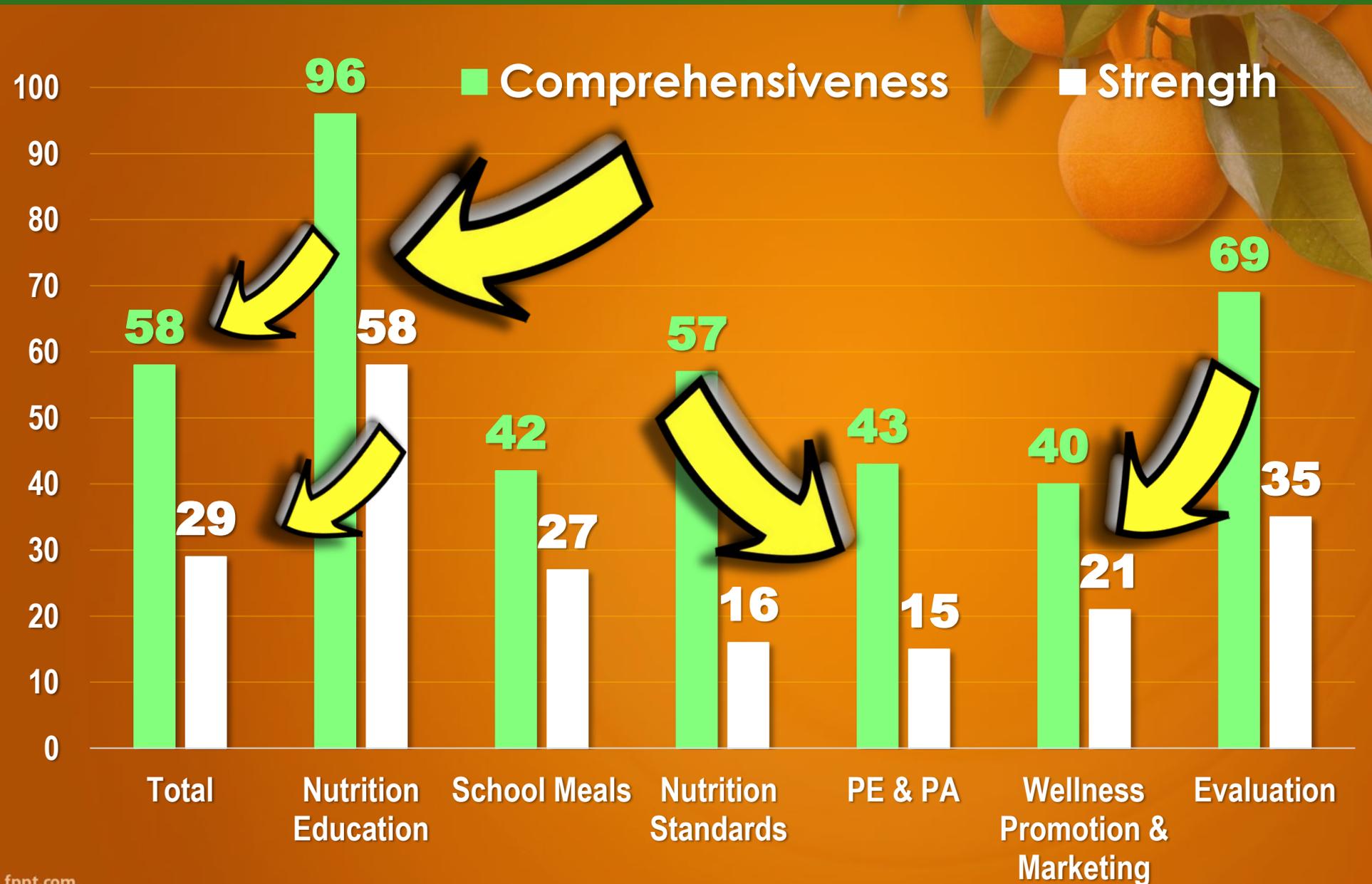
3. Nutrition Standards for Competitive Foods & Beverages

4. Physical Education & Physical Activity

5. Wellness Promotion & Marketing

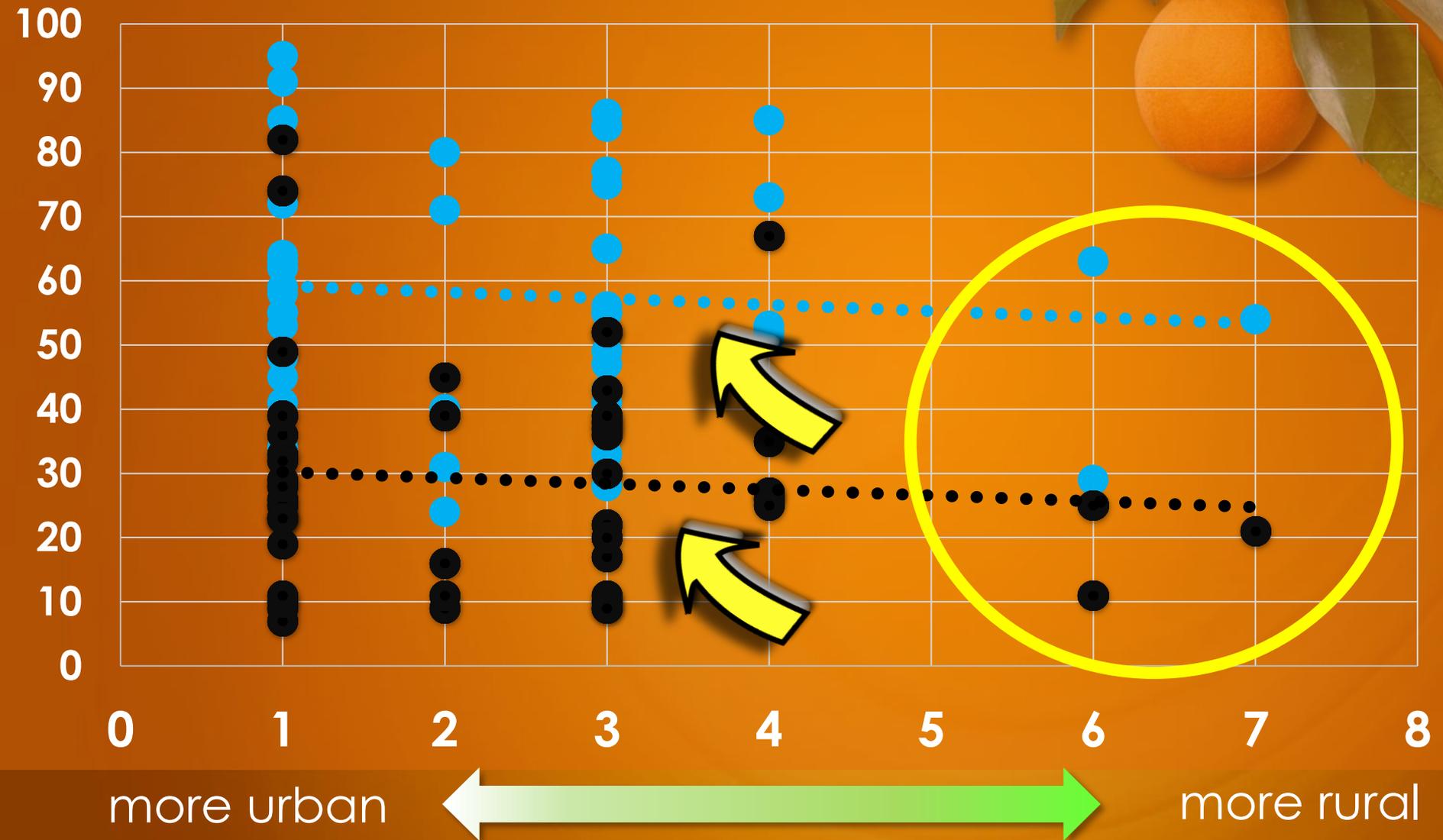
6. Implementation, Evaluation, & Communication

Mean WellSAT 2.0 Scores (N=48)



Total Scores by 2013 Rural-Urban Code (N=48)

● Comprehensiveness ● Strength





How Does Arizona Compare?

School District Wellness Policies: Evaluating Progress and Potential for Improving Children's Health Five Years after the Federal Mandate



**47
states**

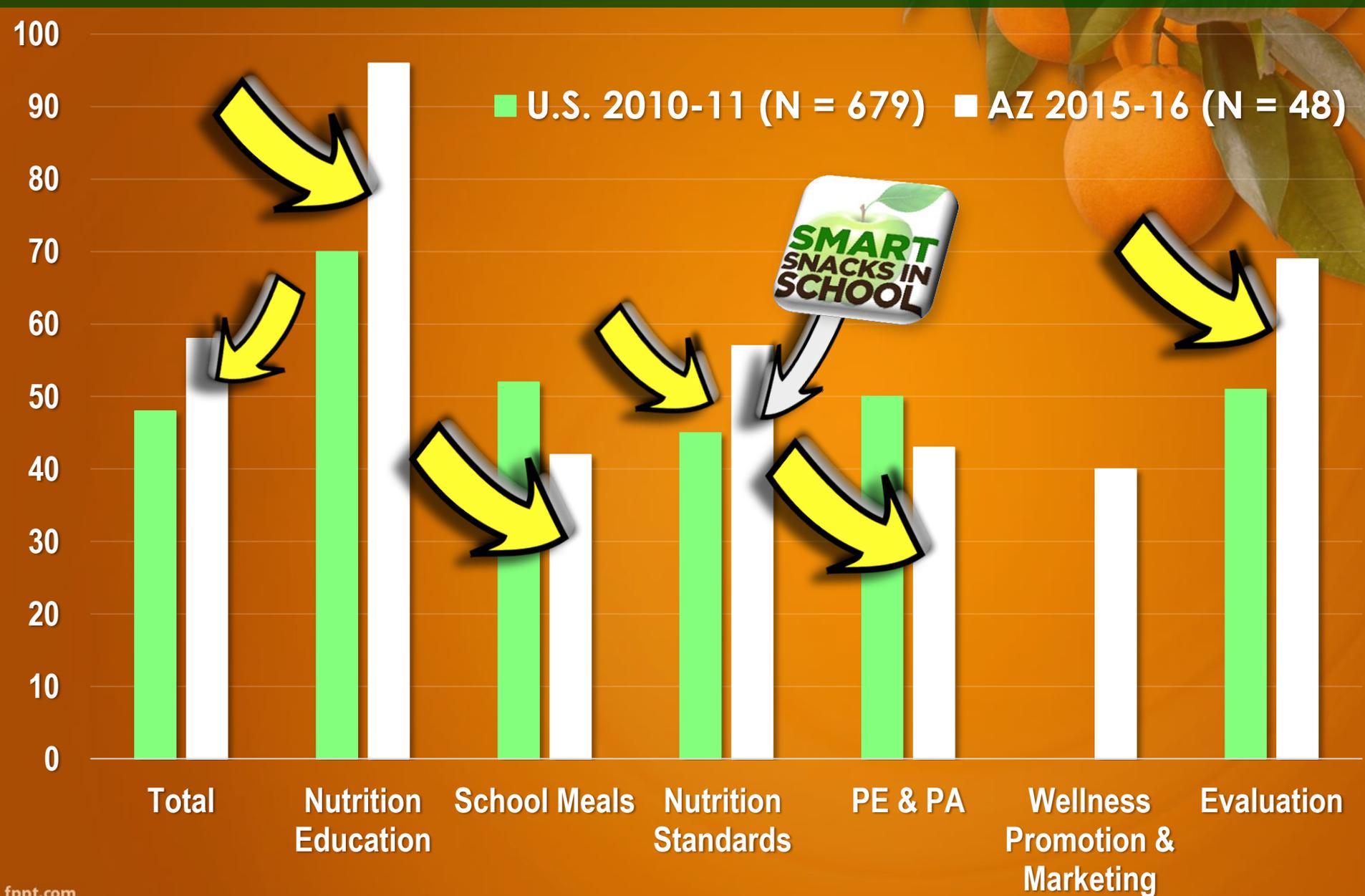


**WellSAT
(not 2.0)**

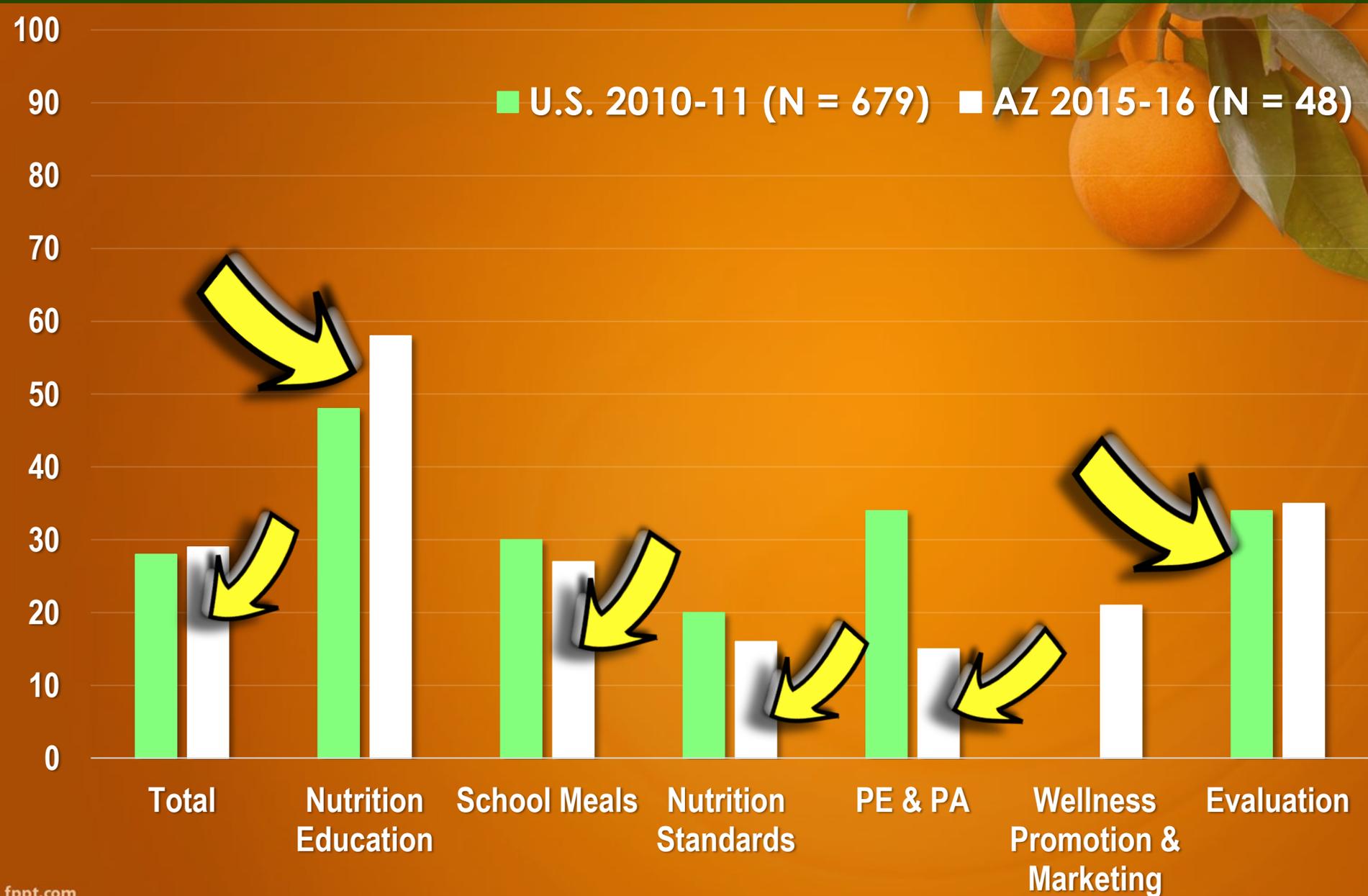


**5 Years
(2006-7 to
2010-11)**

Mean Scores for Comprehensiveness, U.S. vs. AZ



Mean Scores for Strength, U.S. vs. AZ





Does the Fruit Fall Far Enough?

“Districts with stronger, more comprehensive policies were more successful in implementing them at the school level.”¹

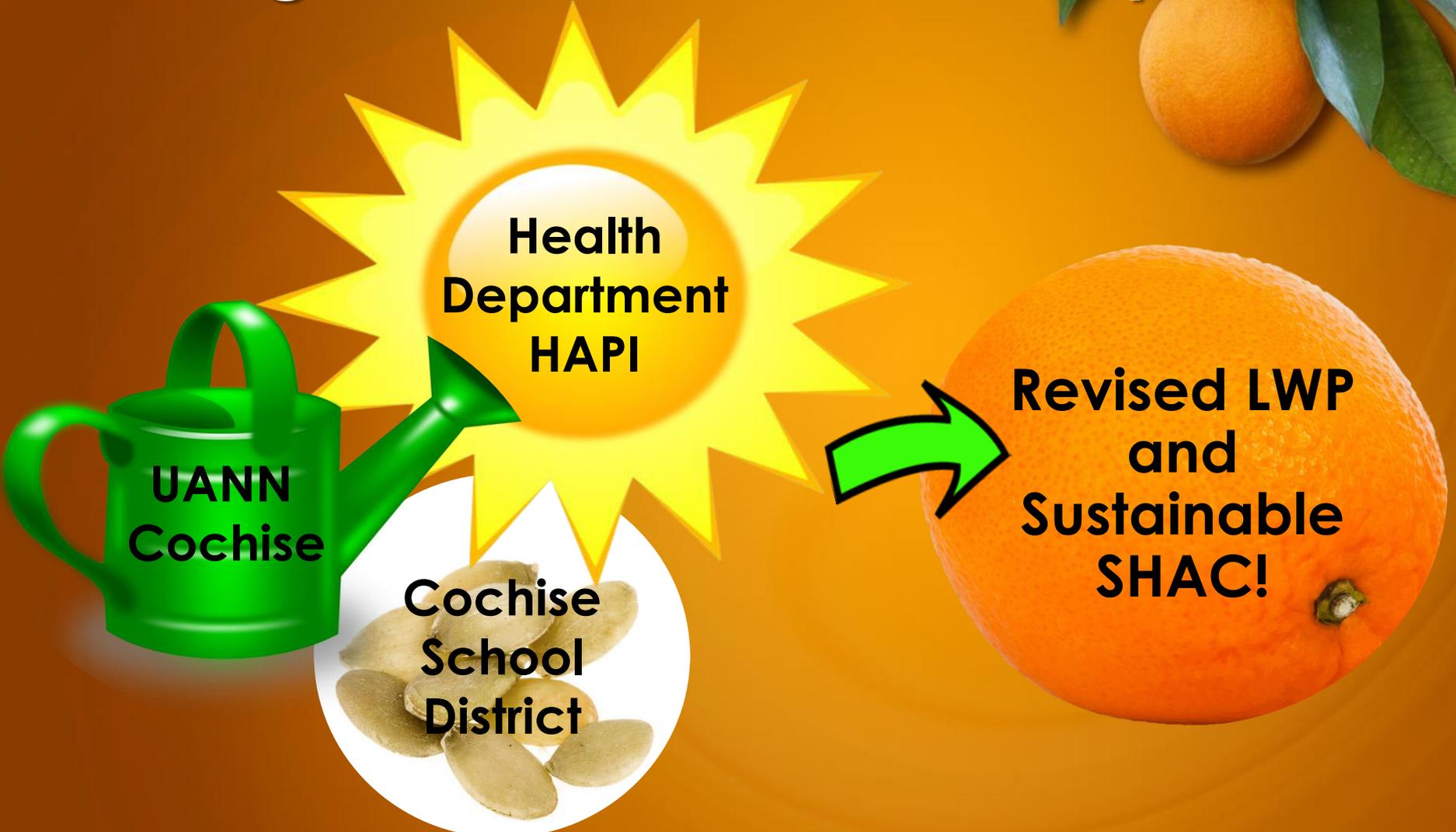
“[P]olicies that restrict unhealthy snack foods are associated with lower proportions of overweight or obese students, or lower rates of increase in student BMI.”²

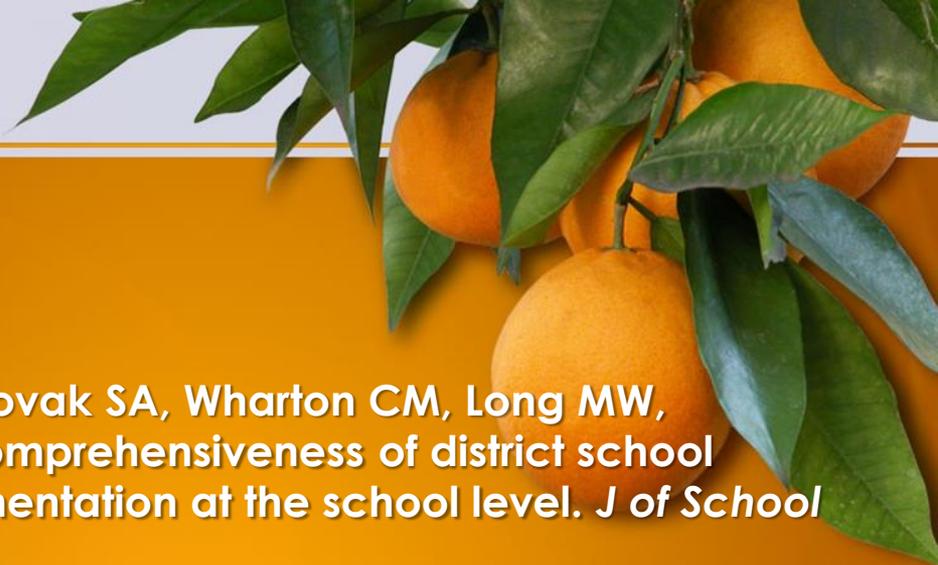
“Strong district policy was associated with an increased odds of not withholding students from recess for poor behavior or not completing schoolwork.”³

“[B]oth district policies and state laws are associated with the elementary-level food and beverage availability.”⁴

“[H]aving strong district-level PE policies increased the likelihood of schools having 150 or more minutes of weekly PE independent of the state having a strong PE law.”⁵

Bearing Fruit in Cochise County!





References

1. Schwartz MB, Henderson KE, Falbe J, Novak SA, Wharton CM, Long MW, O'Connell ML, Fiore SS. Strength and comprehensiveness of district school wellness policies predict policy implementation at the school level. *J of School Health*. 2012; 82: 262-267.
2. Chriqui FJ. Influence of competitive food and beverage policies on children's diets and childhood obesity. *Healthy Eating Research, Bridging the Gap*. July 2012.
3. Turner L, Chriqui JF, Chaloupka FJ. Withholding recess from elementary school students: Policies matter. *J of School Health*. 2013; 83: 533-541.
4. Chriqui JF, Turner L, Taber DR, Chaloupka FJ. Association between district and state policies and US public elementary school competitive food and beverage environments. *JAMA Pediatr*. 2013; 167(8): 714-722.
5. Slater SJ, Nicholson L, Chriqui J, Turner L, Chaloupka F. The impact of state laws and district policies on physical education and recess practices in a nationally-representative sample of U.S. Public elementary schools. *Arch Pediatr Adolesc Med*. 166(4): 311-316.



A Bountiful Harvest

Adult DE Impact Evaluation



Overview

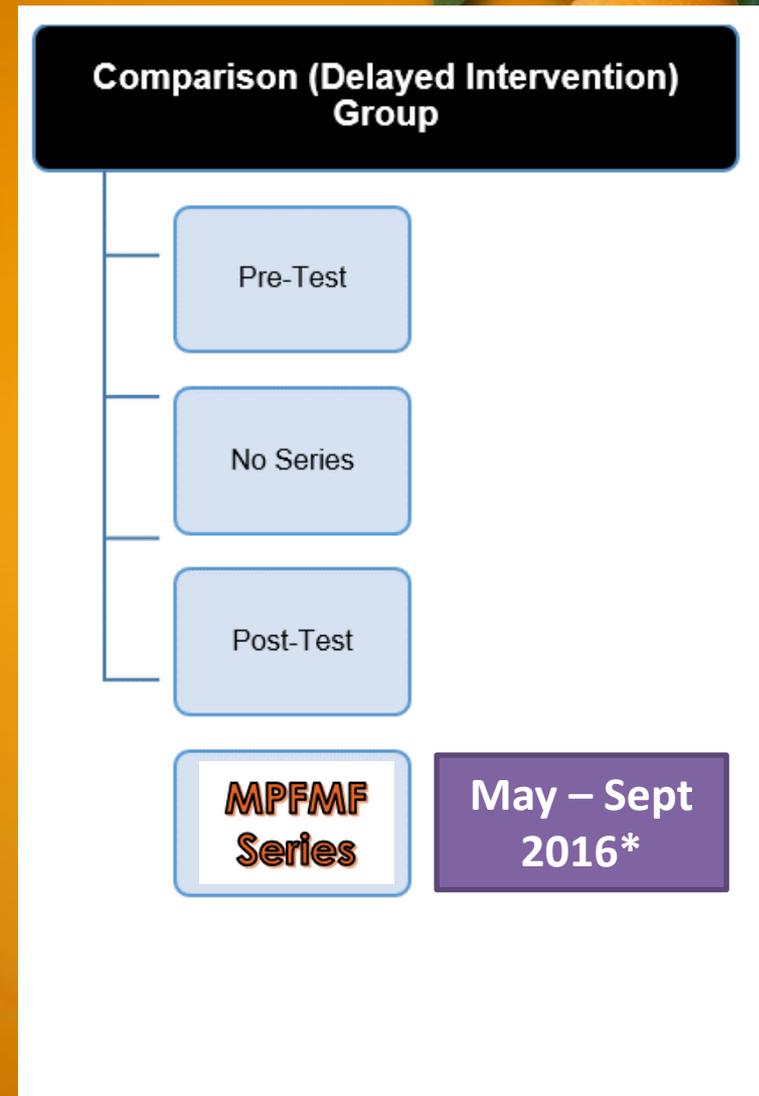
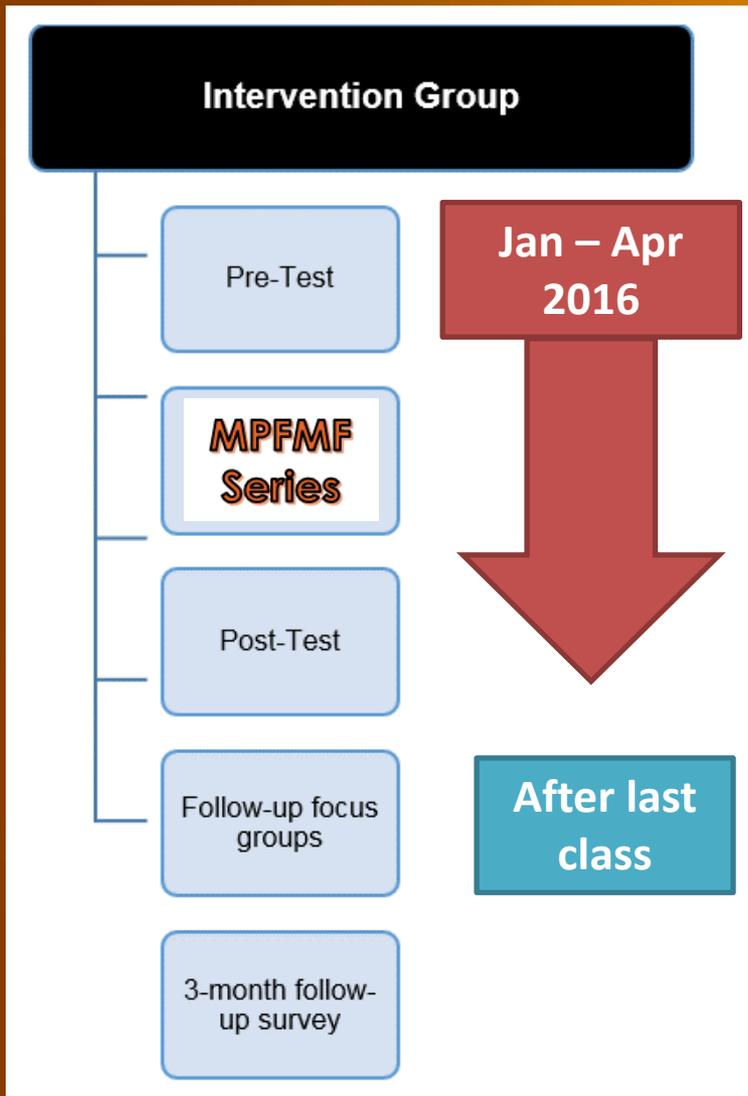
- **Adult DE Impact Evaluation Redux**
- **Where Have We Been?**
- **Who Are We Reaching?**
- **Findings for Physical Activity & Food Behavior**
- **Focus Group Findings**

Kudos to You

Too Soon to Tell

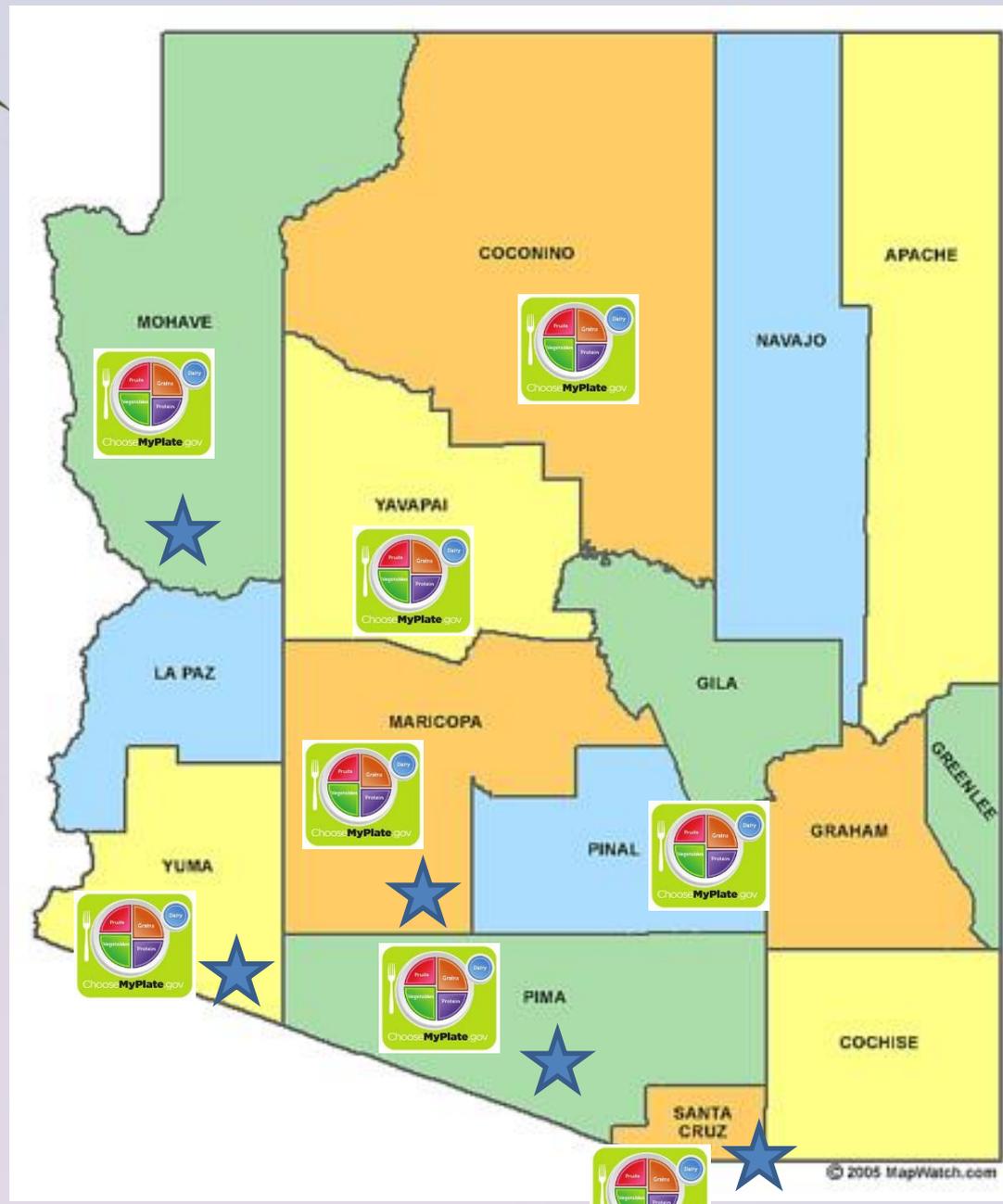
Areas for Improvement

Adult DE Impact Evaluation Redux





County	
	
Coconino	1
Maricopa	8
Mohave	1
Pima	2
Pinal	1
Santa Cruz	2
Yavapai	2
Yuma	1



Where Have We Been?



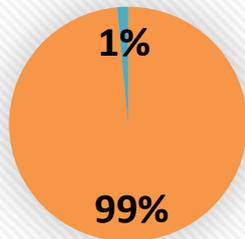
Participants and Languages Spoken

- As of 4/12/16

	Surveys	Anticipated Total (includes projections)
Pre-Post	68	98
Comparison Pre	102	115
Spanish	103	127
English	67	86

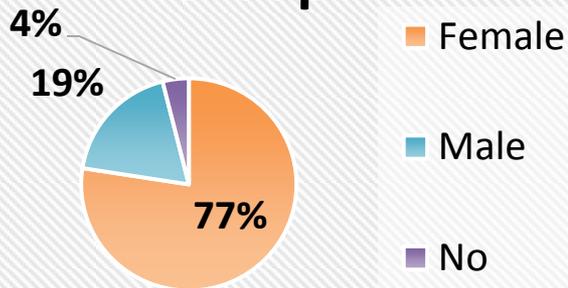
Who Are We Reaching?

MPFMF Group



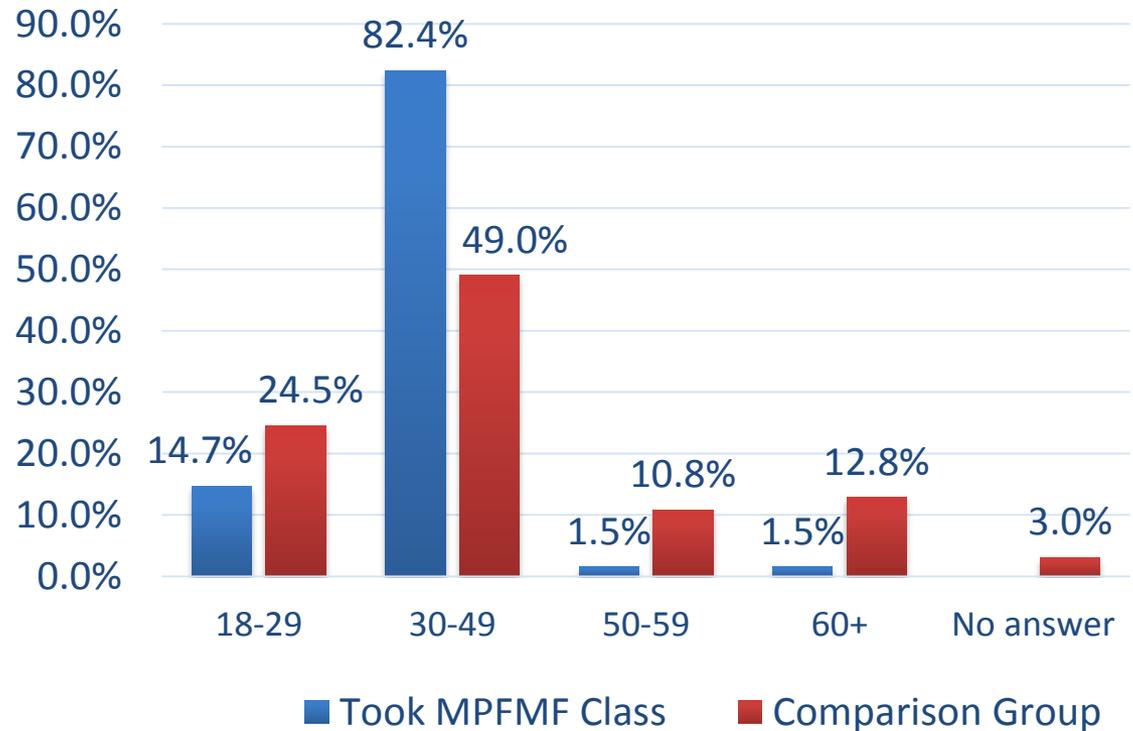
Female Male

Comparison Group



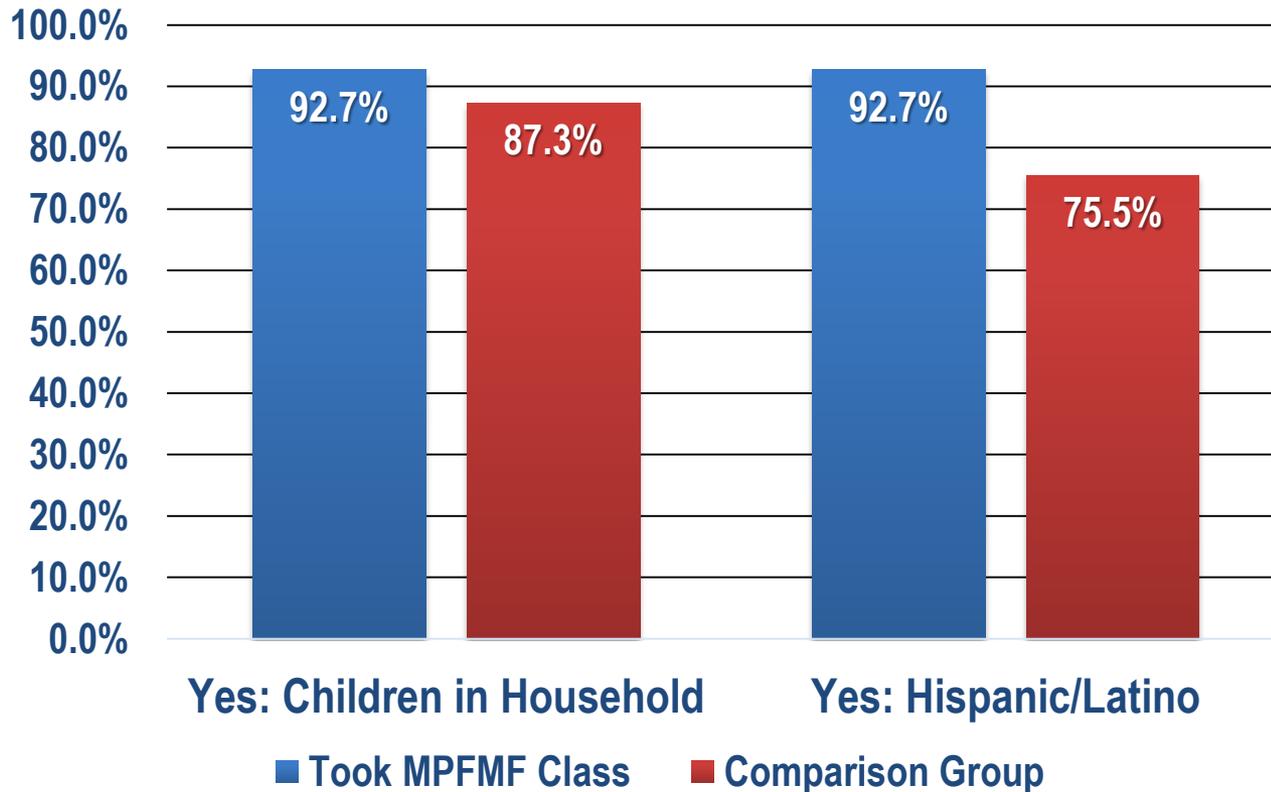
Female
Male
No answer

Age Groups Represented



Who Are We Reaching?

MPFMF and Comparison Groups



Who Are We Reaching?



	Receive SNAP	Do Not Receive SNAP	No Answer
MPFMF Group	27.9%	66.2%	5.9%
Comparison Group	26.5%	67.7%	5.9%

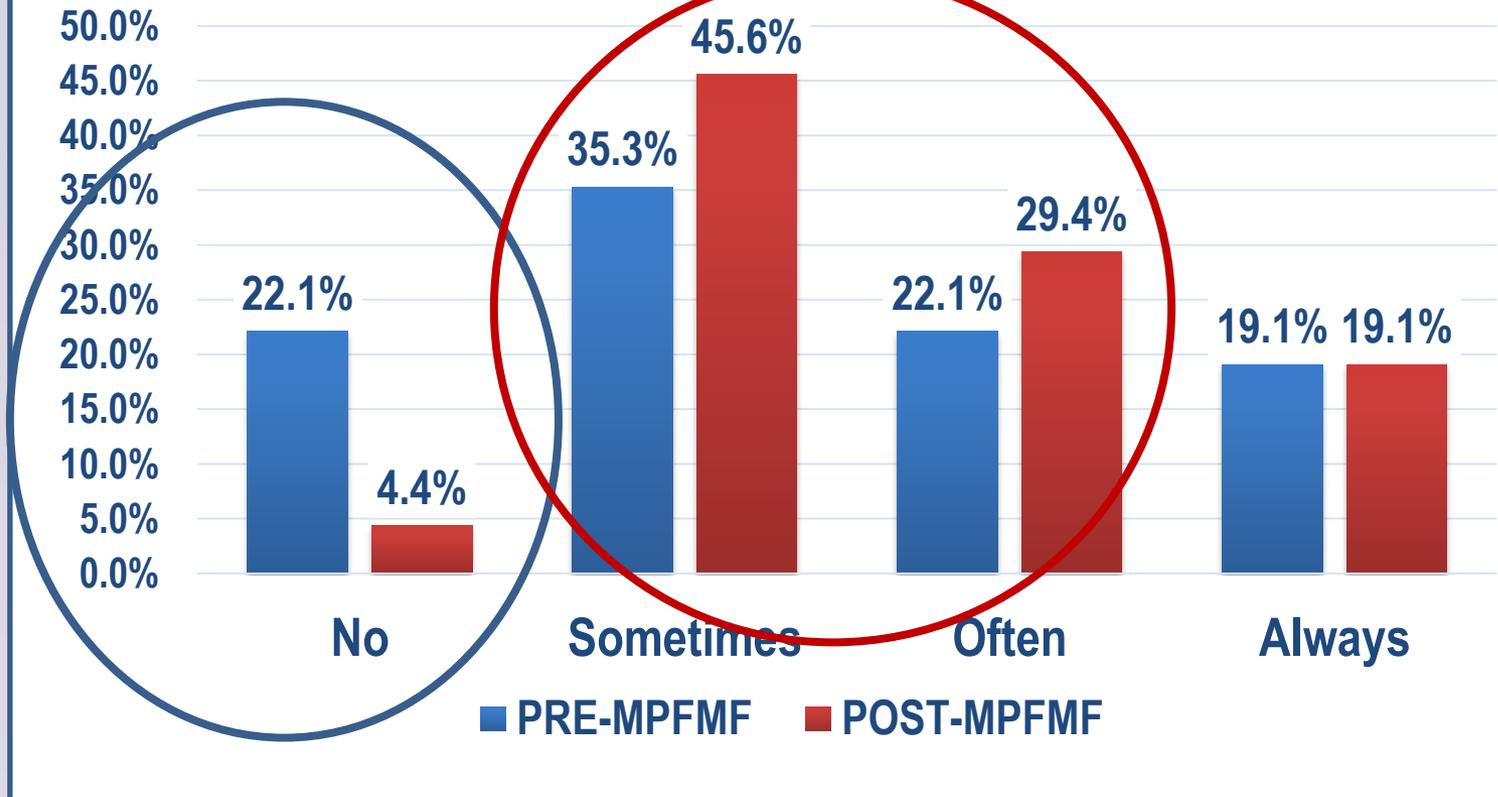


Kudos to You

**Results suggesting positive outcomes
after participating in MPFMF Class Series**

Food Behavior Findings

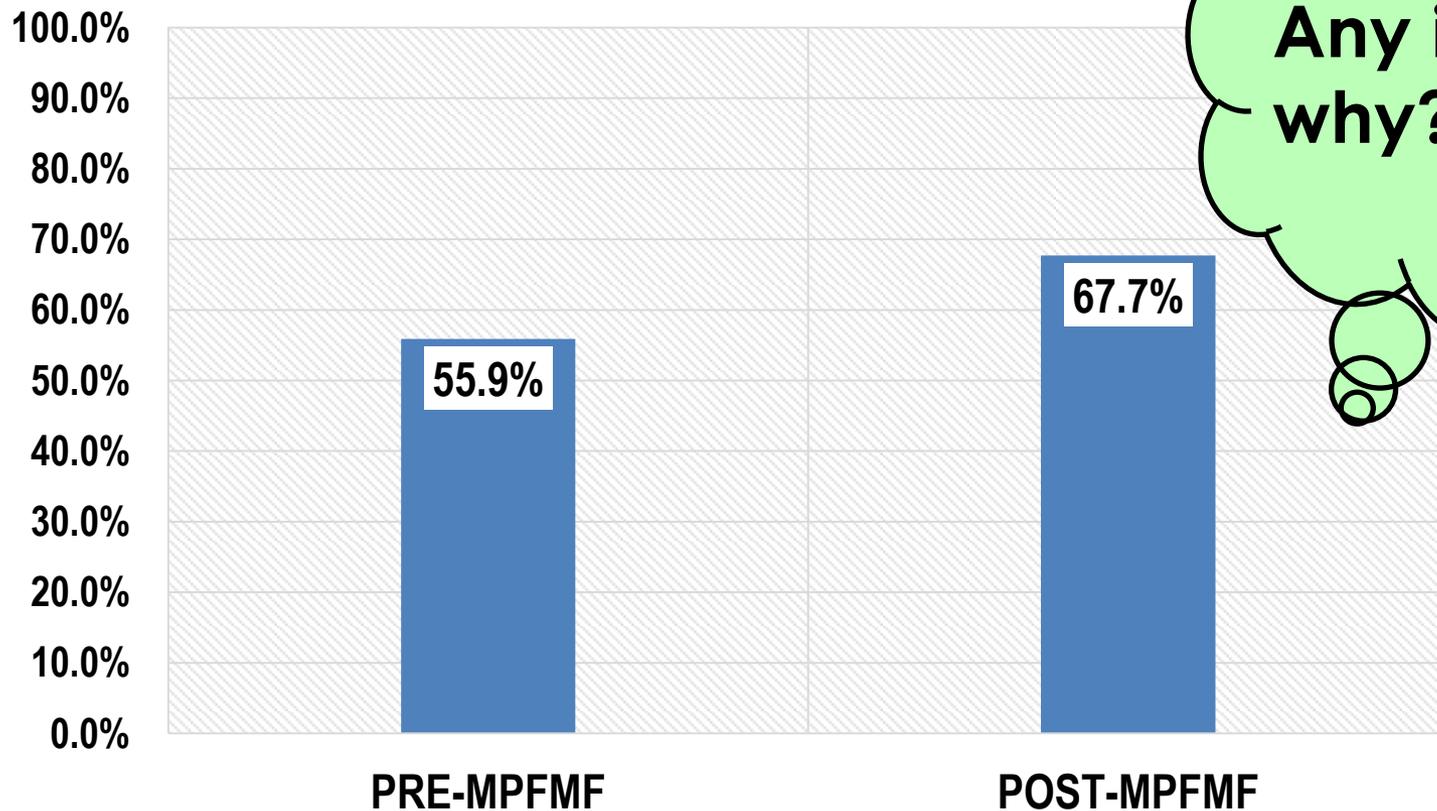
Use the Food Label When Shopping?



Food Behavior Findings



Ate Fish in Past Week: Yes

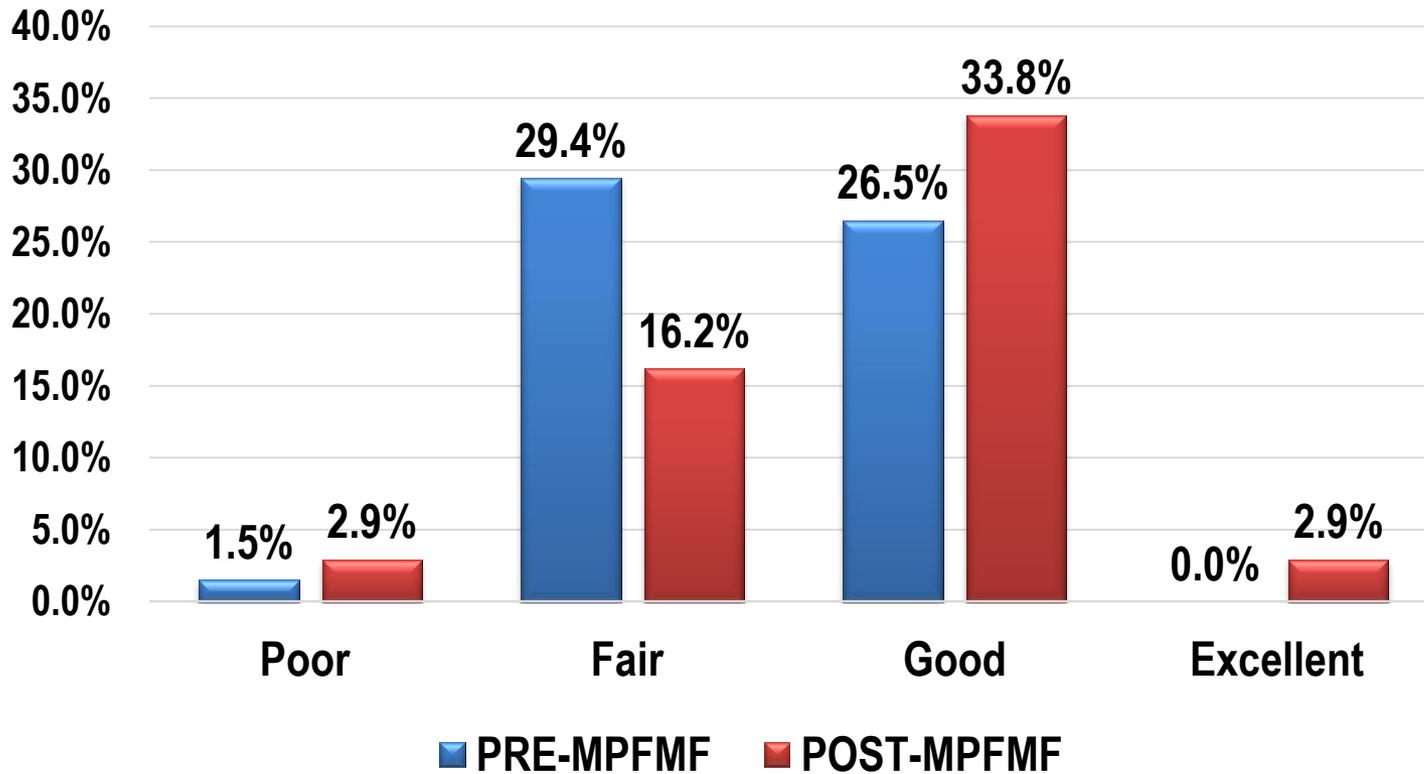


**Educators:
Any idea
why?**

Food Behavior Findings



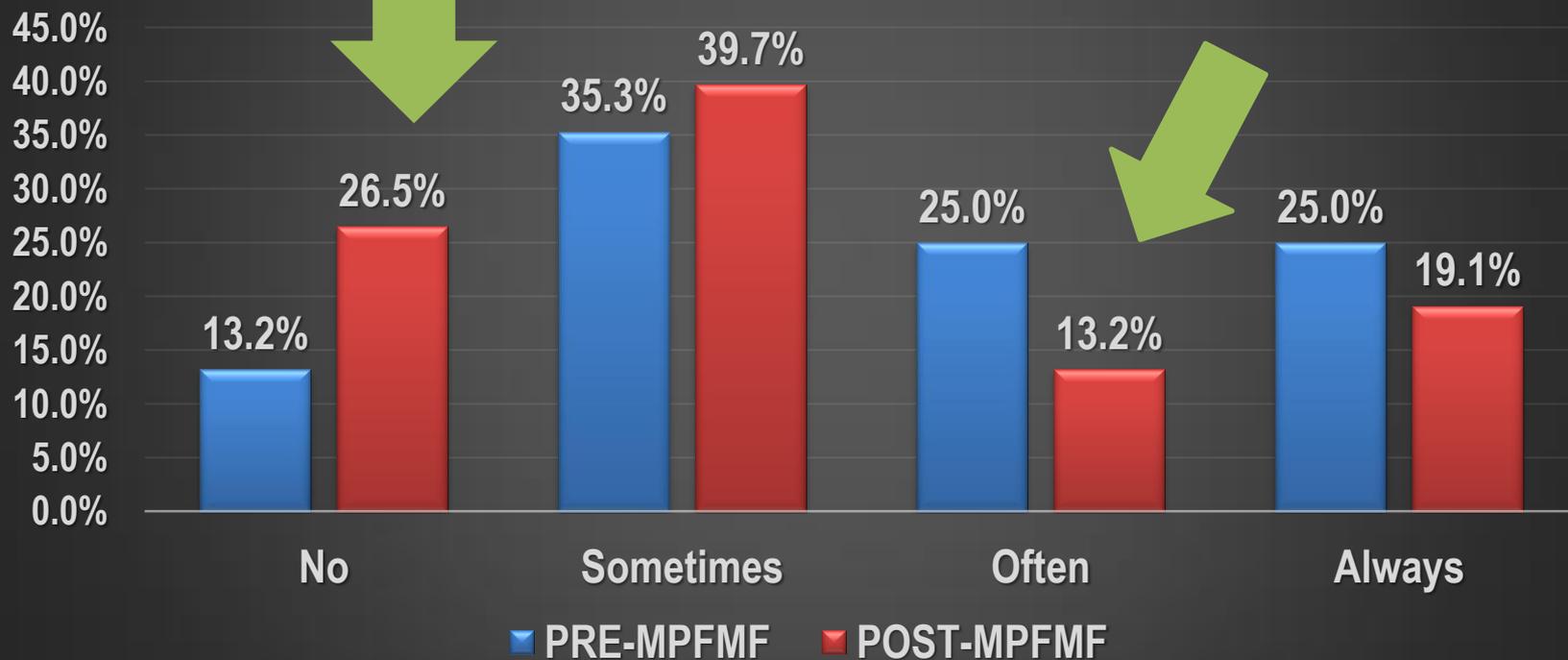
Rate Your Eating Habits



Food Behavior Findings



Do You Run Out of Food Before the End of the Month?





Too Soon to Tell

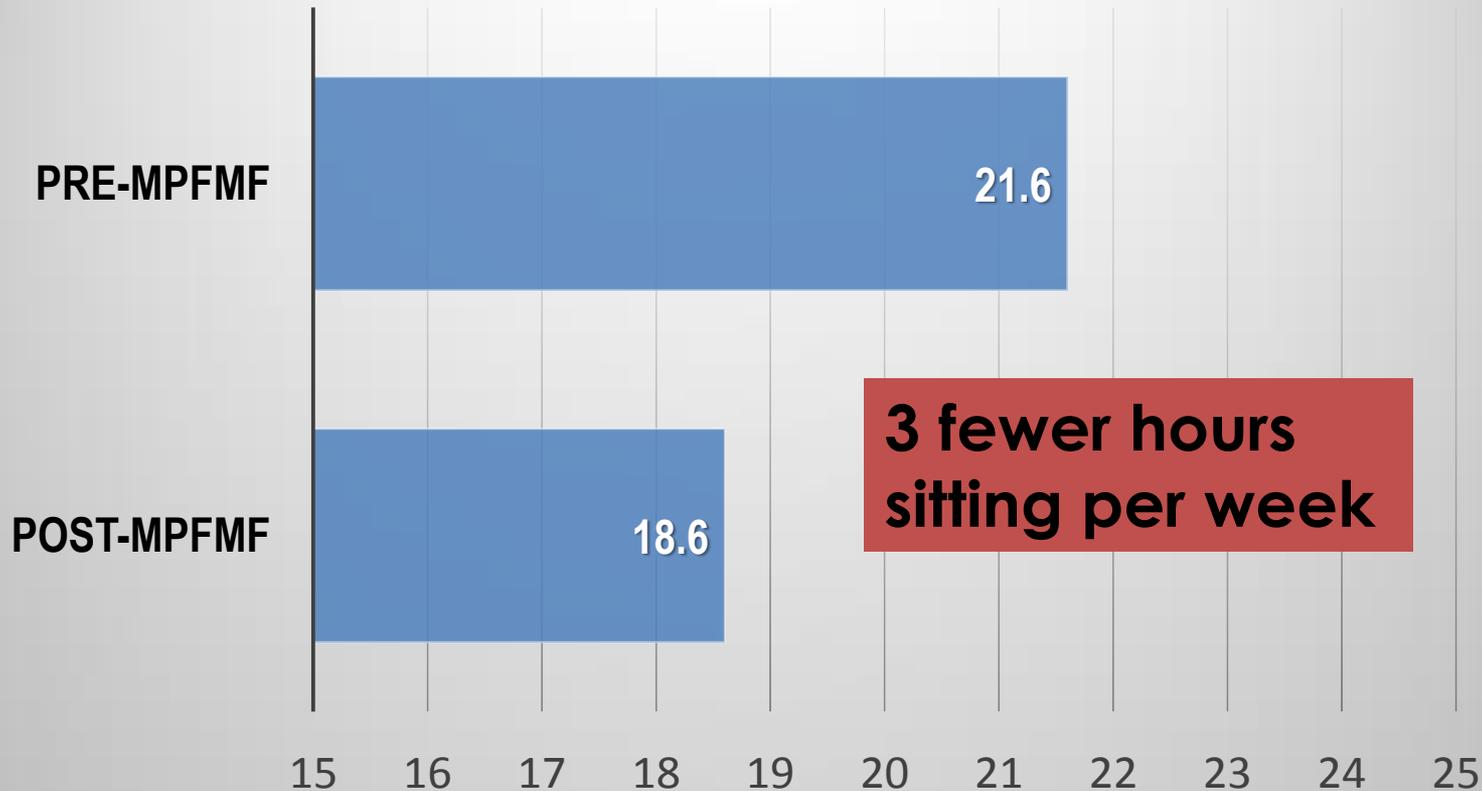
Thinking About Changing After MPFMF Series...But Will They?

**3-Month
Follow-Up
Survey**

Physical Activity Findings



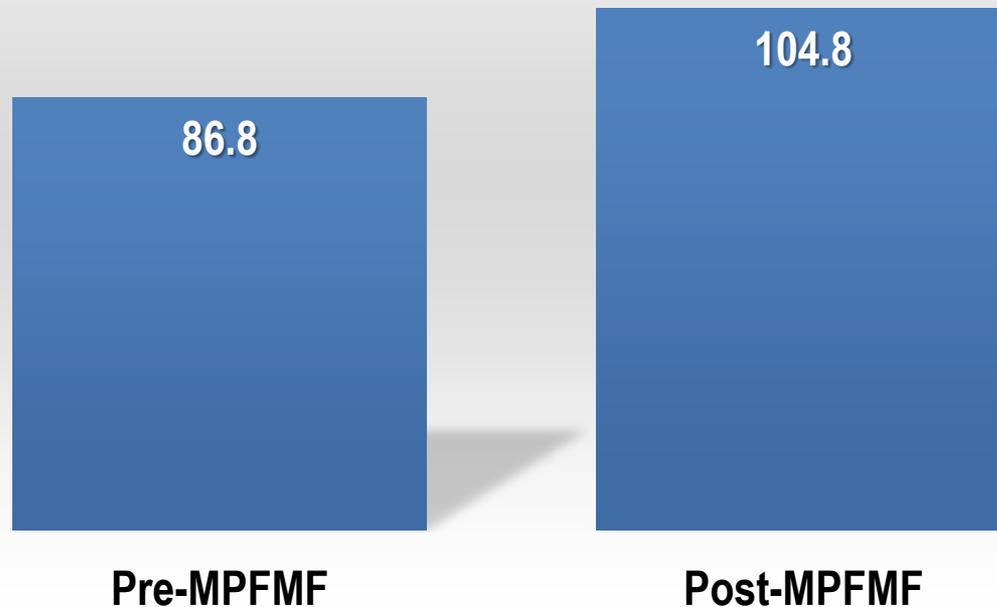
Average Total Hours a Week Sitting





Physical Activity Findings

**Total Minutes Per Week
Breathe Harder in Spare Time**



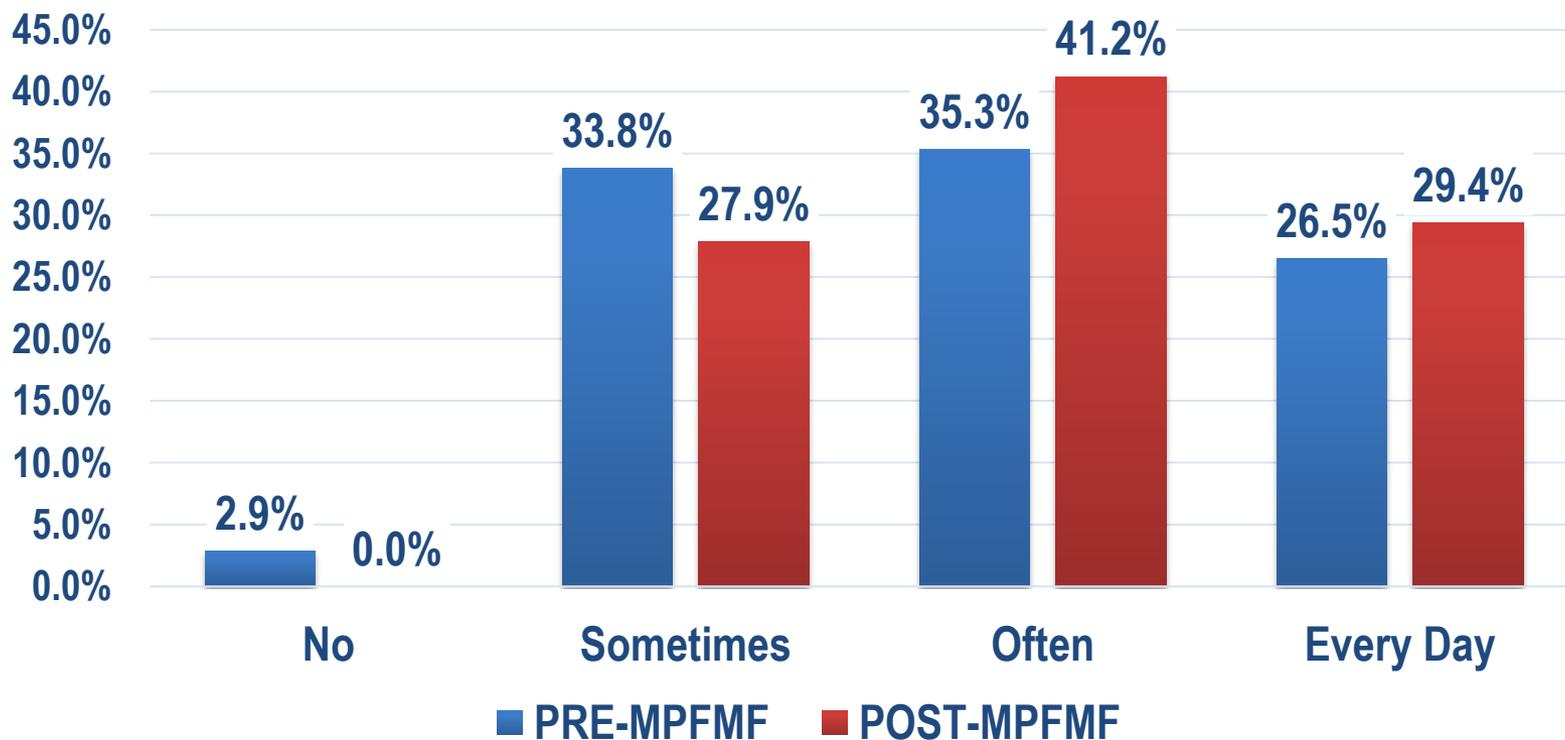
But:

**Some classes
included 2-10
mins activity in
the 4th class**

Food Behavior Findings



Eat 2+ Vegetables at Main Meal





Areas for Improvement

Not Much Change After MPFMF Series

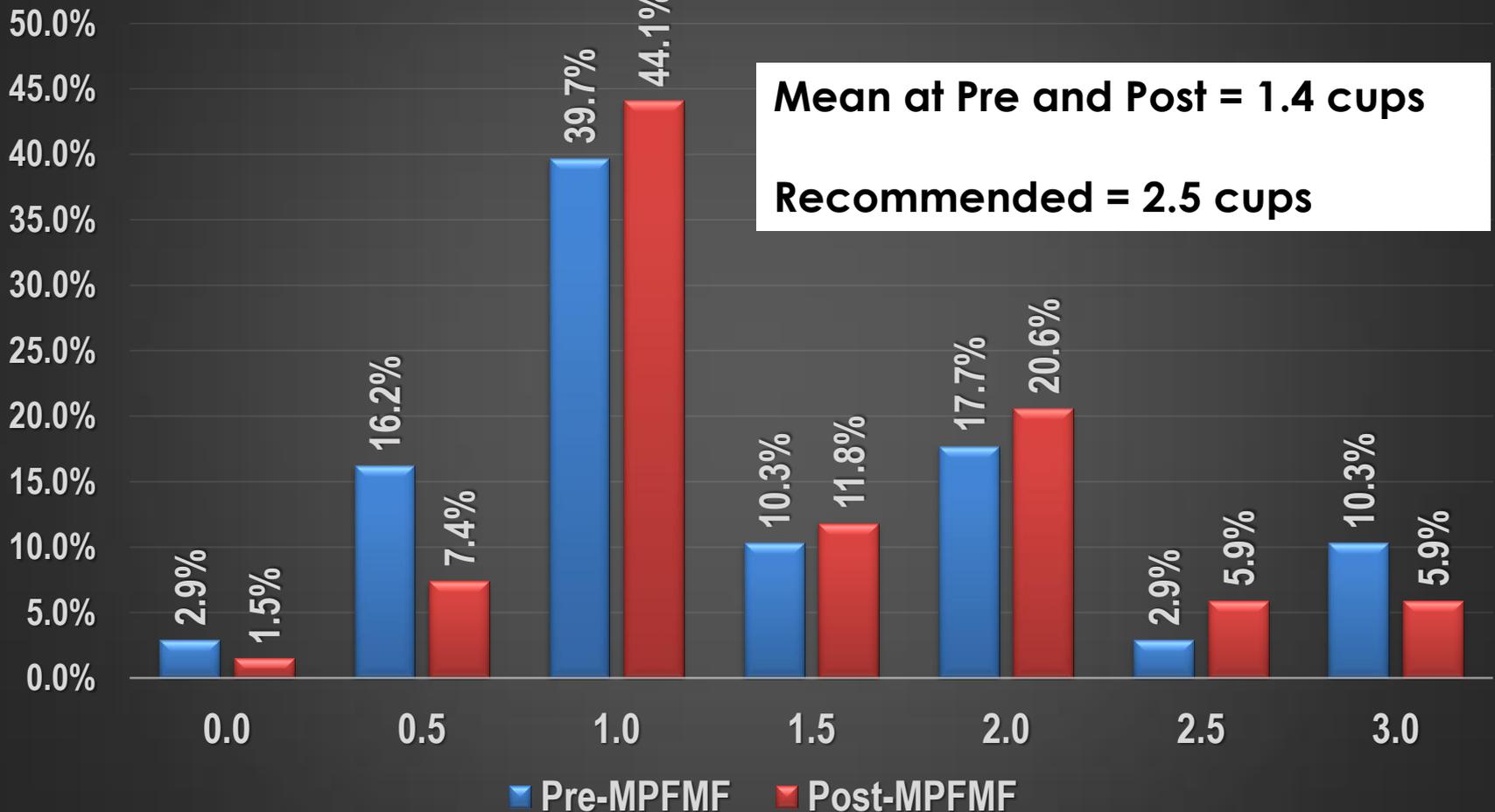
Food Behavior Findings



Cups of Vegetables Eaten Per Day

Mean at Pre and Post = 1.4 cups

Recommended = 2.5 cups





Focus Groups

- **4 groups conducted**
 - **21 total participants**
 - **English and Spanish**
 - **Nogales, Prescott Valley, Mesa, Flagstaff**
- **What did participants find more and less useful from MPFMF for self and families?**

Focus Group Findings

- MyPlate icon helps with meal planning and serving
- Understanding portion sizes
- Physical activity as a family is realistic and enjoyable

“...Getting the right amount of food, that was important because...I didn't know the right amount for a five year old...versus an adult”

“...I have a group the Mexican dance teacher likes me...”



Focus Group Findings



- **It can be difficult to change the family's preferences**

“My kids are really picky eaters so I haven't been able to get them to switch over and try whole grains yet.”

- **Changes must be made slowly**

“[My daughter] says that she does not get full. And, later, I see her grabbing something from the refrigerator . . . step by step. You can't do everything all at once, but step by step for today.”

Focus Group Findings

Liked It

“For me, what I liked most was the exercise, and...that she gave us new recipes to make different things. Because many times we are like “Oh, what am I going to make...and now, ok [with the recipes] we [can] make something different.”

Wished For More

- Taste-testing
- Handouts & Recipes
- Instruction on reading nutrition labels



Special Thanks To:



Norma Rodriguez

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Rebecca Serratos

Carmen Gardea

Sonia Ramirez

Melody Skiver

Rashel Clark

Melissa Palmer

Theresa Kulpinski



How's It Hangin'?

A Closer Look at the AzNN Youth Survey

Youth Nutrition and Physical Activity Survey

The Arizona Nutrition Network wants to learn about what kids your age eat, and how they are physically active (exercise). This survey asks questions about your food choices and physical activity (exercise). Your answers will help make our program the best it can be. We will ask you to take the survey at two different times. Each time, it will take you about 20 minutes.

- No one at school or at home will see your answers.
- Taking part in this survey is up to you. Your choice will not affect your grades in school. Your choice will not affect whether you can do any school or summer program activities.
- If you do not want to answer a question, you can skip it.
- You may stop taking the survey at any time.
- There are no known risks or benefits to doing this survey.



PLEASE DO NOT WRITE IN THIS AREA

[SERIAL]

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Serving Up MyPlate

- Started before surveys were available?
 - That's **OKAY**
- Started after surveys were available?
 - 229 pre-tests (9 classes)
 - 21 post-tests (1 class)
 - Still receiving surveys through FY16
- *We've heard your voice!* For FY17,
 - Materials will be available early
 - Training will be provided early
 - Expect expanded use with more curricula

Gobbling Up Opportunity

- Youth Survey Validation
- Five 4th grade classrooms (N = 119)

What
protocol
works best?

Do 4th graders
understand the
questions?

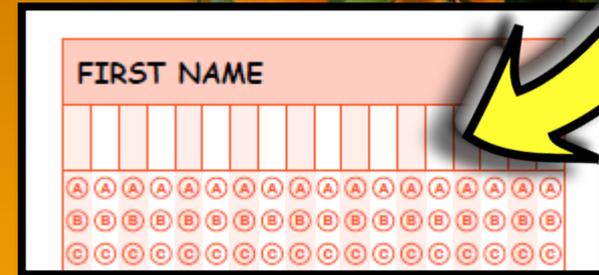
How much
variation exists
between pre and
post?



Findings: Protocol



- **Protocol**
 - Pencils, not pen
 - Review bubbling with entire class
 - Skip name bubbling



- **Do 4th graders understand the questions?**
 - Reading level appropriate
 - Reviewing by each question was important
 - “Group question!” helped responses and engagement



Findings: Test-Retest

Ideally, no intervention = no change (coefficient 1.0)

Kappa	Agreement
<0	Less than chance agreement
0.01 – 0.20	Slight agreement
0.21 – 0.40	Fair agreement
0.41 – 0.60	Moderate agreement
0.61 – 0.80	Substantial agreement
0.81 – 0.99	Almost perfect agreement

Reliability is tied to individual question

- Yesterday questions
- Comprehension may vary by question

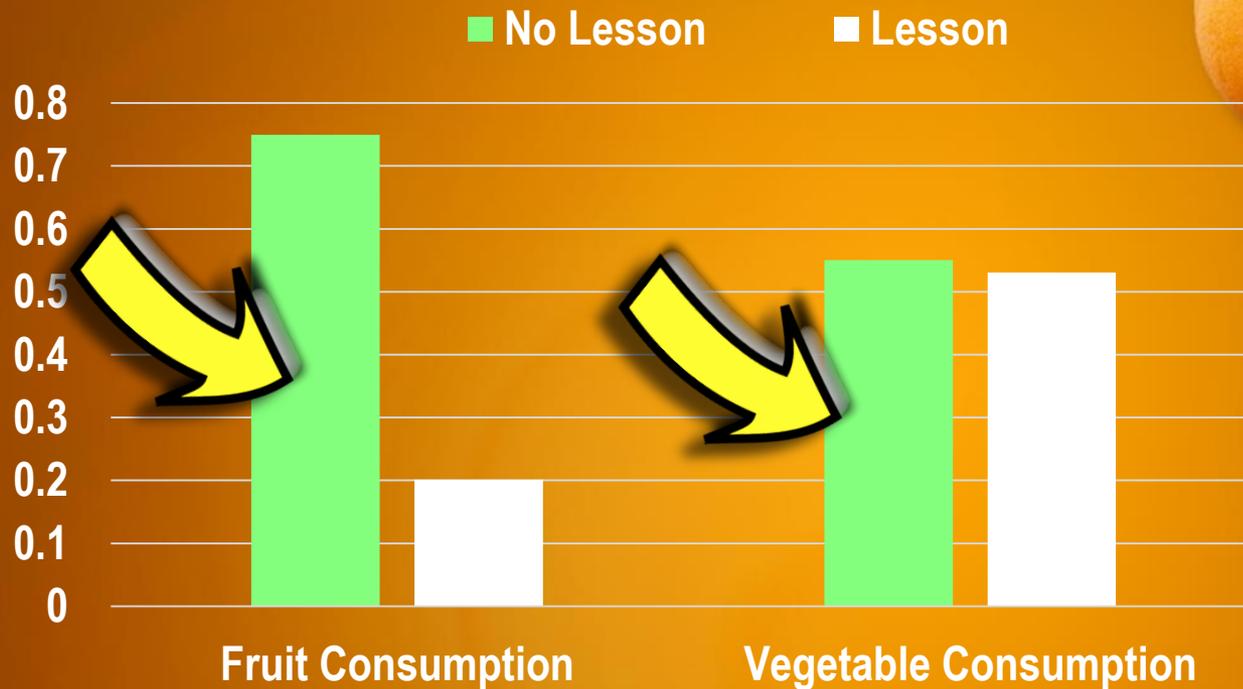


Findings: Test-Retest

- ***Yesterday behavior questions***
 - Interclass correlation coefficients: 0.3955-0.7494
 - Ex.: fruit consumption (0.7494) more consistent than brown bread consumption (0.4331)
- ***Categorical questions*** - moderate to substantial agreement
- ***Ordinal questions*** - fair to moderate agreement



Findings: Test-Retest



✓ **ACCURACY**

improved protocol, better training, valid survey!



Our Newest “Hub”

Introducing The AzNN Evaluation Website



**Who is the website's
target audience?**

YOU!



What will you find there?

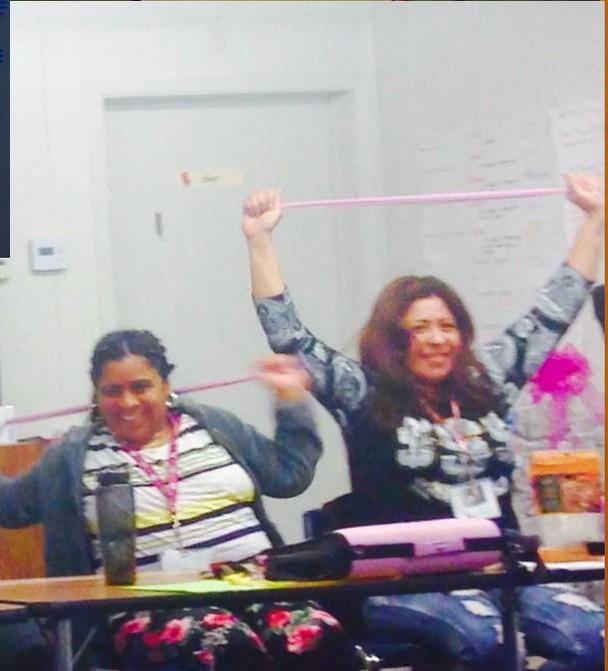
- Evaluation resources by **Focus Area**
- **Calendar** of upcoming and past evaluation trainings
- Resources for evaluation-related **trainings, materials, custom frameworks,** and helpful **links**
- Each of our team members under **About Us**
- What's on our minds in our **Blog**



How do you get there?

- <http://nutritioneval.arizona.edu/>
- When you click on some topics, you will be prompted to **Log In** to access the information
 - Your liaison will contact you after the conference with log in instructions

Questions?



CLASES DE NUTRICION	
Marzo	9 #1
Marzo	23 #2
Marzo	30 #3
Abril	15 #4
Abril	25 #5

