



COLLEGE OF AGRICULTURE & LIFE SCIENCES  
Nutritional Sciences

# FY18 Evaluation Report

# AZ Health Zone SNAP-Ed Local Implementing Agencies (LIAs)



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## List of Acronyms

ADE	Arizona Department of Education	MCDPH	Maricopa County Department of Public Health
ADHS	Arizona Department of Health Services	MPFMF	MyPlate for My Family curriculum
ATP	Active Transportation Plan	NACOG	Northern Arizona Council of Governments
BAC	Bicycle Advisory Committee	PA	Physical Activity
CATCH	Coordinated Approach to Child Health curriculum and resource	NAP	Nutrition and Physical Activity Self-Assessment for Child Care
CCBT	Cochise County Breastfeeding Taskforce	SACC	Physical Education
CFB	Community Food Bank	PE	Point of Decision
CSA	Community-Supported Agriculture	POD	Policy, Systems, and Environment
CSPAP	Comprehensive School Physical Activity Programming	PSE	SNAP-Ed Electronic Data System
DE	Direct Education	SEEDS	AZ Health Zone State Evaluation Team
DWC	District Wellness Committee	SET	Senior Farmers' Market Nutrition Program
EBT	Electronic Benefit Transfer	SFMNP	Summer Food Service Program
ECE	Early Childcare Education	SFSP	School Health Advisory Committee
EHBA	Eat Healthy, Be Active curriculum	SHAC	Supplemental Nutrition Assistance Program
FMNP	Farmers' Market Nutrition Program	SNAP	Supplemental Nutrition Assistance Program- Education
FY	Fiscal Year (Oct 1 <sup>st</sup> – Sept 30 <sup>th</sup> )	SNAP-Ed	Technical Assistance
FTI	Farm to Institution	TA	University of Arizona
KAN-Q	Kids' Activity and Nutrition Questionnaire	UA	United States Department of Agriculture
LIA	Local Implementing Agency	USDA	Special Nutrition Program for Women, Infants and Children
LSA	Living Streets Alliance	WIC	
LWP	Local Wellness Policy		

# Executive Summary

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The AZ Health Zone SNAP-Ed program coordinates statewide activities with Local Implementing Agencies (LIAs) to reduce health disparities among those on a limited budget. A primary goal is to increase the likelihood that individuals and families will engage in healthful behaviors through a combination of policy, systems, and environment (PSE) approaches and educational outreach. This report describes results from the third year of the AZ Health Zone's five-year program cycle.

**Food Systems.** Food systems **coalitions** (N=3) assessed across two years saw statistically significant increases in the number of members reporting that their coalitions embodied a *Unique Purpose*. None of the coalition success factors decreased significantly. Promotion of **Summer Food Service Program sites** (N=19) increased significantly over two years at six location types across the state: WIC offices, food banks, schools, farmers' markets, recreation centers, and community agencies. LIAs' role in media coverage for meal sites and kick-off events also increased significantly. However, meal participation did not consistently improve.

**Active Living.** Four active living **coalitions** assessed across two years significantly increased in the number of members reporting a *History of Collaboration* and *Sufficient Resources* in their coalitions, and *Unique Purpose* saw a trend toward improvement. No factor decreased significantly over time.

**School Health. Local Wellness Policies** (N=57) assessed across two years saw significant improvement in their comprehensiveness and strength. There was also a significant increase in the number of policies that established District Wellness Committees. After participating in a combination of direct education and PSE interventions during the school year, 3<sup>rd</sup> through 8<sup>th</sup> graders (N=2,730) showed significant increases in **fruit, whole grain, and lower fat dairy consumption**, and in **physical activity** during recess, after school, and on the weekend.

**Early Childhood.** PSEs at 26 childcare centers were assessed across two years. Mean scores for **child nutrition** and **infant and child physical activity** practices and policies did not show a significant change. Nevertheless, FY18 child nutrition scores were generally high; means for five sections approached the maximum score, indicating best practices.

**Direct Education.** After completing a lesson series, adult participants (N=184) reported statistically significant increases in both moderate and vigorous **physical activity, fruit consumption, and vegetable consumption**. Spanish speakers' behaviors improved more than English speakers'.

Overall, the results suggest that the AZ Health Zone is making measurable progress in several areas toward the program's goal of reducing health disparities through a combination of community- and individual- level approaches.

# Introduction

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The USDA's Supplemental Nutrition Assistance Program Education ([SNAP-Ed](#)) provides community-based initiatives, including nutrition education, in each state to reduce health disparities by increasing the likelihood that SNAP-eligible families will choose healthful diet and physical activity behaviors on a limited budget.

SNAP-Ed's program design centers upon an evidence-based systems approach that integrates direct educational outreach (DE) with the implementation of policy, system, and environment (PSE) approaches where people live, learn, eat, shop, and play to make the healthy choice the easy choice. Social marketing is the third intervention strategy reaching SNAP-Ed eligible communities with targeted media campaigns and materials.

In Arizona, SNAP-Ed operates as the [AZ Health Zone](#) to coordinate implementation of the program's goals with state partners and local implementing agencies (LIAs) in each of Arizona's 15 counties.



[Evaluation of the SNAP-Ed program](#) is carried out externally by the University of Arizona Department of Nutritional Sciences. This FY18 evaluation report describes findings from the third year of the AZ Health Zone's five-year program cycle, in alignment with the national [SNAP-Ed Evaluation Framework](#). The outcome indicators from the SNAP-Ed Evaluation Framework are highlighted in gray and bracketed throughout the report (e.g., [MT1]).

The AZ Health Zone State Evaluation Team's **GUIDING PRINCIPLES** inform each phase of the SNAP-Ed evaluation:

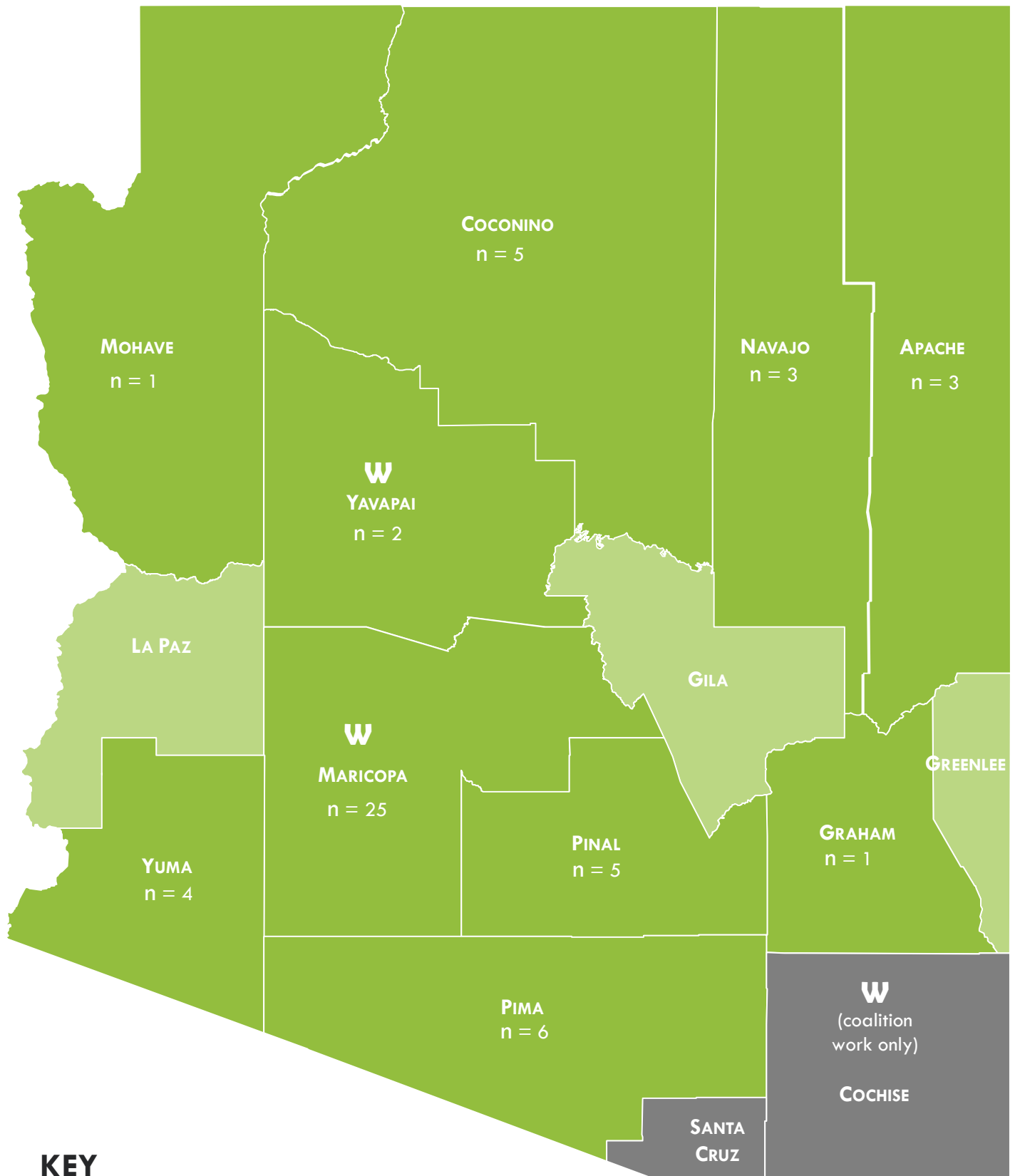
**Accuracy.** Use evidence-based methods and tools whenever possible.

**Ease of Use.** Minimize burden to program staff.

**Consistency.** Perform measurement of SNAP-Ed indicators across time.

**Utility.** Be responsive to stakeholders.

**Feasibility.** Design evaluations that are practical and realistic to implement.



### KEY

- W** = Participated in the Food Systems *Wilder* coalition evaluation
- = Participated in the SFSP evaluation (n = number of assessments)
- = Worked in the Food Systems focus area
- = Did not work in the Food Systems focus area



# Food Systems



UA Cooperative Extension, Graham

## AZ Health Zone Food Systems Strategies



Increase the availability of healthy food retail



Encourage participation in gardens



Start and expand Farm to Institution programs



Support the Summer Food Service Program



Encourage the use of farmers' markets with SNAP and WIC access

## Evaluating Food Systems

The AZ Health Zone evaluated Food Systems programming using the Wilder Coalition Factors Inventory, the Summer Food Service Program Checklist, and Arizona's SNAP-Ed Electronic Data System (SEEDS). In Healthy Retail and the Summer Food Service Program (SFSP), we present two-year outcomes for *Multisector Partnerships and Planning* [ST8] and *Nutrition Supports* [MT5]. Analysis of SNAP-Ed Local Implementing Agencies' (LIAs) Semi-Annual Narrative Reports provided additional insights.

### Healthy Retail

"The creation of an official [food bank] nutrition policy was presented to and approved by the Desert Mission Board of Directors in May 2018. The team also discussed using Feeding America's 'Foods to Encourage' (F2E) model. For food drives, staff changed the food drive donation packet to request only F2E items such as low-sodium vegetables, fruit in juice, canned tuna, canned chicken, natural peanut butter, and water."

— Desert Mission Food Bank, Maricopa County

Seven LIAs in eight counties continued to progress their healthy retail partnerships in year three of the program. Eighty-six percent of healthy retail activities reported in SEEDS were events and meetings.

**Strengths.** Healthy retail interventions have expanded beyond partnerships with food retailers [MT5]. In FY18, LIAs engaged in food bank policy work, community-supported agriculture (CSAs), and the support of small growers to become farmers' market vendors.

**Continuing Barriers.** Challenges in healthy retail varied considerably this year as LIAs expanded efforts to additional stakeholders and retail models. Navigating relationships with storeowners and managers, including consistent communication, emerged as the strongest overall barrier to progress in healthy retail interventions with both small and large stores.

## Success Story



“We were able to work with our Healthy Arizona Policy Initiative manager to create promotional materials and window decals for Verde Lea Market in Cottonwood, which is a target community that has low access to grocery stores. This store purchased a new cooler and began selling fresh produce since the last reporting period. Our assistance increases the store’s capacity to promote their new selection of fresh fruits and vegetables and fosters collaboration between locally owned businesses and public health entities in promoting fresh, affordable options in a high-need, rural community.”

–Yavapai County Community Health Services

**Community Coalitions.** Coalition initiatives were an important component in LIAs’ healthy retail efforts, although the specific food systems goals for each coalition varied. We present the Wilder Coalition Factors Inventory evaluation here for all food systems coalitions assessed in FY18.

*What is the Wilder Collaboration Factors Inventory (“Wilder”)?* The Wilder evaluation is an online or paper-based survey for assessing the characteristics of community coalitions [ST8]. It provides success factor scores for the extent to which collaborative activities within the coalition function effectively.

**Results.** Three Maricopa and Yavapai County food systems coalitions evaluated in FY16 were assessed again in FY18, following the AZ Health Zone’s alternate year evaluation model. Of the 20 coalition characteristics measured by Wilder, only *Unique Purpose* saw a statistically significant increase in score over two years ( $p \leq 0.05$ ). However, no factor score significantly *decreased* during that period, and all but five coalition characteristics generally improved. The three success factors that saw the greatest changes in scores are shown in **Figure 1**.

### 1. Coalition members thought these factors changed most over two years.

	% Responses improved	% Responses stayed the same	% Responses worsened
<b>Strongest Improvement</b>			
Unique Purpose	53	30.5	16.5
History of Collaboration	53	19	28
Flexibility	44	28	28
<b>Strongest Decline</b>			
Pace of Development	30.5	19.5	50
Stake in the Process/Outcome	33.5	16.5	50
Collaboration in Self Interest	25	38	36



## Two of the Three Highest & Lowest Scoring Success Factors Remained the Same

Although success factors varied in their change over time, consistency was evident in the highest and lowest scoring success factors across two years. We do see that *Skilled Leadership* has strengthened over the last two years, although some members may be increasingly impatient with the *Pace of Development* in their coalitions.

### High



### Low



## Success Story

“We partnered with the Mohave County Department of Public Health to create the Mohave County Food Systems Coalition, which will work towards increasing the amount of healthy foods coming into Mohave County and ensuring that those foods reach the people in need through collaboration with partners on multiple levels county-wide. Many of our partner sites attend the meetings, including representatives from St. Mary’s, our partner food banks, schools, tribal partners and even representatives from the Department of Agriculture. With this we will be able to expand our efforts within the Summer Food Service Program, as well as our new initiative: implementing a healthy food/beverage policy with emergency food sites. The coalition lends itself as a platform for information sharing and collaboration so working on a food policy that can extend over multiple organizations is an opportunity that we plan to cultivate.”

– UA Cooperative Extension, Mohave

One notable challenge for interpreting results is that scores varied across coalitions over time. This finding underscores the extent to which each coalition’s context is unique with respect to its community, goals, and stakeholders. Moreover, only three food systems coalitions were evaluated in both years, down from five that completed a baseline assessment in FY16. This low sample size limits our ability to understand coalition changes in the aggregate over time.

*New Coalitions.* Two new coalitions from Cochise and Maricopa Counties were assessed in FY18, resulting in a total of five food systems coalitions evaluated this year. The highest scoring success factors for these five coalitions were identical to those shown in the box (**above left**). The lowest scoring success factors were similar as well: lack of *Sufficient Resources*, a less-than-ideal *Cross Section of Members*, and the need for *Clear Roles and Guidelines* for the coalition. One interpretation may be that coalitions assessed for the first time in FY18 are in earlier stages of evolution and therefore in greater need of guiding principles. In contrast, coalitions that were active and evaluated across multiple years may exhibit greater maturity and readiness to progress their collective goals.

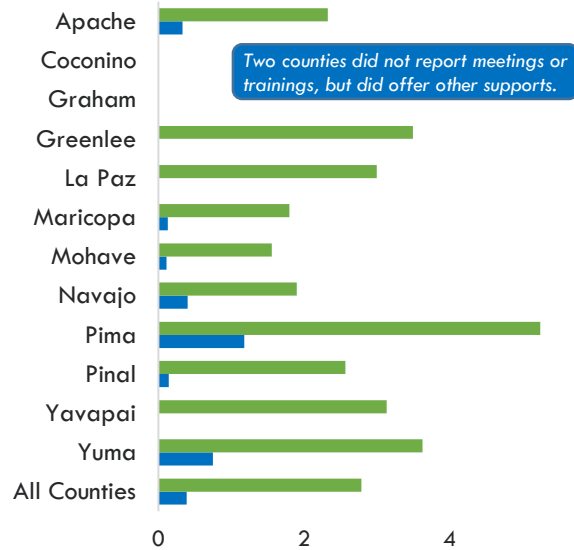
## Gardens

Seven LIAs in 12 counties supported 201 gardens as well as complementary activities such as home gardening in FY18, making it the most popular of the food systems strategies.

**Strengths.** LIAs remain a key convener for gardening efforts in SNAP-Ed communities, either as the lead for new gardens while simultaneously fostering site engagement, or by leveraging partners such as the UA Cooperative Extension’s Master Gardeners [MT5]. Meetings and trainings were key to initiating, supporting and sustaining gardens. LIA efforts by county are summarized in **Figure 2**. Pima and Yuma Counties excelled.

**Barriers.** Certain challenges persisted, such as extreme weather, pests, generating and sustaining garden participation, and staff turnover. LIAs reported varying stages of capacity to identify and support gardens that will sustain themselves over time.

**2. Ratio of Meetings and Trainings to Garden Sites in FY18**



“We continue working towards sustainability in school gardens, and schools taking ownership of their gardens. It has not been just our organization but others who have made it difficult for the schools to take ownership of school gardens. We understand changing the ways schools see collaborating with outside organizations takes time and patience. We are learning more effective ways to communicate who we are and what we do.”

-Yavapai County Community Health Services

This year, a special project also explored challenges in sustaining gardens and implementing non-garden policy, systems, and environment changes (PSEs) at these sites. Full results are available at:

<https://nutritioneval.arizona.edu/results>.

## Success Story



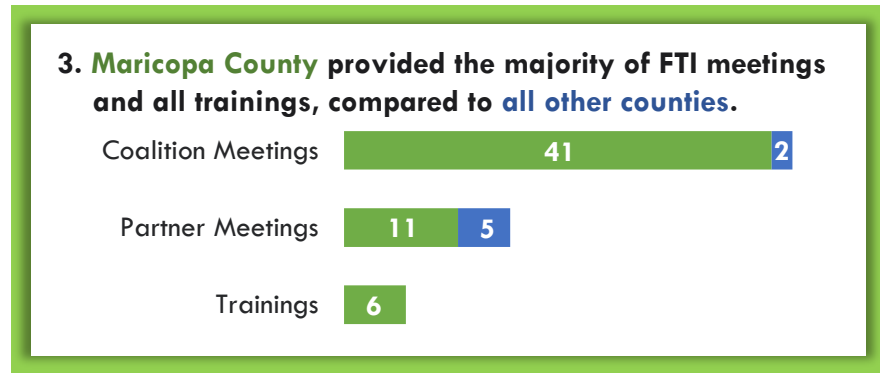
Photo: Mark Cowling, Pinal Central

“The opportunities for growth are just a voice away. A good example of this happened one morning as a family of seven was walking to the local post office. They stopped and looked at the garden, and our staff invited them in to look around. The children were interested in how the garden grows, and after a half hour the family was in love with the idea of working and harvesting the garden. The following week all seven showed up and have been coming to the garden ever since.”

-UA Cooperative Extension, Pinal

## Farm to Institution (FTI)

Four LIAs in five counties continued their FTI work in FY18. Settings included schools, early childhood education centers (ECEs), and farms or farming cooperatives. FTI efforts lagged this year compared with other Food Systems strategies for most LIAs. The two LIAs in Maricopa County were outliers (**Figure 3**).



### Success Story



**Strengths.** Both LIAs in Maricopa County made significant progress advancing their FTI coalition partnerships [ST8]. These partnerships facilitated collaborations with the Sun Produce Cooperative and Cultivate South Phoenix to support farmers and connect them with local buyers. Incremental progress in the other four counties favored encouraging readiness to engage in FTI [ST5] through individual partnerships with specific sites [ST7].

“Sun Produce Co-Op is a coalition of individuals and agencies that participate in local food systems in some manner. Members include growers, distributors, transporters, and other segments of the food system. The Food Systems coordinator meets regularly with the organization, which has started providing fresh local produce to Litchfield schools as part of Farm-to-School.”

-Maricopa County  
Department of Public Health

### How did AZ Health Zone LIAs support FTI?

- ✓ Connecting farmers to schools for activities including procurement, food demonstrations, and farm tours
- ✓ Leveraging partnerships to support gardens and their certification for consumption at local schools
- ✓ Supporting schools in applying for FTI grants
- ✓ Building awareness for how SNAP-Ed could support FTI initiatives at partner ECEs

“We realized the need for more frequent check-ins with our partners to explain the work we do. Only then could we hope to build enough rapport to start suggesting ways of incorporating local food into the menu, centering educational opportunities around nutrition and healthy lifestyles, and providing kids with the option to explore what the food community around them has to offer.”

-UA Cooperative Extension, Yavapai

**Barriers.** Schools in Coconino and Mohave Counties applied for Farm-to-School grants but were not awarded, resulting in stalled action plans. LIAs reported that their partner sites lacked readiness to engage in FTI initiatives, or did not know where to start, particularly with procuring local produce at the school or district level.



## Summer Food Service Program (SFSP)

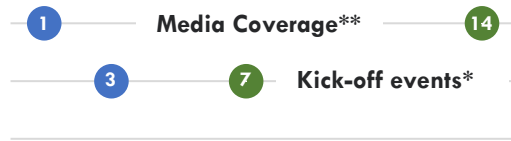
Seven LIAs in 11 counties supported SFSPs in their communities. In FY18, LIAs completed 55 SFSP Checklists regarding the supports provided at their SFSP sites [MT5], compared with 72 in FY16.

Nineteen matched sites were supported in FY16 and FY18. The most notable increases in supports included *community promotion* (Figure 4a), *media coverage*, and *kick-off events* (Figure 4b). No statistically significant increases were found for: *posting materials at childcare locations*, *sending materials home to parents*, or *providing mealtime activities*. The integration of SFSP messages into regular direct education (DE) also did not significantly change in frequency from FY16 to FY18.

### 4a. LIAs' level of SFSP community promotion increased across six site types.



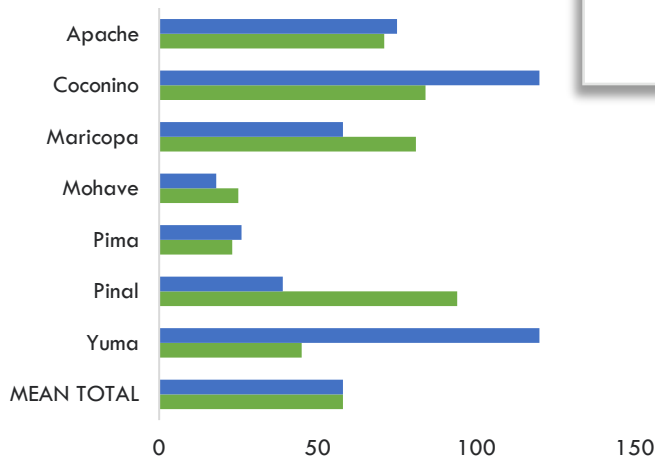
### 4b. LIAs also increased their number of SFSP media and kick-off supports from FY16 to FY18.



\*  $p \leq 0.05$       \*\*  $p \leq 0.01$

### What about meal participation?

#### 5. From FY16 to FY18, the number of daily meals served at LIA-supported sites varied widely by county.



Despite growth in key SFSP supports, Figure 5 shows that meal participation rates at the 19 matched sites did not increase significantly over the two-year period [MT5]. This indicator will be measured again in FY20 as [LT5], recognizing that participation rates are impacted by a variety of factors in addition to SNAP-Ed support, and may require more than two years to change.

## How did SNAP-Ed supports relate to families' FY18 participation in meals?



Higher levels of **targeted promotion at childcare sites** were associated with an increase in participation. Increasing from *no promotion* to *some* (around half of sites) was significant ( $p < 0.05$ ), while moving from *some* to *a lot of promotion* trended positively ( $p < 0.10$ ).



Helping a site or district get **media coverage** for their SFSP program had a statistically significant positive effect on meal participation ( $p < 0.05$ ).



LIAs' use of their **websites and/or social media** to promote their SFSP partners had a significant association with the number of meals served ( $p < 0.05$ ).

The above analysis explored SFSP supports that were most associated with greater meal participation in FY18. Results suggest that there may be key interventions that are more effective than other LIA efforts in connecting families to meal sites. We will explore these relationships again in FY20 to learn more.

**Continuing Barriers.** LIAs consistently reported these challenges to providing SFSP supports:

- ❖ Ongoing communication challenges with SFSP meal sites and sponsors.
- ❖ Difficulty overcoming families' barriers to attending the SFSP, including: remote locations, lack of indoor activity space, meal site changes, and heat.
- ❖ Limited LIA or site staff to lead meal-time activities.
- ❖ LIA staff turnover, combined with a short SFSP meal season, resulted in missed opportunities for providing supports.
- ❖ The Summer Lunch Buddies materials were not always relevant to older youth or to the community.
- ❖ Overall decreases in communities' use of public services, including the SFSP.

### Success Story



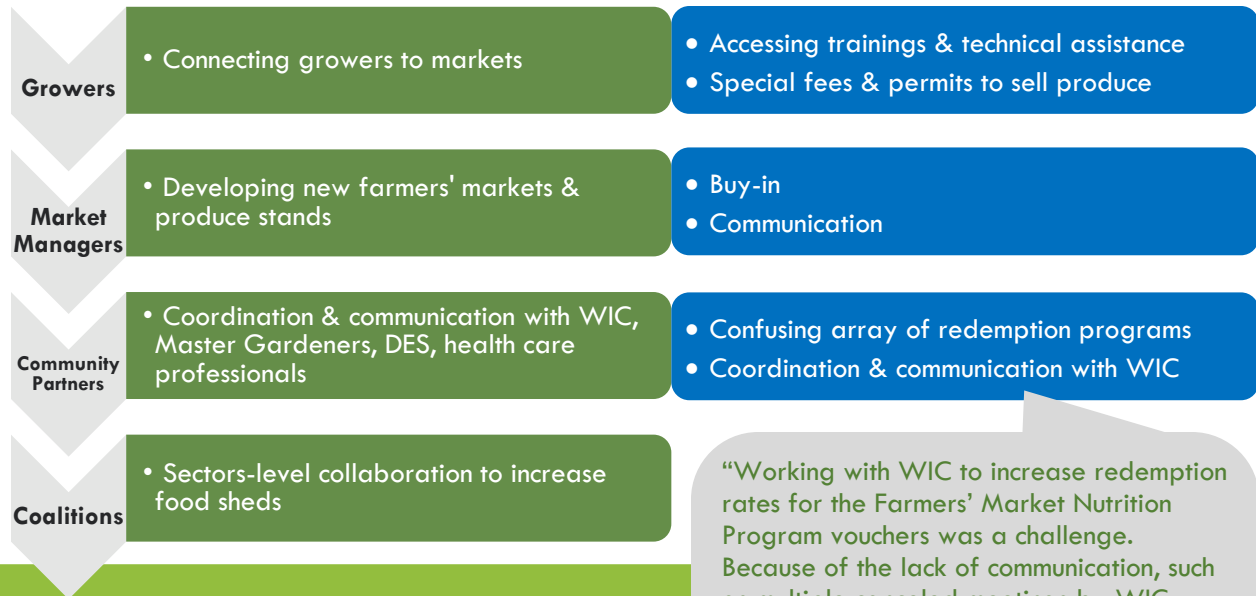
“Our efforts with SFSP promotion and support met with success last year, especially with the Crane School District as indicated by the significant increase in their numbers of meals served. This also included an increase in milk consumption. Crane’s Director of School Nutrition informed us recently that this strengthened his application for a grant through the Dairy Council, which he was awarded to acquire a couple of new food chillers.”

-Yuma Public Health Services District

## Farmers' Markets with SNAP

Six LIAs reported 404 farmers' market interventions across eight counties in FY18. While direct comparisons with SEEDS data in previous years was not available, qualitative comparison suggests that SNAP-Ed programming has shifted from supporting existing markets in EBT certification to collaborating in the development of new markets or produce stands [MT5], with less emphasis on certifying for EBT (Figure 6).

### 6. In FY18, LIAs reported strengths and barriers to Farmers' Market activities.



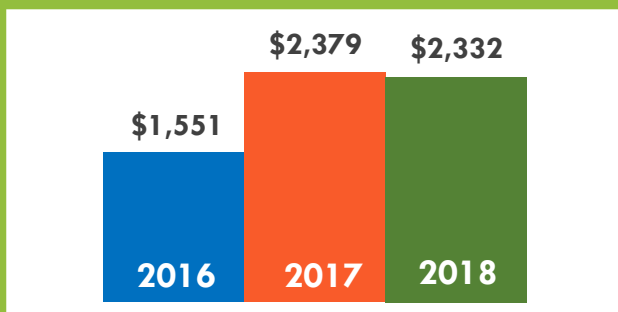
"Working with WIC to increase redemption rates for the Farmers' Market Nutrition Program vouchers was a challenge. Because of the lack of communication, such as multiple canceled meetings by WIC, there was not a systematic way to implement, evaluate, and disseminate information between the two programs regarding SNAP, EBT, WIC, FMNP, SFMNP, and e-WIC."

-UA Cooperative Extension

### What about SNAP EBT redemptions?

The Payson Farmers' Market initiated SNAP EBT in 2016 with support from the Gila County Health Department. It is the only market to report SNAP purchasing data across FY16-18 [MT5, MT8].

#### SNAP Redemptions at Payson Farmers' Market



Their success highlights a key outcome for SNAP-Ed efforts: the extent to which LIAs' activities contribute to more farmers' market purchases by SNAP customers.





## Success Story

“We have partnered with the Community Food Bank (CFB) on two events at our Tucson Garden Kitchen to promote the use of and selling at farmers’ markets. The CFB held a [similar event] for their Spanish-speaking growers. This event exposed the growers to additional TA opportunities available from our program. To further help growers, we have signed on to provide TA for the Farmers Market Promotion Program grant application.”

-UA Cooperative Extension, Pima

## Recommendations

Identify healthy retail best practices and encourage *peer sharing* among LIAs for recruiting and retaining small store partners, especially in rural areas where barriers persist.

More LIAs in FY19 will seek large grocery store partners, which present unique challenges. Consider the role of these retailers in the SNAP-Ed model, and the potential involvement of *state-level coordination with grocers* to achieve greater reach.

LIAs report differing stages of evolution in their ability to successfully initiate and sustain gardens. Consider *differentiating gardening technical assistance (TA) and resources* to address specific barriers that LIAs experience, depending on their level of expertise in implementing and maintaining gardens.

Consider providing TA that assists LIAs in bridging to other PSEs at non-school garden sites.

Consider *folding the FTI strategy into Gardening, School Health, or Early Childhood*, as most LIAs’ still-emergent FTI efforts integrate closely with these established intervention foci.

Provide *targeted FTI TA to rural counties*, which appear to struggle disproportionately with advancing their efforts.

Investigate barriers to increased SFSP meal participation, in spite of SNAP-Ed’s documented increase in supports since 2016.

Consider revising the Summer Lunch Buddies toolkit with LIA feedback.

Encourage LIAs to implement interventions further along the spectrum of PSEs than generally promoting FM sites, such as *market navigator programs* and *FM 101 trainings* with SNAP-Ed participants and partners.

Consider adding a future *SNAP-Ed strategy for increasing the supply of local farmers and vendors*. This might encourage LIAs to further engage in interventions at the sectors level of the SNAP-Ed intervention model to address reported systems-level challenges in their local food sheds.

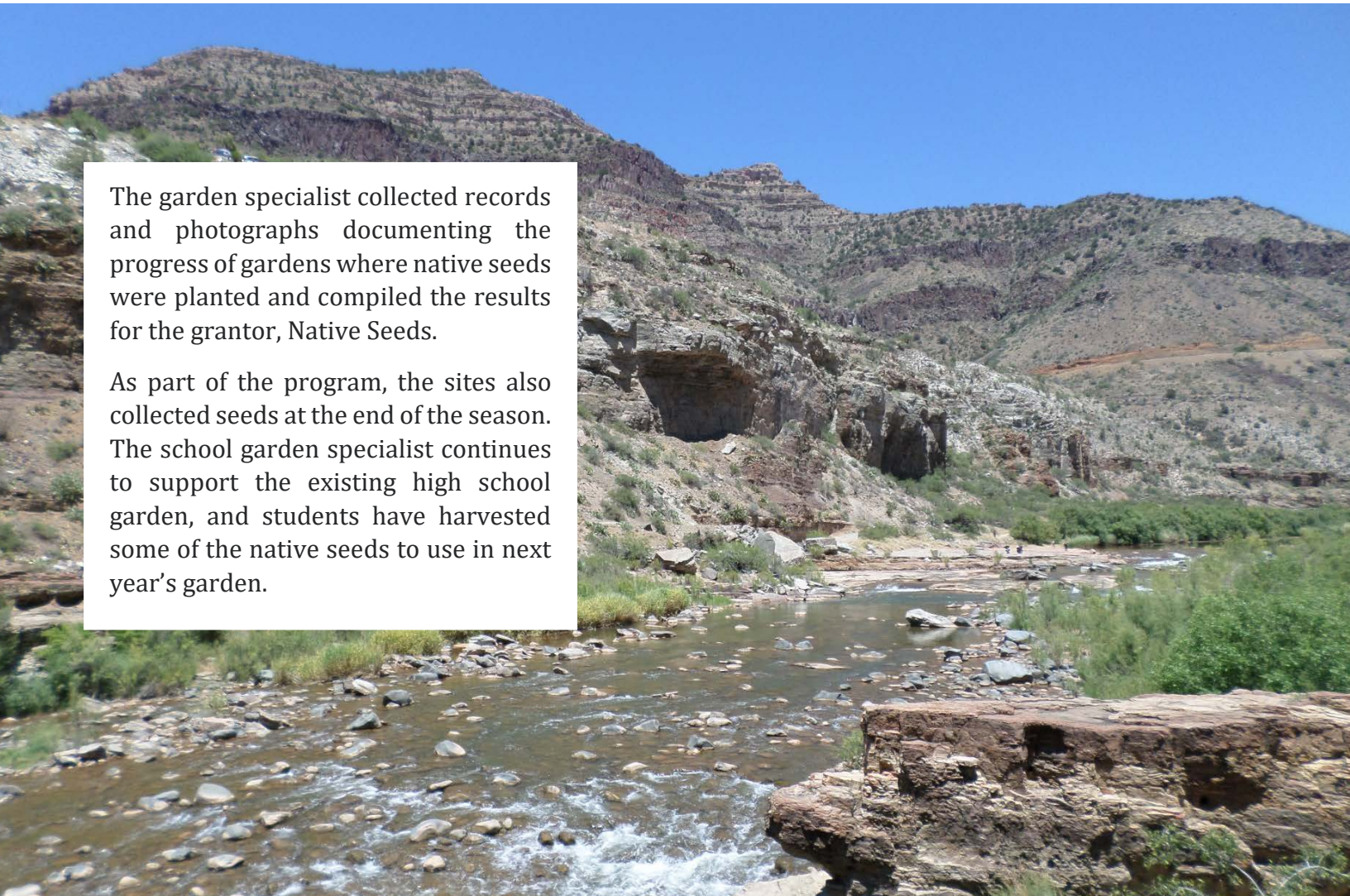
## Community Highlight

# The UA Cooperative Extension Supports Indigenous Food Ways in Maricopa County



Salt River High School in Maricopa County is participating in the Native Seeds Community Seed grant, which the UA Cooperative Extension SNAP-Ed home garden specialist in Maricopa County received to use in selected spring gardens. The program preserves the genetic integrity of plants raised by indigenous people, or that have adapted to grow well in the local climate. It is part of the movement toward promoting native crops in school, home, and community gardens.

LIA staff helped plant the seeds at five sites: Landmark Senior Living, Sidney P. Osborn Housing, Salt River High School, Salt River Youth Services, and Salt River Afterschool Program.

A wide-angle photograph of a river flowing through a rugged, rocky landscape. The river is filled with large, smooth boulders and has a white, foamy rapid section in the foreground. The surrounding hills are covered in sparse, dry vegetation and have a reddish-brown hue. The sky is a clear, bright blue.


The garden specialist collected records and photographs documenting the progress of gardens where native seeds were planted and compiled the results for the grantor, Native Seeds.

As part of the program, the sites also collected seeds at the end of the season. The school garden specialist continues to support the existing high school garden, and students have harvested some of the native seeds to use in next year's garden.



# Native Seeds Community Project Outcomes

Learning about native seeds and how to preserve them helped Arizona communities in several ways that were mutually reinforcing.



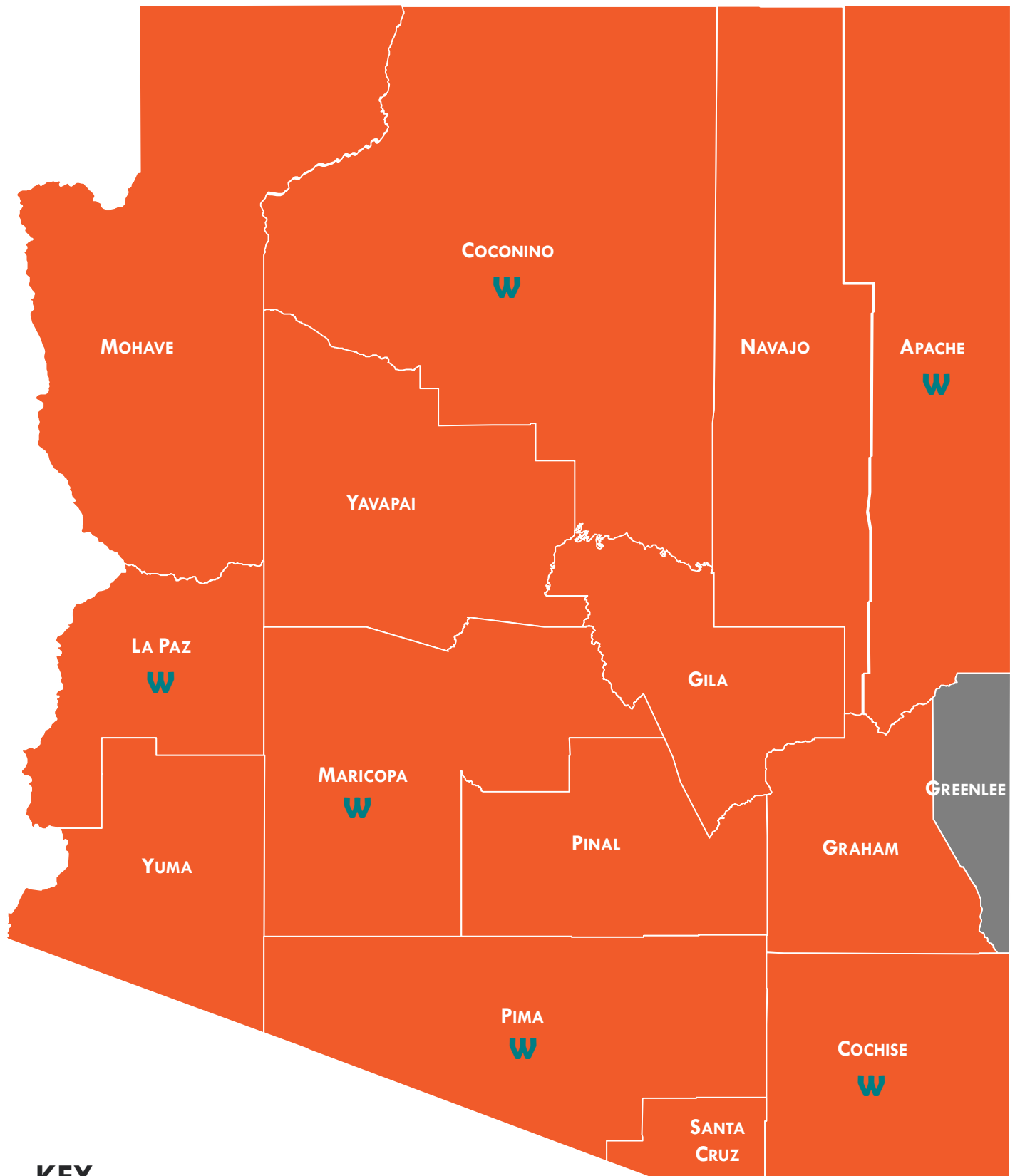
Using local and adapted seeds increased garden success rates.

Gardeners learned about traditional plants and their importance in nutrition.

Preservation of the native seeds helped to protect the integrity of the crops.

Planting native crops saved water and ensured production during hot summer weather.





### KEY

- W** = Participated in the Active Living *Wilder* coalition evaluation
- = Worked in the Active Living focus area
- = Did not work in the Active Living focus area

# Active Living



Maricopa County Department of Public Health

## AZ Health Zone Active Living Strategies



Build capacity to implement active living policy



Promote participation in and use of physical activity resources, including point of decision prompts to encourage use of stairs



Support family-friendly physical activity opportunities

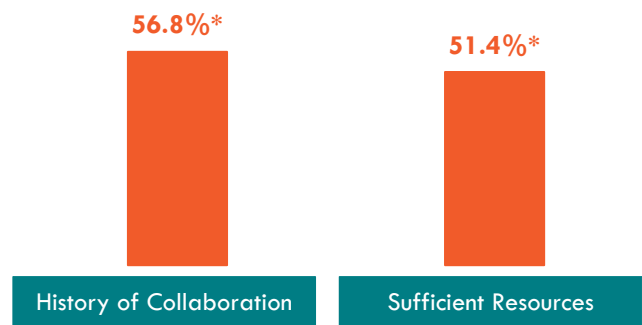
## Evaluating Active Living

In FY18, the AZ Health Zone assessed work in Active Living Policy and the Promotion of Physical Activity (PA) Resources through the Wilder Collaboration Factors Inventory (Wilder), a measure of *coalition effectiveness* [ST8]. More detail on Wilder methods can be found in the Food Systems chapter. Family-friendly PA Opportunities were explored through local implementing agency (LIA) reports in Semi-Annual Report Narratives and Arizona's SNAP-Ed Electronic Data System (SEEDS).

### Wilder Results

The AZ Health Zone State Evaluation Team (SET) asked LIAs to complete the Wilder in FY16 and again in FY18. Four active living coalitions were assessed at both time points. Of the 20 coalition success factors measured, two increased significantly across two years (**Figure 7**): *History of Collaboration in the Community*; and *Sufficient Funds, Staff, Materials and Time*. One factor showed a trend toward improvement (*Unique Purpose*,  $p \leq 0.10$ ). None of the factors decreased significantly.

**7. More than 50% of coalition members said these success factors improved over two years.**



\*  $p \leq 0.05$

## 8. Coalition members thought these factors changed most over two years.

	% Responses improved	% Responses stayed the same	% Responses worsened
<b>Strongest Improvement</b>			
History of Collaboration	57	21.5	21.5
Stake in the Process/Outcome	57	13	30
Unique Purpose	51	24.5	24.5
Sufficient Resources	51	16	33
<b>Strongest Decline</b>			
Multiple Layers of Participation	35	19	46
Cross Section of Members	38	19	43
Coalition Seen as Legitimate Leader	32.5	32.5	35
Favorable Political/Social Climate	38	27	35

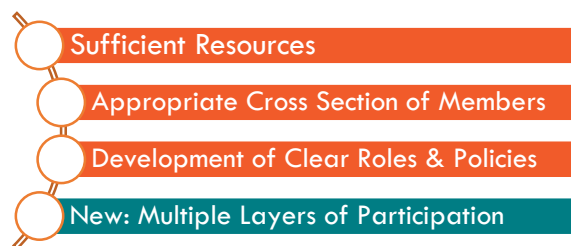
### The Three Highest and Lowest Scoring Success Factors Remained the Same

Though factors differed in their rates of change, the strongest and weakest factors remained consistent across time. *Multiple Layers of Participation*, reflecting participants' belief that every level of their organization was represented and involved in the coalition's work, worsened overall from FY16 to FY18, tying with *Development of Clear Roles and Policies* by FY18.

#### High



#### Low



The coalition success factors that showed the greatest change are illustrated in **Figure 8**.

As noted in the previous chapter, two challenges for interpreting Wilder results are the variability in scores over time across coalitions, and that only four active living coalitions were evaluated in both years, down from six in FY16. This limits our ability to understand patterns across time.

**New Coalitions.** Five new coalitions from Apache, Cochise (2), Coconino, and La Paz Counties were assessed in FY18, resulting in nine active living coalitions assessed this year. Their highest scoring success factors were identical to those shown in the box (left), with the addition of *Unique Purpose* and *Favorable Political/Social Climate*. The lowest scoring success factors were the same as well. One interpretation may be that coalitions newly assessed in FY18 are in earlier stages of evolution and are still organizing their leadership and communication structures.



## Success Story

“UA Pima has been a major driving force to change the direction of the Healthy South Tucson Coalition, from event-based work to policy work with the South Tucson city council, especially in the area of physical activity. In partnership with the City of South Tucson and Trees for Tucson, our Healthy South Tucson Coalition led an event to plant over 50 trees along a major corridor, to [provide shade] and engage the community in physical activity. Our coalition has also participated in community wide clean-ups, been part of [the city’s] strategic planning process internally as well as by engaging the community, helped with green space planning with city planners, run basketball nights with the House of Neighborly Service, and been part of the Budget Planning Committee for South Tucson.”

-UA Cooperative Extension, Pima

## Active Living Policy

LIAs in seven counties were involved in active living policy work in FY18, reaching 24 communities. The majority of these efforts encouraged the improvement or expansion of walking, biking and/or transit networks or the creation of municipal policies to support active living [MT10a]. Specifically, two counties worked to improve current or future road design to make it safer for all modes of transportation. One county focused on general plan revisions, while another encouraged smart growth development to protect human health and the environment. Finally, two counties addressed site-specific active living policies. Coalition-based efforts represented 44% of all reported meetings in this strategy.

**Persistent Barriers.** Continuing barriers that limited some LIAs’ capacity to impact the policy process included:

1. Staff capacity to learn about planning and policy processes.
2. Staff capacity to develop key relationships with city/county planners as well as community stakeholders.



“Cottonwood’s Bicycle Advisory Committee (BAC) meetings take place at the local bike shop, an initiative we suggested to increase community participation. In May, the Bicycle Parking Ordinance we had been working on was unanimously approved by the Planning and Zoning Commission and the Cottonwood City Council! In August, the Council unanimously approved the installation of a bike corral in our Old Town district. We also participated in a sub-committee to develop an outreach campaign for the upcoming “right-sizing” of Main Street in Cottonwood which will include sidewalk improvements, bike lanes, and angled parking to enhance safety, mobility, and access for all road users.”

-Yavapai County Community Health Services

## Success Story

The decision to hire a SNAP-Ed funded urban planner at the Maricopa County Department of Public Health (MCDPH) contributed greatly to their work on the Maricopa County Department of Transportation's Active Transportation Plan (ATP). Thanks to MCDPH's outreach to both planners and SNAP-eligible residents during plan development, these outcomes were realized:

- 1) The ATP included health equity as a priority, which led to infrastructure gaps in SNAP-Ed eligible communities *being identified, prioritized and ranked higher than those in more affluent communities.*
- 2) 220 surveys were collected at Women, Infants and Children (WIC) clinics in rural and underserved areas, *allowing SNAP-eligible residents to provide their input on the plan.*



Technical Advisory Committee for the Maricopa County Department of Transportation ATP

*"The most impactful action [for us] in the last three years was to hire an urban planner to work in the SNAP-Ed program. This decision launched MCDPH into new opportunities to address city/county General Plans, Municipal Policies, and Active Transportation Plans. The planner brought expertise around the planning process and has been able to conduct outreach to key stakeholders as a peer and expert in planning. As a result, MCDPH provided input on three general plans and three active transportation plans over the last three years."*

*-Maricopa County Department of Public Health*



In addition, this plan won "Best Transportation Plan" from the American Planning Association's Arizona chapter for considering transportation planning in a holistic and inclusive way.

## Promotion of Physical Activity (PA) Resources

Twelve LIAs worked in the Promotion of PA Resources strategy, reaching 57 Arizona communities. Improving access to and usability of site-level PA resources [MT6a], as well as the ongoing promotion of local resources through flyers or apps, were areas of strength. One LIA in Yavapai County chose to encourage Point of Decision (POD) prompts for use of stairs, and was successful in partnering to implement them: POD prompts were placed at a clinic, a county building, and a library, reaching over 1,700 individuals.

LIAs varied in their approach to improving the usability of local PA resources, reflecting the state's diversity. In Apache County, the Community Wellness Coalition worked to improve walking paths with participation by the LIA, adding benches to parks and enhancing lighting and trees on main streets. In Graham County, LIA staff supported the San Carlos Apache PA Committee in the town of Bylas, resulting in a series of community-led changes (detailed at right). In Pima County, an LIA staff member noticed that the track near a senior center was underutilized due to the fee charged. The LIA negotiated additional fee waivers from one to three days each week, resulting in increased use by local seniors.

**Persistent Barriers.** Continuing barriers for Promotion of PA Resources included *staff changes within LIAs and their partnering agencies, and a lack of support for improving PA resources.* This paucity of support centered on: 1) funding support, 2) City Council and other “approving body” support, and 3) community support and enthusiasm. These

barriers especially affected *shared use agreements.*

“In FY16 the local gym in the tribal community of Bylas was open three days a week. UA Graham staff was invited to the local PA Committee based on prior programming in the area. The committee began meeting regularly and soon expanded, and more residents began using the gym. This led to expanded gym hours and youth basketball for 4<sup>th</sup>-6<sup>th</sup> graders. The gym became so popular that weightlifting equipment was moved to another building to accommodate demand, and staffing was increased to expand hours and maintenance of the gym and adjacent ball fields. This led to the growth of Little League baseball. The tribe then opened a new chapter of the Boys & Girls Club, which is housed in the gym. Our staff does not go to the PA Committee anymore – community members have completely taken it on – but we provide nutrition and PA lessons at the Boys & Girls Club, and the gym is now open seven days a week.”

-UA Cooperative Extension, Graham

## Success Story

The Gila County Public Health Department has been involved with the Pinal Creek Trail Committee since 2015. Their participation has led to enhanced partnerships and funding opportunities related to the development of the trail as a PA resource. These partnerships include those supporting watershed health and economic development in the region.



Portions of the proposed trail already receive significant foot traffic.



“A local group was able to secure \$100K to support watershed management. This funding may support trail efforts, as the proposed trail lies entirely within the Cobre Valley watershed. Conversations with BHP, [which owns part of the proposed trail land] have increased optimism about trail completion. This has also encouraged our Trail Committee efforts to identify funding sources for revitalization of the trail. [And finally,] through local economic development workshops, the project was presented to local community leaders from an economic standpoint, instead of just through a health lens.”

-Gila County Public Health Department



## Family-Friendly PA Opportunities

**PA Events.** Across three years, LIAs moved from PA partnership development and struggles with low event participation to hosting successful events in collaboration with established local partners. In narrative reports, LIAs highlighted the types of PA events shown in **Figure 9**.

**9. LIAs supported various types of PA events.** *Family Fun Days and Play Days in the Park* were the most often discussed in LIA narrative reports.



## Success Story



**PA Clubs.** SNAP-Ed-supported PA clubs varied in their scope across the state. The most consistent were two hiking clubs in Yavapai County known as Trekabout that met regularly on local trails (**Success Story**, next page).

In Pima County, LIA staff reached out to seniors, refugees and youth with physical activity clubs at multiple sites, and Mohave County found success with a walking club at a senior housing site.

“We learned that some locations in our county had [better] event participation. [So] we changed the location and sponsored a family-friendly volleyball tournament at a centrally located park in Parker. We are proud to say that this event was a huge success with 42 participants. We were able to partner with the Parks and Rec Committee, who helped promote the event and donated their time to volunteer. After the event, families were asking if we could do a semi-annual tournament, as it was a great way to get families to play together.”

-UA Cooperative Extension, La Paz

## Success Story

“With two Trekabout operations, our efforts continue to grow in the Verde Valley with an average of 15-20 participants every week. We continue to have a great group of hikers on the Prescott side as well; hikes are led on Tuesdays and Thursdays by different volunteers.”

-Yavapai County Community Health Services



A Prescott trailhead, Yavapai County

**Persistent Barriers.** The key continuing barrier for supporting family-friendly PA opportunities was the *difficulty of collaborating with other community organizations*. Specifically, LIAs found it challenging to:

- ❖ Work with other organizations to develop a club or event opportunity that was appealing to the community.
- ❖ Share work across organizations to make an event logistically feasible. The reorganization of several SNAP-Ed partnerships responsible for co-developing events, coupled with low community participation, derailed some planned events.

## Recommendations

Offer hands-on training to LIAs who have selected the Active Living Policy strategy, focusing on *understanding the planning process at every step*, including building relationships with key stakeholders.

Encourage LIA staff to *attend city council and/or school board meetings* to better understand the priorities of local “approving bodies” related to active living.

Encourage LIAs to focus on family-friendly PA events as a way to first engage a community in PSE-related efforts. Whenever possible, *encourage the development of active living systems and/or policy changes* at the site or community level as next steps in progressing along the panorama of PSEs.

## Community Highlight

# AZ Health Zone Pima County Engages the City of South Tucson in Multi-Level Initiatives

In Pima County, the UA Cooperative Extension has been building on strong community relationships and a history of SNAP-Ed active living work to address multiple levels of the Socio-Ecological Model (**right**).

### INDIVIDUAL LEVEL

Adult direct education at the House of Neighborly Service in South Tucson increased participants' knowledge of healthy nutrition and physical activity behaviors and contributed to behavior changes.



### A Social-Ecological Model for Food and Physical Activity Decisions



Adapted from U.S. Department of Health and Human Services and U.S. Department of Agriculture. *2015 - 2020 Dietary Guidelines for Americans*. 8<sup>th</sup> Ed. December 2015.

### SETTINGS LEVEL

In FY18, policy, systems, and environment initiatives (PSEs) at the House of Neighborly Service included a community walking group and an expanded garden (photos, left). These site-based PSEs helped to make the healthy choice an easier choice.







“The Living Streets Alliance (LSA) has developed a strategic plan to guide their Complete Streets Tucson policy initiative. This began in October, 2016, when LSA convened stakeholders. UA Pima staff began participating in February, 2017. LSA staff and others [were trained] to facilitate community engagement workshops on the Complete Streets vision (i.e., what is Complete Streets, next steps for Tucson, how you can become involved). UA Pima staff:

- 1) Connected the LSA to adult and senior sites to provide Complete Streets Workshops.
- 2) Facilitated the workshops by convening residents.

To date, UA Pima has led three Complete Streets Community Dialogue workshops at qualifying locations [including South Tucson, photo at left].”

*-UA Cooperative Extension, Pima*

“[We] met with a City of South Tucson Planner about physical activity opportunities along the expansion of the El Paso and Southwestern Greenway in South Tucson. We were able to advocate for turning a purchased property into a park with PA equipment for adults and youth integrated into the park design, [and we] discussed ways that we could provide technical assistance, materials, and eventually promote the use of the space.”

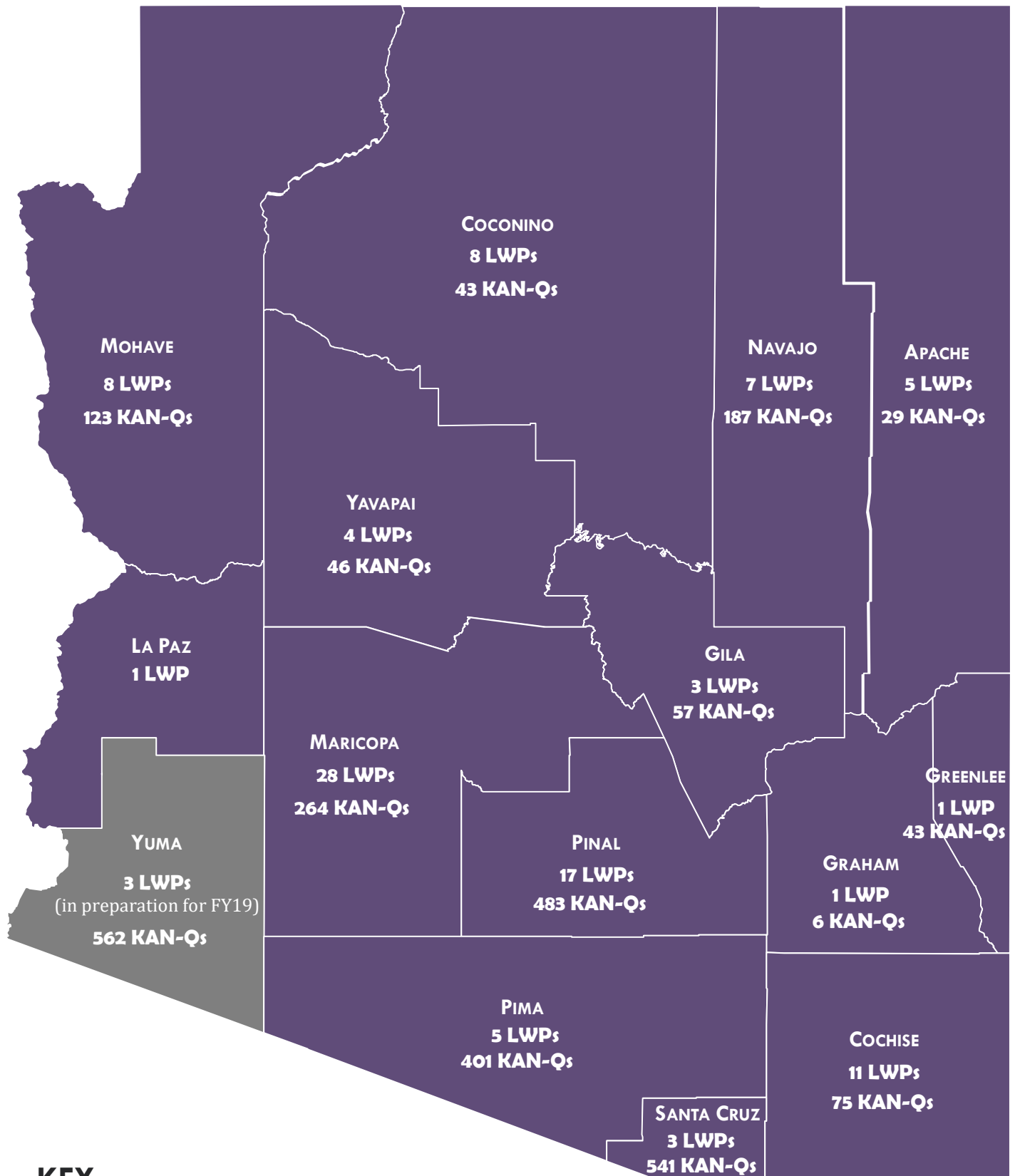
*-UA Cooperative Extension, Pima*

## SECTORS LEVEL

The LIA’s outreach to city planners and residents in the South Tucson community addressed the *sectors of influence* level. LIA staff met with a city planner to discuss physical activity opportunities, and they held a Complete Streets Community Dialogue workshop at the House of Neighborly Service to engage South Tucson residents in active living issues.







## KEY

**KAN-Q** = Number of matched pre-post KAN-Qs (school year 2017-18)

**LWPs** = Number of FY18 LWP assessments

= Worked in the School Health focus area in FY18

= Did not work in the School Health focus area in FY18

# School Health



UA Cooperative Extension, Maricopa

## AZ Health Zone School Health Strategies



Support the development, implementation, and evaluation of Local Wellness Policies (LWPs)



Improve student, teacher, and staff access to nutrition information



Support comprehensive school physical activity programming (CSPAP)

## Evaluating School Health

In FY18, the AZ Health Zone assessed the *quality of written LWPs* [MT5b, MT6b] using the Rudd Center for Food Policy & Obesity's WellSAT 2.0 tool. We also assessed *multi-level interventions in schools* with the AZ Health Zone Kids' Activity and Nutrition Questionnaire (KAN-Q).

### Written LWPs

In FY18, SNAP-Ed Local Implementing Agencies (LIAs) supported LWP review and revision across all of Arizona's 15 counties. The State Evaluation Team (SET) assessed the LWPs of partner districts and schools by generating WellSAT scores for the policies that LIAs submitted, and by encouraging LIAs to use the customized results with partners to make improvements. The AZ Health Zone completed this assessment process in FY16 and again in FY18.

**What is the WellSAT 2.0?** The WellSAT is an online tool for assessing the quality of written LWPs. It provides section and total scores for comprehensiveness and strength ranging from 0 (worst) to 100 (best).

In the WellSAT 2.0, **comprehensiveness** measures *whether* a written LWP addresses an item, and **strength** measures *how well* the LWP addressed it.

### An Example of How LWP Assessment Works

"The [wellness] committee completed the revisions of their wellness policy in November 2017...It was then turned into the SET for WellSAT assessment. When the initial assessment took place in 2016, the district received a comprehensive score of 63 and a strength score of 25. The revised policy received a comprehensive score of 84 and a strength score of 53."

-UA Cooperative Extension, Apache

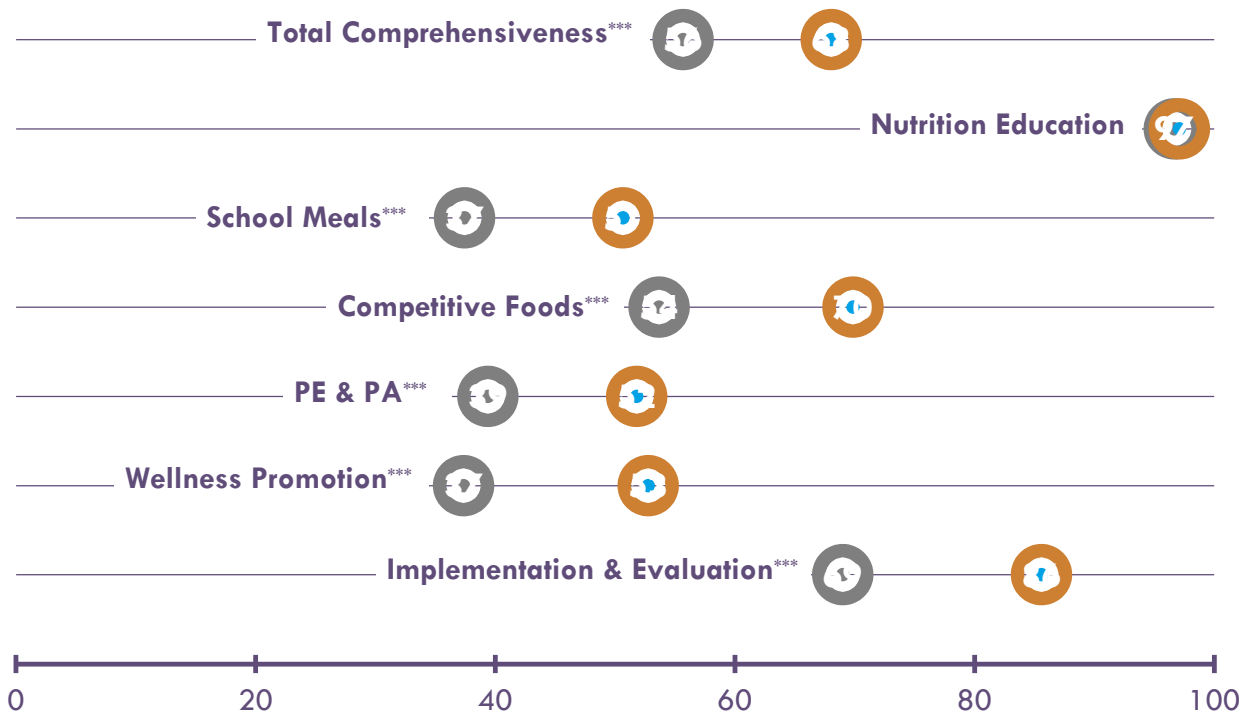
Since the 2016 passage of the USDA’s Final Rule and the subsequent attention paid to LWPs during the Arizona Department of Education (ADE)’s administrative reviews, many LIAs report that districts are more interested in SNAP-Ed support for revising policies.

**Did LWPs change over time?** Yes! Fifty-seven LWPs were scored in FY16 and again in FY18, enabling comparison. **Figures 10a and 10b** show the changes in section and total WellSAT 2.0 scores [MT5b, MT6b]. We found highly significant increases in total scores for comprehensiveness (+12, 22%) and strength (+13, 48%). Improvements were also found for comprehensiveness across each section except *Nutrition Education*—where the pre-score was already high—and for strength across all sections.



### 10a. Mean comprehensiveness scores increased from FY16 to FY18.

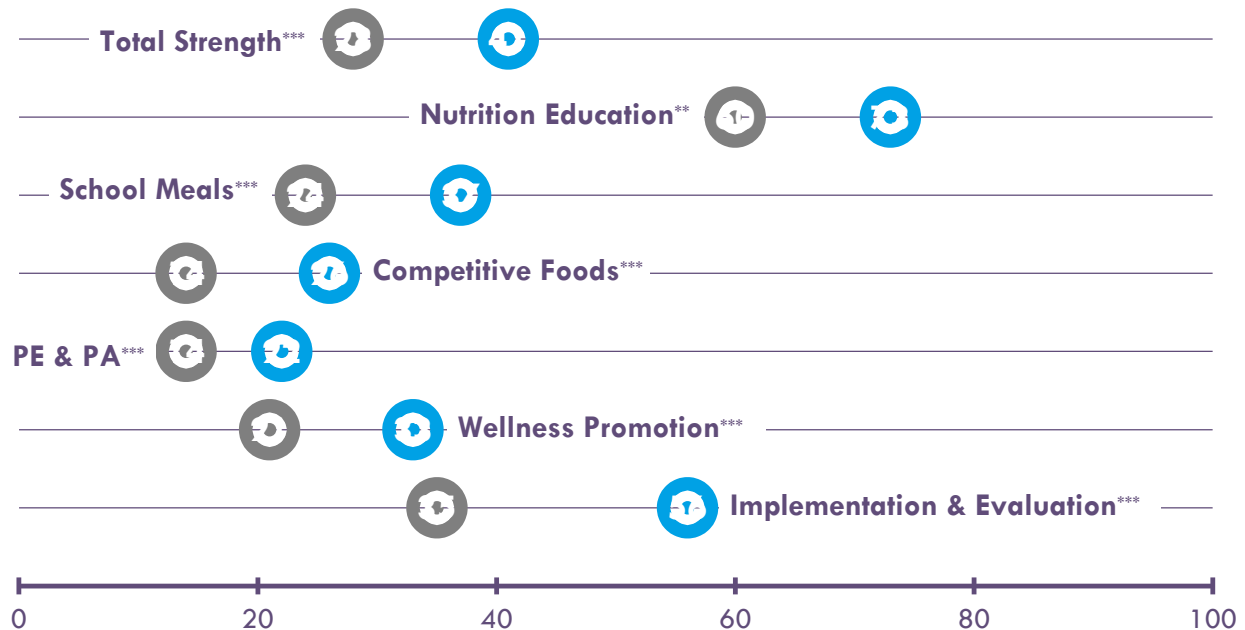
(N=57. Scores are rounded to the nearest whole number.)



\*\*\*p<0.001

## 10b. Mean LWP strength scores increased from FY16 to FY18 but still show room for improvement.

(N=57. Scores are rounded to the nearest whole number.)



\*\* $p \leq 0.01$ , \*\*\* $p \leq 0.001$

The most notable increases in section scores were found for *Implementation, Evaluation, & Communication*, where comprehensiveness increased by 17 (24%) and strength increased by 22 (63%).

During FY18, LIAs provided 125 PSE supports to develop written LWPs in these 57 districts. Almost all of these supports (122) were meetings with school districts about: how to revise written LWPs, national and state LWP guidelines, WellSAT findings, and direct LIA assistance with making actual LWP revisions. According to LIA reports, *the most common facilitator of LWP revision was having a wellness committee with which to work on LWP revision, while the most common barrier was a lack of member engagement in those wellness committees.* School health champions were also critical to success in most districts.

“Since the School Health Advisory Committee (SHAC) has been established for over a year, we wanted to keep supporting the Local Wellness Policy (LWP) revisions...last fall, some SHAC members served on a subcommittee that worked together to revise *Section 6: Implementation, Evaluation & Communication*, using the WELLSAT2.0 Scorecard recommendations from the 2016 evaluation. Because we have established an active, ongoing SHAC, they simply had to write down what is happening now. They also added language about how documents and reports will be made available to the school community.”

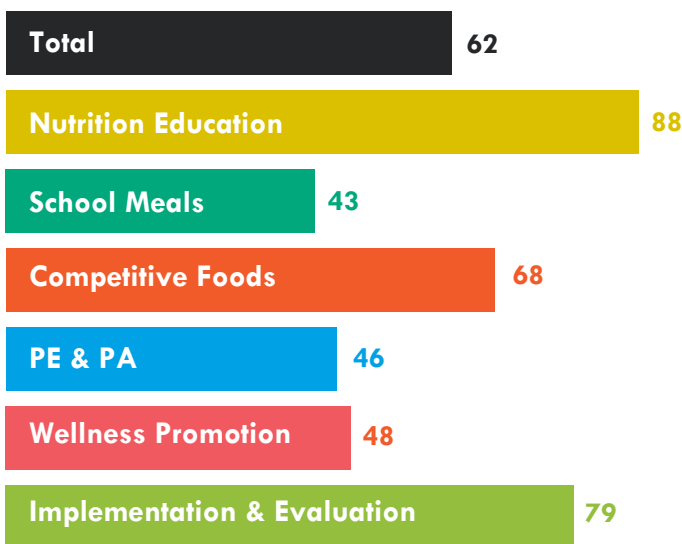
-UA Cooperative Extension, Greenlee



**How Did All LWPs Score in FY18?** In FY18, we assessed a total of 105 LWPs from SNAP-Ed supported districts (n=84) and schools (n=21) across all of Arizona’s 15 counties. **Figures 11a and 11b** provide mean section and total WellSAT 2.0 scores for these policies.

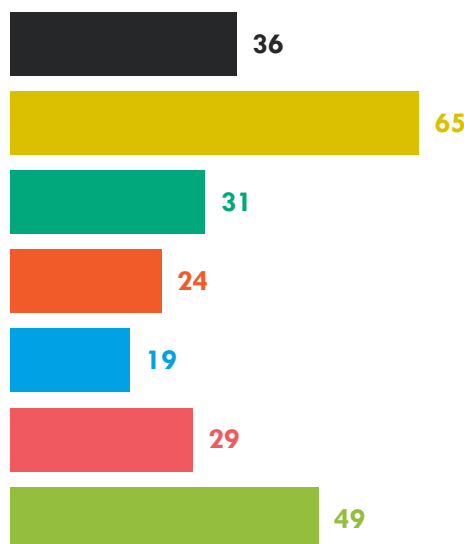
### 11a. Mean comprehensive scores show variation by section.

Nutrition Education, Competitive Foods & Beverages, and Implementation, Evaluation & Communication scored high, while School Meals, PE & PA, and Wellness Promotion & Marketing scored low.



### 11b. Mean strength scores reveal room for improvement.

Only the Nutrition Education and Implementation, Evaluation & Communication sections scored high relative to the mean total strength.



## Success Story

“At the high school, a small group of students...along with the principal and the math teacher, worked on their LWP while we provided resources and guidance. The students reviewed the wellness policy scorecard and recommendations and selected goals they want to work on: Smart Snacks, an afterschool PE club, teacher [role] modeling, and wellness promotion. With help from their principal, the students presented to the School Board about their LWP and the scorecard, what they wanted to work on, and information on Smart Snacks, PE, and their recent Field Day. One of the pictures they shared of Field Day was of teachers eating chips, hot dogs, and soda, which was their segue to explain the importance of healthy snacks and teachers modeling health behaviors...the Board said they were expecting to hear about the LWP but were surprised when the students made recommendations. After hearing these, [the Board] asked the principal what his plan was to increase the scores and put the [students’] ideas to work. The students felt proud about their work.”

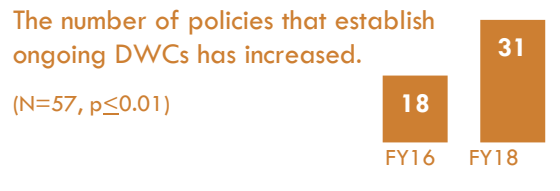
-Yuma County Public Health Services District



High school students present to the School Board in Yuma County

## Are Policies Establishing District Wellness Committees (DWCs)?

LIA narratives suggest that DWCs play a critical role in the development, implementation, and evaluation of LWPs. The WellSAT measures whether a written policy establishes an ongoing DWC [ST7a], and the extent to which multiple stakeholders are engaged in the DWC [ST7b]. Results from our FY18 analysis of LWPs from SNAP-Ed-supported districts are shown below.

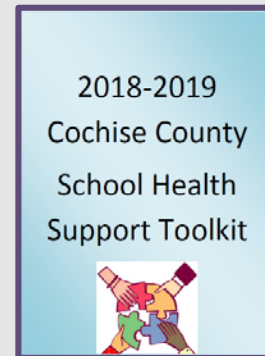


## Success Story

“SNAP-Ed has established a solid partnership with the Cochise County Health & Social Services’ Health in Arizona Policy Initiative manager to assist county schools in meeting USDA Final Rule requirements through continued assessment, revision, and implementation of Local Wellness Policies (LWPs) through sustainable School Health Advisory Councils (SHAC). This collaboration has resulted in the development of a county-wide system in place to assist school districts meet their wellness goals...Data reflecting the SNAP-Ed success in School Health for the 2017-2018 school year includes:

- 10 WellSAT 2.0 assessments, 1 complete revision of a LWP
- 11 District/School SHACs
- 18 Wellness Coordinators
- 48 SHAC meetings
- 12,868 students impacted.”

“The 2018-19 Cochise County School Health Support Toolkit [is] a collaborative resource developed...to assist our schools in successfully participating in our collective wellness programs.”



-UA Cooperative Extension, Cochise

### Multi-Level Interventions

During the 2017-18 school year, all AZ Health Zone LIAs supported policy, systems, and environmental (PSE) changes related to the school health strategies. They also provided direct education (DE) to students.

The SET used the KAN-Q to assess changes in students' nutrition and physical activity knowledge, attitudes, and behaviors from the start of the school year, pre-intervention, to the end of the school year, post-intervention. **Figure 12** shows who participated.

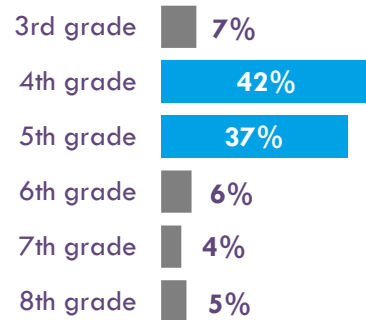
**Did Students Learn?** Yes! Knowledge of the MyPlate recommendations for food groups and physical activity increased significantly [ST1, ST3] for all but the whole grains category (Figure 13).

### 12. 2,730 students from 14 Arizona counties completed the KAN-Q at the start and end of the school year.

Half of all respondents were female.



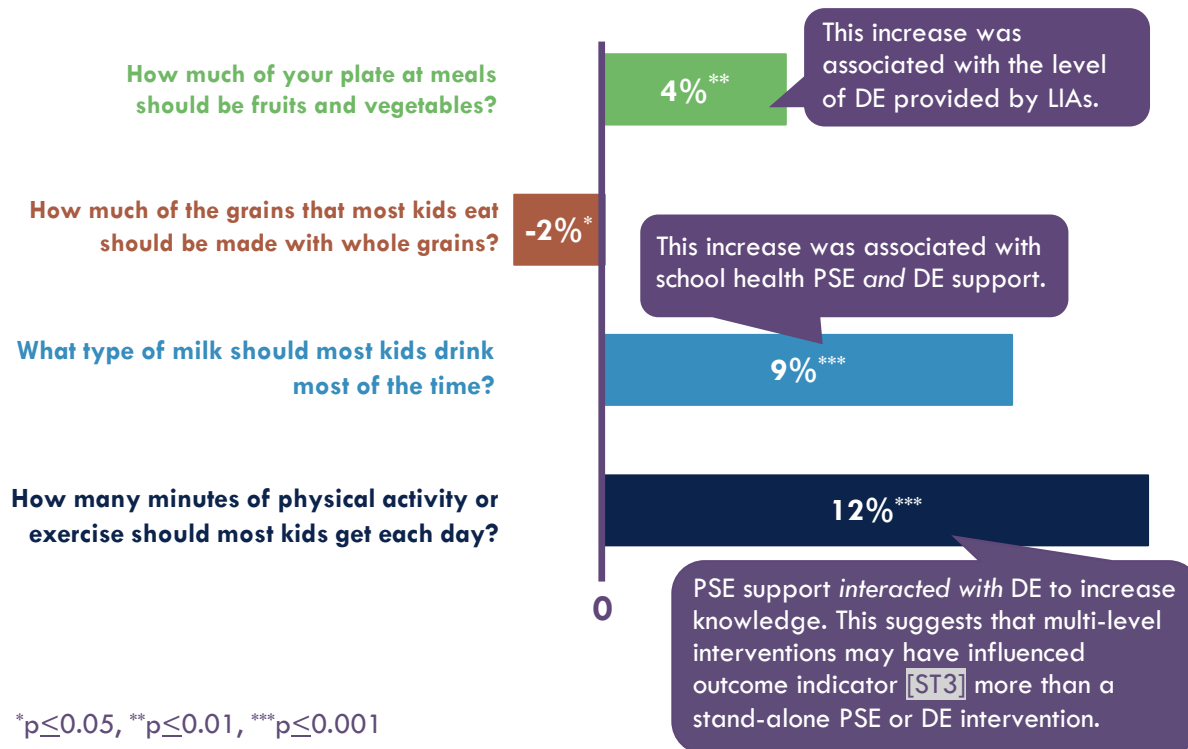
Most were in 4<sup>th</sup> or 5<sup>th</sup> grade. (The average age was 10.)



### 13. On average, students scored higher for most knowledge questions at post.

Significantly more students<sup>\*\*\*</sup> also reported knowing what type of milk they drank at post.

Change in the % of students who answered correctly



\*p≤0.05, \*\*p≤0.01, \*\*\*p≤0.001

**Did Attitudes Change?** In general, no. We saw very little change in how students felt about consuming healthy foods and drinks and doing physical activity pre to post [ST1, ST3]. There was, however, a small positive trend toward liking to eat foods made with whole grains. This contrasts with the negative results for *knowledge* of whole grain recommendations.

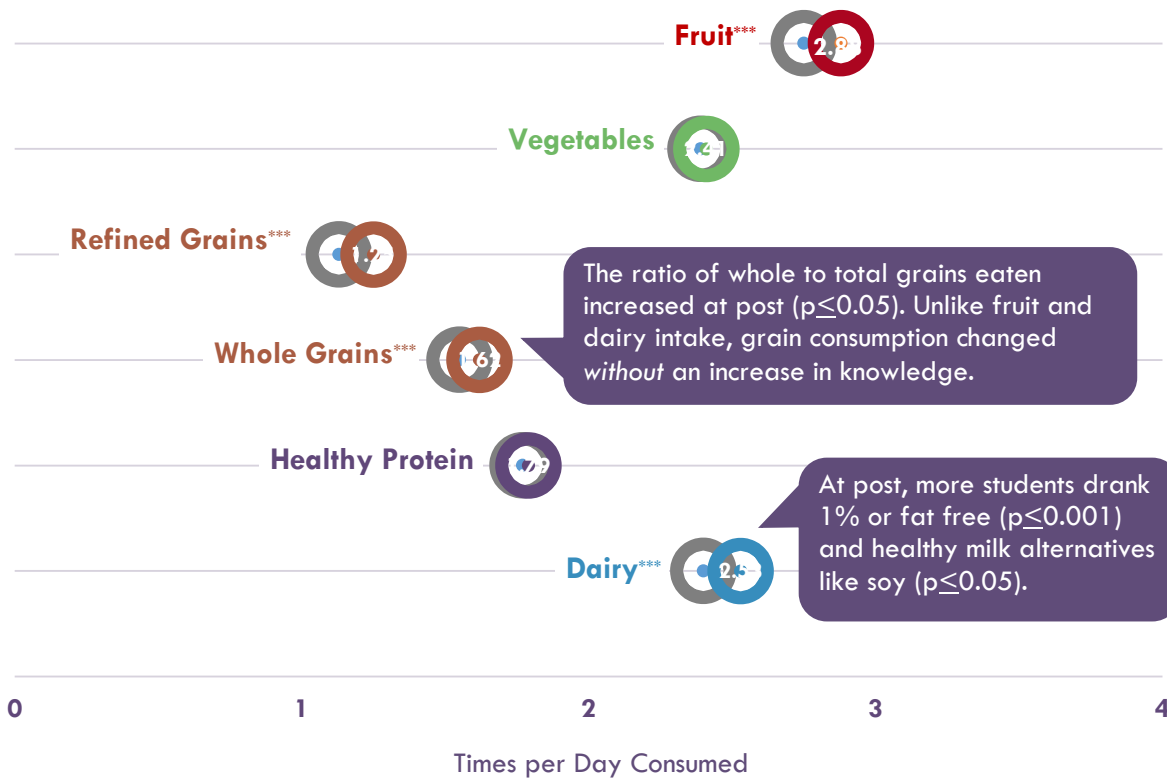
**Did Behaviors Change?** In general, yes. By the end of the school year, students reported an increase in healthy eating behaviors related to fruit [MT1l], grain [MT1j] and dairy [MT1i] consumption (Figure 14).

Students also reported being more physically active at post [MT3a,d,e] (Figures 15a and 15b). Activity results were different for girls versus boys (see box, Figure 15a).

Findings for healthy hydration were mixed: Milk consumption was healthier at post (Figure 14), however students' daily water intake remained the same at the start and end of the school year. While students reported an increase in their sugary drink consumption at post, they still drank about five times more water than sugary drinks at both pre and post.

#### 14. Students reported consuming more fruit, grains, and dairy at post.

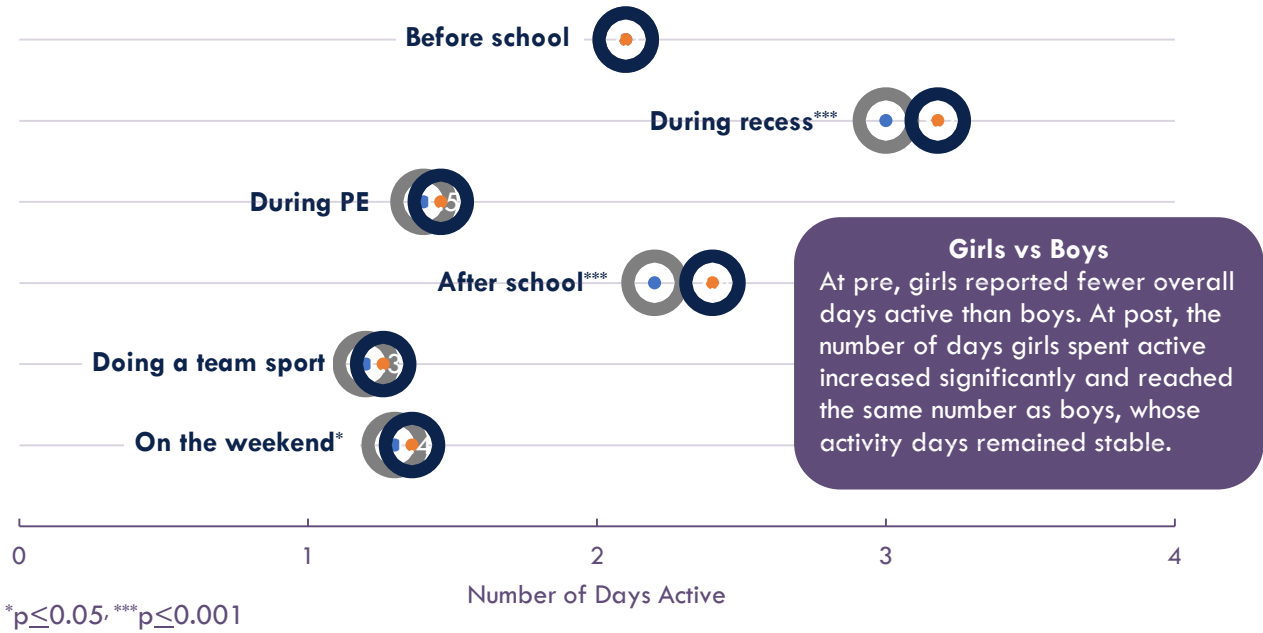
There were no changes in vegetable or healthy protein (fish, eggs, nuts) consumption.





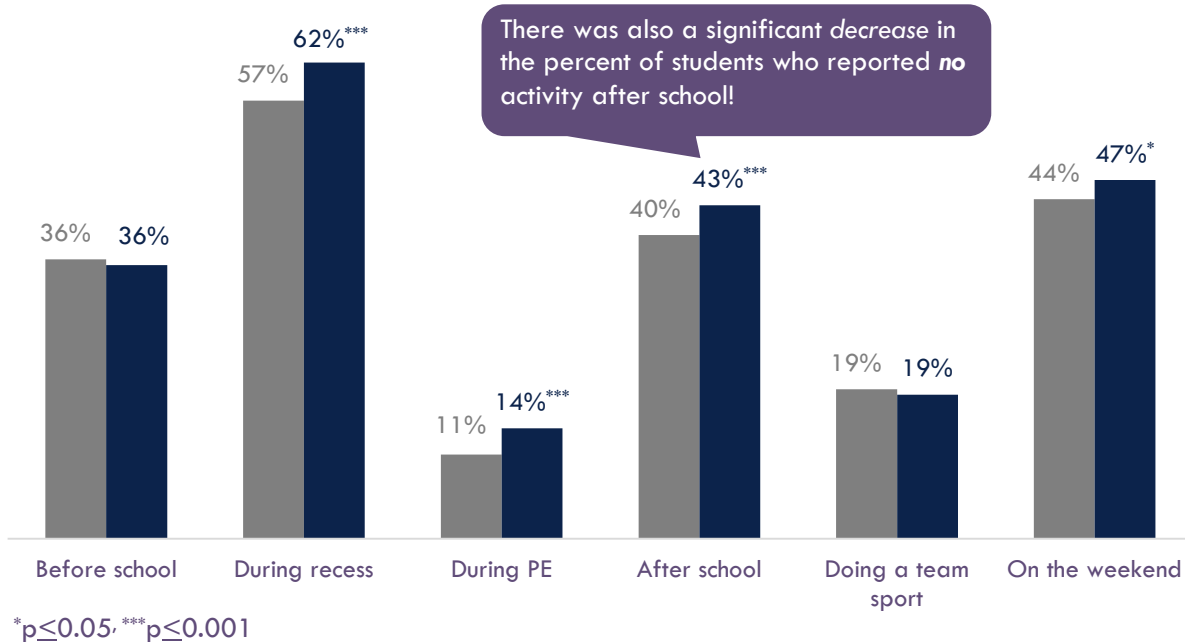
### 15a. The mean number of days that students reported being active increased.

From **PRE** to **POST**, students were more active during recess, after school, and on the weekend.



### 15b. The percent of students that were active also increased from **PRE** to **POST**.

At post, more students reported being active during the school week for 3+ days in recess, PE, and after school. And, more students reported being active on both weekend days.





## How did SNAP-Ed supports relate to behavior changes?



Higher levels of DE and PSE support were associated with an increase in students' fruit intake.



Higher levels of PSEs, but *not* DE, were associated with an increase in whole grain intake. Students may not have learned whole grain recommendations, but it seems PSE activities influenced behavior.



Higher levels of DE and PSE support were associated with an overall dairy increase and with students' drinking more 1% or fat free milk.

On their own, neither PSEs nor DE were related to soy milk consumption. But, PSE support *interacted* with DE support to increase soy milk intake. Thus, a *multi-level support may have had a greater influence on a behavior [MT1i] than a single PSE or DE intervention.*



Higher levels of DE and PSE support were associated with an increase in the mean number of days students were active *during recess* and *after school*, and the mean *total* number of days that students reported being active.

We also found a trend suggesting that PSE support may have interacted with DE support to increase students' after school activity and total days active.

**Persistent Barriers to School Health.** Some barriers to school health promotion have been consistently described in LIA narrative reports from FY16-18. These include a *lack of time or interest by schools, a lack of top-down support from school or district administration, and school staff turnover/the loss of wellness champions* with whom to collaborate.

Unlike FY16 narratives, FY18 reports included frequent references to DWCs and School Health Advisory Committees (SHACs) through which school health initiatives were launched. Even so, LIAs discussed difficulties recruiting or retaining members for these groups, including students' families and community partners.

**School Health Facilitators.** In FY18, LIAs reported that *fostering relationships with school districts*, including but not limited to DWCs and SHACs, was vital to their success in school health. Some LIAs have begun to enhance their county-wide support for school

health programs through collaboration with other county health department agencies, American Indian health teams, and other SNAP-Ed LIAs.

"MCDPH built strong relationships with school districts to identify opportunities where SNAP-Ed and other MCDPH school health programs can be of assistance...The Food and Nutrition Services Director of the Madison School District [said], 'The Maricopa County Office of School Health and Wellness has been an invaluable partner to the Madison School District in the development of their wellness initiatives, committees, and policy. Andrea Zechmann, RDN has worked in collaboration with the district administration, teachers, parents, and students to offer model policy language, educate staff, and facilitate education for our community. Their expertise in district committee meetings has been vital to ensuring that our policies are reasonable and sustainable for district staff.'"

-Maricopa County Department of Public Health

## Success Story



Civic Partner of the Year Award Presentation,  
Holbrook Unified School District

“We have chosen the University of Arizona Cooperative Extension as the recipient for our *Community Partnership of the Year Award* this year. The U of A Extension Program has supported our school district through gardening projects, the summer food service program, fun runs, and many Healthy Holbrook initiatives. We appreciate your partnership in helping our unique students develop.”

-Dr. Robbie Koerperich, Superintendent of  
the Holbrook Unified School District

“Starting in FY17, we formed a partnership with the Fort Defiance Indian Health Service School Health Promotion Team and with the Winslow Indian Health Care Youth Wellness Program. Both of these teams are dedicated to working with schools to improve the health of the youth. We have worked with these programs to offer staff training and development, such as CATCH, and wellness policy support. This has been so well-received that it has expanded to include the Kayenta School Health Team.”

-UA Cooperative Extension, Navajo

The UA Cooperative Extension, Navajo, has sustained positive relationships with tribal and non-tribal partners. In Holbrook, they received a 2018 award for their efforts (**above**). And, collaboration with the Navajo Public Health Services District led to a successful wellness training for Kayenta on LWPs, SHACs, DWCs, and school health assessments (**left**).

## Success Story



Posters enhance a lunchroom in Pinal County

In Pinal County, four SNAP-Ed-supported districts had exemplary written LWPs, with some of the highest WellsAT scores in the state. Three of these districts adopted the Alliance for a Healthier Generation’s model wellness policy, and UA Cooperative Extension Pinal is now working with them to support LWP implementation in schools. Meanwhile, the LIA worked to strengthen DWCs across multiple Pinal County school districts. Throughout FY18, staff also provided evidence-based nutrition education, incorporating food demos whenever possible.

“AZ Health Zone Cooperative Extension Pinal staff have been active with the Coolidge Wellness Committee to review and revise the Local Wellness Policy, and to review how nutrition could be delivered to all students... The Smarter Lunchrooms initiative has opened doors for our staff to provide educational materials to children during the lunch hour. We make them aware of the vegetable and fruit on their tray that day, as well as the nutritional value of that vegetable and fruit.”

-UA Cooperative Extension, Pinal

## Recommendations

Continue to coordinate school health promotion efforts with the Arizona Department of Education, with a focus on (1) *building school- and district-level wellness teams* (e.g., DWCs and SHACs), and (2) *identifying and supporting Wellness Champions*.

Provide LIAs with school health training and resources regarding:

- Model LWP language for School Meals, Competitive Foods, PE & Physical Activity, and Wellness Promotion.
- How to support districts in *disseminating* and *implementing* their LWPs.
- How to actively recruit, engage, and retain members for DWCs and SHACs.

Expand LIA efforts to provide multi-level interventions *that reach the same students with PSEs and DE*. These efforts should continue to address physical activity and all MyPlate messages, but can *specifically target vegetable consumption* as a key area for improvement.

Consider merging all AZ Health Zone school health strategies under the single strategy: **Support the development, implementation, and evaluation of Local Wellness Policies (LWPs)**. Local Wellness policy development and implementation includes access to nutrition information and CSPAP development, and *merging strategies would help to streamline LIAs' reporting of school health PSEs*.



## Community Highlight

# SNAP-Ed Partners with the Navajo Nation Window Rock Unified School District to Share Lessons about Wellness



“With Window Rock School District, I work with Tséhootsooí Primary School and Tséhootsooí Diné Bi’Ólta’...The first week, I [taught] nutrition, portion size, healthy food choices and the benefits of each food group. The second week, I did a food demonstration from *Cooking Matters*...The last week, I educated about physical activity, the three phases of our heart rate, and the duration of time we should be [active].”

-Tiffany Yazzie-Begay, *Nutrition Specialist, Navajo County Public Health Services District*



“[The Window Rock Unified School District] wellness team was already established in prior years. Meeting the team was very insightful, knowing their plan to move forward to complete their school wellness policy... they would like to work on student and staff physical activity. During our team meeting, I went over the WellSAT scorecard and recommendations with the team and gave them a better understanding of all their current accomplishments and sections to work on throughout the year.”

-Violet Nez, *Health Program Coordinator, Navajo County Public Health Services District*





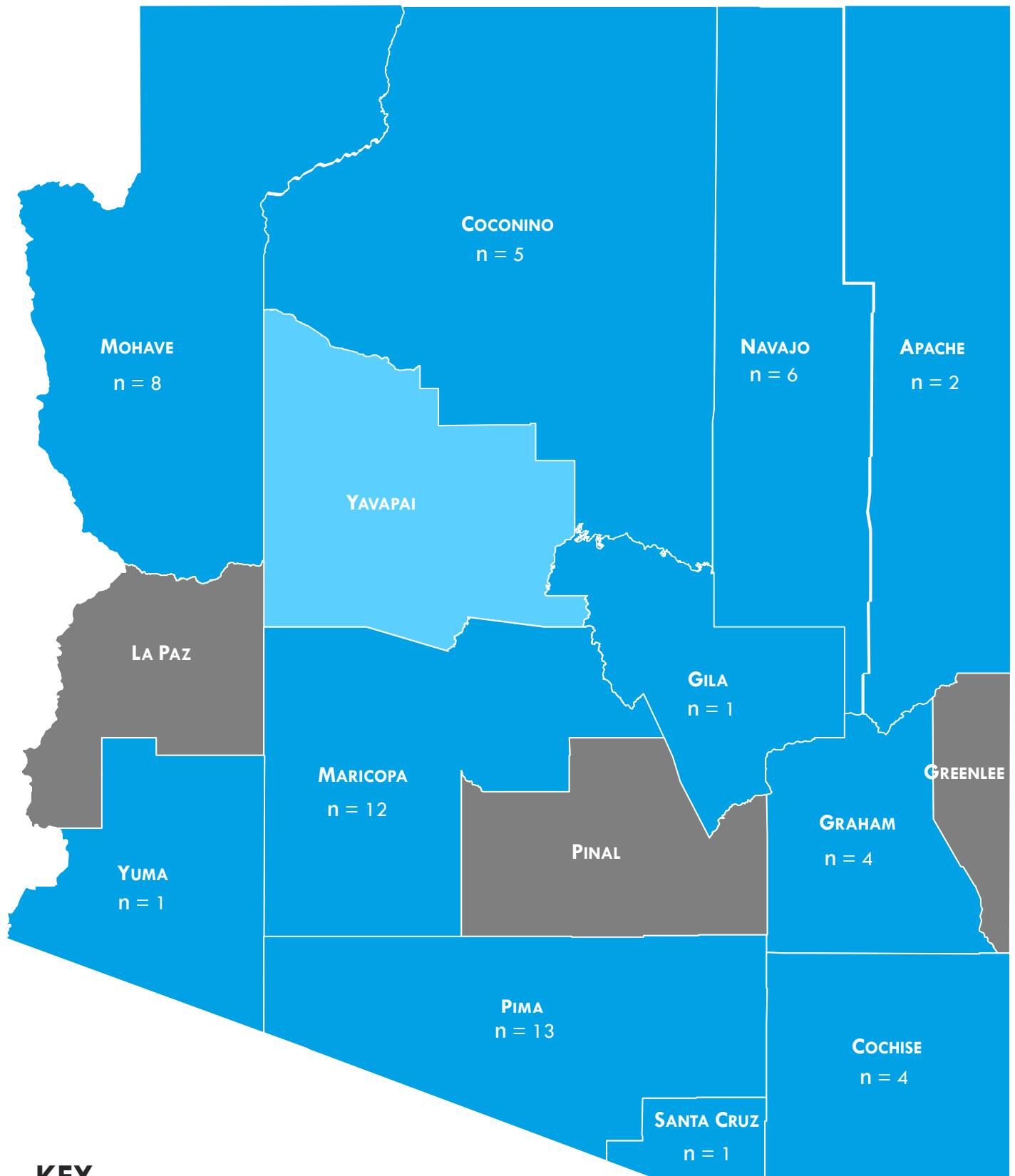
**“Tséhootsooí Diné Bi’Ólta’** is an exclusively Diné (Navajo) Language-speaking school...Most of the students at Diné Bi’Ólta’ are being raised in the traditional ways of the Navajo people, by their grandparents, who still plant and herd their livestock. These children visualize themselves doing what their grandparents have always done and will continue to do.

Students’ attire consists of traditional Navajo dress, Navajo jewelry and hair buns...The school strongly encourages presenters to speak the Diné Language to the students and connect healthy eating and active living to Navajo Traditions...Our staff person worked hard to ensure she translated the curriculum in its entirety into Navajo for the students. Teachers and administration were highly impressed and requested that our services return in FFY19.

The students and staff have remained very interested and involved with our classes. They provide [us with] additional information about how the Navajos lived a long life by eating vegetables, fruits and herbs that they planted, being physically active by herding their livestock, and preparing food without the use of oil.”

*-Navajo County Public Health Services District*





**KEY**

- = Participated in the FY18 ECE evaluation (n = number of ECEs assessed)
- = Worked in the Early Childhood focus area in FY18
- = Did not work in the Early Childhood focus area in FY18

# Early Childhood



UA Cooperative Extension, Cochise

## AZ Health Zone Early Childhood Strategies



Support nutrition and physical activity policies and environments consistent with the Empower Standards



Improve Early Childhood Education (ECE) capacity in nutrition education and healthy meals



Improve ECE capacity to provide opportunities for physical activity

## Evaluating Early Childhood

Seven LIAs supported early childhood across 12 of Arizona’s 15 counties during FY18. The State Evaluation Team (SET) assessed ECE policies, systems, and environments (PSEs) using the University of North Carolina at Chapel Hill’s Go NAP SACC tool. We also used Local Implementing Agencies’ (LIAs) Semi-Annual Narrative Reports to better understand the SNAP-Ed activities provided at ECEs, including the strengths and challenges associated with those activities.

## Go NAP SACC

LIAs worked with their partner ECEs to assess site-level PSEs using the Go NAP SACC tool in FY16, and again in FY18 (Figure 16). We compared scores over time for the 26 sites assessed in both years.

**What is Go NAP SACC?** The Go NAP SACC *Child Nutrition* and *Infant & Child Physical Activity* instruments are PSE self-assessments that provide ECEs with feedback on strengths and areas for improvement.

### 16. LIAs increased their Go NAP SACC use from FY16 to FY18.

In FY16

- 6 LIAs
- 70 Go NAP SACCs
- 10 counties.

In FY18

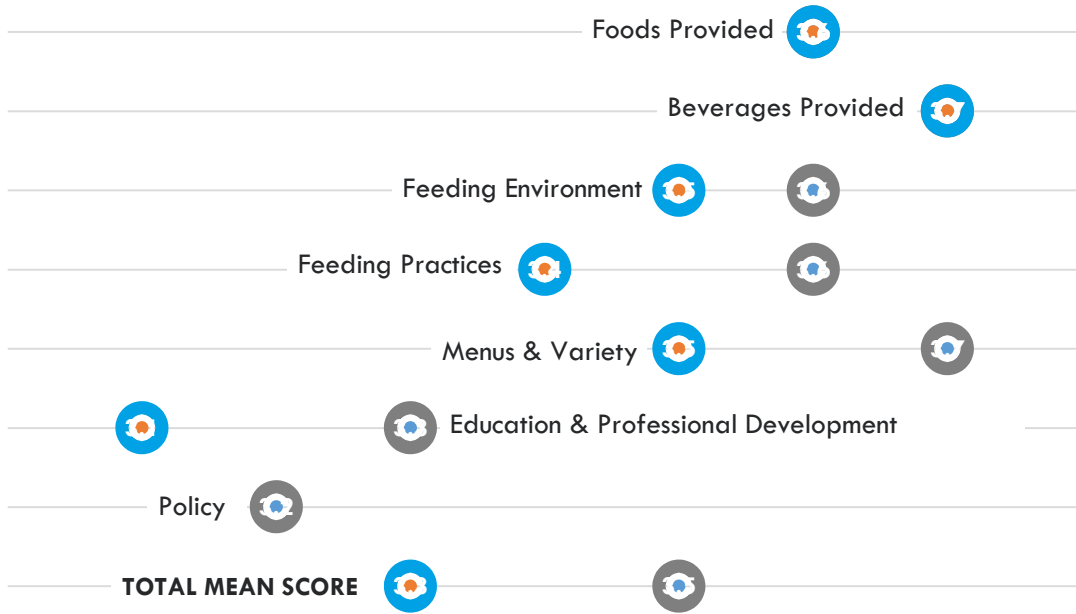
- 7 LIAs
- 104 Go NAP SACCs
- 11 counties.

### Did Go NAP SACC scores change over time?

We did not find statistically significant changes in mean scores for the 26 ECEs that completed Go NAP SACCs in both years. Figures 16a and 16b show *Child Nutrition* and *Infant & Child Physical Activity* results, respectively. In general, high section and total scores at pre made it less likely that scores would show a significant increase. However, there were some small but non-significant decreases in scores. It is possible that, as LIAs

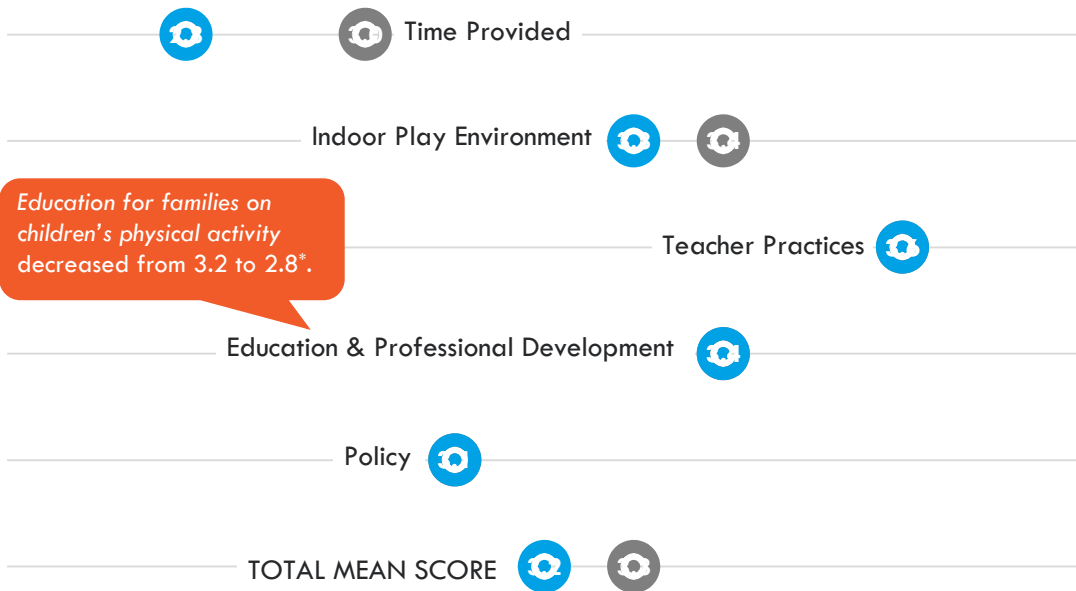


**16a. Mean Go NAP SACC Child Nutrition scores<sup>a</sup> did not change significantly from FY16 to FY18.** FY16 scores for all means were relatively high.



<sup>a</sup> Go NAP SACC scores ranged from 1 (weakest practice) to 4 (best practice).

**16b. Mean section and total Go NAP SACC Infant & Child Physical Activity scores<sup>a</sup> did not change significantly from FY16 to FY18.** One item score decreased.



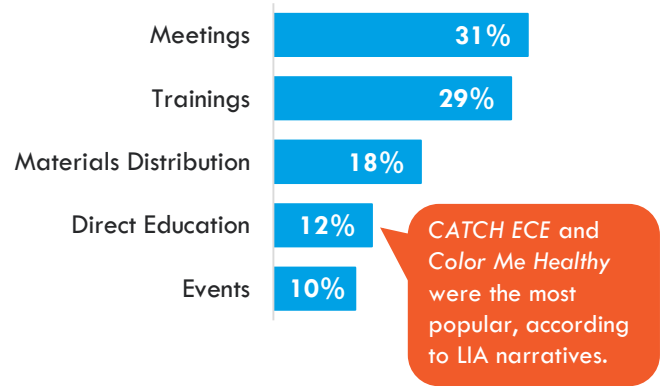
Education for families on children's physical activity decreased from 3.2 to 2.8\*.

<sup>a</sup> Go NAP SACC scores ranged from 1 (weakest practice) to 4 (best practice), \*p≤0.05

and ECEs became more aware of best practices, they became more discerning in their self-assessments. Future assessments will help to clarify any positive or negative trends over time.

During FY18, LIAs reported 160 SNAP-Ed activities *with these 26 ECEs* (Figure 17). Nearly a third of the activities were ECE staff trainings, and most LIA narratives discussed providing successful trainings, often on Empower topics.

**17. Of 160 SNAP-Ed activities LIAs provided to 26 target ECEs, most were meetings and trainings.**



*Success Stories*

“Through multiple visits and use of the Go NAP SACC and ECE Goal Setting Tool results, the sites are now learning about the [Empower] standards and policies...At [one site], there was good movement in the written Empower Policy area. In the 2016 Go NAP SACC, only 1-3 policy topics were covered under *Physical Activity*...In the 2018 Go NAP SACC, [this] increased to 4-6 topics.”

-Maricopa County Department of Public Health



SNAP-Ed and WIC present an ECE site with a Breastfeeding Friendly Recognition Program certificate.



“SNAP-Ed has made progress providing professional development to ECE sites across the county, focusing on Empower, child nutrition, and curriculum train-the-trainer... review of Go NAP SACCs [resulted in]:

- Lil Bulldogs Preschool re-writing policies, creating a Breastfeeding Friendly area, and advocating for healthy snack choices from [food provided by the school] district.
- Carmichael Head Start requesting increased adult lessons to increase parent education on nutrition.
- First Steps Preschool identifying events such as Donuts with Dad as an opportunity for change.

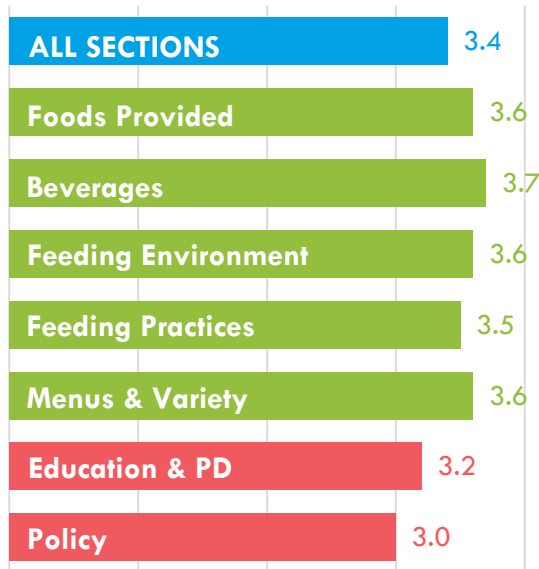
Additionally, the SNAP-Ed team is a core member of the Cochise County Breastfeeding Task Force (CCBT), supporting the belief that *breastfeeding is the earliest form of nutrition* by putting it into practice...SNAP-Ed’s role was to create a replicable program guide for the Breastfeeding Friendly Recognition Program...In May, the SNAP-Ed program attended the Cochise County Board of Supervisors meeting to award seven local childcare facilities as ‘Cochise County Breastfeeding Friendly’.”

-UA Cooperative Extension, Cochise

**How Did All ECEs Score in FY18?** In FY18, LIAs completed 104 Go NAP SACCs with 57 partner ECEs. Mean section and total scores are reported below for *Child Nutrition* (Figure 18a) and *Infant & Child Physical Activity* (Figure 18b).

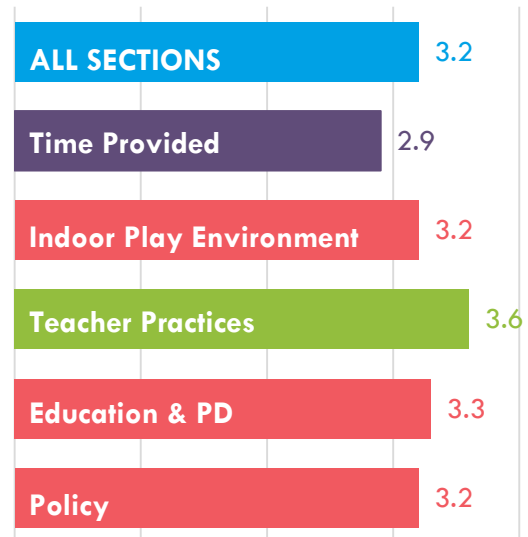
**18a. Mean Child Nutrition scores<sup>a</sup> vary by section.**

Four sections scored  $\geq 3.5$ . Policy and Education & Professional Development (PD) scored 3.0-3.5.



**18b. Mean Infant & Child Physical Activity scores<sup>a</sup> were lower than Child Nutrition.**

Only Teacher Practices scored  $\geq 3.5$ , three scored 3.0-3.5, and one scored  $< 3.0$ .



<sup>a</sup> Scores ranged from 1 (weakest practice) to 4 (best practice).

**Facilitators and Barriers to Success**

LIAs have reported persistent challenges to ECE programming from FY16-18. The most notable barrier has been *competing demands on ECE staff*, which makes it difficult to schedule visits and trainings. *Limited ECE staff and ECE staff turnover* have also been problematic, hindering scheduling and threatening progress, for example when a wellness champion departs.

Nevertheless, FY18 narratives suggested that *LIAs' ability to foster relationships with partner ECEs* was the most common facilitator of success. For example, two LIAs increased their frequency of contact with ECEs to enhance interest and maintain momentum for positive change. And, completing the Go NAP SACC assessment was reported to facilitate improvements by informing PSE change strategies.

"[At] Busy Beez Preschool & Daycare, our first priority was to build a relationship and get to know their specific environment to tailor our approach. We developed an effective process to conduct the assessments, facilitate meetings with leadership and staff, guide them through goal-setting, and develop a plan for implementation. To amplify our resources, we coordinated with HAPI to assist in the development of the site policy consistent with Empower standards, including a continuous improvement plan, and with our local WIC [office], who...made recommendations to create a breastfeeding-friendly environment."

-Yuma County Public Health Services District

## Success Story



Transplanting seedlings with a teacher at Sierra Bonita Head Start

In Graham County, LIA staff worked to create a culture of health in partner ECEs. Their steady presence at four SNAP-qualified centers in the county has had a ripple effect, affecting preschoolers, staff, and parents.

In FY18, preschool direct education at each center included a monthly garden lesson as well as a physical activity. The LIA generated enthusiasm for both gardening and physical activities by customizing the garden to the site, encouraging teacher participation in the physical activity, and leaving a copy of the physical activity instructions for the teacher.

“We had to get buy-in from sites, but using the CATCH EC Garden Kids curriculum and physical activities from the CATCH EC box ultimately led to enthusiasm from preschoolers, center staff, and parents...At all centers, I can’t believe how much the atmosphere around eating vegetables and being active as a part of the daily routine has changed.”

-UA Cooperative Extension, Graham

## Recommendations

Continue to coordinate the Early Childhood focus area with the ADHS Empower Program. It would help to *investigate LIAs’ experiences providing ECE support with Empower surveys*: To what extent is Go NAP SACC duplicative of these surveys in LIA planning and implementation?

*Provide LIAs with early childhood training and resources regarding low-scoring Go NAP SACC topics:*

- Offering 1% or fat-free milk for children 2 and up
- Teacher use of an authoritative feeding style
- Amount of physical activity time provided to preschool children and toddlers
- Amount of adult-led physical activity provided to preschoolers
- Amount of time that infants spend in seats, swings, or ExerSaucers
- Engaging ECE **families** in nutrition and physical activity education
- Written nutrition and physical activity policy development

Consider *linking LIAs who successfully foster long-term ECE relationships with LIAs who report persistent challenges*. Successful LIAs can speak to their use of frequent ECE contact, creative collaborations with community partners, and other strategies that help them to withstand staff turnover and competing ECE demands.

Consider *merging all AZ Health Zone early childhood strategies under the single Empower strategy*, which already includes increasing ECEs’ nutrition and physical activity capacity. Merging strategies would help to streamline LIAs’ reporting of early childhood PSEs.



## Community Highlight

# Four SNAP-Ed Local Agencies Collaborate to Support Northern Arizona's Head Starts

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*"So far, 114 children in Coconino County Head Starts have received a Color Me Healthy Activity!"*

*-Coconino County Public Health Services District*

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From left: Theresa Kulpinski, Margine Bawden, Rebecca Serratos, and Violet Nez. Co-presenters, NACOG Head Start Color Me Healthy Training.



Food Service Staff enjoy the interactive Color Me Healthy training.


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*"Three centers—Pinetop, Holbrook, and Show Low—have completed the Nutrition Activity Report that indicates that they have conducted Color Me Healthy trainings at their centers. Pinetop [provided] feedback that the events were very high energy and that the students were up singing and dancing and had fun."*

*- UA Cooperative Extension, Navajo*

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“By far our biggest success of this past reporting period and this grant cycle has been that *we are finally seeing larger, system-wide gains from the relationship that we have been developing and strengthening over the past three years with the Northern Arizona Council of Governments (NACOG) Head Starts*...Making changes within Head Starts in Yavapai County required making connections and building trust with a top-down approach. [To] reach Head Starts with broader policy, systems, and environment strategies, we began to cultivate a relationship with... the Health and Nutrition Manager for NACOG Head Start who oversees nutrition education and overall compliance with the Child and Adult Care Food Program for the Northern Region: Yavapai, Coconino, Apache, and Navajo Counties.”

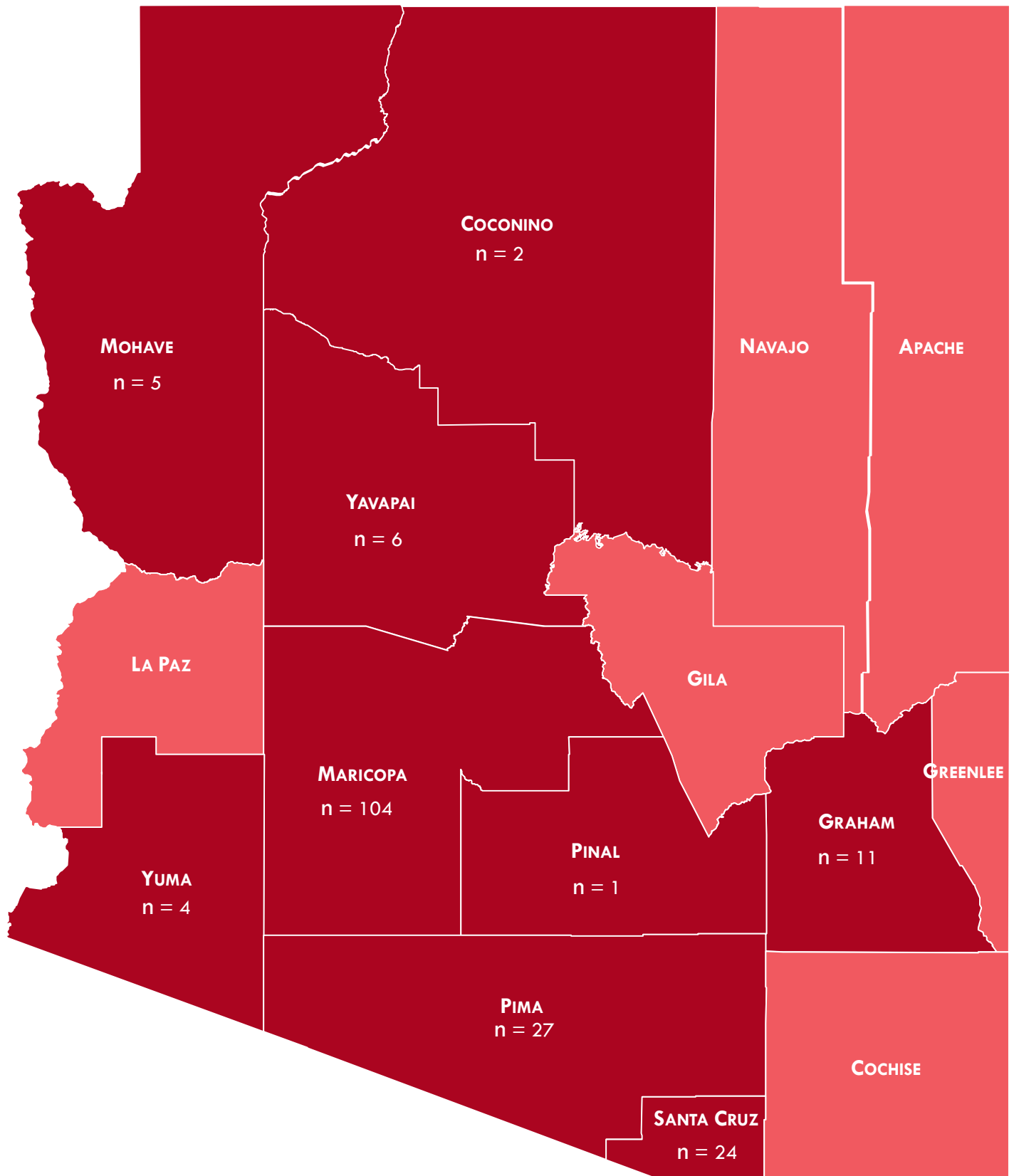
“*We collaborated with SNAP-Ed Local Implementing Agencies (LIAs) from each county. Together, we developed an in-person training and two follow-up webinars for all Head Start lunch aides on the Color Me Healthy curriculum.* [The Health and Nutrition Manager] and our Program Coordinator, Rebecca, had many meetings to discuss the possibility of providing more standardized nutrition education at all centers via [these] lunch aides.”

“*The biggest win of this collaboration was that NACOG is now requiring that all lunch aides use the knowledge, skills, and tools that they received at the training to conduct and report on [Color Me Healthy] nutrition education activities every month*...Having the consistency of trained staff across all [four counties] with additional technical assistance from SNAP-Ed providers throughout the year benefited all parties involved.”

- UA Cooperative Extension, Yavapai



NACOG Head Start Color Me Healthy Training. August 2018. Flagstaff, AZ.



**KEY**

- = Participated in the FY18 adult DE evaluation (n = number of matched assessments)
- = Worked in adult DE in FY18



# Adult Direct Education



UA Cooperative Extension, Maricopa

## AZ Health Zone Direct Education Strategy



Provide healthy eating and active living education to adults in support of PSE strategies

### Evaluating Adult Direct Education (DE)

In FY18, the AZ Health Zone assessed *adult behavior change* [MT1-3] using two University of California Cooperative Extension tools: the Food Behavior Checklist, and On the Go!/;De Prisa!

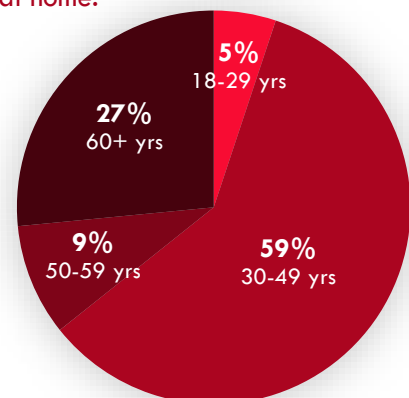
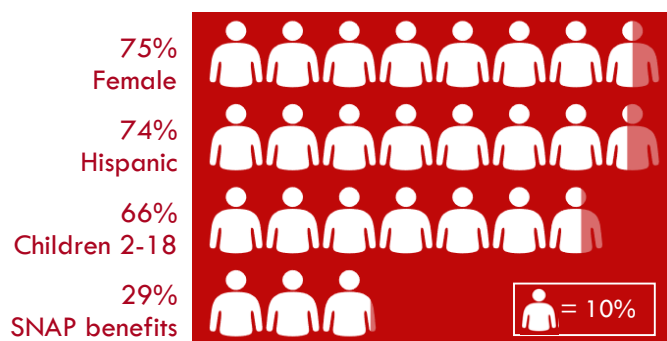
### Series-Based Adult DE

In FY18, SNAP-Ed Local Implementing Agencies (LIAs) taught adult class series that were paired with surveys in 10 of Arizona's 15 counties; matched pre and post surveys were collected from 9 counties (Figure 19). Participants in two curricular series were surveyed: *MyPlate for My Family (MPFMF)* and *Eat Healthy, Be Active (EHBA)*. By **curriculum**, 75 adults took MPFMF classes and 109 took EHBA. More MPFMF class participants had children 2-18 at home,

received SNAP benefits, and were younger compared with adults attending an EHBA class. By **language**, 60 adults took surveys in English while 124 took surveys in Spanish. More Spanish speakers reported Hispanic ethnicity and had children at home versus English speakers. And, 70% of Spanish speakers were 30-49 years old versus 32% of English speakers; 55% of English speakers were 60+ years old. Spanish speakers were evenly divided between MPFMF and EHBA.

### 19. 184 adults from 9 Arizona counties completed matched pre-post surveys.

Most were female, Hispanic, aged 30-49, and had children living at home.





## Physical Activity Results

Significant increases were found for days active and minutes active across both moderate and vigorous activity levels (**Figures 20a and 20b**). These increases were driven by the Spanish speakers in our sample. In other words, Spanish speakers showed greater improvement than English speakers in days and minutes active.

At the pre survey, Spanish speakers showed a higher mean activity level. Further pre-post analysis revealed that Spanish speakers had significant PA increases at **home** and **in their spare time**. In contrast, English speakers showed only slight improvements in PA. These results did not differ meaningfully by curriculum.

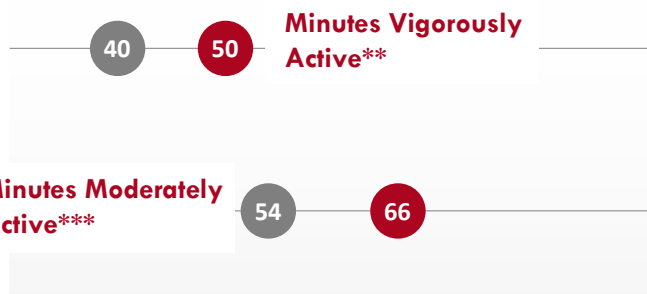
Unlike PA, hours spent sitting per week [MT3i] did not change across time, remaining steady from pre to post at 22 hours per week. This did not vary by curriculum *or* language.

**20a. There was a significant increase in Days Active in the Last Week [MT3a] from PRE to POST.**



\* $p \leq 0.05$ , \*\* $p \leq 0.01$

**20b. There was a highly significant increase in Minutes Active on a Representative Day in the Last Week [MT3b] from PRE to POST.**



\*\* $p \leq 0.01$ , \*\*\* $p \leq 0.001$

## Food Behavior Results

**Figures 21a and 21b** show the change in participants' reported fruit [MT1l] and vegetable [MT1m] consumption. By *language*, Spanish speakers increased *both fruit and vegetable* intake, while English speakers only increased their *fruit* intake. This reflected a larger trend: Spanish speakers improved their eating behaviors for vegetables, lean protein, and sugary drinks, while English speakers did not. There were no differences by *curriculum*.

## Success Story

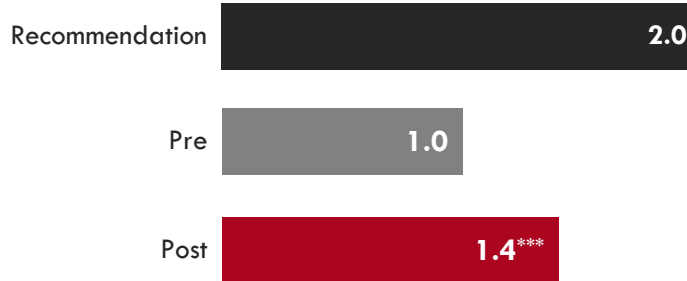
In Pima County, participants engaged in nutrition education classes at community centers, housing sites, and the Garden Kitchen, which complemented their involvement in site-based PSEs such as gardens.



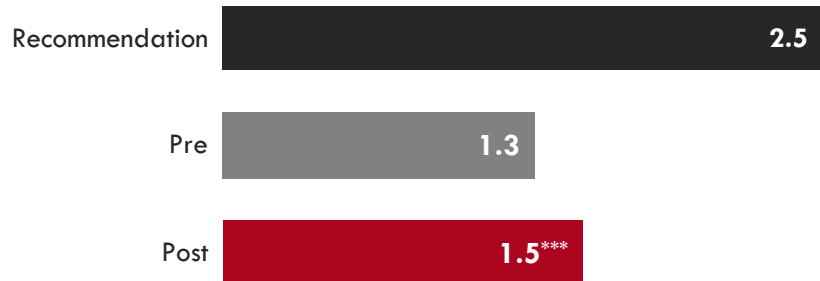
Casitas on Broadway. Above, Container garden harvesting. Below, Maria tends plants.



**21a. In FY18, fruit consumption (in cups) increased from PRE to POST.** Regardless of language or curriculum, adults fell short of national recommendations at post, which has been a consistent finding across three years.



**21b. In FY18, vegetable consumption (in cups) increased from PRE to POST.** Again, regardless of language or curriculum, adults fell short of national recommendations at post across all 3 years.



\*\*\*p≤0.001

Use of the nutrition facts label [MT2b] increased in all groups (overall, by *language*, and by *curriculum*). After education, participants who reported always or often using the label increased by 13% in FY18, compared to 12% in FY17 and 9% in FY16. Average reported food security [MT2g] did not change in FY17 or FY18; this differed from the increase in food security found in FY16, when the evaluation model differed. In FY18, there was a trend toward EHBA participants improving food security more than MPFMF participants, but there was no difference by *language*.

“My name is Maria. After a few months of coming to the [nutrition] classes, my cholesterol went down lower than what it is normally, and my diabetes was regulated even more than my doctor was hoping. My blood pressure also went down! All of this came after what [the teacher] told us in the nutrition classes. Previously, and for a long time I [tried] home remedies, but they didn’t work. Changing my diet? Yes, that worked: lowering my insulin, eating less sugar and fewer potatoes, and [eating] brown rice in place of white. And eating a lot of green vegetables. **The secret to health is eating well and that is what this class taught me.**”

-UA Cooperative Extension, Pima class participant (translated from Spanish)

## Continuing Barriers

- ❖ Recruiting adults, especially parents
- ❖ Retaining adults for a complete class series
- ❖ Targeting individuals who are SNAP-eligible, but not immediately in crisis, so they are able to prioritize healthy eating and active living

“...some of our partner sites do not have interest in allowing us to deliver a full [adult] series. They have said that it does not meet the needs of their clients, as they are interested in just getting enough food to eat, not necessarily if the food is nutritious.”

-UA Cooperative Extension, Mohave

## Success Story

“The group at this center has added either a vegetable or a fruit to their coffee hour most days, with some of the recipes coming from food demonstrations provided by AZ Health Zone Cooperative Extension staff. They like the ‘Easy Fruit Salad’ recipe because it is inexpensive and they can substitute whatever fruits are cheaper and in season. [These seniors] now participate in a ‘senior friendly’ Zumba led by one of the participants, and they love tossing a beach ball to each other with the goal of keeping it off the ground. Many have commented that they thought exercise had to be strenuous and they had to sweat in order to reap the benefits. The Site Coordinator stated the participants have become more confident ‘moving since we have done the physical activity exercises together in our DE program.’”

-UA Cooperative Extension, Pinal



Seniors at Mondo Anaya Recreation Center  
Exercise with Stretch Bands

At Mondo Anaya Recreation Center in Pinal County, the Los Angeles de Esperanza (Angels of Hope) senior group have been engaging with Pinal County, UA Cooperative Extension staff to energize their healthy eating and active living activities.

## Recommendations

- Investigate factors that make Spanish speakers more successful in accomplishing healthy eating and active living behavior change in Arizona.
- Gather information on characteristics that are associated with the best turnout and retention for adult classes; provide guidance to LIAs on recruitment and retention of adults.
- Explore specific barriers to consumption of the recommended amounts of fruit and vegetables among adults in Arizona.
- Explore adult DE interventions shown to be effective in combination with PSEs; consider redirecting evaluation efforts to capture outcomes from these multi-level interventions.



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“There are five key variables that are absolutely critical in evaluation use. They are, in order of importance: people, people, people, people, and people.”

–Halcom’s Person Grata (in Patton, 2012)

Photo: Sabino Sunset, courtesy of Ernie Schloss



# AZ HEALTH ZONE

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