



# FY23 Evaluation Report

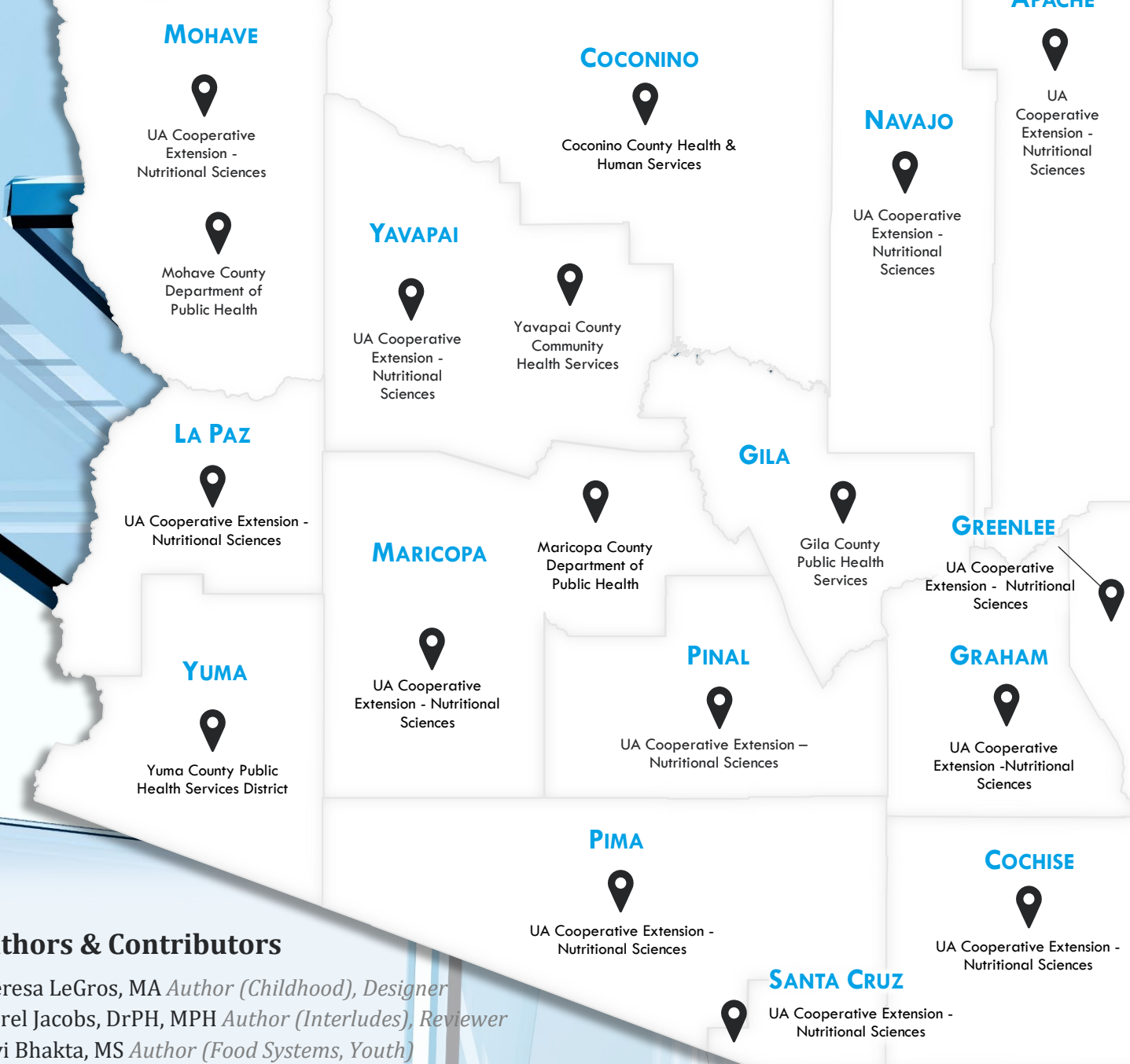
*Reflecting Community Through the SNAP-Ed Window*



THE UNIVERSITY OF ARIZONA  
COLLEGE OF AGRICULTURE & LIFE SCIENCES  
**Nutritional Sciences  
& Wellness**



# LOCAL IMPLEMENTING AGENCIES



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***“Without reflection, we go blindly on our way, creating more unintended consequences, and failing to achieve anything useful.”***

*-Margaret J. Wheatley*



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## Common Acronyms

<b>ADHS</b>	Arizona Department of Health Services
<b>ATT</b>	Around the Table Curriculum
<b>CAP</b>	Community Action Plan
<b>CE</b>	Community Engagement
<b>COVID-19</b>	Coronavirus Disease 2019
<b>CSA</b>	Community Supported Agriculture
<b>DE</b>	Direct Education
<b>ECE</b>	Early Care & Education
<b>FY</b>	Fiscal Year (Oct 1st – Sept 30th)
<b>KAN-Q</b>	Kids' Activity & Nutrition Questionnaire
<b>LIA</b>	Local Implementing Agency
<b>PA</b>	Physical Activity
<b>PARA</b>	Physical Activity Resource Assessment
<b>PSE</b>	Policy, Systems, & Environment
<b>SARN</b>	Semi-Annual Report Narrative
<b>SEEDS</b>	SNAP-Ed Electronic Data System
<b>SET</b>	AZ Health Zone State Evaluation Team
<b>SIT</b>	AZ Health Zone State Implementation Team
<b>SLM</b>	Smarter Lunchrooms Movement
<b>SNAP</b>	Supplemental Nutrition Assistance Program
<b>SNAP-Ed</b>	SNAP-Education
<b>STORE</b>	Store Tracker for Opportunities in the Retail Environment
<b>TIA</b>	Trauma-Informed Approaches
<b>UA</b>	University of Arizona
<b>USDA</b>	United States Department of Agriculture
<b>WIC</b>	Women, Infant, & Children Program
<b>YPAR</b>	Youth Participatory Action Research

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# Executive Summary

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This report describes AZ Health Zone (Arizona SNAP-Ed) program evaluation results in Fiscal Year 2023 (FY23). It aligns with the [National SNAP-Ed Evaluation Framework](#) to document Local Implementing Agencies' (LIAs) progress and outcomes in year three of a five-year program cycle. As communities reopened after previous pandemic restrictions, many LIAs made substantial progress in their work. LIAs also deepened their integration of the AZ Health Zone's guiding principles: health equity, community engagement (CE), and trauma-informed approaches (TIA).

**COMMUNITY ENGAGEMENT.** An FY23 analysis of the CE activities described in 108 LIA semi-annual report narratives (SARNs) found notable CE themes around *preliminary CE efforts, one-on-one engagement with residents, collaboration with residents as leaders, and CE challenges*. Most CE efforts centered around Food Systems, Active Living, and School & Other Youth-Based Systems, with limited progress in Early Care & Education Systems and Direct Education.

**TRAUMA-INFORMED APPROACHES.** In the annual TIA staff survey, LIAs reported *FY21-22 increases in the six TIA domains assessed—Training, Knowledge, Beliefs, Organizational Support, Commitment, Self-Efficacy*—that generally leveled off by FY23. Non-managers' scores improved more than managers'. Urban-area respondents had higher FY23 scores than rural for *Knowledge, Beliefs, and Commitment*.

**COMMUNITY FOCUS ON FOOD SYSTEMS.** Three LIAs in three counties supported Food Retail and measured their progress this year. From FY21-23, the two small stores assessed saw *score increases for healthier Canned Goods, Whole Grains & Beans, and Snacks*. While healthy retail implementation has declined since the pandemic, CE activities to reflect residents' priorities in other Food Systems program areas notably increased in FY23.

**COMMUNITY FOCUS ON ACTIVE LIVING.** LIAs reported 791 actions to increase the Usability of and Access to Physical Activity (PA) Resources, representing 90% of this year's Active Living actions. Seven LIAs in 11 counties assessed 27 PA resources, with 14 resources measured across two years. The *mean total scores for Amenities, Features, and Incivilities* did not change, however *nine of the 14 post-assessments (64%) reported that improvements were made*.

**CHILDHOOD FOCUS ON EARLY CARE & EDUCATION SYSTEMS.** In FY21-23, *mean total Go NAPSACC scores increased from pre to post across the six modules assessed*. These increases were statistically significant with large effects for *Infant & Child Physical Activity* (n=10) and *Breastfeeding & Infant Feeding* (n=11). For *Breastfeeding & Infant Feeding*, we also found a medium-sized, positive correlation between the mean total score and the minutes of LIA support provided.

**CHILDHOOD FOCUS ON SCHOOL & OTHER YOUTH-BASED SYSTEMS.** This year, improved LIA reporting enabled the comprehensive analysis of *Community Coordination* and *CE*. Both of these AZ Health Zone activities functioned by combining LIA support with the leveraged resources provided by partners and residents. *Ten (48%) of the 21 SARNs referencing Community Coordination indicated program movement toward long-term sustainability, as did 14 (27%) of the 52 SARNs referencing CE*.

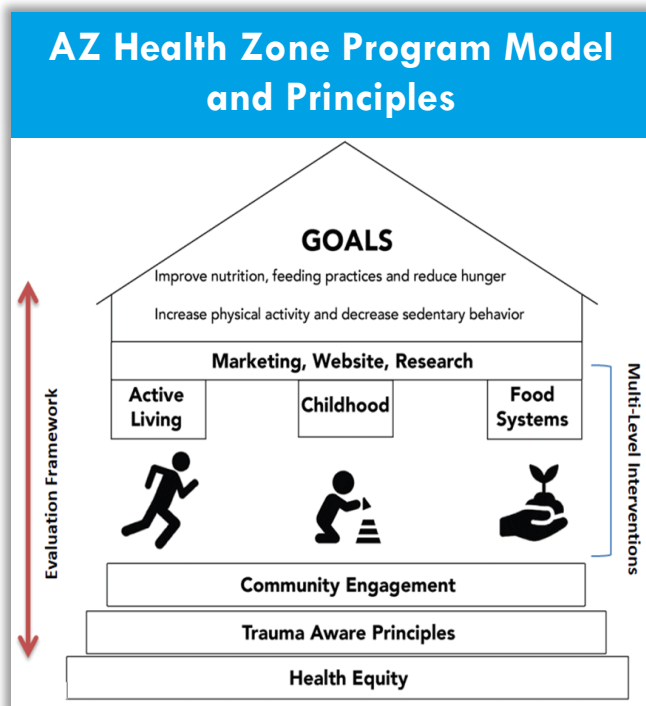
**INDIVIDUAL FOCUS ON YOUTH & ADULTS.** In FY23, 646 students in nine counties completed the Kids' Activity & Nutrition Questionnaire. *Students in more rural counties had lower sugary beverage intake and less sedentary time compared to those in more urban counties*. For the 38 *Around the Table* survey respondents, *adults' well-being scores were positively correlated with beneficial Family Food Habits and vegetable intake*, and negatively correlated with sugary drink intake and adverse Food Habits.



# Introduction

The US Department of Agriculture’s Supplemental Nutrition Assistance Program Education ([SNAP-Ed](#)) seeks to increase the likelihood that SNAP-eligible families can and will choose healthful dietary and physical activity behaviors and reduce related health disparities.

Arizona SNAP-Ed operates as the [AZ Health Zone](#) to advance program goals with state partners and Local Implementing Agencies (LIAs) in Arizona’s 15 counties. The AZ Health Zone program model below is evidence- and equity-based.



## Statistics Reflections

Statistics are one form of evidence. Statistical findings can vary based on the assumptions used to calculate them, and interpretations can vary based on how the statistics are presented and received. In this report, we strive for transparency: We offer sample sizes, p-values, and effect sizes to help readers gauge the strength of evidence for themselves. [P-values](#) tell us whether a result is statistically significant. They are [affected by sample size](#), and they may or may not reflect [meaningful, real-world change](#). [Effect sizes](#) tell us the *magnitude* of differences. The [standard interpretation](#) of the Cohen's d effect size is: **0.20**=small effect, **0.50**=medium effect, and **0.80**=large effect.

The program integrates nutrition education with policy, systems, and environmental initiatives at the local and regional levels, including community engagement and trauma-informed approaches. It also uses social marketing to reach SNAP-eligible residents.

[Evaluation](#) of the AZ Health Zone program is conducted externally by the University of Arizona School of Nutritional Sciences and Wellness. The annual statewide evaluation is guided by LIAs’ community action plans. Data analysis cycles aligned to this model may vary each fiscal year.

This report describes findings aligned with the USDA’s national [SNAP-Ed Evaluation Framework](#). Applicable outcome indicators from the Framework are noted throughout the report (e.g., [MT1]).

The AZ Health Zone State Evaluation Team is guided by **5 EVALUATION STANDARDS**:

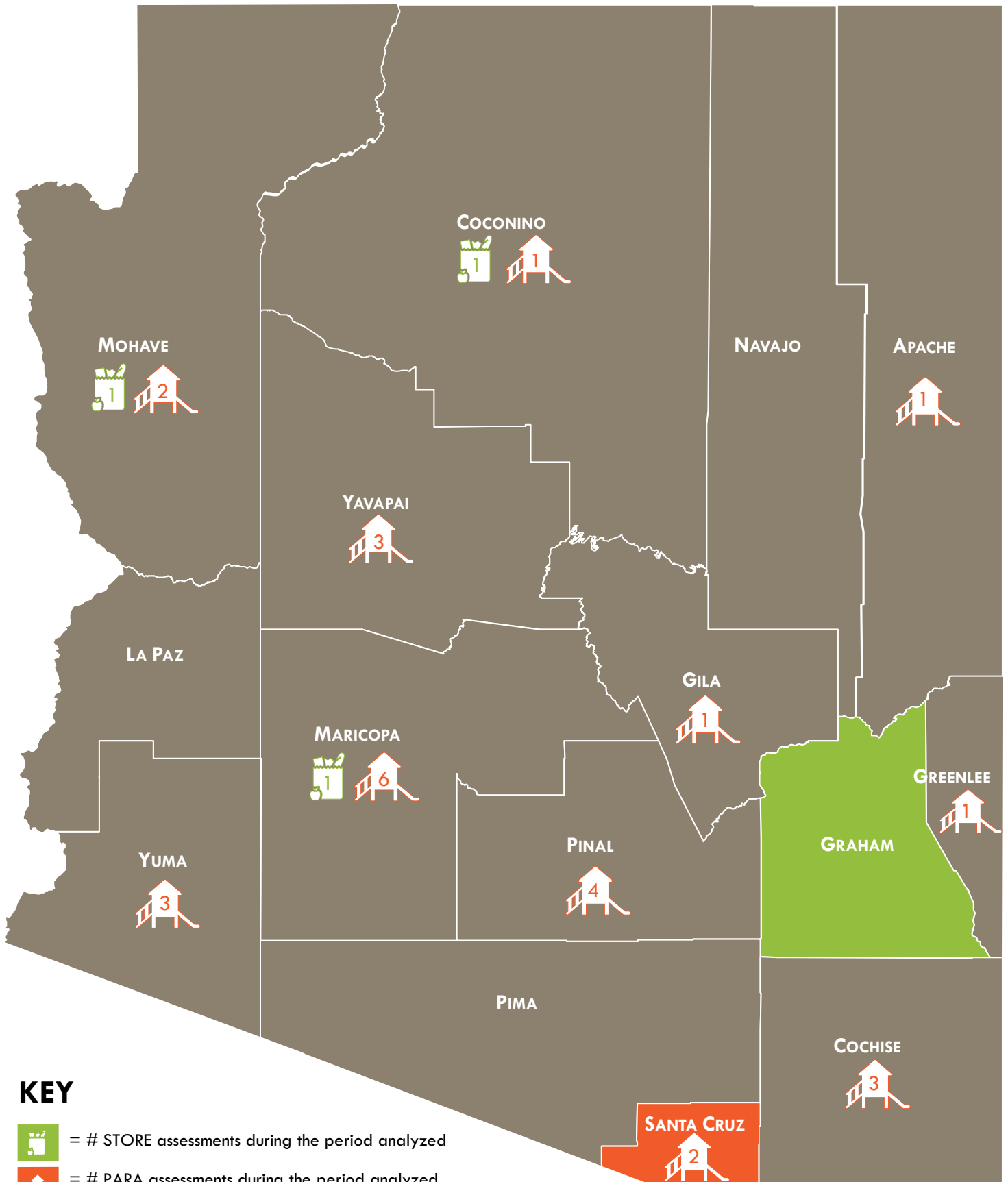
**Utility.** Be responsive to priority users’ needs & provide meaningful products.

**Feasibility.** Design practical, realistic, & contextually appropriate evaluations.






**Equity.** Incorporate equity & trauma-informed principles into evaluation, engaging priority users at multiple levels whenever possible.

**Accuracy.** Use methods, designs, & analyses that are valid, reliable, & trustworthy.

**Consistency.** Perform repeated measurements of SNAP-Ed indicators across time.



**KEY**

-  = # STORE assessments during the period analyzed
-  = # PARA assessments during the period analyzed
-  = Worked in Food Systems
-  = Worked in Active Living
-  = Worked in Food Systems & Active Living



# Community Focus



Note: The Statistics Reflections box on page 2 provides more information on interpreting sample sizes, p-values, and effect sizes.

## AZ Health Zone Food Systems & Active Living Strategies



Support the **production, distribution, and availability of food** to increase access to and consumption of healthy foods



Increase **usability of and access to physical activity (PA) resources** and community programming



Support **development of the built environment** to increase access to and use of community infrastructure(s)

## Community Level Evaluation

In FY23, the AZ Health Zone State Evaluation Team (SET) evaluated Food Systems and Active Living community programming using the Store Tracker for Opportunities in the Retail Environment (STORE) and the Physical Activity Resource Assessment (PARA) tools. The STORE measured baseline [ST5], two-year [MT5], and longitudinal [LT10,12] nutrition supports in the retail setting. The PARA assessed the usability of and access to physical activity (PA) resources in lower-income census tracts [ST5, MT6, LT6]; due to the small sample of matched pre-post assessments (n=14), the confidence level for the PARA evaluation was set at 90% ( $p \leq 0.10$ ). Data from both assessments was supplemented using Arizona's SNAP-Ed Electronic Data System (SEEDS) and SNAP-Ed Local Implementing Agencies' (LIAs) Semi-Annual Report Narratives (SARNs) to further explore progress with multiple AZ Health Zone Food Systems and Active Living activities [MT5-8].

## Community Reach

In FY23, LIAs supported a total of 63 communities across Arizona. **Figure 1** shows that, out of the 54 communities where LIAs reported any Food Systems work, 53 were reached with policy, systems, and environment (PSE) activities such as meetings, events, and/or trainings. Of the 40 communities where LIAs reported any Active Living work, 38 were reached with PSE activities. PARAs were completed in 23 communities (61% of the communities where Active Living PSE work was reported).

1. In FY23, 84% of all SNAP-Ed supported communities received **Food Systems PSE** support, and 60% received **Active Living PSE** support.



## Food Systems

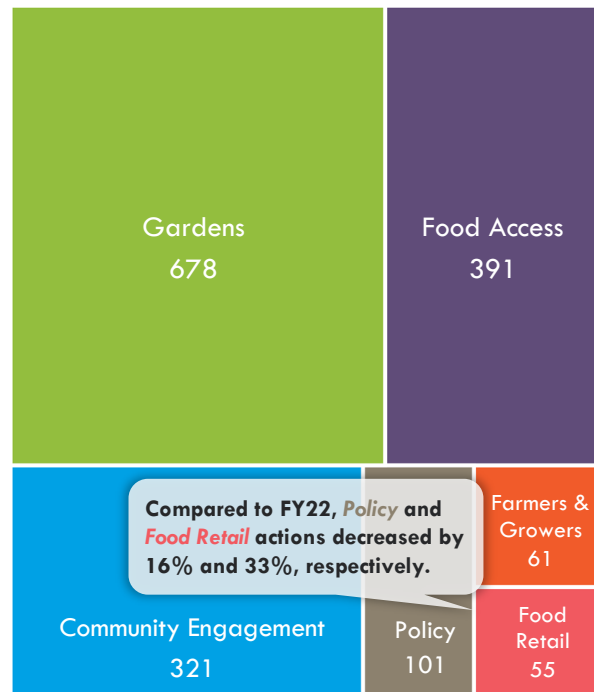
This year, LIAs used SEEDS to report over 1,600 Food Systems actions. *Gardens* were the most reported activity, representing 42% of all Food Systems actions. *Food Retail* actions were the least, representing 3% (**Figure 2**).

**Food Retail.** Four LIAs in six counties worked in *Food Retail*. Despite low LIA engagement, three LIAs in three counties used the STORE to evaluate progress during the data window.

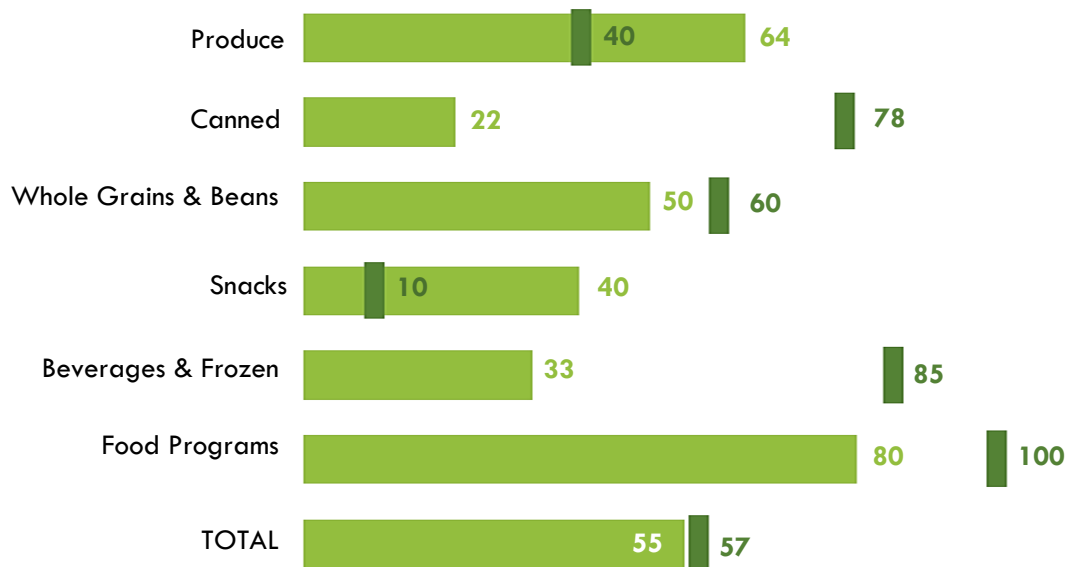
The STORE measures the *Availability, Appeal,* and *Promotion* of healthy foods in the retail setting. The tool assesses these constructs across six sections: Fresh Produce, Canned Goods, Whole Grains & Beans, Snacks, Beverages & Frozen, and Food Programs (i.e., WIC and SNAP acceptance).

**FY23 STORE Results.** In FY23, STORE scores for the two small and one large retailer varied by section (**Figure 3**) [ST5].

### 2. In FY23, LIAs reported 1,607 unduplicated SEEDS actions across the six Food Systems activities.

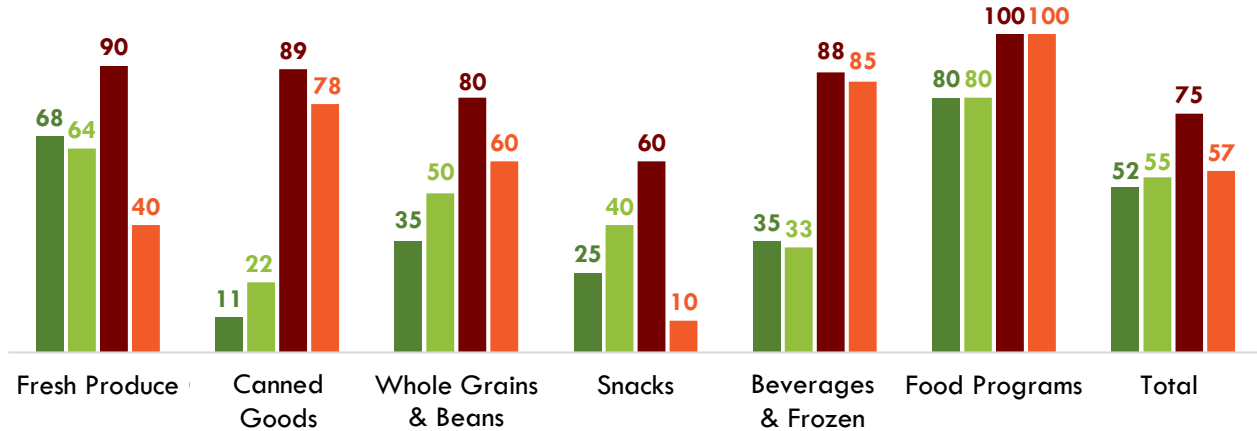


### 3. In FY23, mean STORE scores for the two small retailers were generally lower than scores for the one large retailer assessed. Both types of retailers had similar total mean scores.





**4. Small retailers (n=2) saw mean score increases for three sections and the total from FY21 to FY23. Conversely, the one large retailer saw mean score decreases for all but Food Programs from FY19 to FY23.** Scores ranged from 0 (weakest) to 100 (strongest) and represent the % of the maximum possible score. Small sample sizes prevented significance testing.



*Did STORE Scores Change?* LIAs completed the STORE with the two small retailers in FY21 and FY23 and the one large retailer in FY19 and FY23. **Figure 4** shows changes in scores [MT5]. The findings suggest that the small retailers made improvements in Canned Goods, Whole Grains & Beans, and Snacks. Meanwhile, the large retailer saw declines; while the four-year gap in STOREs made it difficult to interpret the decreases, the LIA’s SARN did note a management change for this retailer. Moreover, it was rurally located, where COVID-19 restrictions may have disproportionately impacted healthy retail during the evaluation period.

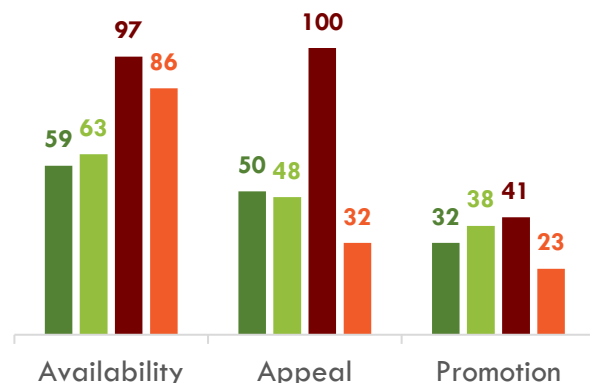
Changes in the mean construct scores were also more positive for the small retailers compared to the large one (**Figure 5**). Indeed, mean *Appeal* decreased dramatically for the large retailer, and *Availability* and *Promotion* saw smaller drops. Again, the small sample size and time between assessments makes it difficult to draw conclusions.

Longitudinal STORE data was also collected for one of the small retailers (FY17-19-21-23) and the large retailer (FY17-19-23). From FY17-23, three mean section scores and the

total grew for the small retailer. For the large retailer, most scores increased from FY17-19, then dropped to below the FY19 scores by FY23 [LT10,12].

*Next Steps.* STORE use has fallen substantially since FY19 (n=26) to n=6 in FY21 and n=3 this year. In future years, the SET will explore LIA barriers to engaging retailers and whether a new *Food Retail* evaluation tool would better meet LIA and state needs.

**5. Mean Availability and Promotion scores for small retailers (n=2) increased slightly from FY21 to FY23. All construct scores decreased for the large retailer (n=1) from FY19 to FY23.** Scores represent the % of the maximum possible score.



Success Stories

Two LIAs Re-Open Windows to Retail Partners after COVID-19

“Previously, [we] had challenges establishing services at the Bashas’ Diné Grocery Store due to pandemic restrictions. **Since then, we followed up with management. The store manager committed to re-establishing the display of the individually priced fruit baskets at the deli and is receptive to placing recipe cards throughout the store.** We will use the STORE assessment to create an action plan with the store manager to move strategies forward.”

-Coconino County Health & Human Services

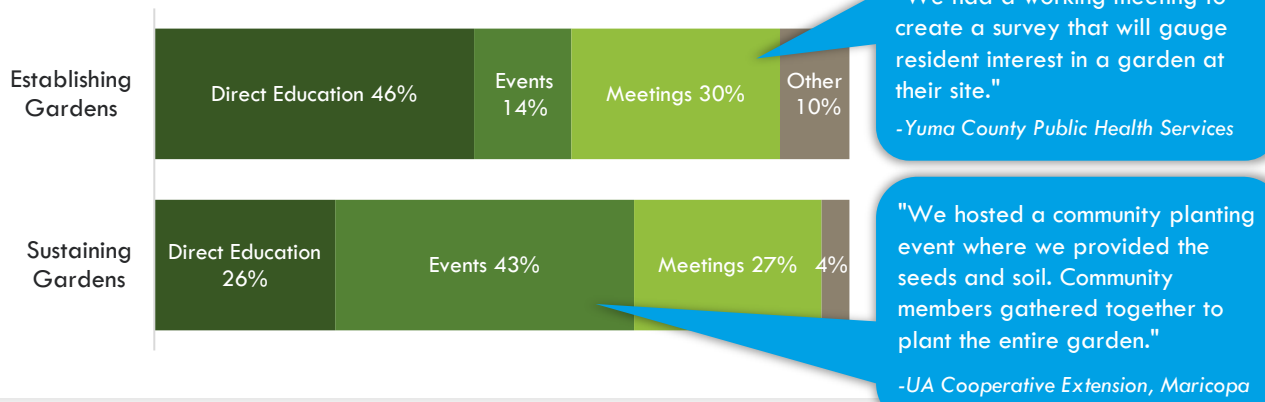
“[We] provided signage, including some new decals, to help market fruits and veggies and improve the store’s marketing of the healthy items. While at Best Farmer’s Market, **the owner showed renewed interest in [our] partnership and providing more community events in the future.** We also plan to support store improvements based on the results of the STORE assessment.”

-Maricopa County Department of Public Health

**Gardens.** This year, six LIAs in 11 counties reported *Gardens* support in SEEDS, a 16% increase since the prior year. *Establishing Gardens* actions more than doubled from [FY22](#) (n=81), when LIAs commonly reported COVID-19 restrictions as a barrier, to FY23 (n=195). Thus, FY23 may have presented the opportunity for LIAs to reconnect with their *Gardens* partners, resuming education and planning activities. Indeed, most *Establishing*

*Gardens* actions this year were reported as direct education or meetings (**Figure 6**). According to some narratives, initial meetings focused on understanding community interest in gardens. For *Sustaining Gardens*, LIA actions were more event-focused (e.g., community planting, maintenance days), and the meetings involved planning future activities like student engagement, planting, technical assistance, trainings, and upcoming meetings (**Figure 6**).

**6. In FY23, most of the 195 *Establishing Gardens* actions in SEEDS reflected direct education and meetings. Comparatively, *Sustaining Gardens* (n=483) had three times more actions for events. "Other" actions included social media and materials distribution.**





**Barriers.** This year, LIAs' commonly reported barriers to *Gardens* support included:

- 🔒 Challenges related to promoting community interest in established gardens.
- 🔒 Staff turnover and lack of capacity at partner intervention sites.
- 🔒 Unrepaired garden infrastructure (e.g., water lines).
- 🔒 The operational costs of garden maintenance.
- 🔒 Weather-related limitations to planting and community engagement.

**Farmers & Growers.** In FY23, two LIAs in four counties supported *Farmers and Growers* [ST8]. The more urban counties, Maricopa and Pima, reported 95% of these actions. LIAs working with *Farmers and Growers* used a systems approach, connecting Food Systems activities in the innovative ways described in **Figure 7** (next page). Other supports and ongoing efforts shared in narratives included efforts in the two most urban counties (right).



The Maricopa County Department of Public Health **provided funding support to local farmers and growers**, including connecting farmers to grant opportunities and working alongside non-English speaking farmers to translate and complete grant applications.



The UA Cooperative Extension, Pima **connected small farmers to key people and services**. LIA staff worked on a liaison program to help small farmers obtain permits: The program connects small farmers with community members trained by the local health department on the permitting process. The LIA also supported small farmers in navigating barriers to locating Food and Nutrition Service numbers, accepting nutrition assistance benefits, and receiving reimbursements.

## Success Stories

### Garden Spaces Reflect the Needs Expressed by Residents of Rural Communities

LIAs applied the AZ Health Zone's guiding principles of *health equity, community engagement, and trauma awareness* to help develop community garden spaces in two rural counties.



"We worked with the Hualapai 4-H Agricultural Center and the Federally Recognized Tribal Extension Program to host a community meeting to discuss food security issues and concerns. During the meeting, a local food security group noted a need to incorporate [community] gardening to increase food access. In response, the meeting attendees decided to focus on creating two community gardens. Next, [we] helped coordinate a field trip to a functioning community garden, where [we] **facilitated conversations with residents on the design and [their] needs [related to] the gardens being planned in their community.**"

-UA Cooperative Extension, Mohave

"[We] have continued with our partners at the Round Valley Community Center to provide gardening workshops and support the placement of **raised garden beds accessible to senior community members and others with limited mobility** so that they can help with the planned salsa garden."

-UA Cooperative Extension, Apache

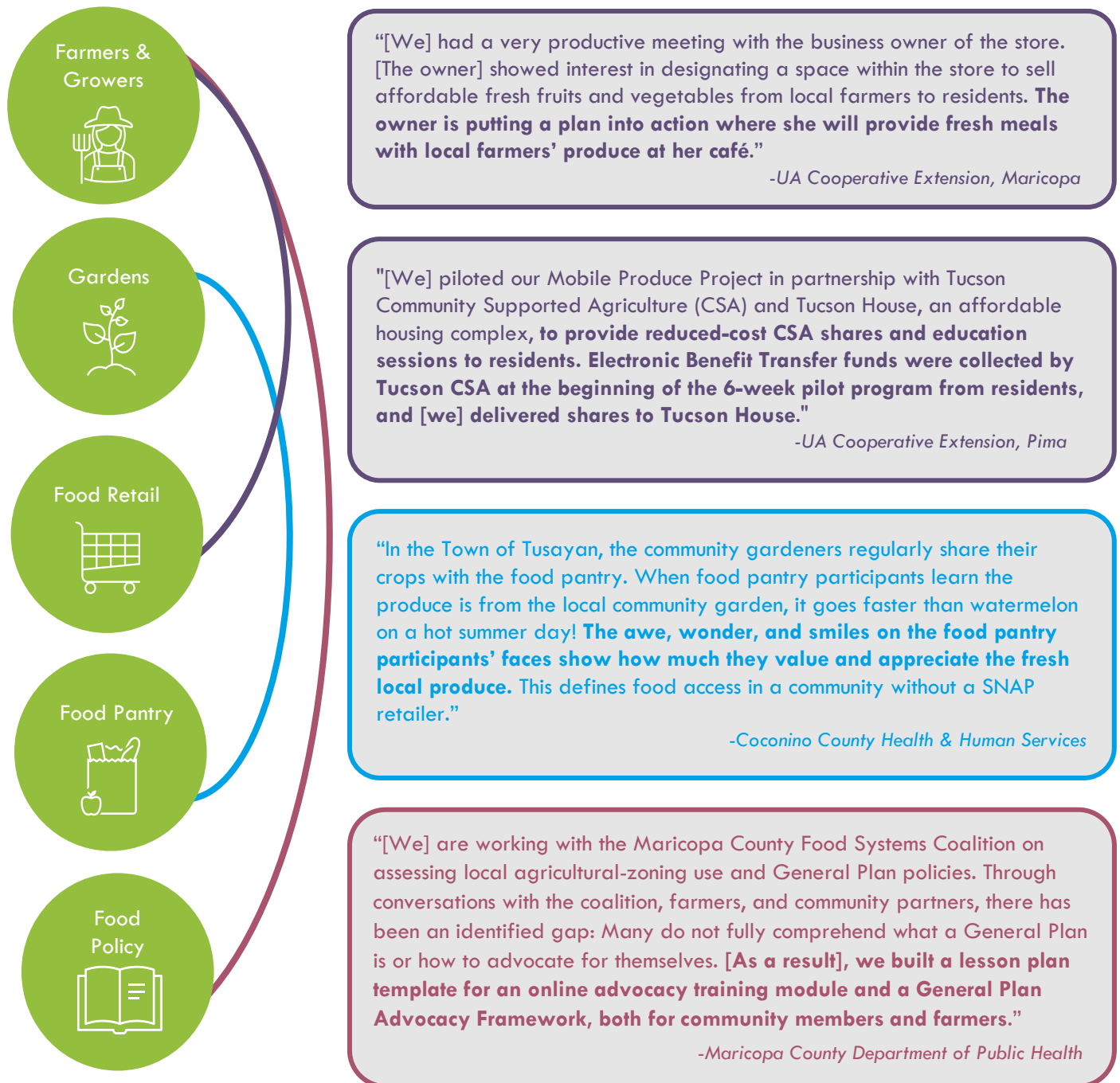
**Partnering Across Food Systems Activities.**

In their SARNs, four LIAs described working across Food Systems activities to facilitate and improve community food access. In **Figure 7**, the arched lines describe how organizational

partnership efforts played key roles in advancing Food Systems PSE work across *Farmers & Growers, Community Gardens, Food Access* (food banks and pantries), *Food Retail*, and *Food Policy* [ST7, MT5, LT9c].

**7. In the FY23 SARNs, four LIAs shared how their work crossed food system areas.**

Partnerships with city officials, coalitions, retail owners, and non-profit organizations facilitated this work.



## Engaging Residents Offers a Window Into Food Systems & Active Living Needs

“Readers are hungry to have their stories in the world, to see mirrors of themselves if the stories are about people like them, and to have windows if the stories are about people who have been historically absent from the literature.”

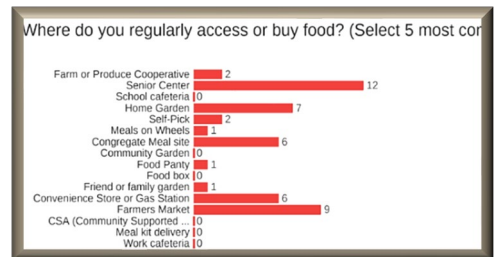
-Jacqueline Woodson

Advancing its guiding principle, the AZ Health Zone encourages LIAs to practice *Community Engagement* using the [Spectrum of Public Participation](#). In FY23, LIAs reported over 500 Food Systems and Active Living *Community Engagement* actions in SEEDS (see [Figure 2](#), [Figure 8](#), & [Figure 12](#)). This was a 26% decrease compared to the number of FY22 actions, which may reflect more accurate reporting this year. In the SARNs, LIAs shared a variety of methods they used to engage with community members, including structured or informal conversations during events, questionnaires, focus groups, and visual data collection using dot surveys or graffiti walls. Community engagement efforts often focused on:

- Identifying community needs related to food access or physical activity.
- Discovering areas of interest for nutrition education.
- Understanding a community’s food or active living environment (i.e., where residents exercise or shop for food).



The UA Cooperative, Santa Cruz used a dot survey to understand popular PA resources.



The UA Cooperative, Yavapai used a survey to learn more about residents’ access to food.

### Looking Deeper

## How Two LIAs Used Community Engagement to Reflect Residents’ Priorities

### FOOD SYSTEMS

The UA Cooperative Extension, Maricopa partnered with Rainbow Housing Assistance Corporation (RHAC) to **conduct a door-to-door survey at Buckeye Villa Apartments (BVA) around residents’ needs and challenges in accessing fresh, affordable, and nutritious food.** The survey results showed that barriers included limited mobility, lack of transportation to the local food bank, caretaker responsibilities, and a limited monthly income. The LIA staff held meetings with the RHAC and BVA manager to discuss the findings and potential solutions. As a result, **a bi-weekly on-site food box distribution for residents was organized through the support of a local church and non-profit organization.**

### ACTIVE LIVING

The UA Cooperative Extension, Cochise supported the Be Healthy! Sierra Vista coalition’s work with the Southeastern Arizona Behavioral Health Services’ E-Bike Pilot Project to augment transportation options for low-income residents. LIA staff **used informal conversations with community members to gather insights into requirements that led to participation barriers.** After learning that bike insurance cost was a challenge, the LIA collaborated with the coalition to collect donations covering those costs. LIA staff also worked with a local shelter to bring the E-bike project to unhoused residents. **Together, these community engagement efforts grew the E-Bike Pilot Project’s feasibility and inclusivity.**

## Active Living

**PA Resources.** In FY23, LIAs reported 791 SEEDS actions for Increase Usability of & Access to PA Resources (**Figure 8**). This made up 90% of the 875 Active Living actions reported.

### 8. In FY23, LIAs reported 791 unduplicated SEEDS actions across the four PA Resources activities.

*Shared Use Agreements* (not shown) had only one action.



**Usability & Access.** Seven LIAs in 11 counties measured 27 PA resources with the PARA during this year’s data analysis window [ST5<sub>b</sub>]. The resources assessed were more diverse than in FY21, when most were parks (88%). In FY23, 16 resources were parks, eight were trails, two were a combination park + other resource type, and one was a school. Of these, 13 were newly evaluated, 14 were pre-post (FY21-23), and nine pre-posts were longitudinal (FY19-21-23).

## PEERING INTO THE PARA

The PARA evaluates the condition of a PA resource by rating whatever Features, Amenities, and Incivilities the resource has. To compare scores across resources, we reported mean scores that account for the number of items assessed at each resource:



**FEATURES** are equipment.

Features score/# features = Mean

Example: 8.0/3 = 2.7



**AMENITIES** are “nice to have” comforts.

Amenities score/# amenities = Mean

Example: 12.5/5 = 2.5



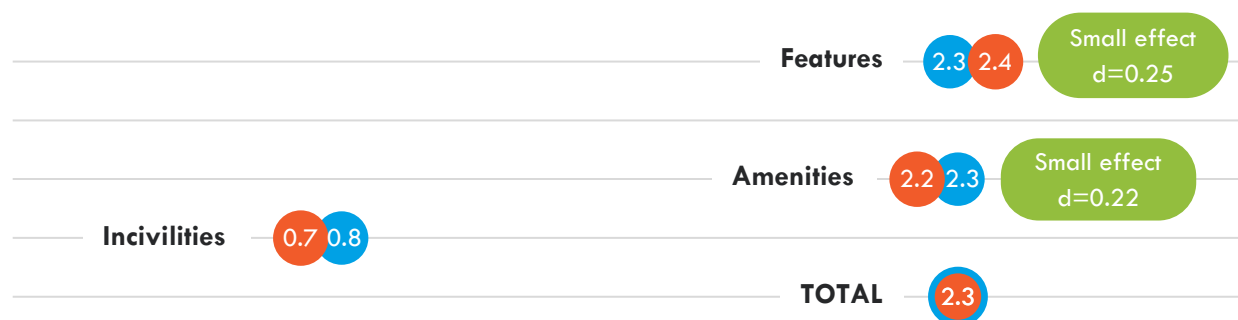
**INCIVILITIES** are things to reduce or eliminate.

Incivilities score/# incivilities = Mean

Example: 1.5/3 = 0.5

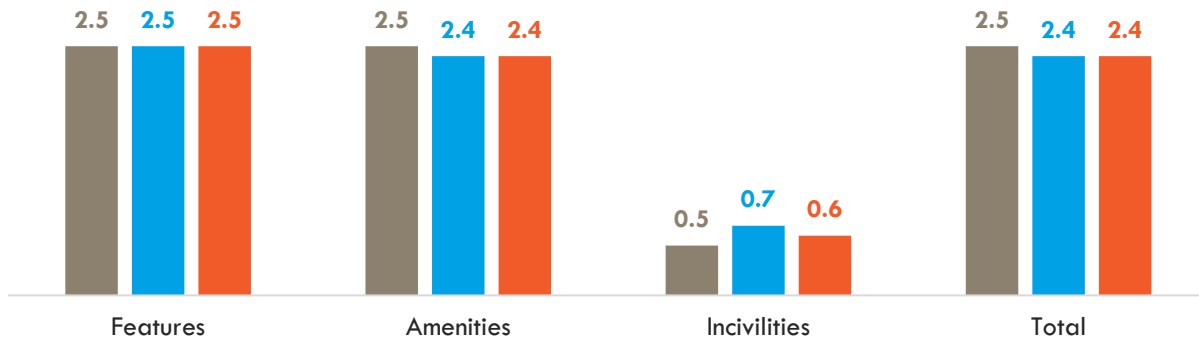
**PARA Scores Over Time.** From FY21-23, the mean Features score increased slightly, while Amenities & Incivilities decreased slightly, resulting in no overall change (**Figure 9**). There were also no notable changes for the longitudinal sample (**Figure 10**). However, when we looked more deeply into PARA-related changes, we found that LIAs did report improvements to Features and Amenities at a subset of sites: Of the 14 resources measured

### 9. Total mean PARA scores did not change from FY21 to FY23 (n=14). Features and Amenities scores ranged from 1 (worst) to 3 (best). Incivilities scores ranged from 0 (best) to 3 (worst).





10. From FY19 to FY21 to FY23, PARA scores stayed the same or declined (n=9).



in both FY21 and FY23, nine (64%) had reported PSE changes since the previous assessment [MT6]. More specifically, LIA staff reported an average of two new additions (e.g., new playground equipment, trees planted) and two improvements (e.g., resealed wooden exercise stations, a replacement gate) at PARA sites. While these changes did not typically contribute to an increase in the *average* PARA scores, their influence may have been obscured by worsening conditions at other sites and/or more stringent scoring at post, either by better-trained or different staff. Further investigation is needed to understand these influences on mean scores.

*LIA Support for PARA-Assessed Resources.* This year, LIAs reported diverse support for sites where they administered at least one PARA. LIAs were most engaged at re-assessed sites with at least one PSE enhancement [LT6a], where they frequently helped to publicize the change(s) and organize PA clubs and events. At resources assessed for the first time, LIAs most often supported on-site events, followed by promoting any subsequent park changes. Together, these findings suggest that LIAs used marketing and other outreach to encourage sustainability at sites where PSE changes had already been made, especially those with a long-term LIA partnership.

*Success Story*

*A Resident Leader Opens A New Window of Opportunity*

This year, UA Cooperative Extension staff in Maricopa connected with Linda, a highly active member of the Maryvale community. Linda’s leadership brought new opportunities to engage the community around improving and activating Falcon Park. She championed a clean-up event that gave residents the opportunity to provide feedback, connect with local politicians, and learn about the PARA. Soon after, a community-engaged PARA offered residents the chance to envision park improvements alongside a local councilwoman who co-completed the assessment. Subsequent park renovations, already slated for 2023, addressed some community concerns and created momentum for future advocacy work.



“Residents expressed a desire for a splash pad. [City] Councilwoman Pastor advised that they should get organized to advocate for this, because a big project like this could take time to be approved in the City’s plan and budget.”

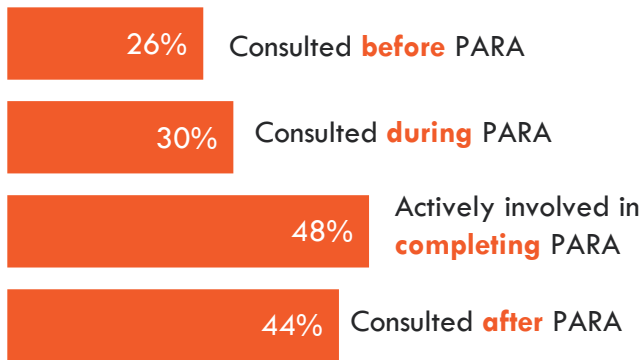
-UA Cooperative Extension, Maricopa

Background: Maryvale residents complete the PARA at Falcon Park

*PARA-Related Organizational Partnerships.* In FY23, the largest share of LIAs' PARA-related partnerships (44%) were with Parks and Recreation Departments, similar to [FY21](#) (42%). Partnerships with active living-related coalitions were also popular (26%), followed by neighborhood associations (11%). LIAs also described partnering with city and county governments, schools and school districts, senior centers, and walking groups in SARNs.

*PARA-Related Community Engagement.* Since FY21, the SET has increased our training and technical assistance to LIAs to encourage community engagement during the PARA process. **Figure 11** shows the variety of approaches LIAs took this year to engage community members in PARA administration and the PSE cycle of change at those sites.

**11. LIAs reported consulting or involving residents before, during, and after PARA administration (n=27).** Some LIAs engaged residents at multiple stages of the PSE cycle of change.



“We collaborated with the school district’s parent groups. A community-engaged walk was organized, primarily focused on completing the PARA tool. During the walk—on the trail near a school and community center—discussions naturally turned to the overall local trail systems and their potential for enhancing physical activity opportunities in Rio Rico. This conversation **revealed a strong interest among community members in better utilizing the existing trail systems.**”

-UA Cooperative Extension, Santa Cruz

*Success Story*

*A Community-Engaged PARA Supports Park Renovations & Increased Use*



The UA Cooperative Extension, Cochise worked with the Town of Huachuca City to encourage Leffingwell Park renovations. After improvements were made, the UA Cochise partnered with the town and the elementary school to host a family day at the park [\[LT6a\]](#).

“The town incorporated PARA feedback into their renovation plans. These included new walkways, bathrooms, a new water fountain, new playground equipment, skate park resealing, and electrical outlets for benches and ramadas. **The town reports that park use has increased among all ages.**”

-UA Cooperative Extension, Cochise

**Social Support Networks.** This year, LIAs in nine counties (the same as in [FY22](#)) worked with PA clubs, a type of *Social Support Network* that encourages physical activity with group member support. Most PA club activities took place in Maricopa County (158), followed by Gila (81), Apache (50), Pinal (36), Mohave (32), Navajo (15), Coconino (8), Pima (4), and Yavapai (2). Eight counties used *Community Engagement* to tailor *Social Support Network* activities to participants’ needs, reflecting the

interconnectedness of these two Active Living activities. Indeed, in the FY23 narratives, LIAs’ *Community Engagement* references were most frequently reported in the Active Living focus area (see *Community Engagement* Interlude).

**Shared Use.** Community use of school or other on-site PA resources, usually for specified hours, was reported only once in SEEDS. This action was related to shared use at a senior housing site in Maricopa County.

*Success Story*

*A Social Support Network Mirrors Community Enthusiasm for Adoptable Dogs*



In partnership with the Town of Parker Community Health Outreach Program, LIA staff in La Paz established a month-long dog walking program with the local shelter to increase PA opportunities [ST6]. Rescue Walkers was so popular that it was extended to three months [MT6] and recognized by one resident in the local paper [LT8a]. In an LIA survey of participants, all seven respondents strongly agreed they would recommend Rescue Walkers, and 86% said they would return if the program continued.

“Participants walked from the shelter to the park, where we got special permission from Parks and Recreation to use the baseball field...Our largest group was 22 adults and youth. This not only benefitted participants, but it helped to get four dogs adopted [LT11b]! One attendee expressed, ‘It’s a great opportunity, not only to help the animals in the community but also to walk for my health!’”

-UA Cooperative Extension, La Paz



**Built Environment.** This year, LIAs in five counties—three local health departments and two UA Extension units—reported 84 Built Environment actions in SEEDS (Figure 12). This made up only 10% of all reported Active Living actions, similar to the 7% reported last year.

Since the adoption of the Built Environment strategy in FY16, relatively low SEEDS reporting suggests that it is still a developing area for LIA intervention. With respect to *Community Engagement* within the Built Environment, LIAs’ FY23 actions reflected more opportunistic work, versus systematic implementation.

12. In FY23, LIAs reported just 84 unduplicated SEEDS actions across all five Built Environment activities.



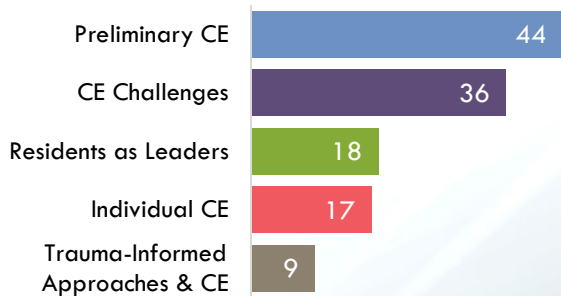


# A Window into Community Engagement: Reflecting Residents' Visions and Perspectives

As one of the AZ Health Zone's [Guiding Principles](#), *Community Engagement* (CE) by Local Implementing Agencies (LIAs) is expected to prioritize residents' voices in programming. In FY23, the State Evaluation Team (SET) qualitatively coded 151 Semi-Annual Report Narratives (SARNs) to explore the CE efforts described by LIAs. The five notable themes discussed below illuminated progress and challenges in year three of the five-year program cycle ([Figure 13](#)).

**CE by Program Area.** In the 108 SARNs reporting CE, most references were in Active Living (33%), Food Systems (31%), and School Systems (26%) as the primary focus. Further investigation is warranted to understand how the more limited CE in Direct Education (6%) and Early Care & Education (ECE) Systems (4%) may relate to: additional LIA capacity building needed in these areas, more intractable CE barriers in these areas, and/or other considerations.

**13. Of the 108 SARNs that described CE, 44 (41%) addressed *Preliminary CE* and 36 (33%) addressed *CE Challenges*.** SARNs could address multiple themes.



## INDIVIDUAL CE

LIAs in eight counties described *Individual CE*. This theme reflected one-on-one interactions between LIA staff and residents that, in some way, informed programmatic decision making.

“We continued to work with the senior center to have informal community engagement conversations. At the food demonstrations, we discuss the recipe, offer general nutrition information for seniors, and **gather informal feedback on the food environment** in Bullhead City.”

-Mohave County Department of Public Health

“We attended numerous community events in Page and surrounding areas, being present, available, and seen in the community. **Part of this work is ‘showing up’ and spending time together**, engaging on community health issues, and connecting with partners.”

-Coconino County Health & Human Services

## PRELIMINARY CE

LIAs in 12 counties described *Preliminary CE*, suggesting general LIA readiness for CE efforts in the [Spectrum of Public Participation's](#) *Consult, Involve, or Collaborate* levels. LIA descriptions demonstrated intentional actions to set the stage for future CE. These efforts may also point to tools and trainings that could be developed at the state level to support LIAs not currently implementing CE.

## TRAUMA-INFORMED APPROACHES (TIA) & CE

LIAs in five counties linked these two AZ Health Zone principles, which suggests that the skills and tools of both were interwoven and mutually reinforcing in their work. These narratives demonstrated how equity principles can be supported through CE using the scaffolding of trauma-aware principles.

“We prioritized collaboration and mutuality, and we empowered voice and choice when inviting families to do the PARA assessment. This was successful partially due to us gently guiding the community members to certain conversation points but **stepping back to provide space for them to identify their needs and make plans to move forward.**”

-UA Cooperative Extension, Santa Cruz



## RESIDENTS AS LEADERS

LIAs in six counties partnered with *Residents as Leaders* [ST6c] to implement SNAP-Ed work at the *Involve* and *Collaborate* levels of participation. Most LIAs reported this work in Active Living, primarily via *Social Support Networks* (e.g., walking clubs, group fitness classes). Fewer LIAs reported work with resident leaders in Food Systems and School Systems, with no references in ECE Systems or Direct Education. Beyond ongoing physical activities, most other work related to this theme involved context-specific resident leadership, such as finding a champion to maintain a school garden and recruit parents. Of note, both Maricopa County LIAs worked with resident leaders on CE, thereby layering community priorities across multiple levels of decision-making and advocacy.



*Maricopa Department of Public Health staff found a resident to lead Homestead Park physical activities whom they described as “sensitive, respectful, and genuinely interested in listening to the community’s preferences.”*

## CE CHALLENGES

LIAs in eight counties reported *CE Challenges*. The most reported (55% of challenges) was community members’ lack of interest and/or capacity to participate in both the CE opportunities offered by LIAs and the SNAP-Ed offerings implemented *after* consulting residents to gauge interest. Turnover was another barrier (14% of challenges)—typically around the loss of LIA staff, community partner staff, or resident leaders. Less frequently reported challenges included coalition dynamics (8%), language barriers (6%), and lack of interest or response by community partners (4%). Additional support for LIAs to address these challenges may encourage them to persist in their CE efforts, especially given the considerable time, resources, and relationship building needed for CE compared to other program activities.

### *Success Story: Incorporating Residents’ Views into Community Action Plans*



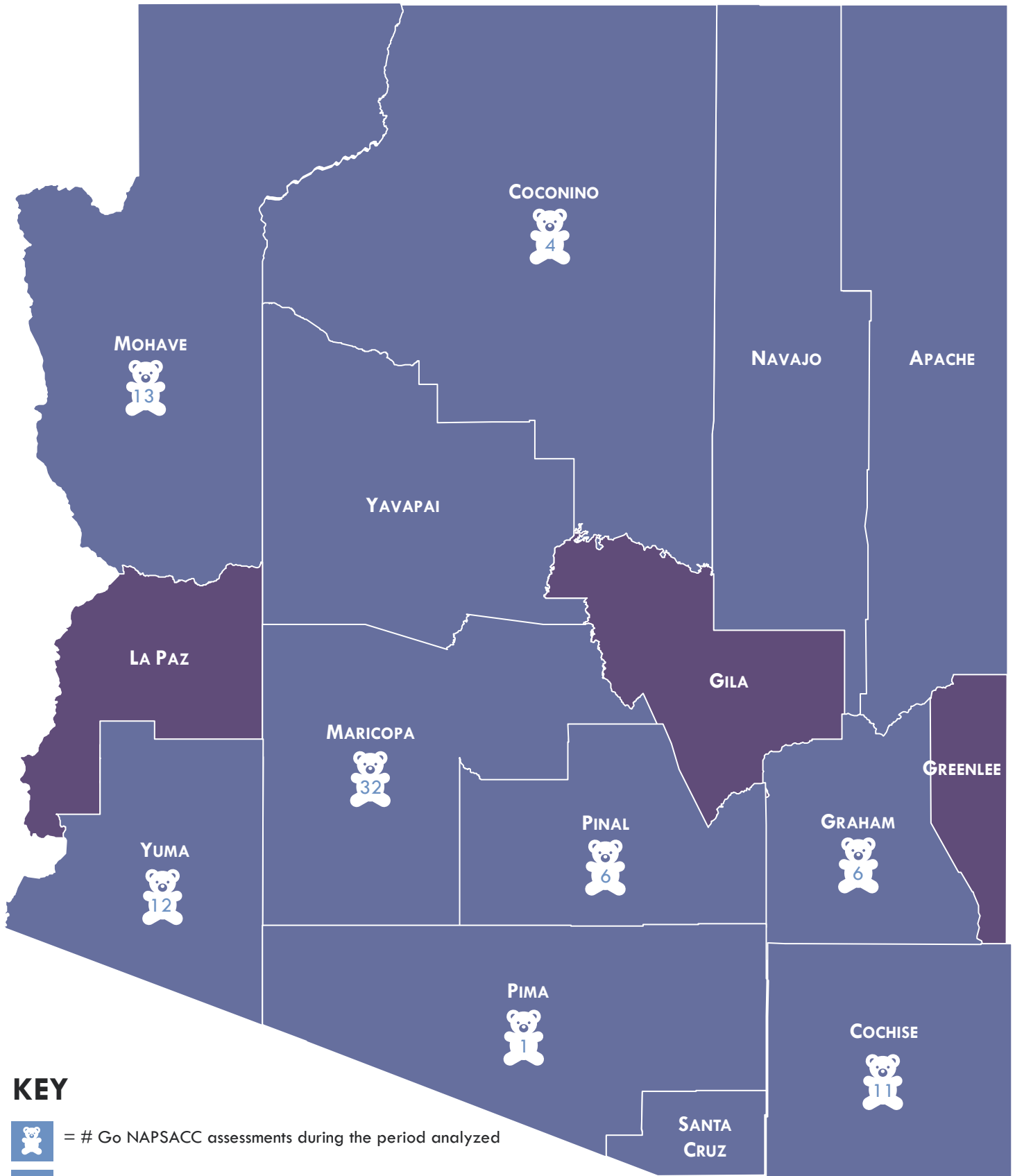
*In Maryvale, UA Cooperative Extension, Maricopa staff facilitated a Community Action Plan (CAP) advisory session with parents to elicit feedback on their SNAP-Ed program’s work plans and future goals.*

*“Over the past two years, [our] staff member has formed a relationship with a group of moms working on the Summer Food Ambassador project [and] reconnected with the Estrella Super Moms Block Watch. These eight parents were invited to the three-hour [CAP] meeting held in Spanish at our office... We brainstormed the Childhood focus area [for] feedback, identified priorities, and agreed to schedule another advisory session for Food Systems and Active Living.”*





*-UA Cooperative Extension, Maricopa*

***Nine Communities with No Reported CE.*** *Community Engagement* is an AZ Health Zone requirement and reflects the USDA’s commitment to [resident involvement](#) in SNAP-Ed. However, in FY23, three UA extension units and one health department reported no *CE* in either the SNAP-Ed Electronic Data System (SEEDS) or SARNs for nine rural communities. While COVID-19 hampered CE efforts during the first two years of the program cycle, this lack of progress by the end of year three challenges efforts to incorporate

this guiding principle into local programs. Lack of consultation with community members may also reduce program effectiveness when interventions are not informed in some way by residents’ expressed needs and desires. Further rural-tailored capacity building and technical assistance to strengthen CE skills and/or practices may support LIAs who have been less successful in fulfilling the AZ Health Zone’s commitment to incorporate community members’ perspectives into decision making.



**KEY**

-  = # Go NAPSACC assessments during the period analyzed
-  = Worked in Early Care & Education (ECE) Systems
-  = Worked in School & Other Youth-Based Systems
-  = Worked in Both ECE and School & Other Youth-Based Systems

# Childhood Focus



Note: The Statistics Reflections box on page 2 provides more information on interpreting sample sizes, p-values, and effect sizes.

## AZ Health Zone Childhood Strategies



Support the development, implementation, and evaluation of policies that promote nutrition and physical activity in **Early Care & Education (ECE)-Based Systems**



Support the development, implementation, and evaluation of policies that promote nutrition and physical activity in **School & Other Youth-Based Systems**

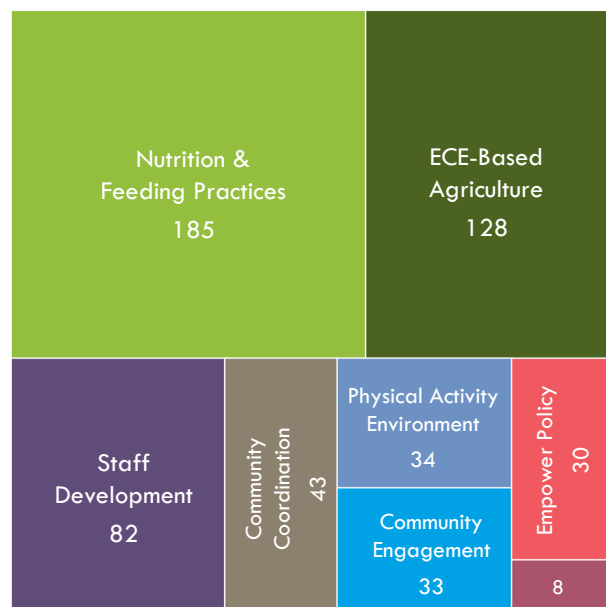
### Evaluating ECE-Based Systems

In FY23, five AZ Health Zone Local Implementing Agencies (LIAs) worked in ECE-Based Systems across 12 of Arizona’s 15 counties, reporting their ECE Systems actions in the SNAP-Ed Electronic Data System (SEEDS) (Figure 14). The State Evaluation Team (SET) assessed ECE policies, systems, and environments (PSEs) [ST5, MT5, MT6, LT5, LT6] using the online version of the evidence-based Nutrition and Physical Activity Self-Assessment for Child Care, referred to as the Go NAPSACC. We set the confidence level for this evaluation at 90% ( $p \leq 0.10$ ) due to the modest sample size ( $n < 20$ ).

**What is the Go NAPSACC tool?** [Go NAPSACC](#) is a comprehensive program for ECEs to improve their PSEs around any of seven topics using the [5-step Go NAPSACC Improvement Process](#). Since FY21, LIAs have supported six topics and thus, six assessment modules. In this analysis, the *pre* assessments occurred at the start of each ECE’s improvement process, and the *posts* took place at the end. From October 1, 2021, to March 20, 2023, 29 partner ECEs completed 85 pre and post assessments [ST5<sub>b</sub>].

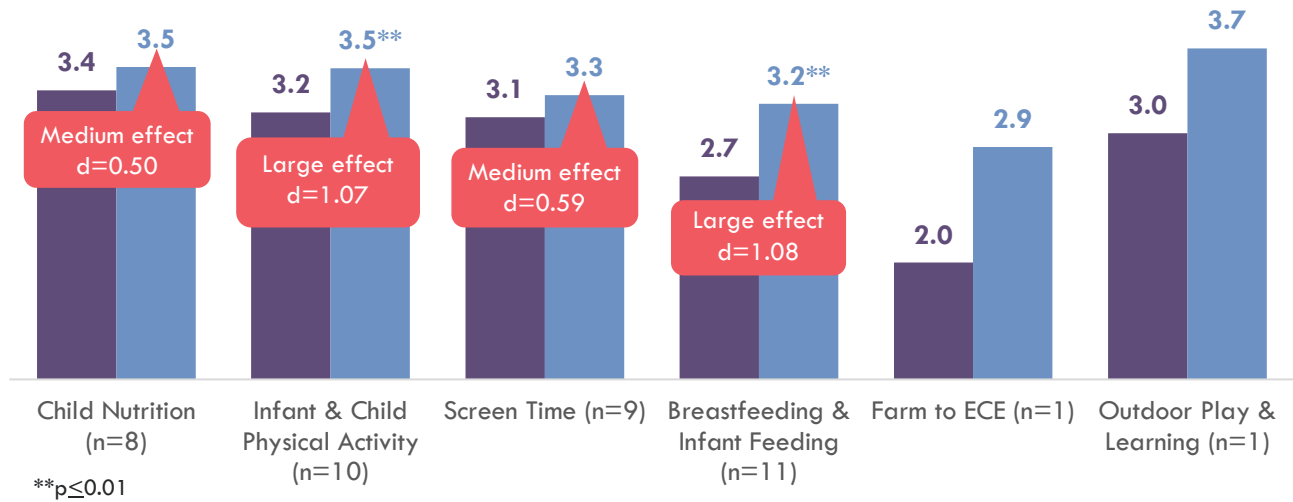
**Did Go NAPSACC Scores Change Over Time?** Mean total scores for all six modules increased from pre to post (Figure 15, next page) [LT5<sub>c</sub>, LT6<sub>c</sub>]. There were significant increases with large effects for *Infant & Child Physical Activity* and *Breastfeeding & Infant Feeding*. Due to the

**14. In FY23, LIAs reported 543 unduplicated SEEDS actions across the eight ECE Systems activities.** Five activities were assessed using Go NAPSACC.



Learning Collaborative

**15. Mean total GoNAPSACC scores increased from PRE to POST across the six topics assessed.** Scores were rounded to the nearest tenth and ranged from 1 (weakest) to 4 (best) practice.

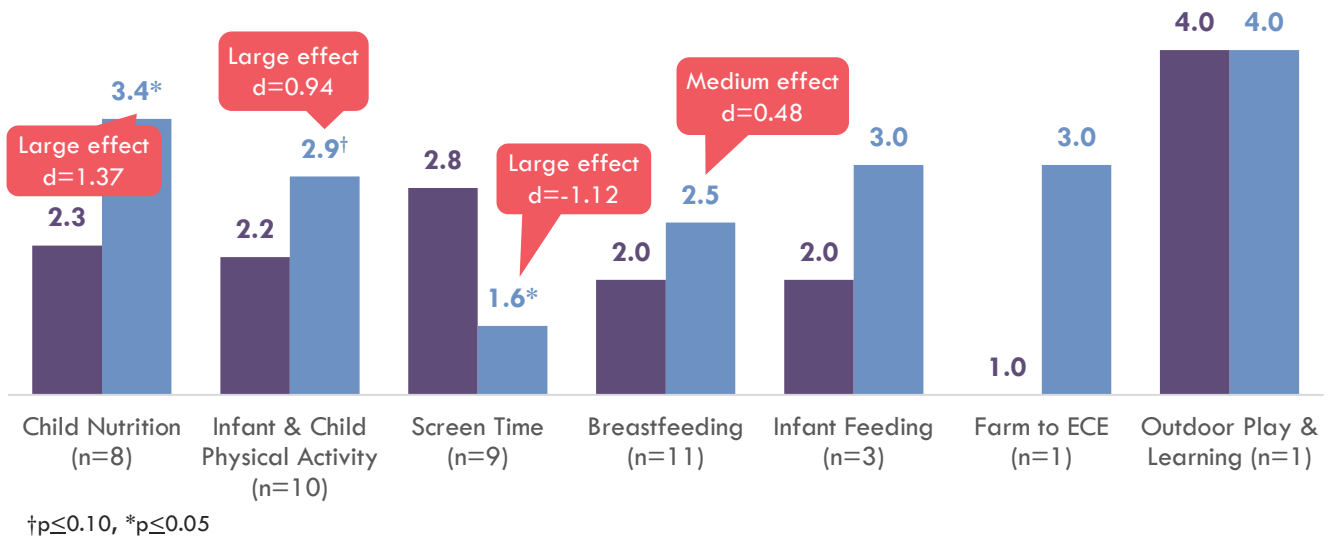


small samples, no statistical tests were conducted for *Farm to ECE* or *Outdoor Play & Learning*.

Each Go NAPSACC module included a section for Education & Professional Development and another for Policy. As in our [FY21 Annual Evaluation Report](#), Education & Professional Development scores improved for all modules, including large effects for *Child Nutrition* and

*Breastfeeding* [MT5<sub>c</sub>]. Historically, written Policy scores have shown modest, or no, growth. This year, we found notable increases in Policy scores for the program’s two foundational modules—*Child Nutrition* [MT5<sub>b</sub>] and *Infant & Child Physical Activity* [MT6<sub>b</sub>]—and a decrease in *Screen Time* Policy (Figure 16). Relative to other sections, Policy for most modules continued to score lower.

**16. Mean Policy scores increased from PRE to POST across all topics except Screen Time, which decreased significantly.** Scores were rounded to the nearest tenth and ranged from 1 (weakest) to 4 (best) practice.





## Score Changes by Topic

The amount of time it took ECEs to complete the Go NAPSACC Improvement Process varied by ECE and topic (Figure 17). The number of sections assessed within a module, and the changes in section scores, also varied by topic:

**Child Nutrition.** Of the seven sections in this module, Policy improved most (see Figure 16), followed by Education & Professional Development (2.7 to 3.4,  $p \leq 0.05$ ,  $d = 1.18$ ) and Feeding Environment (3.3 to 3.5,  $p \leq 0.10$ ,  $d = 0.99$ ), all with large effect sizes.

**Breastfeeding & Infant Feeding.** Four of the eight sections were *Breastfeeding*-specific, and four were dedicated to *Infant Feeding*. *Breastfeeding* Education & Professional Development improved most (2.4 to 3.2,  $p \leq 0.05$ ,  $d = 1.29$ ), followed by *Breastfeeding* Environment (2.6 to 3.3,  $p \leq 0.05$ ,  $d = 1.17$ ), both with large effects. The small sample ( $n = 3$ ) did not allow statistical tests for the *Infant Feeding* sections.

**Farm to ECE.** We could not conduct statistical tests for this module due to the small sample, however all four sections improved for the one ECE assessed.

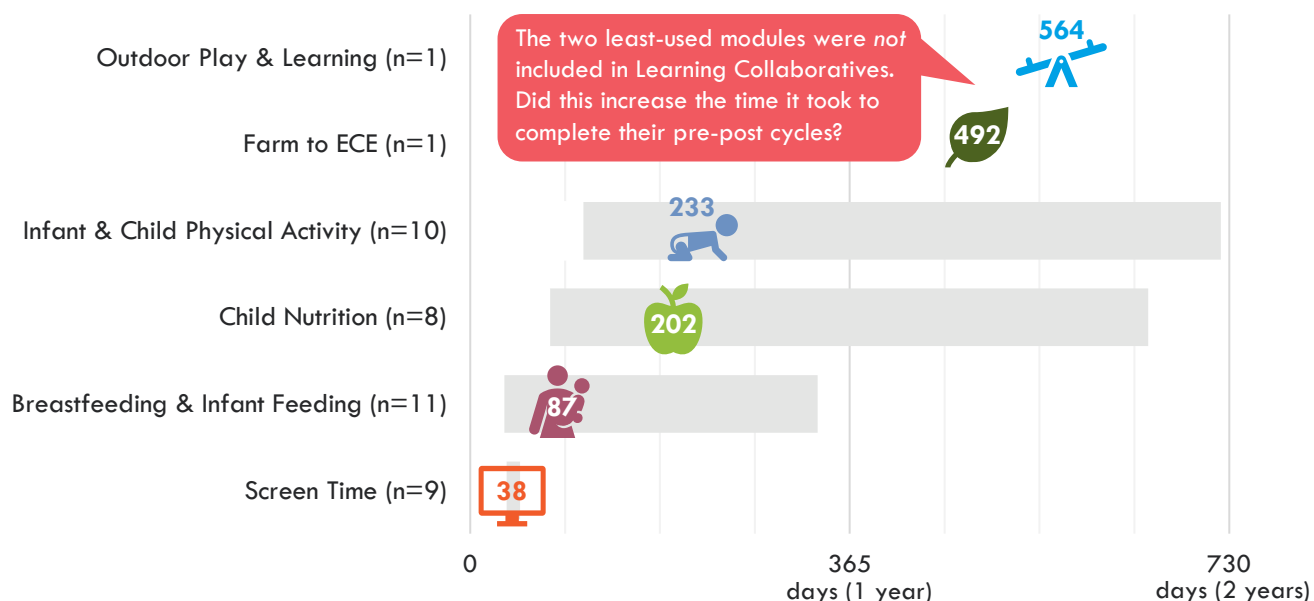
**Infant & Child Physical Activity.** Of the five sections in this module, Time Provided improved most (2.8 to 3.6,  $p \leq 0.05$ ,  $d = 1.37$ ), followed by Policy (see Figure 16) and Indoor Play Environment (3.3 to 3.6,  $p \leq 0.10$ ,  $d = 0.82$ ), all with large effect sizes.

**Screen Time.** With just four sections, this module took the least amount of time to complete and had mixed results. Availability (i.e., limiting the availability of screens to the children) improved with a large effect (3.6 to 3.8,  $p \leq 0.10$ ,  $d = 0.96$ ), but Policy scores decreased (see Figure 16), also with a large effect.

**Outdoor Play & Learning.** No tests were conducted for this module due to the small sample ( $n = 1$ ). Three of the four sections improved, and the maximum possible score was reported for Policy at both pre and post (see Figure 16).

### 17. The mean number of days it took for ECEs to complete a pre and post assessment varied by module.

The 5-step Go NAPSACC Improvement Process was longer for *Outdoor Play & Learning* and *Farm to ECE* and shorter for *Screen Time* and *Breastfeeding & Infant Feeding*. For samples  $> 1$ , gray bars show the minimum and maximum number of days it took for an ECE to complete the process.



## Success Story

### Opening New Windows to Physical Activity

This year, the Yuma County Public Health Services District provided comprehensive support to a partner ECE for the Go NAPSACC *Infant & Child Physical Activity* module. LIA staff helped to create a calendar of teacher-led physical activities, assisted with a multi-day family engagement effort, made Policy recommendations to reflect the ECE's newly adopted programming, and provided technical assistance for completing the post-assessment [LT5b].

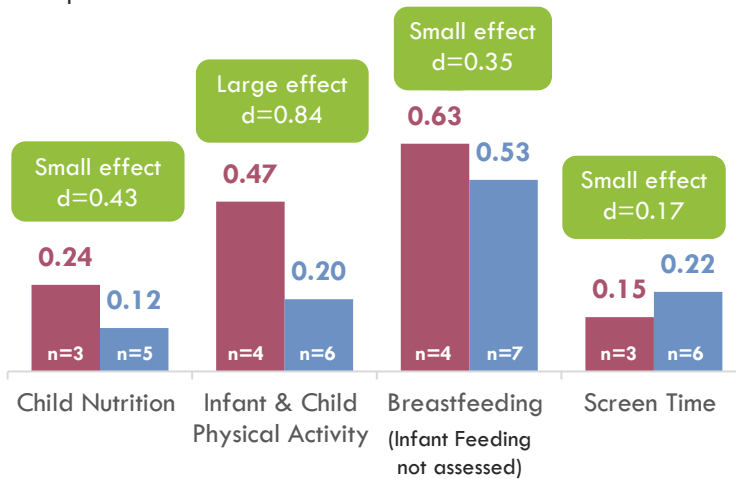


“[We] helped develop a short presentation to share with the parents how the center was implementing structured physical activity. We also helped [the ECE] build an agenda of activities that took place over three days...Each day featured a different classroom and a different teacher who showed parents an early childhood game that they could do at home. [Then,] parents saw their children play an adult-led physical activity game.”

-Yuma County Public Health Services District

**Learning Collaboratives.** During the analysis period, LIAs partnered with ECEs who did and did not participate in a grant-funded Go NAPSACC learning collaborative. These collaboratives provided ECE stipends and enhanced support for ECEs to progress through four Go NAPSACC modules: *Child Nutrition*, *Infant & Child Physical Activity*, *Breastfeeding & Infant Feeding*, and *Screen Time*.

**18. Mean total score pre-post increases were greater for ECEs in learning collaboratives versus ECEs not in learning collaboratives for all topics except Screen Time.** Effect sizes for differences in gains varied by topic.



We compared how the total mean Go NAPSACC scores changed from pre to post for AZ Health Zone-supported ECEs that also received learning collaborative support versus those that did not (Figure 18). More learning collaborative ECEs completed a pre and post assessment for each module than non-participants, and learning collaborative participation was associated with greater score increases for three of the four modules. Most notably, the total mean *Infant & Child Physical Activity* score increased more for the learning collaborative group, with a large effect. For *Screen Time*, the non-learning collaborative group saw greater gains.

Looking Deeper

## Go NAPSACC Section Scores Revealed Other Patterns

When we compared section scores, we found that learning collaborative participation was not consistently related to changes in Education & Professional Development. However, other patterns emerged:

### ECES NOT IN LEARNING COLLABORATIVES

had greater increases in POLICY scores across three modules: *Child Nutrition*, *Infant & Child Physical Activity*, and *Breastfeeding*. While mean scores for *Screen Time* Policy worsened for both groups, they decreased less for non-participants (-0.33) than participants (-1.67), with a large effect ( $d=0.84$ ).

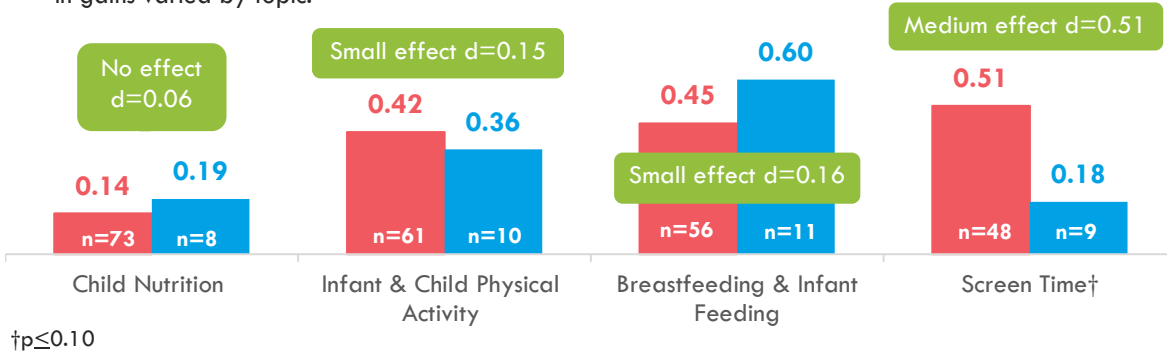
### ECES IN LEARNING COLLABORATIVES

had greater score increases for many, but not all, SYSTEMS & ENVIRONMENTAL sections across topics, with small to large effects. The one statistically significant difference was for *Teacher Practices in Infant & Child Physical Activity* (+0.51 vs -0.25, with a large effect of  $d=1.83$ ).

Taken together, these findings suggest that the Go NAPSACC learning collaboratives can play an important—albeit not essential—role in supporting ECE providers’ PSE change efforts. For example, group-based networking and learning may inspire ECEs to adopt new practices and environmental changes, while one-on-one technical assistance may help to encourage policy change that is otherwise elusive.

**AZ Health Zone Versus Other Support.** During the analysis period, Go NAPSACC was available to all Arizona ECEs. Some ECEs that enrolled were supported by LIA staff, others were supported by consultants from different agencies, and still others engaged in Go NAPSACC with no outside technical assistance. To better understand the AZ Health Zone’s role in encouraging Go NAPSACC progress, we compared changes in pre-post scores for two groups: AZ Health Zone-supported ECEs and non-AZ Health Zone supported ECEs that had either no consultant *or* a consultant from a different agency. **Figure 19** shows the total mean score results for the four modules with sufficient sample sizes for this comparison.

**19. ECEs that received no support or support from other agencies had greater mean total score increases in *Screen Time* than ECEs that received AZ Health Zone support. Other total score increases were similar, regardless of type of support.** Effect sizes for differences in gains varied by topic.





Within three of the modules, we also found significant differences in mean *section* scores between ECEs with and without LIA support:

- ✍ **AZ Health Zone-supported ECEs** scored higher in *Child Nutrition Policy* ( $p \leq 0.01$ ,  $d = 0.59$ , medium effect) and *Infant & Child Physical Activity Time Provided* ( $p \leq 0.10$ ,  $d = 0.42$ , small effect).
- ✍ **ECEs with no support or other agency support** scored higher in *Infant & Child Physical Activity Education & Professional Development* ( $p \leq 0.05$ ,  $d = 0.51$ , medium effect) and *Screen Time Policy* ( $p \leq 0.001$ ,  $d = 1.00$ , large effect) and *Education & Professional Development* ( $p < 0.10$ ,  $d = 0.45$ , medium effect).

As with the learning collaborative results, these findings imply that ECEs can benefit in different ways from different types of support. For example, AZ Health Zone consultants may be especially effective in assisting with nutrition policy and helping ECE providers to increase the amount of time they offer for physical activity. The results also suggest that LIAs may be less prepared to support *Screen Time* PSEs than other topics.

**LIA Interventions.** Finally, we explored the association between LIAs' reported minutes of technical assistance and pre-post changes in total mean Go NAPSACC scores. Four Go NAPSACC modules had small but sufficient sample sizes for this analysis.

For *Breastfeeding & Infant Feeding* ( $n = 11$ ), we found a medium-sized, positive correlation between the mean score and minutes of LIA support provided. Though not statistically significant, this correlation suggests that more time spent providing LIA technical assistance may have contributed to score increases, and thus to PSE changes made by ECEs. Indeed, seven of the 11 ECEs included in the sample were supported by the Maricopa County Department of Public Health (MCDPH), who also described their efforts to support breastfeeding in their Semi-Annual Report Narrative (SARN, see **Success Story** below).

For *Child Nutrition* ( $n = 7$ ), we found a small, positive, non-significant correlation. Coupled with the findings from the AZ Health Zone/non-AZ Health Zone analysis, this provides further evidence for LIAs' potential contributory role in score increases.

We found no association between LIA support and changes in total mean scores for *Screen Time* ( $n = 9$ ) or *Infant & Child Physical Activity* ( $n = 10$ ). This was not surprising for *Screen Time*, given the decrease in the total mean score and the results reported in **Figure 19**. *Infant & Child Physical Activity* results are less clear, and more work is needed to better understand how LIA technical assistance may or may not have been linked to section-specific PSE improvements.

## Success Story

### LIA Progress Reflects Importance of Connections

In FY23, the MCDPH collaborated in-house to expand ECEs' breastfeeding-friendly environments. The LIA also facilitated ECE professional development: "Go NAPSACC accounts are linked to the Arizona Early Childhood Workforce Registry, so this allows anyone taking a [Go NAPSACC] training to receive registry credit...Childcare workers are required to have multiple credits per year, so this has been a very nice offering for them. We currently have 150 people that have completed [our two nutrition] workshops within the registry [LT5<sub>b</sub>]."

"[We] partnered again with [our] Office of Maternal and Child Health to **promote free breast pumps for businesses and the MCDPH Lactation Spaces Grant**. The grant awards businesses with up to \$3,000 to create or enhance lactation spaces for nursing mothers employed in their worksites...[We] shared the grant information [with ECEs, and] the response was extremely favorable. SNAP-Ed has already assisted multiple ECE centers with the application."

-Maricopa County Department of Public Health



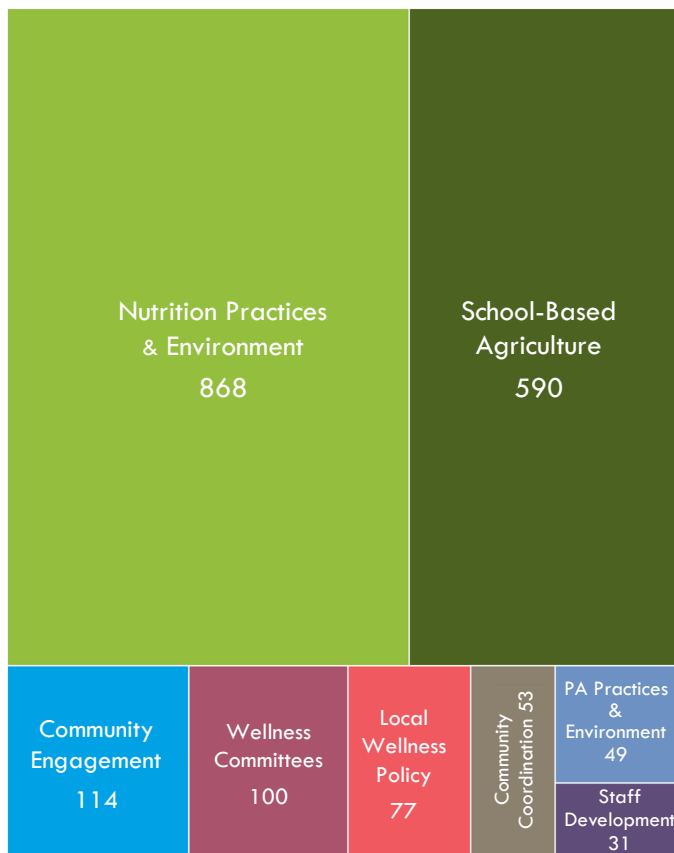
## Evaluating School & Other Youth-Based Systems

This year, all seven LIAs continued to support School & Other Youth-Based Systems across Arizona’s 15 counties, reporting their actions in SEEDS (**Figure 20**). Per our FY21-25 Evaluation Framework, we examined SEEDS data and SARN information to evaluate school and other youth-based progress in *Community Coordination* [MT5, LT8-11] and *Community Engagement* [ST6, LT9-11] since FY21.

### Community Coordination

**FY21-23 Reporting Patterns.** This year, LIAs reported 53 unduplicated PSE actions in *Community Coordination*, down 52% from the 111 actions reported two years prior. During that time, the AZ Health Zone State Implementation Team developed a SEEDS review process, in part to correct for LIAs’ overreporting of this activity discovered in [FY21](#). Our qualitative analysis also offered evidence that LIAs have improved their reporting: The cases of *Community Coordination* misclassification that we reported in the FY21 SARNs were hardly present this year, and the number of SARNs that only offered vague descriptions of *Community Coordination* dropped from 16 in FY21 to five in FY23. While some *Community Coordination* descriptions in this year’s narratives were not reported as such in SEEDS, this was likely because the LIA (accurately) reported their efforts under *Nutrition Practices & Environment*, *School-Based Agriculture*, or *Physical Activity (PA) Practices & Environment*.

**20. In FY23, LIAs reported 1,882 unduplicated SEEDS actions across all School & Other Youth-Based Systems activities.**



“We were thrilled to participate in another Taste Test with Lincoln School. We coordinated with the Farmers Market, working with the Vendor Development Coordinator, to **purchase and distribute local radishes to the students**. It was surprising how much the students enjoyed the radishes.”

-Yavapai County Community Health Services

Indeed, as in FY21, our qualitative findings stressed the interrelatedness of *Community Coordination* with most of the other School Systems activities shown in **Figure 20**. Of the 159 SARNs analyzed this year, 21 (13%) discussed *Community Coordination*, and all but two of those narratives referenced a PSE goal related to *School-Based Agriculture* (by far the most popular), *Nutrition Practices & Environment*, *PA Practices & Environment*, *Local Wellness Policy*, and/or *Wellness Committees*. This attention to specific, AZ Health Zone-related PSE goals was another noteworthy reporting improvement from FY21, when PSE goals

were only mentioned in about half of the SARNs referencing this activity. Moreover, in FY23, just one LIA discussed a goal that was clearly *not* within the AZ Health Zone’s scope: connecting schools to oral health and financial literacy resources. However, this support was an offshoot of the agency’s broader school wellness programming, not the primary focus.

### **How Did Community Coordination Operate?**

In this year’s narratives, LIAs shared a variety of context-specific *Community Coordination* tactics to advance their PSE goals. In most cases, coordination functioned by combining LIA support with other partners’ *Leveraged Resources* [LT9], explained in more detail below. Three LIAs described how *Leveraged Resources* worked in conjunction with *Media Coverage*, including a Facebook Live series to

build rapport and promote an event [LT8<sub>c</sub>]; recurring newsletters to reach families about walk-to-school events [LT8<sub>a</sub>]; and a farm-to-school website to support a statewide initiative [LT8<sub>b</sub>].

**Barriers.** In FY21, LIAs described COVID-related challenges to *Community Coordination* in five SARNs, especially around school food pantries. This year, LIAs did not mention food pantries or COVID obstacles in relation to *Community Coordination*. This suggests that LIAs whose efforts were stymied by the pandemic two years ago have recouped, or at least have begun to re-connect with partners. Indeed, only one FY23 narrative referenced a direct challenge to *Community Coordination* in School Systems—“historical distrust of government”—that the LIA overcame through

## Looking Deeper

### How Did Partners Contribute to Community Coordination?

The national SNAP-Ed Evaluation Framework describes *Leveraged Resources* as demonstrating “that the provision of SNAP-Ed services and funding...lead other stakeholders to help out with their own resources.” In FY23, most of the 21 narratives that referenced *Community Coordination* included descriptions of *Leveraged Resources*, mainly as three types of *In-Kind Support* [LT9<sub>c</sub>] from community partners and, in two cases, as *Funding* [LT9<sub>b</sub>]:



#### **PARTNER ACTIVITIES** (11 NARRATIVES)

“Walk To School Day events require cooperation with the school, the Round Valley Library, the Bus Barn staff, the Apache County Health Department, community volunteers, and the Eagar Police Department...We have seen an increase in community volunteers. For example, **last year we had one police officer to assist, and this year we have 3-5.**”

-UA Cooperative Extension, Apache



#### **LEADER ACTIVITIES** (9 NARRATIVES)

“Guided by **Julia Randall Elementary’s sponsor**, the Food Smarts Club kicked off, offering weekly sessions.”

-Gila County Public Health Services

“**Kinsey Elementary’s principal** took the initiative to coordinate a drop-off site, encouraging students to walk almost a one-mile route to school.”

-Coconino County Health & Human Services



#### **PHYSICAL CONTRIBUTIONS** (4 NARRATIVES)

“A local farmer **grew some of the food that was distributed** [and] made a mixed green salad with the label: **GROWN ESPECIALLY FOR WILSON COMMUNITY.**”

-UA Cooperative Extension, Maricopa



#### **FUNDING** (2 NARRATIVES)

“Though this collective work, Farm to School secured a \$50,000 grant from Fry’s for the Annual Conference...ensuring equitable access for schools and growers.”

-Maricopa County Department of Public Health

persistent outreach. Other barriers noted in this year’s SARNs applied to general School Systems programming, such as LIA staff or partner staff turnover. It should be noted that it was optional for agencies to describe information around *Community Coordination* in their narratives, so reporting gaps may obscure our understanding of challenges.

**Moving Toward Sustainability.** In FY23, 10 of the 21 *Community Coordination* SARNs (48%) provided evidence that programming had progressed. LIAs described strengthening their partnership networks around PSE goals [ST7<sub>b</sub>] and expanding existing PSE initiatives

(e.g., the *Success Story* below). Two narratives reported purposeful sustainability planning [LT10], including this cross-community effort:

**“We have worked with other leadership members to create much of the needed framework to [scale up] Farm to School ...After the launch of the website and newsletter last year, we organized a monthly newsletter that has a 67% open rate and over 200 subscribers.”**

*-Maricopa County Department of Public Health*

*Success Story*  
**Growing a Farm Fresh Food Program**

The UA Cooperative Extension, Cochise first reported efforts to help launch Farm Fresh Fridays with the rural Palominas School District in FY21. At that time, they connected the district with [Echoing Hope Ranch](#), a local grower and nonprofit. With LIA guidance around local food procurement, the district began serving fresh, local produce from Echoing Hope every Friday. The next year, UA Cochise staff introduced the Smarter Lunchrooms Movement (SLM) to the Food Service Director, who then applied SLM strategies “to further involve students in planning, preparing, and tasting the local (and often new) foods, strengthening Farm Fresh Fridays.” This year, the LIA supported continued program growth, helping the district reach families during a Farm Fresh Family Night and expand to a second local supplier:



“[We] played a pivotal role in facilitating conversations, providing expertise, and offering resources to make this integration successful. The inaugural Farm Fresh Family Night was open to the entire school district community and was well-attended. Echoing Hope Ranch generously provided free produce to each family [LT9<sub>c</sub>]. [In addition,] the nutrition services director, one of our strongest and most ambitious partners, successfully brought Cruz Farms on board as a vendor to supply beans and eggs [MT5, LT9<sub>c</sub>].

This effort not only improved the nutritional quality of school meals [LT5] but also supported local farmers and the local economy [LT11]. **The Palominas School District is now the model for the community’s other, smaller school systems who are interested in simple and direct Farm to School initiatives.”**

*-UA Cooperative Extension, Cochise*

## Community Engagement

**Reporting Trends.** This year, LIAs reported 114 unduplicated PSE actions in *Community Engagement*, a minimal increase from the 106 actions reported in [FY21](#). As with *Community Coordination*, there is qualitative evidence that LIAs' *Community Engagement* reporting has improved. Of the 159 narratives analyzed this year, 52 (33%) referenced this activity. Unlike in FY21, when 18% of narratives did not meet the AZ Health Zone's *Community Engagement* definition, all descriptions from this SARN section included some form of family and/or youth engagement. Moreover, only one narrative included a description that was too vague to determine whether the LIA was actively involved.

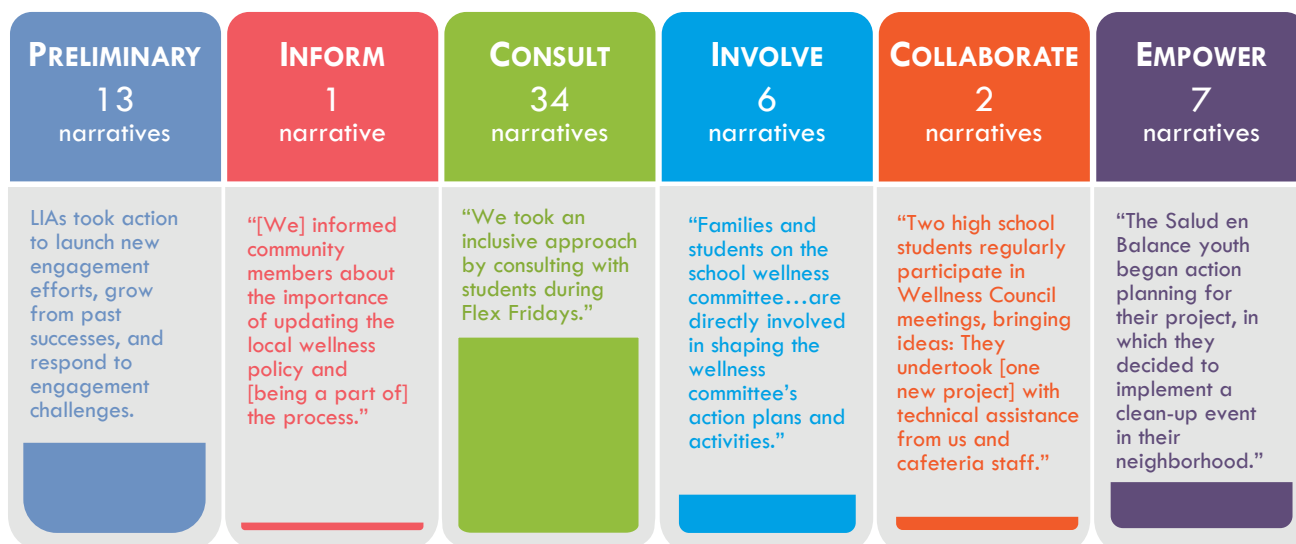
Like *Community Coordination*, *Community Engagement* was consistently linked to other focus area activities. *Local Wellness Policy* was the most popular engagement topic, followed by *Nutrition Practices & Environment* (the SLM and/or foods sold or served in schools) and *School-Based Agriculture* (mostly gardens). Some LIAs also engaged families and youth around *PA Practices & Environment* and Direct Education.

"[We] sent students home with pieces of the Local Wellness Policy and a short questionnaire for parents to send back to school. The questions asked about whether parents felt the school was implementing the written policies and what they thought about the policies."

-UA Cooperative Extension, Graham

**Spectrum of Public Participation.** Almost all of the 52 *Community Engagement* SARNs this year referenced an [engagement level](#) in [Figure 21](#). Compared to FY21 (n=59 SARNs), LIAs expanded their descriptions of "preliminary" *Community Engagement* (i.e., intentional acts that set the stage for future engagement): Not only did LIAs plan new engagement efforts, but they pivoted to overcome engagement barriers and pursued emerging engagement opportunities. They also used FY23 SARNs to report more—and sometimes deeper—work around consulting, involving, collaborating with, and even empowering students and families. Conversely, we found only one "inform" description (compared to five in FY21), and the context made it unclear if this was part of a larger consulting effort.

### 21. In FY23, **CONSULTING** was the most popular engagement level described in the 52 School and Other Youth-Based narratives referencing *Community Engagement*. Narratives could address more than one level.





### How Did Community Engagement Operate?

Our qualitative analysis revealed that certain *Community Engagement* tactics were similar to those used for *Community Coordination*: LIA support often worked synergistically with residents' *Leveraged Resources* [LT9], most notably in the form of resident and champion activities (explained in more detail below). However, unlike in *Community Coordination* SARNs, LIAs did not report any material contributions made by community-engaged residents. Instead, four narratives shared how youth and families dedicated their time and resources to communication efforts, raising awareness of and support for PSE changes.

Of course, LIAs first had to reach community members before engaging them. Two-thirds of the FY23 *Community Engagement* SARNs described how LIAs connected with residents. The most popular method was during events, where LIA staff held informal conversations

**“Our team used engagement boards at many school events for students to express their ideas of healthy living and [to provide input for] PSE programming. We set up boards during Cottonwood Elementary’s Summer Food Service Program and Mesquite Elementary School’s Academic Night, [asking] students and parents what types of healthy activities they would like to see. Parents, teachers, community members, and principals were very pleased to see students engaging with the boards. [They shared]: ‘This is such a great idea to get feedback!’ and ‘I love seeing what the students are actually interested in!’”**

-UA Cooperative Extension, Pinal

with families, collected structured feedback from attendees (e.g., surveys), and recruited families to participate in wellness committees.

### Looking Deeper

## How Did Students and Families Contribute to Changemaking?

In FY23, 12 of the 52 narratives referencing *Community Engagement* included descriptions of *Leveraged Resources*, mainly as three types of *In-Kind Support* [LT9c] provided by residents and, in one case, as *Funding* [LT9b]. Some narratives discussed multiple ways in which families and students contributed to health-related initiatives.



#### RESIDENT ACTIVITIES (11 NARRATIVES)

“The Wilson Elementary school garden was installed this year by [club] students. [Our] garden coordinator worked with students to choose which plants were appropriate for growing in the space and **students planted the garden at the Spring Service Day.**”

-UA Cooperative Extension, Maricopa



#### CHAMPION ACTIVITIES (5 NARRATIVES)

“[Our] staff regularly promoted the Wellness Council at school and community events to create awareness and increase participation. **These efforts led to a handful of families collaborating with us, the school, and cafeteria staff on updating the Local Wellness Policy.**”

-Coconino County Health & Human Services



#### COMMUNICATION (4 NARRATIVES)

“**High school students changed their student-led morning announcements** to...add more information on locally sourced cafeteria foods.”

-Coconino County Health & Human Services



#### FUNDING (1 NARRATIVE)

“**[The Salud en Balance youth] secured food and drink funding** for their clean up event through Salud En Balance's partnership with United Healthcare.”

-Maricopa County Department of Public Health

School wellness committees themselves were another very popular engagement method. LIAs often referenced committee meetings as the means by which they planned future *Community Engagement*, presented feedback collected from students and families, and worked directly with student and family committee members on changes:

“[We] supported *Community Engagement* by actively listening to students and families on the wellness committee and **planning with families to provide more responsive direct education** (scheduling, content, location).”

-UA Cooperative Extension, Cochise

Less common engagement methods included consulting families through parent groups (Parent Advisory Committee, Parent Teacher Organization) and reaching out to families through students’ take-home materials. Narratives suggested that the former helped to progress programming, while the latter was not as successful as the LIA had hoped.

**Fewer (But Persistent) Challenges.** In FY21, 35 of the 59 SARNs that addressed *Community Engagement* (59%) described barriers, most of which were COVID-related. This year, 18 of the 52 narratives analyzed (35%) included challenges, none of which were COVID-related. Even so, three general barriers continued to inhibit LIA progress (**Figure 22**). Unlike two years ago, many LIAs discussed ways in which they are actively seeking to address, or persist in spite of, these obstacles.

This year, two newly reported challenges suggest that select LIAs have begun to connect [trauma-informed principles](#) to *Community Engagement*. The UA Cooperative Extension, Maricopa recognized that language barriers may inhibit families from comfortably and safely sharing feedback at events; they began working with a teacher advocate on a Spanish-speaking family night. The Maricopa County Department of Public Health felt that Youth Participatory Action Research (YPAR) should explicitly value students’ contributions; they sought to address barriers to gift card funding.

**22. In FY23, most reported *Community Engagement* challenges were LOW OR NO RESPONSE, followed by PARTNERS AS GATEKEEPERS and then TURNOVER.**

“Families expressed interest in participating in the committee but **could not commit to the in-person meetings** due to work and other obligations.”

-Coconino County Health & Human Services

“Creating or being invited to attend school events to connect with families is **solely at the discretion of [the district’s] administration.**”

-UA Cooperative Extension, Mohave

Low or no community response

- Reported in urban & rural counties
- All involved *Local Wellness Policy* and/or *Wellness Committees*

Partners as gatekeepers to community access

LIA & Partner Turnover

“The **transition in [our partner library’s] personnel has temporarily disrupted the momentum of community engagement initiatives** aimed at fostering a healthier environment for the local youth.”

-UA Cooperative Extension, Cochise

## Looking Deeper

### Community Engagement Opens a Window to Unexpected Benefits

This year's narratives supported the idea that bringing communities together around changemaking can have unanticipated positive effects. The national SNAP-Ed Evaluation Framework calls these effects *Unexpected Benefits* [LT11] and describes them as including activities "that only SNAP-Ed partners may conduct" or "that go beyond what SNAP-Ed may do." LIAs in five communities shared such benefits, including expansion to other sites, non-SNAP-Ed wellness topics, and new PSE efforts:

"When [we] presented this project to the wellness committee, **other sites were interested in doing a similar youth-led initiative at their schools.** Other issues brought up by the students are out of [our] scope (bullying, mental health, etc.); however, the upcoming 1801 Grant Program may be able to assist."

-UA Cooperative Extension, Santa Cruz

"Out of our successful collaboration with the Cartwright School District [Parent Liaisons and other community partners], **interest sparked among parents at Peña to begin a walking group and engage in physical activity and we were also invited to do community engagement with the parents at Borman Elementary.**"

-UA Cooperative Extension, Maricopa

#### **Community Engagement for Sustainability.**

In FY23, 14 of the 52 narratives referencing *Community Engagement* (27%) described LIAs' success in progressing sustainable, community-engaged PSE change. Eight SARNs included strides in growing community involvement in school-based initiatives [ST7<sub>b</sub>], e.g., "Staff received 16 sign-ups showing interest in local wellness policy work." Seven SARNs shared progress in growing or sustaining nutrition-related PSE changes through family and/or student engagement [LT5<sub>a</sub>], e.g., "[We] partnered with a parent to maintain the school garden." Furthermore,

LIAs described their support for residents and partners around sustainability planning in eight narratives [LT10]. These references included evidence that LIAs, partners, and residents continued to consistently engage with (and sometimes grow) the initiatives. They also included evidence that groups established benchmarks and goals around both *Community Engagement* as an ongoing activity and community-engaged PSE changes. For example, the LIA below supported an aptly-named high school "Sustainability Club" to further integrate the garden into the larger school community.



"The Sustainability Club students involved in the Wilson College Prep High School garden are eager to see change happen in their community...During the 2022-23 school year, [they] planted the garden with spring vegetables. **[We worked] with them to identify the garden's purpose and understand how students saw the garden integrating into the larger school community.** During the 2023-24 school year, the students were eager to engage with our team and continue the work that began last year. This year, they want to focus on planting and harvesting, learning how to cook vegetables from the garden, attend field trips to local farms and farmers markets, visit our office, and participate in a healthy fundraiser called Farm Raiser to help their community access fruits and vegetables."

-UA Cooperative Extension, Maricopa



## Success Stories

### Youth Empowerment Flourishes, Driving Change

“Recognize yourself in he and she who are not like you and me.” -Carlos Fuentes

This year, two LIAs skilled in YPAR supported teenagers’ progress in youth-led projects. Both counties worked in the empower level of the Spectrum of Public Participation, so that youth could pursue the wellness goals that most inspired them.

FY21

**Three Years of Growth in Yuma County.** AZ Health Zone staff in Yuma County began supporting YPAR at Vista High School two years ago. At first, the school’s adult project lead was “apprehensive about giving the youth the latitude to make this project their own.” By the end of FY21, the LIA reported that she was “now comfortable in her role as an adult ally.” With her support and LIA guidance, the youth group created garden guidelines, recruited new members, held elections, and wrote a Constitution to guide their expectations and behavior [ST7].

FY22

Last year, the LIA helped the YPAR students to successfully establish the school garden [MT5]. AZ Health Zone staff “guided the students in identifying potential community donors and writing donation request letters.” When a local agriculture company responded, the LIA helped to coordinate the donation of roughly \$800 worth of soil for the garden beds.

FY23

This year, the AZ Health Zone’s support role shifted again as the students sought to expand the availability of fresh produce in their lunchrooms, including foods from the school garden. The LIA provided important guidance for students to develop their interview skills, plan the interview logistics, and connect with an adult decision-maker. Together, the students’ persistence and the LIAs’ ability to adapt their supports have helped to sustain the YPAR program and its projects [LT10].

“[Our] YPAR project continues at Vista High School. **Once the youth participants established their garden, they turned their attention to their school lunches and cafeteria environment and thought about changes that could be made to include more fresh produce. They shared their desire to have a salad bar—not just at Vista but in all high schools across the county, since none have one.**

“The youth decided to interview food service personnel to get a better understanding of how food service functions and what changes might be possible. We guided them in creating interview questions, helped build their interview and note-taking skills, and created a timeline to complete interviews.

”The students also developed interview questions for the district food service Assistant Director to learn more about how the school lunch program works and whether the food grown in their school garden can be served to the student body. During the interview [also carried out by the students], they talked about their aspiration to have salad bars in all high schools. For our part, we met with the new district Nutrition Executive Director. We spoke at length about the possibility of including the school garden produce in the school lunch and the students’ desire to establish salad bars across area high schools. She was very amenable and willing to collaborate with the students!”

-Yuma County Public Health Services District



**Mirroring the Interests of Maricopa County Youth.** In FY23, MCDPH staff supported the Salud en Balance youth group’s months-long effort to organize a clean-up day. After a successful event [MT6], the group began planning for next year by recruiting new members and developing plans for another youth-led project [LT10].



**COME JOIN US AT OUR COMMUNITY CLEAN-UP EVENT!**

“The Salud en Balance youth project was developed over several months of youth researching the built environment in their communities and concluding that trash in the Perry Park neighborhood was infringing on their ability to feel like they could safely walk outside. [With our support], the youth met weekly for event planning. They made flyers, reached out to community partners for event support, and created a Salud en Balance Facebook page.

“Sixty-two participants, including the youth, attended the community clean-up in January 2023. The City of Phoenix provided a dumpster and outdoor tools, Keep Phoenix Beautiful contributed clean-up kits. United Healthcare and District 8 tabled the event and provided food. The clean-up was well-received in the community, who requested a future event.”



“After [this initial success, we] worked with the Salud en Balance leadership to conduct interviews for a new youth leader and participant positions...**This YPAR group of 12 meets twice a month for 90 minutes around a new Photo Voice project focused on their community’s current built environment and their visions of an ideal environment.** [We have] included this project in our SNAP-Ed YPAR Community Engagement action plan [and completed] Photo Voice facilitation training through Photovoice Worldwide. ”

-Maricopa County Department of Public Health

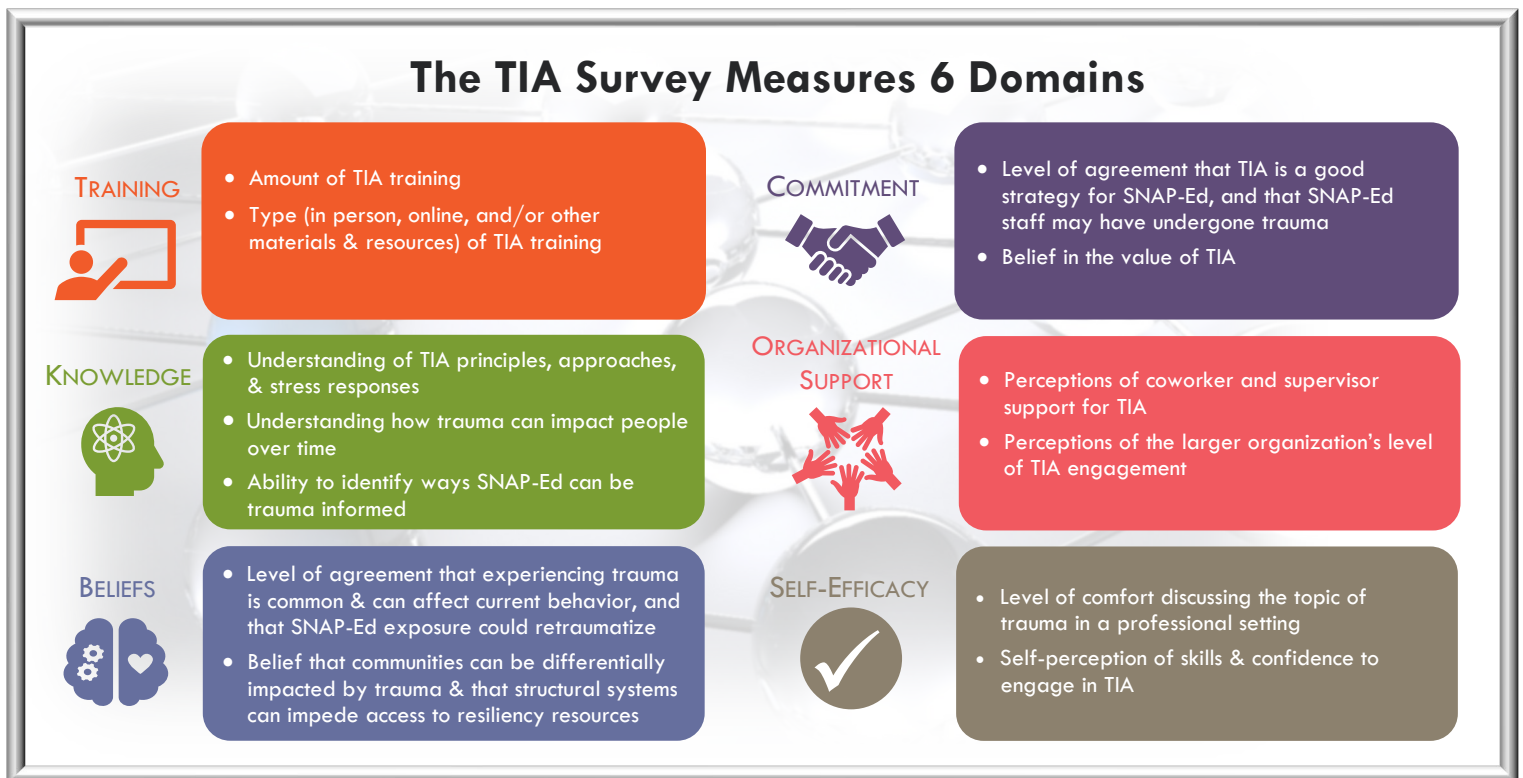
# A Window Into Trauma-Informed Approaches:

## Staff Increase Their Skills & Support Across 3 Years

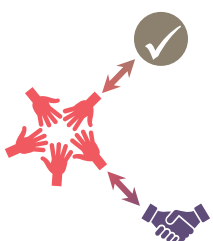
In FY21, the AZ Health Zone launched statewide training for Local Implementing Agencies (LIAs) to optionally incorporate [trauma-informed approaches](#) (TIAs) into their programming. Annually from FY21-23, all LIA staff were invited to complete a 35-item survey before and during TIA implementation.

**About the TIA Survey.** The TIA survey was online, anonymous, optional, and available in English or Spanish. Most survey items used a 5- or 7-point Likert scale to measure the domains below.

**Who Took the TIA Survey?** From FY21-23, an average of 53 LIA staff completed the survey each year (Year 1: n=67, Year 2: n=43, Year 3: n=48). Respondents could report multiple SNAP-Ed roles: In FY23, they indicated a mix of policy, systems, and environment (77%); direct education (52%); administrative (35%); and management (33%) responsibilities. Most of the respondents (85%) identified as female, and a plurality (38%) reported 6+ years of SNAP-Ed work experience.



**STATISTIC TIP:** Correlations cannot determine causation, but they can reveal meaningful associations between items.



As scores for **Organizational Support** rose, so did **Self-Efficacy** scores, with a large effect ( $p \leq 0.001$ ,  $d = 0.97$ ).

As scores for **Organizational Support** rose, so did **Commitment** scores, with a large effect ( $p \leq 0.01$ ,  $d = 0.91$ ).

### How did Organizational Support Relate to Other Domains?

We did correlation analyses for the FY23 survey responses to explore relationships between *Organizational Support* and the *Commitment* and *Self-Efficacy* domains. The findings suggest that, when LIAs' organizational structures encourage TIA, staff may commit more fully to TIA and grow their TIA self-efficacy. Staff commitment and self-efficacy may also influence their perceptions of organizational support for TIA.



**How Did Responses Change from FY21-23?** Mean scores increased in all domains from Year 1 to Year 2 of TIA implementation (Figure 23). From Year 2 to Year 3, *Beliefs* and *Organizational Support* saw moderate gains, and other domains saw a levelling-off effect. By Year 3, all domains but *Training* scored above 80% of the maximum possible score, indicating a strong capacity for TIA among surveyed staff.

We also analyzed the median scores in Years 1 and 3 to better understand the *magnitude* of changes. All domains except *Training* started with high scores. By Year 3 (n=48), median scores increased significantly with medium-to-large effect sizes (d=0.54-1.50) for all domains except *Commitment* (d=0.10), which had little room to grow given its high baseline score.

Together, these findings suggest that respondents demonstrated initial strong support for TIA, followed by meaningful additional uptake during the subsequent two years.

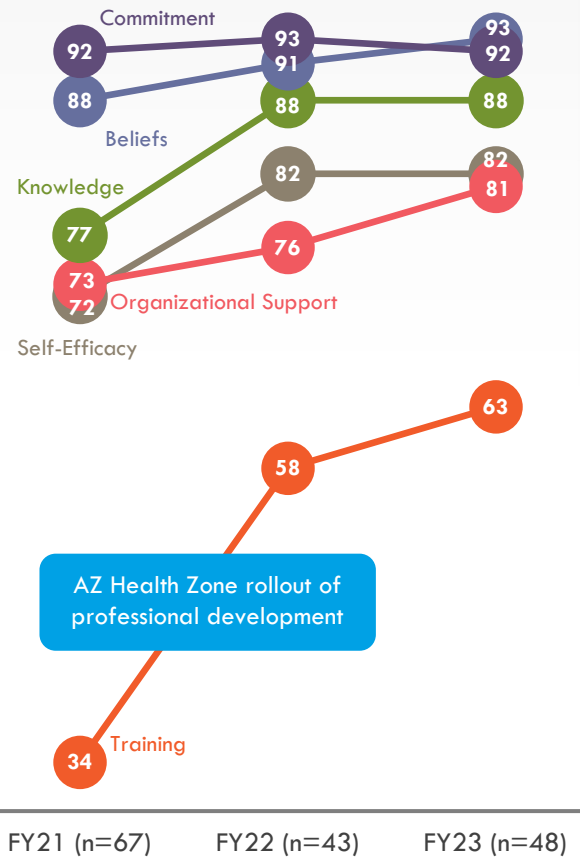
**Managers' Total TIA Scores Increased Less than Non-Managers During the 1<sup>st</sup> Implementation Year**

Our FY22 manager interviews indicated a training dropout event midway through FY21. During that time, the TIA professional development series explored historical and structural systems that can differentially impact communities served by SNAP-Ed. We examined the FY21-22 survey results to see whether scores changed differently for managers versus non-managers. While both groups increased their total TIA scores, *the managers as a group increased less than non-managers*, with a non-significant medium effect (p=0.112, d=0.58). More exploration is warranted to understand the effects of training dropout on managers' TIA perspectives and uptake, as well as how each LIAs' overall engagement in TIA may be uniquely influenced by their SNAP-Ed managers' levels of support.

**Responses Reflect Variation by Experience & Geography.** We also explored demographic differences between groups in the FY23 data. There were no meaningful differences based on ethnicity, supervisory role, or SNAP use. Those with over six years of SNAP-Ed experience had significantly higher *Beliefs* scores than those with under two years of experience (6.77 versus 6.46 out of a possible 7, p≤0.10, medium effect: d=0.55). This suggests that *staff may have more TIA-affirming beliefs as their SNAP-Ed experience accrues*.

Compared with staff who reported operating in a more rural county (n=23), those in urban counties (n=22) reported significantly higher scores in *Knowledge* (p≤0.05, medium effect: d=0.64), *Beliefs* (p≤0.05, medium effect: d=0.64), and *Commitment* (p≤0.10, medium effect: d=0.50). This aligns with other findings, including which counties remain engaged in TIA professional development and the FY22 interview results suggesting that rural managers may be less TIA-engaged.

**23. From FY21-22, scores from unmatched responses increased in all TIA Survey domains, then rose moderately or levelled off by FY23.** Scores represent the % of the maximum mean in each domain.



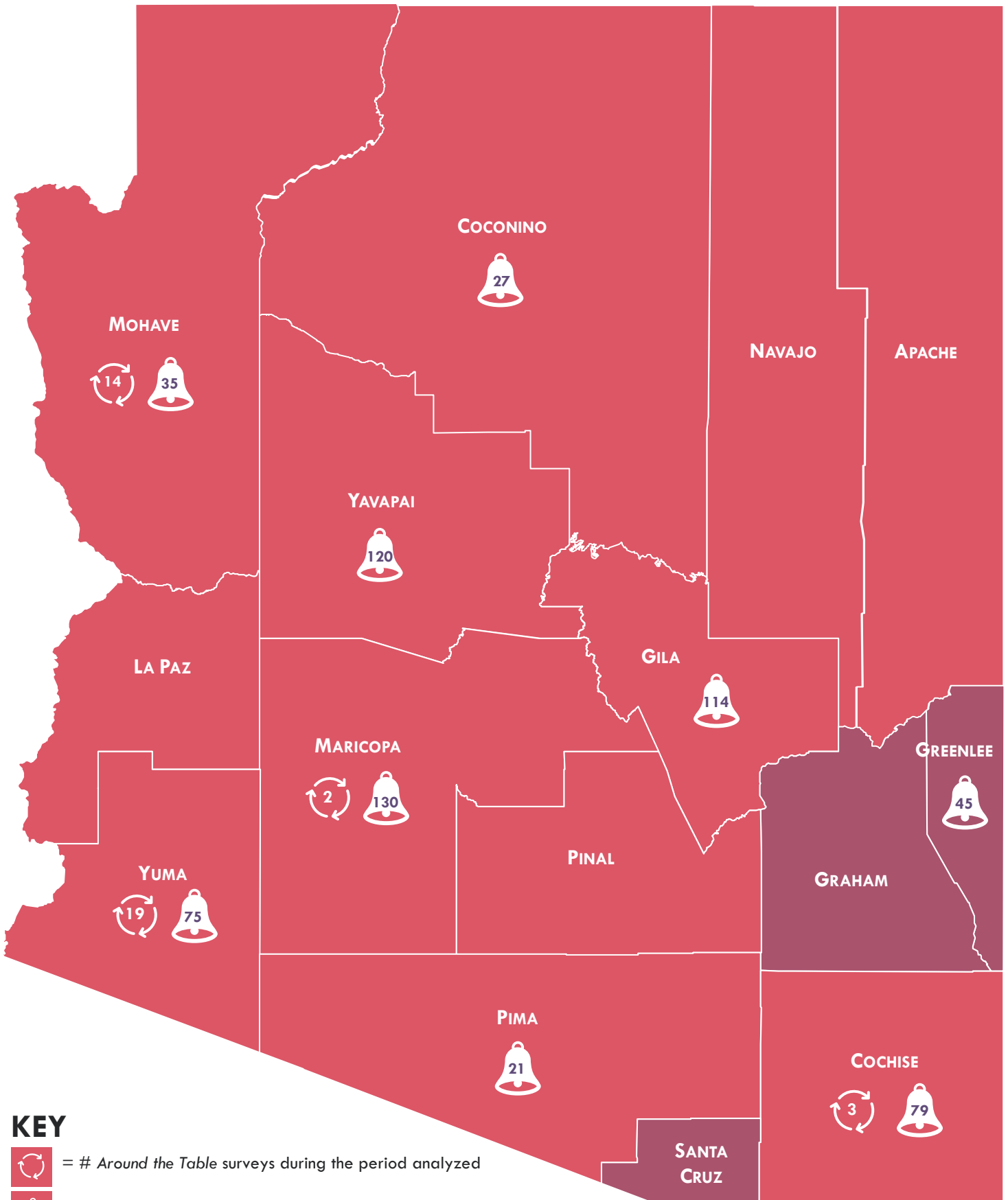
**STATISTIC TIP:** We do not know how survey results are impacted by *response bias*: Staff less supportive of TIA may also be less likely to respond to the TIA survey.

"I am concerned about how I will react and handle the situation when someone shares and how I will handle the group if someone says something that triggers someone else. I want to be able to respond effectively without aggravating the situation."





-FY22 Rural Survey Respondent

"Just talking about trauma-informed approaches creates hostility from people in my tribe."

- FY23 Rural Survey Respondent



**KEY**

-  = # Around the Table surveys during the period analyzed
-  = # Kids' Activity & Nutrition Questionnaires during the period analyzed
-  = Worked in Youth Multilevel Interventions (see School Systems map for PSE work)
-  = Worked in Adult Direct Education & Youth Multilevel Interventions



# Individual Focus



Note: The Statistics Reflections box on page 2 provides more information on interpreting sample sizes, p-values, and effect sizes.

## AZ Health Zone Youth & Adult Individual Focus



**Multilevel interventions are assessed among school-aged youth** participating in AZ Health Zone programs through schools and other youth-based systems



**Direct Education (DE) is assessed for adults** who are actively engaged in the learning process with an evidence-based intervention/curriculum in group settings

### Individual Level Evaluation

With youth, the AZ Health Zone assessed *Healthy Eating* [ST1, MT1] and *Physical Activity and Reduced Sedentary Behavior* [ST3, MT3] using the AZ Health Zone Kids' Activity and Nutrition Questionnaire (KAN-Q). The KAN-Q was administered once in Spring 2023 for a snapshot in time of students' knowledge, attitudes, and behaviors. This also informed FY22-23 comparisons. We set the confidence level for this evaluation at 99% ( $p \leq 0.01$ ) due to the large sample size ( $n > 250$ ).

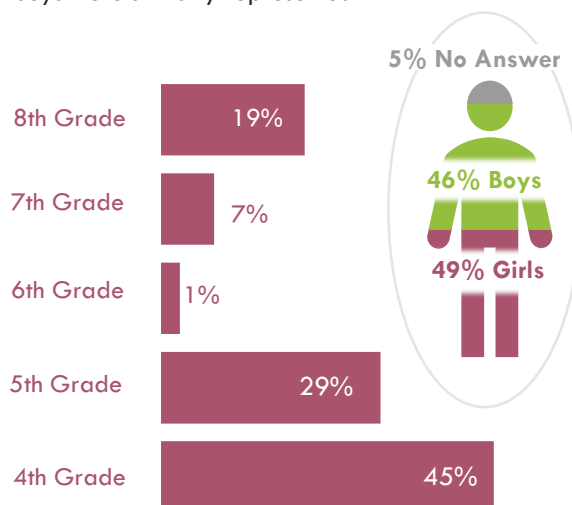
With adults, we assessed *Healthy Eating* [MT1] and *Food Resource Management* [MT2] behaviors using the *Around the Table (ATT) Nourishing Families* survey. The ATT is a six-workshop, trauma-informed curriculum. We set the confidence level for this evaluation at 90% ( $p \leq 0.10$ ) due to the modest sample size ( $n < 40$ ).

### Multilevel Interventions in Schools

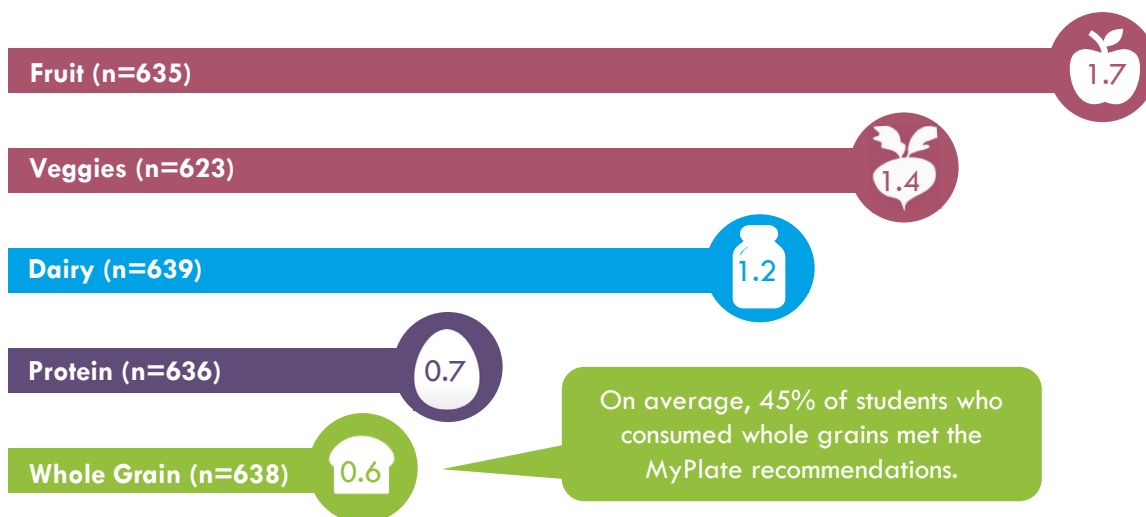
**Cross-Sectional Analysis.** In Spring FY23, five local implementing agencies (LIAs) in nine counties administered the KAN-Q in schools where they supported DE; Policy, Systems, and Environment (PSE); and multilevel (DE + PSE) interventions. Over 600 students participated (Figure 24). Of note, not all respondents answered every KAN-Q question.

**Attitudes.** Students' attitudes toward MyPlate food categories and physical activity were rated on a scale of 1 (really don't like) to 5 (really like). On average, students most enjoyed fruit (4.7) [ST1<sub>a</sub>] and physical activity (4.4) [ST3<sub>a</sub>].

**24. Of all students who completed the KAN-Q (n=646), most were in the 4<sup>th</sup> grade.** Girls and boys were similarly represented.



**25. On average, students reported eating **fruit** the most “times yesterday” and **whole grains** the least.**



Attitudes were generally positive for low-sugar drinks (4.0) [ST1<sub>i</sub>] and vegetables (3.8) [ST1<sub>b</sub>]. Students least enjoyed whole grains (3.7) [ST1<sub>d</sub>] and low-fat milk (3.5) [ST1<sub>e</sub>].

**Knowledge.** Students were assessed on their knowledge of the USDA Dietary Guidelines for fruits and vegetables [ST1<sub>g,h</sub>], whole grains [ST1<sub>i</sub>], milk type [ST1<sub>j</sub>], and physical activity [ST3]. In FY23, they were most familiar with guidelines for fruits and vegetables (47%), followed by physical activity (44%), whole grains (33%), and milk type (20%). Compared to FY22 (28%), milk type knowledge decreased.

**Nutrition Behaviors.** Students’ consumption of the MyPlate food groups were reported as “times per day yesterday.” Figure 25 shows that, on average, all food groups were eaten less than twice “yesterday” [MT1<sub>a,e,i,l,m</sub>]. If times per day acted as a proxy for servings, students may not be meeting MyPlate recommendations. We are currently investigating how well this measure accurately estimates daily intake. Preliminary results demonstrate that students may misreport whole grain consumption. We will

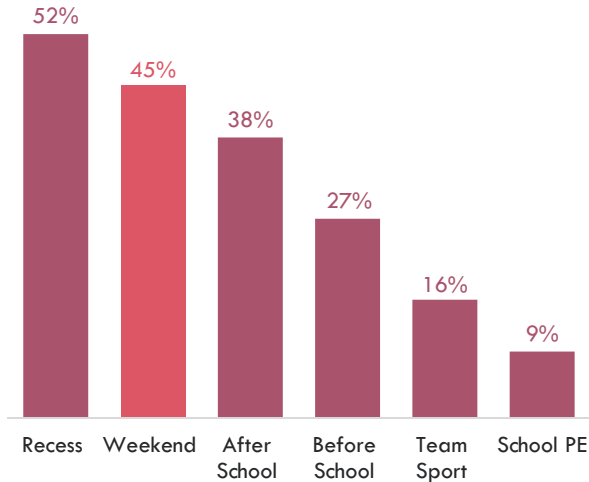
report more of these findings in future years.

For beverages, students reported consuming about one sugary drink per day and drinking about four times more water than sugary beverages [MT1<sub>g,h</sub>]. In addition, 14% of students this year reported drinking 1% or fat-free milk—a decrease from the 23% reported in FY22. This year, students reported that they drank non-dairy milk alternatives (8%), did not drink milk (8%), or did not know which type of milk they drank (23%).

**Physical Activity Behaviors.** In FY23, students reported doing an average of 10.3 physical activity bouts [MT3] “last week.” Figure 26 shows the percent of students who reported being active at various times. The low percent for PE may reflect limited PE requirements/offerings.

**Patterns Across Time.** Unless otherwise noted, all items reported above for food and physical activity knowledge, attitudes, and behaviors were similar across FY22 and FY23. Future reporting will explore how SNAP-Ed PSE supports may impact these patterns.

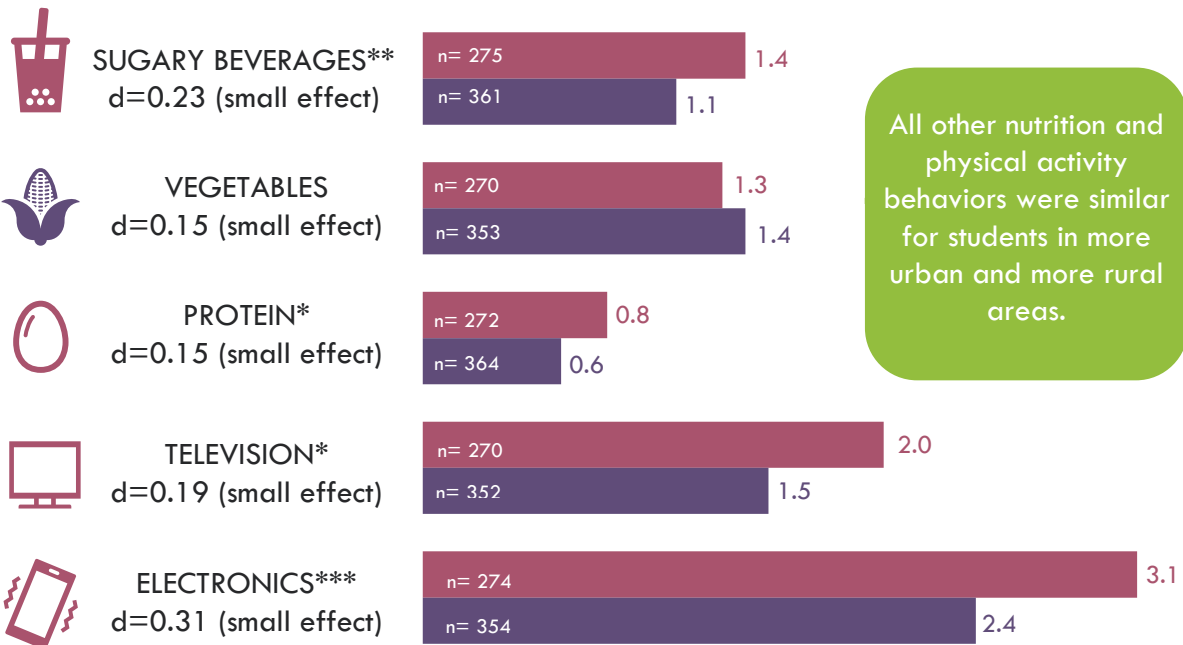
**26. The % of students active for 3+ weekdays was highest for recess and lowest for PE (n=646). Less than half were active during both weekend days.**



**Exploring KAN-Q Findings by Geography.**

We compared KAN-Q results between two groups: students residing in more urban versus more rural counties. Students in more rural counties had more positive attitudes towards vegetables and low-sugar beverages, though these differences were nonsignificant with small effect sizes. We found modest between-group differences in some but not all behaviors assessed by the KAN-Q. **Figure 27** highlights the most notable, including statistically significant differences in sugary beverage consumption and time spent on electronics. This may be due to varying nutritional supports available between urban and rural environments. More work is needed to understand how urban versus rural environments impact KAN-Q responses.

**27. Students in more rural counties reported lower consumption ("times yesterday") of sugary beverages and less time ("hours yesterday") spent in sedentary behaviors compared to students in more urban counties.**



All other nutrition and physical activity behaviors were similar for students in more urban and more rural areas.

\*p<0.05, \*\*p<0.01, \*\*\*p<0.001

*Success Story*  
**Student Behaviors Reflect Multi-Level Interventions**

In rural Coconino County, trauma-informed nutrition lessons for kindergarteners worked synergistically with Smarter Lunchrooms Movement changes to inspire MyPlate food choices. They also helped families notice the connection to the district’s wellness policy.



“Kindergarten students connected Discover MyPlate lessons with posters they observed in the school cafeteria and with the food groups being served at lunch. The teacher shared, ‘The students are loving the lessons. **After lunch today, they told me each of the food groups they ate.**’”  
 -Coconino County Health & Human Services

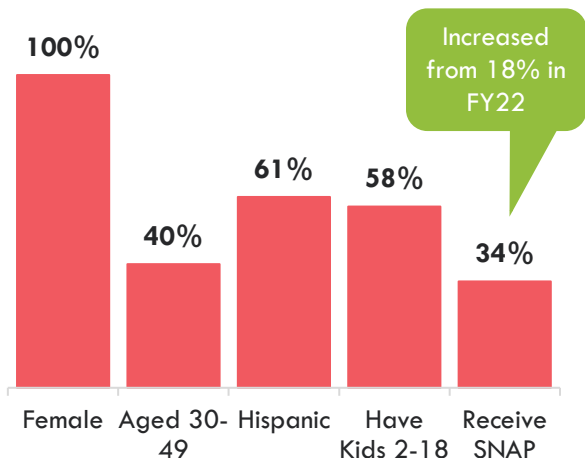
“During a local wellness policy meeting, the mom of a kindergarten student shared, ‘When he arrived home, he opened the refrigerator, began taking out food, and told me we were going to taste test foods.’ [She explained how] **her son is bringing home the lessons learned and sharing them with the family.**”  
 -Coconino County Health & Human Services

**Adult Direct Education**

In FY23, two LIAs in four counties taught the ATT workshop series paired with surveys. They collected 38 matched pre-post surveys (**Figure 28**). Thirteen respondents (34%) received SNAP benefits. Fifteen (40%) chose to complete a Spanish survey. Many participants were aged 30-49, but 34% were aged 60 or older, pointing

to the prevalence of senior audiences for the series this year. On average, 47 days passed between pre and post surveys, indicating that ATT workshops were most often taught weekly.

**28. ATT participants (n=38) were female, and most were Hispanic and had children in their household.**

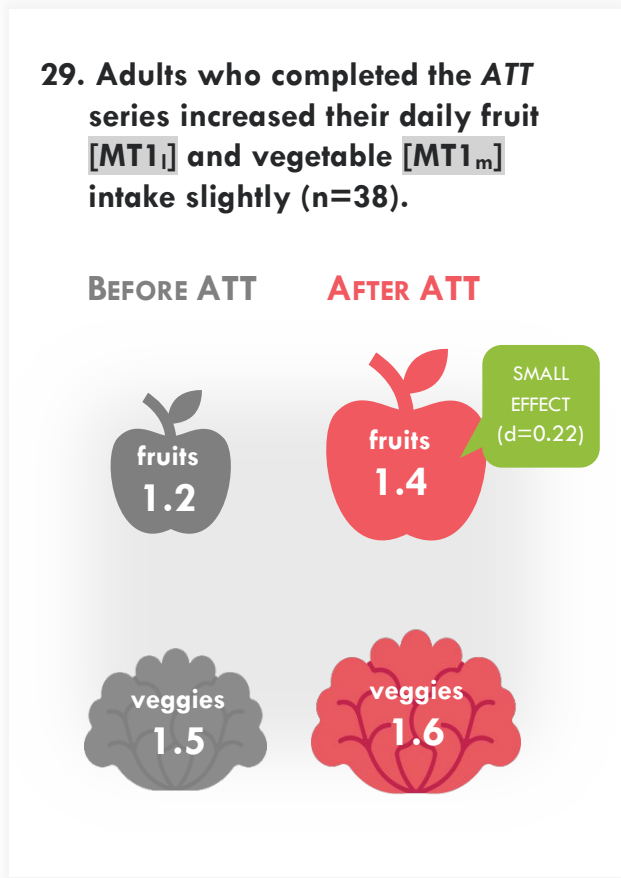


**Personal Nutrition Habits.** Results for Personal Nutrition Habits—one of the six ATT survey sections—showed small positive changes from pre to post, none of which were statistically significant at the whole-group level.

**Fruits & Vegetables.** The fruit and vegetable results [MT1<sub>l,m</sub>] in **Figure 29** show that, after the ATT series, participants’ reported mean fruit intake increased slightly. At post, 34% of respondents reported eating more fruits, and 16% reported eating fewer. Vegetable intake also increased: 29% percent of respondents reported eating more vegetables at post, while 13% ate fewer. While there were no significant changes, these percentages suggest that the ATT curriculum may have encouraged a subset of participants to change their behaviors in a positive direction.



**29. Adults who completed the ATT series increased their daily fruit [MT1<sub>i</sub>] and vegetable [MT1<sub>m</sub>] intake slightly (n=38).**



Comparing SNAP recipients (n=13) to non-recipients (n=25) at post, recipients reported eating more fruits (1.6 vs. 1.3 times per day, nonsignificant p-value, small effect: d=0.26) and vegetables (2.1 v. 1.3 times per day, p≤0.05, medium effect: d=0.67). Further exploration is warranted to understand why those receiving SNAP benefits reported more produce intake after ATT participation.

"We conducted the ATT series with the Pecan Grove and Carver Elementary Parent Literacy groups. With the strong presence of school gardens in this district, the DE supports our work to strengthen sustainability and family involvement in the gardens, and to **increase the capacity and motivation of families to prepare nutritious meals.**"

-Yuma County Public Health Services District

**Whole Grains.** After the ATT series, self-reported "yesterday" whole grain intake was largely unchanged [MT1<sub>j</sub>]. Only 16% of participants ate more whole grain breads and tortillas, while 66% did not change. A similar percentage (14%) ate more whole grain quinoa, oatmeal, rice, and pasta, while 69% did not change.

**Healthy Beverages.** Self-reported beverage choices shifted for some participants after the ATT series [MT1<sub>g,h</sub>]. From pre to post, 24% of respondents drank fewer sugary drinks per week, while 48% did not change their consumption. Thirty-seven percent increased their "yesterday" water intake, while 32% remained unchanged.

**Food Resource Management (Food Skills).** ATT participants' Food Skills [MT2] generally remained steady. Two items decreased significantly over time: For "Keep basic items on hand for putting meals together," 33% of respondents lowered their self-assessment (p ≤ 0.10, d=0.48: medium effect). For "Know what budget you have to spend on food," 38% lowered their self-assessment (p≤0.10, d=0.44: small-to-medium effect).

The other seven skills measured did not change significantly over time. These were: planning meals ahead, planning how much food to buy, balancing meals based on nutrition advice, shopping with a grocery list [MT2<sub>j</sub>], comparing prices [MT2<sub>h</sub>], reading nutritional information on food labels [MT2<sub>b</sub>], and preparing a healthy meal with few ingredients.

However, at pre, most (75%) of the participants already said they were somewhat good or good at these skills. Greater Food Skills confidence may be due in part to the older average age of ATT participants compared to prior years. In FY23, the average age was 51, versus 43 in FY22. More work is also needed to understand the extent to which heightened awareness or behavior change decreased some scores.



### Looking Deeper

## Increased Well-Being Was Associated with Positive Nutrition Behaviors and Food Habits Among ATT Participants

Two items in the ATT survey closely matched those in the [WHO Well-Being Index](#) (right).

1. I've been feeling relaxed.

2. I've been feeling cheerful.

We compared the two Well-Being items with other ATT survey items/sections that measured:

- Sugary Drink Intake
- Vegetable Intake
- Beneficial Family Food Habits
- Adverse Food Habits, such as “I snack without noticing what I am eating”

The results in **Figure 30** show positive correlations for beneficial behaviors and negative correlations for adverse behaviors. This suggests that the ATT curriculum may offer an effective way to address the interconnectedness of food and mood, at least in this sample. Correlations between Well-Being and fruit, grains, and water intake (not shown) were positive, but not statistically significant.

**30. As scores for Well-Being [R11b] increased, scores for beneficial Family Food Habits and vegetable intake also increased, while scores for sugary drink intake and adverse Food Habits decreased (n=38).**

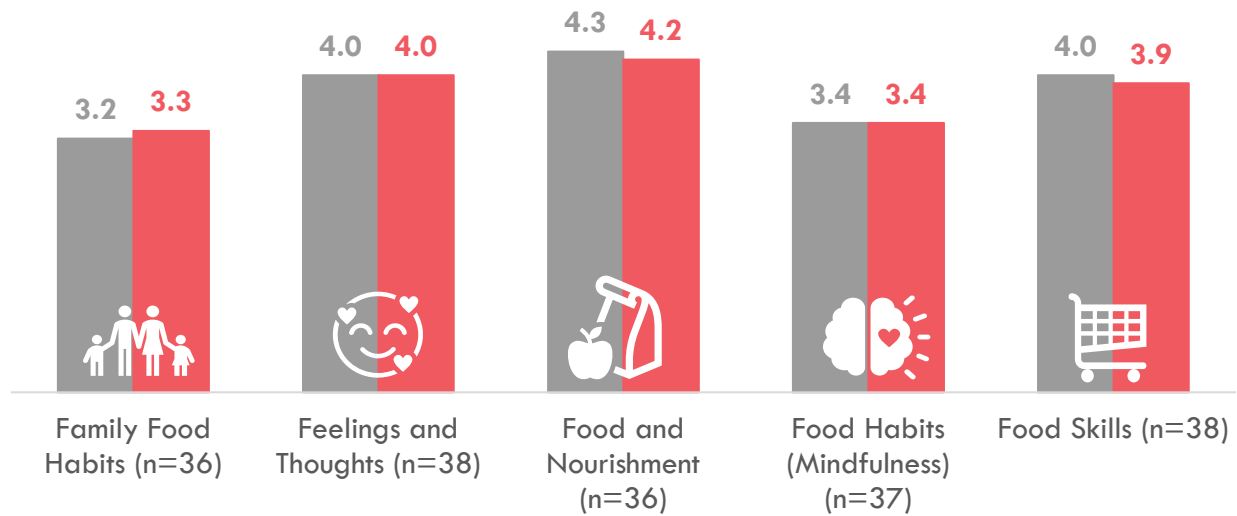


**STATISTIC TIP:** Correlations cannot determine causation, but they can reveal meaningful associations between items.

**Other Section Outcomes.** From pre to post, mean scores showed very little change for the five ATT survey sections shown in **Figure 31**. In past years, we observed that the Feelings and Thoughts section showed an initial increase in [FY21](#), followed by gains in Food Skills and some Personal Nutrition Habits in [FY22](#). We concluded that this may have reflected the ATT’s emphasis on building participants’ comfort and confidence to support sustainable, food-related behavior change.

In FY23, however, this pre-post change in outcomes was not seen, suggesting that workshop participants may have responded differently this year to the ATT series than in the past. This could be due to the older average age of participants this year, other potential differences in participant characteristics, variations in series facilitation practices, or other factors. Additional investigation may help elucidate why these outcomes have differed.

**31. Mean scores for these ATT survey sections showed little or no change from PRE to POST.** Scores ranged from 1 (lowest) to 5 (highest).



### Success Story

#### *A Gardening Curriculum Provides a Natural Opening for Sharing Indigenous Ways*

A Diné LIA staff member who speaks both English and Diné reached participants on the Navajo Nation using the *Seed to Supper* curriculum, delivered in-person and online. This and canning activities complemented their program’s PSE work in gardening and enabled participants to share traditional Navajo experiences.



“[Our] AZ Health Zone staff brought specific gardening knowledge about the region, including relatable discussions of microclimates and soil types. **Each workshop featured cultural topics connecting planting and food relationships to traditional Navajo models for health and wellness.**

Staff shared that **gardening is a part of a healthy active lifestyle, a lifestyle that has always been a part of the Navajo People, [and how gardening] provides families with the tools to achieve Hózhó (translated: peace, balance, beauty, and harmony) in their homes through family collaboration and teaching opportunities.** Participants were able to share stories about their food values and memories from a traditional food system.”

-UA Cooperative Extension, Apache & Navajo







# AZ HEALTH ZONE

This report was prepared by the AZ Health Zone State Evaluation Team, operating out of the University of Arizona School of Nutritional Sciences & Wellness. Select quotes were de-identified or edited for clarity. Suggested citation: LeGros T, Jacobs L, Bhakta A, Orzech K. AZ Health Zone FY23 Annual Evaluation Report: *Reflecting Community Through the SNAP-Ed Window*.

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