ASQ Online Implementation Evaluation Report

Conducted on behalf of

FIRST THINGS FIRST

Contract #ADSPO15-090755

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May 2016

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Abstract

In 2014, three regions of Arizona First Things First (FTF) – Gila, Pinal, and SW & NW Maricopa in a combined effort – pilot tested the implementation of an online developmental screening system using the Ages and Stages (ASQ) Online for families with children ages 0-5. Ideally, online developmental screening has the potential to reduce duplication of screening, as well as facilitate tracking of the referral process, follow-up, and interventions provided to parents with children with a developmental delay or concern.

Between March 2015 and May 2016, this evaluation study collected data from 27 interviews with 33 stakeholders from FTF-funded and non-funded providers in the participating regions. The stakeholder interviews served to inform the evaluation about successes, challenges, and lessons learned from the initial ASQ Online implementation. It also served to identify professional development needs related to the ASQ and ASQ Online. In addition, a small sample of caregivers was interviewed to learn about their perspectives of having their child screened using the ASQ Online.

Advantages and disadvantages of the ASQ Online were identified, including those related to the online administration of the screening and those related to having a shared online database with identifiable developmental screening information. While the ASQ Online has some positive features, a number of issues need to be addressed before expanding its implementation more broadly by FTF. Considerations include ensuring adequate institutional support for adoption, cost, and ensuring the ASQ Online is appropriate for the local context of *where* it will be implemented and *with what population*. Issues such as data sharing agreements, consent and release of information, and protocols for opting out of online screening will be important to work out in advance.

If the ASQ Online is to be implemented more broadly, professional development will be needed to educate providers about what the ASQ Online is, along with detailed training and technical support for implementing the online system and learning how to access and master its screening management and reporting features.

This report concludes with a conceptual map outlining some possible stages of ASQ Online adoption. The conceptual map shows how addressing challenges identified during the pilot test phase may lead to broader implementation. This may ultimately leading to increased access to screening, increased identification of at-risk children, reducing service duplication, and increasing service efficiency in FTF-supported programs.

Overview

Background

Arizona First Things First (FTF) commissioned this evaluation study as part of its Early Childhood Comprehensive Systems (ECCS) grant. The ECCS grant was funded by the Health Resources and Services Administration (HRSA) "with the purpose of developing change within the early intervention system that provides services to children with developmental delays or developmental concerns."

This evaluation study – conducted between March 2015 and May 2016 – sought to learn from the experiences of the Gila, Pinal, and NW/SW Maricopa regions in the initial implementation of the ASQ Online in their regions.

Purpose of the Evaluation

The purpose of this study was to evaluate the impact of implementing the Ages and Stages Questionnaire (ASQ) online system in 3 regions of Arizona First Things First:

- Identify success and challenges with the ASQ Online;
- Identify common data elements, methods, and details needed to establish MOU agreements between FTF and non-FTF funded grantees;
- Determine ability for system partners to:
    - Reduce duplication of screening;
    - Track referral process, follow-up, and interventions provided to families; and
    - Identify additional online data files, system development needs within a community.

To identify professional development needs of providers using ASQ developmental screening tools, including medical, family support, home visitation programs, and early learning settings.

About the ASQ

The ASQ-3 and the ASQ:SE-2, as well as the ASQ Online are commercially published by Brookes Publishing

ASQ-3

The ASQ-3 is a set of questionnaires that are completed by parents to identify children from one month to 5½ years (age 1-66 months) who may have developmental delays. Each questionnaire includes about 30 items that ask about the child's abilities. There are 21 age-appropriate questionnaires, each for a specific developmental stage.

The ASQ-3 provides scores for Communication, Gross Motor, Fine Motor, Problem Solving, and Personal-Social development.

The ASQ-3 has extensive research behind it and evidence of reliability and validity for its use as a developmental screening instrument.

ASQ:SE-2

The ASQ:SE-2 is a set of questionnaires that screen for social-emotional difficulties in young children (age 1-72 months). Each questionnaire includes about 30 items that ask about the child's abilities. There are 9 age-appropriate questionnaires, each for a specific developmental stage.

The ASQ-SE-2 provides scores for Self-Regulation, Compliance, Communication, Adaptive Behaviors, Autonomy, Affect, and Interaction with People.

Like the ASQ-3, the ASQ-SE-2 has been studied extensively and has evidence of reliability and validity for its use to screen for social-emotional problems in young children.

About the ASQ Online

The ASQ Online consists of several "products"

ASQ Pro and Enterprise

The ASQ Pro and the ASQ Enterprise are intended for organizations. With these versions, the provider conducts the screening with the parent and child. Some enter the information directly into the online interface, while others use the paper and pencil forms and later enter the information online.

- Pro: for single site programs
- Enterprise: for multisite programs

ASQ Hub

The ASQ Hub is an administrative subscription that links ASQ Pro and ASQ Enterprise accounts.

Family Access Portal

The Family Access Portal is a web-based screening interface that a parent or caregiver can use to answer questions directly at the computer.

- The Family Access Portal is only available with the purchase of a Pro or Enterprise system;
- Easter Seals provides public access to their Family Access Portal.

Other ASQ Online Products

Online API, or Application Programming Interface, is an automated way to import and export child data between an ASQ Online account and an external customer data base management system.

PTI is a system that integrates data from the ASQ with other screeners, including the M-CHAT.

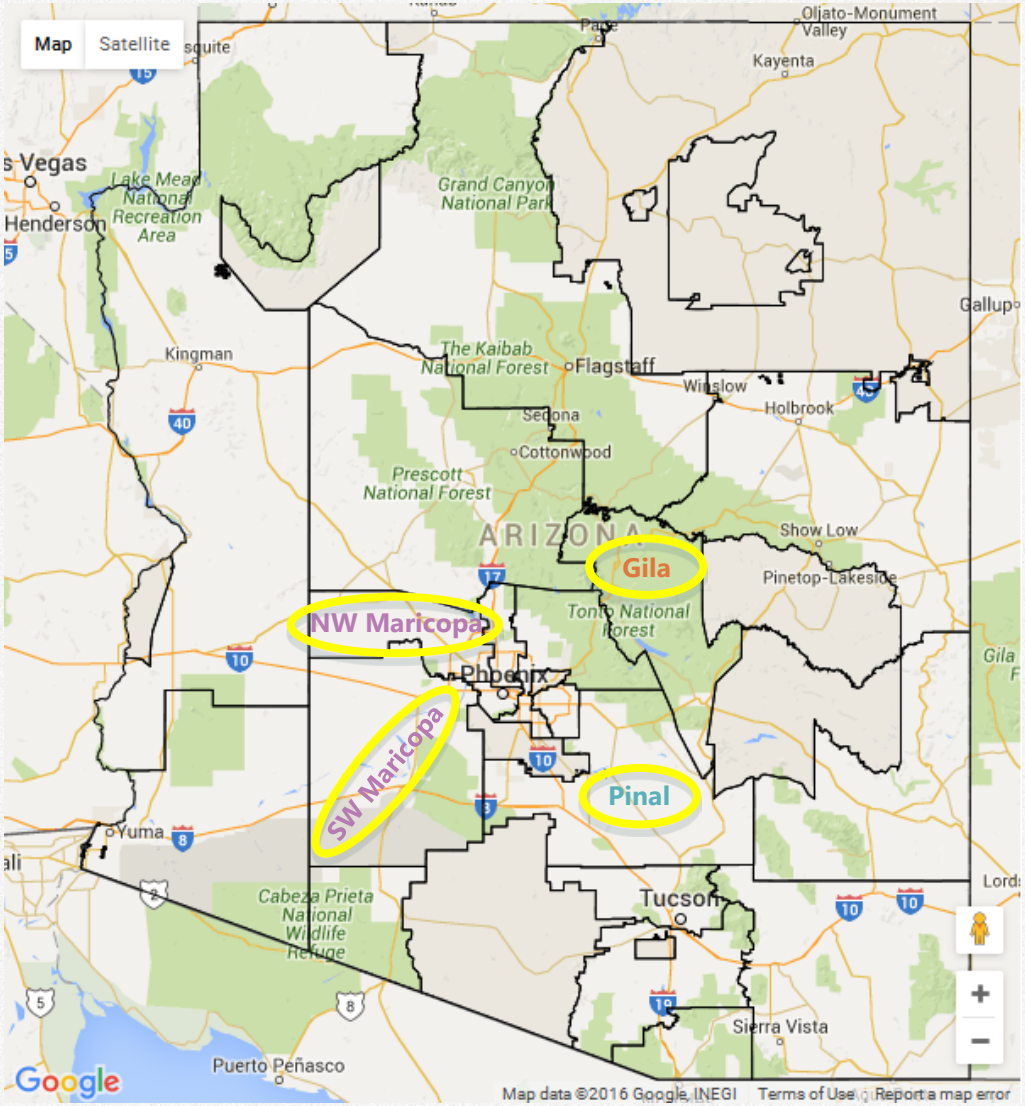
CHADIS is an application specifically designed for pediatric offices.

Participating Regions

The **Gila Region** initially implemented the ASQ Online through the Gila County Health Department. It is now working with the University of Arizona Cooperative Extension to build upon their efforts initiated in the Pinal Region.

The **Pinal Region** implemented the ASQ Online through a hub with the University of Arizona Cooperative Extension.

The **NW/SW Maricopa Regions** implemented the ASQ Online via community service providers, including Family Resource Centers.



Major Evaluation Questions

Phase One

What are the existing services or programs in the regions that are conducting developmental and/or sensory screening using the ASQ and ASQ online system?

What do key stakeholders perceive as met and unmet service needs of children and their families in the region related to developmental screening?

Phase Two

What are the lessons learned by the early adopter agencies that implemented the ASQ online data collection system?

What are the pros and cons of having a community-based shared online system for data collection?

What could have been done differently – lessons learned?

What are the professional development needs of providers using the system?

About the Evaluation

The evaluation of the ASQ Online implementation started in Spring 2015. The evaluation was developed in collaboration with FTF staff and Regional Directors from Gila, Pinal, and NW and SW Maricopa (considered one region for this evaluation). FTF key staff and Regional Directors were instrumental in identifying issues of importance to the evaluation, refining interview questions, and identifying stakeholders to participate in the service provider interviews.

Service Provider Interviews

A total of 27 interviews were conducted with 33 stakeholders from the 3 FTF regions by the evaluation team to learn about ASQ implementation in a range of settings. The stakeholder interviews addressed:

- Developmental screening practices;
- Professional development needs;
- Successes, challenges, and lessons learned in developmental screening and specifically with respect to the ASQ Online.

Caregiver Interviews

The evaluators also interviewed a small sample of caregivers who had one or more children screened using the ASQ Online. The caregiver interview was designed to collect:

- Feedback on experience with the ASQ Online; and
- Reflections on the screening process.

Both sets of interviews were conducted via telephone using semi-structured interview protocols. For the service provider interviews, stakeholders were provided a copy of the interview questions in advance.

The caregiver interview portion of the evaluation study was reviewed and approved by the New England IRB. Informed consent was obtained. Participants were offered a $20 gift card to Walmart or Amazon to thank them for their participation.

Who is using the ASQ & ASQ Online?

What are the existing services or programs in the regions that are conducting developmental and/or sensory screening using the ASQ and ASQ online system?

How is the ASQ Used?

*It is essential that screeners are properly trained in screening procedures, and in the skills and knowledge needed to **administer**, **interpret**, and **communicate results to parents** in a warm, non-threatening manner*

The ASQ is used in a range of service settings

Early childhood education;

Community-based social service programs;

Family Resource Centers;

Home visiting programs;

School districts;

Early Head Start;

Other programs in the participating regions

Regardless of the screening method used (traditional paper-and-pencil or online), programs in the participating regions vary in how they administer the ASQ

Some programs use developmental specialists, while others have paraprofessionals or other lay people do the screening.

Settings where screening is conducted can include home visiting settings; one-on-one in a community program; or in a group setting at a program or childcare facility on specified "screening days".

Uses of Developmental Screening

"Early and accurate identification of infants and young children who have developmental delays or disorders is key to the timely delivery of early intervention services."

—ASQ-3 User's Guide (Squires, Twombly, Bricker, & Potter, 2009)

Developmental Screening for Case Finding

Programs in the regions studied use the ASQ to identify children 0-5 years of age who may have developmental or behavioral concerns that may benefit from further assessment and linkage to services.

Developmental Screening as Child Development Education and Parent Empowerment

Programs in the regions also use developmental screening **to help educate and empower parents and caregivers.**

This as a **major strength** of the approach to developmental screening in the Gila, Pinal, and NW/SW Maricopa regions.

The process of screening is a terrific opportunity help educate **all** parents and caregivers of young children about how their child is learning and growing and what to expect in the coming months in their development.

Education and outreach can help to destigmatize screening and help families see it as less "scary."

Although parents may have initial fears or concerns about the purpose of the screening, they finish the screening excited to learn about their child's development and feeling empowered. By **better understanding their child's developmental growth and learning what more they can do to foster positive outcomes**, parents come to look forward to watching their children grow.

Who is *Not* Using the ASQ?

A few respondents indicated that their organizations are not using the ASQ for developmental screening, for various reasons.

For example, in the medical field, use of the *Parents' Evaluation of Developmental Status (PEDS)* screener is more common because it can be easier to be reimbursed through insurance than the ASQ.

Stakeholders who use the PEDS also noted that it is a less time-intensive screener; when resources and time are limited in a medical setting, this is a major factor when choosing a screening tool.

Stakeholders reported that the PEDS is also written at a lower literacy level than the ASQ, and is available in many languages, which is important for the multilingual population served by some of these programs.

Finally, some respondents indicated that they chose another tool that was already embedded in their organization's protocols, and because it is working well for them, they do not feel motivated to change without some other incentive.

Pros & Cons: Using the ASQ

Pros

- Standardized, evidence-based
- Skill-based; shows what the child can actually do (rather than parent concerns)
- Empowering; good teaching tool for parents
- Easy to use and score for program staff
- Adjustment for prematurity is helpful
- Activity sheets connected with the ASQ are helpful for parents to know what to expect in the next stages of development
- Easy for parents to understand

Cons

- Cost
- May not be covered by insurance
- Can take longer than other screeners
- If the rater doesn't really know the child's abilities, you may not get a clear picture of what's going on
- Experience needed to understand influence of other factors (e.g., physical, environmental) on the screening scores
- If the child has communication difficulties, it may be hard to do the ASQ-SE

Pros & Cons: Using the ASQ Online

Pros

- Those who use the ASQ Online are generally happy with it
- Enterprise system builds a good database that can be used to manage screenings across multiple programs/locations
- ASQ can be administered quickly in the home with caregivers
- Automated scoring and calculation of certain fields reduces human error
- Ideally can be used to reach underserved families
- Some find it user friendly
- Reports and notifications can be generated automatically for follow-up screenings
- Can manually add fields unique to your organization to track specific information

Cons

- Not all families equally comfortable with computer or technology
- Not practical for low literacy parents
- Some people are reluctant to give personal information online
- Rural areas may lack access due to limited internet connectivity
- Some questions do not correspond to the paper version
- Can be challenging for families with multiple children or if the child is not ready to demonstrate a particular domain (it is difficult to skip questions or paus and return later)
- Some issues reported around follow-up after use of Family Access Portal
- Cost-prohibitive for some programs
- Can require some duplication of effort (for example, if data must be maintained in another database, or if paper and pencil screenings are used and must be entered later)
- Can be difficult to navigate the system without experience; not intuitive
- Time consuming to set up initial screening information
- Lack of training available specifically for ASQ Online
- Customer service for ASQ Online reportedly poor

Some Ways the ASQ Online is Implemented

Actively Facilitated Screening

Provider asks the caregiver the screening questions while entering the answers directly into the ASQ Online.

Partially Facilitated Screening

Provider explains the ASQ screening to the caregiver and is nearby to answer questions and assist with the ASQ Online interface as needed.

Hybrid Approach

Provider administers using paper-and-pencil forms then enters the responses from the completed forms in the ASQ Online.

In all 3 regions studied, there is a strong commitment to conducting developmental screening using some level of active facilitation in which a trained service provider administers the ASQ screening and explains the results to the caregiver(s), providing follow-up and guidance as appropriate.

"We input the information and print it out. We've got the screening, we have the results, and can go over that with the family. We can print out those activities that we're sending home with those parents. It's a complete package."

— FTF Stakeholder

Family Access Portal Considerations

Quality Assurance

If a parent completes the ASQ Screening on his or her own using the Family Access Portal, it is possible to answer the questions without the child present, based on what the caregiver thinks the child can or cannot do (rather than giving the child the opportunity to demonstrate the behavior).

Busy parents may be tempted to use the ASQ Family Access Portal while their child is sleeping or with another caregiver; however, the ASQ-3 User's Guide notes that it is important to know if the caregiver tried the items with her or his children.

Literacy Issues

It appears that for caregivers who have high literacy skills and are comfortable with technology, the Family Access Portal can be an effective way to administer the ASQ at the caregiver's convenience.

For caregivers who are less comfortable with the technology, or would benefit from having the questions read to them, it may be preferable to administer the screening with the assistance of someone trained in developmental screening.

Follow-Up

Several caregivers who were interviewed for this evaluation told us that the only feedback they received after doing the ASQ Online via the Family Access Portal was a report in the mail about a week later. There was no follow-up, even if none was needed. This was described as "a lost teachable moment."

[It should be noted that access via the Family Access Portal in this case was provided through the Easter Seals website and not through a local FTF-supported service provider]

Caregiver Interview Highlights

Six out of seven caregivers interviewed…

- …completed the screening by themselves at the computer with their child present. Several mentioned that it would be helpful to know what was on the screening or to have printed out the questions beforehand.
- …found it "very easy" to understand what the screening said about their child's development.
- …had prior experience with developmental screening for their child.
  - ASQ Online was described as "more thorough" and covered more domains than other screenings.
  - Other screening experiences felt more rushed.
  - Methods of receiving results and subsequent follow-up from the ASQ Online were much better than previous experiences.

Overall, interview participants seemed satisfied with their experiences

- One mentioned that she felt the screening "really clarified things," while another found it "very straightforward." When asked about what made the screening easy, frequent responses included the questions being short and easy to answer, the ASQ language being appropriate and understandable, and the online screening being user-friendly and easy to navigate.
- Caregivers felt good about the results. One participant, who went back into the program office to receive her results, mentioned that she felt the screening staff were "amazingly supportive."
- No caregivers mentioned receiving specific referrals to additional services, but a few mentioned that the screening results included some general activities that they could do with their children to continue helping their healthy development.

To learn more about the experience of using the ASQ Online, seven caregivers from the three regions were interviewed. These phone interviews took place between February 26 to April 14, 2016. The average age of the caregivers interviewed was 41.9 years (s.d. = 10.9 years) and each caregiver had at least one child under five who was screened using the ASQ Online. All of the participants were female. Six of the interviews were conducted in English and one in Spanish.

Developmental Screening: Local Needs

What do key stakeholders perceive as met and unmet service needs of children and their families in the region related to developmental screening?

The Bigger Picture: Care Coordination

While the primary focus of the study was on developmental screening and implementation of the ASQ Online, we also asked stakeholders about care coordination and referral protocols in their region

Stakeholders discussed strong follow-up practices as integral to their program's developmental screening strategies.

Emphasis was placed on communicating results in a nonthreatening way, whether or not a possible delay is identified.

The referral process was described as streamlined when strong working relationships are established, which are furthered by frequent networking and outreach events.

The Bigger Picture: Increased Collaboration

"...I would also say that although they're doing a much better job of having collaboration among providers...there is still some work being done in silos."

— FTF Stakeholder

Stakeholders offered a number of suggestions related to increasing collaboration to better address unmet service needs of children and their families in the region related to developmental screening.

Build relationships across programs for information sharing.

Build relationships in different communities (e.g., tribal communities).

Increase connections and communication between services.

Leave the silos behind to work together.

The Bigger Picture: Increased Service Availability

Stakeholders discussed the need for greater availability of services to address unmet needs.

Have more services available in the referral network (both in quantity and variety).

Find ways to serve geographically isolated and more remote areas.

Have services available for children with milder delays to close any gaps in the system.

"There just aren't enough services, there aren't enough qualified people to deliver services, there aren't enough connections between services. If you're not adequately trained and don't know how to build systems and build connections, it's just really hard to do. These rural areas face that. they just don't have enough manpower to build the kind of systems that the children here really need."

— FTF Stakeholder

The Bigger Picture: Capacity Building

Some stakeholders described building capacity as an important strategy to address unmet developmental screening-related needs.

Developmental screening is more time-intensive than other types of screening and can require more resources.

Provide more staff to conduct developmental screening.

Encourage more programs to become invested in developmental screening, especially with the ASQ Online.

Build capacity among those delivering developmental screening results to ensure that results are communicated in an effective and sensitive manner that creates a positive experience for the family.

"Part of the challenge in these really rural regions is that not a lot of organizations have capacity…they just have struggled with getting their programs of the ground with doing very many screenings, and [it] just kind of got to the point where they don't want to do it anymore because it just got too frustrating for them."

— FTF Stakeholder

The Bigger Picture: Training & Technical Assistance

Training and technical assistance were discussed as an important piece in addressing unmet developmental screening needs in the regions studied.

Increase training for providers; have strong training in place and available for screening staff, including follow-up training.

Hold trainings for both the ASQ screening tools and the ASQ Online.

Have technical assistance available to troubleshoot when necessary.

Training and technical assistance can help to build capacity among those delivering developmental screening results to ensure that results are communicated in an effective and sensitive manner that creates a positive experience for the family.

"We're trying to get [providers] to …understand what the tool is, and to think about what they would do if they had these kinds of ratings, and what kind of follow-up would happen."

— FTF Stakeholder

The Bigger Picture: Increase Awareness

There was support for increasing awareness of developmental screening not only among early childhood service providers, but in the broader community.

Have the childcare community invest in developmental screening.

Invest in advertising and outreach to reach more providers and community members.

Educate community members – both parents and families – on the purpose of developmental screening and availability of resources.

Increase awareness of the value of developmental screening in the medical community.

Lessons Learned: ASQ Online Early Adopters

What are the lessons learned by the early adopter agencies that implemented the ASQ online data collection system?

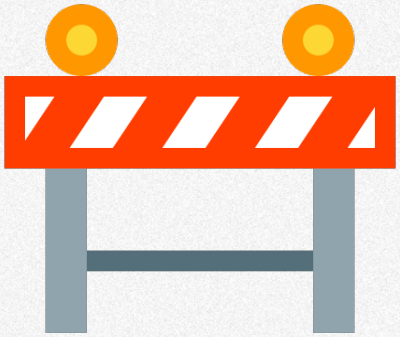
Champion the Effort for Successful Implementation

"Change leaders" who support ASQ Online implementation within the organization tasked with implementation are critical for successful adoption.

For example, in one case where buy-in for the ASQ Online within the organization tasked with implementation was less than optimal, the adoption of the online screening tool did not roll out as expected.

Having institutional support and a dedicated change leader for this type of transition can help to address barriers to implementation.

Anticipate Possible Barriers to Implementation



At the provider level

- Not having necessary resources to implement the ASQ Online
  - Cost to implement and maintain the online system (including subscription costs, staff resources, etc.);
  - Technical capacity and comfort
- Possible resistance to change
- Lack of understanding or misunderstandings about the ASQ Online and its potential benefits

At the population level

- Access to internet in rural areas
- Literacy/comfort with technology
- Data privacy/confidentiality concerns

Ensure Staff Expertise in ASQ Administration and Discussing Results with Families

Whether the ASQ is administered online or in the traditional paper-and-pencil format, screening should be conducted by staff with knowledge of child development and developmental disabilities.

It is important for someone to be available to the family who has a base of knowledge to understand the screening and the screening results.

It is also critical that screening staff have the capacity to discuss results with families in an accurate and compassionate way.

ASQ Online Adoption Considerations

Institutional Support

"I didn't feel like I had the extra time to learn and use it, and I felt like there was not enough support locally to help me."

Cost

"We'd need computers. And there's a huge fee to be part of the ASQ Online. It's just not something we can afford."

Programmatic Reasons

"I don't believe it was ever considered. We have our own database tracking system we are required to use and it aggregates all of the information for us."

Service Population

"The ASQ Online is really helpful for those [high literacy parents]. And for [lower literacy parents] – I have a lot of those. If they don't understand the whole process and the screening, they go online and don't get a response back or don't understand the response."

Learnings from Caregiver Interviews

Major Findings

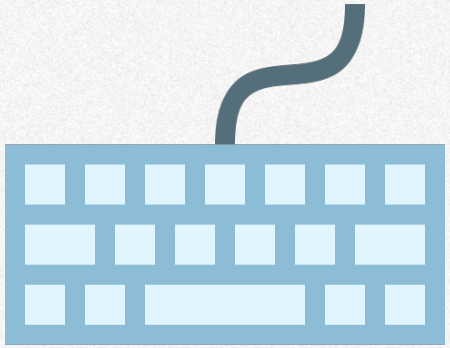
The ASQ was generally a positive experience for the caregivers interviewed. Caregivers enjoy learning about child development. In addition, the ASQ Family Access Portal appears to work well for high literacy parents who are comfortable with technology.

Criticisms

Some found the wait (10 days) to receive the results from screening done via the ASQ Family Access Portal to be stressful. Some reported that the Family Access Portal gave no acknowledgment that the screening was submitted when they finished. They would also have liked more feedback than what was given in the mailed report.

Limitations and Caveats

Recruiting caregivers to participate in this study was extremely challenging, despite the cooperation and assistance of several local providers in the area. The resulting sample was very small and not likely representative of the overall service population.



Pros & Cons: Shared Online ASQ Data System

What are the pros and cons of having a community-based shared online system for data collection?

Pros & Cons: ASQ Online Shared Data System

In addition to the pros and cons of the ASQ Online described on page 15, this page specifically addresses pros and cons of the shared data system aspect of the ASQ Online.

Pros

- Reports and notifications can be generated automatically for follow-up screenings
- Included reports and templates are helpful for screening staff.
- The system has capacity to manually add fields unique to an organization to track specific information.

Cons

- Perceptions and concerns about information sharing, consent, and confidentiality. In particular, parents may have fears about having their child's information online – especially parents who are immigrants (or possibly from tribal areas) and may be mistrustful of online systems and institutions.
- Not all data transfer automatically.
- A shared data system is only as good as the information that goes into it; need for quality assurance systems and monitoring.

Professional Development Needs

What are the professional development needs of providers using the system?

Professional Development Considerations

If FTF moves towards broader adoption of the ASQ Online, consider what issues might arise if grantees want to stay with the paper-and-pencil version.

Develop core competencies and/or standards in the use of the ASQ Online

We recommend one of the standards be that the ASQ Online be facilitated by a trained screener, including administration of the screener and review of the results with the family.

Develop local expertise for professional development

Especially in rural communities, expertise often has to be "imported" from outside the area.

Professional development opportunities should address a range of topics

- Education – what is the ASQ Online and what is it not?
- Training – how to set up and use the ASQ Online and its various features.
- Ongoing technical assistance to programs to promote quality assurance.

Address computer literacy and comfort – among providers as well as the service population

Conclusions and Recommendations

Enhance Efforts to Increase Understanding of the ASQ Online

Based on the information gathered from the stakeholder interviews, one recommendation is to enhance education and outreach efforts to increase understanding among providers, administrators, and other current and potential users of the ASQ Online.

There may be a number of misunderstandings about what the ASQ Online is and is not. For example, some of the stakeholders interviewed assumed that the ASQ Online is essentially the Family Access Portal – that is, sitting a parent down in front of a computer and having them answer the questions as they appear on the screen. While that is one aspect of the ASQ Online, it is not the only way it can be used.

Scenarios where the ASQ is administered in a more interactive way with the parent and child, and the responses written either on paper (and later entered in the ASQ Online) or entered directly in the ASQ Online ensure that the human element remains part of the developmental screening process. This can be done with the ASQ Pro, Enterprise, or even with the Family Access Portal if there is active involvement of a provider who can facilitate the screening and sharing of results with families.

Consider Local Context for Implementation

Because the number of stakeholders interviewed was relatively small, and so as to not single out specific people or local issues, the findings are reported here collectively for the Pinal, Gila, and NW/SW Maricopa regions that are the focus of this evaluation study. Yet there are unique characteristics for each region that are important to consider in understanding the needs and issues around developmental screening.

Two of the three regions studied are fairly rural. While Gila is more rural than Pinal (which is relatively closer to population centers in Phoenix and Tucson), stakeholders from both regions described challenges facing the families they serve in terms of having to travel long distances to service providers (and the associated cost for families of gas and time away from work and other obligations). Although a bus system exists, stakeholders mentioned that coordinating with it can be difficult and not always reliable. Although closer to Phoenix, portions of NW/SW Maricopa are also relatively remote and face similar issues.

Another challenge mentioned using the ASQ Online in rural areas is inconsistent access to the internet and issues with connectivity. In addition, some families in these communities may think of home visiting services – which are often used to provide supportive services to families with young children – as punitive rather than helpful.

Data Sharing Considerations

It is still very early to develop detailed data sharing specifications.

We recommend working with a local expert in the Enterprise and Pro systems to identify data elements for providers using the ASQ Online. FTF may want to consider a nested set of specifications which might include:

- Core data elements that would be required of all participating grantees;
- Optional data elements that would be collected from some grantees on a voluntary basis;
- Local data elements that could be added by specific grantees to collect data unique to their own program(s).

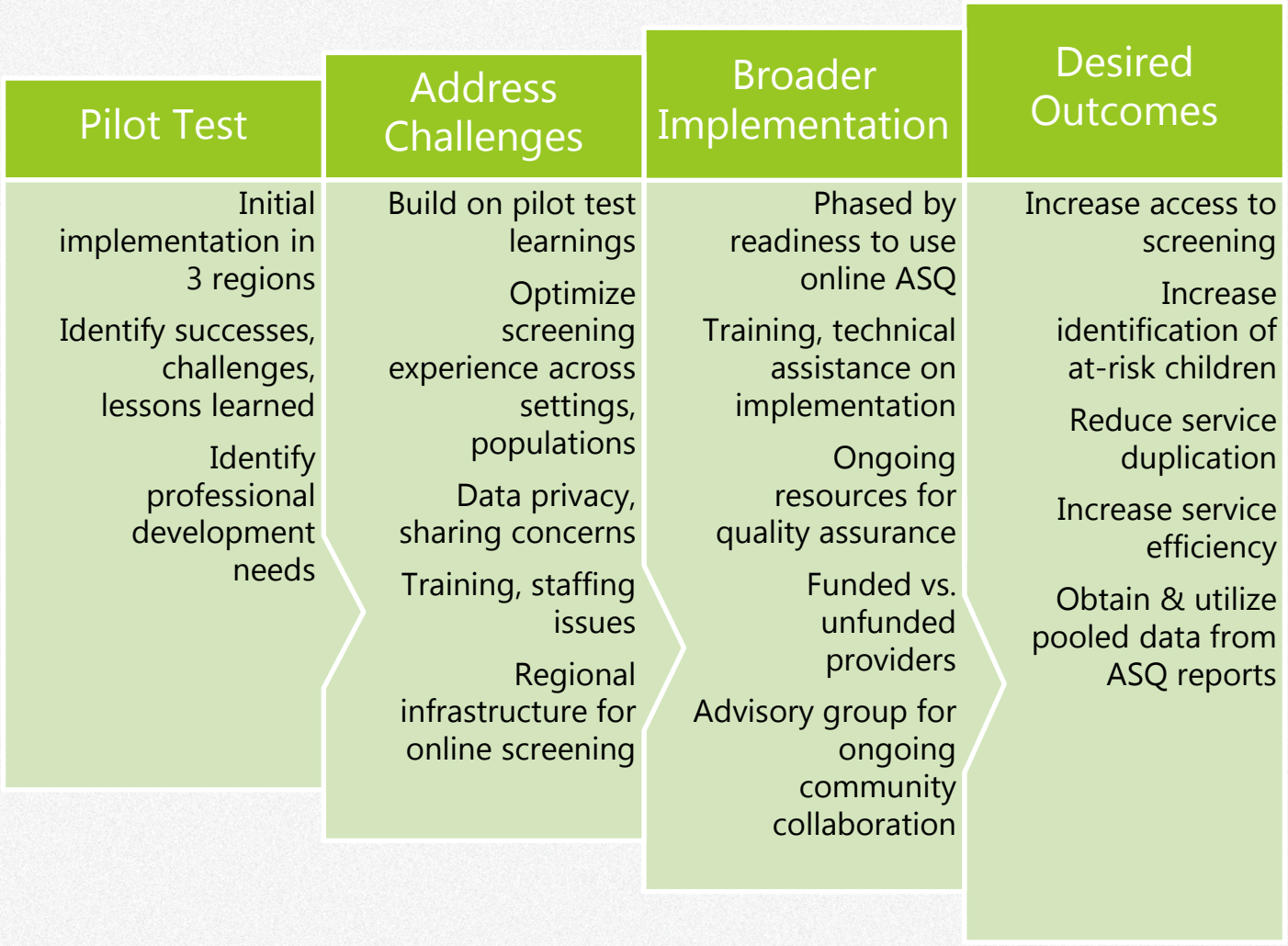
Very clear data sharing agreements will be needed. This is possibly the most sensitive aspect and potentially one of the most significant barriers to expanding adoption of the ASQ Online.

There will need to be a very clear process for programs to obtain releases from parents to share information with others in the ASQ Online system.

There should be an opt-out option so that traditional paper-and-pencil screening is available if the parent or guardian does not consent to having their child's data in the ASQ Online system.

Conceptual Map

Possible stages of ASQ Online Adoption



Appendices

Acknowledgments

This report summarizes the findings of an evaluation of the ASQ Online implementation by Arizona First Things First. The evaluation was conducted under contract by The Measurement Group LLC. The authors of this report are Lisa A. Melchior, PhD and Amber M. Brink, MPH Candidate. The views expressed in this report are solely those of the authors and may not necessarily reflect those of Arizona First Things First or its grantees.

At First Things First, the primary contact for this evaluation was Kelly Lubeck. Oversight during the majority of the project period was provided by Karen Peifer, PhD, MPH, RN and in the last few months by Michelle Katona. The Regional Directors of the participating FTF Regions were invaluable collaborators and we greatly appreciate how accessible and helpful they were to accomplishing the goals of this evaluation study.

We are grateful for the contributions of all the stakeholders who agreed to talk with us for this evaluation study. In addition to the professional stakeholders listed on the next page, we also thank the parents and other caregivers who participated in telephone interviews with the evaluation team to help us understand their experience using the ASQ Online from their perspective.

Stakeholder Interview Participants

Gila Region

- John Taylor (Regional Director, FTF)
- Cindi Alva (Senior Regional Director, FTF)
- Carol Welsh (Former representative, FTF)
- Julie Jorgensen (Program Manager, Maternal & Child Health Programs, North Country Health
- Care System)
- Sonia Yanez (Healthy Steps Coordinator, Healthy Steps)
- Chandra Wattleworth (Healthy Steps Coordinator for the Northern Gila Region, Healthy Steps)
- Sherry Dorathy (Regional Council Member, FTF; Superintendent, Miami School District)
- Sanja Long (CEO, Mogollon Health Alliance)
- Dr. Diane Bricker (Regional Council Member, FTF)

Pinal Region

- Shannon Fontes (Regional Director, FTF)
- Cindi Alva (Senior Regional Director, FTF)
- Kameron Bachert (Regional Council Member [Chair], FTF; Early Childcare Learning Center)
- Pauline Haas-Vaughn (Regional Council Member, FTF; Child & Family Resources, Inc.)
- Esther Turner (Sr. Program Coordinator, University of Arizona Cooperative Extension)
- Cathy Martinez (Family, Consumer, and Health Science Agent, University of Arizona
- Cooperative Extension)
- Clara Hill (Coordinator for the Healthy Families AZ program, Child & Family Resources, Inc.)
- Shelley Joy Tellez (Director of Prevention, Arizona Children's Association)
- Kelly Purcell (Program Supervisor, Parents as Teachers, Easter Seals Blake Foundation)
- Elizabeth Santiago (Program Director, United Way of Pinal County)

NW/SW Maricopa Regions

- Christina Lyons (Regional Director, FTF)
- Eric Santiago (Regional Director, FTF)
- Wendy Sabatini (Senior Regional Director, FTF)
- Joyce Gross (FRC Coordinator, Buckeye School District)
- Claudia Slate (Administrative Assistant, Buckeye School District)
- Angelica Rodriguez (Parent Educator: Readiness Basket, AZ Learning Institute)
- Dr. Carlian Dawson (Regional Council Member, FTF; Kids Watch Arizona)
- Jennifer Griffin (Resource Center Coordinator, Care 1st Avondale Resource & Housing Center)
- Jannelle Radoccia (Regional Council Member, FTF; Lutheran Social Services of the Southwest)
- Stephanie Cheeseman (Home Visitation Coordinator, CPLC Arizona)
- Dr. Marj Jones-Schafer (Founder & CEO, AZ Learning Institute; Retired Founding Executive; Director, Arizona Literacy & Learning Institute)
- Mary Johnson (Health Educator/Case Manager, Teen Outreach Pregnancy Services)
- Paula Lehn (Health Educator/Case Manager, Teen Outreach Pregnancy Services)
- Sara Wildenborg (Manager, Teen Outreach Pregnancy Services)
- Bridget Abramson (Health Educator/Case Manager, Teen Outreach Pregnancy Services)

Stakeholder Interview Questions: Overview and Developmental Screening Tools

Stakeholder interview questions were provided in the form of an interview guide to participants in advance of the telephone interview. This appendix shows the complete set of questions that potentially could be asked; the specific questions asked of each stakeholder was individualized depending on his or her particular role and expertise.

Overview

- What is your role in your organization with respect to developmental screening of children under age 5?
- Please give a 'snapshot' description of current developmental screening practices in your organization, community, and/or region. Include historical background, such as how long developmental screening has been included as a part of the services offered by your program(s).

Developmental Screening Tools

- Are you using the ASQ and/or the ASQ-SE for developmental screening of children under age 5?
- If so, what do you like about the tool(s)? What do you dislike about the ASQ tool(s)?
- If not, what is the reason for not using the ASQ? Are you using a different developmental screening tool?
- What do you do with the results of the screening?
- Are referrals to services made based on the results of the screening? If so, do you utilize any built-in guidance from the ASQ (or another developmental screening tool), or is there another protocol in place?
- What kind of follow-up, if any, is there with families after the screening or after referrals have been made?

Stakeholder Interview Questions: ASQ Online

ASQ Online

- Are you utilizing the ASQ Online? If yes, please describe how that works in your organization.
  - If yes, what is your organization's system for entering and maintaining data? Is the screening administered directly online with Family Access, or is it administered on paper and later entered in the ASQ Online? (If the latter, how often are screening results entered into the ASQ Online?) What version of the ASQ Online are you using (Enterprise or Pro)?
- If you or your organization is not using the ASQ Online, what are the reasons? (for example, is it related to the number of screenings that your organization conducts? Access to the online portal? Technical issues? Preference to use traditional paper-and-pencil method? Use a different screening tool? Other reasons?)
- What do you like about the ASQ Online, if you use it?
- What do you think needs to be improved in the ASQ Online?
- Do you use any of the reporting features from the ASQ Online? If so, what kinds of reports do you use? How useful to you is the information that is generated in those reports?
- What are your organization's biggest roadblocks to more fully implementing the use of the ASQ Online as part of your developmental screening protocols?
- If you are not currently using the ASQ Online, what would motivate you to become a part of the ASQ Online system? What resources would you need?

Stakeholder Interview Questions: Professional Development Needs and Family/Community Perspectives

Training/Professional Development Needs

- What kind of training do staff receive on the administration and scoring of developmental screening tool(s)? What about training for using the ASQ Online? Is there any training given around service delivery and referrals? Is training provided online or face-to-face? Are there any follow-up trainings or booster sessions?
- Do you (or the staff who conduct screenings for your organization) feel adequately trained to conduct developmental screening? If you are using the ASQ Online, do you/your staff feel adequately trained to use the online system? What would you like to see to improve the training provided for the ASQ Online?

Family and Community Perspectives

- How do families react to the developmental screening using the methods you use (online or paper-and-pencil)? How receptive, or not receptive, do they seem? Do families understand the purpose and potential value of the screening?
- How are you (or your organization) connecting to the community to make sure that children are screened in hard to reach areas and populations? What other connections or linkages would improve this and help to engage new partners?

Stakeholder Interview Questions: Care Coordination

Care Coordination

- How are results from developmental screening communicated to parents? Is there a formal or informal protocol? How "hands on" is the referral and service linkage process?
- What kind of follow-up occurs with families and children after referrals have been made? Is there tracking of referral outcomes such as making sure that families are, or were, linked to resources for which they are eligible?
- What organizations do you (or your organization) partner with for developmental screening? Are they funded by First Things First to conduct those activities?
- How would you describe your network for developmental screening and service linkage/care coordination? Are there sufficient and appropriate resources for families with children under age 5 who screen positive for a possible developmental delay or behavioral concern?

Stakeholder Interview Questions: The Big Picture

Big Picture Questions

Whether or not you currently use the ASQ Online:

- What are the successes so far related to the implementation of the ASQ Online in your region?
- What are the challenges, barriers, or obstacles encountered related to the implementation of the ASQ Online in your region? Do those challenges remain or have they been addressed? If so, how? If not, how might they be addressed?
- What improvements could be made to the way the ASQ Online is implemented in your region? (e.g., to improve access to developmental screening, facilitate use, etc.)
- Is there a need to expand access to developmental screening by adding more community partners to offer screening?

What do you see as the met and unmet service needs of children and their families in the region related to developmental screening?

Based on your experience, are there any "lessons learned" about providing developmental screening or using the ASQ Online for other regions that may implement it in the future?

Do you think the ASQ Online can help improve the identification of children under age 5 with developmental and/or behavioral delays or concerns and improve the rate at which they are connected to services and supports that address those delays or concerns? What other resources or strategies would help your region accomplish this goal?

Caregiver Interview Questions (1 of 2)

The caregiver interview was administered by telephone after obtaining informed consent from the participant.

The interview was available in English and Spanish and was approved by the New England IRB.

- Do you remember doing an online screening that asked you a series of questions about how your child(ren) is learning, developing and behaving for his or her age?
  - If yes, what do you remember about the screening?
  - How many of your children age 0-5 were screened at this program?
  - What is your relationship to the child(ren) who were screened?
- When you did the screening, did someone ask you the questions? Did you do it on a computer? Or were the questions asked some other way?
- If you did the screening by yourself at the computer, was your child there with you (trying to do the activities) or did you answer the questions from memory?
  - Would you have preferred to have someone guide you through the online screening?
- What did you think about the screening? Did it bring up any thoughts or concerns about your child's development?
- Was the screening easy to use? If so, what made it easy? If not, what made it hard?
- How did you receive the screening results or some feedback as to how your child is doing for his/her age?
  - How easy was it to understand what the screening says about your child's development? Please explain why it was easy or hard to understand.
  - How did you feel about the results, what it said, and what to do with the information? Were there any recommendations in the report about steps to take? How clear were the recommendations? How did you feel about it?

Caregiver Interview Questions (2 of 2)

Participants were offered a choice of a $20 gift card from Amazon or Walmart to thank them for their participation.

- If you were given recommendations or referrals, did you follow up on them?
- What was most helpful about the screening that you received from this program?
- Aside from this time, had another professional ever asked you questions before about how your child(ren) was learning, developing and behaving for their age – for example, when you took your child(ren) to the doctor?
  - Can you tell me about that? Was it at a doctor's office? Somewhere else?
  - How was the screening that you did this time at (this program) different from your other experience(s)? Please describe.
- Was it better or worse than the other experience(s)? Please explain why it was better, worse or about the same. Please also share if you remember receiving the results from the screening, and how you felt about them.
- Do you have any other thoughts or reactions you would like to share about your experience with developmental screening using the ASQ Online?
- Thank you for answering these questions! Your answers will help us improve services to families with young children in your region. Do you have any questions or additional comments before we end the interview?

References Cited

Squires, J., Twombly, E., Bricker, D., & Potter, L. (2009). *ASQ-3™ User's Guide.* Baltimore: Paul H. Brookes Publishing Co.