
Erikson Institute's Family Child Care Quality Improvement Learning Collaborative Pilot: Lessons Learned

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Participating Teams

- Alabama Department of Human Resources – Family Child Care Partnerships Program at Auburn University
- All Our Kin, Inc., Early Head Start Program
- Bethel Child Care Services, Inc.
- Brightside Up, Inc. (formerly known as Capital District Child Care Coordinating Council, Inc.)
- Children's Council of San Francisco, Family Child Care Homes Network
- Maine Roads to Quality Professional Development Network
- MARC Academy and Family Center
- United Way of Pinal County Family, Friend & Neighbor Caregivers Outreach Assistance Project

Advisors and Consultants

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- Jon Korfmacher, Associate Professor at Erikson Institute, provided expert guidance throughout the pilot design and implementation.

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Introduction

Child care has become a regular part of family life for most working families with young children in the U.S. In addition to supporting maternal employment, child care also has the potential to positively impact the development of young children, especially those who experience factors that place them at risk for kindergarten success (IOM & NRC, 2015). Home-based child care (HBCC) includes regulated family child care and license-exempt family, friend, and neighbor care and represents the most prevalent non-custodial child care arrangement for young children under age five in the U.S. More infants and toddlers are cared for in these settings as well as children from low-income families who rely on non-traditional-hour jobs (NSECE Project Team, 2016).

High-quality child care includes several core components: healthy, safe, and stimulating environments; adult-child interactions that are responsive to children's needs and support their cognitive, language, social-emotional, and physical development; and strong, positive partnerships with families. Yet, research suggests that there is great variation in quality across child care arrangements in the U.S. from poor or mediocre care (Bassok, Fitzpatrick, Greenberg, & Loeb, 2016) to what could be considered good or high-quality (Lipscomb, Weber, Green, & Patterson, 2016).

Improving the quality of HBCC has been elusive. State Quality Rating and Improvement Systems (QRIS) have low participation rates among family child care providers¹, and those who do participate

find it challenging to increase their ratings (Hallam, Hooper, Bargree, Buell, & Han, 2017). A small body of research on strategies to support quality improvement in HBCC indicates that one-on-one technical assistance, targeted professional development, peer support, and help with business skills may be promising approaches to improving both the quality of caregiving and the sustainability of HBCC (Porter & Bromer, forthcoming; Bromer & Korfmacher, 2017; Porter et al., 2010). Yet few of these strategies have been systematically tested or broadly scaled. With such a small evidence base on what works to improve quality in HBCC, there is clearly a need for innovation around approaches and strategies for engaging and improving quality in this sector of the early childhood workforce.

The recently documented decline in regulated and subsidized family child care across the U.S. poses a challenge for low-income families who often rely on these providers to meet their work schedule demands (NCECQA, 2019). Increased requirements and regulations in licensing, subsidy, and QRIS, systems which were not necessarily designed with HBCC in mind, may be factors in providers' decisions to leave the field. Other factors may include lack of public investment in early care and education and low compensation. Yet, here, too, there is a lack of evidence about strategies to engage and retain family child care providers in the work force, and a need for innovative approaches to address this issue.

¹ While we acknowledge that the term “educators” has started to be used in some states to refer to family child care providers, we use the term “providers” in this brief because teams in the Collaborative worked with both regulated family child care providers and family, friend, and neighbor caregivers. Also, the term providers is most commonly used in research and policy reports on home-based child care.

Quality Improvement and the Breakthrough Series Collaborative

In the past several years, there has been growing interest in the Breakthrough Series (BTS) Collaborative model, a quality improvement approach that harnesses the expertise of a community to create change by supporting them to use rapid cycle improvement, iterative learning, and gradual scaleup before full implementation (IHI, 2003) (Box 1). This approach enables more immediate identification of successful as well as unsuccessful strategies and allows organizations to systematically make corrections during the course of the intervention rather than after a long period of investment (Daily et al., 2018). It also promotes empowerment of front-line practitioners who experience ownership over changes and strategies that they help to develop. Applied in the health and education fields in both the U.S. and internationally for more than two decades, the BTS model is now being tested in the early care and education sector in the U.S.

Although the BTS can test strategies for closing the gap between research evidence and practice in areas where there is already a strong evidence base for what works to improve outcomes for children and families, the approach has the potential to generate new innovations for a field such as HBCC where there is only a small evidence base (Bromer & Porter, 2019; Bromer & Korfmacher, 2017; Paulsell et al., 2010; Porter et al., 2010).

Box 1. How does a Breakthrough Series Learning Collaborative work?

With support of a quality improvement coach, cross-role project teams develop change concepts related to a common aim that is specific and measurable. They test these small-scale changes in weekly Plan, Do, Study, Act (PDSA) cycles, collect PDSA data on tests of change, and share successes and lessons learned with other teams with the goal of expanding successful strategies before agency-wide implementation. The Collaborative uses a set of measures to track monthly progress. The teams are supported by a data manager, intensive learning sessions, monthly coaching calls, and monthly All-Teams webinars.

The Family Child Care Quality Improvement Learning Collaborative (FCCQILC) Pilot

In 2018, with funding from the Pritzker Children's Initiative and support from Shift, Erikson Institute initiated a 14-month pilot of the Family Child Care Quality Improvement Learning Collaborative (FCCQILC). The FCCQILC was the first initiative to adapt the BTS for family child care networks and other organizations that provide support to HBCC providers, although the BTS has been used in related fields of home visiting, child welfare programs, and early care and education center-based programs (Daily et al., 2018). See Box 2 for a description of the FCCQILC teams.

Erikson Institute's FCCQILC was tested as a strategy for improving the quality of support for HBCC and building an evidence base for effective strategies. We hypothesized that the BTS approach could help improve the quality of support for HBCC providers that, in turn, could increase engagement of providers in meaningful quality improvement processes that are aligned with system standards.

Erikson Institute's FCCQILC's project aim was to increase the number of HBCC providers who use intentional caregiving and learning routines to support toddlers in mixed-age groups, an area where there is little to no research evidence around best practices. We selected this focus because there was broad consensus in the field that HBCC providers struggle with mixed-ages, that most have a toddler in care, and that many experience challenges around supporting toddlers. Yet research to date has not specifically examined the strategies that are most likely to lead to positive outcomes for toddlers in HBCC settings that include mixed-age groups of children. Additional details about timeline, activities, and objectives of the FCCQILC are in Appendix A.

Theory of change

The Collaborative's theory of change posited that improved caregiving quality for toddlers in mixed-age HBCC could be positively shaped by meaningful

Box 2. The FCCQILC Pilot Teams Composition

The FCCQILC pilot consisted of teams from eight organizations that provide support to HBCC. Each team consisted of two staff specialists who worked directly with HBCC providers and an HBCC provider who received services from the organization.

agency supports. We developed a Key Driver Diagram (Figure 1) to articulate the drivers we believed would move us toward our aim. We identified three primary drivers of intentional caregiving and learning routines: 1) effective observation and recording of toddler behavior; 2) intentional provider planning based on observations; and 3) peer support and shared learning. Because agency staff are critical to reaching HBCC providers, we also reflected on the factors most likely to shape and drive these positive changes. We hypothesized that through meaningful and frequent technical assistance, and targeted peer support opportunities, we could help providers engage in a process of observation, recording, and planning, leading to more responsive care for toddlers specifically and improved quality caregiving in child care homes more generally. See page 16 for Glossary of Terms.

Change concepts

The project was a testing ground for innovative strategies and practices at both the agency staff and provider levels. At the agency staff level, staff tested changes around delivering one-on-one technical assistance and facilitation of peer-to-peer exchange of ideas focused on supporting toddlers in mixed-age groups. Because there is a lack of research on strategies in this area, the teams were innovators and designers of their own tests of change (Box 3).

Agency staff-initiated technical assistance

Team staff reported many successes in their tests of change around technical assistance strategies to support providers. These included using visits to

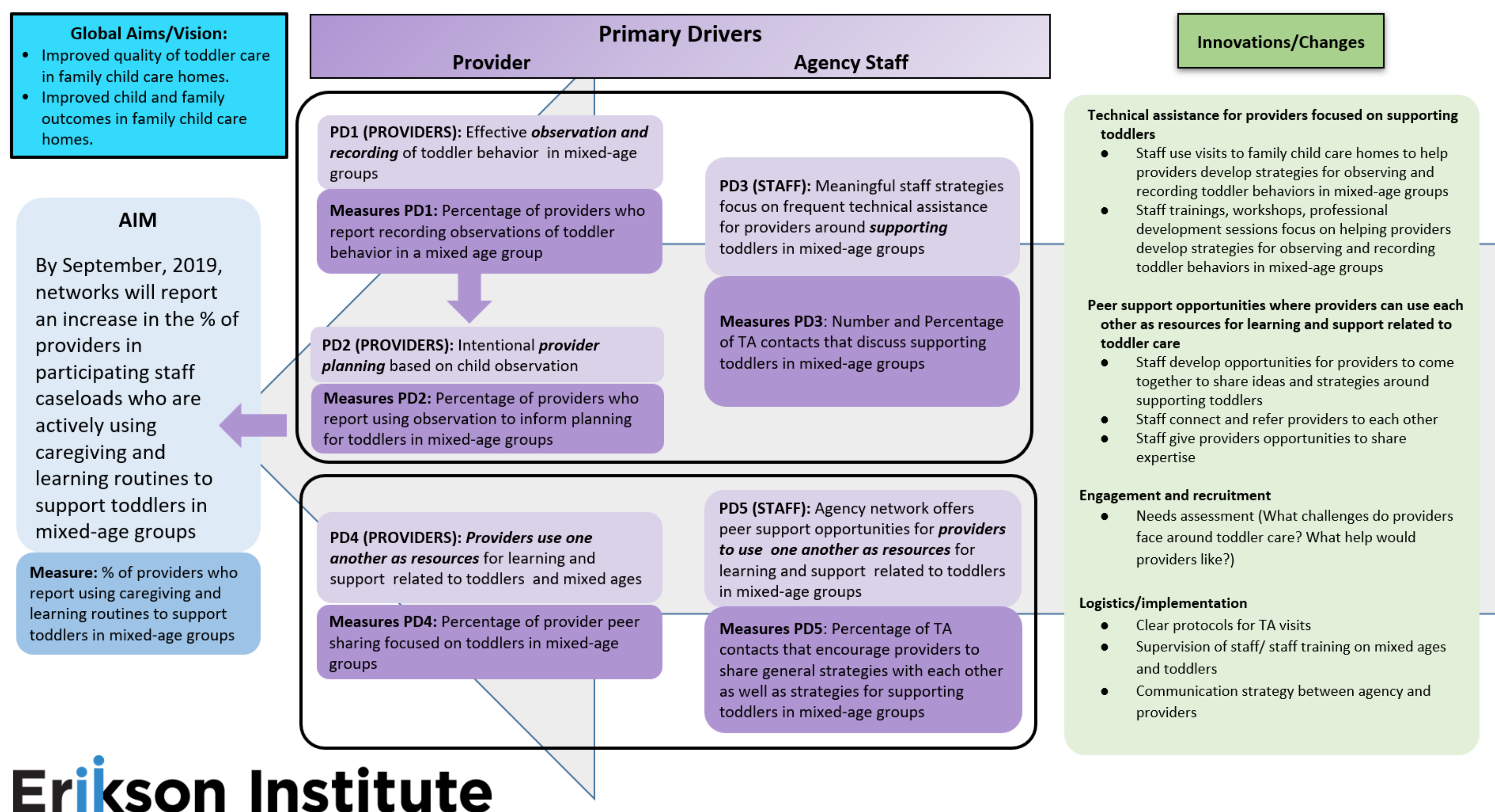


Figure 1. Key Driver Diagram for the Family Child Care Quality Improvement Learning Collaborative

provider homes to focus on modifying the child care environment to better meet the needs of toddlers (Example 1), using phone calls between visits for follow up, and discussing how observations could be used for planning.

One team staff member tested a mini-workshop series focused on using observation and recording for planning with her caseload of 10 providers. The workshops were an opportunity to build on her visits to child care homes that had also focused on planning for toddlers. Information about strategies for observing and recording were introduced, and providers had an opportunity to share their experiences working with toddlers. After the workshop, one provider noted, “Documenting my observations is easier because I just write what I see and help me plan better my curriculum to help children with their needs.” Staff members also noted that providers were using their observation notes to talk to parents about their children’s progress.

Agency staff- and provider-initiated peer support

Many teams in the Collaborative successfully used exchange of ideas among peers as tests of change. Strategies included in-person peer groups focused on caregiving practices, Facebook groups where providers could pose questions and share potential solutions,

Box 3. FCCQILC Change Concepts

Technical Assistance

- Using visits to provider homes to help providers observe and plan for toddlers
- Using video to observe and record toddler behavior
- Connecting visits to training workshops
- Making phone calls to increase agency staff support between visits

Peer-To-Peer Support

- Peer-to-peer visiting: Providers visit each other’s homes to learn more about environments for mixed-age groups
- Peer-to-peer sharing: Provider-initiated text groups to share strategies for working with toddlers in mixed-age groups
- Facebook group: Providers sharing challenges and solutions for supporting toddlers in mixed-age groups
- Hosting communities of practice in provider homes with a focus on mixed-age groups

virtual sharing groups via text or apps, and provider-initiated phone calls to connect providers to each other and to resources. Some agencies supported team

providers to initiate and test different peer support approaches (Example 2), while others relied on staff-facilitated provider sharing (Example 3). In one agency, the provider on the Collaborative team initiated a text group with 10 providers who were all implementing Early Head Start in their family child care programs. This was a successful strategy for building a community of providers and promoting individual provider leadership.

Test results

As part of the FCCQILC pilot, Erikson Institute collected data from agency-affiliated providers and staff using weekly surveys to measure improvement on the project's aim and drivers. Data were then summarized in run charts, a convention that is commonly used in the BTS method to assess whether improvements are sustained over time (Perla, Provost, & Murray, 2011). Run charts consist of data plots that typically include a time scale as the horizontal axis and indicators as the vertical axis, with the median as the center line. They are a simple yet useful tool for making performance and data analysis visible to those involved in the work of improvement. Erikson Institute worked with teams to create annotations to the run charts that help connect tests of change to specific data points. For example, an increase in the numbers of providers who used observation and recording of toddlers might be explained by a Learning Session where agency staff learned about strategies for helping providers observe and record (see Appendix B for run chart examples from the pilot).

Analyzing data patterns in BTS run charts are based on rules developed from healthcare improvement projects (Perla, et al., 2011). There are a number of analytical tools that help us to identify statistically significant improvements in run charts. This project

attempted to identify trends and shifts in Collaborative-wide data and to build the capacity of teams to identify these signals in their own data (see Box 4 for definitions). Both of these patterns have been indicated to show statistically significant improvements in healthcare work and we used these metrics as a guide when interpreting run chart results.²

Over the course of the pilot project, the FCCQILC observed both trends and shifts in the use of agency staff strategies for engaging providers in discussions about caring for toddlers in mixed-age groups. Our Collaborative data also indicated that teams demonstrated increases in the numbers of providers who used intentional caregiving and learning routines to respond to toddlers in mixed-age groups.

Agency staff technical assistance results

Data collected from participating pilot team agency staff show that the percentage of technical assistance contacts focused on helping providers use observation and recording of toddler behavior across the Collaborative increased from 19% at the beginning of the project to 44% at the end, with a sustained shift in practice towards the end of the Collaborative project period (Appendix B, Chart 1).

Peer support results

Over the 12 months during which teams tested changes, we saw an increase in the number of overall peer-to-peer interactions reported by providers. We also saw an increase in the percentage of peer-to-peer contacts focused on toddlers in mixed-age groups. At the beginning of the pilot, providers across teams reported that 60% of their peer interactions focused on discussing toddlers in mixed-age groups. Twelve months later, talking about intentional planning for toddlers was a more common occurrence among providers with as much as 80% of reported peer-to-peer interactions focused on planning for toddlers (Appendix B, Chart 2). Moreover, there was a steady increase and upward trend on this measure, and then a sustained shift toward the end of the pilot period. These patterns suggest that this kind of peer-to-peer sharing around caregiving practices could be implemented and sustained over time with support from agency staff and provider leaders.

Box 4. Trends and Shifts in Quality Improvement Data

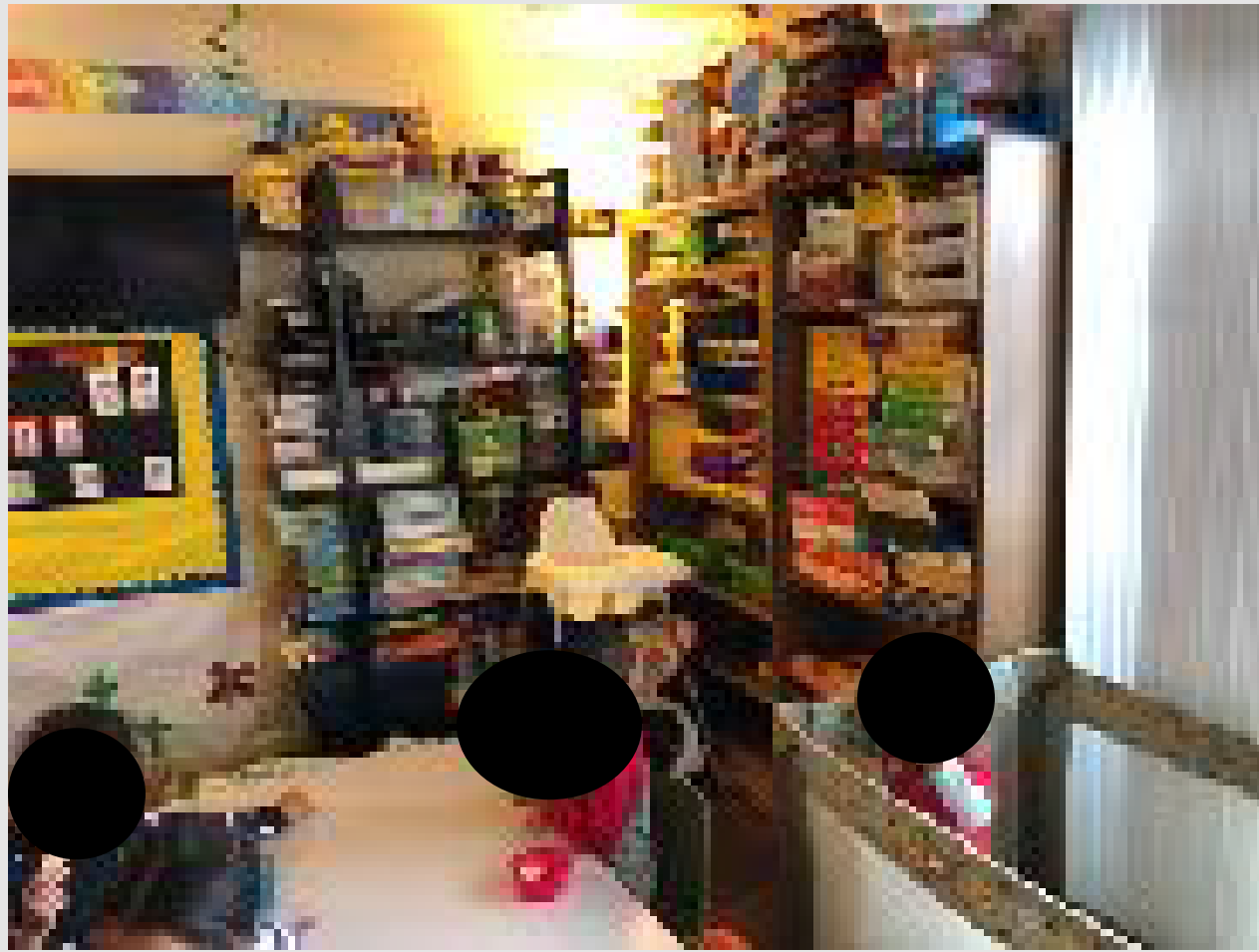
Trend: Five or more consecutive points all in the same direction

Shift: Six or more consecutive points either above or below the median

² Several factors warrant caution around interpreting statistically significant results from our pilot data, specifically: our relatively small sample size, variation in sample size over the course of the project, and our use of new and unvalidated measures.

Example 1. Testing Technical Assistance Strategies: Visits to Providers' Homes

A family child care provider who was affiliated with the Family Child Care Quality Network of the Children's Council of San Francisco had observed that toddlers in her program were often distracted and had difficulty engaging in activities. Her quality specialist suggested some strategies such as using sensory materials like play dough and water, which toddlers like to use, and reducing some of the clutter in the child care environment. Together during a technical assistance visit, the provider and her specialist worked on "toning down" the environment to reduce visual stimulation and organizing the materials on shelves to help toddlers make easier choices.



Child care environment before



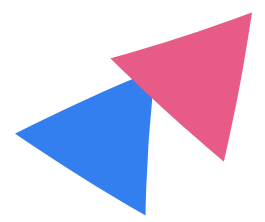
Child care environment after

Example 2. Testing Provider Facilitation of Peer-to-Peer Exchange of Ideas Through Facebook

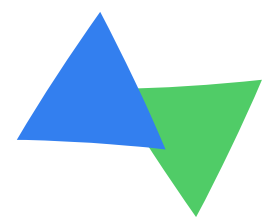
In this example, agency staff from the Maine Roads to Quality Professional Development Network collaborated with a provider leader in the community to create a new Facebook group for family child care providers to share ideas. The provider leader was the administrator for the Facebook group and created and curated most of the content. Providers were more likely to respond to social media from other providers than from agency staff.



Example 3. Testing Agency Staff Facilitation of Peer-to-Peer Exchange of Ideas Through Facebook



United Way



In our private FFN Facebook group we encourage Providers to ask questions, share ideas and support each other. With our “Toddler Teams” we specifically encouraged any questions/issues to be shared in regard to working with toddlers in mixed age groups. A Toddler Team Provider then posted the following question...

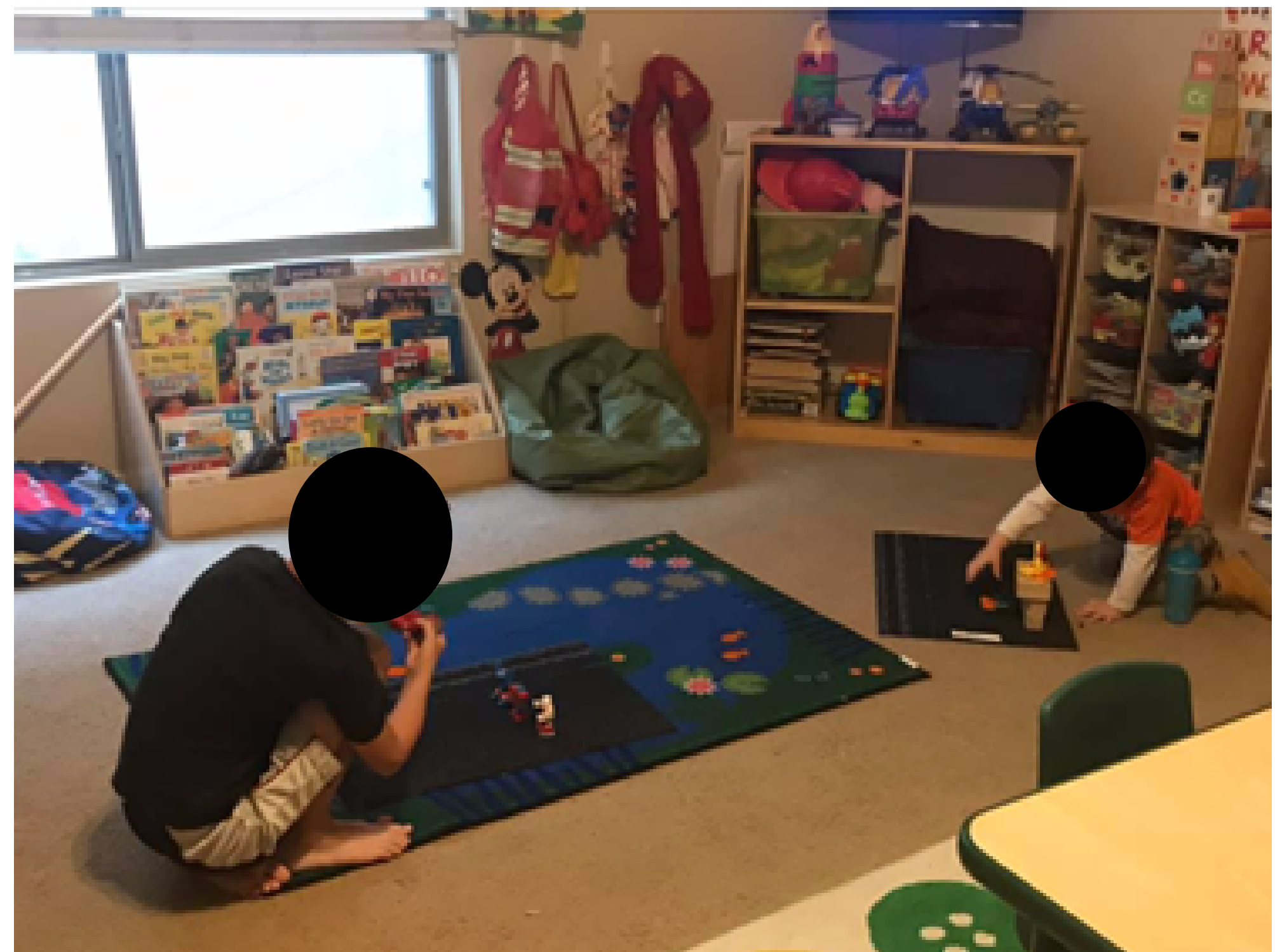
“Good Morning! I have a question. How do you teach personal space to your kids? I have a 3yr old, two 2yr olds and a 4yr old and there is constant conflict amongst the toddlers and the big kiddos about space. My toddlers are fighting too because someone is sitting next to them too close. I have tried giving them specific areas of where they can play. I turn my back and they are back pasted to the same kid that was screaming “give me space”. There is plenty of room in the playroom for everyone to have a spot to play together or by themselves. I’m trying to find a way to give the kids the room they want...”

There were some responses and ideas including this one:

“I used yoga mats that I cut in half to create “work mats”. Basically, it’s a take on the Montessori work rugs. The kiddos get their mat, pick a spot and then go pick their materials. The mat is for the materials, not their body, it helps keep their work contained and it delineates their space for all of the other kiddos to see. This way, if they have to go potty or leave their area, the other kids know someone is using it and will be back. They can also work together on the mats as long as the original child approves.”

The Provider who originally posted the question decided to run with that idea. About a week later she posted this:

The kids now have their own space! It’s not as big as a cut in half yoga mat that was suggested but it seems to be working. I ended up buying door mat carpet rugs from the dollar store. It will be interesting to see how it works when all my kids will be here tomorrow.



Then, a few days later she shared this photo and her excitement along with her excitement about how well the idea was working...



In this example, agency staff from the United Way of Pinal County Family, Friend & Neighbor Caregivers Outreach Assistance Project used an existing Facebook group for affiliated family, friend, and neighbor providers and posed questions to the group. After several weeks, providers started to ask each other their own questions and post responses.

Example 4. Increasing Time for Quality Improvement in Visits to Providers' Homes

Bethel Child Care Services tested a time-saving strategy for visits to provider homes to allow more time to focus on caregiving quality. Staff realized they were spending valuable time on visits filling out paperwork. They tested using a pre-populated electronic form to reduce the amount of time they spent with providers on administrative tasks. This allowed staff to carve out time to focus on quality improvement practices around toddlers in mixed-ages, observation and recording, and peer support. These tests of change were quickly adopted by staff and providers because they aligned with work that was already happening at the agency, and they made home visits more efficient and less burdensome for staff and providers. The new focus of home visits on caregiving and toddlers quickly spread through word of mouth among the provider community and providers started requesting visits from agency staff.

Example 5. Testing Provider-Facilitated Peer Support Groups



The Children's Council of San Francisco tested a peer support strategy that a provider in their Family Child Care Homes Network suggested. Regular provider "hangouts" were held in her home and focused on peer-to-peer sharing in an informal setting. One "hang-out," for example, focused on providers sharing strategies to help toddlers self-regulate. A provider brought her visual materials and "calm down box" to discuss and show providers. The staff member on the team sent out the invitations and collected the RSVPs. The Council paid for dinner and vouchers for transportation. One staff member from the Council attended to help facilitate the discussion along with a provider leader.

Lessons Learned and Recommendations for Future Work

The following four sections explore lessons learned about different aspects of the FCCQILC pilot. In each section, we describe the specific activities of the Collaborative and what we learned that could inform revisions to the Collaborative process and guide development of future work in this area. These sections include: 1) recruitment, selection, and orientation of teams, 2) implementation of a BTS Collaborative and quality improvement methods, 3) team sharing strategies, and 4) engaging HBCC providers in quality improvement work.

Recruitment, selection, and orientation of Learning Collaborative teams

What we did

Potential agencies were selected from the pool of 47 organizations whose directors had been interviewed for the National Study of Family Child Care Networks (Porter & Bromer, forthcoming; Bromer & Porter, 2019). Teams were asked to complete a written application and a total of 10 teams were invited to participate (see Box 5 for information included on the application). Eight of the 10 teams that joined the Collaborative remained active participants throughout the pilot. Two teams felt the project was not a good fit for their current operations and found the process too labor-intensive for staff to continue participation through the end of the pilot.

Box 5. Application Information

- 1) Interest in joining the Collaborative and what they hoped to accomplish
- 2) Number of providers served
- 3) Frequency of technical assistance
- 4) Types of peer support services offered
- 5) Use of data in quality improvement
- 6) Endorsement of agency leadership

“Since starting I understand my position as a provider and I know providers have a voice and we can change the world.”

Participating provider

“My responsibility as a leader [is] to make sure the work continues lifting provider voice and being intentional about bringing that voice everywhere within the work.”

Participating agency leader

Agencies were told to include staff and providers on their Collaborative teams. Focusing on direct service staff aligned with our Driver Diagram and the work (or Drivers) we predicted would meet our aim of increasing the number of providers who use intentional practices to support and respond to toddlers in mixed-age groups. Because the Collaborative focused on technical assistance and peer support, it was paramount that teams included staff who were conducting visits and working regularly with providers.

Inclusion of an HBCC provider on the Collaborative teams served multiple purposes. It benefited the staff team members who could engage the team provider to test changes, collect PDSA data, and serve as an ambassador to other providers to support their engagement in the Collaborative. Providers also designed small tests of change, and offered immediate critical feedback about the feasibility and sustainability of proposed changes, ensuring the tests would not impose undue burden on participating providers.

What we learned

[Provide informational materials to help teams identify whether the BTS approach is a good fit.](#) An application

packet for the project could include information that helps teams understand participation requirements and helps them assess goodness of fit between their own agency staff practices and needs and the demands of a BTS Collaborative. Introductory steps might include informational webinars, one-on-one interviews with prospective agencies, a frequently asked questions document, and/or examples from the pilot. Application materials should set clear expectations around the time commitment of participating in a Collaborative and help teams begin the process of identifying current practices where there are needs for quality improvement.

Assess potential teams for readiness and openness to change. In addition to confirming the agency's capacity to engage in the technical aspects of the project, the application process could also assess teams for softer skills such as an openness to change, a willingness to think critically about their current practice with providers, and patience with the pace of change. The goal of the Collaborative is to create a shift in mindset that improves current practices. Successful teams will understand that and have at least one team member who can serve as a cheerleader to motivate others on the team. Teams seeking training (transmission of concrete knowledge or skills) or hoping for immediate wide-scale implementation of new practices may be frustrated by the work of a Collaborative.

Ensure equity issues are addressed throughout the Collaborative. The teams in this project included diverse participants, with different racial/ethnic and language characteristics, different levels of education and income, and different job roles. Purposeful inclusion of a provider as an equal team member encouraged equity within our teams. Providing opportunities for providers to share their expertise and teach agency staff can help upend the usual hierarchy that emerges within the typical compliance-focused culture of many agencies tasked with monitoring providers within governmental systems. One of the successes of this project was that our goal of provider participation in the Collaborative resulted in increased provider leadership within some of the participating agencies. In these agencies, providers saw themselves as leaders and agency staff and leadership recognized them as experts.

Assess individual team member's comfort level with technology and data as part of the application process.

The national, multi-state nature of our pilot Learning Collaborative required the use of technology in order to facilitate sharing between teams at the core of the Collaborative's work. We used a variety of technology tools including Excel, Word, Powerpoint, Google Drive, Zoom, and Adobe Reader, and provided support through our data manager and individual team coaches. Some of these tools were new for team members and created challenges for them. Addressing this issue and understanding participant learning curves early on could reduce friction and allow for a smoother transition to the conceptual work of the Collaborative. For example, beginning with an assessment of individual team member's comfort level with technology and data could give the team's coach valuable information on the kind of technical instruction and support the team would need in running their PDSA cycles, reading run charts, and reporting successes and challenges back to the rest of the teams. A goal for future Collaboratives might include identifying a team member who takes the lead on data management and facilitates the team's use and interpretation of improvement data.

Include agency leadership in Collaborative activities. In future Collaborative work, intentional and early inclusion of senior leadership representation in learning sessions and monthly webinars with their teams could help to ensure that leadership fully understands the work and goals of the Collaborative. When senior management staff was involved in the pilot, teams reported feeling more supported and empowered to engage in the work of the Collaborative.

Implementation of the BTS Collaborative

What we did

Erikson Institute partnered with Shift, an organization that leads improvement networks in the health and education fields, to implement all aspects of the BTS Collaborative. Shift led the technical content related to improvement methods and advised on learning structures throughout the Collaborative. Erikson Institute and expert consultants provided coaching, data management, and monthly webinars for participating teams. An outside content consultant provided expertise around toddler development and high-quality early care and education.

Collaborative data were collected from both participating agency staff members and providers who worked with these staff. Short surveys for agency staff and providers were designed by the Erikson Institute team to gather data on the project drivers and outcomes. Surveys included 5-6 questions and were designed to take no more than five minutes to reduce burden on participants. Agency staff completed weekly surveys about practices supporting providers' work with toddlers. Providers completed weekly surveys about their caregiving practices with toddlers in mixed-age groups. Erikson Institute's data manager collected and synthesized data in monthly run charts which were then sent back to the teams to inform next PDSA cycles. The data manager was also available to offer technical support around data-related issues.

What we learned

Distinguish quality improvement work from compliance to quality standards. It was crucial to distinguish quality improvement work from the compliance-focus that drove the way many agencies and providers approached quality. For example, staff struggled with their role in monitoring and regulating child care homes compared to the Collaborative's focus on engaging providers as equal partners in a process of continuous quality improvement.

Help teams connect the BTS Collaborative methods with the work they are already doing around quality improvement. For many participants, data collection was often a requirement for a regulatory body or funder, not something "for them." Team participants found the work meaningful when they could connect it to the observational and compliance data that they already collected. Head Start providers, for example, are required to document child observations and milestones. These observations became more meaningful when providers realized they could use these data for their own planning as well as for program reporting purposes.

Identify measures that are sensitive to changes being tested. One of the challenges faced in the pilot was the lack of valid, reliable measures that could capture the changes being tested by teams in the Collaborative. Developing measures that were not part of existing data systems meant we could tailor data collection to the specific drivers and aims of the Collaborative.

Future work might consider how to use existing measures such as those included in QRIS in order to minimize data burden.

Team sharing strategies

What we did

The Collaborative encouraged everyone to "share seamlessly and steal shamelessly," a BTS foundational concept. Throughout the Collaborative, the planning team offered activities where team members could share their experiences and learn from one another both within and across their teams.

We used several strategies for team sharing. For in-person learning sessions, team members prepared storyboards and gallery walk presentations. In monthly webinars, team members had opportunities to share examples of their tests of change with other members of the Collaborative. Monthly webinars also included opportunities for cross-team and cross-role discussion through structured break-out sessions which were rated as most useful by participating team members. In addition, we created a shared Google Drive folder to which all teams had full access and compiled a monthly newsletter. Coaches also referred teams to each other if they were working on similar PDSA tests.

"I really enjoyed the monthly team webinars where we were able to go into breakout rooms and share ideas. It was really good to hear other teams' ideas and comments."

Participating team member

What we learned

Creating an accepting environment that embraces sharing around successes and failures is necessary for building a strong Collaborative. While sharing successes was a common theme in the Collaborative, sharing of failures was also an important activity. Some teams expressed discomfort sharing their data. They asked if they could receive their data privately instead of it being shared and discussed openly in webinars and newsletters. We learned from this process that sharing both successes and failures requires trust and comfort of teams with each other, a common hurdle that teams face across quality improvement collaboratives (Nembhard, 2009; Taylor & Salem-Schatz, 2010).

Creating role-alike affinity groups helps reduce isolation.

Participation in a Collaborative offered connections with new networks and colleagues across the country. Providers benefited from the peer support and professional development opportunities available through the Learning Collaborative and expressed interest in similar opportunities. Agency staff appreciated learning and sharing ideas with staff from other agencies and being part of a multi-state project that elevated the work they were doing with HBCC providers.

Engaging HBCC providers in quality improvement**What we did**

A foundational concept for a BTS Collaborative is “All teach, all learn.” This notion assumes that everyone in the Collaborative—the team staff and providers and the planning team—has equal opportunities to work towards a shared aim, designing and testing changes, and using data to understand successes and failures. Creating an equitable role for all participants in the FCCQILC was especially important for the HBCC providers on the teams, because agencies tasked with compliance and monitoring may not make space for providers to develop their own strategies for improving quality.

The Collaborative shifted the top-down paradigm. The providers were eager and willing to test changes and took the initiative to design change concepts and document results of tests. Participation on the teams was validating for providers and offered them opportunities for personal and professional growth. The teams came to regard the provider voice as essential, helping to achieve the team goals, taking the lead in connecting providers to each other, and assuming team responsibilities such as contributing to monthly report completion.

I feel like I have a voice, and confidence because peers are reaching out. I feel proud because I am learning new things and exploring a new direction for myself.

Participating provider

Working with other teams was really affirming for us. A lot of the times you feel you're struggling in this work alone and it was comfortable to hear people with the same struggles.

Participating agency staff

What we learned

Providers may want to engage in the project, but child care responsibilities pose challenges to participation.

Weekly team face-to-face huddles are an essential component of the Collaborative process, yet providers' busy child care schedules may conflict with schedules that work for agency staff. Teams could plan for alternative strategies such as virtual meetings at times when providers can attend (such as nap time). On the FCCQILC teams where providers were fully engaged in the quality improvement work, participation was

higher and contributed significantly to successes. By contrast, providers who were seen as someone who was the “object” of testing changes tended to participate at lower levels.

Offering concrete resources may address barriers faced by providers.

We often expect the individuals who represent the community (in this case the providers) to volunteer their time to participate in co-production activities. Team staff members commonly relied on team providers to help them identify and test strategies around supporting providers and connecting providers to each other. These efforts required extra time for providers outside of their regular child care work, and, in some cases, out-of-pocket costs for providers (for example, refreshments at peer support groups). Some teams tested changes in which providers could not participate because they could not access the internet on their computers or lacked mobile phones with capacity to view videos. Some teams later addressed these concerns: one agency purchased tablets for all providers as a way of facilitating and enhancing their capacity to share videos and photographs about caregiving strategies with each other. Another team paid providers to conduct visits to provider homes or to conduct peer-to-peer outreach.

Formal strategies for recognizing provider team roles may enhance engagement. Provider participation in a Learning Collaborative may lead to opportunities for leadership development such as provider-led support groups, provider-initiated peer-to-peer mentoring and coaching, and provider-led training workshops. Future projects could work towards collaboration with professional development and quality systems to acknowledge provider leadership activities through linkages to career lattices, education credits and credentials, and funding support for providers.

Discussion

This brief describes a pilot of the BTS Collaborative approach with family child care networks and other organizations that support HBCC providers. The pilot aim focused on improving care for toddlers in mixed-age groups in HBCC. Participating teams, consisting of agency staff and providers, tested change concepts around technical assistance (i.e. coaching, home visiting, mentoring) as well as facilitation of peer-to-peer sharing among providers. Quality improvement data from the pilot indicated that teams across the Collaborative made improvements to agency staff practices and that providers affiliated with participating organizations increased their discussion, sharing, and engagement around trying new approaches to meeting the needs of toddlers in their programs. Because the pilot focused on an area of practice in early care and education where there is limited evidence for best practice, there was a strong emphasis on innovation.

In addition to improvements in practice at both the agency staff and provider levels, much was learned in the pilot about the process of quality improvement in HBCC. First, teams that were looking for a new way to approach their work experienced the most success in implementing the quality improvement methods that are central to the BTS Collaborative strategy. At the same time, teams that were able to integrate the BTS methods into their daily and weekly work routines and tasks as well as data systems, experienced the most success and satisfaction from the project. The BTS approach also moved providers and staff from a compliance standpoint of knowing they “should” make a change to an improvement standpoint where they were inspired to test and try new strategies.

Second, opportunities for cross-role sharing in the FCCQILC allowed providers and agency staff to renegotiate and recalibrate their working relationships.

In some cases this led to new working partnerships between agency staff and providers. Over and above team sharing, creating opportunities for providers to share with other providers and staff to brainstorm with other staff across teams in the Collaborative helped to address the isolation of providers and agency staff that has been documented in previous research (Bromer & Korfmacher, 2017; Lanigan, 2011; Musick, 1996).

Third, the pilot FCCQILC revealed a significant technology and data need at both the provider and agency staff level. The pilot required teams to have access to online technology and to have basic skills in using online tools for sharing, data collection, and communication. Lack of access to online tools and limited knowledge and skills in data collection and analysis created barriers early on in the Collaborative around participation and engagement. However, we learned that Collaborative team members gained new skills and new confidence in their capacity to use technology and data in their work with consistent support and coaching from Erikson Institute’s team.

Finally, the provider leadership that emerged in this pilot may be an indication that the BTS Collaborative approach is a promising strategy for increasing provider engagement in quality improvement. Providers were an integral part of the teams’ tests of change as well as the teams’ collection and interpretation of data. Providers and staff reported that the Collaborative process empowered them to make decisions about areas of practice in need of improvement. Providers and staff together engaged in co-production of tests of change and found ways to use these innovations to meet the required goals of systems such as licensing, QRIS, and Early Head Start.

Implications for Next Steps

The BTS Collaborative is a promising approach for improving quality and increasing supply of HBCC, two significant policy issues (Porter & Bromer, forthcoming). Engaging providers in the processes of improvement that are meaningful for them has the potential for continuous and sustained practice changes. This approach also has the potential for reducing the likelihood that providers will leave the field as a result of their perceptions of, or experiences with, system standards that do not align with their own efforts to improve the quality of care they offer children. Other areas of early childhood services that have used the BTS approach (such as the Home Visiting Collaborative Innovation and Improvement Network, or HVCollIN) suggest the potential of embedding these processes into larger systems at state levels.³ Future Collaborative work might explore how to integrate the BTS approach into state and county child care systems' work with HBCC providers (e.g. subsidy, licensing, QRIS). Partnerships between local teams and state and county system administrators might focus on exploring how to create enduring collaborative structures that utilize the BTS approach within existing professional development and child care regulatory and quality systems.

³ See <http://hv-coiin.edc.org/> for more information

Glossary of Terms

Agency staff: Agency staff refers to the two team members who work directly with home-based child care providers through coaching, visiting, training, etc. Agency staff may also be referred to as agency specialists.

Agency provider: The home-based child care provider on each team offers care and education to children in her own home on a regular basis and may be either a regulated (licensed, certified, registered) family child care provider or a family, friend, or neighbor caregiver. Providers may also be referred to as educators.

Breakthrough series (BTS): A quality improvement methodology that builds on the expertise of a community to create change through rapid cycle testing of new ideas, iterative learning, and gradual scale up before full implementation (IHI, 2003).

Collaborative data: Data collected across participating teams in the Collaborative. Data come from weekly surveys to providers and staff at the participating agencies. Data measure a team's progress toward the aim and drivers of the project.

Key driver diagram: A graphic representation of the theory of change for an improvement project. A Key Driver Diagram articulates the aim of a project and the practices and innovations that are hypothesized to lead to the desired aim.

Learning collaborative: A quality improvement initiative involving a community of multidisciplinary teams working together to reach a common aim through shared learning across multiple settings with guidance and support from a faculty of improvement and content experts.

Median: The midpoint value of all data points on a run chart, represented by the horizontal line on a run chart, at which point there is an equal likelihood of a specific data point falling above or below the line.

PDSA: A "Plan, Do, Study, Act" cycle, based on the scientific method, used in the Collaborative to gradually test and evaluate small changes that may lead to eventual scaling up and implementation of successful practices.

PDSA data: Data collected to measure the effectiveness of a strategy being tested during a "Plan, Do, Study, Act" cycle.

Run chart: A visual display (line graph) of all the data points collected on a single measure across time. Reviewing the patterns in run charts helps teams identify whether the changes they are testing are having the desired effect on the system.

Shift: A series of 6 or more consecutive data points either above or below the median line on a run chart. A shift in a run chart indicates that a change in performance is not due to random variation.

Trend: A series of 5 or more consecutive data points all either increasing or decreasing on a run chart. A trend in a run chart indicates that a change in performance is not due to random variation.

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Appendices

Appendix A: Overview of Erikson Institute's FCCQILC Activities, Objectives, and Timeline

Activities	Objectives	Timeline
Recruitment and selection of teams	Convened up to 10 teams that expressed interest in quality improvement, offered individual technical assistance and/or peer support to HBCC, demonstrated staff stability and sustainable funding.	June-July 2018
Two orientation webinars	Provided context for the Collaborative and introduced basic quality improvement concepts.	August 2018
First Learning Session	Convened all teams for a two-day Learning Session at Erikson Institute. Provided a full orientation on the BTS method and aim of the Collaborative for participating teams.	September 2018
Second Learning Session	Convened all teams for a two-day virtual Learning Session via Zoom. Provided technical content and training on BTS methods and content around working with toddlers and using observation and recording for planning.	March 2019
Third Learning Session	Convened all teams for a two-day Learning Session at Erikson Institute. Provided opportunities for teams to share successes and lessons learned. Invited agency leadership to participate.	September 2019
Coaching	Paired coaches from Erikson Institute's team with Collaborative teams and offered monthly technical assistance through Zoom calls around developing change concepts, engaging providers, planning PDSA cycles, and analyzing data.	September 2018 - August 2019
Monthly webinars	Hosted monthly webinars for all teams with opportunities for team sharing, expert content presentations from Erikson and consultants, and technical content presentations from Shift.	September 2018 - August 2019
Quarterly leadership webinars	Hosted three webinars for team leadership to provide project updates.	November 2018, February 2019, & May 2019

Appendix B: Examples of Run Charts

Chart 1: Percentage of Staff Technical Assistance (TA) Contacts that Discuss Observation and Recording

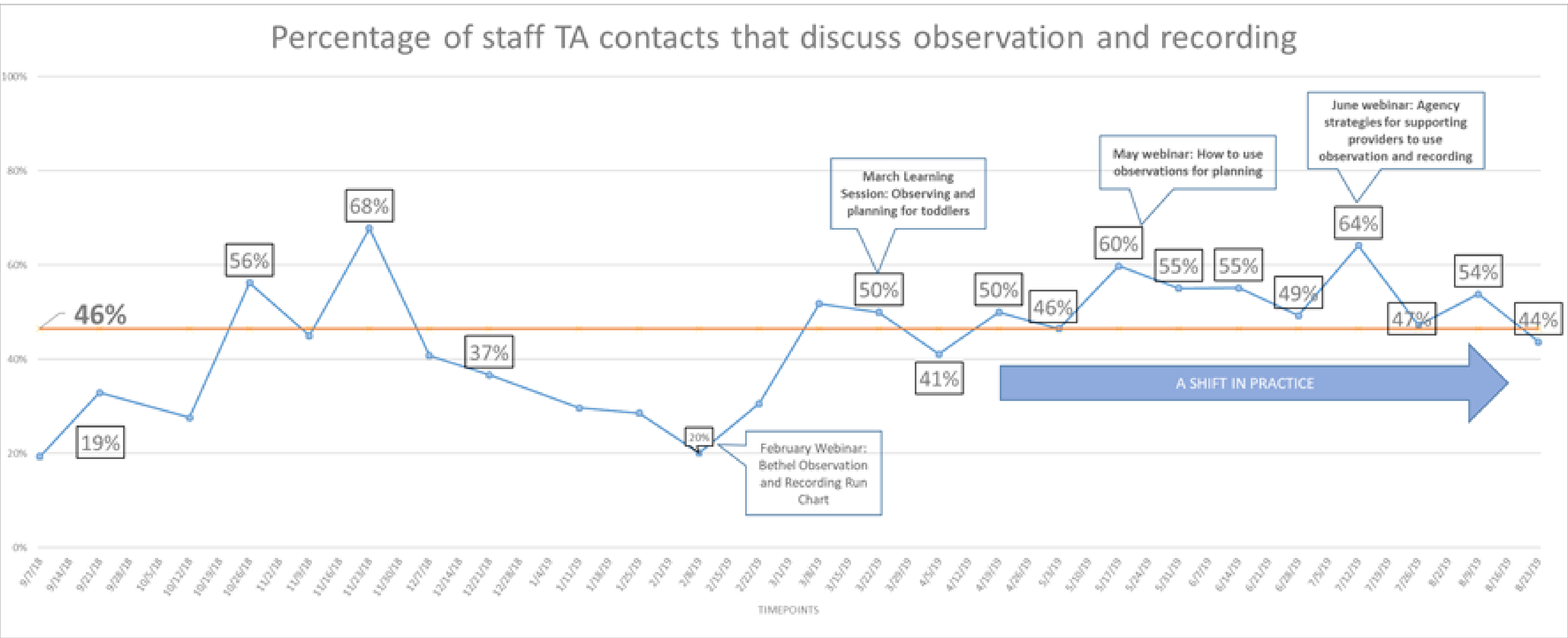
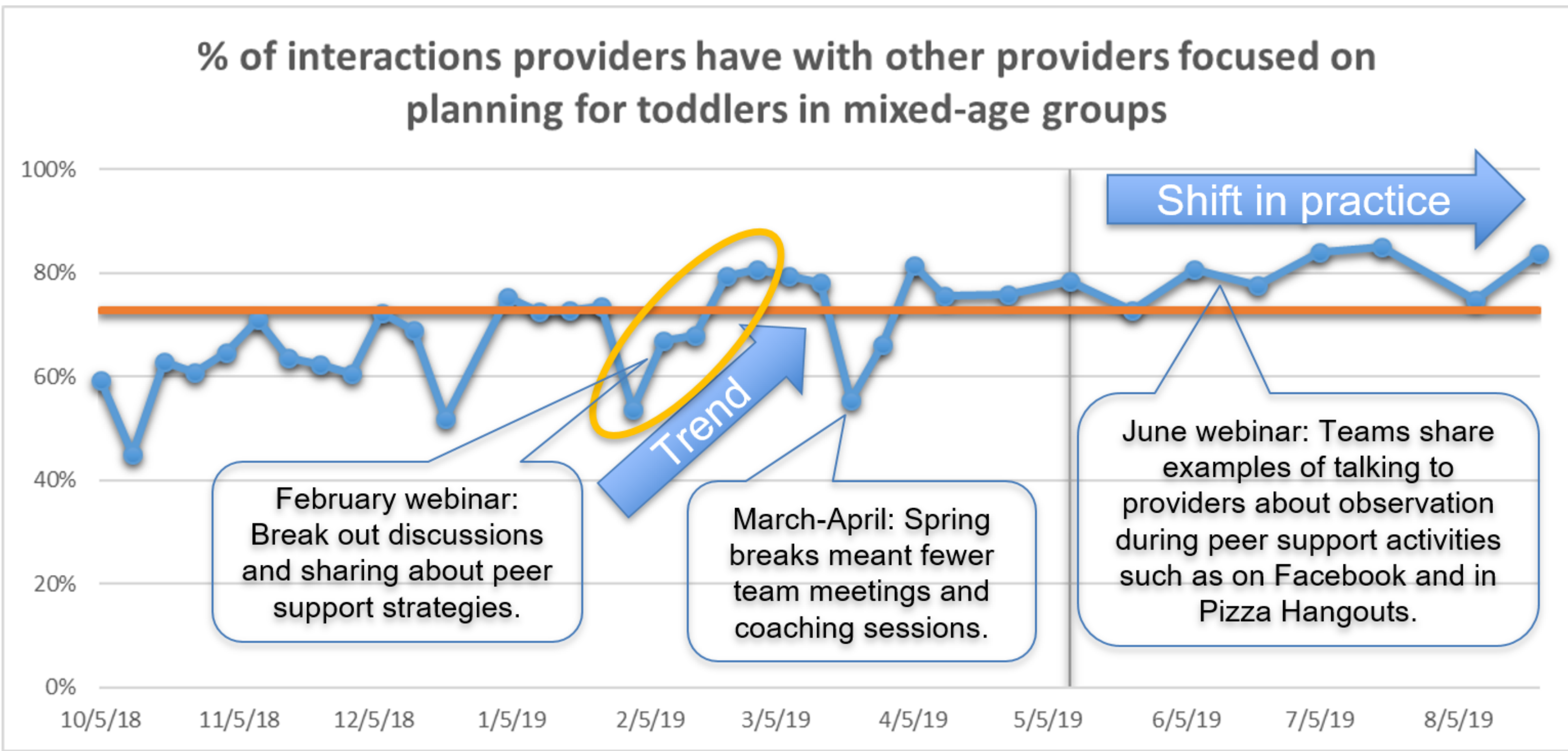


Chart 2: Percent of Interactions among Providers Focused on Planning for Toddlers in Mixed-Age Groups



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For more information about the FCCQILC, please visit: www.erikson.edu/research/learning-collaborative/

Erikson Institute