

Kansas ABC Early Childhood Initiative

KU School of Social Welfare



MAY 2021

**Phase 1. May 2017 – April 2020
Evaluation Report**

Kansas ABC Early Childhood Initiative

Report by:

Amy N. Mendenhall, Ph.D., Principal Investigator
Kaela Byers, Ph.D., Co-Investigator
Whitney Grube, Ph.D., LMSW, Project Coordinator
Patricia Sattler, MSW, Project Coordinator

KU School of Social Welfare
University of Kansas

Report Design: Lindsay Elliott Jorgenson,
Institute for Policy & Social Research



ACKNOWLEDGMENTS

Funding Partners:

REACH Healthcare Foundation, Wyandotte Health Foundation, Hutchinson Community Foundation, Kansas Health Foundation, and United Methodist Health Ministry Fund

REACH
healthcare foundation



**United Methodist
Health Ministry Fund**

**Hutchinson
community
FOUNDATION**

Participating Agencies:

Horizons Mental Health Center, LiveWell Northwest Kansas, Project Eagle, Rainbows United, and Russell Child Development Center

HORIZONS
MENTAL HEALTH CENTER

LIVEWELL
NORTHWEST KANSAS

RAINBOWS
bringing potential to life

PROJECT EAGLE

**RUSSELL
CHILD DEVELOPMENT
CENTER**

TABLE OF CONTENTS.

Executive Summary. **1**

Section 1. **4**
Overview

Section 2. **10**
Evaluating Implementation

Section 3. **24**
Families Served

Section 4. **30**
The Multi-Level Impact: A Closer Look at Outcomes

Section 5. **46**
Phase 2 of the Kansas ABC Early Childhood Initiative

Section 6. **48**
Conclusion

References & Appendix. **50**

EXECUTIVE SUMMARY.

Social-emotional development in young children is a critical factor related to later life outcomes such as school success, social interactions, and mental health. Healthy early childhood development provides a strong foundation for all future learning and helps children reach their full potential, but risk factors including toxic stress, adverse childhood experiences (ACES) and other challenges can derail this crucial process, with far-reaching consequences.

A growing body of research demonstrates that investing in science-based, short-term early interventions pays off over both the short and long term, delivering lasting results that not only change lives for the better but also produce substantial returns on that investment. The [Heckman Equation](#) cites high quality birth-to-five programs for disadvantaged children delivering a 13% return on investment per year, and a 7:1 cost-benefit ratio.

Developed by Dr. Mary Dozier at the University of Delaware, Attachment and Biobehavioral Catch-up (ABC) is a practical application of findings from years of research on the interactions between early childhood experiences, brain development, and behavior. ABC is a brief, evidence-based parenting intervention for caregivers of infants and toddlers who have experienced early adversity. The home-visiting program is

designed to buffer the harmful effects of toxic stress and help restore normal early childhood development.

Broadly, ABC focuses on building healthy families through the development of secure attachment, nurturance, and positive regard. While the ABC intervention is typically completed over just ten weeks, research to date has shown measurable, long-term positive impacts lasting at least into middle childhood.

To explore whether ABC would deliver the same results for Kansas children, a collaboration of Kansas foundations led by United Methodist Health Ministry Fund and including Hutchinson Community Foundation, Kansas Health Foundation, REACH Healthcare Foundation and Wyandotte Health Foundation funded the Kansas ABC Early Childhood Initiative to expand early childhood service capacity in Kansas and evaluate the replicability and efficacy, at scale, of integrating an evidence-based intervention into the array of early childhood home-visiting programs through five sites in varying settings and geographic locations across Kansas.

Building on the success of an earlier Kansas ABC pilot, Phase 1 of the Initiative included five agencies - Horizons Mental Health Center, LiveWell Northwest Kansas, Project Eagle, Rainbows United, Inc.,

EXECUTIVE SUMMARY.

and Russell Child Development Center – serving 36 counties across the state.

The Initiative was structured around two key activities: (1) integration of a screening tool (Household Strengths and Strain Inventory) to identify families for referral; and (2) implementation and evaluation of the ABC intervention. Evaluation, a focus within the second key activity, included several data instruments and measures collected via the parent coaches who delivered the intervention. The measures, collected pre- and post-intervention, assessed outcomes for the child, caregiver, and family. Additionally, cortisol (i.e. stress hormone) testing via collection of saliva samples was collected pre-intervention, immediately after completing the intervention, and approximately six months post-intervention.

Over the past three years of the Initiative, the KU evaluation team also monitored and analyzed implementation of the ABC intervention across these five Kansas sites. The results demonstrated ABC to be a valuable, though challenging, intervention to implement. The Initiative generated valuable learnings as facilitators were able to provide guidance for addressing difficulties around implementation (e.g. recruitment, client engagement) which were identified by parent coaches, and for supporting

future sustainability.

The evaluation found that the initiative resulted in more comprehensive early childhood services across Kansas and that families who participated in ABC demonstrated more positive outcomes after participating, including healthier children, more confident parents, and stronger families.

Over three years, the initiative was able to impact the lives of hundreds of Kansas families across the state, reaching 682 caregivers and 907 children. After completing ABC:

- Caregiver concerns regarding child social-emotional functioning decreased.
- Children’s cortisol levels, an indicator of stress, became more normalized.¹
- Parent coaches rated children’s overall wellbeing as more positive.
- Caregivers’ knowledge, and beliefs in their caregiving abilities, increased.
- In interactions with their children, caregiver intrusiveness went down, while sensitivity and delight went up.
- Caregiver capabilities significantly improved.

The initiative also resulted in expanded

capacity for early childhood services across the state:

- Awareness increased around the importance, and return on investment, of investing early in the healthy social-emotional development of Kansas children. There is also growing recognition among policymakers in Kansas and nationally of the potential for the ABC intervention to improve student outcomes for at-risk children, prevent at-risk families from entering the child welfare system, and help children transition out of the child welfare system.
- Sites successfully developed sustainable funding to continue delivering ABC after Phase 1 ended. Two sites are participating in the Family First Prevention and Services Program, receiving funds to deliver services to prevent kids from entering the child welfare system. Two other sites were able to set up processes to bill through Medicaid or insurance for ABC services.
- 39 infant parent coaches and 10 toddler parent coaches were trained, and 12 learning community meetings facilitated extended learning and sharing about early childhood services including ABC.
- Three sites will participate in Phase

2 of the Initiative, which will broaden the implementation to include ABC Toddler, and evaluate measures of general child development, parental stress, and family empowerment.

Overall, the \$2.4 million initiative successfully increased early childhood capacity and awareness across the state, made a difference in the lives of 682 caregivers and 907 children, provided valuable learnings for how challenges in implementation can be creatively overcome, and further demonstrated that early childhood interventions like ABC not only make good economic sense but more importantly empower individual families to raise happy, healthy kids – providing strong foundations helping them to reach their full potential.

As policymakers, foundations, and other stakeholders explore evidence-based strategies to prevent utilization of the child welfare system, keep children with their parents in their homes, improve health, build parenting skills, and address equitable attainment of education, this report detailing the Kansas experience with ABC and experience from other ABC projects nationally highlights the potential of ABC as a worthy, evidence-based investment.

¹Though cortisol level patterns became more normalized, the change was not statistically significant for the entire sample.

SECTION 1.

Overview of the Kansas ABC Early Childhood Initiative.

Purpose of Initiative.

The Kansas ABC Early Childhood Initiative sought to expand early childhood service capacity in Kansas through a series of strategic activities:

1. Increase awareness about early childhood development, especially social-emotional development, to make the connection between science and the need to invest early
2. Demonstrate how utilization of an evidence-based intervention can improve the health of children 6 to 24 months of age
3. Increase the capacity of parent coaches to provide an evidence-based intervention supporting families as a way to mitigate the effects of toxic stress in children
4. Increase the number of early childhood service providers utilizing ABC for families they serve when needed
5. Utilize ABC as a demonstration project to make the case for increased investments in early childhood services and evidence-based home visiting models with state agencies
6. Support organizations in securing sustainable funding for early childhood services

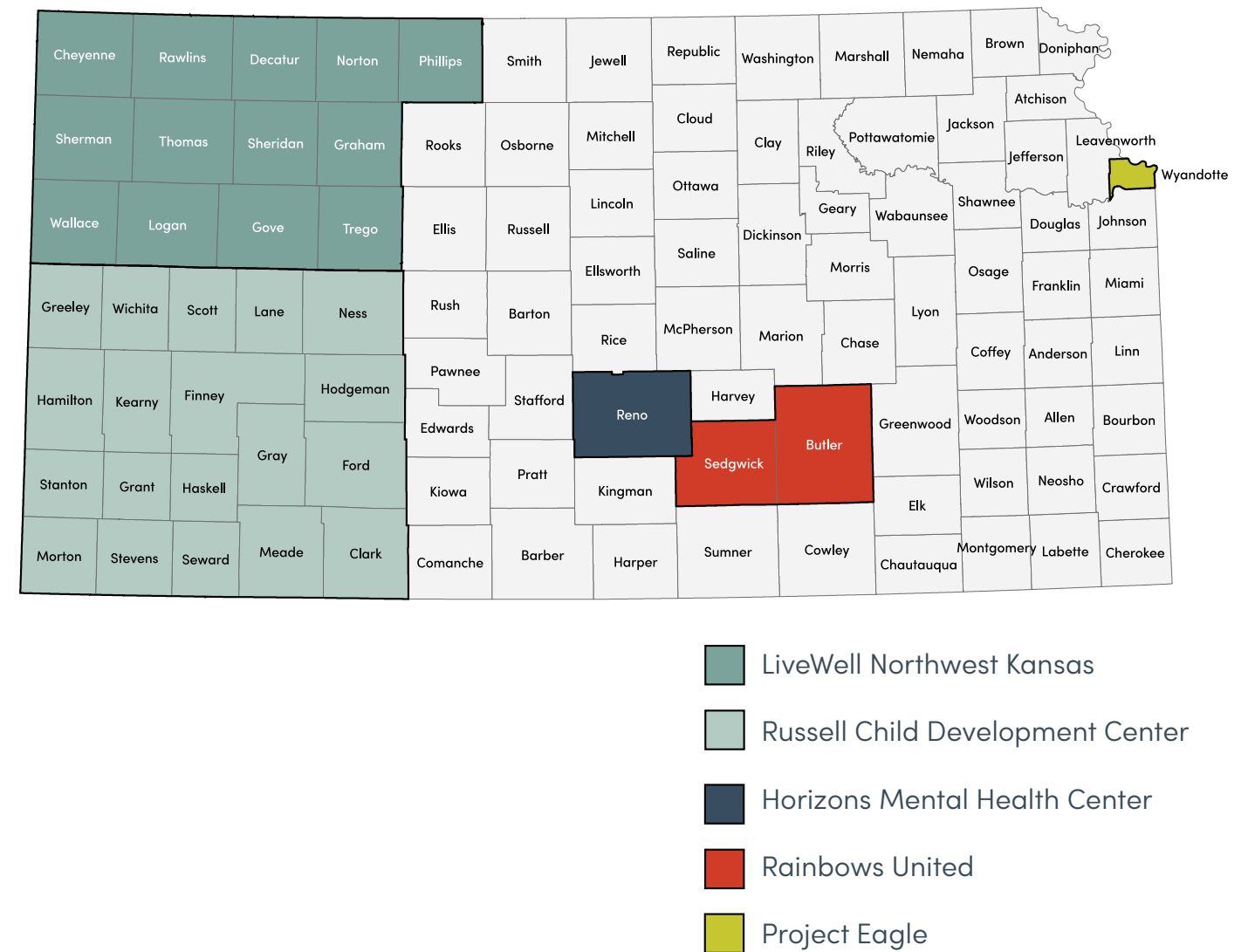
The Initiative emerged after an initial pilot of the Attachment and Biobehavioral Catch-Up (ABC) intervention, designed to buffer the effects of toxic stress for high-risk families, found positive outcomes for Kansas children and families. ABC is a brief, evidence-based parenting intervention for caregivers of infants and toddlers who have experienced early adversity. The home-visiting program was developed by Dr. Mary Dozier at the University of Delaware, where training and certification for the intervention is still housed today.

To accomplish its goal, the Initiative supported two key activities across settings and geographic locations throughout the state: (1) integration of a screening tool (Household Strengths and Strain Inventory) to identify families for referral; and (2) implementation and evaluation of the effectiveness of the Attachment and Biobehavioral Catch-Up intervention.

Phase 1 of the Kansas ABC Early Childhood Initiative was funded through a collaboration of Kansas foundations. The funding collaborative was led by United Methodist Health Ministry Fund and included Hutchinson Community Foundation, Kansas Health Foundation, REACH Healthcare Foundation, and Wyandotte Health Foundation. Through this funding collaborative, the Initiative

supported five agencies to serve 36 counties across the state. The agencies were: Horizons Mental Health Center, LiveWell Northwest Kansas, Project Eagle, Rainbows United, and Russell Child Development Center. Figure 1 shows the service areas for the Initiative.

Figure 1. Kansas ABC Early Childhood Initiative Service Areas

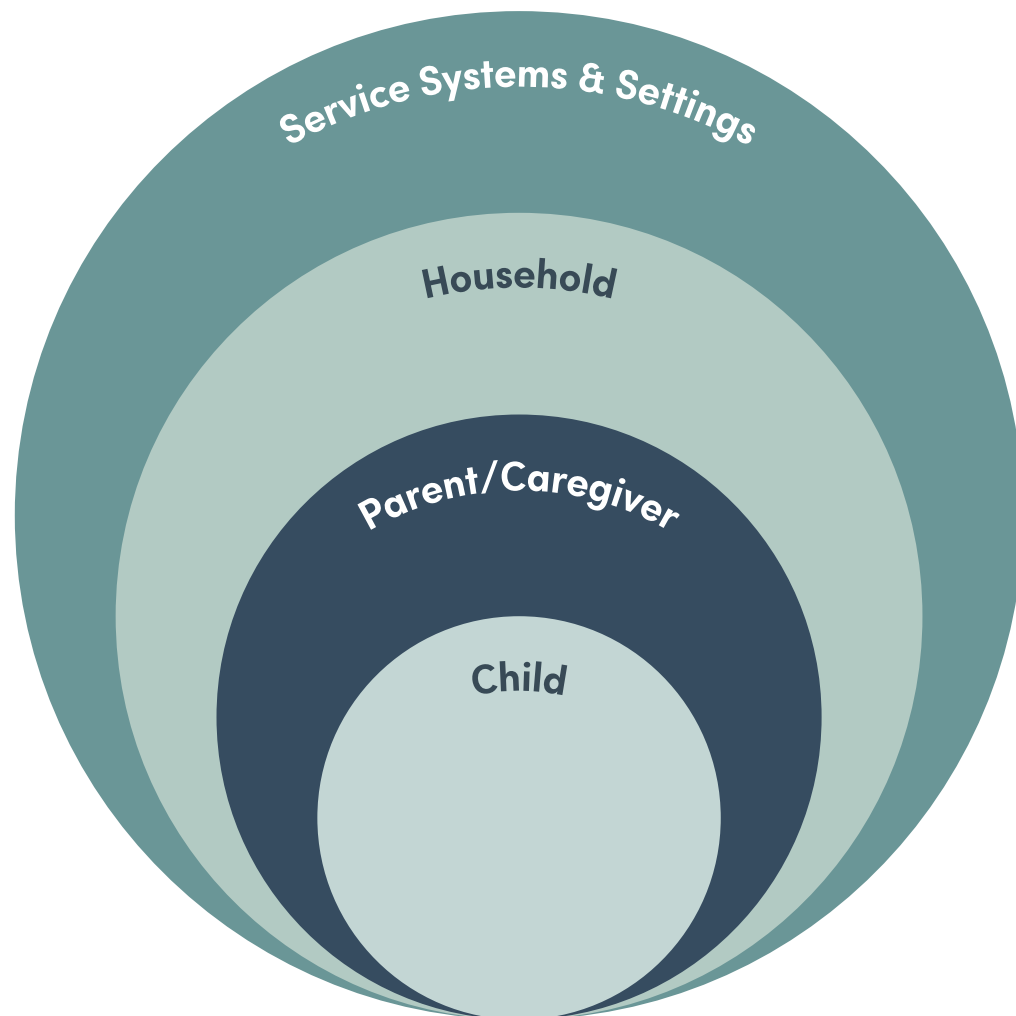


SECTION 1.

Summary of Evaluation Activities.

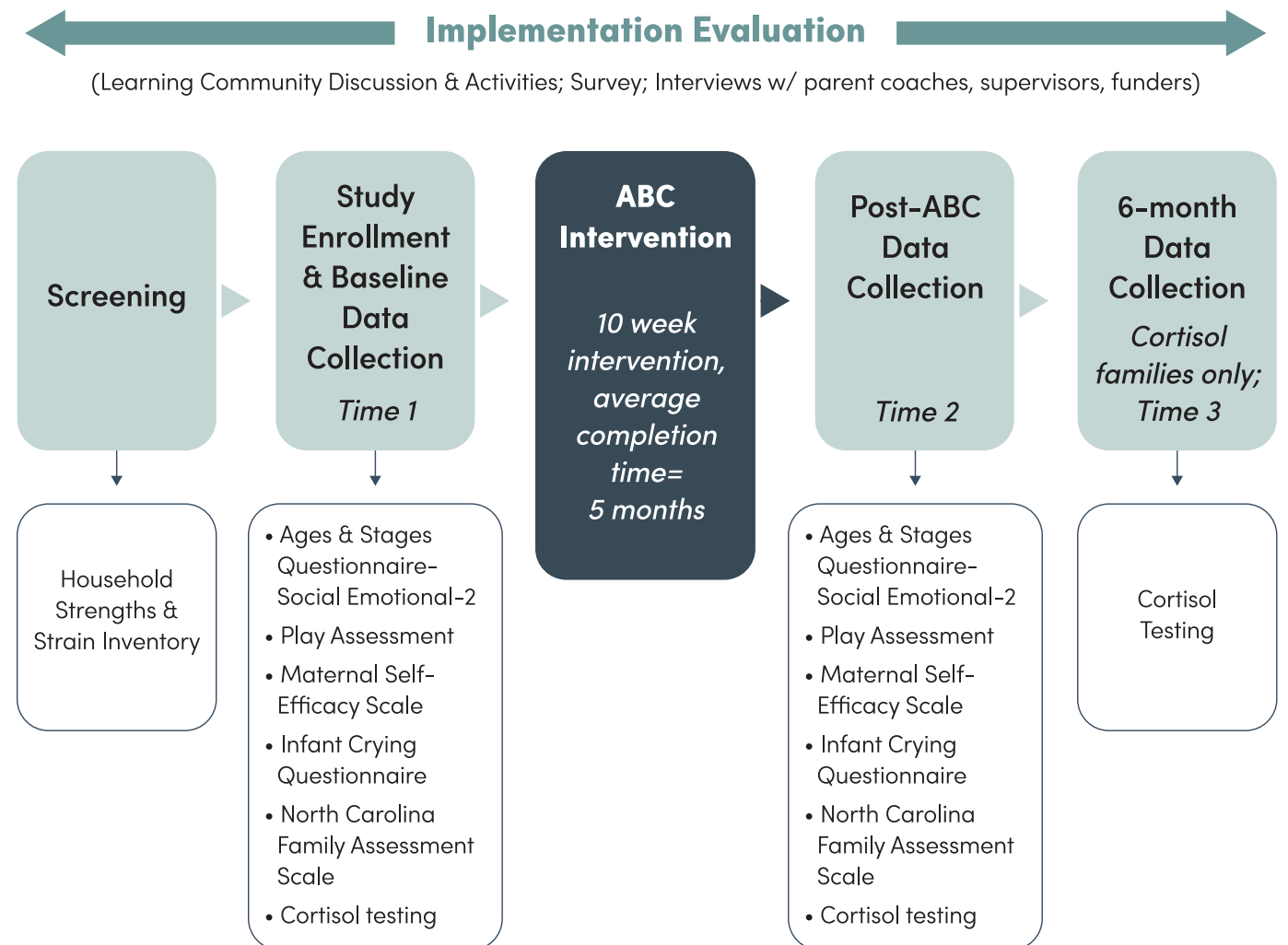
The evaluation component of the Kansas ABC Early Childhood Initiative tested the replicability and efficacy, at scale, of the evidence-based intervention integrated into the service array of five child and family service agencies across Kansas. Based on previous research on ABC, the anticipated impact of the Initiative spanned levels from the individual child all the way to service systems and settings across Kansas. Figure 2 shows the nested areas of potential impact the initiative aimed to address.

Figure 2. Potential Areas of Impact of the Kansas ABC Early Childhood Initiative



In order to capture impact or change at these levels, the evaluation of this program was multifaceted, including both an implementation evaluation as well as an impact study focused on child, caregiver, household/family and service systems and settings outcomes. Figure 3: *Evaluation Activities and Sources of Data* outlines the evaluation process and related sources of data.

Figure 3. Evaluation Activities and Sources of Data



SECTION 1.

The implementation evaluation focused on the context of the Initiative and the process for how both the Initiative and the ABC intervention were rolled out, implemented, and sustained across the sites. This component of the evaluation included surveys and interviews with stakeholders as well as observations and reviews of stakeholder meetings, quarterly learning communities, and general communications. These activities occurred throughout the Initiative and are further described in Section 2.

The impact study focused specifically on how the ABC intervention impacted children, caregivers, and families. This was accomplished by collecting data about child and caregiver functioning and well-being through various outcome measures as outlined in Table 1. *Impact Study Outcome Measures.*

First, parent coaches established eligibility for ABC services by administering or reviewing a previously administered Household Strength and Strain Questionnaire (HSSI; Byers, 2016). Next, parent coaches enrolled eligible families in ABC services and the evaluation portion of the study, obtained consent, and administered the aforementioned measures. The outcome measures were administered prior to the start of the ABC intervention and again upon completion of ABC.

A key part of the impact study was testing for cortisol levels, an indicator of toxic stress, amongst the children. Screening for toxic stress occurred by conducting cortisol testing using saliva samples of a randomly selected subsample of those participating in the evaluation. For the subsample of families, cortisol testing occurred at three timepoints- prior to the start of ABC, upon completion of ABC, and six months after the completion of ABC (see Figure 3. *Evaluation Activities and Sources of Data*). Utilizing materials provided by the evaluation, families collected four saliva samples over the course of two days (a waking sample and a nighttime sample for two days).

“
The impact study focused specifically on how the ABC intervention impacted children, caregivers, and families.”

Table 1. Impact Study Outcome Measures

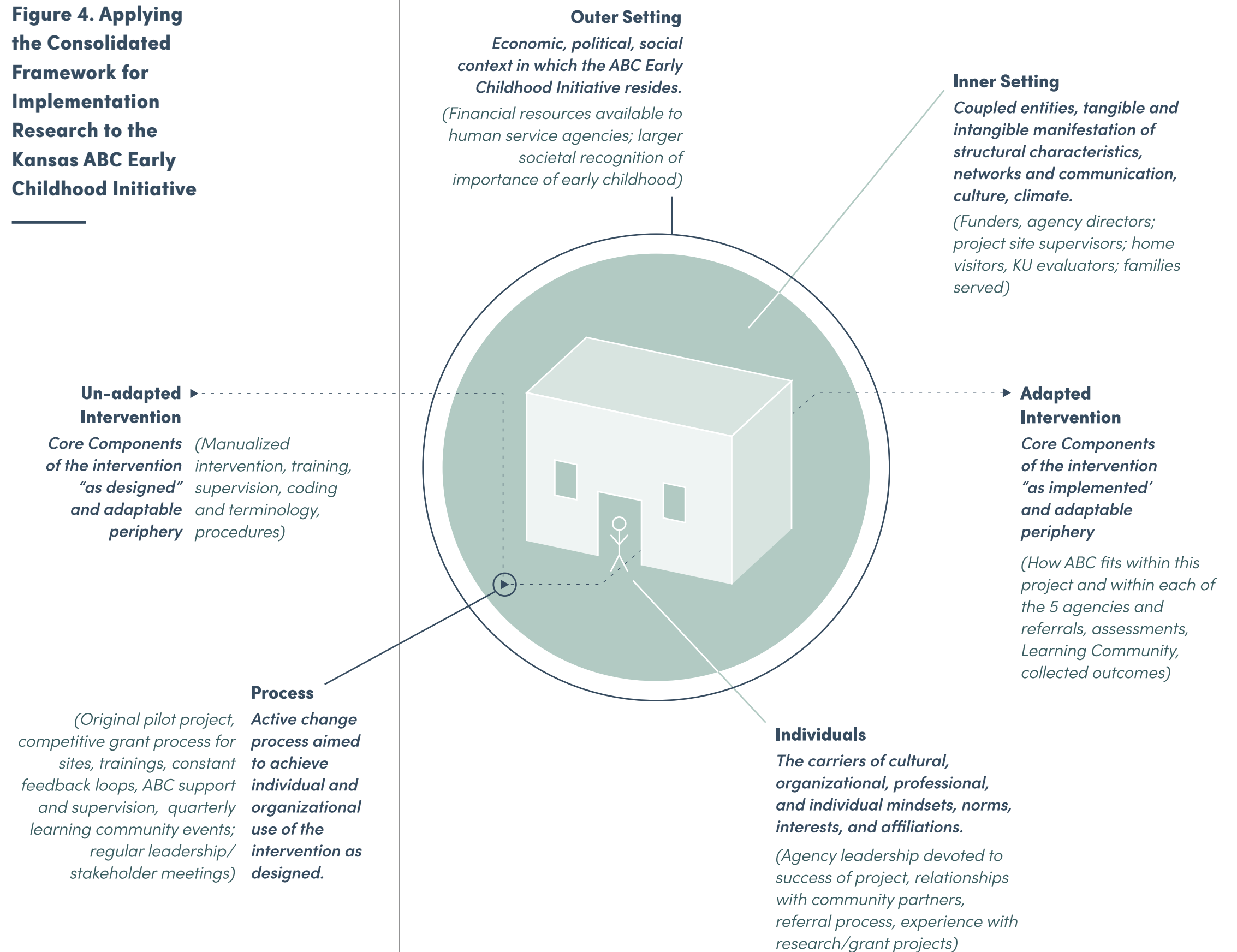
Measure	Description
Child Outcomes	
<u>Ages and Stages Questionnaire – Social-Emotional – 2</u> <i>ASQ:SE-2; Brookings Publishing Co.</i>	Measure completed by caregiver and used to identify early social-emotional difficulties
<u>North Carolina Family Assessment Scale – General, Child Wellbeing Subscale</u> <i>NCFAS-G; Reed-Ashcraft, Kirk, & Fraser, 2001</i>	Completed by parent coach; measures overall child wellbeing
<u>Cortisol Testing</u> <i>testing done via Salimetrics</i>	Four samples at each collection time; collected at waking and at night over two days by caregiver
<u>Wellness Journal</u> <i>University of Kansas</i>	Daily log completed by caregiver and used to capture child wellness during saliva sampling times
Caregiver Outcomes	
<u>Infant Crying Questionnaire</u> <i>Haltigan et al. 2012</i>	Completed by caregiver and measures caregiver’s beliefs towards infant crying
<u>Maternal Self-Efficacy Scale</u> <i>Teti & Gelfand, 1991</i>	Completed by caregiver, and measures caregiving self-efficacy; or beliefs towards their own caregiving abilities
<u>North Carolina Family Assessment Scale – General, Parental Capabilities Subscale</u> <i>NCFAS-G; Reed-Ashcraft, Kirk, & Fraser, 2001</i>	Completed by parent coach; measures overall parental capabilities
<u>Play Assessment Observation</u> <i>University of Delaware</i>	Structured recorded interaction between parent and child that is scored by ABC Development team. Measures changes in caregiver interactions with the child
Household Outcomes	
<u>North Carolina Family Assessment Scale – General, Environment, Family Interactions, Family Safety, Social/Community Life, Self Sufficiency, Family Health Subscales</u> <i>NCFAS-G; Reed-Ashcraft, Kirk, & Fraser, 2001</i>	Completed by parent coach; numerous subscales measuring family functioning domains

SECTION 2.

Evaluating Implementation of the Kansas ABC Early Childhood Initiative.

When delivering an intervention in new contexts and with different populations, evaluation of not just the outcomes, but also the implementation process itself is necessary to ensure fit, successful implementation, and optimal outcomes. Throughout the Kansas ABC Early Childhood Initiative, the KU evaluation team has been monitoring and analyzing implementation of the ABC intervention across the five Kansas sites. To frame the implementation evaluation, KU evaluators apply the Consolidated Framework for Implementation Research (CFIR; Damschroder et al, 2009) which provides five broad constructs with associated sub-items that can be assessed during implementation. These constructs, which are defined in Figure 4: *Applying the Consolidated Framework for Implementation Research to the Kansas ABC Early Childhood Initiative*, are: (1) Intervention Characteristics; (2) Outer Setting; (3) Inner Setting; (4) Characteristics of the Individuals; and (5) Process. Using these constructs as a guide, an examination of implementation can lead to insights about what has worked well and what has not, which can guide future implementation and sustainability efforts.

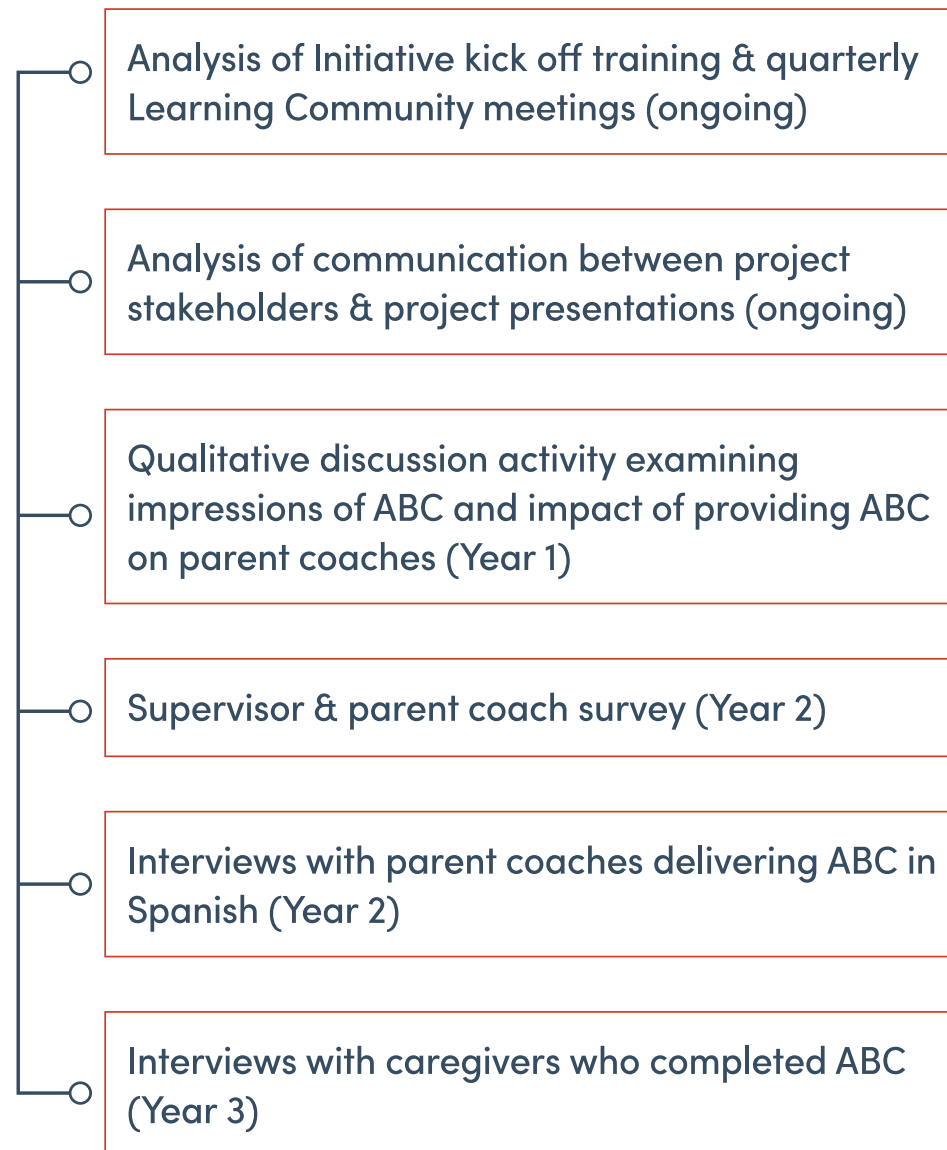
Figure 4. Applying the Consolidated Framework for Implementation Research to the Kansas ABC Early Childhood Initiative



SECTION 2.

Figure 5: *Kansas ABC Early Childhood Initiative: Implementation Evaluation Activities* outlines implementation evaluation activities completed during each year of the Initiative. These activities resulted in data relating to all five CFIR constructs and provide valuable information for future implementation of ABC in Kansas and beyond.

Figure 5. Kansas ABC Early Childhood Initiative: Implementation Evaluation Activities



ABC in the Words of the Providers

One of the earliest implementation evaluation activities focused on the perceptions and experiences of staff in regards to ABC. Two word cloud activities were conducted at the second quarterly learning community meeting held in December 2017. Figure 6: *Words that Describe the ABC Intervention* and Figure 7: *Words that Describe the Experience of being an ABC Home Visitor* provide illustrations of this group activity. The themes that emerged reflect an overall perception by parent coaches that though implementation of the ABC intervention can be challenging with regard to resources, capacity, professional skill and competence, the impact and benefits realized for parents and families help balance the professional investment necessary to deliver ABC. These themes are also evident throughout the facilitators and challenges highlighted in Table 2. *Facilitators and Challenges to Implementing ABC in the Kansas ABC Early Childhood Initiative* and in the discussion that follows.

Figure 6. Words that Describe the ABC Intervention:

Words and Quotes from Supervisors and Parent Coaches.



Figure 7. Words that Describe the Experience of being an ABC Home Visitor:

Words and Quotes from Supervisors and Parent Coaches.



SECTION 2.

Table 2. *Facilitators & Challenges to Implementing ABC in the Kansas ABC Early Childhood Initiative* provides a summary of the themes which emerged during implementation in Phase 1 of the Kansas ABC Early Childhood Initiative. The CFIR was used to assess for and organize facilitators and challenges to ensure a thorough review of all aspects of implementation was conducted. The framework also provides structure for determining how challenges can be addressed in the future.

Table 2. Facilitators & Challenges to Implementing ABC in the Kansas ABC Early Childhood Initiative

Implementation Constructs	Facilitators	Challenges
Intervention Characteristics	<ul style="list-style-type: none"> • ABC recognized as evidence-based practice • Extensive support, coaching, & supervision from University of Delaware; supervision groups provide encouragement, brainstorming, guidance • Increasing knowledge, confidence & comfort with intervention & its delivery 	<ul style="list-style-type: none"> • Intervention cannot be delivered through an interpreter • Difficulty with & additional time required for supervision when delivered in Spanish • Amount of time supervision, coding, & technology takes during 1st year; time commitment was not fully understood • Difficulty graduating clients in 3 months • Not always clear how ABC can/should interact with meeting families' basic needs
Outer Setting	<ul style="list-style-type: none"> • Interest within state legislature about early childhood investment & ABC • Increased interest in early childhood investment at national level with more research emerging & media attention • Collaboration with community service agencies • Responsivity & support from funders 	<ul style="list-style-type: none"> • Lack of established/consistent referral network or partners slow to refer for ABC • Families have complex lives, are often difficult to meet with on regular basis, thus impacts ability to complete intervention in 10 weeks • Difficulty getting partners to understand their contribution to the intervention or areas for collaboration

Implementation Constructs	Facilitators	Challenges
Inner Setting	<ul style="list-style-type: none"> • All participating funders & agencies committed to serving families with young children • Investment of monies and support for staffing & resources • Organizational commitment or investment in ABC intervention • Responsive & supportive agency supervisors • Compatibility with agency or service provision mandates & client needs 	<ul style="list-style-type: none"> • Sites represent different agency types with unique missions, procedures, service areas, & populations served • Variable funding, organizational commitment, & staffing levels across all sites • Staff turnover (supervisor & parent coach) • Balancing time & commitments to ABC with other professional responsibilities
Characteristics of Individuals	<ul style="list-style-type: none"> • Parent coaches from all sites passionate about population & believe in ABC • Responsive, committed & passionate funders/program officers • Extensive experience in early childhood settings across all sites • Strong belief that ABC is effective at mitigating the risks from childhood adversity 	<ul style="list-style-type: none"> • Some parent coaches had difficulty balancing ABC & other professional roles/responsibilities • Varying speeds of buy-in & competency in delivery of ABC intervention & evaluation among parent coaches
Process	<ul style="list-style-type: none"> • Pilot project set foundation for current project • Competitive grant process to identify sites ready for implementation • Support & peer-to-peer mentoring via Learning Communities • Regular leadership meetings between funders, intervention developer, and evaluator • Ongoing support for training more parent coaches • Site creativity in increasing referrals (community fairs & presentations, WIC offices, pediatricians, etc.) 	<ul style="list-style-type: none"> • Engaging outside partners as champions & referral sources for the project • Process & logistics of saliva collection & shipping • Technology issues related to videotaping, creating montages, & uploading videos • Training, supervision & intervention materials only provided in English • Limited flexibility for parent coaches to address needs, issues, or concerns outside focus of ABC

SECTION 2.

Facilitators to Implementation.

Across all aspects of implementation, facilitators were critical to the success of the Kansas ABC Early Childhood Initiative (Table 2). Parent coaches and supervisors identified the extensive supervision and training received from University of Delaware (ABC Developer), as well as the community of local stakeholders that came together around this project (parent coaches, supervisors, funders, and evaluators) as major facilitators of implementation success.

Across sites, the active commitment of the participating agencies to ABC was critical. The agencies dedicated time and resources to the Initiative, ensuring that staff could be assigned full time to ABC and have reduced caseloads. One stakeholder recognized the “support from executive, space for parent coaches to learn, and willingness to work with different agencies” as major facilitators, while another similarly identified their agency’s “commitment to serving children and families, agency mission and vision, agency programs, and belief in ACEs (adverse childhood experiences) and protective factors” as important to success.

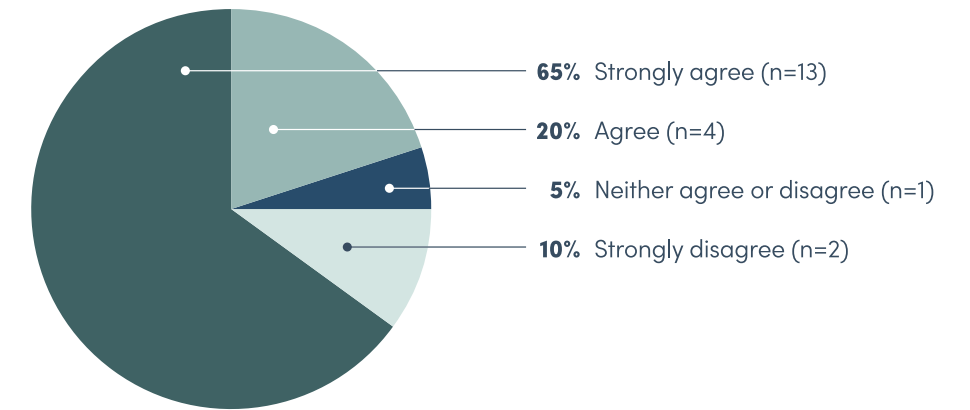
The passion, expertise, and problem-solving creativity of the parent coaches and supervisors in the Initiative ensured

the project and intervention reached families in need. The parent coaches’ growth and development and the ownership they took of their work with children and families, the ABC intervention, and its core components was increasingly evident during the Initiative. Parent coaches agreed that the ABC intervention was useful in working with at-risk families and was compatible with their own personal and professional values. Coaches and supervisors shared how their sites evaluated engagement with community partners and identified ways to increase referrals, while also engaging in new and exciting opportunities to share about ABC and its benefits across their agencies and among other early childhood professionals in their respective communities. Sites also shifted program processes or incentive protocols to help keep families engaged longer and increase the likelihood of completing the intervention and evaluation.

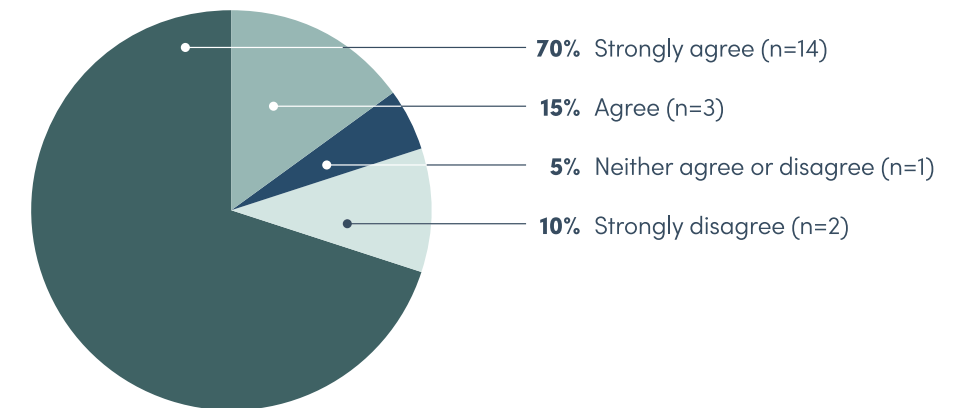
Delivering ABC, an evidence-based intervention which includes extensive training support from the developer, in addition to having a wide network of local support from participating agencies and funders, ensured that the Kansas ABC Early Childhood Initiative was able to reach families with young children who were at-risk for toxic stress.

Figure 8. Supervisor & Parent Coach Views of ABC

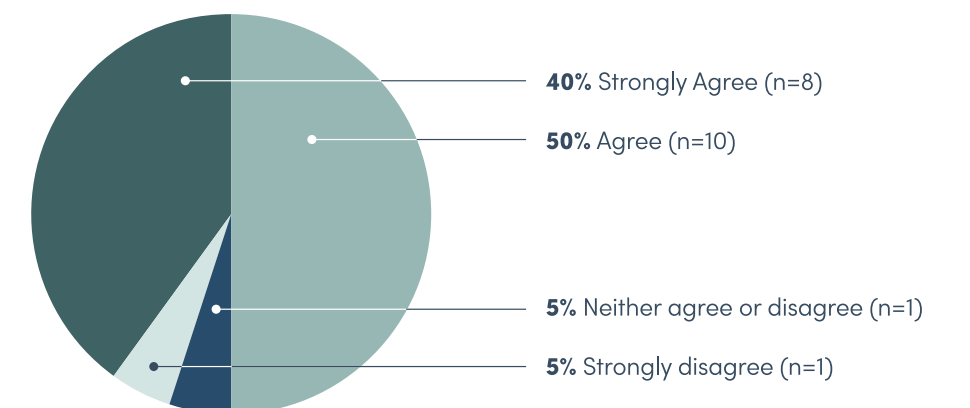
The ABC intervention is useful in work with families and children at-risk for early childhood adversity.



I believe in the benefits of the ABC intervention.



The ABC intervention is compatible with my personal and professional values.



SECTION 2.

Challenges to Implementation.

This Initiative had challenges emerge across various aspects of implementation, as documented in Table 2. Challenges identified early in the implementation process centered on incomplete knowledge and understanding of the intervention and time commitment by sites. Emphasizing these early difficulties around time and staffing, a supervisor described major challenges as including, “[a] division of staff’s time between responsibilities, broad range of service area, perceived effectiveness of intervention for the cost and recruitment and retention of qualified staff.”

Sites also identified the referral of families for the intervention as a challenge. One stakeholder explained, “many programs think ABC is great, but they do not do well in following through with referrals”, and another similarly shared, “other agencies need to promote their own programs and do not have the time to promote ABC.”

Another frequently cited challenge related to graduating families in 10 to 11 weeks, the ideal length of time for delivery of the ABC intervention. While the ABC intervention is designed to be delivered over the course of 10 consecutive weeks, families enrolled across the five Kansas sites required approximately 5 months to complete the intervention due to missed appointments and changes in scheduling that are common with in-home visiting services. Addressing the issue of missed appointments, one parent coach explained that “too many home visitors or other services and appointments can overwhelm families.”

All of this information provides important insights for future ABC implementation and scaling-up the intervention in Kansas and beyond. Though challenges at times slowed down services, the facilitators spurred on the work in unanticipated but innovative ways that provided families access to this new evidence-based intervention.

A Closer Look: ABC Delivery in Spanish

During Phase 1 of the Kansas ABC Early Childhood Initiative, four parent coaches were employed by sites to deliver ABC in Spanish. Approximately 41% of the families served were Hispanic or Latinx, and 22% primarily spoke Spanish in the home.

Wanting to learn about the experiences of bilingual parent coaches in regards to training, supervision, translation, and cultural relevance of the ABC intervention, the KU evaluation team interviewed four bilingual parent coaches. The results of these interviews fill an important gap in the established findings related to implementation of ABC that will serve to inform the intervention developers, suggest new research questions for future inquiry, and provide valuable insight for implementing ABC with diverse populations of families.

Within two broad categories, positive experiences providing ABC to Spanish-speaking families and challenges to providing ABC to Spanish-speaking families, six themes emerged. Two positive experiences were discussed regarding delivering the ABC program to Spanish-speaking families: 1) the cultural relevance of the program; and 2) having a parent coach who spoke Spanish and was Latinx. Four primary challenges were discussed by participants: 1) lack of translated

ABC materials, 2) varied cultural definitions of intervention concepts, 3) limited technical support when working with Spanish speaking families, and 4) managing the timeframe required with ABC. *Benefits & Challenges to Delivery of ABC in Spanish*, on pages 22 and 23, highlights the parent coaches’ perspectives about these topics.

These interviews highlight important information about cultural adaptations of an evidence-based intervention. Broadly, ABC focuses on building healthy families through the development of secure attachment, nurturance, and positive regard. The family focus appears to be a good fit among Spanish-speaking populations, particularly when delivered by a parent coach with a similar identity. However, parent coaches described challenges associated with translating materials or content around nurturance, a core ABC component. Exploration of the processes by which ABC is translated, on the ground, is therefore, necessary to gauge the impact of this adaptation on fidelity and intervention outcomes. Further, an examination of ABCs core principles and components is warranted to assess their transferability in specific cultural contexts and to better understand impacts on engagement and retention.

Benefits & Challenges to Delivery of ABC in Spanish

All quotes are from parent coaches who delivered ABC in Spanish

Benefit

Cultural relevance of the program

“The Hispanic culture is very based on wanting to make sure that their relationship with their children is there...I think that this ABC program builds on that and helps...to find different ways to help them see that...playing with your child...reading a book is important...their main cultural thing is building a family, a unity, and I think that helps to build.”

Benefit

Having a parent coach who spoke Spanish and was Latinx

“I think it helps because, in a way, the Hispanic families seem to, I guess, find more comfort because they know that ‘oh you know how things are!’ Our culture might be different...but we still have that, some of that root...which is hard for people to learn in school...you learn the language, but you don’t learn the culture of the understanding of it.”

Challenge

Lack of translated ABC materials

“The videos that we watch are in English...so they’re listening to the parents on the videos and I’m telling them in Spanish piece by piece...I think if the video was in Spanish, I think they would understand it a bit more.”

“What I tend to do is read the English manual and then take all of the main points and then translate how I would say it to the family...the direct English to Spanish translation of ABC isn’t very effective, because I feel things get lost in translation...with the different dialects you have to be able to cater to different dialects.”

Challenge

Varied cultural definitions

“The families, when I tell them you have to be nurturing to your child...I think that even though we tell them, they have a different understanding of what nurturing is than what we’re explaining to them.”

“The examples that are presented in the manual...I am a Spanish individual...I like to put my experiences into it aside from what’s actually being presented in the manual because that brings in a lot more culture.”

Challenge

Managing the timeframe

“Especially with the Spanish-speaking families, they are very open and they love dialogue...at times it becomes difficult to reel them back in to the focus of what we’re talking about.”

Challenge

Limited technical support when working with Spanish-speaking families

“I think what would have been helpful to me is letting me know that when we do coding, they don’t have supervisors in Spanish...So, whenever we had our clinical supervision, my videos had to be translated...so you always lose something in that aspect.”

“When it comes to the Spanish model there is a language barrier...It would be very beneficial to have...one bilingual supervisor that can understand the material.”



SECTION 3.

Families Served through the Kansas ABC Early Childhood Initiative.

Screening for Eligibility.

Families were screened for ABC program eligibility through use of the Household Strength and Strain Inventory (HSSI) screening tool. The HSSI measures families’ economic and familial risk factors as well as environmental and familial protective factors. Families’ eligibility for referral to ABC was established if scores on the HSSI reflected high potential risk of experiencing toxic stress, as evidenced by a high score on any one factor or a pattern of moderate/high scores across the scale indicating more generalized potential risk. Additionally, professionals administering the HSSI can refer families to the ABC program based on their clinical expertise or judgment in relation to each family’s reported constellation of risk and protective factors. After initial referral to the ABC program, families were provided detailed information regarding ABC services in order to make a decision about if they were interested in participating in ABC services. See Table 3: *Screening for Risk of Toxic Stress* for information regarding overall screening numbers.

Table 3. Screening for Risk of Toxic Stress

Year	Completed Screens	Positive Screens	Agreed to ABC
Year 1	203	183	147
Year 2	219	217	167
Year 3	114	107	95
Total	536	507	409*

Impact

Over the course of three years, the Kansas ABC Early Childhood Initiative was able to impact the lives of Kansas families across 36 counties. 536 families were screened for toxic stress, 402 families were enrolled to receive the ABC intervention, and 682 caregivers and 907 children were impacted.



SECTION 3.

After agreeing to participate in services, ABC parent coaches met with caregivers, obtained consent, and completed Time 1 evaluation measures. At this time, families were randomly assigned to one of two groups, either the cortisol or non-cortisol testing group.

Table 4: *ABC Enrollment Numbers by Site* contains enrollment information for each implementation site regarding total enrollment, number of cortisol families, and number of families completing Time 2 evaluation measures, as well as Time 3 follow up cortisol testing (cortisol families only).

Table 4. ABC Enrollment Numbers by Site

Site	Total # of Enrolled Families	# of Cortisol Families	Families who completed ABC & Time 2 Follow-Up	Families who completed ABC & Time 3 Follow-Up
Horizons	56	30	24	3
NW Kansas	51	22	28	4
Rainbows	104	45	77	30
Project Eagle	129	60	91	19
Russell	62	30	41	12
Total	402	187	261 (96 cortisol families)	68

In total (both cortisol and non-cortisol), there were 261 families that completed Time 1 and Time 2 measures (approximately 65% of the sample). Throughout the project, the Initiative enrolled 187 cortisol families (approximately 47% of the sample). Of those families, 96 completed Time 2 measures and Time 2 cortisol testing. Of those 96 families, 68 completed Time 3 cortisol testing.

Characteristics of Families Served.

Child Characteristics. The average age of the child enrolled in ABC services was 16.48 months old. The sample includes slightly more males than females (55% male; 44% female). The majority of the sample (82%) is White, which is reflective of statewide demographics. However, approximately 48% of the sample is reported as Hispanic or Latinx as a result of targeted enrollment of this ethnic group at three sites. This distribution is over-representative of the statewide population reporting Latinx ethnicity. See Table 5: *Demographics of Primary Child Served* for complete child demographic information.

Table 5. Demographics of Primary Child Served

Characteristic	\bar{x} or # (%)
Average Child age in Months	\bar{x} = 16.48 (SD = 7.0)
Child gender	
Female	174 (44%)
Male	221 (55%)
Child race	
White	318 (82%)
Black/African American	37 (10%)
Asian/Pacific Islander	2 (0.5%)
American Indian or Alaska Native	5 (1%)
Other	23 (6%)
Child ethnicity	
Non-Hispanic, Latino, Spanish	193 (52%)
Hispanic, Latino, Spanish	181 (48%)
Average number of children in the home	\bar{x} 2.34 (SD = 1.40)

Caregiver Characteristics. While ABC is designed to be delivered to any designated caregiver as identified by the family, 92% of the caregivers in the sample identified as the target child’s mother. Alternatively, 11 fathers as well as 21 grandmothers or other caregivers were identified as primary caregivers in this sample. On average, caregivers were 28.6 years old and White (85%). Approximately 41% of the sample identify as Hispanic or Latinx

SECTION 3.

with 22% of caregivers speaking Spanish in the home. Again, this is racially reflective of the statewide population but over-represents the Kansas Latinx population. Fifty-six percent of identified caregivers report earning a high school diploma or less, with approximately 28% of the sample reporting having attended some college. Table 6: *Demographics of Primary Caregiver Served* contains complete caregiver demographic information.

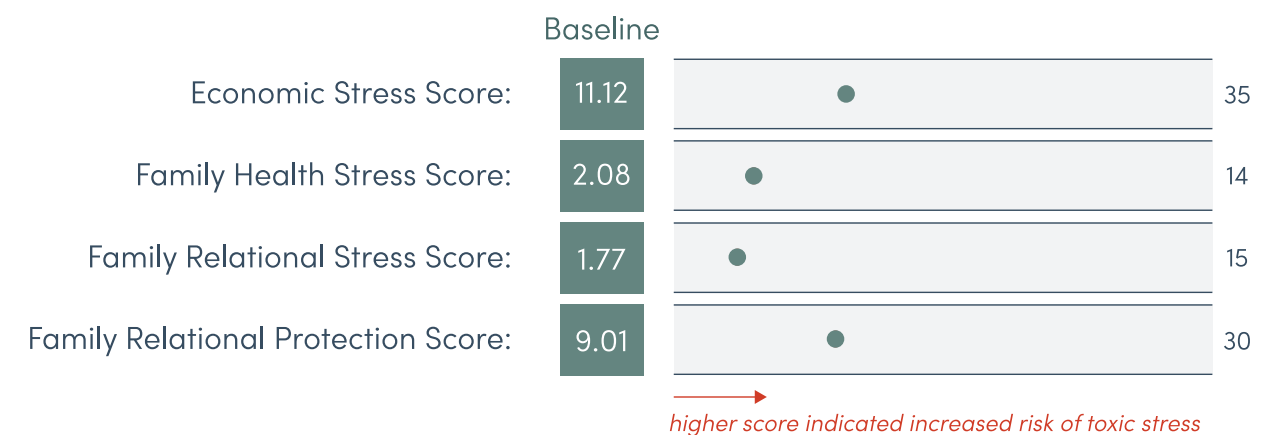
Table 6. Demographics of Primary Caregiver Served

Characteristic	\bar{x} or # (%)
Primary caregiver identified for ABC	
Mother	362 (92%)
Father	11 (3%)
Other	21 (5%)
Number of caregivers in the home	\bar{x} : = 1.87 (s.d. = 1.33)
Age of primary caregiver	\bar{x} : = 28.6 years old (s.d. = 8.19)
Race of primary caregiver	
White	330 (85%)
Black/African American	29 (8%)
Asian/Pacific Islander	1 (0.3%)
American Indian or Alaska Native	4 (1%)
Other	20 (5%)
Education level of primary caregiver	
Less than a high school diploma	91 (23%)
High school degree or equivalent (GED)	128 (33%)
Some college, no degree	109 (28%)
Associate degree (e.g. AA, AS)	27(7%)
Bachelor’s degree or higher (e.g. BA, BS)	35 (9%)
Caregiver Ethnicity	
Non-Hispanic, Latino, Spanish	227 (59%)
Hispanic, Latino, Spanish	155 (41%)
Primary language spoken in the home	
English	287(74%)
Spanish	87 (22%)
Other	12 (3%)

Household Strengths and Strain Inventory (HSSI). Participating agencies used the HSSI as the primary referral method for both the study and ABC services. The HSSI is comprised of 27 questions designed to identify stressors experienced by families, and families’ protective factors. Family risk factor questions are scored and categorized into three subscales: financial stress, family health stress, and relational stress. Family protective factors questions are contained in one subscale. High scores on the protective factor subscale indicate increased risk of experiencing toxic stress related to the potential absence of nurturing caregiving to buffer the stress experience. Families’ eligibility for referral to ABC was established if scores on the HSSI reflected high potential risk of experiencing toxic stress, as evidenced by a high score on any one factor or a pattern of moderate/high scores across the scale indicating more generalized potential risk.

The mean scores on the economic stress sub-scale of the HSSI indicate the majority of families enrolled experienced financial or economic stress. The family health stress subscale, and the family relational stress subscale, were less substantial concerns compared to the economic subscale score, overall. Additionally, families enrolled in the study had moderate scores on the Family Relational Protective Factors subscale. These findings reflect that enrolled families are experiencing a moderate to high level of economic and material hardship and only moderate levels of the protective factors necessary to buffer the type of chronic strain that is introduced by difficult economic conditions in the home. Left unchecked, this type of stress may result in a toxic stress experience. These findings demonstrate the suitability of this sample for receiving the ABC intervention. Figure 9: *Protective & Risk Levels of Families Served* contains additional details regarding the sample’s HSSI scores (corresponding Table A1 in Appendix).

Figure 9. Protective & Risk Levels of Families Served

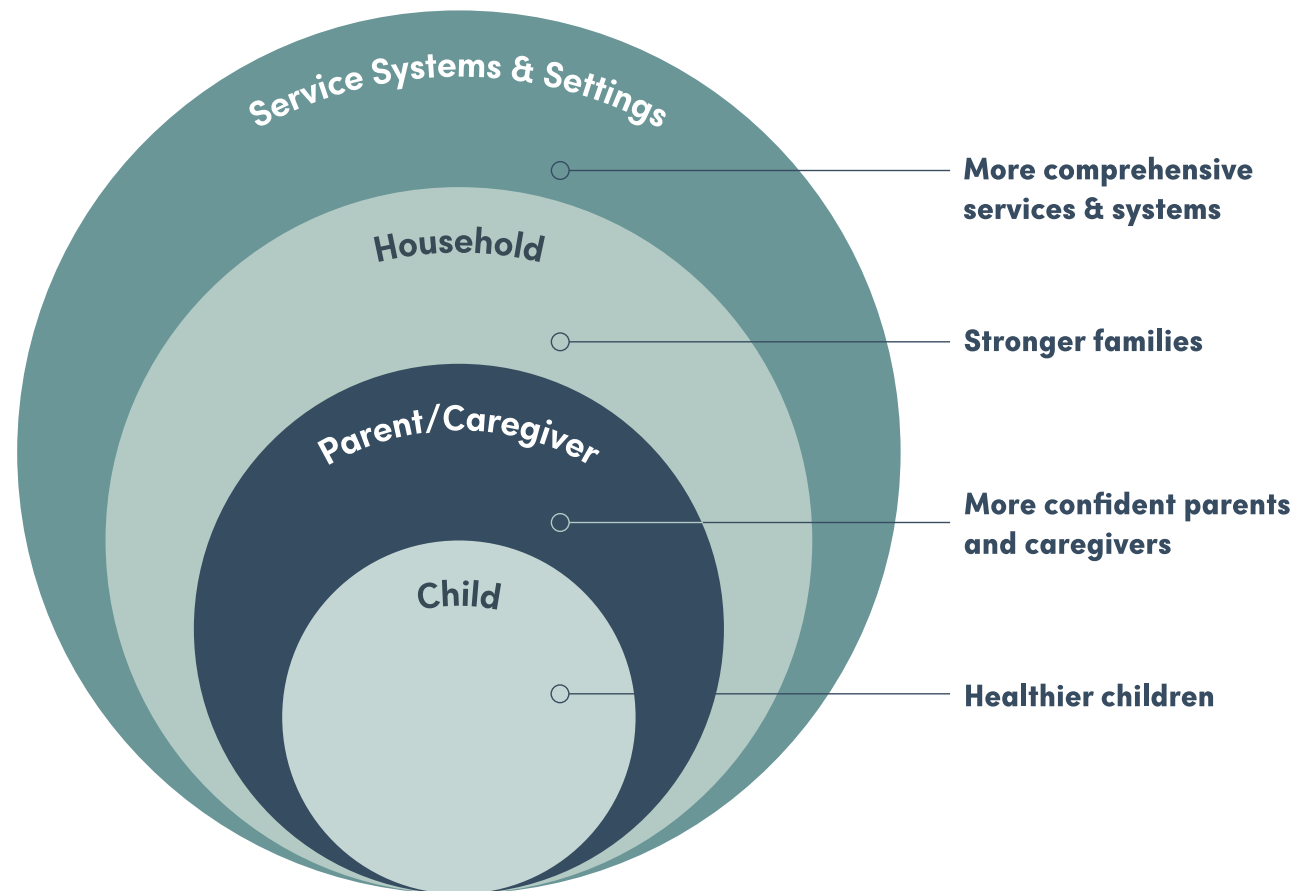


SECTION 4.

The Multi-Level Impact of the Kansas ABC Early Childhood Initiative: A Closer Look at Outcomes.

Based on previous research on ABC and the structure of the Kansas ABC Early Childhood Initiative, we hypothesized that the Kansas ABC Early Childhood Initiative would have an impact across four levels: child, parent/caregiver, household, and service systems and settings across Kansas (see Figure 10). The evaluation was structured to measure impact at these various levels. As described in the following sections, this three-year evaluation found that the Kansas ABC Early Childhood Initiative led to healthier children, more confident parents and caregivers, stronger families, and more comprehensive services & systems.

Figure 10. Multi-Level Impact of Kansas ABC Early Childhood Initiative

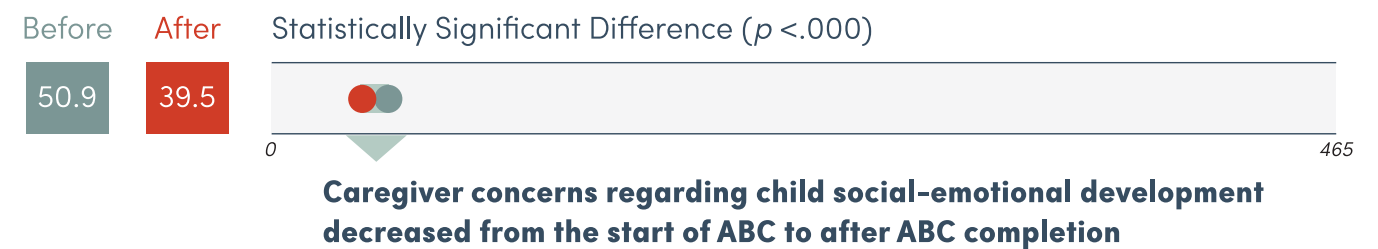


Healthier Children: Child Outcomes.

To measure the impact of ABC on the young children, the evaluation focused on social-emotional, biological, and overall well-being indicators. Families reported statistically significant improvements in the children’s social-emotional functioning and their overall well-being after participating in ABC. While not statistically significant, children’s cortisol levels, an indicator of toxic stress, appeared to trend to more normative patterns after participating in ABC. The following sections provide more detailed information about these findings.

Social-Emotional Development. Social-emotional development in young children is a critical factor related to later life outcomes such as school success, social interactions, and mental health. The importance of this factor as well as past evidence that ABC can positively impact social-emotional development led to its inclusion in the current evaluation. The Ages & Stages Questionnaire: Social-Emotional, Version 2 (ASQ:SE-2) is an age-specific measure that parents completed independently, or parent coaches administered orally to the caregiver. A paired samples t-test was completed using total scores on the ASQ:SE-2 to compare change from Time 1 to Time 2. Caregiver concerns regarding child social-emotional development decreased from the start of ABC to after ABC completion and these results were statistically significant (Figure 11: ASQ:SE-2 Paired Samples T-Test Results, corresponding Table A2 in Appendix).

Figure 11. ASQ:SE-2 Paired Samples T-Test Results



Impact
Families reported statistically significant improvements in the children’s social-emotional functioning and their overall well-being after participating in ABC.

SECTION 4.

Toxic Stress. Prior literature has found children experiencing high levels of toxic stress or early adversity experience “blunting”. Cortisol typically follows a diurnal pattern, characterized by high wake-up values and low bedtime values. Children with blunted cortisol production do not experience significant change in cortisol values throughout the day. Prior literature has found ABC to be an effective intervention, which regulates children’s cortisol production. For this evaluation, caregivers receiving the ABC intervention collected saliva samples from the ABC target child at three distinct time points (baseline, post-intervention, and six months post-intervention). During these three time points, the caregivers collected four saliva samples over the course of two days (i.e. two waking samples, two bedtime samples).

Throughout the project, results of 1,003 samples were received and analyzed. Based on methodology from prior literature examining cortisol values in infants and children (Bernard, et al., 2015; Fisher et al., 2007), biologically implausible cortisol values (i.e., defined as values greater than 2.0) and samples that did not contain a sufficient amount of saliva were discarded in analysis. As such, 732 samples were included in final analysis.

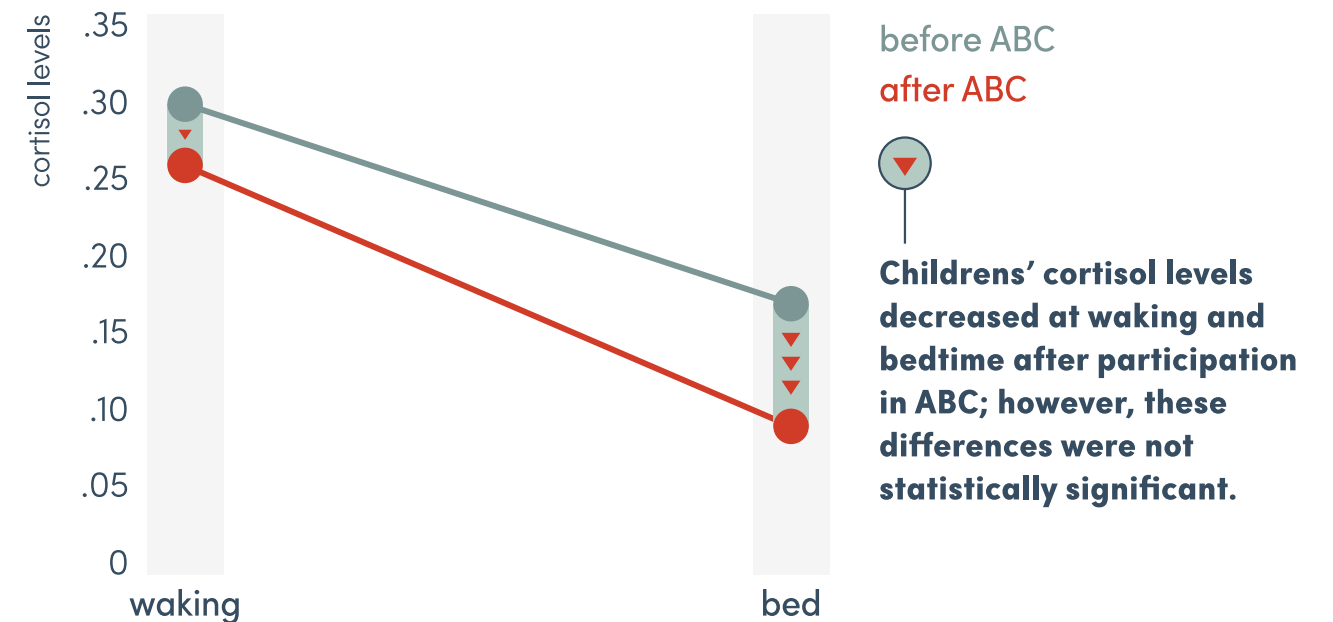
Caregivers sampled their children over

the course of two days at each collection point, and an average cortisol value was calculated for waking time and bedtime samples. As seen in Figure 12, basic descriptive information revealed that the average waking cortisol values for the sample at baseline were .31 (SD = .19) and the average bedtime cortisol values were .17 (SD = .21), for a slope value of -.14.

Post-intervention cortisol values were as follows: waking time .26 (SD = .17) and bedtime as .09 (SD = .09), for a slope value of -.17. At both baseline and post-intervention, the waking and bedtime cortisol values demonstrated statistically significant differences. These findings indicate that both before and after the ABC intervention, children in the sample were experiencing potentially normative cortisol patterns and were not experiencing the blunting effect of high toxic stress.

The average values for this project’s cortisol activities appear to indicate that immediately post-ABC, the children had more normal diurnal cortisol patterns. Additionally, these findings reveal that post-ABC, the children overall had lower waking cortisol values. These findings are supported by prior literature which suggests young children with overall lower waking and bedtime cortisol values have a more normative cortisol pattern. However, even though descriptive

Figure 12. Cortisol waking and bedtime values pre-ABC and post-ABC



information suggests positive patterns post-intervention, statistical analyses demonstrated no statistically significant differences in cortisol changes over time.

Additional analyses of the sample found that families who participated earlier in the project faced more risk factors than families who participated later in the project. This suggests that as sites became more comfortable with ABC and recognized its benefits, they may have broadened recruitment of families in order to give more families access which led to inclusion of families with less overall risk factors and therefore less toxic stress. These families benefited from ABC as evidenced by results summarized elsewhere in the report but the children displayed more

normative patterns of cortisol prior to the intervention and therefore, had less room for improvement in this measure.

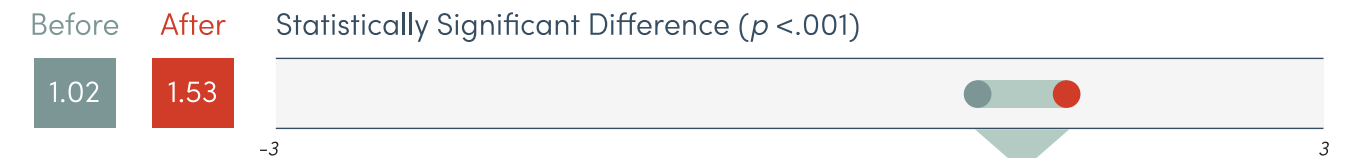
As noted previously, additional samples were collected approximately six months after families had completed the ABC intervention. The number of samples collected at the six month follow-up was much smaller than post-intervention due to attrition and follow-ups scheduled to occur during the COVID pandemic. Due to the insufficient sample size and potential confounding factors (variable follow-up period due to pandemic, unprecedented stress factors of global pandemic, potential contamination of samples), the decision was made not to include the six-month follow-up analyses in the evaluation.

SECTION 4.

Overall, children did see a larger decrease in their cortisol production throughout the day, post-intervention compared to pre-intervention, but from a purely statistical standpoint, these differences were not significant.

Overall Child Wellbeing. A measure of the child’s overall wellbeing was also included in the evaluation to assess how the child was functioning across other domains beyond social-emotional functioning. The NCFAS-G is a provider-report instrument used to ascertain an understanding of the family’s overall functioning across eight subscales. For each subscale, there are multiple items as well as an overall score that reflects an overall impression of each domain rather than an average score. The Child Wellbeing Subscale provides an overall assessment of child well-being based on items including behavior, school, and relationships. A paired samples t-test found statistically significant improvements in child well-being from Time 1 to Time 2. Parent coaches rated children’s overall wellbeing as more positive after the completion of the ABC intervention. See Figure 13: *NCFAS-G- Child Wellbeing Subscale Paired Samples T-Test* for more information (corresponding Table A3 in Appendix).

Figure 13. NCFAS-G- Child Wellbeing Subscale Paired Samples T-Test



Parent coaches rated children’s overall wellbeing as more positive after the completion of the ABC intervention.



She’s able to sooth herself better. So that way she enjoys more of her dad, him coming home, and then telling him what she wants and then throws a tantrum, and then that’s it. Now she gets home and she can sort of kind of tell him what she wants and we can both understand, and then they have more time together.

-Mother who participated in ABC

The child’s language and words have just exploded with mom following the lead more. The child has language delays, but each week he has tons of new words!

-Parent Coach

SECTION 4.

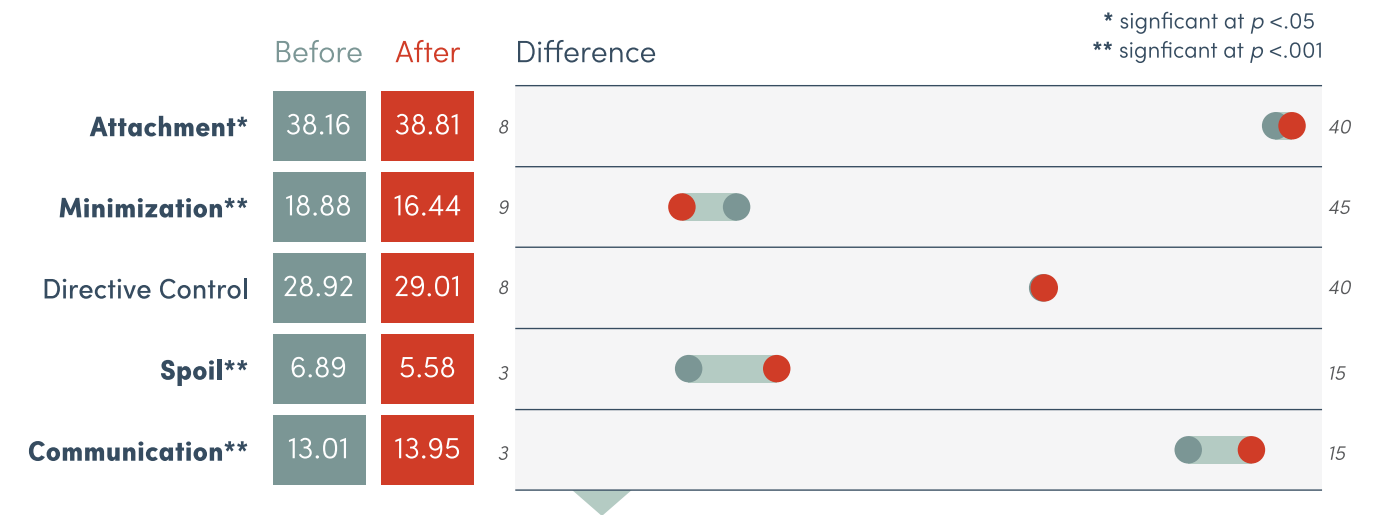
More Confident Parents & Caregivers: Caregiver Outcomes.

To measure caregiver impact, the evaluation assessed caregivers’ knowledge of caregiving and child development, their confidence in their caregiving abilities, their interactions with their child, and overall parental capabilities before and after participation in ABC. Caregivers reported statistically significant improvement in knowledge and beliefs about attachment, minimization, spoiling and communication with young children. They also indicated that they had more confidence in their caregiving abilities after participating in ABC. Observations of parent-child interactions revealed improvements in caregivers’ level of intrusiveness, sensitivity, and positive regard following completion of ABC. Parent coaches also reported significant improvement in overall parental capabilities. The following sections provide more detail about these findings.

Knowledge & Beliefs about Children & Caregiving. The ABC intervention provides caregivers with new knowledge and skills about children and caregiving, therefore, a measure of these factors was critical to the evaluation. The Infant Crying Questionnaire (ICQ) is a two-part measure and contains 43 questions measured by a 5-point Likert scale (1 = Never, 5 = All the time). The ICQ examines caregiver beliefs regarding five different domains pertaining to infant crying; attachment, minimization, directive control, spoiling, and communication. Minimization refers to caregivers minimizing infant crying behaviors or not fully understanding the importance of what infant crying signals. The directive control domain examines caregiver beliefs towards the relationship of caregiver control and their infant’s crying behaviors.

Higher mean scores on the attachment and communication-based questions are positive, while lower mean scores on minimization, directive control, and spoiling domain questions are positive. A paired samples t-test was conducted and results suggest statistically significant changes from Time 1 to Time 2 in attachment, minimization, spoiling, and communication domains. From prior to ABC participation to after ABC completion, attachment and communication beliefs improved while minimization and spoiling beliefs decreased, revealing positive caregiver outcomes. Figure 14: *Infant Crying Questionnaire Paired Samples T-Test* details Time 1 and Time 2 scores on the ICQ (corresponding Table A4 in Appendix).

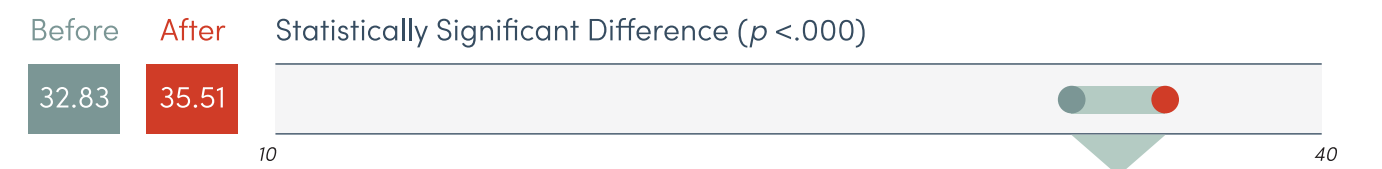
Figure 14. Infant Crying Questionnaire Paired Samples T-Test



After ABC completion, attachment and communication beliefs improved while minimization and spoiling beliefs decreased, revealing positive caregiver outcomes.

Confidence in Caregiving Abilities. Another critical aspect of caregiver impact is also their own confidence in their caregiving abilities. The Maternal Self-Efficacy Scale (MSE) was included in the evaluation to determine if providing caregivers with more knowledge and skills through ABC impacted their confidence in their caregiving abilities. The MSE is a 10-item caregiver-report scale that measures perceived caregiving abilities. The MSE is measured on a 4-point Likert scale. A score of one indicates low self-efficacy beliefs while a score of 4 indicates high perceived self-efficacy. The maximum score is 40. A paired samples t-test was conducted comparing Time 1 and Time 2 MSE scores. Results from the t-test were statistically significant and demonstrate caregivers are rating themselves significantly higher with stronger beliefs in their caregiving abilities at Time 2 (Figure 15: *Maternal Self-Efficacy Paired Samples T-Test*, corresponding Table A5 in Appendix).

Figure 15. Maternal Self-Efficacy Paired Samples T-Test



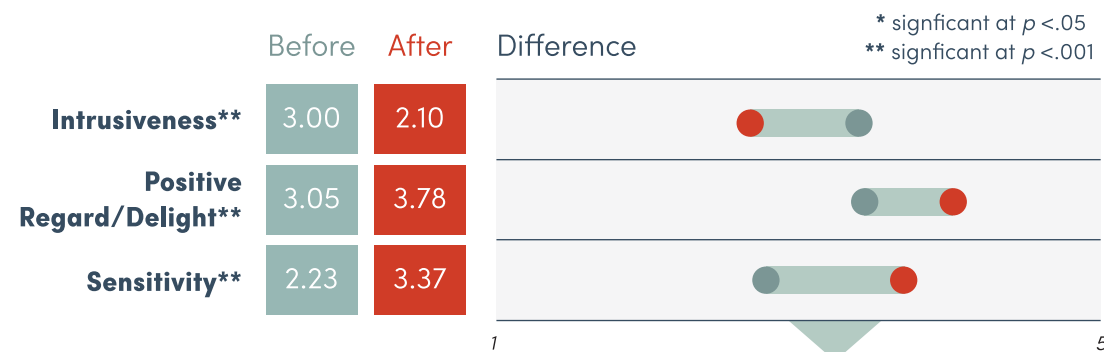
Caregivers rated themselves significantly higher with stronger beliefs in their caregiving abilities after participating in ABC.

SECTION 4.

Parent and Child Interactions. As part of the ABC intervention, a play assessment is completed with each family at the start of the intervention and again at the conclusion of the intervention. These assessments measure caregiver’s interactions with their child in terms of their intrusiveness, sensitivity, and positive regard/delight. The intervention seeks to decrease parent behavior that children may experience as intrusive or frightening and increase parents’ sensitivity and positive affect towards their child’s cues. Assessments are scored on a five-point scale, 1 being minimally characteristic and 5 being highly characteristic.

For evaluation purposes, a paired samples t-test was conducted with caregivers’ Time 1 and Time 2 scores. Results from the paired samples t-test indicate statistically significant changes in scores from Time 1 to Time 2. Based on the results of the t-test, it appears caregiver intrusiveness has gone down; while sensitivity and positive regard/delight have gone up, as expected. Figure 16: *Play Assessment Paired Samples T-Test* details these results. (Corresponding Table A6 in Appendix.)

Figure 16. Play Assessment Paired Samples T-Test

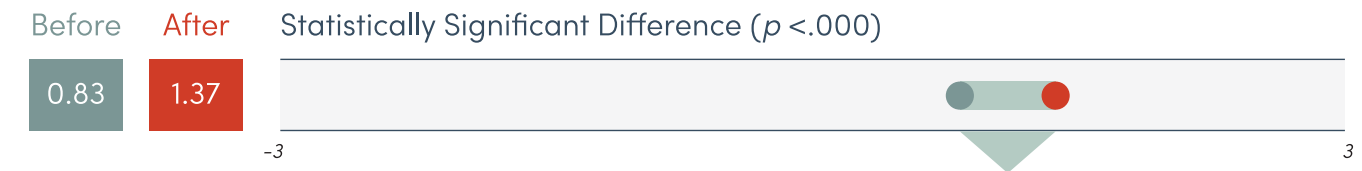


After participation in ABC, caregiver intrusiveness went down; while sensitivity and positive delight went up

Overall Parental Capabilities. In addition to measures of caregiver knowledge, confidence, and behavior, the evaluation also included a measure of overall parental capabilities rated by the parent coach prior to ABC and upon completion. The NCFAS-G parental capabilities subscale provides an overall assessment of parent capacity based on items including supervision, discipline, developmental opportunities, use of drugs/alcohol, promotion of education, control of access to media, and literacy. A paired

samples t-test found statistically significant improvements in parent capabilities from Time 1 to Time 2. See Figure 17: *NCFAS-G Parent Capabilities Subscale Paired Samples T-Test* for more information. (Corresponding Table A7 in Appendix.)

Figure 17. NCFAS-G Parent Capabilities Subscale Paired Samples T-Test



Parent capabilities significantly improved after participating in ABC.



I would recommend it because it's a very good program. Like it helps you understand more and it helps you relieve that stress you have. Because you can't go to another parent and be like, 'Oh, well, I have this problem and this problem with my child,'...you know they're going to judge you. And ABC will not judge you, they will help you. Instead of judging you, they're going to help you fix that problem or show you how to fix that problem.

-Mother who participated in ABC

So I'm a first-time mom and I really didn't have a clue what I was doing. So it was very helpful to see different ways of interacting with her and then finding out that she was her own person.

-Mother who participated in ABC

SECTION 4.

Stronger Families: Family & Household Outcomes.

To measure the impact of ABC on the entire family household, the evaluation focused on indicators of household environment, family interactions and safety, social or community life, self-sufficiency, and family health as reported by the parent coach. Analyses found that the family household had significant improvements in all of these areas from before starting ABC to completion of ABC. The following section provides more detail about these findings.

Six of the eight subscales of the NCFAS-G assess aspects of household or family outcomes: environment, family interactions, family safety, social/community life, self-sufficiency, and family health. Paired samples t-tests were conducted for each subscale’s overall score, and statistically significant improvements in scores were observed in all of these family outcome domains from Time 1 to Time 2. Parent coaches rated family environment, interactions, safety, social life, self-sufficiency, and health all as more positive after completion of ABC as compared to prior to ABC participation. See Figure 18: *NCFAS-G Select Family Focused Subscales Paired Samples T-Test* for more information. (Corresponding Table A8 in Appendix.)

Figure 18. NCFAS-G Select Family Focused Subscales Paired Samples T-Test



Parent coaches rated family environment, interactions, safety, social life, self-sufficiency, and health all as more positive after completion of ABC.

A Closer Look: Exploring ABC Implementation and Outcomes from the Caregiver Perspective

In 2020 and 2021, the KU evaluation team interviewed caregivers to gain insight about ABC service delivery and value from the caregiver perspective. The evaluation team sought referrals from providers at participating sites and received the names of 31 families, from four of the five sites. Referred caregivers had participated in and completed the ABC program and expressed interest in speaking with the evaluation team members about their experience in ABC and with their parent coaches.

Evaluation team members completed remote interviews with thirteen families. Of the thirteen families, ten interviews were completed in English and three interviews were completed in Spanish.

Caregivers reported an increase in their confidence as a parent, increased understanding of their child’s development stages or issues, decreased negative child behaviors

and increased child attachment. Whether first time parents or not, all participants highly recommend the ABC program. Several participants wished the intervention was longer, both in the number of sessions provided, but also in the length of each individual session; a few participants indicated a desire to repeat the program for the toddler years. All participants spoke highly of their parent coaches and appreciated the positive feedback and reassurance that they weren’t doing a bad job as well as the flexibility with which parent coaches scheduled sessions (e.g., outside regular hours, on the weekend, etc).

Pages 42 and 43 highlight the experiences of these caregivers in their own words.



Quotes from Caregivers
who participated in ABC

“ I think the one thing that I remember the most is just the constant reminder that I am a good mom and, it is okay to sometimes get a little frustrated as long as you're understanding how the child feels and not just kind of pushing their feelings aside. That's one thing that I remember the most, is always making sure that you're communicating well with your child and knowing that you're understanding well with them, and figuring out their need and not just kind of guessing at it. And not fully putting into consideration that just because they're a baby or they're so young that they wouldn't have feelings when they do.

“ Because at the beginning I didn't know what to do with her. Because when she... wanted something and I couldn't understand her, I would get frustrated. I'd be like well, maybe I'm not that good of a parent, because I'm not understanding her. But now I went through ABC, I've seen that it's okay because a bunch of parents go through it.

“ With her showing me how to redirect my daughter and...show me different ways to comfort her when she would have her fallouts, it helped me to not get so frustrated when she was... having her tantrums.

“ I think there were so many things – many good things about the program... Well, I am a first-time mom. So I didn't know how to control her and then having a problem of her speech, she doesn't speak to me yet. So she only like points and she gets frustrated. So the program really helped me in how to soothe her, so I can calm myself and calm her down to see what she wants.

“ Because sometimes a lot of parents don't take the time to sit down and play with their children or don't have the patience or don't have many tools. Sometimes one doesn't know how to act around children. And yes, I would recommend it.

SECTION 4.

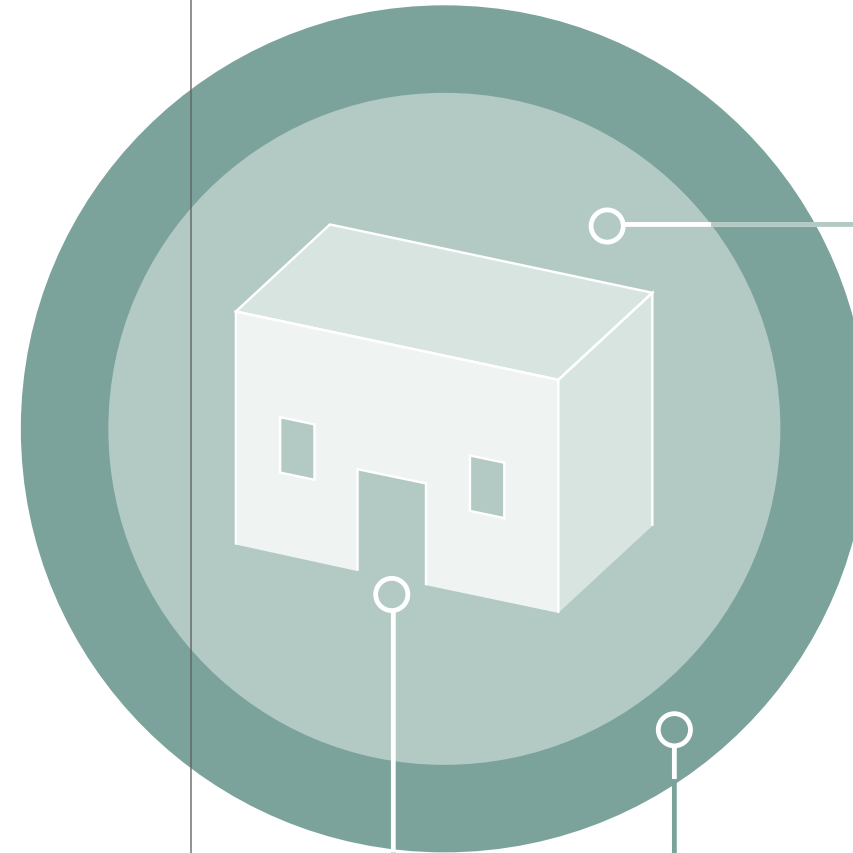
More Comprehensive Systems & Services: Systems Outcomes.

To measure the impact of the Kansas ABC Early Childhood Initiative on Kansas systems and settings, the evaluation collected information about early childhood capacity, advocacy, and sustainability. With the \$2.4 million dollar investment, the Initiative successfully increased early childhood capacity and awareness across the state, resulting in critical opportunities for advocacy and sustainability.

The Initiative resulted in expanded capacity for early childhood services across the state. During Phase 1, three ABC trainings were held in Kansas with 39 infant parent coaches and 10 toddler parent coaches trained. Stakeholders participated in 12 learning communities (7 virtual, 5 in person) which provided an opportunity for extended learning and sharing around early childhood services broadly and ABC more specifically.

As a result of the Initiative, early childhood advocacy efforts in the state brought increased awareness of the need for investment to state agencies and legislators. During the three years, ABC was part of 7 legislative hearings, 2 legislative bills, and more than 14 presentations. Additionally, 18 Kansas stakeholders went on a trip to New York City to visit a model early childhood program delivering ABC. In regards to community education and awareness, the Initiative sponsored 3 Facebook thunderclaps, sent out 150 video mailers, and developed a home visiting issue brief.

In regards to sustainability of ABC, the sites have been successful in finding ways to continue to deliver ABC after the Initiative ended. Two sites secured Family First funding specifically for ABC delivery, and two sites have been able to set up processes to regularly bill insurance for ABC services. Additionally, three sites will be participating in Phase 2 of the Initiative which will broaden the implementation to include ABC Toddler and the evaluation to include measures of general child development, parental stress, and family empowerment.



Two sites secured Family First funding specifically for ABC delivery to prevent children from entering the child welfare system, and two sites have been able to set processes to bill through Medicaid and insurance for ABC services.

During the three years, ABC was part of 7 legislative hearings, 2 legislative bills, and more than 14 presentations. Additionally, 18 Kansas stakeholders went on a trip to New York City to visit a model early childhood program delivering ABC.

Three ABC trainings were held in Kansas with 39 infant parent coaches and 10 toddler parent coaches trained.

SECTION 5.

Phase 2 of the Kansas ABC Early Childhood Initiative.

Phase 2 of the Kansas ABC Early Childhood Initiative (2020 – 2023) supports implementation sites as they build capacity with the toddler version of ABC and work towards long-term sustainability. In designing the evaluation for Phase 2 of the Kansas ABC Early Childhood Initiative, the evaluation team considered what the overall ABC body of literature already demonstrates, what our local evaluation found in Phase 1, and what new questions or outcomes have yet to be explored.

Existing evidence supports the efficacy of the ABC intervention in improving secure attachments and regulating biology and behavior in at-risk children. Our findings thus far mirror this. Additionally, limited evidence exists indicating ABC has a positive impact on parental stress and children’s internalizing and externalizing behaviors, both of which are critical to school readiness and success in later life. Whether this is true or not for Kansas families remains to be seen, thus new questions must be explored.

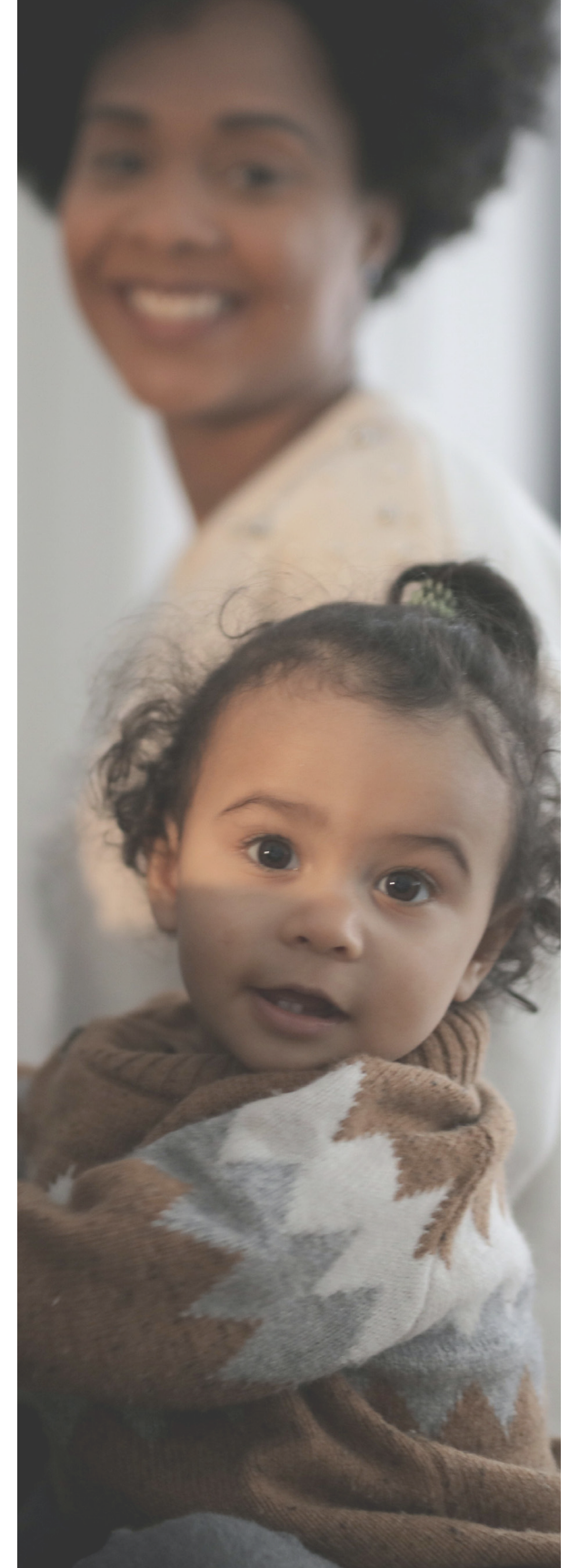
Anecdotally, supervisors and parent coaches shared stories during Phase 1 which suggest ABC is also impacting parent stress and empowerment; parents

themselves indicate greater confidence and ability to respond to or access the services and help their children need post-intervention. However, measures from Phase 1 were not designed to capture these outcomes.

Therefore, for Phase 2, new measures were needed to evaluate the impact of ABC on parental stress, family empowerment, and children’s executive functioning. The Phase 2 evaluation adds two brief measures to assess potential change in parent behavior and functioning and one or two brief measures to assess potential change in child development and executive functioning. The Parental Stress Scale (PSS) measures emotional benefits, self-enrichment, personal development, demands on resources, opportunity costs, and restrictions as a result of parenting, and the Family Empowerment Scale (FES) measures changes in knowledge, competence, and self-efficacy. These parent-focused outcomes are critical to a caregiver’s ability to create an environment for their child that is both nurturing and conducive to learning and growing. The Ages and Stages Questionnaire – 3 (ASQ-3) focuses on developmental progress in young children in such areas as communication, gross motor, fine motor, problem-solving, and personal-social development. The Behavioral Rating Inventory of Executive

Functioning – Preschool Version (BRIEF-P) examines child executive functioning, from the parent’s perspective, and covers such areas as inhibitory self-control, flexibility, and emergent metacognition. The BRIEF-P will only be used with families receiving the ABC toddler version. Finally, additional data are being collected through interviews with home visitors, supervisors, agency leadership, funders, and families participating in this next phase of the implementation evaluation.

Phase 2 of the Kansas ABC Early Childhood Initiative provides an exciting opportunity to further explore the impact of the intervention on slightly older children as well as on new parent and child outcomes.



SECTION 6.

Conclusion.

The Kansas ABC Early Childhood Initiative sought to expand early childhood service capacity in Kansas, by promoting widespread screening for toxic stress, training more providers in the Attachment and Biobehavioral Catch-Up intervention, and evaluating the effectiveness of ABC in a variety of Kansas service settings and geographic locations. The evaluation component of the Initiative included an implementation evaluation and an impact study.

The implementation evaluation highlighted the challenges to implementation that occurred (i.e. incomplete information about ABC and the time commitment, getting referrals, client engagement), but it also showcased the facilitators to implementation that made this project successful (i.e. committed and passionate stakeholders, Learning Communities, ongoing training and supervision from University of Delaware, and flexibility of internal processes and procedures to enhance engagement and service delivery, particularly in response to COVID-19). These lessons learned provide guidance for ongoing implementation and sustainability for the future of ABC in Kansas and beyond.

Though findings suggest that the stressors and risk factors of many participating

children were not at the level of toxic stress, the impact study demonstrated that families who were in need and could benefit from ABC were able to receive the intervention as part of the Initiative. Further, findings demonstrated that the Kansas ABC Early Childhood Initiative had a positive impact on Kansas children, caregivers, families, and systems, with outcomes including healthier children, more confident parents and caregivers, stronger families, and more comprehensive services & systems. By intervening to build and promote these parenting competencies that have been demonstrated through decades of research to promote more positive child outcomes such as strong social-emotional skills, coping and resilience from stressors, and school readiness, we have provided the building blocks necessary to promote a positive future trajectory for these Kansas children and families.

Lessons Learned: Considerations for Policymakers, Foundations and Early Childhood Stakeholders.

With the growing awareness of the importance, and substantial return on investment, of investing in high-quality science-based early childhood programs, this report highlights for policymakers, foundations, and other early childhood stakeholders the

potential that can be achieved through ongoing support for interventions such as ABC. This report and the experience from ABC projects confirm that this science-based early childhood program can normalize cortisol levels and strengthen interpersonal relationships with caregivers, both of which influence long-term health, learning, and behavior.

As policymakers explore evidence-based strategies to prevent utilization of the child welfare system, keep children with their parents in their homes, improve health, build parenting skills, and address equitable attainment of education, this report detailing the Kansas experience with ABC and experience from other ABC projects nationally highlights the potential of ABC as a worthy, evidence-based investment.

Kansas has already moved in this direction by providing Family First dollars to support ABC projects as part of child welfare prevention strategies deployed under Family First. Likewise, the Kansas Department of Education has recognized ABC as an approved program to use equity funds at the state level, and Medicaid is reimbursing mental health providers utilizing ABC for eligible children. However, given the success of ABC in normalizing cortisol levels and lessons learned from other states – like New York, which utilized ABC

to sustainably reduce child welfare caseloads and aid reunification efforts – there is great potential for policymakers to support evidence-based programs like ABC to advance child health and child welfare goals as well as improve educational attainment.

Likewise, continued investment from foundations and early childhood stakeholders in ABC and other evidence-based programs offers important opportunities to test, pilot, and evaluate programs to inform and maximize the return on future investments affecting generations to come.

REFERENCES & APPENDIX.

References.

Bernard, K., Dozer, M., Bick, J., & Gordon, K. (2015). Intervening to enhance cortisol regulation among children at risk for neglect: Results of a randomized control trial. *Development and Psychopathology*, 27, 829-841.

Byers, K. (2016). Household Strength and Strain Inventory. University of Kansas School of Social Welfare.

Damschroder, L., Aron, D., Keith, R., Kirsh, S., Alexander, J., & Lowery, J. (2009) Fostering implementation of health services research findings into practice: A consolidated framework for advancing implementation science. *Implementation Science*, 4(1), 50-65.

Fisher, P. A., Stoolmiller, M., Gunnar, M. R., & Burraston, B. O. (2007). Effects of a therapeutic intervention for foster preschoolers on diurnal cortisol activity. *Psychoneuroendocrinology*, 32, 892-905.

Haltigan, J.D. Leerkes, E. M., Burney, R., O'Brien, M., Supple, A., & Calkins, S. (2012). The infant crying questionnaire: Initial factor structure and validation. *Infant Behavior Disorders*, 35(4), 876-883.

Reed-Ashcraft, K., Kirk, R.S., & Fraser, M.W. (2001). The reliability and validity of the North Carolina Family Assessment Scale. *Research of Social Work Practice*, 11(4), 503-520.

Squires, J., Bricker, D., & Twombly, E. (2015). *The ASQ:SE-2 User's Guide*. Baltimore, MD: Brooks Publishing Company.

Teti, D. & Gelfand, D. (1991). Behavioral competence among mothers of infants in the first year: The mediation role of maternal self-efficacy. *Child Development*, 62, 918-929.

Appendix.

Table A1. Protective & Risk Levels of Families Served

HSSI Subscale	Sample Average Subscale Score
Economic Stress Subscale Score	\bar{x} : = 11.12 (SD = 7.90)
Family Health Stress Subscale Score	\bar{x} : = 2.08 (SD = 2.25)
Family Relational Stress Subscale Score	\bar{x} : = 1.77 (SD = 2.79)
Family Relational Protection Subscale Score	\bar{x} : = 9.01 (SD = 4.68)

Table A2. ASQ:SE-2 Paired Samples T-Test Results

	Time 1		Time 2		df	t	p
	\bar{x}	S.D.	\bar{x}	S.D.			
ASQ:SE-2	50.92	51.67	39.47	45.03	236	4.84	.000

Table A3. NCFAS-G Child Wellbeing Subscale Paired Samples T-Test

	Time 1		Time 2		df	t	p
	\bar{x}	S.D.	\bar{x}	S.D.			
NCFAS-Child Wellbeing	1.02	1.91	1.53	1.87	240	-3.48	.001

Table A4. NCFAS-G Child Wellbeing Subscale Paired Samples T-Test

	Time 1		Time 2		df	t	p
	\bar{x}	S.D.	\bar{x}	S.D.			
Attachment	38.16	3.03	38.81	2.45	238	-2.78	.006
Minimization	18.88	5.67	16.44	5.04	224	7.64	.000
Directive Control	28.92	5.53	29.01	4.98	233	-0.282	.778
Spoil	6.89	2.48	5.58	2.32	244	8.14	.000
Communication	13.01	2.07	13.95	3.39	225	-8.76	.001

Table A5. Maternal Self-Efficacy Paired Samples T-Test

	Time 1		Time 2		df	t	p
	\bar{x}	S.D.	\bar{x}	S.D.			
MSE	32.83	4.47	35.51	3.5	246	-8.76	.000

Table A6. Play Assessment Paired Samples T-Test

	Time 1		Time 2		df	t	p
	\bar{x}	S.D.	\bar{x}	S.D.			
Intrusiveness	3	1.37	2.1	1.19	187	7.85	.000
Positive Regard/Delight	3.05	1.18	3.78	1.01	187	-7.47	.000
Sensitivity	2.23	1.03	3.37	1.08	187	-12.75	.000

Table A7. NCFAS-G Parent Capabilities Subscale Paired Samples T-Test

	Time 1		Time 2		df	t	p
	\bar{x}	S.D.	\bar{x}	S.D.			
NCFAS-Parental Capabilities	0.83	1.72	1.37	1.24	238	-6.39	.000

Table A8. NCFAS-G Select Family Focused Subscales Paired Samples T-Test

	Time 1		Time 2		df	t	p
	\bar{x}	S.D.	\bar{x}	S.D.			
NCFAS-Environment	.44	3.61	1.07	1.16	240	-2.75	.007
NCFAS- Family Interactions	.71	1.58	1.36	1.37	239	-7.47	.000
NCFAS-Family Safety	1.70	2.15	2.02	1.71	238	-2.83	.005
NCFAS-Social/Community Life	1.07	2.04	1.37	1.61	242	-2.54	.012
NCFAS-Self Sufficiency	.57	1.98	1.06	1.95	244	-3.32	.001
NCFAS-Family Health	.96	1.39	1.24	.94	232	-2.82	.005

Kansas ABC Early Childhood Initiative

KU School of Social Welfare