

BRANCH: Final Report

Prepared and Submitted June 2020

Revised September 2020



All activities within the TEAM UP for Children initiative are made possible through the contributions of the TEAM UP partners. Funding for the TEAM UP for Children initiative is provided by the Richard and Susan Smith Family Foundation and The Klarman Family Foundation.

Table of Contents

EXECUTIVE SUMMARY	1
I. <i>Introduction</i>	3
II. <i>The Need</i>	3
III. <i>Foundational Principles and Research Supporting the Development of BRANCH</i>	4
IV. <i>Development of BRANCH</i>	6
V. <i>Evaluation of the BRANCH Pilot Phase</i>	7
VI. <i>Lessons Learned and Recommendations</i>.....	10
VII. <i>Attachments</i>.....	12
References	13

EXECUTIVE SUMMARY

BRANCH (Building Resilience And Nurturing CHildren) is a brief trauma-informed, extended screening and assessment intervention developed for integrated behavioral health clinicians (BHCs) who practice in primary care pediatric settings. The impetus for developing BRANCH has come from the experiences of TEAM UP for Children, and the need to build the capacity of TEAM UP community health centers (CHCs) to provide early childhood mental health services in the primary care setting. BRANCH may be used to elicit and explore parent concerns about child behavior or development, to screen for traumatic stress, to provide developmental guidance and information, and to engage families in forming a plan for stepped-up care. This report provides a summary of BRANCH's development and implementation during the period of September 2017-May 2020.

BRANCH was co-developed by an interdisciplinary Early Childhood Workgroup convened by TEAM UP. The group included early childhood mental health clinicians, child psychiatrists, pediatric primary care providers, public health experts; and the TEAM UP project team at the three Phase 1 CHCs. The group met bi-weekly, from September 2017-May 2018, to develop each phase of BRANCH and plan for implementation. The initial focus was on development of the model, then shifted to rapid cycle improvement focused on model refinements and implementation.

BRANCH builds upon the principles of strong parent engagement, a trauma-informed perspective, a reflective approach that sees parents/caregivers as the expert on their child, and respect for the role that the parent plays in mitigating stress for children. BRANCH has 3 phases which may be covered flexibly over 4-6 sessions:

- Phase 1 focuses on a general interview to introduce BRANCH, engage the caregiver, elicit information about the child and family's needs, strengths, and challenges, and administer the [Ages and Stages Questionnaire \(ASQ\)](#).
- Phase 2 focuses on stress and possible trauma, with the use of a trauma screener and symptom checklist adapted from the Pre-School Post Traumatic Stress Inventory (Michael Scheeringa, 2019).
- Phase 3 focuses on a collaborative plan for next steps: a referral for further services, an arrangement to monitor or to set a date for check in with a member of the care team, and/or a plan to address concrete needs.

Initial training for BRANCH occurred in May 2018. Training in BRANCH was structured as a one-day training with follow-up clinical consultation and implementation support.

KEY FINDINGS

The evaluation of the pilot phase aimed to document implementation of BRANCH, its impact on BHC learning and skill development, areas of learning, and recommendations for improvement. Key findings include:

- **Participation:** Fifty-nine families were referred to BRANCH; half of the children were under 3 years of age.
- **Reasons for referral:** behavioral concerns (46%); caregiver stress (domestic violence, depression, lack of support) (15%); child trauma (10%); speech delay (10%).
- **Case disposition:** ~ 20% were referred to outside services; ~ 20% to CHC-based services; the remainder did not receive/require additional follow-up.
- **Clinician Feedback:** Overall, clinicians reported that
 - BRANCH increased their knowledge of early childhood clinical practice,
 - BRANCH increased their comfort with implementing skills taught during the training (with the exception of trauma screening),

- Ongoing clinical consultation was an essential component of the model.

RECOMMENDATIONS

Lessons learned from the pilot of BRANCH and recommendations for next steps fall within two domains: training/consultation and implementation. These recommendations will be applied to implementation of BRANCH within new TEAM UP health centers.

- **Training and Consultation**

- Integrate BRANCH training into larger the TEAM UP Learning Community, which provides robust clinical training and practice transformation support to participating CHCs.
- Spread training over 2 days to allow clinicians time to practice new skills and come back together for further learning.
- Strengthen training on the use of specific screeners: Ages and Stages Questionnaire and trauma screening.
- Continue case-based consultation for 6-8 months after initial BRANCH training.

- **Implementation**

- Integrate the implementation of BRANCH into ongoing practice transformation support – including training on billing and DC:0-5 diagnosis.
- Establish a clear guide for referral to BRANCH that includes criteria for referral.
- Strengthen the internal early childhood capacity of CHCs by identifying an early childhood onsite champion who could provide onsite early childhood supervision and, ultimately, BRANCH training.
- Rather than specifying 4-6 sessions, implement BRANCH in 3 sequential phases, allowing flexibility for the numbers of meetings required to meet the needs of the families.

I. Introduction

BRANCH (Building Resilience And Nurturing CHildren) is a brief trauma-informed, extended screening and assessment intervention developed for integrated behavioral health clinicians (BHCs) who practice in primary care pediatric settings. This intervention may be used to elicit and explore parent concerns about child behavior or development, to screen for traumatic stress, to provide developmental guidance and information, and to engage families in forming a plan for stepped-up care, if needed. BRANCH can also be considered a therapeutic intervention unto itself through the practice of strengthening the dyadic relationship between caregiver and child. The target group for BRANCH is children under six years old and their caregivers. BRANCH is divided into 3 phases, designed to be delivered in 4-6 sessions, with flexible scheduling.

The impetus for developing BRANCH has come from the experiences of TEAM UP for Children. TEAM UP is a seven-and-a-half-year collaboration between Boston Medical Center and seven Federally Qualified Health Centers funded by the Smith Family Foundation and The Klarman Family Foundation. TEAM UP seeks to build the capacity of pediatric primary care practices to deliver high quality, evidence-based integrated behavioral health care to children and families. The integrated care team includes BHCs and Community Health Workers/Family Partners (CHW/FP). TEAM UP has been implemented in two phases: Phase 1 (2016-2020) involved three community health centers (CHCs) (Lowell Community Health Center (Lowell), The Dimock Center (Dimock), and Codman Square Health Center (Codman)); Phase 2 (began in September 2019) involves four new CHCs (DotHouse Health, Greater New Bedford Community Health Center, Brockton Neighborhood Health Center, and South Boston Community Health Center).

This report provides a summary of BRANCH development and implementation with Phase 1 CHCs during the period of September 2017-May 2020. It presents findings from an evaluation of the pilot phase, a summary of lessons learned, and recommendations for implementation.

II. The Need

Building capacity for early-childhood mental health services is a priority of TEAM UP. A needs assessment conducted at the start of the initiative demonstrated relatively low confidence among primary care providers (PCPs) and BHCs to identify and manage mental health issues among young children. In addition to building overall capacity in early childhood, the integrated pediatric teams at the Phase 1 CHCs identified specific gaps in service delivery that BRANCH aims to address.

- **Limited behavioral health services for children under age 6** in the health centers. At the beginning of TEAM UP, CHCs did not universally offer and rarely referred very young children for behavioral health services. Most BHCs were uncomfortable working with very young children; PCPs were unaware that therapy is possible for children under age 6. The main referral option was to Part C Early Intervention programs, which enrolls children with developmental concerns but has few resources for behavioral health services.
- **Uncertainty about when and where to refer young children for more in-depth assessments.** When a problem was identified by the parent or the PCP, there was no clear referral path or approach to assessment of level of need.
- **Absence of screening for early childhood trauma.** Early childhood trauma is not routinely screened for or discussed in the pediatric setting. Pediatric providers may be uncertain about how best to discuss stress or trauma with parents; parents are often reluctant to talk about traumatic experiences with their child's PCP. They may assume that since the child is young,

they are not affected by significant stress or trauma. In addition, the parent may worry about the stigma associated with behavioral health or about being seen as a “bad parent.”

- **Poor fit between existing evidence-informed interventions for young children and the integrated primary care setting.** Integrated BHCs provide services in a manner that is different from the traditional behavioral health model of weekly clinical sessions of 45-50 minutes. In integrated primary care settings, interactions with families are often considerably shorter and not necessarily scheduled in advance, thus requiring that interventions be sufficiently flexible to be adapted to the environment of the particular practice.

III. Foundational Principles and Research Supporting the Development of BRANCH

- **Early detection of childhood emotional or developmental problems plays an essential preventative role in supporting the young child’s longer-term health and social-emotional development** (Wissow et al, 2013). Approximately 11-20% of children in the United States suffer from a mental health disorder at any given time; the rate is similar for children age 2-5 (Weitzman, Wegner, et. al., 2015). The knowledge base in early childhood mental health has developed rapidly over the last decade, as evidence for the existence of a range of emotional disorders in early childhood has accumulated (Zero to Three, 2016).
- **Pediatric medical homes are uniquely situated to screen for and educate parents about the role of stress in their child’s life.** Proponents of early identification of traumatic stress point out that health care providers are the only professionals to see virtually all children at some point during early childhood (Cohen, Mannarino & Deblinger, 2008). The AAP schedule for routine visits (well-child visits) recommends 10 well-child visits in the first three years, providing numerous opportunities for the integrated team to screen for developmental and social-emotional concerns and to talk with parents about risks to their child’s development (American Academy of Pediatrics, 2017). The pediatric health setting provides a critical opportunity for family screening for a number of social and health risks, and for linkage with services (Garg, et al. 2017; Committee on Psychosocial Aspects of Child and Family Health, 2012; Thackeray, Hibbard, & Dowd, 2010; Gillespie, et al, 2009).
- **Young children are exposed to potentially traumatic events at the same or higher rates as older children and adolescents.** Young children bear a disproportionate share of violence and abuse in the home. In its 2015 annual report on prevalence rates, the U.S. Children’s Bureau reported that an estimated 683,000 children were victims of abuse and neglect nationwide, a rate of 9.2 victims per 1,000 children in the population. Children in the age group of birth to one year had the highest rate of victimization at 24.2 per 1,000 children of the same age group in the national population (Child Welfare Information Gateway, 2015). Studies of children exposed to domestic violence show that young children are over-represented in these populations, with over half of children being younger than age 6 (Fantuzzo, 2007; Stover, Ippen, Briggs, & Berkowitz, 2017).
- **Young children are uniquely vulnerable to repeated stress.** Some parents assume that young age protects children from being exposed to traumatic experiences: they were too young to understand, and therefore, they could not be seriously affected. However, research has shown that babies take in much more of their world than we previously thought, and the developing brain is highly responsive to the caregiving environment. This knowledge of the sensitivity of very young children to their environment and the malleability of the developing brain in the

neonatal and early childhood developmental periods has increased the importance of early identification of significant childhood stressors, (Garner et al., 2012; Shonkoff et al.; Lieberman, Chu, Van Horn, & Harris, 2011). The Adverse Childhood Experiences Study makes the case for the long-term health consequences of significant stress or adversity in childhood, by linking chronic adult disease and early death to stressors in childhood (Felitti et al., 1998).

- **Parents/Caregivers play an essential role in mitigating their child's stress and the early caregiving relationship should be a focal point for intervention and support.** (Zero to Three, 2016). Young children, by virtue of age and developmental stage, look to their parents or caregivers for cues. They depend on them to make sense of the world and to protect them. A parent's capacity to support or buffer children's responses to stressful events is an essential element of parenting young children (Lieberman & Knorr, 2007).
- **Children, caregivers and communities often show resilience in the face of chronic stress or trauma, and a range of protective factors operate to mitigate the impact of such stress.** In pediatric settings, it is important to acknowledge and assess protective factors in children and families, as well as challenges in functioning. Afifi and MacMillan (2011) reviewed studies of resilience in populations of maltreated children and adolescents. Consistent with studies of resilience in the context of other childhood risks, several factors were identified: a stable family environment, supportive relationships, relatedness to a caregiver, and social skills. When looking specifically at child exposure to domestic violence, many children appear to withstand the impact of exposure to domestic violence and maintain equilibrium. A study, (conducted by Graham-Bermann, Gruber, Howell, and Girz, 2009), describes various contextual factors in families that are associated with children's resilience, including positive parenting practices, maternal mental health, and duration of the child's exposure to violence. Together, these studies suggest important strategies for interventions that will bolster protective factors in children and families: addressing the parents' mental health issues, providing parenting support and training, providing preventive or proactive strategies that reduce or prevent child exposure to domestic violence, and teaching children self-regulation and emotion-control strategies. (Schultz et al., 2013; Graham-Bermann, Gruber, Howell, & Girz, 2009).
- **A family's socio-cultural context, current and past, affects the ways they define behavioral concerns in their children and the pathways they choose to seek help.** Socio-cultural values and practices shape every aspect of parenting (Zero to Three, 2016) as well as perceptions on what may be traumatic, how distress or pain is expressed, and on how to heal and recover from adversity. The clinician's view of what is normal or expected in terms of child behavior, parenting practices, help-seeking behaviors and ways to recover may be different from the families' practices. It is important that the clinician elicit the caregivers' perspectives and expectations of the child in the course of the assessment in addition to how the family perceives or makes meaning of the child's functioning. The clinician must maintain an awareness of the essential role of the family's past and present socio-cultural context and the beliefs rooted in these contexts in formulating an understanding with the parent of the child's behavior and an agreement about how to address concerns about the child. The clinician must also be involved in an ongoing and intentional self-exploration of their own socio-cultural contexts, values and beliefs around issues like parenting, children's development, attachment and their implicit biases. Organizations should provide a reflective space for clinicians to explore these and other issues that naturally arise in the work with young children and their families.

- **Reflective Supervision/Practice:** The nature and complexity of working with children and families who experience trauma, and being the holder of their psychological realities, unavoidably awakens intricate feelings and reactions in the clinician. These experiences can compromise the quality of service unless there is a way for the clinician to explore the difficult emotions elicited from the work (Shahmoon-Shanok, 2009). Reflective supervision and practice offer the opportunity for clinicians to attend to their internal reactions to the work and to better understand and manage their emotional and cognitive experience, as well as that of the client child/ family or of a colleague (Noroña & Acker, 2016). Reflective supervision and practice are based on principles of consistency, transparency, collaboration, trust, co-regulation, making meaning of experiences and behaviors, increasing reflective capacity, benevolence, and strength-based practice, all of which parallel the principles of trauma informed systems.

IV. Development of BRANCH

BRANCH was co-developed by an interdisciplinary EC Workgroup convened by TEAM UP. The group included early childhood mental health clinicians, child psychiatrists, pediatric primary care providers, public health experts, and the TEAM UP project team at the three Phase 1 CHCs. Additional consultation was provided by the developers of Child Parent Psychotherapy (CPP) (for contextual grounding in the principles of dyadic therapy; TEAM UP hosted a CPP Learning Collaborative that was concurrent with the development of BRANCH) , Boston University School of Social Work (for evaluation), and the developers of Boston Basics (for parent-friendly educational materials). The group met bi-weekly, from September 2017-May 2018, to develop each phase of BRANCH and plan for implementation. The initial focus was on development of the model, then shifted to rapid cycle improvement focused on model refinements and implementation.

BRANCH builds upon the principles of strong parent engagement, a trauma-informed perspective, a reflective approach that sees parents/caregivers as the expert on their child, and respect for the role that the parent plays in mitigating stress for children. BRANCH has 3 phases which may be covered flexibly over 4-6 sessions:

- Phase 1 focuses on a general interview to introduce BRANCH, engage the caregiver, elicit information about the child and family's needs, strengths and challenges, and administer the [Ages and Stages Questionnaire \(ASQ\)](#).
- Phase 2 focuses on stress and possible trauma, with the use of a trauma screener and symptom checklist adapted from the Pre-School Post Traumatic Stress Inventory (Michael Scheeringa, 2019).
- Phase 3 focuses on a collaborative plan for next steps: a referral for further services, an arrangement to monitor or to set a date for check in with a member of the care team, and/or a plan to address concrete needs.

A. Training

Initial training for BRANCH occurred in May 2018. The training was structured as a one-day training and follow-up clinical consultation. The morning session focused on a review of attachment theory and the dyadic relationship, early childhood social/emotional development, and the impact of trauma on young children. The afternoon session introduced BRANCH with an overview of its goals, a review of each of the 3 phases of BRANCH, and the use of the child trauma screener. A second training was offered in May 2019. Several minor modifications, based on feedback from CHC's and

TEAM UP staff, were included in the second training. Trainees received follow-up clinical consultation to support the implementation of BRANCH (Attachment A). CHWs/FPs are invited to the first half of the training, which covered early childhood development and foundational principles that support BRANCH. Their participation helped to build the capacity of the care team and recognized the critical they play in supporting family engagement.

B. Clinical Consultation and Implementation Support

Implementation of the pilot phase began in September 2018. One of the three health centers decided not to implement BRANCH, opting instead for monthly case-based consultation focused on early childhood mental health. Of the two remaining health centers, one health center decided to implement BRANCH with BHCs and CHW/FPs. The other implemented the use of BRANCH with BHCs only.

- a. Clinical Consultation:** BRANCH consultation was provided to health centers from September 2018-May 2020. Based on CHC preference, 1 CHC received bi-monthly consultation visits; the other received monthly consultation visits. Sessions provided a combination of didactic information and case-based consultation, including:
 - Basic information about early child development;
 - The use of a dyadic framework as the focus of BRANCH;
 - The use of a reflective, relational approach to gather information and talk with parents/caregivers about concerns and family stressors;
 - Training on administering the ASQ;
 - Training on administering the trauma questionnaire and symptom checklist; and
 - Reflective discussion of cases.
- b. Implementation Support:** In mid-2018, the EC Workgroup shifted its work and membership to a focus on implementation. The group met regularly until November 2019. New members included clinical supervisors, TEAM UP leaders at Codman and Dimock, and members of the BMC TEAM UP implementation and evaluation teams. External consultation was provided by a colleague at Boston University School of Social Work and expert on dyadic approaches to infant mental health.

V. Evaluation of the BRANCH Pilot Phase

A. Overview: Data Sources and Metrics

The evaluation of the pilot phase of BRANCH focused on a 17-month period from September 2018–February 2020. It aimed to document implementation of BRANCH, its impact on BHC learning and skill development, areas of learning, and recommendations for improvement.

Data for the evaluation came from three sources:

- Clinician worksheets on referrals and engagement in BRANCH sessions
These worksheets documented the number and reason for BRANCH referrals.
- Early Childhood Practice and BRANCH Skill Acquisition Survey (Attachment D1)
The Clinician Learning and Skill Acquisition Rating sheet assessed changes in early childhood practice (knowledge and value of monthly consultation), acquisition of BRANCH skills, and frequency of use of BRANCH core components. It was administered to 9 clinicians and 2 family partners.

- Qualitative feedback from TEAM UP BHCs and leadership teams (Attachments D2-4)
Qualitative feedback was solicited using a semi-structured questionnaire which probed changes in early clinical childhood knowledge and skills, strengths and challenges in using BRANCH with families, the value of monthly consultation, and recommendations for implementation and support for the four Phase 2 TEAM UP CHCs. Feedback sessions occurred during regularly scheduled consultation visits (BHC feedback) and practice transformation visits (leadership team feedback) at each CHC.

B. Findings

a. Implementation

i. Referrals

Fifty-nine families were referred to BRANCH over the 17-month period. 11 (19%) were < 18 months, 19 (32%) were 18 months - 3 years, and 29 (49%) 3-6 years. Prior to the introduction of BRANCH, neither CHC provided in-house BH services to children birth to 3 years.

ii. Reason for referral

1. Twenty-seven (46%) parents/caregivers cited behavioral concerns (aggressive/impulsive behavior, tantrums, other) as the reason for referral. The behaviors varied widely and were generally consistent with age-appropriate concerns: sleep issues, clinginess, oppositional behavior, difficulty regulating behavior.
2. Nine (15%) parents/caregivers cited stress, domestic violence, depression, and/or inadequate supports at home as a reason for referral.
3. Six (10%) cited child trauma history as the reason for referral.
4. Six (10%) identified speech/language delay as reason for referral.
5. Eleven (17%) identified other reasons for referral: school/day care adjustment/problems (7%); DCF removal/foster care (5%); loss of biological parent (5%).

iii. Engagement

The content and length of the sessions varied by CHC and BHC. Some BHCs completed BRANCH in two sessions of longer duration. Others used shorter sessions.

1. 64% of families attended one session of BRANCH.
2. 24% of families attended two sessions of BRANCH.
3. 12% of families attended three or more sessions of BRANCH.

iv. Case Disposition

1. Eight families (14%) were referred to outside agencies after one BRANCH session. Referrals included in-home therapy (IHT), neuropsychological testing, Boston Medical Center Developmental Pediatrics Clinic, Boston Public School screening, Early Intervention, and the Children's Advocacy Center.
2. Four families (7%) were referred to outside services (including specialized behavioral health services) after two or more BRANCH sessions.
3. Eleven families (19%) were referred to an in-house BHC or to their PCP for follow-up after one or more BRANCH session.
4. Seven families (12%) who received information about BRANCH declined to participate.

b. Clinician Learning and Acquisition of Skills (Attachment D1)

Eleven of twelve possible surveys from the 3 health centers were submitted anonymously. Two centers had significant staff turnover, with newer staff's tenure ranging from 2 months-1 year of employment. The survey had two sections:

- i. **General Early Childhood Practice:** A majority of staff (58%) reported significant change in knowledge of early childhood clinical practice. A majority (57%) also indicated significant value for the consultation and the BRANCH training.

- ii. **BRANCH Skills and Frequency of Use- Summary (N=8)**

1. **Skills:** Participants were asked to rate their comfort level with using seven BRANCH skills which were taught during the training. Overall, almost all respondents reported that they were "comfortable" using these BRANCH skills. The exception was conducting formal screening for trauma exposure. Almost all respondents reported that they used BRANCH components "frequently" or "very frequently."

c. Behavioral Health Clinician Feedback (Attachment D2)

BHCs and CHW/FPs at the three CHCs participated in discussions of 12 open-ended questions probing their experience with TEAM UP's early childhood capacity building activities. One center responded to questions about changes in early childhood knowledge and practice, and about the consultation experience. The other two responded to additional questions about their experiences learning and implementing BRANCH in their settings. The following information provides a consensus summary of information. Specific comments or views are also noted.

- i. **Early Childhood Knowledge and Practice**

1. Consultation led to general improvement in knowledge about early childhood mental health and skills development in working with child-parent dyads. BHCs specifically noted the relevance of learning more about the impact of trauma on the developing child. Two of the three CHCs adopted the child trauma screen for broader use in their clinics. BHCs' knowledge of early childhood development was improved with specific training on the ASQ. Additional benefits noted were greater knowledge of outside resources for very young children, improved skills in observing and assessing child-parent relationships, and in engaging parents in reflective discussions about their child.

- ii. **BRANCH Consultation (2 health centers)**

1. **Expansion of behavioral health services to younger children.** Both sites reported that BRANCH filled a significant gap in services. Prior to its implementation, there was little or no behavioral health support for children under age 6. BRANCH provided new opportunities to reach out to this population at their CHCs.
2. **Acquisition of new skills.** Child-parent observation, use of reflective questions, using the child trauma screening tool, and the ASQ were new skills that BHCs learned during BRANCH consultations. In the words of one BHC, "I learned how to see the child through the parent's eyes."
3. **Benefits of CPP training.** Clinicians who had participated in the CPP Learning Collaborative (but were not rostered) stated that this training equipped them well for use of BRANCH.

4. Consultation approach. Case presentation and the use of videos were the most helpful consultation tools. Participants preferred to "hands-on learning." They appreciated the collaborative style of case discussions where all voices could be heard.

d. Leadership Team Feedback (Attachment D3)

The CHC leadership teams provided feedback regarding their early childhood work and TEAM UP's impact on their early childhood practice. Discussions were guided by semi-structured questionnaire.

Leadership teams at the three health centers reported that BRANCH and regular clinical consultation increased their capacities for offering behavioral health services to families and children under age 5. They also reported a sustained awareness of early childhood trauma and its impact on child development. Two of the three health centers implemented routine screening of child exposure to trauma. The content of BRANCH and the organization of it as a training modality/framework helped BHCs to feel more confident in their work. Leadership teams also observed that BRANCH destigmatized early childhood mental health by offering ways to identify and prevent further behavioral health problems. Health centers valued the increased capacity for internal services as opposed to referring families out. Challenges with implementation included getting referrals and engaging and sustaining families with multiple stressors.

e. Family Feedback (Attachment D4)

A brief questionnaire was designed to be administered by BHCs to three families at each of the two CHCs that piloted BRANCH. Unfortunately, the COVID-19 pandemic made that task impossible to complete. This data will be collected from Phase 2 CHCs once BRANCH is implemented.

VI. Lessons Learned and Recommendations

Lessons learned and recommendations fall within two domains: training/consultation and implementation.

A. Training and Consultation Recommendations

- a. Change the training structure** from one to two days: the first day provides a foundational information and a detailed presentation of the 3 BRANCH phases. The second day, scheduled 4-6 weeks after the initial training day, would bring clinicians together to be trained in the ASQ and to discuss challenges in implementing BRANCH.
- b. Strengthen training on use of the Ages and Stage Questionnaire.** The use of the ASQ was new for many BHCs, many of whom did not have formal training in child development. BHCs felt they needed more practice administering the questionnaire and providing feedback to families on what they observed.
- c. Provide monthly consultation** for 6-8 months after the initial BRANCH training giving each BHC an opportunity to practice skills and to present cases.
- d. Ensure access to** an experienced early childhood BHC/supervisor in each health center.

B. Implementation Recommendations

Both the challenges and recommendations related to implementation were more far-reaching, given the novelty of providing services to very young children and implementing a new intervention approach.

- a. **Establish a referral pathway.** A major challenge to successful implementation related to establishing a consistent referral pathway for families who could benefit from BRANCH. Staff turnover at the site with low referrals contributed to this as new BHCs had no prior experience working with very young children and were not trained in BRANCH at the time of hire. The relative inexperience of the CHC in providing services to this population led to uncertainty about referral criteria, e.g., uncertainty about who would benefit from BRANCH. Recommendations to address these challenges:
 - i. Identify a BRANCH site champion who could be an on-the-ground resource for clinicians in implementing BRANCH and PCPs referring families;
 - ii. Reinforce the availability of on-site therapeutic services for very young children to all members of the care team, and ensure that standard clinical workflows used in integrated care, such as the warm hand-off from PCP to BHC, apply to all age ranges, including early childhood;
 - iii. Disseminate clear referral criteria with specific examples of types of concerns/experiences which would be appropriate for BRANCH;
 - iv. Provide a process map of referral pathway; and
 - v. Strengthen the internal early childhood capacity of CHC. Ultimately, this recommendation is considered as essential. As CHCs build this capacity, it is expected that all providers – BHCs, CHWs/FPs, and PCPs – will gain greater expertise in early childhood mental health and the role of intervention during this critical developmental period. This culture shift would support the vitality and sustainability of BRANCH.
- b. **Integration of BRANCH into the primary care environment.** While the structure of BRANCH was designed to be implemented flexibly and allow for both longer and shorter interactions, the full intervention required a minimum of 2-3 sessions. For some CHCs, scheduling sessions, compounded with irregular attendance at scheduled sessions, was challenging. Recommendations to address these challenges:
 - i. Identify BRANCH site champion (as described above) to help troubleshoot implementation challenges.
 - ii. Integrate implementation of BRANCH into larger TEAM UP practice transformation efforts. This change has already occurred.
 - iii. Reinforce a flexible delivery model for BRANCH that aligns with the reality of the primary care setting to ensure that the value of the intervention is maintained, even when delivered over a more disparate sequence of visits.
- c. **Training related to diagnosis and billing.** BHCs requested training related to DC:0-5 diagnosis and billing options for infants and very young children. Recommendations to address these challenges:
 - i. Training DC:0-5 will be offered to TEAM UP clinicians.

- ii. Billing options will be discussed as part of revenue optimization activities and relevant content will be incorporated into the BRANCH manual.
- d. **Assess needs and resources for more intensive early childhood intervention.** Though not considered a high need, BHCs identified a need to be knowledgeable about resources for more intensive early childhood intervention.
- e. **Ongoing training to address staff turnover.** Given the frequency of staff turnover, sustaining BRANCH requires a conscious strategy to provide ongoing training.
Recommendations to address these challenges:
 - i. Explore creating an online training module for didactic components of BRANCH.
 - ii. Develop an EC BHC champion at each CHC that could form the basis of a train-the-trainer model to expand capacity to provide BRANCH training.

VII. Attachments

A. Training Manual

- 1. <https://app.box.com/s/5ys4nz4xme2x7skjxacd2gnwmbhxe1db>

B. BRANCH Brochure(s)

- 1. <https://app.box.com/s/29im0u0bu7c2guky3l663kd0uaf48jee>

C. Trauma Screener and Symptoms Checklist

- 1. Screener – <https://app.box.com/s/c4u3ev98srzvo291duhlv8l76p437sjo>
- 2. Symptoms – <https://app.box.com/s/ruu9ta4il19ou5nsi1fyga7gwflbha3b>

D. Assessment Materials

- 1. Early Childhood Practice and BRANCH Skill Acquisition Survey
 - i. <https://app.box.com/s/09gj5z8za3bgdam5bngoladjwaqz3wws>
- 2. Behavioral Health Clinician Feedback Questionnaire
 - i. Phase 1 – <https://app.box.com/s/m420gp0a1h4l81fmb1ka1vmvpssmycod>
 - ii. Phase 2 – <https://app.box.com/s/cfajcu34hprxlu04vshovv99dw10j6o1>
 - iii. Phase 3 – <https://app.box.com/s/nblhfwcvxryrqa53vsp9gnk9w02trsll>
- 3. TEAM UP Leadership Feedback Questionnaire
 - i. Lowell – <https://app.box.com/s/mdvs3pt6hr6pb0efau6mj1cm943bcxxk>
 - ii. Codman & Dimock – <https://app.box.com/s/zu519x4a8eizytmx4v42fiq9oi6ozbmz>
- 4. Family Feedback Questionnaire
 - i. <https://app.box.com/s/bl2sssaemjaxolb2kt0ggfrvrlt0oci>

References

American Academy of Pediatrics. (2017). *AAP schedule of well-child care visits*. Retrieved from <https://www.healthychildren.org/English/family-life/health-management/Pages/Well-Child-Care-A-Check-Up-for-Success.aspx>

Child Welfare Information Gateway, (2015). Developing a trauma-informed child welfare system. *Child Maltreatment Information*. <https://www.childwelfare.gov/pubPDFs/canstats.pdf>.

Cohen J. 2008 Cohen, J. A., Mannarino, A.P., & Deblinger, E. (Eds.). (2012). *Trauma-focused CBT for children and adolescents: Treatment applications*. New York, NY: Guilford Press.

Committee on Psychosocial Aspects of Child and Family Health (COPACFH) (2012). Early childhood adversity, toxic stress, and the role of the pediatrician: Translating developmental science into lifelong health. *Pediatrics*, 129(1), e224-231. doi: 10.1542/peds.2011-2662.

Fantuzzo, J. W., & Fusco, R. A. (2007). Children's direct exposure to types of domestic violence crime: A population-based investigation. *Journal of Family Violence*, 22(7), 543–552. doi: 10.1007/s10896007-9105-z.

Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., ... Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) Study. *American Journal of Preventive Medicine*, 14(4), 245–258.

Garg, A., Butz, A. M., Dworkin, P. H., Lewis, R. A., Thompson, R. E., & Serwint, J. R. (2007). Improving the management of family psychosocial problems at low-income children's well-child care visits: The WE CARE Project. *Pediatrics*, 120(3), 547–558.

Garner, A. S., Shonkoff, J. P., Siegel, B. S., Dobbins, M. I., Earls, M. F., McGuinn, L. (2012). Committee on Early Childhood, Adoption, and Dependent Care. Early childhood adversity, toxic stress, and the role of the pediatrician: translating developmental science into lifelong health. *Pediatrics*, 129(1), e224–e231. doi:10.1542/peds.2011-2662

Graham-Bermann, S. A., Gruber, G., Howell, K. H., & Girz, L. (2009). Factors discriminating among profiles of resilience and psychopathology in children exposed to intimate partner violence (IPV). *Child abuse & neglect*, 33(9), 648–660.

Lieberman, A. F., Chu, A., Van Horn, P., & Harris, W. W. (2011). Trauma in early childhood: Empirical evidence and clinical implications. *Development and Psychopathology*, 23(2), 397–410. doi:10.1017/S0954579411000137.

Lieberman, A.F. & Knorr, K. (2007). The impact of trauma: A developmental framework for infancy and early childhood. *Psychiatric Annals*, 37(6), 416-422.

Lowell, D.I., Carter, A.S., Godoy, L., Paulicin, B., Briggs-Gowan, M.J. (2011). A Randomized Controlled Trial of Child First: A Comprehensive, Home-Based Intervention Translating Research into Early Childhood Practice. *Child Development*, 82(1), 193-208

Noroña C. & Acker M., (2016). Implementation and sustainability of child-parent psychotherapy: the role of reflective consultation in the learning collaborative model. *Infant Mental Health Journal*, 37(6), 701-716.

Scheeringa, M.S. (2019). Development of a Brief Screen for Symptoms of Posttraumatic Stress Disorder in Young Children: The Young Child PTSD Screen, *Journal of Developmental & Behavioral Pediatrics*, 40(2), 105-111.

Schultz, D., Jaycox, L. H., Hickman, L. J., Setodji, C., Kofner, A., Harris, R., & Barnes, D. (2013). The relationship between protective factors and outcomes for children exposed to violence. *Violence and Victims*, 28(4), 697–714.

Shahmoon-Shanok, R. (2009). What is reflective supervision? In S. Heller & L. Gilkerson (Eds.), *A practical guide to reflective supervision*. Washington, D.C.: ZERO TO THREE Press.

Stover, C. S., Ippen, C. G., Liang, L., Briggs, E. C., & Berkowitz, S. J. (2017). An examination of partner violence, poly-exposure, and mental health functioning in a sample of clinically-referred youth. *Psychology of Violence*. doi: 10.1037/vio0000131.

Thackeray, J. D., Hibbard, R., Dowd, M. D., Committee on Child Abuse and Neglect, & Committee on Injury, Violence, and Poison Prevention. (2010). Intimate partner violence: The role of the pediatrician. *Pediatrics*, 125(5), 1094–1100. doi: 10.1542/peds.2010–0451.

Weitzman, C., Wegner L., The Section on Developmental Pediatrics, Committee on Psychosocial aspects of child and family Health, Council on Early Childhood, and Society for Developmental and Behavioral Pediatrics (2015). Promoting optimal development: Screening for behavioral and emotional problems. *Pediatrics*, 135(2), 384-395.

Wissow, L. S., Brown, J., Fothergill, K. E., Gadomski, A., Hacker, K., Salmon, P., & Zelkowitz, R. (2013). Universal mental health screening in pediatric primary care: A systematic review. *Journal of the American Academy of Child & Adolescent Psychiatry*, 52(11), 1134-1147.

Zero to Three (2016). DC 0-5; Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood. Washington DC: Zero To Three.