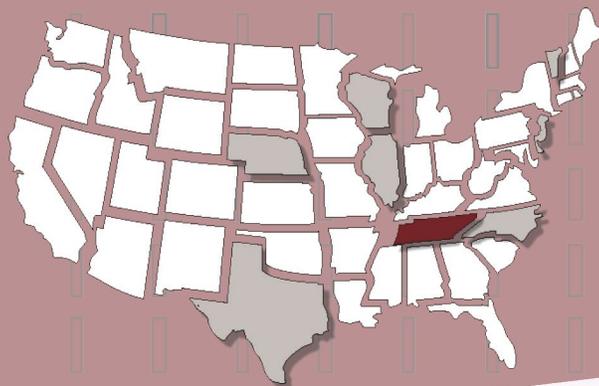


Evaluation Results from

Tennessee



Final Evaluation Report



September 2019

QIC•AG

National Quality Improvement Center for
Adoption & Guardianship Support and Preservation

Chapter 9: Tennessee

Note to the reader of this report

The QIC-AG evaluation involved eight sites and eight evaluation reports. The full evaluation report has one chapter per site. For site-specific reports (what you are reading here), we have included a background section (Chapter 1), the individual site report (Tennessee is Chapter 9), and a cross-site evaluation (Chapter 10). The chapter numbers reflect the chapters designated in the full report.

This report was designed by staff at the Texas Institute for Child & Family Wellbeing at The University of Texas at Austin, Steve Hicks School of Social Work. We thank them for their partnership and dedication to the work of translational research.



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The QIC-AG was funded through a five-year cooperative agreement between the Children's Bureau, Spaulding for Children, and its partners the University of North Carolina at Chapel Hill, the University of Texas at Austin and the University of Wisconsin-Milwaukee.

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Acknowledgements

The QIC-AG evaluation team would like to extend our sincerest thanks to all of the adoptive and guardianship families who participated in the project.

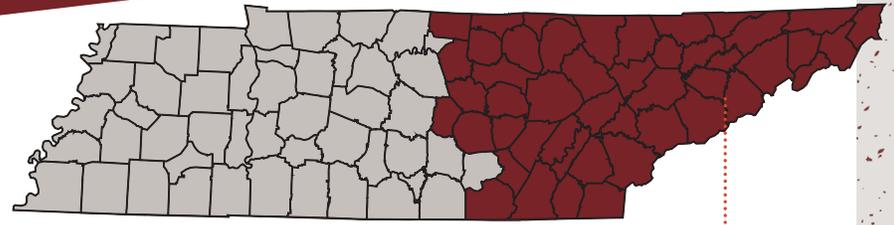
We also thank the many stakeholders on the QIC-AG site specific Project Management Team (PMT), Stakeholder Advisory Team (SAT) and Implementation Team (IT) who were invaluable in providing the support and direction needed to implement the study. The participants on these three teams included community consumers and providers from adoption and guardianship services; adoptive and guardianship families; representatives from private, domestic, and international adoption; key leaders across multiple systems; and the numerous support agencies and system partners.

We would like to acknowledge the staff at the Tennessee Department of Children's Services and at Harmony Family Services, the site team leaders and Site Implementation Managers (SIMS) who guided this work, in addition to their other roles within the agencies they work. Your partnership made this project a success.

The QIC-AG site consultants worked closely with the evaluation team to ensure the project work was implemented with integrity. Thank you for the collegial team work.

A special appreciation goes to the The ChildTrauma Academy, the purveyors of NMT, who supported the site in adapting their model for this study.

Tennessee



PROJECT PARTNERS

QIC-AG partnered with the **Tennessee Department of Children's Services (DCS)** and **Harmony Family Center**.

CONTINUUM PHASE

Intensive Services

INTERVENTION

The **Neurosequential Model of Therapeutics (NMT)** includes training/capacity building for family counselors to use the NMT with adopted children, assessment of trauma experiences on brain development and individualized, comprehensive treatment plans based on the assessment.

STUDY DESIGN

Quasi-Experimental

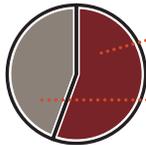
The target population was adoptive families served by the ASAP program. Families served by ASAP in the East, Northeast, Tennessee Valley, Knox, Smoky Mountain, and Upper Cumberland regions were in the intervention group. Families in the remainder of the state were assigned to the comparison group.

RESEARCH QUESTION

Will children and youth from families who have adopted and are referred (or self-refer) to ASAP's post adoption services in the East, Northeast, Tennessee Valley, Knox, Smoky Mountain and Upper Cumberland regions who receive the NMT experience a reduction in post permanency discontinuity, improved wellbeing, and improved behavioral health when compared to similar children and youth who receive services as usual?

Findings

386
families
participated in
the study

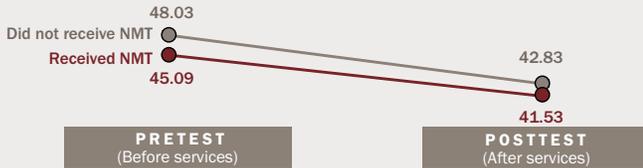


215 received the **treatment (NMT)** at Harmony Family Center.
171 received **services as usual** (comparison) at Catholic Charities.

CAREGIVER CONCERN



Caregivers reported less parental concern



Scores are from the Parental Feelings Form (PFF). This scale runs from 0-60. A lower score = less parental concern.

CHILD BEHAVIOR

Change in BPI Internalizing Score



Fewer internalizing behaviors

The arrows to the left represent the average reduction in BPI Internalizing Behavior Subscale scores from pretest to posttest for families who received NMT and those who did not. While behaviors improved for both groups, NMT families showed a greater improvement.

EMOTIONAL SECURITY & COMMITMENT



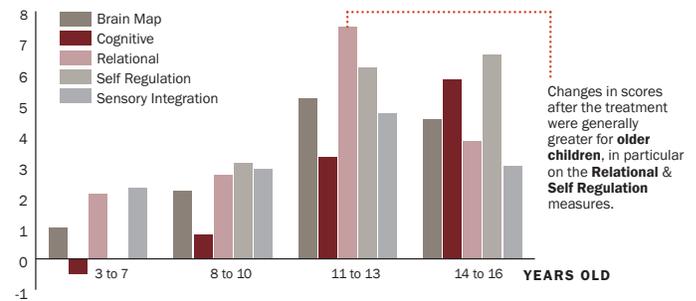
Caregivers reported a higher sense of belonging and stronger claim to their child.



Scores are from the Belonging and Emotional Security Tool-Adoption & Guardianships (BEST-AG). This scale runs from 13-65. a higher score = greater sense of family belonging.

PERCENT CHANGE IN NMT METRICS BEFORE & AFTER TREATMENT

NMT METRICS



Changes in scores after the treatment were generally greater for **older children**, in particular on the **Relational & Self Regulation** measures.

RECOMMENDATION

More research using larger samples and longer observation windows are needed to examine the effects of the NMT with post-adoptive children and families. Incorporating the NMT Metric as a post-adoption intervention is a long-term investment designed to help children who have experienced significant trauma and may have a positive impact on children and families over time.



The University of Texas at Austin

Texas Institute for
Child & Family Wellbeing

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JACK, JOSEPH AND MORTON MANDEL
SCHOOL OF APPLIED SOCIAL SCIENCES

CASE WESTERN RESERVE
UNIVERSITY

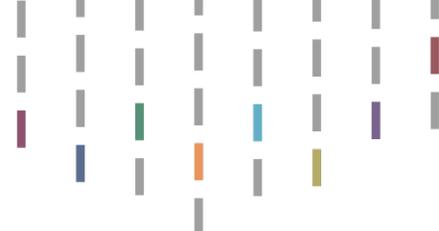
This research summary was designed by staff at the Texas Institute for Child & Family Wellbeing at The University of Texas at Austin, Steve Hicks School of Social Work, in conjunction with the Jack, Joseph and Morton Mandel School of Applied Social Sciences at Case Western Reserve University.

Evaluation questions? Please contact Nancy Rolock at nancy.rolock@case.edu or Rowena Fong at rfong@austin.utexas.edu.



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Executive Summary

Overview

The Tennessee Department of Children’s Services (DCS) is a state-administered public child welfare agency. In 2004, DCS selected the Harmony Family Center (Harmony), a Tennessee-based private non-profit organization specializing in pre and post adoption services, to administer the state’s Adoption Support and Preservation Program (ASAP). Harmony provides services to families in Eastern Tennessee and families in the Middle and Western areas of the state are served through sub-contracts with Catholic Charities. This long established history of providing post-adoption services sets Harmony apart in the National Quality Improvement Center for Adoption and Guardianship Support (QIC-AG) project. The Tennessee site of the QIC-AG implemented the Neurosequential Model of Therapeutics (NMT), a developmentally sensitive, neurobiology-informed approach, with adoptive families who request services or are referred for services in the areas of the state served by Harmony.

The study’s Theory of Change suggested that once families are provided a family-centered, trauma-informed, bio-psychosocial assessment process to identify their needs and linked to specific services, they would have the knowledge and skills to effectively manage problems when they arise, which would increase placement stability and reduce the risk of discontinuity. The QIC-AG project was implemented at the Intensive Interval level of the QIC-AG Permanency Continuum Framework and the intervention was located in the **Compare and Learn** phase in the *Framework to Design, Test, Spread, and Sustain Effective Practice in Child Welfare*.

Intervention

The Neurosequential Model of Therapeutics (NMT) includes three core components:

- Training/Capacity Building - Developing the necessary materials, tools and training experiences for family counselors to use the NMT with adopted children.
- Initial Assessment – Assessing (informed through multiple sources) the timing and severity of trauma on brain development and developing the “NMT Metrics Report.”
- Child Specific Recommendations – Developing and implementing individualized, comprehensive Treatment Plans based on information collected during the Initial Assessment.

Primary Research Question

The study's research question was:

Will children and youth from families who have adopted and are referred (or self-refer) to ASAP's post adoption services in the East, Northeast, Tennessee Valley, Knox, Smoky Mountain and Upper Cumberland regions who receive the Neurosequential Model of Therapeutics (NMT) experience a reduction in post permanency discontinuity, improved wellbeing, and improved behavioral health when compared to similar children and youth who receive services as usual?

The target population was solely adoptive families served by ASAP program who had children under the age of 18 and were adopted through the Tennessee Department of Children's Services, a public child welfare system in another state, or through private domestic or intercountry processes.

A quasi-experimental pre and posttest design were used to evaluate the NMT intervention. Children served by Harmony received the NMT, and those served by Catholic Charities received services as usual.

ASAP staff delivered pretest measures at intake and posttest measures at the end of services to the intervention and comparison groups. In addition, all ASAP staff who were providing services to the intervention and comparison groups were sent a link to an on-line satisfaction survey. The NMT staff fidelity and treatment plan adherence were also measured throughout the study.

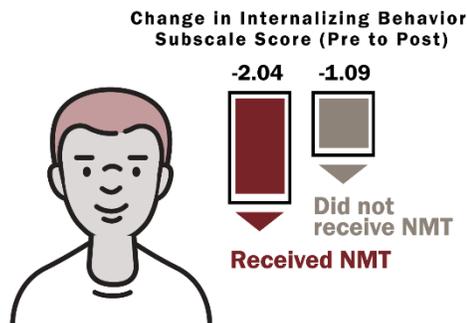
Key Findings and Discussion

A quasi-experimental design was used to examine differences between the families assigned to the intervention group ($n = 215$) and families who received services as usual ($n = 171$). In this analysis, we observed trends which suggested that positive changes were occurring for those who received NMT and that changes were generally in the direction one would expect with this intervention. Specifically:

Child behavioral issues. This was measured with the Behavioral Problem Index (BPI). On the BPI, a decrease in score suggests fewer behavioral issues:

- Both the intervention and comparison groups saw statistically significant differences between scores at PRE and POST BPI scores.
- A difference was observed between intervention and comparison groups in the overall BPI score, with slightly greater change observed for the intervention group. While not statistically significant at the .05 level, this is trending towards a statistically significant result (on average, a reduction of 1.82 points, $p=.086$).

- Change in the BPI-internalizing subscale among respondents in the intervention group was better than those in the comparison group (on average, a reduction of 0.96 points, $p=.046$), a statistically significant finding.



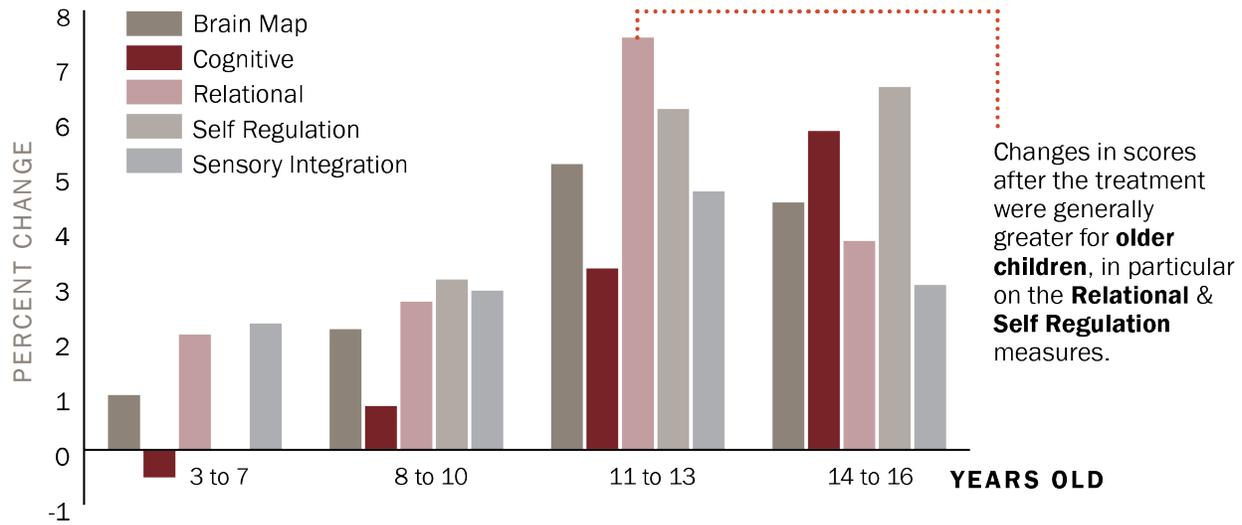
- Similarly, change in the BPI-externalizing subscale among respondents in the intervention group was better than those in the control group, on average, a reduction of 1.32 points ($p=.092$), trending towards statistical significance.

Caregiver commitment. This was measured with the Belonging and Emotional Security Tool – for Adoptive and Guardianship families (BEST-AG). On the BEST-AG scale, increases suggest an improved sense of belonging and emotional security. While not statistically significant, the BEST-AG shows a slightly stronger trend for the treatment group, suggesting that with additional time and more study participants, a statistically significant difference may emerge.

Familial relationships. This was measured with the Parent Feelings Form (PFF). For this measure, lower scores are preferred. Results showed an overall reduction in PFF scores from pretest to posttest. The PFF showed declines for both groups, but not a statistically significant difference.

The NMT Metrics (for the intervention group only). Compared to neurotypical children their age, children and youth who received the intervention saw an increase, over baseline, of their functioning on key domains measured through the NMT Metrics: participants moved closer to the neuro-typical functioning on all domains. The largest percent change occurred among older children and youth, with most change observed for children over the age of 11.

PERCENT CHANGE IN NMT METRICS BEFORE & AFTER TREATMENT



Among children adopted through the child welfare system, many have had difficult experiences in addition to maltreatment, including long periods of time in foster care prior to adoption and instability in foster care. Children in families who reach out for assistance after adoption may have experienced significant trauma and could benefit from trauma-informed post adoption services and supports. Changes from pretest to posttest on the NMT measures were stronger for older children (those over 8 years old). Therefore, the NMT may be more helpful for older children. However, these results may have also been due to better reasoning capacity of older youth, different experiences with trauma or the effects of the NMT may need more time to be observed with younger children.

In summary, the trends found in this study are promising for children and youth who received NMT, but more research using larger samples and longer observation windows are needed to examine the effects of the NMT with post adoptive children and families. Addressing issues with children who have experienced maltreatment, trauma and loss is difficult work and takes time. The observation window in this study was less than a year, and results of interventions may not be observed until more time has passed. In this relatively short period of time the intervention group saw change on key measures included in the metric (e.g., particularly for older children in the relational and self-regulation domains). Perhaps with additional time, and more families enrolled, different results regarding the intervention and comparison groups may have emerged. Incorporating the NMT Metric as a post adoption intervention is a long-term investment designed to help children who have experienced significant trauma and may have a positive impact on children and families over time.

Cross-Site Summary

The cross-site evaluation (Chapter 10 of the full report) summarizes overarching themes and analyses found across six QIC-AG sites that focused on addressing issues post permanence: Vermont, Illinois, New Jersey, Catawba County (North Carolina), Wisconsin, and Tennessee. Key findings from the cross-site are summarized below.

Key questions that can help sites identify families who are struggling post permanence. An important aspect of prevention work with adoptive and guardianship families is to be able to identify families who may be the most likely to experience post permanency discontinuity and diminished wellbeing. Through the QIC-AG we asked key questions to better understand issues related to post permanency discontinuity. Our findings show promise for using a set of questions related to familial issues to distinguish families who were struggling and those who seemed to be doing alright. These questions could be administered yearly to all adoptive and guardianship families, with targeted outreach directed at families whose responses suggest they may be at an elevated risk for post permanency discontinuity.

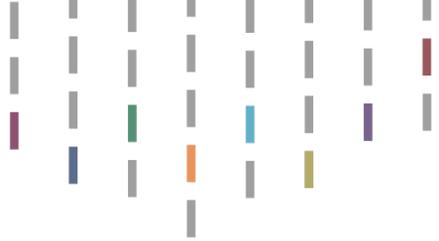
Child welfare jurisdictions interested in targeted outreach to adoptive or guardianship families may consider periodically checking in with families to assess their level of caregiver commitment and familial relationship (e.g., the parent or guardian's assessment of how well they can manage their child's behavior). Based on the responses received from this check-in, jurisdictions could consider targeting outreach to families based on responses to key familial relationship questions piloted with the QIC-AG project.

Maintain connections with families after adoption and guardianship. Connections to services, supports, and resources should begin prior to adoption or guardianship finalization and continue to be maintained after finalization.

Reduce barriers to post adoption service use and empower families to seek services and supports. This process may be made easier by maintaining connections through universal outreach, which includes providing information about availability and eligibility for services after adoption or guardianship finalization so that families know how and where to access supports and services.

Offer support through periodic, targeted outreach to families who exhibit characteristics that suggest they may be at an increased risk for post permanency discontinuity. This could be, for instance, annual check-ins with families to see how they are doing.

Support is important. Families reported that at times what is needed is a friendly voice on the other end of the phone who can listen to struggles regarding birth family contact or provide support for older caregivers. Other times it is helping to get intensive residential treatment services for their child without relinquishing custody. Participants reflected on the important social connections (informal social support) made by attending sessions. Survey respondents reported that they needed formal support from the child welfare and school systems, as well as support in accessing services for their child post-permanence. It is important to understand what *support* means to the family and to find a way to offer it in a timely manner.



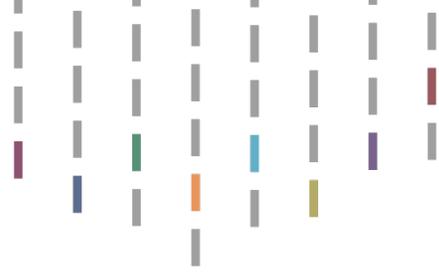
Chapter 1

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QIC-AG Overview

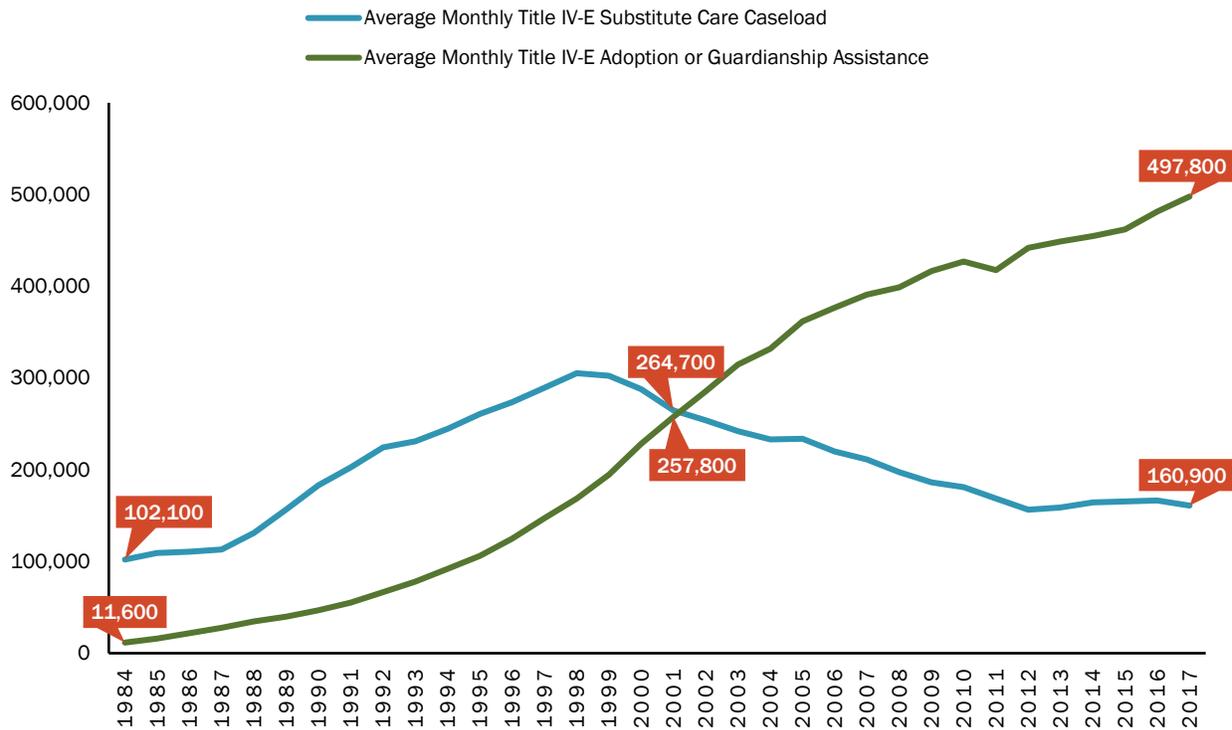
The Children's Bureau, Administration for Children and Families, and Department of Health and Human Service established the National Quality Improvement Center for Adoption and Guardianship Support and Preservation (QIC-AG). In October 2014, the QIC-AG was awarded to Spaulding for Children in partnership with The University of Texas at Austin, The University of Wisconsin at Milwaukee, and The University of North Carolina at Chapel Hill (these entities are referred to as the QIC-AG partners). The QIC-AG was designed to promote permanence when reunification is no longer a goal and improve adoption and guardianship preservation and support. The work of the QIC-AG was guided and supported by a Professional Consortium consisting of experts and leaders in such areas as adoption, guardianship, child safety, permanence, and wellbeing, as well as adult and youth with direct adoption and guardianship experience.

For five years, the QIC-AG team worked with eight sites across the nation, with the purpose to implement evidence-based interventions or develop and test promising practices which, if proven effective, could be replicated or adapted in other child welfare jurisdictions. The project's short-term outcomes varied by site and included, for example, increased level of caregiver commitment, reduced levels of family stress, improved familial relationships, and reduced child behavioral issues. The project had three long-term outcomes: increased post permanency stability, improved behavioral health for children, and improved child and family wellbeing.

Background

In 1984, there were 102,100 children in IV-E funded substitute care and 11,600 children receiving IV-E adoption subsidies (see Figure 1.1). By 2001, nearly equal numbers of children were in IV-E subsidized substitute care and IV-E funded adoptive or guardianship homes. Between 2000 and 2017, while the U.S. substitute care caseload decreased, the number of children in adoptive and guardianship populations doubled. In the United States in 2017, the most current available data, for every 1 child in federally assisted substitute care, there were 3.1 children in IV-E federally assisted adoption or guardianship homes. Estimates for 2018 and 2019 suggest that this trend will continue. In 2019, it is estimated that the number of children in IV-E funded substitute care will be approximately the same as in 2017, but the number of children in IV-E federally assisted adoption or guardianship homes will continue to increase (Committee on Ways and Means of the U.S. House of Representatives, 2018).

Figure 1.1. National Average Monthly IV-E Funded Caseloads

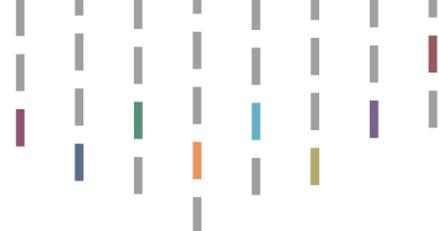


Data sources: The information on federally-funded caseloads are from the Committee on Ways and Means (CWM) of the U.S. House of Representatives and represents the average monthly Title IV-E caseloads.

The dramatic increase in the number of children who have transitioned from substitute care to adoption and guardianship has been accompanied by a heightened awareness of the complex needs that these families may encounter after permanence has been achieved. Research has found that most adoptive parents and guardians provide permanent homes for the children in their care (Rolock, 2015; Rolock & White, 2016; Testa, Snyder, Wu, Rolock & Liao, 2015; White, 2016). However, post permanency instability can occur years after a child has been with an adoptive parent or guardian. Difficulties do not disappear spontaneously once an adoption or guardianship is finalized.

One of the most important challenges confronting the child welfare system in the 21st century is addressing the needs of families formed through adoption or guardianship. The good news in this area is that research has established that most families formed through adoption or guardianship do not experience post permanency discontinuity (PPD). PPD has been estimated somewhere between 5% and 20%, depending on the type of population or sample examined and on how long children and families are observed (Rolock, Pérez, White, & Fong, 2018; Rolock, 2015; White, 2016). PPD may stem from the maltreatment children endured before being placed with their adoptive parent or guardian (Simmel, Barth, & Brooks, 2007). Children who have experienced trauma can demonstrate challenging behaviors at a frequency, intensity, and duration that can stress families beyond their capacity to cope (Barth, Crea, John, Thoburn, & Quinton, 2005; Lloyd & Barth, 2011; Tan & Marn, 2013). Other complex, interrelated factors can also impact post adoption and guardianship stability such as the age or developmental stage of the child (White, 2016), a child who has multiple disabilities and/or needs (Reilly & Platz, 2004), the age of the adoptive parent (Orsi, 2014), a lack of available services for families (Rolock & White, 2016), and weakening relationships or attachments between the child and parent (Nieman & Weiss, 2011).

Few empirical studies have focused on interventions that reduce the risks of post permanency discontinuity. However, best practices indicate proactive measures can be effective in increasing the likelihood of stability, particularly when they occur prior to permanence. Prevention interventions can include: recognizing the strengths, resilience and resources of caregivers (Crumbley, 1997, 2017); having adoption and guardianship competent professionals who are culturally sensitive and trauma-informed (Fong, McRoy, & McGinnis, 2016); developing safety plans in case an alternative placement is needed (Casey Family Programs, 2012); identifying services that best suit the children and family's needs (Testa, Snyder, Wu, Rolock & Liao, 2015); ensuring family input in evaluating outcomes of services; and connecting families with other adoptive or guardianship families (Egbert, 2015).



QIC-AG Target Populations

Target Group 1

The QIC-AG project had two target groups. The population in **Target Group 1** was defined as:

Children and youth identified within the selected state, county, or tribal child welfare systems awaiting an adoptive or guardianship placement, or children or youth that are in an identified adoptive or guardianship home but the placement has not resulted in a finalization for a significant period of time due to the challenging mental health, emotional, or behavioral issues of the youth.

PICO RESEARCH QUESTION

The PICO question for Target Group 1 was:

Do foster children and youth in an identified adoptive or guardianship home for a significant period of time (**P**) have increased permanence, wellbeing and stability (**O**) if they receive permanency planning services (**I**) compared with similar foster children/youth who received services as usual (**C**)?

THEORY OF CHANGE

The **Theory of Change** for Target Group 1 was based on the principle that existing child welfare interventions targeting families on the brink of disruption and dissolution do not serve the interests of children, youth, and families. Evidence indicates post permanency services and support should be provided at the earliest signs of trouble, rather than at later stages of weakened family commitment (Testa, Bruhn & Helton, 2009). Ideally, preparation for the possibility of post permanency instability should begin prior to finalization by delivering evidence-supported permanency planning services that equip families with the capacity to weather unexpected difficulties and seek needed services. The best way to ensure families will seek services and supports when they need them after finalization is to prepare them in advance of permanence and check-in with them periodically after adoption or guardianship finalization.

Target Group 2

The population in **Target Group 2** was defined as:

Children and youth and their adoptive or guardianship families who have already finalized the adoption or guardianship and for whom stabilization may be threatened will also be targeted for support and service interventions. The children and youth in this target group may have been adopted through the child welfare system or by private domestic or intercountry private agency involvement.

RESEARCH QUESTION

The PICO question for Target Group 2 was:

Do families with a finalized adoption or guardianship (**P**) have increased post permanency stability and improved wellbeing (**O**) if they receive post permanency services and support (**I**) compared with similar families who receive services as usual (**C**)?

THEORY OF CHANGE

The **Theory of Change** for Target Group 2 suggests that predictors of post permanency instability can include: (1) caregivers' assessment of child or youth behavior problems and (2) caregivers' self-report of their caregiving commitment (Testa, et al, 2015). Site-specific interventions should target families most at risk of post permanency instability. Post permanency stability can be maintained by checking-in with families after finalization to identify needs and assess permanency commitment. By providing post permanency services and support, the capacity of caregivers to address the needs of the children in their care will increase and reduce the needs of these children. Families who are provided with services and support will have increased capacity for post permanency stability and improved wellbeing.

Private Domestic and Intercountry Adoptive Families

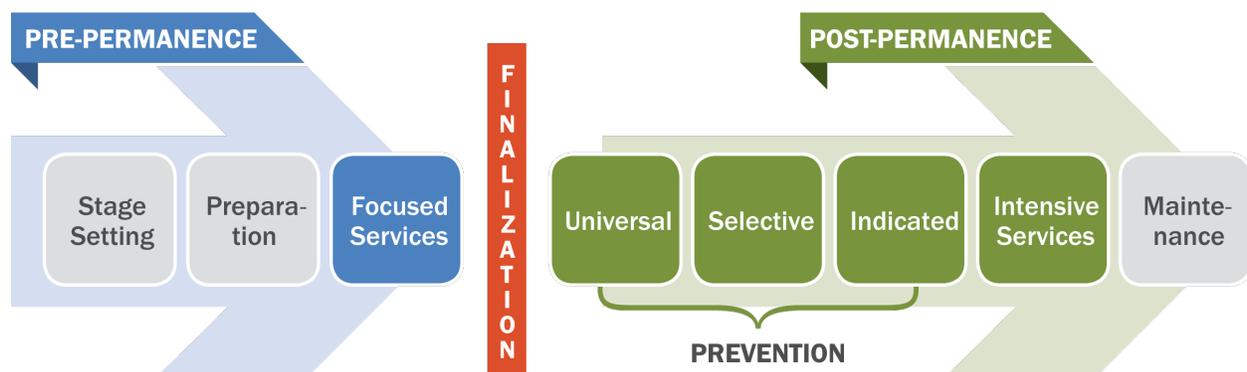
The challenges associated with providing a stable, long-term and permanent home are not consigned to adoptions and guardianships that occur through the child welfare system. Private domestic and intercountry adoptive families can also encounter post permanency disruptions and discontinuity. Children and youth adopted intercountry may experience additional challenges not typically found in domestic adoptions such as adapting to an unfamiliar culture and language (Fong, McRoy, & McGinnis, 2016). The QIC-AG project team collaborated with staff from the State Department to obtain information on the process of adopting children via intercountry and preparing and training adoptive families. Consultation with the State Department was an important resource for the QIC-AG team, particularly in determining how intercountry adopted children and youth could be included in sites working with families who had already adopted (Target Group 2). Of the eight sites selected, the six sites working with families after finalization (Illinois, Tennessee, Catawba County (NC), Wisconsin, New Jersey and Vermont) included families who had adopted privately, both domestically and internationally, in their project outreach. This report provides basic characteristics of the intercountry and private domestic adoptive families who participated in the project in those six sites. Vermont outreached to agencies and organizations who served families through private domestic or intercountry adoption and implemented a survey (see survey results in Appendix in Vermont site report). A separate evaluation, conducted by the University of Nebraska – Lincoln, provides additional information on this group of families.

QIC-AG Continuum of Services

Pre Permanence

The QIC-AG developed the *QIC-AG Permanency Continuum of Service* to guide its work with the different sites (see Figure 1.2). The framework is built on the premise that children in adoptive or guardianship families do better when their families are fully prepared and supported to address needs or issues as they arise. The Continuum Framework is arranged as eight intervals, beginning with prior to adoption or guardianship finalization (*Stage Setting, Preparation, and Focused Services*), continuing to post permanence (*Universal, Selective, and Indicated prevention efforts*), and ending with the final two intervals that focus on addressing *Intensive Services* and *Maintenance* of permanence, respectively. The focus of this continuum is children for whom reunification is not a viable option.

Figure 1.2. QIC-AG Permanency Continuum



Taken together, the eight intervals serve as an organizing principle that helps guide children within the selected state, county, or tribal child welfare systems transition to adoption or guardianship while supporting families to maintain stability and wellbeing after adoption or guardianship has been achieved. In practice, the intervals overlap, but to ensure clarity the following section will describe each phase of the framework separately. QIC-AG sites did not test interventions in those intervals in gray in Figure 1.2 (stage setting, preparation, and maintenance).

Stage Setting

Setting the stage for permanence focuses on the critical period after a child has entered the child welfare system when information is obtained, decisions are made, and actions take place that will affect the trajectory and ultimately the permanency outcome for the child. The **Stage Setting** interval entails not only concurrent planning but also proactive preparation and training with all stakeholders to minimize both the number of placement transitions and the negative impact of those transitions on the child. Effectively managing transitions involves implementing specific preparations for children and foster parents, improving coordination between service providers responsible for supporting the children, and proactively developing transition plans.

Preparation

Once it is determined that reunification is not an option, specific activities must take place to identify appropriate permanency resources and prepare the children and the families for adoption or guardianship. The **Preparation** interval focuses on the activities that help to identify the resources that will support children and families to make a successful transition from foster care to adoption or guardianship.

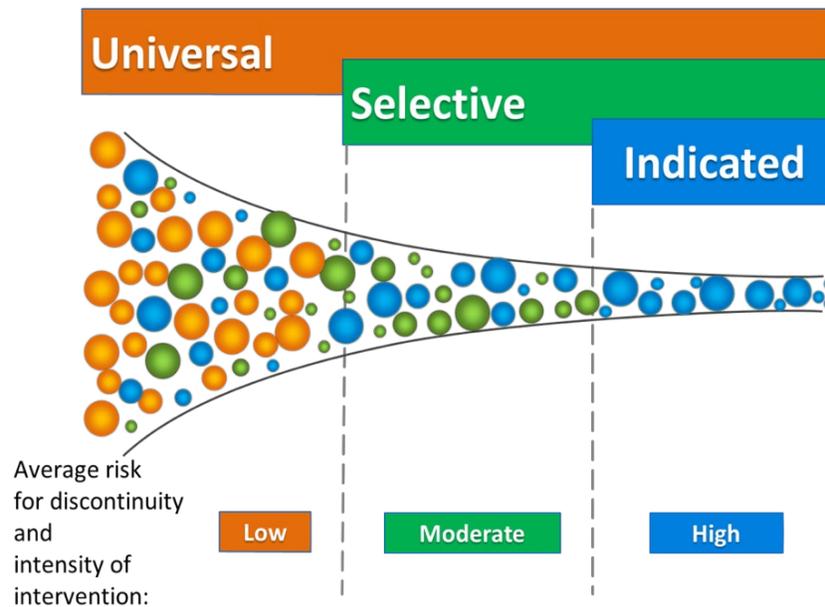
Focused Services

Focused Services are designed to meet the needs of children with challenging mental health, emotional, or behavioral issues who are waiting for an adoptive or guardianship placement. **Focused Services** target children in an identified adoptive or guardianship home for whom the placement has not resulted in a finalization for a significant period of time. It is possible that some of these children have experienced a disrupted or dissolved adoption or guardianship, including children who have been adopted via private domestic or intercountry processes. **Focused Services** are intended to prepare families to meet the needs of children in this population and become permanent resources. The two sites that tested **Focused Service** interventions were Texas and the *Winnebago Tribe of Nebraska* (see Figure 1.3).

Post Permanence

The first three intervals on the post permanency side of the framework focused on testing prevention efforts at the Universal, Selective and Indicated levels of prevention (see Figure 1.3 for a depiction of the various levels of prevention).

Figure 1.3. Prevention Framework



The prevention framework is based on the work of the Institute of Medicine (IOM) prevention planning (Springer & Phillips, 2006).

Universal

Universal prevention is defined as strategies that are delivered to broad populations without consideration of individual differences in risk (Springer and Phillips, 2006).

For the QIC-AG project, **Universal** prevention efforts targeted families after adoption or guardianship had been finalized. **Universal** strategies include outreach efforts and engagement strategies that are intended to: 1) keep families connected with available supports, 2) improve the family's awareness of the services and supports available for current and future needs, and 3) educate families about issues before problems arise. **Universal** prevention strategies can include maintaining regular, periodic outreach to children and families in adoptive or guardianship homes, including families where permanence has recently occurred or for whom it was achieved a few, or several, years ago. *Vermont* tested a post permanence **Universal** prevention intervention.

Selective

In **Selective** prevention efforts, services are offered to sub-groups of individuals identified based on their membership in a group that has an elevated risk for a particular outcome (Offord, 2000; Springer and Phillips, 2006). **Selective** services are preventive and offered proactively, seeking to engage families before a specific need is indicated.

For the QIC-AG project, **Selective** intervention efforts were targeted at families who, based on characteristics known at the time of adoption or guardianship finalization, may be at an elevated risk for post permanency discontinuity. **Selective** services are preventive and offered proactively, seeking to engage families before a specific need is indicated. Child welfare research provides some insight into the characteristics of children and families who are at an elevated risk for post permanency discontinuity, including children who: are older at the time of permanence or have experienced multiple moves. *New Jersey* and *Illinois* tested **Selective** prevention interventions.

Indicated Services

Indicated prevention efforts focus on interventions that seek to address specific risk conditions; participants are identified based on characteristics they themselves have (Offord, 2000; Springer and Phillips, 2006).

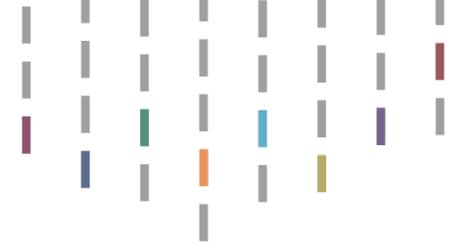
For the QIC-AG project, **Indicated** prevention efforts were defined as services that target families who request assistance to address an issue that has arisen after permanence has been achieved, but before the family is in crisis. For instance, when families call an agency with a question about a referral for a service, this might **Indicate** that they are beginning to struggle with issues or may have reached a point where they no longer feel like they can address the issues on their own. *Wisconsin* and *Catawba County (NC)* tested **Indicated** prevention interventions.

Intensive

Intensive services target families who are experiencing difficulties beyond their capacity to manage on their own, and are therefore seeking services. Families may be at imminent risk of experiencing a crisis or may already be in a crisis situation. Services are offered that aim to diminish the impact of the crisis, stabilize and strengthen families who receive services. **Intensive** services are not intended to be preventative in nature. Services include **Intensive** programs designed for intact families who are experiencing a crisis that threatens placement stability and families who have experienced discontinuity. *Tennessee* tested an **Intensive** services intervention.

Maintenance

The aim of **Maintenance** is to achieve the long-term goals of improved stability and increased wellbeing for those who experienced discontinuity or were at serious risk for experiencing discontinuity. For example, children and families who received **Indicated** prevention or **Intensive** services could receive **Maintenance** prevention services in the form of after-care services, monitoring, and booster-sessions.



Site Selection

Between October 2014 and March 2015, the QIC-AG team identified sites through preliminary research and a deliberate assessment process. The QIC-AG partners evaluated potential sites using a three-phase assessment process: **Pre Assessment**, **Initial Assessment**, and **Full Assessment**. As the assessment progressed through the phases, the information in each category increased in scope and depth. Each assessment phase was focused on answering a specific question or identifying a specific outcome in relation to six categories: Organizational Demographics, Population, Data Capacity, Continuum of Services/Interventions, Organizational and Evaluation Readiness, and Sustainability. The information gathered during each phase of the process was used by QIC-AG partners to determine which sites would continue to the next phase of assessment and ultimately which sites would be selected as partners.

Pre Assessment

The **Pre Assessment** phase gave the QIC-AG team an opportunity to gather limited, readily available information critical to understanding a site's potential to support the QIC-AG's efforts. From the 29 states, counties, or private agencies that contacted QIC-AG and expressed interest in learning more about the QIC-AG initiative, 18 sites moved on to the **Pre Assessment** phase.

Initial Assessment

The **Initial Assessment** phase was designed to help sites determine their interest, readiness, and capacity to partner with, and support the goals of, the QIC-AG. Meetings were held with the sites to explain the QIC-AG initiative, review and confirm site-specific information collected during the **Pre Assessment** phase, and collect additional detailed information on the six categories. Twelve states and counties had initial assessments that were conducted during an on-site visit. Per the requirements of the QIC-AG cooperative agreement, every attempt was made to ensure sites were diverse in relation to size of the child welfare system, the urban/rural make-up, geographic region, and type of child welfare administrative system. The QIC-AG leadership team developed rating forms to assess the information gathered on the sites and make decisions about which sites would proceed to the **Full Assessment** phase.

The evaluation team had focused discussions at each site regarding the QIC-AG outcomes and the types of data required for tracking children across the continuum. This included discussions about data capacity (access to Adoption and Foster Care Analysis Reporting System (AFCARS)), and the ability to link foster and adoption IDs and track children after adoption and guardianship. Furthermore, the benefits of conducting a rigorous evaluation using a randomized controlled trial (RCT) were discussed with each potential site.

Full Assessment

Several states and counties were identified to participate in the **Full Assessment** phase. This process focused on obtaining foundational knowledge of each site's continuum of services and readiness to participate in this initiative. Questions were developed for each site based on review of the information obtained during the **Initial Assessment** phase. In May 2015, the QIC-AG leadership spoke with each site individually to obtain answers to the questions. This information was brought back to the QIC-AG leadership team and ultimately these states or counties were selected: Catawba County (NC), Illinois, New Jersey, Tennessee, Texas, Vermont, and Wisconsin.

Tribal Selection Process

Site selection for a tribal child welfare system followed a similar path but was tailored to tribes. Between March and April 2015, the QIC-AG partners conducted outreach and engaged in preliminary conversations with tribes who expressed an interest to discuss potential collaborations. Tribal experts were consulted and Connie Bear King was hired to lead the outreach and selection process for the project. Connie Bear King followed up individually with the tribes that had expressed interest in the QIC-AG initiative as well as with tribes that had been recommended by other entities as possible candidates for this initiative. As a result of this **Preliminary Assessment**, five tribes expressed interest in being selected as a partner site, and ultimately three tribes moved to the **Initial Assessment** phase. The **Initial and Full Assessment** process was adapted for the tribal selection process. It followed a similar process as the one outlined above. Site visits were conducted, and additional information collected by phone and in person. Ultimately, the Winnebago Tribe of Nebraska was selected in July 2015.



Implementation & Evaluation

Each of the sites had a site-specific team that worked closely with the site (Catawba County (NC), Illinois, New Jersey, Tennessee, Texas, Vermont, Winnebago Tribe, and Wisconsin). Each team consisted of one of the two QIC-AG Principal Investigators (Dr. Nancy Rolock and Dr. Rowena Fong), a site consultant (from Spaulding) and a site implementation manager (typically a member of the public child welfare system). Initially, all sites had two site consultants, but in a couple of the sites this shifted to one site consultant during the latter half of the project. In some sites, the site implementation manager role was split between two people. The core team guided the implementation and evaluation of the project.

In addition to the core project team, the work of the QIC-AG project team in each of the sites was guided by a site-specific Project Management Team (PMT), Stakeholder Advisory Team (SAT), and Implementation Team to help design and implement the project. The PMT included key leaders across multiple systems that provided direction in creating a sustainable assessment, implementation, and evaluation model. The SAT served as an advisory group consisting of key community representatives, including consumers and providers of adoption and guardianship services. Both the PMT and SAT teams had representatives from public, private domestic, and intercountry adoptions; adoptive and guardianship families; and representatives from support agencies, as well as adults and youth with direct adoption or guardianship experience. The Implementation Team was responsible for guiding the overall initiative and attending to key functions of implementation of the evaluable intervention. Some sites had other teams to support the data processes and adaptation of interventions.

Evaluation

Drs. Nancy Rolock and Rowena Fong collaborated with the eight sites to develop site-specific evaluation plans. The most rigorous testing and evaluation methods were used vis-à-vis the sites' selected interventions. Structured, standardized implementation and evaluation tools helped guide their work. While the Institutional Review Board (IRB) of the University of Wisconsin-Milwaukee served as the IRB of record, all 8 sites received IRB approval from either the University of Wisconsin-Milwaukee or the University of Texas at Austin. In addition, some sites were also reviewed by agency, Tribal Council, or local university IRBs.

Three sites conducted **Experimental** design studies (Catawba County (NC), Illinois, and New Jersey). Two used a **Quasi-Experimental** design (Tennessee and Texas) and three were **Descriptive** studies (Wisconsin, Vermont, Winnebago Tribe) (see Table 1.1). Initially Wisconsin, Texas and Winnebago had different evaluation designs, but were changed during the course of the project to adapt to the realities of implementing the evaluable intervention in each site.

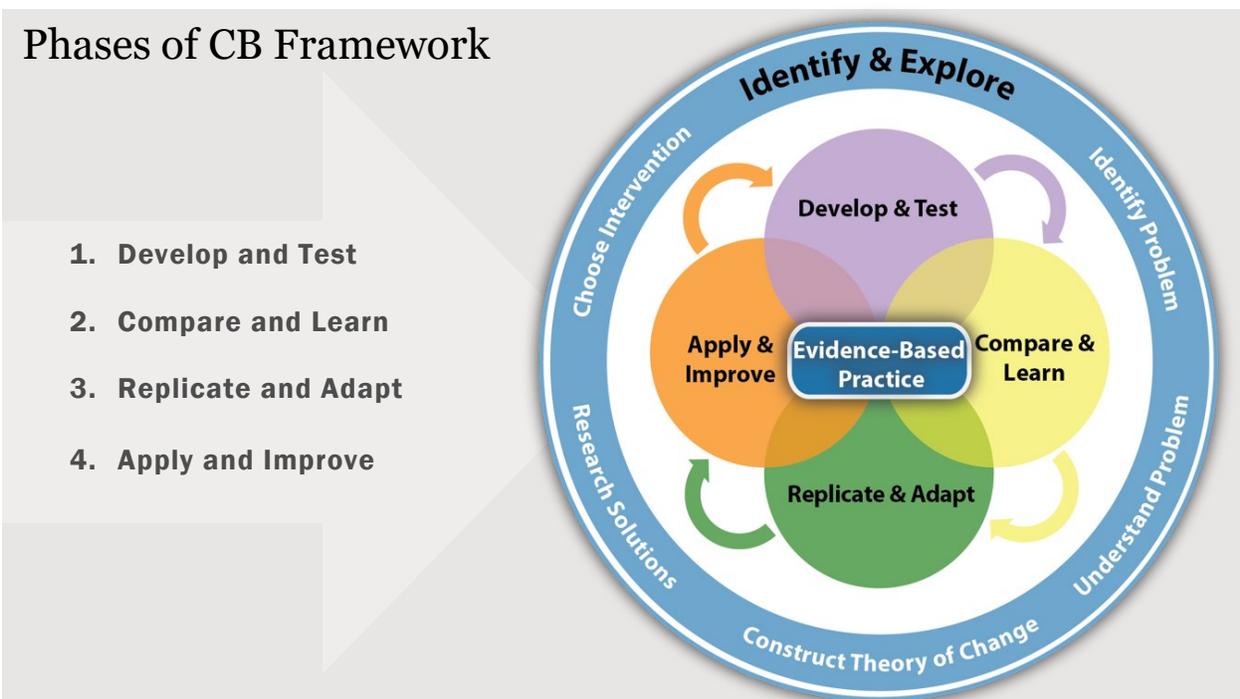
Guiding Frameworks

To effectively implement and evaluate the site-specific interventions, the QIC-AG merged two existing frameworks: 1) the Children’s Bureau (CB) *Framework to Design, Test, Spread, and Sustain Effective Practice in Child Welfare* (2014) and 2) the National Implementation Research Network (NIRN) Active Implementation Frameworks (2005). Each of these frameworks are summarized below.

Guided by the *Framework to Design, Test, Spread, and Sustain Effective Practice in Child Welfare*, each site began with the **Identify and Explore** phase. During this phase each site team worked to identify the problem they sought to address. This included examining current services available across the continuum (from pre permanency to post permanence). Sites selected an **intervention** aimed at serving one of the two QIC-AG target populations (defined earlier). Ultimately this resulted in the development of a specific, well-built **research question** using the Population, Intervention, Comparison Group, Outcome (PICO) framework (Testa & Poertner, 2010). Using the PICO framework, each site narrowed their target population, determined a comparison group, and site-specific outcomes. The PICO was expanded into a **Logic Model** which guided the intervention selection, implementation and evaluation, and a **Theory of Change** that hypothesized how the intervention being tested at their site would bring about the project outcomes.

Each of the eight sites chose an intervention that was embedded in one of four phases of the CB Framework (see Figure 1.4).

Figure 1.4. A Framework to Design, Test, Spread, and Sustain Effective Practice in Child Welfare



If a site selected an intervention that was well-defined, showed early signs of success, and wanted to compare the intervention's outcome to practice as usual, the site would be in the **Compare and Learn** phase of the CB Framework. An intervention in the **Replicate and Adapt** phase was one that had been evaluated and found more effective than the alternative and consequently was ready to be adapted to serve an alternative population or "rolled-out" on a larger scale. In the QIC-AG project, the interventions tested in Catawba County (NC), Vermont, Texas, and Wisconsin were in the **Develop and Test** phase, Tennessee was in the **Compare and Learn** phase, and the interventions in Illinois, New Jersey, and Winnebago were in the **Replicate and Adapt** phase.

The intervention selection process followed the guidance of the National Implementation Research Network (NIRN) in selecting the intervention. During this process, a search for possible interventions occurred. This resulted in several interventions examined by the PMT and SAT groups, and ultimately a few interventions were examined using the Hexagon Tool (Blase, Kiser & Van Dyke, 2013). The Hexagon Tool (see Figure 1.5) helps the user consider the following items when selecting an intervention:

- Needs of the target population
- Fit with current initiatives
- Availability of resources and supports for training, technology, etc.
- Level of research evidence, and similarities between existing outcomes and project-defined outcomes
- Readiness for replication of the intervention
- Capacity of the site to implement the intervention as intended by the purveyor over time (Blase, Kiser & Van Dyke, 2013).

Figure 1.5. National Implementation Research Network's (NIRN) Hexagon Tool

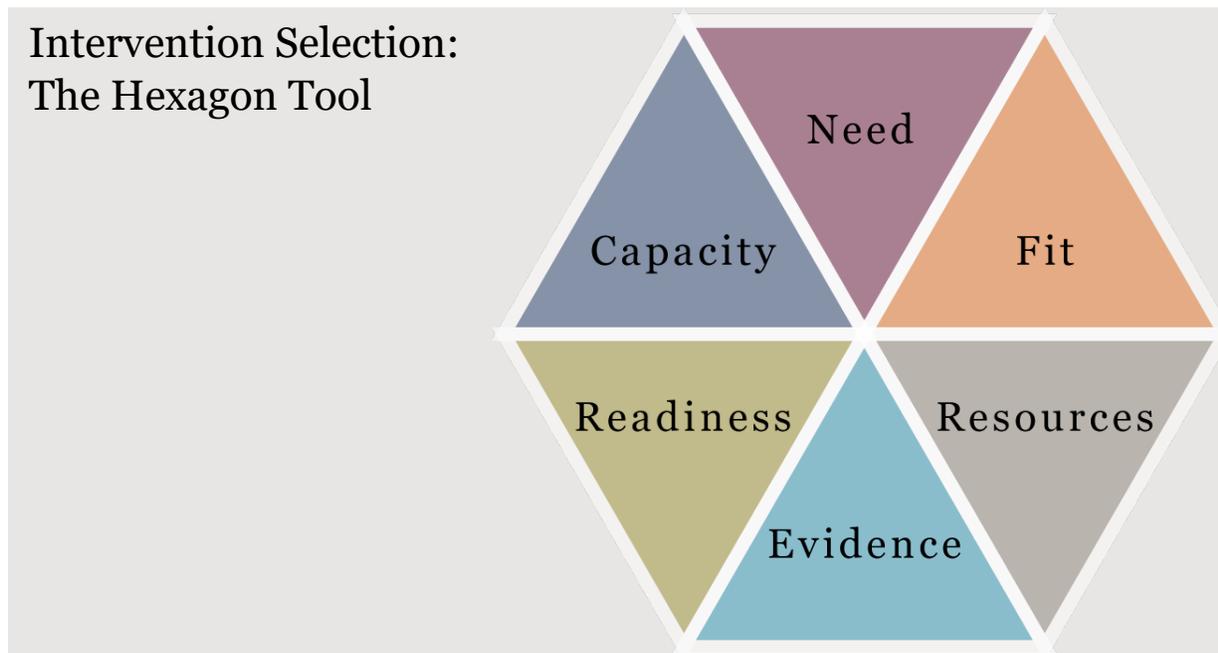


Table 1.1. Site, Target Population, Intervention and Study Design

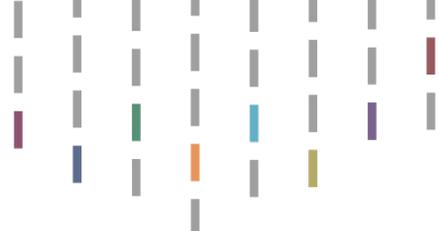
SITE	INTERVENTION	STUDY DESIGN
TARGET POPULATION: GROUP 1		
WINNEBAGO TRIBE	Family Group Decision Making (FGDM)	Descriptive
TEXAS	Pathways 2 Permanence	Quasi-Experimental
TARGET POPULATION: GROUP 2		
VERMONT	Vermont Permanency Survey	Descriptive
ILLINOIS	Trauma Affect Regulation: Guide for Education & Therapy (TARGET)	Experimental (RCT)
NEW JERSEY	Tuning In To Teens (TINT)	Experimental (RCT)
CATAWBA COUNTY (NC)	Reach for Success	Experimental (RCT)
WISCONSIN	Adoption and Guardianship Enhanced Support (AGES)	Descriptive
TENNESSEE	Neurosequential Model of Therapeutics (NMT)	Quasi-Experimental

Process Evaluations included the following types of information:

- Recruitment procedures
- Intervention participation
- Participant profiles for public adoptive and guardianship families and, when applicable, private domestic and intercountry adoptive families.
- Program outputs
- Results of usability testing
- Fidelity

Previous studies on families formed through adoption or guardianship provided information about specific constructs (e.g., caregiver commitment, child behavior difficulties, and post permanency discontinuity) as well as relationships between those constructs (e.g., risk and protective factors for discontinuity) that were helpful in the QIC-AG evaluation. Caregiver commitment is the extent to which adoptive or guardianship caregivers intend to maintain children in their homes and provide long-term care for them, no matter what challenges, stressors, or negative behaviors may occur (Liao & Testa, 2016; White, Rolock, Testa, Ringeisen, Childs, Johnson, & Diamant-Wilson, 2018). The relationships between caregiver commitment and other post permanency variables, such as placement instability, can be quite complex. Despite these complexities, previous literature generally supports that higher caregiver commitment protects against negative post permanency outcomes, including post adoption and guardianship instability (Child Welfare Information Gateway, 2013; Faulkner, Adkins, Fong, & Rolock, 2017; White et al., 2018). Based on extant literature, the evaluation team sought to incorporate the following types of information in the short-term outcomes portion of the **Outcome Evaluations**, although sites did not all have the same measures: The Behavior Problem Index [BPI] measuring child behavioral issues; the Belonging and Emotional Security Tool [BEST]; and caregiver commitment measures.

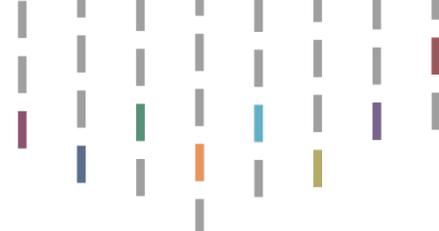
Outcomes across Target Group 2 sites are summarized in the final chapter, the **Cross-Site Evaluation**. The QIC-AG evaluation team also conducted a **Cost Evaluation** for each site. These findings are embedded in each site report.



Summary

This chapter described how over five years the QIC-AG selected and collaborated with eight sites (Catawba County (NC), Illinois, New Jersey, Tennessee, Texas, Vermont, Winnebago Tribe, and Wisconsin) with the purpose to implement evidence-based interventions or develop and test promising practices, which if proven effective could be replicated and adapted in other child welfare jurisdictions.

The QIC-AG team guided the eight sites by establishing clear governance and structured programming. Each site was incorporated in the QIC-AG Continuum of Services framework and tested interventions with a site-specific target population. Each site developed their own PICO research question, Logic Model (Circular Model for the Winnebago Tribe of Nebraska), and Theory of Change. Evaluation methods included a number of different study designs depending on the individual sites' program and tailored interventions. Short-term outcomes were individualized for each site, and measures selected based on extant research with adoptive and guardianship families. Long-term outcomes were the same for all sites and set *a priori* in the request for funding.



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Chapter 9

TENNESSEE: THE NEUROSEQUENTIAL MODEL OF THERAPEUTICS (NMT)

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Site Background

The Tennessee Department of Children’s Services (DCS) is the public child welfare agency that investigates allegations of child abuse and neglect, administers the State’s foster care system and for the children who come into care, works to find permanence through reunification, adoption, or guardianship. In 2004, DCS selected the Harmony Family Center, a Tennessee-based private non-profit organization specializing in pre and post adoption services, to administer the state’s Adoption Support and Preservation Program (ASAP). This long established history of providing post-adoption services sets Harmony apart in the QIC-AG project. The Harmony Family Center provides services in eastern Tennessee and adoptive families in the middle and western areas of the state are served through sub-contracts with Catholic Charities. All adoptive families in Tennessee are eligible to receive services from ASAP. Services are available at no cost or low cost to any state resident who adopt privately, domestically or internationally (Tennessee Department of Children Services Annual Progress and Services Report, 2015).

Services provided by Tennessee’s ASAP include adoption preparation training, monthly support groups located in 12 sites around the state, an annual conference focused on adoptive issues for families and clinicians, and a lending library of books on pre and post adoption information. Services, ranging from counseling to camp, are designed to support and promote the success of adoptive and guardianship families on every level and at every stage of the adoption journey.

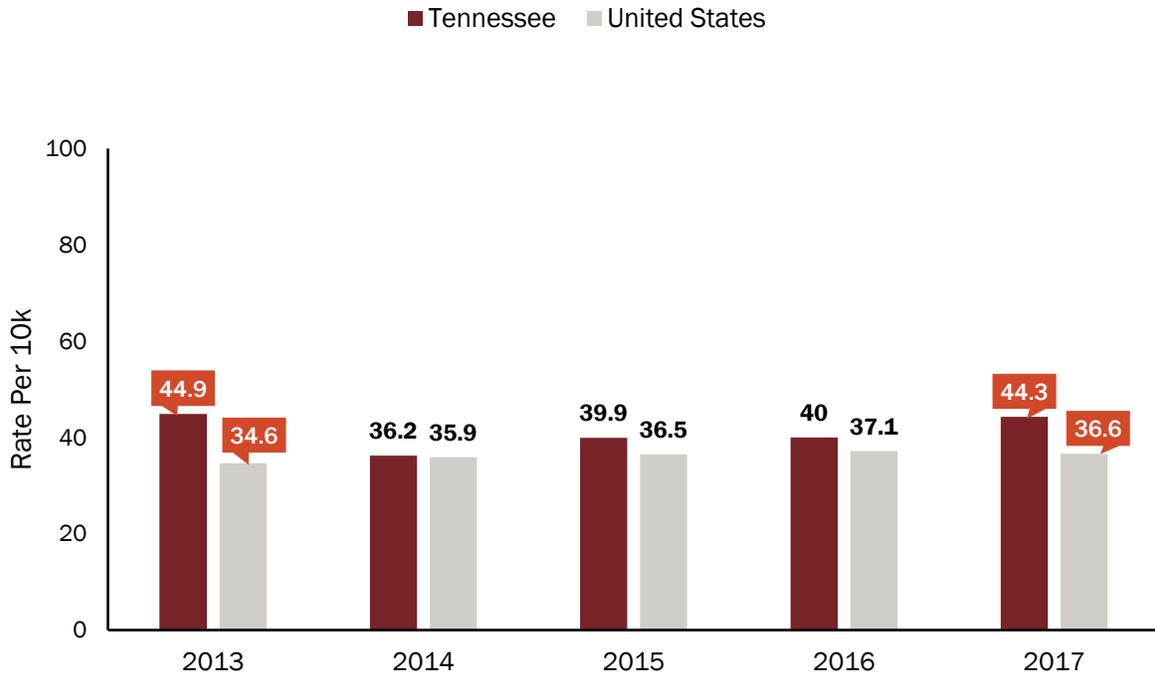
A cohesive team that included a Project Management Team (PMT), Stakeholder Advisory Team (SAT) and the Implementation Team (IT) designed and implemented the Tennessee QIC-AG project. The study’s Theory of Change postulated that by using a family-centered, trauma-informed, bio-psychosocial assessment process to identify the needs of the child and family, the most appropriate type of intervention will be identified. With appropriate intervention, families will be linked to services specific to their needs. Once linked to appropriate services, families will have the knowledge and skills to effectively manage issues or problems when they arise which will increase placement stability and reduce the risk of discontinuity.

The Neurosequential Model of Therapeutics (NMT) is a developmentally sensitive, neurobiology-informed approach to clinical problem solving that has been used with children and youth who have experienced trauma or maltreatment. The NMT Metric provides a picture of a person’s strengths and vulnerabilities in relation to his or her developmental history and offers a set of enrichment, therapeutic and educational activities that matches the person’s assessed needs that is then used to guide how clinicians provide services to the children and youth they are serving (Perry & Dobson, 2013). Given the high level of services-as-usual provided by ASAP, the Tennessee QIC-AG site was uniquely situated to embark upon the intense training necessary to carry out the project. The NMT augmented services as usual in the intervention regions.

National Data: Putting Tennessee in Context

The data in this section is provided to put the site in context with national data. By comparing data from Tennessee to that of the nation we are able to understand if Tennessee is a site that removes children from their homes more or less than the nation, on average, and compares median lengths of stay for children in foster care. Finally, we compare the per capita rate of children receiving IV-E adoption or guardianship assistance. We provide all these comparisons over the past five years to give a sense of recent trends.

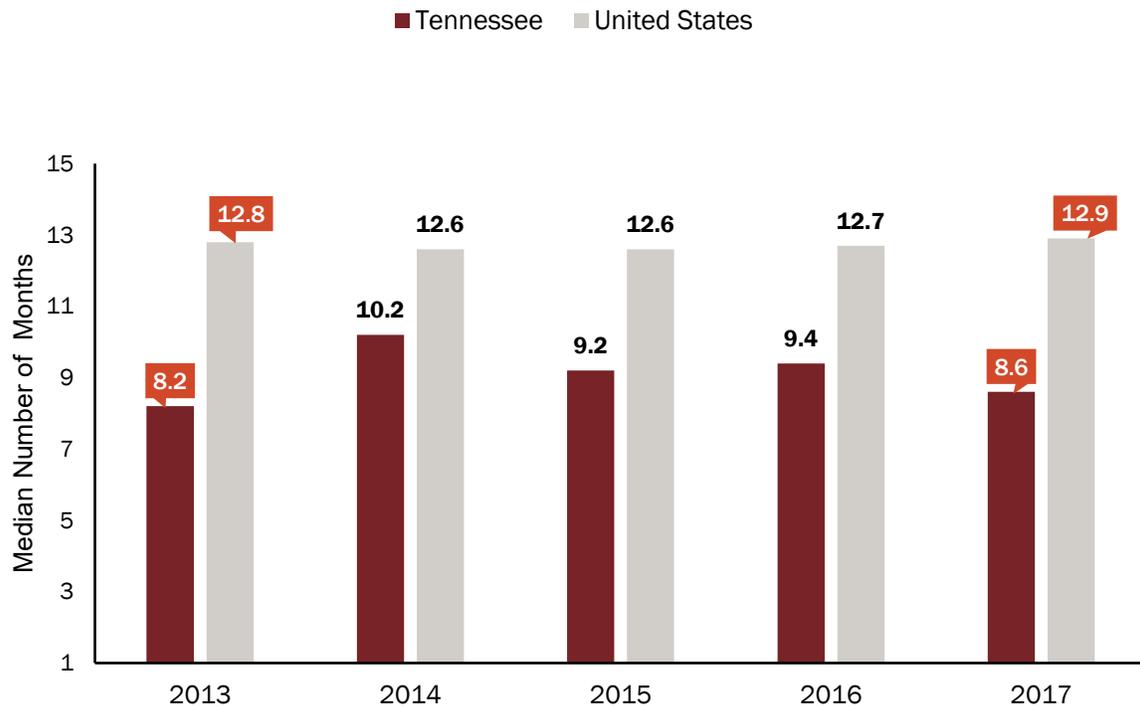
Figure 9.1. Tennessee Foster Care Entry per Capita Rate (2013 – 2017)



Data Source: United States Department of Health and Human Services, Administration for Children and Families (ACF), Administration on Children, Youth and Families Bureau, <https://cwoutcomes.acf.hhs.gov/cwodatasite/>

As displayed in Figure 9.1, between Fiscal Years 2013 and 2017, the rate of children entering foster care in Tennessee was higher than the average U.S. foster care entry. Between 2013 and 2017, the state's foster care entry rate was fairly steady, decreasing only slightly from 44.9 per 10K (6,700 children) to 44.3 per 10K (6,679 children). The foster care entry rate in the U.S. was 34.6 per 10K in 2013 and 36.6 per 10K in 2017. While per capita rate for Tennessee was higher than the per capita rates for the U.S., the overall rates in the state decreased slightly while overall rates in the nation increased.

Figure 9.2. Tennessee Median Length of Stay for Children in Foster Care as Measured in Months (2013 – 2017)

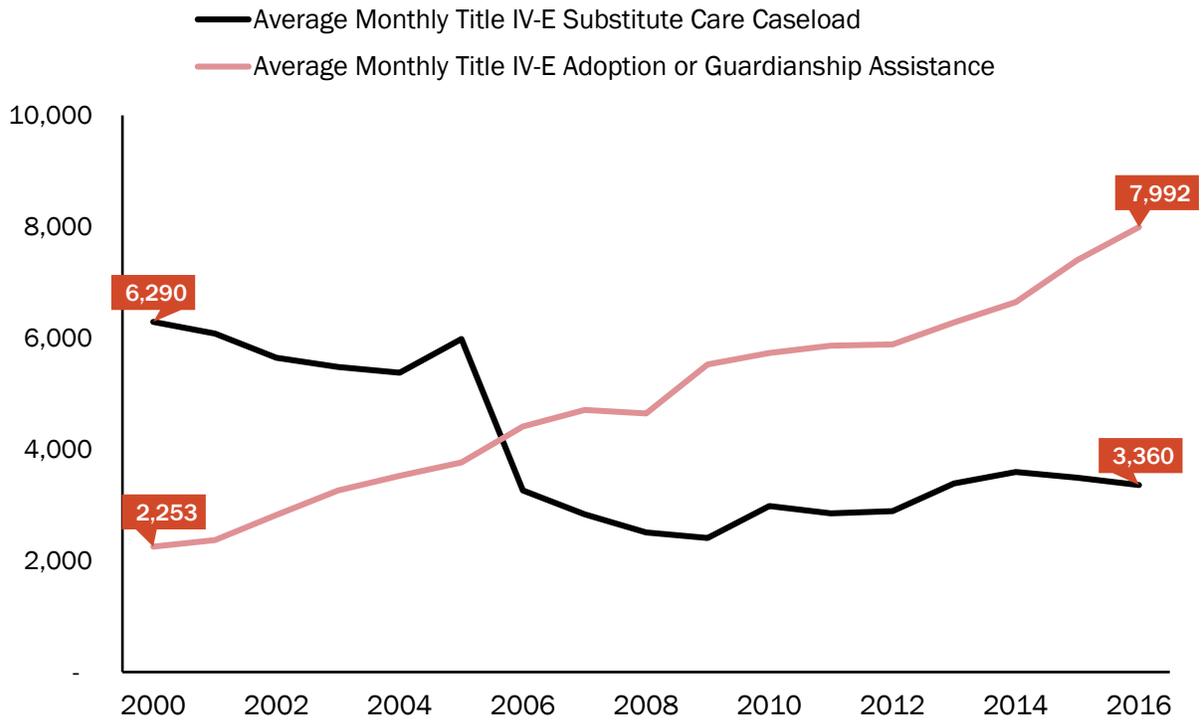


Data Source: United States Department of Health and Human Services, Administration for Children and Families (ACF), Administration on Children, Youth and Families Bureau, <https://cwoutcomes.acf.hhs.gov/cwodatasite/>

Between 2013 and 2017, the medium length of stay for children in foster care on at the end of each year (shown in Figure 9.2) were lower for Tennessee than the U.S. The length of stay increased a little in Tennessee from 8.2 months in 2013 to 8.6 months in 2017 while in the U.S. it increased slightly from 12.8 months in 2013 to 12.9 months in 2017.

Nationally, we have seen a shift in the number and proportion of children living in IV-E supported foster care and IV-E funded adoptive or guardianship homes. As shown in Figure 9.3, the number of children in Tennessee in IV-E funded foster care was much higher than the number of children in IV-E funded adoptive homes were approximately the same in 2000 (6,290 and 2,253 respectively), yet in 2016 these numbers have changed dramatically. In 2016 there were 3,360 children in IV-E funded substitute care and 7,992 children in IV-E funded adoptive homes.

Figure 9.3. Tennessee Caseloads (2000 – 2016)



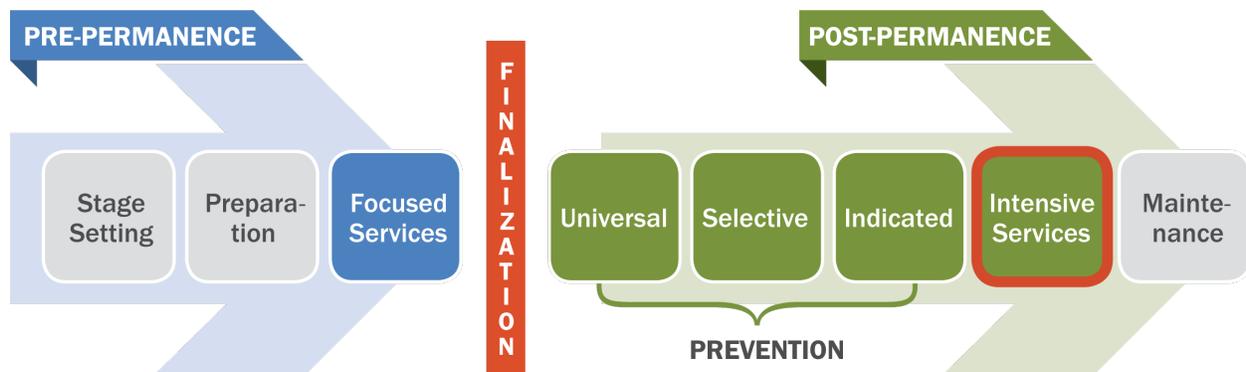
Data sources: Title IV-E numbers: U. S. Department of Health and Human Services / Administration for Children and Families, compiled data from states' Title IV-E Programs Quarterly Financial Reports, Forms IV-E-1 (for years prior to 2011) and CB-496 (for 2011 and later).

QIC-AG Permanency Continuum Interval

Tennessee implemented an intervention at the **Intensive Interval** level of the QIC-AG Permanency Continuum Framework. **Intensive** services target families who are experiencing difficulties beyond their capacity to manage on their own and are therefore seeking services. Families may be at imminent risk of experiencing a crisis or may already be in a crisis situation. Services are offered that aim to diminish the impact of the crisis, stabilize and strengthen families who receive services. Intensive services are **not** intended to be preventative in nature. Services include intensive programs designed for intact families who are experiencing a crisis that threatens placement stability and families who have experienced discontinuity. Tennessee tested an **intensive** services intervention.

The existing services, or services-as-usual, provided by the ASAP program in Tennessee include intensive services for families who reached out to the agency and families who were referred to the agency for services.

Figure 9.4. Tennessee QIC-AG Permanency



Primary Research Question

The well-built research question using the Population, Intervention, Comparison Group, Outcome (PICO) framework (Richardson, Wilson, Nishikawa & Hayward, 1995; Testa & Poertner, 2010) was:

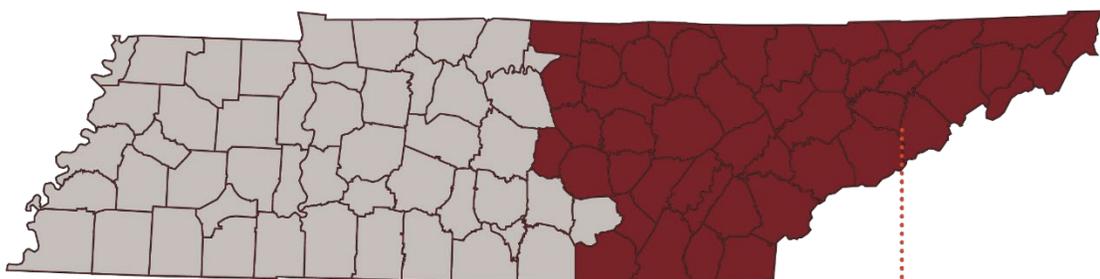
Will children and youth from families who have adopted and are referred (or self-refer) to ASAP's post adoption services in the East, Northeast, Tennessee Valley, Knox, Smoky Mountain and Upper Cumberland regions (P) who receive the Neurosequential Model of Therapeutics (NMT) (I) experience a reduction in post permanency discontinuity, improved wellbeing, and improved behavioral health (O) when compared to similar children and youth who receive services as usual (C)?

Each part of the PICO is described below.

Target Population

The target population was adoptive families served by ASAP program. ASAP-involved families are typically families who have high services and support needs, and therefore, may be at increased risk for post permanency discontinuity. Children under the age of 18, who were adopted, through Tennessee's Department of Children's Services, a public child welfare system in another state, or internationally, via intercountry, or private domestic adoption are eligible to receive ASAP services.

Families served by ASAP in the East, Northeast, Tennessee Valley, Knox, Smoky Mountain, and Upper Cumberland regions were assigned to the intervention group. These regions are served by Harmony Family Center. Families in the remainder of the state were assigned to the comparison group.



The target population was **adoptive families served by the ASAP program.**

Families served by ASAP in the East, Northeast, Tennessee Valley, Knox, Smokey Mountain and Upper Cumberland regions were in the intervention group. Families in the remainder of the state were assigned to the comparison group.

Families who were not eligible to participate in the evaluation included:

- Adoptive families who received case management only services from ASAP. These families are provided referrals, linkages, phone, and email support, but are typically not in need of, or desire, in-home services.
- Adoptive families who begin in-home services and then stop engaging within 90 days. This includes, for instance, families with a child who is hospitalized or in residential treatment, and therefore closed for services from ASAP.
- Families who obtained permanence through Subsidized Permanent Guardianship.

Intervention

The NMT integrates the core principles from the fields of neurodevelopment and traumatology to determine how the timing and severity of trauma might influence the development of the brain. The NMT diagnostics help professionals and families apply interventions appropriately aligned with the child's needs and strengths (Perry, 2006). The NMT has been used with young children, in a therapeutic preschool setting, and in residential settings (Barfield, Dobson, Gaskill, & Perry, 2012). However, it has never been tested with an adoption population. Testing the NMT as an assessment tool aligned well with developing evidence-based models of support and interventions in Tennessee.

A key consideration for participation in the NMT intervention was the willingness of the participating agency staff to actively engage in the provision of services. There was strong interest in the project across the State. Ten of Tennessee's 12 geographic regions expressed interest in participating in the project. The QIC-AG team strategically chose four areas in the state based on their interest and commitment to seeing the project through to successful completion. Dr. Bruce Perry, the NMT purveyor, provided extensive consultation and training to the sites. No adaptations to the NMT model were made for the QIC-AG project.

According to the *Framework to Design, Test, Spread, and Sustain Effective Practice in Child Welfare* the goal of the **Compare and Learn** phase should result in "an intervention with evidence that suggests it is more likely than one or more alternatives to improve outcomes" (Framework Workgroup, p. 4).

THE NEUROSEQUENTIAL MODEL OF THERAPEUTICS (NMT)

The NMT in the Tennessee QIC-AG project had three core components: 1) Training/Capacity Building, 2) Initial Assessment and 3) Child-Specific Recommendations

1) Training/Capacity Building

The ChildTrauma Academy developed a set of training materials, supervised training experiences and Clinical Practice Tools to help family counselors develop the capacity to use the NMT with the adopted children and youth they serve. To implement the NMT, participants in the NMT certification process needed to understand the impact of trauma and maltreatment on the developing child or youth. Participants were provided in-depth exposure to core concepts of the intervention including child development, neurobiology, traumatology, attachment theory and were trained to use the online NMT Metrics which included the Functional Brain Map.

2) Initial Assessment

The NMT assessment process included examining a child's past and current experiences and functioning. Family counselors reviewed the history of adverse experiences and relational health factors and estimated the timing and severity of developmental risk that may have influenced brain development. The NMT Metrics Report provided a semi-structure assessment of important developmental experiences and a current "picture"

of brain organization functioning (i.e., a Functional Brain Map). The report quantified the nature, timing, and severity of adverse experiences as well as relational health factors. Scoring the NMT metrics estimated relative brain-mediated strengths and weaknesses and was informed by multiple sources including previous health (or mental health) records, school records, parents, foster parents, other caregivers, clinicians and other people who had information about, or contact with, the child. When there was incomplete historical information, family counselors used clinical judgment to reconstruct histories and score maps.

3) Child-Specific Recommendations



The Family Counselor developed and implemented an individualized, comprehensive Treatment Plan for the child based on information collected during the Initial Assessment and with input from parent(s) and the child. The key to developing child-specific recommendations was ensuring that prescribed therapeutic activities matched developmental capabilities and needs indicated on the child's NMT Metrics Report. The interventions often included patterned, repetitive and rewarding experiences targeting areas of the brain impacted by adverse experiences (ChildTrauma Academy website; Perry & Dobson, 2013).

Therapeutic and educational enrichment programs were provided by a "therapeutic web" or group of adults and peers (e.g., caregivers, teachers, coaches, front-line mental health workers, foster parents and parents) invested in the child's growth and development (Hambrick, Brawner, & Perry, 2018). The length and frequency of services provided were customized to meet the unique needs of the child and parent/family being served.

Comparison

Families residing in the following regions received the services as usual: East, Northeast, Tennessee Valley, Knox, Smoky Mountain, and Upper Cumberland regions. Families residing in the remainder of sites were the comparison group. These families were served by Catholic Charities.

Outcomes

The short-term outcomes for the Tennessee QIC-AG project were:

- Decreased child behavioral issues
- Increased staff satisfaction with delivery services
- Improved familial relationships
- Improved caregiver commitment

Long term outcomes, set *a priori* by the project, included:

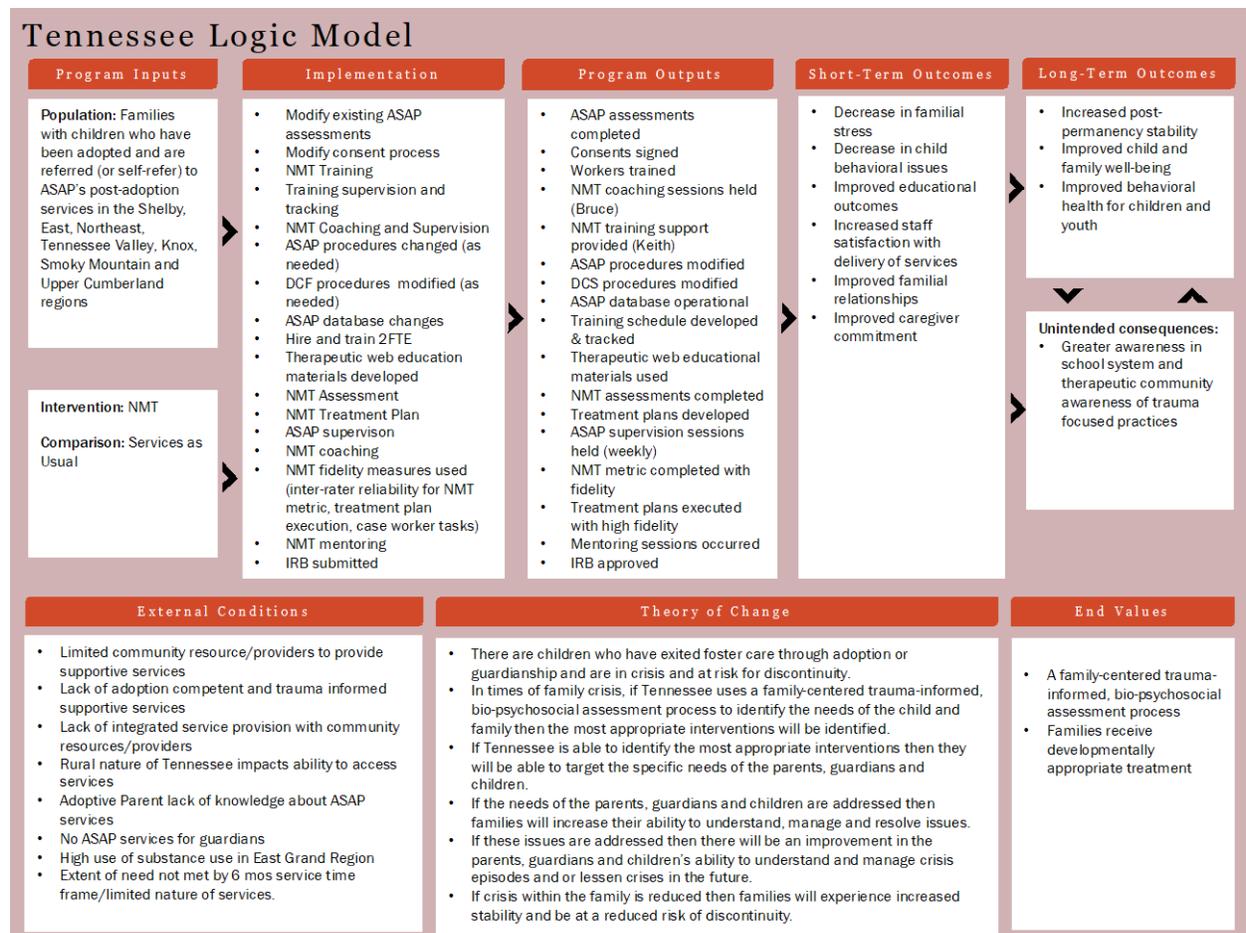
- Improved post permanency stability
- Improved child and family wellbeing
- Improved behavioral health for children and youth

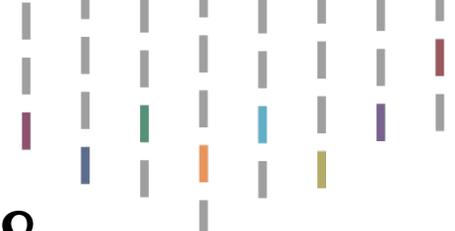
The ASAP program collects assessment data at the start and end of service delivery. Most of the outcomes were assessed using measures collected by program staff from parents. In addition, a staff survey was conducted to examine staff satisfaction with the delivery of services. Originally, we had hoped to measure familial stress and educational outcomes, but we were unable to measure these outcomes with the existing data provided to the evaluation team.

Logic Model

The Logic Model (Figure 9.5) elaborates on the PICO question and illustrates the intervening implementation activities and outputs that link the target population and core developmentally informed interventions to the intended proximal and distal outcomes. The model identifies the core programs, services, activities, policies, and procedures that were studied as part of the process evaluation, as well as contextual variables that may affect their implementation.

Figure 9.5. Tennessee Logic Model





Evaluation Design & Methods

A quasi-experimental group design was utilized to evaluate the QIC-AG initiative in Tennessee. The selection of the NMT as the intervention made an experimental design difficult. A key component of the NMT required a community approach, or a coordinated effort between the study participants and school systems, health providers, and recreational services. It would have been nearly impossible to gather these various community partners together for a family assigned to the intervention group, and then ask the same partners to not provide the same array of services to a family assigned to the comparison group. Thus, this study used a quasi-experimental design, with a comparison group made up of children from the regions in which families received services-as-usual. Pretest and posttest scores were analyzed to examine change for children who participated in the intervention and children who received services as usual.

It was hypothesized that the NMT would result in decreased familial stress, decreased behavioral issues, improved educational outcomes, increased staff satisfaction with the delivery of services, improved familial relationships, and improved caregiver commitment. It was further hypothesized that there would be an associated increased post permanency stability, improved child and family wellbeing and improved behavioral health. It was expected that children in the intervention regions would receive an array of services that better meet their needs when compared to similar families who received services as usual.

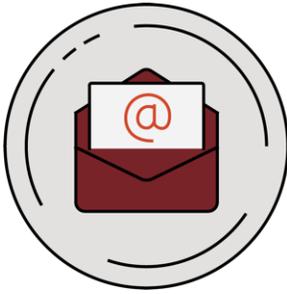
The evaluation design and protocol were reviewed by the Institutional Review Board (IRB) at the University of Wisconsin-Milwaukee (UWM) and the Research Review Committee at the Tennessee Department of Children Services (DCS).

Procedures

USABILITY TESTING

During usability testing, the program outputs, listed in the Logic Model, were tracked. The program successfully completed all the output measures. Minor changes were made during usability to adjust some time frames and question structure associated with the completion of assessment tools.

RECRUITMENT



The recruitment process for the QIC-AG initiative was the standard ASAP protocol, adapted only slightly to accommodate the project. Prospective adoptive families were informed about ASAP services by the DCS worker during the adoption process. In addition, during the formative evaluation phase, mailings began to all families receiving adoption assistance about the availability of ASAP services. The mailings occurred twice a year. Participants could self-refer or be referred to ASAP by professionals. Families in the regions of the state served by Harmony were assigned to the intervention group, and families served by Catholic Charities were assigned to the comparison group.

INTAKE



A request for ASAP services could be made online at www.tnasap.org or by calling the ASAP Helpline. The initial request for services was completed by the adoptive parent or could be made on the child/family's behalf by a service provider (i.e. DCS or CPS staff, therapist, residential treatment or inpatient program staff).

The Clinical Manager reviewed the referral and contacted the family within 24 hours of the initial request for services. The Clinical Manager made the final determination of crisis or non-crisis status, assigned the case to a Family Counselor in the ASAP database, and notified the Family Counselor. The Family Counselor contacted the family within 24 hours of the case assignment.

FIDELITY AND ADHERENCE

Two types of information were assessed for the NMT: Fidelity to the metrics, assessed by the purveyor and adherence to the treatment plan recommendations, assessed by the ASAP staff.

The NMT Staff Fidelity

On a bi-annual basis, all of the NMT-trained clinicians were required to score one case using the NMT Online Clinical Practice Tools. The purpose of the NMT online tool was to evaluate staff fidelity in using the NMT Metric. Each participant was provided a case abstract and a one-hour online session devoted to questions and answers about the case. Participants then submitted scored reports by a set date. Following the submission deadline, the purveyor (ChildTrauma Academy; CTA) identified obvious errors in scoring and distributed scored reports. CTA provided feedback via a 30-minute recorded discussion of common scoring areas where errors occurred.

Treatment Plan Adherence

The online NMT treatment plan contained a measure that allowed the NMT-trained clinician (or Family Counselor) to rate the adherence to the recommendations suggested in the treatment plan. For each task that appeared on the plan, the clinician determined whether the task was completed with high, medium, or low adherence. Monitoring of adherence started after the project was underway and was completed only for cases that closed in 2018 or later. The system for monitoring adherence was developed by ASAP project staff. ASAP staff determined the timing and frequency of the use of this measure.

The ASAP team at Harmony provided the following guidelines to their staff in terms of how the rating should be conducted. If the activity was carried out:

- **0 to 33%** of the time, a rating of **'low'** was assigned
- **34 to 67%** of the time, a rating of **'medium'** rating was assigned
- **68 to 100%** of the time, a rating of **'high'** was assigned

Outcomes

INTERVENTION-SPECIFIC OUTCOMES

ChildTrauma Academy (CTA), the purveyor for the NMT, has developed neuro-typical ratings on each of the constructs associated with the NMT Metrics. These ratings are used to assess how children and youth whose information is input into the NMT database compare to neuro-typical children and youth of the same age.

PRIMARY OUTCOMES

The Adoption Support and Preservation Program (ASAP) program's data collection system was used to collect information that allowed the evaluation team to examine pre and post intervention outcomes for all participants in the intervention and comparison groups. These data were gathered through questions asked by the ASAP staff and included measures of child behavior issues (as reported in the BPI); family functioning (as reported in the PFF); and caregiver commitment (as reported on the BEST-AG).

Pre and posttest measures were delivered by ASAP staff, as part of the intake procedures (pretests) and subsequently at the end of service (posttests). No incentives were paid to respondents. The same measurement procedures were used in the intervention and comparison regions.

ADMINISTRATIVE DATA

Administrative Data was obtained from Tennessee DCF. These data included information on the foster care experiences of children prior to adoption or guardianship, and data that allowed for the evaluation team to track post permanency discontinuity. Administrative data were linked to program data to examine study participants who experienced placement instability.

Measures

The outcomes were measured through the following scales or items¹ These data were collected by ASAP staff as part of their initial assessment and at the end of service:

Belonging and Emotional Security Tool – Adoption and Guardianships (BEST-AG)

The BEST-AG, developed by Casey Family Services (Frey et al., 2008), was originally designed to help social workers guide conversations around emotional and legal commitment with foster parents and youth who are unable to reunify with their family of origin. For this study, the BEST was adapted and used with families formed through adoption and guardianship. The BEST-AG includes two subscales: The Emotional Security Subscale (13 items; measures the shared sense of family belonging) and the Claiming Subscale (7 items; measures the degree to which the caregiver claimed their child either emotionally or legally).

Illinois Post Permanency Commitment Items

Several items from the Illinois Post Permanency Surveys were used to evaluate the parent's commitment to child relationship in terms of commitment. These questions were originally collected by the Children and Family Research Center (CFRC) at the University of Illinois at Urbana-Champaign in two studies, one initiated in 2005 and another in 2008. Both studies were funded by the Illinois Department of Children and Family Services (IDCFS) in order to understand how families formed through adoption or guardianship from foster care fared after legal permanence. Subsequent research related to these studies found that key questions from these surveys related to caregiver commitment played a role in understanding post permanency discontinuity (Liao & Testa, 2016; Liao & White, 2014; Testa, Snyder, Wu, Rolock, & Liao, 2015).

Behavior Problem Index (BPI)

The Behavior Problems Index measures the frequency, range, and type of childhood behavior problems children ages four and older may exhibit (Peterson & Zill, 1986). It is based on responses by the primary caregiver as to whether a set of 28 problem behaviors is not true, sometimes true, or often true. Scores on the BPI range from 0 to 56, where higher scores indicate a child may be exhibiting more behavior. The BPI contains two subscales: the BPI Internalizing Subscale (11 items) and the BPI Externalizing Subscale (19 items) which are used to measure a child's tendency to internalize problems or externalize behaviors.

Parent Feelings Form - PFF

The Parent Feelings Form (PFF; Angold et al., 1995) is a 16-item list of questions reported to be helpful in learning about parental attitudes and in helping parents name their concerns. Higher scores suggest a higher level of concern.

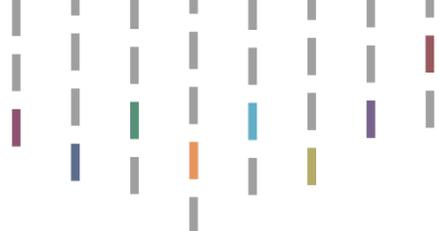
¹ Originally we expected to also measure familial stress and educational outcomes, but we were unable to measure these outcomes with the existing data provided.

Staff Satisfaction

Services were assessed through surveys with ASAP staff in the intervention and comparison regions. The ASAP survey was online and consisted of 31 items such as demographic questions about the staff, items that rated the services most likely to be requested, referred and received, and open-ended questions about the effectiveness of services.

Missing Data

Missing imputation was done by replacing any item missing value with the respondent's mean on all observed items when more than 75% of the total scale items were responded. The summary scale values (total and subscale scores) were calculated after imputation. When 25% or more items were missing, the summary scale scores were treated missing.



Findings

In this section, we will first describe the profile of public adoptive families who came to the attention of ASAP services and then describe the profile of private or intercountry adoptive families who were part of the QIC-AG study in Tennessee.

Sample Frame and Participant Profile

Participants who sought services from an ASAP provider between October 1, 2016, and December 31, 2018, and requested services other than case management only, were included in this study. If families were served by Harmony, they were part of the intervention group. Families served by Catholic Charities were a part of the comparison group. Participant outcomes were tracked through May 2019. All adoptive families residing in Tennessee were eligible for ASAP services. This included families who have adopted through the public child welfare system and families who adopted through private domestic or intercountry adoption. A total of 518 families were served by the ASAP program during the study period, 386 were identified as public adoption cases, 132 as private or intercountry adoption.

PUBLIC ADOPTIVE FAMILIES

Of the 386 children identified as public adoptions, 243 had child welfare IDs (TFACTS IDs) that linked to the child welfare administrative data (142 with Harmony and 101 with Catholic Charities). Demographic characteristics were examined for families in the two sites who had adoptive children with matching records in administrative data (Table 9.1). On most observed characteristics, families served by the two agencies were similar. However, there were statistically significant differences between groups on the following characteristics:

- A greater proportion of children served by Catholic Charities had 3 or more moves while in foster care (55%) than those children served by Harmony (32%); $X^2=12.88$ (1) $p<0.001$, a statistically significant difference.
- A greater proportion of children served by Harmony were identified as White (81%), as compared to children served by Catholic Charities (70%); $X^2=14.22$ (4) $p<.007$, a statistically significant difference.
- On average, children served by Harmony spent less time in foster care prior to adoption ($M = 2.73$; $SD 1.85$) compared to Catholic Charities ($M = 3.23$; $SD 2.03$); $t(241)= 2.03$ $p<.044$, a statistically significant difference.

Table 9.1. Characteristics of Public Adoptive Families Served by ASAP

TENNESSEE	HARMONY FAMILIES		CATHOLIC CHARITIES FAMILIES		DIFFERENCES BETWEEN HARMONY AND CATHOLIC CHARITIES		
NUMBER	142 of 215 (66%)++		101 of 171 (59%)++				
	%		%		χ^2	df	p
LENGTH OF TIME IN CARE					7.82	2	0.02
0-17 MONTHS	21%	10%					
18-23 MONTHS	19%	14%					
24+ MONTHS	60%	76%					
TYPE OF MALTREATMENT							
PHYSICAL ABUSE	12%	13%	0.04	1	0.834		
NEGLECT	39%	34%	0.65	1	0.419		
SEXUAL ABUSE	6%	4%	0.66	1	0.417		
CHILD IS DISABLED	11%	13%	0.31	1	0.579		
3+ MOVES IN FOSTER CARE	32%	55%	12.88	1	<0.001		
CHILD RACE			14.22	4	0.007		
WHITE	81%	70%					
BLACK	5%	15%					
OTHER RACE OR UNKNOWN	11%	14%					
CHILD IS HISPANIC	2%	1%					
CHILD IS FEMALE	52%	47%	0.73	1	0.391		
AGE AT PERMANENCY			7.31	5	0.199		
0-2	18%	15%					
3-5	29%	24%					
6-8	30%	31%					
9-11	15%	12%					
12-14	5%	11%					
15 +	3%	8%					
PARENT IS BIOLOGICALLY RELATED TO CHILD	6%	9%	1.50	1	0.220		
PARENTS MARRIED OR TWO-PARENTS*	38%	23%	5.01	1	0.025		
	M	SD	M	SD	t	df	p
CHILD AGE AT PERMANENCE	6.41	3.65	7.49	4.11	2.15	241	0.033
PARENT AGE AT PERMANENCE*	41.60	8.28	40.87	10.02	-0.62	240	0.536
MEAN YEARS IN FOSTER CARE	2.73	1.85	3.23	2.03	2.03	241	0.044
TIME FROM ADOPTION TO ASAP ASSESSMENT	3.77	2.70	3.76	3.06	-0.04	240	0.965

Notes:

Orange cells represent a statistically significant difference at the .05 level

Percent of non-missing data is reported.

*This is based on the data provided on foster parents. We are making the assumption that these foster parents become the legal adoptive parent or guardian.

++ Not all participants were finalized in TN, so those cases did not match to the TN AFCARS data. Also, some were finalized prior to the AFCARS submissions to QIC began. The denominator represents public cases with TFACTS IDs.

PRIVATE DOMESTIC AND INTERCOUNTRY ADOPTIVE FAMILIES

A total of 132 families who adopted children through private domestic or intercountry agencies also came to the attention of the ASAP program during the evaluation period. Of those families:

- **78** were served by Harmony
- **54** were served by Catholic Charities

Demographic characteristics were examined for families in the two sites who had adopted children with matching records in administrative data (see Table 9.2). However, 62 families did not have assessments done that collected demographic information (Comprehensive Assessments completed by the ASAP staff). Therefore, demographic information was available for 70 (53%) of private and intercountry adoptive families served by ASAP. On all observed characteristics, families served by the two agencies were similar, with no statistically significant differences between the agencies.

Table 9.2. Characteristics of Private or Intercountry Adoptive Families Served by ASAP

PRIVATE	HARMONY FAMILIES		CATHOLIC CHARITIES FAMILIES		DIFFERENCES BETWEEN HARMONY AND CATHOLIC CHARITIES		
	NUMBER		NUMBER				
	47		23				
	%		%		χ^2	df	p
CHILD RACE							
WHITE	55%		48%		7.46	4	0.113
BLACK	9%		26%				
OTHER RACE OR UNKNOWN	36%		26%				
CHILD IS HISPANIC	2%		4%				
CHILD IS FEMALE	49%		65%		1.65	1	0.199
AGE AT PERMANENCY							
0-2	53%		57%		1.85	3	0.605
3-5	23%		19%				
6-8	13%		5%				
9-11	11%		19%				
PARENT IS BIOLOGICALLY RELATED TO CHILD	15%		9%		0.53	1	0.467
PARENTS MARRIED OR TWO-PARENTS	87%		82%		0.31	1	0.576
	M	SD	M	SD	t	df	p
CHILD AGE AT PERMANENCE	3.82	3.08	3.69	3.59	-0.15	66	0.884
CHILD AGE AT ASSESSMENT	11.01	3.85	10.75	3.77	-0.27	67	0.790
PARENT AGE AT ASSESSMENT	48.39	10.10	45.16	7.41	-1.33	65	0.187
TIME FROM ADOPTION TO ASSESSMENT	7.16	4.44	7.08	3.93	-0.07	65	0.944

Note: Demographic information is available for 70 (53%) of private and intercountry adoptive families served by ASAP only.

Process Evaluation

The process evaluation examined results regarding fidelity and adherence to the intervention. Results are presented below. This report focuses on children who reached out for ASAP services between December 2018 and May 2019.

FIDELITY AND ADHERENCE

Staff Fidelity to the NMT

All of the NMT-training and NMT certified clinicians completed a fidelity exercise, as described above. This is a rating specifically of staff fidelity to the use of the NMT Metric. The scores on these exercises determined the fidelity rating given to each clinician. CTA-initiated fidelity exercises occurred over the course of 2.5 years (5 exercises). However, one of the exercises was experimental, and therefore not included in this summary. Results (summarized in the table below) found that the majority of clinicians were rated as performing at an acceptable standard for research (a total of 60% across the four reporting periods). This is not an assessment of clinical skills. Rather, CTA reports that 'acceptable for research' is a higher standard than what would be an acceptable clinical rating.

Table 9.3. The NMT Fidelity by Reporting Period

	REPORT PERIOD 1		REPORT PERIOD 2		REPORT PERIOD 3		REPORT PERIOD 4		TOTAL	
ACCEPTABLE FOR RESEARCH	8	62%	6	60%	6	50%	10	67%	30	60%
NOT ACCEPTABLE FOR RESEARCH	5	38%	4	40%	6	50%	5	33%	20	40%

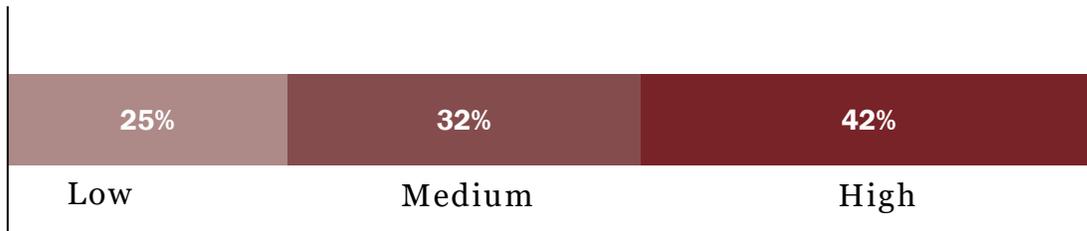
Treatment Plan Adherence

The NMT-trained clinicians were asked to assess each child-specific recommendation after it had been implemented, and report if it was completed with 'high', 'medium' or 'low' adherence. Monitoring of adherence started after the project was underway and was completed only for cases that closed in 2018 or later. The system for monitoring adherence was developed by ASAP project staff. The ASAP team at Harmony provided the following guidelines to their staff in terms of how the rating should be conducted. If the activity was carried out:

- **0 to 33%** of the time, a rating of '**low**' was assigned
- **34 to 67%** of the time, a rating of '**medium**' rating was assigned
- **68 to 100%** of the time, a rating of '**high**' was assigned

Adherence to the treatment plan recommendation was assessed by the NMT-trained clinicians for cases that closed in 2018 or later. Of the 95 cases that closed during in 2018 or the first quarter of 2019, 70 (74%) had recommendations that were assessed for adherence, and 26% were not rated. Of the 70 cases rated, there were a total of 947 recommendations. Clinicians rated:

Figure 9.6. Adherence to the Recommendation



Of the 947 recommendations that were rated by Harmony staff, the level of adherence varied by type of recommendation, as shown in the table below. Recommendations related to the family had the largest percentage of 'high' adherence.

Table 9.4. Level of Adherence to the Recommendation

LEVEL OF ADHERENCE	RECOMMENDATION TYPE			TOTAL
	FAMILY	INDIVIDUAL	THERAPEUTIC WEB	
HIGH	152	175	73	400
	50%	36%	45%	42%
MEDIUM	89	179	39	307
	30%	37%	24%	32%
LOW	60	128	52	240
	20%	27%	32%	25%

Additional information regarding the type of recommendations are included in the Appendix.

Outcome Evaluation

This section will begin with intervention-specific results. These are results related to only the participants who received the NMT metrics (the intervention group). This is followed by the primary study outcomes, where intervention and comparison study participants are reported.

Terminology Defined

Intervention group or intervention participants:

Families in this group were assigned (based on region) to the intervention group and received the NMT. Families in this group worked with the ASAP staff at Harmony.

Comparison group:

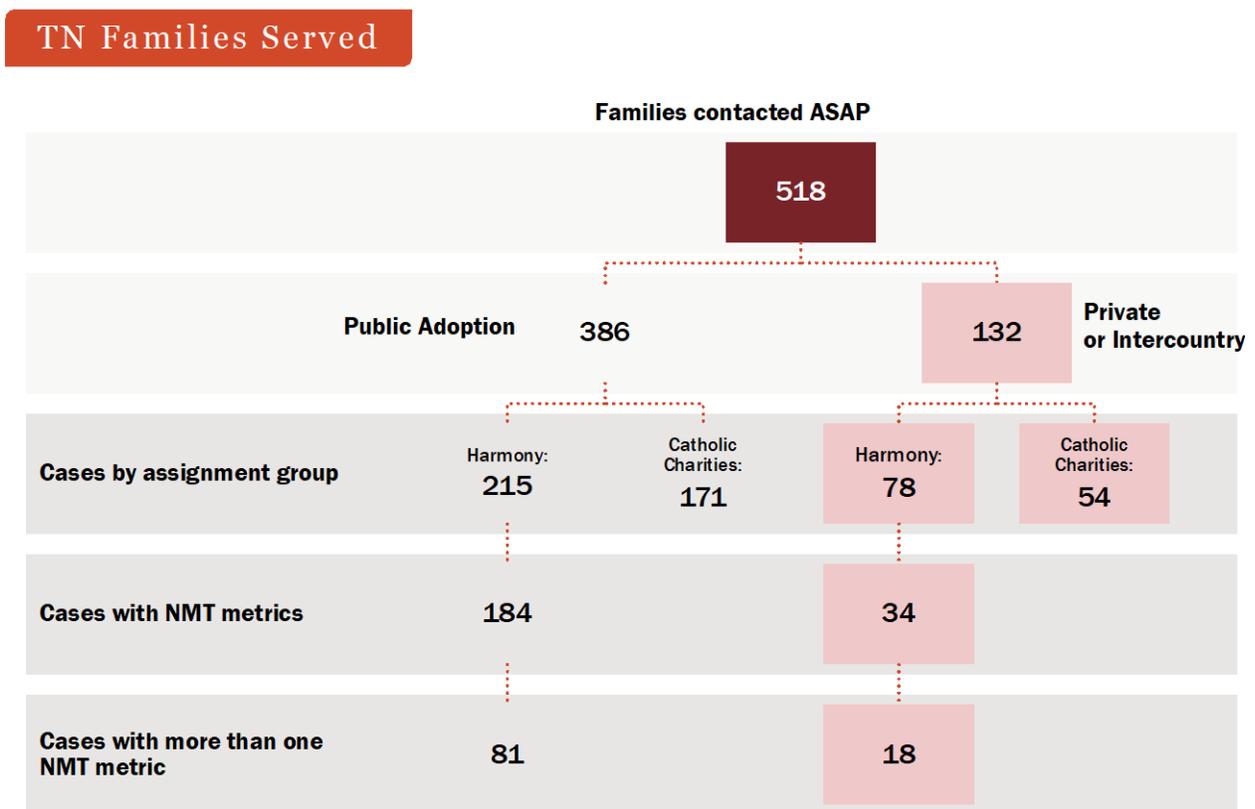
Families in this group were assigned (based on region) to the comparison group. They received services as usual intervention provided by Catholic Charities.

This section will begin with reporting on intervention-specific outcomes and then report on the primary study outcomes (where results for families in the intervention and comparison groups are evaluated).

As displayed in Figure 9.7, a total of 518 families were referred or self-referred for ASAP services during the evaluation period. Of those, 386 families were public adoptions and 132 families were private domestic or intercountry adoptions. Of the public adoptions, 215 families received services from Harmony and 171 from Catholic Charities. Of the private domestic or intercountry adoptions, 78 families received services from Harmony and 54 from Catholic Charities. In total, 184 public adoptive families had an initial NMT metric completed by Harmony, and 81 had a follow-up metric also completed. In addition, 34 private domestic or intercountry adoptive families had an initial NMT metric completed by Harmony, and 18 a follow-up metric also completed.

This section will begin with reporting on intervention-specific outcomes and then report on the primary study outcomes (where results for families in the intervention and comparison groups are evaluated).

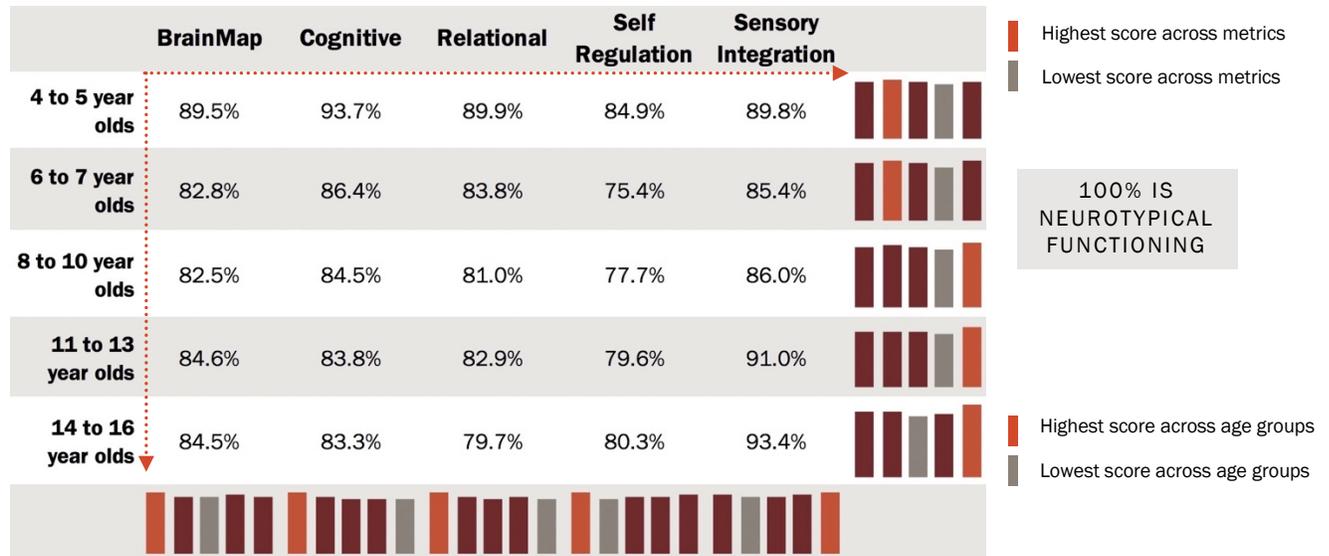
Figure 9.7. Families in Contact with ASAP



INTERVENTION-SPECIFIC RESULTS

The first graph (Figure 9.8) shows the baseline functioning of the children for whom the NMT metrics were completed. A total of 184 initial metrics were completed on families, however, data from children in the following age groups were not presented because there were too few assessments completed in their age group, making it difficult to draw conclusions: children under 3-years old and youth ages 17 to 19. Figure 9.8 reflects outcomes for 167 children. Additional details are included in Table 9.15 in the Appendix.

Figure 9.8. Baseline Metrics: Percent of Neuro-typical Functioning by Age



The results in Figure 9.8 show that:

- All age groups were below the 100% neuro-typical functioning standard on all measures at baseline. Scores on measures at time 1 ranged from a low of about 75% of typical functioning on self-regulation for 6 to 7-year olds to a high of almost 94% of typical functioning on the Sensory Integration measure for 14-16-year olds and Cognitive Functioning among 4-5-year-olds.
- Self-regulation was the area for which children and youth had the lowest percent of neuro-typical functioning, regardless of age.
- Sensory integration was much higher (closer to neuro-typical functioning) for youths ages 11 and older. Scores on this measure were highest for the oldest age group (14 to 16-year-olds).
- For the majority of the measures, 4 to 5-year-olds were closer to neurotypical functioning than other age groups, with the exception of Sensory Integration.
- Youth ages 14 to 16 had the lowest relational scores of all age groups.

Figure 9.9 represents the data from the final metrics completed on the child (at or near the end of service). A total of 81 time-two (or final) NMT metrics were completed. Children under 3-years-old and youth ages 17 to 19 were excluded due to the low numbers. A total of 75 Final Metrics are reported in Figure 9.9 and Table 9.16 (in the Appendix). These results indicate:

- Percent of typical for self-regulation continues to be the lowest domain among all measures at posttest and across ages. However, 4-5-year olds are approximately 88% of typical for this outcome.
- Percent of typical for sensory integration is the highest score at posttest for all but one age group (4 to 5-year-olds).
- The youngest age group (4 to 5-year-olds) had the highest percent of neurotypical functioning across four of the five measures (i.e., all except Sensory Integration). Sensory Integration was highest for the oldest age group (14 to 16-year-olds).
- An upward trend was observed from pre to posttest, with children moving closer to the neuro-typical functioning on all domains, from pre to posttest.

Figure 9.9. Final Metrics: Percent of Neuro-typical Functioning by Age

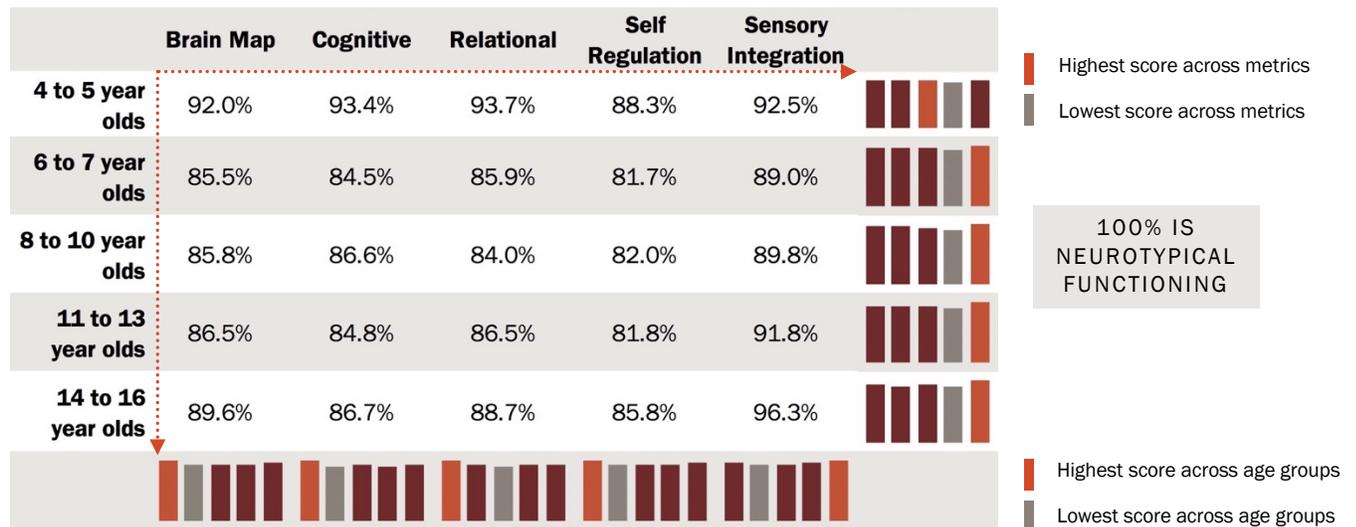
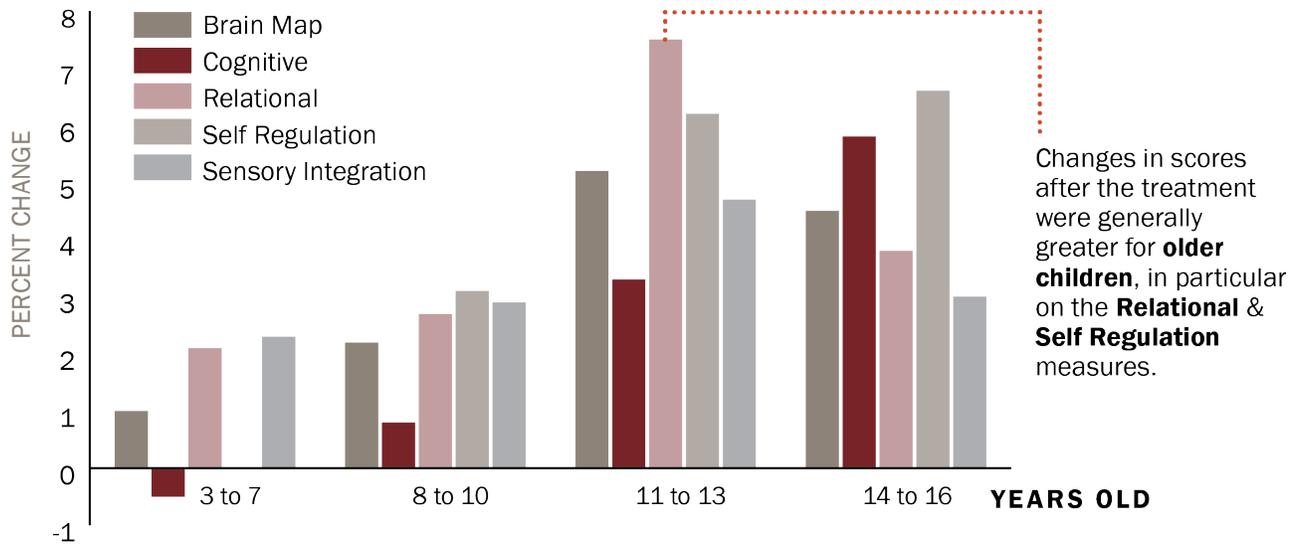


Figure 9.10 charts the percent change, from baseline (pre measures) to post intervention on the NMT Metrics for families served in the intervention group. A total of 75 Final Metrics are reported on in Figure 9.10 (and Table 9.17 in the Appendix). Key observations:

- The percent change was generally greater for older children than younger children across all domains. In particular, percent change was highest on all measures for children ages 11 and older.
- The highest percentage changes from pretest to posttest were in the relational domain for 11 to 13-year-olds (over 7%) and in the self-regulation domain for 11 to 16-year-olds (over 6%).
- In general, change (increases relative to the norm) were observed on all measures among children ages 8 and above, but very little change occurred on all measures for children ages 7 and younger.

Figure 9.10. Neuro-typical Functioning: Percent Change (Baseline to Final Metrics)

PERCENT CHANGE IN NMT METRICS BEFORE & AFTER TREATMENT



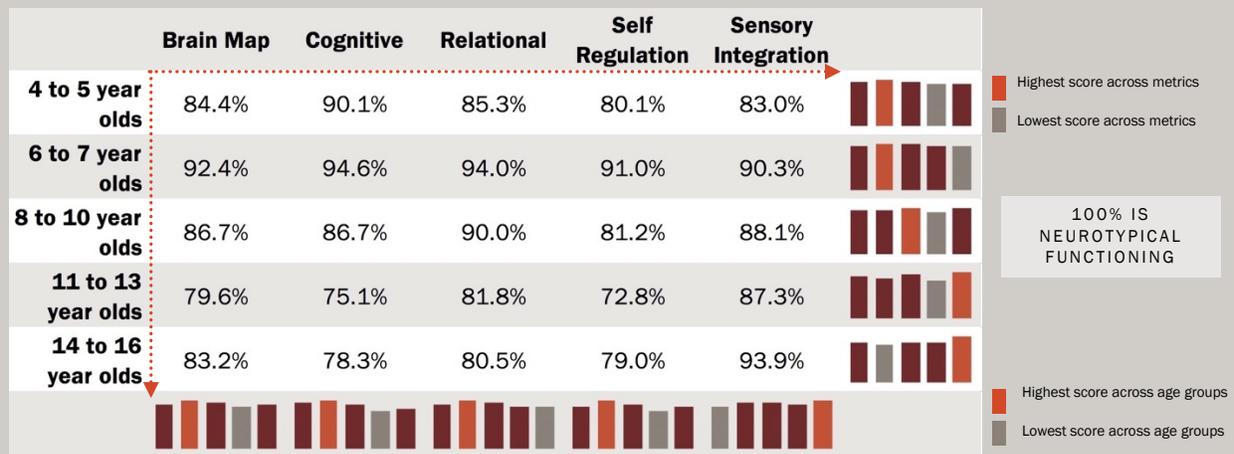
How do these results differ for children adopted via intercountry or as private domestic channels

Due to the small number of private or domestic adoptive families for whom the NMT metrics were completed at two time points, the same analysis was not conducted for this sample. However, the general trends for both public and private adoptive families were similar. For instance, at the pre intervention phase (baseline):

- All age groups were below 100% neuro-typical functioning on all measures at baseline.
- Cognitive functioning was closest to neuro-typical functioning for 4 to 7-year-olds, and 11 to 16-year-olds.
- 6 to 7-year-olds were closest to neuro-typical functioning across all domains, except for sensory integration.
- 11 to 13-year-olds were furthest from neuro-typical functioning across several domains: Brain map, Cognitive and Self-regulation.
- Sensory integration was much higher (closer to neuro-typical functioning) for youths ages 14 to 16-years old.

However, caution should be used in drawing too many conclusions from this analysis as only 32 children had data available for this summary. Post measures (at the end of service completion) are not reported due to the small numbers of completed Metrics (n=18).

Figure 9.11. Private and Intercountry Adoptions: Time One Percent of Neuro-Typical Functioning



Additional information on private and intercountry adoptions is available in a separate evaluation conducted by the University of Nebraska - Lincoln.

PRIMARY OUTCOMES

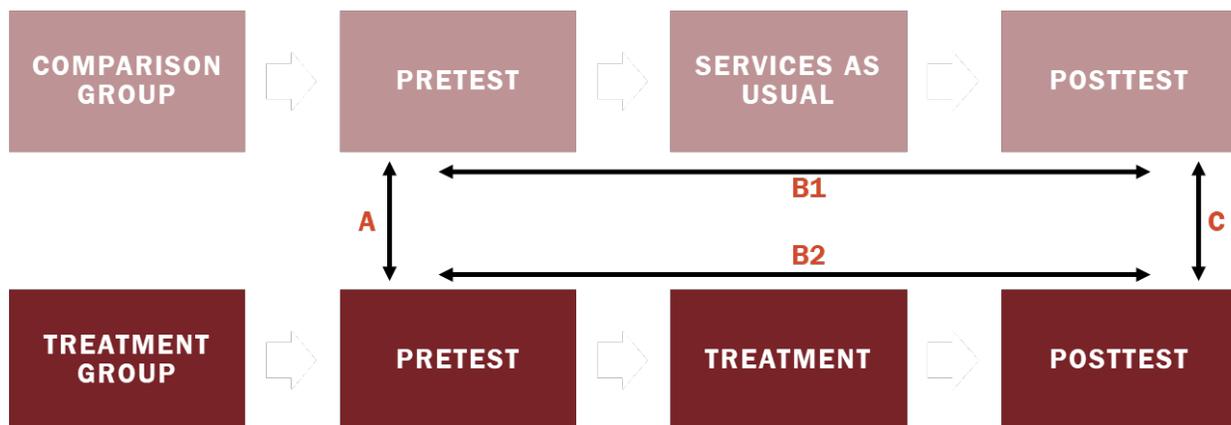
The short-term outcomes for the Tennessee QIC-AG project were:

- Improved caregiver commitment. This was measured through the Belonging and Emotional Security Tool for Adoptive Parents and Guardians (BEST-AG).
- Decreased child behavioral issues. This was measured through the Behavioral Problem Index (BPI).
- Improved familial relationships. This was measured through the Parent Feelings Form (PFF).
- Increased staff satisfaction with delivery services. This was measured through an ASAP staff survey, administered to staff in the intervention and comparison sites.

The study's quasi-experimental design employed a pre-posttest design to examine these outcomes. For these analysis, only intervention participants (those who had a NMT Metric) were included in the analysis. This process included a three-step process which is described and illustrated below:

- **A:** The first statistical tests examined differences between the treatment and comparison groups at baseline prior to the intervention (when families initially came into contact with the program).
- **B1 and B2:** The second set of statistical tests (paired t-tests) included the comparison group (B1) and the treatment group (B2) and examined the question: Was there a change in scores for individuals who completed both the pretest and posttest (i.e., a change from pretest to posttest among either B1 or B2)?
- **C:** The third statistical tests (difference in difference tests) examined the question: Did the changes observed from pre to post differ between the comparison or treatment group?

Figure 9.12. Quasi-Experimental Design



Test A

The first tests (A), compared treatment and comparison groups at baseline before the intervention was conducted. These results found no statistically significant between-group differences. These data were also examined by age and no statistically significant between-group differences were found. These findings suggest that the intervention and comparison groups were similar at baseline for the variables examined. The measures examined included: BEST-AG, BPI, and the PFF (see Table 9.18 in the appendix for specific results).

Tests B1 and B2

The second tests (B1 and B2) compared pre and posttest scores for each group. These analyses used paired t-tests, meaning the average change in scores across individuals was examined over time, and only those with a pre and posttest were included (see Table 9.5 below). The third tests (C) then examined whether these changes over time from pretest to posttest were statistically different for intervention versus comparison groups (see Table 9.20 in the appendix).

Table 9.5 shows the results of pre-post changes for the first three primary outcomes (B1 and B2 in Figure 9.12). All outcomes showed statistically significant changes between pre and post in both the intervention and comparison groups.

Table 9.5. Outcome Changes, From Baseline to Post Intervention

	COMPARISON GROUP				INTERVENTION GROUP			
	N	Mean Diff	SD	p	N	Mean Diff	SD	p
BELONGING AND EMOTIONAL SECURITY TOOL (BEST): MEAN DIFFERENCE (POST - PRE)								
BEST-AG	99	2.05	7.67	0.005	102	2.54	6.36	<0.001
BEST-AG CLAIMING	99	0.39	2.69	0.077	102	.40	2.01	0.048
BEST-AG EMOTIONAL SECURITY	99	1.66	5.76	0.003	102	2.14	5.31	<0.001
BEHAVIORAL PROBLEM INDEX (BPI): MEAN DIFFERENCE (POST - PRE)								
BPI	100	-3.28	8.01	<0.001	104	-4.84	7.71	<0.001
BPI - INTERNALIZING	100	-1.08	3.50	0.001	104	-1.82	3.62	<0.001
BPI - EXTERNALIZING	100	-2.15	5.95	<0.001	104	-3.31	5.60	<0.001
PARENT FEELINGS FORM (PFF): MEAN DIFFERENCE (POST - PRE)								
PFF	92	-5.92	16.49	<0.001	97	-3.73	12.07	0.003

Notes:

Orange cells represent a statistically significant difference at the .05 level based on one-tailed paired t-tests. Changes (differences) were assessed by subtracting Post from Baseline scores (POST - BASELINE) within each individual.

Test C

The final – and third – test (C) is a difference-in-differences test, which compares the rate of changes observed over time (i.e., from pretest to posttest) between the intervention and comparison groups. Results for each outcome, described below, are detailed in Table 9.20 in the Appendix.

Caregiver Commitment: BEST-AG

On the BEST-AG scale, increases suggest an improved sense of belonging and emotional security. While not statistically significant, the BEST-AG shows a stronger trend for the intervention group on the primary BEST-AG and the subscales. The BEST-AG pre and post differences are graphed in Figures 9.13, 9.14 and 9.15. The overall BEST-AG and subscale BEST scores shows increases (improvements) from pre to post, but the rate of change in the treatment group is not statistically different from the change observed in the comparison group (see Table 9.20 in the Appendix).

Figure 9.13. BEST-AG: Overall Score at Pre and Post

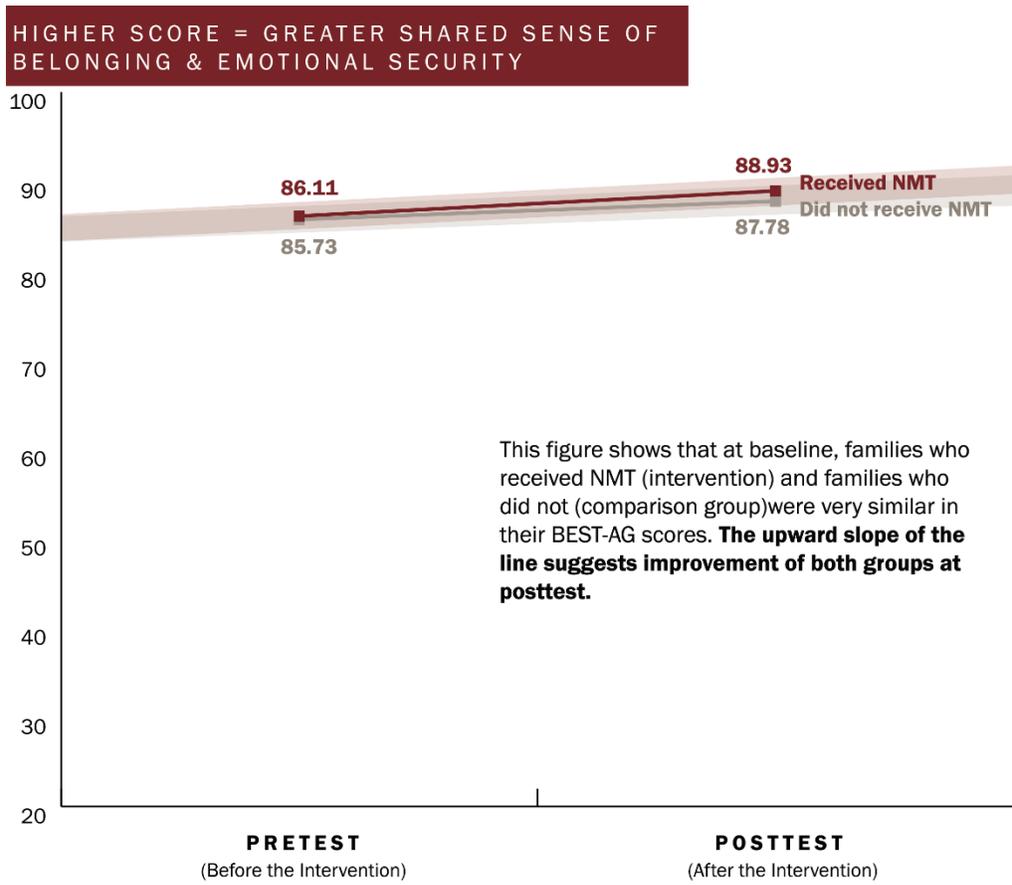


Figure 9.14. BEST-AG: Claiming Subscale Scores at Pre and Post



Figure 9.15. BEST-AG: Emotional Security Subscale Scores at Pre and Post



Child Behavioral Issues: BPI

On the BPI, a decrease in score suggests fewer behavioral issues. Both the intervention and comparison groups saw statistically significant differences between PRE and POST BPI scores (see Figures 9.16 – 9.18 and Table 9.20 in the Appendix). On average, children in the comparison group saw a reduction in the BPI score of 3.39 points, while children in the intervention group saw a reduction of 5.22 points. The decrease in scores from pre and post was stronger for the intervention group, as compared to the comparison group. Specifically:

- A difference was observed between intervention and comparison groups in the overall BPI score. While not statistically significant at the .05 level, this is trending towards statistically significant result (on average, a reduction of 1.82 points, $p=.086$).
- The change in the BPI-internalizing subscale among respondents in the intervention group was better than that in the control group (on average, a reduction of 0.96 points, $p=.046$), a statistically significant finding.
- The change in the BPI-Externalizing subscale were trending towards statistical significance (on average, a reduction of 1.32 points, $p=.092$).

Figure 9.16. Overall BPI: Scores at Pre and Post

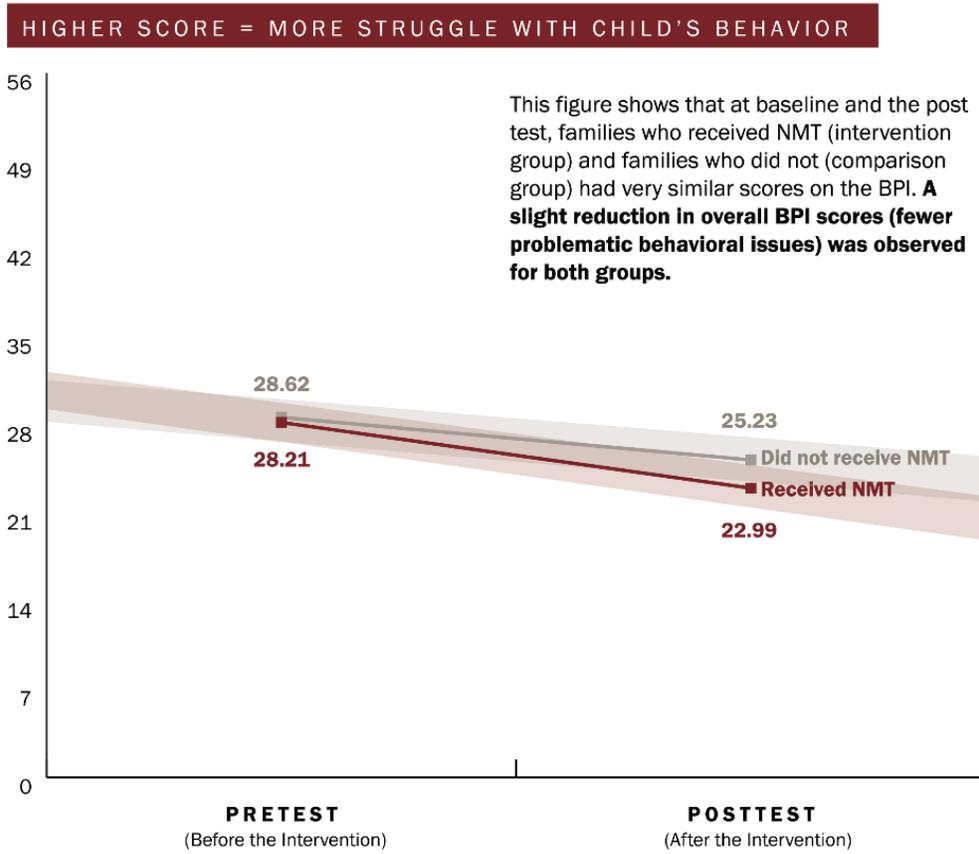


Figure 9.17. BPI – Internalizing Subscale: Scores at Pre and Post

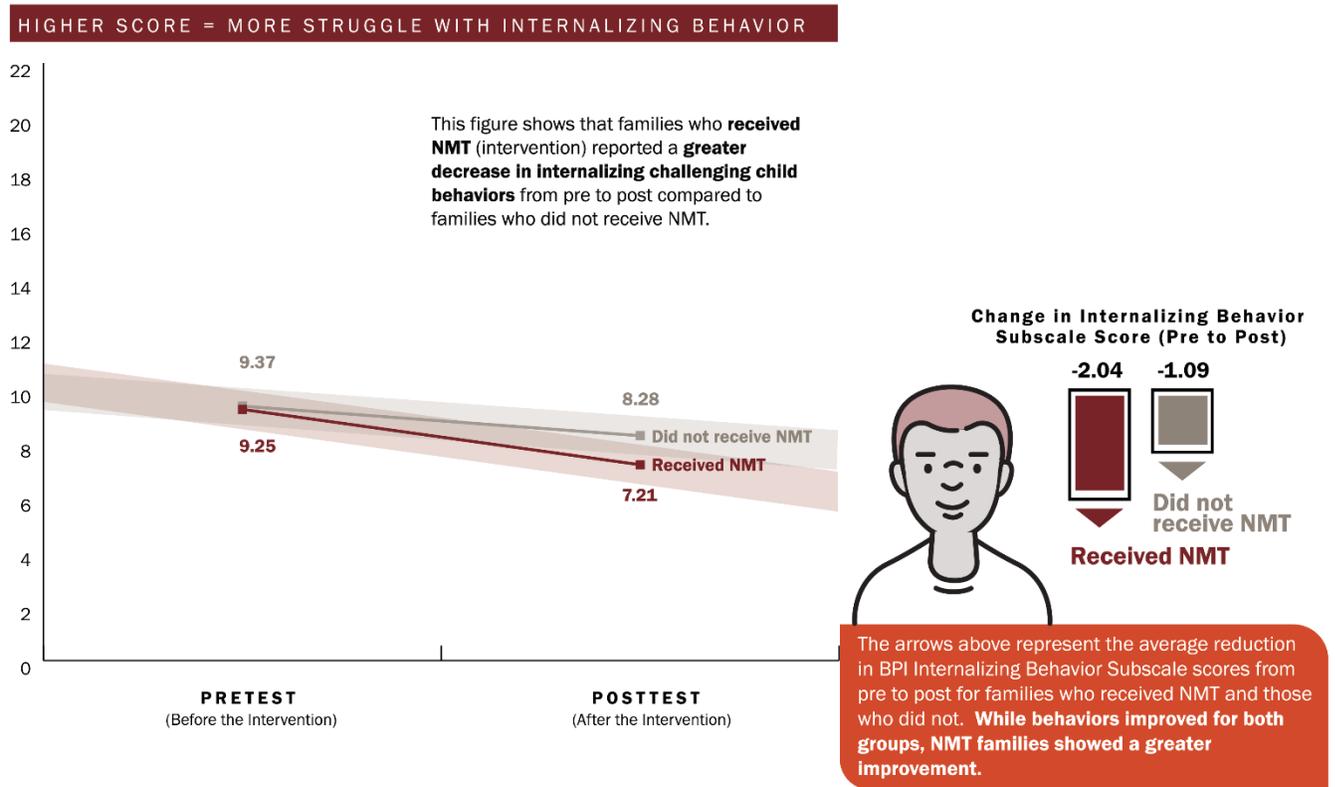
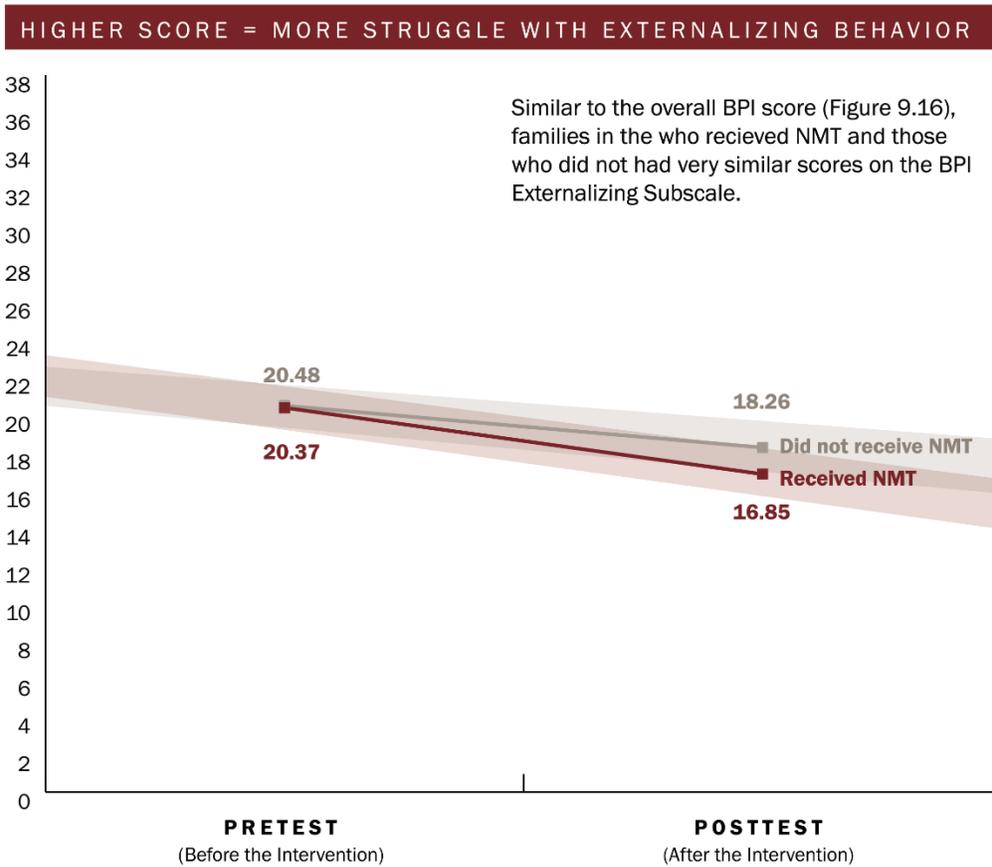


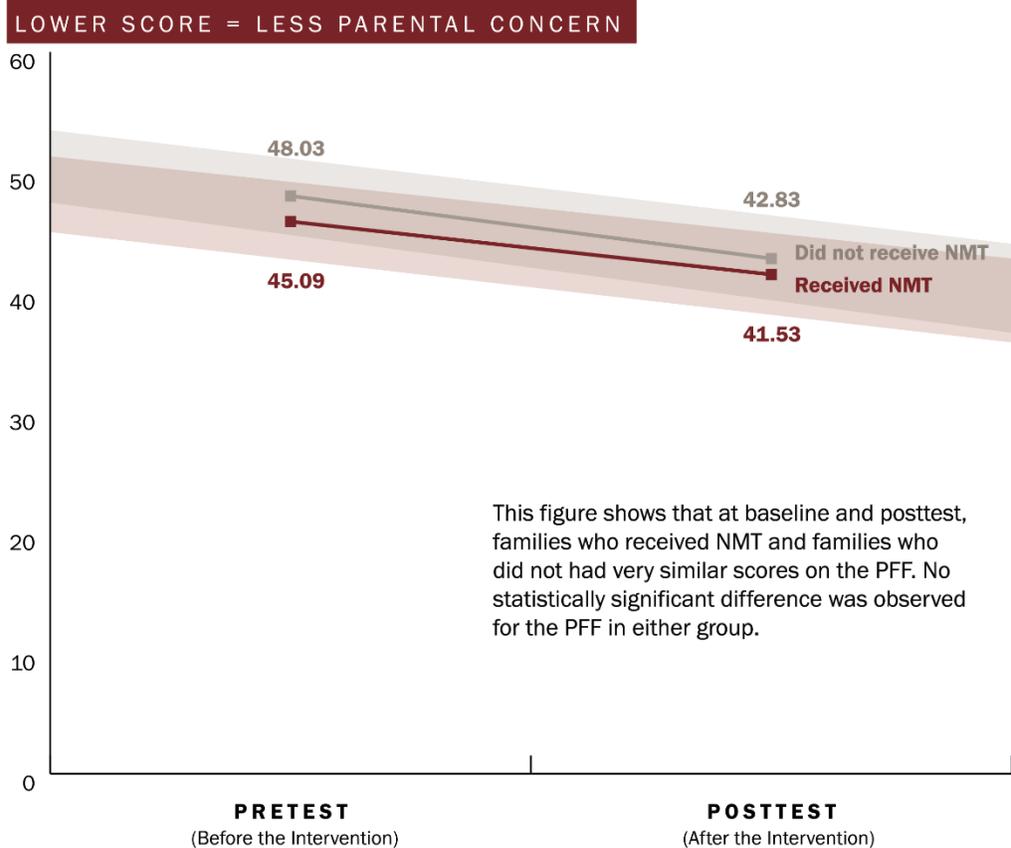
Figure 9.18. BPI – Externalizing Subscale: Scores at Pre and Post



Familial Relationships: PFF

For the PFF lower scores are preferred. While not statistically significant, the PFF shows a slighter stronger trend for the comparison group compared to the intervention group. On average, children in the intervention group saw a smaller reduction on the PFF than families in the comparison group.

Figure 9.19. PFF Scores at Pre and Post



How do these results differ for children adopted via intercountry or as private domestic channels

Differences on a number of key characteristics were examined between public and private or intercountry adoptive families served through the ASAP program (see Table 9.21 in the Appendix). The following characteristics were examined: Child age at adoption or at ASAP outreach, parental age at adoption or ASAP outreach. In addition, pre and post t-test means were compared for the BPI, BEST-AG, PFF, and caregiver commitment questions. Children adopted through the public child welfare system were, on average, older at the time of adoption than children adopted through intercountry or privately ($M = 7.02$ ($SD=4.10$) and $M = 3.78$ ($SD=3.22$), $p < .001$, respectively). In addition, the age of the children at the time the families came into contact with ASAP, was younger for children adopted through the public system compared to children adopted through private or intercountry adoptions ($M = 4.05$ ($SD=3.57$) and $M = 7.14$ ($SD=4.25$), $p < .001$, respectively). On all other characteristics or measures, the families, on average were very similar, suggesting that adoptive families, regardless of the type of adoption, are more similar than different.

Staff Satisfaction with the Delivery of Services

To examine if there was greater staff satisfaction with the delivery of services among the staff from the intervention and comparison sites, 27 ASAP staff were invited to participate in a survey. Of those staff, 21 (11 from Harmony Family Center and 10 from Catholic Charities) completed the survey for a response rate of 78%. To assess staff satisfaction, ASAP staff from both Harmony and Catholic Charities were asked questions on a 5-point Likert scale from 1 to 5 (5 being the highest):

- How satisfied are you with the services you provided?
- How satisfied are you with the level of support you are receiving?
- How manageable do you feel your current caseload is?
- To what extent do you feel you are positively influencing other people's lives through your work?

The majority of ASAP staff from Harmony and Catholic Charities were frequently or very frequently satisfied with the services they provided and level of support they received from their agency/program (Table 9.6). They also reported frequently and very frequently manageable caseloads. A majority of the respondents from both agencies frequently or very frequently reported that they felt they were a positive influence on people's lives. It is important to note that the small number of staff at each agency made it difficult to draw strong conclusions regarding the differences between the two agencies on any of these issues. The NMT training is extensive, and respondents had different amounts of experience with the NMT materials. It is possible that with additional time as trained NMT facilitators that different responses would have emerged.

Table 9.6. ASAP Staff Satisfaction

SATISFACTION LEVELS WITH STAFF BY HARMONY FAMILY CENTER AND CATHOLIC CHARITIES		
PERCENT OF STAFF WHO REPORTED FEELING FREQUENTLY OR VERY FREQUENTLY:		
SATISFIED WITH SERVICES PROVIDED	Harmony Family Ctr.	82% (9)
	Catholic Charities	90% (9)
SATISFIED WITH LEVEL OF SUPPORT FROM AGENCY/PROGRAM	Harmony Family Ctr.	91% (10)
	Catholic Charities	80% (8)
CURRENT CASELOAD IS MANAGEABLE	Harmony Family Ctr.	82% (9)
	Catholic Charities	70% (7)
TO WHAT EXTENT DO YOU FEEL YOU ARE POSITIVELY INFLUENCING OTHER PEOPLE'S LIVES THROUGH YOUR WORK?	Harmony Family Ctr.	64% (7)
	Catholic Charities	80% (8)

Limitations

While the study had a number of strengths, it also had some limitations. First, Tennessee has a long history of providing services for families through the ASAP program, as such the results from this study may not be applicable to other jurisdictions that do not have a long history of providing post-adoption services. Having an experimental design and larger sample size, including with the staff survey, would have strengthened the findings. In addition, extending the time period that the study was conducted would have possibly allowed more time to observe change. Personal and interpersonal change is difficult and takes time, especially given the long history of trauma that many adoptive youth have experienced due to maltreatment and previous placement moves (Jones & Schulte, 2019). The observation window in this study was less than a year, and results of interventions may not be observed until more time has passed. In this relatively short period of time the intervention group saw change on key measures included in the metric (e.g., particularly for older children in the relational and self-regulation domains). Perhaps with additional time, and more families enrolled, different results regarding the intervention and comparison groups may have emerged.



Cost Evaluation

The Tennessee QIC-AG project implemented and tested the effectiveness of a family-centered trauma-informed intervention that used a biopsychosocial assessment process to identify the needs of children and families who are referred (or self-refer) to Tennessee’s ASAP program. The intervention served 293 families who have adopted children in the targeted regions of the state, including children adopted through the child welfare system, internationally, and private domestically.

Cost Evaluation Approach

The cost-effectiveness research (CER) analysis provides information for policymakers and administrators to help maximize desired outcomes based on the associated cost of achieving them (Meunnig, 2002). CER analysis was applied to the outcomes identified by Tennessee.

Assumptions, Conditions, and Constraints

The first step in this analysis was to identify issues which might impact the validity of our cost analysis findings. CER analyses typically rely on researchers making subjective decisions based on their judgments and perceptions of the available information. Thus, it is important to record assumptions, constraints, and conditions relevant to Tennessee that may impact the analysis.

ASSUMPTIONS

Assumptions are those factors which will likely impact the program and thus, the accuracy of the cost analysis (Department of Health and Human Services, Administration for Children and Families & Health Care Finance Administration, 1993). The primary assumption underlying this cost evaluation is that the time period of implementation is long enough to achieve change in the outcome measures. We are assuming that the impact of the NMT assessment and recommended intervention is achieved or not achieved within the timeframe of the project. However, it is likely that the intervention’s true impact will not be seen until after the project period. Each site is implementing its intervention on a different timeline. Some sites may have a full two years to implement while others have less than a year.

We also assume multiple positive outcomes are likely impacted by the QIC-AG site programs. For pre permanency interventions, the desired impact of the programs is adoption or guardianship. However, other positive outcomes may not be necessarily captured by the intervention.

A final assumption is that the resource allocation captured in costs paid to sites is accurate. It is likely that staff time may be over or under-budgeted depending on the time constraints. For example, at the beginning of an intervention, more staff effort may be needed, but as a program continues, staff effort may be less intense because of the familiarity with the intervention.

CONSTRAINTS

Constraints are factors that have a direct impact on a project. Constraints may include legal regulations, technological issues, political issues, financial issues and/or operational issues. For Tennessee, constraints include the long training period to obtain the NMT certification.

CONDITIONS

Conditions are factors that may influence system processes but are not necessarily constraints. For Tennessee, conditions include the purveyor offering his services and supports for a reduced rate, and well-established and long history of providing post adoption services in the state.

Cost Estimation

The next step in this cost analysis is to estimate the costs Tennessee incurred to implement the intervention. This cost estimation includes actual costs paid to Tennessee by Spaulding for Children on behalf of the QIC-AG.

KEY POINTS IN COST ESTIMATION

To the extent possible, the estimation of costs followed the Calculating the Costs of Child Welfare Services Workgroup's (2013) technical guide, *Cost analysis in program evaluation: A guide for child welfare researchers and services providers*, which identifies five key points to address in cost estimation. Each of these points is addressed below in relation to Tennessee.

Costs should generally include all resources used and not simply the direct financial expenses spent on a program. Prior to implementation, Tennessee's intervention site, Harmony, and comparison site, Catholic Charities, had basic infrastructure including facilities, utilities, supplies, and other items. Infrastructure costs specific to these non-profits were not estimated for this cost evaluation. Rather, the specific charges to the project for facilities/office space are used. The sites also received substantial technical support from consultants and evaluators during implementation. Although the consultation was crucial to moving sites into implementation, the costs associated with the consultation will only be noted in the conclusion as additional costs for future programs to consider. Evaluation costs are also not included in this cost estimation, so other programs interested in this intervention would need to budget for evaluation in addition to the cost estimates.

Perspective refers to the person or group that incurred the costs. The perspective is essentially a filter that helps determine what costs are included. In this cost evaluation, the costs are determined from the perspective of the Tennessee QIC-AG site. In other words, if funds were spent by the program, they are considered costs. Participant costs, such as travel or childcare, are not included because they were not provided by the program. However, other programs would need to consider those participant costs in relation to the population they intend to serve.

Cost estimation should include the passage of time in order to account for inflation. Given that Tennessee implemented the intervention for a two-year period, costs did not change dramatically. The major cost that would be impacted in this short time frame is staff salary and this change is accounted for in the direct expenses that Tennessee incurred each year.

Both variable and fixed costs should be captured in cost estimation. For Tennessee, fixed costs include salaries, fringe and facility/office space. Variable costs were charged to the project as needed for items such as travel, supplies and gift cards.

Marginal and average costs should be examined in cost estimation. These calculations are presented in subsequent sections.

COST ESTIMATION STEPS

The steps involved in the cost estimation of this analysis are described below. All QIC-AG sites used a standardized budget form and cost reimbursement form. Costs for Tennessee were taken from monthly budget forms and summarized into Table 9.7.

Table 9.7. Costs for Tennessee

	IMPLEMENTATION			INSTALLATION	TOTAL
	FY 2019*	FY 2018	FY 2017	FY 2016	
PERSONNEL COSTS					
SITE IMPLEMENTATION MGR	\$1,424	\$13,832	\$18,623		\$33,879
ADMINISTRATIVE STAFF	\$228	\$2,308	\$3,155		\$5,690
PROGRAM STAFF	\$28,063	\$149,882	\$130,335		\$308,280
FRINGE	\$5,600	\$29,420	\$27,338		\$62,359
NON-PERSONNEL COSTS					
COMPUTER-IT NETWORK				\$6,000	\$6,000
CONTRACTED SERVICES: SMART			\$7,488		\$7,488
CONTRACTED SERVICES: CHILD TRAUMA ACADEMY		\$600	\$4,000	\$90,000	\$94,600
CONTRACTUAL: DOUG MCCAUGHAN				\$30,000	\$30,000
FACILITIES/OFFICE SPACE	\$2,268	\$12,474	\$10,962		\$25,704
GIFT CARD INCENTIVES			\$339		\$339
POSTAGE			\$45		\$45
PROGRAM SUPPLIES	\$720	\$1,415	\$1,197		\$3,332
TELEPHONE	\$480	\$2,799	\$2,320		\$5,599
TRAVEL	\$1,314	\$11,099	\$17,450	\$5,600	\$35,463
INDIRECT COSTS					
IT SUPPORT		\$4,000	\$1,198		\$5,198
OTHER: THERAPUETIC & EQUIPMENT	\$7,960	\$13,079	\$45,439	\$6,600	\$73,079
TOTAL	\$48,057	\$240,906	\$269,889	\$138,200	\$697,053

*FY2019: 10/01/2018 thru 3/31/19 only

Collect Data on Resource Costs

In order to collect accurate information, monthly expense forms were used to track actual costs. All QIC-AG sites developed an annual budget. The actual costs billed to QIC-AG were provided to the evaluation team via monthly expense reports. These expense reports contained a year to date summary of expenses. Expenses for each fiscal year were then compiled into Table 9.7.

Collect Data on Resource Allocation

While resource costs are monetary values, resource allocation refers to the percent of time spent on the project. Personnel costs were billed to the project based on the percent of time employees were allocated to the project. The monthly expense reports described above also captured resources allocation.

Estimation of Direct Costs

Descriptions of all direct costs billable to Spaulding were defined by Spaulding. These same descriptions are used in this cost estimation. Multiple direct costs were billable to the project. Each of these is described below.

Personnel

Personnel costs totaled \$313,970 for staff time allocated to the project during the implementation phase. Administrative personnel are those staff who are providing program support through organizing the program, processing documents, managing budgets and/or providing other administrative support. Tennessee had a portion of time from staff allocated for data collection and IT support which totaled \$5,690. Program staff are those personnel who delivered services to families, parents and/or children. Tennessee included two full-time counselors who devoted 10-15 hours per month on the NMT related activities and a part-time training and implementation coordinator. Total program staff costs were \$313,969.52.

Fringe

Overall fringe for all employees totaled \$56,317. Fringe was calculated for 2.5 FTEs budgeted for program personnel. Fringe includes the 7.65% charged for each personnel for FICA and Medicare tax; \$450 per month for health insurance; \$200 annually for worker's compensation insurance; 1% of the first \$9,000 salary for unemployment taxes; and \$216 annually for professional liability insurance. Other categories included in fringe costs are described by sites in their cost reimbursement forms.

Contractual Expenses

Tennessee contracted for services from three entities. Even though the majority of these costs occurred during installation, they are included in the cost estimation because they are critical to utilizing the intervention. During installation, a private vendor was paid for developing a database system for the project for \$30,000. The Child Trauma Academy provided training to staff for \$90,000. This amount included 16 participants completing the Phase I training at \$5,000 each. During implementation \$4,600 was also paid to Child Trauma Academy. The final vendor was paid \$7,487.50 for sensory-motor supplies needed to carry out the intervention.

Gift Cards

Gift cards were provided to participants for completing surveys. A total of \$339.24 was spent on gift card incentives.

Materials and Supplies

Over the implementation period, \$2,052.15 was spent on program supplies that were specific to the operation of the intervention.

Travel

Over implementation and installation, \$28,406.75 was paid for travel. A large portion of these funds were used to pay for travel costs to attend the NMT trainings.

Facilities/Office Space

\$25,704 was paid for facilities-related costs that are directly related to the office space for project-related staff.

Other Direct Charges

Other direct charges include all non-personnel direct costs that do not fit into the categories listed above, such as postage (\$45.35), and phones (\$5,598.52).

Estimation of Indirect Costs

Descriptions of all indirect costs billable to Spaulding were defined by Spaulding. These same descriptions are used in this cost estimation. Multiple indirect costs were billable to the project. Each of these is described below.

IT Support

IT support includes all expenses related to IT including computers, contract with a person for IT work, database design, and software. Computer and IT network charges include \$6,000 and an additional \$5,198 for IT support.

Other

\$73,078.84 was spent on therapeutic supplies and equipment.

Indirect costs often include facility costs and infrastructure not captured in the above categories. Since this cost evaluation is designed to help other state child welfare policymakers understand the total costs associated with each site program, indirect costs are important to document. The Tennessee site involved a private non-profit which had substantial infrastructure. Because the evaluation team assumed that other interested child welfare agencies would also have the infrastructure in place to run programs, we did not attempt to portion out the infrastructure costs that another agency would likely need. Likewise, we assumed that indirect costs will vary greatly by state due to cost of living issues influencing real estate prices and wages and thus, more detailed indirect cost calculations would not be useful to other entities. In order to run a similar program in another area, programs would need building space with heating, air, electricity and water; and some administrative support for contracting and financial management.

Summary of Costs

Implementation costs for Tennessee were \$510,597 and installation costs related to project training and database set up were \$138,200. In total, the costs for the Tennessee project were \$697,053.

Cost Calculations

Cost calculations were made to understand the cost per participant and the cost-effectiveness of the intervention.

COST PER PARTICIPANT

Using Figure 9.7 which details families served by this project, 215 families formed by public adoption participated and 78 families formed by private or intercountry adoption participated in the intervention. To calculate the cost per participant, the evaluation team used families who were enrolled in the intervention group at Harmony (n=293). Based on the total costs of \$697,053 and 199 participants, the cost per participant for this intervention was \$2,379.

COST TO EFFECTIVENESS CALCULATION

For this cost-effectiveness analysis, we conceptualize effectiveness as the short-term outcomes designed to be impacted by the intervention. In Tennessee, the intervention was expected to reduce child behavioral issues, improve family relationships, increase caregiver commitment and increase staff satisfaction of delivery services. Findings suggest that intervention group participants showed greater improvement from pre to posttest on two short term outcomes: behavioral problems as measured by the Behavioral Problem Index; parent attitudes and concerns as measured by the Parent Feelings Form; and caregiver commitment as measured by the modified BEST. The cost-effectiveness ratio is calculated for each outcome below.

Cost to Achieve Improvement in Behavioral Issues

Several steps were taken to estimate the cost to achieve improved behavioral problems. First, data was gathered from the analysis of short-term outcomes to determine how many families had completed pre and posttest data related to behavioral problems. In the treatment group, 109 families had pre and posttest data.

Next, the cost of serving those families with a pre and posttest were calculated using the cost per participant of \$2,379. This calculation is important because not all families in the treatment group completed a pre and posttest and thus, there is no information about whether behavior problems improved for families who did not complete a posttest. Examining the cost for this subgroup of matched pre/post families results in a more accurate cost of serving these specific families. Based on these calculations, it cost \$259,313 to serve 109 families in the treatment group.

Table 9.8. Cost-Effectiveness Calculations for Behavioral Issues

	INTERVENTION
NUMBER OF FAMILIES W/ MATCHED PRE/POST	109
COST OF THOSE FAMILIES WITH MATCHED PRE/POST	\$259,313
NUMBER W/IMPROVED OUTCOMES	73
COST EFFECTIVENESS RATIO	\$3,552

The cost-effectiveness ratio was calculated by dividing the cost of families served by the number with improved outcomes:

Using this formula, the cost-effectiveness ratio was \$3,552 for the intervention. In other words, for every \$3,552 spent on the intervention, 1 family reported improved behavior problems.

$$\text{COST-EFFECTIVENESS RATIO} = \frac{\text{Cost of serving those families with matched pre/post tests}}{\text{Number of families with improved outcomes}}$$

Cost to Achieve Improvement in Parenting Attitudes

The same steps described above were used to estimate the cost to achieve improved parenting attitudes. First, data was gathered from the analysis of short-term outcomes to determine how many families had completed pre and posttest data related to behavioral problems. In the intervention group, 107 families had pre and posttest data on this measure.

Next, the cost of serving those families with a pre and posttest were calculated using the cost per participant of \$2,379. This calculation is important because not all families in the intervention and comparison group completed a pre and posttest. Examining the cost for this subgroup of matched pre/post families results in a more accurate cost of serving these families. Based on these calculations, it cost \$254,555 to serve 107 families in the intervention group.

In the intervention group, 60 families had improved feelings about parenting. The cost-effectiveness ratio was calculated using the same formula as behavior problems. Using this formula, the cost-effectiveness ratio was \$4,243 for the intervention. In other words, for every \$4,243 spent on the intervention, 1 family reported improved behavior problems.

Table 9.9. Cost-Effectiveness Calculations for Parenting Attitudes

	INTERVENTION
NUMBER OF FAMILIES W/ MATCHED PRE/POST	107
COST OF THOSE FAMILIES WITH MATCHED PRE/POST	\$254,555
NUMBER W/IMPROVED OUTCOMES	60
COST EFFECTIVENESS RATIO	\$4,243

Cost to Achieve Improvement in Caregiver Commitment

The same steps described above were used to estimate the cost to achieve improved parenting attitudes. First, data was gathered from the analysis of short-term outcomes to determine how many families had completed pre and posttest data related to behavioral problems. In the intervention group, 108 families had pre and posttest data on this measure.

Next, the cost of serving those families with a pre and posttest were calculated using the cost per participant of \$2,379. This calculation is important because not all families in the intervention and comparison group completed a pre and posttest. Examining the cost for this subgroup of matched pre/post families results in a more accurate cost of serving these families. Based on these calculations, it cost \$256,934 to serve 108 families in the intervention group.

In the intervention group, 68 families had improved feelings about parenting. The cost-effectiveness ratio was calculated using the same formula as behavior problems. Using this formula, the cost-effectiveness ratio was \$3,778 for the intervention. In other words, for every \$3,778 spent on the intervention, one family reported improved behavior problems.

Table 9.10. Cost-Effectiveness Calculations for Parenting Attitudes

	INTERVENTION
NUMBER OF FAMILIES W/ MATCHED PRE/POST	108
COST OF THOSE FAMILIES WITH MATCHED PRE/POST	\$256,934
NUMBER W/IMPROVED OUTCOMES	68
COST EFFECTIVENESS RATIO	\$3,778

Sensitivity Analysis

In a sensitivity analysis, assumptions made about various factors assumed in the cost-effectiveness calculation are allowed to vary in a recalculation of the CER. The findings are compared to the initial CER to provide additional context to understanding the real cost of obtaining a particular outcome. Because assumptions and factors will vary for other agencies wanting to implement the intervention, the information provided in the CER analysis can be used to vary budget line items.

In the case of the QIC-AG, sites were provided with a more generous amount of resources than were necessary to run the actual intervention because sites were required to participate in activities specific to the QIC-AG such as off-site meetings and capacity building activities. Additionally, sites were required to work extensively with a consultant and external evaluator which required significant staff time. Other child welfare agencies wishing to implement this intervention would not need all of the resources mentioned above.

For this sensitivity analysis, costs that are most likely not needed have been removed from the cost calculation. Inclusion or exclusion of costs in a sensitivity analysis such as this one is subjective. A decision was made based on the following question: Is this expense critical to the functioning of the intervention? Another agency would want to adjust costs specific to their program needs. The following exclusions were made for this sensitivity analysis:

1. For the purposes of running the intervention, only program staff are needed. The salary and fringe for the Site Implementation Manager were removed. At this site, the Site Implementation Manager was not needed to implement the actual intervention. This position served as a liaison with external entities and managed internal processes. Additionally, the administrative staff costs were removed. However, administrative staff fringe costs were unable to be separated from program staff. The amount of fringe for both positions was included.
2. Gift cards were removed from the cost calculation. Gift cards were provided to thank people for their time in completing evaluation materials.
3. Program supplies not related to the NMT materials were excluded.
4. All travel costs were excluded. Travel was primarily to off-site locations for annual and quarterly meetings.
5. Costs related to office space rental were excluded. Other agencies would not need to lease additional office space to implement the intervention.
6. Costs related to office functioning were also excluded because none of them were necessary to implement the intervention. These costs include computer/IT support, postage, and telephone charges.

7. Contracted services for database construction were also removed.

Based on these exclusions, Table 9.11 details the costs included in the sensitivity analysis. For this analysis, the total cost of the project was \$545,805 which amounted to \$1,863 per participant. Using this cost per participant, the cost-effectiveness ratios are: \$2,781 for improved behavior problems; \$3,322 for improved parent feelings; and \$2,959 for increased caregiver commitment.

Table 9.11. Sensitivity Analysis: Adjusted Costs for Tennessee

	IMPLEMENTATION			INSTALLATION	TOTAL
	FY 2019*	FY 2018	FY 2017	FY 2016	
PERSONNEL COSTS					
PROGRAM STAFF	\$28,063	\$149,882	\$130,335		\$308,280
FRINGE	\$5,600	\$29,420	\$27,338		\$62,359
NON-PERSONNEL COSTS					
CONTRACTED SERVICES: SMART			\$7,488		\$7,488
CONTRACTED SERVICES: CHILD TRAUMA ACADEMY		\$600	\$4,000	\$90,000	\$94,600
INDIRECT COSTS					
OTHER: THERAPUETIC AND EQUIPMENT	\$7,960	\$13,079	\$45,439	\$6,600	\$73,079
TOTAL	\$41,624	\$192,981	\$214,600	\$96,600	\$545,805

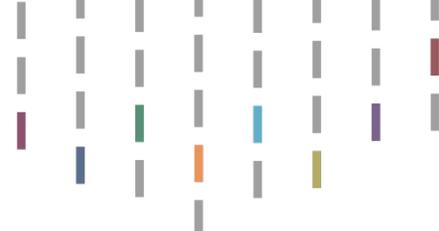
*FY2019: 10/01/2018 thru 3/31/19 only

Cost Evaluation Summary

The Tennessee site spent \$2,379 per family to compare the impact of the NMT to services as usual. For those families who completed a pre and posttest, the intervention cost \$3,522 to improve behavior problems per family; \$4,243 to improve parenting attitudes per family and \$3,778 to improve caregiver commitment.

However, there are multiple costs that could be reduced for other agencies interested in the intervention that would reduce the cost-effectiveness ratios and cost per participant. Reducing costs that are not needed for replication results in a cost per participant of \$1,863. The intervention cost \$2,781 to improve behavior problems per family; \$3,322 to improve parenting attitudes per family; and \$2,959.

It should be noted that this intervention has a heavy training workload and much of the costs were related to training.



Discussion

The Tennessee QIC-AG project tested the NMT in the **Compare and Learn** phase of developing an effective practice with an adoption sample. A quasi-experimental design was used to examine differences between the families who received the intervention (NMT) and families who received services as usual. In this analysis, we observed trends that suggested that changes were occurring, and that changes were generally in the direction one would expect with this intervention. Specifically,

- **Child behavioral issues.** This was measured using the Behavioral Problem Index (BPI). On the BPI, a decrease in score suggests fewer behavioral issues:
 - Both the intervention and comparison groups saw statistically significant differences between scores at PRE and POST BPI scores.
 - A difference was observed between intervention and comparison groups in the overall BPI score. While not statistically significant at the .05 level, this is trending towards statistically significant result (on average, a reduction of 1.88 points, $p=.072$).
 - The change in the BPI-internalizing subscale among respondents in the intervention group was better than those in the control group (a reduction of 0.93 points, $p=.048$), a statistically significant finding.
 - A similar finding occurred with the BPI-Externalizing subscale; these results were trending towards statistical significance (a reduction of 1.39 points, $p=.069$).
- **Caregiver commitment.** This was measured using the Belonging and Emotional Security Tool – for Adoptive and Guardianship families (BEST-AG). On the BEST-AG scale, increases suggest an improved sense of belonging and emotional security. While not statistically significant, the BEST-AG shows a slightly stronger trend for the intervention group, suggesting that with additional time and more study participants, a statistically significant difference may emerge.
- **Familial relationships.** This was measured using the Parent Feelings Form (PFF). For this measure, lower scores are preferred. While not statistically significant, the PFF shows a slighter stronger trend for the comparison group compared to the intervention group.

There were several limitations for this study. First, the groups were not randomly assigned, so families who received the intervention may have been different than the comparison group in ways that were not captured by the information available in this study (e.g., children in the intervention group may have had more traumatic experiences, or different experiences, than children in the comparison group).

A second significant limitation of this study was that the time period between pretest to posttest was limited. The NMT targets improvement in complex personal and interpersonal characteristics, based on neurobiological assessments. Thus, it seems plausible that the effects of the NMT intervention may take significantly more time to develop, particularly given the complex trauma experiences of many youth adopted out of foster care and the fact that changes between pretest and posttest discussed above differed by child age, with older children tending to show more change over time than younger children.

Compared to neurotypical children their age, children and youth who received the intervention saw an increase, over baseline, of their functioning on key domains measured through the NMT metrics: participants moved closer to the neurotypical functioning on all domains. This finding is important given that children and youth who received NMT in the intervention group were a high-risk sample and families were reaching out for help. The largest percent change occurred among older children and youth, with most change observed for children over the age of 11. Research on the effects of the NMT with adoptive families should continue, but with longer study windows and more families. In summary, the trends found in this study are promising, but more research using larger samples and longer observation windows are needed to examine the effects of the NMT with post adoptive children and families. Incorporating the NMT as a post adoption intervention is a long-term investment designed to help children who have experienced significant trauma and may have a positive impact on children and families over time.



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Appendix

RECOMMENDATIONS TYPES

When examining the type of the NMT recommendations made, the following tables look within each broad category.

Within the family recommendation category, recommendations were explored as they related to specific family members. As detailed in the table below, 38% of the recommendations targeted at extended family were implemented with low adherence. The recommendations related to the extended family that were implemented with low adherence primarily related to efforts to engage and recruit extended family members.

Table 9.12. The NMT Adherence: Family-Centered Recommendations

FAMILY	FATHER/ MALE	MOTHER/ FEMALE	SIBLINGS	EXTENDED FAMILY	FAMILY TOTAL
HIGH	46%	59%	58%	12%	50%
MEDIUM	32%	26%	21%	50%	30%
LOW	22%	15%	21%	38%	20%

When examining adherence to individual recommendations, those related to cognitive issues were most likely to be implemented with a high or medium level of adherence, and those related to sensory integration (e.g., healing touch or massage, martial arts, primary somatosensory) were least likely to be implemented with high or medium levels of adherence.

Table 9.13. The NMT Adherence: Individual-Centered Recommendations

INDIVIDUAL	COGNITIVE	RELATIONAL	SELF- REGULATION	SENSORY INTEGRATION	INDIVIDUAL TOTAL
HIGH	39%	34%	35%	40%	36%
MEDIUM	47%	40%	39%	25%	37%
LOW	15%	25%	27%	35%	27%

Finally, when examining adherence related to the therapeutic web, those related to school or childcare were most likely to be implemented with high or medium levels of adherence, and those categorized as 'other' were rarely implemented with adherence. However, the 'other' category was also the smallest (18 recommendations), 11 of which were for mentoring, and all of the mentoring recommendations were implemented with low adherence.

Table 9.14. The NMT Adherence: Therapeutic Web Recommendations

THERAPEUTIC WEB	CULTURE/ COMMUNITY OF FAITH	EXTRA- CURRICULAR	SCHOOL/ CHILDCARE	OTHER	THERAPEUTIC WEB TOTAL
HIGH	36%	53%	51%	17%	45%
MEDIUM	31%	14%	30%	11%	24%
LOW	33%	33%	19%	72%	32%

Table 9.15. Baseline Metrics: Percent of Neuro-Typical Functioning by Age

BASILINE METRICS	BRAIN MAP	COGNITIVE	RELATIONAL	SELF - REGULATION	SENSORY INTEGRATION	N
4 TO 5 YEAR OLDS	89.5%	93.7%	89.9%	84.9%	89.8%	16
6 TO 7 YEAR OLDS	82.8%	86.4%	83.8%	75.4%	85.4%	30
8 TO 10 YEAR OLDS	82.5%	84.5%	81.0%	77.7%	86.0%	36
11 TO 13 YEAR OLDS	84.6%	83.8%	82.9%	79.6%	91.0%	45
14 TO 16 YEAR OLDS	84.5%	83.3%	79.7%	80.3%	93.4%	40

Table 9.16. Final Metrics: Percent of Neuro-Typical Functioning by Age

FINAL METRICS	BRAIN MAP	COGNITIVE	RELATIONAL	SELF - REGULATION	SENSORY INTEGRATION	N
4 TO 5 YEAR OLDS	92.0%	93.4%	93.7%	88.3%	92.5%	9
6 TO 7 YEAR OLDS	85.5%	84.5%	85.9%	81.7%	89.0%	11
8 TO 10 YEAR OLDS	85.8%	86.6%	84.0%	82.0%	89.8%	20
11 TO 13 YEAR OLDS	86.5%	84.8%	86.5%	81.8%	91.8%	17
14 TO 16 YEAR OLDS	89.6%	86.7%	88.7%	85.8%	96.3%	18

Table 9.17. Public Adoption: Percent Change between Pre and Post Metrics by Age

	BRAIN MAP	COGNITIVE	RELATIONAL	SELF - REGULATION	SENSORY INTEGRATION	N
3 TO 7 YEAR OLDS	1.0%	-0.5%	2.1%	1.0%	1.5%	22
8 TO 10 YEAR OLDS	2.2%	0.8%	2.7%	3.1%	2.9%	20
11 TO 13 YEAR OLDS	5.2%	3.3%	7.5%	6.2%	4.7%	17
14 TO 16 YEAR OLDS	4.5%	5.8%	3.8%	6.6%	3.0%	18

Table 9.18. Test A: Baseline Differences

ALL AGES	TOTAL			COMPARISON (CATHOLIC CHARITIES)			INTERVENTION (HARMONY)			Mean Diff	p
	N	M	SD	N	M	SD	N	M	SD		
BELONGING AND EMOTIONAL SECURITY TOOL (BEST) AT BASELINE											
BEST-AG	313	85.85	9.85	153	85.62	9.55	160	86.06	10.15	-0.433	1.115
BEST-AG CLAIMING	313	32.82	2.69	153	32.84	2.68	160	32.80	2.71	0.045	0.305
BEST-AG EMOTIONAL SECURITY	313	53.03	7.89	153	52.78	7.74	160	53.26	8.06	-0.478	0.894
BEHAVIORAL PROBLEM INDEX (BPI) AT BASELINE											
BPI	320	28.39	9.84	157	28.51	10.42	163	28.28	9.28	0.229	1.102
BPI - INTERNALIZING	320	9.30	4.13	157	9.33	4.00	163	9.28	4.27	0.057	0.463
BPI - EXTERNALIZING	320	20.41	7.23	157	20.40	7.76	163	20.42	6.71	-0.020	0.812
PARENT FEELINGS FORM (PFF) AT BASELINE											
PFF	298	46.49	19.92	145	47.35	20.00	153	45.67	19.87	1.679	2.310

Table 9.19. Change Scores, Baseline to Post Intervention by Age Group

CHILD'S AGE AT ASSESSMENT: 0 TO 7	COMPARISON				INTERVENTION			
	N	MEAN DIFF	SD	p	N	MEAN DIFF	SD	p
BEST-AG	21	-0.62	4.76	0.721	32	2.63	5.10	0.007
BEST-AG CLAIMING	21	-0.22	1.28	0.784	32	0.55	1.13	0.010
BEST-AG EMOTIONAL SECURITY	21	-0.40	3.84	0.679	32	2.08	4.60	0.016
BPI	21	-5.14	6.95	0.001	32	-4.44	7.33	0.002
BPI - INTERNALIZING	21	-2.06	3.56	0.008	32	-1.66	3.35	0.009
BPI - EXTERNALIZING	21	-3.32	5.51	0.006	32	-3.48	5.33	0.001
PFF	19	-1.58	10.46	0.260	30	-4.47	8.93	0.010
CHILD'S AGE AT ASSESSMENT: 8 TO 10	N	MEAN DIFF	SD	p	N	MEAN DIFF	SD	p
BEST-AG	21	2.43	8.08	0.092	18	3.76	3.97	0.001
BEST-AG CLAIMING	21	0.19	2.73	0.376	18	0.61	2.09	0.232
BEST-AG EMOTIONAL SECURITY	21	2.24	5.74	0.044	18	3.15	3.87	0.003
BPI	21	-3.29	7.95	0.036	18	-4.92	7.42	0.012
BPI - INTERNALIZING	21	-0.99	3.23	0.088	18	-1.92	3.27	0.023
BPI - EXTERNALIZING	21	-2.51	5.90	0.033	18	-3.00	4.89	0.019
PFF	25	-5.16	17.13	0.073	16	-3.81	10.39	0.163
CHILD'S AGE AT ASSESSMENT: 11 TO 13	N	MEAN DIFF	SD	p	N	MEAN DIFF	SD	p
BEST-AG	31	1.44	9.00	0.191	27	1.44	7.06	0.299
BEST-AG CLAIMING	31	0.10	3.31	0.432	27	0.15	1.73	0.659
BEST-AG EMOTIONAL SECURITY	31	1.33	6.94	0.147	27	1.29	5.94	0.268
BPI	32	-3.39	8.28	0.014	29	-4.45	8.13	0.006
BPI - INTERNALIZING	32	-1.13	3.66	0.045	29	-2.10	3.95	0.008
BPI - EXTERNALIZING	32	-1.83	6.02	0.048	29	-2.56	5.72	0.023
PFF	28	-10.71	20.13	0.005	27	-5.63	11.00	0.013
CHILD'S AGE AT ASSESSMENT: 14 AND OLDER	N	MEAN DIFF	SD	p	N	MEAN DIFF	SD	p
BEST-AG	26	4.64	7.03	0.001	25	2.72	8.29	0.114
BEST-AG CLAIMING	26	1.38	2.55	0.005	25	0.32	2.97	0.595
BEST-AG EMOTIONAL SECURITY	26	3.26	5.26	0.002	25	2.40	6.39	0.072
BPI	26	-1.63	8.63	0.172	25	-5.75	8.26	0.002
BPI - INTERNALIZING	26	-0.30	3.47	0.331	25	-1.64	3.97	0.050
BPI - EXTERNALIZING	26	-1.30	6.41	0.155	25	-4.19	6.44	0.003
PFF	20	-4.30	14.00	0.093	24	-0.63	16.89	0.858

Note: Orange cells represent a statistically significant difference at the .05 level

Table 9.20. Difference-in-Difference (DID) Results

RAW DATA FOR THE DID ANALYSIS						
OUTCOME	GROUP	BASELINE	POST SERVICES	ABSOLUTE DIFF BETWEEN BASELINE AND POST		
BELONGING AND EMOTIONAL SECURITY TOOL (BEST-AG)						
BEST-AG	Intervention	86.107	88.932	2.824		
	Comparison	85.731	87.783	2.052		
BEST-AG CLAIMING	Intervention	32.805	33.313	0.508		
	Comparison	32.861	33.202	0.341		
BEST-AG EMOTIONAL SECURITY	Intervention	53.300	55.647	2.346		
	Comparison	52.866	54.557	1.691		
BEHAVIORAL PROBLEM INDEX (BPI)						
BPI	Intervention	28.211	22.994	5.217		
	Comparison	28.621	25.228	3.392		
BPI - INTERNALIZING	Intervention	9.251	7.209	2.042		
	Comparison	9.371	8.284	1.086		
BPI - EXTERNALIZING	Intervention	20.378	16.845	3.533		
	Comparison	20.478	18.261	2.217		
PARENT FEELINGS FORM (PFF)						
PFF	Intervention	45.897	41.529	4.367		
	Comparison	48.035	42.831	5.203		
DIFFERENCE IN DIFFERENCE: RESULTS						
OUTCOME	DID*	SE	Z	P>Z	95% CI	
BELONGING AND EMOTIONAL SECURITY TOOL (BEST-AG)						
BEST-AG	0.772	0.962	0.800	0.422	-1.114	2.659
BEST-AG CLAIMING	0.167	0.322	0.520	0.604	-0.464	0.799
BEST-AG EMOTIONAL SECURITY	0.655	0.757	0.870	0.387	-0.828	2.139
BEHAVIORAL PROBLEM INDEX (BPI)						
BPI	-1.824	1.062	-1.720	0.086	-3.905	0.257
BPI - INTERNALIZING	-0.956	0.480	-1.990	0.046	-1.897	-0.016
BPI - EXTERNALIZING	-1.316	0.780	-1.690	0.092	-2.845	0.213
PARENT FEELINGS FORM (PFF)						
PFF	0.836	2.026	0.410	0.680	-3.134	4.806
*Difference in Difference Coefficients are each estimated as a Time-Treatment interaction in Mixed Effect Models Note: Orange cells represent a statistically significant difference at the .05 level						

Table 9.21. Public vs Private and Intercountry Adoptions: Comparing Characteristics

	PUBLIC			PRIVATE OR INTERCOUNTRY			PUBLIC VS. PRIVATE OR INTERCOUNTRY		
	N	M	SD	N	M	SD	t	df	p
CHILD'S AGE AT ADOPTION	384	11.01	3.94	69	10.92	3.80	-0.17	451	0.868
CHILD'S AGE AT ASAP ASSESSMENT	382	7.01	4.10	68	3.78	3.22	-6.16	448	<.001
PARENT'S AGE AT ASAP ASSESSMENT	361	45.96	10.01	67	47.33	9.37	1.05	426	0.297
TIME (YRS) FROM ADOPTION TO ASAP	379	4.05	3.57	67	7.14	4.25	6.33	444	<.001
BASELINE	N	M	SD	N	M	SD	t	df	p
BELONGING AND EMOTIONAL SECURITY TOOL - ADOPTION/GUARDIANSHIP (BEST-AG)									
BEST-AG	340	32.75	2.72	80	33.05	2.38	0.91	418	0.363
BEST-AG CLAIMING	340	85.66	9.84	80	86.31	9.29	0.54	418	0.589
BEST-AG EMOTIONAL SECURITY	340	52.90	7.86	80	53.26	7.52	0.37	418	0.715
BEHAVIORAL PROBLEM INDEX (BPI)									
BPI	347	28.74	10.06	82	28.61	9.09	-0.11	427	0.912
BPI - INTERNALIZING	347	20.69	7.37	82	20.62	6.49	-0.07	427	0.943
BPI - EXTERNALIZING	347	9.40	4.23	82	9.51	4.25	0.20	427	0.839
PARENT FEELINGS FORM (PFF)									
PFF	322	46.85	19.90	107	44.10	18.19	-1.26	427	0.207
POST INTERVENTION	N	M	SD	N	M	SD	t	df	p
BELONGING AND EMOTIONAL SECURITY TOOL - ADOPTION/GUARDIANSHIP (BEST-AG)									
BEST-AG	212	88.61	8.51	59	89.98	7.04	1.13	269	0.258
BEST-AG CLAIMING	212	55.32	7.05	59	56.19	6.01	1.68	269	0.094
BEST-AG EMOTIONAL SECURITY	212	33.29	2.16	59	33.8	1.61	0.86	269	0.392
BEHAVIORAL PROBLEM INDEX (BPI)									
BPI	213	23.68	9.81	61	22.66	10.55	-0.71	272	0.480
BPI - INTERNALIZING	213	17.28	7.09	61	16.31	7.35	-0.94	272	0.350
BPI - EXTERNALIZING	213	7.60	4.18	61	7.98	4.69	0.61	272	0.544
PARENT FEELINGS FORM (PFF)									
PFF	221	42.13	18.67	74	41.58	19.46	-0.22	293	0.83

Note: Orange cells represent a statistically significant difference at the .05 level

Chapter 10

CROSS-SITE EVALUATION

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Overview

The cross-site evaluation summarizes the overarching themes and analyses found across six QIC-AG sites: Vermont, Illinois, New Jersey, Catawba County (North Carolina), Wisconsin, and Tennessee. These sites tested six different interventions (see Table 10.1) that served families after adoption or guardianship finalization (Target Group 2). We did not include findings from Texas and the Winnebago Tribe of Nebraska in this evaluation because these sites focused on interventions serving families pre-permanence (Target Group 1). This cross-site evaluation is intended to be a summary chapter that is appended to individual site-specific reports rather than a stand-alone document. For background information regarding the QIC-AG project, please refer to the Program Background chapter. For site-specific information, please refer to individual site reports.

Table 10.1. QIC-AG Target Group 2 Sites and Interventions

SITE	INTERVENTION
VERMONT	Vermont Permanency Survey
ILLINOIS	Trauma Affect Regulation: Guide for Education & Therapy (TARGET)
NEW JERSEY	Tuning in to Teens (TINT)
CATAWBA COUNTY, NC	Reach for Success
WISCONSIN	Adoption and Guardianship Enhanced Support (AGES)
TENNESSEE	Neurosequential Model of Therapeutics (NMT)

As discussed in more detail below, individual site reports found trends suggesting that, in many sites, the interventions tested may have produced stronger effects if more time was available to observe families who had received the intervention. However, during the observation period, we did not find strong intervention effects on long-term child and family wellbeing outcomes. Regarding post permanency discontinuity, based on record reviews and an examination of administrative data in these sites, only a small number of children (approximately 1% of all children involved with the project from the intervention and comparison groups) reentered foster care during the project period, not enough to draw conclusions or inferences regarding post permanency discontinuity.

Distal, or long-term, outcomes of increased post permanency stability and improved wellbeing take time to observe, more time than what the project period covered. However, research has found proximal, or short-term, outcomes, such as caregiver commitment and child behavior challenges, are predictors of these distal outcomes. Proximal outcomes were observed during the study period and are examined in this chapter. This chapter also summarizes findings related to engagement in services; survey participation; service needs and use; outcomes; and suggestions for next steps. Where applicable and relevant, results across sites are combined. In other places, results are kept separate but compared due to similarities (e.g., results of population-based surveys in Vermont and Catawba County [NC] are combined).



Cross-Site Results

This section synthesizes findings and limitations related to recruitment, intervention participation, service needs, and outcomes for families whose adoption or guardianship was finalized through the public child welfare system. Findings from the private domestic and intercountry adoptive families engaged through the project are summarized in Appendix A.

Engagement with Adoptive and Guardianships Families

Not all child welfare jurisdictions consider outreach to families after legal finalization of adoption and guardianship as the responsibility of a child welfare system. Yet, families who have adopted or assumed guardianship of children, particularly children who have experienced trauma and maltreatment, report continuing to need support and services long after adoption or guardianship finalization (White et al., 2018). The QIC-AG project conducted a variety of outreach procedures and protocols to reach families. In some sites, a Universal approach was used where the site attempted to contact all families formed through adoption or guardianship in the jurisdiction. In other sites, a more targeted, purposeful outreach process occurred directed at families who had increased risk of post permanency discontinuity. In addition, some sites served families who self-referred or were referred for services.

This section examines engagement with the target population in each site. First, we examine families who were targeted because they had a characteristic that suggested they might be at increased risk for post permanency discontinuity (Selective prevention). We then explore engagement with families who were served in sites where families self-referred, or were referred, to a service provider (Indicated prevention). Finally, we examine service needs and usage, as reported on surveys administered to all adoptive or guardianship families (Universal prevention). A summary of engagement with families who adopted through private or intercountry processes is included in the Appendix.

SERVICE ENGAGEMENT FOR SELECTIVE PREVENTION SITES

In Illinois and New Jersey, the QIC-AG project targeted adoptive and guardianship families who had characteristics that, based on extant research, suggested they may be at increased risk for post permanency discontinuity. The primary group characteristic in these two sites was that the families had children who were pre-teens or teens. The different research designs and interventions being offered concurrently in each site make direct comparisons difficult and is the reason Cook County is excluded from the summary below. However, the Central Region of Illinois site and New Jersey used the same research design, and had similar rates of contact and participation:

- In the Central Region of Illinois, of the 557 families assigned to the intervention group, staff were able to successfully make contact with 53% of families, and ultimately 12% of those families targeted for outreach participated in the intervention.
- In New Jersey, of the 769 families assigned to the intervention group, staff were able to successfully make contact with 57% of families, and ultimately 12% of those families targeted for outreach participated in the intervention.

CENTRAL REGION, IL



NEW JERSEY



In both sites, a variety of outreach methods were used to make contact with families and increase uptake. For example, at the suggestion of the stakeholders in Illinois, the project staff made additional follow-up calls to families who initially said they wanted to participate in the project but later declined. Concerned that outreach materials sent through the mail might be overlooked, staff also redesigned outreach letters several times, including addressing envelopes with different colored ink and reformatting a letter so it looked similar to one sent from another site. These additional efforts did not increase uptake. In New Jersey, approximately two weeks before a session started, staff added a phone call to their recruitment process asking families who had registered what they would like for dinner. Dubbed the “turkey sandwich call,” the purpose was to increase follow-through for registered families and to provide the team with a more accurate accounting of who intended to participate. The “turkey sandwich call” did not increase attendance rates. However, it did provide an opportunity for families to inform staff that they were not going to attend, resulting in a more accurate number of expected participants.

Due to the relatively low proportion of families who participated in the interventions, the research team sought to understand differences between families who participated in the interventions and families who did not. To accomplish this, in Illinois and New Jersey a short questionnaire was sent to families prior to the initial outreach (before services were offered). This questionnaire asked parents and guardians about their relationship with their child (e.g., How confident are you that you can meet your child’s needs? How often have you or your significant other struggled to effectively manage your child’s behavior in the last 30 days?). The data were then analyzed, comparing the responses of intervention participants with those of families who did not participate in the intervention. This analysis found that families who engaged in services profiled as struggling more than families who did not engage in services. Specifically, compared to families who did not participate in services, families who engaged in services were, on average:

- Less confident that they could meet the needs of their child
- More likely to struggle to effectively manage their child’s behavior
- More likely to struggle to appropriately respond to their child

In other words, families who engaged in services reported that they were struggling more than families who did not engage in services. In one of the Illinois sites it was reported that over half of the intervention participants went on to receive services-as-usual after receiving intervention services (TARGET). This suggests that families were needing services, but perhaps the specific intervention offered was not the right fit, or perhaps it was needed in conjunction with other types of services.

Another important note regarding engagement is that most adoptive and guardianship families did not engage in services. Therefore, child welfare systems can rest assured that if they provide post permanency services, only a proportionally small number of families will accept those services. In addition, there are certain characteristics (described in the bullets above), that may indicate families who are willing to engage in services. Future sites may want to consider conducting targeted prevention outreach to families who express the characteristics described in the bullet points above.

SERVICE ENGAGEMENT FOR INDICATED PREVENTION SITES

CATAWBA COUNTY (NC)



In Catawba County, the working hypothesis was that there were families in need of post adoption services who either did not know about the services or were unable to access the services. During the project period, 240 families in Catawba County were sent surveys. Of those 240 families, 53% (128) completed and returned surveys. Of the 128 families who returned surveys, 94 were designated for outreach. Of the 94 families designated for outreach, 41% (39) parents

were subsequently successfully contacted by Catawba County staff to assess their interest in Success Coach services. A total of 3 families signed service agreements and participated in Success Coach services. Families who were contacted through outreach but declined services largely reported they did not need extra support.

In Wisconsin, at the Indicated level of prevention where services were provided to families who reached out to a contact point, there was some concern about announcing the project widely to families. In what was referred to as “the floodgates opening,” the Wisconsin project staff worried they would be overwhelmed with requests for services and might not be able to serve all of the families. This concern was based on the interactions staff had with adoptive and guardianship families in the past and the difficulties the families had conveyed, and a feeling that many adoptive and guardianship families would engage in services. The program initially relied on referrals to AGES after families contacted one of the points of entry. This did not yield the number of program participants that the project expected. As a result, the agency sent letters to eligible families alerting them of the AGES program. At no point in the program did staff feel that they were flooded with requests for services.

Survey Response Rates

Surveys were sent to families in Vermont, Catawba County (NC), Illinois and New Jersey¹. In Vermont, the survey could be completed electronically or by pen and paper. In all the other sites, the surveys were pen and paper only. In Catawba, Illinois, and New Jersey a pre-paid cash incentive was also included. A variety of methods were used to encourage participants to return the surveys: sites sent emails, made phone calls, and followed up with non-responders in a series of assertive outreach efforts. The sites also engaged a look-up service to acquire the most recent contact information for families. Surveys were sent to adoptive parents and guardians who were asked to respond to the survey focusing on one target child per family. Surveys assessed caregiver’s experiences related to adoption or guardianship (for example, respondents completed standardized measures, such as the Caregiver Strain scale, the Behavior Problem Index, and questions related to caregiver commitment, familial relationships, and service needs and use).

- In Vermont, 1,470 families were sent surveys and 809 (55%) responded.

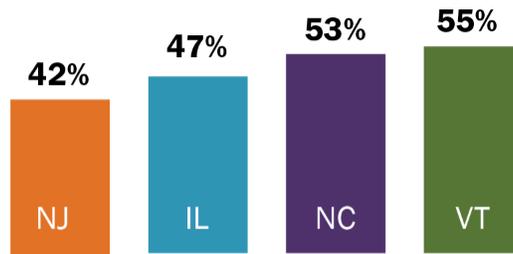
¹ The survey responses from Illinois and New Jersey discussed in this section are from the primary outcome surveys only.

In Catawba County (NC), surveys were mailed to families, with follow-up calls and mailings after the initial survey was sent. In Catawba, the survey was sent by the county agency, and contact information was the latest information the county had for families currently receiving an adoption subsidy.

- In Catawba County, 240 families were sent surveys and 128 (53%) responded.

In Illinois and New Jersey, surveys were also mailed to families, with follow-up calls and mailings after the initial survey was sent. The surveys were sent by a university-based research center based in Illinois. Prior to making contact, the research team used a look-up service to obtain the most recent contact information for families. The surveys in Illinois and New Jersey were used to collect short-term outcome data and were sent to all families assigned to the intervention and comparison groups after participants had completed the intervention. As such, response rates for intervention participants and comparison groups are also provided.

- In Illinois, 2,731 families were sent surveys and 1,293 (47%) responded.
 - Intervention participants: 105 were sent surveys, 81 (77%) responded
 - Comparison group: 596 were sent surveys, 327 (55%) responded
- In New Jersey, 1,212 families were sent surveys and 514 (42%) responded.
 - Intervention participants: 94 were sent surveys, 62 (66%) responded
 - Comparison group: 443 were sent surveys, 187 (42%) responded



Overall Response Rates

In sum, after all the various attempts to reach families who have adopted or assumed guardianship of children in foster care were completed, about half of all surveyed responded. Future projects intended to reach adoptive or guardianship families should take this into consideration. The variation in overall response rates (from 42% in New Jersey to 55% in Vermont) may be related to several factors that have nothing to do with the family's desire to provide information. For instance, it could be that families in New Jersey were hesitant to respond to a survey that came from a university that was out of state, or that there were unmeasured characteristics about families from one state or another that influenced the response rates.

The somewhat higher response rate from families in Catawba may be related to the resource-rich nature of service provision in that county (many families identified as being in need of service through the survey were already engaged in services and did not accept Success Coach services), or the state mandate to provide post adoption services. The higher overall response rate in Vermont could be related to the extra effort and assertive outreach provided by that site. Thus, differences in response rates across sites could have something to do with the specific site itself, as the jurisdictions in the QIC-AG varied widely in terms of urban-rural settings and the prior experiences families have engaging with the agency.

Finally, response rate variation may be due to the nature of the target populations in each area. Vermont and Catawba County reached out to all families, while Illinois and New Jersey focused in on families who, research suggested, had characteristics that placed them at increased risk for post permanency discontinuity. Future research should explore these differences.

SERVICE ENGAGEMENT SUMMARY

Across multiple sites, there were similar concerns that services offered post permanence would open the “floodgates” with families clamoring for services and overwhelming the public child welfare system and staff with increased demand. This was not the case in the QIC-AG sites. Other child welfare jurisdictions and other projects may run into difficulty estimating how many families to expect to serve when offering post permanency services and supports. One difficulty in estimating potential service uptake with families formed through adoption or guardianship is that many child welfare jurisdictions do not have a long history of engaging families in post permanency services. In addition, to understand how frequently services are requested by adoptive and guardianship families, a good tracking system, one that is linked to child welfare administrative data systems, is lacking in most jurisdictions. Linking to administrative data would allow systems to understand the percentage of families who seek services. Our best estimates come from Illinois and New Jersey. Findings from these two sites would suggest that if service providers estimate a 12% uptake rate (both sites saw 12% of families engage in services), they should be adequately staffed to serve the families who engage in services.

Service Needs and Use

Service needs and use described in this section are summarized from the following sources:

- Surveys from Vermont and Catawba County (NC)
- Interviews with families in Wisconsin
- Surveys from New Jersey and Illinois

SURVEYS IN VERMONT AND CATAWBA COUNTY (NC)

Two QIC-AG sites, Vermont and Catawba County (NC), implemented surveys with questions that assessed post adoption service needs and use. By examining the results of these survey questions across the two sites (Tables 10.2 and 10.3), one conclusion is that the most needed and used services were those related to mental health support. In particular, individual counseling for children was a need for a significant proportion of families (e.g., almost 50% in Vermont). Thus, post permanency services should be designed to support the mental health needs of children and families.

Families in Vermont also reported high use of routine medical care (79%). Families used a wide variety of post adoption services, but service usage rates across all types of services were less than 50%. Indeed, some services received very little use. For instance, no respondents in Catawba reported using respite care or adoption support groups since their adoption was finalized. However, it is important to note that these survey results were based on populations in the state of Vermont and one county in North Carolina, and thus, they may not generalize to other locations or cultures.

Table 10.2. Vermont Service Use in Past 6 Months

OF THE 796 FAMILIES SURVEYED IN VERMONT:	NUMBER OF FAMILIES WHO USED SERVICES IN THE PAST 6 MONTHS	PERCENT OF FAMILIES WHO USED SERVICES IN THE PAST 6 MONTHS
FAMILY SUPPORT SERVICES		
FAMILY COUNSELING	213	27%
CASE MANAGEMENT SERVICE COORDINATION	99	12%
DCF SOCIAL WORK SERVICES	85	11%
SCHOOL/CHILD CARE SERVICES		
REGULAR CHILD CARE SERVICES	178	22%
AFTERSCHOOL PROGRAM	159	20%
SCHOOL-BASED CLINICIAN	152	19%
BEHAVIOR SUPPORT SERVICES	139	18%
MEDICAL SERVICES FOR CHILD		
ROUTINE MEDICAL CARE	626	79%
MEDICATION MANAGEMENT	199	25%
SPEECH OR OCCUPATIONAL THERAPY	124	16%
MENTAL HEALTH SERVICES		
INDIVIDUAL COUNSELING FOR CHILD	336	42%
INDIVIDUAL COUNSELING FOR CAREGIVER	177	22%
PSYCHOLOGICAL ASSESSMENT FOR CHILD	129	16%
PSYCHIATRIC MEDICATION FOR CHILD	126	16%
CARE COORDINATION/CASE MANAGEMENT FOR CHILD	78	10%

Table 10.3. Catawba County (NC) Service Needs and Use after Adoption Finalization

SERVICES MOST FAMILIES REPORTED NEEDING	% OF FAMILIES WHO RESPONDED TO SURVEY AND REPORTED THAT THEY NEEDED	OF THOSE FAMILIES THAT TRIED TO OBTAIN, % THAT WERE SUCCESSFUL	OF THOSE FAMILIES THAT OBTAINED SERVICES, % THAT WERE “EXTREMELY” OR “QUITE” HAPPY WITH THE SERVICES
MENTAL HEALTH SERVICES	35%	97%	74%
SPECIALIZED MEDICAL OR DENTAL CARE SERVICES	27%	89%	80%
EDUCATIONAL SUPPORT SERVICES	24%	83%	71%
CHILD DEVELOPMENTAL SERVICES	23%	100%	68%

SUMMARY OF SERVICE NEEDS FROM WISCONSIN, ILLINOIS AND NEW JERSEY

Adoptive parents and guardians reported that they do not always feel that the child welfare system provides them with support after finalization. They suggested periodic outreach by the agency to ensure families are aware of the services available to them, and to inform them of 'warning signs' of what to expect when parenting a child who has experienced trauma and loss:

"DCF was very involved, while we were working up to the adoption...once it was final...they disappeared! A lot of adoptive parents feel...once we sign the papers...we're crossed off a list. No calls. No help. Nothing!"

"Once I gained legal guardianship it seemed as though all resources disappeared."

"Finding available psychiatric care for [our adopted daughter] was very difficult...But once we found it, it made a world of a difference for her. Please try to find a way to make these services more accessible for these kids."

"I have been advocating for both of my boys for 18 years. I have never heard or been exposed to [agency name] counselors. Why? Based on your questions, this is a resource available for school-age children...Why isn't this a routine survey that could be issued yearly to address needs and recommend resources for families?"

"I wish I had been warned of signs to look for so maybe I would've gotten help for my child sooner. I also wish I knew who would provide mental health/counseling services for DCFS adopted kids."

In interviews with the research team, adoptive parents and guardians in Wisconsin reported difficulty in accessing services prior to their AGES involvement. Prior to AGES, many families had searched for appropriate services and supports, often for many years. Adoptive parents and guardians said that they needed support earlier and wished that services were available when they first started to struggle. The participants repeatedly stated that services and resources provided earlier in the adoption and guardianship process might prevent (or could have prevented) problems. They also reported that finding appropriate, timely, and effective adoption and guardianship-competent services was difficult. Some examples of the issues in Wisconsin:

"I couldn't get help because [my adopted son's issues are] not bad enough...Why should he have to get so bad and then we have to take years to get him back, where if I had that help literally you know when I started seeing stuff when he was two or three I think we'd be seeing a different ten-and-a-half year old."

"I mean, [the AGES worker] literally saved our family. Which was great because I don't know that I could've gotten my point across without her putting it in another perspective for the principal and the guidance counselor. She also has trauma information. She knows how to go about talking to the school about the things that could come up because of their trauma. For whatever reasons, they're less likely to just listen to you but somehow [the AGES worker] legitimizes our issues."

Families reported the need for service providers with direct experience working with families formed through adoption and guardianship, as in this example:

"If they [service providers] don't have any experience in adoption, they just don't get it...The trauma that babies from other countries can experience after one day of abandonment is

tremendous...Finding somebody that can understand that adoptive piece of the puzzle and understands children is difficult.”

The QIC-AG project tested a wide variety of outreach activities and types of outreach, but the proportion of families who engaged in services did not overwhelm the service providers. This is good news, suggesting that not all families need services and supports in addition to what they are currently receiving. In fact, what families told us about their adoption and guardianship experiences confirms this:

“We have experienced difficulties we had not anticipated because of the severe amount of childhood trauma and neglect our son went through. We are extremely lucky to have found a therapist who specializes in his diagnosis. She has worked wonders with him and has been a tremendous support and resource for us: both at home and how to work with the schools and daycare. Our post permanency worker is also another asset that we could not live without. She has lived through the same type of situation we have, and her knowledge, compassion, and understanding are extremely helpful and supportive. She has provided a ton of resources we would not have known about.”

“My experience in guardianship with this child has been positive and the way I expected from the beginning. Raising a child is not an easy task, but I am sure it was the right choice. We are family.”

“I am grateful to the adoption agency for taking care of making sure my adoption experience was great and also for making sure my nephew stayed with family.”

“Before you adopt, make sure you have everything you need as far as services for your child. My case manager made sure all his services were in place before the adoption and it was put into the adoption. So, I get whatever I need to help him get the help he needs.”

SERVICE NEEDS AND USE SUMMARY

In sum, most families were doing well with the supports and services they currently have in place. However, they also suggested that the child welfare system may want to focus on making a wider variety of post permanency services available and accessible. Even in locations where services are provided, families reported not knowing how to access the services. If they did access services, they reported that the services were not always appropriate, timely, or helpful. Parents and guardians suggested that effective adoption and guardianship-competent services are needed. Specifically, they reported being told by service providers that what they were experiencing was ‘not that bad’, was ‘typical of youth that age’, or that they just needed to ‘try harder’. However, when a professional advocated for them, it legitimized their experiences, resulting in better services for their family. Parents and guardians suggested that service providers, including school personnel, need to be better informed about the problems faced by children and youth in adoptive and guardianship families. Service providers need to be trauma-informed and familiar with issues related to families formed through adoption and guardianship.

Outcomes

Distal (long-term) project outcomes were: increased post permanency stability, improved behavioral health for children, and improved child and family wellbeing. As detailed in the site-specific reports, sites did not have enough time to see the effects of the intervention. This is a common quandary for intervention research, where follow-up periods in research studies can be insufficient. The QIC-AG Permanency Continuum highlights the importance of prevention, but long-term, complex behaviors (e.g., child externalizing behaviors) are hard to address in a single intervention and over a relatively short period. As many participants in this study reported, having continuous, long-term supports and services are important. Coupled with lessons learned in other sites, each site has a firmer foundation for understanding the experiences, characteristics, needs, and strengths of families who have experienced adoption or guardianship. While this report provides a rich set of information learned in each site, a few key messages or lessons from each site are highlighted below. This is not a comprehensive list, rather highlights of key findings by site. Additional details are provided in the site-specific reports.

- In Vermont, the project was able to provide a robust assessment of the needs, characteristics, and strengths of families formed through adoption and guardianship. The Vermont site developed an understanding of families who are struggling and those who seem to be doing well. Caregivers who would definitely adopt or assume guardianship of their child again had higher levels of resilience, open communication, perseverance in times of crisis, and more positive parent-child interaction compared to caregivers who indicated they were uncertain or definitely would not adopt or assume guardianship again. The “definitely adopt or assume guardianship again” group had less strain attributed to parenting their child and more confidence in knowing how to meet their child’s needs. Additionally, they felt more prepared at the time of their child’s finalization and used fewer services in the past six months than those who expressed hesitancy to adopt or assume guardianship again.
- In Illinois, intervention participants were struggling more than families who did not participate in the intervention. Yet, this study did not find that TARGET participants fared better than children in the comparison group on the outcomes measured (e.g., child behavioral issues and wellbeing measures). It is possible that no intervention effects were observed due to the limited observation window of about 6 months post intervention. With additional time, perhaps differences between the intervention participants and families assigned to the comparison group will emerge. It is also possible that families in Illinois needed something different than TARGET. Additional research is needed to develop next steps in Illinois.
- In New Jersey, no statistically significant differences were found between the TINT intervention participants and the overall comparison group and between the TINT participants and a sample of the matched comparison group on the key measures of child and family wellbeing. However, promising trends suggest that with additional time, statistically significant differences may emerge. Specifically, caregivers who participated in the intervention tended to feel better able to manage their child’s behavior, which is a key factor related to post permanency stability and family wellbeing. An extended observation period in New Jersey would enhance our understanding of these issues.
- In Wisconsin, parents and guardians reported that service providers often did not listen to them or believe how bad it could be at home. Results indicated that families felt supported when the AGES workers made home visits, listened to families’ concerns, and provided support and advocacy with other service providers or systems. The AGES workers were

flexible, which was critical to supporting families in need. The workers served as family advocates, amplifying the family's voice so that professionals would both listen and hear. Bringing AGES to scale, with a larger number of families and longer observation period would be a good next step.

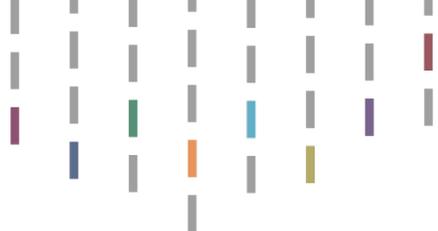
- In Catawba County (NC), families who needed post adoption services and supports were largely already engaged in services through the existing outreach methods and service delivery systems. Few additional families requested Success Coach services as a result of Reach for Success. However, through the outreach survey sent to adoptive families, a profile of family characteristics, services sought and received, and responses to key measures related to post adoption stability provided valuable information to the child welfare agency to design future post adoption and guardianship interventions and supports.
- In Tennessee, compared to neuro-typical children their age, children and youth who participated in the intervention saw an increase, over baseline, of their functioning on key domains measured through the NMT Metrics. Importantly, a decrease in BPI scores from pretest to posttest, stronger for the intervention group compared to the comparison group, was observed. Trends found in this study are promising, but more research using a larger sample and a longer observation window is needed. Post adoption services should be designed to help children and families cope with prior experiences of trauma and placement instability.

Based on record reviews and an examination of administrative data in these sites, only a small number of children reentered foster care during the project period. Specifically, approximately 1% of all children involved with the project (from the intervention and comparison groups) reentered foster care during the project period. This is not enough to draw conclusions or inferences regarding the outcome of post permanency discontinuity.

Limitations

The interventions tested in the QIC-AG sites varied in several ways that preclude the use of a uniform multi-site design. First, the interventions selected in different sites had varying levels of evidence-support. Thus, a variety of evaluation designs were used, based on how well-supported the intervention was, results of usability testing, and the number of study participants. For example, some sites used an experimental design, yet the randomization methods varied (i.e., a traditional Randomized Control Trial or a randomized consent design [Zelen, 1979, 1990]). In other sites, a quasi-experimental design was used, and some sites used descriptive analyses. Furthermore, each site tested a different intervention, and thus, had different definitions for subject inclusion, different short-term outcomes, and a variety of external conditions that impacted implementation.

Another cross-site limitation is that previous research suggests the primary long-term outcome of interest (post-permanence stability) in the QIC-AG research study requires an extended observation period. For example, as noted above, research from Illinois has found that approximately 2% of adoptions or guardianships have experienced instability two years after finalization; 6% after five years; and 12% ten years after achieving legal permanence (Rolock & White, 2016). This is problematic for effective evaluations that have a shorter follow-up period. Given the low rate of instability and short window for follow-up, the evaluation focused on more proximal indicators that are predictive of long-term permanency outcomes (e.g., BPI scores and caregiver commitment scale). However, even the ability to observe a significant change in the relatively short follow-up period was limited.



Examining Post Permanency Discontinuity

The QIC-AG was designed to promote permanence when reunification is no longer a goal and improve adoption and guardianship preservation and support. Promoting permanence often requires the examination of factors that would jeopardize that goal and might lead to discontinuity. This section examined mechanisms for assessing risk for post permanency discontinuity, using existing administrative data and through the collection of primary data (e.g., surveys or questionnaires). Post permanency discontinuity, defined as foster care reentry after an adoption or guardianship finalization, was examined using data from four sites (Vermont, New Jersey, Tennessee, and Illinois). These data were not available from Catawba County or Wisconsin. Several Multivariate Cox survival models were estimated with administrative data to examine predictors of time-to-foster care reentry.

Separate models were run for each state and one with all four sites combined. Children were tracked using administrative data starting in the year 2000 and then ending in years 2015, 2016, or 2017 (depending on data available for each state), and the dependent variable was the time-to-reentry, with several predictor variables included in models. Multivariate Cox regression is a useful statistical model to examine the impact that several predictors have on a time-to-event outcome, such as post permanency discontinuity, while also accounting for information provided by censored cases or those cases that do not experience post permanency discontinuity by the end of the study period (Guo & Fraser 2010).

Prior research found strong evidence for using two predictors of post permanency discontinuity: 1) the caregiver's assessment of the child problem behaviors using the Behavior Problem Index (BPI); and 2) caregiver commitment to the adoption or guardianship, e.g., a caregiver's self-report of the frequency with which they think of ending the permanency relationship (Testa, Snyder, Wu, Rolock, & Liao, 2015). Based on these findings, the evaluation team used these and other measures and constructs from prior studies, conducted with families formed through adoption and guardianship, in the site-specific evaluations.

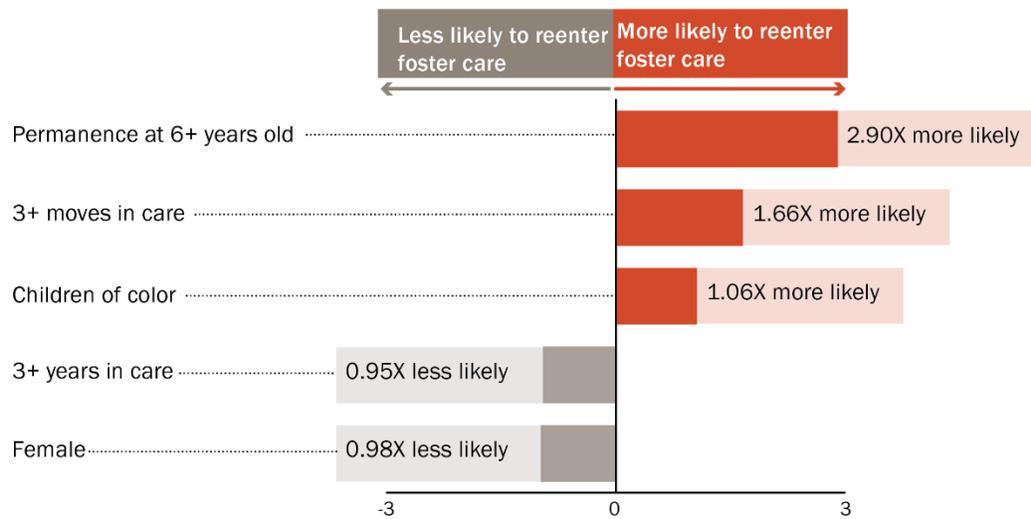
In sites that used BPI and caregiver commitment measures, families were compared across the continuum to see if there were differences in the families targeted for outreach. Specifically, it was hypothesized that families targeted for outreach at the Universal level would, on average, have low-risk scores on the key measures. In contrast, families targeted for outreach at the Selective or Intensive intervals would be expected to exhibit higher risk scores, and those where the intervention was at the Intensive level would have the highest risk scores (because Intensive interventions are designed to support those who have the highest needs).

Post Permanency Discontinuity

In this section, available administrative data was used to help understand what characteristics, known at the time of adoption or guardianship finalization, were associated with post permanency discontinuity. Prior research has established that the following experiences of children while in foster care were helpful in understanding who was most at risk for post permanency discontinuity: a child’s age at the time of adoption or guardianship, the number of moves the child had in foster care prior to adoption or guardianship, and the length of time the child spent in foster care prior to permanence (Rolock, & White, 2016; Rolock, & White, 2017; White, 2016; White et al., 2018). Using data from Vermont, New Jersey, Tennessee, and Illinois, we ran multivariate survival analyses to examine these relationships. Detailed results by state are in the Appendix (Table 10.6) and summarized in Figure 10.1. In sum, this analysis found that:

- Children aged six or older at the time of finalization were 2.9 times more likely to reenter foster care compared to children whose adoption or guardianship was finalized prior to the age of six.
- Children who had three or more moves in foster care were 66% more likely to reenter foster care, compared to children who had less than three moves while in foster care.
- Children of color (compared to White children) were 6% more likely to reenter foster care.

Figure 10.1. Characteristics of Children Most Likely to Reenter Foster Care after Adoption or Guardianship



Note: The graph above shows hazard ratios. They are plotted on a logarithmic scale for ease of interpretation. Hazard ratios less than 1.0 represent decreased odds relative to the comparison group, while values greater than 1.0 represent increased odds relative to the comparison group. In this graph, for instance, the strongest predictor of foster care reentry after adoption of guardianship is the child’s age at the time of permanence. The interpretation is: children aged six or older at the time of finalization are 2.9 times more likely to reenter foster care, compared to children whose adoption or guardianship is finalized prior to the age of six.

These findings largely support by prior research in that the age of the child at the time of finalization and the experience of instability while in foster care are strong predictors of post permanency discontinuity.

Analysis Along the Prevention Continuum

The QIC-AG developed the *QIC-AG Permanency Continuum of Service* to guide its work with the different sites (described in Chapter 1, Figure 1.3). The Continuum serves as an organizing framework that helps guide child welfare systems in moving children to adoption or guardianship while supporting families to maintain stability and wellbeing after adoption or guardianship has been achieved. The analysis in this section focuses on the post permanency portion of the Continuum where prevention services were offered.

Based on previous research that established associations between caregiver commitment and caregiver assessment of child behavior difficulties to post permanency discontinuity, the QIC-AG evaluation team examined these constructs across different sites. Prior research suggests these constructs are proximal outcomes associated with post permanency discontinuity. The QIC-AG targeted different groups of families formed through adoption or guardianship along the QIC-AG continuum based on the level of risk for post permanency discontinuity, theorizing that as the average risk for post permanency discontinuity increased, so would the intensity of the intervention needed. The purpose of the following analysis is to provide a preliminary test of possible screening questions that could be used to identify families who may be at risk of experiencing post permanency discontinuity.

In their QIC-AG survey responses and through initial assessments, families responded to questions and completed measures related to child and family wellbeing and behavioral health. This analysis asks the question: do family responses provide us with information that helps us differentiate between families at risk for post permanency discontinuity and those who are unlikely to experience discontinuity? Some caveats about the data analyses presented below:

- For this section of the report, Vermont and Catawba County (NC) are classified as Universal outreach. Although the Catawba intervention (Reach for Success) was an Indicated intervention, the initial survey sent to all adoptive families in the county who had not been previously engaged in post adoption services was a Universal outreach effort. This section grouped Vermont and Catawba results to examine Universal outreach data.
- For the analysis of data from Illinois and New Jersey, intervention participants were removed because we did not want to confound these findings with the effect of the intervention. In other words, for this section we are analyzing the characteristics of families identified in the Selective interval, not describing the impact of the intervention.
- In Wisconsin data were collected at **intake**, prior to participation in the intervention. This baseline data was used to understand the profile of families who indicate that they may be having some difficulty, and to compare their outcomes to families who responded to surveys in the other sites.
- The number of respondents varied by site. There is greater confidence in the results of sites where there are more respondents. In particular, caution should be exercised in the interpretation of the Wisconsin findings, given the lower number of respondents and the wide variety of types of adoptions or guardianships served in that site (please see the Wisconsin report for additional information).
- Not all sites collected the same information; therefore, some sites will not be represented in the graphs showing site-specific results.

Table 10.4. Number of Survey Respondents by Site, by Measure

MEASURES	PREVENTION: UNIVERSAL		PREVENTION: SELECTIVE		PREVENTION: INDICATED
	VT	NC	IL	NJ	WI
BPI	722	122	1,186	449	71
STRAIN	802	128	1,173	450	71
BEST-AG	N/A	126	1,209	448	71

The analysis in this section that shows data across sites does not compare how well each site did, or the outcomes for each site. Rather this analysis is intended to show how at-risk the population was in each site before contact with child welfare agencies. For example, it would be expected that participants in Wisconsin would have worse scores on scales of wellbeing at the point of contact because Wisconsin was an indicated site, and it would be expected that Catawba County would have better scores on scales of wellbeing at the point of contact because the Catawba County survey was a universal intervention.

Behavioral Problem Index (BPI)

The overall hypothesis was that the higher the sites were along the continuum from Universal to Intensive levels of intervention, the overall BPI scores would increase, suggesting more difficult child behaviors. For example, Universal sites (Vermont and Catawba County [NC]²) gathered BPI scores for all children and youth adopted, and Vermont also included youth placed into guardianship (North Carolina did not have a guardianship assistance program until 2017; guardianship cases were not included in the Catawba study). It would be reasonable to assume that average BPI scores would be lower in these sites than BPI scores in the indicated site (Wisconsin) where the scores were gathered for children who were at higher risk for post permanency discontinuity. As shown in Figure 10.2, that trend did not hold true for all of the QIC-AG sites. Specifically, results from Vermont did not follow the expected trend.

While the average score in Vermont was lower than the scores of families who were at the Indicated level (Wisconsin), they were higher than the scores of respondents in the Selective prevention sites (Illinois and New Jersey). Aside from Vermont, the mean BPI scores in the remainder of the sites followed the expected pattern. An important message to note from this analysis is that, while BPI scores may be helpful in identifying families in need of additional support and services, having a high BPI score is not in and of itself an indicator that a family is at

² Note that the overall intervention in Catawba County (NC) was at the indicated level. The Universal component was the fact that the project surveyed all adoptive families in the county who had not engaged with Success Coach services.

risk. For example, Testa, et al., (2015) found that the relationship between elevated BPI scores and post permanency discontinuity was mediated by the level of caregiver commitment. Familial relationships are a complex and nuanced area that needs further understanding, particularly for families formed through adoption or guardianship.

Figure 10.2. Overall Behavioral Problem Index (BPI) Scores by Site

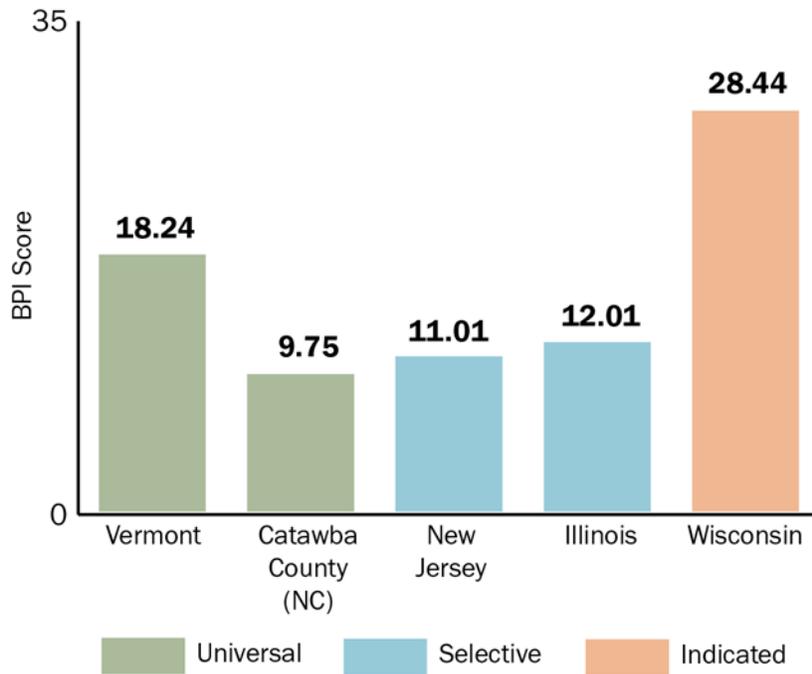


Figure 10.2 note: It should be noted that we expect to see higher levels of behavior problems in the site that is serving families who reach out to request services (Wisconsin) than in sites where the project reached out to families (Vermont, Catawba, New Jersey and Illinois.) Families in Wisconsin are experiencing difficulties that result in them being in contact with a service provider, and thus, these two sites were serving families that were at higher risk for post permanency difficulties than families in the other QIC-AG sites.

Caregiver Strain

Similar to the hypothesis for BPI, the hypothesis regarding Caregiver Strain was that as sites were placed higher along the continuum, the overall Strain scores would also increase, suggesting more caregiver strain. With the exception of Wisconsin, similar mean scores were observed in most sites (Figure 10.3) that collected this information. However, the Wisconsin mean was based on only 71 children, and the other sites had between 1,173 respondents in Illinois and 128 in Catawba County. In addition, there was less overall variation in this measure than others, such as the BPI, because the total score was an average of individual scores on questions.

Figure 10.3. Mean Caregiver Strain Scores by Site

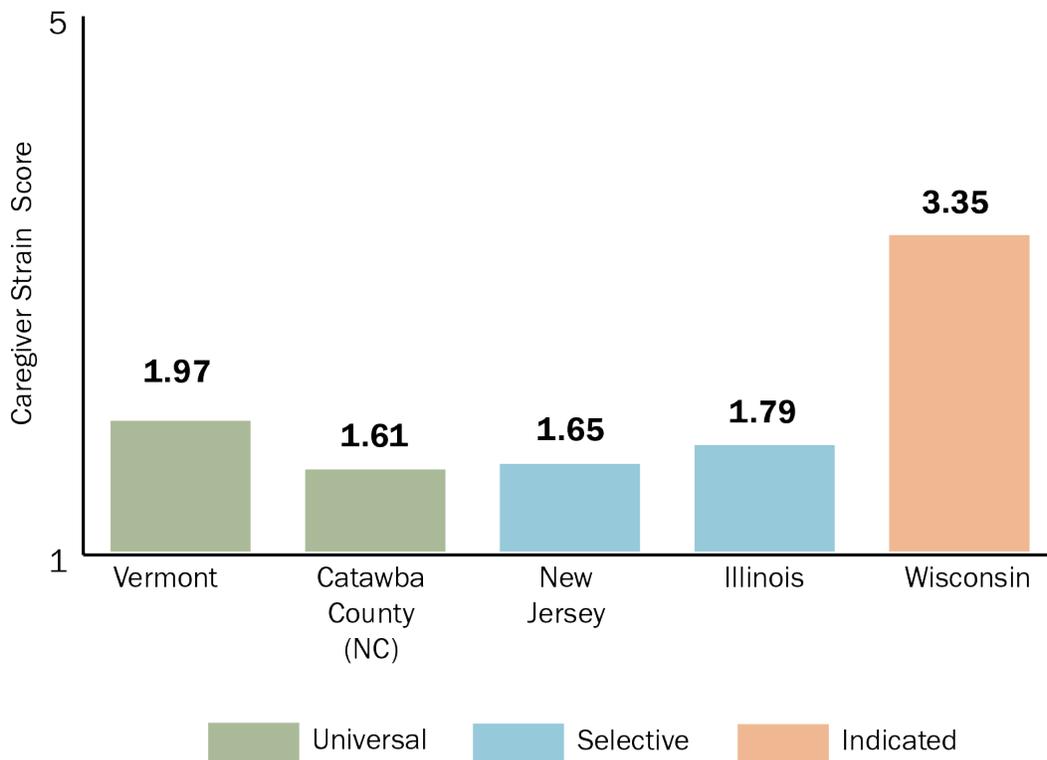


Figure 10.3 note: It should be noted that we expect to see higher levels of caregiver strain in the site that is serving families who reach out to request assistance (Wisconsin) than in sites where the project reached out to families (Vermont, Catawba, New Jersey and Illinois.) Families in Wisconsin are experiencing difficulties that result in them being in contact with a service provider, and thus, this site was serving families that were at higher risk for post permanency difficulties than families in the other QIC-AG sites.

Belonging and Emotional Security Tool – Adoption and Guardianship (BEST-AG)

The hypothesis associated with the BEST-AG was the opposite of the prior two measures. We hypothesized that as sites were placed higher along the QIC-AG Permanency Continuum, there would be a decrease in the level of belonging and emotional security that the caregiver had for the child or youth. Results (Figure 10.4) found similar mean scores in Catawba County (NC) (Universal), Illinois and New Jersey (Selective). The average BEST-AG scores in Wisconsin were lower; this site was also where families made contact with the system, rather than the project proactively reaching out to the family. In other words, the families in Wisconsin were experiencing some level of difficulty that resulted in their contact with the project.

Figure 10.4. Overall Belonging and Emotional Security Tool – Adoption and Guardianship (BEST-AG) Scores by Site

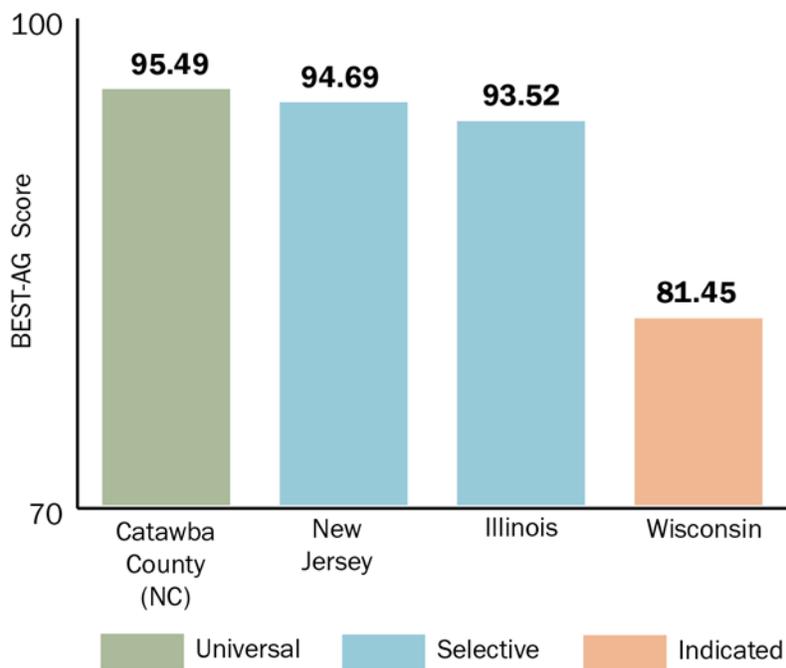


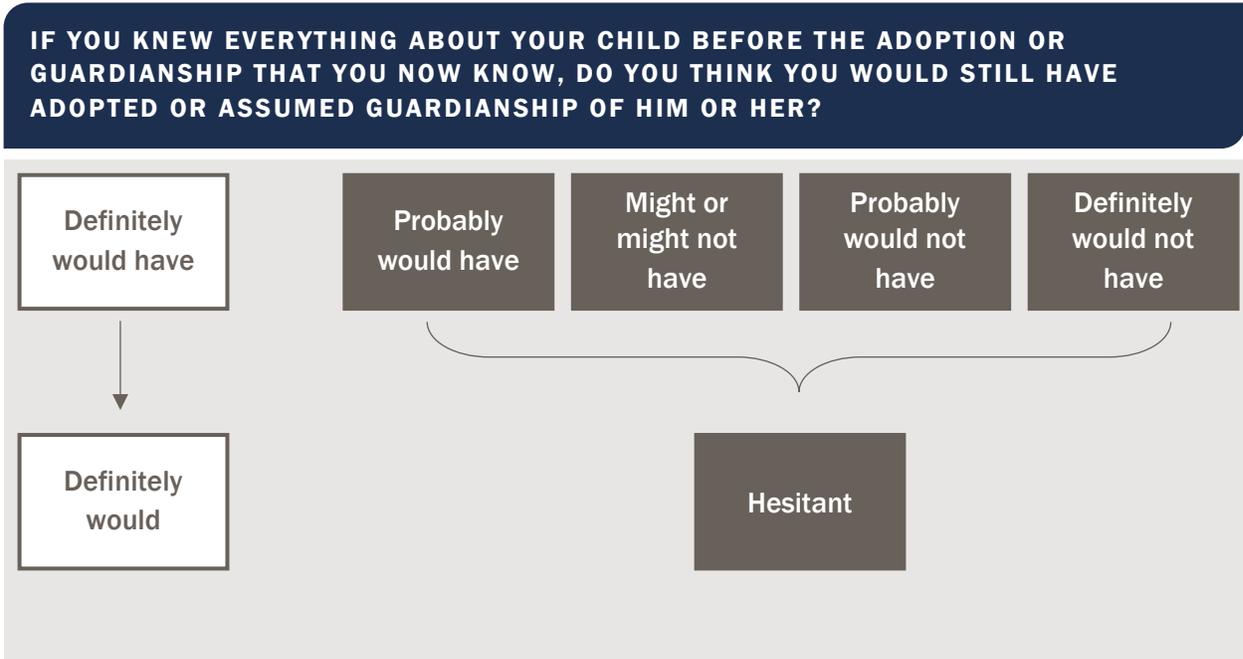
Figure 10.4 note: It should be noted that we expect to see lower levels of belonging and emotional security in the site that is serving families who reach out to request services (Wisconsin) than in sites where the project reached out to families (Vermont, Catawba, New Jersey and Illinois.) Families in Wisconsin are experiencing difficulties that result in them being in contact with a service provider, and thus, this site was serving families that were at higher risk for post permanency difficulties than families in the other QIC-AG sites.

Impact of Caregiver Commitment on Key Measures

Caregiver commitment is the extent to which adoptive parents or guardians intend to maintain children in their homes and provide long-term care for them, no matter what challenges, stressors, or negative behaviors may occur (Liao & Testa, 2016; White, Rolock, Testa, Ringeisen, Childs, Johnson, & Diamant-Wilson, 2018). Previous research studies have conceptualized caregiver commitment in two ways. First, caregiver commitment has been examined as a potential indicator, or predictor, of other long-term post permanency outcomes of interest, such as placement instability (Mariscal, Akin, Lieberman, & Washington, 2015; White et al., 2018). Second, caregiver commitment has been investigated as an intermediate or “proximal” adoption or guardianship outcome that results from the characteristics, relationships, and actions of children, caregivers, family members, social supports, and service systems (Nalavany, Ryan, Howard, & Smith, 2008; White, 2016; White et al., 2018). For example, researchers have examined how negative child behaviors, child-caregiver kinship, and even the availability of services may be associated with caregiver commitment to adoptions and guardianships (Mariscal et al., 2015; Rolock & Pérez, 2015; Testa et al., 2015; White et al., 2018).

The relationships between caregiver commitment and other post permanency variables, such as placement instability, can be quite complex. As one example, Testa and colleagues (2015) surveyed adoptive parents and guardians and assessed child behavior problems using the Behavior Problems Index (BPI) and caregiver commitment by asking caregivers about their thoughts of ending the adoption or guardianship. They found that the relationship between negative child behaviors and placement instability was mediated by caregiver commitment. Further, this mediated the relationship between child behaviors and instability and was moderated by other characteristics, such as the degree of kinship between caregiver and child.

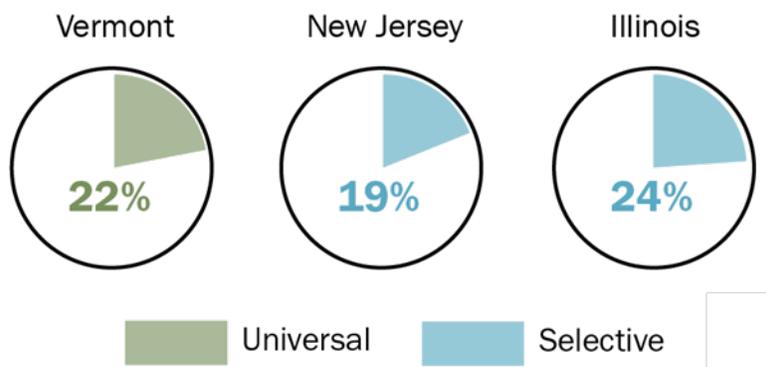
Keeping in mind the significant role caregiver commitment has played in understanding post permanency discontinuity and other challenges in prior studies (Liao & Testa, 2016; Testa et al., 2015; White et al., 2018), a series of commitment questions were asked of parents and guardians involved with this study. One of the commitment questions asked parents and guardians to think about what they know now and respond to a question that asked if they would adopt or assume guardianship again. (*If you knew everything about your child before the adoption or guardianship that you now know, do you think you would still have adopted or assumed guardianship of him or her?*) Responses were on a 5-point scale, from 'definitely would have' to 'definitely would not have'. To analyze this, first, a dichotomous variable was created, where 'definitely would have' was coded as 'definitely would,' and 'probably would have', 'might or might not have', 'probably would not have' and 'definitely would not have' were coded as 'hesitant'.



Results (depicted in Figure 10.5), show that between 19% and 24% of respondents from the prevention-related sites (Vermont, New Jersey and Illinois) expressed some level of hesitancy to adopt or assume guardianship again³:

- In Vermont, where outreach was Universal, 22% of families expressed hesitancy to adopt or assume guardianship again.
- In New Jersey, 19% of families expressed hesitancy to adopt or assume guardianship again.
- In Illinois, 24% of families expressed hesitancy to adopt or assume guardianship again.

Figure 10.5. Percent of Caregivers who Expressed Hesitancy to Adopt or Assume Guardianship Again



These results do not align exactly with the theory behind the continuum. Through this theory, one would expect a lower proportion of families to express hesitancy in Vermont (Universal) than in New Jersey or Illinois (Selective). It is possible that external factors (e.g., level and type of post permanency services available) play a role, or that some unmeasured factors are at play.

Keeping in mind the proportion of families in each category (hesitant to adopt or assume guardianship again, or not hesitant), the next step in this analysis examined responses **within each of these two groups**. Results (summarized in Table 10.4 in the Appendix, and in Figures 10.6 – 10.8).

³ Please note that the number of respondents from Wisconsin was too small to include that site in these analyses.

GUIDE TO FIGURES 10.6 – 10.8

The following annotation of Figure 10.6 is provided to guide the reader in understanding Figures 10.5 – 10.8:

1. Responses were sorted into two groups (see Figure 10.5):

- Families who were hesitant to adopt or assume guardianship again.
- Families who expressed no hesitancy (definitely would adopt or assume guardianship again).

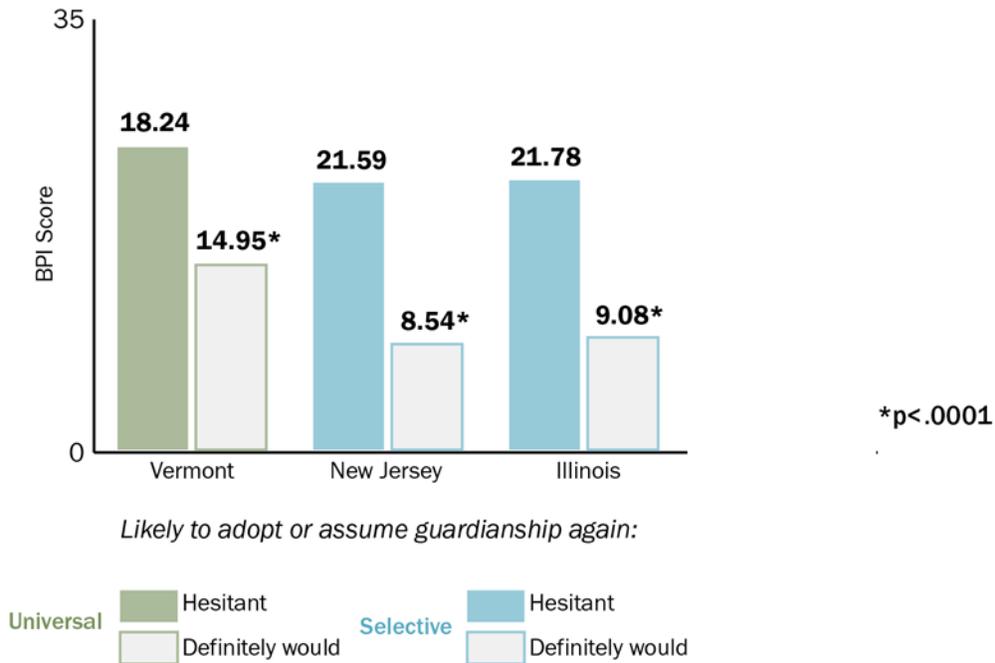
2. In Figure 10.6, the bars and the numbers above the bars are the mean BPI scores for each group.

Using Vermont as an example, the following information is reported in Figure 10.4: The group who expressed hesitancy or reported that they would not adopt or assume guardianship again (only 22% of all families) had an average BPI score of 26.45. The average score for families who reported that they definitely would adopt or assume guardianship again was 14.95. In other words, families who were hesitant to adopt or assume guardianship again scored much higher – more behavioral issues – than families who reported that they definitely would adopt or assume guardianship again. This is a statistically significant difference, as indicated by the three stars next to 14.95.

This analysis revealed some interesting trends that are examined along the continuum and across three key measures: The Behavioral Problem Index (BPI), Caregiver Strain (CS), and the Belonging and Emotional Security Tool for Adoption and Guardianship (BEST-AG).

BEHAVIORAL PROBLEM INDEX (BPI)

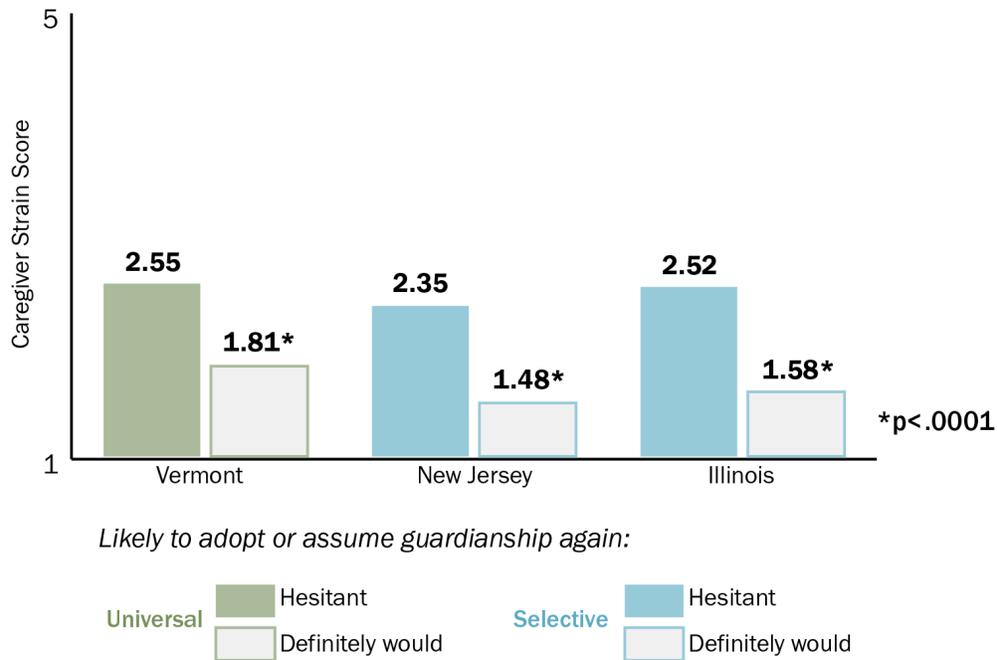
Figure 10.6. Behavior Problem Index (BPI) by Inclination to Adopt or Assume Guardianship Again



The BPI was selected as a standardized measure of child behavior problems based on previous research with adoptive and guardianship families (Liao & Testa, 2016; Testa et al., 2015; White, 2016). Higher scores on the BPI mean more behavioral issues. As shown in Figure 10.6, there is a statistically significant difference in the BPI for children whose parents or guardians expressed hesitancy to adopt or assume guardianship again and parents or guardians who *do not* express hesitancy to adopt or assume guardianship again, with those who expressed hesitancy scoring higher on the BPI.

CAREGIVER STRAIN

Figure 10.7. Caregiver Strain by Inclination to Adopt or Assume Guardianship Again

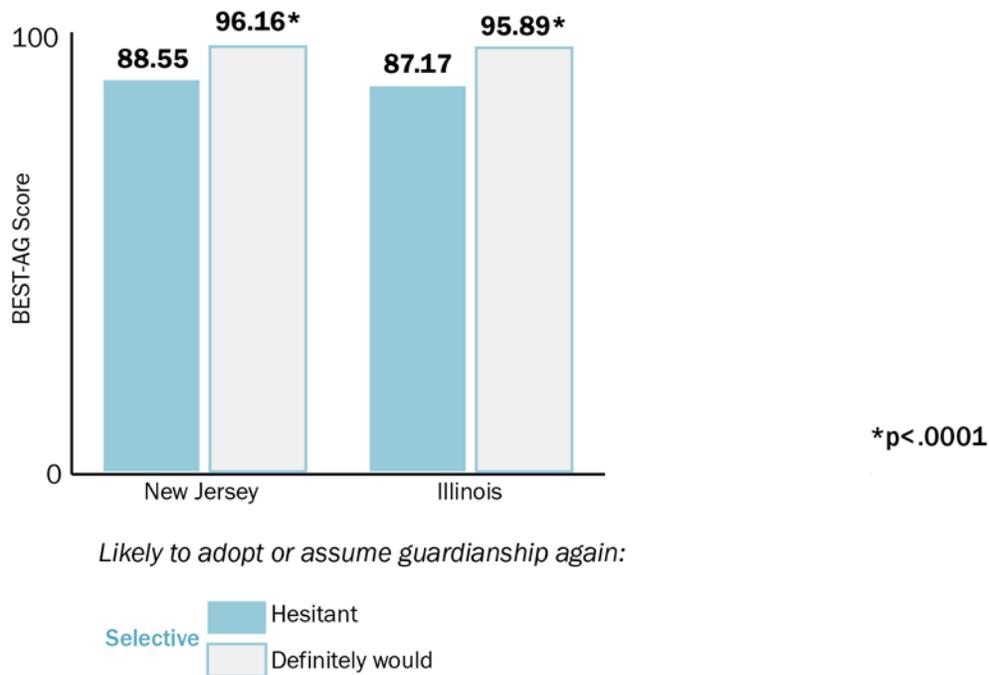


The Caregiver Strain Questionnaire-Adoption/Guardianship (CGSQ-AG) used in this project is an adapted version of the Caregiver Strain Questionnaire (Brannan, Helfinger, & Brickman, 1997), a measure to assess the extent to which caregivers experience additional demands, responsibilities, and difficulties as a result of caring for a specific child. Caregiver strain, similar to parenting stress or burden, has been found in the previous literature to be associated with lower child and family satisfaction and wellbeing after adoption or guardianship (White et al., 2018). The same analysis was conducted with the caregiver strain measure (see Figure 10.7), and similar patterns emerged. Again, keeping in mind that this analysis focused on the differences highlighted in Figure 10.5 (that 22% of families in Vermont, 19% in New Jersey, 24% in Illinois expressed hesitancy to adopt or assume guardianship again).

With the Caregiver Strain measure, higher scores mean higher levels of strain. Results found a statistically significant difference in the level of strain reported by caregivers who expressed hesitancy to adopt or assume guardianship again in all three sites where data was available. These families also reported much higher rates on caregiver strain than families who were not hesitant to adopt or assume guardianship again.

BELONGING AND EMOTIONAL SECURITY TOOL (BEST-AG)

Figure 10.8. Belonging and Emotional Security Tool (BEST-AG) by Inclination to Adopt or Assume Guardianship Again

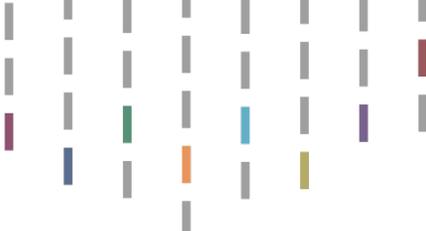


The BEST-AG, developed by Casey Family Services (Frey, Cushing, Freundlich, & Brenner, 2008), was originally designed to help social workers frame conversations about emotional and legal commitment with foster parent and youth who are unable to reunify with their family of origin. For this study, the BEST-AG was adapted and used with families formed through adoption and guardianship because previous research has shown that lower caregiver commitment is related to increased levels of post permanency discontinuity (Testa et al., 2015; White et al., 2018).

This analysis was repeated with the BEST-AG. However, note that with the BEST-AG, higher scores mean *an increased level of belonging and emotional security*. Results (depicted in Figure 10.8) found a statistically significant difference in the BEST-AG for children whose parents or guardians expressed hesitancy to adopt or assume guardianship again. Specifically, families who express hesitancy to adopt or assume guardianship again are not doing as well as families who do not express hesitancy. There is a statistically significant difference between the two groups.

Taken together, these findings suggest that the target populations along the continuum varied in interesting and unexpected ways. For instance, in Vermont, Universal outreach would be expected to find a population with less risk for post permanency discontinuity than a population that was targeted based on specific risk factors (New Jersey and Illinois), but this was not the case. In all three prevention sites (Vermont, New Jersey, and Illinois), approximately 20% (19% to 24%) of the families who responded to surveys had much higher BPI scores, more strain, and less of a sense of belonging and emotional security. In addition, Universal and Selective prevention sites were much more similar than expected.

These findings suggest that in addition to the administrative data that can be used to assess risk for post permanency discontinuity, the question related to hesitancy to adopt or assume guardianship provides an opportunity for a more nuanced assessment of risk for post permanency discontinuity. In addition to this one question, there are other questions related to caregiver commitment and familial relationships that should be examined related to assessment for risk for post permanency discontinuity. Child welfare jurisdictions interested in targeted outreach to families formed through adoption or guardianship may consider periodically checking in with families to assess their level of caregiver commitment and familial relationship (e.g., the parent or guardian's assessment of how well they can manage their child's behavior). Based on the responses received from this check-in, jurisdictions could consider targeting limited resources to families who express hesitancy to adopt or assume guardianship again or results from additional caregiver commitment or familial relationship questions piloted with the QIC-AG project. Additional analysis of other questions related to familial relationships and caregiver commitment may also be worth exploring.



Discussion

This section summarizes several takeaways from the QIC-AG project when looking at the results of the studies across sites working with families formed through adoption or guardianship. It is important to note that discussing key themes in this way risks glossing over substantive differences across sites and the importance of site-specific considerations in service needs and intervention design. However, despite the considerable variation among these sites in populations, outreach methods, and interventions implemented, some crosscutting themes emerged across sites and may be helpful to those who plan outreach and services to families formed through adoption and guardianship.

FAMILIES KNOW WHAT THEY NEED; FAMILIES WHO WANT SERVICES ENGAGE IN SERVICES

There was a significant amount of effort by the QIC-AG aimed at understanding how to reach families, and anticipating how families would respond to outreach from the project. These findings suggest that families are quite capable of self-assessment. In short, families know what they need. This is evident in the data collected; families who participated in services had more intense struggles than those who did not engage in services. Families who engaged in services tended to be families who reported that they were struggling to effectively manage their child's behavior or respond appropriately to their child. Conversely, families who did not engage in services tended to be families who reported they were adjusting fine. In other words, future projects can worry less about the specific type of outreach (e.g., mailings addressed with a specific color of ink or pictures) and more about offering services and supports to families formed through adoption or guardianship.

SERVICE UPTAKE DID NOT OVERWHELM POST PERMANENCY SERVICE PROVIDERS

There was a concern in several sites that if post adoption or guardianship services were made available to families, too many caregivers would want them and then overwhelm the capacity of the child welfare system to respond. It was difficult to plan for group sessions or numbers of facilitators because project staff did not know how many families to anticipate participating. Jurisdictions concerned about their capacity to offer post permanency supports and services should not expect being overwhelmed with requests. Most families do well with the supports and services currently in place, and will not be interested in additional services, if offered. Furthermore, for those families who need additional services or support, they are often desperate for assistance, and the offer of additional support can be life-changing for the families involved.

ONGOING SERVICE NEEDS

Similar to other research with families formed through adoption and guardianship, families involved in this study reported that they were doing well with the supports and services they currently have in place. However, just because the level of need did not overwhelm the system does not mean that services are not needed. Families suggested that the child welfare system may want to focus on making a wider variety of post permanency services available and accessible. A primary task for child welfare service providers is to ensure that families who are struggling can easily access the services they need. In the survey responses and in interviews with families formed through adoption or guardianship, parents and guardians reported not knowing where or

how to access services, or reported trying to access services but finding them inadequate. In other words, project findings suggest that families know when they are struggling, yet helpful services remain elusive. This is further complicated by the fact that many child welfare agencies do not have a robust system of services targeted at families formed through adoption or guardianship.

Some parents and guardians reported that the supports and services available to them as foster parents disappear after finalization, yet they were still in need of those services. In addition, for adoptive parents and guardians whose needs change after finalization, services and supports can become more difficult to access. Finally, being connected with providers who understand the unique circumstances of families formed through adoption and guardianship is important to families in need. Parents and guardians reported struggling to be heard and believed. Service providers did not always believe that the situation at home was as bad as it was. For instance, Wisconsin caregivers reported that when they told a provider that they had already tried an idea, they were not believed, but when they said the same thing to an AGES worker, they were heard and believed.

Finally, the use of the word *support* is important. Families in Wisconsin reported that it is not always another intervention that is needed. Sometimes what is most needed is just a friendly voice on the other end of the phone, who can listen to struggles regarding birth family contact or provide support for older caregivers. Other times it is helping to get intensive residential treatment services for their child without relinquishing custody. TINT participants in New Jersey reflected on the important social connections (informal social support) made by attending TINT sessions. Survey respondents in New Jersey and Illinois reported that they needed formal support from the child welfare and school systems, as well as support in accessing services for their child post-permanence. It is important to understand what *support* means to the family and to find a way to offer it in a timely manner.

In sum, some suggestions moving forward:

- Maintain connections with families after adoption and guardianship. Connections to services, supports, and resources should begin prior to adoption or guardianship finalization and continue to be maintained after finalization.
- Reduce barriers to post adoption service use and empower families to seek services and supports. This process may be made easier by maintaining connections through universal outreach, which includes providing information about availability and eligibility for services after adoption or guardianship finalization so that families know how and where to access supports and services.
- Offer support through periodic, targeted outreach to families who exhibit characteristics that suggest they may be at an increased risk for post permanency discontinuity. This could be, for instance, annual check-ins with families to see how they are doing.
- Encourage child welfare jurisdictions to develop systems to track and update families' addresses and contact information so that families receive the information that agencies send.
- Increase the availability of service providers experienced in working with families formed through adoption or guardianship, particularly for child and family mental health support.

Caregivers shared additional thoughts through surveys, and the majority of those responses included something positive about the adoption or guardianship experience. In many comments,

the caregivers described a deep love and appreciation for the children they had adopted or assumed guardianship of. However, for some parents and guardians, their child also presented unanticipated challenges, including attachment issues from past trauma experienced, problems at school, and identity concerns. Additionally, challenges often did not occur until children were older, years after legal finalization of the adoption or guardianship. Difficulties interacting with birth families were problematic for some families, suggesting the need for support navigating a child's other relationships. Therefore, culturally sensitive, developmentally-appropriate, trauma-informed services that take into consideration the unique experiences of adoptive and guardianship families, and are requested and delivered in a timely fashion have the potential to help avert difficulties that adoptive families experience after legal permanence.

POST PERMANENCY CONTACT BY A CHILD WELFARE AGENCY IS WELCOME AND APPRECIATED

The project successfully contacted a large percentage of the families they attempted to reach. It is important to note that response rates close to, or even well below, 50% are not unusual for post adoption surveys described in the previous literature, and that response rates in previous studies vary widely (White, 2016). Furthermore, families appreciated being contacted. It is noteworthy that the project heard from many families who expressed gratitude for the opportunity to tell their story. In work with families who have exited the foster care system to adoption or guardianship, there is sometimes a question about whether and how families experience a request for engagement by the formal child welfare system. The responses provided by families suggest that they both appreciate and need outreach from the system and are interested in the results:

"If you ever need me to answer any questions again please let us know. We adopted three kids all [with] special needs and one that is dual diagnosis mental health and developmental disabilities and she has been the challenge! I most certainly could tell the good, the bad, the ugly, of all of it! I still would do it all over again."

In summary, agencies should assume that families would welcome outreach post permanency. This may be contrary to the perception that adoptive and guardianship families wanted to be left alone by state agencies. Adoptive parents and guardians are often parenting children that have experienced significant trauma and struggle to receive the appropriate services without public agency support.

IDENTIFYING FAMILIES AT RISK FOR POST PERMANENCY DISCONTINUITY

Results from previous studies of post permanency discontinuity indicate that a small proportion of children who exit foster care to adoption or guardianship experience post permanency discontinuity, or reentry into foster care after finalization, as captured by administrative child welfare data systems (White et al., 2018). Yet, for families who experience discontinuity, the process can be very difficult, and result in additional trauma, loss and diminished wellbeing for all involved.

Research from other studies (extant research) has found that caregiver commitment, while strong at the time of finalization, may diminish over time and that a diminished level of caregiver commitment is associated with increased risk of post permanency discontinuity (Testa et al., 2015; White et al., 2018). However, this extant research, and the relationships they examine, are complicated. One key finding from the extant research is that child behavior problems and caregiver strain have been identified as a risk factors for post permanency discontinuity (Newton, Litrownik, & Landsverk, 2000; Liao & White, 2014). In other words, children with elevated BPI scores, and caregivers with elevated levels of strain, are at greater risk for post permanency discontinuity.

Results from this project found that there are statistically significant differences on key measures (BPI, BEST-AG, Caregiver Strain) between parents and guardians who express hesitancy to adopt or assume guardianship again and families who do not express hesitancy to adopt or assume guardianship again (one measure of caregiver commitment). Results from this project also found that families who report that they are less confident that they can meet the needs of their child, or were more likely to report that they struggle to effectively manage their child's behavior (familial relationship measures), were more likely to engage in services.

An important aspect of prevention work with adoptive and guardianship families is to be able to identify families who may be the most likely to experience post permanency discontinuity and diminished wellbeing. Through the research conducted with the QIC-AG, we asked key questions to better understand the relationship between caregiver commitment, familial relationship, and post permanency discontinuity. We found the responses show promise for use as a tool to distinguish families who were struggling and those who seemed to be doing alright. Next steps for this line of research would be to test these questions as a tool to identify families most at risk for post permanency discontinuity. These questions could be administered yearly to all adoptive and guardianship families, with targeted outreach directed at families whose responses suggest they may be at an elevated risk for post permanency discontinuity.

MULTI-PRONG APPROACH TO OFFERING SUPPORT AND SERVICES

These results found that families are capable of self-assessment for engagement in post permanency services. Universal, broad outreach efforts should occur with families formed through adoption or guardianship on a regular basis, to remind them of available services and how to access services and supports. From the experiences of this project, this should not overwhelm systems, and the relatively small proportion of families who are interested in engaging in services are likely to participate.

In addition, child welfare agencies interested in understanding which families are at increased risk for post permanency discontinuity may want to consider asking some key questions related to caregiver commitment and familial relationships at regular intervals post-finalization. Results can then be used to let families who may be struggling and at-risk for post permanency discontinuity to know more about available services. Agencies can also deliberately ask families most at risk for post permanency discontinuity about what services and supports are needed so that a robust array of supports and services can be delivered. Families experiencing stressful events are not always capable of unraveling the complex public and private service and educational systems. Families involved in this study reported that the support they received to navigate and advocate for services made all the difference in their family's wellbeing.

Finally, agencies should offer services and supports that address immediate concerns as part of their service array. In at least one of the sites, families who engaged in the intervention later engaged in services-as-usual. This suggests that they had additional needs that were not addressed through the specific intervention. A wider array of services may be needed by the adoptive parents and guardians. In addition, through the relatively small number of families who participated in the AGES program, the project has learned that some families will have issues where they are in urgent need of services. Other families will have long-term issues. These are issues that were concerning to the families and they wanted to address or better understand, but were generally not overwhelming them at that moment. Service providers need to be prepared to offer an array of services and supports to families who contact an agency or provider looking for assistance. Adoptive and guardianship families struggle like other families, but there is a uniqueness to their struggles. Services and supports need to be put into place to address these unique needs.

ADOPTIVE PARENTS AND GUARDIANS REPORT ON THEIR POST PERMANENCY EXPERIENCES

Throughout the project, the teams have listened to families formed through adoption and guardianship. Site-specific Theories of Change, membership on Stakeholder Advisory Groups (SAT) and insight from parents and guardians guided the project development and implementation. We conclude with some thoughts from parents and guardians. Several of the QIC-AG sites asked parents and guardians for additional thoughts about their experiences with adoption or guardianship. Some common themes emerged from caregiver responses across sites. First, most comments from caregivers expressed their deep love and concern for their children and showed that they were committed to their children for life. Caregivers' comments also expressed joy and delight over being able to bring their adopted or guardianship child into the home. For example:

"It has been a life-changing experience. It has been harder than I thought it would be, but I am always thankful that we adopted our daughter, I love her with all my heart, and I can't imagine our family without her."

"It's been a great experience watching my child grow into a young respectful young man. I wouldn't trade him for the world. Had him since he was three weeks old now he is 18 years old. Best 18 years."

"My adoption has given me fulfillment and purpose and an opportunity to pour into the life of my granddaughter. As we are going through her teen years we have run into many challenges, as she is developing, maturing and finding her own way. Yet this has been rewarding."

Second, despite their commitment to children, some caregivers noted frustrations, especially regarding inconsistency and availability of services and supports. For example, caregivers reported difficulties with school-related issues, interactions with birth families, accessing mental health services, and finding help from social workers when needed. For example:

"Sometimes [he] can be a joy to have but when the school calls and say he's acting up at school it reflects back to me. Is there something different I can do to change his perspective on learning? He is a smart little boy but when he gets around some of his friends at school he seems to act up."

"We were not aware of the depth of our daughter's disabilities. Schooling is hard for her, there is really no place she fits in, regardless of all the IEPs in place and all the hard work that has been put into it. She has many disabilities, so it is hard to get all disabilities taken care of at the same time. We knew she was delayed. We didn't know she had 5 or more diagnoses and would never graduate from high school or ever be able to go to college or live on her own."

“Our biggest challenge is the close proximity of the birth family, specifically birth dad. He does not respect the boundaries of adoption and is a constant threat and worry.

“We spent many years trying to find appropriate providers who understood our son. We were often given misinformation & guidance about our son's needs. For years, professionals looked only at behaviors rather than brain functioning & disabilities. Both he & us as parents were blamed.”

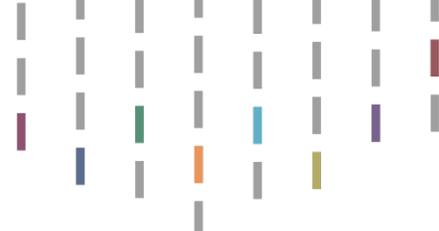
“Attachment disorder has severely impacted my daughter...She has struggled with attachment and reciprocity. I, too, have struggled with attachment to her, given her lack of reciprocity. Having worked with a therapist years ago who purportedly understood attachment disorder, my daughter and I received very little helpful guidance...The fact that she is still alive is testament to my husband's and my determination to support her and find resources for her-- mostly out of state.”

These reflections show that adoptive parents and guardians are largely committed to children for life. They are satisfied with some of the supports they receive, but more could be done to help families navigate educational and mental health systems, particularly when children exhibit behavioral and/or mental health difficulties. In drafting the Theory of Change in the proposal to establish the QIC-AG, the project postulated:

Interventions that target families on the brink of disruption and dissolution do not adequately serve the interests of children, youth and families. Evidence-supported, post permanency services and support should be provided at the earliest signs of trouble rather than at later stages of weakened family commitment (Koh & Testa, 2008; Testa, Bruhn & Helton, 2010). Ideally, preparation for the occasion when post permanency stability is threatened should begin prior to finalization through the delivery of evidence-supported services that prepare and equip families with the capacity to weather unexpected difficulties and seek needed services. The best way to ensure families will seek needed services and supports is to prepare them in advance of permanence for the potential need for services and supports, and to check-in with them periodically after adoption or guardianship finalization.

Through surveys and interviews (see site-specific reports in Wisconsin, Illinois, and New Jersey), adoptive parents and guardians told this project that they need support in managing relationships with birth parents and families after finalization, as well as figuring out how much contact with the birth family is beneficial to the child. They also mentioned needing advocacy and other types of support. They need mental health services that are specific to the needs of families formed through adoption and guardianship. The QIC-AG Theory of Change is confirmed in their responses. Adjustment after adoption and guardianship is a long process, and the needs of caregivers and children do not disappear after finalization. Indeed, some issues, such as mental health, identity, and educational challenges may not appear until many years after the adoption or guardianship is finalized.

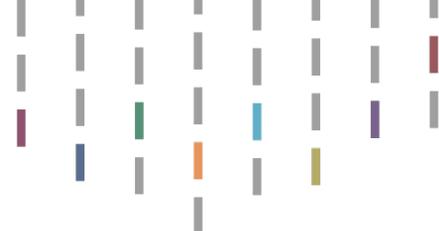
Furthermore, adoptive parents and guardians have found various ways to tell the QIC-AG project that they welcome outreach from the child welfare system after finalization. Some reported this in interviews, others in responses written in surveys, and others when they called a member of the research team to thank them for reaching out. Finally, the project has tested various measures that can help child welfare systems identify families who might welcome additional support or services. Future projects should build upon these findings in creating a 21st-century child welfare system that meets the needs of families formed through adoption or guardianship, from the pre-finalization phase, through the maintenance of stable, strong families who are prepared to access evidence-supported services and supports when they need them.



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Appendices

Appendix A. Engagement with Adoptive Families Finalized through Private Domestic and Intercountry Processes

The QIC-AG project involved outreach to private domestic and intercountry adoptive families in multiple locations, including New Jersey, Illinois, Catawba County (NC), Vermont, Wisconsin, and Tennessee. Additional information on the private and intercountry adoptive families survey in Vermont is available as an appendix to the Vermont site report. In addition, a separate report completed by the University of Nebraska – Lincoln on private domestic and intercountry adoptive families has also been completed.

Across these sites, contact with private and intercountry adoptive families was somewhat limited. There is no central registry of families who adopt via private domestic or intercountry processes, making broad outreach challenging. Recruitment efforts were different for these families than for public adoptive families. At the start of the QIC-AG, project staff met with the U.S. State Department to identify a list of Adoption Service Providers (ASPs) or professionals who help families through the private/intercountry adoption process, and sites reached out to agencies providing adoption services. Only a small number of these families responded to outreach and intervention efforts. However, findings across sites generally indicated that private domestic and intercountry adoptive families were similar to public adoptive families on many characteristics examined, with some notable differences found in individual QIC-AG sites.

In New Jersey, seven private domestic and intercountry families participated in the intervention. The private domestic and intercountry and public adoptive families were similar enough in that site that the project team decided separate TINT classes for different types of adoptive families were not needed. However, some differences were also noted between groups. Specifically, all the private domestic and intercountry adoptive families who responded to the TINT pre-survey were two-parent households, employed full-time, and had a college degree or higher. In contrast, just over half of public adoptive or guardianship families in New Jersey were in a two-parent family, 43% were employed full-time, and 63% had less than a college degree. End-of-service surveys were not sent to private/intercountry adoptive families in New Jersey, thus no intervention outcomes for these families were available.

Illinois engaged 32 private and intercountry adoptive families (i.e., 14 private domestic and 18 intercountry) who all expressed interest in the TARGET intervention. Participating families were from both sites within Illinois, with 14 in Cook County and 18 in the Central Region. The mean age of adoption for those who expressed interest was less than one year old in Cook County and almost four years old in Central Region, and the mean age of intervention was about 12 years old in both regions. Finally, 84% of the private domestic and intercountry adoptive families received the full intervention (at least four sessions). However, similar to New Jersey, end-of-service surveys were not sent to private domestic and intercountry adoptive families in Illinois, thus no information on intervention outcomes for these families was available.

Outreach efforts to private domestic or intercountry adoptive families in Catawba County started with agency staff attending community events (e.g., ball games). Catawba County staff distributed information about Success Coach services at these events. Catawba County staff also met with agencies identified by the U.S. State Department who were likely to work with families in Catawba's eight-county post permanency service region. Catawba set up trainings with these ASPs to raise awareness about adoption issues, specifically raising awareness that families who adopt through a private domestic or intercountry process were eligible for post permanency services in Catawba County. Catawba also provided the ASPs who attended training with materials about Success Coach services, which the ASPs could then disseminate to the families they work with through the private adoption process. As a result of these outreach efforts to ASPs, Catawba County had one intercountry family call the child welfare agency to ask for information about post-adoptive services, but the family did not enter into a service plan with a Success Coach.

Families who adopted a child through a private agency, either domestically or internationally, were included as a sub-population of the survey study in Vermont. Initially, the Vermont site team reached out to agencies and organizations who served families formed through private or intercountry adoption. Agencies sent a letter to families in this population to inform them about the study and requested they provide their contact information to the child welfare agency if they were interested in participation. There were 117 families throughout the state who opted into the survey, 47 (40%) intercountry adoptions, 65 (56%) private adoptions, and for 5 (4%) this information was not available. Two reports, one on private domestic adoptive families and a second on intercountry adoptive families, in Vermont are attached as an appendix to the QIC-AG final evaluation report for Vermont.

In Wisconsin, 26 of the 71 children (37%) who received the AGES intervention were private domestic or intercountry adoptions or private guardianships. Specifically, 12 were private (family court) guardianships, 9 intercountry adoptions and 6 private adoptions. Qualitative results, consisting of feedback from adoptive parents, indicated that AGES benefited caregivers in both private and intercountry and public adoptions because it helped them build a support network within their families, communities, and/or friends. In addition, AGES seemed to provide all adoptive parents and guardians with someone they could talk to when feeling isolated or frustrated.

The Tennessee QIC-AG study tested whether the NMT could promote permanency and stability in adoptive families who were referred or self-referred to Adoption Support and Preservation Program (ASAP) for services, including private domestic and international adoptive families. Of the 518 families served by the post adoption program in Tennessee during the study period, 132 (25%) were private domestic or intercountry adoption, with 78 of these families served by Harmony (who received NMT) and 54 served by Catholic Charities (who received post adoption services-as-usual). Specifically, of the 132 private and intercountry adopted children served by ASAP, 32 (24%) were intercountry adoptions, 38 (29%) were private adoptions, and for 62 (47%) this information was not available. Differences between private domestic and intercountry and public adoptions were examined in statistical tests, including child age at adoption or post adoption outreach, parental age at adoption or post adoption outreach, and averages on the BPI, BEST-AG, PFF, and caregiver commitment measures. Children adopted through the public child welfare system were, on average, older than children adopted through private domestic or intercountry means. However, on most other characteristics or measures, the families on average were very similar (e.g., age of the children at the time the families came into contact with ASAP). In regard to NMT outcomes, a small number of private domestic or intercountry adoptive families completed NMT metrics, so analyses involving private domestic or intercountry adoptive families were limited. Specifically, only 37 children had NMT metrics completed, and just 15 children had NMT post-measures. Based on this limited data, the general trends for both private domestic or intercountry and public adoptive families were similar.

Appendix B. Data Tables

Table 10.5. Key Measures by Inclination to Adopt or Assume Guardianship Again

WOULD YOU ADOPT OR ASSUME GUARDIANSHIP OF YOUR CHILD AGAIN?			
VERMONT	HESITANT	DEFINITELY WOULD	% HESITANT
PARTICIPANTS	176	618	22%
	MEAN	MEAN	<i>p</i>
BEHAVIORAL PROBLEM INDEX (BPI)	26.45	14.95	<.0001
CAREGIVER STRAIN (CS)	2.55	1.81	<.0001
NEW JERSEY	HESITANT	DEFINITELY WOULD	% HESITANT
PARTICIPANTS	86	364	19%
	MEAN	MEAN	<i>p</i>
BELONGING AND EMOTIONAL SECURITY TOOL-AG (BEST-AG)	88.55	96.16	<.0001
BEHAVIORAL PROBLEM INDEX (BPI)	21.59	8.54	<.0001
CAREGIVER STRAIN (CS)	2.35	1.48	<.0001
ILLINOIS	HESITANT	DEFINITELY WOULD	% HESITANT
PARTICIPANTS	284	913	24%
	MEAN	MEAN	<i>p</i>
BELONGING AND EMOTIONAL SECURITY TOOL-AG (BEST-AG)	85.03	95.92	<.0001
BEHAVIORAL PROBLEM INDEX (BPI)	22.15	9.17	<.0001
CAREGIVER STRAIN (CS)	2.56	1.57	<.0001

Note: Orange cells represent a statistically significant difference at the .05 level

Table 10.6. Survival Analysis Predicting Foster Care Reentry after Adoption or Guardianship

	VERMONT		NEW JERSEY		TENNESSEE		ILLINOIS		ALL FOUR SITES TOGETHER	
	HR *	95% HR CONFIDENCE	HR	95% HR CONFIDENCE	HR	95% HR CONFIDENCE	HR	95% HR CONFIDENCE	HR	95% HR CONFIDENCE
FEMALE	0.89	0.67	1.08	0.94	0.95	0.80	0.95	0.86	0.98	1.05
CHILD OF COLOR	0.81	0.30	1.20	1.03	0.94	0.78	1.29	1.09	1.06	1.15
CHILD ACHIEVED PERMANENCY AT THE AGE OF 6 OR OLDER	3.90	2.76	2.08	1.79	15.67	11.66	2.73	2.41	2.90	3.16
CHILD SPENT THREE OR MORE YEARS IN FOSTER CARE	1.05	0.77	0.70	0.60	1.13	0.94	1.04	0.91	0.95	1.03
CHILD HAD 3 OR MORE MOVES WHILE IN FOSTER CARE	1.37	1.02	3.01	2.58	1.63	1.37	1.41	1.26	1.66	1.78
NUMBER OF OBSERVATIONS USED IN MODELS		2,779		19,493		12,012		25,532		59,816

Note: HR stands for Hazard Ratio.

