THE NATIONAL QUALITY IMPROVEMENT CENTER ON EARLY CHILDHOOD

CROSS-SITE EVALUATION FINAL REPORT

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Executive Summary

This report is InSites' final report of the cross-site evaluation of the National Quality Improvement Center on Early Childhood (QIC-EC). The cross-site evaluation resulted in six key areas of learning. The areas of learning are (presented in the order addressed in the report):

- **Inquiry Methods:** nature of inquiry methods used in complex systems;
- **Support by Providers:** ways providers supported parents in building and using the Protective Factors;
- **Outcomes:** parent outcomes related to increased likelihood of optimal child development, increased family strength, and decreased likelihood of child abuse and neglect;
- **Support by Partnerships:** ways partnerships support parents to build and use their protective factors;
- **Knowledge Development, Dissemination, and Integration:** ways through which communities of researchers, evaluators, and practitioners engage in iterative and ongoing knowledge development, dissemination, and integration; and
- **Long-Term Agenda:** long-term research, practice, and development agenda for systemic change for the Strengthening Families approach.

These areas of learning frame the report, following an overview of the QIC-EC.

QIC-EC Overview

The National Quality Improvement Center on Early Childhood (QIC-EC) funded four research and demonstration (R&D) sites in 2010. Although the four sites differed with regard to setting, intervention, and population served, all four employed the Strengthening Families approach with its Protective Factors Framework as the basis for bringing about fundamental change in social systems to more effectively support parents of young children. The Framework focused on five interrelated Protective Factors: parental resilience; social connections; knowledge of parenting and child development; concrete support in times of need; and social and emotional competence of children. These Protective Factors have been identified in the literature as correlated with the desired outcomes of family strength, optimal child development, and reduced child abuse and neglect.

The R&D sites were in Colorado, Massachusetts, Oregon, and South Carolina and were funded for a 40-month period. The *Strong Start* project in Colorado worked with women in substance abuse treatment programs. *Project DULCE* in Massachusetts focused on parents of infants from birth to six months in a low-income and immigrant community served by the Boston Medical Center. *Fostering Hope* in Oregon focused on parents of young children in low-income and immigrant neighborhoods in two mid-sized cities. The *Family Networks Project* in two regions of South Carolina worked with parents of young children with disabilities. Each site had its own project director and local evaluator.

The intervention at each of the four R&D sites was evaluated by the local evaluator (separate from our cross-site evaluation team). Each site sought to learn how the site intervention—designed to increase protective factors and decrease risk factors in core areas of the social ecology—resulted in increased likelihood of optimal child development, increased family strengths, and decreased likelihood of child maltreatment within families of young children at high risk for child maltreatment. The purpose of the QIC-EC cross-site evaluation was to gather evidence across the sites about how such interventions are guided by the Protective Factors Framework, work across domains of the social ecology, and result in outcomes for participating parents. From the cross-site evaluation, we also garnered new knowledge about (a) inquiry methods (i.e., research, evaluation, and measurement methods) related to creating evidence-based and evidence-informed practice, programs, and policies, and (b) patterns of knowledge development, dissemination, and integration.

To understand the QIC-EC work and the cross-site evaluation, it is especially important to recognize that Strengthening Families is an approach, not a specific intervention. The Strengthening Families approach is intended to be implemented through small but significant changes in everyday actions and be incorporated into existing programs, strategies, and social systems over extended periods of time such that the social systems are fundamentally adjusted. It is not a quick fix but rather a fundamental shift in the way of thinking about the prevention of child maltreatment and supporting families of young children.

Each of the four QIC-EC project interventions were required to have two components: (a) providers who worked directly with parents to support parents to build Protective Factors and (b) a partnership of individuals and organizations that looked beyond the direct work with parents to the organizations and practices within which the parents and providers were nested or connected. Each site was also expected to work across multiple domains of the social ecology. The QIC-EC defined the social ecology in four domains—individual, relationship, community, and societal.

The QIC-EC project was led by three partner organizations. The leadership team included the QIC-EC project director and a senior member of each of the QIC-EC partner organizations: the Center for the Study of Social Policy (the lead organization), The National Alliance of Children's Trust and Prevention Funds, and ZERO TO THREE. The project officer from the Children's Bureau (the funding agency) also participated, and the InSites cross-site evaluation team leader served as an ex-officio member of the leadership team.

Across all sites, over 90 percent of the participants were women aged 20 or older. About three-quarters identified themselves as non-white/Hispanic. About half had completed high school as their highest level of educational attainment; many parents had some post-secondary schooling. About one-quarter did not complete high school. About one-third of the parents did not use English as their primary language; these parents were in Oregon and Massachusetts. At the programs' start, about two-thirds of the participants were unemployed. Post-intervention unemployment rates dropped to about half for those in the treatment groups while very little change was reflected in the comparison group. While about two-thirds of participants had experienced some degree of food insecurity, about 90 percent reported living in a stable home (own or rent, military base, or staying with family or friends) within the previous 12 months.

Cross-Site Developmental Evaluation Approach

The QIC-EC leadership team wanted a cross-site evaluation that recognized the complexity of social systems. Rather than attempting to eliminate or ignore the complexity, they sought an approach that acknowledged and embraced complexity. Consequently, for our cross-site evaluation, we chose a developmental evaluation approach. Intended for complex situations and interventions, developmental evaluation supports those working with evolving and complex systems, interventions, and environments.

Developmental evaluation is a relatively new approach. Because developmental evaluation is relatively new, there are few examples of developmental evaluation conducted on as large a scale as the QIC-EC work. Through membership in the American Evaluation Association, members of our team have been part of an evaluation community involved in translating the concepts of developmental evaluation into practice. The seminal book on developmental evaluation by Michael Quinn Patton (2011), which was published in the midst of this evaluation, contains an example from our QIC-EC developmental evaluation.

Developmental evaluation is:

- grounded in multiple systems theories including complex adaptive systems theory.
- designed to understand and support systemic change in complex social systems.
- intentional in using mixed methods.
- participatory.

In the cross-site evaluation, we were pioneering the application of theory to the evaluation, an approach encouraged by the QIC-EC leadership team including the federal project officer. The leadership team, the project teams (comprised of a project leader and project evaluator from each site), and we were all in a learning mode, generating new knowledge about the processes and value of the developmental evaluation approach.

In the section of the report on the cross-site developmental evaluation approach, we describe our approach. We also embed information about what we learned about designing and carrying out inquiry methods in complex social systems organized by the four features of developmental evaluation just mentioned.

Multiple System Theories

From the beginning, the QIC-EC leadership team recognized that to contribute in a significant way to the complexity of changing social systems, it needed to move into frontiers of research and evaluation designed to embrace complexity, rather than to ignore or seek to control it. The leadership team recognized the importance of taking a systems orientation and drawing on systems theories.

Social systems include formal, hierarchical systems such as social service systems or education systems and informal systems such as community networks and neighborhood associations. Whether formal or informal, we find it useful in developmental evaluation to think of social

systems as comprised of two basic theoretical types of systems: organized, controlled systems and complex adaptive systems.

In our cross-site developmental evaluation, we used these two basic theoretical types of systems as a way of thinking about how change was happening in the complex social systems involved in the QIC-EC work. Taking a developmental evaluation approach helped us recognize that change happened in fits and starts and through different cycles and timeframes. We looked for change across the levels within hierarchical organizations and across the domains of the social ecology at different rates and with different degrees of depth of system structures.

Closely related to theories of the dynamics of systems are theories of how systems change. Donella Meadows (2008) identified a dozen places to intervene in systems to bring about change. One of the most powerful is to change the paradigm—the mind-set out of which a system with its goals, structures, and rules arises. This indeed was the orientation of the QIC-EC leadership. The QIC-EC leadership team focused on shifting the social systems to be grounded in the Protective Factors Framework with a strengths-based orientation rather than being grounded primarily in a deficit-based orientation and a focus on risks, which is currently a common orientation in our social systems.

Evaluation Focused on Change in Complex Social Systems

To support the deep and lasting system change envisioned by the leadership team, we refined existing analysis and communication tools or developed new ones to guide the evaluation process at the broad conceptual level. Three tools were especially useful: a model of the social ecology, an iceberg diagram that depicted the visibility and depth of system change, and a display of change over time in complex systems.

Social ecology: Using the social ecology model provided by the QIC-EC gave us a means of seeing the range of actors, systems, and subsystems involved in the processes affecting parents' building of their protective factors. The QIC-EC required each site to address the individual domain of the social ecology and at least one of the other domains.

Iceberg diagram illustrating visibility and depth of systemic change: We used an iceberg diagram to illustrate delving deeply into social systems both within and across the domains of the social ecology. The purpose of looking below the surface is to determine leverage points—places in the system where a small change can lead to a lasting shift in behaviors and results.

Too often evaluations look only at the observable *activities and results* (the tip of the iceberg). To understand and influence systems change, we went below the surface to understand *norms, infrastructures, and policies* especially as we moved beyond the direct work of providers with parents into looking at the work of organizations and partnerships. We looked at *patterns* that seemed to connect the actions of providers to the norms, infrastructures, and policies of their organizations.

Moving deeper, we then sought to understand the *guiding principles* that were shaping the actions of people across the systems and were connected to their underlying *paradigms*. We

considered ways in which elements of the existing social systems were and were not congruent with the paradigm of a Protective Factors Framework.

Systems change over time: With our third analysis and communication tool, we sought to illustrate systems change over time as the project moved toward a grounding in a new paradigm. In this tool, we combined (a) theories about how both organized, controlled systems and complex adaptive systems are part of the complexity of social systems; (b) attention to the domains of the social ecology; and (c) concepts about the visibility and depth of change as illustrated with the iceberg diagram.

We used the diagram about systems change over time to facilitate conversations among stakeholder groups as they considered this overall "map" of their work together. Using the diagram allowed the different stakeholders in different parts of the social ecology (or subsystems) to see how they could each be at different phases of the change process and discuss differences in the patterns and timing of change for different subsystems. In the final section of this report, we use this basic diagram again to capture the learning from the QIC-EC cross-site evaluation about changes in complex social systems and set the stage for future research, evaluation, and practice.

Mixed Methods

A developmental evaluation typically uses mixed methods tailored to fit the context. Two ways of thinking about mixed methods were important in the QIC-EC work. The mixed methods we used were:

- a mix of evaluation designs. One type of design we used was based on linear or other predictable cause-and-effect models; another type was based on assumptions of dynamical motion and unpredictable outcomes.
- a mix of qualitative and quantitative data.

Mixed evaluation designs: In the QIC-EC cross-site evaluation, we used a combination of evaluation methods—experimental/quasi-experimental methods and adaptive methods. We drew on the data from the experimental/quasi-experimental designs of the individual sites. With the experimental evaluation design, we built on an assumption of predictable, organized system change. We worked within the assumption that using sufficient controls and rigorous attention to methodological standards would allow us to make a predictive link between the intervention (the cause) and the outcomes (the effect).

Second, we used an adaptive evaluation design as a major part of the cross-site evaluation. We aligned the adaptive design with a second type of system dynamics theory—complex adaptive systems.

Mixed quantitative and qualitative data: Both qualitative and quantitative data were used in the cross-site evaluation. In doing so we considered that there were three important areas for which data were collected in each site. Data were gathered about (a) the nature of the outcomes for parents, (b) characteristics of the populations involved, and (c) the nature of the intervention.

The QIC-EC established a set of common outcomes in cooperation with the National Advisory Committee during the planning phase of the QIC-EC—increased family strengths, likelihood of optimal child development, and reduced likelihood of child maltreatment. An important aspect of the R&D work in each site was to determine if these outcomes occurred as a result of the use of a collaborative intervention that promoted the building of protective factors.

Following numerous discussions with project site personnel and with cross-site evaluators, the QIC-EC leadership team selected six instruments to use pre- and post-intervention to measure background factors and parent outcomes. The same instruments were used in each of the sites. Three of these six common measures were nationally validated instruments: the Adult-Adolescent Parenting Inventory; the Parenting Stress Index; and the Self-Report Family Inventory. One instrument was adapted for use in the QIC-EC: a social network map. Two instruments were developed specifically for this project: the Caregiver's Assessment of Protective Factors; and a Background Information Form that included questions about family conditions and other characteristics of the participants. The selection of outcome measures was one of the major challenges of the QIC-EC project. The challenges included a paucity of available instruments focusing on the constructs of interest appropriate for the populations in the sites.

Our measurement of the nature of the interventions focused on the support to parents in building of their Protective Factors. We looked at the support first at the level of the direct providers who were working with the parents. We also looked at the support from the partnerships. We developed quantitative measures (rubrics) as well as interview guides that were used in yearly site visits. We also used a survey of the partnership members that provided information on trust, value of the partnership, and the social network within each partnership.

Participatory

The fourth key aspect of a developmental evaluation is its participatory nature. The ability to use a participatory approach for the cross-site evaluation was facilitated by the fact that the QIC-EC leadership team was using a participatory approach to working with the R&D site leaders and evaluators.

We worked at multiple scales, engaging the site teams and the QIC-EC leadership team in the development of data collection plans as well as interpretation of the evidence and data gathered in the sites. The multiple perspectives inform the interpretation of data. The evaluative work involved a continual movement between the parts (e.g., the project sites), the whole (e.g., the QIC-EC), and the greater whole (e.g., the child maltreatment prevention field).

QIC-EC R&D Project Descriptions

After we discuss the evaluation approach, we devote the next section to a description of the four research and demonstration (R&D) projects. To facilitate understanding of the remainder of the report, we describe how the treatment and comparison groups were formed and set out key differences and similarities between the treatment and comparison groups.

Supporting Parents to Build and Use Protective Factors

Early on in our QIC-EC cross-site evaluation work, we clarified an important distinction with respect to the Protective Factors. The parents themselves were building and using the Protective Factors in their everyday lives as they interacted with their children, family, friends, peers, providers, community, and the larger society. The providers and other organizations and entities supported the parents as the parents built their own Protective Factors. This is a significant departure from many service-oriented perspectives that confer credit on providers for building the capacity of the parents.

With this distinction as a backdrop, we made it a priority in our site visits to understand the type and nature of support to parents by providers. Each of the four interventions provided its own particular set of supports to parents; all were focused in some way on helping parents build the Protective Factors in their lives.

Our focus was different than that of the individual sites. The leaders and evaluators within the sites were concentrating on implementing their particular intervention with fidelity and within the demands of the experimental or quasi-experimental design they were using at the parent level. We looked at how the Protective Factors Framework was used by supporters across the domains of the social ecology. Of particular importance was the role of the providers because, in each site, a provider worked one-on-one with the parents in the treatment groups.

Through the site visits, we gathered numerous examples of what support for building the Protective Factors looked like in practice. These examples gave evidence of varied expressions of providing support. Following the site visits, we provided information to the QIC-EC leadership team about what we were learning about the supports from providers and how the Protective Factors were defined and recognized. This information, along with information from other sources, fed into the on-going work of the Strengthening Families team at CSSP as they continued to revise their descriptions of the Protective Factors.

In the report we address three patterns that emerged about how providers supported the building of the Protective Factors:

- In working with the parents initially, providers generally began by identifying areas where providers could help parents reduce stress. Having the stressful areas identified helped providers choose where to focus within the Protective Factor Framework.
- In choosing among the Protective Factors, providers employed no single starting point. Providers chose the initial Protective Factor based on the intervention and the target population. Over the course of the intervention, the providers shifted their focus from the initial Protective Factor to other Protective Factors.
- The level and nature of provider and parent interaction changed over time. Initially the provider took more of the initiative. Over time parents took more initiative with the provider in an encouraging role, or as leaders of one project often said, “do for, do with, cheer on”.

Parent Outcomes

As explained above, the QIC-EC leadership team selected a set of instruments to use pre- and post-intervention to measure parent outcomes across the sites. The outcomes were likelihood of reduced child maltreatment; increased likelihood of optimal child development; and increased family strengths.

Although the quantitative parent outcome data do not demonstrate robust results across the QIC-EC outcomes, in some cases results suggest the treatment group experienced better outcomes than the comparison group. For example, the treatment group showed enhanced concrete support when they needed it, increased protective factors overall, and unchanged family risks (while the comparison group showed increased family risks.)

Based on the results of the parent outcomes measures, the data collected through site visits, and data from parent focus groups, we posit that three factors might have played a role in the limited quantitative outcomes observed across sites. First, there was relatively low dosage of the interventions across the sites with the average duration between pre and post testing being less than six months. Second, there was a lack of measures that can build a clear connection between outcomes and the extent of focus on the protective factors for each parent. Third, the QIC-EC outcomes and protective factors were not the starting point for the design of the interventions. Thus, the outcomes addressed by the QIC-EC cross-site evaluation aligned imperfectly with the expected outcomes of the individual interventions—and those sites with more positive outcomes were more aligned with the QIC-EC outcomes than the other two sites.

The outcomes of likelihood of optimal child development, increase family strengths, and the reduced likelihood of maltreatment will require long-term monitoring to understand the relationship these bear to the development, maintenance, and effectiveness of protective factors.

Partnerships and the Community and Societal Domains of the Social Ecology

Requiring that each site include an established partnership—a core group of partners who had previously collaborated and established a trusting relationship—was an innovative and unusual requirement for studies of evidence-based practices. The partnership, a vital part of the intervention in each site, was the primary vehicle for addressing the community and societal domains of the social ecology (i.e., the domains that go beyond the direct work with parents). Each partnership brought together leaders of organizations or stakeholder groups who played key roles in the relevant social systems. Our cross-site evaluation included understanding the work of the partnerships and how partnerships could contribute to long-term change.

The following key insights emerged from our data regarding the partnerships—data that came primarily through an online survey of partnership members and annual site visits. These insights are in addition to the focus on both the Protective Factor Framework and guiding principles discussed in the later section entitled *Guiding Principles*.

- Make partnerships part of the intervention.
- Recognize that shifts in thinking occur through collaborative partnerships.

- Engage parents as essential partners.
- Recognize the long-term nature of systemic change when determining essential partners.
- Focus partnerships on sustainability and cumulative impact.

Guiding Principles

In the earlier sections on *Supporting Parents to Build and Use Protective Factors* and *Partnerships and the Community and Societal Domains of the Social Ecology,* we provided key information about what we learned about how providers supported parents and how partnerships functioned. However, we saved for this section information that served as the basis for identifying a set of guiding principles that emerged from the data—guiding principles that apply to the providers, their organizations, and the partnerships. Guiding principles are a deep system feature that is closely related to the fundamental paradigms of a system. The guiding principles are stated in terms of action and relate to actors in all domains of the social ecology.

We discuss five guiding principles that we identified through the cross-site evaluation. For each principle, we illustrate ways that providers, provider organizations, partner organizations, and partnerships enacted these principles in the four sites. The guiding principles and the Protective Factors Framework work in tandem to shape the process and results of changing complex systems. In combination with the Protective Factors Framework, the guiding principles influence the norms, infrastructures, policies, and practices across the social ecology to bring about sustainable and systemic change in the complex array of social systems involved in supporting parents to build and use their protective factors. These, in turn, affect the everyday actions, behaviors, and results that are shaped by the social systems.

Guiding principles are especially important when working in complex systems. Different elements and subsystems of complex social systems move at different paces and in different patterns. Guiding principles provide fidelity within complex adaptive systems. In this case, the guiding principles provide a means to promote fidelity to the use of the Strengthening Families approach.

The five guiding principles about how to implement the Protective Factors Framework are:

- Use the Protective Factors Framework as a mental model for decision-making and action.
- Create and build mutually respectful, caring, trusting relationships.
- Address disparities in power and privilege.
- Provide flexible and responsive support.
- Persist until needs become manageable.

The report provides examples of how providers, their organizations, and partnerships acted in ways that illustrate these principles.

Knowledge Development, Dissemination, and Integration in Complex Social Systems

The QIC-EC began with a focus on the commonly used linear model of knowledge development, dissemination and integration in which knowledge developed through research studies is disseminated to practitioners to provide them evidence for their practice, and then practitioners integrate that knowledge into their practice. As the QIC-EC work progressed, we recognized two other emerging approaches to knowledge development, dissemination, and integration: (a) how those involved with the direct intervention with parents in a given site interacted with the partnership in that site, and (b) how the project leaders and evaluators interacted with one another, with the cross-site evaluators, and with the QIC-EC leadership team across the QIC-EC as a whole. Also we learned more about how all of these parties interacted with the broader research and practitioner community involved in the prevention of child abuse and neglect.

Over time, the cross-site evaluation team, the project teams, and the leadership team began functioning as an "Inquiry- and Action-based Community of Learners." In this Community of Learners, participants collaborated to develop, disseminate, and integrate knowledge. They engaged in a collective and iterative learning process focused on parents and their connection to the whole social ecology.

Long-term Research, Evaluation, and Practice Agenda about Protective Factors

The QIC-EC cross-site evaluation of implementing a Protective Factors approach that allows different interventions and addresses multiple domains of the social ecology yielded many insights about how to influence complex social systems to be grounded in a new paradigm. An important insight is that such change is a long-term research, evaluation, and practice agenda woven together through ongoing knowledge development, dissemination, and integration. This study highlights two particularly important aspects of the agenda—measurement issues and the importance of partnerships.

The measurement issues relate to building on the clarification about outcomes and their measurement that was generated through the QIC-EC work; providing measurement tools for parents; measuring interactions throughout the domains of the social ecology; and conducting assessments at the administrative level that extend the focus on Protective Factors by focusing on parent, child, family, and community well-being in addition to the current measures of child abuse and neglect.

Regarding partnerships, we had earlier emphasized that partnerships are a vital part of the intervention for sustainable change in social systems and shifting the mental models that shape community and societal norms, infrastructures, policies, and practice. We also addressed the importance of engaging parents as essential partners; recognizing the long-term nature of systemic change; and focusing on sustainability and cumulative impact.

Here we draw attention to the fact that many of the partners were not accustomed to thinking about partnerships as key players in bringing about long-term change in complex social systems through intentional efforts to change norms, infrastructures, and policies. Partners would likely benefit from more options for such actions. We suggest that future studies either provide and test a theoretical framework about specific norms, infrastructure, and policy changes and/or study the role of providing technical assistance to help partnerships look at their options.

To summarize the learning from the QIC-EC cross-site evaluation, we developed a new version of the visual representation of the changes in complex social systems involved in the Strengthening Families initiative that we presented near the beginning of the report. The new figure incorporates what we learned about parent outcomes, providers' support for the building of Protective Factors, the role and nature of partnerships, the importance of guiding principles to accompany the Protective Factors Framework, and functioning as Inquiry- and Action-based Communities of Learners. It serves as a jumping off point for the next phases of research, evaluation, and practice.

The updated Framework for Systems Change in the Strengthening Families Initiative maintains the same six subsystems that were used in the earlier framework (Parent-Child-Family; Neighborhood/Community; Providers and Their Organizations; Societal Actors—State and National; Stakeholder Learning & Capacity Building; and Networks/Partnerships). These are units of change that were supported through the QIC-EC work as key points of systemic influence.

The phases of changes used at the beginning appear to remain as a workable way to think about the phases of systemic change (Baseline Understanding; Testing Interventions; Tipping Point; and Sustainable Adaptive Balancing). However, the QIC-EC work suggests that it is a far more lengthy and complex pattern of change within and across these phases of change and among the units of change just mentioned. System changes occur through a continual back and forth between the big picture and details across the many subsystems that are involved in such complex change.

Additionally, the indicators of progress within the phases of change and among the units of change in the updated Framework for Systems Change now incorporate the guiding principles identified through the QIC-EC work. The indicators also incorporate other key points about the nature of evidence appropriate at the various phases of this work.

We put forth this new framework as a touchstone that incorporates the extensive learning from the QIC-EC work and positions future practitioners, researchers, and evaluators to move forward on this important long-term agenda to revitalize social systems to better support parents of young children.

Introduction

This report is InSites' final report of the cross-site evaluation of the National Quality Improvement Center on Early Childhood (QIC-EC). The main body of the report is intended for use primarily by (a) the QIC-EC leadership team as they continue their research and use of a Protective Factors Framework within states and with federal policy makers and administrators and (b) researchers and evaluators who are either working in the field of child abuse and neglect prevention or are interested in the methodologies used in this cross-site evaluation for potential application in other fields. The report provides a picture of the findings from the cross-site evaluation and offers a perspective on future knowledge development, dissemination, and integration related to using a Protective Factors Framework for the prevention of child abuse and neglect.

The appendices contain details of the findings from the data analyses as well as information about the methodologies and measurement instruments used in the cross-site evaluation, details of the data analyses, and other resources used or generated through the cross-site evaluation. The appendices are intended to serve as a resource to the leadership team and other practitioners, researchers, and evaluators.

Report Overview

The cross-site evaluation resulted in six key areas of learning. The areas of learning are:

- **Inquiry Methods:** the nature of inquiry methods used in complex systems;
- **Support by providers:** how providers support parents to build and use their protective factors;
- **Outcomes:** parent outcomes related to increased likelihood of optimal child development, increased family strength, and decreased likelihood of child abuse and neglect;
- **Support by partnerships:** how formal and informal organizations, and partnerships within and across complex systems support parents to build and use their protective factors;
- **Knowledge development, dissemination, and integration:** how communities of researchers, evaluators, and practitioners engage in iterative and ongoing knowledge development, dissemination, and integration; and
- **Long-term Agenda:** a long-term research, practice, and development agenda for systemic change for the Strengthening Families approach.

The report is organized to highlight these areas of learning. Following a general description of the QIC-EC purpose, organization, and participants, the report describes the developmental evaluation approach used in the cross-site evaluation. It highlights the inquiry methods and what we learned methodologically about evaluation within complex systems.

After a discussion of the four R&D sites, the report focuses on what we learned about how providers support parents to build their protective factors and the nature and level of parent outcomes that appeared to be linked to the work of the providers.

Next the report focuses on the work of the partnerships. It highlights the importance of attending to the community and societal domains of the social ecology.

A section on Guiding Principles looks across the work of direct providers, their organizations, and partnerships as they collectively implement a Protective Factors Framework.

The next section addresses how knowledge development, dissemination, and integration occur as the multiple actors involved in the QIC-EC seek to bring about change in complex systems to shift the systems to be grounded in the Protective Factors Framework.

The final section considers the long-term research, evaluation and practice agenda as work continues to shift the social systems toward the Protective Factors Framework as the dominant paradigm of the social systems involved in the prevention of child maltreatment.

QIC-EC Overview

In September 2008, the Office on Child Abuse and Neglect (OCAN) funded a partnership of the Center for the Study of Social Policy, ZERO TO THREE, and the National Alliance of Children's Trust and Prevention Funds to undertake the Quality Improvement Center on Early Childhood (QIC-EC). The partnership was funded under a cooperative agreement from September 30, 2008 through September 30, 2013. See timeline in Appendix A (*National Quality Improvement Center-Early Childhood Activities Timeline*).

Goals

The overall goals of the QIC-EC were to promote knowledge development, knowledge dissemination, and knowledge integration about the use of Protective Factors in child abuse and neglect prevention projects. The request for proposals (RFPs) issued in 2009 for research sites stated (QIC-EC, 2009, pp.6-7):

- **Knowledge development** focuses on program and systems strategies that contribute to the prevention of child maltreatment and to the promotion of increased family strengths and optimal development among infants and young children (birth-5) who are at high risk for abuse, neglect, and abandonment….
- **Knowledge dissemination** is supported by facilitating collaborative information-sharing and problem-solving via a national QIC-EC Learning Network, the Children's Bureau TTA network, and ongoing relationships with other stakeholders and partners, including research project grantees.
- **Knowledge integration** is the culmination and desired impact of knowledge development and knowledge dissemination resulting in positive change for families and children and sustainable, systemic change at multiple levels of the child maltreatment prevention field.

Integration happens as effective knowledge development and dissemination activities reinforce, support, and then translate new learning into practice and use.

"These QIC-EC goals will be achieved by:

1. Funding research and demonstration (R&D) projects that test and evaluate collaborative, innovative, evidence-based or evidence-informed program and/or systems practices, and conducting a cross-site evaluation of the impact of the funded R&D projects.
2. Establishing a national information-sharing and communications network to engage a broad maltreatment prevention constituency, disseminate lessons learned from this initiative and receive feedback.
3. Recommending changes in practice, procedures, and policies that support maltreatment prevention for very young children and their families."[1]

See Appendix A (*National Quality Improvement Center-Early Childhood Activities Timeline*) for more details on the overall timeline and key activities of the QIC-EC during its five years of existence. For further information on the QIC-EC see Browne (2014).

Cross-Site Evaluation Focus

InSites was contracted in March 2009 to conduct the cross-site evaluation of the four research projects funded through the QIC-EC. We began our evaluation work during the period when the QIC-EC was preparing its implementation plan for submission to the Children's Bureau. One meeting of the National Advisory Committee (NAC) had already been held and the general direction was set for the QIC-EC. The cross-site evaluation team participated in the development of the sections of the implementation plan related to the cross-site evaluation, attended an NAC meeting, participated in a Strengthening Families conference and presented our suggestions to the leadership team regarding the general orientation to the evaluation. We worked back and forth with the leadership team on determining the most useful focus for the cross-site evaluation.

One of the first activities that the leadership team and cross-site evaluation team engaged in was determining the overall questions that would guide the cross-site evaluation. The agreed-on questions became, across the R&D projects:[2]

1. How and to what extent do collaborative interventions that are designed to increase protective factors and decrease risk factors in core areas of the social ecology result in

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1 Another aspect of the QIC-EC work was to fund two-year dissertation research stipends to advanced-level doctoral students conducting research relevant to the QIÇ-EC work. This aspect of the QIC-EC was not involved in the cross-site evaluation and thus not addressed here.

2 Minor changes were made in the guiding evaluation questions from the original ones in the Implementation Plan and RFP as the leadership team and cross-site evaluation team incorporated their learning and refocused their priorities over the life of the QIC-EC. The original set of questions included a question on the costs related to making changes within and among collaborations. It soon became apparent that the question was not realistic to address at this stage of the research and evaluation of the protective factors approach. The leadership team dropped this question.

increased likelihood of optimal child development, increased family strengths, and decreased likelihood of child maltreatment within families of young children at high risk for child maltreatment?

2. What new knowledge is gained about inquiry methods (i.e., research, evaluation, and measurement methods) related to creating evidence-based and evidence-informed practice, programs, and policies?
3. What new knowledge is gained about patterns of knowledge development, dissemination, and integration?

The first question was parallel to the guiding question that the leadership team gave to the R&D projects; the sites looked at their own project while the cross-site evaluation looked across the projects. The second question showed the importance that the leadership team gave to learning how to evaluate initiatives that seek a change in a complex array of social systems to be grounded in a different fundamental paradigm, one that emphasizes protective factors and has a strength-based orientation rather than one that emphasizes risk factors and has a deficit-based orientation. The leadership team recognized that current evaluation approaches were inadequate for supporting such a challenging undertaking. The third question recognized that generating new knowledge was insufficient. Such knowledge must flow, move, and be used within and around the systems to bring about change.

QIC-EC Structure

The QIC-EC project was led by three partner organizations. The leadership team included the QIC-EC project director and a senior member of each of the QIC-EC partner organizations: the Center for the Study of Social Policy (the lead organization), The National Alliance of Children's Trust and Prevention Funds, and ZERO TO THREE. The project officer from the Children's Bureau (the funding agency) also participated, and the InSites cross-site evaluation team leader served as an ex-officio member of the leadership team. Appendix B (*National Quality Improvement Center-Early Childhood Organization Chart*) shows the overall structure of the QIC-EC.

Through a Request for Proposals (RFP) process the QIC-EC leadership team selected four research and development sites in 2010. They were in Colorado, Massachusetts, Oregon, and South Carolina (see sidebar).

Intentionally the four sites differed with regard to setting, intervention, and population served. The design of the QIC-EC was to have four different interventions but all four would be aligned with the Strengthening Families Protective Factors Framework. The Protective Factors Framework was the cornerstone of the Strengthening Families approach to mobilizing partners, communities, and families in support of healthy child development (Center for the Study of Social Policy, 2011). The Framework included five interrelated protective factors: parental resilience; social connections; knowledge of parenting and child development; concrete support in times of need; and social and emotional competence of children. The sites began with an adapted Protective Factors Framework—the above five Protective Factors plus nurturing and

attachment. See Figure 1. Analyses of certain data during the implementation of the interventions in the R&D sites indicated that nurturing and attachment were embedded in the other Protective Factors. Thus in our evaluation reporting, we basically used the Strengthening Families Protective Factors Framework although at times we referred to the six protective factors used initially in the QIC-EC work.

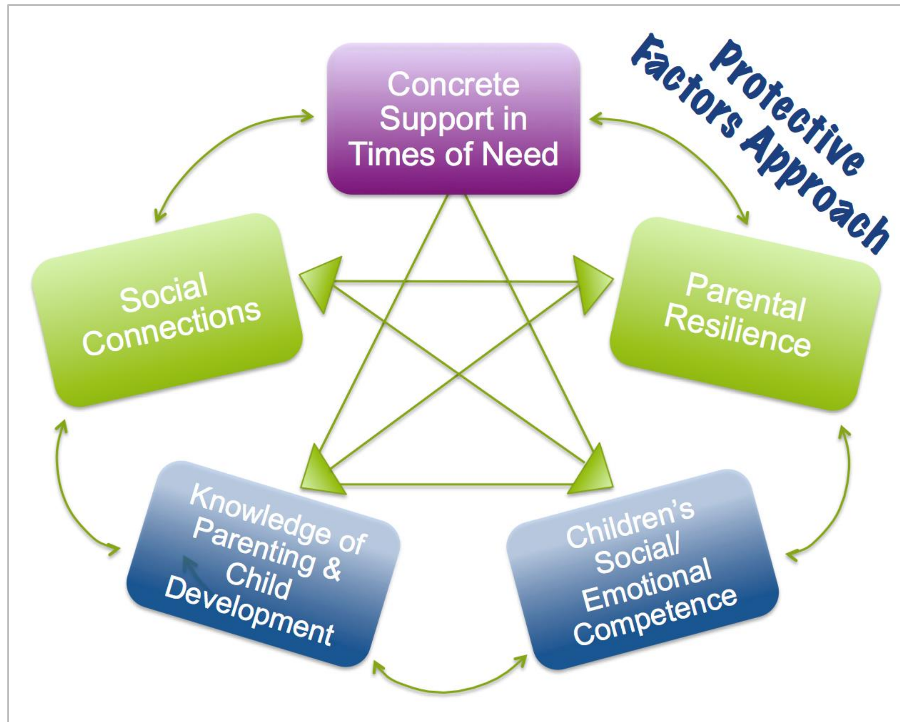

Figure 1. The Interconnected Protective Factors Framework

See Appendix C (*QIC-EC Strengthening Families Protective Factors*) for details of the protective factors. These protective factors have been identified in the literature as correlated with the desired outcomes of family strength, optimal child development, and reduced child abuse and neglect (Horton, 2003).

To understand the QIC-EC work and the cross-site evaluation, it is especially important to recognize that Strengthening Families is an approach, not a specific intervention. The Strengthening Families approach:

- "can be implemented through small but significant changes in everyday actions;"
- "builds on and can become a part of existing programs, strategies, systems and community opportunities;"
- "is grounded in research, practice and implementation knowledge." (Center for the Study of Social Policy, 2011, p. 2)

The QIC-EC was seeking to understand how to make change through the complex array of social systems that support families in situations where it is especially difficult to raise a child; such

R&D Projects' Interventions with Parents

The R&D projects were located in Colorado, Massachusetts, Oregon, and South Carolina.

- **The Strong Start project in Colorado** worked with women in substance abuse treatment programs. (See Teel, 2014).
- **Project DULCE in Massachusetts** focused on parents of infants from birth to six months in a low-income and immigrant community served by the Boston Medical Center. (See Sege, Kaplan-Sanoff, Morton, Velasco-Hodgson, Preer, Morakinyo, and Devos , 2014.)
- **Fostering Hope in Oregon** focused on parents of young children in low-income and immigrant neighborhoods in two mid-sized cities. (See Rider, Winters, Dean, and Seymour 2014.)
- **The Family Networks Project in two regions of South Carolina** worked with parents of young children with disabilities. (See Shapiro, 2014.)

See the section below entitled *QIC-EC R&D Project Descriptions* for more details on the projects as they relate to the cross-site evaluation.

circumstances can increase the likelihood of child abuse and neglect. This does not mean that particular parents in these situations are going to abuse or neglect their children but rather that these populations deserve to have the benefits of learning to build and use protective factors that may reduce the challenges of the situations in which they live.

Each of the four QIC-EC project interventions were required to have two components: (a) providers who worked directly with caregivers to support caregivers to build protective factors and (b) a partnership of individuals and organizations that looked beyond the direct work with caregivers to the organizations and practices within which the caregivers and providers were nested or connected. Each site was also expected to work across multiple domains of the social ecology. The QIC-EC defined the social ecology in four domains—individual, relationship, community, and societal—based on work of the Centers for Disease Control (2013) which in turn drew on the work of Bronfrenbrenner (1979).

Parent Participants

Although all parents in studies in the four sites shared the common role of parent to a young or unborn child, the four sites served populations that differed in significant ways. The QIC-EC leadership team in cooperation with the R&D sites and cross-site evaluators developed a Background Information Form to gather demographic and other descriptive information about the participants in each intervention. These data were gathered by the sites along with the information they gathered about parent outcomes. Comprehensive parent descriptive statistics were derived from analysis of more than 250 variables included on the form. (See Appendix D, *Description of Common Measures*, for more detail on the Background Information Form). The data were gathered by the researchers and evaluators in each local site both to describe the populations and to potentially use the variables as

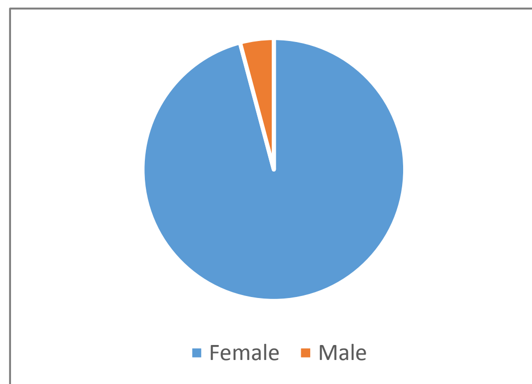

Figure 2. Parents' Gender

moderating variables in the quantitative analyses of parent outcome measures.

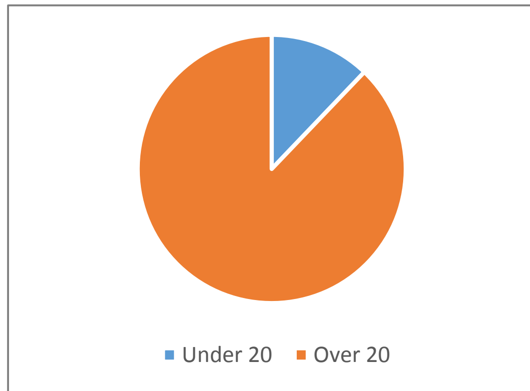

Figure 3. Parents' Age

Here we provide a summary description of the population cross-site to provide the reader with a better understanding of the parent participants. Further details about the demographic characteristics of the populations, including differences among the sites and the effect on attrition, are provided in Appendix E (*Comprehensive Parent Characteristics*).

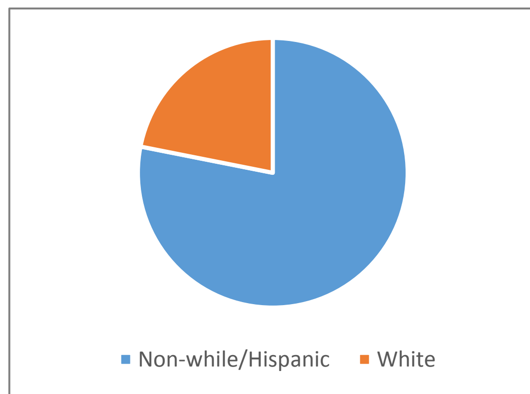

Figure 4. Parents' Ethnicity

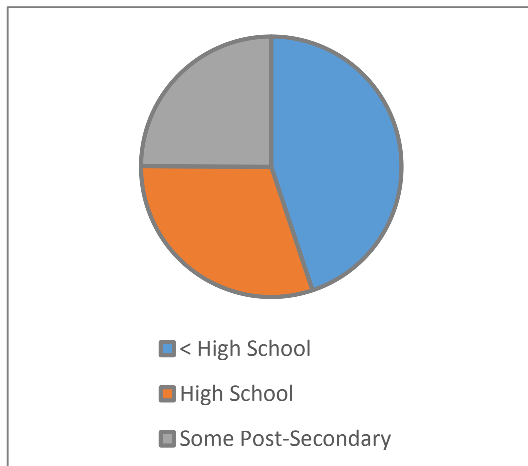

Figure 5. Parents' Highest Level of Education

Across all sites, the large majority of participants were women (96%) (see Figure 2) aged 20 or older (92%) (see Figure 3). Most (78%) identified themselves as non-white or Hispanic (see Figure 4). More parents reported having completed high school as their highest level of educational attainment (46%); many parents had some post-secondary schooling (30%) and a smaller group (24%) did not complete high school (see Figure 5). More than a third of the parents (39%) did not use English as their primary language, and these parents were concentrated exclusively in Oregon and Massachusetts (see Figure 6). In South Carolina, parents had to be comfortable speaking English as the intervention materials were not available in other languages. Across all sites, those parents not married or living with a partner numbered fewer at entry (151 vs. 210); however, with the exception of South Carolina, most sites registered significant changes in marital status cohort-wide over the course of the intervention. At the programs' start, 67% of the participants were unemployed; post-intervention unemployment rates dropped to 54%. Interestingly, this change was not reflected in the control group, which continued to reflect a 64% rate of unemployment post-intervention. Urban- and suburban-based parents composed the largest number, with urban participants concentrated in Denver and Massachusetts. Across all sites, data from the pre-intervention survey indicated that 65% of participants had experienced some degree of food insecurity. Pre-intervention, 91% of parents reported living in a stable home (own or rent, military base, or staying with family or friends) within the previous 12 months. The homeless parents were disproportionately represented in the Colorado site, making up 38% of that site's cohort.

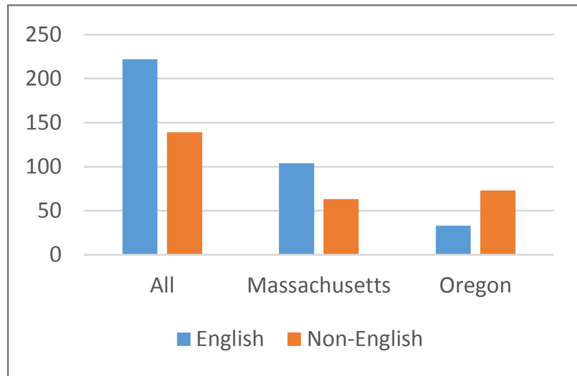

Figure 6. Parents' Primary Language

Attrition. An initial cohort of 695 parents composing both treatment group (361) and comparison group (334) responded to the survey pre-intervention. The survey was administered again after an average interval of 6.3 months; a total of 579 parents responded at that time. The difference of 116 parents reflected a 17% attrition rate, cross-site. Attrition for the treatment group was similar to attrition for the comparison group—16% and 17% respectively. Attrition at individual sites ranged from a low of 13% in Massachusetts to a high of 23% in Oregon. The parents most vulnerable to attrition were young women (under age 20), those with less education, those unmarried when they entered the program, and those who were experiencing housing instability.

Cross-Site Developmental Evaluation Approach

The QIC-EC leadership team wanted a cross-site evaluation that recognized the complexity of social systems. Rather than attempting to eliminate or ignore the complexity, they sought an approach that acknowledged and embraced complexity. Consequently we chose a developmental evaluation approach (Patton, 2011). Intended for complex situations and interventions, developmental evaluation supports those working with evolving and complex systems, interventions, and environments.

Developmental evaluation is relatively new. Members of our team have been part of the evaluation community through the American Evaluation Association who are involved in translating the concepts of developmental evaluation into practice. The seminal book on the developmental evaluation by Michael Patton (2011) was published in the midst of this evaluation and contains an example from the QIC-EC work (referred to below).

Developmental evaluation is:

- grounded in multiple systems theories including complex adaptive systems theory.
- designed to understand and support systemic change in complex social systems.
- intentional in using mixed methods.
- participatory.

Because developmental evaluation is a relatively new approach with few examples of evaluation conducted on the scale of the QIC-EC, we were pioneering the application of theory to the evaluation, an approach encouraged by the QIC-EC leadership team including the federal project officer. The leadership team, the site leaders and evaluators and we were all in a learning mode both about the processes and value of the developmental evaluation approach.

In this section, we explain how the four concepts of developmental evaluation listed above were used in the QIC-EC cross-site evaluation and the challenges and benefits of doing so.

Multiple Systems Theories

From the beginning, the QIC-EC leadership team recognized that, to contribute in a significant way to the complexity of changing social systems, it needed to move into frontiers of research and evaluation designed to embrace complexity, rather than to ignore or seek to control it. The leadership team recognized the importance of taking a systems orientation and drawing on systems theories. "A system is an interconnected set of elements that is coherently organized in a way that achieves something", according to well-known systems thinker, Donella Meadows (2008). A system may or may not be achieving the results that are desired. To change the results, features of the system need to change.

Social systems, be they formal, hierarchical systems such as social service systems or education systems or informal systems such as community networks and neighborhood associations can be thought of as composed of two basic theoretical types of systems— organized, controlled systems and complex adaptive systems.

Hierarchical social systems are built on the model of systems as organized and controlled (largely by those in the hierarchy). These systems are appropriate and function well for certain tasks especially those that are repetitive and predictable such as manufacturing and payroll processing. However, many systems operate more in line with theories about complex adaptive systems.

In complex adaptive systems, many semi-independent and diverse agents, each free to act in unpredictable ways, continually interact with and adapt to each other and to the environment as a whole. They create patterns through their movement. In the QIC-EC research and demonstration work, the "agents" are the parents, providers, partners, researchers, evaluators, and others. Understanding the patterns of interaction and when they tend to be more aligned with controlled systems or with adaptive systems is at the heart of determining how to influence social systems to better support parents of young children to build their own protective factors. See Appendix F (*Using Complexity Science Concepts When Designing System Interventions and Evaluations*) for more information on complex adaptive systems concepts and their relationship to evaluations such as this one. See Ramage and Shipp (2009) for other types of system orientations.

In developmental evaluation, these two basic types of systems are a useful way of thinking about complex systems and how change happens in social systems. A developmental evaluation recognizes that change happens in fits and starts and through different cycles and timeframes. Change occurs across the levels within hierarchical organizations and across the domains of the social ecology at different rates and with different degrees of depth of system structures. Developmental evaluation is especially appropriate for initiatives involving complex multiple social systems that, by their very nature, continue to develop and change over time.

Closely related to theories of the dynamics of systems are theories of how systems change. Meadows (2008) identified a dozen places to intervene in systems to bring about change. One of

the most powerful is to change the paradigm—the mind-set out of which a system with its goals, structures, and rules arises. This indeed was the orientation of the QIC-EC leadership. The theory focused on shifting the social systems to be grounded in the strengths-based oriented Protective Factors Framework rather than being grounded primarily in a deficit-based orientation and a focus on risks, a common current orientation in our social systems. The QIC-EC leadership team was seeking a fundamental change in the social systems related to the prevention of child abuse and neglect. The QIC-EC leadership team recognized that the systems by their nature are in continual dynamical movement and that changing the systems required more than implementing particular programs, even strong evidence-based programs. Although the leadership team wanted a system dominated by the protective-factors orientation rather than a deficit- and risk-focused orientation, the team recognized that the deficit- and risk-focused orientation would continue to be a part of the system. The team wanted to achieve a different balance—one that evidence showed was more supportive of a healthy environment for families with young children. In addition, the QIC-EC leadership team recognized that not only the direct work between parents and providers but also the subsystems of the larger complex social systems would need to change toward this protective-factors paradigm.

Evaluation Focused on Change in Complex Social Systems

To support the QIC-EC in its desire to understand how to bring about deep and lasting system change as envisioned by the leadership team, we refined existing analysis and communication tools or developed new ones to guide the evaluation process at the broad conceptual level. Three tools were especially useful: a model of the social ecology, a visual depiction of depth and visibility of system change, and a display of change over time in complex systems. We describe each here along with comments about their utility for the cross-site evaluation.

Domains of the Social Ecology

The QIC-EC began with the assumption that social systems are a combination of formal and informal systems with interconnections within and among the domains of the social ecology. Early on the conversation shifted from referring to *levels* of the social ecology (implying hierarchy) to *domains* of the social ecology.

Using the social ecology gave us a means of seeing the range of actors, systems, and subsystems involved in the processes affecting parents' building of their protective factors. The QIC-EC required each site to address the individual domain of the social ecology and at least one of the other domains.

Here is a description of the domains of the social ecology with information about their relationship to the protective factors and those involved in the R&D sites. The information about these relationships was generated during the first year of the cross-site evaluation work in the R&D sites. This knowledge informed the evaluation as we continually adjusted the evaluation to address changing conditions and understandings. See Figure 7.

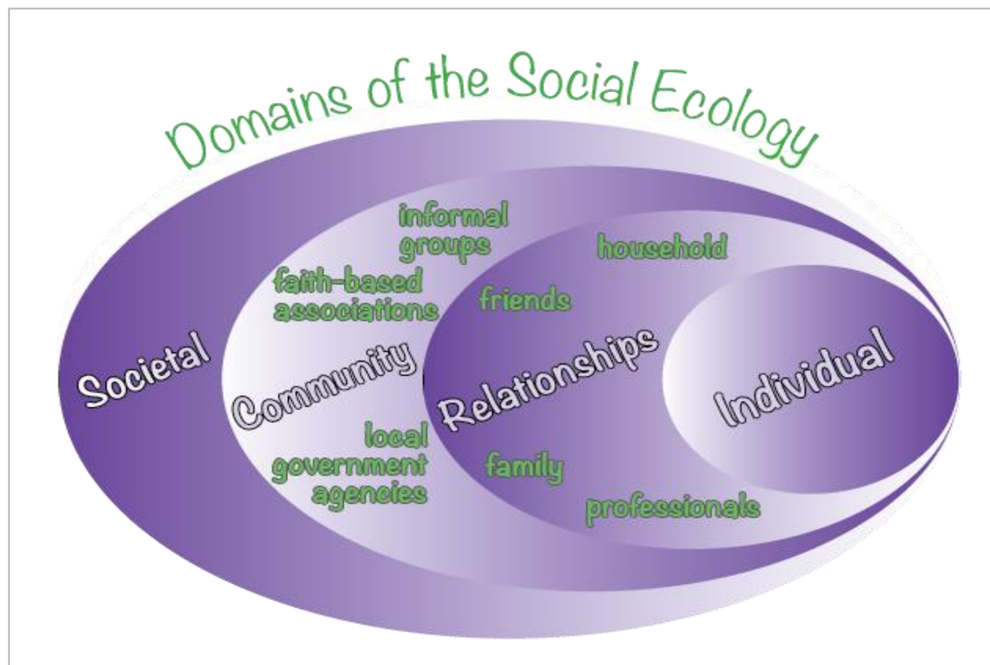

Figure 7. Domains of the Social Ecology

The **individual domain** of the social ecology refers to qualities, "structures," processes, and paradigms that are located within an individual—e.g., knowledge, awareness, skills, behaviors (except those that are relational), belief systems, and self-efficacy. As we viewed our data from the site visits, we found that two Protective Factors were primarily in the individual domain: parental resilience, and knowledge of parenting and child development. These Protective Factors are thought of as ultimately residing in the individual, though they are often developed through interactions with others.

The **relationship domain** of the social ecology refers to the qualities, structures, processes, and paradigms that exist in and drive the interaction between two or more individuals. Through analysis of our data, four types of relationships stood out as highly important for the parents. First and foremost is the parent-child relationship. The relationships with family members were also of high importance; though who was considered "family" varied among the parents. In some cases it was the nuclear family; in other cases it was extended family or non-biological family units that had formed.

Additionally, two types of important relationships existed outside the family. One type was the informal relationships with peers—neighbors, friends, and co-workers. The other relationship was the more formal relationship with providers such as those in an agency, medical center, church, or other organization. Firmly grounded in the relationship domain were four of the protective factors: social connections; concrete support in times of need; the social-emotional competence of children; and nurturing and attachment. The importance of each relationship type (with child, family, peers, and/or providers) varied among the parents and the interventions.

The **community domain** refers to qualities, structures, processes, and paradigms that are located within the collective entity that brings together supporters and builders of protective factors who

are relatively close in proximity to one another. The community domain includes formal and informal communities and organizations that exist within the geographic, provider, and/or parent/child communities relevant to the site. The emphasis in this domain tends to be on the informal connections and norms that may be implicit rather than explicit.

The definition of community varied among the sites. It might be a geographic community, a provider community, and/or a special parent community such as the substance abuse recovery community or families with children with disabilities. Different communities were important in each study. For the Colorado site, three community definitions were important: the substance abuse recovery community; the substance abuse treatment community; and the geographic community defined by which county the participating woman came from. In Massachusetts, the prominent community definition was the community that the Boston Medical Center served. This involved many families with low incomes and many immigrant families. The medical home also was another way of defining the community. In South Carolina, the community was comprised of those families with young children with disabilities and the provider organizations that served these children and their families in two geographic regions of the state. In Oregon, the neighborhood was the dominant community definition.

The **societal domain** refers to the structures and paradigms that institutionalize, regulate, and sustain the “systems” in the community, relationship, and individual domains. The societal domain refers to a larger system than the community, most likely a county, state, region within a state, nation, or region within a nation. This domain tends more toward the formal and regulatory aspects of the social ecology. This larger societal domain influences the community domain as well as the relationship and individual domains. For our purposes, we emphasize governmental policies in this domain. In the Colorado site, for, example, the four counties had different policies and practices in terms of health and social services that differentially affected the intervention.

The social ecology emphasizes the systemic nature of change and the influence of the formal and informal systems that surround the parent-child and other parent relationships. When parents are building their protective factors, they are engaged in a closely connected interplay between the individual and relationship domains. Both the community and societal domains have a role in creating the enabling environment within which parents build their protective factors.

The Iceberg Diagram: Illustrating the Visibility and Depth of Systemic Change

A second communication tool we used in the developmental evaluation was an illustration that focused attention on delving deeply into social systems both within and across the domains of the social ecology. See the *Iceberg Diagram* in Figure 8.

Too often evaluators look only at the observable *behaviors, activities, and results* (the tip of the iceberg). The purpose of looking below the surface is to determine leverage points—places in the system where a small change can lead to a significant shift in behavior. By identifying potential leverage points, the evaluator can assist initiative leaders to take action to efficiently move

toward their desired outcomes. The deeper you go in the iceberg, the more effective the shift is likely to be. However, those deeper changes often are more difficult to accomplish. See

Appendix G (*Using the Visibility and Depth Iceberg Diagram to Understand Complex Systems*) for further discussion of the iceberg diagram.

Figure 8. The Iceberg Diagram: Visibility and Depth of Change))

To understand and influence systems change in our evaluation, we went deep below the surface to understand *norms, infrastructures, and policies* especially as we moved beyond the direct work of providers to parents into looking at the work of organizations and partnerships. We looked at *patterns* that seemed to connect the actions of providers to the norms, infrastructures, and policies of their organizations.

Moving deeper, we then sought to understand the *guiding principles* that are shaping the actions of people across the systems and are connected to their underlying *paradigms*. We considered ways in which elements of the existing social systems were and were not congruent with the paradigm of a Protective Factors Framework. The large arrows on the left side of the iceberg illustrate our evaluation process. We moved down through the increasingly less visible characteristics of the social systems to understand the underlying paradigm that was shaping the *current* activities, norms, infrastructures, policies, and other features. The arrow on the right illustrates the aspects of our evaluation processes that involved our helping the participants envision what those features *would look like* if the new paradigm (in this case, the Protective Factors Framework) was the driving force.

We used the iceberg diagram to illustrate and communicate the nature of our focus as we talked with stakeholders during out site visits. Generally speaking, when talking with providers, we were seeking to understand the specifics of their behaviors, activities, and the results for parents (the tip of the iceberg). When working with the leaders of the providers' organizations and the organizations within the partnerships, we focused more heavily on the norms, infrastructures, and policies that these key leaders and influencers of the social systems were affecting. As we moved back and forth across the levels of depth of the iceberg between specific actions, behaviors, and results to the depth of the paradigms, we identified patterns that helped us understand what it meant to implement the Protective Factors Framework through different interventions with different populations in different contexts.

Later sections of the report address the work of providers with an emphasis on specific actions and behaviors that are likely to influence results for parents (see sections entitled *Supporting Parents to Build and Use Protective Factors* and *Parent Outcomes*) and the work of partnerships and member organizations (see section entitled *Partnerships and the Community and Societal Domains of the Social Ecology*). The section entitled *Guiding Principles* addresses the deeper level of the iceberg that shapes the work of the providers, their organizations, and the partnerships.

Illustrating Change in Complex Social Systems over Time

With our third analysis and communication tool, we sought to illustrate systems change over time as the project moved toward a grounding in a new paradigm. In this tool, we combined (a) theories about how both organized, controlled systems and complex adaptive systems are part of the complexity of social systems; (b) attention to the domains of the social ecology; and (c) concepts about the visibility and depth of change as illustrated with the iceberg diagram.

Figure 9 shows the starting conceptualization of the theory of change within the complex social systems in the Strengthening Families initiative. (Michael Patton (2011) used our tool as an example in his book, *Developmental Evaluation: Applying Complexity Concepts to Enhance Innovation and Use,* to illustrate a way to look at cross-scale patterns of change.) Appendix H (*Theory of Complex Systems Change for Cross- Site Evaluation of QIC-EC R&D Projects*) gives a description of the diagram and the initial theory when starting the cross-site evaluation that we provided to the National Advisory Committee in October 2011. In a nutshell, the rows of the matrix in Figure 9 represent units or subsystems of the complex social systems involved in supporting the building of the Protective Factors among parents. The rows are connected to the domains of the social ecology with accompanying connections to the depth of system change illustrated in the iceberg diagram. The columns represent movement from left to right toward the point (right hand column) where complex systems within and across the rows of the matrix can maintain a grounding in a Protective Factors Framework as the basic orientation of their systems while adapting to the context in which they work.

We caution the user of this diagram that visually depicting the change process in a two-dimensional static diagram suggests that the change process is more linear and stepwise than it actually is. The phases shown by the labels of the columns are often repeated at different scales

and in different variations. Yet the theory assumes that the overall trend line is moving toward a greater preponderance of action in the right hand columns as the Protective Factors Framework becomes more firmly established as the foundation of the complex social systems that are affecting the well-being of parents and families with very young children.

We used the diagram to facilitate conversations among stakeholder groups as they considered this overall "map" of their work together. Using the diagram allowed the different stakeholders in different parts of the social ecology (or subsystems) to see how they could each be at different phases of the change process and discuss the differences in patterns and timing of change for different subsystems.

In the final section of this report, we use this basic diagram again to capture the learning from the QIC-EC cross-site evaluation about changes in complex social systems.

Mixed Methods

A developmental evaluation typically uses mixed methods tailored to fit the context. Mixed methods can be thought of in two ways, both of which were important in the QIC-EC work:

- mixed evaluation designs with one type of design based on linear or other predictable cause-and-effect models and another type based on assumptions of dynamical motion and unpredictable outcomes.
- a mix of qualitative and quantitative data

Mixed Evaluation Designs

In the QIC-EC cross-site evaluation, we used an especially powerful combination of evaluation designs—experimental/quasi-experimental designs and adaptive designs. The leaders in each site developed their own experimental or quasi-experimental evaluative research design to understand the connection between the intervention and results for parents. An experimental evaluation design builds on an assumption of predictable, organized system change as discussed above. The design assumes that using sufficient controls and rigorous attention to methodological standards allows one to make a predictive link between the intervention (the cause) and the outcomes (the effect). When an intervention is well defined with prior evidence of the link of the intervention to outcomes (an expectation with the R&D sites), this is a reasonable evaluation design. The sites adhered closely to the requirements of such designs in studying the intervention with parents and the parent outcomes.

We drew on the data from the experimental/quasi-experimental designs of the individual sites and added an adaptive evaluation design. The adaptive design was aligned with the second type of system dynamics theory described above—complex adaptive systems. In our design, we looked more deeply into the interventions collectively to focus on the movement of the Protective Factors Framework across the domains of the social ecology and in various social systems (organizations). This was a much more "messy" process and involved more adaptive data gathering, analysis, synthesis, and interpretive processes.

Framework for Strengthening Families Theory of Systems Change (Beginning of QIC-EC)

Points of Systemic Influence	Baseline Understanding *To what extent:*	Trying Out Interventions	Tipping Point	Sustainable Adaptive Balancing
Caregiver-Child-Family	Are families aware of and practicing protective factors? Do parents use both organized and adaptive dynamics?	Families test use of protective factors and determine changes in relationships and boundaries in daily life. Families learn to self-assess use of protective factors.	Enough families are habitually using and building protective factors that family norms are shifting in support of protective factors framework for living. Benefits being realized.	Caregivers are connected with other caregivers and family members who are skilled at using and building protective factors. Family norms support protective factors. (Evidence of well-being of families and levels of child maltreatment regularly monitored.)
Neighborhood/ Community	Are neighborhoods and their leaders building social cohesion around protective factors? Do they encourage adaptive and organized dynamics?	Neighborhoods/communities pilot new ways of functioning that are grounded in protective factors and social cohesion.	Neighborhoods & leaders commit to use and support protective factors. They leverage organized and adaptive dynamics. Desired social cohesion being achieved/supported.	Neighborhoods & leaders adjust to social conditions in community and emphasis on supporting protective factors. They consider and reflect on their ways of functioning. (Evidence monitored.)
Organizations, Providers (Norms, infrastructures, policy)	Are organizations/services designed to support protective factors framework? Do providers encourage adaptive & organized dynamics to support building protective factors?	Organizations/providers pilot new ways of operating that emphasize protective factors framework. They determine cost implications.	Organizations/providers commit to redesigned norms/structures/policies that support protective factors framework & principles. They leverage organized and adaptive dynamics. Desired benefits being realized/supported.	Organizations/providers use caregiver, child, family outcome and other data to adjust to social conditions in community with emphasis on presence of protective factors. Organizations/ providers leverage both adaptive and organized dynamics.
Societal Actors (State & national) (Norms, policies, infrastructures)	Are norms, infrastructures, policies based on protective factors/ framework principles? Are policies attentive to both organized and adaptive dynamics?	Norms, infrastructures, policies targeted for change with engagement of multiple voices, perspectives, and valuing of protective factors.	Norms, infrastructures, policies overall encourage presence of protective factors. Leverage both organized and adaptive dynamics. Caregiver, child, family outcomes supported.	Societal leaders balance attention to risk and protective factors tailored to micro-contexts. They address norms, infrastructures, policies and dynamics over time based on monitoring data and related new knowledge.
Stakeholder Learning & Capacity Building	Do learning activities address protective factors and model both adaptive and organized dynamics?	Learning activities redesigned and tested with attention to protective factors and use of interactive, peer-to-peer learning and learning from families.	Communities of practice grounded in peer-to-peer learning and application are common; include reflection on use of protective and risk factor attention in different contexts.	New knowledge development, dissemination, and integration woven into practice with learning activities and communities of practice used to shore up challenging areas. (Stakeholder knowledge and practice regularly assessed.)
Networks/ Partnerships	Are networks/partnerships designed to encourage protective factors? Do networks/partnerships leverage adaptive and organized dynamics?	Networks, partnerships test change in norms, infrastructure, and policies among their members.	Key partners, networkers have multiple interconnections that encourage attention to protective factors in a micro & macro level. Attention to protective factors framework is fundamental to connections.	Partners, networkers use data feedback to strategically shift connections to respond to contextual changes to ensure primary attention to protective factors. Shifts are based on systems thinking.

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Figure 9. Framework for Strengthening Families Theory of Systems Change (Beginning of QIC-EC)

Figure 10, the *QIC-EC Site-Specific Analysis Framework*, generally shows the linear assumption undergirding the experimental/quasi-experimental design of each site. The logic model in the figure illustrates a linear cause-and-effect model with the "cause" being the intervention with the parents and the "effect" being the outcomes for parents. To varying degrees, the leaders of sites included other data gathering and analyses that went beyond the experimental/quasi-experimental designs for their own local purposes. We did not include attention to the community and societal domains of the social ecology and their relationship to the outcomes for parents in this figure because we did not systematically use their data that went beyond the experimental/quasi-experimental design.

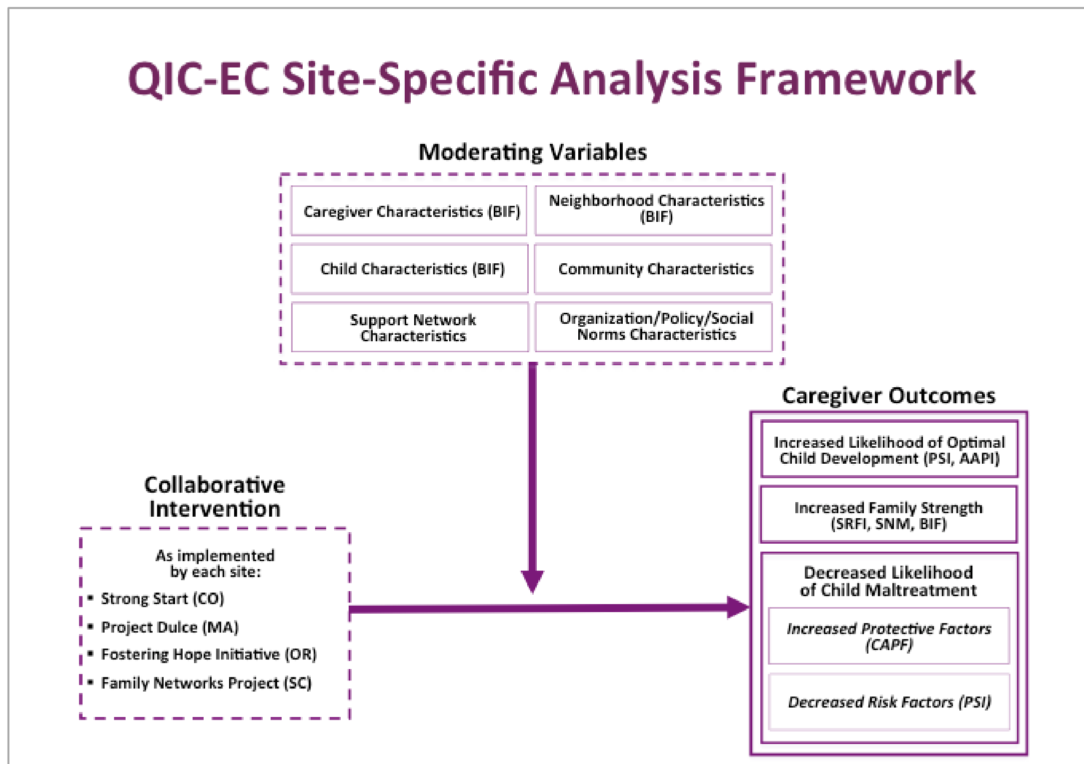

Figure 10. QIC-EC Site-Specific Analysis Framework

Figure 11, the *QIC-EC Cross-Site "Meaning-Making" Framework*, illustrates the cross-site evaluation design. Note the similarities and differences between Figure 10 and 11. Figure 11 shows the logic model of Figure 10 as well as other features. First of all, Figure 11 shows the moderating variables (characteristics of the populations in the study) that may be interacting with the interventions. Second, Figure 11 shows another set of variables (mediating variables). We "unpacked" the interventions to identify the levers for system change that were hypothesized to be especially important in supporting the building of the Protective Factors among parents. Third, the "bubble" in Figure 11 represents yet another element. It illustrates the adaptive design--that we attended to the broader context and systems within which the linear cause-and-effect model was situated. It represents the investigation of the nonlinear dynamical patterns that were

occurring within and across the domains of the social ecology. These patterns were investigated with reference to the three analysis and communication tools discussed above.

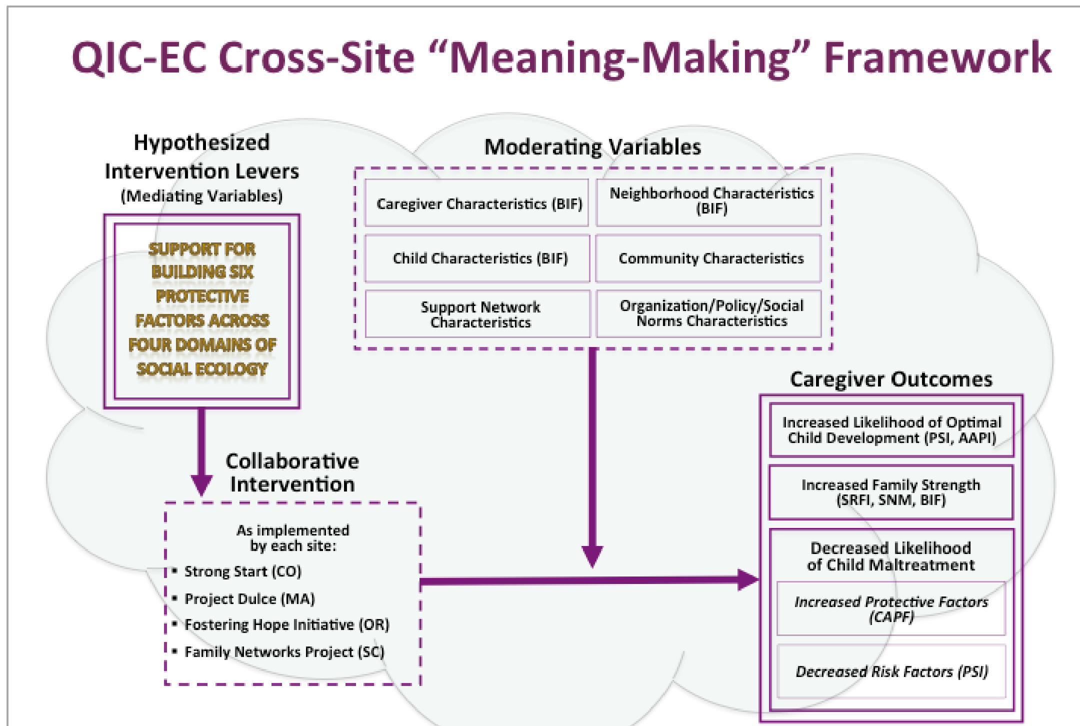

Figure 11. QIC-EC Cross-Site "Meaning-Making" Framework

Additionally, the cross-site evaluation team requested the QIC-EC leadership team to develop hypotheses about the relationships and connections they expected to see among the aspects of the elements in Figure 11. We began with the assumption that we would test these hypotheses using the parent outcome data to the extent feasible and would use the hypotheses to see priorities on the areas of attention in our qualitative data gathering and meaning-making.

Mixed Qualitative and Quantitative Data

Both qualitative and quantitative data were used in the cross-site evaluation. In doing so we need to consider that there were three important areas for which data were collected in each site. Data were gathered about (a) the nature of the outcomes for parents, (b) characteristics of the populations involved, and (c) the nature of the intervention.

Measures of Parent Outcomes and Characteristics

The QIC-EC established a set of common outcomes in cooperation with the National Advisory Committee during the planning phase of the QIC-EC—increased family strengths, likelihood of optimal child development, and reduced likelihood of child maltreatment. An important aspect of the R&D work in each site was to determine if these outcomes occurred as a result of the use of a collaborative intervention that promoted the building of protective factors.

Following numerous discussions with project site personnel and with cross-site evaluators, the QIC-EC leadership team selected six instruments to use pre- and post-intervention to measure background factors and parent outcomes. The same instruments were used in each of the sites. Three of the six common quantitative measures were nationally validated instruments (although often validated in different, not entirely congruent situations): the Adult-Adolescent Parenting Inventory (AAPI-2); the Parenting Stress Index (PSI), and the Self-Report Family Inventory (SRFI). One instrument was adapted for use in the QIC-EC: a social network map. Two instruments were developed specifically for this project: the Caregiver's Assessment of Protective Factors (CAPF); and a Background Information Form that included questions about family conditions and other characteristics of the participants.

Table 1 shows the common quantitative measures that were used for the outcome analyses presented in the *Parent Outcomes* section of this report. Further details on the common instruments can be found in Appendix D (*Description of Common Measures*). Additionally each site had its own local measures. (See Rider et al., 2014; Sege, et al. 2014; Shapiro, 2014; and Teal, 2014 for information on the local measures and other aspects of the site specific research and evaluation).

Outcomes	***Domain(s)***	***Instruments***
Optimal Child Development	Parenting Capacity	a. *Sense of Competence* Subscale of Parenting Stress Index (PSI) b. AAPI-2
Increased Family Strengths	Family Functioning and Relationships	a. Family Strengths subscale of the Self-Report Family Inventory (SRFI) b. Social Network Map c. Background Information Form
Increased Likelihood of Decreased Child Maltreatment	Risk Factors	a. AAPI-2 b. Family Risks subscale of the Self-Report Family Inventory (SRFI) c. PSI (long form) d. *Depression* and *Isolation* subscales on PSI
	Protective Factors	Caregivers' Assessment of Protective Factors (CAPF) Subscales of CAPF • Parental Resilience: Parenting Stress • Parental Resilience: General Life Stress • Social Connections • Concrete Support in Times of Need • Nurturing Children's Social and Emotional Competence

Table 1. Quantitative Common Measures Used Across R&D Sites

Selection of common measures

Shifting paradigms from reducing risk factors to supporting the building of protective factors meant finding tools that were philosophically congruent with the Protective Factors Framework. An early inventory of available instruments yielded few plausible candidates. The existing instruments that met the initial criteria (see Appendix I, *Common Measures Selection Criteria*)

had drawbacks that mitigated their effectiveness in this particular implementation. As noted above, ultimately, the QIC-EC team assembled a battery of measures of parent outcomes that included validated measures (though often developed for use in different populations and different programs) and instruments modified or developed specifically for this project. (See Appendix D (*Description of Common Measures*) for a further description of the instruments.)

Both practical and philosophical considerations informed this choice, and the final decision to adopt this set of common instruments required both a pragmatic acceptance that these were the best available at the time, and the recognition that additional vigilance was required when interpreting results. Validated assessments that focused on parenting older children (e.g., Adult-Adolescent Parenting Inventory, AAPI-2) were not necessarily suitable for the age of the children involved, as tools that measured parenting skills were less appropriate than those that sought to assess knowledge of child development. Most of the available assessments, including the Parenting Stress Index (PSI), took a risk-factor approach contrary to the QIC-EC's focus on protective factors. For those that included a more positive focus, the ceiling effect dampened results (e.g., Self-Report Family Inventory).

The QIC-EC project director and colleagues developed the Caregivers' Assessment of Protective Factors (CAPF) specifically for the QIC-EC and refined it over the course of the project. The statistician who was a member of the cross-site team conducted exploratory factor analyses and reliability analyses midway through the project to refine the constructs and appropriately assign the items. A description of the CAPF factor analyses that occurred as part of the QIC-EC cross-site evaluation is found in Appendix J (*Exploratory Factor Analyses of Caregivers' Assessment of Protective Factors*). Although this instrument yielded valuable data, the ceiling effect was pronounced.[3] The addition of a retrospective component to the post-intervention assessment could allow the instrument to achieve finer resolution in evaluating the effect of interventions on parents' developing protective factors.

We used a similar strategy of conducting an exploratory factor analysis with the SFRI to determine the most appropriate subscales for the populations being served across the project sites. In this process, we established two different, more applicable subscales: Family Strengths, (positive family interactions) and Family Risks (negative family interactions). (See Appendix K *Self-Report Family Inventory Exploratory Factor Analysis*, for details on this process.) Using the new subscales allowed us to focus more precisely on the effect the Protective Factor Framework may have had on family relationships, an important outcome being addressed.

In addition to the quantitative measures of parent outcomes, in our last round of site visits, we held focus groups with parents who were no longer in the study. The parents participated in focus groups to give us feedback about the nature of support they were receiving as they built their own protective factors. See Appendices L (*Caregiver Focus Group Protocol*) & M (*Summary of Caregiver Focus Group Results*) for the focus group protocols and summary of results.

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3 The Center for the Study of Social Policy is conducting further development of the CAPF outside of the work in the QIC-EC discussed here.

Challenges of selecting common measures

A number of considerations made the selection of common measures and indicators a complex and challenging task. The leadership team sought to include measures that focused on change measurable within the timeframe of the QIC-EC project, while also providing baseline data that could be tracked over time. Other factors influenced the selection process, including:

- differences in level of detail appropriate to each intervention; and
- the paucity of available instruments focusing on the constructs of interest.

Working at a broad enough scale to encompass the different interventions within the generally narrow interval of testing presented a particular challenge in choosing measures. As discussed in the section below entitled *Parent Outcomes*, the two sites with the most positive results had higher dosage (frequency, intensity, and duration). The leaders of these two sites focused their intervention across all of the protective factors, but the required approach to the use of the common measures did not include a specific way to isolate or compare these elements. Additionally, in interviews with providers and partners and in parent focus groups, we came to understand that other outcomes might be equally or more appropriate to measure. For example, in the focus groups with parents, we found that parents valued four types of relationships. Primary were the relationships to the child and the family (as reflected in the outcomes of likelihood of optimal child development and increased family strength); however, relationships to accessible peers and to providers from community agencies and organizations were also important. We did not look more deeply at these questions within this study because the individual site study designs did not allow the cross-site evaluators to have direct access to parents for interviews or surveying.

Two other methodological challenges related to issues around selecting measures and instruments. First, time was significant in a number of ways. Although parents cannot be expected to build their protective factors in a linear and predictable way, data collection happened at discrete points, and often at a shorter interval than necessary to register change. Second, it was necessary to balance each site's need for local measures specific to the intervention alongside the program-wide need for common measures. This presented the risk of duplicated items and participant testing fatigue. Third, although the QIC-EC project director convened a training session for the on-site staff who gathered data from the parents, personnel changes and variation in expertise among those who administered the instruments also influenced the work. The Social Network Map, in particular, required considerable training.

Measures of the Intervention

Our measurement of the nature of the interventions focused on the support to parents in building of their Protective Factors. We looked at the support first at the level of the direct providers who were working with the parents. We also looked at the support from the partnerships. We developed quantitative measures (rubrics) as well as interview guides that were used in yearly site visits. As part of our yearly visits to each site, we met with providers and attended a meeting of the collaborative partnership in each site.

Provider-focused measures

There was no existing instrument available to specifically assess how providers were working with parents related to the Protective Factors. We created a Protective Factors Intervention Assessment (PFIA) that contained rubrics by which we could assess how and to what extent a specific provider was focusing on a particular Protective Factor with a parent. The four-point scale of the rubric generally moved from the provider taking initiative to increased initiation by parents in determining and requesting information and assistance targeted to their needs and interests. Higher levels of the rubric also showed evidence of deepening levels of parent self-reflection and deepening levels of trust between the service provider and parents. The rubric also allowed rating of the extent to which a particular protective factor was 1) already present, 2) central to the work of the provider, and 3) intentionally being addressed by the provider. In Appendix N (*Cross Site Evaluation Instruments for Partner Organizations and Instructions for Use*) we provide the rubrics and instructions for use of these in the sites visits. In Appendix O (*Provider Support for the Building of Protective Factors*) and Appendix P (*Preliminary Analyses of Support for the Building of Protective Factors*) we provide additional information on the development of the rubrics and examples from the 2011 and 2012 site visits of how providers were supporting the building of protective factors in the sites.

Within these rubrics, it is expected that as one moved to higher levels of the rubric there would be an increased level of protective factors being built by the parent, as evidenced by increased initiation by parents in seeking assistance, information and support related to their needs and interests, deeper levels of parent reflection, increasing ability of parents to advocate for themselves, and deeper levels of trust between provider and parent. Over time, parents would increasingly be making their own decisions and determining their level of involvement in the intervention.

Providers roughly followed a similar reverse pattern of supporting parents, working first with parents to decide what was most needed at particular times in order to increasingly build parent capacity related to the protective factors. As there was increased initiation by parents regarding the particular protective factors and issues they wanted to address, the provider could step back. This idea is conveyed in the Wraparound motto of "Do for, do with, cheer on."

This rubric was used at the general level of the work of the provider with the various parents she was seeing. To be able to analyze the outcome data in light of the support given to a particular parent, the provider would need to use the rubric with each parent. This was not feasible in the QIC-EC design. Near the end of the project, the Oregon evaluators created a rubric (the Strengthening Families Protective Factors Grid) that they can use in the future to assess where a given parent is in regard to each Protective Factor. In future studies the Protective Factors Intervention Assessment (PFIA) could complement the SFPF Grid in a way that could link the intervention to the parent's status in having built her Protective Factors.

Partnership-focused quantitative measures

We used rubrics as quantitative measures at the level of the partnership. These quantitative measures were useful in understanding the work of the partnerships. However, the work of the

partnerships was not sufficiently linked to the intervention of the parents in the current studies to make it feasible to establish a link to the outcomes for parents in the studies. Rather the work of the partnerships was more likely to have an effect for similar parents in the future. See Appendices N (*Cross Site Evaluation Instruments for Partner Organizations and Instructions for Use*), Q (*Cross-Site Material for Group Interviews with Project Partners – September 2012 Site Visit*), R (*Cross-Site Materials for Group Interviews with Project Providers and Project Leaders – September 2012 Site Visits*), and S (*Spring 2013 Site Visit Purposes & Draft Schedule*) for examples of the instruments used in the site visits.

The cross-site evaluation team also used the online PARTNER (Program to Analyze, Record and Track Networks to Enhance Relationships) survey [4] as one means of understanding the nature and role of the partnerships and the level of stability over time in the partnership's relationships and activities. The PARTNER survey assessed each partnership including what expertise and connections each organization brought to the partnership, partnership outcomes and progress, and the relationships among the organizations on various dimensions, such as frequency of interaction among partners; trust among partners (measured as reliability, mission congruence, and transparency among partners); and the value of partners to a network (measured as power, level of involvement, and resources). Additionally, the survey revealed the connections among partners and various attributes of those connections. This information on connections served as the basis for a social network analysis among organizations involved in inter-organizational collaboration.

This survey did not assess the appropriateness or inappropriateness of any aspect of the partnership but simply reflected what exists based on the perspective of the partner organizations at a particular point in time. The responses provided a collective picture of the relationships among the partners. We looked for patterns across the two administrations of the survey at each site and across the sites. The survey data provided confirmatory information regarding the partnership information that we gained in the site visits.

The surveys were conducted at the beginning and end of the project in each site.[5] We asked all members of the partnerships to complete the online survey. The response rate for the first administration of the survey was 100% in four of the locations and 60% in one Oregon location. The response rate for the second survey ranged from 80-100% in four sites and 40% in the same Oregon location. See Appendix T (*PARTNER (Program to Analyze, Record, and track Networks to Enhance Relationships) Online Survey*) for the survey questions. See Appendix U (*Project DULCE PARTNER Survey Draft Summary*) for a sample of the survey summary that was prepared for each site. See Appendix V (*Cross-Site Information from PARTNER Survey*) for the cross-site data from the PARTNER survey.

4 The PARTNER survey used in the QIC-EC cross-site evaluation was based on the PARTNER tool developed by Dr. Danielle M. Varda, Assistant Professor at the School of Public Affairs, University of Colorado Denver. PARTNER can only be used for non-commercial purposes. Copyright © 2010 University of Colorado. For additional information about PARTNER go to: http://www.partnertool.net/

5 In Oregon two different counties were involved in the project and each had their own partnership. Thus, for the PARTNER survey five partnerships responded to the survey.

Qualitative measures related to providers and partners

In regard to qualitative data, we used structured interviews during site visits with both providers, representatives of their organizations such as supervisors, partnerships as a group and their member organizations. During the site visits in 2011, 2012, and 2013, we looked at how partnerships were addressing changing conditions in organizations, neighborhoods, and the social norms and policies for all parents of young children in the broad focus population – rather than only those parents in the specific project. The cross-site evaluation team interviewed representatives from the organizations in the partnership. The interview questions focused on the partnership's goals for 1) supporting the building of protective factors; 2) building capacity related to the protective factors at the provider, organizational, neighborhood and community levels; 3) building supportive social norms; and 4) changing or advocating for supportive local and state policy.

In 2013, we met with each partnership to review the role and development of the partnership over the life of the project, reflect on shifts in norms, infrastructure and policies and on the connection of those shifts to the partnership, and review the collective picture of the supports for building the protective factors.

Participatory

The fourth key aspect of a developmental evaluation is its participatory nature. The ability to use a participatory approach for the cross-site evaluation was facilitated by the fact that the QIC-EC leadership team was using a participatory approach to working with the R&D site leaders and evaluators.

The cross-site evaluation team met with the QIC-EC leadership team several times each year to review the analyses and syntheses of data, and to jointly interpret the findings with respect to the Strengthening Families approach. We were part of the meetings with site leaders convened by the QIC-EC leadership twice each year. Additionally, the QIC-EC project director participated in the site visits to hear and learn firsthand from the participants. The site leaders and evaluators had several opportunities to discuss the findings and to influence the cross-site evaluation. The participatory nature of developmental evaluation ensured that multiple perspectives were represented and that the evaluation was based on the realities of the situations and systems involved. We worked at multiple scales, engaging the sites and the QIC-EC leadership team in the interpretation of the evidence and data gathered in the sites. The multiple perspectives informed the interpretation of data and the evaluative work involved a continual movement between the parts (e.g., the project sites), the whole (e.g., the QIC-EC), and the greater whole (e.g., the child maltreatment prevention field).

The leaders of the sites varied in the extent that participation was part of their design. Because they were using experimental and quasi-experimental designs at the level of the provider-parent intervention, they had not designed their evaluations to be participatory between the evaluators and the participants. However, the leaders of the sites did use participatory approaches in

relationship to the partnerships. The local evaluators as well as we as cross site evaluators shared information with the partnerships.

QIC-EC R&D Project Descriptions[6]

As noted above, each project adopted an experimental or quasi-experimental design, and each was responsible for participant recruitment, randomization (for those using experimental design), assuring intervention fidelity, and administering the common measures. Colorado, Massachusetts, and South Carolina used an experimental design; Oregon used a quasi-experimental design. Each had a treatment and a comparison group (or in the case of South Carolina, two treatment and two comparison groups). The comparison group experienced the usual provider practices and the treatment group experienced the intervention being tested through the R&D project. This difference carried with it the assumption that the treatment and comparison groups would experience a clear difference in the presence of support for building Protective Factors. In reality, the comparison group often received some support for building Protective Factors because such support was an embedded part of the usual provider practices. In Colorado and South Carolina, for instance, the intervention being tested was essentially an enhancement to the usual provider practices with the populations being served (women in substance abuse treatment programs and parents of children with disabilities, respectively). Additionally, in some situations, there was bleed from treatment to comparison groups.

These situations meant that the cross-site evaluation team had to delineate the differences and similarities between the treatment and comparison groups to understand the extent of difference in the support for building Protective Factors that each group experienced. The similarities and differences also provided insight into how the Protective Factors Framework could be incorporated into systems through small strategic changes that may not involve bringing in a "packaged" intervention.

In the following we provide an overview of each of the four projects in terms of their intervention with parents, their partnership, and the nature and formation of their treatment and comparison groups.

Colorado – Strong Start

Direct Work with Parents

The Strong Start project implemented a team-based High Fidelity Wraparound (HFW) intervention to support mothers affected by substance use. In addition to being grounded in the Protective Factors Framework (particularly Parental Resilience, Social Connections, and

6 The project descriptions are taken from or adapted from materials written by the sites, (e.g., their final reports and Zero to Three articles) and our evaluation documents.

Concrete Support in Times of Need), the study was grounded in the theory and principles of HFW. (See Teal, 2014 for details of the intervention.)

The rationale for testing the HFW intervention model with families with parental substance use problems and co-occurring mental health issues was the knowledge that pregnant and parenting women in early recovery have complex needs and are often involved with multiple systems and programs. High Fidelity Wraparound was an enhancement to existing outpatient and residential substance abuse treatment. There also was an intentional focus on identifying developmental delays and connecting families to early intervention services as soon as possible. Project goals included facilitating collaboration and integrated planning between and among all service systems and natural supports for families, thereby supporting women's early recovery process and parenting capacity.

The target population for this project was substance-abusing pregnant women who had already come to the attention of the state and who were participating in state-funded treatment services. Treatment services and HFW staff played a role in mediating between the women who were trying to improve their lives and become effective parents and a child welfare system focused on protecting children, often by removing them from the real or perceived risks involved in living with a substance-abusing parent.

The usual services for the women participating in the project were provided through the State of Colorado's Special Connections program, which provides treatment to substance-abusing pregnant women. The usual services were grounded in a commitment to support the mothers to build the skills and resilience to remain sober and be effective parents for their children. HFW enhanced the goals of the usual services by adding services that were not available through substance abuse treatment.

Because of resources and the HFW model, HFW was able to address certain issues more effectively than was possible for those in the comparison group. However, those in the comparison group were receiving support as well to build skills and resilience through services that connect to protective factors.

The Partnership

Collaborative partners for the study included three organizations within the state of Colorado that share a common interest in the well-being of young children and their families: JFK Partners, Early Intervention Colorado, and the Women's Substance Use Disorders Program. As the lead organization for the Strong Start Study, JFK Partners had primary responsibility for the administration of the research. Both the Early Intervention Colorado (Part C) and Women's Treatment Services are state-level agencies that share concern for the well-being of young children and can influence policy and programs statewide. (Teel, 2014) (See Appendix W- *QIC-EC R&D Project Partner Organizations* for a complete list of the partner organizations for each site.)

Treatment and Comparison Group Formation

The Strong Start project worked with two agencies, one of which provided both out-patient and residential treatment and another that provided only out-patient services. Women participating in these programs were randomly assigned to the treatment and comparison groups. The comparison group received only the Special Connections Substance Abuse Treatment Services; the intervention group received those services plus HFW.

Treatment and Comparison Group Intervention Differences

In HFW, the relationship between the providers and the participating women had similarities to the usual services, but there were some key differences. HFW was essentially an enhancement to the outpatient and residential treatment services provided through State of Colorado's Special Connections program. HFW provided a higher intensity of services than the usual out-patient services and a longer duration of services than the usual residential treatment. This made room for continuity and a natural evolution in the relationships that support the HFW motto of "do for, do with, cheer on."

To this end, HFW built the capacity of the HFW team to function outside of the formal structures of the usual organization-based services, allowing for continued support after the intervention ended. Informal supports were brought into the core aspect of the intervention (the HFW team), and thus the "professionals" on the team not only supported the client directly but, over time, these professionals stepped back and built the capacity for the natural supports to take the lead. Although the usual services attempt to connect clients with such supports, the usual services have neither a formal mechanism for doing so nor a structured process such as the HFW team for building the capacity of such supports.

Massachusetts – Project DULCE Direct Work with Parents

Direct Work with Parents

Project DULCE, based in the pediatric primary care setting at Boston Medical Center, partnered with parents to help parents learn about and adapt to their newborns. Project Dulce had the dual goals of improving child development and reducing maltreatment. The intervention component adapted and combined elements of two existing programs: Healthy Steps and Medical-Legal Partnership | Boston (MLP|Boston).

The DULCE Family Specialist met with the family prior to the well-baby visits and accompanied the family to well-baby visits with the pediatrician for the first six months, and for home visits and telephone check-ins depending on the needs of the family. The Healthy Steps program provided the framework for the child development component of what a Family Specialist does during the well-child and home visits. MLP|Boston supported families by training the Family Specialist to identify legal and social needs that might affect a child's health and development and to take action either by helping the family advocate for themselves, or by referring them to an appropriate public health, legal, or social service agency or resource (including MLP|Boston).

DULCE focused on supporting the Protective Factors through the relationship between the DULCE Family Specialist and the family. The DULCE Family Specialists provided: 1) information on healthy child development, 2) parenting support, and 3) advocacy by connecting families to existing community resources available to them. The goal was to inform and empower families to become independent with the skills needed to advocate for themselves.

The Partnership

The Project DULCE Advisory Board included representatives of a number of local programs who actively participated on the Advisory Board. The programs included: Boston Public Health Commission, Massachusetts Children's Trust Fund, Massachusetts Department of Children and Families, Massachusetts Department of Public Health, Smart From the Start, and Thrive in 5 Boston. (Sege et al. 2014)

Treatment and Comparison Group Formation

Primary care was the point of entry for services. Parents were recruited at the well-baby visits of the newborn child. Parents who agreed to participate were randomized into either the treatment group or the control group. Those in the treatment group were assigned a DULCE Family Specialist whose primary role was to facilitate access to needed services. Those in the comparison group had visits with the pediatrician as usual but no facilitation of access to other services.

Treatment and Comparison Group Intervention Differences

The DULCE Family Specialist used a one-month, two-month, four-month, and six-month checklist, and a housing and income screen to assess with the family what the family's needs and concerns were and how best to address those concerns. To address the parent's concerns, the Family Specialist might provide information about resources/services, facilitate access to services (e.g., going over the application form for service so the parent knew how to fill it out), accompany the parent when applying for services (e.g., applying for income assistance), and/or refer the family for services and follow up to see that services were received. Some parents only needed the referral information; others needed to be walked through the process. At the conclusion of the six months, parents could be referred for continued services through other programs (e.g., Project Launch, social worker) if needed. In addition to focusing on health concerns, the Family Specialist also followed up with the parent regarding topics to be discussed in the well-baby visits or addressed issues that the pediatricians did not have time to address. The Family Specialists enhanced what the pediatricians were able to do, as they were able to obtain more detailed information from the families and build stronger relationships with the parents.

The comparison group had the usual well-baby visits with the pediatrician. In addition, the comparison group parents received safety training about safe travel and safe sleep and access to a car seat technician. Parents in the treatment group also had access to safety training but access to that training was not facilitated. After a well-baby visit, the parent in the comparison group met with a safety trainer who provided information about safe travel and safe sleep through video clips, handouts and discussion on these topics. Parents in the comparison group also received a

“pack and play” (portable crib) for participating in the study. Safety videos played in the waiting rooms for all families so those in the treatment group also had access to this information but their access to the safety training and car seat technician was not facilitated as it was for the comparison group.

There are questions about the degree of bleed of the treatment process to the comparison group. Pediatricians at the BMC saw families from both the treatment and comparison group. A Family Specialist would accompany families to the well-baby visits with the pediatrician. The pediatrician who had this experience with the Family Specialist likely was influenced by this and, in turn, changed how she dealt with families in the comparison group. It is possible, for example, that the pediatrician would refer families to Healthy Steps and MLP services, something she might not have thought to do without the experience with the Family Specialist.

Oregon – Fostering Hope

Direct Work with Parents

The Fostering Hope Initiative (FHI) was a neighborhood-based Collective Impact Initiative that promoted optimum child and youth development by supporting vulnerable families, encouraging connections between neighbors, strengthening collaboration, intentionally pursuing quality and accountability, and advocating for family-friendly public policy. FHI’s target population included families who reside in selected high-poverty neighborhoods in Marion and Yamhill Counties, Oregon.

Working at all four levels of the social ecology, the project: 1) provided services such as home visiting, parent education/support, and volunteer respite care to mitigate sources of toxic stress and teach parents to be more resilient in the face of stress, 2) mobilized neighborhood residents to promote family protective factors and thereby make their neighborhood a better place to raise children, 3) used collective impact strategies to improve collaboration, quality and accountability across partners, and 4) advocated for family-friendly public policy.

The Fostering Hope Initiative had a very different approach than the other three sites. Although parents in the treatment group received direct support from a home visitor, the key emphasis of FHI—along with direct support to the parents—was on the partnership and their work in the community.

The Partnership

The overarching goal of the FHI partnership was to build an enduring system of neighborhood-based supports for fragile families at high risk for child maltreatment in the targeted neighborhoods. Activities included neighborhood outreach and coordination; ongoing developmentally-specific neighborhood-based parent education and support groups; and home visiting with wraparound services.

The FHI collaborative was sponsored by Catholic Community Services of the Mid-Willamette Valley and Central Coast (CCS) and included state and local government agencies, public and

private sector organizations, local service providers and individuals. Together, partners provided a continuum of services and supports to strengthen families and create better neighborhoods—building the infrastructure to improve and scale up the programs proven to have high impact results for children, youth and adults. Strong relationships within the partnership helped to expand outreach into the community, enrich leadership, and strengthen the capacity to provide additional services for families. (Rider et al. 2014)

Treatment and Comparison Group Formation

The project employed a quasi-experimental design, with three matched communities serving as the comparison group. Project participants in these comparison communities received only "services as usual" as they existed in the communities. Whether a family was in the treatment or comparison group depended on which community they lived in.

Treatment and Comparison Group Intervention Differences

The Fostering Hope Initiative was a community-based project, and the treatment and comparison groups resided in completely separate communities. The two project communities had access to the same set of "services as usual." The project participants from treatment communities got home visiting services, parenting classes, and very intentional connection to needed services. Every participant in the intervention received home visiting services. Participation in the separate parenting classes was voluntary, although in Marion County, most families participated; parenting education was also taught through the home visiting program. Plus, there were community strengthening activities that participants engaged in (e.g. community dinners), and they experienced living in a community that was becoming more responsive to residents' needs.

In addition to these direct parent-child interventions, the partnership for the project was working to increase collaboration among providers and to support informal community services and activities that build community connections. The partnership also worked with community residents to build community leadership.

For the comparison communities, support for the building of protective factors was low across the board. The families faced the same challenges that the intervention communities faced (high transition rates, homelessness, low employability, etc.), without the organized efforts to address the challenges. There were few isolated community initiatives in place, but no real infrastructure to support access to services or supports. Families did not have the one-on-one support of the home visitors, the coordination through the partnership, or the range of community efforts. However, even in the comparison communities, there were dedicated individuals working to make a difference for those communities. Much of the existing efforts in the comparison communities were related to building social connections (e.g., a café for moms when they dropped their kids off at school; a park that was becoming a community gathering place), but families were challenged in social connections because schools were not walking schools in these neighborhoods. However, according to providers, the schools were becoming more of a community base, especially for the Latino families.

South Carolina – Family Networks Project

Direct Work with Parents

The Family Networks Project had two primary goals: 1) to examine the potential role of Stepping Stones Triple P (SSTP), an evidence-based parenting intervention, in improving key protective factors for families with a young child with developmental disabilities; and 2) to consider the impact of SSTP along with the workforce enhancement curriculum of Preventing Child Abuse and Neglect: Parent-Provider Partnerships (PCAN) for early intervention providers within the Individuals with Disabilities Education Act (IDEA) Part C service system. Part C is the section of this legislation that mandates services to young children (birth to 3) with disabilities and their families. SSTP and PCAN are compatible with the Protective Factors Framework, particularly knowledge of parenting and child development, parental resilience and, in the case of PCAN, concrete support in times of need.

Two separate randomized studies were conducted. Study One (Midlands) tested whether SSTP plus IDEA Part C early intervention (EI) services as usual would enhance parent and child functioning and parent-child relationships as compared with as-usual IDEA Part C services. In this study, the treatment families had two service providers – their EI and the SSTP provider. The comparison group only had an EI provider In either group, any of the families might, depending on the child's need, also have physical, occupational, and/or speech therapy services. The EI provider in the study might have some families who were receiving SSTP and others who were not.

Study Two (Upstate) aimed to improve relationships between childcare professionals and parents of young children by training EI providers in PCAN. In this study, the comparison was between families who received services from EI providers with PCAN training and families who received services from EI providers with PCAN training plus a SSTP provider. In the treatment group in this study, the families had two service providers – their EI provider who had received PCAN training and the SSTP provider. The comparison families only had an EI provider but this person had received PCAN training. The EI provider in the study might have some families who were receiving SSTP and others who were not. Consequently, neither of the studies compared the work of EI providers with and without PCAN training apart from SSTP.

The Partnership

The partnership included, among others, BabyNet (the state Part C agency), South Carolina Department of Disabilities and Special Needs, South Carolina Children's Trust, and First Steps.

Treatment and Comparison Group Formation

Parents were eligible for this study if they resided in one of the target counties, and if their child of 11-23 months (at time of enrollment) was eligible for Part C services and did not have a substantiated case with child protection. The parent also had to be comfortable speaking English as the SSTP were not available in Spanish. If the eligible family chose to participate, the project coordinator met with the parent to obtain consent and administer some baseline measures. After

the research assistant completed the remainder of the pre-treatment assessments, the family was randomly assigned to a treatment or comparison group in the study in their region.

Treatment and Comparison Group Intervention Differences

All families in both studies received early intervention services as usual. In Study One, this meant receiving the EI services they had been receiving; in Study Two this meant receiving EI services from an EI provider trained in PCAN. In both studies the treatment group received SSTP services.

The clearest difference between what the treatment and comparison groups received related to the SSTP intervention, which is a specific parenting curriculum that was provided over 10-15 sessions. EI providers also addressed parenting as requested but the EI providers acknowledged that they did not have the level of knowledge and skills in this area that the SSTP providers had.

All EI providers addressed concrete needs. However, it appeared that those EI providers with PCAN training and therefore addressed the Protective Factors, including concrete supports, tended to become more aware of family needs rather than just issues related to the child with disabilities. SSTP providers did not address concrete needs.

Concluding Comments

In each of these projects, the project leaders took considerable care in forming the treatment and comparison groups in ways that adhered to the experimental or quasi-experimental design of their project. In spite of this, as we gathered information about the treatment and comparison groups and the interventions, we realized that the building of protective factors was being supported in both groups, possibly mitigating some differences in the outcomes for the two groups.

In each project, there was more attention to the protective factors in the treatment group and the strong supervision available to providers helped ensure that attention remained focused on the protective factors. These providers were in a position to bring services together in a coherent manner. In South Carolina we are referring to the EI providers who worked across the protective factors in supporting parents. The nature and degree of supervision varied for providers working with families in the comparison groups.

Three of the four sites had strong partnership with Oregon having the most extensive partnership. This fit with their goal of community change – a goal that was broader than that of the other projects.

Supporting Parents to Build and Use Protective Factors

Introduction

Early on, our QIC-EC cross-site evaluation work clarified an important distinction with respect to the Protective Factors. The parents themselves were building and using the Protective Factors

in their everyday lives as they interacted with their children, family, friends, peers, providers, community, and the larger society. The providers and other organizations and entities supported the parents as the parents built their own protective factors (see sidebar). This is a significant departure from many service-oriented perspectives that confer credit on providers for building the capacity of the parents.

With this distinction as a backdrop, we made it a priority in our site visits to understand the type and nature of support to parents by providers. Each of the four interventions provided its own particular set of supports to parents; all focused in some way on helping parents build the Protective Factors in their lives.

Our focus was different than that of the individual sites. The leaders and evaluators within the sites were concentrating on implementing their particular intervention with fidelity and within the demands of the experimental or quasi-experimental design they were using at the parent level. When looked at in terms of the meaning-making framework in Figure 11, we were looking at the mediating variables that were hypothesized to be involved.

Findings

Through the site visits, we gathered numerous examples of what support for building the Protective Factors looked like in practice. These examples gave evidence of varied expressions of providing support. Following the site visits, we provided information to the QIC-EC leadership team about what we were learning about the supports from providers and how the Protective Factors were defined and recognized. This information, along with information from other sources, fed into the on-going work of the Strengthening Families team at CSSP as they continued to revise their descriptions of the Protective Factors. Descriptions and elaborations of the Protective Factors developed by 2013 and provided in Appendix C (*QIC-EC Strengthening Families Protective Factors*) incorporated the major findings from our study of the direct support to parents by the providers and are not detailed here. Rather we address three patterns that emerged about how providers supported the building of the Protective Factors:

- Reducing the stress of a parent typically guided providers' choices about where to focus within the Protective Factor Framework when initially working with a parent.
- There was no single starting point among the Protective Factors. The intervention and the target population shaped the starting point. Over the course of the intervention, the focus shifted from the initial Protective Factor to other Protective Factors.
- The level and nature of provider and parent initiation changed over time.

Reduction in Stress

Reducing stress often guided providers' initial work related to the Protective Factors. These stressors were often concrete supports such as those related to income, housing and immigration status, mental health issues, or significant child behavioral issues. Once key stressful issues were resolved, parents could attend more to their child's ongoing development. For example, in Massachusetts where many parents had low income and many were immigrants, parents'

concerns about housing, income support, and/or immigration status could be overwhelming and prevent them from focusing needed attention on the newborn. The work of the Family Specialist in helping the parent access services and resolve issues resulted in a decrease in stress. With this decrease in stress, parents were able to focus on the child and address typical concerns related to infant crying and sleep. In South Carolina, where some of the children with disabilities evidenced behavioral issues, training related to parenting strategies could help to alleviate the behavioral issues and, in turn, reduce parent stress. Parents could then pursue, for example, needed connections with family and friends without undue concern about the child's behavior.

Similarly, the High Fidelity Wraparound process in Colorado initially focused on mothers' basic needs. Progress on issues in the basic life domains (housing, financial, education, and health) provided some stability for mothers who then could focus more energy on their substance abuse recovery and their children. Home visitors in Oregon also helped parents to identify and address basic needs, after which they could focus more attention on the other Protective Factors.

No Single Starting Point

Across the sites, we found no consistent Protective Factor that served as the single starting point for supporting parents, although addressing concrete needs was an important first step for many parents. In each site, the starting point was influenced by: 1) the nature of the intervention, 2) the target population, 3) the preferences of the parent, and 4) changing parent needs over time.

Nature of the Intervention

Each site was implementing a different intervention, although each was aligned with the Protective Factors. Initially each of the sites tended to focus primarily on one or two of the Protective Factors rather than on the Protective Factors as an integrated Framework. The nature of the intervention shaped the initial focus. For example, in South Carolina where one purpose of the intervention was to test the efficacy of Stepping Stones Triple P (SSTP), a parenting curriculum, there was a specific focus on building knowledge of parenting and child development. In Massachusetts, the initial foci were on addressing concrete supports and providing knowledge of infant development. Designing the project to include the Medical-Legal Partnership as part of the intervention meant informational and legal resources were available to address concrete concerns related to income, housing, and immigration status. To meet the concrete needs, the Family Specialist provided information, walked through the process of obtaining income supports, and/or provided contact with the Medical Legal Partnership to get legal intervention in housing issues. There was a natural focus on child development as the intervention was built, say, around parents meeting with their pediatrician and the Family Specialist for well-baby visits.

In Colorado, in addition to addressing concrete supports, there was a strong focus on social connections as part of the Wraparound work. In Oregon, although the community-focused approach looked at a number of the Protective Factors, the direct work of the home visitor with parents initially focused primarily on addressing concrete needs and on the knowledge of parenting and child development.

In each instance, the intervention was designed to address needs that were not being adequately addressed in these particular contexts. This, in turn, influenced the starting point of the providers' work with parents even though other Protective Factors also were addressed over time. As the work developed, the intervention also led to increased understanding of what was and was not available in these communities to support the parents. In particular, a lack of access to mental health services emerged as a need across the sites.

See the graphics in Appendix X (*Graphics of Sites' Protective Factors Emphasis)* for a visual depiction of the different emphasis of the intervention in each site. The graphics show the typical pattern during the initial period of working with parents although substantial variation in the patterns exists.

Target Population

The target population was integrally tied to the nature of the intervention as the gaps in services being addressed by the intervention typically focused on particular populations. For example, in Colorado, the intervention was designed to address issues related to pregnant women in substance abuse treatment, so this target population influenced the focus and tie of this work to recovery. In the other sites, there was not the same need to address substance abuse treatment. In Massachusetts, which included an immigrant population, the starting point of the provider's work could involve addressing immigration issues that related to their access to other supports. In South Carolina, the focus was on an issue assumed to be important to parents of children with disabilities—management of the child's behavior. In Oregon, the intervention was not unique to a particular population but rather built on the universal need of building healthy neighborhoods and including all members of the neighborhood.

Parent Preference and Existing Capacity

Although the intervention design and target population in a given site generally affected the choice of Protective Factors addressed, the patterns of the sequence or intensity of attention to the Protective Factors were different among parents in any site because providers tailored their support to the individual parents. This allowed a provider to "start where the parent is" and move from there to addressing other issues that felt less urgent for parents or were more difficult to discuss early on. The circumstances and personal preferences of the individual parents affected the degree of attention to the various Protective Factors at any particular time. Additionally, the parent may already have a well-established Protective Factor, e.g., social connections or knowledge of child development.

Changing Parent Needs Over Time

Over the course of the intervention with a specific parent, the focus of the work tended to shift. In Massachusetts, for example, the initial focus on parenting and child development might build rapport between the parent and Family Specialist, so that the parent felt comfortable requesting assistance with issues such as immigration. In other instances, the initial help with concrete support concerns built the relationship necessary to address parenting concerns.

As the providers worked with the parents, they saw firsthand the interrelated nature of the Protective Factors and how support in one area could lead to the parent building another of the Protective Factors as well. Also, as one concern was addressed, it could lead the parent to recognize concerns related to other Protective Factors. For example, the decreased stress resulting from resolving an income or immigration issue could allow the parent to recognize concerns regarding their child's development and to seek assistance in this area.

In South Carolina, as some parents learned more about how to address their child's behavior, this led to increased social connections as parents became comfortable taking the child to family and community activities.

Across all of the sites, the providers had considerable supervision and support in working with parents. This supervision was an important aspect of the intervention and assisted the providers in focusing their work with parents.

Changing Parent Initiation

In the earlier section of this report (*Provider-Focused Measures*) on the measures used in the cross-site evaluation, we described the rubrics we used to look at how providers were working with parents related to the Protective Factors. We used a Protective Factors Intervention Assessment (PFIA) that contained rubrics by which we could assess how and to what extent a specific provider was focusing on a particular Protective Factor with a parent. (See Appendix N - *Cross-Site Instruments for Partner Organizations and Instructions for Use)*

Parent Outcomes

Introduction

To measure cross-site parent outcomes for the QIC-EC, we used a battery of quantitative measures selected by the QIC-EC leadership team (see earlier section, *Cross-Site Developmental Evaluation Approach).* The battery of quantitative measures comprised a combination of validated instruments and newly developed or adapted instruments. Although the leadership team chose the quantitative measures as the "best fit" among the available measures, they recognized that there were issues involved with their appropriateness to the population served, the interventions studied, and the outcomes they were intended to measure.

Given the issues with the measures and the complexity of the QIC-EC, triangulation of the results is important. However, one important option for triangulation was limited by the experimental designs used in the sites; the designs prevented us from having contact with participants while they were involved in the program. Consequently, we were not able to get feedback directly from parents during their participation in the study. Budgetary and logistical considerations also limited subsequent contact with parents.

In this section of the report we provide an overview of the analysis methodology for the common measures, the results of the parent outcome measures, and of the qualitative data related to parents from the site visits and parent focus groups. (The latter data was used for triangulation purposes.) We conclude this section with a brief summary and reflection on the data related to parent outcomes.

Parent Outcomes and Measures

As noted earlier (see the section *Measures of Parent Outcomes* in the description of the *Cross-Site Developmental Evaluation Approach)* the QIC-EC established a set of common outcomes in cooperation with the National Advisory Committee during the planning phase of the QIC-EC—increased family strengths, likelihood of optimal child development, and reduced likelihood of child maltreatment. The QIC-EC leadership team then engaged in discussions with the project site personnel and the cross-site evaluators before selecting six instruments to use pre- and post-intervention to measure background factors and parent outcomes. The same instruments were used in each of the sites, hence the term "common" measures. Table 2 identifies and describes the portion of these instruments used in the analyses reported below.

The local evaluators, balanced the common parent outcome measures with local measures specific to their intervention while we relied entirely on the common measures and the qualitative data collected by the cross-site evaluation team. Further details on the instruments can be found in Appendix D (*Description of Common Measures*).

Before proceeding to a discussion of the analyses, we call your attention to the developmental nature of some of the measures. First of all, note that the QIC-EC project director and colleagues developed the Caregiver's Assessment of Protective Factors specifically for the QIC-EC. The scales they used during the initial development were adapted based on an exploratory factor analysis we conducted midway through the QIC-EC project work (see Appendix J - *Exploratory Factory Analysis of Caregivers' Assessment of Protective Factors*). We also conducted factor analysis on the Self Report Family Inventory at the end of the project, to determine whether the given subscales represented valid constructs within the populations the projects were working with. Rather than reinforcing the validity of the existing subscales, the factor analysis yielded two new subscales—Family Strengths and Family Risks.

Note also that we are interpreting the results of the Social Network Map (SNM) data with caution. This SNM was experimental in this project. The instrument had been developed for a different research project to map the network of supports for high risk parents. In order to use the data collected in the social network grid to look at change over time we extracted data from the network grid and created three indices to assess changes in type of support (concrete support/help with child, emotional support, and knowledge about child) and three indices to assess changes in sources of support (adult family, friend, and professional helper). The reliability and validity of these measures, used in this way, has not been determined.

More information about the specific measures used and details of the methods and analyses are presented in Appendix Y, *Outcomes Analysis Report*.

Outcomes	Domain(s)	Instruments	Brief Description
Optimal Child Development	Parenting Capacity	a. *Sense of Competence* Subscale of Parenting Stress Index (PSI) b. AAPI-2	**PSI:** a 120-item survey intended to produce a diagnostic profile of perceived child and parent stress. **AAPI-2:** Designed to assess the parenting attitudes of adult parent and pre-parent populations as well as adolescent (age 12-19) parent and pre-parent populations.
Increased Family Strengths	Family Functioning and Relationships	a. Family Strengths subscale of the Self-Report Family Inventory (SRFI) b. Social Network Map (three "source of support" subscales) c. Social Network Map (three "type of support" subscales)	**SRFI:** A 36-item instrument used to measure family members' perceptions concerning their family functioning. **SNM:** Originally developed to provide social workers in family preservation programs a way to assess social network membership and social support resources for primary caregivers in high-risk families. Adapted for use by the QIC-EC.
Increased Likelihood of Decreased Child Maltreatment	Risk Factors	a. AAPI-2 b. Family Risks subscale of the Self-Report Family Inventory (SRFI) c. PSI (long form), *Parent Domain* and *Total Stress* d. *Isolation* subscales on PSI	**AAPI-2:** Designed to assess the parenting attitudes of adult parent and pre-parent populations as well as adolescent (age 12-19) parent and pre-parent populations. **SRFI:** A 36-item instrument used to measure family members' perceptions concerning their family functioning. **PSI:** a 120-item survey intended to produce a diagnostic profile of perceived child and parent stress.
	Protective Factors	Caregivers' Assessment of Protective Factors (CAPF): • Parental Resilience: Parenting Stress • Parental Resilience: General Life Stress • Social Connections • Concrete Support in Times of Need • Nurturing Children's Social	The Caregivers' Assessment of Protective Factors was developed specifically for the QIC-EC and refined over the course of the project. It is designed to measure presence of each of the protective factors in families' lives.

Table 2. Quantitative Common Measures Used Across R&D Sites

Analysis Methodology

Although the leadership team was well aware of the complexities of drawing cause and effect relationships between the building of protective factors and parent outcomes, if such relationships existed, they wanted to be able to learn as much as possible about those connections from this study. They were also seeking to understand how collaborative interventions that worked across the domains of the social ecology might connect with parent outcomes.

Drawing on their extensive knowledge of the field of prevention of child maltreatment to provide a starting focus for planning quantitative analyses (as well as our site visit data collection), we asked the leadership team to develop a series of hypotheses that related to the parent outcome data. We did not intend to "test" the hypotheses in a traditional sense; rather, the process of developing these hypotheses helped the leadership team and the cross-site evaluators to clearly articulate their expectations for the focus of the cross-site evaluation so it addressed the questions of primary interest. This hypothesis-framing approach also helped us understand how the questions evolved over the life of the project as new knowledge became available on an ongoing basis. See Appendix Z (*Cross-Site Evaluation Hypotheses*) for the hypotheses. As new knowledge surfaced through mid-course analyses of data, it was reflected in restatements of the hypotheses. These statements, in turn, helped to determine what analyses of the quantitative parent data would be most meaningful.

The leaders of each site were responsible for recruiting and randomizing participants, (for those using experimental design), assuring intervention fidelity, and administering the common measures. (Although the leaders in South Carolina conducted two separate studies, for the cross-site analyses, we combined the data for South Carolina because the numbers within each study were so small.) We looked at the sites collectively because the interventions shared these features: the intervention had been tailored to the population in the site; the interventions' general focus was on a protective factors approach; the interventions' focus was on "at risk" families with very young children; and the anticipated outcomes of the interventions were consistent across the sites.

In our evaluation, we did not investigate the effectiveness of the specific interventions for the population at each site. By combining the four sites for analysis we were able to examine the extent to which interventions that incorporated the protective factors framework generally (though in different ways) led to changes for families with young children.

We used Generalized Estimating Equation analyses (GEE; Hedeker & Gibbons, 2006) to determine if parents in the treatment group did better on our measured outcomes than parents in the comparison group. This approach to analyzing longitudinal data provided several strengths relevant to this study. See Appendix Y (*Outcomes Analysis Report*) for more information about the use of GEE in this study.

The primary analyses tested the cross-site effects of treatment condition (treatment versus control/comparison) on key variables that were used to test the three QIC-EC outcomes. In addition, we looked at whether there were statistically significant differences among the sites. When statistically significant differences among sites were found we performed follow-up analyses within sites to establish the strength and statistical significance of the related variables. In addition, we performed analyses to determine whether outcomes differed for different groups of people. Specifically, we looked at parents who entered the program with high parenting stress, Hispanic families, and families in which English was their second language.

To reduce the chance of spurious findings, we limited the number of variables being tested to a minimum set by choosing only the subscales of the common measures that were most directly

aligned with the QIC-EC outcomes. However, the chance of spurious results was not entirely eliminated, especially at the individual site and subgroup levels.

Results of Parent Outcome Measures

Overall, very few measures of parent outcomes revealed significant gains. However, some measures did produce results that were significant, or approached significance. The results of the measures used to assess gains within the three outcome areas are summarized below within each of the three QIC-EC outcomes. Significant (or approaching significant) results for both the cross-site and site-specific analyses of the common measures are included.[7]

We provide details of the cross-site and site-specific results. In providing site-specific results, we are not comparing the different sites for relative quality of the intervention implementation or design. Each sites was focused on a very different population, and had different local outcomes associated with its unique intervention. Thus, we would expect to find differences in the results of the common measures across sites. The site-specific results are given to provide information about variation across different approaches to working within a protective factors approach. See Appendix Y (*Outcomes Analyses Report*) for more details.

Likelihood of Reduced Child Maltreatment

We measured the outcome of Likelihood of Reduced Child Maltreatment by assessing relevant risk factors and protective factors. The measures used to explore risk factors were the Parenting Stress Index (PSI), a validated instrument designed for use in somewhat different settings or interventions, and the newly defined "Family Risk" subscale of the SRFI determined by the factor analysis. Protective Factors were measured using the Caregiver's Assessment of Protective Factors (CAPF).

In the cross-site analysis, we found that the PSI showed no significant cross-site results; however we found significant results demonstrated by both the SRFI Family Risk subscale and the CAPF. The effect sizes of these results were all small. After the intervention, relative to people in the comparison group, treatment group participants had:

- more concrete support when they needed it (CAPF – Concrete Support in Times of Need),
- higher scores in Total Protective Factors (CAPF), and
- fewer negative family interactions, because the comparison group had an increase while the treatment group did not. (SRFI Family Risk).

Among the parents who had high stress when entering the study (as measured by the total stress score on the PSI), parents in the intervention condition increased social connections while those in the comparison condition reduced theirs (CAPF, Social Connections). Among low-stress parents, who started with higher levels of social connections, neither comparison nor treatment parents showed much change in social connections.

[7] The analyses conducted by the local evaluation at each sites might have slightly different results related to the common measures. Choices of treatment/control group matching and which specific analyses are conducted will affect the results produced.

The site-specific analyses regarding Likelihood of Reduced Child Maltreatment showed a number of significant results. Although for two of the sites these results were positive, for the other two sites the results showed less desirable outcomes for the treatment group than for the comparison group. The two sites with the most positive results had higher dosage (frequency, intensity, and duration) and focused their intervention across all of the protective factors. Again, all results had small effect sizes. Site-specific results for this outcome are as follows:

- In Colorado, parents in the treatment group had fewer negative family interactions (SRFI Family Risk), and no change in nurturing children's social and emotional competence, while the comparison group showed a decrease (CAPF—Nurturing Children's Social and Emotional Competence.)
- In Oregon, parents in the treatment group had more ability to nurture their children's social and emotional competence (CAPF Nurturing Children's Social & Emotional Competence); fewer negative family interactions (SRFI Family Risk); less stress about their child's attachment (PSI Attachment Raw Score); and less parenting stress overall (PSI Total Stress Score).
- In Massachusetts, people in the treatment group had more negative family interactions (SRFI Family Risk) than control group members.
- In South Carolina, people in the treatment group had less resilience to life stress (CAPF Parental Resilience to General Life Stress) than control group members.

Although we suspect that dosage might play a role in the positive outcomes seen in Colorado and Oregon, we could not account for the negative results in Massachusetts and South Carolina. Due to the small effect sizes, it is possible that these negative results are spurious. Another possibility is that the heightened awareness brought on by these two interventions increased family stress and overall stress as part of the movement towards positive change. More information would be needed to determine what these results mean. Results of measures such as these often raise as many questions as they answer, moving forward our growing body of knowledge about how to bring about change that matters for parents.

Increased Likelihood of Optimal Child Development

We addressed the outcome Increased Likelihood of Optimal Child Development by assessing changes in the parenting capacity domain. Two indicators were assessed: 1) Parental Self Efficacy, as measured by the Sense of Competence subscale of the Parenting Stress Index, and 2) Parenting and Child-Rearing Attitudes, as measured by the Adult and Adolescent Parenting Inventory (AAPI-2). Because of the young age of the children, and the focus on parents rather than children in the interventions, this outcome focused on building the parents' capacity to nurture their child's development.

At both the cross-site and individual site levels, we found that neither the results related to changes in Parenting Competence (PSI subscale) nor Inappropriate Parenting Attitudes (AAPI-2) showed any significant difference between treatment and comparison groups in pre- to post changes.

Increased Family Strengths

We had originally planned to measure increased family strengths in three domains: 1) Family Functioning and Relationships; 2) Home and Neighborhood Safety; and 3) Financial Solvency. However, we could not measure the second and third domains with the data that was available because of the short time period between pre- and post-measures. (The time period between pre- and post-measures was only six months for the majority of families, but the measures asked families to report on their circumstances over the past 12 months, thus change was unlikely to be captured.) We used two measures for assessing family strengths. The first measure was the new Family Strengths subscale of the SRFI derived from the factor analysis. There were no significant cross-site findings for the Family Strengths subscale.

The second measure of Family Functioning and Relationships was Perceived Support, using the Social Network grid. Perceived support was measured in relationship to source of support (adult family, friends, and professional helpers) and type of support (information about child, concrete support/help with child, and emotional support).

The Perceived Support measure showed significant findings that favored the comparison group. Both of these negative findings had a medium effect size. After the intervention, relative to people in the comparison group, treatment group participants had:

- less perceived support from friends
- less information about their child from friends, family, and professional helpers.

There were two significant site-specific results related to the outcomes of increased Family Strengths—again, both of these favored the comparison group. Both of these results had a small effect size. In Colorado, the treatment group felt less support from professional helpers (Perceived support, professional helpers) relative to the comparison group, and in Oregon, the treatment group felt less support from adult family members relative to the comparison group (Perceived support, adult family). Interestingly, in Colorado the intervention was designed to reduce dependence on professionals and help the women rely more on their personal support network of family and friends. In Oregon, the intervention was designed to increase community connections, which may have led to a reduced sense of support from family members. These are the type of considerations that lead to design considerations for future research and development.

At the individual site level, there were also significant findings for the subgroup analysis related to Family Strengths. Oregon had significant findings for those whose main language was not English. For this group of parents in Oregon, parents in the treatment condition had improvements in all PSI scores, while comparison parents had decreases. In addition to these positive results, non-English-speaking parents had reductions in support from adult family members while comparison parents had increases. As mentioned earlier in this section, the results based on the use of the Social Network grid data was experimental, and the result should be viewed with caution.

Interpretive Data

Data from the site visits about how providers worked with parents and data from the parent focus groups were helpful in interpreting the quantitative parent outcome measures.

Site Visit Data

The qualitative data from site visits discussed earlier in the report support the interpretation that the quantitative results about parent outcomes were early and possibly prerequisite outcomes for deeper change. In particular, across all the sites, for many families, it was necessary to begin by addressing concrete needs; the only individual Protective Factor for which there was a significant cross-site increase was Concrete Support in Times of Need. The increase in the CAPF measure of Total Protective Factors is consistent with the discussion earlier in the report that providers addressed the specific areas of need for each family, rather than focusing on each of the Protective Factors for every family.

Focus Groups

As mentioned above, the evaluation design did not allow for direct contact with providers during their involvement in the program; however, towards the end of the initiative, the QIC-EC project director and the cross-site evaluation team jointly conducted parent focus groups with parents who had completed the program in three of the four sites: Colorado, Oregon, and Massachusetts (logistical issues made focus groups prohibitive in South Carolina). The focus group data served to triangulate the quantitative outcomes, giving parents a voice about how they understood the ways that the interventions had supported them to build their protective factors. This sheds light on the types of change that are important to parents.

The purpose of the focus groups was to elicit parent feedback on what it looks like when the Protective Factors are present in parents' lives. In addition, a few questions were asked about how the interventions impacted parents' lives and their families' lives. The focus groups were intended to gather data about what protective factors look like in people's lives, not to gather data about the interventions' implementation and/or effectiveness. The families who participated in the focus groups were chosen specifically because they were deemed to have made some progress in the program, and it was felt that they would have more to say about how the protective factors had been built in their lives. Thus, this was a targeted sample rather than a representative sample of participants.

The focus group results have been useful in helping us gain a deeper understanding of how parents conceptualize and operationalize the protective factors in their lives. For example, resilience was discussed both in terms of external structures and internal capacities; this has implications both for how we measure parental resilience and how interventions should focus on helping parents to build it. A summary of the focus group results, by individual protective factor, is presented below. More detail on the focus group process and results can be found in Appendix L (*Caregiver Focus Group Protocol*) and Appendix M (*Summary of Caregiver Focus Group Results*).

Parental Resilience. Discussion of parental resilience tended to focus on the pressures that parents felt. The pressure of caring for children without enough outside support came up in all sites. In Boston and Oregon (sites with large immigrant populations), parents had additional pressures related to being from a different culture. Denver parents are dealing with parenting while in early substance abuse recovery.

In terms of dealing with the pressures, parents talked about the importance of building their own internal capacity (for example, the importance of taking time for themselves), as well as the need for external supports (for example, learning how to find support and learning how the formal systems works).

Social Connections. In both Massachusetts and Oregon, parents' primary focus for social connections was on family—both immediate and extended family. This might be, at least partially, an artifact of cultural differences within immigrant communities. Providers were also seen as important sources of social support, especially in Oregon and Massachusetts, where the home visitor and the family specialist, respectively, were mentioned as important sources of social connection. In Massachusetts, the Church was also mentioned as an important social support. In Colorado the discussion about social supports was focused more around the changes parents experienced in their social connections. Some experiences a decrease in connections, but the connections that remained were ones that provided support for ongoing recovery.

Knowledge of Parenting and Child Development. In Colorado and Oregon parenting classes were a major source of parenting and child development knowledge, together with the home visitor/family support partner. In Massachusetts, the pediatrician, Family Specialist, Internet, and family were sources of information.

When discussing the "knowledge" that made a difference to them as parents, focus group participants talked about gaining basic knowledge of child development and parenting strategies; realizing that all children are different and parenting must be tailored to the unique needs of each child; and, for immigrant parents, there was a recognition that parenting in this culture is different from what they experienced growing up in a different culture.

Concrete Support in Times of Need. Under this Protective Factor, parents discussed the difficulty they had asking for help. Immigrant parents in Massachusetts and Oregon noted that cultural differences made it difficult to ask for help. The provider (home visitor, family support partner, family specialist) often became the "go-to" person for support. Family and friends were mentioned in Massachusetts, and to a lesser degree in Oregon and Colorado, as people the parents turn to for support related to meeting concrete needs. The issue of culture as a barrier came up in Massachusetts and Oregon—participants reported that the cultural difference made it difficult to ask for help.

Social and Emotional Competence of Children. In discussing how they support building the social and emotional competence of their children, parents talked about the importance of routine and structure; responsive parenting through learning about developmental needs; modeling; parenting differently from their parents; and, in Massachusetts, dealing with the dual language issue.

Discussion of Parent Outcomes

Although the quantitative parent outcome data do not demonstrate robust results across the QIC-EC outcomes, in some cases results suggest the treatment group experienced better outcomes than the comparison group. For example, the treatment group showed enhanced concrete support when they needed it, increased protective factors overall, and unchanged family risks (while the comparison group showed increased family risks.)

Based on the results of the parent outcomes measures, the data collected through site visits, and the focus group data, we posit that three factors might have played a role in the limited quantitative outcomes observed across sites.

The first of these is related to dosage of intervention, which was relatively low. Across all sites, the average duration between pre and post testing was less than six months (5.7). The intervention design in two of the four sites involved fairly low intensity and frequency as well. The other two sites with higher intensity and frequency were the two sites that demonstrated significant positive gains on more outcomes measures.

The second factor is related to the instruments used to measure change for families. While the instruments were the best that the leadership team could identify at the time, they were compromises in a number of ways. Without measures of dosage in the cross-site data, nor parent-level data on the extent to which the interventions focused on the protective factor framework with *each* parent, it is difficult to draw solid conclusions about the meaning of the results in relationship to implementing protective factor-based interventions. Additionally, qualitative data pointed to additional indicators that were important to parents—for example, relationships with peers and providers. We did not have reliable measures for these types of relationships as discussed above.

The third factor that might be related to the limited outcomes across the projects is that each of the project sites had a focus specific to its design. While consistent with the QIC-EC outcomes, these outcomes were not the basis upon which the intervention models were built. In contrast, the QIC-EC cross-site analysis framework was based on these three outcomes as a central component. Thus, the outcomes addressed by the QIC-EC cross-site evaluation aligned imperfectly with the expected outcomes of the individual interventions—and those sites with more positive outcomes were more aligned with the QIC-EC outcomes than the other two sites.

The outcomes of likelihood of optimal child development, increased family strengths, and the decreased likelihood of maltreatment will require long-term monitoring to understand the relationship these bear to the development, maintenance, and effectiveness of protective factors. Change at the individual level of the social ecology does not happen in isolation of the other levels of the social ecology—it is closely linked to the community supports (both formal and informal) that are available to families. Change in communities, as in families, is not a linear process and happens over time. Change across the social ecology is iterative and is best measured over multiple time points to allow for deeper understanding to develop about the interactions across the social ecology.

Partnerships and the Community and Societal Domains of the Social Ecology

> ***PARTNER survey data*** confirmed that the core group of organizations in each partnership had a prior trusting relationship. On the initial survey, across the sites, the mean (on a 4.0 scale) for the degree of trust ranged from 3.3 to 3.5, indicating a relatively high degree of trust. The second survey toward the end of the project showed that the levels of trust remained similar within the partnerships. See the section below entitled QIC-EC R&D Project Descriptions for more details on the projects as they relate to the cross-site evaluation.

Requiring that each site include an established partnership—a core group of partners who had previously collaborated and established a trusting relationship (see sidebar)—was an innovative and unusual requirement for studies of evidence-based practices. The partnership, a vital part of the intervention in each site, was the primary vehicle for addressing the community and societal domains of the social ecology (i.e., the domains that go beyond the direct work with parents). Each partnership brought together leaders of organizations or stakeholder groups who played key roles in the relevant social systems. (See Appendix W for a list of the partners in each site.) Our cross-site evaluation included understanding the work of the partnerships and how partnerships could bring about long-term change.

Key Insights about Partnerships

The following key insights emerged from our data regarding the partnerships—data that came primarily through an online survey of partnership members and annual site visits (see section entitled *Measures of the Intervention* above). These insights represent our synthesis of major features of partnerships that are important to consider when developing partnerships that can create the environment for parents to build protective factors. These insights are in addition to the focus on both the Protective Factor Framework and guiding principles discussed in the section below entitled *Guiding Principles*. These insights are also in addition to the basic matter of forming trusting partnerships. Recall that these sites already had established partnerships. Our focus was on the essentials of going beyond the process of building partnerships to having them accomplish important support for shifting social systems to be grounded in the Protective Factors Framework.

a. **Partnerships are part of the intervention**. For sustainable system change toward the desired functioning of the social systems, the partner organizations need to see that their work is part of the intervention and that they may need to change their own organizational behaviors. Systemic change involves all domains of the social ecology. Typically partners saw their initial role as identifying what others needed to change or as supporting those providers who were doing the direct intervention. However, partner organizations began to shift their focus to the long-term changes in their own organizations or areas of influence as well as in systemic policies, procedures, and interconnections.

To create a sustained enabling environment for parents to build their protective factors, the partners need to identify leverage points within their own organizations for systemic change and then test changes and gather feedback to see how they are influencing the social systems of which they are a part. Working in this way requires that the organizational partnerships extend beyond the relationship of one or two key persons in the organizations and obtain the support of the organization leadership. In some instances, partnerships made or planned to make changes in their own areas of influence. Those areas usually were within their own organizations or in areas where partnership members had close ties to people in other areas who could make the needed changes. The importance of personal as well as professional relationships was evident.

b. **Shifts in thinking occur through collaborative partnerships**. Two basic shifts in thinking were occurring within the partnerships: (1) a shift in orientation from risk factors to protective factors and (2) a shift in focus from individual parents to the whole social ecology. Members of the partnerships varied in the degree to which they initially held the protective-factors and social-ecology perspectives. But each of the partnerships showed evidence of making shifts in thinking. The conversations in the partnerships about these shifts helped participants move to the Protective Factors orientation. On the PARTNER survey, respondents noted that the aspects of collaboration that contributed to progress toward their goals included bringing diverse stakeholders together; meeting regularly; exchanging information, knowledge and resources; and developing informal relationships. Respondents also found the partnerships to be of value. Mean value scores ranged from 3.2 to 3.5 (on a 4.0 scale) on the first survey and were similar on the second survey indicating they found the partnerships of relatively high value.

Within the context of the partnerships, the partners were making philosophical shifts (paradigm shifts) in which they were reframing their thinking and gaining a deeper understanding of what it meant to work from a protective factors stance across the social ecology, what principles were needed to undergird these efforts, and what policy issues within the social systems were needed to shift the field of prevention to the protective factors perspective. We observed that, over the life of the grant, the partnerships went from thinking about the parent intervention to thinking about system-level change, and began to recognize that to change specific social systems and the community environment, it was essential to make strategic changes in norms, infrastructures, and policy.

Examples of changes made through the partnerships included the Colorado site increasing connections between partner organizations and Early Intervention and Early Childhood Mental Health. In Massachusetts, some Department of Children and Families (DCF) workers used the Protective Factors in their contacts with families. The focus on the Protective Factors helped the Massachusetts department move into the prevention side rather than the reactive side when working with families. In Oregon, some partnership members who had the capacity to work in the legislative arena focused on influencing state policy. They found legislators to be more responsive to the partnership than to individual agencies or programs. In South Carolina, the Department of Disabilities and Special Needs discussed requiring all private Early Intervention (EI) agencies to operate from the protective factors

perspective. One private provider began training their Early Interventionists in the Protective Factors Framework. See Appendix AA (*Changes Made by Partnerships*) for additional examples of changes made through the partnerships.

c. **Engage parents as essential partners**. The guiding principles (discussed in the next section) emphasize the central nature of respecting and valuing the wisdom of parents and their choices about their process of building their protective factors. The QIC-EC required each partnership to include in its membership at least one parent. The partners and the leaders of future work are likely to benefit from rethinking how to more fully engage parents in the partnership work. This may be particularly important when making systemic changes in the community and societal domains. A seemingly small but potentially significant change would be accommodating parent schedules. Parents' schedules tend to differ from those of the rest of the partners whose jobs either allow or require them to meet during daytime working hours. If parents are to be truly engaged as essential partners, the partnerships may need to adjust their meeting times to allow for parent participation.

d. **Recognize the long-term nature of systemic change when determining essential partners.** The QIC-EC work highlighted that it is a long-term process both for parents to build and sustain their protective factors and for partners to make systemic changes to create an enabling environment for parents to build their protective factors. The partners need to see that they are involved in a long-term research and development agenda about child maltreatment prevention and well-being development. They are not just supporting a single project.

   Systemic changes can take time. By the end of the project, a majority of respondents on the PARTNER survey (from 50% to 88%) in each of the sites thought their partnership had made the "expected level of progress" in reaching the partnership goals. However, the *rate* of this progress typically was occurring at the "expected level of progress" or "slower than anticipated."

   Also, partners' understanding of needed changes may emerge over time, for example, recognizing the need for advocacy for policy change in certain areas. On the PARTNER survey, the responses regarding desired outcomes of the partnership remained the same from the first to the second survey although there was a slight increase in the number of respondents who selected "Increased advocacy for state and local policies to support the building of protective factors" in the second survey, indicating a possible emerging recognition of the partnership's need to address policy change.

   To increase the focus on advocacy work, it also is important that partnerships have expertise in advocacy. On the PARTNER survey, respondents indicated the areas of expertise that each organization brought to the partnership. In so doing, the respondents provided a picture of the strengths of the partnership and the gaps in existing expertise. This information provides guidance on what other organizations may need to be included in the partnership. The survey results point to the need for additional expertise related to advocacy, as well as in other areas such as providing mental health services. See Appendix V (*Cross-Site Information from PARTNER Survey*) for the cross-site data from the PARTNER survey**.**

e. **Focus on sustainability and cumulative impact**. Sustainability and systems understanding are closely tied. Making a paradigm shift of the type called for with the Protective Factors Framework is a long-term and systemic change process. Any particular intervention is one incremental step in the bigger picture of creating support for building protective factors among parents. To bring about change requires attending to sustainability as well as finding leverage points that disrupt key elements or linkages within the system. Sustained attention to shifting social systems to be grounded in the Protective Factors Framework is likely to involve monitoring and enforcing new policies or practices, and require professional development with ongoing communities of practice. The partners need to have the ability and perspective of reframing and folding one intervention into another as they deepen their understanding and capacity for systemic change.

The new relationships built in the partnerships reinforce the new worldview. As partners stay connected, they can continue to monitor the structural changes and the ways they can support one another around the emphasis on the framework and principles. Rather than getting too tied to the specific intervention that was tested, partnerships need to grasp and focus on the general framework and approach. Even though a specific intervention may need to be changed over the long term, the underlying worldview—in this case, the Protective Factors Framework and guiding principles—is what endures.

In conclusion, the partnerships began by supporting the providers' and research leaders' efforts to recruit parents and/or handle other start-up activities. Over time, the partnerships began looking at the systemic issues and considering their role in developing sustaining support. In some sites, the partnerships identified gaps in services or unmet parent

Providers and Provider Organizations

The providers were in direct contact with the parents. In the R&D sites, the providers included home visitors, family specialists, early intervention personnel, and wraparound facilitators. Due to the nature of their work, these providers were in a position to address all of the protective factors with the parents.

The work of the providers is shaped by their organization's infrastructure, policies, practices, and norms. Consequently, both providers and the organizations for which they work influence the systems through the ways they interact with parents, other organizations, and the community. See the section below entitled QIC-EC R&D Project Descriptions for more details on the projects as they relate to the cross-site evaluation.

R & D Site Partnerships

The QIC-EC required that at least a core group of the partnership's members have a well-established relationship with basic levels of trust and collaboration. The types of entities involved in the partnerships in the R&D sites included social services agencies, non-profit organizations, hospitals, as well as other formal and informal organizations and networks that influence the parents within a community or the larger society. Some partnerships also included parents. Partnerships can be major players in creating an enabling environment within the community and the larger society to support (1) parents directly to use and build their own protective factors and (2) providers and the provider organizations who support parents. Partnerships are a key factor in bringing about changes in systems. Whether partners take action individually or collectively, partners strive to consider the work of the partnership as a whole in their decision-making.

needs and worked together to figure out how best to respond to these needs. The partnerships gradually shifted their attention to making system changes that would provide an enabling environment for continued attention to protective factors across the social ecology.

Guiding Principles

In the preceding sections on *Supporting Parents to Build and Use Protective Factors* and *Partnerships and the Community and Societal Domains of the Social Ecology,* we provided key information about what we learned about how parents supported parents and how partnerships functioned. However, we have saved for this section further information that relates to commonalities in the work of the providers and the partnerships that served as the basis for identifying a set of guiding principles that emerged from the data--guiding principles that apply to the providers, their organizations, and the partnerships. As shown in Figure 8 – *The Iceberg Diagram: Visibility and Depth of Change*), guiding principles are a deep system feature that is closely related to the fundamental paradigms of a system. The guiding principles are stated in terms of action and relate to actors in all domains of the social ecology.

In this section, we discuss five guiding principles that we identified through the cross-site evaluation. For each principle, we illustrate ways that providers, provider organizations, partner organizations, and partnerships enacted these principles in the four sites. The guiding principles and the Protective Factors Framework work in tandem to shape the process and results of changing complex systems. In combination with the Protective Factors Framework, the guiding principles influence the norms, infrastructures, policies, and practices across the social ecology to bring about sustainable and systemic change in the complex array of social systems involved in supporting parents to build and use their protective factors. These, in turn, affect the everyday actions, behaviors, and results that are shaped by the social systems.

Guiding principles are especially important when working in complex systems. Different elements and subsystems of complex social systems move at different paces and in different patterns. As the Protective Factors Framework is an approach, not a specific intervention, implementing the Protective Factors Framework can be done in conjunction with a variety of interventions. The Framework is implemented through guiding principles applied by different actors in the systems within their own contexts. For example, two providers working in different contexts will use different interventions that both adhere to the principles; a policymaker will apply a guiding principle in a different way when making policy than would a provider working with a parent. Guiding principles provide fidelity within complex adaptive systems. In this case, the guiding principles provide a means to promote fidelity to the use of the Strengthening Families approach.

As people act to implement the Protective Factors Framework, they are creating dynamics that can converge and ripple across the complex landscape of multiple systems. Collectively, these dynamics serve to strengthen families, promote optimal child development, and reduce child abuse and neglect. The commonality of both the principles and the Protective Factors Framework

create a dynamic that allows the efforts of people in different parts of the social ecology and in different organizations to be reinforcing rather than canceling out one another's efforts.

In the sidebar on the previous page, we illustrate the use of the guiding principles by the various role groups. These are only a few of the many examples that were identified through the cross-site evaluation. Other examples were provided to the QIC-EC leadership for their ongoing and immediate use as they refined their descriptions of the Protective Factors Framework (see Appendix C-*QIC-EC Strengthening Families Protective Factors*)

Through the cross-site evaluation, we identified five guiding principles for implementing a Protective Factors Framework. These principles apply to interactions between parents and providers, interactions between providers and their organizations, and interactions between members of the partnerships, and express ways of acting and working at these key intersections to support parents as they build their protective factors.

The Five Guiding Principles

- Use the Protective Factors Framework as a mental model for decision-making and action.
- Create and build mutually respectful, caring, trusting relationships.
- Address disparities in power and privilege.
- Provide flexible and responsive support.
- Persist until needs become manageable.

Principle 1: Use the Protective Factors Framework as a mental model for decision-making and action.

Principle 1

Use the Protective Factors Framework as a mental model for decision-making and action. Be active, intentional, and explicit in using the Protective Factors Framework. Use the Framework as a conceptual whole and the individual factors, as appropriate, to respond to parents' needs and strengths, to allocate resources, and to adjust practices, norms, infrastructures, and policies.

Participants were more likely to continue to use the Protective Factor Framework when they considered both the Framework as a whole and, at the same time, engaged each of the protective factors as a separate entity. The ways that the protective factors interconnect and overlap are part of what gives the Framework its power and utility. The rate and pattern of seeing and using the protective factors as an interconnected conceptual framework varied within and across role groups and sites. Still, participants—across multiple roles—recognized the power and significance of explicitly using the Protective Factors Framework. See Appendix X (*Graphics of Sites' Protective Factors Emphasis*) for the general emphasis and patterns of attention that each of the sites put on the framework.

Interactions between Parents and Providers

The primary providers in one site used the terminology of the protective factors and the Protective Factors Framework as a whole to help parents think through their options. While helping the parent choose a factor to develop and use (e.g., social connections), the provider also aided the parent in building an understanding of the Protective Factors Framework as a whole. Once mastered, the parents could use the Protective Factors Framework for self-reflection and to guide everyday decisions and actions.

Interactions between Providers and Provider Organizations

Two examples illustrate how the provider organizations used the Protective Factors Framework as a whole within their organizations. In one instance, the organization built the Framework into an *assessment tool*—structured checklists for providers to use in visits with parents. The other organization built the Framework into *professional development* for providers that encouraged the use of the Framework in their interactions with families.

Interactions within Partnerships

By the end of the first year, most of the partnerships were thinking in terms of the Protective Factors Framework and explicitly using the language of the protective factors. The partnerships used the Protective Factors Framework to gain insight into opportunities to influence norms, infrastructures, and policies within their own organizations, the community, and the larger society. One agency saw that it could change its memorandum of understanding with private providers to require that providers be trained in the Protective Factors Framework. A partnership used the Protective Factors Framework to identify where the current foster care system did not support parents to build their protective factors, and influenced the foster care system and legislative efforts to draft policies that were consistent with the Framework. In one partnership meeting, the members realized that the Protective Factors Framework could assist multiple organizations in organizing their reporting to a state agency, thus bringing coherence to their work across organizations and highlighting the Protective Factors Framework.

Principle 2

Create and build mutually respectful, caring, trusting relationships. Be active and intentional in developing relationships based on respect, caring, and trust. Build relationship-based practices, norms, and policies into interactions with the multiple participants in a situation: parents, women, men, children, families, communities, neighborhoods, providers, partnerships, and organizations (public, private, provider, faith-based, and nonprofit).

Principle 2: Create and build mutually respectful, caring, trusting relationships.

Three words—respect, caring, trust—describe the foundation of the interventions and the relationships among parents, providers, their organizations, and the partnership. Building respectful, caring, trusting relationships require that differences be embraced and supported. In trusting relationships, all participants recognize that learning and growth is a shared and mutual process—not something given by one side and received by the other.

Although establishing respectful, caring, trusting relationships was influenced by the norms,

structures, and policies of the social system, these relationship qualities were also tied to the internal motivations, values, and perspectives of the providers and parents.

Interactions between Parents and Providers

Across all of the interventions, providers demonstrated respect for parents by helping parents recognize the range of options in a situation and letting the parents identify where to take action. In our focus groups, parents repeatedly called attention to the caring atmosphere engendered by such respectful behavior.

Caring and trust in parent-provider relationships laid the foundation for parents to share more openly about serious issues they were facing (e.g., abusive relationships, thoughts of suicide, fears of being deported). For many parents who felt isolated and alone, the provider became their primary source of a reliable caring, trusting relationship.

The relationship between the parent and provider also served as a model for the parent-child relationship. Providers talked about modeling nurturing behavior directly with the child as a way to support parents in building attachment with their child. The focus on caring and attachment linked to one of the protective factors: social and emotional competence of the child.

Interactions between Providers and Provider Organizations

For providers to build the desired relationship with parents, they needed their larger organization to operate in ways that were philosophically congruent. For example, the front desk staff of one agency (until retrained) required a parent with a newborn who was late for an appointment to reschedule for another day. For families who lacked control of their transportation options, the expectation to reschedule was incongruent with a respectful, caring relationship. The change in the approach of the front desk staff illustrated an organization finding a new balance between efficiency and respectful, caring, trusting relationships with those they served and supported.

Interactions within Partnerships

Partners found that respectful relationships provided the context for open discussion about difficult issues. The willingness to talk through challenges and different perspectives was a key factor in being able to support the building of protective factors among parents. In one site, when a partner organization became the lead agency for an early childhood alliance, the organization decided to forgo seeking renewal of one of its contracts because competing with other alliance members for the contract would be detrimental to the partnership.

Principle 3: Address disparities in power and privilege.

Addressing disparities of power and privilege requires active attention to relationships across the social ecology, and ongoing reflection to support a continual cycle of learning and action toward reducing disparities.

Principle 3

Address disparities in power and privilege.

Be active and intentional in working towards reducing disparities in power and privilege that undermine respectful, trusting, caring relationships. Build practices, norms, infra-structures, and policies among partners and institutions that provide for ongoing reflection and action to reduce disparities in power and privilege.

Interactions between Parents and Providers

Providers did not treat parents as passive recipients of services, nor simply as targets of an intervention or system. They implicitly or explicitly recognized parents as active participants and key influencers of the systems in which they interact. Providers addressed disparities by hearing parents' concerns and dreams and refraining from imposing services based on external ideas of what would be "best" for parents or their families. In one project, each parent determined what issues were most important and chose the members of her support team to reflect her values.

Relationships between parents and providers appear to be influenced by societal attitudes toward marginalized populations (e.g., women in substance abuse treatment, families with children with disabilities). Addressing disparities included providing space for marginalized populations to give voice to their views and for providers to reflect on their attitudes toward marginalized populations so they refrain from perpetuating disparities.

Interactions between Providers and Provider Organizations

Providers work within relationships of power and privilege. In each site, to varying degrees, providers often had more power and privilege than the parents. For example, bound by federal and state regulations, provider organizations determine eligibility of a child for early intervention; in this way, they function as a gatekeeper to service for children with disabilities. How provider organizations work within federal and state guidelines can affect provider discretion and control their ability to make decisions based on parent needs.

Interactions within Partnerships

Partnerships may have more power and privilege than parents, but the partnership may not have power or privilege in areas where needed to address parents' concerns. In one site, providers and partnership members were aware of the need for housing for parents and families, but lacked the power and resources to create or access sufficient housing. Conversely, a site whose partnership included representatives from social service agencies was able to influence policies related to training early intervention personnel in the Protective Factors Framework.

Parent voice goes beyond giving parents choices in how and what services they receive; it includes giving them voice in policy making at the organizational, institutional, community and state levels. With varying degrees of success, partnerships sought to hear from parents, whether through forums such as community cafés, data gathered by providers, or having parents included in the partnerships.

> **Principle 4**
>
> ***Provide flexible and responsive support.*** Personalize services and support to the unique strengths, needs, and resources of parents. Encourage practices, norms, infrastructures, and policies that allow appropriate, individualized responses.

Principle 4: Provide flexible and responsive support.

The use of the protective factors *approach* encouraged flexibility and responsiveness. The sites did not use the same starting point among the protective factors, nor did they have the same relative emphasis on the five protective factors.

Providing flexible and responsive support requires active and intentional involvement and shared responsibility by parents, providers, provider organizations, and partnerships. A flexible and responsive support system involves feedback throughout the systems from parents to policymakers to allow for and incentivize adaptation of norms, policies, and infrastructures to accommodate changing conditions.

Interactions between Parents and Providers

Flexibility and responsiveness were dominant themes in the relationships between parents and providers across the sites. Providers tailored their approach to each parent. This allowed them to "start where the parent is" and then move to addressing issues that felt less urgent to parents or were more difficult to discuss early on. In a site with many low-income and immigrant families, the starting point often was addressing concrete needs such as access to housing and income support. In another site, where parents became participants in the study when their child was about a year old, the intervention focused primarily on increasing parents' knowledge of parenting and child development.

When supporting a parent in using a new approach, providers typically change the nature of their support over time. At one site, providers helped parents break down problems into small steps and set very specific goals such as, "What is my goal for tomorrow morning? What steps do I need to take to reach that goal?"

Supporting a parent's move from learning specific knowledge to being able to apply the knowledge on a continual basis involved using a range of instructional approaches. To fit the learning preferences of parents, the sites used multiple learning approaches: presentations, modeling, tutoring, videos, role-playing, homework, and peer-to-peer learning.

Interactions between Providers and Provider Organizations

In each of the sites, provider organizations designed structures that ensured that the providers learned new ways of supporting parents. Developing appropriate flexibility is a critical skill that takes time and practice. Organizations supported the providers in gaining an understanding of appropriate flexibility and responsiveness through consistent, appropriate supervision as well as by encouraging peer-to-peer support through formal and informal gatherings of providers. One provider described how her supervisor asked her to try out the recommended approach even though the provider thought that her previous approach was better. Once she had tried the new approach, she found that it indeed worked better for the parent.

Another provider organization learned of the benefits of videotaping provider-parent interactions during the intervention and began to use videotaping as part of its way of helping providers appropriately balance flexibility and responsiveness with boundaries and requirements.

Interactions within Partnerships

The nature of the partner organizations affected their ability to be flexible and responsive. For example, faith-based community organizations and other nonprofit organizations often had more flexibility than governmental agencies. By intentionally involving multiple types of organizations—some with more flexibility than others—partnerships provided a broad community-wide network of appropriate flexible and responsive supports for providers and parents.

Without pivotal players in a partnership, flexibility and responsiveness can be undermined. One site found it difficult to influence child custody decisions without the participation of child welfare services in the partnership. The treatment staff did not have sufficient influence over child welfare and court proceedings to prevent the removal of a child from a parent even when they disagreed with the decision. Over time, the project staff's efforts to develop relationships with child welfare services began to influence some caseworkers to act with flexibility. But the project staff's efforts have yet to influence the larger welfare system's decision making. Such changes take time and benefit from the conversations and relationships built within the partnerships.

> ***Principle 5***
>
> ***Persist until needs become manageable.*** Maintain support to parents until their needs become manageable. Support sustainable, adaptive responsibility for managing and resolving parent needs by developing practices, norms, infrastructures, and policies across organizations, communities, and the broader society.

Principle 5: Persist until needs become manageable.

The principle "Persist until needs are manageable" emphasizes the long view. Ensuring that needs are resolved or become manageable requires persistence across all societal domains. Parents, providers, provider organizations, partnerships, communities, and the broader society all have roles to play.

Typical "service" systems may allocate an inadequate amount time for changing entrenched situations. Switching from a "service" system to a "support" system recognizes that habits and perspectives often change slowly, sporadically, and differently across social systems. It is through repeated attention to—and use of—a new behavior that situations become manageable. At one end of the "manageable continuum," some issues will be resolved without ongoing management while, at the other end of the continuum, the parent may need an extended period of time to learn to manage a chronic problem. This principle emphasizes the importance of continuing to provide support to parents until needs, if not resolved, become manageable.

Interactions between Parents and Providers

Using the Protective Factors Framework is an interactive learning process that takes time. Both parents and providers need time to take action, to see results, and to develop the mental model of

the Protective Factors Framework. One provider team used the motto "do for, do with, cheer on" to describe the process of persistence. Often when the team members began working with parents they needed to do some things *for* the parents, then the providers could do things *with* them and, finally, the providers could cheer them on as parents acted with little or no assistance from the providers.

At another site, a provider spent most of a day with a parent, staying with her until mental health professionals could help the parent address her depression. At this site, if services were still needed when the intervention ended, the provider connected the parent with another resource to ensure that support would continue until issues were resolved or manageable.

Interactions between Providers and Provider Organizations

Organizational policies and practices may be at odds with the principle of providing services until issues are manageable. Siloed organizations and the segmentation of services undermine the ability of providers to focus on the holistic needs of a parent. By the end of the study it became clear that every site faced the challenge of determining how to support providers whose roles required them to work across siloed and segmented organizational infrastructures.

Interactions within Partnerships

The partnerships often had more flexibility than their individual organizations. For example, one partnership recognized that existing practices did not ensure a timely response to parent concerns. As a partnership, they committed to working together to ensure that parents would receive a response to an expressed need within three days. This resulted in the creation of new norms about service delivery and may be a means for moving toward new practices within individual organizations.

The partnerships also were in a position to collect data about the availability of services community wide. Across sites, the need for affordable, adequate housing and increased mental health services—community-wide issues that partnerships could not address on their own—pointed to the need for persistent action and continued evolution of the partnerships.

Summary Comments about Guiding Principles

The five guiding principles provide a basis for implementing the Protective Factors Framework, a framework that consists of interconnected, overlapping and mutually reinforcing protective factors. The five guiding principles illustrate how the protective factors approach can be put into practice through small but significant changes in everyday activities and "become part of existing programs, strategies, systems and community opportunities" (Center for the Study of Social Policy, 2011). As participants in the systems that support parents to build their protective factors repeatedly apply these guiding principles, they begin to influence the norms, practices, infrastructures, and policies that constitute complex systems change. Across different populations, different contexts, different actors, and as work proceeds at different paces, the principles become a compass to guide one's actions to ensure that avenues of support are responsive to parents, integrate the Protective Factors Framework, and strengthen relationships across the social ecology.

Knowledge Development, Dissemination, and Integration in Complex Social Systems

The QIC-EC began with a focus on a commonly used linear model of knowledge development, dissemination and integration in which knowledge developed through the research studies is disseminated to practitioners to provide them evidence for their practice, and then practitioners integrate that knowledge into their practice. As the QIC-EC work progressed, we recognized two other emerging approaches to knowledge development, dissemination, and integration: (a) how those involved with the direct intervention with parents in a given site interacted with the partnership in that site, and (b) how the project leaders and evaluators interacted with one another, with the cross-site evaluators, and with the QIC-EC leadership team. Also we learned more about how the project leaders and evaluators, QIC-EC leadership team, and the cross-site evaluators interacted with the broader research and practitioner community involved in the prevention of child abuse and neglect.

Over time, the cross-site evaluation team, the project teams (each composed of a project leader and a project evaluator from a site), and the leadership team began functioning as an "Inquiry- and Action-based Community of Learners." In this Community of Learners, participants collaborated to develop, disseminate, and integrate knowledge. They engaged in a collective and iterative learning process focused on parents and their connection to the whole social ecology.

Knowledge Development, Dissemination, and Integration at the R&D Site Level

Figure 12 illustrates the relationships between knowledge development, dissemination, and integration at the site level.

As our qualitative data collection continued in the sites, it became increasingly apparent that incorporating a protective factor orientation in social systems that have functioned for decades with fundamentally a risk factor focus requires a depth of understanding that primarily comes through an iterative and incremental learning and application process. This was well illustrated through the way in which those involved in the direct work with the parents, the local evaluators, and the partnerships interacted. It was further evident in the way in which the cross-site evaluation information about the intervention with the parents flowed to, and was used by, the partnerships.

The Direct Intervention with Parents

The circle on the left side of Figure 12 represents the whole population of parents of young children in the geographic or governing area served by the intervention. For example in Boston, it refers to all parents of newborns served by the Boston Medical Center. Within this group are the parents who participated in the study either as part of the treatment (circle labeled as

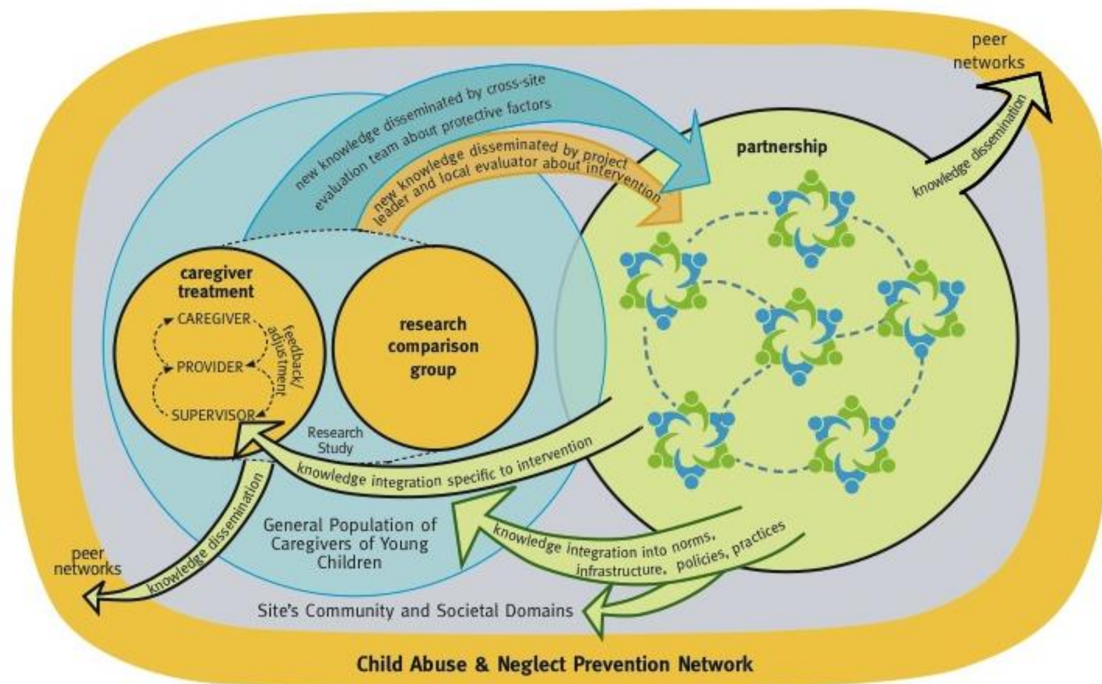

Figure 12. Inquiry- and Action-Based Knowledge for Individual Sites

Caregiver[8] Treatment Group) or the comparison group (circle labeled as Caregiver Comparison Group). Within the treatment group, we find a community of learners that includes the parent, provider, and supervisor with arrows showing the feedback loops that led to adjustments by the parent, provider and/or supervisor in response to the learning. This diagram shows the basic interaction of parent and provider and provider and supervisor but there were other peer-to-peer learning interactions occurring as well. For example, in one site (Massachusetts), the Family Specialists met weekly with the project team to present their work with parents and to discuss resources and approaches to working with the parent. The providers learned from one another as well as their supervisors during these sessions. In another site (South Carolina), the supervisor had individual contacts with the provider. In both instances there was a collaboration that led to learning and adjustments in the provider's work leading to changes also for the parent.

The Partnership Aspect of the Intervention

The circle on the right represents the partnership of formal and informal organizations that are part of the intervention. Each of the icons within the partnership circle represents a formal or informal organization or key individual in the community. They collectively constitute the partnership and interact to share knowledge and consider how to disseminate knowledge within their organizations and the community.

8 The term "caregiver" was used throughout much of the study because it was unknown at the beginning whether the participants would be parents or possibly other caregivers such as a grandparent or an aunt. It turned out that all the participants were parents so we moved to using "parent" instead of "caregiver" late in the study. Thus both terms appear in the materials.

Flow of Knowledge between Parent Level Intervention and Partnership

The partnership functioned as an inquiry-and-action-based community of learners as it discussed what was being learned in the research study and determined how this could/should influence the work of the partner organizations. The general flow of knowledge to the partnership was two-fold. The research project leaders, with the involvement of their evaluators, were gaining knowledge throughout the research. They kept the partnership informed about their work (represented by the arrow immediately above the comparison group circle). In addition, the cross-site evaluation was gaining new knowledge about different aspects of the intervention. The cross-site evaluation focused on how the Protective Factors related to the intervention. Our site visits were not only a time for us to gather information but also to disseminate information to the partnership about what we were learning about the Protective Factors. We also brought in knowledge from the other sites and the Child Abuse and Neglect Prevention Network in general and from what was being learned about the site's community and societal domains that might be relevant to the partnership's role in shaping norms, infrastructures, policies, and practices.

The sites were at varying stages of building a long-term relationship between the work being tested with parents and the supporting partnership. For example, one site (Oregon) was engaging in multiple studies by the end of the project that were informing and being informed by their partnership. In another site (Massachusetts), as the study of the intervention with the parents came to a close, the partnership discussed their need to be ready to come together with the same or slightly different partners when new research opportunities arose. They did not intend to continue to function as a partnership until a new study came about. In another site (South Carolina), the partners already were regularly meeting for various collaborations and expected to continue to pursue their plans to pilot the use of PCAN training with Early Intervention personnel in two other regions of the state with the hope of eventually providing this training to Early Intervention personnel throughout the state.

Within the partnerships, philosophical shifts seemed to be occurring as the partners reframed and gained a deeper understanding of what it meant to work from a protective factors stance across the whole social ecology, what principles were needed to undergird these efforts, and what deeper policy issues were needed in order to shift the field of prevention to this protective factors perspective.

Flow of Knowledge from the R&D Sites to the Broader CAN Prevention Network

Members of the partnerships also shared knowledge with their peer networks (local, statewide, and/or national) throughout the study. Similarly, researchers and evaluators working at the parent level also shared information with their peers in the child abuse and neglect prevention network.

Knowledge Development, Dissemination, and Integration at the QIC-EC Level

From the beginning of the project, we and the QIC-EC leaders thought of the working relationships among the QIC-EC leadership team, the cross-site evaluation team, and the local project leader/evaluator teams as a community of practice. However, this was not a familiar way

of working for most of the people in the four sites. They were accustomed to a much more hierarchical working relationship. It took time to develop the relationships to be more congruent with the intentions of the QIC-EC leadership team. Understanding this community of practice and its role became an important aspect of understanding knowledge development, dissemination, and integration in complex settings (the third cross-site evaluation question). See Figure 13.

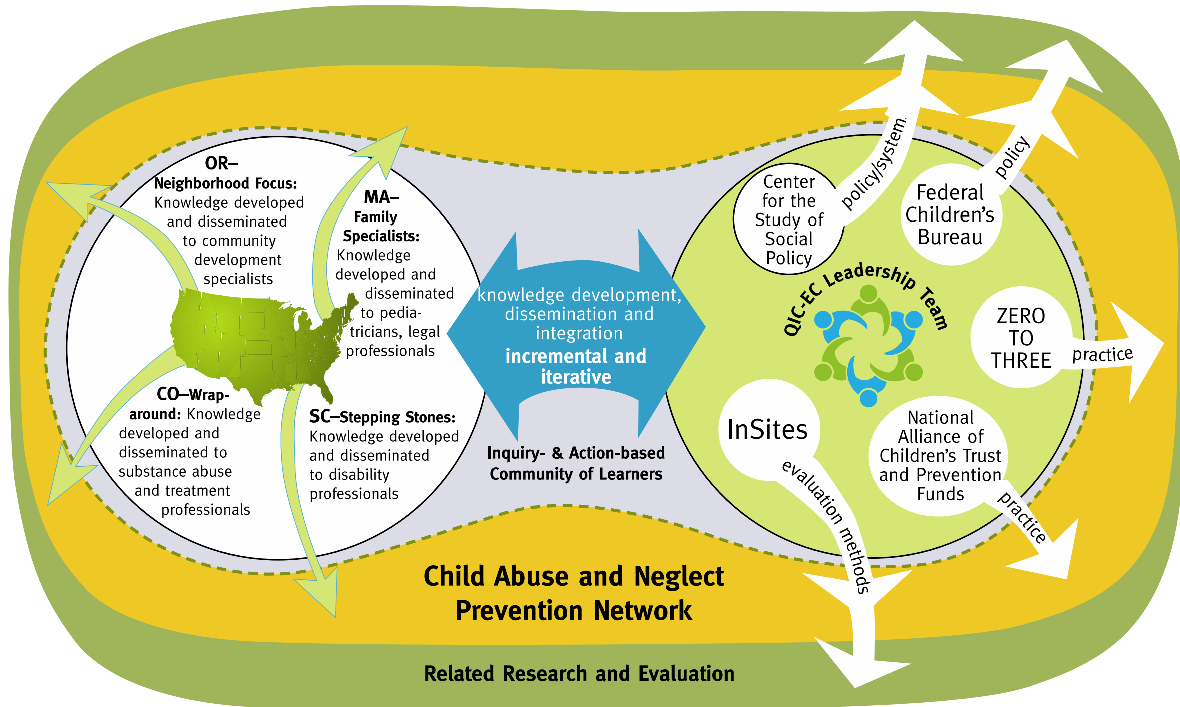

Figure 13. Inquiry- and Action-Based Community of Learners

Flow of Knowledge within the QIC-EC

On the right side of Figure 13 is the QIC-EC Leadership Team that included our cross-site evaluation team (InSites) as well as the partner organizations. Early in the project, we interviewed Leadership Team members to gain an understanding of (a) the evolution of knowledge development, dissemination and integration and (b) the key relationships and perspectives that foster knowledge development, dissemination and integration within the Leadership Team. See Appendix BB (QIC-EC *Leadership Team Report*) for a summary of these interviews.

The QIC-EC leaders recognized from the beginning that collaborative and highly interactive relationships were needed between them, the sites, and our cross-site evaluation team. The primary arrow connecting the sites and the Leadership Team focuses on the incremental and iterative process of knowledge development, dissemination and integration occurring between the sites and the leadership team. The QI-EC leaders convened in-person meetings of the grantees, our evaluation team, and the leadership team two to three times a year. They also set up

one-hour conference calls each month for sharing information. Some conversations addressed specific issues, some of which needed agreement across the sites (e.g., ways to organize the shared database). We also had monthly calls with the local evaluators to address issues of interest to one or both of the parties. Importantly, we also worked back and forth between the sites and the QIC-EC Leadership Team in the interpretation of the evidence and data gathered in the sites. These interactions were a key part of the developmental evaluation in which multiple perspectives informed the interpretation of data.

Through these various mechanisms, strong relationships developed through which knowledge was developed, disseminated, and integrated into practice (be it research or provider practice) in an iterative and incremental fashion.

Flow of Knowledge from the R&D Sites and Leadership Team to the Broader CAN Prevention Network

The flow of information to the broader CAN prevention network from the individual sites was discussed above as it related to their specific interventions. To varying degrees, the local sites also began to include the broader picture of the full QIC-EC work and its focus on multiple ways to implement the Protective Factors Framework in their dissemination to the broader network. Additionally, information flowed from the QIC-EC leadership team members via their networks to the larger CAN prevention network. (See Appendix CC (*QIC-EC Learning Network Evaluation Report*) for a summary of interviews with Learning Network members about the QIC-EC's dissemination of new knowledge.)

Each of the Leadership Team organizations has different types of networks. For example, CSSP tends to focus on policymakers while ZERO TO THREE works with providers who work with parents of young children. InSites has shared with others in the field of evaluation and/or early childhood what is being learned about conducting a developmental evaluation in a complex system. See Appendices DD-II for visuals from various conference presentations.

The community of researchers, evaluators, and practitioners who see themselves and one another as continual learners are in a position to continue to learn together, adapt the intervention to changing conditions, and also continue to evolve as communities – bringing in new members as new resources and expertise are needed to address changing conditions. The inquiry- and action-based communities of practice/learning formed with the recognition that the complexity of the situations requires deeper knowledge than can generally be conveyed in writing or through short interactions. It is the ongoing opportunities to continue to interact and delve more deeply into issues over extended periods of time around specific situations that leads to the deeper knowledge required for meaningful and lasting systems change.

Through various mechanisms, strong relationships developed through which knowledge was developed, disseminated, and integrated into practice (be it research or provider practice) in an iterative and incremental fashion as well as in a more linear stepwise fashion. The nature of these two approaches (iterative and incremental on one hand and linear stepwise approach on the other) played together to create dynamics that recognize that some aspects of knowledge development, dissemination, and integration are rapid and interactive while others are slower and

more linear. Both are important aspects of the overall process of knowledge development, dissemination, and integration that leads to rebalancing and focusing the complex array of social systems involved in this work.

Long-term Research, Evaluation, and Practice Agenda about Protective Factors

The QIC-EC cross-site evaluation of implementing a Protective Factors approach that allows different interventions and addresses multiple domains of the social ecology yielded many insights about how to influence complex social systems to be grounded in a new paradigm. An especially important insight is that such change involves a long-term research, evaluation, and practice agenda woven together through ongoing knowledge development, dissemination, and integration. This study highlight two particularly important aspects of the agenda—measurement issues and the importance of partnerships—that we would like to draw attention to at this point before presenting a summarizing framework to guide ongoing research, evaluation, and practice.

Measurement Issues

Measurement is a key aspect of research, evaluation, and practice. Here are four suggestions regarding measurement that derive from the QIC-EC cross-site evaluation.

- **Build on clarifications about outcomes and their measurement.** The *Core Meanings of the Strengthening Families Protective Factors* informed through the QIC-EC R&D studies (see Appendix C – *QIC-EC Strengthening Families Protective Factors*) and the revised *Caregiver's Assessment of Protective Factors* (CAPF), refined through the QIC-EC work, are key new resources for clarifying and measuring outcomes for future studies. These resources are important for identifying and measuring outcomes that can be expected to change within the timeframe of the intervention and are reasonably linked to the particular interventions being studied.
- **Provide measurement tools for parents.** Using outcome measures that allow parents to see their own progression of developing the Protective Factors Framework as a whole and how they are benefiting from the supports they receive can enhance the influence on and by parents for overall systems change. Tailoring the assessment processes to include a reflective component—permitting parents to monitor their own progress in developing and practicing a Protective Factors Framework—has the potential to make the process more immediately useful to parents and providers.
- **Measure interactions.** Incorporate measurement tools (beyond interviews and surveys of parents) to include relationship-based interactions between parents and providers and stretch into the community and societal domains to add deeper insight about the interventions across the social ecology. Such instruments may involve observations, video recordings, and other approaches that highlight interactions. It is through interaction that change happens.

- **Administrative-level assessment.** On a larger scale, the development and use of administrative-level measures of well-being at multiple points in the social ecology (in addition to the current measures of child abuse and neglect) can extend the Protective Factors Framework to the broader field of prevention. By bringing the Protective Factors Framework into common use in the public eye—in effect, shifting the "mental model" of policy makers and other administrative figures from risk factors to protective factors—new assessments could help direct the national agenda toward strengthening families and creating healthy environments in which children thrive.

Partnerships

The earlier section on partnerships drew attention to the importance of partnerships in creating the environment for parents to build protective factors. It emphasized that partnerships are a vital part of the intervention for sustainable change in social systems. Partnerships play an important role in shifting the mental models that shape community and societal norms, infrastructures, policies, and practice; engaging parents as essential partners; addressing the long-term nature of systemic change; and focusing on sustainability and cumulative impact.

Here we draw attention to another issue regarding partnerships. The sites did not necessarily begin with ideas about how to use the partnership beyond helping with the initial implementation of the intervention with parents (e.g., recruitment of participants). Many of the partners were not accustomed to thinking about partnerships as key players in bringing about long-term change in complex social systems through intentional efforts to change norms, infrastructures, and policies. The QIC-EC design did not include specific examples or a framework for how partnerships can influence norms, infrastructure, and policies to support sustained systems change. Partners would likely benefit from more options for such actions. We suggest that future studies either provide and test a theoretical framework about specific norms, infrastructure, and policy changes and/or study the role of providing technical assistance to help partnerships look at their options.

Framing Future Research, Evaluation, and Practice

To summarize the learning from the QIC-EC cross-site evaluation, we developed a new version of the visual representation of the changes in complex social systems involved in the Strengthening Families initiative presented in Figure 9. This new figure, Figure 14, incorporates what we learned about parent outcomes, providers' support for the building of Protective Factors, the role and nature of partnerships, the importance of guiding principles to accompany the Protective Factors Framework, and functioning as Inquiry- and Action-based Communities of Learners. It serves as a jumping off point for the next phases of research, evaluation, and practice.

Framework for Systems Change in the Strengthening Families Initiative (End of QIC-EC)

Points of Systemic Influence	Baseline Understanding *To what extent:*	Testing Interventions	Tipping Point	Sustainable Adaptive Balancing
Parent-Child-Family	Are families aware of, using, and building protective factors? Are families aware of and using the guiding principles?	Families test use of Protective Factors Framework and the guiding principles, and determine changes in relationships and boundaries in daily life. Families learn to self-assess their use of Protective Factors Framework and guiding principles.	Enough families are habitually using and building the Protective Factors Framework and guiding principles that family norms are shifting in support of the Protective Factors Framework for living. Evidence of increased well-being present.	Caregivers are connected with other caregivers and family members who are skilled at using and building the Protective Factors Framework and guiding principles. Evidence of well-being of families and levels of child maltreatment regularly monitored and in appropriate range.
Neighborhood/ Community	Are neighborhoods/communities and their leaders building social cohesion around protective factors? Are neighborhoods/communities and their leaders using the guiding principles to shape their actions?	Neighborhoods/communities pilot new ways of functioning that are grounded in protective factors, the guiding principles and social cohesion.	Neighborhoods & leaders use and support the protective factors and the guiding principles. Desired social cohesion being achieved/supported. Evidence exists of desired social cohesion and significant use of protective factors and guiding principles.	Neighborhoods and leaders adjust to social conditions in community with emphasis on supporting protective factors and the guiding principles. Evidence monitored and in appropriate range.
Providers and Their Organizations	Are organizations/services designed to support protective factors framework? Do providers use the guiding principles to support building of protective factors?	Organizations/providers pilot new ways of operating that emphasize the protective factors framework and the guiding principles. They determine cost implications.	Organizations/providers are redesigning norms/structures/ policies/practices to support protective factors framework & the guiding principles. Desired benefits being realized/supported.	Organizations/providers use caregiver, child, family outcome and others data to adjust to social conditions in community with emphasis on presence of protective factors and the use of the guiding principles.
Societal Actors (state & national)	Are norms, infrastructures, policies based on the Protective Factors Framework and the guiding principles?	Norms, infrastructures, policies targeted for change with engagement of multiple voices, perspectives, and valuing of protective factors and the guiding principles.	Norms, infrastructures, policies overall encourage presence of protective factors and guiding principles. Caregiver, child, family outcomes supported.	Societal leaders balance attention to risk and protective factors tailored to micro-contexts. Guiding principles are attended to. They address norms, infrastructures, policies and dynamics over time based on monitoring data and related new knowledge. Evidence in an appropriate range.
Stakeholder Learning & Capacity Building	Do learning activities address the Protective Factors Framework and the guiding principles?	Learning activities redesigned and tested with attention to protective factors, and guiding principles and use of interactive, peer-to-peer learning and learning from families.	Communities of practice grounded in peer-to-peer learning and application are common; include reflection on use of protective and risk factor in different contexts, and on the use of the guiding principles.	New knowledge development, dissemination, and integration woven into practice with learning activities and communities of practice used to shore up challenging areas. Communities of practice embody the guiding principles. Stakeholder knowledge and practice regularly assessed.
Networks/ Partnerships	Are networks/partnerships designed to encourage the building of the Protective Factors Framework and the use of the guiding principles?	Networks, partnerships test change in norms, infrastructure, and policies among their members and the extent to which these reflect the guiding principles	Key partners, networkers have multiple interconnections that encourage attention to protective factors and the guiding principles in a micro & macro level. Attention to protective factors framework and the guiding principles is fundamental to connections.	Partners, networkers use data feedback to strategically shift connections to respond to contextual changes to ensure primary attention to protective factors and the guiding principles. Shifts are based on systems thinking

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Figure 14. Framework for Strengthening Families Theory of Systems Change (End of QIC–EC)

The QIC-EC R&D projects and the accompanying cross-site evaluation were indeed major undertakings. They provided substantial learning for the many people involved and provided importance evidence about four interventions tailored for specific populations. The projects together provided the basis for a cross-site evaluation that yielded information on the broad issues of bringing about systemic changes to establish the Protective Factors Framework as the dominant basis of social systems that support parents in building and using their protective factors to promote optimal child development, strengthen families, and reduce the likelihood of child maltreatment.

System changes occur through a continual back and forth between the big picture and details across the many subsystems that are involved in such complex change. The updated Framework for Systems Change in the Strengthening Families Initiative (from the framework that was in place near the beginning of the QIC-EC work) maintains the same six subsystems that were used in the earlier framework (Parent-Child-Family; Neighborhood/Community; Providers and Their Organizations; Societal Actors—State and National; Stakeholder Learning & Capacity Building; and Networks/Partnerships). These are units of change that were supported through the QIC-EC work as key points of systemic influence.

The phases of changes used at the beginning appear to remain as a workable way to think about the phases of systemic change (Baseline Understanding; Testing Interventions; Tipping Point; and Sustainable Adaptive Balancing). However, the QIC-EC work suggests that it is a far more lengthy and complex pattern of change within and across these phases of change and among the units of change just mentioned. Additionally, the indicators of progress within the phases of change and among the units of change in the updated Framework for Systems Change now incorporate the guiding principles identified through the QIC-EC work. The indicators also incorporate other key points about the nature of evidence appropriate at the various phases of this work.

We put forth this new framework as a touchstone that incorporates the extensive learning from the QIC-EC work and positions future practitioners, researchers, and evaluators to move forward on this important long-term agenda to revitalize social systems to better support parents of young children.

Closing Comments

It has been a great privilege to engage with the talented and committed individuals with whom we have worked over the life of the QIC-EC initiative. We close by expressing our appreciation for this opportunity and encouraging researchers, providers, administrators, policymakers, parents, and others involved in the prevention of child maltreatment to thoughtfully consider and apply the extensive learning that has been derived from the QIC-EC. For example, we invite you to try out the guiding principles in your situation and with others who are supporting parents. Test them as you design interventions and advocate for policy change. Use them to understand existing interventions more deeply and to adapt interventions to make them more effective.

Consider them when you sit down to talk with a family about their hopes and dreams, challenges, and opportunities. Use these principles to look deeply into your own behaviors, actions, and expectations, and to communicate with those you work with side-by-side, as you continue the shared journey to make the lives of young children and their families more joyful, productive, and safe.

For those leading large-scale systemic change efforts, we invite you to use the new *Framework for Systems Change in the Strengthening Families Initiative* to conceptualize your work and communicate with others involved in similar efforts.

In the spirit of developmental evaluation, we encourage you to provide feedback to the Strengthening Families team and others working with a protective factors orientation to support the continued development of the Protective Factors Framework, the guiding principles, the Strengthening Families initiative as a whole, and related efforts to create dynamic and adaptable social systems that can adjust to the complexities of supporting all parents of young children.

The combined perspectives of researchers, evaluators, parents, providers, provider organizations, and partners who function across the domains of the social ecology are essential to accomplish the challenges and opportunities ahead.

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