Supporting Evidence-Based Home Visiting to Prevent Child Maltreatment

Making Replication Work: Building Infrastructure to Implement, Scale-up, and Sustain Evidence-Based Early Childhood Home Visiting Programs with Fidelity

June 2014

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Children's Bureau

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EBHV Subcontractors

Subcontractors	Project Director as of Spring 2012
County of Solano Department of Health and Social Services, California	Linda Orrante and Nancy Clavo
Rady Children's Hospital, San Diego, California	Charles Wilson and Joan Diccianni
Colorado Judicial Department	Lilas Rajaee-Moore
Children & Families First, Delaware	Leslie Newman

Subcontractors	Project Director as of Spring 2012
Hawaii Department of Health	Tod Robertson and Cindy Hirai
Illinois Department of Human Services	Andrea Palmer
Minnesota Department of Health	Laurel Briske
New Jersey Department of Children and Families	Sunday Gustin
Society for the Prevention and Care of Children, Rochester, New York	Laurie Valentine
Mercy St. Vincent Medical Center, Toledo, Ohio	Connie Cameron
The University of Oklahoma Health Sciences Center	Jane Silovsky
Rhode Island Kids Count	Leanne Barrett
The Children's Trust Fund of South Carolina	Ann Maletic
Child & Family Tennessee	Kathy Hatfield
Le Bonheur Community Health and Well-Being, Memphis, Tennessee	Ruth Hamblen
DePelchin Children's Center, Texas	Charity Eams and Stacey Clettenburg
Utah Department of Health	Robyn Lipkowitz

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CONTENTS

Contents *(Continued)*

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TABLES

FIGURES

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EXECUTIVE SUMMARY

In fiscal year 2011, child protective services agencies received 3.4 million referrals of alleged acts of maltreatment involving 6.2 million children. An estimated 677,000 children were victims of substantiated maltreatment, which is a rate of 9.1 victims per 1,000 children in the population (U.S. Department of Health and Human Services 2012). Despite declines in the number of substantiated cases of neglect, physical abuse, and sexual abuse (Finkelhor 2007; Finkelhor and Jones 2006), children younger than age 1 continue to demonstrate victimization rates two to three times the rate of children in other age categories. All these findings underscore the need for strategies to prevent child maltreatment to improve outcomes for families and communities.

Home visiting to prevent child maltreatment. Home visiting is one strategy that shows promise for reducing rates of self-reported and substantiated child maltreatment and use of emergency rooms to treat child injuries (Avellar and Supplee 2013; Lowell et al. 2011; Fergussen et al. 2005; Olds et al. 1986, 1997; Silovsky et al. 2011). In addition, well-designed and well-implemented home visiting program models may also improve important short- and longer-term outcomes related to women's prenatal health; parenting behaviors and skills; children's health and health care coverage and use; children's development and school readiness, and family economic self-sufficiency, although programs may not achieve positive impacts in all outcome areas or across all participants (Avellar and Supplee 2013; Filene et al. 2013; Peacock et al. 2013; Howard and Brooks-Gunn 2009).

The need for fidelity to evidence-based models. Increasingly, federal and state policymakers are asking for evidence of effectiveness as they decide which programs to fund and at what levels. Investing in direct service programs that have been found effective in rigorous experimental studies offers policymakers a way to focus investments and increase their confidence in the possibility of replicating outcomes to extend program benefits to more of the target population. However, this hypothesis depends on ensuring that sites replicating a model maintain fidelity to its original design and intent. Faithfully replicating these programs is believed to provide a higher likelihood of achieving desired outcomes than replicating efforts that lack a strong evidentiary base (Fixsen et al. 2005).

The need for systems to support implementation, scale-up, and sustainability of home visiting programs with fidelity. Furthermore, for home visiting interventions to have the greatest effects possible, it is believed that the systems in which home visiting programs operate must be integrated, supportive to staff and families, and conducive to service delivery. However, limited knowledge exists about how to build the infrastructure and service systems necessary to implement and sustain evidence-based home visiting programs with fidelity to their models, and how to scale up these programs and adapt them for new target populations.

An initiative to support evidence-based home visiting. To address this knowledge gap, in 2008, the Children's Bureau (CB) in the Administration for Children and Families (ACF) at the U.S. Department of Health and Human Services (DHHS) entered into cooperative agreements with 17 organizations in 15 states to support the implementation of home visiting programs that have potential to prevent child maltreatment. Each organization funded through the Supporting Evidence-Based Home Visiting to Prevent Child Maltreatment (EBHV) initiative selected one or more home visiting models to implement for the first time in its state or community or to enhance, adapt for a new target population, or expand. CB's vision for the EBHV initiative was that, through

system change activities, grantees would build infrastructure necessary to accomplish three overarching goals:

1. Support implementation with fidelity to the home visiting program models
2. Support scale-up of the home visiting models—replicating the program model in a new service area, adapting the model for a new target population, or increasing the enrollment capacity in an existing service area
3. Support sustainability of the home visiting model beyond the end of the grant period

The EBHV initiative was funded for five years, with the first year devoted to planning and the other four years focused on implementation. EBHV funds were not intended to cover the full cost of direct home visiting services. Rather, subcontractors were to use primarily other funding sources to operate their selected home visiting models. Therefore, subcontractors partnered or coordinated with ongoing home visiting programs or sought other public or private funds for new or expanded home visiting operations. In addition, each subcontractor was required to conduct process, outcome, and economic evaluations.

The context of evidence-based programs, and evidence-based home visiting in particular, has changed dramatically with the inclusion of the Maternal, Infant, and Early Childhood Home Visiting Program (MIECHV) in the Affordable Care Act of 2010 (P.L. 111-148). MIECHV represents a significant investment in home visiting programs for low-income families, an investment the Obama Administration seeks to expand during its second term. With the passage of MIECHV, primary oversight for the State Formula grant program is provided by the Health Resources and Services Administration at DHHS, the federal agency charged with implementing MIECHV in partnership with ACF, and the EBHV grantees are now supported through subcontracts from their states (and are therefore subsequently referred to in this report as subcontractors). With increased investments in home visiting also comes increased scrutiny of the "return on investment." Policymakers and the public want to know whether the promise of home visiting programs demonstrated in the research literature holds true in a large-scale investment.

The national evaluation. Mathematica Policy Research and its partner, Chapin Hall at the University of Chicago, conducted a national cross-site evaluation of the EBHV initiative. Using a mixed-methods approach, the national cross-site evaluation was designed to (1) examine the degree to which system change occurred, (2) document the fidelity with which the program models were implemented, and (3) identify implementation strategies and challenges (Koball et al. 2009). Ultimately, the evaluation examined the degree to which building infrastructure capacity influenced whether the EBHV subcontractors were able to achieve their EBHV goals related to implementation with fidelity, scale-up, and sustainability. The evaluation also examined whether progress achieving these goals was influenced by the quality of the collaboration among partners, the extent to which partners worked together, and the degree to which partners' respective goals were in alignment.

This final evaluation report brings together findings from all years of the EBHV initiative, drawing on interim reports and briefings and updating results with analyses of data collected through the initiative's first four years of implementation (fall 2009 through spring 2013). Throughout the initiative, the national cross-site evaluation gathered data from many sources, including reviews of the subcontractor's applications and progress reports, several rounds of telephone interviews and two rounds of site visits with the EBHV subcontractors, baseline and followup surveys of the EBHV subcontractors and their partners, and data on staff and participant characteristics and

service delivery from the implementing agencies (IAs) identified by the subcontractors. The primary data sources for this report include: (1) site visits conducted to the 17 EBHV subcontractors between February and April 2012; (2) data on staff and participant characteristics and service delivery from October 1, 2009, through June 30, 2012; and (3) a web-based survey of key partners fielded in February 2013.

Overview of the EBHV Subcontractors, Implementing Agencies, Staff, and Families

The 17 EBHV subcontractors represented 15 states, and most were private, nonprofit organizations or state agencies. Subcontractors selected one or more of the following five home visiting models for implementation: (1) Healthy Families America (HFA), (2) Nurse-Family Partnership (NFP), (3) Parents as Teachers (PAT), (4) SafeCare, and (5) Triple P.[1] Most subcontractors implemented one model, but four implemented more than one. Ten subcontractors were newly implementing their selected home visiting models; the others were continuing to implement existing models or expanding them to new geographic areas or target populations.

Each subcontractor worked with one or more IAs to deliver home visiting services to families or served as the IA and provided services directly to families. A subset of 46 IAs working with 16 subcontractors to enact the EBHV initiative contributed data related to IA staff and families to the cross-site evaluation. Among the IAs that contributed data to the cross-site evaluation, 16 implemented NFP, 12 implemented HFA, 9 implemented PAT, 8 implemented SafeCare, and 1 implemented Triple P.

Most staff members had a B.A. or advanced degree. The EBHV IAs sought to recruit and hire supervisors and home visitors with the qualifications recommended by their evidenced-based model and the skills, experience, and education necessary to provide services to the agencies' target population. Staff characteristics have emerged as potentially important inputs to high quality service delivery and may affect program efficacy. Among the IAs that contributed data to the EBHV cross-site evaluation, most (75 percent) directed service staff who worked solely as home visitors. Nine percent functioned only as supervisors, and 16 percent provided both home visits and supervision. Across models, most staff (79 percent) had a bachelor's degree or higher and previous experience in home visiting. IAs implementing HFA, PAT, and SafeCare hired a more racially and ethnically diverse workforce than those implementing NFP or Triple P.

IAs served a range of target populations. The five home visiting models have distinct target populations. Staff at EBHV IAs conducted outreach in their communities to recruit individuals and families who met the criteria established by the model purveyors and their local program. This resulted in a participant sample with some basic similarities, but many differences, among the models. Nearly all participants were female (97 percent) and spoke English as their primary language (86 percent). Over one-third of participants (37 percent) were African American. Forty-four percent

[1] Triple P is composed of population-based prevention strategies that include integrated, or "scaled," interventions designed to provide a common set of parenting messages to parents facing various degrees of difficulty or challenges. Program components range from universal strategies (mass mailings, media articles, community forums), to targeted interventions (such as two- to three-week skill development classes), to intensive behavioral therapy. The EBHV Triple P subcontractor implemented a home-based behavioral family intervention that targeted high-risk parents with children from birth to age 8.

of participants had less than a high school diploma at the time of enrollment, 69 percent were unemployed, and 94 percent were receiving public assistance. Looking across the individual models, participants enrolled in HFA and PAT programs presented with a significantly higher number of socio-economic risk factors than participants enrolling in the other models represented in our sample.

The Degree to Which IAs Achieved Fidelity of Implementation

IAs consistently met many fidelity standards, but struggled to maintain caseloads and deliver services at the intended intensity. Across all the fidelity indicators assessed to measure adherence to program standards, IAs were most consistent in achieving high levels of fidelity in hiring and training appropriate staff, obtaining appropriate referrals, delivering most of the planned visits, and covering the planned content during the home visits. The findings also suggest that providers delivered services in the style central to the relationship-based approach promoted by the five home visiting models (as measured by the Working Alliance Inventory; WAI). Implementation indicators that proved more challenging were (1) sustaining full caseloads for home visitors, (2) participant retention and dosage, and (3) achieving consensus between families and home visitors on goal setting (meaning, perceptions of their agreement on service goals, ability to develop mutual goals, and agreement on the change needed to achieve program objectives) as measured by the WAI.

Context matters for achieving fidelity. We also found greater variability in fidelity within models than across models: each model had outstanding and less than outstanding IA-level performers. This suggests that fidelity of implementation is only partly a function of "model factors" and is influenced by context: the organization offering the services and the quality and extent of local service networks.

Higher-risk families were more likely to leave the program early. We learned that younger, more economically disadvantaged, and potentially more socially isolated participants (as suggested by their single-parent status) left multiyear home visiting programs early or, if enrolled in short-term programs, did not successfully complete them. Participants with more demographic risk factors at intake were as likely as those with fewer risk factors to remain enrolled for at least 6 months but were more likely to leave services between 6 and 12 months. Among those who remained in programs after six months, however, the number of risk factors was not a predictor of the number of home visits participants received.

The Role of Infrastructure Building and Partnerships in Achieving EBHV Goals

Context changes disrupted the timing of infrastructure-building activities. The EBHV subcontractors participated in infrastructure-building activities to support fidelity, scale-up, and sustainability infrastructure goals. Early in the evaluation, the cross-site evaluation team hypothesized that subcontractors might build infrastructure sequentially, beginning in the foundation area during the initial planning year, then moving on to the implementing area after program operations got under way. As the evaluation team hypothesized, during the planning and early implementation period, subcontractors focused much of their activity in the foundation area, planning many dimensions of the EBHV initiative (such as program implementation, staff recruitment and training, referral systems, technical assistance, model certification, and continuous improvement systems) and developing collaborative relationships with many external partners at local and state levels. From 2010 to 2011, changes in the national and local contexts influenced the order in which infrastructure-building activities were carried out. Due to the rollout of MIECHV and the economic downturn, subcontractors engaged in a new round of planning activities midway

through the initiative, and they accelerated activities in the sustaining area to stabilize their funding for implementation. By year 4, however, patterns of infrastructure-building activity largely followed the initial hypotheses formulated by the cross-site evaluation team, despite midpoint deviations in response to changes in context.

Partners' reports of investments in sustaining infrastructure and higher collaboration quality were associated with achieving EBHV goals. To understand the extent to which involvement in infrastructure-building activities was associated with progress toward goals, we conducted an analysis using the 2013 partner survey data. We examined the relationship between each of the outcomes of interest (progress in achieving goals on implementation with fidelity, scale-up, and sustainability) and key predictor variables—specifically, the areas of infrastructure that were developed and the collaborative context of the partnership. Findings suggest that building sustaining infrastructure (such as building fiscal capacity through partnering and fundraising; building community awareness or political support for programs and policies; communicating information, lessons learned, and research findings; and evaluating and monitoring programs) was particularly important to subcontractors during the late implementation phase of the initiative and was significantly related to perceptions of whether the EBHV initiative's subcontractor-specific goals were achieved. Furthermore, partners' reports of the quality of their collaboration with one another were associated with achieving the initiative's goals of fidelity, scale-up, and sustainability. This suggests that partners felt having a good team with a purpose, strong leadership, and an appropriate process for decision making influenced the progress the EBHV subcontractors reported in achieving the initiative's goals. These findings varied from those of the early implementation phase, in which we found that alignment of partner goals was a key factor associated with building infrastructure (Hargreaves et al. 2013).

Lessons Learned and Implications for the Field

Unknown to CB at the outset, the EBHV initiative was a precursor to the larger MIECHV investment and to its legislatively mandated evaluation, the Mother and Infant Home Visiting Program Evaluation (MIHOPE), a randomized controlled trial to assess the effects of home visiting programs on child and family outcomes. Therefore, the experiences of the EBHV subcontractors captured through the national cross-site evaluation can offer important lessons to policymakers, state administrators, practitioners, and technical assistance providers as they undertake the implementation of MIECHV, as well as lessons for the field on the implementation of evidence-based programs in general. In addition, the elements of the design and the implementation of the national cross-site evaluation (including the measurement approaches and analytic techniques) can help guide future national and state endeavors to support implementation of evidence-based programs with fidelity, scale-up, and sustainability.

1. An Evaluation Designed to Capture the Complexities of the EBHV Initiative

The EBHV evaluation makes a strong contribution to the research and practice fields in two areas: (1) evaluating complex system change activities that require subcontractors to collaborate with many stakeholders, and (2) creating a fidelity measurement system that can be used across multiple home visiting models. We developed and used an approach for studying system change and measuring partnership involvement and collaboration. The approach was grounded in system theory concepts and system dynamics, and it used quantitative and qualitative methods to directly measure key system properties and the dynamics of their partnerships, as well as to assess how these factors were associated with the projects' level and nature of system development (Hargreaves et al. 2013). The EBHV evaluation design enabled us to better understand and describe the organizations

working together to implement and create a supportive context for evidence-based home visiting models.

The Mathematica/Chapin Hall team, in collaboration with EBHV subcontractor staff (including local evaluators), representatives of the national models, CB, and federal partners, developed a fidelity assessment framework that included indicators to monitor fidelity to the program model, track program improvement, and conduct evaluation. Our approach captured program characteristics (including caseload dynamics and service structure), direct service staff characteristics, and participant characteristics and experiences. We designed the fidelity framework to capture consistent information across the five home visiting programs implemented by the EBHV subcontractors, while accounting for the differences among the models (Daro 2010). We also wanted an approach that minimized burden on IAs. To accomplish this, we built the framework, to the extent possible, on the data required by the national model developers.

2. Key Lessons Learned

Lessons learned from the cross-site evaluation highlight: (1) challenges subcontractors and IAs faced in completing home visits at recommended levels of intensity, (2) the challenges of maintaining enrollment, (3) challenges to assessing the quality of the home visitor-participant relationship, (4) the need for flexibility in program management and evaluation during times of uncertainty, (5) the importance of feeding program-level experiences and data into system-level decisions and improvement plans, and (6) the central role of positive relationships and collaboration among partners.

Delivering evidence-based home visiting programs at recommended levels of intensity. Consistent with findings from previous evaluations, it is difficult to take home visiting programs to scale and implement them at the levels of intensity (dosage and duration) that the program model developers recommend (Ingoldsby et al. 2013; O'Brien et al. 2012; Prinz et al. 2001). Among the families in our sample, less than one-fifth had received the expected number of home visits at six months: just over one-third received 80 percent of the expected number of visits, and about two-thirds received 60 percent. We found a similar pattern at 12 months, with 18, 44, and 72 percent of families receiving all, 80 percent, and 60 percent of expected home visits, respectively. Parents who received more home visits were more likely to be married or living with a partner and to be employed. Although families with the most challenges were more likely to drop out of services, we observed no significant relationship between the number of socioeconomic challenges families faced and the number of home visits they received; this suggests that programs were equally successful in completing visits with a broad range of families, if the programs could retain them.

Maintaining enrollment capacity. Even though IAs had been operating home visiting programs for at least two years by the end of the evaluation (and many for much longer), more than half of home visitors carried caseloads below capacity. Two caveats are important in interpreting the caseload data: (1) given the relatively small number of home visitors per implementing agency, variations in these percentages across IAs may reflect differences in the caseloads of a few workers. and (2) it may be unrealistic to expect home visitors to maintain exact caseloads (such as 25 participants). Home visitors in these programs may have maintained caseloads within one or two families above or below model standards, a variation which may have minimal impact on worker performance and is to be expected given the challenges in recruiting and retaining program participants. Despite these limitations, maintaining capacity at funded enrollment levels seemed to be difficult for agencies in the study. Several issues, and likely a combination of these issues, may help explain these difficulties. Establishing robust and reliable participant referral systems to insure a

steady flow of potential enrollees may be particularly challenging for these programs. In addition, staff behaviors and preferences also may impact caseload capacity. For example, IA managers and supervisors reported that home visitors carried lower-than-recommended caseloads because of the effort required to engage and deliver services to families with complex needs. Another commonly cited reason was the time required for new home visitors to build caseloads.

Understanding the quality of the home visitor-participant relationship. The quality of the relationship between the home visitor and the parent may influence the effectiveness of home visiting services and the extent and quality of parent engagement and involvement (Korfmacher et al. 2007, 2008; Roggman et al. 2008a). Although the appropriate content for each visit varies among models, all share common approaches to careful assessment and responsive and respectful practice. The EBHV national cross-site evaluation's fidelity framework identified the participant-provider relationship and how participants' needs are identified and addressed during the home visiting process as a key aspect of good home visiting practice and a predictor of family take-up of services and retention. However, collecting data was challenging. We only obtained full data (baseline and termination assessments from both the home visitor and the participant) on a small number of cases (378). Therefore, we were only able to report findings on initial participant-provider perceptions of the level of collaboration and extent of shared goals as reported by 974 participants and their home visitors.

Building infrastructure through periods of uncertainty. The EBHV initiative and its evaluation are examples of how multifaceted, complex system change initiatives can evolve and require adaptations to initial implementation and evaluation plans. Despite contextual changes (including the economic downturn, funding lapses, and the introduction of MIECHV), the EBHV subcontractors did not substantially deviate from their planned goals or activities. Rather, they altered the order in which infrastructure-building activities were carried out. Subcontractors engaged in a new round of planning activities midway through the initiative (a period of uncertainty resulting from a change in the authorizing legislation), and they accelerated sustainability activities to stabilize funding for continued implementation.

An important lesson for stakeholders working to build state and local systems to support evidence-based home visiting is the need for flexibility in the timing and approach for implementing infrastructure-building activities. These findings on infrastructure building to support EBHV are broadly consistent with existing research on the stages in which implementation occurs (Metz and Bartley 2012; Crowley et al. 2012; Fixsen et al. 2005). Moreover, the findings reinforce the notion that these stages are overlapping and recursive, regardless of the system level at which they occur.

Developing processes for practice to inform ongoing program and system reform. We found that, based on partner reports, building infrastructure, particularly sustaining infrastructure, was associated with progress toward goals related to implementation with fidelity, scale-up, and sustainability, yet findings based on alternate measures were somewhat inconsistent with these reports. Using alternate measures to triangulate findings from the 2013 partner survey on the EBHV subcontractors' progress toward goals, we did not find statistically significant relationships between building foundational and sustaining infrastructure and measures of scale-up and fidelity. The disconnect between stakeholders' perceptions of progress and findings on alternate measures of progress (the fidelity data on dosage, ratings on scale-up coded from site visit interviews, and survey questions on sustainability) points to the need for processes that feed information from the field to program administrators and managers, funders, policymakers, and other project stakeholders.

Maintaining positive relationships among partners. To measure the context of the partnership for the EBHV national cross-site evaluation, we focused on three aspects of collaboration: (1) the quality of collaboration among partners, (2) the degree to which partners worked with each other, and (3) the extent to which partners felt that their goals for EBHV were shared with their peers. We found that the quality of the collaboration among partners was significantly associated with respondent perceptions of the progress made in achieving implementation with fidelity, scale-up, and sustainability. These findings varied from those of the early implementation phase, in which we found that alignment of partner goals was a key factor associated with building infrastructure (Hargreaves et al. 2013). They are consistent, however, with existing research on factors that predict sustainability (Cooper et al. 2013).

3. Implications for Future Practice and Research

The findings from the EBHV national cross-site evaluation have important implications for policymakers, state administrators, practitioners, and technical assistance providers as they undertake the implementation of MIECHV, as well as lessons for the field on the implementation of evidence-based programs in general.

First, since the original design of the EBHV national cross-site evaluation, new research has identified factors that may be important to successful implementation (Metz and Bartley 2012; Meyers et al. 2012a, 2012b). Although the EBHV national cross-site evaluation captured many aspects of competency development (including training offered to staff, staff characteristics, and the process for collecting fidelity data), it did not assess the degree to which administrators created an organizational culture and climate that reduced barriers to implementation and made implementation easier. The evaluation also did not assess leadership qualities of program administrators that research shows may be important to successful implementation of evidence-based practices (see National Implementation Research Network 2013 for a discussion of existing research on leadership). Future implementation efforts, including future evaluations, may focus more on these aspects of implementation, in addition to the other infrastructure capacities examined as part of the EBHV national cross-site evaluation.

Second, our findings contribute to a growing body of research that points to the importance of forming collaborations that have a common vision or goals, clear measures of success, regular processes for communication, and transparent and authentic decision-making processes (Kania and Kramer 2011; Hicks et al. 2008; Goetz et al. 2002; ; Larson et al. 2002; Berkowitz et al. 2001). In light of these findings, fostering collaborative relationships among stakeholders should remain a focus of collaborative planning to address complex problems. However, with federal and state governments and foundations continuing to fund collaborative-planning initiatives, more research is needed on which aspects of collaboration should be the focus of infrastructure-building initiatives at different stages of implementation. In addition, more research is needed on the features of collaboration that lead to outcomes for families and children.

Third, the EBHV fidelity framework was developed on the premise that achieving fidelity across components results in successful implementation. However, an important factor in understanding dosage is the emphasis voluntary prevention programs place on allowing participants to determine when and under what circumstances visits will be provided. Unlike in mandated parenting services, the ability to successfully deliver voluntary services hinges, in part, on the capacity of staff to secure agreement from participants to accept services and to convince them that the benefits of the intervention merit investment of their time (McCurdy and Daro 2001). In fact, the models included in this evaluation allowed home visitors flexibility in home visit schedules so

they could follow the lead of the participants. In light of this trend toward increasing flexibility in the number of visits model developers recommend, more research is needed on the implications of varying levels of service delivery on the ability of programs to achieve targeted outcomes with families and children. What is not clear is whether lowering expectations for the number of visits staff should complete will result in an even smaller proportion of visits being offered and delivered.

Fourth, previous research emphasizes the importance of the home visitor-participant relationship in relationship-based programs like those implemented by the EBHV subcontractors (Roggman et al. 2008b; Prinz et al. 2001). However, more research is needed on relationship quality—in particular, the role of relationship quality in family engagement in and take-up of services. The EBHV national cross-site evaluation attempted to measure this important feature using the WAI. However, we found that some subcontractors and IAs were reluctant to ask staff and families to complete the WAI and, in some cases, they could not afford to include it in their data collection. As new studies of home visiting and other relationship-based interventions are launched, it will be important to weigh the trade-offs between respondent burden and data collection costs on the one hand, and what could be learned from relationship quality data.

The EBHV initiative was a unique opportunity for communities and states to build infrastructure to support the implementation with fidelity, scale-up, and sustainability of home visiting programs that have potential to prevent child maltreatment. The grounding of the EBHV initiative in implementation with fidelity recognized the importance of effective replication and the use of data by program administrators, supervisors, and home visitors to achieve high quality implementation and, ultimately, family and child outcomes. The initiative focused on coordination of services and partnerships among individuals and institutions to facilitate addressing the complex needs of families. The EBHV national cross-site evaluation captured lessons learned regarding implementation of evidence-based home visiting programs that can inform the field as policymakers, state administrators, practitioners, technical assistance providers, and model purveyors continue to explore home visiting's role in the broader context of early childhood services.

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I. THE SUPPORTING EVIDENCE-BASED HOME VISITING TO PREVENT CHILD MALTREATMENT INITIATIVE

In fiscal year 2011, child protective services agencies received 3.4 million referrals of alleged acts of maltreatment involving 6.2 million children. An estimated 677,000 children were victims of substantiated maltreatment, which is a rate of 9.1 victims per 1,000 children in the population (U.S. Department of Health and Human Services 2012). Despite declines in the number of substantiated cases of neglect, physical abuse, and sexual abuse (Finkelhor 2007; Finkelhor and Jones 2006), children younger than age 1 continue to demonstrate victimization rates two to three times the rate of children in other age categories. All these findings underscore the need for strategies to prevent child maltreatment to improve outcomes for families and communities.

With limited funding available to support human services programs and the push toward more accountability for outcomes, policymakers have become much more selective and insistent that funding support evidence-based programs that have demonstrated positive results. The Obama Administration has funded initiatives that require the use of evidence-based programs in home visiting, teen pregnancy prevention, and education. In the area of home visiting, the Maternal, Infant, and Early Childhood Home Visiting Program (MIECHV) was included in the Affordable Care Act (ACA) of 2010 (P.L. 111-148). MIECHV aims to further the development of comprehensive statewide early childhood systems that emphasize the provision of health, development, early learning, child abuse and neglect prevention, and family support services for at-risk children through the receipt of home visiting services. (More information on MIECHV is available at http://mchb.hrsa.gov/programs/homevisiting.) The initial MIECHV investment is $1.5 billion over 5 years. The Administration seeks to increase this investment to $15 billion over 10 years under the President's Early Learning Initiative, announced in February 2013 (U.S. Department of Health and Human Services 2013).

The promise of well-designed and well-implemented home visiting program models is that they may improve important short- and longer-term outcomes related to women's prenatal health; parenting behaviors and skills; children's health and health care coverage and use; children's development and school readiness, and family economic self-sufficiency, although programs may not achieve positive impacts in all outcome areas or across all participants (Avellar and Supplee 2013; Filene et al. 2013; Peacock et al. 2013; Howard and Brooks-Gunn 2009). In addition, some home visiting programs have reduced rates of self-reported and/or substantiated child maltreatment and use of emergency rooms to treat child injuries (Avellar and Supplee 2013; Lowell et al. 2011; Silovsky et al. 2011; Fergussen et al. 2005; Olds et al. 1986, 1997).

With increased emphasis on funding evidence-based programs and practices, equal attention also must be placed on mechanisms and supports needed for the successful dissemination of research-based programs, and their adoption and implementation in direct practice. If programs are not implemented as the designers intended (with fidelity), they may not produce the positive outcomes found in the research literature. For example, previous research has found that families typically receive about half the number of home visits intended and that they frequently drop out of home visiting programs before their eligibility ends (Ingoldsby et al. 2013; Wasik et al. 2013; O'Brien et al. 2012; Paulsell 2012; Riley et al. 2008; Kitzman 2004; Love et al. 2002; Prinz et al. 2001; Duggan et al. 2000). Previous research also highlights the importance of the quality of the relationship between the home visitor and the parent as an influence on the effectiveness of home visiting services and the extent and quality of parent engagement and involvement (Korfmacher et al. 2007, 2008; Roggman et al. 2008).

Interventions, especially relationship-based interventions such as home visiting, cannot be fully successful without taking into account the systems in which families are served (Foster-Fishman et al. 2007). Service delivery systems are important because they define who will be served and how they will receive services. Furthermore, systems define how services will be funded, staffed, and monitored. For home visiting interventions to have the greatest effects possible, the systems in which home visiting programs operate must be integrated, supportive to staff and families, and conducive to service delivery. However, limited knowledge exists about how to build the infrastructure and service systems necessary to implement and sustain evidence-based home visiting programs with fidelity to their models, and whether and how to scale up these programs and adapt them for new target populations.

To address this knowledge gap, in 2008, the Children's Bureau (CB) in the Administration for Children and Families (ACF) at the U.S. Department of Health and Human Services (DHHS) entered into cooperative agreements with 17 organizations in 15 states to support the implementation of home visiting programs that have potential to prevent child maltreatment. Each organization funded through the Supporting Evidence-Based Home Visiting to Prevent Child Maltreatment (EBHV) initiative selected one or more home visiting models to implement for the first time in its state or community, to enhance or adapt for a new target population, or to expand. CB's goal for the EBHV initiative was that, through system change activities, grantees would build infrastructure necessary to accomplish three overarching goals:

1. Support implementation with fidelity to the home visiting program models
2. Support scale-up of the home visiting models—replicating the program model in a new service area, adapting the model for a new target population, or increasing the enrollment capacity in an existing service area
3. Support sustainability of the home visiting model beyond the end of the grant period

The EBHV initiative was funded for five years, with the first year devoted to planning and the other four years focused on implementation. EBHV funds were not intended to cover the cost of direct home visiting services. Rather, grantees were to use other funding sources to operate their selected home visiting models. Therefore, grantees partnered or coordinated with ongoing home visiting programs or sought other public or private funds for new or expanded home visiting operations. In addition, each grantee was required to conduct process, outcome, and economic evaluations.

To support the EBHV grantees, CB offered programmatic and evaluation technical assistance to the grantees and developed a peer learning network. Programmatic technical assistance was provided by the FRIENDS National Resource Center. CB contracted with Mathematica Policy Research and its partner, Chapin Hall at the University of Chicago, to conduct a national cross-site evaluation of the EBHV initiative, provide evaluation-related technical assistance to the grantees, and facilitate the peer learning network. The national cross-site evaluation was designed to identify implementation strategies and challenges, examine the degree to which system change occurred, and document the fidelity with which the program models were implemented (Koball et al. 2009).

This final evaluation report brings together findings from all years of the EBHV initiative, drawing on interim reports and briefings and updating results with analyses of data collected through the initiative's first four years of implementation (fall 2009 through spring 2013). In the rest of this chapter, we discuss the national and state contextual factors that affected the EBHV initiative, as

well as the theory of change for the EBHV initiative. Finally, we describe the cross-site evaluation design.

A. External Factors and the Direction of the EBHV Initiative

Several unexpected external factors affected the EBHV grantees and the direction of the initiative. In December 2007, the United States entered a recession. The economic situation made it more challenging for the grantees to raise the funds needed for home visiting operations, and many of them had to expend significantly more time and resources to raise those funds than originally anticipated. In December 2009, CB announced that, in anticipation of the passing of legislation for the MIECHV program, funding for EBHV had been deleted from the federal budget for federal fiscal year 2010. For several months, it was unclear whether the funds might be replaced. This led to a period of uncertainty for the grantees, implementation and local evaluation partners, national contractors, and the model developers.

The funding uncertainty affected two aspects of implementation and local and cross-site evaluations. First, although the EBHV funds were not meant to pay directly for home visiting services, most grantees had obtained support from their partners for implementation contingent on receiving EBHV grant funds. For many grantees, the potential funding changes disrupted their relationships with partners and thus threatened that leveraged financial support. Therefore, some grantees revised their plans for implementing home visiting services by (1) scaling back or delaying activities or home visiting operations to conserve resources for continued implementation in future years, or (2) finding new partners willing to contribute funding to fill possible gaps. Second, grantees revised their evaluation plans to account for changes in planned home visiting operations and to further conserve resources. CB asked grantees to maintain their local evaluations. Because of the decreased funding, however, it allowed them flexibility in their scope and designs.

In 2010, home visiting received greater national attention when MIECHV was included in the ACA. The authorizing legislation requires that at least 75 percent of grant funds be spent on home visiting programs with evidence of effectiveness based on rigorous evaluation research. To date, 14 home visiting models have been identified as meeting the DHHS criteria for an evidence-based early childhood home visiting service delivery model (Avellar et al. 2012). In addition, up to 25 percent may be spent on promising approaches that states must rigorously evaluate. State funding for MIECHV was determined through a formula that included supplemental funding if the state had received an EBHV grant in 2008. Primary oversight for the state formula grant program is provided by the Health Resources and Services Administration (HRSA) at DHHS, the federal agency charged with implementing MIECHV in partnership with ACF.

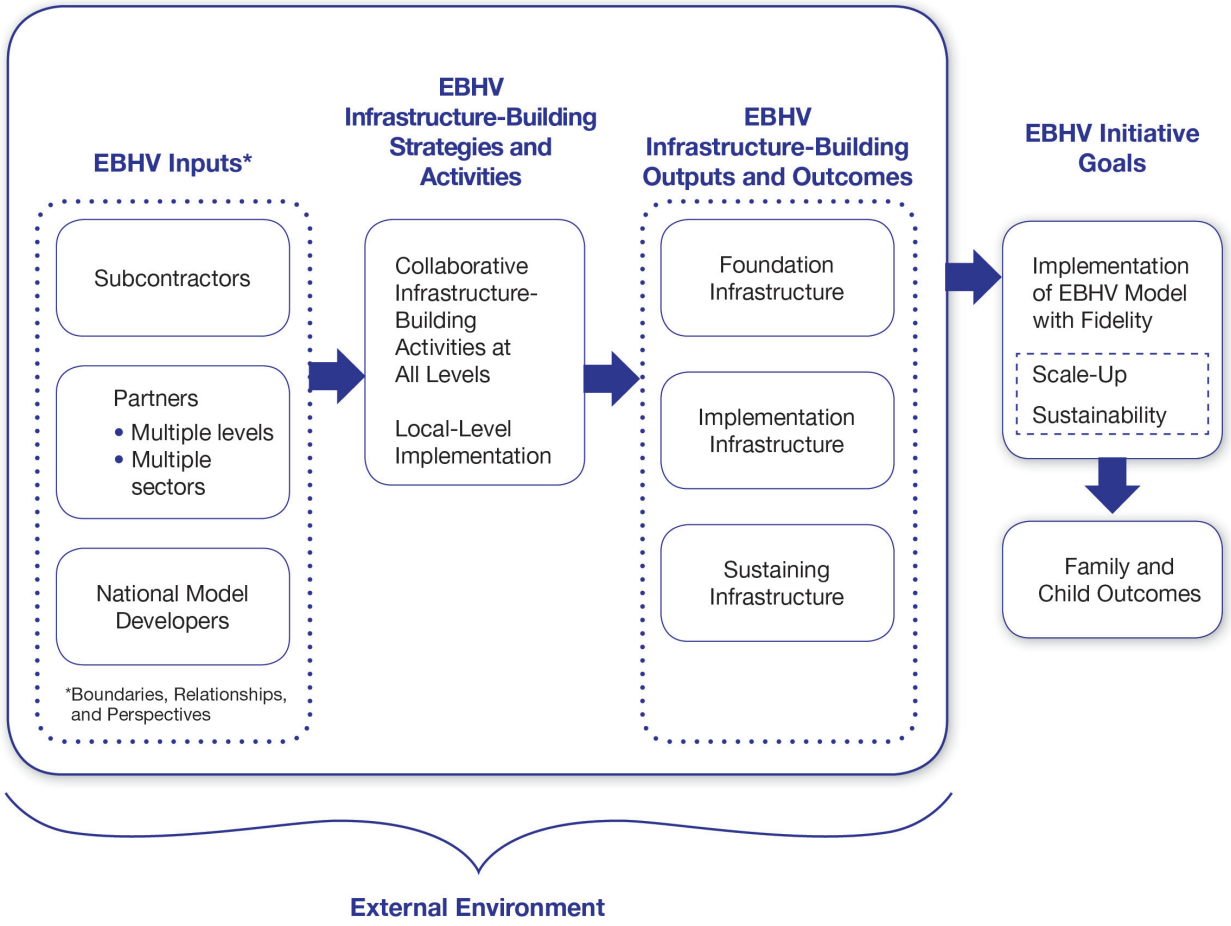
After passage of MIECHV, the former EBHV grantees entered into subcontracts with the MIECHV lead agency in their states. Therefore, in the rest of this report, we refer to the former grantees as EBHV subcontractors. For five subcontractors (State of Hawaii Department of Health, Illinois Department of Human Services, Minnesota Department of Health, Children's Trust Fund of South Carolina, and Utah Department of Health), this transition was seamless because the state named their agency as the MIECHV lead agency. In addition, New Jersey's MIECHV lead agency contracted with the New Jersey Department of Children and Families (the EBHV lead) to implement the MIECHV program in the state. The MIECHV lead agency for three other subcontractors (Children & Families First Delaware, University of Oklahoma Health Sciences Center, and Rhode Island KIDS COUNT) had served as a partner on the EBHV initiative.

In addition to the EBHV funding, 10 of the subcontractors (or the implementing agencies [IAs] with which they worked) received, or anticipated receiving, MIECHV funds to allow them to sustain services at current funding levels beyond the EBHV funding period or expand services to serve more families. Four subcontractors implemented home visiting program models (SafeCare and Triple P) that did not meet the DHHS criteria for evidence of effectiveness at that time.[1] As a result, unless their states decided to allocate funding to promising approaches (which they did not), these four subcontractors were not eligible for ongoing MIECHV funds beyond the EBHV funding period.

B. The EBHV Initiative Theory of Change

To guide our analysis and reporting of the findings from the cross-site evaluation, we created an overarching logic model that depicts the proposed associations among the initiative's main components (Figure I.1). Throughout the report, we return to this theory of change as a way to organize the presentation of descriptive results about each component and to bring them together in analyses designed to examine the overarching goals of the EBHV initiative.

Figure I.1. EBHV Initiative Theory of Change



[1] Project 12-Ways/SafeCare did not meet the DHHS criteria for an evidence-based program. Only the adaptation, SafeCare Augmented, met the DHHS criteria.

The theory of change depicts the EBHV system inputs, strategies and activities, and outputs and outcomes of these infrastructure-building efforts. We present these as the internal environment that includes the boundaries, relationships, and perspectives of the EBHV subcontractors and their partners. Boundaries define what is inside or outside the system (Midgley 2007). For the EBHV initiative, subcontractors defined the boundaries of their systems in terms of the individuals and organizations they were working with to prevent child maltreatment. Relationships are defined as the connections and exchanges that occur within and across system levels (from supporting core home visiting program operations to engaging with national-level partners; see Box I.1). Relationships include flows of information, client referrals, collaborative arrangements, program funding, and other resources (Olson and Eoyang 2001; Parsons 2009). System perspectives refer to stakeholders' worldviews and purposes (Williams and Imam 2007; Parsons 2009). In the EBHV initiative, subcontractors targeted different systemwide infrastructure goals; as a result, they focused on building different kinds and combinations of infrastructure capacity.

The EBHV subcontractors and their partners engaged in collaborative system-building activities and enacted strategies that build infrastructure in the foundation, implementation, and sustaining areas. Together, the system outputs and outcomes were expected to affect achievement of the EBHV goals of implementation of the home visiting models with fidelity, scale-up, and sustainability. The model recognizes that implementation with fidelity is at the core of all three goals, meaning that when scaling up and sustaining home visiting models, implementation with fidelity should continue. These investments in infrastructure should then improve family and child outcomes and reduce rates of child maltreatment, injuries, and harsh parenting and increase positive outcomes, such as the quality of the parent-child relationship and parent and child well-being.

Box I.1. Levels of the Home Visiting Infrastructure System

The EBHV initiative required subcontractors to undertake activities at several levels of the home visiting infrastructure system. These levels are defined as follows (Hargreaves and Paulsell 2009):

Implementing agency. This level includes core operations, such as the provision of direct home visiting services, daily management of core home visiting services, and ground-level implementation, as well as the administrative support for home visiting operations, external coordination with other local social service agencies, and organizational cultural elements, such as leadership and staff commitment to the program.

Community. "Communities" may be cities, counties, or subregions of a state. Activities at the community level include developing local or county government partnerships, advocating for community resources, building community-level awareness and support for home visiting programs, and leveraging local funding sources.

State. At the state level, activities include developing regional or statewide awareness and support for home visiting programs, creating state-level political buy-in and support for expanding the program, leveraging funding for direct services, advocating for resources to preserve state fiscal support, and enacting legislative, regulatory, and policy changes.

National. National-level activities include participating in multistate learning collaboratives to support and spread evidence-based home visiting programs, supporting national research on effective service delivery, working with federal leaders and national model purveyors, building awareness and support for evidence-based home visiting programs among national-level policymakers and funders, and sharing information and disseminating findings.

C. The EBHV National Cross-Site Evaluation

Mathematica and Chapin Hall conducted a national cross-site evaluation of the EBHV initiative. Using a mixed-methods approach, the national cross-site evaluation was designed to (1) examine the degree to which system change occurred, (2) document the fidelity with which the program models were implemented, and (3) identify implementation strategies and challenges (Koball et al. 2009). Ultimately, the evaluation examined the degree to which building infrastructure capacity influenced whether the EBHV subcontractors were able to achieve their EBHV goals related to implementation with fidelity, scale-up, and sustainability. The evaluation also examined whether progress achieving these goals was influenced by the quality of the collaboration among partners, the extent to which partners worked together, and the degree to which partners' respective goals were in alignment. Examining family and child outcomes was among the original goals of the evaluation, but it was eliminated due to the funding changes discussed earlier. Some subcontractors' local evaluations continued to explore research questions related to family and child outcomes. The evaluation also included a cost study. However, due to changes in the funding of the project, the cost study was scaled back after completion of a staff time use survey conducted in 2012. A separate report details the cost per home visit for a select group of subcontractors and IAs (Burwick et al. 2014).

Throughout the initiative, the national cross-site evaluation gathered data from many sources, including reviews of the subcontractor's applications and progress reports, several rounds of telephone interviews and two rounds of site visits with the EBHV subcontractors, two surveys of the EBHV subcontractors and their partners, and data on staff and participant characteristics and service delivery from the IAs identified by the subcontractors. The primary data sources for this report include:

Site visits. Between February and April 2012, the evaluation team conducted site visits to the 17 EBHV subcontractors. During the visits, the team conducted an interview with the EBHV project director and other key subcontractor staff and a group interview with representatives of other organizations that partnered with the subcontractors (identified by the EBHV project director). In total, 149 partners participated in interviews, ranging from 4 to 24 partners across subcontractors. In addition, the team conducted interviews with staff (including program or agency managers, supervisors, and home visitors) from the agencies implementing the home visiting models selected by the subcontractors. For subcontractors that directly implemented home visiting services, we interviewed the program manager, supervisor(s), and home visitors. For subcontractors that contracted or partnered with another IA to deliver the home visiting programs, researchers visited one IA for each of the home visiting models the subcontractor implemented as part of the EBHV initiative. At each IA, we interviewed the agency manager, supervisor(s), and home visitors. In total, we interviewed staff from 22 IAs representing all five home visiting models, including 41 supervisors and 110 home visitors.

Collection of home visiting service data from IAs. The evaluation team collected data on staff and participant characteristics and service delivery. IA-level data were submitted through three sources: (1) monthly program reports, (2) the EBHV Fidelity Database, and (3) the NFP – Efforts to Outcomes (ETO) system. This report analyzes data describing service delivery between October 1, 2009, and June 30, 2012. Of the 48 IAs identified by the 17 EBHV subcontractors, 46 provided data for the cross-site evaluation's fidelity data collection. Of these 46, 27 IAs provided participant-level data. Data analyzed in this report reflect the characteristics and experiences of 392 home visitors and supervisors, 4,821 home visiting program participants, and more than 72,000 individual home visits.

Survey of partners. In February 2013, the evaluation team fielded a web-based survey of key partners nominated by the EBHV subcontractors. The survey collected data on subcontractors' progress in achieving site-specific goals in fidelity, scale-up, and sustainability and in developing infrastructure to support those goals; it also assessed the working relationships, alignment of goals, and quality of collaboration among partners. The survey was distributed to 322 respondents (from between 8 and 32 partners across the 17 subcontractors). Overall, 242 respondents completed the survey (a 75 percent response rate), with subcontractor-specific response rates ranging from 53 to 100 percent (11 out of 17 subcontractors had at least a 75 percent response rate).

Appendix A contains more information on the data sources and analytic approaches. The data collection tools are available in Boller et al. 2013.

D. Road Map to the Report

The national evaluation collected data on subcontractors' infrastructure-building activities, fidelity of implementation, partnerships, and the progress subcontractors made toward reaching the EBHV initiatives' and subcontractor-specific goals. This report is not exhaustive. Rather, it presents findings from analyses conducted in each of these areas and brings them together in a cross-cutting analysis designed to address the evaluation's research questions and, where possible, current policy questions. In Chapter II, we describe the EBHV subcontractors, the home visiting models they implemented, the partnerships they formed, their goals for the EBHV initiative, and the characteristics of the IAs, staff, and participants enrolled in the home visiting models. In Chapter III, we describe the levels of fidelity achieved. In Chapter IV, we describe the key infrastructure-building activities the subcontractors carried out, including changes in strategies and activities during the project. We then examine how building infrastructure in the foundation, implementation, and sustaining outcome areas influenced the EBHV subcontractors' progress toward achieving the initiative's goals of implementation with fidelity, scale-up, and sustainability. In Chapter V, we discuss the successes and challenges the EBHV subcontractors experienced and the implications of the findings from the cross-site evaluation for policymakers and program implementers. We focus on ways the lessons from the EBHV initiative can be applied to the recent national and state investments in home visiting programs.

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II. THE EBHV SUBCONTRACTORS, IMPLEMENTING AGENCIES, STAFF, AND FAMILIES

Key Findings

- The 17 EBHV subcontractors represented 15 states, and most were private, nonprofit organizations or state agencies. Seven subcontractors directly implemented a home visiting model; six contracted or partnered with one or more IAs to deliver services; and four were state agencies managing statewide home visiting initiatives.
- All 17 subcontractors identified at least one project-specific long-term outcome regarding implementation with fidelity, 15 articulated at least one long-term scale-up outcome, and 16 identified at least one long-term sustainability outcome.
- Subcontractors' partners usually were local and state agencies (40 percent of partners), and most had 10 years or more of experience in home visiting (53 percent). Partner organizations typically were involved in direct health care or social service delivery (47 percent) and program planning and policy development (41 percent). Partners usually worked with the subcontractor at the state level (36 percent) and implementing agency level (35 percent).
- The EBHV IAs represented a diverse group of sectors with an interest in promoting child welfare. These sectors included education, criminal justice, and public health.
- Staff characteristics emerged as potentially important inputs to high quality service delivery and may affect program efficacy. Among the IAs contributing data to the EBHV cross-site evaluation, most (75 percent) of direct service staff worked solely as home visitors. Nine percent functioned only as supervisors, and 16 percent provided both supervision and home visits. Across models, most (79 percent) staff had a bachelor's degree or higher and previous experience in home visiting. IAs implementing HFA, PAT, and SafeCare hired a more racially and ethnically diverse workforce than those implementing NFP or Triple P.
- Across models, most participants were female (97 percent) and spoke English as their primary language (86 percent). Thirty-seven percent of participants were African American, one third were white, and nearly a quarter (24 percent) were Hispanic. Forty-four percent of participants had less than a high school diploma at the time of enrollment, 69 percent were unemployed, and 94 percent were receiving public assistance.
- As might be anticipated, families present with a range of socioeconomic risks. On balance, these are families facing challenges in meeting the needs of their infants and young children as a result of being young themselves, raising children with only one adult caretaker, or having incomes low enough to qualify for public assistance.

The core purpose of the EBHV initiative was for subcontractors to coordinate their evidenced-based home visiting operations with partner organizations in an effort to implement with fidelity, scale up, and sustain their programs. To accomplish these goals, subcontractors first had to select one or more evidence-based home visiting models to implement; establish project-specific goals for implementation, scale-up, and sustainability; forge partnerships with organizations in their communities; and deliver evidence-based home visiting services through their organization or in collaboration with independent IAs. This chapter begins by describing the 17 organizations selected to participate in the EBHV initiative, as well as their chosen home visiting models, targeted long-term outcomes, and partners. Next, we describe the IAs that provided direct services to families, the

characteristics of home visitors and supervisors who delivered services, and the families who participated in evidence-based home visiting as part of the EBHV initiative.

The information presented in this chapter is drawn from several sources. Information on subcontractors' long-term outcomes is drawn from logic models created during spring 2011 and updated in spring 2012 (Paulsell et al. 2012). The information on partnerships is taken from a survey of subcontractors and their partners conducted in early 2013. Data used to describe IAs, their staff, and the families they served are drawn from fidelity data collected from October 2009 through June 2012 from a subset of 46 IAs that participated in the EBHV initiative. For additional information about the data sources, see Appendix A.

A. The EBHV Subcontractors

The 17 EBHV subcontractors were geographically diverse, representing 15 states (Table II.1). Most were private, nonprofit organizations or state agencies. Seven subcontractors directly implemented a home visiting model; six contracted or partnered with one or more IAs to deliver services; and four were state agencies managing statewide home visiting initiatives. Additional information on the 17 subcontractors is summarized in Appendix B and in previous cross-site evaluation reports (Del Grosso et al. 2011).

Subcontractors selected five home visiting models for implementation (Table I.1). Most subcontractors implemented one model, but four implemented more than one. Ten subcontractors were newly implementing their selected home visiting models; the others were continuing to implement existing models or expanding them to new geographic areas or target populations. The rest of this section provides information on the characteristics of subcontractors' selected evidence-based home visiting models. We also describe the long-term outcomes that the subcontractors targeted.

1. Evidence-Based Home Visiting Models Selected by Subcontractors

The home visiting models that the EBHV subcontractors selected for implementation were Healthy Families America (HFA), Nurse-Family Partnership (NFP), Parents as Teachers (PAT), SafeCare, and Triple P (Table II.2).[1] Although all these models use home visiting to enhance parental capacity and promote healthy child development, they differ in their theoretical approach, target population, service duration, and outcome priorities (Box II.1). For example, three models (HFA, NFP, and PAT) are multiyear interventions lasting from two to five years. In contrast, SafeCare and Triple P each last between 24 and 26 weeks. Among the models, HFA and NFP are intended to enroll women during pregnancy or soon after the birth of the child; the other three

[1] The summer 2008 federal grant announcement required applicants to select home visiting programs that met specified criteria to be considered an evidence-based model. During grant review, an independent panel of peer reviewers evaluated applications based on the criteria listed in the announcement to determine whether the programs that the applicant proposed met standards related to evidence-based models. The criteria used in the 2008 federal grant announcement were not related to those for evidence of effectiveness for MIECHV.

models are intended to serve any family with a child in the targeted age range (birth to age 8).[2] Appendix C contains more detailed information on the models.

Table II.1. EBHV Subcontractors' Characteristics and Implementation Status, as of Fall 2009

State	Subcontractor	Subcontractor Type	Role of Subcontractor	Program Model	Implementation Status of Model
CA	County of Solano, Department of Health and Social Services	County agency	IA	NFP	New
CA	Rady Children's Hospital, San Diego	Hospital (research center)	Partners with IA	SC	New
CO	Colorado Judicial Department	State agency	Partners with IA	SC	New
DE	Children & Families First	Private, nonprofit	IA	NFP	New
HI	Hawaii Department of Health	State agency	Partners with IA	HFA	Continuing
IL	Illinois Department of Human Services	State agency	State-level administrator	NFP	Continuing
				HFA	Continuing
				PAT	Continuing
MN	Minnesota Department of Health	State agency	State-level administrator	NFP	Expanding
NJ	New Jersey Department of Children and Families	State agency	State-level administrator	NFP	Expanding
				HFA	Continuing
				PAT	Expanding
NY	Society for the Prevention of Cruelty to Children, Rochester	Private, nonprofit	IA	NFP	Continuing
				PAT	Continuing
OH	Mercy St. Vincent Medical Center	Hospital (safety net)	IA	HFA	New
OK	University of Oklahoma Health Sciences Center	University research center	Partners with IA	SC	Expanding
RI	Rhode Island KIDS COUNT	Private, nonprofit	Partners with IA	NFP	New
SC	Children's Trust Fund of South Carolina	Private, nonprofit	Partners with IA	NFP	New
TN	Child and Family Tennessee	Private, nonprofit	IA	NFP	New
TN	Le Bonheur Community Health and Well-Being	Private, nonprofit	IA	NFP	New
TX	DePelchin Children's Center	Private, nonprofit	IA	Triple P	New
UT	Utah Department of Health	State agency	State-level administrator	HFA	Continuing
				NFP	Continuing

Sources: Del Grosso et al. 2011; Koball et al. 2009.

HFA = Healthy Families America; IA = implementing agency; NFP = Nurse-Family Partnership; PAT = Parents as Teachers; SC = SafeCare.

[2] Although Triple P serves families with children 0 to age 17, the EBHV subcontractor that implemented Triple P adopted eligibility criteria to limit the age range from 0 to age 8.

Table II.2. Home Visiting Program Models Implemented by EBHV Subcontractors

Home Visiting Program Model	Target Population	Number of Subcontractors Implementing Model
Nurse-Family Partnership	First-time pregnant women < 28 weeks gestation	11
Healthy Families America	Pregnant women or new parents within two weeks of infant's birth	5
Parents as Teachers	Prenatal or birth up to age 5	3
SafeCare	Birth to age 5	3
Triple P	Birth to age 12	1

Sources: Koball et al. 2009 and subcontractor updates.

Box II.1. Evidence-Based Home Visiting Programs Selected by the EBHV Subcontractors

Healthy Families America (HFA) is a multiyear, intensive home-based program for new parents identified during pregnancy or birth who demonstrate an elevated risk for maltreatment on the basis of a standardized risk assessment administered to all children born in the program's service area. Services focus on promoting healthy parent-child interaction and attachment; increasing knowledge of child development; improving access to, and use of, services; and reducing social isolation.

Nurse-Family Partnership (NFP) is a multiyear, intensive home-based program that targets pregnant first-time, low-income mothers who self-refer or are directed to the program by local health and social service programs or practitioners. Services focus on improving (1) maternal health behaviors and life choices, (2) parent-infant bonding, and (3) children's cognitive skills and healthy development.

Parents as Teachers (PAT) is a multiyear, intensive home- and group-based program provided to any parent requesting assistance with child development knowledge and parenting support. Services focus on increasing parental knowledge of early childhood development, improving parenting practices and skills, and providing early detection of developmental delays and health issues among children.

SafeCare is a 24-week program providing bimonthly home visits for families with children birth to 5 years old that focuses on changing parental behavior in three core domains: (1) health, (2) safety, and (3) parent-child interactions. Home visits focus on training parents to use health reference materials and access appropriate treatment, identify and eliminate safety and health hazards, and increase positive parent-child interactions.

Triple P, as implemented in this initiative, provides weekly home visits for 24 to 26 weeks and targets families with children up to age 8. Services focus on promoting the development, growth, health, and social competencies of children and improving parental competence, resourcefulness, and self-sufficiency.

2. EBHV Subcontractor Project-Specific Long-Term Outcomes

As discussed in Chapter I, the three overarching goals of the EBHV initiative were to (1) implement home visiting services with fidelity to program models, (2) support scale-up of the models, and (3) support sustainability of the home visiting program beyond the end of the funding period. In pursuing these goals, however, each subcontractor also identified project-specific long-term outcomes. At the beginning of the EBHV initiative in 2008, we reviewed subcontractors' applications and asked them to describe their targeted outcomes and outputs, the strategies they would implement, and the kinds of organizations they would partner with or were partnering with. In spring 2011, the cross-site evaluation team worked with subcontractors to create logic models

that articulated their project-specific short-term outputs and outcomes and their long-term outcomes (Paulsell et al. 2011). The logic models also included the inputs required to implement activities and strategies that subcontractors were using or would use to achieve their project-specific long-term outcomes. (Chapter IV describes subcontractors' strategies and activities.) Cross-site evaluation team members updated the strategies described in the logic models after the final round of site visit interviews in spring 2012 (Appendix D contains the updated logic models).

The evaluation team placed each project-specific outcome that subcontractors identified in their logic models in one of the three overarching goals: (1) implementation with fidelity, (2) scale-up, and (3) sustainability. Across the 17 subcontractors, most goals were related to implementation with fidelity, and fewer were related to sustainability and scale-up. All 17 subcontractors identified at least one project-specific long-term outcome regarding implementation with fidelity, 15 articulated at least one long-term scale-up outcome, and 16 identified at least one long-term sustainability outcome.

The EBHV subcontractors' project-specific long-term outcomes in implementation with fidelity focused on effective program implementation, program monitoring, and coordination of referrals into and out of their programs. In many cases, subcontractors hoped to use program data to support continuous quality improvement and monitor home visiting services. All subcontractors reported that they wanted to implement their home visiting model with fidelity as defined by the model purveyors. Some subcontractors said they hoped to improve coordination with other home visiting programs or community-based organizations to identify the services that would best meet the needs of families. For example, one subcontractor working at the state level hoped to create a formal triage system among home visiting providers in the community, in which families were referred to each home visiting model based on their characteristics, risk level, and needs. Several subcontractors also intended to create a system for the centralized intake of families or a formal system to improve identification of families who needed home visiting services. For example, one subcontractor working at the community level sought to create a system that would assist in the identification and referral of eligible families across several counties in the state.

EBHV subcontractors' project-specific long-term scale-up outcomes focused on the expansion of services by increasing caseloads or opening additional service locations. For example, one subcontractor working at the community level aimed to expand the availability of evidence-based home visiting services to meet the needs of its community. Another state-level subcontractor intended to work with additional tribal and county agencies in its state to expand services to new communities.

EBHV subcontractors' project-specific long-term outcomes for sustainability focused on maintaining current funding, obtaining new funding, or increasing community or political support for evidence-based home visiting programs. All subcontractors identified outcomes related to maintaining existing or obtaining funding at the federal, state, or local level. For example, a subcontractor working at the county level sought to redirect its county's funding streams to support its program's implementation and establish its program as a core option for families in the county child welfare system. A subcontractor working at the state level aimed to secure funding from its state public health agency. Several subcontractors hoped to build public support for their program. A subcontractor working at the state level hoped to increase state agency and legislative support for evidence-based home visiting as a component of the state's programming. A subcontractor working at the community level sought to increase community awareness of evidence-based home visiting in its region of the state. Although all subcontractors were working to achieve the three overall EBHV goals, substantial variation existed in their project-specific outcomes in each of the goal areas.

3. Partnerships Formed by the EBHV Subcontractors

The EBHV subcontractors worked with other organizations and stakeholders in their state or community to achieve their overall goals for the EBHV initiative and their project-specific long-term outcomes (Del Grosso et al. 2011). System-level partnerships are a key driver of successful program implementation (Fixsen et al. 2005). Being able to coordinate and communicate with other agencies is considered an important organizational capacity to support implementation (Durlak and DuPre 2008). The EBHV subcontractors developed partnerships at the community and state levels to build support for the EBHV initiative. They also formed partnerships with organizations that could provide resources and funding to support the sustainability of their selected home visiting model. Finally, they built partnerships to facilitate referrals to home visiting programs, reinforce the use of risk assessment and screening tools, and develop central intake and triage systems to support referrals to several home visiting programs in a single community. In addition to developing partnerships with individual organizations, most EBHV subcontractors also formed, or participated in, community or statewide collaborative groups. As discussed in Chapter I (Box I.1), EBHV subcontractors and their partners worked at several levels to achieve the goals of the EBHV initiative.

The EBHV subcontractors partnered with a diverse set of organizations. Across subcontractors, the number of organizations in a partnership ranged from 8 to 32 (this includes the subcontractor). They commonly partnered with local and state agencies (40 percent of partners; see Appendix A). At least one local or state agency and at least one nonprofit organization were represented in each of the 17 partnerships (Appendix A). Partner agencies were well established; most had 10 or more years of experience in home visiting, and one-third had at least 20 years of experience. Partners most commonly worked at the state level (36 percent) and the core operations and organizations level (35 percent).

Partner organizations engaged in a variety of activities in pursuing their organization's mission (several partners indicated engagement in more than one activity; Table II.3). Most commonly, partner organizations provided health care or social services directly to clients (47 percent), program planning and policy development (41 percent), and technical assistance and training (36 percent).

B. The EBHV Implementing Agencies, Supervisors, Home Visitors, and Families

EBHV funding was intended to primarily support planning, infrastructure building, and fidelity monitoring and evaluation, not direct services. To support direct services, the EBHV subcontractors partnered with public and private, state and local funders. As described earlier, each subcontractor worked with one or more IAs to deliver home visiting services to families or served as the IA and provided services directly to families (Table II.1). A subset of 46 IAs working with 16 subcontractors to enact the EBHV initiative contributed data related to IA staff and families to the cross-site evaluation (see Chapter III and Appendix A for more information on this data source).[3] These agencies represented a diverse group of human and health service sectors with an interest in

[3] The Minnesota EBHV subcontractor did not provide fidelity data for the cross-site evaluation.

Table II.3. Types of Activities Conducted by Organizations that Participated in the Partnerships

	Number	Percentage
Health Care or Social Services for Patients/Clients	122	47
Program Planning and Policy Development	106	41
Technical Assistance and Training	93	36
Advocacy	88	34
Research and Evaluation	72	28
Funding for Health Care or Social Services	68	26
Monitoring and Certification	49	19
Regulation of Health Care or Social Services	35	14
Other	54	24

Source: Analysis of the EBHV Partner Survey—2013 Survey Administration by Mathematica Policy Research. Respondents could report more than one type of activity; therefore, the percentage indicates the proportion of respondents who indicated they engaged in a given activity.

Note: n = 260 respondents across 17 sites, although some respondents did not provide information for each question.

promoting child welfare, including education, criminal justice, and public health (Table II.4). The participating IAs contributed different types and configurations of data. For example, an IA may have contributed staff data on characteristics but not family-level home visiting data. In all, 36 IAs contributed at least some data on 4,821 participants enrolled during the October 2009 through June 2012 observation period, and 45 IAs contributed data on 392 direct service providers (Appendix A). The rest of this chapter describes the characteristics of the IAs that contributed data to the cross-site evaluation, their staff, and the families they served.

1. The EBHV Implementing Agencies

The IAs that participated in the EBHV initiative and that contributed data to the cross-site evaluation represented each of the five home visiting models selected by the EBHV subcontractors. Among the IAs contributing data to the cross-site evaluation, 16 implemented NFP, 12 implemented HFA, 9 implemented PAT, 8 implemented SafeCare, and 1 implemented one service component of the Triple P model (Table II.4).[4] Each of the five home visiting models had requirements for new agencies wishing to implement their models or for expanding programs to new locations. Model purveyors designed these requirements to ensure the agencies met model requirements and were ready for implementation. About 66 percent of IAs received certification during or after 2008, the year the EBHV initiative started (Table II.4). Therefore, the EBHV IAs had different levels of experience implementing their models. Some agencies sought certification

[4] Triple P is comprised of population-based prevention strategies that include integrated, or "scaled," interventions designed to provide a common set of parenting messages to parents facing varying degrees of difficulty or challenges. Program components range from universal strategies (mass mailings, media articles, community forums) to targeted interventions (such as two- to three-week skill development classes), to intensive behavioral therapy). The EBHV Triple P subcontractor implemented a home-based behavioral family intervention that targeted high-risk parents with children ages 0 to 8.

Table II.4. Implementing Agencies Contributing Data on Family and Staff Characteristics: Agency Name, National Model, and Year of Program Certification

State	Subcontractor/Implementing Agency	National Model	Year of Program Certification
CA	**County of Solano Department of Health and Social Services**	NFP	2010
CA	**Rady Children's Hospital, San Diego**		
	Fresno County Department of Children and Family Services	SC	2010
	Madera County Department of Social Services	SC	2010
	Tulare County Health and Human Services Agency	SC	2010
	Shasta County	SC	2011
	San Francisco	SC	2011
CO	**Colorado Judicial Department**		
	Denver Juvenile and Family Justice TASC	SC	2009
DE	**Children & Families First**	NFP	2010
HI	**Hawaii Department of Health**		
	Child and Family Service	HFA	2010
	YWCA Hawaii Island	HFA	2010
IL	**Illinois Department of Human Services**		
	Advocate Illinois Masonic Medical Center	HFA	2001
	ChildServ	PAT	2005
	Clay County Health Department	HFA	1999
	Evanston District 65	PAT	2007
	Family Focus Aurora	HFA	2001
	Family Focus Aurora	PAT	2006
	Family Literacy	PAT	Unknown
	Healthy Families Chicago	HFA	1995
	Kane Kares	NFP	2000
	Mt. Vernon United Methodist	NFP	2007
	Parent University/Jump Start	PAT	2004
	Shawnee Adolescent	HFA	1994
	Visiting Nurses Association	HFA	1994
	Williamson Early Childhood	PAT	2005
	YWCA	PAT	2008
NJ	**New Jersey Department of Children and Families**		
	Caring for Kids, Inc.	PAT	2003
	Hudson Perinatal Consortium	NFP	2009
	United Way of Greater Union County	NFP	2010
NY	**Society for the Protection and Care of Children, Rochester**	PAT	2001
OH	**Mercy St. Vincent Medical Center, Toledo**	HFA	2011
OK	**University of Oklahoma Health Sciences Center**		
	Latino Community Development Agency	SC	2009
	North Care	SC	2009
RI	**Rhode Island KIDS COUNT**		
	Children's Friend and Service	NFP	2010
SC	**Children's Trust Fund of South Carolina**		
	Greenville Hospital System	NFP	2009
	South Carolina Department of Health & Environmental Control—Anderson County	NFP	2009
	South Carolina Department of Health & Environmental Control—Berkeley/Charleston/Colleton/Dorchester Counties	NFP	2009
	South Carolina Department of Health & Environmental Control—Horry County	NFP	2009

State	Subcontractor/Implementing Agency	National Model	Year of Program Certification
	South Carolina Department of Health & Environmental Control—		
	Lexington/Richland Counties	NFP	2009
	Spartanburg Regional Health Services	NFP	2009
TN	**Child and Family Tennessee**	NFP	2010
TN	**Le Bonheur Community Health and Well-Being, Memphis**		
	Le Bonheur Center for Children and Parents	NFP	2010
TX	**DePelchin Children's Center, Texas**	Triple P	2009
UT	**Utah Department of Health**		
	Salt Lake Valley Health Department	NFP	2008
	Cache County	HFA	2009
	Weber County	HFA	2009
	Davis County	HFA	2009

Sources: EBHV Cross-Site Fidelity Database Monthly Program Reports, October 1, 2009, through June 30, 2012, and conversations with IA/subcontractor staff.

Note: **Bold type** indicates the name of the EBHV subcontractor.

HFA = Healthy Families America; NFP = Nurse-Family Partnership; PAT = Parents as Teachers; SC = SafeCare.

during the EBHV initiative, and others had received certification as many as 15 years before the start of the initiative.

2. Characteristics of EBHV Home Visitors and Supervisors

The EBHV IAs were responsible for recruiting and hiring supervisors and home visitors with the qualifications recommended by their evidenced-based model and the skills, experience, and education necessary to provide services to the agencies' target population. Staff characteristics have emerged as important inputs to high quality service delivery and may affect program efficacy (Daro et al. 2007; Hebbeler and Gerlach-Downie 2002; Riley et al. 2008; Santos 2005). Most (75 percent) of the 392 direct service staff at 45 IAs in the sample that provided staff data worked solely as home visitors, 9 percent worked only as supervisors, and 16 percent provided both supervision and home visits (Table II.5). Across the five models, the proportion of staff serving only as home visitors ranged from 62 to 88 percent. None of the supervisors delivering Triple P was a home visitor, but at least one or more supervisors working in IAs that implemented the other four models was a home visitor. Across models, nearly all the direct service staff worked full-time, although not all this time may have been spent on functions associated with delivering home visiting services.

With respect to demographic characteristics, 98 percent of direct service staff were female (Table II.5). Across all models, most staff (64 percent) were between 20 and 39 years of age. About 9 in 10 Triple P staff were between ages 20 and 39, with 69 percent between ages 20 and 29. About two-thirds of SafeCare (69 percent) and PAT (67 percent) staff were between ages 20 and 39. Just over half of NFP staff members (54 percent) were between ages 20 and 39.

Although the workforce potentially reflects the geographic location and characteristics of their participant populations, IAs implementing HFA, PAT, and SafeCare hired a more racially and ethnically diverse workforce than those implementing NFP or Triple P (Table II.5). Most staff members providing HFA, PAT, and SafeCare were African American, Hispanic, multiracial, or other. In contrast, 64 percent of the NFP direct service staff and 63 percent of the Triple P staff were white. These characteristics also may be more reflective of the labor pool available to the IAs in the sample and IAs' ability to best meet the language needs of their target populations. Several

program managers interviewed as part of our ongoing implementation study noted difficulty in identifying and successfully recruiting home visitors when the model standards required advanced degrees or degrees in a specific discipline (Coffee-Borden and Paulsell 2010; Del Grosso et al. 2011).

Table II.5. Staff Demographic Characteristics, by Model (percentages unless otherwise indicated)

	All Models	Healthy Families America	Nurse-Family Partnership	Parents as Teachers	SafeCare	Triple P
Role in Home Visiting Program						
Home visitor	75.2	61.7*	87.4	64.1*	78.9	87.5
Supervisor	8.8	18.5	7.2	7.8	0.0	12.5
Both	16.0	19.8	5.4	28.1	21.1	0.0
Employment Status						
Full-time	91.0	90.4*	90.0	85.9*	95.8	100.0
Part-time	9.0	9.6	10.0	14.1	4.2	0.0
Female	98.0	97.6*	99.1	98.4	95.8	100.0
Age						
Under 20	0.9	3.6*	0.0	0.0*	0.0	0.0
20–29	27.9	29.8	16.4	35.9	27.1	68.8
30–39	35.5	33.3	37.3	31.3	41.4	25.0
40–49	19.5	17.9	23.6	20.3	17.1	6.3
50+	16.3	15.5	22.7	12.5	14.3	0.0
Race or Ethnicity						
African American	19.7	17.9*	26.1	27.0*	9.9	0.0
Hispanic	23.2	27.4	8.1	27.0	35.2	37.5
White	49.3	35.7	64.0	42.9	45.1	62.5
Other or multiple	7.8	19.1	1.8	3.2	9.9	0.0
Sample Size	**392**	**104**	**120**	**79**	**72**	**17**

Source: EBHV Cross-Site Fidelity Database Monthly Program Reports, October 1, 2009, through June 30, 2012.

Note: Distributions marked with an asterisk (*) are missing data for at least 20 percent of cases. The "all models" column reflects the unweighted averages across all IAs.

Home visitors and supervisors had a range of other abilities and experience (Table II.6). Although familiarity with home-based services is not a criterion for the models, all the models value prior experiences and seek personnel with some background in providing human services or experience working with the model's target population. Sixty-nine percent of the NFP staff reported prior experience in providing home-based interventions, as did more than half of the staff serving families in the other four models. More than 80 percent of the home visitors delivering HFA and NFP were the parent/primary caregiver of at least one child. A much smaller percentage of SafeCare staff (62 percent) and Triple P staff (19 percent) were parents. Half of the Triple P staff and more than one-third of the SafeCare staff were fluent in Spanish. In contrast, less than one-quarter of the HFA and PAT staff and 12 percent of the NFP staff reported this skill. This pattern may reflect the nature of the populations served by the IAs delivering these models, with the proportion of Spanish-speaking families notably higher at the sites delivering SafeCare.

Table II.6. Staff Training and Experience (percentages unless otherwise indicated)

	All Models	Healthy Families America	Nurse-Family Partnership	Parents as Teachers	SafeCare	Triple P
Educational Attainment						
High school diploma or GED	2.7	7.4*	0.9	1.6*	1.4	0.0
Some college or training, no degree	7.4	14.8	3.6	4.8	8.6	0.0
Associate's degree	10.9	17.3	10.8	6.5	10.0	0.0
Bachelor's degree	55.0	45.7	65.8	51.6	54.3	43.8
Master's degree or higher	24.1	14.8	18.9	35.5	25.7	56.3
Field of Study						
Child development	9.4	24.0*	0.9	9.5*	7.7	6.3
Early childhood education	7.3	8.0	0.0	19.1	9.2	0.0
Psychology	12.2	13.3	0.9	15.9	16.9	50.0
Social work or social welfare	21.0	24.0	0.9	31.8	40.0	25.0
Nursing	31.0	2.7	90.0	0.0	1.5	0.0
Other	19.2	28.0	7.3	23.8	24.6	18.8
Prior Experience in Home Visiting	61.1	54.9*	69.4	59.4*	57.8	56.3
Primary Caregiver to a Child	72.2	80.5*	81.7	70.3*	62.0	18.8
Fluent in a Foreign Language						
Spanish	23.5	24.1*	12.4	22.6*	34.3	50.0
Other	3.6	2.5	4.8	0.0	5.7	6.3
Sample Size	**392**	**104**	**120**	**79**	**72**	**17**

Source: EBHV Cross-Site Fidelity Database Monthly Program Reports, October 1, 2009, through June 30, 2012.

Note: Distributions marked with an asterisk (*) are missing data for ≥20 percent of cases. The "all models" column reflects the unweighted averages across all IAs.

GED = General Educational Development test.

3. Characteristics of EBHV Participants

Each of the five evidenced-based models represented among the IAs that contributed data to the cross-site evaluation have distinct target populations (Table II.2; Box II.1). Staff at EBHV IAs were responsible for conducting outreach in their communities to recruit individuals and families who met the criteria established by the model purveyors and their local program. This resulted in a participant sample with some basic similarities, but many differences, across the models. Nearly all of the 4,821 participants served by the 36 IAs contributing participant-level data to the study were female: more than 99 percent of all participants receiving HFA, NFP and PAT; 93 percent of those receiving Triple P; and 78 percent of those receiving SafeCare (Table II.7).[5] Characteristics of program participants varied noticeably across models. Only NFP limits enrollment to women who are pregnant, a requirement reflected in the EBHV fidelity analysis sample. All participants in the NFP sample were enrolled during pregnancy (Table II.7). HFA also enrolled a substantial proportion of pregnant women; 33 percent of participants in HFA were pregnant at the time of enrollment. Agencies implementing NFP served the highest proportion of teen parents; 48 percent of the participants in NFP programs were under age 20 at the time of enrollment. In contrast, less

[5] This pattern does not necessarily indicate an absence of services to fathers or other males in the household. Staff only provided demographic information for the adult viewed as the target child's primary caretaker. The preponderance of females in the sample also may reflect the focus of HFA and NFP on enrolling pregnant women and new mothers.

Table II.7. Demographic Characteristics of Participants (percentages unless otherwise indicated)

	All Models	Healthy Families America	Nurse-Family Partnership	Parents as Teachers	SafeCare	Triple P
Female	97.4	99.8	100.0	99.3	78.2	92.8
Pregnant at Enrollment	80.7	32.5*	100.0	12.9*	10.0*	-
Race/Ethnicity						
African American	37.6	19.2	45.9	49.6	9.0	17.0
Hispanic	24.2	18.5	20.2	29.3	42.4	33.0
White	30.1	26.7	30.1	20.4	39.6	46.9
Other/multiple	8.0	35.6	3.7	0.7	9.0	3.1
Age						
Under 20	38.7	21.5*	47.9	37.2*	13.9	1.0
20–24	34.8	36.7	37.4	39.5	25.1	9.3
25–29	14.5	25.4	9.9	11.1	28.2	26.8
30+	12.1	16.3	4.7	12.2	32.8	62.9
Primary Language						
English	85.6	86.4	89.1	76.3	78.2	86.1
Spanish	12.3	8.9	8.8	23.1	20.8	13.9
Other	2.1	4.7	2.1	0.7	1.1	0.0
Marital Status						
Married/living with partner	16.1	19.4	10.2	23.4	29.2	37.2
Single, never married	77.9	74.2	87.5	73.2	53.2	25.1
Widowed/divorced/ separated	6.0	6.5	2.3	3.5	17.7	37.7
Sample Size	**4,821**	**575**	**2,960**	**601**	**491**	**194**

Source: EBHV Cross-Site Fidelity Database Monthly Program Reports, October 1, 2009, through June 30, 2012.

Note: Distributions marked with an asterisk (*) are missing data for at least 20 percent of cases. The "all models" column reflects the unweighted averages across all IAs.

than 14 percent of participants served by IAs implementing SafeCare and only 1 percent of those enrolled in Triple P were teens. Agencies implementing Triple P served the highest proportion of women over age 30 (63 percent), followed by those agencies implementing SafeCare (33 percent).

In the sample, African Americans comprised 50 percent of PAT participants, 46 percent of the NFP participants, and 19 percent of the HFA participants. More than one-third (36 percent) of those receiving HFA identified themselves as "other or multiracial," reflecting the unique ethnic diversity of the communities served by the HFA IAs in Hawaii—most of the HFA participants falling into the "other" category were Pacific Islanders. Thirty-three percent of those receiving Triple P and 42 percent of those receiving SafeCare were Hispanic, reflecting the service area and focus of these IAs. English was the primary language spoken by most participants receiving all the models, although a sizable percentage of participants receiving SafeCare (21 percent) and PAT (23 percent) indicated that their primary language was Spanish.

Most participants in the sample were single (Table II.7). More than 70 percent of the participants receiving three of the models (HFA, NFP, and PAT) were single and never married at the time of enrollment. Although those receiving SafeCare also included a sizable proportion of single women (53 percent), nearly one-third of the SafeCare sample (29 percent) were married or living with a partner at the time of enrollment. Triple P had the highest proportion of participants

who were married or living with a partner (37 percent) or widowed, divorced, or separated (38 percent).

Thirty-four IAs implementing four of the home visiting models provided information on the socioeconomic status of their participants (Table II.8). A sizable proportion of the 4,627 participants had less than a high school education at the time of enrollment: 45 percent of those enrolled in NFP, 44 percent of those enrolled in PAT or Triple P, 43 percent of those enrolled in SafeCare, and 37 percent of those enrolled in HFA. Less than two percent of participants had a postsecondary degree when they enrolled in services. Nearly 44 percent of the NFP participants were enrolled in school when services began, reflecting the high proportion of teen parents in their participant sample. In contrast, 26 percent of those in PAT, 21 percent of those in HFA, and 19 percent of those in SafeCare, and 12 percent of those in Triple P were enrolled in school when services began.

More than two-thirds of all participants enrolled in HFA, SafeCare, and PAT (78, 78, and 71 percent, respectively) were unemployed at the time of enrollment, and just over half of Triple P participants (54 percent) were employed full-time (Table II.8). As might be expected, participant incomes are low, with less than 20 percent reporting annual incomes above $20,000 (note that there is a substantial amount of missing data on income in the sample).[6] Nearly all (94 percent) participants were receiving public assistance at the time of enrollment. In the case of HFA and PAT, the most common forms of assistance were the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), Temporary Assistance for Needy Families (TANF), Supplemental Nutrition Assistance Program (SNAP), and Supplemental Security Income (SSI). For SafeCare recipients, the most common forms of public assistance were TANF, SNAP, and SSI or forms of public health insurance (Medicaid or the State Children's Health Insurance Program [SCHIP]). About three-quarters of NFP participants received WIC and Medicaid or SCHIP.

4. Risk Levels of EBHV Participants

Although individual risk factors, such as young maternal age, single-parent status, and low income, have measurable impacts on a parent's level of stress and capacity to meet the needs of his or her developing child, the presence of two or more of these factors compounds these difficulties and may decrease the likelihood of program participation. The more risk factors or adverse experiences a person faces, the higher the likelihood that the person will experience social, emotional, or cognitive impairments (Dube et al. 2003; Shonkoff et al. 2011). In turn, parents may be less likely to enroll in preventive services and, if enrolled, to be consistent and active participants(Daro et al. 2007; McCurdy and Daro 2001). The added demands placed on providers to engage and retain these more reluctant participants may limit their ability to deliver a given program model at the recommended dosage or duration. Therefore, understanding the underlying dynamics of the population being served may be a prerequisite for reliably comparing implementation performance or outcomes across IAs.

[6] Obtaining accurate self-report data on household income is challenging. Although home visitors ask participants questions about their income, such questions often are used to determine whether a family qualifies for public assistance. Those families receiving or qualifying for such assistance are assumed to have financial challenges. More specific questions on actual income levels may not be as high a priority for home visiting agency staff at intake. Even when asked, participants may not know their household's annual income or may be reluctant to report income that is not the result of wages reported for tax purposes.

Table II.8. Socioeconomic Characteristics of Participants (percentages unless otherwise indicated)

	All Models	Healthy Families America	Nurse-Family Partnership	Parents as Teachers	SafeCare	Triple P
Educational Attainment						
Less than high school	43.6	36.7	45.0	44.3*	42.9	43.5
High school/GED	35.3	33.2	34.0	37.8	34.2	56.5
Some college/ training, no degree	19.1	26.7	18.9	17.4	19.8	0.0
Associate's degree	1.0	1.8	0.8	0.5	1.9	0.0
Bachelor's degree or higher	1.1	1.6	1.3	0.0	1.3	0.0
Currently Enrolled in School	36.1	21.4*	43.8	26.0*	18.5	12.0
Employment Status						
Full-time	13.0	7.5	11.7	10.9*	11.6	53.9
Part-time	18.2	14.2	21.9	17.8	10.9	0.0
Unemployed	68.8	78.3	66.3	71.4	77.5	46.1
Household Income						
Less than or equal to $12,000	60.3*	73.4*	58.1*	53.6*	74.4*	-
Between $12,000 and $20,000	21.2	11.7	22.0	33.6	16.2	-
More than $20,000	18.5	14.8	19.9	12.7	9.4	-
Public Assistance						
Any assistance	93.7*	99.7*	92.0	99.4*	98.8	-
Medicaid, SCHIP	70.4*	57.2*	75.9	46.2*	57.5	-
TANF, food stamps, SSI	47.9*	83.2*	34.6	83.4*	84.3	-
Unemployment Insurance	2.2*	1.6*	1.9	2.4*	4.8	-
WIC	76.3*	90.6*	74.9	87.6*	67.4	-
Sample Size	**4,821**	**575**	**2,960**	**601**	**491**	**194**

Source: EBHV Cross-Site Fidelity Database Monthly Program Reports, October 1, 2009, through June 30, 2012.

Note: Distributions marked with an asterisk (*) are missing data for at least 20 percent of cases. The "all models" column reflects the unweighted averages across all IAs.

Building on this research and the conceptual work of the Early Head Start Research and Evaluation project (Administration for Children and Families 2002), we examined the degree to which program participants in this study presented any of five demographic risks: (1) receipt of public assistance, SNAP, or SSI; (2) being unemployed and not in school; (3) lacking a high school diploma or GED; (4) being a teen at the birth of the first child, and (5) having single-parent status at the time of enrollment. We aggregated these factors, identifying the proportion of families served by all the agencies implementing HFA, NFP, PAT, SafeCare, and Triple P that presented with low (0, 1, or 2 factors), medium (3 factors), or high risk (4 or 5 factors).[7] Although socioeconomic

[7] Consistent data on all variables in the risk index were not available for Triple P participants. In addition, the level of risk for teen parents in the sample is unclear. Data on GED/high school completion status for this group may be confounded because they are too young to have graduated. Similarly, access to public assistance may be undercounted in those cases in which a teen mother is living with other adults who receive these income supports. Finally, our indicator of "single-parent status" is based on a participant's marital status at time of enrollment. It is likely that many of these participants are cohabitating with partners or living with family members who provide some assistance in meeting child-rearing responsibilities.

considerations are important factors in assessing a participant's potential risk for poor outcomes and a high level of need, they are not the only threats to an individual's well-being or to her capacity to provide adequate care for her child. Many families enrolled in these programs face numerous psychosocial challenges, including domestic violence, substance abuse and mental health issues, and a history of maltreatment as a child. Therefore, this index provides only a partial assessment of the relative risk families are facing as they enroll in programs with one of these five home visiting models. However, the index does provide a common measure for identifying potential differences across program caseloads, level of service receipt, and for understanding potential differences in outcomes (presented in Chapter III).

As might be anticipated, families present with a range of socioeconomic risks. On balance, these are families facing challenges in meeting the needs of their infants and young children as a result of being young themselves, raising children with only one adult caretaker, or having incomes low enough to qualify for public assistance. The most common risk factor among those receiving HFA, PAT, and SafeCare was receipt of public assistance (Table II.9). Other factors associated with more than half of those enrolled in these three programs included being unemployed and having a first child as a teen (HFA), having a first child as a teen and being single (PAT), and being single and unemployed (SafeCare). For NFP and Triple P recipients, the only risk factor most recipients shared was being single (90 and 63 percent, respectively), although nearly half of the NFP enrollees were first-time teen parents with less than a high school education.

Across the models, PAT and HFA programs in this sample served the highest proportion of those families that had four or more risk factors; 45 percent of the PAT participants reached this threshold, as did 37 percent of the HFA participants (Table II.9). Less than one-third of SafeCare participants (29 percent), 27 percent of NFP participants, and 13 percent of Triple P participants had this level of risk. More than 42 percent of the families receiving NFP and 50 percent of families enrolled in Triple P had two or fewer risk factors. Across all models, SafeCare participants had the lowest mean score (1.87), and PAT participants had the highest (3.27).

These patterns may not accurately reflect consistent differences across the models. IAs operating in high-risk communities may attract a participant group with greater socioeconomic risk, regardless of the evidence-based model they use. In addition, as noted earlier, a participant's risk for poor parental capacity may be determined by several factors not captured in this index, such as mental health issues, domestic violence, or substance abuse. On the other hand, programs (such as NFP) that target mothers who access early pregnant care and are expecting their first child may serve, on average, a population less likely to have a history of public assistance or poor educational outcomes. Programs that target a broader range of participants, including those giving birth to their second or third child, may engage a participant population more likely to have a history of receipt of public assistance, low levels of educational attainment, and employment difficulties. Although it is not a perfect predictor of relative risk at either the individual agency or model level, the variation observed in this sample across models suggests the need for caution on the part of evaluators and policymakers in directly comparing IAs or national models.

This chapter provided background on the organizations and people who participated in the EBHV initiative. The next chapter discusses the cross-site evaluation's fidelity framework and presents key indicators that show the extent to which the IAs and staff described in this chapter maintained fidelity to their selected evidence-based models.

Table II.9. Combined Risk Score of Participants (percentages unless otherwise indicated)

	All Models	Healthy Families America	Nurse-Family Partnership	Parents as Teachers	SafeCare	Triple P
Risk Factors						
Receiving public assistance	47.9*	83.2*	34.6	83.4*	84.3	-
Unemployed	43.1*	60.4*	36.4	45.2*	61.6	41.7
Less than high school education	43.6	36.7	45.0	44.3*	42.9	43.5
Teen parent	44.6	52.8	47.9	60.1*	28.0	1.0
Single	84.0	80.6	89.9	76.6	70.8	62.8
Risk Score						
Low (0–2)	39.5	25.8*	42.9	25.6*	33.4	50.0
Medium (2 < -3)	32.4	37.4	30.5	29.7	37.6	37.4
High (3 < -5)	28.1	36.8	26.6	44.8	29.0	12.6
Mean Risk Score (Standard deviation)	2.66 (1.21)	3.05* (1.13)	2.59 (1.22)	3.27* (1.12)	2.83 (1.07)	1.87 (1.09)
Sample Size	**4,821**	**575**	**2,960**	**601**	**491**	**194**

Source: EBHV Cross-Site Fidelity Database Monthly Program Reports, October 1, 2009, through June 30, 2012.

Note: Distributions marked with an asterisk (*) are missing data for at least 20 percent of cases. The "all models" column reflects the unweighted averages across all IAs.

III. FIDELITY OF IMPLEMENTATION

Key Findings

- Across all the fidelity indicators assessed, IAs were most consistent in achieving high levels of fidelity in hiring and training appropriate staff, obtaining appropriate referrals, delivering most of the planned visits, and covering the planned content during the home visits.
- The findings also suggest that providers delivered services in the style central to the relationship-based approach promoted by the five home visiting models (as measured by the Working Alliance Inventory; WAI).
- Implementation indicators that proved more challenging were (1) sustaining full caseloads for home visitors, (2) participant retention and dosage, and (3) achieving consensus between families and home visitors on goal setting (meaning, perceptions of their agreement on service goals, ability to develop mutual goals, and agreement on the change needed to achieve program objectives) as measured by the WAI.
- Greater variability existed in fidelity within models than across models: each model had outstanding and less than outstanding IA-level performers. This suggests that fidelity of implementation is only partly a function of "model factors" and is influenced by context: the organization offering the services and the quality and extent of local service networks.
- Younger, more economically disadvantaged, and potentially more socially isolated participants (as suggested by their single-parent status) left multiyear home visit programs early or, if enrolling in short-term programs, did not successfully complete them.
- Participants with more demographic risk factors at intake are as likely as those with fewer risk factors to remain enrolled for at least 6 months but are more likely to leave services between 6 and 12 months. Among those who remain in programs after six months, the number of risk factors is not a predictor of the number of home visits participants receive.

At the most basic level, faithfully replicating evidence-based programs is believed to provide a higher likelihood of achieving desired outcomes than replicating efforts that lack a strong evidence base (Fixsen et al. 2005). Investing in direct service programs that have a proven track record offers policymakers a way to focus investments and increases their confidence that outcomes also can be replicated, extending program benefits to more of the target population. Central to this hypothesis, however, is ensuring that sites replicating a model maintain fidelity to its original design and intent. Systematically monitoring implementation can help maintain program consistency and quality. Monitoring also may help agencies identify the need to adjust the model's standards and content to fit local participants' needs, organizational capacity, and community context. In some cases, agency staff identify changes needed to accommodate the characteristics of their community and target population. In other cases, funding cuts or staff shortages drive the need for modifications. Some model modifications can strengthen a program's effects; others, however, particularly unplanned ones, can have detrimental effects and may reduce the likelihood of achieving the impact expected based on prior evidence of effectiveness.

An additional underlying, but often not explicit, assumption behind the replication process is that tested models have been defined with the specificity necessary to guide future replication. Program models tested through randomized controlled studies may be replicated based on their

theory of change or intended level of service content and dosage, not necessarily on how the program was implemented during the trial. Because randomized trials judge the effectiveness of a program based on the average performance of the intervention and the control groups, limited attention is focused on any variability in the intervention group's service experience, particularly when that group outperforms the control group. As programs are taken to scale, understanding this type of variability becomes more critical in determining whether replication efforts are of sufficient dosage and duration to achieve the desired impacts.

Although often not achieving a model's expected service standards, well-implemented replication sites may operate in a manner similar to how the program was implemented in one or more of its randomized trials. However, reports on the initial clinical trials often fail to document the quality of the program's implementation. Therefore, local program managers have insufficient information for guiding replication and their direct service work and investment decisions. As replication of evidence-based programs becomes more common, it is increasingly important to design and implement frameworks for defining program fidelity, as well as data management systems that can track implementation at the level of specificity needed to ensure consistent replication.

The centrality of implementation fidelity as a goal of the EBHV initiative focused the national evaluation on this topic and resulted in development of a fidelity framework (Daro 2010); two briefs on the early challenges subcontractors and their partners faced in meeting workforce hiring, training, and supervision goals specified by the national models and viewed as good practice in the field (Coffee-Borden and Paulsell 2010; Paulsell and Coffee-Borden 2010); an interim report on fidelity in the first two years of the initiative based on fidelity data collected from subcontractors and their IAs (Daro et al. 2012); and the analyses presented in this chapter. The findings presented here address three core research questions:

1. Were the evidence-based home visiting programs selected by the subcontractors implemented and delivered with fidelity?
2. To what extent do fidelity levels differ within and across selected evidence-based models?
3. What participant factors account for variations in service dosage and duration?

To answer these questions, subcontractors and their IAs agreed to provide data to the EBHV cross-site evaluation, including data that could be used to assess the fidelity with which home visiting models are being implemented. Three data sources (monthly program reports, the EBHV Fidelity Database, and the NFP Efforts to Outcomes system) provide elements for analysis of structural and dynamic aspects of fidelity. This report analyzes data describing service delivery for families who were new to the home visiting programs between October 1, 2009, and June 30, 2012. Appendix A presents the fidelity data collection methods in detail.

To provide additional context for the fidelity findings, we reviewed data from the 2012 site visits. During these visits, the national cross-site evaluation team interviewed managers, supervisors, and home visitors from 21 purposively selected IAs implementing one or more of the five home visiting models. The interviews gathered information on service delivery and the successes and challenges IAs faced in implementing the home visiting models with fidelity. Throughout the chapter, we present key findings from these interviews, as well as discussion of how they relate to the findings from the fidelity data analyses.

The chapter begins with the cross-site evaluation's definition of fidelity and an overview of its framework. Next, we provide an overview of the sample and describe the data limitations (Chapter II provides more detailed information on the participating IAs, direct service providers, and program participants). We then present overall and model-specific averages for key indicators in the EBHV fidelity framework, paying particular attention to the participant characteristics that account for variation in service dosage and duration. The final section of the chapter summarizes the overall capacity of IAs to achieve model fidelity, highlights those areas of program replication that are most challenging, and discusses the implications of the findings for policymakers and program planners in how they structure fidelity-monitoring systems.

A. Defining Fidelity

Researchers use several theoretical frameworks to define fidelity and address appropriate modification or adaptation of an evidence-based model. In summarizing work in this area, Carroll and colleagues identified five elements of implementation fidelity: (1) adherence to the service model as specified by the developer; (2) service exposure or dosage; (3) the quality or manner in which services are delivered; (4) participants' response or engagement; and (5) the understanding of essential program elements not subject to adaptation or variation (Carroll et al. 2007). In the years since the EBHV initiative was funded, attention to fidelity, and the entire field of implementation science in which fidelity is grounded, has increased and influenced the field and the evaluation team's perspective on our definition of fidelity (Bagnato et al. 2011; Berkel et al. 2011; Damschroder and Hagedorn 2011; Gearing et al. 2011; Hagermoser et al. 2011; Dane and Schneider 1998;). Many of these frameworks relate to the characteristics of the service model being implemented, and many include such elements as staff skills and training, supervision, service dosage and duration, and how services are provided and participants are engaged. Researchers have further extended this work by advancing the idea of measuring implementation inputs that go beyond the service model itself and include the capacity of the implementing organization to provide additional supports for staff as well as participants (Duggan and Supplee 2012; Knox et al. 2011). According to these frameworks, the capacity of the organization delivering the service, the nature and quality of the partnerships with other agencies, and the community in which the organization operates may be as important as the service parameters and guidelines that constitute a specific intervention in determining implementation quality and consistency.

For this evaluation, we use the following definition of fidelity (Daro 2010):

> *"Fidelity" refers to the extent to which an intervention is implemented as intended by the designers of the intervention. Fidelity refers not only to whether or not all the intervention components and activities were actually implemented, but whether they were implemented in the proper manner.*

Although the home visiting models that the EBHV subcontractors implemented differ in content and structure, they share certain core principles. Among the five models implemented by the EBHV subcontractors, common features of high quality implementation include:

- Maintenance of low caseloads for home visitors
- Strong supervision of home visitors
- Low staff turnover among home visitors and supervisors, which reduces changes in a participant's home visitor
- Ability to enroll a high proportion of the families referred for service

- Ability to maintain consistent contact with enrolled families as prescribed by the home visiting program model

In addition, many home visiting models set expectations about home visit duration, frequency, and dosage to accomplish their stated objectives. Several models, such as HFA, NFP, and PAT, serve participants for multiple years, to achieve the type of attitudinal and behavioral changes identified in their respective theories of change. In other cases, such as SafeCare and Triple P, service duration is determined by the amount of time it takes for a program participant to demonstrate mastery of core concepts. Some families may master these skills in 2 or 3 visits; others require up to 12 visits. Despite variation in expectations about home visiting duration and dosage, most of the models require programs to offer services weekly or biweekly during the initial service period to facilitate participant engagement.

Finally, implementing evidence-based models with fidelity requires attention to factors that govern the participant-provider interaction and capture how participants' needs are identified and addressed during the home visiting process. The quality of the relationship between the home visitor and the parent may influence the effectiveness of home visiting services and the extent and quality of parent engagement and involvement (Korfmacher et al. 2007, 2008; Roggman et al. 2008). Although variation exists across models in the appropriate content for each visit, all share common approaches to careful assessment and responsive and respectful practice. For example, SafeCare guidelines instruct the home visitors to "encourage the parent to ask questions and express concerns" and ask that the provider's demeanor communicate "empathy, warmth, and understanding." PAT requires that parent educators "build and maintain rapport through interaction that is responsive to each family member's personal style." In short, each model places a high value on creating services that are relationship-based and emphasize building and maintaining rapport between program staff and families.

B. The EBHV Fidelity Framework

The EBHV fidelity framework was developed collaboratively with a small planning team that included a member of the cross-site evaluation team and representatives of the subcontractors and local evaluators. We also had ongoing conversations with the national model developers to clarify common program characteristics and elements of fidelity appropriate for each model, drawing on the descriptive profiles of the models found in the literature (U.S. Department of Health and Human Services 2013a; see Appendix C for additional detail on program requirements in key domains). The final selection of constructs and indicators focused on those elements appropriate across the home visiting models being implemented under the initiative and on those elements that could be captured reliably and consistently in the cross-site evaluation.

In organizing these elements into a coherent framework, we clustered the constructs into two primary categories: (1) **structural aspects** of the intervention that demonstrate adherence to basic program elements, such as reaching the target population, delivering the recommended dosage,

maintaining low caseloads, and hiring and retaining well-qualified staff and (2) **dynamic aspects** of service content and the provider-participant relationship.[1]

Research demonstrates that it is important to consider both aspects of fidelity—the degree to which key program elements are replicated and the degree to which the service delivery process captures the intended character of the service relationship—to determine whether a home visiting model has been implemented as designed. Increasingly, many program evaluations embrace this dual understanding of fidelity and have focused on documenting the service delivery process, as well as the more standard benchmarks of service dosage and duration (Bagnato et al. 2011; Paulsell et al. 2010; Riley et al. 2008; Lee et al. 2008; Chen 2005; Hebbeler and Gerlach-Downie 2002). Understanding both the structural elements and the manner in which services are delivered is particularly important in relationship-based programs such as those that the EBHV subcontractors implemented.

In determining the relevance of each indicator to the national models reflected in the sample, we considered three types of standards:

1. **Explicit standards:** performance elements specifically identified in each model's program material or operational guidelines (caseloads, dosage, duration, staff qualifications and training)
2. **Implicit standards:** performance elements inferred from a review of each model's theory of change or underlying values as expressed in program material or operational guidelines (participant-provider relationship, responsiveness to participant needs)
3. **Efficiency or best practice standards:** performance elements cited in the literature as representing standards that improve the efficiency with which services are delivered (ability to identify and access target population, maintaining high enrollment and retention levels)

The standards used to select the constructs and related indicators incorporated in the fidelity framework reflect a mix of descriptive and benchmark performance measures (Appendix A). The constructs and indicators presented in this chapter are a core subset of those in the framework and included in the interim fidelity report (Daro et al. 2010). We identified seven structural fidelity constructs (21 indicators tap them) and four dynamic fidelity constructs (14 indicators tap them). Appendix A lists the constructs and describes the indicators that assess them, the standard used to determine the selection of that indicator, and includes assumptions about how the indicator might or might not be used to determine whether a given agency achieved model fidelity.

The indicators analyzed in this chapter provide a multifaceted picture of implementation fidelity. In some instances, an indicator is defined as the proportion of instances in which a common standard or benchmark was achieved (for example, percentage of home visitors with a bachelor's degree, or proportion of families retained at three months). Most of those indicators are included for descriptive purposes because one or more of the national models in the evaluation did not establish

[1] Some researchers refer to these two elements as (1) *implementation fidelity,* capturing the structural aspects of a program such as dosage and duration, and (2) *intervention fidelity,* focusing on how services are delivered. O'Donnell (2008) refers to them as *fidelity to structure* and *fidelity to process.*

a consistent benchmark in these areas. Therefore, these indicators are not directly related to determining model fidelity in all cases, but they do provide important information on staff characteristics or the service delivery process. Other indicators report the proportion of instances in which an IA achieved the standard set by its relevant national model (that is, the proportion of families who received the model's recommended number of visits during the initial enrollment period). To provide a more nuanced view of agency performance, we also examined the proportion of participants in which 80 or 60 percent of various model-specific standards were achieved.

Using multiple indicators and multiple rating systems provides flexibility in making this system as helpful as possible for monitoring a program's fidelity. Rather than serving as a tool for making a single, summary judgment regarding implementation fidelity, the framework and its indicators may best be conceptualized as a teaching or learning tool for guiding continuous program improvement.

By focusing on fidelity standards or program elements common across a number of home visiting programs, the study offers state agencies, as well as local and private funders that support a range of home visiting programs, a common framework for tracking implementation fidelity across multiple models.[2] The ability to compare and contrast implementation elements across models may become more critical as states work to expand the availability of these services to more diverse populations and in more diverse community contexts.

C. Sample Description and Limitations

As described in Chapter II, not all subcontractors and their IAs contributed data to the cross-site evaluation. Forty-six of the IAs working with 16 subcontractors provided data for the fidelity analyses.[3] Of these agencies, 16 implemented NFP, 12 implemented HFA, 9 implemented PAT, 8 implemented SafeCare; and 1 implemented one service component of the Triple P model.[4] For any specific indicator, the number of IAs contributing data varies, from 46 to as few as 16.

Number of IAs contributing to each type of indicator. The 46 participating IAs contributed different types and configurations of data. For example, an IA may have contributed staff characteristics data but not participant-level home visiting data. In all, 36 IAs contributed at least some data on 4,821 participants enrolled during the October 2009 through June 2012 observation period. Forty-five IAs contributed data on 392 direct service providers, and 36 IAs provided data on 88,733 home visits offered during the observation period and on the 72,859 visits completed and reported on for this study (Appendix A).

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[2] States are just one actor in implementing interventions; many service providers are locally or privately funded. This report focuses on implications for states in implementing home visiting as part of MIECHV and the legislative emphasis on building statewide service delivery systems. However, the benefits of this study's conceptualization of fidelity are equally useful to any public or private funders of home visiting services.

[3] The Minnesota EBHV subcontractor did not provide fidelity data for the cross-site evaluation.

[4] Triple P is comprised of population-based prevention strategies that include integrated, or "scaled," interventions designed to provide a common set of parenting messages to parents facing varying degrees of difficulty or challenges. Program components range from universal strategies (mass mailings, media articles, community forums) to targeted interventions (such as two- to three-week skill development classes), to intensive behavioral therapy. The EBHV site selecting Triple P implemented the model's most intensive component, a home-based behavioral family intervention targeting high risk parents with children ages 0 to 8.

Data limitations. The cross-site evaluation team was not directly involved in collecting data from the home visitors, home visitor supervisors, or participants. This introduces variation and, potentially, error in how data are collected, the timing of data collection, and the extent to which data are missing. The cross-site team worked with the EBHV subcontractors and IAs to minimize the potential for data inconsistencies. For example, the February 2010 subcontractor training webinar focused on the fidelity data collection process and was intended, in part, to provide information to subcontractors that would make the data collection more systematic and the resulting data of similar quality across subcontractors. In June 2011, the cross-site evaluation team shared with each subcontractor the initial summary findings for their IAs from the fidelity analyses on the data through December 2010, including the amount of data provided. In addition to providing formative feedback on program operations, the goal was that initial sharing of findings would demonstrate the importance of collecting the data systematically for all IAs and encourage subcontractors to work closely with IAs to ensure data quality and completeness.

Due to the variation in the data submitted by subcontractors, the number of subcontractors, IAs, home visitors, home visitor supervisors, and participants contributing information to each analysis differs. Each table in this chapter and Appendix A clearly presents the sample size for the specific analysis presented.

D. Structural Fidelity

Structural fidelity indicators provide information on core implementation parameters explicitly articulated or implicitly communicated by the home visiting models. Such indicators as fit of referrals received with characteristics of families to be served by the model, staff education and completion of model training, supervisory structures, caseloads, service duration, and service dosage provide clear parameters for comparing a program's service delivery to expectations. Structural indicators provide replication sites with objective standards against which they can compare their performance. Although these elements are only part of what constitutes a given model's overall approach, model developers and funders commonly track them to provide an indication of implementation quality. We examined the following structural fidelity indicators:

- Percentage of home visitors with bachelor's-level education
- Percentage of supervisors with bachelor's-level education
- Percentage of direct service staff completing model-specific training
- Mean home visitor caseloads (the number of families with which each visitor works)
- Mean supervisor caseloads (the number of home visitors who report to each supervisor)
- Percentage of total referrals meeting model standards
- Percentage of participants enrolled for at least 3 months, 6 months, and 12 months
- Percentage of those leaving services during the observation period who successfully completed the recommended course of service
- Mean duration of enrollment for those leaving the program during our observation period
- Service intensity (mean number of visits/weeks of enrollment, mean length of time between visits)

- Percentage of participants who received 100, 80, or 60 percent of intended model dosage at 6 and 12 months postenrollment
- Percentage of planned visits completed
- Percentage of participants completing at least 75 or 50 percent of planned visits
- Percentage of home visits lasting at least one hour

1. Home Visitor and Supervisor Model-Specific Education and Training

Staff characteristics, including education and training, are important inputs to high quality service delivery and may affect program efficacy (Riley et al. 2008; Daro et al. 2007; Santos 2005; Hebbeler and Gerlach-Downie 2002). Educational requirements for staff vary across the five home visiting models in the evaluation. Some require a specific educational level and degree (for example, NFP requires a BA in nursing). Others specify staff educational levels but are less specific with respect to the field of practice. PAT recommends a degree in early education or a related field but will allow local IAs to hire parent educators who have graduated high school. Triple P requires postsecondary qualifications in health, education, social services, or mental health; HFA and SafeCare have no specific educational criteria for staff. The five national models also have different requirements for initial training. Some models require staff to travel to their national or regional training events for several days of training, and others use a training-of-trainers model in which an agency staff member may be certified to train fellow staff members. Appendix A summarizes the specific training requirements.

To assess structural fidelity in staff education and training, we focused on the educational levels of the home visitors and supervisors and the extent to which staff reported receiving initial model training. Of the five models in our sample, only one (NFP) requires that all home visitors have at least a bachelor's degree in a specific discipline (nursing). All models require that direct service staff complete initial training before enrolling families.

Education. Across all models, on average, 76 percent of the home visitors at the 44 IAs contributing data on this indicator have at least a bachelor's degree, and 86 percent of the supervisors at the 39 IAs contributing data on this indicator have at least a bachelor's degree (Table III.1). Although most NFP IAs met the model requirements for the educational level of their home visitors, 6 of the 15 NFP IAs in the sample providing data on this indicator had at least one home visitor without a bachelor's degree. Supervisors at two of the NFP IAs in our sample also reported not having a bachelor's degree. Given that, across the models, only NFP requires a specific degree, the absence of BA-level home visitors working in IAs implementing other models is not necessarily a fidelity issue. However, many of these programs employ bachelor's-level home visitors. As with NFP supervisors, nearly all supervisors employed at IAs delivering the other models also report having at least a bachelor's degree.

Across the four models for which there is more than one IA in the sample, a significant difference exists in the average proportion of home visitors with at least a bachelor's degree but no difference in the proportion of supervisors with at least a bachelor's degree

Model-specific training. All but 2 of the 45 IAs contributing data on this indicator met model requirements for receiving initial training. Forty-three IAs reported that all their home visitors and supervisors received initial training in delivering their respective models. Almost 100 percent of all

direct service staff employed by the IAs received required training before enrolling program participants (Table III.1).

Table III.1. Structural Fidelity Indicators: Staff Education and Initial Training

Indicator	All Models	HFA	NFP	PAT	SafeCare	Triple P
Average Percentage of Home Visitors with at Least a BA	75.9	47.1	86.7	88.1	78.5	100.0
Number of IAs	**44**	**11**	**15**	**9**	**8**	**1**
Average Percentage of Supervisors with at Least a BA	85.7	75.0	87.5	86.1	95.2	100.0
Number of IAs	**39**	**10**	**12**	**9**	**7**	**1**
Average Percentage of Staff Receiving Initial Model Training	99.5	99.2	100.0	100.0	98.2	100.0
Number of IAs	**45**	**12**	**15**	**9**	**8**	**1**

Source: EBHV Cross-Site Fidelity Data, October 1, 2009, through June 30, 2012.

*Significance across models: percent of home visitors with BA (p = .004); percent of supervisors with BA (p = .589; percent of staff receiving initial training (p = .364).

Additional training needs. During the 2012 site visits, IA staff discussed the ongoing training needs of home visitors on topics beyond those offered by the model developers. Staff from 14 of the 21 IAs visited reported receiving training beyond what the model developers offered, including training on the following topics: domestic violence (reported by staff from eight IAs), child development (seven IAs), depression and mental health (six IAs), home visitor stress management (six IAs), community resources available for families (five IAs), cultural sensitivity and diversity (four IAs), and substance abuse (three IAs). At the time of the visits, staff identified the following topics as ongoing training needs for home visitors: depression and mental health (reported by staff from 15 IAs), domestic violence and promoting healthy relationships (14 IAs), substance abuse (13 IAs), breastfeeding and lactation (4 IAs), and motivational interviewing (3 IAs). Twelve IAs also described additional training needs to support home visitors, including training on time management, leadership development, and dealing with trauma.

2. Home Visitor Caseloads

This indicator reflects the average number of families who received services from each home visitor during our data collection period. To determine this indictor, we calculated the percentage of workers at each IA who were always carrying a caseload above, at, or below model expectations, weighted to reflect the proportion of time the home visitor worked. Our assumption in approaching this indicator was that carrying a caseload at or below model standards would be preferable over having home visitors managing caseloads above these thresholds. Two caveats are important in interpreting the caseload data: (1) given the relatively low number of home visitors per implementing agency, variations in these percentages across IAs may reflect differences in the performance of a few workers; and (2) it may be unrealistic to expect home visitors to maintain exact caseloads (such as 25 participants). Home visitors in these programs may have maintained caseloads within one or two families above or below model standards, a variation which may have minimal impact on worker performance and is to be expected given the challenges in recruiting and retaining program participants.

Based on data from 46 IAs, few home visitors (less than 1 percent) at a given IA always maintained caseloads at model standards and nearly 6 percent of home visitors maintained monthly caseloads above model standards (Table III.2). In contrast, the average IA had nearly half of their home visitors always serving fewer families than recommended by model standards. In examining this indicator across the four models with more than one implementing IA in the sample, differences were observed. Overall, 94 percent of the home visitors at sites delivering SafeCare had caseloads below the recommended model standard of 19. More than half (58 percent) of home visitors at agencies delivering HFA had caseloads below the HFA standard of 25. About 40 percent of the home visitors at agencies delivering PAT and NFP were below the model's recommended caseloads of 24 and 25, respectively.

Table III.2. Structural Fidelity Indicators: Home Visitor Caseloads

	All Models	HFA	NFP	PAT	SafeCare	Triple P
Mean Percentage of Home Visitors Always Above Expected Caseload (St Dev)	5.5 (14.6)	14.8 (23.0)	3.3 (12.9)	4.0 (8.7)	0.0 (0.0)	0.0 (0.0)
Mean Percentage of Home Visitors Always At Expected Caseload (St Dev)	0.4 (2.5)	0.0 (0.0)	1.1 (4.3)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)
Mean Percentage of Home Visitors Always Below Expected Caseload (St Dev)	56.1 (35.1)	58.0 (38.0)	42.0 (26.7)	44.1 (39.1)	94.2 (9.3)	53.8 (0.0)
Number of IAs	**43**	**10**	**15**	**9**	**8**	**1**

Source: EBHV Cross-Site Fidelity Data, October 1, 2009, through June 30, 2012.

Note: Caseloads are prorated for part-time home visitors and for those who spend part of their work time performing supervisory or other duties. Columns do not add to 100 because home visitors that were sometimes above, at, or below expected caseloads are not included in the table.

*Significance across models with more than one IA in sample: percent of home visitors at or below expected values (p = .003); percent of home visitors below expected values (p = .003).

Implementing agencies where a large proportion of their home visitors always maintain caseloads below model standards may signal that IAs routinely have the capacity to serve more families. We found that 56 percent of home visitors had mean monthly weighted caseloads less than the levels that their respective models recommended while only 6 percent of the workforce had caseloads above this level. At a minimum, these patterns suggest that in many cases, implementing agencies have the capacity to serve more families. These patterns may reflect not having enough participant referrals to sustain full enrollment or higher than anticipated attrition rates, or recommended caseloads may be difficult to sustain given the participants' level of risk. If home visitors are concerned about their capacity to manage participant demand, lower caseloads could reflect an intentional decision by home visitors and their supervisors to reduce intake accordingly.

Contextual findings on home visitor caseloads from the 2012 site visit data analysis. Consistent with findings from the fidelity data analysis, few IAs (4 of 21 visited) reported operating at capacity at the time of the site visits. The reason most often mentioned for operating below capacity was that new home visitors were building caseloads (reported by staff from 11 IAs). Staff described this process as taking as long as six months and often at least three months and explained that the home visiting models often recommended or required this pace. Staff from six IAs reported

that caseloads were below model requirements because supervisors and managers felt that the maximum caseloads that the model developers recommended were too high for home visitors to maintain; therefore, they purposely assigned fewer cases to home visitors. Staff from three IAs described participant attrition as a factor contributing to lower caseloads.

3. Supervisory Caseloads and Supervisory Meetings

This indicator reflects the number of home visitors for whom each supervisor is responsible at any point. To determine this indictor, we calculated the percentage of supervisors at each IA who were always supervising a home visitor caseload above, at, or below model expectations, weighted to reflect the proportion of time the supervisor worked. On average, 41 percent of all supervisors maintained weighted caseloads below model standards, and 19 percent of supervisors maintained weighted caseloads above model standards (Table III.3). Similar to the home visitor caseloads, no supervisors worked with the number of home visitors recommended by the national model they were implementing. These estimates are difficult to interpret because only three of the contributing IAs employed more than one or two supervisors. Variation in these percentages across IAs may reflect differences in the performance of one worker. In examining performance on this measure for the four models for which there were multiple IAs in the sample reporting data on this indicator, no significant difference was observed on the average supervisory caseloads at or below model standards. In considering variation across models on the more restrictive indicator (average supervisor caseloads below model standards), differences across the models approached significance.

With respect to the frequency of group supervisory sessions, the 46 IAs contributing data to this indicator reported holding an average of three group meetings per month, with no model reporting fewer than two meetings a month. A significant difference across the four models for which we have more than one participating IA was observed, with the NFP IAs reporting more frequent weekly meetings (mean = 4).

Content of supervision. During the 2012 site visits, staff described the importance of providing ongoing supervisory and group-based support to home visitors so they could successfully implement the home visiting models and engage families. Most IAs reported providing home visitors with weekly group and one-on-one supervision (15 and 21 IAs of the 21 visited, respectively). In addition, supervisors from 13 IAs conducted observations during home visits at least biannually. The concerns and issues home visitors raised the most during supervision included asking for guidance on, or assistance with, addressing clients' needs related to lack of employment (reported by staff from 15 IAs), food assistance needs (14 IAs), housing needs (14 IAs), mental health concerns (12 IAs), domestic violence concerns (11 IAs), substance abuse concerns (10 IAs), and transportation needs (7 IAs). Staff from nearly all (20) of the IAs described using supervision time to discuss strategies for engaging or locating families not participating in regularly scheduled visits. Staff from about half (11) of the IAs reported that supervision also focused on discussing administrative topics, such as guidance on completing paperwork, conducting assessments, and discussing adherence to model fidelity. Staff from 14 IAs also addressed the personal needs of home visitors during supervision activities by using the time to build morale, discuss their health and safety concerns, and give them a place to vent frustrations.

Table III.3. Structural Fidelity Indicators: Supervisor Caseloads and Supervisory Meetings

	All Models	HFA	NFP	PAT	SafeCare	Triple P
Mean Percentage of Supervisors Always Above Expected Caseload (St Dev)	19.4 (38.3)	13.6 (32.3)	11.1 (33.3)	22.2 (44.1)	41.7 (49.2)	0.0 (0.0)
Mean Percentage of Supervisors Always At Expected Caseload (St Dev)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)
Mean Percentage of Supervisors Always Below Expected Caseload (St Dev)	40.7 (47.7)	56.1 (47.3)	66.7 (50.0)	11.1 (33.3)	16.7 (40.8)	50.0 (0.0)
Number of IAs	**36**	**11**	**9**	**9**	**6**	**1**
Mean Number of Monthly Group Meetings (St Dev)	3.1 (1.5)	2.5 (1.1)	4.1 (1.5)	2.3 (1.5)	2.9 (1.0)	2.5 (0.0)
Number of IAs	**46**	**12**	**16**	**9**	**8**	**1**

Source: EBHV Cross-Site Fidelity Data, October 1, 2009, through June 30, 2012.

Note: Caseloads are prorated for part-time supervisors and for those who spend part of their work time performing home visiting or other duties. Supervisor caseload data were available for a smaller number of IAs. Columns do not add to 100 because supervisors that were sometimes above, at, or below caseloads are not included in the table.

*Significance across models with more than one IA in sample: percent of supervisors at or below expected values (p = .178); percent of supervisors below expected values (p = .008); mean number of group meetings (p = .012).

4. Appropriateness of Family Referrals into Home Visiting

The ability of programs to identify and engage families meeting their intake criteria is an important first step in ensuring program fidelity. When evidence-based programs extend services to families outside their intake criteria, the program may not be as effective or may require additional staff resources to promote engagement. On balance, the IAs report a high proportion of families referred to their program as meeting model intake standards (Table III.4). Among the 45 IAs reporting data on this indicator, an average of 81 percent of their referrals were deemed appropriate. Variation on this indicator ranged from six IAs reporting that all referrals met the criteria of their respective models to three IAs reporting that less than half of their referrals achieved the criteria. The specific model being implemented by these IAs did not account for the variation observed on this indicator, with IAs implementing the same model presenting wide variation in the proportion of referrals meeting program criteria. Factors other than the clarity or specificity of model guidelines (such as the service options available in the community or the degree to which local providers accurately communicate their intake criteria) may influence the variation observed on this indicator.

Table III.4. Structural Fidelity Indicator: Appropriateness of Referrals into Home Visiting

	All Models	HFA	NFP	PAT	SafeCare	Triple P
Mean Percentage of Total Referrals That Met Model Standards (St Dev)	81.3 (20.5)	75.9 23.8)	84.9 (21.7)	78.5 (20.4)	89.5 (7.5)	58.4 (0.0)
Number of IAs	**45**	**12**	**16**	**9**	**7**	**1**

Source: Monthly program reports.

*Significance levels across all models with more than one IA in the sample: $p = .382$.

5. Duration of Participant Enrollment

This indicator is the number of months a participant was enrolled in the program. To determine duration, the sample was limited to those participants for whom we were able to observe the full period under examination (3, 6, or 12 months). No assumptions were made regarding the potential service duration for participants who enrolled in the program but were not observed for these threshold periods. In calculating service duration, we assumed that participants who had not received a home visit within 90 days had effectively "terminated" services. This standard is a shorter period of time than some of the national models use in calculating retention. For example, NFP does not consider a participant who has not officially ended services (moved, indicated they no longer wished to continue, successfully completed the program) as no longer enrolled until they have not been able to deliver a home visit for 180 days. In this sample, we did examine the impact of extending our "no visit" criteria to 180 days but found no significant impact on mean retention rates for any of the models.

Evidence-based programs tend to recommend duration of participant enrollment commensurate to the service duration targeted by the clinical trials that demonstrated their efficacy. Among our sample of five evidence-based home visiting models, the recommended service duration varies, with three models (HFA, NFP, and PAT) recommending retaining participants as active cases for at least two and a half years. In contrast, two models (SafeCare and Triple P) have a more restricted service period. The SafeCare curriculum includes three modules, each of which lasts six to eight weeks. Although the pace at which families complete these modules will vary, depending on initial level of need and responsiveness to the program, most families will complete services in 18 to 20 weeks (less than six months). In Triple P, services can vary from a few weeks to as long as four months, depending on the family's initial level of need and service responsiveness. Given this variation in recommended duration, we report this indicator in aggregate and separately by model.

Average weeks of participant enrollment. Participants in our sample remained enrolled in the program for 35 weeks, on average. As expected, this average was significantly different across the models. Participants who enrolled and exited the longer-term services during the observation period were enrolled, on average, 32.1 weeks (HFA), 41.8 weeks (NFP), and 39.5 weeks (PAT). Those participants enrolled in Triple P or SafeCare remained in these programs an average of 22.1 weeks (SafeCare) and 21.3 weeks (Triple P). This suggests, that although the programs are not successful in retaining all participants for the full course of the intervention, they are sustaining some contact with families for an extended period—providing some opportunity to have impacts on parenting behaviors and attitudes and increase a family's level of social support.

Percentage of participants enrolled at 3, 6, and 12 months after program entry. Three additional duration indicators describe the proportion of families enrolled for at least 3, 6, and 12

months. These indicators allow us to more accurately capture the variability of enrollment periods recommended across the five models and provide a more nuanced understanding of when those engaging in long-term home visiting programs leave services. Nearly all participants remained enrolled in home visiting programs for at least three months, with retention rates diminishing over time (Table III.5). Overall, 87.5 percent of participants were enrolled for at least 3 months, 70.3 percent remained enrolled for at least 6 months, and 52.9 percent remained enrolled for at least 12 months.

Table III.5. Structural Fidelity Indicators: Enrollment Duration

	All Models	HFA	NFP	PAT	SafeCare	Triple P
Mean Percentage of Participants Enrolled for at least 3 Months (St Dev)	87.5 (9.3)	91.5 (8.5)	90.1 (4.6)	89.4 (5.9)	76.6 (12.6)	80.7 (0.0)
Mean Percentage of Participants Enrolled for at least 6 Months (St Dev)	70.3 (22.3)	82.3 (13.3)	77.7 (6.6)	76.5 (15.4)	39.5 (29.8)	44.6 (0.0)
Mean Percentage of Participants Enrolled for at least 12 Months (St Dev)	52.9 (24.8)	73.0 (18.0)	57.6 (11.5)	61.1 (14.6)	16.4 (18.8)	3.9 (0.0)
Mean Length of Enrollment in Weeks for Those Who Exited Program During Observation Period (St Dev)	35.0 (12.5)	32.1 (10.3)	41.8 (9.6)	39.5 (16.2)	22.1 (7.2)	21.3 (0.0)
Number of IAs	**35**	**8**	**16**	**4**	**6**	**1**

Source: EBHV Cross-Site Fidelity Data, October 1, 2009, through June 30, 2012.

*Significance across models: Average weeks of participant enrollment (p = .002); Mean percentage of participants enrolled 3 months (p = .005); mean percentage enrolled 6 months (p < .0001); mean percentage enrolled 12 months (p = .0001); mean length of enrollment for those who exited the program (p = .002).

Enrollment duration in long- and short-term programs. As anticipated, significant variation was observed on all three of these indicators across the five models, with a higher proportion of participants enrolled in HFA, NFP, and PAT being retained at 6 and 12 months than participants enrolled in SafeCare or Triple P. Only 3.9 percent of those enrolled in Triple P and 16.4 percent of those enrolled in SafeCare remained in these programs for at least 12 months. This pattern is consistent with these programs' logic models, which focus on achieving clear, measurable change in participant behaviors or attitudes regarding specific parenting or child management techniques over a relatively short period. In contrast, the logic models of the three long-term home visiting models assume this change process requires more extended contact with the family and recommends services begin during pregnancy or at birth and continue through at least the child's second birthday.

Of the three long-term models, we saw the strongest retention rates among those enrolling in HFA (82.3 percent retained at 6 months and 73 percent retained at 12 months), followed by PAT participants (76.5 percent retained at 6 months and 61.1 percent retained at 12 months), and NFP participants (77.7 percent retained at 6 months and 57.6 percent retained at 12 months). Because the data collection period covered only 33 months, we were unable to observe most families enrolled in

the three long-term home visiting programs for the full course of treatment. As such, of the 1,701 participants who terminated services from the three longer-term models, only 123 (seven percent) were identified as successfully completing the program. In contrast, of the 469 participants who terminated services from the two short-term models during the observation period, 52.9 percent were classified as leaving before receiving the full course of the intervention ("early leavers"), and 47.1 percent were identified as successful case closures (not shown).

Most of those leaving services before completing the full intervention often do so after an extended period of missed home visiting appointments or lack of contact with home visitors. In this sample, nearly half (49 percent) of the early leavers were removed from caseloads after missing an excessive number of appointments, having no contact with the program for more than 180 days, or not being located by staff. An additional 21 percent actively declined further services. Other reasons staff noted for terminating a family's involvement included the family moving out of the service area (20 percent); miscarriage, or infant or maternal death (3 percent); structural issues within the program such as staff changes, program closures or unable to accommodate family needs (3 percent); child being removed from the home (2 percent); and other unspecified reasons (2 percent).

Contextual findings on duration of enrollment from the 2012 site visit data analysis. Staff from nearly all IAs described families who left services early. According to staff, the primary reasons families leave services are (1) personal or family circumstances that lead them to disengage, such as drug abuse, fear home visitor will observe child abuse or illegal behavior, or unstable housing (reported by staff from nine IAs); (2) busy schedules resulting from enrollment in school or training programs, or employment (reported by staff from six IAs); and (3) families moving out of the service area (reported by staff from four IAs).

6. Home Visit Dosage

In addition to recommending specific service duration periods, all the models have established standards for the frequency of home visits. Regular contact with families is a primary recommendation across all the models, although the nature of this contact (home visits, group meetings, telephone communication) varies across the models. For some models, weekly or biweekly home visits are recommended throughout the intervention. In other cases, the frequency of service will vary, with more visits recommended at the onset of services, during specific parenting and child transitions, or during times of family crisis. In addition, although all the models provide replication sites with guidance on establishing expectations for appropriate dosage, models also remind IAs and home visitors that these services are voluntary and, therefore, subject to the willingness of participants to accept visits. Consequently, it is difficult to determine an *absolute* optimal number of home visits or service dosage for every program participant. Indeed, a central discussion among those examining the replication of evidence-based programs is the relationship between service dosage and subsequent outcomes and how much emphasis should be placed on achieving standardized dosage levels (Ingoldsby et al. 2013).

Despite the inevitable variability in dosage among voluntary home visiting services, it is useful to examine the number of visits participants are receiving and the degree to which actual service dosage is comparable to that being recommended. Wide variation from a model standard across most of an IA's participants might signal a performance gap in overall implementation that program managers may decide to address. Similarly, if service dosages differ in specific participant characteristics, program managers may need to alter their program content or timing of home visits, or provide targeted training to their home visitors to improve engagement rates with these potentially underserved populations.

The EBHV fidelity framework included several indicators that addressed service dosage. We looked at the mean number of home visits participants received per week during their time of enrollment; the average time between the home visits a participant did receive; and the proportion of participants who received the full, 80 percent, and 60 percent of a model's recommended number of home visits.

Number of visits provided per week. Participants enrolled in the 36 IAs providing information on visit frequency received, on average, approximately two visits per month (.5 per week of enrollment) (Table III.6). Despite the variation in recommended home visit frequency, this average figure did not significantly differ across the models. The average participant tended to receive visits approximately twice a month, regardless of the particular home visiting program in which they were enrolled. Similarly, the mean number of days between home visits did not differ across the models, with participants receiving a home visit, on average, every 17.8 days during their time of enrollment.

Although, on average, we did not see differences across the models on visit frequency, significant differences existed across the models when we examined the time between home visits for those who successfully completed services versus the "early leavers." The pattern of this relationship was not consistent across the models (Box III.1; Table III.6).

Box III.1. Gaps Between Home Visits Across Models for Successful Completers and Early Leavers

For those participants who successfully completed the program or who remained enrolled during the full observation period, the longest gaps between services were noted for participants enrolled in HFA (31.3 days) and PAT (30.2 days), and the shortest gaps were observed for participants enrolled in SafeCare (10.7 days), Triple P (11.2 days), and NFP (19.2 days). In examining the mean number of days between home visits for those who left home visiting programs early or who failed to successfully complete the course of service, the time between home visits was shorter (visits were closer together) among HFA recipients (19.6 days) and NFP recipients (16.6 days). Although there was no difference in the gap between home visits for the successful completers and early leavers enrolled in PAT programs, participants who did not successfully complete the SafeCare or Triple P programs had somewhat longer gaps between completed home visits than those who did complete the program.

The variability observed in the length of time between home visits for successful completers and early leavers may, in part, reflect differences in each model's planned duration and guidelines governing the termination of families. In the two shorter-term programs, it appears that contact occurs nearly weekly for families who successfully complete these programs. Those who do not successfully complete the program have longer gaps between initial home visits, a potential early indicator of engagement challenges. In programs that enroll families for several years, the length of time between home visits may increase due to a step-down in intensity built into the program's model or the family's decreased need for more regular contact with their home visitors. The pattern also might indicate that some families, even when reluctant to accept regular home visits, are retained on program caseloads to give them an open invitation and maximum opportunities to reengage in services when they are ready to do so.

Actual versus expected dosage. To determine the degree to which program participants receive the number of expected home visits, we established, with the model developers, an average number of recommended visits for participants to receive during the first 6 and 12 months of enrollment. To compensate for anticipated variation from these levels (for example, holidays and staff and family vacations), we examined the proportion of respondents who achieved the targeted number and 80 percent of the target number. We also examined the proportion of participants who received at least 60 percent of the target dosage. This level reflects our conversations with the national models, as well as others familiar with the implementation of voluntary home-based interventions, regarding the inherent difficulty in securing consistent participation from at-risk families in voluntary programs, particularly when the services extend for several years.

Table III.6. Structural Fidelity Indicators: Service Dosage

	All Models	HFA	NFP	PAT	SafeCare	Triple P
Mean Number of Visits Provided per Week of Enrollment – Those Still Enrolled (St Dev)	0.5 (0.1)	0.5 (0.1)	0.4 (0.1)	0.4 (0.1)	0.5 (0.3)	0.7 (0.0)
Mean Number of Visits Provided per Week of Enrollment – Successful Completers (St Dev)	0.5 (0.2)	0.2 (0.0)	0.4 (0.1)	0.3 (0.1)	0.8 (0.2)	0.7 (0.0)
Mean Number of Visits Provided per Week of Enrollment – Early Leavers (St Dev)	0.4 (0.1)	0.5 (0.2)	0.3 (0.0)	0.3 (0.2)	0.5 (0.1)	0.4 (0.0)
Average Number of Days Between Visits – Those Still Enrolled (St Dev)	17.8 (7.6)	16.6 (6.6)	16.5 (2.1)	25.1 (14.1)	17.9 (11.4)	19.2 (0.0)
Average Number of Days Between Visits – Successful Completers (St Dev)	19.6 (10.6)	31.3 (2.0)	19.2 (2.5)	30.2 (18.9)	10.7 (3.2)	11.2 (0.0)
Average Number of Days Between Visits – Early Leavers (St Dev)	18.6 (9.5)	19.6 (8.5)	16.6 (1.7)	31.6 (23.6)	14.1 (3.5)	22.8 (0.0)
Number of IAs	**36**	**8**	**16**	**4**	**7**	**1**

Source: EBHV Cross-Site Fidelity Data, October 1, 2009, through June 30, 2012.

Note: Some IAs had no successful completers during the observation period; therefore, the sample size for those indicators is lower (2 HFA, 10 NFP, 4 PAT, 6 SC, 1 Triple P).

* Significance across all models: mean number of visits for those still enrolled (p = .314); mean number of visits for successful completers (p = 0001); mean number of visits for early leavers (p = .001); average days between visits for those still enrolled (p = .363); average days between visits for successful completers (p = .008); average days between visits for early leavers (p = .032).

Although some studies have shown impacts of home visiting with relatively low visit completion rates (from 40 to 60 percent), inclusion of this benchmark does not mean that strong empirical evidence exists to suggest that this level of service is sufficient to achieve targeted outcomes across all five models in this evaluation. Rather, it is a pragmatic indicator that reflects current service realities and a growing tendency for model developers to provide flexibility in the guidelines on service dosage. Thirty-five IAs provided participant-level data on these indicators. The sample was limited to those participants who had the opportunity to be enrolled for this length of time and whom we were able to observe for the full 6- and 12-month observation periods.

At the six-month observation point, 18.5 percent (s.d. = 27.7) of participants achieved the full service dosage recommended for that period, 36.2 percent (s.d. = 26.6) received 80 percent of this level, and 66.2 percent (s.d. = 24.2) received 60 percent of this level (Table III.7). At the 12-month observation period, the proportion of families receiving at least 80 percent of the recommended dosage increased to 43.6 percent (s.d. = 26.4), and more than 72 percent (s.d. = 26.7) of all participants received at least 60 percent of the recommended dosage, suggesting that home visiting programs tend to deliver home visit closer to the number recommended by model standards the longer a participant remains enrolled. It is possible that families who remain in voluntary intensive

Table III.7. Structural Fidelity Indicators: Actual Versus Expected Dosage

	All Models	HFA	NFP	PAT	SafeCare	Triple P
Number of Home Visits Expected in First 6 Months		24.0	18.0	12.0	12.0	26.0
80 Percent of Home Visits Expected in First 6 Months		19.2	14.4	9.6	9.6	20.8
60 Percent of Home Visits Expected in First 6 Months		14.4	10.8	7.2	7.2	15.6
Average Percentage of Participants Receiving Full Dosage in First 6 Months (St Dev)	18.5 (27.7)	4.0 (3.5)	5.0 (6.6)	39.9 (32.7)	62.3 (27.5)	0.0 (0.0)
Average Percentage of Participants Receiving 80 Percent of Dosage in First 6 Months (St Dev)	36.2 (26.6)	20.5 (11.8)	28.0 (14.8)	51.4 (35.5)	74.3 (21.4)	3.0 (0.0)
Average Percentage of Participants Receiving 60 Percent of Dosage in First 6 Months (St Dev)	66.2 (24.2)	44.8 (23.9)	71.2 (13.4)	67.1 (39.4)	84.9 (19.0)	42.4 (0.0)
Number of Home Visits Expected in First 12 Months		36.0	30.0	24.0	18.0	26.0
80 Percent of Home Visits Expected in First 12 Months		28.8	24.0	19.2	14.4	20.8
60 Percent of Home Visits Expected in First 12 Months		21.6	18.0	14.4	10.8	15.6
Average Percentage of Participants Receiving Full Dosage in First 12 Months (St Dev)	17.8 (25.5)	19.6 (15.1)	5.3 (8.1)	26.4 (26.6)	46.9 (49.1)	25.0 (0.0)
Average Percentage of Participants Receiving 80 Percent of Dosage in First 12 Months (St Dev)	43.6 (26.4)	42.8 (26.3)	41.2 (17.6)	51.6 (35.7)	49.7 (47.1)	25.0 (0.0)
Average Percentage of Participants Receiving 60 Percent of Dosage in First 12 Months (St Dev)	72.1 (26.7)	65.4 (30.8)	78.5 (11.9)	64.0 (43.0)	63.4 (41.1)	100.0 (0.0)
Number of IAs	**34**	**8**	**16**	**4**	**6**	**1**

Source: EBHV Cross-Site Fidelity Data, October 1, 2009, through June 30, 2012.

Note: Italics indicates the home visit model developer identified number of visits expected in the first 6 and the first 12 months after enrollment and is presented for the full dosage, 80 percent, and 60 percent.

*Significance across HFA, NFP, PAT, and SafeCare dosage levels: proportion of participants receiving full 6-month dosage ($p < .0001$); proportion of participants receiving 80 percent of full 6-month dosage ($p < .0001$); proportion of participants receiving 60 percent of full 6-month dosage ($p = .009$); proportion of participants receiving full 12-month dosage ($p = .008$); proportion of participants receiving 80 percent of full 12-month dosage ($p = .873$); proportion of participants receiving 60 percent of full 12-month dosage ($p = .531$).

home visiting programs may include more people willing to accept home visits when offered, making it easier for programs to achieve higher overall dosage levels.

Proportion of participants receiving full, 80, and 60 percent of expected dosage. To understand whether it is differences across IAs that drive differences observed across models in achieving recommended service levels, we conducted additional analyses of the four models in the sample that have more than one IA (HFA, NFP, PAT, and SafeCare). Significant differences existed in the average proportion of participants receiving a model's recommended number of home visits. At six months, significant differences were observed across these four models in the proportion of participants receiving (1) the full recommended dosage, (2) 80 percent of the recommended dosage, and (3) 60 percent of the recommended dosage. At 12 months, model differences persisted only in the proportion of participants receiving the recommended number of home visits. In interpreting this pattern, it is important to keep in mind that these indicators capture the average difference in performance across all IAs implementing a specific model.

Substantial variation existed within models in this sample in (1) the number of participants an IA served during a specific observation period, and (2) the IAs capacity to deliver the number of recommended home visits. For example, several of the SafeCare IAs, in compliance with that model's service delivery structure, enrolled relatively few families beyond a six-month period. The number of home visits provided to those families who remain enrolled beyond a 6-month period may not be as representative of how an IA complies with model standards as the 12-month service experiences of families receiving HFA, NFP or PAT, where a longer-term service relationship was expected.

Obstacles to completing home visits and meeting families' preferences. Consistent with findings from the fidelity data analysis, respondents from about half of the 21 IAs visited in 2012 identified completing the number of home visits that the models specified as a challenge. Staff described the main obstacles they faced in completing visits as including the following:

- Crises or other circumstances faced by families that prevented home visitors from meeting with them, such as unstable housing; mental health issues, including postpartum depression; scheduling difficulties resulting from families' work or school schedules; and demands families faced after the birth of the child (reported by staff from nine IAs)
- Families forgetting about scheduled visits despite home visitor reminders, which staff commonly attributed to a lack of maturity, responsibility, or motivation among families (reported by staff from five IAs)
- Disruptions in communication with families because they lacked an active telephone number (reported by staff from four IAs)

Staff from five IAs (all implementing NFP) described deviations from the intended home visit schedule in response to families' preferences for the frequency of services. Staff explained that, to keep families engaged in services, they worked flexibly with them to conduct visits at a frequency that met their needs.

7. Planned Visit Completion and Visit Length

The limited number of home visits some participants receive may not simply reflect a family's explicit refusal or reluctance to accept home visits as often as a model may recommend. Rather, visits might be planned, but cancelled at the last minute and never rescheduled. To address this

issue, we examined the proportion of planned home visits that the home visitors completed, overall and at the individual participant level.

Proportion of all, 50, and 75 percent planned visits completed. Overall, 82.1 percent of all planned visits were completed by home visitors employed by the 36 IAs contributing data on this indicator (Table III.8). No differences in completion of planned visits were observed across the five models. On average, home visitors consistently reported completing 80 percent or more of their planned visits. From the participant's perspective, 94.4 percent of all participants in the sample received at least 50 percent of all planned visits, and 72.1 percent received at least 75 percent of all planned visits. Again, no significant model differences on either of these indicators were observed, with 90 percent or more of participants enrolled in four of the five models receiving 50 percent of all planned visits and 70 percent or more of participants receiving at least 75 percent of all planned visits.

These patterns suggest that home visitors are not scheduling visits with the frequency that the models they are replicating recommend. This may reflect a home visitor's decision to allow participants to determine when visits are convenient and delay scheduling a visit until a participant indicates she is comfortable accepting the service. In other cases, home visitors may establish a tentative schedule for more regular visits but do not consider a visit "planned" until it is formally confirmed with a family. Under either scenario, the pattern underscores the difficulty in establishing firm expectations for service dosage within the context of a *voluntary* program. Successfully completing home visits is, in part, a function of the success home visitors have in encouraging participants to accept these offers of assistance and to place high value on the intervention's potential benefits.

Visit length one hour or more. All the models recommend that visits last a minimum of one hour. More than 87 percent of the visits delivered by the 32 IAs providing data on this indicator met this threshold (Table III.8). A significant difference in this indicator was observed across the five models, with a greater proportion of NFP visits (94.5 percent) lasting one hour or more.

E. Dynamic Fidelity

All the home visiting models that the EBHV subcontractors implemented emphasized delivering consistent content to families and establishing a high quality relationship between the home visitor and program participant. In contrast to assessing the more structured, or objective, elements of a program's design (caseloads, service duration, and dosage), it is a more difficult and nuanced task to assess service quality or gauge the success replication sites have in capturing a model's "intent" or "manner" of service delivery. The second component of the EBHV fidelity framework focused on assessing the degree to which the IAs replicated the intent and manner of the evidence-based home visiting program they elected to implement. We focused on documenting the extent to which planned content was provided in a consistent manner and conducted exploratory analyses of indicators that measure participant and provider perspectives on their relationship.[5]

[5] These analyses are exploratory because not all IAs providing participant-level data completed the WAI ratings, resulting in a limited number of IAs for three models. Although 12 of the IAs that provided these data did so for most of their program participants, 6 completed WAIs for less than a third of participants in the sample. Findings from these analyses must be interpreted with caution, as they cannot be generalized across IAs and subcontractors.

Table III.8. Structural Fidelity Indicators: Planned Visit Completion and Visit Length

	All Models	HFA	NFP	PAT	SafeCare	Triple P
Mean Percentage of Planned Home Visited Completed (St Dev)	82.1 (10.0)	82.7 (13.6)	82.5 (5.2)	80.0 (22.7)	80.5 (4.7)	90.8 (0.0)
Mean Percentage of Participants for Whom at Least 50 Percent of Planned Visits Were Completed (St Dev)	94.4 (8.4)	92.8 (8.1)	96.6 (2.7)	85.7 (21.2)	95.2 (4.3)	98.9 (0.0)
Mean Percentage of Participants for Whom at Least 75 Percent of Planned Visits Were Completed (St Dev)	72.1 (18.4)	70.9 (28.3)	72.1 (11.5)	71.8 (34.0)	71.5 (9.3)	89.4 (0.0)
Mean Percentage of Completed Home Visits Lasting at Least One Hour (St Dev)	87.6 (11.5)	83.0 (8.5)	94.5 (6.2)	77.2 (22.3)	79.6 (13.7)	82.4 (0.0)
Number of IAs	**36**	**8**	**16**	**4**	**7**	**1**

Source: EBHV Cross-Site Fidelity Data, October 1, 2009, through June 30, 2012.

*Significance across HFA, NFP, PAT, and SafeCare: mean percentage of visits completed (p = .949); mean percentage of participants completing 50 percent of planned visits (p = .126); mean percentage of participants completing 75 percent of planned visits (p = .999); and mean percentage of completed visits lasting at least one hour (p = .005).

1. Home Visit Content

Each model provides training and supportive material (for example, manuals, video recordings, web-based modules) on the information, activities, and assessments to be completed with families during home visits. Provision of model-specific content is the backbone of the home visits and the primary mechanism for positive changes in parenting attitudes, knowledge, and skills that are expected to improve family and child outcomes. The cross-site evaluation team worked closely with model developers to create model-specific visit content forms that reflected the information and activities that should be included in all visits. Research and practitioner experience indicates that sharing of content during a visit can sometimes be disrupted by family crises and other issues that come up. An assessment of whether planned content was conveyed provides one way of determining whether home visitors were successful in meeting model expectations in this area. (Box III.2 provides more detailed information on the content covered by each individual model).

Home visitors reported that they successfully provided the planned program content during all of their home visits. On average, home visitors from 29 IAs reported covering 96.7 percent of all planned content during the 72,859 visits provided and reported on during the observation period (Table III.9). More than 95.6 percent of these home visits covered at least 80 percent of the planned content. This level of performance was consistent across most IAs in the sample, and no significant differences were observed on either of these indicators across the five models.

Box III.2. Home Visit Content, by Model

In partnership with the national model developers, we developed a list of four to six activities or topic areas home visitors delivering each model would be expected to address with participants. In some cases, the national model developer focused on broad content areas or topics such as child development, parent-child interaction, or maternal health; in other cases, the developer emphasized discrete program activities such as modeling a specific behavior, completing a specific parent-child activity, or conducting formal assessments. In all cases, these categories represent activities each model asks replication sites to document as part of their annual reporting requirements or through their administrative data systems. Home visitors reported on the frequency that specific activities were addressed and the time allocated to each activity during each home visit they provided during the data collection period. Examining the variation observed across models in the emphasis placed on different tasks offers another insight into the variability in intent and focus across this group of home visiting models. Although the number of home visits in each model sample is substantial (2,000 or more visits per model), the number of IAs contributing information to the cross-site evaluation on each model about home visit content is modest, ranging from one site for Triple P to 16 IAs for NFP. Therefore, these data should be considered as descriptive of potential differences across the models.

HFA. The most common activities during HFA home visits involved efforts to improve parent-child interactions and affect child development. HFA home visitors reported spending at least some time on these topics during 75 percent of the 9,343 home visits in the sample. During two-thirds of these visits, home visitors also spent some time addressing participant health care needs and health care access issues. More than 40 percent of the visits focused on improving family functioning (discussing relationships among spouses or other family members, addressing issues of sibling rivalry) and addressing environmental-related needs, such as housing, safety, and infant basic care. These priorities were confirmed in our calculation of the average percent of time spent on each activity across all visits. On average, HFA home visitors spent more than one-quarter of all their home visiting time on parent-child interactions and child development, 19 percent of their time on health care–related activities, and less than 10 percent of their time on activities related to family functioning or contextual challenges. Although 23 percent of all visits covered some administrative issues (such as data collection or confirming contact information for family members), the average proportion of time spent on this activity during any specific visit was modest (about 7 percent).

NFP. The NFP visit data indicate strong consistency exists in the topics addressed across all visits, with more than 87 percent of the 48,000 home visits in our sample covering each of the program's five target outcome areas: personal health, environmental health, life course, maternal role, and friends and family. This pattern is consistent with the guidance the National Service Office provides home visitors on the importance of addressing each of these core domains during each visit. Despite this consistency, the average percent of time nurses spend on each topic across all visits does vary. Overall, nurses spent, on average, 34 percent of their time during home visits addressing maternal life course choices, such as encouraging women to continue their education, develop career objectives, and plan for future children, and 28 percent of their time on personal health issues, such as securing adequate pre- and postnatal care, smoking cessation, and mental health. Thirteen percent of time during an average home visits focused on the mother's social network, relationship with her spouse, and assistance with child care. A similar amount of time was spent on environmental health or contextual issues that may adversely affect the mother or infant's health and development. Eleven percent of time during an average home visit focused on helping the mother adjust to her maternal role, promoting parent-infant bonding, and strengthening the mother's parental capacity.

PAT. As with NFP, a high proportion of all 8,135 PAT home visits (70 percent or more) addressed three of the model's required activities: formal assessment and screening or observation around child development and parent-child interactions (84 percent of all visits); presenting and conducting a specific parent-child activity (80 percent of all visits); and book-reading time (72 percent of all visits). Slightly more than half of all visits included focused attention on assessing parental needs and personal functioning. On average, a home visitor delivering PAT spent about one-third of her time on each visit's planned parent-child activity and about 30 percent of her time conducting formal assessments and screening activities. Nearly 20 percent of time during an average home visit was devoted to the ongoing assessment of the parent's needs and presenting problems, and nearly 15 percent on a home visitor's time, on average, focused on encouraging and observing the parent read with her child.

SafeCare. The most consistent activity reported by home visitors across the 5,369 SafeCare home visits in our sample was an ongoing assessment of the parent's capacity to master the skills being taught in each service module. In the sample, home visitors reported engaging in this activity during nearly 84 percent of all visits. Other common activities home visitors completed during their visits include describing the target behavior to address in the session (68 percent of all visits); explaining the rationale or reason for the behavior (63 percent of all visits); modeling alternative behaviors (59 percent of all visits); and observing the parent practicing skills and providing feedback (58 percent of all visits). One-third of all visits also involved some time building rapport with the family and discussing a family's general questions and concerns. Across all home visits in our sample, home visitors spent roughly equal time (20 percent each) describing target behaviors, assessing parental capacity to demonstrate the behaviors, and building rapport with participants. About half as much time (10 percent each) was spent observing the parent practice these new skills and providing feedback, explaining the rationale or reason for the behavior, and modeling alternative behaviors.

Triple P. During at least two-thirds of the 2,012 Triple P visits in the sample, home visitors reported spending some time listening to and processing a parent's concerns and providing the participant with feedback or promoting parent self-evaluation. Approximately 37 percent of all visits involved explaining or demonstrating a specific parenting strategy, principle, or procedure, and one-third of the visits involved conducting specific assessment activities. Slightly fewer visits (28 percent) directly included time for the home visitor to provide participants time to practice implementation of specific strategies. During an average visit, home visitors spent approximately 37 percent of their time providing the participant with feedback or promoting parent self-evaluation and explaining or demonstrating a specific parenting strategy. About 25 percent of the home visitor's time was devoted to explaining or demonstrating a specific parenting strategy, principle, or procedure. Notably less time, on average, was devoted during each visit to listening or processing a parent's concerns (15 percent), providing opportunity for parents to practice specific

Table III.9. Home Visit Content

Indicator	All Models	HFA	NFP	PAT	SafeCare	Triple P
Mean Percentage of Planned Content Covered During Visits	96.7	98.3	95.6	98.7	97.7	97.5
Number of IAs	**29**	**3**	**16**	**2**	**7**	**1**
Mean Percentage of All Visits That Covered 80 Percent or More of Planned Content	95.6	97.7	94.1	98.2	97.0	96.9
Number of IAs	**29**	**3**	**16**	**2**	**7**	**1**

Source: EBHV Cross-Site Fidelity Data, October 1, 2009, through June 30, 2012.

*Significance across all models: mean percentage of planned content covered (p = .235); mean percentage of all visits covering 80 percent or more of planned content (p = .334).

2. Provider and Participant Relationships

Relationship-based interventions rely on the mutual respect, trust, and shared understanding of how interventionists and participants will work together to achieve participant goals and targeted outcomes (Boller et al. 2010; Paulsell et al. 2010). Home visiting is not unique in this; however, relationships may be more central than in similar interventions because participants have to open their homes to a stranger. The EBHV subcontractors reported that, when hiring home visitors, they looked for candidates who would be a good match for their target population (for example, on characteristics such as languages spoken and cultural competence) as a way to help visitors and participants start off on a good footing and establish rapport and respect (Coffee-Borden and Paulsell 2010). The Working Alliance Inventory (WAI)provides the opportunity for visitors and participants to rate perceptions of their relationship that have been demonstrated to be associated with successful outcomes in clinical settings. (Box III.3 describes the WAI and the indicators we created from it.)

More than half of the home visitors in the sample of 18 IAs that provided WAI data consistently rated initial perceptions of their relationships with participants early in the service experience as positive and indicated they felt capable of moving the participant toward desired goals (Table III.10). At least two-thirds of the participants in the sample viewed their relationships with their home visitors in a similar manner. Home visitors and participants overall and within models provided the highest ratings to elements of the relationship relating to bonding: liking each other, confident in the skills and commitment of both parties to make needed changes, and appreciative and trusting of each other. Although the home visitor and participant ratings were still very positive, respondents were somewhat less confident (more likely to view an indicator as occurring often or sometimes) in aspects of the relationship related to goal setting (for example, formulating what type

Table III.10. Provider and Participant Perspectives on Their Relationship

WAI Indicators	All Models	HFA	NFP	PAT	SC	Triple P
Provider Perspective on Relationship						
Percentage with Tasking Scale Rated on Average 6 or above	57.2	52.6	69.4	60.0	50.0	54.5
Percentage with Bonding Scale Rated on Average 6 or above	74.6	82.6	77.0	75.0	72.3	54.5
Percentage with Goals Scale Rated on Average 6 or above	55.5	48.9	66.6	60.0	49.2	54.5
Percentage with Total Score Rated on Average 6 or above	61.4	61.0	69.1	75.0	74.4	54.5
Number of Participants Assessed by Home Visitors	**997**	**262**	**246**	**96**	**285**	**108**
Participant Perspective on Relationship						
Percentage with Tasking Scale Rated on Average 6 or above	83.5	87.4	91.9	77.1	76.6	88.9
Percentage with Bonding Scale Rated on Average 6 or above	88.6	89.5	93.4	82.3	81.7	92.6
Percentage with Goals Scale Rated on Average 6 or above	63.4	63.7	81.9	66.7	57.2	63.9
Percentage with Total Score Rated on Average 6 or above	82.1	82.8	91.8	75.1	76.8	84.3
Number of Participants Self-Reporting	**974**	**262**	**238**	**95**	**272**	**107**
Number of IAs	**18**	**3**	**5**	**2**	**7**	**1**

Source: EBHV Cross-Site Fidelity Data, October 1, 2009, through June 30, 2012.

*Significance across all models: provider tasking scale (p = .657); provider bonding scale (p = .889); provider goals scale (p = .834); provider total scale (p = .748); participant tasking scale (p = .336); participant bonding scale (p = .715); participant goals scale (p =. 126); participant total scale (p = .528).

of change is needed and mutually agreeing on the target goals and outcomes being sought). We did not observe significant differences in these ratings across the five models.

In addition to examining the initial views of the relationship, we considered the degree to which the participant and home visitor shared similar perceptions of the service delivery experience. High levels of agreement, either positive or negative, can indicate a stronger relationship, in which both parties understand why they are working together to achieve stated goals. Again, the mean ratings reported overall and within each model sample were high, with the participants and providers demonstrating the greatest agreement about how they perceived the quality and strength of their interpersonal relationship. Overall, 84.5 percent (s.d. = 8.5) of providers and participants who completed baseline assessments reported total scores for the items related to this domain that were within four points of each other (out of a possible total score of 28; Table III.11). Less consistency was observed in how the two parties rated the level of agreement they shared in setting specific service objectives, in defining areas of needed change and setting priorities, and in the potential

Box III.3. Working Alliance Inventory: Measure Description, Data Collection, and Completion Rates

We adapted the WAI (Santos 2005) to examine the relationship between the home visitor and program participant. This 12-item measure captures the nature of the relationship in three core domains:

1. **Tasking.** Provider and participant perceptions of what needs to happen to reach service goals, establish relative priorities, and, if necessary, obtain a new perspective on how to proceed

2. **Bonding.** Provider and participant perceptions regarding the other party in terms of liking each other, confident in their ability to do the job (or make the changes needed), mutual appreciation, and trust

3. **Goal setting.** Provider and participant perceptions of their agreement on service goals, ability to develop mutual goals, and agreement on the change needed to achieve program objectives

Respondents rated each of the 12 items on a seven-point scale, from never feeling a situation applies to their participant-provider relationship (1) to always feeling this situation applies (7). Scores on the individual domains ranged from 4 to 28. We set a threshold for determining that respondents viewed their relationship as very positive when the mean score for a specific construct was greater than or equal to 6 (or viewing an item as "very often" or "always" reflecting their situation). In addition to examining individual ratings in each domain, the indicators include a summary score, looking at the quality of the relationship across all three areas, as well as the degree to which the assessment within each domain was consistent across a specific home visitor and participant.

Because not all subcontractors could collect data directly from participants receiving services through the EBHV initiative, we have data on these indicators for only 18 IAs (7 implementing SafeCare, 5 implementing NFP, 2 implementing PAT, 3 implementing HFA, and 1 implementing Triple P). We have completed baseline WAIs from home visitors summarizing their initial relationship with 1,030 participants and the participant perspective from 997 of these individuals (97 percent). We used all available baseline data from the home visitors and participants to assess performance on the indicators related to the initial perception of these relationships, but the level of agreement between participant and provider was limited to those instances in which both parties had completed the WAI early in their work together (within a few visits of the participants' initial enrollment in the program).

Table III.11. Home Visitor and Participant Reports: Shared Perceptions About Their Relationship and Goals

Agreement Levels	All Models	HFA	NFP	PAT	SC	Triple P
Percent Agreement on WAI Tasking Items	77.9	79.2	78.5	85.2	74.5	73.8
Percent Agreement on WAI Bonding Items	84.5	86.6	87.9	87.4	80.0	82.2
Percent Agreement on WAI Goals Items	72.4	70.4	72.4	81.1	70.9	69.2
Number of Participant-Provider Pairs	**974**	**262**	**238**	**95**	**272**	**107**
Number of IAs	**17**	**3**	**5**	**2**	**6**	**1**

Source: BHV Cross-Site Fidelity Data, October 1, 2009, through June 30, 2012.

*Significance across all models: percent agreement on tasking items (p = .808); percent agreement on bonding items (p = .626); percent agreement on goal-setting items (p = .495).

benefits of specific actions. No significant differences were observed among respondents across the five home visiting models in the sample.

Among this group of IAs, providers and participants expressed very positive and generally consistent views of the service relationship. On the most basic level, providers and participants liked each other, respected each other's perspectives, and could establish a strong relationship. Greater

variation was observed in goal setting and case planning, but even in these instances, the WAI scores suggest both parties had positive views of these procedures. In contrast to the variation across or framework, as well as its underlying values and intent. None of the 48 IAs in our sample demonstrated absolute adherence to all the elements in the EBHV fidelity framework. Although no one model would require achievement of all the indicators in the framework for an IA to be classified as replicating their model with fidelity, the application of the framework is instructive for a wide range of stakeholders. Most IAs did demonstrate some capacity to achieve a portion of the standards in the framework. Next, we describe indicators with higher and lower levels of fidelity. models and IAs found on many of the structural indicators, little variation was found across the home visiting models in dynamic fidelity indicators. Across all models and IAs in our sample, home visitors consistently reported delivering services that covered most of the model-specific content and built relationships that facilitated provision of services in a positive and appropriate manner.

F. Capacity of IAs to Achieve Fidelity

Achieving fidelity in replicating an evidence-based program is complex: it involves the ability of an agency to successfully implement and sustain diverse criteria regarding the model's basic structure.

1. Indicators with High Levels of Fidelity

Across indicators, the greatest consistency across IAs in achieving high levels of fidelity includes hiring and training appropriate staff, obtaining appropriate referrals, delivering most of the planned visits, and covering the planned content during the home visits. Although the WAI analyses were exploratory, the findings suggest that providers were delivering services in the style central to the relationship-based approach promoted by the five home visiting models. IAs may have an easier time complying with the spirit of these interventions than with their prescribed structure.

2. Indicators with Low Levels of Fidelity

Implementation indicators that proved more challenging for this set of IAs include sustaining full caseloads for home visitors; participant retention and dosage; and achieving consensus on goal setting (as measured by the WAI). Although some evidence of the capacity of IAs to maintain fuller caseloads exists, most IAs continue to operate with excess service capacity, in many instances, a notable proportion of an IA's home visitors carried average caseloads in excess of model recommended standards. It is unclear whether this is a function of poor management on the part of program managers in assigning families to home visitors, limited or unreliable referral sources, high staff turnover, participant retention issues, or a conscious decision by home visitors or program managers to limit caseloads so they can focus on resolving the many problems presented by current participants. In addition, although retention is not perfect, most families enrolling in long-term home visiting programs remain in the program for at least 12 months. Even those who drop out of the long-term programs early remain enrolled for an average of 35 weeks. One question to consider is whether IAs and funders believe that retaining at least half of those who enroll for at least a year is sufficient to achieve desired outcomes. Given that participation in these programs is voluntary, and, in many instances, model developers and implementers are seeking to extend their reach to a parent population at the highest risk for poor outcomes, the ability of programs to successfully engage, retain, and provide high dosage rates may become more challenging.

Based on the exploratory analyses of the WAI data, participants like and respect their home visitors and feel they are respected by them. However, participants often have concerns about the

types of changes they are being asked to make and how the programs are addressing and meeting their personal goals. At times, home visitors may question whether participants are willing to make the changes necessary to achieve program objectives or whether they fully understand the service goals and are committed to them. Achieving measurable change in parenting behaviors, as well as personal life choices, requires that service goals represent a level of change capable of altering a child's and parent's trajectory but realistic enough to accommodate variation in a family's current situation. Even when relationships between participants and providers are positive and respectful, finding this balance is challenging.

G. Fidelity Levels Within and Across Implementing Agencies

Greater variability exists in fidelity within models than across them: each model has outstanding and less than outstanding IA-level performers. This suggests that fidelity of implementation is only partly a function of "model factors," such as the clarity of program guidelines; the extent and quality of initial training in the model provided by the national model developers; or the recommended guidelines for supervision and ongoing performance monitoring. As a number of implementation models suggested, fidelity may be influenced by context: the organization offering the services and the quality and extent of local service networks. The one exception to this pattern was a tendency of those IAs implementing the shorter-term home visiting models to retain families for the full service period and to provide a number of home visits more consistent with the level recommended by its model. This pattern suggests that it may be easier for a family to make the personal investment needed to adhere to service guidelines and expectations when such expectations cover a shorter period.

H. Fidelity Levels Within and Across Participant Populations

Participants who identified themselves as Hispanic or indicated that their primary language was Spanish were more likely to remain enrolled in long-term home visiting programs, successfully complete short-term home visiting programs, and receive at least 80 percent of the number of home visits recommended by the model in which they were enrolled.

Our analysis suggests that families facing the greatest challenges (at least from a socioeconomic perspective) are more likely to leave the home visiting programs early. We found that:

- Enrolling during pregnancy (as opposed to birth) had no impact on retention rates but did predict the number of services participants would receive if they remained enrolled for at least 12 months.
- Younger, more economically disadvantaged, and potentially more socially isolated participants (as suggested by their single-parent status) left multiyear home visit programs early or, if enrolled in short-term programs, did not successfully complete them.
- Participants who successfully completed the two shorter-term programs (SafeCare and Triple P) had significantly fewer risk factors at enrollment than those who left these programs without completing services. This pattern primarily reflects differences between the two groups in participant age, marital status, and educational level.
- Among participants enrolled in the three longer-term programs (HFA, NFP, and PAT), there were no significant differences in the mean score on the risk index between participants who remained in services at six months and those who left services early,

suggesting that a greater number of socioeconomic risk factors was not a significant factor in retaining participants in these programs for at least six months. We observed a similar pattern when we compared the differences between "early leavers" at 12 months of enrollment and participants who remained in services for at least a year. However, although differences in the mean score on the risk index were not statistically significant, early leavers were significantly more likely to be single, and the difference in the mean risk score between the two groups approached statistical significance.

- In comparing the risk levels of participants who received at least 80 percent of the recommended number of home visits during their initial six months of enrollment to those who did not receive these service levels, those who received at least 80 percent were less likely to be single and to have had their first child as a teen and more likely to be employed. No differences were observed in the mean number of risk factors identified between the two groups, suggesting that participants with more socioeconomic risk factors were equally likely to accept home visits as participants with fewer socioeconomic risk factors.

I. Conclusions

The EBHV fidelity findings confirm that implementation with fidelity is hard work, and no model has cornered the market on how to do it. On this set of fidelity indicators, wide variation exists within and across models. The EBHV evaluation considered fidelity both as a process (investments and time devoted to training staff, enrolling targeted participants, completing visits, and retaining families) and as an outcome of the subcontractors' and IAs' system-building and infrastructure development activities. Chapter IV explores the relationship between the infrastructure activities and partnerships put in place to achieve them and fidelity as an outcome.

From the perspective of measuring fidelity, these findings underscore the importance of framing fidelity as an ongoing process rather than a static state. Although an IA may achieve fidelity in a specific domain, none of the IAs in our sample achieved the thresholds established for all the indicators. How an indicator was defined also made a difference—for example, participant enrollment duration in the program as measured using 6 months as the cutpoint was different when 12 months was the cutpoint. Understanding whether a replication site is being implemented in a manner consistent with the structure and intent of the original model requires ongoing monitoring of key structural and dynamic elements of the service delivery process. Rather than using such systems to classify an IA as being in or out of compliance, such systems might best be used to provide service providers and managers with timely feedback on performance to guide continuous program improvement.

Setting aside the issue of how to track fidelity, it is equally important to deepen our understanding of the importance of fidelity in ensuring participant outcomes. As discussed earlier, many randomized trials of service interventions involve provision of services that vary from the "recommended" service dosage or duration, operate with caseloads at odds with recommended standards, and may not deliver the program message as outlined in service protocols. When such trials demonstrate positive effects, service levels often are overlooked in explaining what families actually achieved during the trial. Similarly, most, if not all, social service programs operate with some variation in implementation levels, variation that is rarely taken into account in explaining "average" participant performance. A core underlying assumption in focusing investments on evidence-based models is that funders are provided some assurance that what is being implemented follows a service protocol that has been determined to achieve desired results through rigorous

research. Equally true is a growing realization that implementing such programs, particularly when they are voluntary and prevention focused, requires some accommodation to the characteristics of the participants being served and the communities in which participants live. For example, NFP researchers recently completed an evaluation to determine whether presenting the program schedule to families up front and explaining that they may choose to have fewer or more visits may help keep families engaged (Ingoldsby et al. 2013). In this randomized controlled trial, nurses in the treatment group were instructed to communicate flexibility in the site visit schedule to families. Only seven percent of the families requested a reduced schedule of visits, and very few requested more visits. Dosage and rates of dropping out were similar for the group that received the intervention and a no-intervention control group. It is possible that offering flexibility in the number of visits may set a positive, responsive tone for the relationship between visitors and families; however, other factors may determine whether visits are completed. Determining an acceptable level of variation and which areas are most appropriate for variation are topics that need additional research.

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IV. BUILDING INFRASTRUCTURE CAPACITY FOR FIDELITY, SCALE-UP, AND SUSTAINABILITY

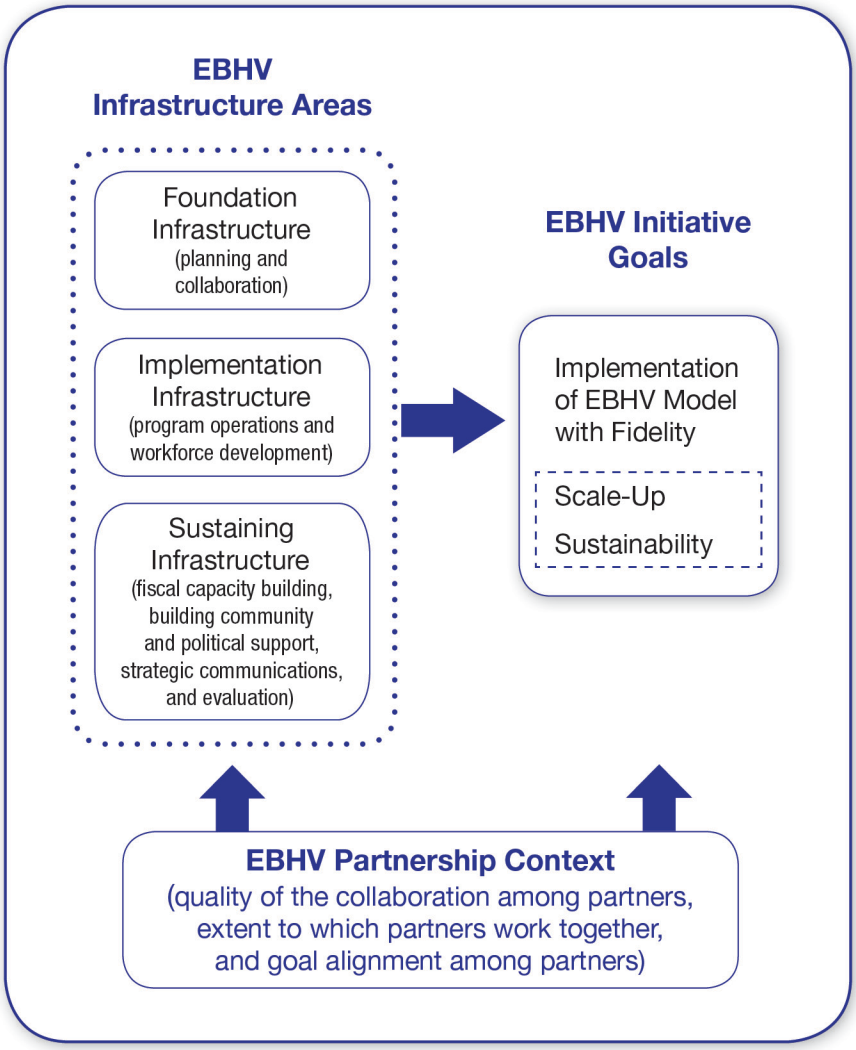
Key Findings

- As subcontractors approached the end of the EBHV funding period, patterns of infrastructure-building activity largely followed initial hypotheses formulated by the cross-site evaluation team, despite changes in context. Subcontractors focused on building implementation (program operations and workforce development) and sustaining infrastructure (fiscal capacity building, building community and political support, strategic communications, and evaluation).
- Building sustaining infrastructure was particularly important to subcontractors during the late implementation phase of the initiative and was significantly related to perceptions of whether EBHV subcontractor-specific goals were achieved.
- The quality of collaboration among partners was associated with achieving the EBHV initiative's goals of fidelity, scale-up, and sustainability. This suggests that partners felt having a good team with a purpose, strong leadership, and an appropriate process for decision making influenced the progress the EBHV subcontractors reported in achieving the initiative's goals.
- Findings of these positive associations should be interpreted with caution, however, because findings using alternative outcome measures tell a somewhat different story. Using alternative measures of the fidelity, scale-up, and sustainability outcome goals, it was not always the case that building sustaining infrastructure and having high quality collaboration were significantly related to progress in achieving them.

CB's goal for the EBHV initiative was that, through system change activities, subcontractors and their partners would build the infrastructure necessary to accomplish three overarching goals (Figure I.1). A key assumption was that, to realize the promise of their selected models and achieve the enhanced outcomes for children and families seen in rigorous studies, each subcontractor would allocate resources for developing infrastructure capacities that support implementation with fidelity to home visiting models, scale-up of the models, and planning for sustainability beyond the end of the subcontracts. As discussed in Chapter II, the cross-site evaluation team soon found that, although the subcontractors shared the overarching goals set forth by CB, each had at least some unique goals for their investments in building their infrastructure capacities. This chapter addresses the cross-cutting question of whether building the three types of infrastructure (foundation, implementation, and sustaining) influenced the degree to which the three overarching EBHV goals were achieved (as depicted in Figure IV.1).

The chapter begins with a discussion of subcontractors' infrastructure-building activities during the late implementation phase of the EBHV initiative and how these activities relate to activities conducted in earlier stages. Next, we present findings on partners' perceptions of the association between infrastructure-building efforts and outcomes. The chapter also presents findings on the relationship among partners and the degree to which the site-specific EBHV goals were realized. The chapter ends with a summary of the main conclusions that can be drawn from the analysis.

Figure IV.1. Overarching Theory of Change Guiding Cross-Cutting Analyses



A. Building Infrastructure to Support Implementation

Since 2008, the EBHV subcontractors engaged in activities designed to build the infrastructure capacity needed to achieve the project-specific long-term outcomes described in Chapter II: implementing with fidelity, scaling up their activities, and sustaining their chosen home visiting models. Capacity is defined as "the skills, motivation, knowledge, and attitudes necessary to implement innovations, which exist at the individual, organizational, and community levels" (Wandersman et al. 2006). Based on the characteristics of the EBHV initiative and the literature on system change and home visiting systems, the cross-site evaluation team divided infrastructure development into eight types of infrastructure capacity in three broad key areas (Table IV.1) (Hargreaves et al. 2013; Flaspohler et al. 2008; Coffman 2007; Emshoff et al. 2007; Hodges et al. 2007; Daro 2006; Holladay 2005). First, in the foundation area, subcontractors engaged in planning and collaboration activities to create the conditions for system changes needed to support implementation, scale-up, and sustainability of home visiting programs. Second, in the implementation area, subcontractors were supporting home visiting service delivery by building program operations and workforce development capacities. Third, in the sustaining area, subcontractors engaged in activities to ensure ongoing support for home visiting programs by

Table IV.1. Infrastructure Capacities and Examples of Activities

	Examples of Activities
Foundation Area	
Planning	Strategic planning, tactical planning, decision making
Collaboration	Leadership, alignment of goals and strategies, development of new relationships, working through existing relationships
Implementation Area	
Operations	Outreach, intake, screening, assessment, home visiting, referral services
Workforce Development	Training, coaching, supervision, technical assistance, staff recruitment and retention
Sustaining Area	
Fiscal Capacity	Fiscal partnering, planning, fundraising, researching funding sources, leveraging funding to support direct services
Community and Political Support	Building community awareness or political support for EBHV programs and policies
Communications	Communication of EBHV information, lessons learned, and research findings; policy advocacy to program partners, stakeholders, or the public
Evaluation	Data collection, storage, retrieval, and analysis for program evaluation, monitoring, or quality improvement

Sources: Hargreaves et al. 2013; Flaspohler et al. 2008; Coffman 2007.

increasing fiscal capacity, building community and political support, communicating with key stakeholders, and conducting evaluation and quality assurance monitoring.

Subcontractors worked to build infrastructure at several system levels—national, state, community, and implementing agency (IA)—to achieve the EBHV initiative's goals (Box I.1). A multilevel, ecological perspective is important for understanding the implementation of infrastructure change initiatives such as EBHV (Hargreaves and Paulsell 2009; Durlak and DuPre 2008). Moreover, implementation occurs in often overlapping and recursive stages (Metz and Bartley 2012; Fixsen et al. 2005). As depicted in the initiative's overarching theory of change (Figure I.1), the infrastructure-building strategies and activities subcontractors used occurred at all levels, including at local-level implementation. Those activities were expected to result in outputs (actual products of the activities, such as number of staff who completed the required home visiting training hours) and outcomes (for example, increased quality of the staff-parent relationship) designed to achieve initiative and subcontractor-specific goals.

Box IV.1. Summary of Findings on Infrastructure Activities at Mid-Implementation (2011)

- From 2010 to 2011, subcontractors were adapting their plans and infrastructure-building activities to several changes in context: the economic downturn, disruptions in funding, and the rollout of MIECHV. These changes in context, however, did not translate into significant changes in subcontractors' planned strategies or short- and long-term outcomes.
- Subcontractors planned to develop capacities in all three infrastructure areas and carry out all eight types of infrastructure-building activities. Overall, infrastructure-building plans and activities did not differ by the home visiting model subcontractors selected to implement.
- Changes in context influenced the order in which infrastructure-building activities were carried out. Due to the rollout of MIECHV and the economic downturn, subcontractors engaged in a new round of planning activities midway through the initiative, and they accelerated activities in the sustaining area to stabilize their funding for implementation.

Source:Paulsell et al. 2012

Early in the evaluation, the cross-site evaluation team hypothesized that subcontractors might build infrastructure in a sequential order, first building infrastructure in the foundation area during the initial planning year, then moving on to the implementing area after program operations got under way. Indeed, during the planning and early implementation period, subcontractors focused much of their activity in the foundation area, planning many dimensions of the EBHV initiative (such as program implementation, staff recruitment and training, referral systems, technical assistance, model certification, and continuous improvement systems) and developing collaborative relationships with many external partners at local and state levels (Table IV.2).

Table IV.2. Summary of EBHV Infrastructure-Building Activities in Early and Mid-Implementation

	Early Implementation (Years 1–2; 2009–2010)	Mid-Implementation (Year 3; 2011)
Foundation	Subcontractors did extensive planning with partners. Subcontractors implementing home visiting programs for the first time selected models, contracted with IAs, and developed community partnerships. Subcontractors supporting ongoing models planned training, created central intake systems, and planned data management systems. Subcontractors also formed community- and state-level partnerships with service providers to coordinate services.	Planning activities decreased substantially, except for those related to MIECHV: 11 subcontractors reported direct involvement in planning for MIECHV in their states, and 5 led the process. A few subcontractors reported planning to make adjustments to existing plans based on lessons learned from early implementation. Collaboration activities also focused on maintaining relationships with MIECHV lead agencies, as well as on increasing collaboration with other home visiting programs in their states.
Implementing	Subcontractors created steering committees to oversee program operations, developed referral networks, and helped IAs apply for certification from model purveyors. Most subcontractors created processes for monitoring fidelity, hiring, and training home visitors.	Program operations were fully under way: subcontractors reported recruiting and enrolling families, conducting outreach to referral sources, holding family involvement events, and monitoring IA performance. Subcontractors were also engaged in providing core and supplemental training, supervision, coaching, hiring, and identifying training needs.
Sustaining	Subcontractors developed sustainability plans, leveraged state and local financial support, and disseminated program information. They communicated with state agencies, legislators, and other state officials to build support for home visiting. They also engaged local evaluators, and some began collecting program data.	Nine subcontractors applied for or received MIECHV funds. Others applied for state or county funds or explored Medicaid as a potential funding source. Many subcontractors also sought to educate state and local stakeholders about home visiting, made presentations on EBHV, and placed articles in local press or newsletters. All subcontractors engaged in cross-site and local evaluation activities, and many planned or used systems to collect program data for continuous improvement.

Sources: Del Grosso et al. 2011; Paulsell et al. 2012.

Note: This analysis was based on author coding of qualitative interview data and semi-annual subcontractor reports and reflects the number of subcontractors undertaking each type of activity at the early and mid-implementation phases.

EBHV = Evidence-Based Home Visiting initiative; MIECHV = Maternal, Infant, and Early Childhood Home Visiting Program; IA = implementing agency.

Many of these planning and partnership-building activities had ended by year 3 of the evaluation, the midpoint of the EBHV initiative, except for planning activities related to MIECHV. After the MIECHV initiative was established in 2010, most subcontractors initiated new activities in

the foundation area, engaging in needs assessment and planning functions required by HRSA to secure MIECHV funding for their states and communities. They also took steps to integrate EBHV and MIECHV activities and strengthen collaboration and coordination among home visiting programs operating in their states. An interim analysis of subcontractor logic models and subcontractor progress reports during the mid-implementation period revealed that subcontractors adapted their activities to several changes in context, but did not change their targeted short- and long-term outcomes (Box IV.1; Paulsell et al. 2012).

During site visits in 2012 (year 4 of the initiative), the cross-site evaluation team reviewed subcontractors' logic models with them to identify infrastructure-building activities that were completed, ongoing, deferred, or eliminated, as well as any new activities under way that had not been identified in 2011. For each ongoing activity, subcontractors estimated the level of effort on a scale ranging from 1 to 4: (1) none or slight, (2) low, (3) moderate, or (4) a lot of effort. (The scale was designed to assess variation in subcontractors' levels of effort on different activities based on their own perception; strict definitions for each category were not given to the site visit informants). Based on these data, we describe infrastructure-building activities in year 4 of the EBHV initiative. Activities are reported for two groups of subcontractors: (1) those building infrastructure primarily at the state level, and (2) those building infrastructure at the local level (see Appendix A). Boxes IV.2–6 in this chapter highlight examples of the activities conducted by specific EBHV subcontractors.

1. Building Foundation Infrastructure in Year 4

By year 4 of the initiative, subcontractors reported expending less effort on foundation-related activities than on implementation and sustaining activities (Table IV.3). During the planning and early implementation period of the initiative, subcontractors focused on the foundation area to lay the groundwork for the implementation of evidence-based home visiting programs. Toward the end of the EBHV initiative, subcontractors had completed most of their planning activities and reported relatively less ongoing needs assessment and planning activity directly related to MIECHV. Although several subcontractors engaged in collaborative activities, these activities focused on maintaining existing partnerships.

Planning. By year 4, activity involving planning for EBHV had decreased substantially as compared to early and mid-implementation. Only 7 of the 17 subcontractors reported ongoing planning activities in year 4 (Table IV.3).[1] Four subcontractors reported planning for scale-up: two were targeting home visiting resources to new areas of high need, and one was preparing to implement a new home visiting program model. One subcontractor reported working to align state and community home visiting plans to provide a continuum of services that could serve the needs of different clients. Two others reported undertaking planning activities related to the final stages of the project: one was developing sustainability plans, and one was developing advocacy and communication plans. However, both subcontractors said they were expending less effort on these activities than on other project activities.

[1] Because the same subcontractors may have reported working on more than one infrastructure activity in a given area, the evaluation team coded a subcontractor as working on an activity if it did any one of a set of self-identified activities.

Table IV.3. Subcontractors Infrastructure Building in Year 4, by Subcontractor Level and Effort Invested

	State-Level Subcontractors (N = 10)	Local-Level Subcontractors (N = 7)	All Subcontractors (N = 17)	Average Level of Effort Across All Subcontractors (standard deviation)
Foundation				
Planning	5	2	7	1.4 (1.77)
Collaboration	6	4	10	1.8 (1.58)
Total Foundation	**7**	**5**	**12**	
Implementation				
Operations	9	7	16	3.5 (0.59)
Workforce	5	5	10	2.2 (1.93)
Total Implementation	**9**	**7**	**16**	
Sustaining				
Fiscal	5	5	10	2.1 (1.88)
Community and Political Support	4	3	7	1.2 (1.60)
Communication	5	3	8	1.6 (1.77)
Evaluation	10	7	17	3.3 (0.79)
Total Sustaining	**10**	**7**	**17**	

Source: Site visit interviews in 2012.

Note: The table describes activities implemented in year 4 of the EBHV initiative. Therefore, it does not show activities that were completed, deferred, or planned. The infrastructure-building activity categories are not mutually exclusive (meaning they do not add down to the total number of subcontractors).For example, 5 of the 10 state-level subcontractors reported working on planning, 6 reported working on collaboration and some did both for a total of 7 working in the foundation area. During site visits in 2012, the cross-site evaluation team reviewed logic models with the subcontractors to identify infrastructure-building activities that were completed, ongoing, deferred, or eliminated, as well as any new activities under way that had not been identified in 2011. For each ongoing activity, subcontractors estimated the level of effort as none or slight (1), low (2), moderate (3), or a lot (4) of effort. Two effort scores are included, the first is the average effort across all subcontractors (including those who did not report effort in that area) and the second is the effort across the subset of subcontractors that reported at least a low level of effort in that area (score of 2 or above).

Nine subcontractors reported no ongoing planning activities after mid-2011, and one additional subcontractor had deferred plans to select a special population to target for home visiting activities (not shown). Of the seven that reported no ongoing planning activities, four reported planning activities they intended to carry out but had not yet begun: one intended to plan for further expansion of an existing site, one intended to plan for expansion based on a forthcoming community needs assessment, one intended to improve services for fathers, and one intended to create a communications plan.[2]

Collaboration. Ten subcontractors reported engaging in collaboration activities, primarily continuing to participate in collaborative relationships established during early phases of the EBHV

[2] These activity categories are not mutually exclusive. In this case, one subcontractor reported two of the coded activity categories.

initiative (Table IV.3). For example, seven subcontractors reported collaborating with other home visiting programs in their state or community. These collaborations typically involved working together to refer families to the home visiting program that would best meet their needs or to promote home visiting in the community. Three reported participating in state-level coalitions related to home visiting, early childhood, or social services. Six reported participating in community-level coalitions.

Seven subcontractors reported no ongoing collaboration activities after mid-2011. One subcontractor, operating primarily at the state level, reported plans to support IAs in building local collaboration and partnerships; as of spring 2012, however, this activity had not begun.

Box IV.2. Driving Local Collaboration to Promote Positive Child Development

In January 2009, Le Bonheur Community Health and Well-Being in Tennessee, an EBHV subcontractor that worked primarily at the local level, launched a small community collaborative that focused on expanding evidence-based home visiting programs to prevent and reduce child maltreatment in the community. Through strategic planning and targeted outreach to partners, the coalition grew to more than 65 members representing public agencies and officials, health and social service organizations, foundations, and the business sector. The coalition also strategically broadened its target population to include families with children ages 0 to 8 and, as of spring 2012, continued to actively work to promote evidence-based programs and practices in the community.

2. Building Implementation Infrastructure in Year 4

Subcontractors engaged in activities to build implementation infrastructure throughout the evaluation period. During the planning year and early implementation period, subcontractors created steering committees to oversee implementation, obtained certification from model purveyors, created processes for monitoring fidelity to the home visiting models they selected, and hired and trained staff. By the mid-implementation period, program operations were fully under way; IAs were engaged in recruiting, enrolling, and serving families, as well as in providing training and ongoing support to home visitors. In year 4, all subcontractors reported continuing to engage in activities in the implementation area.

Operations activities. Almost all subcontractors reported at least one operations activity underway in year 4. Subcontractors reported expending a lot of effort on activities that focused on improving aspects of service delivery and addressing challenges (Table IV.3). Subcontractors focused on using data and supervision activities to monitor fidelity, refining triaging procedures to ensure families received appropriate services, lowering program attrition by focusing on retention of families, and establishing wraparound services for families. In addition, subcontractors continued to engage in ongoing operational activities such as recruiting families, holding steering committee meetings, and managing program operations. Eight subcontractors, primarily those building infrastructure at the state level, reported consulting with model purveyors for guidance on implementation of their evidence-based model.

Three subcontractors also reported on operations activities or capacity building they planned to carry out but had not yet begun. All these activities were intended to enhance program operations: developing a service enhancement to help families cope with stress, improving father engagement in home visiting, and establishing a shared client-tracking system to improve service coordination across agencies.

Box IV.3. Developing Local Central Intake Systems to Meet Family Needs

Throughout the five-year EBHV initiative, the New Jersey Department of Children and Families, a state-level subcontractor, worked with local providers to promote local system building and collaboration between home visiting models. The primary product of this work was the development of county-level central intake systems in three areas of the state. The central intake systems were designed to streamline the referral process for home visiting agencies, referral partners, and families. Referral partners use a uniform screening and referral form that is entered into the central intake system. Families are then referred to a home visiting program based on the match between their needs and characteristics and the characteristics of the evidence-based models operating in the community. As of the spring 2012 site visit, the subcontractor expressed commitment to extending local central intake systems to other counties in the state.

Workforce development activities. Ten subcontractors were engaged in workforce activities in year 4 (Table IV.3). Subcontractors building infrastructure at the state level focused on supporting IAs in training home visitors and in providing supplemental training beyond that provided by model purveyors. For example, two state-level subcontractors provided technical assistance (such as guidance on program implementation and assistance with data and reporting) to IAs. Two subcontractors provided grants to cover training expenses for supplemental or preservice training that the evidence-based models required. One subcontractor provided infant mental health consultation for IAs. Four subcontractors (three state-level and one local-level) provided supplemental training for home visitors to meet ongoing training requirements or build staff capacity to work with families. Training topics included domestic violence, substance abuse, mental health, reflective practice, and violence prevention, as well as training on the Happiest Baby on the Block intervention. One subcontractor had planned to coordinate with other state agencies on developing reflective practice expertise in the state but deferred that activity to consolidate resources. Five others reported completing all planned workforce activities before the site visit.

Box IV.4. Facilitating Professional Development Opportunities for Home Visitors and Supervisors

Beginning in 2008, the Minnesota Department of Health, a state-level subcontractor, began to develop and implement a comprehensive statewide program of professional development for home visitors and home visitor supervisors. A team of subcontractor staff delivered training to home visitors and supervisors across the state to supplement the training delivered by model purveyors on topics such as reflective practice, reflective supervision, motivational interviewing, children's socioemotional development, and infant mental health. The subcontractor also provided mini-grants to local sites to alleviate the cost of attending training required by evidence-based home visiting models.

3. Building Sustaining Infrastructure in Year 4 (2012)

The cross-site evaluation team hypothesized that subcontractors would be putting the most effort into sustaining activities in the later phases of the EBHV initiative, as subcontractors sought to sustain the projects they had developed. The team predicted that subcontractors might also be preparing to disseminate local evaluation results to sustain and increase support for the home visiting programs at local and state levels. In 2011, many subcontractors accelerated their activities in this area as they sought to address the disruption in EBHV funding and loss of state and local funds due to the economic downturn. At the same time, many sought state MIECHV funds to stabilize, and, in some cases, scale up home visiting services. By year 4, except for evaluation activities, sustaining activity was not as high as in the mid-implementation period. These activities might have been at a lower level of effort because subcontractors had already completed many activities necessary for obtaining new sources of funding and building community and political support for the EBHV initiative.

Fiscal activities. In year 4, 10 subcontractors reported engaging in fiscal activities (Table IV.3). In contrast to year 3, when nine subcontractors reported applying for MIECHV funds, in year 4, only two reported doing so, perhaps because states had already allocated the initial round of MIECHV funding. Overall, subcontractors reported activities designed to obtain federal, state, local, and private funds to sustain their EBHV projects, such as seeking funding from local foundations or public agencies and seeking funding from the state legislature or state agencies. Three also reported developing sustainability plans.

Seven subcontractors reported no ongoing fiscal activity. All these subcontractors reported applying for MIECHV funds in year 3, so they may not have needed to identify additional funding sources to sustain their home visiting services. Two subcontractors reported deferring activities to seek Medicaid reimbursement for home visiting services, and two others deferred plans to seek other sources of alternative funding. Three others were planning to create sustainability plans and identify additional funding sources; however, as of early 2012, these activities had not yet begun.

Community and political support activities. Seven subcontractors reported engaging in activities to build community and political support (Table IV.3). These included educating the local community about home visiting, engaging with state legislators and county policymakers, and developing advocacy plans. One subcontractor reported deferring a plan to hold a state home visiting conference. Three reported planning activities to engage with local- and state-level stakeholders, but these had not yet begun.

Communication activities. Eight subcontractors reported engaging in communication activities in year 4 (Table IV.3). Subcontractors were planning conference presentations, developing and disseminating materials about the home visiting programs and local evaluation findings, and creating communication plans for disseminating information on the home visiting programs in the community through billboards, electronic newsletters, and printed materials. Two subcontractors reported testifying, or preparing to testify, before the state legislature about the home visiting models they implemented, and one reported disseminating findings from a local evaluation.

Three subcontractors reported planned communication activities that had not yet begun. These included disseminating local evaluation findings, disseminating local needs assessment results, and broadcasting on a public access channel about the availability of home visiting services.

Box IV.5. Implementing a Community Outreach Campaign to Recruit Families

Using information from focus groups conducted with families, DePelchin Children's Center in Texas, a subcontractor that worked primarily at the local level, created a community outreach media campaign that targeted eligible families. Families reported that framing the program as a means of parenting support reduced parents' hesitancy to participate. The subcontractor hired a local advertising agency to help it develop flyers, brochures, and advertisements that could be placed on school buses and posters. During site visit interviews in 2012, the subcontractor and its community partners reported that the campaign had resulted in an increase in self-referrals and referrals from partner agencies and had been received positively by the community.

Evaluation activities. Compared to other types of sustaining activities, the level of evaluation activity was high in year 4. All subcontractors reported engaging in at least one ongoing evaluation activity. All subcontractors reported engaging in cross-site evaluation activities; nine were engaged in local evaluation activities.

Many subcontractors also reported activities related to using data for continuous quality improvement. For example, two reported developing a statewide data system for home visiting programs, three reported using a model purveyor's management information system to report program data, three reported developing quality improvement systems, and two reported collecting data on program fidelity and quality. These activities helped some state-level subcontractors develop or manage their MIECHV data system.

One subcontractor reported deferring activity on its local evaluation, and another reported that it no longer planned to provide technical assistance to IAs on how to use program data.

Box IV.6. Creating a State Database for Continuous Quality Improvement

The Utah Department of Health, a state-level subcontractor, developed a web-based system designed to collect key data elements on fidelity and program quality across home visiting models from local IAs. Beginning in late 2009, the subcontractor worked with private firms to create a system that could be used by home visitors for case management, program administrators for program management, and state staff and funders for monitoring and evaluation. The subcontractor developed the database using an inclusive, participatory, and collaborative process and sought to make the database easy to use for staff with limited technical capacity. Three IAs received access to the system during summer 2010, and the subcontractor experienced problems getting local staff to enter data consistently and accurately. During spring 2012 site visits, the subcontractor reported that many of these initial problems were resolved through training and technical assistance. The subcontractor was planning to extend the use of the database to other IAs and add data elements relevant to MIECHV.

4. Patterns of Infrastructure Development Across Phases of Implementation

Consistent with findings from mid-implementation, in year 4, subcontractors did not make significant changes to their planned strategies, targeted short-term results, and targeted long-term outcomes (Paulsell et al. 2012). Most subcontractors also continued to engage in building infrastructure in all three infrastructure areas: foundation, implementing, and sustaining. In addition, to analyzing how many subcontractors reported activities in each infrastructure areas, in year 4 (2021), we also asked subcontractors to rate their level of effort on activities (using a scale ranging from 1 to 4, where 1 was none or slight effort, 2 was low effort, 3 was moderate, and 4 was a lot of effort). Subcontractors rated their levels of effort highest in the implementing and sustaining areas (see Table IV.3). They reported spending moderate to a lot of effort on operations (3.5) and low to moderate effort on workforce development (2.2). In the sustaining area, efforts were mostly focused on building fiscal capacity (2.1; moderate effort) and evaluation activities (3.3; moderate to a lot of effort). Comparatively, subcontractors reported spending low to moderate effort on planning and collaboration (1.4 and 1.8, respectively).

By year 4, patterns of infrastructure-building activity largely followed initial hypotheses formulated by the cross-site evaluation team, despite midpoint deviations in response to changes in context (Box IV.1; Tables IV.2 and IV.3). Most subcontractors conducted foundation activities in the planning and early implementation phase, more subcontractors than expected reported conducting these activities at mid-implementation due to the introduction of MIECHV, and fewer subcontractors conducted activities in this area in the late implementation phase. Implementing activity was commonly reported by subcontractors in the planning and early implementation phase, very prevalent at mid-implementation, and again commonly reported in the late implementation phase. Few subcontractors conducted activities in the sustaining area in the planning and early implementation phase, more subcontractors than expected at mid-implementation due to disruptions in funding and MIECHV, and most subcontractors reported activities in this area by the late implementation phase. One exception is evaluation activity, which was high in year 4.

An important lesson for stakeholders working to build state and local systems to support evidence-based home visiting is the need for flexibility in how and when planned infrastructure-building activities are implemented. These findings on infrastructure building to support EBHV are broadly consistent with existing research on the stages in which implementation occurs (Crowley et al. 2012; Metz and Bartley 2012; Fixsen et al. 2005). Moreover, both frameworks—the infrastructure-building areas described in Table IV.2 and Fixsen et al.'s stages of implementation—reinforce the notion that the steps in these change processes are overlapping and recursive, regardless of the system level at which they occur.

B. The Role of Infrastructure Building and Partnerships in Achieving EBHV Goals

Increasingly, the federal government and private philanthropies view partnerships as a mechanism for system change and fund grantees to conduct the collaboration and coordination required to create and maintain partnerships among stakeholders. The EBHV evaluation provides an opportunity to learn more about this strategy. As Figure I.1 shows, CB's goal for the EBHV initiative from the start was that subcontractors and their partners would build the infrastructure necessary to accomplish three overarching goals. First, subcontractors and their partners would support implementation with fidelity to the home visiting program models. Second, they would support scale-up of their selected home visiting models: replicating the program model in a new service area, adapting the model for a new target population, or increasing the enrollment capacity in an existing service area. Third, they would support sustainability of the home visiting model beyond the end of the funding period. A key assumption was that, to realize the promise of their selected models and achieve the enhanced outcomes for children and families seen in rigorous studies, each subcontractor would participate in infrastructure-building activities to support fidelity, implementing, and sustainability infrastructure goals.

The cross-site evaluation team soon found that, although the subcontractors shared the overarching goals set forth by CB, each had at least some unique goals for their investments in building their infrastructure capacities. Next, we assess how building infrastructure and achieving subcontractor-specific goals are related to implementation with fidelity, scale-up, and sustainability. Specifically, this chapter addresses two research questions:

1. To what degree did building foundation, implementation, and sustaining infrastructure capacity influence the extent to which the EBHV subcontractors achieved their specific EBHV goals related to implementation with fidelity, scale-up, and sustainability?
2. To what degree was progress in achieving these goals influenced by the quality of the collaboration among partners, the extent to which partners worked together, and the degree to which partners' respective goals were in alignment?

To address these questions, we used survey data collected from the EBHV subcontractors and representatives from partner organizations to assess respondents' perceptions of the progress each subcontractor made toward meeting its goals.[3] As depicted in Figure IV.1, our analyses examine whether building three types of infrastructure (foundation, implementation, and sustaining)

[3] As described in Appendix A, these data were collected through a web-based partner survey conducted in early 2013.

influences the degree to which the three broad EBHV goals are achieved. Figure IV.1 also depicts the partnership context (collaboration quality, partnership networks) that subcontractors developed with their partners as a key input into achievement of progress in the three infrastructure areas and in reaching the initiatives' goals.

The rest of this section reviews the data sources and analytic approaches, and presents findings on the relationship among partners and the degree to which the site-specific EBHV goals were realized.

1. Data Sources and Analytic Approach

To answer the research questions, we used a variety of data sources to triangulate the findings. Our approach was informed by an analysis of survey data collected from the 17 subcontractors and their key partners. In Box IV.7, we describe each of the data sources and our resulting analytic constructs. Appendix A contains more detail on the survey and the measures.

We focus on the survey responses of perceived progress as the outcome for two key reasons: (1) because each subcontractor had different priorities and goals, it was most fair to assess each subcontractor on progress in achieving their own goals, rather than holding all subcontractors to a common barometer of progress; and (2) we have common units of analysis for the predictor variables (the left-hand side and the bottom of Figure IV.1) and the outcome variables (the right-hand side of Figure IV.1).

To examine the influence of infrastructure activity and partnership context as factors that influence the degree to which implementation fidelity, scale-up and sustainability goals are reached, we used hierarchical linear modeling (HLM) (Raudenbush and Bryk 2002). Using HLM, we analyzed the degree of progress toward achieving goals (this method allows for appropriately recognizing the clustering of respondent organizations within each subcontractor's partnership). These analyses assessed the differences in the levels of perceived progress in achieving goals across the subcontractors' partnerships, as well as differences in the levels of perceived progress among organizations in a given partnership. (Appendix A provides additional technical details on the HLM analyses.)

We estimated the HLM models by separately regressing each of the outcomes of interest (progress in achieving goals on implementation with fidelity, scale-up, and sustainability) on the key predictors identified in the research questions—specifically, the areas of infrastructure that were developed and the collaborative context of the partnership.

We supplemented these analyses by creating a second set of outcome measures from site visit data and fidelity data to assess the robustness of the subcontractor and partner-reported perceptions of progress toward the three overarching goals. The data used for these analyses have some limitations: (1) all subcontractors were held accountable to the same barometer of progress, which might not be a fair lens for subcontractors with a very specific focus (for example, only a subset of contractors had a goal of implementing EBHV in additional sites or geographic areas); and (2) there are different units of analysis for two of the three secondary outcome measures (implementation with fidelity and scale-up). The aim of repeating the analyses was to provide another lens into factors that influence achievement of the EBHV outcomes and to inform conclusions about whether partner reports on the progress subcontractors made are corroborated by other, possibly more objective, measures of progress. Appendix A describes the measures and analyses we used to test the robustness of the subcontractor- and partner-reported findings.

Box IV.7. Data Sources, Data Collection Approach, Predictors, and Outcomes

The 2013 web-based Partner Survey was administered from January 3 through February 28, 2013, to subcontractors and the partners they nominated to participate (see Boller et al. 2013 for the survey). The subcontractors, as the lead EBHV organizations in their communities/states, served as the points of contact for developing the sampling frame. We used key partner lists developed in spring 2012 during site visits to each subcontractor as initial lists of potential partners to participate in the survey. We worked with each subcontractor to review and update these lists, identifying up to 35 potential partner organizations per subcontractor. Ultimately, each of the 17 subcontractors submitted the lists of partners to Mathematica, and we then invited these partners to complete the survey. Across subcontractors, we sent the survey to 322 respondents, with the number of respondents per subcontractor ranging from 8 to 32. We received 242 completed surveys (for a response rate of 75 percent), with subcontractor-specific response rates from 53 to 100 percent. Eleven out of 17 subcontractors had at least a 75 percent response rate. (Data were obtained from 260 respondents; however, 18 surveys were incomplete.)

The survey asked subcontractors and their partners for information on three broad categories: (1) their progress building infrastructure (the left side of Figure IV.1), (2) the collaborative context of the partnership (the bottom of Figure IV.1), and (3) actual progress achieving EBHV goals (the right side of Figure IV.1). Each of these sections of the survey contained multiple items and/or survey scales, and are described in detail below. The key predictor and outcome measures used in the analyses include:

1. **Infrastructure building (predictors**). The survey contained questions on the degree to which respondents were involved in building infrastructure. The eight infrastructure activity items were reduced to the three broad categories presented in Table IV.1, and the resulting scale scores for the three infrastructure categories served as predictor variables in our analyses:

    - **Foundation infrastructure** activity was calculated as the average level of respondent involvement in planning and collaboration activities. (Coefficient alpha, a measure of internal consistency reliability of the scale score, met the commonly used standard of 0.70 with an alpha of 0.77.)
    - **Implementation infrastructure** was defined as the average respondent involvement in operations and workforce (alpha of 0.73).
    - **Sustaining infrastructure** was defined as the average respondent level of involvement in funding, community/political support, communication, and evaluation (alpha of 0.85).

2. **Partnership context (predictors**). The survey captured information on how partners worked together and interacted with each other. Three key constructs were used to describe the collaborative context of the partnership: (1) the quality of the collaboration among the partners (assessed using the instrument "Working Together: A Profile of Collaboration" [Chrislip and Larson 1994]), (2) the degree of collaboration between partners (collaboration density), and (3) the degree to which partners perceived that they shared common goals for the EBHV projects (goal density). The resulting scores from each of these constructs served as predictor variables in our analyses.

    - **The quality of the collaboration** was defined as the average of individual responses on the Working Together Survey collaboration quality scale (coefficient alpha of 0.95, across 21 questions). The survey contained statements about the purpose of the collaborative effort, the appropriateness of the members participating in the collaborative effort, the credibility of the process used to make decisions, and other aspects of the ways in which the subcontractors and partners worked together, and respondents could indicate the degree to which they agreed with each statement. Therefore, higher scores on the collaboration quality scale indicated greater agreement that there was a strong purpose for the collaboration, the right collaborators were working together, and the process was appropriate and credible.
    - The **collaboration density** was obtained using network data from the survey. Each respondent in the partnership provided information on the degree to which they worked with each of the other organizations in the partnership. These responses are called network data because each respondent in the partnership provided information on the other members of the partnership, which defines the "network" of connections and relationships among the members of the partnership. To assess the degree to which partners collaborated, we calculated the density of each network. The density of a network is an indication of the proportion of connections among partners that are observed, relative to the total number of possible connections (for example, density scores range from 0 to 1, with scores close to 0 indicating few relationships, and scores close to 1 indicating that most partners are connected in a given network). The density of the network is a partnership-level variable, meaning it only varies across each of the 17 partnerships, and all members within a partnership have the same score for the partnership density variable.

Box IV.7.(*continued*)

- The **goal density** among partners was also assessed using network data. Respondents provided information on whether they felt that other organizations in the partnership shared their organization's goals for the EBHV project. As for the collaboration density measure described above, we calculated the density of the network with respect to the extent to which members of a partnership shared goals with each other. This yielded a partnership-level goal density variable.

3. **Actual progress achieving EBHV goals (outcomes).** Respondents were asked to rate the degree to which each of the subcontractor-specific goals around **implementation with fidelity**, **scale-up**, and **sustainability** were achieved. Respondents rated each goal on a five-point scale indicating whether the subcontractor had made no progress (1) , limited progress (2), moderate progress (3), substantial progress (4), or if the goal had been fully achieved (5). For analysis, we averaged respondent ratings of progress in each of the goal areas in a given category into a single indicator of progress yielding one summary score per subcontractor for each of the three EBHV goals: progress toward implementation with fidelity goals, progress toward scale-up goals, and progress toward sustainability goals. For example, if a subcontractor had two goals related to implementation with fidelity, then the constructed variable, progress toward implementation with fidelity goals, was calculated as the average of the partners' rating of those two goals. We calculated partnership-specific reliability coefficients for each of the three EBHV goals, and the average reliability coefficients for fidelity of implementation, scale-up, and sustainability scores across the 17 sites had coefficient alphas higher than 0.70 (coefficient alphas were 0.74, 0.74, and 0.76, respectively). The three resulting goal progress scores served as outcomes in our analyses.

2. Infrastructure Building

To understand how partnerships may contribute to system change and infrastructure building (the left side of Figure IV.1), we assessed the degree of involvement of the subcontractors and the organizations they partnered with in building infrastructure. Survey respondents indicated whether, for each of the eight infrastructure-building activities, they were not involved at all (1), slightly involved (2), somewhat involved (3), very involved (4), or highly involved (5). As described in Box IV.7, we then computed the average of the individual responses for the items that made up a given category of infrastructure as the measure of involvement in a given area of infrastructure activity.

Partners indicated that they were most involved in building foundation infrastructure (average of 3.30, suggesting that they were between "somewhat involved" and "very involved" in this infrastructure area; Table IV.4). Scores were similar for infrastructure development in the implementation and sustaining areas (average of 2.92 and 2.99, respectively, suggesting that respondents were "somewhat involved" in these areas).

Table IV.4. Involvement of the EBHV Subcontractors and Their Partners in Infrastructure-Building Activities

	Mean	Standard Deviation	Number of Observations
Foundation Infrastructure (range = 1 to 5)	3.30	1.25	246
Implementation Infrastructure (range = 1 to 5)	2.92	1.43	246
Sustaining Infrastructure (range = 1 to 5)	2.99	1.18	248

Source: EBHV Partner Survey 2013.

Note: Survey respondents indicated whether, for each of the eight infrastructure-building activities, they were not involved at all (1), slightly involved (2), somewhat involved (3), very involved (4), or highly involved (5). The item scores were averaged to create the three specific infrastructure scales.

Across subcontractors, members of the EBHV partnership reported the greatest progress was made toward implementing home visiting programs with fidelity. The average score was 3.63 out of 5, which coincides with a scale rating between moderate and substantial progress (Table IV.5).

Respondents rated the partnerships as making moderate progress on achieving their scale-up and sustainability goals (average scores were 3.25 and 3.19, respectively).

Table IV.5. EBHV Subcontractor Progress Toward Goals (Outcome Measures)

	Mean (or proportion)	Standard Deviation	Number of Observations
Implementation with Fidelity (range = 1 to 5)	3.63	0.88	212
Scale-Up (range = 1 to 5)	3.25	0.91	181
Sustainability (range = 1 to 5)	3.19	0.88	191

Source: Data collected from the EBHV Partner Survey 2013 and from the EBHV Fidelity Database and NFP Efforts to Outcomes System from October 2009 through June 2012.

Note: Respondents rated each subcontractor-specific goal on a five-point scale indicating whether the subcontractor had made no progress (1), limited progress (2), moderate progress (3), substantial progress (4), or if the goal had been fully achieved (5).

3. Contextual Factors of the Partnerships

Collaborative context can play a critical role in the degree to which organizations in a partnership can develop infrastructure to achieve their goals (Hargreaves et al. 2013). To understand the contextual influences on the partnerships formed by the EBHV subcontractors (the bottom of Figure IV.1), we measured the quality of collaboration among partners, the degree to which partners worked with each other, and the extent to which partners felt that their peers shared their goals for the EBHV initiative. On average, respondents rated the quality of the collaboration as high (average score of 3.16 on a 4-point scale; Table IV.6), and the network findings suggest a similar story. On average, about 51 percent of all possible collaborative relationships among partners were observed (collaboration density) and about 55 percent of respondents felt that their partners shared their goals for the EBHV initiative (goal density).

Table IV.6. Contextual Factors of the Partnerships Formed by the EBHV Subcontractors

	Mean	Standard Deviation	Number of Observations
Collaboration Quality (range = 1 to 4)	3.16	0.44	241
Collaboration Density (range = 0 to 1)	0.51	0.16	260
Goal Density (range = 0 to 1)	0.55	0.17	260

Source: Data collected from the EBHV Partner Survey 2013.

Notes: The collaboration quality score is based on survey respondents ratings of 21 items adapted from the "Working Together: A Profile of Collaboration" measure (Chrislip and Larson 1994).

Scores for collaboration density and goal density are based on network questions, where each respondent rated whether they worked with each of the other organizations in the partnership and the extent to which each of the other organizations in the partnership shared their goals.

4. Infrastructure Building and Contextual Factor Influences on Progress Toward Goals

Next, we examine how infrastructure-building activities and partnership contextual factors are associated with the progress subcontractors and their partners reported making toward reaching the three EBHV goals.

In preparation for the analyses that measure the relationships among the predictors and outcomes, we assessed the correlation among the measures described in the previous sections. Specifically, we assessed the correlations among the predictor variables in the inferential analysis (involvement building infrastructure on the left-hand side of Figure IV.1 and the collaboration

context variables on the bottom of Figure IV.1). When individual predictor variables were highly correlated, we removed the collinear terms to improve the interpretation of the analytic model (and present alternate specifications of the analytic model that include the previously deleted terms as results in Appendix A).

The correlational analysis identified two sets of highly correlated predictor variables. Building implementation infrastructure and building sustaining infrastructure were highly correlated ($r = 0.65$, $p < 0.01$). The sustaining infrastructure variable was more highly correlated with the goal outcomes, so for the benchmark analysis, we only included sustaining infrastructure as a predictor variable, and eschewed implementation infrastructure to minimize collinearity. Similarly, there was a strong correlation between collaboration density and goal density ($r = 0.65$, $p < 0.01$). Due to the theoretical importance of the goal density variable (Hargreaves et al. 2013), we only included this variable in the analysis, and eschewed collaboration density to again minimize collinearity in the analysis. In Appendix A, additional inferential analyses are presented where both implementation infrastructure and collaboration density are included as predictor variables, and additional details about the correlational analyses are presented. However, for the primary analysis based on partner reports, the key predictors of interest were the roles of foundation infrastructure, sustaining infrastructure, collaboration quality, and goal density as influencing progress achieving the three EBHV goals.

Infrastructure findings for partner-reported outcome measures. Developing sustaining infrastructure appears to be influential in subcontractor and partner perceptions of progress in achieving the three broad goals of the EBHV initiative. Partnerships that were relatively more involved in building infrastructure around funding, community support, communication, and evaluation reported relatively more progress achieving their EBHV goals. Building sustaining infrastructure is a statistically significant predictor of progress in achieving goals related to implementation with fidelity and scale-up (Table IV.7). In addition, there is a marginally statistically significant relationship between developing sustaining infrastructure and progress in achieving sustainability goals. On the other hand, foundational infrastructure does not appear to be significantly associated with progress in achieving the EBHV goals. That is, partnerships that focused on planning and collaboration were not necessarily those that reported progress achieving their goals.

Context and collaboration findings. In answering the question of whether progress in achieving goals was influenced by the context of the partnership—in particular, how partners worked together and collaborated among each other—we found that respondents' perceptions of the quality of collaboration was significantly related to progress achieving implementation with fidelity, scale-up, and sustainability (see Table IV.7). This suggests that partners felt having a good team with a purpose, strong leadership, and an appropriate process for decision making influenced the progress the EBHV subcontractors reported in achieving the initiative's goals. We did not find a relationship between alignment of goals (as defined through the goal density statistic) and survey respondents' reports of progress in any of the three EBHV goal areas.

Table IV.7. Influence of Infrastructure-Building Activities and Partnership Contextual Factors on Progress Toward Goals

	Implementation with Fidelity Goals (n = 212 across 17 partnerships)	Scale-Up Goals (n = 181 across 15 partnerships)	Sustainability Goals (n = 191 across 16 partnerships)
Predictor	**Parameter Estimate (Standard Error)**		
Organizational-Level Predictors			
Foundation infrastructure	0.04 (0.05)	0.06 (0.06)	-0.01 (0.06)
Sustaining infrastructure	0.14* (0.07)	0.18* (0.08)	0.13+ (0.07)
Perceptions of collaboration quality	0.64** (0.16)	0.46** (0.17)	0.42* (0.20)
Partnership-Level Predictors			
Goal density	0.37 (0.51)	0.33 (0.67)	- 0.11 (0.76)

Source: EBHV Partner Survey 2013.

Note: Analyses also included vector of attributes, including organization type, years involved in home visitation, years involved in child abuse prevention, level of organizational involvement (the variables presented in Table II.3). In this table, the three EBHV goals are presented as three columns. The key predictors of interest in the separate HLM analyses are shown as rows, separated by whether the predictor variable describes an organizational-level variable (a variable that differs depending on each organization's responses to the survey) or a partnership-level variable (a variable that is common to all organizations within a partnership). The parameter estimates (and standard errors) assess the degree to which a one-unit change in the predictor value influences progress achieving goals (measured in standard deviation units).

$^{+}$ $p < .10$, * $p < .05$, ** $p < .01$.

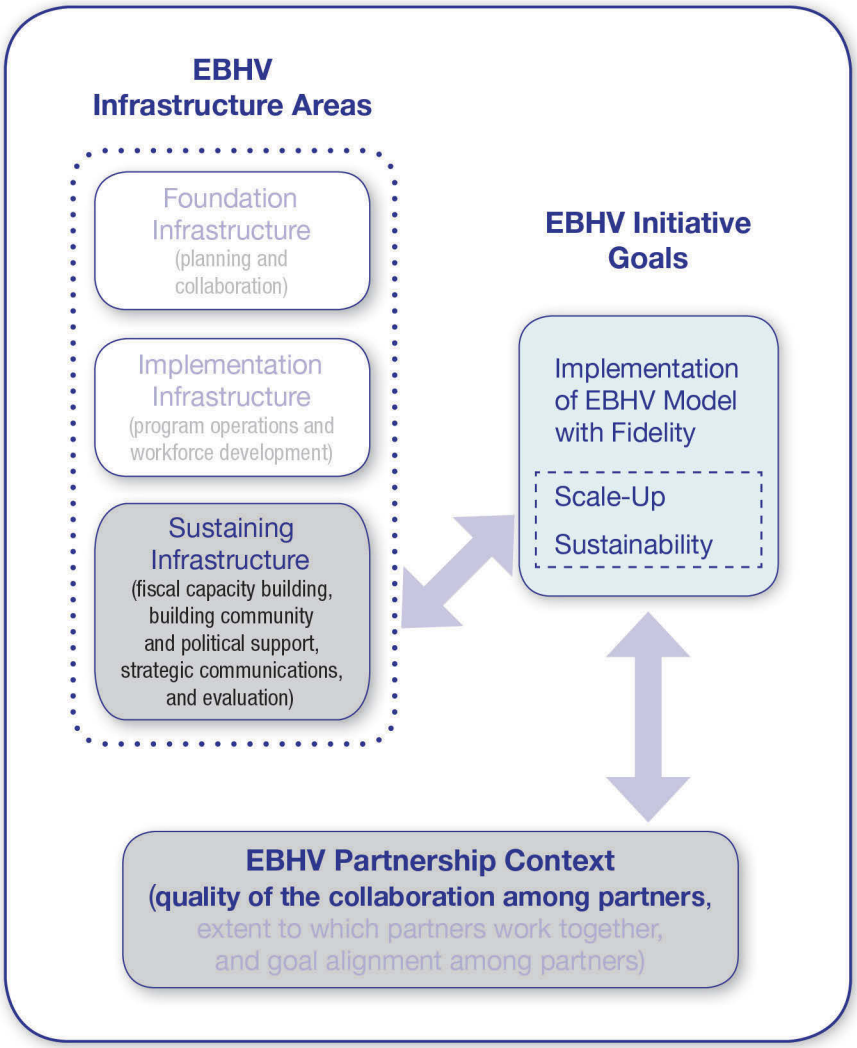
Summary of benchmark inferential analysis. Figure IV.2 presents a graphical illustration of how the inferential results can be summarized with respect to the underlying theory of change. Building sustaining infrastructure and the quality of the collaboration among partners appear to influence progress achieving goals, and the other aspects of the theoretical model do not have significant relationships with any of the goals.

5. Testing Alternate Outcome Measures

One possible criticism of the findings presented above is that partner reports may not accurately reflect implementation experiences and achievement on the ground. To assess this, we used other cross-site evaluation data sources to create measures of the three outcomes and conducted analyses similar to those presented in the previous sections (Box IV.8). Inconsistencies in the results from the two sets of analyses may mean that the findings based on partner reports are not robust, there are measurement problems with the respondent survey reports, or that the partners are too far removed from subcontractor and IA activities to accurately report on goal achievement. Given these issues, it is not possible to determine whether one set of outcome measures is "better" than another. Both sets of outcome measures have their limitations.[4]

[4] Each of the secondary analysis outcome measures was assessed using a different scale, so direct comparisons at the rating scale levels are not possible. In addition, we had to use different samples to examine the implementation with fidelity and scale-up alternate measures.

Figure IV.2. Infrastructure Building and Contextual Factor Influences on EBHV Subcontractors' Progress Toward Goals



Note: This figure demonstrates the study findings related to how infrastructure-building activities and partnership contextual factors are associated with the progress subcontractors and their partners reported making toward reaching the three EBHV goals. The study found associations between developing sustaining infrastructure (shown in the gray box labeled Sustaining Infrastructure) and subcontractor and partner perceptions of progress in achieving the three broad goals of the EBHV initiative (shown in the light blue box). The study also found associations between respondents' perceptions of the quality of collaboration (shown in the gray box labeled EBHV Partnership Context) and progress achieving goals (shown in the light blue box). The text and boxes that are faded indicate areas where we did not find associations. In the EBHV Partnership Context box, we did not find associations between subcontractor and partner perceptions of the extent to which they work together and goal alignment among partners and progress achieving goals (demonstrated by the faded out text for those two contextual factors). The arrows between sustaining infrastructure and the EBHV initiative goals and the quality of collaboration and the EBHV initiative goals are bi-directional indicating the inability of the study design to predict cause and effect (the direction of the associations).

Box IV.8. Data Sources for Robustness Checks Using Alternate Outcome Measures

To assess the robustness of the findings from the analyses of the 2013 Partner Survey data that captured partner perspectives on the degree to which implementation with fidelity, scale-up, and sustainability goals were achieved, we conducted another set of analyses using different versions of each outcome. Given that subcontractor and partner reports provide one perspective on the outcome of EBHV goal achievement, we sought data from other sources, where possible, to assess progress on the EBHV goals. These analyses were designed to help us assess the robustness of the findings based on subcontractor and partner reports from the partner survey (Braverman 2013; Wayman and Savaya 1997). Notably, these outcome variables are *not* defined by subcontractor goals—rather, each of these outcome measures represents a common indicator against which each subcontractor can be compared without reference to subcontractor-specific goals. These outcomes provide a different lens for assessing progress toward achieving the EBHV outcomes depicted on the right side of Figure IV.1. For all but the implementation with fidelity measure, we report on all 17 partnerships (one subcontractor did not provide any data on fidelity).

1. **Implementation with fidelity.** To operationalize alternate versions of the implementation with fidelity outcome, we used fidelity data collected by the IAs (as described in Chapter III). For each IA, we calculated the proportion of families that received 80 percent and 60 percent of the expected dose of the intervention, six months after services began. We chose these two cuts on the dosage data because they are the same versions presented in Chapter III and represent strong implementation and more typical implementation. In doing so, we were able to create two assessments of implementation with fidelity based on service data, which provides a different perspective on implementation fidelity than the reports provided by the partners. As described in Chapter III, 16 of the 17 subcontractors provided fidelity data to the cross-site evaluation, and 35 IAs provided data used to create this variable.

2. **Scale-up.** This outcome was created using data from the 2012 site visits. Scale-up was defined as a focus on reaching additional families (Halle et al. 2013; Uvin 1995; World Bank 2004) or expanding to new locations/contexts (Halle et al. 2013). This aligns with Uvin's (1995) description of "quantitative" or "horizontal" scaling. Similar to the alternate version of the implementation with fidelity outcome, the alternate version of the scale-up outcome uses external criteria to define the outcome, and provides a different type of scale-up measure than partner perspectives on the progress of the local EBHV projects in scaling up.

   To operationalize the alternate measure of scale-up, we created a summary score: the sum of four scale-up indicators (possible range 1 to 4, where a score of 1 indicates that one aspect of scale-up was achieved, and a score of 4 indicates that all four aspects of scale-up were achieved). Each subcontractor was given a point for the scale-up score if site visit data indicated the subcontractor met any of these criteria:

   - **Number of families served at an IA increased.** The subcontractor reported that the IAs involved in the EBHV initiative increased capacity to serve families.
   - **Number of families served at an IA increased beyond expectation.** The subcontractor reported that the IAs involved in the EBHV initiative increased capacity to serve families *beyond what they initially proposed/expected*.
   - **Number of IAs increased.** The subcontractor increased the number of IAs offering evidence-based home visiting.
   - **Number of IAs increased beyond expectations.** The subcontractor increased the number of IAs offering evidence-based home visiting *beyond what they initially proposed/expected*.

3. **Sustainability.** The alternate measure of progress in achieving sustainability goals was based on a six-item scale administered to all respondents in the 2013 Partner Survey. The questions concentrated on the degree to which leaders in each organization, community, and state focused on evidence-based home visiting approaches to prevent child maltreatment, and allocated resources toward evidence-based practices more generally. For example, respondents rated whether they strongly disagreed, disagreed, agreed, or strongly agreed with statements such as, "Compared to four years ago, my organization has made an increased commitment to supporting the use of evidence-based home visiting approaches to preventing child maltreatment." Although this measure of sustainability is based on the same sample of respondents who provided data on the primary measures of progress subcontractors made toward achieving sustainability goals, in this measure, all respondents provided answers to a common set of questions (providing a common index of progress in achieving sustainability). Notably, this is a different outcome than the perceptions of progress achieving subcontractor specific goals assessed in the primary analyses. The alternate sustainability outcome scale score was calculated as the average of the sustainability items that were common across all partnerships. The scale score could range from 1 to 4 and had an acceptable coefficient alpha of 0.74.

First, we compared the correlation coefficients across the primary and alternate assessments of the outcomes of interest. In general, there were relatively small correlation coefficients across primary and secondary assessments of each of the three outcomes. The correlation coefficients were $r = 0.19$ ($p > 0.05$), $r = 0.29$ ($p > 0.05$), and $r = 0.30$ ($p < 0.01$), when the primary and secondary assessments of implementation with fidelity, scale-up, and sustainability were compared against each other, respectively (see Appendix A for details). These coefficients suggest that the (primary) survey assessments and alternate assessments of the outcomes appear to assess different underlying constructs of each concept.

Next, we present an overview of the inferential findings using the alternate measures. We focus on whether the findings from the alternate outcome measures align with the partner-reported results.

Across the three alternate outcomes, there are some confirmatory findings and some findings that differ from the primary analyses (Table IV.8). With respect to the findings on infrastructure activity, there is a different substantive result using the alternate outcome measures: there is not a statistically significant relationship between building sustaining infrastructure and progress achieving any of the three secondary outcome measures of EBHV goals. This differs from the positive relationship we saw between sustainability infrastructure and the primary outcome measures of EBHV goals. This suggests that, although sustainability infrastructure seems to be important for helping partners perceive progress toward achieving goals, this factor may not be universally important, given that the findings do not persist when alternate assessments of EBHV goals are examined.

With respect to the collaborative context findings, we saw that the quality of the collaboration scale that was significantly related to all three of the primary outcome measures of EBHV goals was only significantly related to one secondary measure of EBHV goals (sustainability). However, we do see that there are other aspects of the partnership context that appear to be important in the secondary outcomes: the alignment of goals was significantly related to progress on the secondary outcome for implementation with fidelity, and marginally significantly related to progress on the secondary outcome for sustainability. This suggests that the role of partnership context (either through quality of collaboration, or alignment of goals through network relationships), appears to be important for achieving EBHV goals, regardless of which version of the outcome was examined.

C. Conclusions

By year 4, patterns of subcontractor infrastructure-building activity followed initial hypotheses formulated by the cross-site evaluation team, despite deviations in response to changes in context (Box IV.1; Tables IV.2 and IV.3). Most subcontractors conducted foundation activities in the planning and early implementation phase, more subcontractors than expected reported conducting these activities at mid-implementation due to the introduction of MIECHV, and fewer subcontractors conducted activities in this area in the late implementation phase. Implementing activity was commonly reported by subcontractors in the planning and early implementation phase, very prevalent at mid-implementation, and again commonly reported in the late implementation phase. Few subcontractors reported conducted activities in the sustaining area in the planning and early implementation phase, more subcontractors than expected at mid-implementation due to disruptions in funding and MIECHV, and most subcontractors reported activities in this area by the late implementation phase. Evaluation activity was high in year 4 compared to the other activities.

Table IV.8. Influence of Infrastructure Building Activities and Partnership Contextual Factors on Progress Toward Goals, Secondary Outcome Analyses

	Implementation with Fidelity (80% threshold)[a] (n= 35 across 16 partnerships)	Scale-up[b] (n= 17 partnerships)	Sustainability[c] (n = 191 across 16 partnerships)
Predictor	**Parameter Estimate (Standard Error)**		
Organizational-level Predictors			
Foundation infrastructure	NA	NA	0.01 (0.06)
Implementation infrastructure	0.26* (0.09)[d]	-0.15 (0.78)[d]	NA
Sustaining infrastructure	-0.15 (0.12)	-0.22 (0.74)	0.08 (0.07)
Perceptions of collaboration quality	-0.09 (0.25)	-1.61 (1.66)	0.60** (0.16)
Partnership-level Predictors			
Goal density	1.04* (0.44)	0.35 (2.33)	0.90 (0.45)+

Source: Data collected from the EBHV Partner Survey 2013. The parameter estimates (and standard errors) assess the degree to which a one-unit change in the predictor value influences progress achieving goals (measured in standard deviation units).

Notes: [a] For the analysis of the implementation with fidelity goal, the organizational-level predictors were aggregated to the partnership level. The units of analysis for the implementation with fidelity goal were individual implementing agencies, which did not align with the units of analysis for the partner survey in most cases.The results for the 60% threshold are shown in Appendix A.

[b] For the analysis of the scale-up goal, the organizational-level predictors were aggregated to the partnership level. There was only one observed scale-up score for each partnership (n=17).

[c] Analyses also included a vector of attributes including organization type, years involved in home visitation, years involved in child abuse prevention, and level of organizational involvement.

[d] Because the partnership average scores for foundational infrastructure and sustaining infrastructure were essentially collinear ($r = 0.92$, $p < 0.01$), the foundation infrastructure predictor was not included in this model, and instead, we examined the role of building implementation infrastructure on implementation with fidelity and scale-up.

** $p < .01$, * $p < .05$, $^{+}$ $p < .10$

NA = not available.

With regard to infrastructure building investments and achievement of the three EBHV goals, the findings provide some evidence for the theory of change that CB envisioned at the beginning of the EBHV initiative. The results suggest that, as reported by subcontractors and their partners, building sustaining infrastructure was of key importance to the EBHV subcontractors during the final stages of their projects. Furthermore, maintaining positive relationships among partners through having high quality collaboration is associated with achieving the EBHV goals. Positive relationships with partners had a positive and significant relationship with all three of the primary outcomes.

The analyses presented in this chapter should be interpreted with some caution. First, the primary results are based on perceptions among the members of the partnerships of the EBHV subcontractors' progress toward building infrastructure and achieving subcontractor-specific goals. There was a low correlation between partner reports and alternate measures of the EBHV outcomes, which suggests that partners may have a different perspective on progress toward achieving goals. It is likely that partners function at a level more removed from operations or that communication among the partners does not focus on the details of service provision and scaling up. This suggests that, if subcontractors want partners to have the capacity to communicate what is

happening to other stakeholders in detail as well as provide necessary support, subcontractors should prioritize keeping partners consistently informed about the status of their projects.

A second caution about these results concerns the analytic approach and generalizability of the findings. The analyses are cross-sectional and do not include all possible variables that could potentially influence the outcomes being examined. The inclusion of other variables that are potentially related to outcomes, or examining how changes in these variables were associated with changes in outcomes, would provide a more comprehensive analysis that could assess a broader set of relationships between the main predictor variables and the outcomes. In addition, the results shown here are only generalizable to the small number of partnerships involved in the EBHV project. Additional partnerships and more partners would provide for a more generalizable set of findings, with greater statistical power to show significant relationships among key variables of interest.

V. LESSONS LEARNED AND IMPLICATIONS FOR THE FIELD

Since the EBHV initiative began, the context of evidence-based programs, and evidence-based home visiting in particular, has changed dramatically. Home visiting programs have received increased national attention, in part because of the inclusion of MIECHV in the ACA. MIECHV represents a significant investment in home visiting programs for low-income families, an investment the Obama Administration seeks to expand during its second term. With increased national attention on home visiting and investments in it also comes increased scrutiny of the "return on investment." Policymakers and the public want to know whether the promise of home visiting programs demonstrated in the research literature holds true in a large-scale investment.

The EBHV initiative, unknown by CB at its initiation, was a precursor to the larger MIECHV investment and to its legislatively mandated evaluation, the Mother and Infant Home Visiting Program Evaluation (MIHOPE), a randomized controlled trial to assess the effects of home visiting programs on child and family outcomes. Therefore, the experiences of the EBHV subcontractors captured through the national cross-site evaluation can offer important lessons to policymakers, state administrators, practitioners, and technical assistance providers as they undertake the implementation of MIECHV, as well as lessons for the field on the implementation of evidence-based programs in general. In addition, the elements of the design and the implementation of the national cross-site evaluation (including the measurement approaches and analytic techniques) serve as a foundation for guiding future endeavors to support implementation of evidence-based programs with fidelity, scale-up, and sustainability. In this chapter, we describe key lessons from the EBHV national cross-site evaluation and discuss their policy and practice implications. We begin by discussing the unique features of the evaluation design that the national cross-site evaluation team developed to evaluate a complex initiative that included both program replication and system change. Next, we describe the limitations of the study. We then discuss key lessons learned from the EBHV evaluation. Finally, we describe the implications of the findings for future practice and research.

A. An Evaluation Designed to Capture the Complexities of the EBHV Initiative

The EBHV evaluation makes a strong contribution to the research and practice fields in two areas: (1) evaluating complex system change activities that require subcontractors to collaborate with many stakeholders, and (2) creating a fidelity measurement system that can be used across multiple home visiting models.

1. Evaluating Complex System Change Initiatives

We developed, and put in place, an approach for studying system change and measuring partnership involvement and collaboration. The approach was grounded in system theory concepts and system dynamics, and it used mixed quantitative and qualitative methods to directly measure key system properties and the dynamics of their partnerships, as well as to assess how these factors were associated with the projects' level and nature of system development (Hargreaves et al. 2013). The best system change evaluation designs are those with the right "fit"—that is, they address both an evaluation's goals and the complexities of the system change intervention and its environment (Funnell and Rogers 2011; Patton 2011; Hargreaves 2010). Indeed, even traditional randomized trials of prevention programs are increasingly being augmented with more qualitative and descriptive components to better assess the contextual issues that interact with program effects and influence them. Application of the type of systems-based mixed-methods evaluation design that the national

cross-site evaluation used is particularly critical when collaborative system change efforts are being implemented in more complex and dynamic environments (Schorr and Farrow 2011; Parsons 2007). The EBHV evaluation design allowed us to better understand and describe the organizations working together to implement and create a supportive context for evidence-based home visiting models.

2. Developing a Framework for Studying Fidelity Across Multiple Program Models

As described in Chapter III, the Mathematica/Chapin Hall team, in collaboration with EBHV subcontractor staff (including local evaluators), representatives of the national models, CB, and federal partners, developed a fidelity assessment framework that included indicators to monitor fidelity to the program model, track program improvement, and conduct evaluation. The definition of fidelity adapted for the EBHV initiative had two components: (1) structural aspects of the intervention that demonstrated adherence to basic program elements (such as reaching the target population, delivering the recommended dosage, maintaining low caseloads, and hiring and retaining well-qualified staff); and (2) dynamic aspects of the participant-provider interaction. Our approach captured program-level characteristics (including caseload dynamics and service structure), direct service staff-level characteristics, and participant-level characteristics and experiences.

In designing the fidelity framework, we needed an approach that would capture consistent information across the five home visiting programs implemented by the EBHV subcontractors, while accounting for the differences among the models (Daro 2010). We also wanted an approach that minimized burden on IAs. To accomplish this, we built the framework, to the extent possible, on the data collected by the national model developers. At the point when we were designing the framework, only one model, NFP, required all IAs to submit participant-level data regularly (Daro 2010). HFA and PAT IAs submitted annual program reports with some program operations data and aggregate performance data. Both of these models collect more detailed performance information during peer review and accreditation, which occurs every three years. SafeCare had a detailed system for assessing (1) the capacity of individual service providers to adhere to the model's core practice principles, and (2) the extent to which program participants completed individual service modules and mastered the behaviors reflected in them. Triple P did not require local sites to provide ongoing data to the national office, but it did provide those replicating their program with suggested assessment tools and performance expectations.

B. Limitations

All studies have limitations, and the EBHV national cross-site evaluation is no different. First, because this is a descriptive study, although findings may suggest associations, we cannot draw causal conclusions. Second, the cross-site evaluation team was not directly involved in collecting fidelity data from the home visitors, home visitor supervisors, or participants. Therefore, variation might exist in how data were collected, the timing of data collection, and the extent to which data are missing. Although the cross-site team provided many training and technical assistance opportunities to the EBHV subcontractors and IAs to minimize the potential for data inconsistencies, we cannot be certain that the data collection guidelines were consistently followed. Third, not all fidelity indicators were monitored by all IAs in our sample. Therefore, the number of subcontractors, IAs, home visitors, supervisors, and participants contributing to each analysis differs, making direct comparisons across fidelity indicators difficult. Finally, the majority of the study measures relied on respondent self-report which can be a source of additional bias and error.

C. Discussion of Key Lessons Learned

Lessons learned from the cross-site evaluation highlight: challenges subcontractors and IAs faced in completing home visits at recommended levels of intensity and maintaining enrollment; challenges to assessing the quality of the home visitor-participant relationship; the need for flexibility in program management and evaluation during times of uncertainty; the importance of feeding program-level experiences and data into system-level decisions and improvement plans; and the central role of positive relationships and collaboration among partners.

1. Delivering Evidence-Based Home Visiting Programs at Recommended Levels of Intensity

Consistent with findings from previous evaluations, it is difficult to take home visiting programs to scale and implement them at the levels of intensity (dosage and duration) that the program model developers recommend (Ingoldsby et al. 2013; O'Brien et al. 2012; Prinz et al. 2001). Durlak and DuPre (2008) report that participants in most evidence-based interventions often receive 60 percent or less of the dosage the model developers intended. Other research has shown that families typically receive roughly half of the number of home visits expected (Ingoldsby et al. 2013; O'Brien et al. 2012). For example, across the three seminal randomized controlled trials conducted of NFP, average dosage of visits ranged from 45 to 62 percent (Holland et al. 2013).[1] These findings reflect the challenges often cited in the literature that evidence-based programs face as they struggle to achieve the expected impact levels observed in randomized clinical trials (Durlak and DuPre 2008). More research is needed on the levels of service delivery associated with achieving child and family outcomes.

Among the families in our sample, less than one-fifth received the expected number of home visits at six months: just over one-third received 80 percent of the expected number of visits, and about two-thirds received 60 percent. We found a similar pattern at 12 months, with 18, 44, and 72 percent of families receiving all, 80 percent, and 60 percent of expected home visits, respectively. Those receiving more home visits were more likely to be married or living with a partner and to be employed. Although families with the most challenges were more likely to drop out of services, we observed no significant relationship between the number of socioeconomic challenges families faced and the number of home visits they received; this suggests that programs were equally successful in completing visits with a broad range of families, providing the programs could retain them.

During the site visits conducted in 2012, IA staff attributed difficulties in completing visits to client crises or circumstances that limited home visitors from meeting with clients on the prescribed schedule. These difficulties included financial circumstances/poverty, unstable housing, mental health problems, postpartum depression, long work hours, attending school, and demands of the period before, during, or after the birth of the child (reported by 9 of 21 IAs). Staff also attributed missed home visits to a lack of client maturity, reliability, stability, or motivation to remember or prioritize home visit appointments (reported by five IAs) or a lack of fit between the home visitor and client sometimes weakening engagement levels (reported by two IAs). Despite these challenges, 80 percent of visits that home visitors planned were completed, suggesting that lower dosage rates also may be a function of the consistency with which home visitors initially schedule visits. Similar

[1] Personal communication from Dr. David Olds to Dr. Kimberly Boller, January 25, 2012.

to the pattern we observed regarding the number of home visits, notable variation existed in the extent to which the EBHV models in our sample retained participants for the recommended period of time. Nearly three-quarters of families remained enrolled in services for at least 6 months, and just over half remained in services for at least 12 months (about two-thirds of families in the three long-term programs—HFA, NFP, and PAT—were still enrolled at 12 months). These rates are consistent with, or may even exceed, rates reported in previous studies.

During site visits to IAs, staff described three primary reasons that families drop out of services: (1) personal or family circumstances (for example, drug abuse, fear home visitor will observe child abuse or illegal behavior, or unstable housing) lead them to disengage (reported by nine IAs); (2) families move out of the service area (reported by four IAs); and (3) families enroll in school or find a job, which makes continued involvement with the program difficult (reported by six IAs). In our participant sample, families who failed to successfully complete the planned course of service were more likely than those remaining in services or successfully completing them to have personal characteristics associated with greater parenting challenges, including young maternal age, greater social isolation, and greater socioeconomic risk.

Across indicators of dosage and duration, we observed greater variability across IAs than across models, suggesting that organizational and community factors may be more important predictors of agencies' success in achieving structural aspects of fidelity than the quality of the training or specificity offered by the model developers. The analysis in Chapter IV provides some insight into the partnership factors that might contribute to successful implementation with fidelity (namely, building foundational and sustaining infrastructure and aspects of collaboration quality); however, it is likely that other organizational and community factors not captured by the EBHV national cross-site evaluation may play a role in delivering services with high quality implementation.

2. Maintaining Enrollment Capacity

Even though IAs had been operating home visiting programs for at least two years by the end of the evaluation (and many for much longer), nearly half of home visitors carried caseloads below capacity. The other half of home visitors carried caseloads at (12 percent) or above (39 percent) capacity. Interpreting these findings is difficult since it may be unrealistic to expect home visitors to maintain exact caseloads (such as 25 participants), in comparison to a range (such as 22 to 28 participants), given the constant flow of participants into and out of services. Also, given the relatively small number of home visitors per implementing agency, variations in these percentages across IAs may reflect differences in the caseloads of a few workers. Despite these limitations, maintaining capacity at funded enrollment levels seemed to be difficult for agencies in the study. Several issues, and likely a combination of these issues, may help explain these difficulties. Agency managers and supervisors from 6 of the 21 IAs that participated in the 2012 site visits reported that home visitors regularly operated below capacity because it was too difficult for home visitors working with families with complex needs to carry the maximum caseloads that the model developers recommended. Eleven IAs mentioned new home visitors currently building caseloads as a primary reason agencies were not operating at capacity. After home visitors are hired, they must complete preservice training requirements, and most models recommend that home visitors gradually build their caseloads (which can take up to six months). Agencies implementing models with intensive preservice training requirements and gradual approaches to building home visitor caseloads are particularly vulnerable to extended dips in enrollment caused by staff turnover. Although IAs that participated in the 2012 site visits reported low overall levels of home visitor turnover (ranging from one to four home visitors per agency), replacing home visitors can take IAs from two weeks to three months, and most estimated that it takes closer to two to three months.

Based on the fidelity data, 16 percent of staff provided supervision as well as home visits (some by design and some to cover staff turnover or leave); from site visits, it seems this strategy may help agencies provide service continuity to families.

3. Understanding the Quality of the Home Visitor-Participant Relationship

The quality of the relationship between the home visitor and the parent may influence the effectiveness of home visiting services and the extent and quality of parent engagement and involvement (Korfmacher et al. 2007, 2008; Roggman et al. 2008a). Although variation exists across models in the appropriate content for each visit, all share common approaches to careful assessment and responsive and respectful practice. The EBHV national cross-site evaluation's fidelity framework identified the participant-provider relationship and how participants' needs are identified and addressed during the home visiting process as a key aspect of good home visiting practice and a predictor of family take-up of services and retention.

As described in Chapter III, although fewer than half of the IAs submitted Working Alliance Inventory-Short Form (WAI-SF) data, we only obtained full data (baseline and termination assessments from both the home visitor and participant) on a small number of cases (378). Therefore, we were only able to report findings on initial participant-provider perceptions of the level of collaboration and extent of shared goals as reported by 974 participants and their home visitors.

Among the 18 IA submitting WAI data, more than half the home visitors in this sample consistently viewed their relationships with participants as positive and capable of moving participants toward desired goals. At least two-thirds of the participants in our sample viewed their relationships with their home visitors in a similar manner. Home visitors and participants overall, and within models, provided the highest ratings to elements of the relationship relating to bonding: liking each other, confidence in the skills and commitment of both parties to make needed changes, and appreciating and trusting each other. Although the ratings were still very positive, respondents were somewhat less confident in those elements of the relationship that related to goal setting, such as formulating what type of change was needed and mutually agreeing on the target goals and outcomes being sought. No significant differences in these ratings were observed across the five models.

4. Building Infrastructure Through Periods of Uncertainty

The EBHV initiative and its evaluation are examples of how multifaceted, complex system change initiatives can evolve and require adaptations to initial implementation and evaluation plans. Despite contextual changes (including the economic downturn, funding lapses, and the introduction of MIECHV), the EBHV subcontractors did not substantially deviate from their planned goals or activities. Rather, they altered the order in which infrastructure-building activities were carried out. Subcontractors engaged in a new round of planning activities midway through the initiative (a period of uncertainty resulting from a change in the authorizing legislation), and they accelerated activities around sustainability to stabilize funding to support continued implementation. By the late implementation phase, patterns of infrastructure-building activity largely followed initial hypotheses formulated by the cross-site evaluation team; foundation activity was low, and activity in the implementing and sustaining areas was moderate. These findings reinforce the notion that steps in change processes may be overlapping and recursive.

In addition, sustainability activities may need to occur throughout the project, not just as a final stage (Crowley et al. 2012; Metz and Bartley 2012; Fixsen et al. 2005). To address the MIECHV requirements and other contextual changes, however, a number of the EBHV stakeholders had to shift focus from the original intent and activities articulated by ACF at the start of the initiative (this included changes articulated by the funders, subcontractors, and the evaluation contractor at the end of the initiative's planning year—fall 2009 through fall 2010). For example, the cross-site evaluation team and ACF decided not to conduct a systematic review of the evidence based on subcontractor findings on family and child outcomes.[2]

5. Developing Processes for Practice to Inform Ongoing Program and System Reform

Although we found that based on partner reports, building infrastructure, particularly sustaining infrastructure, was associated with progress toward goals related to implementation with fidelity, scale-up, and sustainability, findings based on alternate measures were somewhat inconsistent with them. Using secondary measures to triangulate findings from the 2013 partner survey on the EBHV subcontractors' progress toward goals, we did not find statistically significant relationships between building foundational and sustaining infrastructure and measures of scale-up and fidelity. The disconnect between stakeholders' perceptions of progress and findings on alternate measures of progress (the fidelity data on dosage, ratings on scale up coded from site visit interviews, and survey questions on sustainability) points to the need for processes that feed information from the field to program administrators and managers, funders, policymakers, and other project stakeholders. Without timely and accessible data, program leadership, funders, and policymakers may not have an accurate picture of the strengths and weaknesses of implementation and, as a result, may not be able to adequately provide supports to implementers. Not only must data be collected; systems must be in place to ensure data are "reliable, reported frequently, built into practice routines, accessible at actionable levels, and used to make decisions" (Metz and Bartley 2012).

6. Maintaining Positive Relationships Among Partners

To measure the context of the partnership for the EBHV national cross-site evaluation, we focused on three aspects of collaboration: (1) the quality of collaboration among partners, as measured by selected items from the Working Together Survey (Chrislip and Larson 1994); (2) the degree to which partners worked with each other; and (3) the extent to which partners felt that their goals for EBHV were shared with their peers. This operationalization of collaboration is consistent with Chrislip and Larson's (1994) description of collaboration as creating a "shared vision and joint strategies to address concerns that go beyond the purview of any particular party." We found that the quality of the collaboration among partners was significantly associated with progress achieving implementation with fidelity, scale-up, and sustainability. These relationships held up using both our primary and alternate measures of progress toward achieving the EBHV goals, suggesting that maintaining positive relationships among partners appears to be important in achieving fidelity, scale-up, and sustainability. These findings varied from those of the early implementation phase, in which we found that alignment of partner goals was a key factor associated with building infrastructure (Hargreaves et al. 2013). They are consistent, however, with existing research on factors that predict sustainability (Cooper et al. 2013).

[2] As of 2012, several grantees were still planning to conduct local evaluations examining family and child outcomes.

D. Implications for Future Practice and Research

The EBHV initiative provides a rich learning environment for those implementing complex programmatic reforms, as well as those evaluating them. These findings have important implications for states, implementers, and researchers as they carry out the unprecedented expansion of evidence-based home visiting programs through MIECHV. We conclude by describing the implications of key findings for future efforts.

First, since the original design of the EBHV national cross-site evaluation, research has emerged on factors that may be important to successful implementation (Metz and Bartley 2012; Meyers et al. 2012a, 2012b). Although the EBHV national cross-site evaluation captured many aspects of competency development (including training offered to staff, staff characteristics, and the process for collecting fidelity data), it did not assess administrators on the degree to which they created an organizational culture and climate that reduced barriers to implementation and made implementation easier. The evaluation also did not assess leadership qualities that research is showing may be an important component to successful implementation of evidence-based practices (see National Implementation Research Network 2013 for a discussion of existing research on leadership). Future implementation efforts, including future evaluations, may focus more on these aspects of implementation, in addition to the other infrastructure capacities examined as part of the EBHV national cross-site evaluation.

Second, our findings contribute to a growing body of research that points to the importance of forming collaborations that have a common vision or goals, clear measures of success, regular processes for communication, and transparent and authentic decision-making processes (Aarons and Palinkas n.d.; Kania and Kramer 2011; Hicks et al. 2008; Goetz et al. 2002; Larson et al. 2002; Berkowitz et al. 2001). In light of these findings, fostering collaborative relationships among stakeholders should remain a focus of collaborative planning to address complex problems. However, with federal and state governments and foundations continuing to fund collaborative-planning initiatives, more research is needed on which aspects of collaboration should be the focus of infrastructure-building initiatives at different stages of implementation. In addition, more research is needed on the features of collaboration that lead to outcomes for families and children.

Third, the EBHV fidelity framework was developed on the premise that achieving fidelity across components results in successful implementation. The EBHV national cross-site evaluation identified several areas of strength, as well as several areas of weakness, among levels of fidelity achieved by IAs. As noted in Chapter III, IAs commonly achieved high levels of fidelity on standards related to hiring and training appropriate staff, obtaining appropriate referrals, and covering the planned content during the home visits. However, IAs faced more challenges delivering home visits to the levels of prescribed dosage, sustaining full caseloads for home visitors, and retaining participants. An important factor in understanding dosage is the emphasis voluntary prevention programs place on allowing participants to determine when and under what circumstances visits will be provided. Unlike in mandated parenting services, the ability to successfully deliver voluntary services hinges, in part, on the capacity of staff to secure agreement from participants to accept services and to convince them that the benefits of the intervention merit investment of their time (McCurdy and Daro 2001). Indeed, the PAT program guidelines specifically instruct home visitors to "follow the lead of participants" when scheduling visits, and HFA recommends a similar procedure. This process for determining service dosage was confirmed during our site visit interviews. Staff from five IAs implementing NFP said that, although their model prescribed a schedule for visits, there was leeway to adjust the schedule to meet client needs and circumstances if this was necessary to keep families engaged. In light of this trend toward increasing

flexibility in how many visits model developers recommend, more research is needed on the implications of varying levels of service delivery on the ability of programs to achieve targeted outcomes with families and children. What is not clear is whether lowering expectations for the number of visits staff should complete will result in an even smaller proportion of visits being offered and delivered.

To maintain enrollment capacity, IAs need to pay particular attention to limiting home visitor turnover. Some of the national models have tried strategies and interventions designed to reduce risk factors for staff turnover, such as home visitor stress and anxiety (Ingoldsby et al. 2013; Olds 2011). More research is needed to understand the causes of home visitor turnover and the types of support that might limit burnout and turnover. Even in the best-intentioned programs, however, turnover is inevitable. IA managers and supervisors need to anticipate turnover and develop plans for how services for families will be maintained if or when a home visitor leaves the program. Supervisors should work with agency managers and program model developers to identify ways to expedite the hiring and training process for home visitors. In addition, they should consider the trade-offs and implications of policies of building home visitor caseloads gradually. Furthermore, policymakers and funders may need to alter their understanding of program capacity. It may not be possible for IAs to operate at capacity on an ongoing basis. Therefore, capacity may need to be redefined from a fixed number—how many families can be served based on the number of funded home visitor positions—to a fluid assessment driven by the length of time home visitors have been in their positions and the specific needs of families.

Fourth, previous research emphasizes the importance of the home visitor-participant relationship in relationship-based programs like those implemented by the EBHV subcontractors (Roggman et al. 2008b; Prinz et al. 2001). However, more research is needed on relationship quality—in particular, the role of relationship quality in family engagement and take-up and engagement in services. The EBHV national cross-site evaluation attempted to measure this important feature using the WAI. However, we found that many subcontractors and IAs were reluctant to ask staff and families to complete the WAI, and, in some cases, they could not afford to include it in their data collection. As new studies of home visiting and other relationship-based interventions are launched, it will be important to weigh the trade-offs between respondent burden and data collection costs versus what could be learned from relationship quality data. Perhaps developing systems to ensure that relationship quality data can also inform practice (for example, by using the data to target staff interventions, staff changes, and improve family engagement and retention in the program), the "costs" of data collection can be justified.

Finally, we learned the following lessons related to the collection and use of fidelity data:

- **Measuring and monitoring fidelity should be part of practice.** Even the best-designed systems require dedicated staff time to collect and record data on staff, participants, home visits, and home visitor-participant relationships. If these activities are part of everyday practice among home visitors and supervisors, there is greater likelihood that data will be collected promptly and accurately. In addition, using data to inform practice may add value to the data collected.
- **Implementers need their own systems for verifying the accuracy of the data.** For this evaluation, most IAs used the EBHV Fidelity Access database or NFP NSO's ETO system. Few agencies had local systems for storing and using data (often because double entry of data was burdensome). When questions regarding the accuracy of data arose,

agencies had few options for verifying the data they had submitted to the evaluation team.

- **For data to be most useful for continuous quality improvement, program administrators and managers, home visitors, funders, policymakers, and other project stakeholders need frequent access to these data so they reflect current practice.** Data that are several months old may reflect an earlier stage of implementation, a different group of families, or different home visitors if the agency regularly experiences turnover. In addition, although timely data are important, implementers and their stakeholders also need access to data that cover a longer time span so they can identify trends.
- **To facilitate data use, agencies need help processing and interpreting data and operationalizing ways data can be used to change practice.** Agencies often are required to collect many types of data for reporting and evaluation. Agencies may develop sophisticated systems for collecting these data or may rely on databases collected by third parties. However, although the EBHV subcontractors were collecting data and had access to reports, these data were not always being used to inform practice, nor were they always shared with leadership and partners.

The EBHV initiative was a unique opportunity for communities and states to build infrastructure to support the implementation with fidelity, scale-up, and sustainability of home visiting programs that have potential to prevent child maltreatment. The grounding of the EBHV initiative in implementation with fidelity recognized the importance of effective replication and the use of data by program administrators, supervisors, and home visitors to achieve high quality implementation, and ultimately family and child outcomes. The initiative focused on coordination of services and partnerships among individuals and institutions to facilitate addressing the complex needs of families. The EBHV national cross-site evaluation captured lessons learned regarding implementation of evidence-based home visiting programs that can inform the field as policymakers, state administrators, practitioners, and model purveyors continue to explore home visiting's role in the broader context of early childhood services.

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APPENDIX A

TECHNICAL SUPPLEMENT

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A. Qualitative Data Collection and Analysis

1. Site Visit Data Collection

Teams of two Mathematica staff conducted site visits to each of 17 selected EBHV subcontractors between late January and early April 2012. A team usually included a senior team member (a senior researcher or researcher) who typically served as the subcontractor's liaison and a junior team member (a fellow researcher, research analyst, or research assistant). The purpose of the site visits was to gather detailed information from the subcontractors on their experiences implementing evidence-based home visiting programs, while pursuing fidelity, scale-up, and sustainability. Tables A.1. and A.2 describe the site visit activities, participants, and interview topics. Table A.3 shows the number of participants in each type of interview.

Table A.1. Subcontractor and Partner Interviews

Activity and Participants	Interview Topics
Interview with EBHV Project Director and Key Staff	• Describe your experiences implementing EBHV. • What major changes occurred in your organization and your EBHV-related activities from 2010 to the present? • How have your EBHV-related partners and other key stakeholders changed since spring 2011? • How have the strategies used to build infrastructure capacities (planning, collaboration, operations, workforce development, fiscal, community and political support, communication, and evaluation) changed or evolved over the past year? • How much progress did you make toward achieving the outputs and outcomes described in the logic models developed in spring 2011? Since EBHV began? Did any of your desired outputs and outcomes change? • What are the most important changes to home visiting infrastructure (negative or positive) since EBHV began? • What contextual factors, including MIECHV, have affected EBHV operations since spring 2011? • What key challenges have you faced over the past year? What strategies have you used to address these challenges?
Interview with EBHV Partners Contributing to Infrastructure Development	• What major changes occurred in your organization and your EBHV-related activities from 2010 to the present? • How have your EBHV-related partners and other key stakeholders changed since spring 2011? • How have the strategies used to build infrastructure capacities (planning, collaboration, operations, workforce development, fiscal, community and political support, communication, and evaluation) changed or evolved over the past year? • How much progress did you make toward achieving the outputs and outcomes described in the logic models developed in spring 2011? Since EBHV began? Did any of your desired outputs and outcomes change? • What are the most important changes to home visiting infrastructure (negative or positive) since EBHV began? • What contextual factors, including MIECHV, have affected EBHV operations since spring 2011? • What key challenges have you faced over the past year? What strategies have you used to address these challenges?

Table A.2. Implementing Agency Interviews

Activity and Participants	Interview Topics
Interview with Manager of Home Visiting Program	• What stage have you reached in implementing your home visiting program? • National model certification date • Date recruitment began • Date enrollment began • Date service delivery began • Current enrollment • How would you describe your competency in the model? • What facilitates and impedes the implementation of home visiting services? What factors affect maintaining fidelity? • What contextual factors, including funding, affect IAs' ability to implement evidence-based home visiting models? To maintain fidelity? • How did IAs modify the home visiting models to fit their target population and local service delivery context? • What are the IAs' current funding sources for the home visiting program? What are plans for continuing and/or expanding services? • How have IAs been supported by EBHV grantee organizations, states, and national model developers in implementing their home visiting programs? • What lessons have IAs learned about implementing home visiting programs? About maintaining fidelity? How would they use these lessons to refine future implementation?
Interview with Home Visitor Supervisors	• How would you describe your competency in the model? • What facilitates and impedes the implementation of home visiting services? What factors affect maintaining fidelity? • What contextual factors, including funding, affect IAs' ability to implement evidence-based home visiting models? To maintain fidelity? • How did IAs modify the home visiting models to fit their target population and local service delivery context? • What are the IAs' current funding sources for the home visiting program? What are plans for continuing and/or expanding services? • How have IAs been supported by EBHV grantee organizations, states, and national model developers in implementing their home visiting programs? • What lessons have IAs learned about implementing home visiting programs? About maintaining fidelity? How would they use these lessons to refine future implementation?
Interview with Home Visitors	• How would you describe your agency's competency in the program model? Your own competency? • Describe your experiences working as a home visitor. • What facilitates and impedes the implementation of home visiting services with fidelity? • How did home visitors modify the home visiting models to fit the needs of your clients and local service delivery context?

Table A.3. Site Visit Participants, by Participant Type

	Number of Participants
EBHV Project Director and Key Staff (90 minutes)	62
Partners Contributing to Infrastructure Development (90 minutes)	147
Manager of Home Visiting Program (60 minutes)	21
Manager of Home Visiting Program and Home Visitor Supervisor (60 minutes)	7
Home Visitor Supervisors (60 minutes)	22
Home Visitors (60 minutes)	105

Source: Mathematica site visits, spring 2012.

Note: The figures in this table are not unduplicated counts and represent the number of people participating in each type of interview. For example, a subcontractor might have included local evaluators in the interview with the EBHV project director and key staff as well as in the interview with partners contributing to infrastructure development. In this case, the local evaluators would be counted twice, once for their participation in the "EBHV Project Director and Key Staff" interview and again for their participation in the "Partners Contributing to Infrastructure Development" interview.

2. Qualitative Analysis Approach

Qualitative analysis of the site visit data was an iterative process using thematic analysis and triangulation of data sources (Patton 2002; Ritchie and Spencer 2002). First, we developed a coding scheme for the study, organized according to key research questions. Within each question, we defined codes for key themes and subtopics we expected to cover in the interviews. We then wrote up the interview notes. To facilitate consistent note writing and ensure that the site visitors' information would be comparable, we developed write-up templates tailored to each interview type before the visits. Because we conducted a large number of interviews and focus groups, we used a qualitative analysis software package, Atlas.ti (Scientific Software Development 1997), to simplify organizing and synthesizing the qualitative data. Using the software, we coded the notes and retrieved data from all respondents linked to our research questions. We retrieved data on particular questions across all participants, from individual participants, and for different categories of participants (such as subcontractor staff, partners, or home visitors). We also used the software to retrieve all the relevant data on specific topics and assess the consistency and quality of information across respondents. This triangulation facilitated confirmation of patterns or findings and identification of important discrepancies (Patton 2002). We triangulated at two levels: (1) among the multiple interview participants from a subcontractor, and (2) among individual respondents participating in small-group interviews. When responses conflicted, we verified the information, if possible (for example, if discrepancies existed among responses to a question about the date an agency began serving clients, we verified the information with the subcontractor). If it was not possible to verify the information, we noted the discrepancy as a difference of opinion among respondents (for example, if partners disagreed about the frequency of communication, we concluded that not all partners received and/or read ongoing communication from the subcontractor). Researchers coded the activities reported in the subcontractor logic models according to each of the eight infrastructure-building activities and coded long-term outcomes according to the three goals for the EBHV initiative.

3. Qualitative Analysis of Infrastructure Building Strategies in Year 4 of the EBHV Initiative

In spring 2011, the cross-site evaluation team worked with subcontractors to create logic models that showed the infrastructure building strategies subcontractors planned to carry out at each system level (national, state, community, and IA), along with project-specific expected short- and long-term outcomes (Paulsell, Hargreaves, Coffee-Borden, and Boller 2012). The final subcontractors' logic models articulated their specific goals and targeted outcomes related to implementation with fidelity, scale-up, or sustainability and categorized each outcome as one of the three overarching areas implementation with fidelity, scale-up, and sustainability. During site visits in 2012, the cross-site evaluation team reviewed these logic models with the subcontractors to identify infrastructure building strategies were completed, ongoing, deferred or eliminated—as well as any new activities underway that had not been identified in 2011. For each ongoing activity, subcontractors estimated the level of effort on a scale ranging from 1 to 4: (1) none or slight, (2) low, (3) moderate, or (4) a lot of effort. (The scale was designed to assess variation in subcontractors' levels of effort on different activities based on their own perception; strict definitions for each category were not given to the site visit informants).

The cross-site evaluation team analyzed these data to examine subcontractor's infrastructure building activities in year 4 of the EBHV initiative. The following tables report detailed strategies in the areas of foundation, implementing, and sustaining infrastructure development for two groups of subcontractors: those focused on building infrastructure primarily at the state level and those building infrastructure at the local level (Tables A.4, A.5, and A.6). The detailed information presented in these tables is presented in aggregate form in Table IV.3 of Chapter IV.

Table A.4 Strategies Implemented in Year 4 by Subcontractors to Build Foundation Infrastructure

Infrastructure-Building Activities	State-Level Subcontractors	Local-Level Subcontractors	All Subcontractors	Average Level of Effort[a]
Planning Activities				
Identify community needs and target resources	2	0	2	4
Plan to implement a new home visiting model[b]	0	1	1	4
Align state and community home visiting strategies	0	1	1	4
Integrate new model into state continuum of home visiting services	1	0	1	3
Develop an advisory board of former home visiting program participants	1	0	1	3
Develop a sustainability plan	1	0	1	2
Develop an advocacy and communication plan	1	0	1	2
Collaboration Activities				
Collaborate with other home visiting programs in state or local community	5	2	7	3.1
Participate in local-level coalitions, councils, and committees	4	2	6	3.3
Collaborate with experts on working with substance-involved clients	1	0	1	3
Participate in state-level coalitions, councils, and committees	1	2	3	2.7
Establish MOUs with service partners	0	1	1	2
Total Subcontractors	**10**	**7**	**17**	

Source: Site visit interviews in 2012.

Note: The table describes activities implemented in year 4 of the EBHV initiative. Therefore, it does not show activities that were completed, deferred, or planned. The infrastructure-building activity categories are not mutually exclusive.

[a] During site visits in 2012, the cross-site evaluation team reviewed logic models with the subcontractors to identify infrastructure-building activities that were completed, ongoing, deferred, or eliminated, as well as any new activities under way that had not been identified in 2011. For each ongoing activity, subcontractors estimated the level of effort as none or slight (1), low (2), moderate (3), or a lot (4) of effort.

MOU = memorandum of understanding.

Table A.5. Strategies Implemented in Year 4 by Subcontractors to Build Implementing Infrastructure

Infrastructure-Building Activities	State-Level Subcontractors	Local-Level Subcontractors	All Subcontractors	Average Level of Effort[a]
Operations				
Monitor fidelity	2	1	3	4
Expand home visiting programs in the state	1	1	2	4
Establish screening and assessment process	1	0	1	4
Refine system for triaging families into home visiting programs	0	1	1	4
Took steps to lower attrition from home visiting programs	0	1	1	4
Took steps to reduce transiency among enrolled families	0	1	1	4
Establish wraparound services for enrolled families	0	1	1	4
Form an implementation team	1	0	1	4
Recruit families	1	4	5	3.8
Manage and sustain program operations	1	2	3	3.7
Consult with model purveyor about implementation	6	2	8	3.1
Develop a referral system	1	2	3	3
Held implementation steering or advisory committee meetings	2	0	2	3
Refer families for needed community services	0	1	1	3
Workforce Development				
Provide technical assistance to IAs	2	1	3	4
Conduct reflective practice training and coaching	1	1	2	4
Provide ongoing training and consultation to ensure fidelity	1	1	2	4
Provide infant mental health consultation to programs	1	0	1	4
Provide other supplemental training	3	1	4	3.8
Hire and train home visiting staff	1	3	4	3.8
Provide grants to IAs for training expenses	2	0	2	3.5
Participate in a program model support network	0	1	1	2
Total Subcontractors	**10**	**7**	**17**	

Source: Site visit interviews in 2012.

Note: The table describes activities implemented in year 4 of the EBHV initiative. Therefore, it does not show activities that were completed, deferred, or planned. The infrastructure-building activity categories are not mutually exclusive.

[a] During site visits in 2012, the cross-site evaluation team reviewed logic models with the subcontractors to identify infrastructure-building activities that were completed, ongoing, deferred, or eliminated, as well as any new activities under way that had not been identified in 2011. For each ongoing activity, subcontractors estimated the level of effort as none or slight (1), low (2), moderate (3), or a lot (4) of effort.

Table A.6. Strategies Implemented in Year 4 by Subcontractors to Build Sustaining Infrastructure

Infrastructure-Building Activities	State-Level Subcontractors	Local-Level Subcontractors	All Subcontractors	Average Level of Effort[a]
Fiscal				
Leverage state funding sources for home visiting	1	1	2	4
Seek MIECHV funds	1	1	2	4
Develop a strategy for blending state and federal funds	1	0	1	4
Leverage existing funds to convert existing local services to home visiting programs	0	1	1	4
Seek ongoing federal funding	1	2	3	3.7
Develop a sustainability plan	2	1	3	3.3
Sustain match commitments from private funders	1	0	1	3
Identify potential local funding sources	1	0	1	3
Identify potential private funding sources	1	0	1	3
Community and Political Support				
Educate local communities about home visiting	1	1	2	4
Invite state legislators to visit the home visiting program	0	1	1	3
Meet with county policymakers to educate them about home visiting	0	1	1	3
Provide information to increase support for home visiting among state policymakers	0	1	1	3
Demonstrate value of integrated system of care to state policymakers	1	0	1	3
Facilitate family input to communicate the benefits of home visiting	0	1	1	2
Develop local advocacy plans	1	0	1	2
Communication				
Present at state conference	1	0	1	4
Develop materials to disseminate evaluation findings	1	0	1	4
Develop a communication or media plan	1	1	2	3.5
Disseminate program information via newsletters, websites, print media, media channels, public meetings	1	1	2	3.5
Testify before state legislature	1	1	2	3
Create video about home visiting	1	0	1	3
Disseminate evaluation findings to state stakeholders	0	1	1	2

Infrastructure-Building Activities	State-Level Subcontractors	Local-Level Subcontractors	All Subcontractors	Average Level of Effort[a]
Evaluation				
Collect data to monitor program quality	2	0	2	4
Identify MIECHV benchmark outcomes	1	0	1	4
Collect child and family outcome data	0	1	1	4
Conduct local EBHV evaluation	6	3	9	3.7
Develop a system for quality improvement	1	2	3	3.3
Participate in the EBHV cross-site evaluation	10	7	17	3.2
Collect data for national model MIS	3	0	3	3
Develop a statewide data system	2	0	2	3
Total Subcontractors	**10**	**7**	**17**	

Source: Site visit interviews in 2012.

Note: The table describes activities implemented in year 4 of the EBHV initiative. Therefore, it does not show activities that were completed, deferred, or planned. The infrastructure-building activity categories are not mutually exclusive.

[a] During site visits in 2012, the cross-site evaluation team reviewed logic models with the subcontractors to identify infrastructure-building activities that were completed, ongoing, deferred, or eliminated, as well as any new activities under way that had not been identified in 2011. For each ongoing activity, subcontractors estimated the level of effort as none or slight (1), low (2), moderate (3), or a lot (4) of effort.

EBHV = Evidence-Based Home Visiting initiative; MIECHV = Maternal, Infant, and Early Childhood Home Visiting Program; MIS = management information system.

B. Fidelity Data Collection and Analysis

1. Study Design: Data Sources, Sample, and Selection

Seventeen subcontractors participated in the EBHV cross-site evaluation. Nine subcontractors were the implementing agency (IA) for the EBHV program and administered direct service activities. Eight subcontractors worked with from 2 to 14 IAs as part of the EBHV initiative.

As of June 30, 2012, across the 17 subcontractors, 48 IAs provided home visiting services to participants. Of these, 46 IAs from 16 EBHV subcontractors agreed to provide data to the EBHV cross-site evaluation, including data to assess the fidelity with which home visiting models were being implemented.[1] Three data sources (monthly program reports, the EBHV Fidelity Database, and the Nurse-Family Partnership (NFP) – Efforts to Outcomes [ETO] system) provide elements for analysis of structural and dynamic aspects of fidelity. This report analyzes data describing service delivery between October 1, 2009, and June 30, 2012 at 46 IAs.

[1] One EBHV subcontractor, the Minnesota Department of Health, did not provide fidelity data for the cross-site evaluation.

2. Fidelity Data Collection Approach

Fidelity data collection was local and occurred quarterly or monthly. Data were collected locally by staff at IAs and transmitted to the EBHV cross-site evaluation team directly, through the subcontractor, or through the model developer. To maximize the collection of high quality data, in February 2010 the cross-site evaluation team hosted a webinar for subcontractors on fidelity data collection. The training focused on the fidelity measures, as well as on procedures for training data collection staff at IAs, strategies for high quality data collection, and common data collection challenges. The cross-site evaluation team developed a training manual and provided it to all 17 subcontractors (Barrett et al. 2010). The training manual contained all necessary data collection forms (see Boller et al. 2013).

Two aspects of the data collection framework described in Chapter III should be noted. First, not all data elements were collected on an ongoing basis. For example, demographic information for home visitors and participants was collected only once in the EBHV Fidelity Database. However, home visitor and supervisor monthly caseloads were collected monthly, and home visit encounter information was collected for each scheduled home visit, whether or not the home visitor actually met with the participant. Second, subcontractors implementing the NFP model only collected program-level and home visitor or supervisor information in the EBHV Fidelity Database. Participant-level data, except for the Working Alliance Inventory (WAI), was provided to the cross-site evaluation team by the NFP's National Service Office (NFP-NSO) through the NFP-ETO data system.[2]

Most subcontractors were using the cross-site evaluation EBHV Fidelity Database to provide some fidelity data on home visitors, supervisors, and participants. As discussed below, not all subcontractors or IAs provided all the data requested. From the database, four de-identified extracts were generated annually that contained the data on home visitors, supervisors, and participants. These extracts were sent to the cross-site evaluation team. A few subcontractors submitted one or more of the required extracts in an alternative format (for example, SPSS or Excel) from their preexisting data collection system. Subcontractors using alternative formats were provided with the file layouts; an EBHV Fidelity Codebook that contained the variables in the file layouts, indicated the variable type (for example, alpha, numeric, date), and the response category values; and annotated instruments to help connect the data forms with the EBHV Fidelity Codebook.[3] They were asked to adhere to these to the extent possible. A consequence of accepting alternative file formats was that some subcontractors had more missing data than others, because the files were usually generated via an existing database that predated the EBHV cross-site evaluation, so they may not have included all the items in the EBHV Fidelity Database.

The EBHV cross-site evaluation team processed the data received. Data from all sources (NFP-ETO, EBHV Fidelity Database, monthly reports, and preexisting subcontractor data systems) were reviewed for errors, which were communicated to the subcontractor and data provider and resolved if possible. To support the combining of similar data elements from several systems (for example,

[2] NFP shifted from the NFP-CIS (Client Information System) to the NFP-ETO system during early 2011. All NFP-CIS data were migrated into the NFP-ETO system, and the EBHV cross-site evaluation team received extracts from the NFP-ETO system.

[3] These materials were developed and shared with subcontractors as needed. The materials had to be tailored to the particular home visiting model(s) the subcontractor was implementing.

NFP-ETO, EBHV Fidelity Database, and subcontractors' preexisting data systems), the data were cleaned and recoded to the extent possible.

3. Data Sources

Monthly program reports. Each month, the IA completed a monthly program report form (see Boller et al. 2013). The form captured information on the program model implemented, enhancements to the standard program model, certification by the national model developer, and program capacity (funded participant slots, whether functioning at full capacity, number of families newly referred, number of referred families who met program criteria, and group meetings for home visitors and supervisors). Completed monthly program reports were transmitted to the cross-site evaluation team in paper form, where they were entered electronically.

EBHV Fidelity Database. IAs also collected information in the cross-site evaluation team-developed Access database. IAs provided information on home visitors and home visitor supervisors, including demographic and employment data, as well as information on model-specific training, monthly caseloads, and when, and why, the staff member stopped providing services as a part of the program. The data extracts were submitted to the cross-site evaluation team quarterly. Each extract was reviewed for errors, which were addressed with the subcontractor, and corrections were made where possible.

EBHV Fidelity Database for subcontractors implementing HFA, PAT, SafeCare, and Triple P. IAs providing home visiting using the Healthy Families America (HFA), Parents as Teachers (PAT), SafeCare, or Triple P models collected additional data on their participants in the EBHV Fidelity Database. They provided information on referrals, demographics of participants, pregnancy history and children born,; and each home visit, including when and where the visit occurred, how long the visit lasted, and what topics or activities the visit focused on. In addition, any IA collecting the WAI, which assessed the relationship developed between the home visitor and participant, submitted those data through the EBHV Fidelity Database.

NFP-ETO data system. NFP IAs used the NFP-ETO data system to collect data on their participants and home visit encounters. The information was nearly identical to the information the HFA, PAT, Safe Care, and Triple P IAs provided through the EBHV Fidelity Database and includes referrals, demographic information, infant and maternal health, and characteristics of each home visit (date, length of visit, location, and topics or activities addressed). The IA entered data into the NFP-ETO system, which was uploaded to the NFP-NSO data system. The NFP-NSO provided the cross-site evaluation team with a data extract for IAs that were part of the cross-site evaluation and had a data-sharing agreement with the NFP-NSO. The data extract contained selected items that were part of the NFP-CIS system, which was in place during the design of the EBHV Fidelity Database, and informed the development of the EBHV Fidelity Database to ensure commonality of data across IAs, regardless of the model being implemented.

There were a few changes to items during the transition from the NFP-CIS to the NFP-ETO systems. To the extent possible, the cross-site evaluation team addressed these changes to improve the congruence between data sources. In some cases, the response categories for an item changed. (For example, see the slight restructuring of the response categories for total yearly household income in Table A.7.) The NFP-ETO categories were retained, resulting in slightly different income response categories for NFP programs and programs submitting data through the EBHV Fidelity Database. Similarly, the response options for the source of the referral were revised to include "self" and an unknown option. The NFP-ETO response categories for source of referral were recoded to

Table A.7. Changes in Income Response Options from NFP-CIS to NFP-ETO

Initial (NFP-CIS) Response Options	New (NFP-ETO) Response Options
(1) Less than or equal to $3,000	(1) Less than or equal to $6,000
(2) $3,001 - $6,000	(2) $6,001 - $12,000
(3) $6,001 - $9,000	(3) $12,001 - $20,000
(4) $9,001 - $12,000	(4) $20,001 - $30,000
(5) $12,001 - $15,000	(5) $30,001 - $40,000
(6) $15,001 - $20,000	(6) Over $40,000
(7) $20,001 - $30,000	(7) Client is dependent on parent/guardian
(8) $30,001 - $40,000	
(9) Over $40,000	
(10) Don't Know	

Source: Clinical Information System Annotated Instrument List (Data Dictionary) 2006 and personal correspondence with NFP-NSO.

match those in the EBHV Fidelity Database. Other variables were collected differently in the NFP-ETO than in the NFP-CIS system. For example, race was collected as a text or character variable that the cross-site evaluation team recoded into binary race and ethnicity variables so that the NFP-ETO data were similar to the EBHV Fidelity Database data on race and ethnicity.

4. Sample Variation in Data Elements Provided Across Implementing Agencies

Although 16 EBHV subcontractors agreed to share data with the cross-site evaluation team, not all IAs collected or contributed all data elements. This report is based on the data for participants served between October 1, 2009, and June 30, 2012. Table A.8 presents the specific data elements each IA contributed to this analysis. The cross-site evaluation team received some data from 16 of 17 subcontractors.[4] Forty-six IAs, representing all five home visiting models, contributed at least one data type to the fidelity analysis.

Participant data were provided by 36 IAs. The primary reason that 12 IAs did not provide participant data is that data-sharing agreements were not in place or did not support the sharing of these data. Participant data are missing from 17 IAs concentrated within three subcontractors. One state has 12 of the 17 IAs that did not contribute participant-level data because agreements between the IAs and state did not involve sharing participant-level data. Another state's two IAs had not approved sharing of data with the cross-site team as of the data submission deadline. Three of a third state's HFA IAs were unable to submit data by the deadline. The cross-site team worked with subcontractors to ensure that data could be submitted for the final report.

Forty-five IAs provided staff data to the cross-site evaluation team through the EBHV Fidelity Database. Nine IAs did not provide staff data from the EBHV Fidelity Database to the cross-site evaluation team for the fidelity analysis. Six of the nine IAs that did not provide staff data were implementing NFP, indicating that they did not use the EBHV Fidelity Database to any great extent.

[4] As mentioned previously, one EBHV subcontractor, the Minnesota Department of Health, did not provide fidelity data to the cross-site evaluation.

Table A.8. Summary of Data Contributed to the Cross-Site Evaluation October 2009–June 30, 2012, by Implementing Agency

IA	Model	Number of Participants[a]	Number of Staff[b]	Number of Monthly Caseload Reports[c]	Number of Home Visits[d]	Number of Monthly Program Reports[e]
1	HFA	104	15	199	1,472	21
2	HFA	120	8	131	2,192	23
3	HFA	51	5	133	1,252	21
4	HFA	-	4	132	-	21
5	HFA	-	7	172	-	18
6	HFA	-	16	263	-	20
7	HFA	60	8	145	1,938	21
8	HFA	-	7	145	-	21
9	HFA	134	11	234	2,990	20
10	HFA	24	9	57	563	21
11	HFA	59	11	31	919	21
12	HFA	23	3	55	581	21
13	NFP	204	12	168	3,348	16
14	NFP	141	10	9	2,329	3
15	NFP	154	11	141	3,000	18
16	NFP	173	9	140	3,384	16
17	NFP	106	6	68	1,749	23
18	NFP	159	7	74	3,539	21
19	NFP	149	5	88	3,268	22
20	NFP	215	8	113	5,031	22
21	NFP	253	8	138	6,585	22
22	NFP	277	6	106	3,995	22
23	NFP	186	5	88	3,705	22
24	NFP	147	6	90	3,845	22
25	NFP	156	6	134	3,047	28
26	NFP	173	10	110	2,244	22
27	NFP	268	11	133	5,949	21
28	NFP	199	-	-	3,457	19
29	PAT	212	17	285	2,837	21
30	PAT	-	8	149	-	21
31	PAT	-	3	99	-	21
32	PAT	-	2	66	-	18
33	PAT	216	18	209	3,466	21
34	PAT	-	6	129	-	21
35	PAT	-	5	115	-	21
36	PAT	109	13	235	1,404	33
37	PAT	64	7	136	1,812	19
38	SafeCare	54	16	249	600	31
39	SafeCare	56	8	131	1,575	21
40	SafeCare	-	7	49	-	17
41	SafeCare	68	7	106	890	6
42	SafeCare	4	2	44	58	12
43	SafeCare	47	12	86	379	8
44	SafeCare	207	15	233	2,184	18
45	SafeCare	55	5	103	931	18
46	Triple P	194	17	171	2,215	33
Total	**All IAs**	**4,821**	**392**	**5,892**	**88,733**	**927**

Source: Cross-site evaluation team tabulations of data from the EBHV Fidelity Database, NFP-ETO, extracts submitted from preexisting systems, and hard copies of monthly program reports submitted to the cross-site evaluation team.

[a] Participant data came from the following sources, by model: Safe Care – EBHV Fidelity Database; NFP – NFP-ETO System; HFA – EBHV Fidelity Database; PAT – EBHV Fidelity Database; Triple P – EBHV Fidelity Database and own system.

[b] Staff data came from the EBHV Fidelity Database for all models.

[c] Monthly caseload data came from the EBHV Fidelity Database for all models.

[d] Data on the home visit encounters came from the EBHV Fidelity Database for SafeCare, HFA, PAT, and Triple P. Data on home visit encounters came from the NFP-ETO system for NFP sites.

[e] Monthly progress report data were submitted in hard copy to Mathematica.

Notes = IA = implementing agency; HFA = Healthy Families America; NFP = Nurse-Family Partnership; PAT = Parents as Teachers.

The cross-site evaluation team does have staff data for all five models. Only two subcontractors provided no staff data that could be included in this final report.

Forty-five IAs submitted at least one monthly caseload report to the cross-site evaluation team. The monthly caseload data were extracted from the EBHV Fidelity Database. The cross-site evaluation team did not receive monthly caseload data from nine IAs. Six of the IAs that did not provide monthly caseload data were implementing NFP; lack of an ongoing reporting relationship between subcontractors and their IAs might have limited the subcontractors' ability to secure these data.

Thirty-six IAs provided data on at least one home visit offered during the time period. Twelve IAs did not provide any information on the home visits offered during the time period.

All 46 IAs provided at least one monthly program report. The monthly program reports were the only data submitted directly to the cross-site evaluation team by sites that did not use the EBHV Fidelity Database. The different delivery method may be part of the reason why monthly reports were not submitted differentially within and by subcontractors. Two subcontractors did not submit monthly program reports from any of their IAs in a format that could be used for the time period covered in this report.

5. Analytic Approach

In October 2010, the cross-site evaluation team processed trial subcontractor submissions from the EBHV Fidelity Database and NFP-ETO system. To address any data collection or data entry issues, the cross-site evaluation team provided feedback on the data submissions to the subcontractor and/or the IA submitting the data.

The cross-site evaluation team examined the data to determine whether they were of sufficient quality to support examination of a particular structural or dynamic fidelity indicator. Members of the team examined the frequencies and range of each item across the full data set to see whether there were patterns suggesting collection for that item was problematic at any level (within an IA, across a particular home visiting model, across IAs within a subcontractor, or overall).

The cross-site evaluation team contacted the organization submitting the data to understand any issues identified within the EBHV Fidelity Database or monthly program reports. The cross-site team discussed the issues observed in the data and provided technical assistance to help the organization correct the data collection or entry issue. The team asked the organization to submit documentation for any changes that needed to be made to the data, and the team made the documented corrections when preparing the data for analysis.

The cross-site evaluation team communicated with the NFP-NSO to understand issues related to the NFP-ETO data. In some cases, an item or its responses were changed during the migration from the NFP-CIS to the NFP-ETO system. For example, the income response categories were

modified. In those cases, the cross-site evaluation team ensured the change was documented and used during the analysis. Variables with clear data entry issues that could be rectified were corrected to support the analyses; for example a visit's start or stop time appearing as "11:00" would be changed to 11:00 AM. Unfortunately, other cases with unique data errors could not be corrected, because the cross-site evaluation team could not identify the particular family with the unexpected values and request a correction from the IA.

The cross-site evaluation team also addressed missing data in the submissions. Data missing in the EBHV Fidelity Database or monthly program reports were discussed with the subcontractors and/or the IAs, and we asked them to submit a data correction document. In preparing the data for analysis, the cross-site team corrected errors, including adding previously missing data. Because the data-sharing agreements between the cross-site evaluation team, NFP-NSO, and NFP IAs ensured that the data sets provided contained minimal identifiable information, it was challenging to identify and correct missing data issues. However, in the first collection of demographic information, the cross-site team used demographic data collected later to fill in missing values.

6. Construction of Analytic Variables and Fidelity Indicators

Units of analysis. Table A.8 shows the amount of data of each type contributed by each of the 46 IAs to these analyses. Throughout this report, the unit of analysis varies. Unless the sample size is specified as the "Number of IAs," data are presented at the individual participant, staff person, or home visit level.

Descriptive information is always presented at the participant, staff member, or home visit level. For some IAs, not all participant or staff data were available, and the prevalence of missingness in these data was problematic. To report as much information as possible, items are presented even when they suffer from missing data. The sample sizes listed in tables are the maximum sample sizes, but the actual sample varies by item. In some cases, when the sample size is significantly reduced due to missing data (defined as >20% missing), the distribution in the table is marked with an asterisk (*), and these should be interpreted carefully.

Fidelity indicators were calculated at the IA level and then averaged across all IAs for which that indicator was calculated. The number of IAs included varies, depending on what data were needed to calculate the indicator.

Descriptive information. The first step in the analysis was to look at the descriptive information available to begin to get a picture of the IAs in the analysis. We calculated means and frequencies of demographic variables for each agency's participants and staff. To simplify presentation, we created some new categorical variables. We provided summaries of participant and staff populations, by model, to model developers[5] for their input on how well these reflected their models' national populations. In all cases, developers believed the populations being analyzed were not drastically different from what they had expected.

[5] National model development staff involved throughout analyses included Kathryn Harding (HFA), Molly O'Fallon (NFP), Karen Guskin (PAT), and Daniel Whitaker (SafeCare). For Triple P, we consulted with Ron Prinz and Rita Bostick at the national level and Stacey Clettenberg, subcontractor director at the Texas Triple P site, because the subcontractor team made decisions about local implementation and adaptation of Triple P.

A risk scale variable was calculated to summarize the relative risk level among participants. This scale was adapted from one used in the Early Head Start Family and Child Experiences Survey (Baby FACES; Vogel et al. 2011). Five socioeconomic risk factors are identified:

- Receiving TANF, SNAP, or SSI benefits
- Being unemployed and not enrolled in school
- Having less than a high school education
- Having been a teen when one's first child was born
- Being single

The factors were summed for each participant. The factors are defined as low- (0, 1, or 2 factors), medium- (3 factors), or high-risk (4 to 5 factors). If data were missing for one of the factors, the mean of the other 4 was added. If the data for more than one factor were missing, the risk scale was not calculated.

A few notes of caution should be taken when looking at descriptive information presented in this report. As stated earlier, limited data and the prevalence of missingness necessitate the need to pay close attention to sample sizes, especially those items marked as "highly missing" (noted in tables with an asterisk). Another important qualification is that socioeconomic data on participants was not consistently collected at the time of their enrollment and, in some cases, were recorded some time after referral. To the extent that these characteristics (for example, age, education, income) can vary, they should not necessarily be interpreted as baseline measures. In addition, in some instances, more than one question on the data collection forms contained conflicting answers on a certain topic (for example, educational attainment). These cases were reviewed and given the majority answer or highest level, depending on the data available.

The next analyses looked at the home visits being conducted. The percent of home visits completed is presented with caution, because the definition of planned visits and how they were recorded differed across IAs. Some interpreted this as any visit that was scheduled but not completed, while others only counted no-shows (if the visit was rescheduled before the scheduled day and time, it was not counted as incomplete).

Because the five home visiting models studied vary significantly, we created model-specific data collection forms to capture information on the content of the home visits. These Home Visit Encounter Forms were presented to development staff from each model before being put into service. For each model, a table shows information on the topics and activities addressed during home visits. For all models except NFP, the Home Visit Encounter Form included a category for time spent addressing emergencies during each visit. This time was removed and the other activities prorated to give percent of non-emergency time spent on each activity. The average percent of time does not sum to 100 percent due to miscalculations on the original data forms, as well as a few cases in which the entire visit was reported as having been spent dealing with an emergency.

Fidelity indicators. The main part of the analysis was the creation of a framework of indicators designed to measure different aspects of program fidelity. This allowed us to look at fidelity across different models that have differing levels of specification regarding what they expect from replication sites. Table A.9 presents the full list of fidelity indicators. This section provides more technical details on how selected indicators were constructed.

Table A.9. Fidelity Domains and Related Indicators

Indicator	Selection Standard[a]	Operating Assumption for Compliance
Structural Fidelity		
Service Referrals		
Percentage of total referrals during the observation period meeting model standards for characteristics of the target population	Efficiency, best practice standard	Programs operate more efficiently if they are receiving more appropriate referrals.
Staff Qualifications and Training		
Percentage of home visitors with at least a BA	Descriptive only	Education and experience levels of staff can affect program performance.
Percentage of supervisors with at least a BA	Descriptive only	Education and experience levels of staff can affect program performance.
Percentage of staff and supervisors completing basic model training	Explicit standard	Models require a core set of trainings on program components for all staff.
Home Visitor Caseloads		
Mean monthly home visitor caseload	Descriptive only	Maintaining home visitor caseloads is important to program operation.
Percentage of home visitors at or below required caseload for full observation period	Explicit standard	Model developers established the following target caseloads for full-time home visitors: HFA—25 families NFP—25 families PAT—24 families (assume 48 visits per month per worker, seeing families twice a month) SafeCare—19 families Triple P—9 families for HV with BA; 10 families for HV with MA
Supervisory Caseloads		
Mean monthly supervisor caseload	Descriptive only	Maintaining supervisory caseloads is an important piece in program operation.
Percentage of supervisors at or below required caseload for full observation period	Explicit standard	Model developers established the following target caseloads for full-time supervisors: HFA—6 HVs NFP—8 HVs PAT—6 HVs SafeCare—6 HVs Triple P—7 HVs
Supervisory Levels		
Mean hours of one-on-one supervision per month for home visitors	Efficiency, best practice standard	Regular one-on-one supervision is an important way for supervisors to monitor home visiting activities within a program.
Mean number of group staff meetings per month over observation period	Efficiency, best practice standard	Group meetings, in addition to one-on-one supervision, provide opportunities for learning and sharing among staff.

Indicator	Selection Standard[a]	Operating Assumption for Compliance
Participant Enrollment and Duration		
Percentage of participants with at least one home visit who remain enrolled for at least three months	Explicit standard	While there is variation in the recommended length of each program, all models assume contact with families will occur for at least three months (12 weeks).
Percentage of participants with at least one home visit who remained enrolled at least six months	Explicit standard	Models are designed to engage families for varying lengths of time. This standard applies to HFA, NFP, and PAT, all of which seek to retain families for at least 2-1/2 years.
Percentage of participants with at least one home visit who remained enrolled at least 12 months	Explicit standard	Models are designed to engage families for varying lengths of time. This standard applies to HFA, NFP, and PAT, all of which seek to retain families for at least 2-1/2 years.
Percentage of participants leaving the program who did not successfully complete the program	Implied standard	It is an implicit goal of all models to retain participants until program goals are achieved or curriculum is completed.
Mean duration for participants who left program during observation period (date of first visit to termination date)	Explicit standard	Programs aim to engage families for certain lengths of time. If participants are enrolled for too long or too short of a time, the program may need to investigate why that is.
Service Dosage		
Number of visits provided or weeks of enrollment (date of first visit to date of exit or end of observation period)	Descriptive only	Regular contact with families is the main focus of all program models. Comparing the number of visits per week for participants with varying service outcomes will give an indication whether service intensity differs for those who successfully complete the program versus those that do not.
Mean length of time between completed visits	Descriptive only	Length of time between visits is another way to look at the regularity of contact programs are having with families.
Percentage of participants who received the intended service dosage during initial six months of enrollment (90% and 80% of intended dosage levels)	Explicit standard	Model developers established the following expectations for average participant dosages over the initial 6 months of enrollment: HFA—24 visits NFP—18 visits (estimated based on average gestational age at enrollment) PAT —12 visits SafeCare—average of twice a month for duration (12 visits) Triple P—weekly for duration (26 visits)

Indicator	Selection Standard[a]	Operating Assumption for Compliance
Percentage of participants who received the intended service dosage during the initial 12 months of enrollment (90% and 80% of intended dosage levels)	Explicit standard	Model developers established the following expectations for average participant dosages over the initial 12 months of enrollment: HFA – 36 visits NFP – 36 visits PAT – 24 visits SafeCare – 18 visits Triple P – Maximum of 26 visits
Visit Planning		
Percentage of planned visits completed across all participants	Efficiency, best practice standard	Delivering services as scheduled is the most efficient way for programs to operate.
Percentage of participants where at least 50 percent of planned visits are completed		
Percentage of participants where at least 75 percent of planned visits are completed		
Percentage of completed home visits lasting at least one hour	Explicit standard	All models are designed with visits lasting at least one hour.
Dynamic Fidelity		
Provider Perception of Relationship		
Percentage of providers rating WAI Tasking Subscale items on average ≥ 6[b]	Implied standard	All models reflect a commitment to a service delivery process that is perceived by the provider as collaborative, strength-based, and mutually respectful.
Percentage of providers rating WAI Bonding Subscale items on average ≥ 6[c]		
Percentage of providers rating WAI Goal Setting Subscale items on average ≥ 6 [d]		
Percentage of providers rating all WAI items on average ≥ 6		
Percentage of home visitors who consistently report very positive views (6 or 7) on more than two-thirds of the WAI items across all families		
Participant Perception of Relationship		
Percentage participants rating WAI Tasking Subscale items on average ≥ 6	Implied standard	All models intend the relationship to be positively perceived by the participant as well.
Percentage participants rating WAI Bonding Subscale items on average ≥ 6		
Percentage participants rating WAI Goal Setting Subscale items on average ≥ 6		

Indicator	Selection Standard[a]	Operating Assumption for Compliance
Percentage participants rating all WAI items on average $\geq$ 6		
Shared Perceptions		
Percentage of pairs with shared expectations on Goal Setting Subscale (sum within 4 points)	Implied standard	Providers and participants should have a shared understanding of key aspects of the service delivery experience—establishing a common understanding of the purpose of the intervention, developing a specific work plan, and building a strong relationship.
Percentage of pairs with shared expectations on Tasking Subscale (sum within 4 points)		
Percentage of pairs with shared expectations on Bonding Subscale (sum within 4 points)		
Content of Home Visits		
Mean percentage content covered across all visits	Implied standard	All the models have a core curriculum and content they want to deliver.
Percentage of visits in which 80 percent of planned content is delivered		
Responsiveness of Provider		
Percentage of visits involving unplanned or emergency assistance	Implied standard	Models note that they are responsive to families and deal with emergencies as they surface. How often providers observe and address these issues is important to observe.
Percentage of participants in which at least one visit involved addressing an emergency		
Percentage of home visitors who addressed an emergency for 50 percent or more of their clients during the reporting period		

[a] Additional descriptive information on how each model has defined core elements of the service delivery process is provided in Appendix B.

[b] Tasking Subscale items include questions related to perceptions of what needs to happen to reach service goals, relative priorities among goals, the capacity of the participant to obtain a new perspective, and the perception that things are moving along the right path.

[c] Bonding Subscale items include questions related to perceptions regarding the degree to which the participant and provider like each other, appreciate each other, trust each other, and feel confident in their ability to do the job or make the changes needed.

[d] Goal Setting Subscale items include questions related to perceptions of the degree to which the participant and provider agree on service goals, jointly develop mutual goals, and agree on the level of change needed to achieve goals.

BA = bachelor's degree; HFA = Healthy Families America; HV = home visitor; MA = master's degree; NFP = Nurse Family Partnership; PAT = Parents as Teachers; WAI = Working Alliance Inventory.

Home visitor and supervisor caseloads. When calculating mean caseloads for home visitors and supervisors, only full-time staff were included because their caseloads would be expected to be comparable. We asked national model development staff to provide information on suggested maximum caseloads for workers delivering their models. To determine whether a worker was at or below the required caseload level throughout the observation period, their monthly caseloads were compared to the level set by the model. For part-time staff or those who split their time between home visiting and supervising, their monthly caseload values were prorated for the percentage of time they worked in each role.

Duration. Because the national models are designed to engage families for varying lengths of time, it is difficult to make comparisons about participant duration. For an idea of how long families stayed enrolled, we calculated 3-, 6-, and 12-month duration percentages. No assumptions were made regarding the potential service duration for participants who enrolled in a program but were not observed for these threshold periods. In calculating service duration, participants who had not received a home visit within 90 days were considered to have effectively "terminated" services.

Dosage. Dosage is calculated as the mean number of visits a family received per week during their time of enrollment and the average time between home visits a participant did receive. For families who were enrolled for less than six months, their total number of visits was prorated for their length of enrollment. Model developers provided estimates for the average number of intended visits for the first 6 and 12 months of enrollment for their program, which are listed in Table A.9. To better illustrate what is happening with the families who did not receive the full recommended dosage, indicators were also calculated showing the percentage of families receiving 80 and 60 percent of the intended visits.

Planned visits. As stated earlier, there was some confusion among agencies as to how to record planned, rescheduled, and completed home visits. However, this is an important aspect of program operations and is presented in a series of indicators. No model specifically discusses expectations for completing planned visits. For illustrative purposes, possible thresholds were established at 50 and 75 percent of planned visits being completed.

WAI and subscales. The WAI (Santos 2005) is adapted from the original version designed to measure the alliance or relationship between a therapist and client. This 12-item measure captures the nature of the relationship in three core domains:

- **Tasking.** Provider and participant perceptions of what needs to happen to reach service goals, establish relative priorities, and, if necessary, obtain a new perspective on how to move forward.
- **Bonding.** Provider and participant perceptions regarding the other party in terms of liking each other, confident in their ability to do the job (or make the changes needed), mutual appreciation, and trust.
- **Goal setting.** Provider and participant perceptions of their agreement on service goals, ability to develop mutual goals, and agreement on the change needed to achieve program objectives.

Respondents rated each of the 12 items on a seven-point scale, from never feeling a situation applies to their participant-provider relationship (1) to always feeling this situation applies (7). Scores on the individual domains ranged from 4 to 28. We set a threshold for determining that respondents viewed their relationship as very positive when the mean score for a specific construct was greater

than or equal to 6 (or viewing an item as "very often" or "always" reflecting their situation). In addition to examining individual ratings in each domain, the indicators include a summary score, looking at the quality of the relationship across all three areas as well as the degree to which the assessments within each domain were consistent across a specific home visitor and participant.

Because not all subcontractors were able to collect data directly from participants receiving services through the EBHV initiative, we have data on these indicators for only 18 IAs (7 implementing SafeCare, 5 implementing NFP, 2 implementing PAT, 3 implementing HFA, and 1 implementing Triple P). We have completed baseline WAIs from home visitors summarizing their initial relationship with 1,030 participants and the participant perspective from 997 of these individuals (97 percent). Table A.10 lists the sample sizes for baseline and final WAIs by IA and model. All available baseline data from the home visitors and participants were used to assess performance on the indicators related to the initial perception of these relationships, while the level of agreement between participant and provider was limited to those instances in which both parties had completed the WAI early in their work together (within a few visits of the participants' initial enrollment in the program).

Table A.10. WAI Sample Sizes by IA and Model

IA	Model	Number of Participants with a Home Visitor Rating at Baseline	Number of Participant with a Self Rating at Baseline	Number of Participants with Home Visitor and Self Ratings at Baseline	Number of Participants with a Home Visitor Rating at Follow-up	Number of Participant with a Self Rating at Follow-up	Number of Participants with Home Visitor and Self Ratings at Baseline and Follow-up
1	HFA	90	84	84	67	29	29
2	HFA	81	79	79	102	34	34
3	HFA	100	99	99	51	51	49
4	NFP	35	36	35	21	0	0
5	NFP	54	53	53	0	0	0
6	NFP	62	62	62	27	27	27
7	NFP	60	64	58	33	28	19
8	NFP	30	31	30	25	25	24
9	PAT	50	48	48	29	30	29
10	PAT	48	48	47	5	3	3
11	SafeCare	52	47	45	16	13	10
12	SafeCare	3	1	0	1	1	0
13	SafeCare	46	46	42	31	32	22
14	SafeCare	122	110	105	69	46	41
15	SafeCare	19	17	17	8	1	1
16	SafeCare	25	26	25	16	16	13
17	SafeCare	46	38	38	9	8	6
18	Triple P	107	108	107	75	74	71

7. Data Limitations

The cross-site evaluation team was not directly involved in collecting data from the home visitors, home visitor supervisors, or participants. Therefore, variations could exist in how data were collected, the timing of data collection, and the extent to which data are missing. The training offered in February 2010 focused on the fidelity data collection processes and was intended, in part, to provide information to subcontractors that would make the data collection more systematic and the resulting data of similar quality across subcontractors.

In June 2011, the cross-site evaluation team shared with each subcontractor the initial summary findings for their IAs from the fidelity analyses on the data submitted through December 2010, including the amount of data provided. The goal was that the initial sharing of preliminary findings would inform program improvement and emphasize the importance for all IAs of collecting the data systematically and submitting them to the cross-site evaluation team promptly.

Due to the variation in the data that subcontractors submitted, the number of subcontractors, IAs, home visitors, home visitor supervisors, and participants contributing to each analysis differs. Each table presents the sample size for that analysis. The cross-site team cannot generalize the findings beyond the IAs and subcontractors that submitted data.

C. Partner Survey Data Collection

Communication and collaboration among partners involved in EBHV initiatives is central to developing infrastructure to support the adoption and implementation of home visiting programs to prevent child maltreatment and then sustaining these programs. Observing the broader system in which the infrastructure supports are developed and maintained and documenting the relationships among partners and how they change is important for understanding how the system works, the barriers to creating a system, and the patterns of communication. This section describes the partner survey sampling strategy, questionnaire design, and survey administration.

The national cross-site evaluation team, with input from CB, developed the 2013 partner survey questionnaire to address two main goals. The first was to assess progress toward achieving subcontractor-specific goals and learn about changes in infrastructure development that might have influenced this progress. The second goal was to learn about characteristics of the partnerships, relationships among partners, and perspectives of key partners on the EBHV goals. The survey included the following topics:

- Characteristics of each subcontractor's EBHV partners
- Extent of partner involvement in building infrastructure to support EBHV
- Perspectives of the partners on the quality of the collaboration among partners and the extent of goal alignment across partners
- Relationships within and between partners and the intensity of interaction among organizations
- Partners' assessment of progress in achieving the subcontractors' fidelity, scale-up, and sustainability goals

The subcontractors, as the lead organizations that received the federal funding in each site, served as the points of contact for developing the sampling frame. We used key partner lists developed in spring 2012 during site visits to each subcontractor as initial lists of potential partners to participate in the survey. We worked with each subcontractor to review and update these lists, identifying up to 35 potential partner organizations per subcontractor. When grantees identified more than one person representing a distinct unit in the same organization as potential respondents, each unit or department in a larger organization served as a separate unit of analysis. Ultimately, each of the 17 subcontractors created a list of 10 to 32 partners to participate in the survey; this list of participants was invited to complete the survey.

On January 3, 2013, we sent all sample members (grantees and their identified partners) an invitation email to participate in the EBHV partner survey. The email described the purpose of the survey, explained the selection of respondents, and stressed the confidential nature of the survey. The email included a hyperlink to the web survey, as well as contact information if questions or technical issues arose. The survey was administered via the web using Opinio. The survey took 20 minutes, on average, to complete. Every two weeks, we sent reminder emails to nonrespondents and to those who began the survey but did not finish it. Telephone reminders began on January 28, 2013. Data collection ended on February 28, 2013.

At the end of data collection, within-grantee response rates ranged from a low of 53 percent to a high of 100 percent (Table A.11). The overall response rate across all grantees was 75 percent.[6]

As a whole, the EBHV subcontractors partnered with a diverse set of organizations. Across subcontractors, the number of organizations within a partnership working on EBHV ranged from 8 to 32 (this includes the subcontractor). They commonly partnered with local and state agencies (40 percent of partners) (Table A.12). Partner agencies were well established and most had 10 years or more of experience in home visiting (53 percent), with just under one-third having at least 20 years of experience (30 percent). Partners most commonly conducted their work as an organization at the state level (37 percent) and the implementing agency (35 percent).

The systems level a partner worked at tended to vary by the type of organization. There was at least one local or state agency represented in each of the seventeen partnerships (Table A.13). The majority of these agencies reported working at the state level (56 percent). There was also at least one non-profit organization in each of the 17 partnerships and they had a relatively even distribution work across levels (38 percent worked at the state level, 35 percent worked at the implementing agency level, and 27 percent worked at the community level). Community-based service providers were also commonly involved in the partnerships, and all of these organizations worked at either the implementing agency (70 percent) or at the community level (30 percent).

[6] We obtained data from 260 respondents; however, 15 surveys were incomplete.

Table A.11. Response Rates, by Grantees and Overall

State	Grantee	Total Partners	Completed Surveys	Response Rates (percentages)
CA	County of Solano, Department of Health and Social Services	23	17	73.9
CA	Rady Children's Hospital-San Diego	12	12	100.0
CO	Colorado Judicial Department	10	9	90.0
DE	Children & Families First	24	17	70.8
HI	Hawaii Department of Health	16	13	81.3
IL	Illinois Department of Human Services	12	10	83.3
MN	Minnesota Department of Health	30	25	83.3
NJ	New Jersey Department of Children and Families	12	10	83.3
NY	Society for the Prevention of Cruelty to Children, Rochester	14	10	71.4
OH	Mercy St. Vincent Medical Center	15	14	93.3
OK	University of Oklahoma Health Sciences Center	14	12	85.7
RI	Rhode Island KIDS COUNT	8	7	87.5
SC	Children's Trust Fund of South Carolina	28	19	67.9
TN Child & Family	Child & Family Tennessee	25	19	76.0
TN LeBonheur	Le Bonheur Community Health and Well-Being	16	12	75.0
TX	DePelchin Children's Center	32	17	53.1
UT	Utah Department of Health	31	19	61.3
	Total	**322**	**242**	**75.2**

Source: Analysis of the EBHV partner survey—2013 survey administration by Mathematica Policy Research.

Table A.12. Characteristics of the Organizations That Participated in the Partnerships

Characteristics	N	Percentage
Organization Type		
Local or state agency	101	40
Other non-profit organization	41	16
Other	32	13
Community-based service provider	31	12
University	16	6
Hospital	14	6
Health care organization other than a hospital	8	3
National model developer or support organization for home visiting program model	5	2
Foundation	3	1
Health plan	2	1
Years Involved in Home Visitation		
20 years or more	74	30
10 to 19 years	58	23
6 to 9 years	26	11
2 to 5 years	39	16
Less than 2 years	6	2
Organization is not involved in home visitation	45	18
Level of Activity		
Implementing Agency	84	35
Community	65	27
State	89	37
National	3	1

Source: Analysis of the EBHV Partner Survey—2013 Survey Administration by Mathematica Policy Research.

Notes: n = 260 respondents across 17 sites, though some respondents did not provide information for each question, and therefore, the percentages represent scores relative to all respondents to that particular item.

Table A.13. Organization Type and System Level at Which Partners' Reported Working

	Number of Subcontractors with at Least One Partner of This Type	Percentage of Partners that Reported Working Primarily at Each System Level			
		Implementing Agency	Community	State	National
Local or state agency	17	24	20	56	0
Other non-profit organization	17	35	27	38	0
Community-based service provider	14	70	30	0	0
University	10	13	33	47	7
Hospital	7	69	23	8	0
Health care organization other than hospital	5	71	14	14	0
National model developer or support organization	5	20	20	20	40
Foundation	3	0	33	67	0
Health plan	2	0	100	0	0
Other	13	28	45	28	0

Source: Analysis of the EBHV Partner Survey – 2013 Survey Administration by Mathematica Policy Research.

Notes: N = 240. Partners that did not report an organization type (n = 7) or a system level (n = 19) were not included. All subcontractors are weighted equally to account for the number of partners that completed surveys at each subcontractor site.

D. Cross-Domain Inferential Analysis Used In Chapter IV

The main inferential analysis examined the organizational- and partnership-level variables associated with progress toward achieving site-specific goals. In the survey, respondents were asked to provide information on progress achieving goals across three domains: fidelity, scale-up, and sustainability. This technical appendix provides more detail on the analysis conducted for these three outcome domains.

1. Correlations among Key Constructs

The goal of the cross-domain analysis was to examine the variables that influence progress in achieving goals. In preparing for the HLM analyses that assessed relationships among the predictors and outcomes, we needed to determine whether the analytic variables were highly correlated. If the measures were highly correlated, we would have to eliminate or further combine variables as needed. The resulting correlation matrix included all the data elements captured in the survey. Before conducting the inferential analyses described in Chapter IV, we created a correlation matrix of the survey as a first step in our model building, using all the data elements captured in the survey (Table A.14).

Table A.14. Correlation Coefficients of Individual and Site-Level Variables

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1) Foundation infrastructure	-	0.09	0.20**	0.02	0.35**	0.36**	0.11+	0.03	0.03	0.11
(2) Implementation infrastructure	0.09	-	0.65**	0.10+	0.08	0.12*	0.20**	0.27**	0.15*	0.18**
(3) Sustaining infrastructure	0.20**	0.65**	-	0.28**	0.31**	0.31**	0.32**	0.35**	0.22**	0.24**
(4) Collaboration quality	0.02	0.10+	0.28**	-	0.25**	0.21**	0.41**	0.31**	0.31**	0.37**
(5) Collaboration density	0.35**	0.08	0.31**	0.25**	-	0.95**	0.21**	0.14+	0.12+	0.23**
(6) Goal density	0.36**	0.12*	0.31**	0.21**	0.95**	-	0.17*	0.12	0.06	0.23**
(7) Progress achieving Fidelity goals (n = 212)	0.11+	0.20**	0.32**	0.41**	0.21**	0.17*	-	0.58**	0.49**	0.34**
(8) Progress achieving Scale-up goals (n = 181)	0.03	0.27**	0.35**	0.31**	0.14+	0.12	0.58**	-	0.58**	0.31**
(9) Progress achieving Sustainability goals (n = 191)	0.03	0.15*	0.22**	0.31**	0.12+	0.06	0.49**	0.58**	-	0.30**
(10) Sustainability sensitivity measure	0.11	0.18**	0.24**	0.37**	0.23**	0.23**	0.34**	0.31**	0.30**	-

Source: Data collected from the EBHV partner survey 2013.

Note: Only 15 subcontractors had stated scale-up goals (9), and only 16 subcontractors had stated sustainability goals (1), so correlation coefficients against these variables reflect fewer than 17 subcontractors. For all other outcomes, correlations were calculated using 260 observations; if an observation had missing information, we replaced the missing data with their partnership average.

** $p < .01$, * $p < .05$, $^{+}$ $p < .10$.

The correlation analyses revealed an extremely high correlation coefficient between the collaboration density and goal density variables ($r = 0.95$, $p < 0.01$), suggesting that these two variables provided very similar information (that is, that organizations tend to collaborate with those with whom they share goals). Therefore, we chose to only include one of these contextual factors as a predictor variable in the HLM analyses. Given the importance of this variable in prior findings from the project (Hargreaves et al. 2013), we included goal density as the focal predictor of interest, and we included the alternate network density variable as a predictor in sensitivity analyses presented here.

There was also a strong correlation between the building implementation infrastructure and building sustaining infrastructure variables ($r = 0.65$, $p < 0.01$). Because the strength of the relationship between these two potential predictor variables was stronger than the relationship between any of the theorized predictors and the goal outcome variables, we felt that it was appropriate to include one of them as a predictor in the model. For this report, we focused on sustaining infrastructure as a predictor because it had stronger bivariate relationships with the outcomes of interest, and we include results using implementation infrastructure as a predictor variable in the analyses presented here.

To obtain correlation coefficients on the alternate assessments of implementation with fidelity, and scale-up, where the unit of analysis was implementation agencies (n = 35) or partnership-level data (n = 17), we needed to adjust our analytic framework. To estimate these correlation

coefficients, we aggregated all observations to the partnership level (n = 17) and calculated additional correlation coefficients (Table A.15). The description in Chapter IV of the results focused on the correlation coefficients between primary and secondary assessments of implementation with fidelity and scale-up.

There was a positive relationship across the primary (survey scale) and secondary (IA service data) outcome measures of implementation with fidelity (r = 0.19, $p > 0.05$); however, the relationship was not statistically significant, nor did the magnitude of the correlation suggest a strong relationship between these variables.[7] Therefore, we believe that the subcontractor and partners' survey reports of progress meeting implementation with fidelity goals assess a different fidelity dimension than what the fidelity data system measured: home visitor reports of completed visits.

When comparing the main measure of progress achieving scale-up goals with the scale-up assessment based on an objective measure of scale-up obtained from the site visit data, we saw that there was some concordance, but that these assessments appeared to capture different dimensions of scale-up. The correlation coefficient between the perceptions of progress in achieving scale-up goals and objective scale-up was $r = 0.29$ ($p > 0.05$).[8]

Finally, the two sustainability measures captured in the survey (Table A.15) appeared to assess different sustainability constructs. The correlation coefficient between partner perceptions of progress achieving sustainability goals and the alternate sustainability measure was r = 0.30 ($p <$ 0.01). Although these assessments of sustainability are correlated, the degree to which they correlate does not suggest that they are measuring the same general construct (for example, the extremely high correlation coefficient among the density scores described above strongly suggests that those two measures are capturing the same information).

2. Inferential Analytic Procedure

In this project, there is a clear nesting of data: organizational responses are nested within each of 17 partnerships. Our analytic procedures needed to acknowledge this dependency to accurately examine how organizational- and partnership-level variables influenced the ways each organization progressed toward the partnership goals. As mentioned in the main body of the report, we used Hierarchical Linear Modeling (HLM) to appropriately adjust our analyses for this clustering of data (Raudenbush and Bryk 2002). In doing so, the standard errors and p-values for all inferential analyses are an accurate reflection of the underlying data structure.

[7] This correlation coefficient was based on partnership-level data (n = 16), where progress achieving implementation with fidelity goals was operationalized as the average proportion of families receiving 80 percent dosage across all IAs in a partnership. This was done to allow the units of analysis for the primary outcome of implementation with fidelity (survey data) to align with the secondary outcome of implementation with fidelity (implementation agency fidelity dosage data).

[8] This correlation coefficient was based on partnership-level data (n = 17), where progress achieving scale-up goals was operationalized as the partnership average for this analysis. This was done to allow the units of analysis for the primary outcome of achieving scale-up goals (survey data) to align with the secondary outcome of scale-up (site visit data).

Table A.15. Correlation Coefficients of Site-Level Variables (n = 17 partnerships)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(1) Foundation infrastructure	-	0.57*	0.92**	0.21	0.69**	0.70**	0.29	0.40	0.20	0.24	0.32	-0.22	0.48+
(2) Implementation infrastructure	0.57*	-	0.57*	-0.19	0.26	0.38	0.00	0.27	-0.23	0.33	0.44+	-0.05	0.17
(3) Sustaining infrastructure	0.92**	0.57*	-	0.23	0.71**	0.67**	0.28	0.48+	0.19	0.34	0.31	-0.19	0.48+
(4) Collaboration quality	0.21	-0.19	0.23	-	0.53*	0.47+	0.63**	0.12	0.45+	-0.06	0.13	-0.32	0.55*
(5) Collaboration density	0.69**	0.26	0.71**	0.53*	-	0.95**	0.59*	0.26	0.26	0.19	0.36	-0.26	0.67**
(6) Goal density	0.70**	0.38	0.67**	0.47+	0.95**	-	0.50*	0.22	0.12	0.36	0.59*	-0.20	0.68**
(7) Progress achieving Fidelity goals	0.29	0.00	0.28	0.63**	0.59*	0.50*	-	0.05	0.39	0.02	0.19	-0.26	0.38
(8) Progress achieving Scale-up goals	0.40	0.27	0.48+	0.12	0.26	0.22	0.05	-	0.27	0.32	0.05	0.45+	0.24
(9) Progress achieving Sustainability goals	0.20	-0.23	0.19	0.45+	0.26	0.12	0.39	0.27	-	-0.09	-0.17	0.08	0.29
(10) Fidelity sensitivity measure (60 percent)[a]	0.24	0.33	0.34	-0.06	0.19	0.36	0.02	0.32	-0.09	-	0.85**	0.21	0.38
(11) Fidelity sensitivity measure (80 percent)[a]	0.32	0.44+	0.31	0.13	0.36	0.59*	0.19	0.05	-0.17	0.85**	-	-0.08	0.42
(12) Scale-up sensitivity measure (4 point scale)[b]	-0.22	-0.05	-0.19	-0.32	-0.26	-0.20	-0.26	0.45+	0.08	0.21	-0.08	-	-0.09
(13) Sustainability sensitivity measure	0.48+	0.17	0.48+	0.55*	0.67**	0.68**	0.38	0.24	0.29	0.38	0.42	0.09	-

Note: Only 15 grantees had stated scale-up goals (9), and only 16 grantees had sustainability goals (1), so correlation coefficients against these variables reflect fewer than 17 grantees.

[a] Because the primary assessment of implementation with fidelity was based on 212 partner survey responses, and the secondary assessment of implementation with fidelity was based on actual fidelity data obtained from 35IAs, we needed to find a common unit at which to compare these data elements. To estimate this correlation coefficient, we aggregated both primary and secondary outcomes to the partnership level, and calculated the correlation coefficient across the 16 partnerships with data on both variables.

[b] This correlation coefficient was based on partnership level data (n = 17), where progress achieving scale-up goals was operationalized as the partnership average for this analysis. This was done to allow the units of analysis for the primary outcome of achieving scale-up goals (survey data) to align with the secondary outcome of scale-up (site visit data).

** $p < .01$, * $p < .05$, $^{+}$ $p < .10$.

We used several steps in this HLM analysis of partnership progress toward meeting goals. The sequential procedure used here ultimately allows us to better understand the proportion of variance explained by the predictors in our model. We outline each step here:

Step 1: Estimating an intra-class correlation coefficient. The initial step in the inferential analytic procedure was to estimate the proportion of variance in each outcome that was due to between-partnership differences, relative to within-partnership differences. The proportion of variance in the outcome due to between-partnership differences, relative to the total variance in the outcome, is known as the intra-class correlation coefficient (ICC). In this study, this ratio provides an intuition of how much partners agree on the degree to which they have achieved their goals. When the ICC is relatively low, there is relatively more variability in opinions of whether a goal has been achieved within each partnership. When the ICC is relatively high, there is relatively more consensus in the opinions of whether a goal has been achieved within a partnership. In addition, when an ICC is relatively high, there is a greater opportunity for partnership-level variables to influence the degree to which goals were achieved.

The initial analytic model estimated was an unconditional, random effects analysis of variance. In this model, the outcome of interest $Goal_{ij}$ (the progress on achieving a particular goal, for respondent *i* in partnership *j*) is modeled as a partnership-level intercept β_{0j} and an organizational random disturbance ε_{ij}. The partnership-level intercept is simultaneously modeled as a cross-partnership average γ_{00}, plus a partnership-level disturbance u_{0j}. Because this is a random effects ANOVA, only three parameters are estimated: the cross-partnership average of progress toward a given γ_{00}, the variance of the within-partnership disturbances σ^2, and the variance of the between-partnership disturbances τ_{00}. More formally, the model estimated is as follows:

Within-partnership (level 1) model:

$$Goal_{ij} = \beta_{0j} + \varepsilon_{ij}$$

Between-partnership (level 2) model:

$$\beta_{oj} = \gamma_{00} + u_{0j}$$

Where $\varepsilon_{ij} \sim N(0, \sigma^2)$ and $u_{0j} \sim N(0, \tau_{00})$

This model decomposes the total variance in the outcome into between-partnership variance (τ_{00}), and within-partnership variance (σ^2). To provide an interpretable explanation of the sources of variance of the outcome, we can estimate an unconditional ICC (ρ) according to the following:

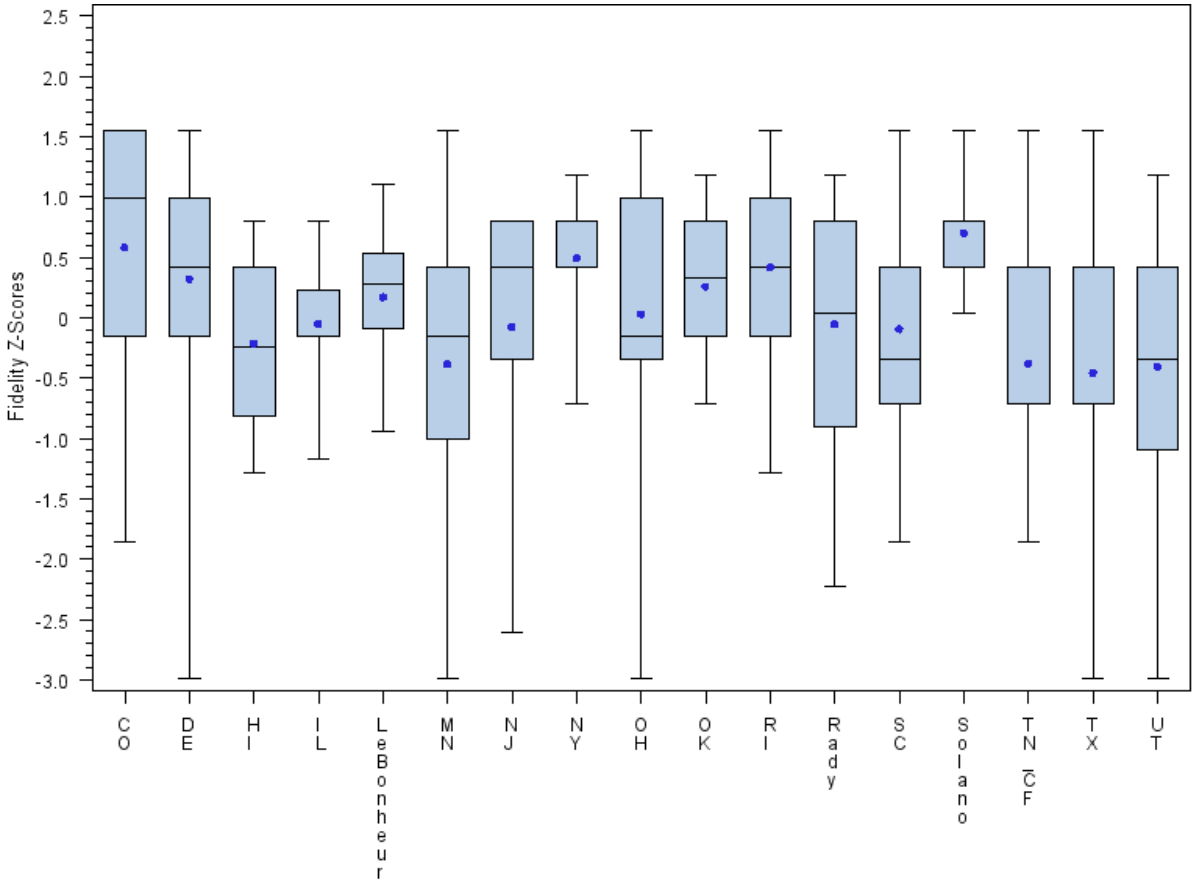
$$\rho = \tau_{00} / (\sigma^2 + \tau_{00})$$

We report these three **statistics** (ρ, σ^2 and τ_{00}**)** in Table A.9.

Across the three outcomes of interest, the largest differences were across partnerships in their progress achieving goals around sustainability (ICC = 0.13). There were relatively similar amounts of between-partnership differences in perspectives of progress achieving goals around scale-up (ICC = 0.11).There were relatively little between-partnership differences in perceptions of progress achieving implementation with fidelity goals (ICC = 0.05), suggesting that, on average, partnerships all made relatively equal progress in that goal.

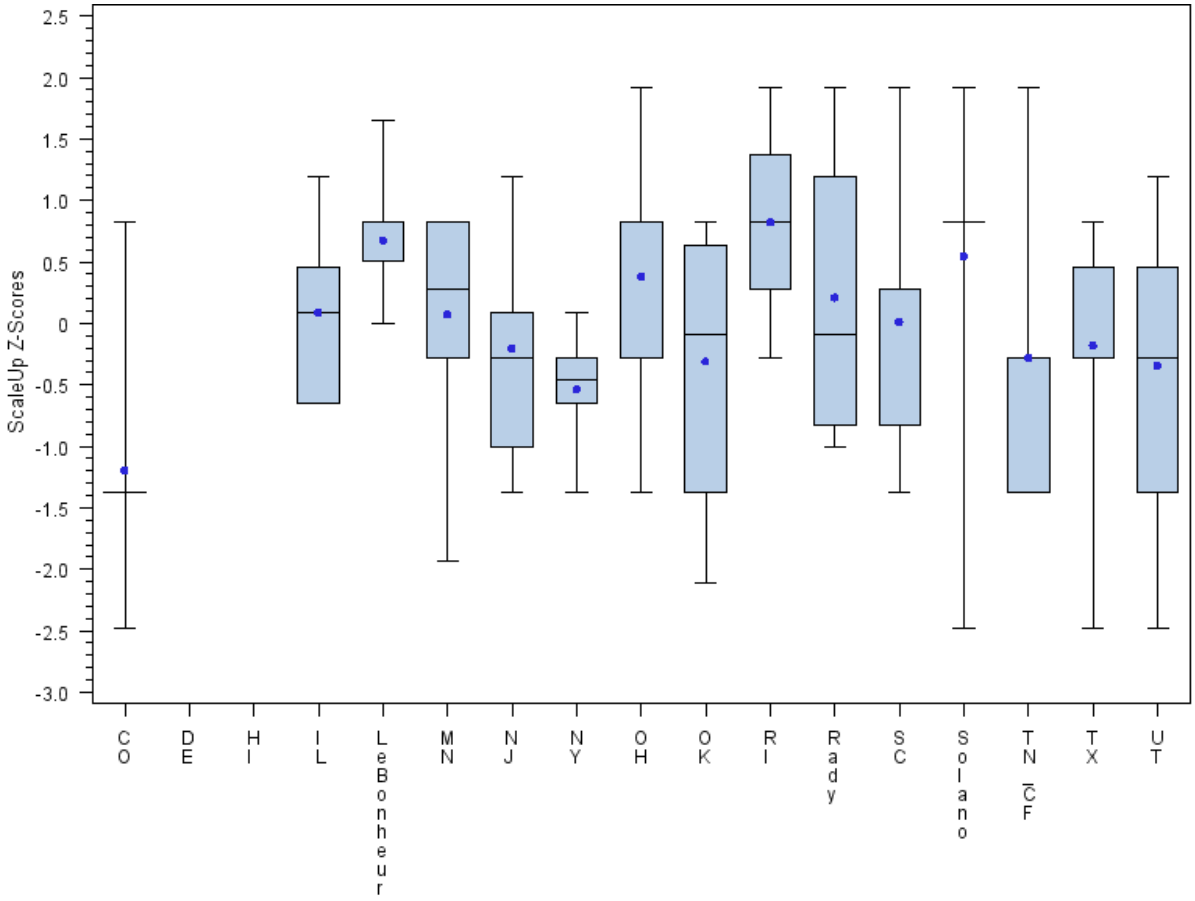
An alternate way to visualize the degree to which variability exists in the perceptions of progress achieving goals within and between sites is to examine box plots of each outcome, by partnership. These box plots show the minimum score, 25th percentile, 50th percentile, 75th percentile, and maximum scores for each partnership for each outcome measure, as well as the average score shown as a dot in the graph. As indicated in the ICC analysis above, the differences in partners' average perspectives on progress achieving implementation with fidelity goals (Figure A.1) than achieving scale-up (Figure A.2) or sustainability (Figure A.3) goals.

Figure A.1. Box Plot of Partnership Scores for the Progress Achieving Implementation with Fidelity Goals Outcome



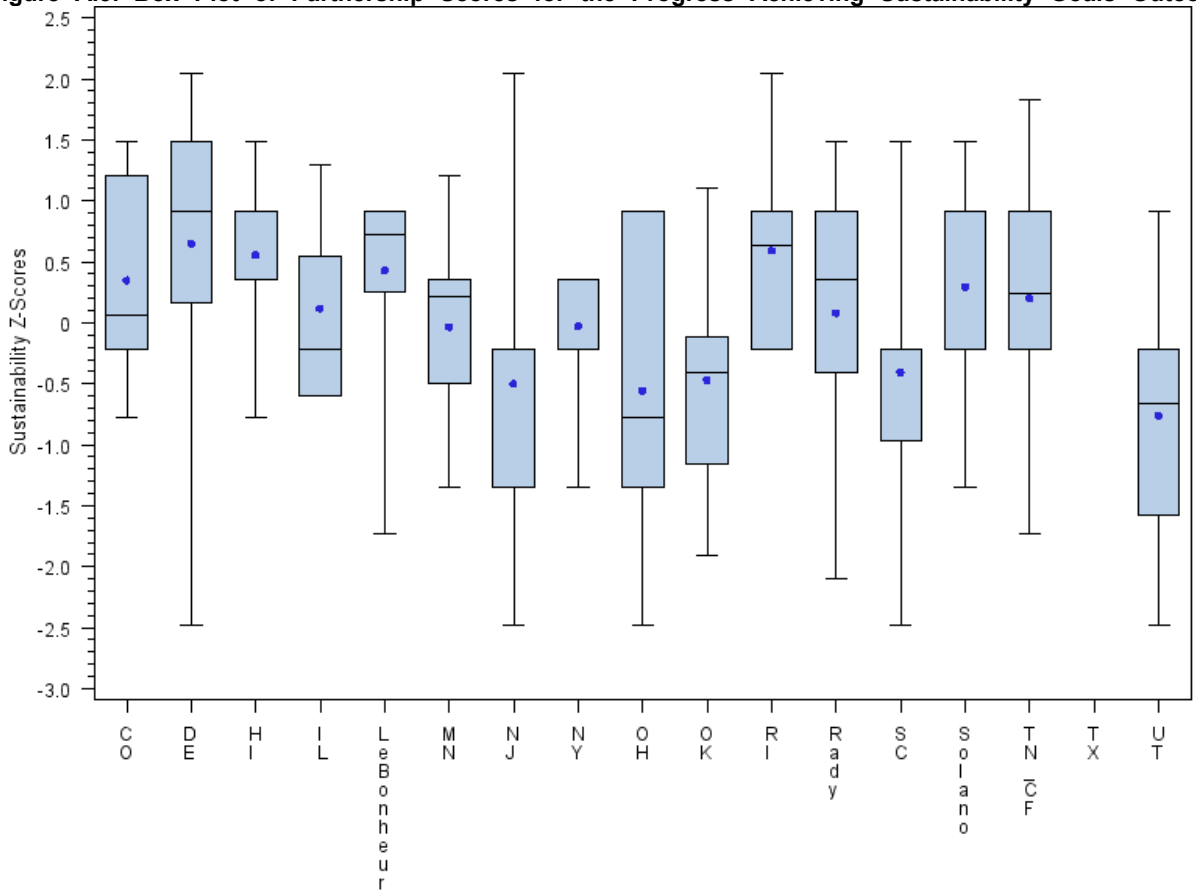
Source: Data collected from the EBHV partner survey 2013.

Figure A.2.Box Plot of Partnership Scores for the Progress Achieving Scale-Up Goals Outcome



Source: Data collected from the EBHV partner survey 2013.

Figure A.3. Box Plot of Partnership Scores for the Progress Achieving Sustainability Goals Outcome



Source: Data collected from the EBHV partner survey 2013.

Step 2: Estimating the level 1 model. In this study, we wanted to track the proportion of variance that was reduced both within partnerships (examining changes to the σ^2 term) and across partnerships (examining changes to the τ_{00} term) through the inclusion of variables expected to explain progress in achieving goals. However, because the τ_{00} term represents the variability in the partnership-level intercepts (β_{0j}), and partnership-level intercepts represent the average outcomes when all predictor variables are equal to zero, including any predictor variables in the model changes the interpretation of the β_{0j} term. Therefore, the τ_{00} term is dependent upon the final specification of the level 1 model.

The original plan (as described in Chapter IV) was to examine the contributions of foundation infrastructure, implementation infrastructure, and sustaining infrastructure, as well as collaboration quality, on perceptions of progress in achieving goals. However, because there was a high bivariate correlation between implementation infrastructure activity and sustaining infrastructure activity, the main analysis did not include implementation infrastructure as a focal predictor in the impact model.

We used the following as the main specification of the level 1 model, which includes a number of organizational-level factors as predictors.

Within-partnership (level 1) model:

$$Goal_{ij} = \beta_{0j} + \beta_{1j} * \left(Foundation_{ij}\right) + \beta_{2j} * \left(Sustaining_{ij}\right) + \beta_{3j} * \left(Collab\_Quality_{ij}\right) + \sum_a^k \beta_{aj} * X_a + \varepsilon_{ij}$$

Between-partnership (level 2) model:

$$\beta_{0j} = \gamma_{00} + u_{0j}$$

For all other L1 predictors:

$$\beta_{Xj} = \gamma_{X0}$$

Where

$$\varepsilon_{ij} \sim N\left(0, \sigma^2_{Step1}\right) \text{ and } u_{0j} \sim N\left(0, \tau_{00,Step1}\right)$$

The following variables are measured at the organization (i) level:

- $Foundation_{ij}$ = organization i's involvement in developing foundation infrastructure
- $Sustaining_{ij}$ = organization i's involvement in developing sustaining infrastructure
- $Collab\_Quality_{ij}$ = organization i's perspective of the quality of the collaboration
- X_a = vector of organization i's attributes (organization type, years involved in home visitation, years involved in child abuse prevention, level of organizational involvement, whether the organization was the lead)

The inclusion of the level 1 predictor variables is expected to reduce the estimate of σ^2_{Step1} relative to the unconditional model and changes the value of $\tau_{00,Step1}$, under the assumption that the predictor variables are related to the dependent variable.[9] We report the change in the estimated σ^2_{Step1} as the proportion of level 1 variance explained by level 1 covariates in Table A.9. More formally:

Level 1 Variance explained = $1 - \left(\sigma^2_{Step1} / \sigma^2\right)$

In this study, the inclusion of the level 1 predictor variables explained between 11 percent of the variance in the outcome (sustainability) to 26 percent of the variance in the outcome (scale-up).

Step 3: Estimating the level 2 model. The final step in the analysis was to add partnership (level 2) predictors to the model. The inclusion of partnership-level variables reduces the variance in

[9] The $\tau_{00,Step1}$ value might actually increase, relative to τ_{00} depending on the location of the predictor variables; however, we do not report changes in the estimated $\tau_{00,Step1}$ in proportion of variance explained.

the $\tau_{00,Step1}$ term, and provides information on the relative contribution of partnership-level predictors to progress achieving goals.

The original plan (as described in Chapter IV) was to examine the contributions of two partnership-level variables as predictors of progress achieving goals: (1) the frequency with which partners worked together, and (2) the degree to which partner goals were aligned with each other (both were network density measures). However, because these two variables were essentially collinear at the partnership level ($r = 0.95$, $p < 0.01$), only the alignment of goal variable was included as a predictor variable.

We used the following as the main specification of the level 1 and 2 models.

Within-partnership (level 1) model (unchanged from previous step):

$$Goal_{ij} = \beta_{0j} + \beta_{1j} * \left(Foundation_{ij}\right) + \beta_{2j} * \left(Sustaining_{ij}\right) + \beta_{3j} * \left(Collab\_Quality_{ij}\right) + \sum_a^k \beta_{aj} * X_a + \varepsilon_{ij}$$

Between-partnership (level 2) model:

$$\beta_{0j} = \gamma_{00} + \gamma_{0j} * NetworkDensity_j + u_{0j}$$

For all other L1 predictors:

$$\beta_{Xj} = \gamma_{X0}$$

Where

$$\varepsilon_{ij} \sim N\left(0, \sigma^2_{Step2}\right) \text{ and } u_{0j} \sim N\left(0, \tau_{00,Step2}\right)$$

The following variables are measured at the system (j) level:

- $NetworkDensity_j$ = the proportion of working relationships among organizations in partnership j

The inclusion of the level two predictor variable was expected to reduce the estimate of σ^2_{Step2} relative to the value shown in Step 2 $\tau_{00,Step2}$, under the assumption that the predictor variable is related to the dependent variable. We report the change in the estimated $\tau_{00,Step2}$ as the proportion of level 2 variance explained by the level 2 covariate in Table A.16. More formally:

Level 2 Variance explained = $1 - \left(\tau_{00,Step2} / \tau_{00,Step1}\right)$.[10]

[10] The value of σ^2_{Step2} is identical to σ^2_{Step1} (except for estimation error), because the level 2 variables do not explain any level 1 variance.

Table A.16. Variance Components and Model R2 for Each Outcome

	Fidelity Goals(17 sites, 212 observations)			Scale-Up Goals(17 sites, 181 observations)			Sustainability Goals(17 sites, 191 observations)		
	ρ	σ^2 total L1 variance explained)	τ_{00} (total L2 variance explained)	ρ	σ^2 (total L1 variance explained)	τ_{00} (total L2 variance explained)	ρ	σ^2 (total L1 variance explained)	τ_{00} total L2 variance explained)
Unconditional ANOVA	0.05	0.95 (N.A.)	0.05 (N.A.)	0.11	0.91 (N.A.)	0.11 (N.A.)	0.13	0.87 (N.A.)	0.13 (N.A.)
Level 1 Predictors Only	-	0.72 (24%)	0.04 (N.A.)	-	0.67 (26%)	0.12 (N.A.)	-	0.78 (11%)	0.13 (N.A.)
Level 1 and Level 2 Predictors	-	0.72 (24%)	0.05 (-9%)	-	0.67 (26%)	0.14(-11%)	-	0.78 (11%)	0.15 (-10%)

Source: Data collected from the EBHV partner survey 2013.

N.A. = not applicable.

In this analysis, the negative proportion of L2 variance explained τ_{00} by the L2 predictors reflects an imprecise variance estimate. This is because the L2 predictor (Goal Alignment Density) was not significantly related to the outcome of interest in any of the analyses.

E. Sensitivity Analyses

In addition to the main benchmark analyses proposed above, we included four sensitivity analyses to test the robustness of our results. We used (1) an alternate version of the outcome measure for each goal (described in the main body of the report), (2) alternate versions of key infrastructure predictor variables, (3) alternate versions of key network predictor variables, and (4) additional partnership variables. We outline these approaches next.

1. Alternate Versions of the Outcomes of Interest, Key Predictors, and Network

Fidelity goal. The alternate version of the fidelity goal was based on service provision information obtained from the fidelity database described in Chapter 3. For each IA, we calculated the proportion of families who received 80 percent and 60 percent of the expected dose of the intervention six months after beginning services. We obtained fidelity variables for 35 IAs, spanning 16 out of the 17 partnerships (there were no fidelity data for any IAs in Minnesota).[11] Because the IAs represented different units than the survey respondents, for this analysis, we only examined the partnership-level variables as predictors in the analysis. The assessments of implementation with fidelity based on the fidelity dosage data indicated that, across the 35 IAs, on average, only 36.2 percent of the agencies provided families with at least 80 percent of the intended dosage of the program after six months of implementation, and 66.2 percent provided 60 percent of the intended dosage (Table A.17).

[11] For analyses of the alternate version of implementation with fidelity, our sample is limited to 16 partnerships. For all other outcomes, we are able to report on all 17 partnerships.

Table A.17. EBHV Subcontractor Progress Toward Goals (Alternate Outcome Measures)

	Mean (or Proportion)	Standard Deviation	Number of Observations
Implementation with Fidelity (Percentage of Families Receiving 60 percent of Dosage)	66.2%	N/A	35[a]
Implementation with Fidelity (Percentage of Families Receiving 80 percent of Dosage)	36.2%	N/A	35[a]
Scale-Up (range = 0 to 4)	2.47	0.80	17[b]
Sustainability (range = 1 to 4)	3.15	0.47	227

Sources: Data collected from the EBHV partner survey 2013 and the EBHV Fidelity Database and NFP-ETO System from October 2009 through June 2012.

[a] The alternate implementation with fidelity outcome measure was calculated using IA data (n = 35).

[b] The secondary scale-up outcome measure was calculated using site-level data (n = 17).

Scale-up goal. The alternate version of scale-up goal was operationalized based on a qualitative review of the annual reporting documents. Each partnership was scored on a 0-5 scale on their progress in achieving scale-up. This partnership-level variable was used as the outcome of interest for the sensitivity analysis of scale-up. Because there were only 17 scores for each of the 17 sites, for this analysis, we only examined the partnership-level variables as predictors in the analysis. With respect to scale-up, across the 17 partnerships, on average, the partnerships achieved more than two (mean = 2.47) of the four types of scale-up assessed (Table A.16). All 17 partnerships (100 percent) increased the number of families served by the IAs affiliated with the EBHV initiative, and 9 partnerships (53 percent) served more families than they originally expected to serve. Thirteen partnerships (76 percent) increased the number of IAs delivering evidence-based home visiting programs, and three partnerships (18 percent) increased the number of IAs by more than they originally planned. The results from the partner-reported and site visit scale-up outcome measures both suggest that moderate levels of scale-up have been achieved.

Sustainability goal. The alternate version of the sustainability goal was captured as a survey scale in the partnership survey. We calculated a scale score for each respondent and used this scale as the alternate measure of sustainability for the sensitivity analysis. The results for the secondary measure of sustainability suggest that, on average, partners felt that the level of sustainability of evidence-based home visiting in their communities and states was relatively strong (average score = 3.15 on a 1 to 4 scale) (Table A.16). Again, this measure captures the degree to which leaders in the community and state focused on evidence-based home visiting as a key prevention approach to combat child maltreatment. Like the results for the implementation with fidelity results, the findings from the secondary data sources suggest a different result than the partner-reported rating of sustainability described above. As measured by the primary outcome, we found only moderate levels of progress in achieving sustainability goals, whereas the alternate outcome measure suggests a more optimistic assessment of achievement of sustainability goals.

Additional partnership variables. Because there were only up to 17 partnerships in this study, we were limited in the number of partnership-level predictor variables that we could include in our analyses without overfitting the data. However, there were two variables that were suggested for consideration in the analysis by an expert in systems research that we wanted to include in the sensitivity specification, but not include in the main benchmark model because they would reduce the degrees of freedom in the analysis.

- **Number of goals.** Each grantee indicated a different number of individual items within a particular goal. One thought was that, if a grantee had many goals, it would be less likely to have made progress across all goals. In this specification, we include the number of goals as a partnership-level predictor variable.
- **Network size.** Each partnership had a different number of partners, and it is possible that, with more partners, it would have been easier to have greater progress toward achieving goals. In this sensitivity specification, the number of partners was included as a partnership-level predictor.

Alternate Infrastructure Measure. The benchmark analysis used foundation infrastructure and sustaining infrastructure as key organizational predictors of each outcome variable. In this sensitivity analysis, instead of using sustainability infrastructure as a focal predictor, we replaced this variable with implementation infrastructure in the analyses, because this variable was highly correlated with sustainability infrastructure ($r = 0.65$, $p < 0.01$), and was therefore dropped in the benchmark model.

Network. The benchmark analysis used the responses to the alignment of goals network question to operationalize the density of collaborative relationships among partners. This network was shown to be highly correlated with infrastructure development (Hargreaves et al. 2013), and was therefore an obvious choice for this analysis of how infrastructure development influenced progress toward achieving goals. In the 2013 partner survey, a second network question was asked, regarding the frequency with which organizations worked with each other on the site-specific EBHV project. The density of these two networks was highly correlated ($r = 0.95$, $p < 0.01$), so only one network was included in the main analysis to limit collinearity issues. We include the alternate measurement of network density operationalized through frequent working activity as a sensitivity specification.

Next, we present the results of the analyses for each of these specifications for a given outcome.

2. Sensitivity Results for Implementation with Fidelity

For the implementation with fidelity goal, our sensitivity analysis found that alternative specifications of the model produced findings similar to the benchmark mode for all models except the one that examined the alternate version of the outcome (Table A.18).

In the alternate outcome measures (the 80% and 60% implementation with fidelity findings), we see substantively different findings from the benchmark results. In the analysis that examines the 80% implementation with fidelity outcome, neither sustaining infrastructure nor quality of collaboration are significantly related to the outcome, as they were in the benchmark model. Instead, network density and implementation infrastructure are positively related to implementation with fidelity (80% threshold). When the 60% implementation with fidelity variable is examined as an outcome, there are no significant relationships between predictor variables and the outcome.

In the remaining three sensitivity models (the three rightmost columns of Table A.17), the inferential results mirror the benchmark approach in direction and significance: both (1) building sustaining infrastructure, and (2) collaboration quality are significantly related to implementation with fidelity.

Table A.18. Sensitivity Parameter Estimates for the Fidelity Goal

	Benchmark Model	Alternate Outcome Measure 80 Percent[a]	Alternate Outcome Measure 60 Percent[a]	Benchmark Model + Additional Partnership Predictors	Alternate Predictor Variable (implementation infrastructure instead of sustaining infrastructure)	Alternate Version of Network Density Measure
Predictor	Parameter Estimate (Standard Error)					
Partnership-level predictors						
Network Density	0.37 (0.51)	1.04* (0.44)	0.52 (0.57)	0.72 (1.12)	0.55 (0.50)	n.a.
Network Density (alternate measure)	n.a.	n.a.	n.a	n.a.	n.a.	0.63 (0.55)
Organizational-level predictors						
Organizational Foundation Infrastructure	0.04 (0.05)	n.a	n.a	0.04 (0.05)	0.04 (0.06)	0.03 (0.05)
Organizational Implementation Infrastructure	n.a	0.26* (0.09)	0.07 (0.18)	n.a.	0.05 (0.06)	n.a
Organizational Sustaining Infrastructure	0.14* (0.07)	-0.15 (0.12)	0.04 (0.18)	0.15* (0.07)	n.a.	0.14* (0.07)
Organizational Perceptions of Collaboration Quality	0.64** (0.16)	-0.09 (0.25)	-0.31 (0.41)	0.63** (0.17)	0.72** (0.16)	0.62** (0.16)
Alternate outcome measure	N	Y	Y	N	N	N
Include additional partnership-level variables (network size, number of goals)	N	N	N	Y	N	N

Note: n = 212 observations across 17 sites. Analyses also included vector of attributes, including organization type, years involved in home visitation, years involved in child abuse prevention, and level of organizational involvement. The alternate version of the network density variable is based on organizational responses to a question about the frequency of working with other organizations.

[a]The alternate assessment of implementation with fidelity was based on actual fidelity data obtained from 35 IAs in 16 partnerships. Because the units of analysis for this variable differ from the units of analysis in the survey, the implementation infrastructure, sustaining infrastructure, and collaborative quality were based on site averages. This analysis eliminated the foundation infrastructure variable instead of the implementation infrastructure variable because the site averages for foundation infrastructure and sustaining infrastructure were essentially collinear ($r = 0.92$, $p < 0.01$).

Notes: n.a. = not applicable.

3. Sensitivity Results for Scale-Up

For the scale-up goal, our results tended to differ across the different specifications (Table A.19). Collaboration quality was a significant predictor of scale-up in all models, except for the alternate assessment of scale-up model. Similarly, building sustaining infrastructure was significantly related to scale-up in all models, except in the alternate assessment of scale-up model. Network density marginally significantly related to scale-up in one model specification.

Table A.19. Sensitivity Parameter Estimates for the Scale-Up Goal

	Benchmark Model	Alternate Outcome Measure Four Point Scale[a]	Benchmark Model + Additional Partnership Predictors	Alternate Predictor Variable (implementation infrastructure instead of sustaining infrastructure)	Alternate Version of Network Density Measure[b]
Predictor	Parameter Estimate (Standard Error)				
Partnership-level predictors					
Network Density	0.33 (0.67)	0.35 (2.33)	2.71+ (1.31)	0.56 (0.71)	n.a.
Network Density (alternate measure)	n.a.	n.a.	n.a.	n.a.	0.43 (0.73)
Organizational-level predictors					
Organizational Foundation Infrastructure	-0.06 (0.06)	n.a	-0.06 (0.06)	-0.07 (0.06)	-0.07 (0.06)
Organizational Implementation Infrastructure	n.a	-0.15 (0.78)	n.a.	0.08 (0.06)	n.a
Organizational Sustaining Infrastructure	0.18* (0.08)	-0.22 (0.74)	1.17* (0.08)	n.a.	0.17* (0.08)
Organizational Perceptions of Collaboration Quality	0.46** (0.17)	-1.61 (1.66)	0.53** (0.17)	0.54** (0.17)	0.46** (0.17)
Alternate outcome measure	N	Y	N	N	N
Include additional partnership level variables (network size, number of goals)	N	N	Y	N	N

Note: n = 181 observations across 15 sites. Analyses also included vector of attributes, including organization type, years involved in home visitation, years involved in child abuse prevention, and level of organizational involvement.

[a] The alternate outcome measure was based on a qualitative review, where each partnership was scored on a 0-5 scale on its progress in achieving scale-up. The analysis conducted on the alternate scale-up measure was based on site-level data (n = 17), rather than organizational records, so the implementation infrastructure, sustaining infrastructure, and collaborative quality were based on site averages. This analysis eliminated the foundation infrastructure variable instead of the implementation infrastructure variable because the site averages for foundation infrastructure and sustaining infrastructure were essentially collinear ($r = 0.92$, $p < 0.01$).

[b] The alternate version of the network density variable is based on organizational responses to a question about the frequency of working with other organizations.

n.a. = not applicable.

4. Sensitivity Results for Sustainability

For the sustainability goal, our results tended to differ across the different specifications (Table A.20). Building sustaining infrastructure was not significant in the alternate predictor variable and alternate outcome measure models but was marginally significant in the other models. Conversely, collaboration quality was a significant predictor in all models, although it was only marginally significant in the benchmark model and additional partnership predictors model. Network density was marginally significant in the alternate outcome measure model.

Table A.20. Sensitivity Parameter Estimates for the Sustainability Goal

	Benchmark Model	Alternate Outcome Measure	Benchmark Model + Additional Partnership Predictors	Alternate Predictor Variable (implementation infrastructure instead of sustaining infrastructure)	Alternate Version of Network Density Measure
Predictor	Parameter Estimate (Standard Error)				
Partnership-level predictors					
Network Density	-0.11 (0.76)	0.90+ (0.45)	-0.21 (1.52)	0.01 (0.79)	n.a.
Network Density (alternate measure)	n.a.	n.a.	n.a.	n.a.	0.25 (0.80)
Organizational-level predictors					
Organizational Foundation Infrastructure	-0.01 (0.06)	0.01 (0.06)	-0.01 (0.06)	-0.01 (0.06)	-0.01 (0.06)
Organizational Implementation Infrastructure	n.a	n.a	n.a.	0.09 (0.07)	n.a
Organizational Sustaining Infrastructure	0.13+ (0.07)	0.08 (0.07)	0.13+ (0.07)	n.a.	0.13+ (0.07)
Organizational Perceptions of Collaboration Quality	0.42* (0.20)	0.60** (0.16)	0.40+ (.20)	0.47* (0.19)	0.41* (0.20)
Alternate outcome measure	N	Y	N	N	N
Include additional partnership-level variables (network size, number of goals)	N	N	Y	N	N

Note: n = 191 observations across 16 sites. Analyses also included vector of attributes, including organization type, years involved in home visitation, years involved in child abuse prevention, and level of organizational involvement. The alternate outcome measure was the secondary sustainability scale included in the survey. The alternate version of the network density variable is based on organizational responses to a question about the frequency of working with other organizations.

** $p < .01$, * $p < .05$, $^{+}$ $p < .10$.

Notes: n.a. = not applicable.

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APPENDIX B

OVERVIEW OF EBHV SUBCONTRACTORS

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This appendix provides an overview of each of the subcontractors involved in the EBHV initiative. Each profile identifies the subcontractor organization and their selected home visiting program model(s) discusses the target population(s) to be served; describes the subcontractor's goals; identifies the organization(s) involved in implementing the home visiting program model(s); describes whether the model was newly implemented or a continuation or expansion of existing services; and identifies the year home visiting services began for newly implemented models. The profile also identifies the subcontractor's local evaluator. We developed profiles of the subcontractors when the five-year initiative began in fall of 2008. We then worked with each subcontractor to update their profile in spring 2011.

Rady Children's Hospital, San Diego
San Diego, California

Lead Agency Information	Rady Children's Hospital in San Diego is a private, nonprofit hospital that provides inpatient and outpatient medical and mental health services at its main hospital campus in north-central San Diego and satellite clinics and offices throughout San Diego County. The Chadwick Center for Children and Families, a department within Rady Children's Hospital, provides services that include trauma treatment for children, a family violence program, forensic and medical services, a program for children and adolescents in court, professional education services, and a child maltreatment research center. Under the guidance of the executive director of the Chadwick Center, project staff implemented SafeCare in selected counties, provided support and guidance for the statewide project, and worked closely with selected county agencies to build the local infrastructure for the ongoing training and coaching.
Home Visiting Program Model Selected for Implementation in Conjunction with EBHV	SafeCare
Target Population for Home Visiting	Families who are at risk for, or have reports of, child abuse or neglect, or families involved in child welfare due to general neglect
Overarching Project Goals	(1) Expand the availability of SafeCare programs in counties across California (2) Develop a strong local infrastructure in each county to support the implementation, spread, and sustainability of SafeCare programs (3) Increase the total number of families served by an evidence-based home visiting program in California
Agency Implementing Home Visiting Program in Conjunction with EBHV	Fresno County Department of Children and Family Services; Madera County Department of Social Services; and Tulare County Health and Human Services Agency
Number of Home Visiting Program Locations Implemented in Conjunction with EBHV	3
Implementation Status of Home Visiting Program	New
Year Home Visiting Program Implementation Began	Fresno County Department of Children and Family Services (2010); Madera County Department of Social Services (2010); Tulare County Health and Human Services Agency (2010)
Local Evaluator	Child and Adolescent Services Research Center, University of California, San Diego

County of Solano Department of Health and Social Services
Fairfield, California

Lead Agency Information	The County of Solano Department of Health and Social Services, a state government agency, has six divisions: Public Health, Child Welfare Services, Mental Health, Employment and Eligibility Services, Substance Abuse Services, and Older and Disabled Adult Services. The Department of Health and Social Services' programs and services promote, and are geared toward, maintaining optimum wellness for individuals, families, and communities; provide health care to those without access to health insurance; and aim to protect children and seniors from abuse and neglect. The Department of Health and Social Services implemented the Nurse-Family Partnership home visiting program in Solano County. The child welfare and public health divisions of the Department of Health and Social Services oversaw program implementation.
Home Visiting Program Model Selected for Implementation in Conjunction with EBHV	Nurse-Family Partnership
Target Population for Home Visiting	First-time, low-income mothers and their children in Solano County at risk for child maltreatment, including pregnant transition-age youth previously or currently in foster care or in relationships with former or current foster care youth
Overarching Project Goals	(1) Reduce the incidence of child abuse and neglect (2) Secure and sustain stable funding and support for home visiting programs (3) Develop best practices for the community, and supporting the expansion of home visiting statewide
Agency Implementing Home Visiting Program in Conjunction with EBHV	County of Solano Department of Health and Social Services
Number of Home Visiting Program Locations Implemented in Conjunction with EBHV	1
Implementation Status of Home Visiting Program	New
Year Home Visiting Program Implementation Began	2010
Local Evaluator	LFA Group

Colorado Judicial Department **Denver, Colorado**	
Lead Agency Information	The Colorado Judicial Department is a state agency that oversees the Denver Juvenile Court and the Denver Juvenile Probation Department. Under the direction of Denver Juvenile and Family Treatment Accountability for Safer Communities, the Colorado Judicial Department conducted all initial assessments of eligible families, directed clients into the SafeCare program, and coordinated the provision of services provided under the project.
Home Visiting Program Model Selected for Implementation in Conjunction with EBHV	SafeCare
Target Population for Home Visiting	Pregnant women or parenting females and males who have children under age 5, are on probation, and have a known history of substance abuse and mental health issues
Overarching Project Goals	(1) Enhance the infrastructure to support home visiting programs, including shifts in attitudes, knowledge, and practices among juvenile and criminal justice-related agencies (2) Improve outcomes for participating parents and children
Agency Implementing Home Visiting Program in Conjunction with EBHV	Denver Juvenile and Family Justice Treatment Accountability for Safer Communities
Number of Home Visiting Program Locations Implemented in Conjunction with EBHV	1
Implementation Status of Home Visiting Program	New
Year Home Visiting Program Implementation Began	2009
Local Evaluator	Health Resources Consortium

Children & Families First of Delaware, Inc. **Wilmington, Dover, Seaford, and Georgetown, Delaware**	
Lead Agency Information	Children & Families First, a nonprofit, statewide human services agency, has provided services to vulnerable families and children for more than 125 years. Children & Families First directly provided home visiting for this project, which was a collaborative effort with public- and private-sector agencies to coordinate existing home visiting programs and implement Nurse-Family Partnership in Delaware.
Home Visiting Program Model Selected for Implementation in Conjunction with EBHV	Nurse-Family Partnership
Target Population for Home Visiting	First-time, low-income mothers and their children at risk for child maltreatment
Overarching Project Goals	(1) Implement the Nurse-Family Partnership program statewide through a phased-in approach (2) Support the widespread adoption and sustainability of evidence-based home visiting programs
Agency Implementing Home Visiting Program in Conjunction with EBHV	Child & Families First
Number of Home Visiting Program Locations Implemented in Conjunction with EBHV	1
Implementation Status of Home Visiting Program	New
Year Home Visiting Program Implementation Began	2010
Local Evaluator	School of Urban and Public Affairs, University of Delaware

State of Hawaii Department of Health Honolulu, Hawaii	
Lead Agency Information	The State of Hawaii Department of Health is a state agency made up of the Health Resources Administration, the Behavioral Health Administration, and the Environmental Health Administration. The Health Resources Administration oversees the Family Health Services Division, which provides community-based preventative, early detection, treatment, and rehabilitative services for infants, children, and women of child-bearing age. Under the direction of the Maternal and Child Health Branch, the Department of Health oversaw the grant, including administration and monitoring of all contracts associated with the provision of home visiting services. The Department of Health is the MIECHV lead agency.
Home Visiting Program Model Selected for Implementation in Conjunction with EBHV	Healthy Families America
Target Population for Home Visiting	Pregnant women and families with children under age 3
Overarching Project Goals	Ensure that children in the most vulnerable families receive the most appropriate, most effective, and least intrusive home visiting services to promote healthy family functioning, prevent child maltreatment, and promote child health and development
Agency Implementing Home Visiting Program in Conjunction with EBHV	Child and Family Service; Young Women's Christian Association (YWCA) Hawaii Island
Number of Home Visiting Program Locations Implemented in Conjunction with EBHV	2
Implementation Status of Home Visiting Program	Continuing
Year Home Visiting Program Implementation Began	Child and Family Service (2010); Young Women's Christian Association (YWCA) Hawaii Island (2010)
Local Evaluator	Johns Hopkins University

Strong Foundations, Illinois Department of Human Services (IDHS)
Springfield, Illinois

Lead Agency Information	IDHS is the lead agency for EBHV-Strong Foundations. IDHS leads the state's overall efforts to promote family independence, self-sufficiency, and health. The agency's programs include income maintenance, job training, child care, substance abuse prevention and treatment, mental health, rehabilitation, and services for developmental disability and community health. IDHS is the MIECHV lead agency.
Home Visiting Program Model Selected for Implementation in Conjunction with EBHV	Healthy Families Illinois, Nurse-Family Partnership, and Parents as Teachers
Target Population for Home Visiting	Varies by home visiting program and local implementing agency
Overarching Project Goals	(1) Implement activities to strengthen the infrastructure of supports for home visiting programs in Illinois (2) Ensure that evidence-based models operate with fidelity to their models and have necessary training and resources (3) Conduct a local evaluation and participate in the EBHV national cross-site evaluation
Agency Implementing Home Visiting Program in Conjunction with EBHV	There are over 200 local home visiting programs in Illinois; none receive EBHV funds, because the grantee is focusing on building infrastructure to support all programs.
Number of Home Visiting Program Locations Implemented in Conjunction with EBHV	There are over 200 local home visiting programs in Illinois; none receive EBHV funds, because the grantee is focusing on building infrastructure to support all programs.
Implementation Status of Home Visiting Program	Continuing
Year Home Visiting Program Implementation Began	Varied by local implementing agency
Local Evaluator	Chapin Hall at the University of Chicago

Minnesota Department of Health **St. Paul, Minnesota**	
Lead Agency Information	The Minnesota Department of Health is a state agency made up of four bureaus: the Community and Family Health Promotion Bureau, the Health Protection Bureau, the Policy and Quality Compliance Bureau, and Administrative Services. The Division of Community and Family Health within the Community and Family Health Promotion Bureau is in charge of programs for children with special health care needs, maternal and child health, public health, supplemental nutrition, and epidemiology. Under the direction of the Family and Women's Health Unit within the Maternal and Child Health Section, the Minnesota Department of Health worked to support, strengthen, and increase the number of evidence-based home visiting programs in the state. The Department of Health is the MIECHV lead agency.
Home Visiting Program Model Selected for Implementation in Conjunction with EBHV	Nurse-Family Partnership
Target Population for Home Visiting	First-time, low-income mothers and their children
Overarching Project Goals	(1) Strengthen the infrastructure to support evidence-based home visiting programs and promote increased understanding of and support for evidence-based home visiting programs among local decisions makers throughout the state (2) Support the adaptation and implementation of the Nurse-Family Partnership home visiting program model for a target population (Native Americans)
Agency Implementing Home Visiting Program in Conjunction with EBHV	Anoka, Big Stone, Chippewa, Clay, Douglas, Grant, Hennepin (partial), Lac Qui Parle, McCleod, Meeker, Morrison, Otter Tail, Pipestone, Pope, Ramsey, Redwood, Renville, St. Louis, Stevens, Swift, Todd, Traverse, Wilkin, Wright, and Yellow Medicine local public health departments
Number of Home Visiting Program Locations Implemented in Conjunction with EBHV	Approximately 25; some county agencies are housed in Community Health Boards that consist of more than one local public health department, and some agencies are members of county collaborative, such as Supporting Hands (a 12-county collaborative).
Implementation Status of Home Visiting Program	Expanding
Year Home Visiting Program Implementation Began	Varied by local implementing agency
Local Evaluator	Family Home Visiting Unit, Minnesota Department of Health

State of New Jersey, Department of Children and Families
Trenton, New Jersey

Lead Agency Information	The New Jersey Department of Children and Families, a state child welfare agency, was established in July 2006 by the governor and the state legislature to serve and safeguard the most vulnerable children and families in the state. Under the direction of the Office of the Early Childhood Services, the New Jersey Department of Children and Families oversaw the project and worked with partner organizations to establish a sustainable infrastructure for home visiting programs in New Jersey. The New Jersey Department of Children and Families oversaw implementation of the Maternal, Infant, and Early Childhood Home Visiting Program (MIECHV) under contract to the New Jersey Department of Health.
Home Visiting Program Model Selected for Implementation in Conjunction with EBHV	Nurse-Family Partnership; Parents as Teachers
Target Population for Home Visiting	Nurse-Family Partnership: First-time, low-income mothers and their children Parents as Teachers: Pregnant women or families with an infant or young child under age 3
Overarching Project Goals	(1) Develop infrastructure to promote early identification of pregnant women and/or families who may need comprehensive home visiting services (2) Implement home visiting services in Hudson, Union, and Cape May counties in fall 2009 (3) Develop a sustainability plan for infrastructure development and evidence-based home visiting services
Agency Implementing Home Visiting Program in Conjunction with EBHV	Hudson Perinatal Consortium; United Way of Greater Union County; Caring for Kids, Inc.
Number of Home Visiting Program Locations Implemented in Conjunction with EBHV	Nurse-Family Partnership: 2 Parents as Teachers: 1
Implementation Status of Home Visiting Program	Expanding
Year Home Visiting Program Implementation Began	Hudson Perinatal Consortium (2009); United Way of Greater Union County (2010); Caring for Kids, Inc. (2003)
Local Evaluator	Johns Hopkins University

Society for the Protection and Care of Children Rochester, New York	
Lead Agency Information	The Society for the Protection and Care of Children is a private, nonprofit agency, established in 1875, that provides resources to families whose children are at risk for child abuse and neglect, including after-school programs, family outreach programs, a family trauma and violence program, parent education, and teenage parent support services. The Society for the Protection and Care of Children collaborated with community partners to develop a strong infrastructure to support, coordinate, and maximize evidence-based home visiting program benefits.
Home Visiting Program Model Selected for Implementation in Conjunction with EBHV	Nurse-Family Partnership and Parents as Teachers with linkages to mental health treatment as needed
Target Population for Home Visiting	Low-income women who became mothers before they turned 21 years old (with a maximum of two children under the age of 3) but who have no history of indicated child protective services against them
Overarching Project Goals	(1) Create an integrated, efficient network of home visiting services and enroll eligible families in appropriately matched services (2) Develop an infrastructure to support, coordinate, implement, and sustain effective home visiting services
Agency Implementing Home Visiting Program in Conjunction with EBHV	Society for the Protection and Care of Children
Number of Home Visiting Program Locations Implemented in Conjunction with EBHV	1
Implementation Status of Home Visiting Program	Continuing
Year Home Visiting Program Implementation Began	2001
Local Evaluator	Mt. Hope Family Center, University of Rochester

Mercy St. Vincent Medical Center Toledo, Ohio	
Lead Agency Information	Mercy St. Vincent Medical Center has grown in both size and capacity to serve as the regional critical care referral center within a seven-hospital parent system, Mercy Health Partners. Mercy St. Vincent Medical Center has a 20-year history of implementing programs, including home visiting programs, for at-risk families. Mercy St. Vincent Medical Center oversaw the implementation of the Healthy Families America home visiting program in Lucas County, in collaboration with several partner organizations.
Home Visiting Program Model Selected for Implementation in Conjunction with EBHV	Healthy Families America
Target Population for Home Visiting	Low-income parents and guardians, recruited during pregnancy or until the infant is 3 months of age
Overarching Project Goals	(1) Decrease child abuse and neglect in Lucas County (2) Coordinate services and ensure collaboration among participating community agencies, thus increasing responsiveness of systems to family needs (3) Leverage existing funding and resources to improve outcomes and expand services (4) Increase identification and services available for families at risk for child abuse and neglect (5) Increase parent participation with community systems
Agency Implementing Home Visiting Program in Conjunction with EBHV	Mercy St. Vincent Medical Center
Number of Home Visiting Program Locations Implemented in Conjunction with EBHV	1
Implementation Status of Home Visiting Program	New
Year Home Visiting Program Implementation Began	2011
Local Evaluator	University of Missouri-Columbia

University of Oklahoma Health Sciences Center Oklahoma City, Oklahoma	
Lead Agency Information	The University of Oklahoma Health Sciences Center is a university research center made up of the colleges of Medicine, Nursing, Public Health, Allied Health, and Dentistry, as well as the Oklahoma Medical Research Foundation. Within the University of Oklahoma Health Sciences Center is the Section on Developmental and Behavioral Pediatrics, housed jointly in the Child Study Center and the Center on Child Abuse and Neglect. Under the direction of the Center on Child Abuse and Neglect, the University of Oklahoma Health Sciences Center oversaw all service and evaluation activities, including training partner agency staff on SafeCare, collecting data, and conducting the local evaluation.
Home Visiting Program Model Selected for Implementation in Conjunction with EBHV	SafeCare
Target Population for Home Visiting	Families with at least one child under age 5
Overarching Project Goals	(1) Adapt and supplement SafeCare with a violence prevention component, child discipline module, and a behavioral activation module for depression management (2) Adapt and expand SafeCare to the Latino population in Oklahoma County (3) Develop an interagency plan for sustained implementation and expansion of effective prevention programs for families at high risk for child maltreatment
Agency Implementing Home Visiting Program in Conjunction with EBHV	Latino Community Development Agency; NorthCare Center
Number of Home Visiting Program Locations Implemented in Conjunction with EBHV	2
Implementation Status of Home Visiting Program	New/Expanding
Year Home Visiting Program Implementation Began	Latino Community Development Agency (2009); NorthCare Center (2009)
Local Evaluator	The University of Oklahoma Health Sciences Center

Rhode Island KIDS COUNT **Providence, Rhode Island**	
Lead Agency Information	Rhode Island KIDS COUNT, a nonprofit, statewide children's policy and advocacy organization, was founded in 1994 as an outgrowth and expansion of the Rhode Island KIDS COUNT Project, initiated by the Annie E. Casey Foundation and the Rhode Island Foundation. Its mission is to improve the health, safety, education, economic security, and development of children in Rhode Island. Rhode Island KIDS COUNT oversaw the project and worked with its partners to support, strengthen, expand, and sustain Nurse-Family Partnership in Rhode Island.
Home Visiting Program Model Selected for Implementation in Conjunction with EBHV	Nurse-Family Partnership
Target Population for Home Visiting	First-time, low-income young parents (age 24 and under) and their families living in one of four urban communities with high rates of child maltreatment
Overarching Project Goals	(1) Establish and sustain an anchor model Nurse-Family Partnership site at Children's Friend & Service, serving at least 100 families in Providence, Pawtucket, Central Falls, and Cranston (2) Expand Nurse-Family Partnership to a population of at least 250 families by the end of the grant period and cover all cities and towns in the state (3) Conduct an evaluation to document family and child outcomes associated with participating in Nurse-Family Partnership (4) Build public awareness and political support necessary to ensure expansion and sustainability beyond the five-year grant period
Agency Implementing Home Visiting Program in Conjunction with EBHV	Children's Friend & Service
Number of Home Visiting Program Locations Implemented in Conjunction with EBHV	1
Implementation Status of Home Visiting Program	New
Year Home Visiting Program Implementation Began	2010
Local Evaluator	Bradley/Hasbro Children's Research Center, Brown University

Children's Trust Fund of South Carolina Columbia, South Carolina	
Lead Agency Information	The Children's Trust Fund of South Carolina, a private, nonprofit statewide agency, was created in 1984 by the South Carolina General Assembly to lead statewide efforts to prevent child abuse and neglect and strengthen families. The Children's Trust Fund worked to support, strengthen, and expand the six existing Nurse-Family Partnership programs. The Children's Trust of South Carolina is the MIECHV lead agency.
Home Visiting Program Model Selected for Implementation in Conjunction with EBHV	Nurse-Family Partnership
Target Population for Home Visiting	First-time, low-income mothers and their children
Overarching Project Goals	(1) Establish comprehensive infrastructure to support and expand evidence-based home visiting in South Carolina (2) Expand the Nurse-Family Partnership program in South Carolina
Agency Implementing Home Visiting Program in Conjunction with EBHV	Greenville Hospital System; South Carolina Department of Health and Environmental Control-Anderson County; South Carolina Department of Health and Environmental Control-Berkeley/Charleston/Colleton/Dorchester Counties; South Carolina Department of Health and Environmental Control-Horry County; South Carolina Department of Health and Environmental Control-Lexington and Richland Counties; Spartanburg Regional Health Services
Number of Home Visiting Program Locations Implemented in Conjunction with EBHV	6
Implementation Status of Home Visiting Program	New
Year Home Visiting Program Implementation Began	2009
Local Evaluator	Vanderbilt University School of Nursing

Child & Family Tennessee **Knoxville, Tennessee**	
Lead Agency Information	Child & Family Tennessee, a private, nonprofit service provider, was founded in 1929 and is dedicated to the well-being of families and children in eastern Tennessee. Child & Family Tennessee provides services to at-risk families, runaway youth, victims of interpersonal violence, women with substance abuse problems, and troubled children. Child & Family Tennessee oversaw the EBHV project and was the implementing agency for the home visiting program, Nurse-Family Partnership in eastern Tennessee, as well as an enhancement to Nurse-Family Partnership called Centering Pregnancy.
Home Visiting Program Model Selected for Implementation in Conjunction with EBHV	Nurse-Family Partnership
Target Population for Home Visiting	At-risk, low-income pregnant women who are first-time mothers
Overarching Project Goals	(1) Develop infrastructure to support the selected home visiting program models (2) Implement the home visiting programs with fidelity (3) Leverage funding to sustain home visiting (4) Increase political support for home visiting models (5) Encourage widespread adoption and use of home visiting in Tennessee
Agency Implementing Home Visiting Program in Conjunction with EBHV	Child & Family Tennessee
Number of Home Visiting Program Locations Implemented in Conjunction with EBHV	1
Implementation Status of Home Visiting Program	New
Year Home Visiting Program Implementation Began	2010
Local Evaluator	Child & Family Tennessee

Le Bonheur Community Health and Well-Being Memphis, Tennessee	
Lead Agency Information	Le Bonheur Community Health and Well-Being is a private, nonprofit organization and a subsidiary of Le Bonheur Children's Hospital, a comprehensive regional pediatric center that provides services to lower-income and inner-city children. Le Bonheur Community Health and Well-Being oversaw the implementation of the Nurse-Family Partnership home visiting program in Shelby County and worked with its partner organizations to expand and sustain this program and other home visiting programs in the county.
Home Visiting Program Model Selected for Implementation in Conjunction with EBHV	Nurse-Family Partnership
Target Population for Home Visiting	First-time, low-income mothers and their children
Overarching Project Goals	(1) Establish a coalition of community-based organizations to expand and sustain home visiting programs in Tennessee (2) Strengthen the quality and effectiveness of education, outreach, and direct services provided to families with children under age 8 (3) Expand and sustain resources to meet families' needs
Agency Implementing Home Visiting Program in Conjunction with EBHV	Le Bonheur Community Health and Well-Being
Number of Home Visiting Program Locations Implemented in Conjunction with EBHV	1
Implementation Status of Home Visiting Program	New
Year Home Visiting Program Implementation Began	2010
Local Evaluator	University of Tennessee, Health Science Center, Department of Preventive Medicine; Methodist Le Bonheur Center for Healthcare Economics at the University of Memphis; Le Bonheur Community Health and Well-Being

DePelchin Children's Center **Houston, Texas**	
Lead Agency Information	DePelchin Children's Center is a private, nonprofit United Way agency that has provided services to the greater Houston area since 1892. Its mission is to strengthen the lives of children by enhancing their mental health and physical well-being. DePelchin Children's Center was responsible for implementing Triple P and overseeing the project.
Home Visiting Program Model Selected for Implementation in Conjunction with EBHV	Triple P
Target Population for Home Visiting	Families at risk for neglect with children under age 12
Overarching Project Goals	(1) Establish an infrastructure to implement Triple P (2) Establish a referral system to identify eligible families (3) Increase community and state government awareness and acceptance of Triple P (4) Conduct a rigorous evaluation to contribute to the research base of child abuse prevention (5) Develop greater organizational capacity to implement and evaluate future projects
Agency Implementing Home Visiting Program in Conjunction with EBHV	DePelchin Children's Center
Number of Home Visiting Program Locations Implemented in Conjunction with EBHV	1
Implementation Status of Home Visiting Program	New
Year Home Visiting Program Implementation Began	2009
Local Evaluator	DePelchin Children's Center

Utah Department of Health **Salt Lake City, Utah**	
Lead Agency Information	The Utah Department of Health is a state agency made up of four divisions: the Division of Family Health and Preparedness, the Division of Health Care Financing, the Division of Health Systems Improvement, and the Division of Epidemiology and Laboratory Services. The Division of Family Health and Preparedness is in charge of programs in maternal and child health; children with special health care needs; health promotion programs; WIC; early intervention; violence and injury prevention; and fostering healthy children. Under the direction of the Office of Home Visiting, the Utah Department of Health worked to support, strengthen, and expand existing evidence-based home visiting programs throughout the state. The Department of Health is the MIECHV lead agency.
Home Visiting Program Model Selected for Implementation in Conjunction with EBHV	Healthy Families America; Nurse-Family Partnership
Target Population for Home Visiting	Healthy Families America: Pregnant mothers with additional children who are at risk for child maltreatment, including women in households or at below 185 percent of the federal poverty level Nurse-Family Partnership: Low income, first-time mothers who are at risk for child maltreatment, including women in households or at below 185 percent of the federal poverty level
Overarching Project Goals	(1) Develop a sustainable, statewide system of evidence-based home visiting programs (2) Develop a comprehensive and seamless network of home visiting programs for parents of very young children who want and need those services
Agency Implementing Home Visiting Program in Conjunction with EBHV	Salt Lake Valley Department of Health; Cache County; Weber County; Davis County
Number of Home Visiting Program Locations Implemented in Conjunction with EBHV	Healthy Families America: 3 Nurse-Family Partnership: 1
Implementation Status of Home Visiting Program	Expanding
Year Home Visiting Program Implementation Began	Salt Lake Valley Department of Health (2008); Cache County (2009); Weber County (2009); Davis County (2009)
Local Evaluator	Social Research Institute, University of Utah; Intervention Research Institute, Utah State University

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APPENDIX C

SUMMARY OF SUBCONTRACTOR-SELECTED HOME VISITING PROGRAM MODEL REQUIREMENTS

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This appendix presents an overview of each of the five evidence-based home visiting programs that subcontractors selected and implemented as part of the EBHV initiative. The appendix describes accreditation requirements, home visitor education and experience requirements, training requirements for home visitors and supervisors, intended target populations, expected dosage and duration of subcontractor-selected models, and supervision requirements for each home visiting program model.

Table C.1. Summary of National Model Accreditation Requirements for Subcontractor- Selected Models

Model	Requirements for Accreditation
HFA	The accreditation process has three steps: 1. Site development of a self- study based on the HFA best practice standards 2. External review performed by a team of at least two HFA certified reviewers 3. Accreditation decision made by the HFA Accreditation Panel
NFP	The process for becoming an NFP implementing agency involves submitting an implementation plan for review by NFP's National Service Office. In the implementation plan, agencies are asked to: 1. Demonstrate a need for NFP services and document the presence of other home visiting programs in the community. 2. Provide the NFP National Service Office with the number of low- income first- time births in the catchment area per year. 3. Identify a plan for the sound financing of the program (three years demonstrated support and first year in hand). 4. Articulate their experience with innovative programs. 5. Demonstrate community support for NFP. 6. Identify ability to coordinate with existing health and human service programs. 7. Demonstrate the ability to establish effective referral procedures 8. Outline a plan to recruit and retain qualified registered nurses Agencies are considered official NFP implementing agencies only after a formal contract has been signed by the local agency and the NFP National Service Office.
PAT	To become a certified PAT program site, all applicants must complete three steps: 1. Submit a program plan to the national or state office that covers program design and service, funding sources, service population, leadership, recruitment and retention, public awareness efforts, and evaluation 2. Receive approval of the program plan. 3. Complete preservice training requirements. Providers must undergo professional development to renew certification.
SafeCare	The national office works with interested implementation sites to determine the fit between the SafeCare model and the potential site and the readiness of a site to implement SafeCare. The national office requires site to review readiness information and complete an application for training. The office suggests that sites have: 1. Identified the target population and referral sources 2. Appropriate staffing 3. A commitment of staff and management to SafeCare 4. Infrastructure, support, and materials needed to implement SafeCare with fidelity 5. Considered systemic level issues that can affect implementation
Triple P	All professionals trained to deliver Triple P are required to become accredited. The accreditation process, built into every Triple P professional training course, includes full mastery of the model and demonstrated competencies assessed by the trainer.

Sources: Georgia State University, National SafeCare® Training and Research Center 2009; Healthy Families America [website] 2010; Nurse- Family Partnership [website] 2009; Parents as Teachers 2005; Triple P Positive Parenting Program 2010. Information was reviewed by program model purveyors for accuracy in September 2010.

HFA = Healthy Families America; NFP = Nurse- Family Partnership; PAT = Parents as Teachers.

Table C.2. Summary of Home Visitor Education and Experience Requirements for Subcontractor-Selected Models

Model	Education	Experience
HFA	HFA does not require that home visitors meet specific educational requirements.	Experience working with, or providing services to, children and families; an ability to establish trusting relationships; acceptance of individual differences; experience and willingness to work with the culturally diverse populations among the program's target population; and knowledge of infant and child development.
NFP	Registered professional nurses with a minimum of a baccalaureate degree in nursing.	Experience in community, maternal or child health, mental/behavioral health.
PAT	Recommend that parent educators have at least a bachelor's/four-year degree in early childhood or a related field; the minimum education level for parent educators is a high school diploma or GED.	For staff with the minimum education level, a minimum of two years previous supervised work experience with young children and/or parents. For other staff, supervised experience working with young children and/or parents is recommended.
SafeCare	SafeCare does not require that home visitors meet specific educational requirements.	No requirements specified, but some experience in human services with families at risk for maltreatment is recommended.
Triple P	Professional practitioners with postsecondary qualifications in health, education, social services, mental health, or a closely allied field.	Knowledge of child/adolescent development and parent- child interaction, plus experience working with families.

Source: Georgia State University, National SafeCare® Training and Research Center 2009; Healthy Families America [website] 2010; Nurse- Family Partnership [website] 2009; Parents as Teachers 2005; Triple P Positive Parenting Program 2010. Information was reviewed by program model purveyors for accuracy in September 2010.

HFA = Healthy Families America; NFP = Nurse- Family Partnership; PAT = Parents as Teachers.

Table C.3. Summary of Training Requirements for Home Visitors and Supervisors for Subcontractor-Selected Models

Model	Training Requirements for Home Visitors	Training Requirements for Supervisors
HFA	Home visitors must complete a five- day workshop, Integrated Strategies for Home Visitors, delivered by HFA- certified trainers. HFA also offers training on supporting families during the prenatal period. This training lasts three to four days, depending on staff experience.	In addition to completing the Integrated Strategies for Home Visitors workshop, supervisors must attend another day of training specific to their work. The training is an introduction to administrative, clinical, and reflective supervisory practices.
NFP	Home visitors complete three core education sessions in distance and face- to- face training formats over nine months; this includes a four- day in- person training in Denver, Colorado. Home visitors can begin serving families after completing the training in Denver.	In addition to completing the three core education sessions required for home visitors, nurse supervisors complete four supervisor core education sessions, two of which are conducted in person.
PAT	Parent educators must attend a three- day PAT Foundational Training, plus a two- day Model Implementation Training. Staff offering services for families with children ages 3 to 5 must attend a PAT Age 3 to Kindergarten Entry Training. Additional training is recommended for staff who administer developmental, vision, and hearing screenings.	In addition to the training for parent educators, supervisors must complete the Introductory PAT Supervision Training.
SafeCare	Home visitors must complete a five- day workshop delivered by a SafeCare trainer. Home visitors are provisionally certified after the workshop training; they then receive feedback from a SafeCare coach on their implementation of SafeCare with families. When home visitors demonstrate mastery of SafeCare skills in each of the three SafeCare modules, they are granted certification as SafeCare providers.	Supervisors (known as coaches) must meet all training requirements for home visitors and achieve certification. They must also complete a one- day workshop delivered by a SafeCare trainer. After the workshop, they must demonstrate skills in assessing fidelity and providing feedback to home visitors through recorded or live sessions.
Triple P	Triple P offers accredited training courses for professionals. The courses offer training in different levels of the intervention for practitioners delivering brief through more intensive services. Two to three months after training, practitioners must complete a competency- based accreditation process.	Triple P recommends that supervisors participate in a manager's briefing before going through professional Triple P training and then engage in post- training consultation with Triple P consultation staff.

Sources: Georgia State University, National SafeCare® Training and Research Center 2009; Healthy Families America [website] 2010; Nurse- Family Partnership [website] 2009; Parents as Teachers 2005; Triple P Positive Parenting Program 2010. Information was reviewed by program model purveyors for accuracy in September 2010.

HFA = Healthy Families America; NFP = Nurse- Family Partnership; PAT = Parents as Teachers.

Table C.4. Summary of Target Populations for Subcontractor- Selected Models

Model	Age at Enrollment	Characteristics
HFA	Mothers must be enrolled prenatally or within the first three months after a child's birth.	Families facing several challenges, such as single parenthood, low income, childhood history of abuse and adverse child experiences, and current or previous issues related to substance abuse, mental health issues, and/or domestic violence. To assess risk for factors associated with child abuse and neglect and other adverse childhood experiences, families must complete a comprehensive assessment (typically, the Parent Survey Assessment [formerly, the Kempe Family Stress Checklist]).
NFP	A woman must be enrolled early in her pregnancy and receive a first home visit no later than the end of her 28th week of pregnancy.	First- time, low- income mothers and their children.
PAT	Families throughout pregnancy and with children up to kindergarten entry.	Implementing agencies select the specific characteristics of the target population they plan to serve.
SafeCare	Families with children birth to age 5.	Families with a history of child maltreatment or risk factors for child maltreatment, including young parents; parents with more than one child; parents with a history of mental health problems, substance abuse, or intellectual disabilities; foster parents; parents being reunited with their children; parents recently released from incarceration; parents with a history of domestic violence; and parents of children with developmental or physical disabilities.
Triple P	Families with children birth to age 12.	Varies by intensity of model being implemented and by families' preferences; typically, higher- intensity models target families with children with behavior problems, families facing challenges (such as parental depression), families with a child with a disability, and/or families at risk for child maltreatment.

Sources: Georgia State University, National SafeCare® Training and Research Center 2009; Healthy Families America [website] 2010; Nurse- Family Partnership [website] 2009; Parents as Teachers 2005; Triple P Positive Parenting Program 2010. Information was reviewed by program model purveyors for accuracy in September 2010.

HFA = Healthy Families America; NFP = Nurse- Family Partnership; PAT = Parents as Teachers.

Table C.5. Summary of Expected Dosage and Duration of Subcontractor- Selected Models

Program Model	Expected Dosage	Expected Duration
HFA	Offered a minimum of weekly visits the first six months after the birth, then scaled (from weekly to quarterly), depending on family needs and the child's age; visits typically last 60 minutes.	Until child is at least 3 and up to 5 years of age
NFP	Scaled (from weekly to quarterly), depending on the child's age; visits last 60 to 90 minutes.	Until child's second birthday
PAT	At least monthly; 24 visits annually for families with two more high- needs characteristics; visits last 60 minutes.	Until enrollment in kindergarten
SafeCare	Weekly; visits last 60 to 90 minutes.	18 to 20 weeks
Triple P	The frequency and length of visits vary by the intensity level of the Triple P model being delivered.	Consistent with intensity level, the duration of services can vary from a few weeks up to four months depending on the family's needs. In addition, the Triple P multi- level system lends itself to either starting with a brief- duration program followed by a longer- duration program, or starting with a longer- duration program followed by a briefer booster program as needed.

Sources: Georgia State University, National SafeCare® Training and Research Center 2009; Healthy Families America [website] 2010; Nurse- Family Partnership [website] 2009; Parents as Teachers 2005; Triple P Positive Parenting Program 2010. Information was reviewed by program model purveyors for accuracy in September 2010.

HFA = Healthy Families America; NFP = Nurse- Family Partnership; PAT = Parents as Teachers.

Table C.6. Summary of Supervision Requirements Specified by the Subcontractor- Selected Models

Model	Supervisors- to- Staff Ratio	Supervision Requirements
HFA	HFA recommends one supervisor for every five or six home visitors	HFA recommends program managers/supervisors provide formal supervision and shadowing of home visitors weekly for a minimum of 1.5 hours to monitor and assess their performance and provide constructive feedback and development.
NFP	NFP requires that a full- time nursing supervisor provides supervision to no more than 8 individual nurse home visitors	Nurse supervisors provide home visitors weekly clinical supervision with reflection, demonstrate integration of the theories, and facilitate professional development essential to the nurse home visitor role. Supervisory activities include weekly one- on- one clinical supervision, weekly case conferences and/or team meetings, and field supervision conducted three times a year.
PAT	A maximum of 10 to 12 parent educators can be assigned to each supervisor	PAT requires that supervisors meet individually with parent educators for reflective supervision for at least two hours once per month and participate in two hours of staff meetings monthly.
SafeCare	SafeCare does not specify a maximum ratio of supervisors to home visitors	SafeCare requires that certified supervisors (known as coaches) conduct weekly team meetings to discuss cases and SafeCare implementation. Coaches are required to monitor the quality of home visits either via live observation or recordings of sessions. SafeCare requires at a minimum that requires at a minimum that coaches monitor the first three sessions of every home visitor's delivery of each module (nine sessions total) for certification and then monitor sessions monthly thereafter.
Triple P	Triple P does not specify supervision requirements but rather encourages each agency to follow their established supervisory guidelines.	Triple P recommends that every staff person implementing the model receive sufficient quality supervision (including peer supervision to facilitate professional development and increase fidelity to the model). Triple P does not specify requirements because it aims not to intrude on an agency's established supervisory guidelines.

Sources: Georgia State University, National SafeCare® Training and Research Center 2009; Healthy Families America [website] 2010; Nurse- Family Partnership [website] 2009; Parents as Teachers 2005; Triple P Positive Parenting Program 2010. Information was reviewed by program model purveyors for accuracy in September 2010.

HFA = Healthy Families America; NFP = Nurse- Family Partnership; PAT = Parents as Teachers.

APPENDIX D

SUBCONTRACTOR LOGIC MODELS

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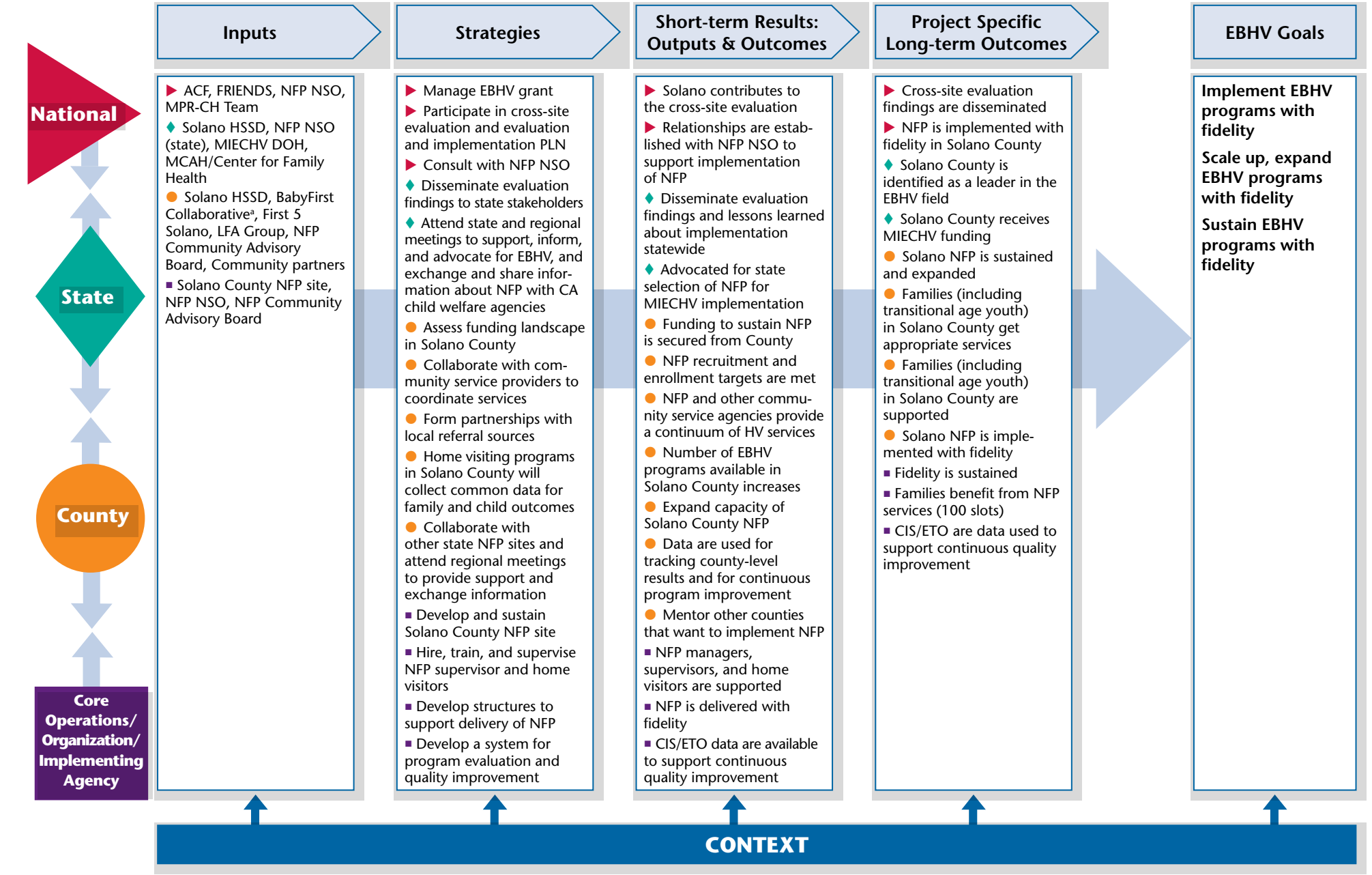
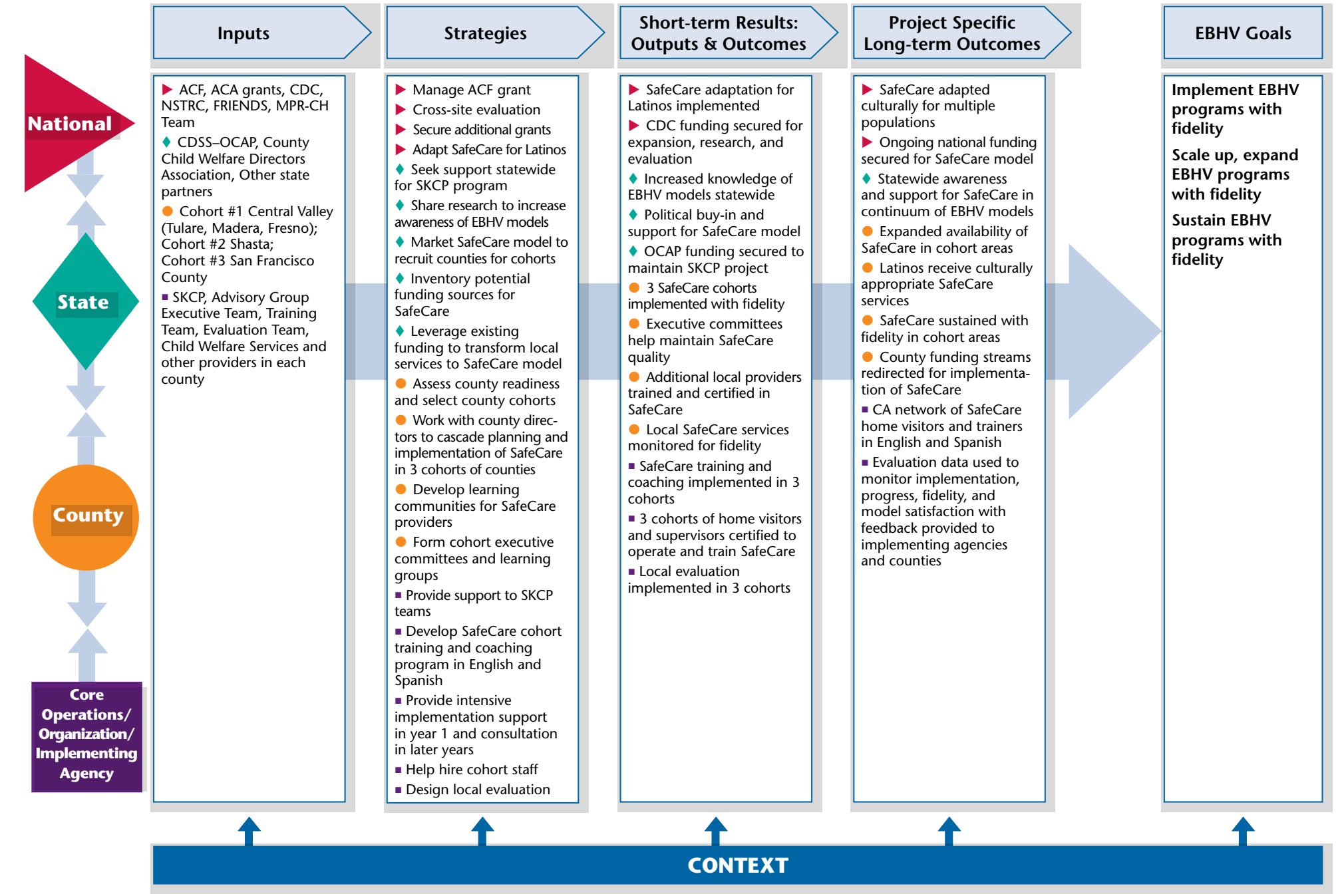
CA: County of Solano Department of Health and Social Services Logic Model



Notes: ACF = Administration for Children and Families at the U.S. Department of Health and Human Services; EBHV = Evidence-Based Home Visiting; CA = California; CIS/ETO = Nurse Family Partnership Clinical Information System/Efforts to Outcomes database; DOH = California Department of Public Health; FRIENDS = Family Resource Information, Education and Network Development Services (National Resource Center for Community-Based Child Abuse Prevention); MCAH = Maternal, Child, and Adolescent Health Program at the California Department of Health; MIECHV = Maternal, Infant, and Early Childhood Home Visiting Program; MPR-CH = Mathematica Policy Research and Chapin Hall at the University of Chicago; NFP = Nurse Family Partnership; NFP NSO = Nurse Family Partnership National Service Office; PLN = Peer Learning Network; Solano HSSD = Solano County Health and Social Services Department

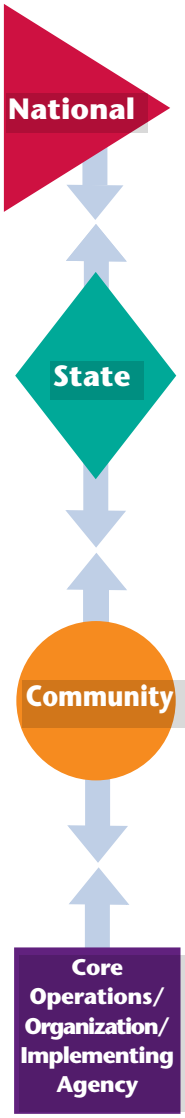
[a] The BabyFirst Collaborative is funded by First 5 and operated under the Public Health Division in the Maternal, Child, and Adolescent Health (MCAH) Bureau. Funded partners include: Solano County Health & Social Services, Solano County Prenatal Care Guidance, Solano Substance Abuse Services, Youth & Family Services, ABC Prenatal Program, Black Infant Health, Children's Nurturing Project, It's About My Baby, La Clinica-Great Beginnings, Nubian Mentoring Program, Partnership HealthPlan of California, and Planned Parenthood: Shasta-Diablo. Additional partners include: Families First, Inc., Child Start, Inc., Solano WIC, Solano Kids Insurance Program (SKIP), Child Haven, and the Solano Parenting Partnership.

CA: RADY CHILDREN'S HOSPITAL, SAN DIEGO LOGIC MODEL



Notes: ACA = Affordable Care Act; ACF = Administration for Children and Families at the U.S. Department of Health and Human Services; CA = California; CDC = Centers for Disease Control; CDSS = California Department of Social Services; EBHV = Evidence-Based Home Visiting; FRIENDS = Family Resource Information, Education and Network Development Services (National Resource Center for Community-Based Child Abuse Prevention); MPR-CH = Mathematica Policy Research and Chapin Hall at the University of Chicago; NSTRC = National SafeCare Training and Research Center; OCAP = Office of Child Abuse Prevention at the California Department of Social Services; SKCP= Safe Kids California Project of the Chadwick Center for Children and Families at Rady Children's Hospital–San Diego

CO: COLORADO JUDICIAL DEPARTMENT LOGIC MODEL

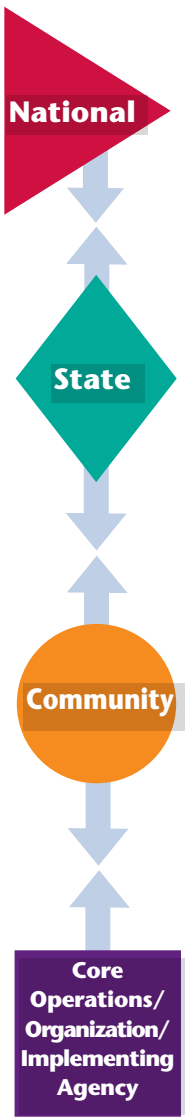


Inputs	Strategies	Short-term Results: Outputs & Outcomes	Project Specific Long-term Outcomes	EBHV Goals
▶ ACF, FRIENDS, SafeCare, MPR-CH Team, SAMHSA, OJP ♦ CO Alliance for Drug Endangered Children, CO Dept. of Health (CBCAP), CO Judicial Department, Division of Behavioral Health ● Denver Drug Endangered Children's Alliance, Denver Police Department, Denver District Probation Dept., and other agencies ■ DJFJ TASC, Kempe Center, Project Denver At-Home Intervention Service Initiative (SafeCare co-directors, coaches, and home visitors), Health Resources Consortium, St. Anthony Central Hospital Nurse-Family Partnership	▶ Manage ACF grant ▶ Participate in cross-site evaluation ▶ Seek ongoing federal funding for SafeCare ♦ Disseminate information about the benefits of EBHV to increase knowledge and support among policymakers ♦ Develop a fiscal leveraging strategy ● Create multidisciplinary training protocols, videos ● Develop outreach/media plan and materials for urban and rural providers ● Solicit expert feedback, insights for working with substance-involved clients ● Conduct 12 interagency trainings per year to increase understanding of available services and interagency collaboration ■ Hire, train, and certify SafeCare coaches and home visitors ■ Assign and train one person as NFP liaison ■ Recruit eligible SafeCare families ■ Design local evaluation ■ Implement program and manage operations	▶ Denver program certified by SafeCare ▶ ACF approved local evaluation design ♦ Inventory of state and federal home visiting funding streams developed ♦ Current funding leveraged to sustain SafeCare ♦ State agencies' awareness of EBHV program increased ● Increased awareness of SafeCare among juvenile and criminal justice providers in Denver area ● Expanded network of collaborative providers outside Denver ● EBHV spread to rural communities started ■ Full caseloads maintained (145 families per year) with case management and ancillary supports ■ Fidelity of SafeCare services monitored by coaches ■ SafeCare operations supported through "no wrong door" referrals and cross-trainings with NFP and other organizations	▶ SafeCare site sustained by federal funding ▶ Dissemination of cross-site evaluation findings ♦ Increased state agency and legislative support for EBHV as a component of probation programming ♦ State agency support enables spread of EBHV to state's rural areas ● Increased community awareness and support for EBHV in Denver area ● Reduced child maltreatment in Denver area ● Reduced use of justice, law enforcement, health, and human services resources by SafeCare families ● Increased knowledge of EBHV across state ● Home visiting integrated with case management and other services ■ SafeCare fidelity sustained ■ Families benefit from SafeCare services and have decreased substance use, decreased justice system involvement, and better child outcomes	**Implement EBHV programs with fidelity** **Scale up, expand EBHV programs with fidelity** **Sustain EBHV programs with fidelity**

CONTEXT

Notes: ACF = Administration for Children and Families at the U.S. Department of Health and Human Services; EBHV = Evidence-Based Home Visiting; CBCAP = Community-Based Child Abuse Prevention; CO = Colorado; DJFJ TASC = Denver Juvenile and Family Treatment Accountability for Safer Communities; FRIENDS = Family Resource Information, Education and Network Development Services (National Resource Center for Community-Based Child Abuse Prevention); MPR-CH = Mathematica Policy Research and Chapin Hall at the University of Chicago; NFP = Nurse Family Partnership; OJP = Office of Justice Programs at the U.S. Department of Justice; SAMHSA = Substance Abuse and Mental Health Services Administration

DE: CHILDREN AND FAMILIES FIRST OF DELAWARE LOGIC MODEL



Inputs

- ACF/HRSA, FRIENDS, NFP NSO, MPR-CH Team, PLN
- CFF, Funders[a], Community Advisory Board, Division of Public Health, DSCYF, Department of Education, UD evaluator, DE Healthy Mother and Infant Consortium, Lt. Governor, Medicaid
- Referral sources in New Castle, Kent, and Sussex Counties, Community Advisory Board[b]
- CFF, NFP NSO

Strategies

- Manage EBHV grant
- Consult with ACF/HRSA
- Participate in cross-site evaluation (includes working with DHSS and DSCYF)
- Leverage grant dollars to fund direct services
- Conduct inventory of home visiting programs in state
- Design and implement a centralized referral system (screening tool, decision tree, centralized intake system, benchmarks)
- Implement marketing initiative to disseminate the centralized referral system
- Implement new EBHV models in DE and coordination among existing models
- Coordinate training across home visiting models in the state
- Plan and implement local evaluation in collaboration with DHSS and DSCYF
- Develop relationships with community-based referral sources and among home visiting programs
- Conduct joint trainings
- Implement NFP in New Castle and Kent Co.
- Expand NFP to Sussex Co.
- Hire, train, and supervise NFP supervisor and nurses
- Implement CIS/ETO

Short-term Results: Outputs & Outcomes

- DE contributed to cross-site evaluation
- NFP certification received
- Integrated funding supports NFP services (funds are leveraged from private foundations, DE business representatives, United Way, CAB)
- Community referral sources use the screening tool and centralized intake system
- System implements screening tool/benchmarks
- Continuum of EBHV programs exists in DE
- Families identified for EBHV services
- EBHV models coordinate services
- Public has increased knowledge of and support for EBHV programs
- Local evaluation findings are disseminated
- NFP recruitment and enrollment targets are met
- All home visitors benefit from training/education
- Supervisors and nurses are supported
- NFP is implemented with fidelity
- Families are served
- CIS/ETO, local evaluation data are used to monitor fidelity and support CQI

Project Specific Long-term Outcomes

- Cross-site evaluation findings disseminated
- NFP NSO supports implementation of NFP in DE
- Integrated funding for NFP sustained
- Integrated funding for EBHV sustained
- Target populations get appropriate EBHV services
- Benchmarks for centralized intake system are met
- Statewide continuum of EBHV services sustained
- EBHV services monitored for quality improvement
- State and public are committed to sustaining EBHV
- Eligible families receive NFP services
- All families benefit from services
- Fidelity is sustained
- Families benefit from services

EBHV Goals

Implement EBHV programs with fidelity

Scale up, expand EBHV programs with fidelity

Sustain EBHV programs with fidelity

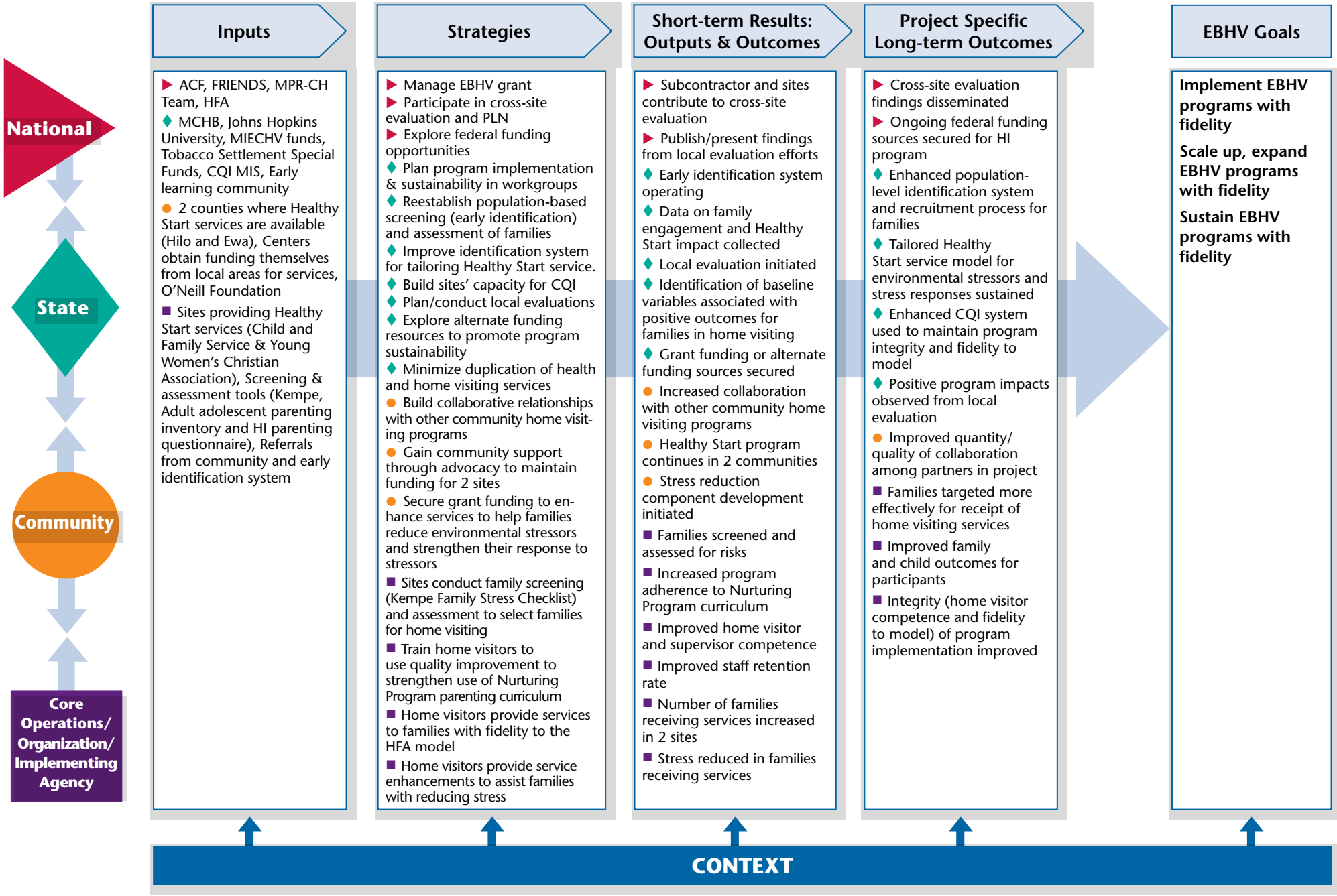
CONTEXT

Notes: ACF = Administration for Children and Families at the U.S. Department of Health and Human Services; CBCAP = Center for Community-Based Child Abuse Prevention; CIS/ETO = Nurse Family Partnership Clinical Information System/ Efforts to Outcomes database; Co. = County; CQI = Continuous Quality Improvement; DE = Delaware; DHSS = Delaware Health and Social Services; DSCYF = Department of Services for Children, Youth, and Their Families; EBHV = Evidence-Based Home Visiting; FRIENDS = Family Resource Information, Education and Network Development Services (National Resource Center for Community-Based Child Abuse Prevention); HRSA = Health Resources and Services Administration; MPR-CH = Mathematica Policy Research and Chapin Hall at the University of Chicago; NFP = Nurse Family Partnership; NFP NSO = Nurse Family Partnership National Service Office; PLN = Peer Learning Network; UD = University of Delaware

[a] Funders include United Way of Delaware, Division of Public Health, Prevent Child Abuse Delaware (CB-CAP), Eckerd Family Foundation, Blue Cross Blue Shield Foundation of Delaware, Longwood Foundation, Laffey-McHugh Foundation, and Gore.

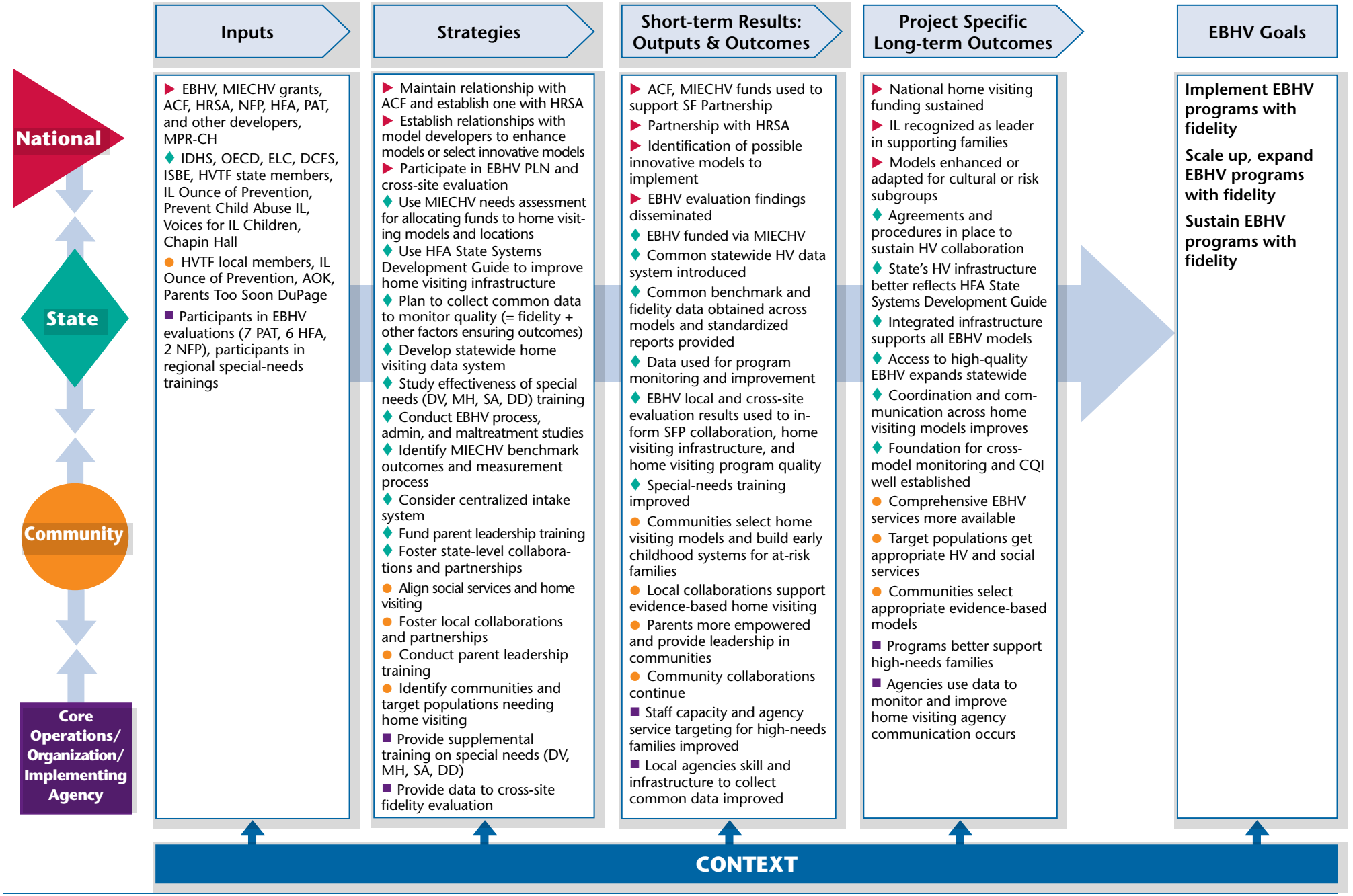
[b] Community Advisory Board (CAB) includes CBCAP; University of Delaware School of Nursing; Maternal & Child Health/Division of Public Health; Healthy Beginnings Program/Christiana Care Health System; Smart Start Program/Division of Public Health; Parents as Teachers; Early Head Start/University of Delaware; United Way of Delaware; ECCS/Division of Public Health; Child Death, Near Death, and Stillborn Commission; Office of the Child Advocate; and Department of Services for Children, Youth, and Families/Division of Prevention and Behavioral Services, Nemours Health and Prevention Services, Domestic Violence Coordinating Council.

HI: HAWAII DEPARTMENT OF HEALTH LOGIC MODEL



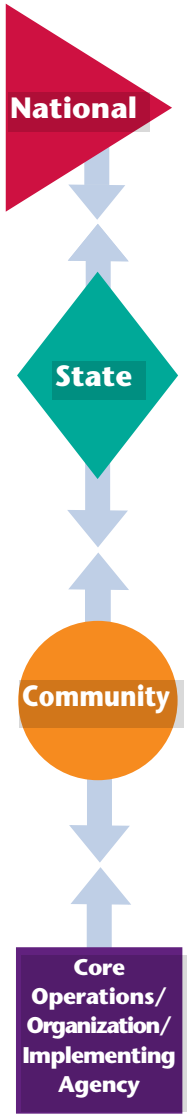
Notes: ACF = Administration for Children and Families at the U.S. Department of Health and Human Services; CQI = Continuous Quality Improvement; EBHV = Evidence-Based Home Visiting; FRIENDS = Family Resource Information, Education and Network Development Services (National Resource Center for Community-Based Child Abuse Prevention); HFA = Healthy Families America; HI = Hawaii; MCHB = Maternal and Child Health Branch; MIECHV = Maternal, Infant, and Early Childhood Home Visiting Program; MIS = Management Information System; MPR-CH = Mathematica Policy Research and Chapin Hall at the University of Chicago; PLN = Peer Learning Network

IL: ILLINOIS DEPARTMENT OF HUMAN SERVICES LOGIC MODEL



Notes: ACF = Administration for Children and Families at the U.S. Department of Health and Human Services; AOK = All Our Kids (AOK) Early Childhood Network; CQI = Continuous Quality Improvement; DCFS = Department of Children and Family Services; DD = Developmental Disability; DV = Domestic Violence; EBHV = Evidence-Based Home Visiting; ELC = Early Learning Council; FRIENDS = Family Resource Information, Education and Network Development Services (National Resource Center for Community-Based Child Abuse Prevention); HFA = Healthy Families America; HRSA = Health Resources and Services Administration; HVTF = Home Visiting Task Force; IDHS = Illinois Department of Human Services; IL = Illinois; ISBE = Illinois State Board of Education; MIECHV = Maternal, Infant, and Early Childhood Home Visiting Program; MPR-CH = Mathematica Policy Research and Chapin Hall at the University of Chicago; MA = Mental Health; NFP = Nurse Family Partnership; OECD = Office of Early Childhood Development; PAT = Parents as Teachers; PLN = Peer Learning Network; SA = Substance Abuse; SFP = Strong Foundations Partnership

MN: MINNESOTA DEPARTMENT OF HEALTH LOGIC MODEL



Inputs

- ACF, FRIENDS, MPR-CH Team, NFP NSO
- MN Departments of Health, Education, and Human Services; OMMH; tribal governments; University of Minnesota
- Local health departments; Local Public Health Association; Prevent Child Abuse MN; MN Head Start Association; MN Home Visiting Coalition; Early Childhood Funders Network; MN Council of Health Plans; MN Assoc. for Infant and Early Childhood Mental Health
- 5 existing NFP programs in 17 local health departments; potential NFP sites 7–12 more counties

Strategies

- Manage ACF grant
- Participate in cross-site evaluation
- Work with NFP NSO to certify new NFP sites and supplement NFP training for tribes
- Work with advisory board to select NFP special population
- Coordinate with other state agencies on reflective practice
- Disseminate EBHV information via newsletter, website, forums
- Seek to increase Medicaid reimbursement rates for home visiting
- Convene NFP Community of Practice meetings quarterly
- Track indicators related to high risk infants and mothers
- Emphasize the need for evidence-based home visiting services for at-risk populations
- Provide EBHV information to tribal nursing directors; seek state funding for tribal NFP sites
- Offer trainings in reflective practice and infant mental health issues
- Help local agencies negotiate better Medicaid rates in contracts with health plans
- Hire and train state NFP and reflective practice consultants
- Design and conduct local evaluation
- Provide support to ongoing and new EBHV programs through: Reflective practice coaching for supervisors and home visitors; Mini-grants to ongoing NFP programs for training expenses; NFP consultation and TA for potential NFP sites; Evaluation TA to local EBHV sites on how to use NFP data

Short-term Results: Outputs & Outcomes

- New NFP sites certified
- Tribal NFP supplement training developed by NFP NSO
- NFP CIS/ETO data provided to cross-site evaluation
- Increased awareness of EBHV benefits among state leaders
- State EBHV funding identified
- Coordination of reflective practice across state agencies
- American Indians selected for NFP special population project
- Coordination of professional development increased across NFP sites
- 3 tribes seek NFP certification; win OMMH and ACF grants
- 2 sites move to home visiting start-up
- Reflective practice retooled to group format to meet increased demand for service based on implementation lessons
- New tools created to measure change in reflective practice
- Infant mental health services to EBHV sites maintained
- Reflective practice provided to two 18-month cohorts of EBHV supervisors and home visitors
- New NFP site applications enabled by TA and consultation
- Annual mini-grants expanded to support site implementation, training, and expansion costs of new sites
- NFP CIS/ETO data collected
- 9 NFP programs operational in 25 counties

Project Specific Long-term Outcomes

- Statewide expansion of certified NFP sites in tribal and county agencies
- Cross-site and local evaluation findings disseminated
- Enhanced state-level EBHV reflective practice and NFP consultation infrastructure
- NFP Community of Practice statewide
- More state-level investment in building EBHV capacity
- State support for new NFP sites for special populations
- NFP expanded to 2 tribal sites (Fond du Lac, White Earth)
- Annual EBHV grants to local community health boards and tribal governments sustained
- Expansion of NFP to 16 NFP sites in 27–32 counties
- Regional capacity for reflective practice and infant mental health consultation sustained
- NFP supervisor and home visitor workforce sustained
- Quality and fidelity of NFP implementation maintained
- Evaluation data used to improve EBHV services
- Children and families benefit from EBHV services

EBHV Goals

Implement EBHV programs with fidelity

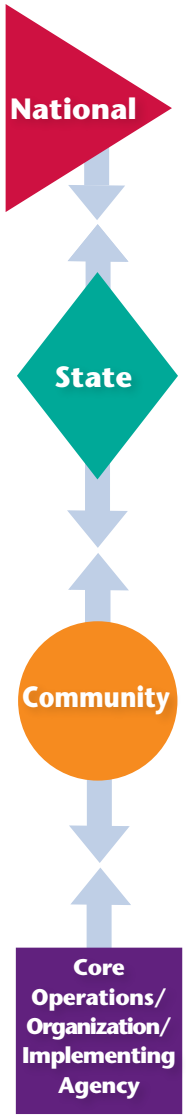
Scale up, expand EBHV programs with fidelity

Sustain EBHV programs with fidelity

CONTEXT

Notes: ACF = Administration for Children and Families at the U.S. Department of Health and Human Services; CBCAP = Center for Community-Based Child Abuse Prevention; CIS/ETO = Nurse Family Partnership Clinical Information System/Efforts to Outcomes database; Co. = County; EBHV = Evidence-Based Home Visiting; FRIENDS = Family Resource Information, Education and Network Development Services (National Resource Center for Community-Based Child Abuse Prevention); MN = Minnesota; MPR-CH = Mathematica Policy Research and Chapin Hall at the University of Chicago; NFP = Nurse Family Partnership; NFP NSO = Nurse Family Partnership National Service Office; OMMH = Office of Minority And Multicultural Health; TA = Technical Assistance

NJ: NEW JERSEY DEPARTMENT OF CHILDREN AND FAMILIES LOGIC MODEL



Inputs

- ▶ ACF grant, NFP NSO, PAT program office, FRIENDS, MPR-CH Team, HFA national office, CBCAP, HRSA Strengthening Families for Early Care and Education
- ♦ DCF, Home Visiting Workgroup, Ad Hoc committees[a], Johns Hopkins University, Deptment of Health and Senior Services, home visiting TA Partners (NFP NSO, PCANJ)
- ● Infrastructure Sites (Essex and Middlesex counties), EBHV sites (Hudson, Union, and Cape May counties), Funding Partners[b], Ad Hoc committees[c]
- ▶ 3 new implementing agencies: Hudson (NFP), Union (NFP), and Cape May (PAT); 31 ongoing implementing agencies: HFA (23), PAT (1), and NFP (7)

Strategies

- ▶ Work with home visiting national offices implementation and evaluation standards
- ▶ Demonstrate the value of an integrated system of care
- ▶ Participate in EBHV cross-site evaluation and PLN
- ♦ Conduct statewide needs assessment to inform selection and monitoring of project sites
- ♦ Home Visitation Workgroup provides project oversight
- ♦ Create sustainability plan to obtain ongoing EBHV funding
- ♦ Collaborate and disseminate evaluation findings and advocate for EBHV with publicity materials
- ♦ Conduct state home visiting conference
- ♦ Use EBHV data system to monitor fidelity
- ♦ Integrate EHS into continuum of home visiting services
- ● Develop community-level coordination across models
- ● Build membership of local community boards for oversight
- ● Implement prenatal screening and risk assessment form and a central intake process in 2 infrastructure sites
- ● Collaborate to identify appropriate central intake location
- ● Work with private funders to sustain match commitments
- ■ Launch 3 new home visiting sites
- ■ Hire and train providers/home visiting for NFP, PAT, HFA
- ■ Provide TA and support to home visiting program project staff
- ■ Ongoing support (structured supervision, mandatory and ancillary training) to promote implementation with fidelity

Short-term Results: Outputs & Outcomes

- ▶ Grantee and sites participate in cross-site evaluation
- ▶ Advocate in conferences and findings shared in peer-reviewed publications
- ♦ 2 Infrastructure sites and 3 implementation sites selected
- ♦ Coordinated intake process finalized by state staff
- ♦ Negotiations started with Medicaid for NFP, PAT, HFA, and Head Start to increase sustainable funding for EBHV models
- ● Coordination improved across home visiting models in 2 infrastructure sites
- ● Prenatal screening and risk assessment form finalized
- ● Prenatal screening system and centralized intake piloted in 2 EBHV sites
- ● Funding for 2 communities is sustained by local partners
- ■ Home visiting staff are hired, trained, and certified as home visitors and supervisors in 3 new sites
- ■ 3 new NFP and PAT sites are operating at or toward capacity with full enrollment
- ■ NFP, PAT, and HFA programs are implemented with fidelity

Project Specific Long-term Outcomes

- ▶ National home visiting models strengthened/ improved by fidelity study
- ▶ Other states incorporate an integrated system approach
- ♦ Prenatal screening and central intake integrated into MCH for statewide implementation
- ♦ EBHV data systems informs subsequent state needs and utilization assessments
- ♦ Early Head Start as part of continuum of care
- ● Prenatal screening and centralized intake fully implemented in 2 infrastructure sites
- ● Families efficiently linked to appropriate level of services in 2 infrastructure communities
- ● Home visiting capacity expanded (more families served in existing sites) from MIECHV funds
- ■ Home visiting staff retained in 3 new sites
- ■ Fidelity sustained long term
- ■ Improved family and child outcomes

EBHV Goals

Implement EBHV programs with fidelity

Scale up, expand EBHV programs with fidelity

Sustain EBHV programs with fidelity

CONTEXT

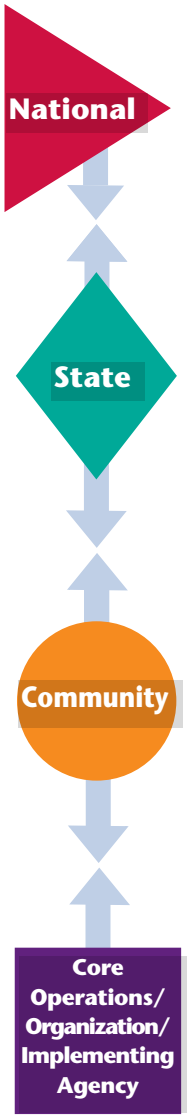
Notes: ACF = Administration for Children and Families at the U.S. Department of Health and Human Services; CBCAP = Community-Based Child Abuse Prevention; DCF = New Jersey Department of Children and Families; EBHV = Evidence-Based Home Visiting; FRIENDS = Family Resource Information, Education and Network Development Services (National Resource Center for Community-Based Child Abuse Prevention); HFA = Healthy Families America; HRSA = Health Resources and Services Administration; MCH = Maternal And Child Health Consortia; MIECHV = Maternal, Infant, and Early Childhood Home Visiting Program; MPR-CH = Mathematica Policy Research and Chapin Hall at the University of Chicago; NFP = Nurse Family Partnership; NFP NSO = Nurse Family Partnership National Service Office; NJ = New Jersey; PAT = Parents as Teachers; PCANJ = Prevent Child Abuse New Jersey; PLN = Peer Learning Network; PPV = Public/Private Ventures; TA = Technical Assistance

[a] **State Ad Hoc committee participants include:** Department of Health (Perinatal, Early Childhood Comprehensive Systems, Project Launch); Department of Human Services (Medicaid, Division of Family Development, Substance Abuse, Mental Health); JJDPC; Education; Department of Children and Families (Early Childhood, home visiting, and other offices); MCH; PCANJ; Public/Private Ventures; Build NJ; Advocates for Children of New Jersey; NJ ACF target counties; NJ Medicaid HMOs; County funders; Policymakers Consumers (i.e., pregnant women and/or parents).

[b] **Funding partners include:** The Nicholson Foundation (one nurse at Union County NFP program); United Way agencies (Middlesex, Hudson, Union).

[c] **Community Ad Hoc committee participants include:** Health/Prenatal clinics; Federally Qualified Health Centers; Health Department; WIC; Family Success Centers; Differential Response; School-linked services; County welfare agency; Substance Abuse; Mental Health; Domestic Violence; Fatherhood; Early Childhood Home Visitation; MCH; PCANJ ; Public/Private Ventures; Medicaid HMOs; Local Funders; Consumers (i.e., pregnant women and/or parents).

NY: SOCIETY FOR THE PROTECTION AND CARE OF CHILDREN, ROCHESTER LOGIC MODEL



Inputs

- ▶ ACF grant, NFP NSO, PAT program office, FRIENDS, MPR-CH Team
- ♦ COPS funding, NY State Department of Health, NY Early Childhood Advisory Groups, State level childhood advocacy groups[a]
- ● BHC Collaborative partners[2], BHC Steering and Partnership Committees, 292 Baby Program, Perinatal Network, Funders[c], Medicaid Managed Care Programs, OB, pediatric providers
- ■ 1 existing PAT and 1 existing NFP site[d], Incredible Years, Child Parent Psychotherapy, and Interpersonal Psychotherapy programs and materials, Outreach workers who help the families stabilize and become able to benefit more fully from EBHV models

Strategies

- ▶ Manage EBHV grant
- ▶ Participate in cross-site evaluation and PLN
- ▶ Gain national recognition of BHC model via lobbying, conferences
- ▶ Seek ongoing federal funding for NFP and PAT programs
- ▶ Integrate trauma informed practices into EBHV
- ▶ Recognition as a model for getting funding as a patient-centered medical home
- ♦ Expand currently existing home visiting sites with BHC expertise before scaling up with new sites
- ♦ Use universal PRF across state to screen for home visiting
- ♦ Seek ongoing state Medicaid funding for BHC
- ♦ Work collaboratively with Healthy Mothers, Healthy Babies on MIECHV planning and implementation and create a coordinated system of home visitation
- ♦ Demonstrate cost/benefit of BHC to state
- ● Create/maintain steering committee for oversight of BHC project
- ● Increase community awareness of BHC services (NFP and PAT)
- ● Orient referral sources to available BHC services
- ● Coordinate and streamline referral process with prenatal and pediatric practices, as well as community referrals allowing for inter-agency referrals
- ● Refine decision tree for triaging families into most appropriate EBHV program
- ● Create BHC sustainability plan
- ● Alignment of community and state strategies
- ■ Add IY, CPP, and IPT services to NFP and PAT models to create combined BHC model
- ■ Hire and cross-train NFP and PAT project staff on BHC model and model components
- ■ Provide TA and support to ensure NFP and PAT fidelity
- ■ Conduct local impact evaluation of BHC model
- ■ Lower attrition in home visiting
- ■ Reduce transience

Short-term Results: Outputs & Outcomes

- ▶ Grantee and sites participate in cross-site evaluation
- ▶ Findings presented in conferences and peer-reviewed publications
- ▶ BHC staff becomes a PAT national trainer and maintains this status
- ♦ Statewide network of home visiting services strengthened
- ♦ State funding secured for BHC program and other EBHV programs during economic crisis
- ♦ Increased use of universal PRF appropriately gets families into coordinated care
- ● Community agencies made aware of EBHV services through inventory of local programs
- ● Gap analysis of Monroe County service needs versus service capacity conducted
- ● Promising practices (including use of EBHV) increases enrollment in services
- ■ Agreements made between participating home visiting agencies regarding family placement
- ■ All staff hired and trained
- ■ NFP and PAT models implemented with fidelity
- ■ BHC, NFP, and PAT programs evaluated for fidelity, impacts
- ■ Local providers and social workers work together to implement BHC model
- ■ Families consistently served by coordinated community agencies
- ■ Families persist in home visiting

Project Specific Long-term Outcomes

- ▶ Increased national recognition of BHC model
- ▶ Increased momentum to replicate BHC model nationally (via demonstration of cost-benefit and impact findings)
- ♦ Increased access to EBHV by at-risk families statewide
- ♦ Increased interest in replicating BHC model statewide
- ♦ BHC seen as cost-effective (and therefore sustainable with state dollars)
- ♦ Coordination with other EBHV programs to best treat the family
- ♦ Seek support reimbursement for mental health services by Medicaid fee for service
- ● Integrated network of EBHV services
- ● Efficient referral system coordinated across providers
- ● Ongoing local funding sustains BHC and other EBHV services
- ● Enough EBHV capacity to meet community needs
- ■ Increased access/utilization of EBHV, particularly by at-risk families
- ■ Families are appropriately matched to programs that best meet their needs
- ■ Families benefit from increased coordination among community agencies
- ■ Local evaluation shows positive impacts of BHC model

EBHV Goals

Implement EBHV programs with fidelity

Scale up, expand EBHV programs with fidelity

Sustain EBHV programs with fidelity

CONTEXT

Notes: ACF = Administration for Children and Families at the U.S. Department of Health and Human Services; BHC = Building Healthy Children; CBCAP = Community-Based Child Abuse Prevention; COPS = Community Optional Preventive Services; CPP = Child Parent Psychotherapy; EBHV = Evidence-Based Home Visiting; FRIENDS = Family Resource Information, Education and Network Development Services (National Resource Center for Community-Based Child Abuse Prevention); HFA = Healthy Families America; IP = Interpersonal Psychotherapy; IY = Incredible Years; MIECHV = Maternal, Infant, and Early Childhood Home Visiting Program; MPR-CH = Mathematica Policy Research and Chapin Hall at the University of Chicago; NFP = Nurse Family Partnership; NFP NSO = Nurse Family Partnership National Service Office; NY = New York; PAT = Parents as Teachers; PLN = Peer Learning Network; PRF = Perinatal Referral Form

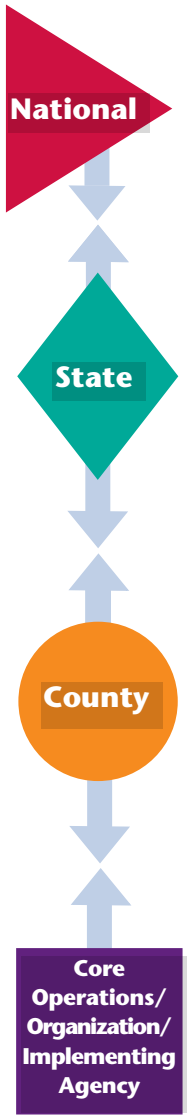
[a] Childhood Groups: Winning Beginnings, Home Visitation Group of Skylar Center for Analysis and Advocacy.

[b] Key collaborating partners include: Mt. Hope Family Center–Project Evaluator and CPP/IPT service provider; University of Rochester Medical Center Social Work Division–Pediatric social worker, enrollment and provision of outreach services; Monroe County Department of Human Services–Planning and advocate for long-term sustainability; Monroe County Department of Public Health–Nurse Family Partnership service provider as well as planning and long-term sustainability plans for the project (see copy of contract); Monroe County United Way planning process and long-term sustainability plans for the project

[c] Funders: United Way, Department of Human Services, Insurers (Medicaid managed care programs), DOB, and pediatric care providers.

[d] Implementing agencies include PAT: Society for the Protection and Care of Children; NFP: Monroe County Nurse Family Partnership.

OH: MERCY ST. VINCENT MEDICAL CENTER LOGIC MODEL



Inputs

- ACF, FRIENDS, MPR-CH Team, HFA national office
- Voices for Ohio's Children, Ohio Partnership for Stronger Families, Ohio Children and Families First Council, Ohio Department of Health
- Lucas County Family Council, Coalition Members[a]
- Mercy St. Vincent Medical Center, St. Vincent Pediatric, Services, Help Me Grow

Strategies

- Manage EBHV grant
- Participate in cross-site evaluation and PLN
- Consult with HFA national office
- Participate in monthly meetings coordinated by OPSF on child abuse prevention for collaboration and coordination of services
- Provide family input to OPSF to understand the impact of home visiting in Ohio
- Leverage state funding sources for home visiting across the state
- Participate in Dept. of Health early childhood and home visitation stakeholder meetings
- Participate in quarterly meetings for the Ohio Infant Mortality Collaborative
- Develop consortium of early childhood social services agencies and home visitation agencies
- Maintain and enhance system for coordination of services
- Share data and results of local needs assessments
- Provide and participate in child abuse prevention activities, training, and meetings
- Provide direction for the Fatherhood Initiative and services for fathers
- Participate in the advisory group for Help Me Grow
- Plan for HFA implementation
- Recruit and train home visitors and provide ongoing professional development to ensure fidelity to model
- Develop referral system from county early identification (Help Me Grow)
- Recruit families, complete assessments, and provide home visiting services based on GGK and GGF
- Refer families for needed services and ensure service receipt
- Focus on father engagement, including monthly father meetings
- Provide monthly parent groups

Short-term Results: Outputs & Outcomes

- Grantee and sites contributed to cross-site evaluation
- Relationships with HFA established to support implementation
- Participated in state-level activities for child abuse prevention
- Assisted in implementation of state needs assessment and formulation of MIECHV plan
- Funding opportunities identified
- Coordination of home visiting services throughout the state
- Formation of county-wide HVAC
- Increased communication among providers
- Gaps in services and barriers to participation identified
- System for service coordination developed
- Increased awareness of child abuse and neglect
- Increase awareness of child abuse and maltreatment
- Implementation plan developed and revised
- Home visitors recruited and trained
- Referrals received from early identification system
- Families recruited and retained
- Families received screening, interventions, and home visits
- Families referred to community services
- Families receive services as needed

Project Specific Long-term Outcomes

- Cross-site evaluation findings disseminated
- HFA affiliation and accreditation
- Funding secured and sustained
- Home visiting programs in Lucas County coordinated with state initiative
- Increased capacity to provide child maltreatment services
- Service providers communicate regularly
- Child maltreatment service system coordinated throughout county
- Continue quarterly trainings for parents and providers sponsored by HVAC
- Services delivered with fidelity to HFA model
- Improve parent-child interaction
- Families benefit from receipt of home visiting services

EBHV Goals

Implement EBHV programs with fidelity

Scale up, expand EBHV programs with fidelity

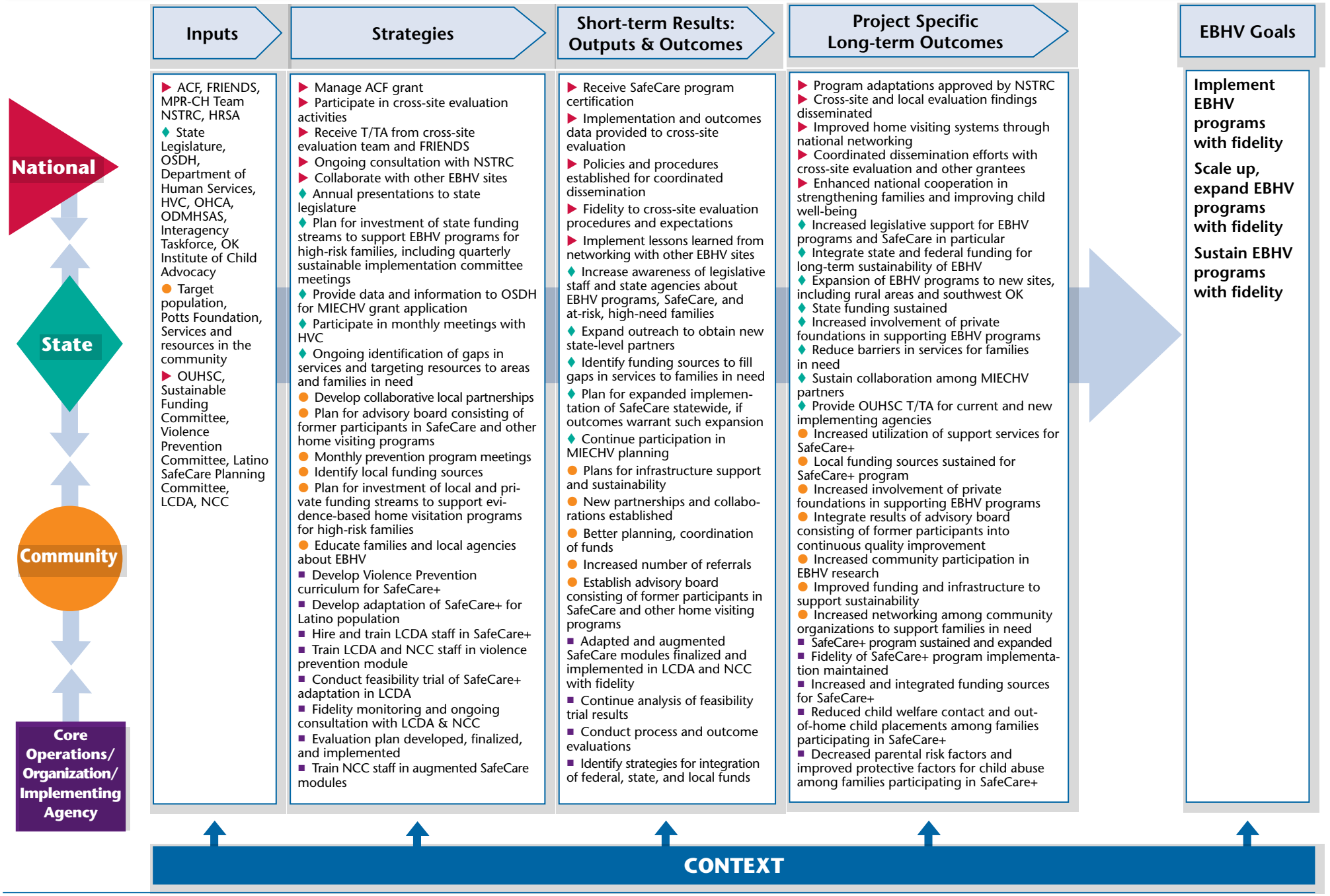
Sustain EBHV programs with fidelity

CONTEXT

Notes: ACF = Administration for Children and Families at the U.S. Department of Health and Human Services; EBHV = Evidence-Based Home Visiting; FRIENDS = Family Resource Information, Education and Network Development Services (National Resource Center for Community-Based Child Abuse Prevention); GGF = Growing Great Families; GGK = Growing Great Kids; HFA = Healthy Families America; HVAC = Home Visitation Advisory Council; MIECHV = Maternal, Infant, and Early Childhood Home Visiting Program; OPSF = Ohio Partnership for Stronger Families

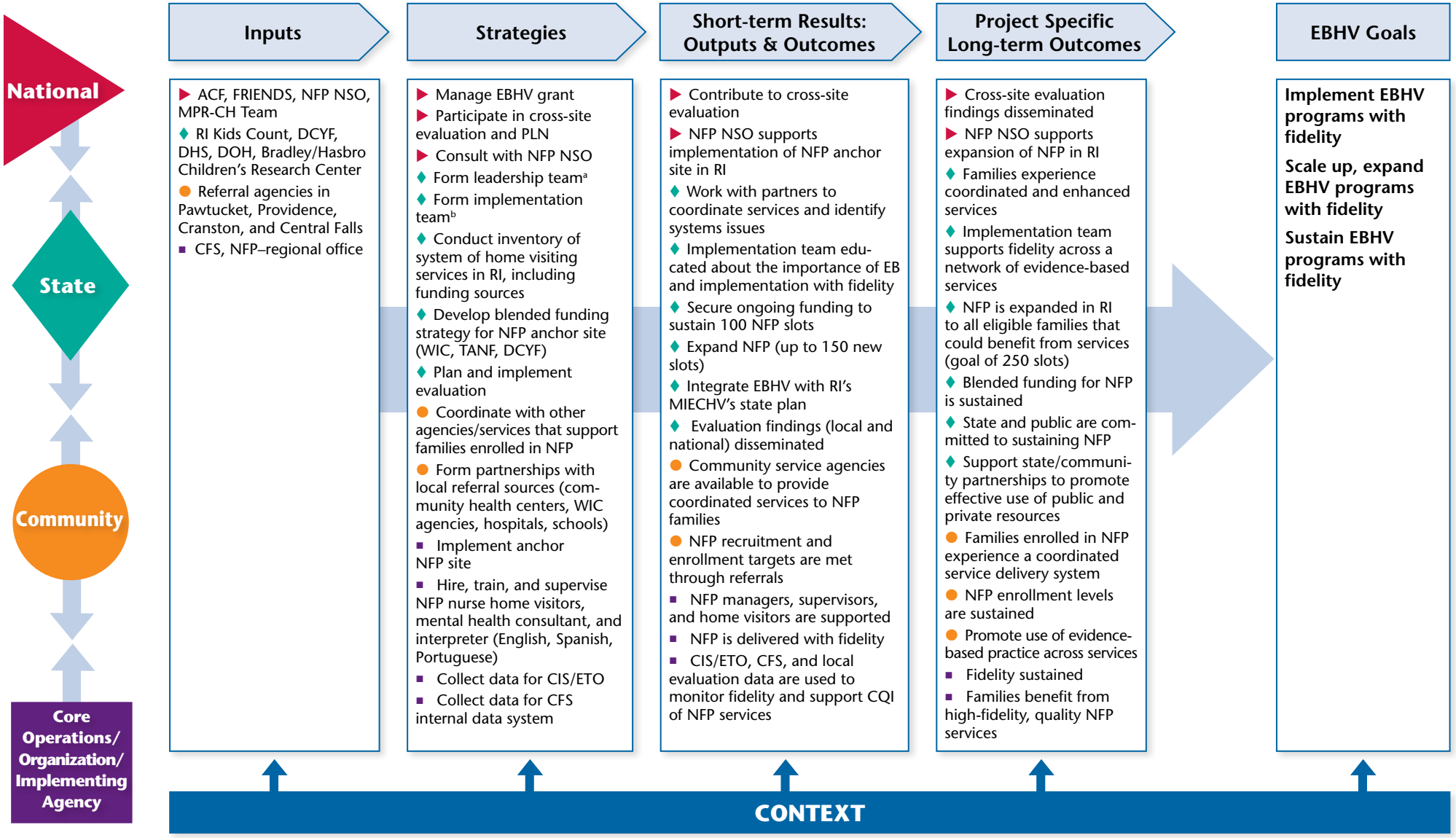
[a] Coalition Members: Lucas County Children's Services, Lucas County Family Council, Ohio Children's Trust Fund, Strengthening Families, Child and Family Abuse Task Force, NW Ohio Family and Child Abuse Prevention Center, Early Intervention, Help Me Grow, Head Start, Local CAPTA demonstration program: St. Vincent Mercy Medical Substance Exposed Newborn Project, National Exchange Club, Toledo Children's Hospital, Harbor Mental Health Services, Early Childhood Coordinating Council, Children's Trust Fund, Fatherhood Initiative, Neighborhood Health Association, Hospital Council of Northern Ohio, Help Me Grow Advisory Board.

OK: THE UNIVERSITY OF OKLAHOMA HEALTH SCIENCES CENTER LOGIC MODEL



Notes: ACF = Administration for Children and Families at the U.S. Department of Health and Human Services; EBHV = Evidence-Based Home Visiting; FRIENDS = Family Resource Information, Education and Network Development Services (National Resource Center for Community-Based Child Abuse Prevention); HRSA = Health Resources and Services Administration; HVC = Home Visitation Coalition; LCDA = Latino Community Development Agency; MIECHV = Maternal, Infant, and Early Childhood Home Visiting Program; MPR-CH = Mathematica Policy Research and Chapin Hall at the University of Chicago; NCC = North Care Center; NSTRC = National SafeCare Training and Research Center; ODMHSAS = Oklahoma Department of Mental Health and Substance Abuse Services; OHCA = Oklahoma Health Care Authority; OK = Oklahoma; OSDH = Oklahoma State Department of Health; OUHSC = University of Oklahoma Health Sciences Center; T/TA = Training and Technical Assistance

RI: RHODE ISLAND KIDS COUNT LOGIC MODEL

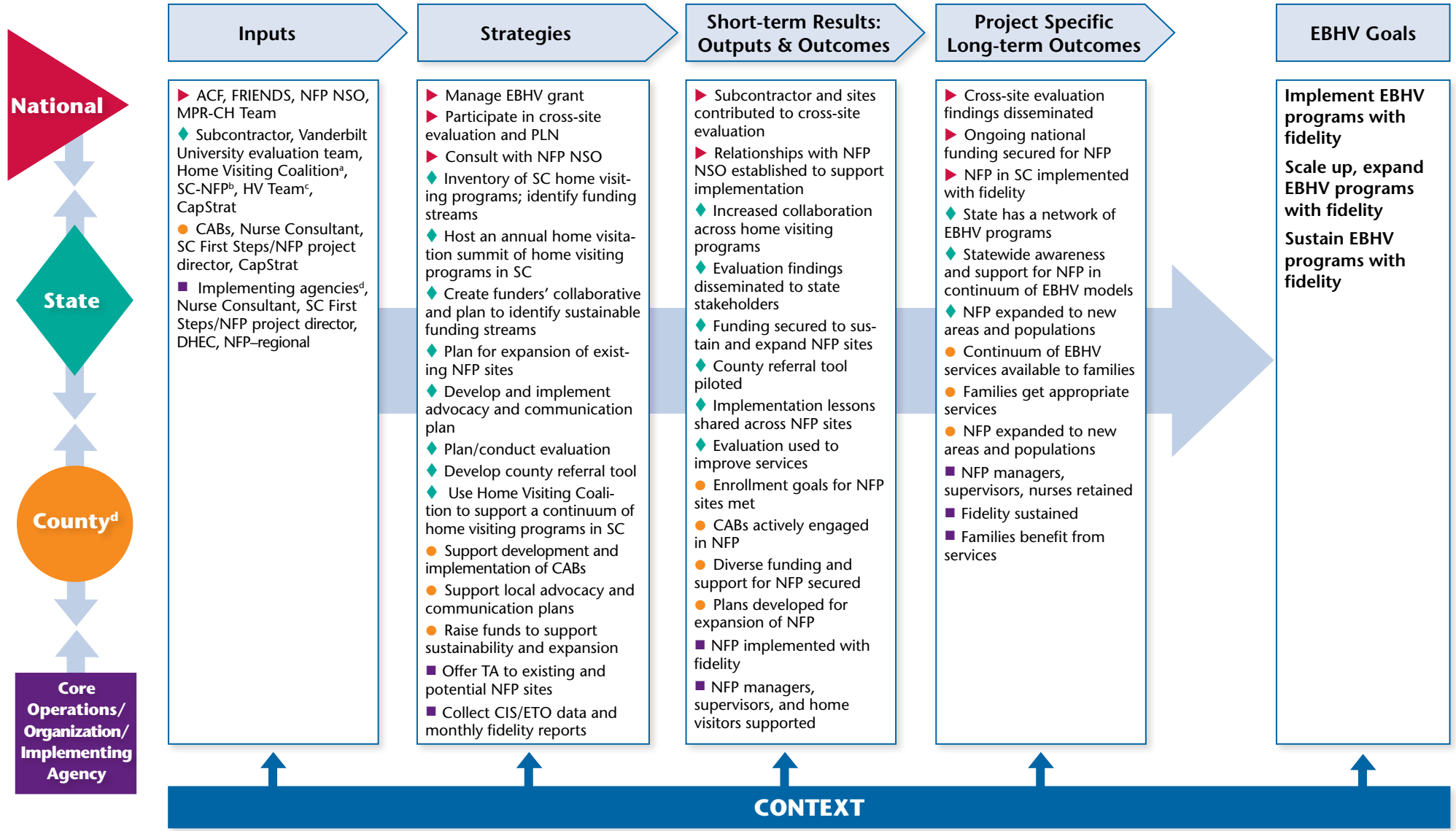


Notes: ACF = Administration for Children and Families at the U.S. Department of Health and Human Services; EBHV = Evidence-Based Home Visiting; CFS = Children's Friend and Service; CIS/ETO = Nurse Family Partnership Clinical Information System/Efforts to Outcomes database; CQI = Continuous Quality Improvement; FRIENDS = Family Resource Information, Education and Network Development Services (National Resource Center for Community-Based Child Abuse Prevention); DCYF = Rhode Island Department of Children, Youth, and Families; DHS = Rhode Island Department of Human Services DOH = Rhode Island Department of Health; MIECHV = Maternal, Infant, and Early Childhood Home Visiting Program; MPR-CH = Mathematica Policy Research and Chapin Hall at the University of Chicago; NFP = Nurse Family Partnership; NFP NSO = Nurse Family Partnership National Service Office; PLN = Peer Learning Network; TANF = Temporary Assistance for Needy Families; WIC = Federal Special Supplemental Nutrition Program for Women, Infants and Children

[a] Leadership team includes Pediatrician and Director, Hasbro Hospital Teens with Tots Clinic (also chair of Teen Pregnancy Prevention Task Force); Obstetrician, Women & Infants Hospital (also chair of Prematurity Task Force); Pediatricians, Hasbro Hospital (also chair of RI chapter of American Academy of Pediatrics); Rhode Island Parent Information Network; Prevent Child Abuse Rhode Island; Department of Children, Youth and Families; Department of Human Services (TANF, Early Intervention, Medicaid); Department of Health (WIC and Maternal Child Health); Department of Education (early childhood initiatives coordinator); Neighborhood Health Plan of RI; United Health Care; Family Services (manager of Urban Core Family Care Community Partnership); Rhode Island KIDS COUNT; Children's Friend; Bradley Children's Research Center; Rhode Island Foundation; Nurse-Family Partnership National Service Office.

[b] Implementation team includes Department of Health (MIECHV coordinator, First Connections Coordinator, WIC); Department of Human Services (TANF); Department of Children, Youth and Families (DCYF); Providence Community Health Centers; Nurse Family Partnership National Service Office; Children's Friend; Rhode Island KIDS COUNT; Bradley Children's Research Center.

SC: THE CHILDREN'S TRUST OF SOUTH CAROLINA LOGIC MODEL



Notes: ACF = Administration for Children and Families at the U.S. Department of Health and Human Services; CAB = Community Advisory Board; CIS/ETO = Nurse Family Partnership Clinical Information System/Efforts to Outcomes database; DDSN = South Carolina Department of Disabilities and Special Needs; DHEC = South Carolina Department of Health and Environmental Control; DMH = South Carolina Department of Mental Health; DHHS = South Carolina Department of Health and Human Services; DSS = South Carolina Department of Social Services; EBHV = Evidence-Based Home Visiting; ECCS = Early Childhood Comprehensive Systems; FRIENDS = Family Resource Information, Education and Network Development Services (National Resource Center for Community-Based Child Abuse Prevention); MIECHV = Maternal, Infant, and Early Childhood Home Visiting Program; MPR-CH = Mathematica Policy Research and Chapin Hall at the University of Chicago; NFP = Nurse Family Partnership; NFP NSO = Nurse Family Partnership National Service Office; PLN = Peer Learning Network; SC = South Carolina; TA = Technical Assistance.

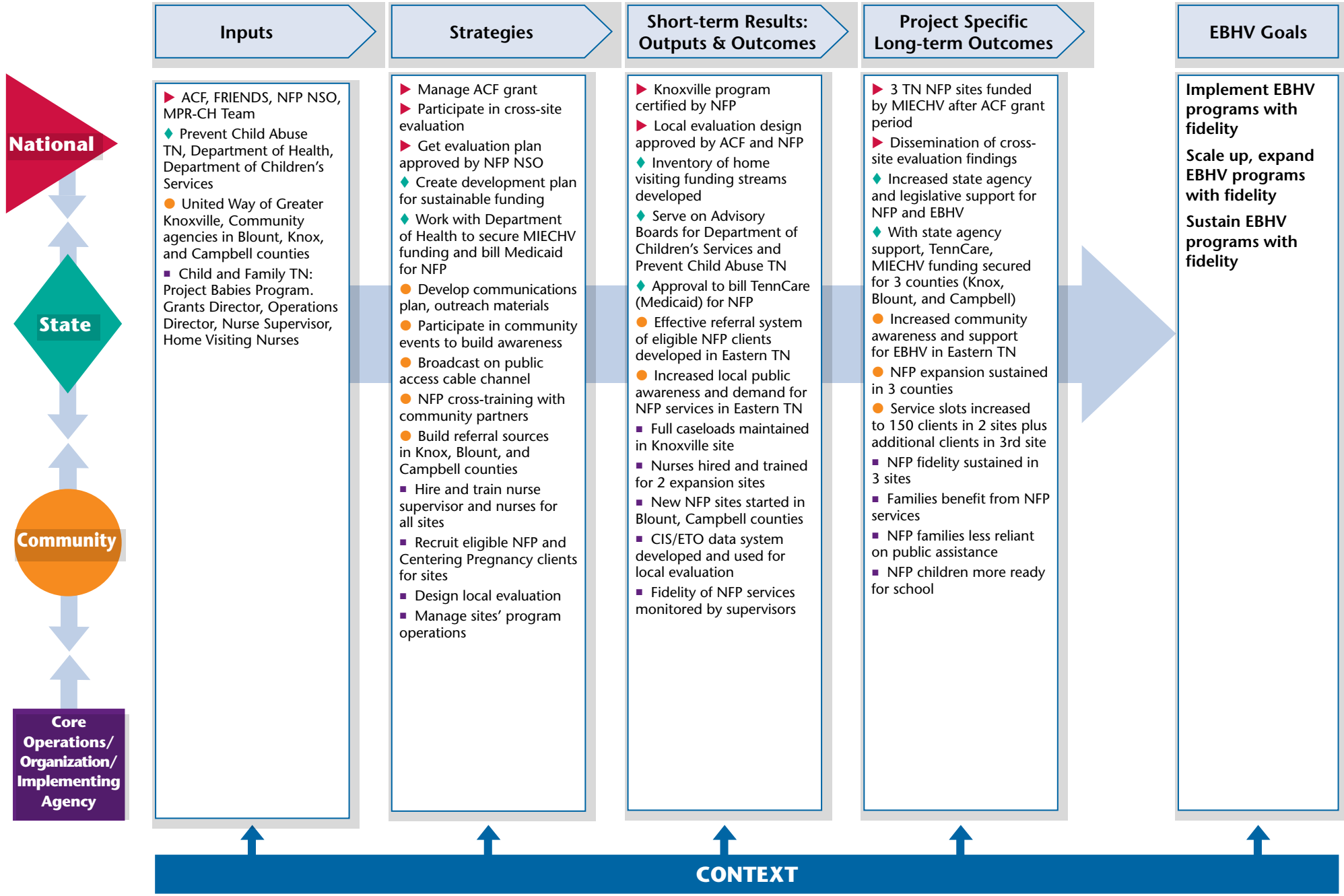
[a] Home Visiting Coalition (replaced the EBHV Advisory Team) includes SC Department of Alcohol and Other Drugs, DHEC, DDSN, DSS, Duke Endowment, ECCS, DHHS, DMH, SC Office of Research, and SC First Steps to School Success.

[b] SC-NFP includes BCBS/SC Foundation, Children's Trust (subcontractor), Duke Endowment, DHEC, DSS, First Steps, NFP – regional.

[c] Home Visiting Team includes representatives from home visiting programs and other service providers in SC including Triple P, ECCS, Parent-Child Home, Parents As Teachers, SC Department of Education/Family Literacy, DDSN, Healthy Families, Head Start, DSS, First Steps/Parenting, First Steps/NFP, Early Steps to School Success, Birth Matters, Fort Jackson Family Support Services.

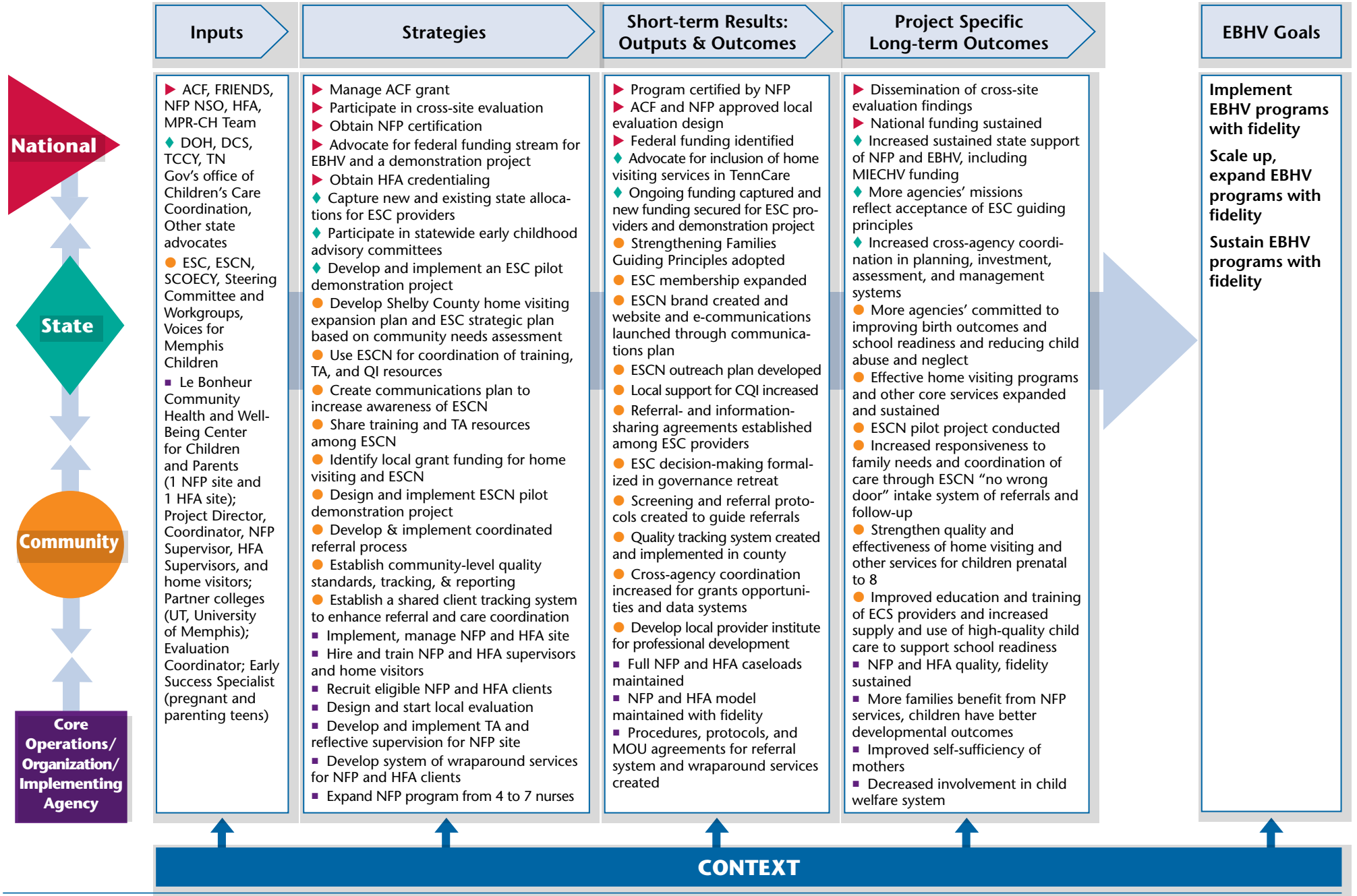
[d] Implementing agencies (counties) include Region 1 DHEC (Anderson County), Region 3 DHEC (Lexington/Richland Counties), Region 6 DHEC (Horry County), Region 7 DHEC (Charleston/Berkeley/Dorchester/Colleton Counties), Greenville Hospital System (Greenville County), and Spartanburg Regional Health System (Spartanburg County).

TN: CHILD AND FAMILY TENNESSEE LOGIC MODEL



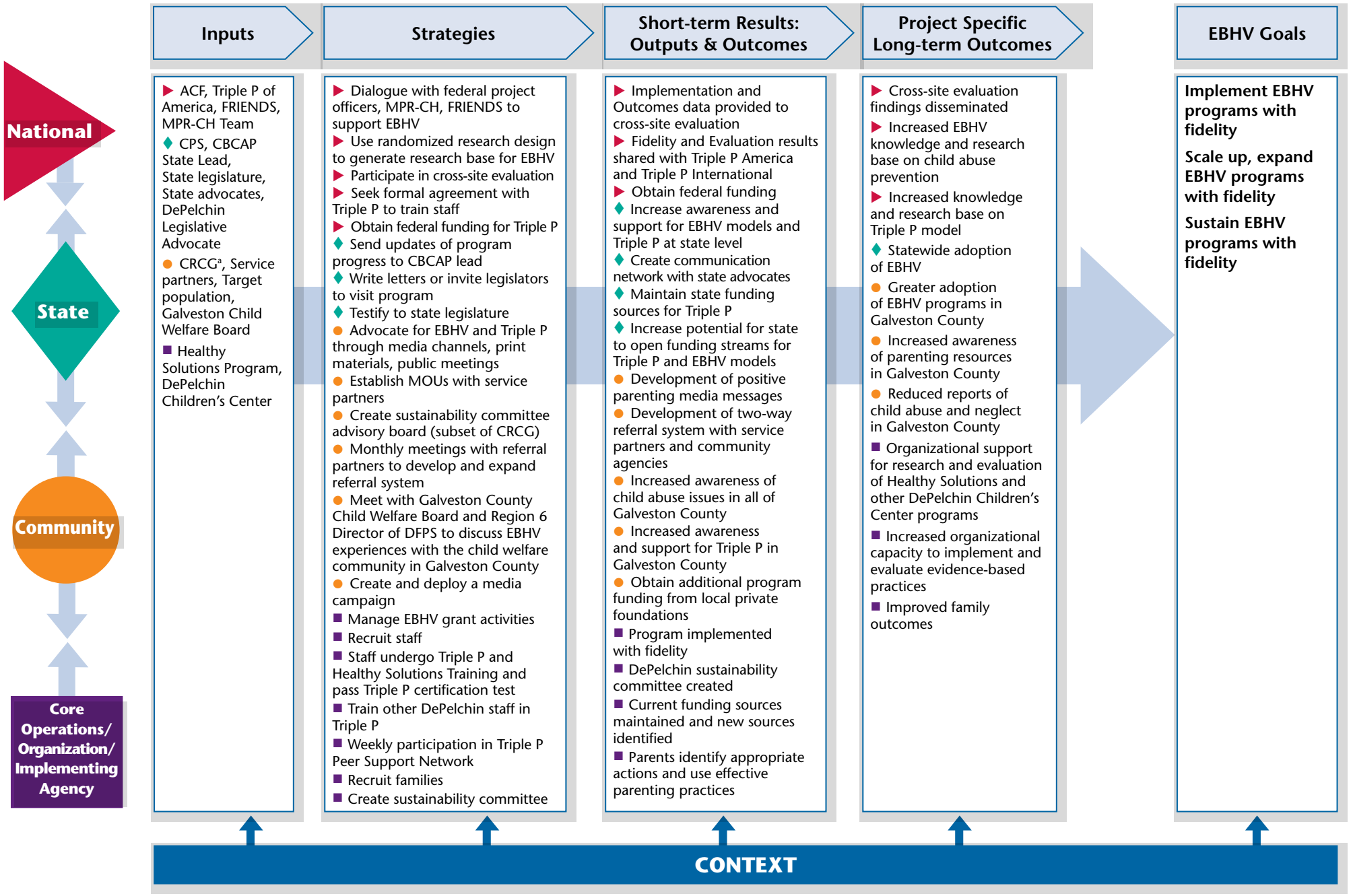
Notes: ACF = Administration for Children and Families at the U.S. Department of Health and Human Services; CIS/ETO = Nurse Family Partnership Clinical Information System/Efforts to Outcomes database; EBHV = Evidence-Based Home Visiting; FRIENDS = Family Resource Information, Education and Network Development Services (National Resource Center for Community-Based Child Abuse Prevention); MIECHV = Maternal, Infant, and Early Childhood Home Visiting Program; MPR-CH = Mathematica Policy Research and Chapin Hall at the University of Chicago; NFP = Nurse Family Partnership; NFP NSO = Nurse Family Partnership National Service Office; TN = Tennessee

TN: LE BONHEUR COMMUNITY HEALTH AND WELL-BEING LOGIC MODEL



Notes: ACF = Administration for Children and Families at the U.S. Department of Health and Human Services; CBCAP = Community-Based Child Abuse Prevention; CQI = Continuous Quality Improvement; DOH = Tennessee Department of Health; DCS = Tennessee Department of Children's Services; EBHV = Evidence-Based Home Visiting; ESC = Early Success Coalition; ESCN = Early Success Coalition Provider Network; FRIENDS = Family Resource Information, Education and Network Development Services (National Resource Center for Community-Based Child Abuse Prevention); HFA = Healthy Families America; MIECHV = Maternal, Infant, and Early Childhood Home Visiting Program; MPR-CH = Mathematica Policy Research and Chapin Hall at the University of Chicago; MOU = Memorandum of Understanding; NFP = Nurse Family Partnership; NFP NSO = Nurse Family Partnership National Service Office; SCOECY = Shelby County Office of Early Childhood and Youth; TA = Technical Assistance; TCCY = Tennessee Commission on Children and Youth; UT = University of Tennessee

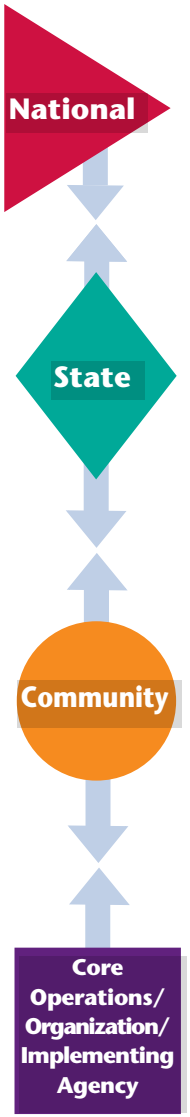
TX: DEPELCHIN CHILDREN'S CENTER LOGIC MODEL



Notes: ACF = Administration for Children and Families at the U.S. Department of Health and Human Services; CBCAP = Community-Based Child Abuse Prevention; CPS = Texas Child Protective Services; DFPS = Texas Department of Family and Protective Services; EBHV = Evidence-Based Home Visiting; FRIENDS = Family Resource Information, Education and Network Development Services (National Resource Center for Community-Based Child Abuse Prevention); MPR-CH = Mathematica Policy Research and Chapin Hall at the University of Chicago

[a] Community Resource Coordination Advisory Group (CRCG) consists of representatives from 50-60 social services agencies in Galveston County.

UT: UTAH DEPARTMENT OF HEALTH LOGIC MODEL



Inputs	Strategies	Short-term Results: Outputs & Outcomes	Project Specific Long-term Outcomes	EBHV Goals
▶ ACF, HRSA, FRIENDS, NFP, HFA, PAT, MPR-CH Team ♦ OHV, DOH, DHS, DSAMH, UPAT, CBCAP, Early Head Start, Early Intervention Services, Voices for Utah Children ● Salt Lake, Weber, Davis, Cache, Utah, and Uintah counties, United Way, Family Support Centers and other community-based agencies ■ 3 HFA sites with PAT curriculum, 1 NFP site, 4 UPAT sites, University of Utah	▶ Manage ACF grant ▶ Participate in cross-site evaluation ▶ Work with developers on program implementation ♦ Establish OHV to coordinate state home visiting service system ♦ Create EBHV steering and advisory committees for strategic planning and ACF grant oversight ♦ Seek TANF, other funding sources for home visiting ♦ Advocate for EBHV policies and programs ♦ Create OHV database and minimum data set to monitor local home visiting sites ● Help local EBHV sites to create linkages with local leaders and providers to increase coordination and referrals ● Identify rural communities with highest need for home visiting for EBHV expansion ■ Provide training grants, consultation and TA to EBHV sites, and some professional development to all home visiting programs ■ Design local evaluation ■ Seek funds to replace CBCAP grant for 4 home visiting sites (HFA and NFP)	▶ Partnerships with NFP, PAT, HFA developers ▶ ACF approved local evaluation design ♦ OHV designated as state lead for MIECHV ♦ State needs assessment, home visiting program inventory, State home visiting plan, and MIECHV SIR completed ♦ Existing TANF funding leveraged for OHV, EBHV ♦ State-level agency and political support for sustaining the OHV ● Options for expanding EBHV sites in current and future sites explored ● Increased coordination and referrals from local leaders, United Way, and providers ■ HFA, NFP, PAT services expanded to 250 families ■ 2 PAT sites expanded ■ OHV, PAT Visit Tracker and CIS/ETO data collected to monitor quality and fidelity of EBHV programs ■ Under revision to meet MIECHV Benchmark requirements	▶ Ongoing federal MIECHV funding secured ▶ Dissemination of cross-site evaluation findings ▶ EBHV developers support scale-up in Utah ♦ State, legislative support to grow EBHV services ♦ Multiple, diverse funding streams support home visiting ♦ Comprehensive, collaborative EBHV system is permanent part of state's continuum of care for families ♦ OHV data system expanded for PAT and MIECHV to monitor home visiting service quality statewide ● Increased community wareness and support for EBHV (NFP, HFA, PAT) ● Funding secured to expand home visiting to rural areas, rural services started ● Comprehensive, collaborative EBHV system at community level ■ HFA, NFP, PAT fidelity; quality improved in EBHV and other home visiting programs ■ Families benefit from home visiting services and have better child outcomes	**Implement EBHV programs with fidelity** **Scale up, expand EBHV programs with fidelity** **Sustain EBHV programs with fidelity**

CONTEXT

Notes: ACF = Administration for Children and Families at the U.S. Department of Health and Human Services; CBCAP = Community-Based Child Abuse Prevention; DOH = Utah Department of Health; DHS = Utah Department of Human Services; DSAMH = Utah Division of Substance Abuse and Mental Health; EBHV = Evidence-Based Home Visiting; FRIENDS = Family Resource Information, Education and Network Development Services (National Resource Center for Community-Based Child Abuse Prevention); HFA = Healthy Families America; HRSA = Health Resources and Services Administration; MIECHV = Maternal, Infant, and Early Childhood Home Visiting Program; MPR-CH = Mathematica Policy Research and Chapin Hall at the University of Chicago; NFP = Nurse Family Partnership; OHV = Office of Home Visiting; PAT = Parents as Teachers; PLN = Peer Learning Network; TANF = Temporary Aid to Needy Families; UPAT = Utah Parents as Teachers.

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