



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

Kimberly Boller, Deborah Daro, and Heather Zaveri

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- **17 subcontractors, partners, local evaluators**
- **National model representatives**



Overview of the Presentation

- **Evidence-Based Home Visiting (EBHV) initiative and subcontractors**
- **Evaluation theory of change, research questions, main findings, and limitations**
- **Fidelity**
- **Cost**
- **Infrastructure capacity-building and goal attainment**
- **Main findings and recommendations for future research**



Context of the EBHV Initiative

- **Funded in 2008 by CB as a 5-year initiative**
- **Economic recession resulted in funding challenges**
- **Future of the EBHV funds uncertain in 2010**
- **With the passage of the Maternal, Infant, and Early Childhood Home Visiting (MIECHV) Program, EBHV grantees entered into subcontracts with state lead agencies**
- **5 subcontractors were named the state lead agencies**
- **10 subcontractors received or anticipated receiving MIECHV funds to sustain or expand services**

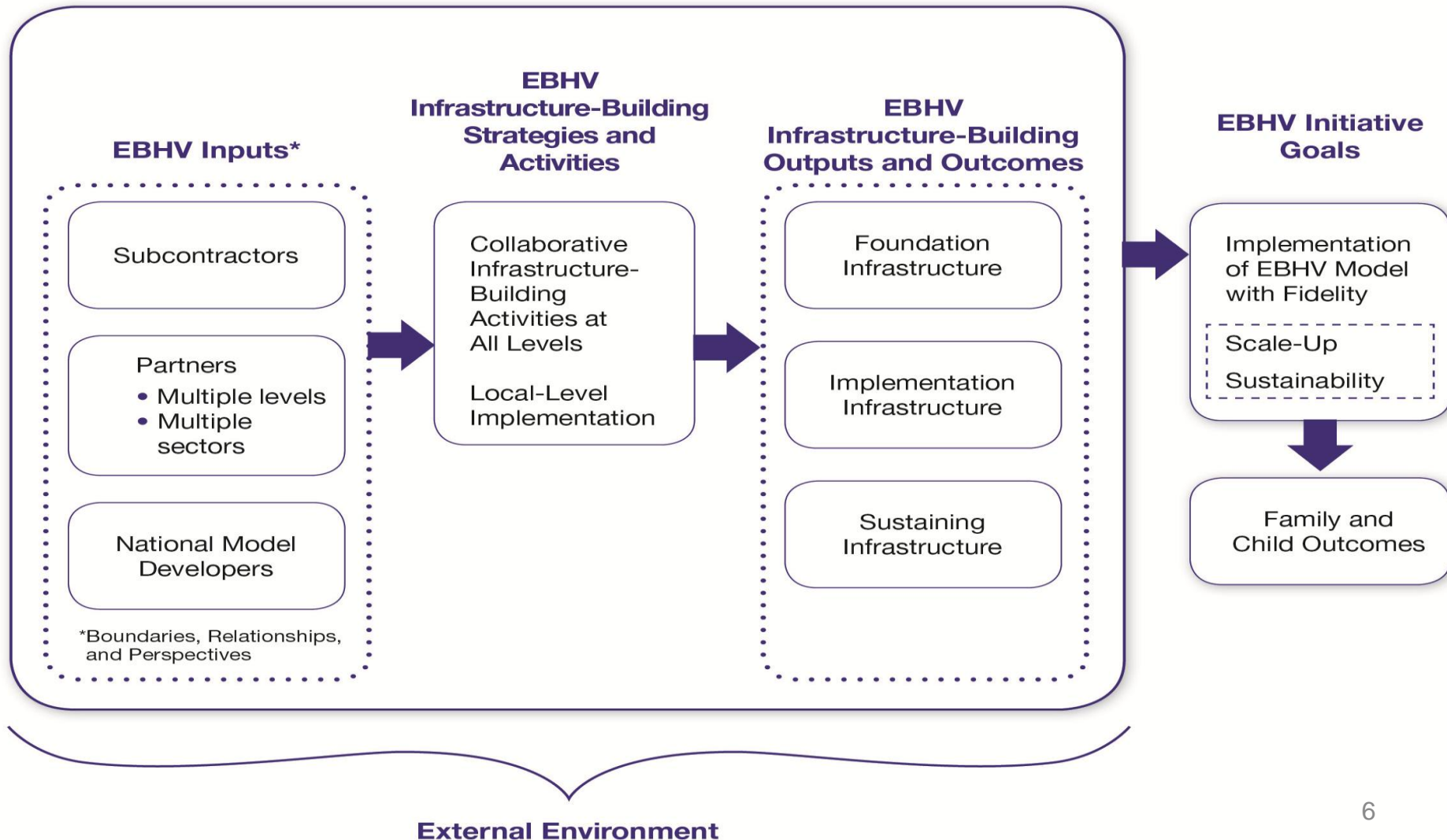


Subcontractors Selected One or More Home Visiting Models

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



Evaluation's Theory of Change Links Inputs, Infrastructure Building, and Goals





A Multicomponent Evaluation

- **Fidelity**
 - Were home visiting programs implemented and delivered with fidelity?
- **Cost**
 - How much does home visiting cost?
- **Infrastructure-Building**
 - What infrastructure capacity did subcontractors build to implement with fidelity, scale up, and sustain home visiting programs?
- **Goal Attainment**
 - Did building infrastructure and factors related to collaboration among partners influence subcontractors' progress toward goals?



Main Findings

- **Fidelity**: Implementing agencies (IAs), regardless of the model being implemented, struggled to achieve structural fidelity standards
- **Cost**: Costs per family averaged \$6,583, but varied widely by model and across agencies within models
- **Infrastructure-Building**: Although subcontractors' strategies stayed consistent across the initiative, the order in which they carried them out deviated from initial expectations
- **Goal Attainment**: According to partners' perceptions, building sustaining infrastructure and the quality of collaboration among partners were key factors in the extent to which subcontractors achieved their goals for the initiative



Limitations

- **Included a sample of IAs with considerable variability**
 - **Tenure and familiarity with the model, model enhancements and adaptations**
- **Relied on self-reported data**
- **Did not measure family and child outcomes**
- **Cannot draw causal conclusions**



Clarifying Questions?



Fidelity



Assessed Two Aspects of Fidelity

Structural (implementation fidelity)	Dynamic (intervention fidelity)
<ul style="list-style-type: none">• Hiring qualified staff/providing sufficient training and supervision• Engaging the target population• Achieving recommended dosage and duration• Maintaining caseload levels	<ul style="list-style-type: none">• Nature of the provider-participant relationship• Manner of service delivery



Multiple Strategies to Determine Performance Levels

- **Explicit standards outlined by each national HV model**
 - Caseloads
 - Service dosage
- **Implicit standards included in each model's theoretical approach or values regarding service delivery**
 - Engagement of participants in decision making
 - Responsiveness to participants' needs
- **Current notions of efficiency or best practices**
 - Obtaining appropriate referrals
 - Maintaining high enrollment and retention levels



Indicator Selection Criteria

- **Standards were applicable across all models or could be modified to capture model-specific criteria**
- **Supporting data placed minimal burden on home visiting staff and program participants**
- **Framework captured both the core elements of program implementation and a set of participants' characteristics to guide data interpretation**
- **Final set of indicators:**
 - **Seven structural domains (supported by 21 indicators)**
 - **Four dynamic domains (supported by 14 indicators)**



Data Elements and Sources

- **Participant profile**
 - Intake and termination data completed by HV staff or obtained from NFP National Service Office (NSO) Efforts to Outcomes (ETO) system
- **Provider profile**
 - Intake data completed by HV staff
- **IA staff caseloads and supervisory activity**
 - Monthly reporting forms submitted by HV program manager
- **Home visits offered and completed**
 - Number of planned visits and summary of all completed visits provided by HV staff and obtained from NFP-NSO ETO
- **Working Alliance Inventory (WAI)**
 - Completed by providers and participants twice during the service period



Sample Sizes

HV Model	Participants	Staff	Home Visits
HFA	575	117	11,907
NFP	2,960	120	58,475
PAT	601	79	9,519
SafeCare	491	72	6,617
Triple P	194	17	2,215
Total	4,821	392	88,733
# IAs represented	36	47	36

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



Select Home Visitor and Participant Characteristics

- **Home visitors**
 - 79 percent of home visitors had at least a B.A.
 - IAs implementing HFA, PAT, and SafeCare hired a more racially and ethnically diverse workforce
- **Participants**
 - 44 percent of participants had less than a high school diploma; 69 percent were unemployed; 94 percent were receiving public assistance
 - HFA and PAT participants presented with a significantly higher number of socioeconomic risk factors



High-Fidelity Performance Areas

Fidelity Indicator	Percentage Across All Models	Number of IAs Reporting
Home Visitors with at Least a B.A.	75.5	45
Staff Receiving Initial Model Training	99.5	47
Total Referrals that Met Model Standards	82.1	47
Planned Home Visits Completed	82.1	36
Planned Content Covered During Visits	96.7	29

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



Lower Fidelity Performance Areas: Caseloads

	Consistently Below Model Expectations	Consistently Over Model Expectations	Consistently At Model Expectations	Number of IAs
Home Visitor Caseloads	48.8	16.6	0.4	47
Supervisor Caseloads	35.0	28.6	0.0	48

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



Lower-Fidelity Performance Areas: Dosage and Duration

Indicator	HFA	NFP	PAT	SafeCare	Triple P
Retention					
% Retained 3 Months	91.5	90.1	89.4	76.6	80.7
% Retained 6 Months	82.3	77.7	76.5	39.5	44.6
% Retained 12 Months	73.0	57.6	61.1	16.4	3.9
Number of IAs	8	16	4	6	1
Dosage – 12 Months					
Full Dosage (%)	19.6	5.3	26.4	n.a	n.a.
80% Dosage	42.8	41.2	51.6	n.a	n.a.
60% Dosage	65.4	78.5	64.0	n.a	n.a.
Number of IAs	8	16	4	n.a	n.a.



Participants' Characteristics Related to Dosage and Duration

- **Hispanic participants more likely than white or African American participants to remain enrolled longer and receive a greater number of visits**
- **Younger, more economically disadvantaged and socially isolated participants often leave multiyear home visiting programs before 12 months or, if enrolling in short-term programs, do not successfully complete them**
- **Among those who remain in multiyear programs at least 6 months, however, socioeconomic risk level is not a predictor of service dosage**



Fidelity: Implications

- **Wide variability in structural fidelity within each model; multiple contextual factors contributed to how a model was replicated in a given community**
- **Findings raise questions about appropriate caseload levels, service dosage, and service duration**
- **Fidelity framework identified both common as well as distinct service elements across models, underscoring important differences in each model's intent and theory of change**
- **Just directing investments to evidence-based models does not guarantee consistent program replication; continuous attention to implementation is critical**



Clarifying Questions?



Cost



Cost Study Research Questions

- **What are the total annual costs of operating home visiting programs?**
- **How are resources allocated among cost categories and program activities?**
- **What does each program cost per exiting family?**
- **How do average costs vary across program models and programs operated by different types of agencies and in various geographic locations?**



Approach

- **Analyzed costs from IA perspective**
 - Estimate resources needed to replicate program at similar scale in similar context
- **Used “ingredient” method to calculate total costs**
- **Focused on a one-year period of “steady-state” operations**
 - Typical operations relative to the number of participants enrolled and home visitors’ caseloads
 - July 1, 2011 through June 30, 2012



Data Sources

- **IA cost survey**
 - Identified resources used and their value
- **IA staff time-use survey**
 - Collected data on how staff spent their time across program activities in a typical week
 - Used to allocate costs across program activities
- **EBHV cross-site fidelity data**
 - Provided the number of families served, duration of participation, and number of home visits delivered
 - Used to estimate the cost to serve a family



Types of Costs

- **Total cost at agency level**
 - Allocated to resource (or cost) categories
 - Allocated to program activities
- **Cost per family**
 - Step 1: Cost per family week of enrollment = total cost / total number of weeks of family enrollment
 - Step 2: Average cost per family = cost per family week of enrollment * average number of weeks for exiting family
 - Step 3: Weighted average based on number of families that exited each IA's program during period
- **Cost per completed home visit**
 - Average cost per home visit = total annual cost / total number of home visits completed



Diverse IA Sample

Home Visiting Program Model	Number of IAs	Geographic Location			Type of Agency		
		Rural	Urban	Suburban	Government	Medical Center	Private Nonprofit
HFA	7	2	2	3	0	2	5
NFP	10	1	7	2	5	1	4
PAT	3	0	2	1	0	0	3
SafeCare	4	1	3	0	2	0	2
Triple P	1	0	1	0	0	0	1
Total	25	4	15	6	7	3	15

Source: Cost Study of EBHV Programs Survey of Implementing Agencies and the EBHV Cross-Site Evaluation.

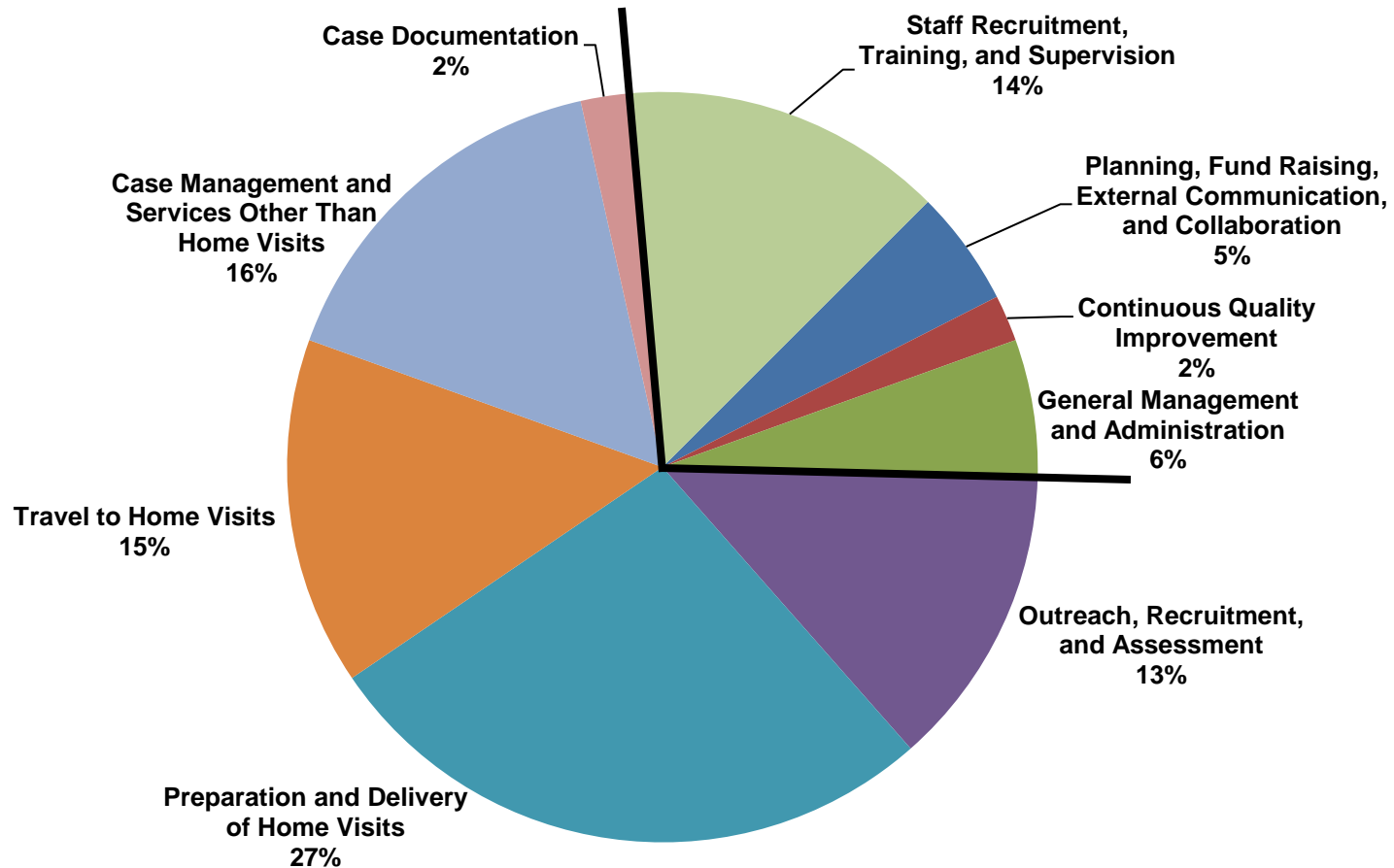


Annual Costs Averaged \$580,972

- **Ranged from \$206,426 to \$1,207,054**
- **Program scale was not a consistent predictor of costs**
- **Personnel expenses comprised 72 percent of total, on average**
 - **NFP IAs spent larger share of costs on personnel**



Most Costs Allocated to Direct Services



Source: Cost Survey of Implementing Agencies and Implementing Agency Staff Time-Use Survey.

Note: Averages are at agency level. N = 24 agencies. One agency was removed from this analysis because data on staff time use were not available.



Cost Per Family Averaged \$6,583

	Average Cost Per Exiting Family	Weighted Average Cost	Number of IAs
All IAs	\$6,583	\$5,962	19
Program Model			
HFA	\$5,615	\$5,270	4
NFP	\$8,003	\$7,596	10
PAT	\$2,372	\$2,415	2
SafeCare	\$6,263	\$5,982	2
Triple P	\$5,306	\$5,306	1

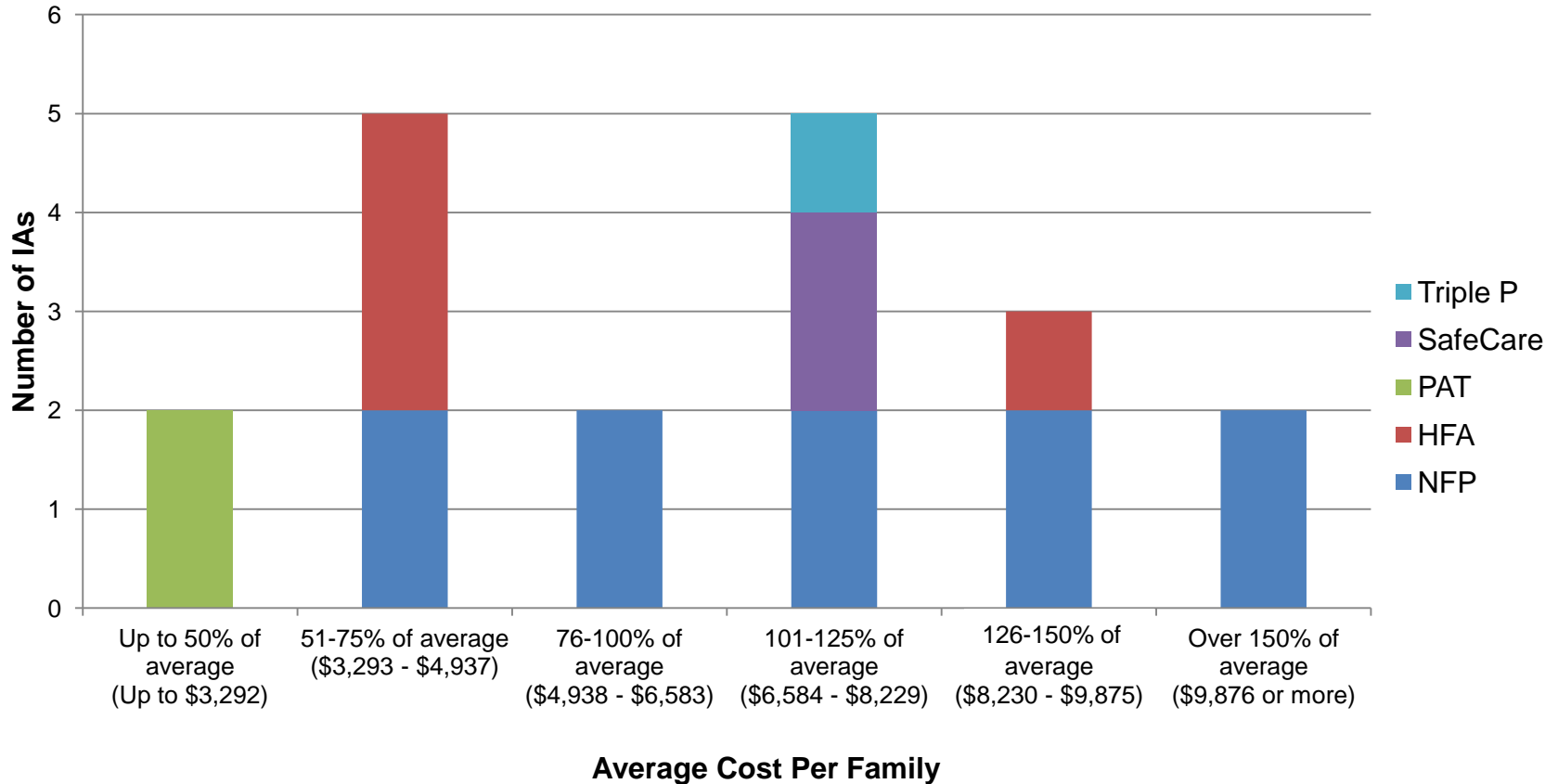
Sources: Cost Study of EBHV Programs Survey of Implementing Agencies and EBHV Cross-Site Fidelity Data.

Notes: Costs are in 2012 dollars. Analysis includes IAs with more than 10 families exiting during the cost study period and excludes as an outlier the IA implementing an enhanced version of PAT that provides access to mental health services. Averages and ranges pertain to the agency level within each category. Average cost per exiting family is not adjusted for participation before the cost study period.

Average cost per family = Average cost per week of participation for each IA * Average number of weeks of participation for families served by the IA and exiting during the cost period. Weighted average cost is based on the number of families that exited each IA's program during the cost study period.



Per-Family Cost Varied Widely



Sources: Cost Survey of Implementing Agencies and EBHV Cross-Site Fidelity Data.
 Note: Figures are in 2012 dollars. Averages are at agency level within each program model. Includes programs with more than 10 families exiting during the cost period.



Average Cost Differed by Some Agency Characteristics

	Average Cost Per Exiting Family	Weighted Average Cost	Number of IAs
Location			
Rural	\$5,459	\$5,697	4
Suburban	\$7,145	\$6,104	4
Urban	\$6,787	\$6,039	11
Type of Agency			
Government	\$8,211	\$7,438	6
Medical center	\$9,226	\$11,163	2
Private nonprofit	\$5,214	\$4,717	11

Sources: Cost Study of EBHV Programs Survey of Implementing Agencies and EBHV Cross-Site Fidelity Data.

Notes: Costs are in 2012 dollars. Analysis includes IAs with more than 10 families exiting during the cost study period and excludes as an outlier the IA implementing an enhanced version of PAT that provides access to mental health services. Averages and ranges pertain to the agency level within each category. Average cost per exiting family is not discounted for participation before the cost study period.

Average cost per family = Average cost per week of participation for each IA * Average number of weeks of participation for families served by the IA and exiting during the cost period. Weighted average cost is based on the number of families that exited each IA's program during the cost study period.



Cost Per Visit Averaged \$534

- **Ranged from \$201 to \$1,397 (23 agencies)**
- **Standard PAT programs (2 agencies) had the lowest average cost per visit: \$210**
- **HFA programs (7 agencies) had the highest average cost per visit: \$673**

Note: Average costs per home visit for two IAs (one implementing an enhanced version of PAT and one implementing SafeCare) were determined to be outliers and excluded from the calculation of average cost per home visit.



Cost: Implications

- **Substantial funds spent on activities beyond home visits**
 - Delivery of home visits is supported by investment in other functions and activities
- **Both model and agency circumstances appear to influence costs**
 - Costs varied widely for some program models
 - Caseload dynamics, target populations, and service enhancements can affect costs



Clarifying Questions?



Infrastructure-Building and Goal Attainment



Data Sources

- **Infrastructure-Building**
 - **Site visits and telephone interview data collected at multiple points in time**
 - **Subcontractor logic models updated at multiple points in time**
- **Goal attainment**
 - **Partner survey data collected in early 2012**
 - **Sent to 322 respondents, ranging from 8 to 32 partners**
 - **Response rate 75 percent, ranging from 53 to 100 percent**



Infrastructure Capacities and Examples

Foundation Area	
Planning	Strategic planning, tactical planning, decision making
Collaboration	Leadership, alignment of goals and strategies
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, fund raising, leveraging support
Community and Political Support	Building community awareness and political support
Communications	Information sharing, policy advocacy
Evaluation	Program evaluation, monitoring, and quality improvement



Infrastructure Capacity in the Foundation and Implementation Areas

- **Planning and collaboration activities were a primary focus during years 1 and 2, mostly ended by year 3, except for those activities related to MIECHV**
 - **By year 4, planning activities decreased substantially, while collaboration activities were ongoing**
- **All subcontractors engaged in building implementation infrastructure throughout the initiative, with activity highest in year 3**
 - **In year 4, activities were focused on improving service delivery, addressing challenges, and providing supplemental trainings to home visitors**



Infrastructure Capacity in the Sustaining Area

- **Subcontractors accelerated their activities in the sustaining area in year 3 to address the possible disruption in EBHV funds and in response to MIECHV**
 - **By year 4, activity in the sustaining area was lower than in year 3, except for activities related to evaluation**



Roles and Perceptions of the EBHV Subcontractors and Partners

- **Partners and subcontractors reported being most involved in building foundation infrastructure**
- **Partners and subcontractors reported the greatest progress in implementing home visiting programs with fidelity**
- **On average, partners and subcontractors rated quality of collaboration as high**



Infrastructure-Building and Contextual Factors Influence Goal Attainment

- **Involvement in building sustaining infrastructure significantly related to partners' perceptions of whether EBHV goals were achieved**
- **Subcontractors' and partners' reports of the quality of collaboration were significantly associated with achieving EBHV goals**



Implications

- **Stakeholders have to be flexible in the timing and approach to conducting infrastructure-building activities**
- **Maintaining positive relationships among partners might be an important factor in the ability of initiatives to achieve their goals**
- **Program leadership, funders, and other partners might not have an accurate picture of the strengths and weaknesses of implementation**



Key Findings and Recommendations for Future Research



Main Findings (Recap)

- **Fidelity**: IAs, regardless of the model being implemented, struggled to achieve structural fidelity standards
- **Cost**: Costs per family averaged \$6,583, but varied widely by model and across agencies within models
- **Infrastructure-Building**: Although subcontractors' strategies stayed consistent across the initiative, the order in which they carried them out deviated from initial expectations
- **Goal Attainment**: According to partners' perceptions, building sustaining infrastructure and the quality of collaboration among partners were key factors in the extent to which subcontractors achieved their goals



Recommendations for Future Research

- **Future studies should examine:**
 - **Implications of varying levels of service delivery on the ability of programs to achieve targeted outcomes with families and children**
 - **Relationship quality, including the role of relationship quality in take-up and engagement in services**
 - **Cost-effectiveness and cost-benefits of different levels of service**
 - **Features of partner collaboration that lead to outcomes for families and children**
 - **Leadership qualities and organizational culture and climate that may reduce barriers to implementation**



For More Information

Kimberly Boller kboller@mathematica-mpr.com

Deborah Daro ddaro@chapinhall.org

Heather Zaveri hzaveri@mathematica-mpr.com

Melissa Brodowski melissa.brodowski@acf.hhs.gov

Visit the website: <http://www.supportingebhv.org/crossite>

Read the report (cleared and available shortly):

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Questions and Discussion