REPORT | December 2021

Quality Considerations Across Levels of the Home Visiting System: A Literature and Measure Review

HRSA
Maternal & Child Health

Acknowledgements

The authors would like to thank project consultants Deborah Daro, Jill Filene, Tamara Halle, Julia Heany, and Jon Korfmacher for their review and contributions to this report. The authors would also like to thank the following MIECHV awardees and other experts who provided input: Gregory Aarons, Clinton Boyd, Claire Canfield, Greer Cook, Evelyn Dryer, Anne Duggan, Terri Enters, Felecia Fognani, Bryn Fortune, Angela Heisey, Carrie Higgins, Janet Horras, Gretchen Kirby, Elli Komito, Lisa Martin, Steven Pascal, Sara Remington, Shannon Sainer, Sarah Schafer, Christine Silva, Wendy Stafford, Kathleen Strader, Sophia Taula-Lieras, Angela Ward, and Nancy Whitesell.

Contents

Exhibits

Executive Summary

Introduction

Home visiting is a service delivery strategy that provides new and expecting parents with support, through a trained professional, in the family's home or a location of their choice. By offering individualized supports and services to families experiencing and adversely impacted by poverty, structural racism, and health-related inequities, home visiting may play a critical role within communities and early childhood systems of care in promoting maternal and child health and well-being.[1,2] Evidence from reviews, meta-analyses, and randomized trials demonstrates that home visiting promotes favorable outcomes, including maternal health, child development, prevention of child abuse and neglect, and improved family economic well-being. However, effect sizes for home visiting are often small and inconsistent.[3,4,5] One avenue for bolstering the effects of home visiting is attention to program implementation, that is, the conditions that need to be in place to effectively implement evidence-based home visiting programs and achieve intended outcomes.[6] Existing frameworks for scaling up evidence-based programs highlight elements to focus on, such as leadership, workforce, and data systems to support ongoing quality improvement. There is little consensus in the field, however, about how to define home visiting implementation quality, and there is limited research on how to operationalize it, promote it, or measure it.

Given the role of quality program implementation in achieving intended program outcomes, the Health Resources and Services Administration (HRSA), in partnership with the Administration for Children and Families (ACF), contracted with Child Trends and James Bell Associates in 2020 to complete a literature and measure review of home visiting implementation quality. State awardees and tribal grantees receiving funding through the Maternal, Infant, and Early Childhood Home Visiting (MIECHV) Program implement multiple program models and are situated within implementation systems with multiple levels of influence. Thus, HRSA and ACF intended for the reviews to capture aspects of implementation quality, and related measures, that span the entire implementation system and are applicable across program models. This includes aspects of implementation quality occurring within broader contexts (such as federal, tribal, state, and community levels) as well as more proximal contexts (such as local implementing agencies and home visiting programs).

The project used a rapid review of the literature and existing measures drawing from home visiting and related fields, such as early childhood education and child welfare. The project also drew from the broader fields of prevention and implementation science. This approach allowed the reviews to

capture aspects of implementation quality, and related measures, across multiple levels of the home visiting system.

Methodology

Rather than define and operationalize implementation quality from the outset, the project team reviewed existing literature and measures to identify emerging themes and content as they relate to important aspects of implementation quality across multiple levels of the home visiting system. Levels of the home visiting system include—

1. Federal, tribal, state, and community contexts: Funders, model developers, tribal organizations, state agencies, and territories that oversee or provide guidance to home visiting programs. Also includes researchers that influence knowledge development and recommendations.
2. Local implementing agency and home visiting program contexts: Local implementing agencies that house home visiting programs and home visiting programs that provide direct services to families.
3. Program service delivery contexts: Actual implementation of direct services provided to families.

The reviews included a wide range of literature and measures—peer-reviewed studies, meta-analyses, gray literature including evaluation reports and model briefs, and best practice standards used by home visiting models, state systems, and local programs.

Key Findings From the Literature Review

The report identifies quality domains and considerations emerging from the literature and measure review across levels of the home visiting system. For the purposes of this report, we define quality considerations as structures, supports, and aspects of programs that influence how programs are designed, implemented, monitored, and maintained. Quality considerations support program implementation regardless of the program model or intervention being implemented. Quality domains are broader groupings of quality considerations.

Federal, Tribal, State, and Community Contexts: Reviewed articles suggest that local implementing agencies and home visiting programs are more capable of program implementation when broader contexts provide options for clearly defined models with demonstrated efficacy for the populations they serve and outcomes of interest. Quality domains and considerations identified at this level include—

1. Research and evaluation: promoting evidence-based decision making, incorporating locally valued concepts of program success, and developing coordinated and streamlined data collection.
2. Coordination and collaboration: forming partnerships with other service agencies, developing shared resources and goals, and promoting public awareness and appreciation of home visiting.
3. Resources and supports: supports and options for diversified funding, access to quality data systems, and provision of technical assistance and professional development.

Local Implementing Agency and Home Visiting Program Contexts: When local implementing agencies and programs recruit and support a well-qualified workforce and provide services in alignment with common elements of effective prevention programs, they are more likely to successfully engage and retain families and provide high-quality services. Quality domains and considerations identified at this level include—

1. Program approach and monitoring: sound program theory with multiple program components, program adaptations and enhancements, and ongoing program monitoring.
2. Organizational climate: workplace culture and policies and leadership capacities.
3. Workforce supports: providing comprehensive training, offering targeted and individualized coaching, and providing reflective and consistent supervision.
4. Staffing: staff selection and recruitment, staff knowledge and competencies, and staff well-being.

Program Service Delivery Contexts: Regardless of the inputs into a program's structure coming from other levels of the home visiting system, the relationship between a specific home visitor and program participants is constructed at the local service delivery level. The unique quality domain and quality considerations identified at this level includes the ability to engage families in program services through strong interpersonal skills, facilitation of family understanding and use of program content, and individualizing services to families.

Key Findings From the Measure Review

The project team selected a total of 29 measures for inclusion in the review. These measures represent a wide range of approaches to assessing quality, including standardized and nonstandardized assessments, observational protocols, and best practice standards. The reviewed measures assess multiple aspects of quality across most levels of the home visiting system, including content related to coordination and collaboration, program approaches, research and evaluation efforts, organizational climate, funding, and workforce characteristics. Most measures assess these aspects of quality at the level of local implementing agencies, home visiting programs, and program service delivery contexts. Fewer measures assess aspects of quality at the federal, tribal, state, and community contexts level—and those were concentrated at the state and

community contexts. Additionally, existing measures are limited in assessing the quality of workforce supports. For example, measures typically do not assess the quality of staff training, coaching, or supervision.

Limitations and Future Directions

This review focused on a broad sweep of existing literature to identify quality considerations across multiple levels of the home visiting system. Findings from the review could be supplemented by existing, focused reviews of individual quality considerations such as service coordination, best practices for training, or workplace climate. In general, the review highlights a lack of research focused specifically on identification of program components that drive program outcomes across and within service populations. To help address this gap, future research might focus on examining associations between identified quality considerations with variations in program implementation and variations in interim and long-term program outcomes. Future research may also examine associations between quality considerations across levels of the home visiting system. For example, research might examine how resources and supports provided at broader contexts influence workforce supports and staffing within the more proximal contexts of local implementing agencies and home visiting programs. With respect to measures, the field could benefit from development of practical and reliable measures of quality considerations across all levels of the home visiting system. The field may also benefit from measures that assess the quality of workforce supports, not just the presence and availability of workforce supports.

Introduction

Home visiting is a service delivery strategy that provides families with young children support, through a designated home visitor, in the family's home or a location of their choice. Home visitors provide individualized support to families on a broad range of topics, from promoting family economic self-sufficiency and addressing issues of intimate partner violence to promoting positive parent-child interactions and child development. It is widely accepted that achieving intended child and family outcomes through home visiting services requires high-quality program implementation.[6] However, the field lacks a standard definition and empirical evidence for what a "high-quality home visiting program" is.[8] Additionally, there are limited efforts to identify key aspects of program quality that are applicable across program models. Existing home visiting research largely focuses on examining the efficacy of programs in their entirety and focuses less on identifying specific elements of programs that promote child and family outcomes. Attempts to identify elements of home visiting programs that promote outcomes have produced mixed results. For example, in a meta-analysis, some program elements (such as teaching sensitive and responsive parenting and teaching discipline and behavior management techniques) are associated with certain child or family outcomes, for certain populations, but are not associated with other outcomes.[3] Research using existing measures of home visiting quality have also found mixed results with respect to associations between program quality and child and family outcomes.[9]

The field is also increasingly recognizing the importance of distinguishing between home visiting implementation quality and fidelity. While fidelity focuses on *whether* programs are implemented according to standards, procedures, or actions as outlined by model developers, quality refers to *how well* programs are implemented and if they are implemented in a manner most likely to yield positive outcomes. As an example, a fidelity standard might document whether a program completes a scheduled home visit, whereas quality is concerned with how well a home visitor completes a home visit according to best practice standards. Discussions about home visiting quality also focus on concepts of structural and process elements of quality. Structural elements of quality are less dynamic in nature and are more easily measured and observed, whereas process elements of quality are more dynamic and interactional and are often more difficult to measure and observe. Structural elements of quality might include home visitor's education and background, the number of visits a family receives, or content of home visits. These structural elements of quality, however, are

typically reported relative to intended program delivery as outlined by model requirements,[i] for example, how many visits a family receives relative to the number of expected visits according to model requirements or the content of home visits relative to the intended content. Thus, existing discussions on structural elements of quality overlap with program fidelity and say very little about how *well* programs are implemented.[8] Additionally, existing research does not provide clear evidence on the number of visits that are required to produce outcomes or the necessary content of those visits.

Process elements of quality are more dynamic in nature and include attention to the relationship between home visitors and families and interactions occurring during home visits. In general, the field emphasizes the importance of home visitors developing positive relationships with families characterized as warm, caring, and responsive to individual family's needs. However, there is limited attention to or understanding of the specific techniques and processes home visitors should use—across program models—to develop positive relationships with families.

Given the diversity of models implemented, the multitude of outcomes home visitors are expected to address, and the individualized nature of home visiting services meant to address unique and diverse family needs—it is possible that definitions of home visiting quality depend on the family and child outcomes targeted, the model implemented, and the populations served.[8] This is in alignment with the Home Visiting Applied Research

Box 1. Definitions of Terms

- **Levels within the home visiting system:** Contexts, agencies, entities, and individuals that are part of the home visiting system. This includes federal, tribal, state, and community contexts; implementing agencies and home visiting programs; and service delivery contexts.
- **Quality considerations:** Structures, supports, and aspects of programs, at each level of the home visiting system, that influence how programs are designed, implemented, monitored, and maintained. Quality considerations support program implementation regardless of how program quality is specifically defined.

[i] Local agencies and home visiting programs choose from multiple models of early childhood home visiting. Models vary in their purpose and requirements regarding who delivers services to families, the content of visits, how often visits are provided, and how long families receive services. Models also vary in the types of support, such as data systems, training, and professional development, provided to local agencies and home visiting programs.

Collaborative's advancement of "precision home visiting" to examine what aspects of programs work for particular populations, under what conditions, and for which outcomes.[8,10]

While definitions of home visiting quality may differ according to the complex and individual pathways to targeted child and family outcomes, it is still possible to identify structures, supports, and aspects of programs that support program implementation regardless of how quality is specifically defined. For the purposes of this report, we refer to these as "quality considerations" (see box 1) and examine quality considerations across levels of the home visiting system.

A home visiting system includes multiple levels (see box 1) that comprise the contexts, agencies, entities, and individuals that influence program implementation. For example, home visiting programs operate within local implementing agencies and broader service and policy environments at the level of federal, tribal, state, and community contexts. These levels influence one another, and program implementation, in dynamic ways. Thus, ensuring quality program implementation requires identification of quality considerations across levels of the home visiting system.

Box 2. Summary of Project Tasks and Activities

- Review of literature and existing measures of program quality
- Ongoing awardee engagement
- Ongoing expert engagement and consultation
- Development of a conceptual framework identifying and categorizing critical elements of home visiting implementation quality
- Development of study design reports outlining potential research plans to address identified awardee needs with respect to program implementation quality

The Measuring Implementation Quality in MIECHV-Funded Evidence-Based Home Visiting Programs project aims to identify and categorize quality considerations across levels of the home visiting system that support quality program implementation. Several project tasks and deliverables contribute to this aim (see box 2). This report summarizes findings from the literature and measure review and informs the development of a conceptual framework for home visiting implementation quality. Due to the limited research on quality implementation within the home visiting field, the literature and measure review draws from adjacent and related fields. As discussed, the literature review focuses on identifying quality considerations across levels of the home visiting system. We do not suggest that the quality considerations constitute quality in and of themselves, but rather that they may support quality program implementation regardless of how program quality is specifically defined.

Levels of the Home Visiting System

A home visiting system is multifaceted and includes multiple levels that influence one another in dynamic ways (see exhibit 1). The broadest outer level of the home visiting system includes federal, tribal, state, and community contexts. Entities within this level include funders, model developers, tribal governments, local tribal organizations, state agencies, and territories that oversee or provide guidance to local implementing agencies and home visiting programs. Another influence on the home visiting system, at this broadest outer level, includes normative standards and values related to parenting, help seeking, and preferences for family autonomy. Entities at this level influence program approach, funding, performance standards and requirements, policies and guidelines, and sustainability. These entities also provide support for local implementing agencies that oversee home visiting programs. For example, the abilities of local implementing agencies and home visiting programs to provide high-quality services to families are influenced by support (such as training and technical assistance) provided by federal, tribal, state, and community entities. This outer level also includes community characteristics and contexts that influence a home visiting program's ability to link families to community services and the availability of a qualified workforce to staff home visiting programs.

The next level of the home visiting system includes local implementing agencies and home visiting programs that are embedded within local implementing agencies. Local implementing agencies provide fiscal and operational oversight and influence the structure, policies, and procedures of home visiting programs. For example, home visiting programs may be housed within local nonprofit organizations, local school districts, or local social service agencies. The structure, policies, and guidelines of local implementing agencies and home visiting programs also influence competencies of the home visiting workforce, workforce conditions, and the content and nature of services provided to families. Additionally, strategies and resources provided by local implementing agencies and home visiting programs to identify and recruit potentially eligible families can influence the reach of home visiting services. This level also includes considerations related to organizational cultures and climates of local implementing agencies and home visiting programs.

The inner level of the home visiting system represents program service delivery. This level captures actual implementation of direct services provided to families. This level includes considerations of the relational and interpersonal dynamics occurring between home visitors and families. This might include, for example, interpersonal skills of home visitors and the ability to effectively engage families in program services.

Throughout this report, literature review findings are organized according to the levels of the home visiting system illustrated in exhibit 1 and described above. While findings are summarized by levels

of the home visiting system, we recognize that these levels—and quality considerations within each—interact with and influence one another.

Exhibit 1. Levels of the Home Visiting System

Level	Definitions
Federal, tribal, state, and community contexts: Funders, model developers, tribal organizations, state agencies, and territories that oversee or provide guidance to home visiting programs. Also includes researchers that influence knowledge development and recommendations.	**Funders:** Entities that pay for the costs of home visiting services. Funders are commonly government agencies at the local, state, or federal level and/or private sources and foundations. **Model developers:** Approaches for delivering home visiting services outlined by specific implementation requirements and fidelity standards. This includes but is not limited to requirements and standards for staff education and background, staff training and professional development, provision of supervision, eligible service populations, program content, and curricula. **Tribal organizations:** Tribal organizations (Indian tribes, consortia of tribes, tribal governments, local tribal organizations, and urban Indian organizations) that administer and/or influence home visiting programs in American Indian/Alaska Native communities. **State agencies and territories:** State agencies, such as human services, health, and early childhood agencies, that administer home visiting programs through local implementing agencies. **Researchers:** Individuals who conduct organized examinations and investigations about home visiting to test hypotheses, complete program evaluations, generate knowledge development, and make recommendations for the home visiting field.
Local implementing agency and home visiting program contexts: Local implementing agencies that house home visiting programs and home visiting programs that provide direct services to families.	**Local implementing agency:** A local agency that houses the home visiting program(s) that provides services to families. Examples of local implementing agencies include county departments of health or local nonprofit organizations. Might include supervisory, management, and other supports provided to staff. **Home visiting program:** Entity that provides direct services to families. Includes home visiting staff. Might include supervisory, management, and other supports provided to staff.

Level	Definitions
Program service delivery contexts: Actual implementation of direct services provided to families.	**Program service delivery:** The contexts where actual services are provided to families. May include family's home or other location, depending on family choice.

Road Map of the Report

This report is organized into two sections. The first section provides an overview of the literature review methods and literature review findings organized by quality considerations within three levels of the home visiting system. This is followed by a summary of gaps and implications of literature review findings. The second section provides an overview of measurement review methods and measures included in the review. Findings from the measurement review are then summarized by content included in the measures. This is followed by a summary of measurement approaches along with a discussion of strengths and gaps of existing measures. Appendix materials provide details for the literature review methods, a list of all articles included in the review, and profiles of measures specific to the field of home visiting.

Literature Review Findings

Overview of Methods and Literature Reviewed

Identifying quality considerations within the complex and multilayered home visiting system—from federal and state contexts to service delivery contexts—requires a broad sweep of existing literature to identify salient themes within each level of the home visiting system. Due to the broad nature of the literature review, we completed a rapid review of publication databases and relevant gray literature. The rapid review was intended to identify themes from existing literature as they relate to quality considerations, at each level of the home visiting system, that support effective program implementation. A search of publication databases including MEDLINE, PubMed, PsycINFO, and Sociology Source Ultimate returned 4,190 abstracts. We included an additional 56 abstracts from three sources:

- Existing literature from prior relevant projects including the Home Visiting Program Quality Rating Tool and the National Home Visiting Resource Center's reference catalog
- Literature and assessments to consider for review from HRSA, consultants, awardees, and expert stakeholders
- Internet searches for gray literature such as technical reports, briefs, and conference presentations

After removing duplicates and reviewing abstracts against the eligibility criteria in exhibit 2, we included a total of 125 articles in the literature review. Literature included in the review spans multiple fields (see exhibit 3) and focuses on a wide variety of program, family, and child outcomes. See appendix B for additional details on literature review methodology.

Exhibit 2. Literature Eligibility Criteria

1. Article focuses on examining and/or defining aspects of program quality that are applicable across levels of the home visiting system.
2. Intervention or program under investigation works with expectant families or families with young children (infants through age 8) in the child or family's home or in an early childhood, educational, or healthcare setting.
3. Article published in English language.
4. Literature or assessment is published after 2010.
5. Article published in a peer reviewed journal. Literature review will not include dissertations, theses, etc.

When considering the applicability of literature review findings across populations and contexts, it is important to note the populations represented in the reviewed literature. Most of the articles reviewed offered little detail on the ethnic and racial composition of their samples or described the context in which they were implemented. In some instances, this is expected given the level of the home visiting system under consideration. For example, the characteristics of a study population may not be applicable to articles focused on key structures and supports at the federal level. Of the 75 articles with a specific study population, 57 provided information on the race and/or ethnicity of study participants. Among these articles, very few included Asian, Asian American, or Other Pacific Islander or American Indian/Alaskan Native participants (see exhibit 3 for details). Additionally, only 22 of these 75 articles provided information on study locale.

Exhibit 3. Characteristics of Literature Included in Review

Descriptor	Categories[a]	Number of articles (n = 125)[b]
Fields of study	Child welfare	12
	Early childhood education	21
	Healthcare	6
	Home-based childcare	8
	Home visiting	62
	Other two-generation support program	4
	Public health	4
	Other: early intervention, early intervention for early childhood education professionals; infant mental health/early childhood systems of care; out-of-school time programs; prevention and promotion; programs delivered to parents in group sessions, home, or clinic visits and early group care; youth at risk for out-of-home care due to emotional or behavioral disorders; youth with disabilities/youth transition	9
Study design	Descriptive study	42
	Quasi-experimental design	42
	Randomized controlled trial	12
	Systematic review or meta-analysis[c]	20
	Other: case study, content analysis, theoretical or conceptual, scoping literature review	7
	Mixed methods	38

Descriptor	Categories[a]	Number of articles (n = 125)[b]
Data collection methods	Qualitative	22
	Quantitative	45
	Review of literature	14
	Other (document review, meta-analysis, not provided)	5
Articles with defined study population (n = 75)		
Setting/ locale (n = 23)	Urban only	8
	Rural only	3
	Urban + rural	8
	Urban + suburban	1
	Urban + rural + suburban	2
	National	1
Sample race/ ethnicity (n = 57)	White, non-Hispanic	42
	Black/African American	35
	Hispanic/Latino	43
	American Indian/Alaskan Native	10
	Asian or Pacific Islander	14
	Multiracial	7

Notes: [a]Categories are not mutually exclusive. For example, some studies focused on home visiting in the context of child welfare. [b]Data were not available for all descriptors for all articles. [c]Systematic reviews and meta-analyses may contain articles that were extracted separately for analysis.

The following sections describe quality considerations, organized by overarching quality domains across levels of the home visiting system, emerging from the literature review. In the following sections, we specifically note if quality considerations are empirically linked to outcomes. If empirical outcomes are not discussed, then statements related to the quality considerations are drawn from theoretical and descriptive research. It should be noted, however, that outcomes discussed throughout are drawn from empirical research included in this literature review and do not represent an exhaustive review of outcomes associated with each quality consideration. For example, while we discuss outcomes related to professional development, there is a robust literature on key elements of professional development that is not fully examined in this review.

While findings are presented by level of the home visiting system, we recognize that quality domains and considerations across levels of the home visiting system interact with and influence one another. For example, quality considerations related to the content of program services operate primarily at the service delivery level. However, within the home visiting system, decisions about program content are more commonly determined at the level of local implementing agencies and home visiting programs depending on models they choose to implement. We placed quality considerations within the level of the home visiting system most likely to exercise control over the way a given quality consideration is operationalized.

Federal, Tribal, State, and Community Contexts

Reviewed articles suggest that local implementing agencies and home visiting programs are more capable of quality program implementation when broader contexts provide options to implement clearly defined models with demonstrated efficacy for the populations they serve and outcomes of interest. Articles also highlight the value of coordination and collaboration with other providers and service systems to support public appreciation of home visiting and comprehensive services to meet a family's needs. Last, articles emphasize the role of broader contexts to provide resources and supports to local implementing agencies and home visiting programs for fiscal stability, data systems, and workforce development.

Box 3. Quality Domains at the Federal, Tribal, State, and Community Level

- Research and evaluation
- Coordination and collaboration
- Resources and supports

A total of 46 articles provided information related to quality considerations at the level of federal, tribal, state, and community contexts to support program implementation. We identified three quality domains (see box 3) across the 46 articles. This section summarizes the three quality domains and considerations within each. Exhibit 4 summarizes example outcomes drawn from empirical research associated with select quality considerations at this level.

Exhibit 4. Example Outcomes Associated With Select Quality Considerations: Federal, Tribal, State, and Community Contexts

Coordination and collaboration

Partnerships

- Analysis of program sites classified as fully, partially, and nonsustaining based on implementation fidelity found significantly higher effective collaboration scores for fully sustaining sites compared to nonsustaining sites.[11]
- Organizations reporting higher overall scores for quality of collaboration within their system also demonstrated higher levels of involvement in infrastructure development activities (such as program planning, program operations and workforce development, and fiscal capacity).[12]
- A study of collaboration between a pediatric healthcare center and a county child welfare system found that almost all eligible children (99 percent) received at least one screening, almost all (99 percent) children's screening results were shared with social workers for inclusion in the child's file, and 88 percent of children completing case management were linked to at least one service.[13]

Shared resources and goals

- Presence of shared goals with partners is associated with higher levels of involvement in infrastructure development activities.[12]

Resources and supports

Technical assistance and professional development

- A study to improve perinatal care for women with perinatal opioid use disorder found that a regional learning collaborative, which included a toolkit, summary of best practices, resources, and a checklist, led to improvements in key elements of care.[14]
- A statewide, university-based training and certificate program for home visitors and supervisors found significant increases in staff self-efficacy related to training topics and self-reported use of motivational communication techniques.[15]
- A study of quality in family childcare settings found that state-sponsored, coordinated professional development aligned with program quality standards was a stronger predictor of quality than staff education levels.[16]

Research and Evaluation

Federal, tribal, state, and community contexts provide a foundation and support for local implementing agencies and home visiting program awareness, engagement, and use of research and evaluation. The importance of research and evaluation to promote program implementation was discussed in several articles. Three quality considerations related to research and evaluation emerged from existing literature, including (1) evidence-based decision making, (2) locally valued concepts of program success, and (3) coordinated and streamlined data collection.

Evidence-Based Decision Making

Articles emphasized the value of using evidence to make programmatic and policy decisions. The most direct application of an evidence-based approach is reflected in initiatives such as MIECHV and the Family First Prevention Services Act, which limit which models can be implemented at the local level with federal funds.[17,18] However, alongside requirements prioritizing implementation of evidence-based models, entities at state and local levels need additional information from research and evaluation to make informed decisions about which models to implement given the outcomes targeted for improvement and the populations served. Specifically, there is a need for reliable research and evaluation about which models are effective for intended outcomes, for which populations, and which aspects of programming contribute to intended outcomes.[10] This information would enable state and local entities to make informed decisions about which models are a best fit for their needs and community contexts. It would also provide programs with the knowledge needed to understand and monitor adherence to core program components.[19] Identifying core program components is essential to successfully scale up and implement programs across diverse settings.[14] Clearly identified core program components not only ensure program adherence during scale-up but also help programs make informed decisions about which aspects of programming can be adapted to meet family needs across diverse contexts and settings.

Locally Valued Concepts of Program Success

For families to meaningfully engage in and benefit from home visiting, decisions about program approach, content, and intended outcomes—which are typically made by entities at the federal, state, and model levels—should respect and align with local and cultural values surrounding parenting, child development, and definitions of program success. This alignment also supports local implementing agency and home visiting program buy-in and appreciation of the value of data collection and program evaluation. Morales et al. (2018) discussed the need for stakeholder engagement in developing program performance measures and associated data collection tools.[20] Likewise, Whitesell et al. (2018) identified a need for quality measures of cultural outcomes for American Indian/Alaskan Native communities.[21] For example, Tribal MIECHV grantees identified cultural connectedness, or how engaged parents are in their tribal culture, as a primary element of overall health and wellness and a component of program success.

Coordinated and Streamlined Data Collection

Since local implementing agencies and home visiting programs provide or refer families to multiple services (such as education and training, mental health services, and early intervention), requirements and policies at federal, tribal, state, and local levels should promote coordinated and streamlined data collection efforts. This not only reduces data collection burden for staff but also builds national datasets across the service systems families with young children interact with, thus

providing families with more seamless and coordinated services.[22,23] Articles within the healthcare field, for example, highlight the need to align measures across federal and state governments.[22,23] Federal and state regulatory provisions can also support research and evaluation through requirements or standards around reporting on quality measures. Adirim et al. (2017), for example, discussed several recommendations for federal and state investments in pediatric-specific quality measures, including support for measure development, incentives to report on measures, and alignment in reporting between federal and state agencies.[22]

Coordination and Collaboration

Coordination and collaboration across agencies at the level of federal, tribal, state, and community contexts promotes the development and maintenance of support systems for families with young children and enables provision of streamlined and coordinated services.[11–13,24–26] Three quality considerations related to coordination and collaboration emerged from existing literature, including (1) partnerships, (2) shared resources and goals, and (3) public awareness and appreciation.

Partnerships

Effective partnerships promote service coordination and streamline systems of care and support for families with young children. For example, San Diego County developed a multiagency system of care for early identification and treatment of developmental and social-emotional problems in young children in out-of-home placement. This collaboration helped the county achieve positive results, with 99.4 percent of eligible children screened and 87.8 percent of children linked to at least one service.[13] In the home visiting context, Imprint Cares partnered with a pediatric medical home to integrate its home visiting services into the practice and provide comprehensive consultation and support to families with young children.[27] Likewise, the Children's Center in South Carolina offers three home visiting models within a primary healthcare setting and provides multiple streamlined services to families, including home visiting, primary healthcare interventions, and additional behavioral health interventions (such as therapy or counseling) depending on individual family needs.[27] A case study of this effort reported multiple benefits, including more streamlined services, reduced duplication of efforts, and decreased costs associated with higher rates of emergency department visits.[28]

Shared Resources and Goals

Shared resources and identification of common goals are essential in supporting coordination and collaboration and the development and maintenance of support systems for families with young children.[11] In a study of evidence-based home visiting programs, when partners agreed on common goals they were more likely to engage in coordinated strategic planning and activities to promote program awareness and sustainability (such as fundraising and building community awareness).[12]

Additionally, positive perceptions of the quality of collaboration, resources to manage collaboration, and resource sharing can promote sustained collaboration designed to support infrastructure development.[11,29] Of special consideration is the availability of resources to meet complex family needs within certain contexts. For example, programs in rural communities may require additional assistance from local, federal, and state partners to identify services within neighboring communities to address complex family needs.[30]

Public Awareness and Appreciation

Leaders at federal, tribal, state, and community levels are often responsible for developing and promoting policies to support and strengthen families with young children.[31] For example, the Maternal and Child Health Block Grant provides funding for services at four tiers (infrastructure building, population-based services, enabling services, and direct health services) to address maternal and child health needs.[31] This requires collaboration to develop and carry out plans to raise public awareness, appreciation, and support of program services at the national, tribal, state, and local levels.[12] These efforts might target legislators and policymakers and support program sustainability through provision of funding and resources. It is also important to garner public support at the local level. In the instance of tribal home visiting, for example, Morales et al. (2018) discussed how home visiting is a new concept for many tribal communities and may face initial resistance due to negative historical experiences with similar social services. Thus, it is important that federal, tribal, state, and community leaders collaborate with one another to build an understanding of program purposes, respect and value the different cultures programs work with, and garner trust within local communities.[20] Trust and buy-in from the local community, and potential program participants, is critical for family recruitment and engagement.

Resources and Supports

Resources and supports provided by entities at the federal, tribal, state, and community levels support high-quality services to families. Three quality considerations related to resources and supports emerged from existing literature: (1) diversified funding, (2) data systems, and (3) technical assistance and professional development.

Diversified Funding

Innovative and diversified funding streams support program sustainability and, if resources are adequate, can promote program quality. But programs can find it challenging to serve additional families or hire new staff if funding does not increase over time.[32] Additionally, programs that rely on term-limited funding must allocate resources away from program provision to seek continued funding. Last, lack of program sustainability can negatively impact staff sense of job security. Diversified funding options for home visiting include state and local funding (e.g., Medicaid billing,

block grants, general purpose tax dollars, local foundations) as well as federal funding (e.g., MIECHV funding and grant opportunities, Title V Maternal and Child Health Block Grant Program, Temporary Assistance for Needy Families).[33,34] State funding sources and levels of effort will vary across states, with some, for example, using Medicaid dollars to fund only specific program components or models.[33,34] As an example of innovative funding approaches, Washington state legislature created the home visiting services account to pool public and private funds for home visiting services.[35] Additional options for funding structures include approaches that use collaboration fees and pay-for-performance incentives to support collaboration.[33]

Data Systems

The availability of data systems and timely and reliable data helps programs monitor and demonstrate program outcomes and engage in data-driven decision making. There are a variety of ways to create useful data systems for programs. Programs benefit from access to quality data, including data on program implementation, to support delivery of high-quality services to families.[36] In some instances, providing coordinated databases facilitates a program's ability to collect and analyze program data.[20] Data sharing also emerged as an influential factor to enable cross-system coordination and collaboration.[13]

Technical Assistance and Professional Development

To implement models as expected and in a high-quality manner, local implementing agencies and home visiting programs need technical assistance and professional development provided by entities at the federal, tribal, state, and community levels.[14,19,37,38] State-level technical assistance, for example, might include partnerships with federal and state agencies, local agencies, academic partners, and technical assistance providers to provide training, technical assistance, and coaching. This support can focus on multiple topics, including child development, collective impact, data-driven decision making, or continuous quality improvement activities.[39,40] For example, Washington state created an Implementation HUB to provide technical assistance to local implementing agencies and home visiting programs in staff recruitment and training issues, supporting staff knowledge development, adhering to model fidelity, and continuous quality improvement activities.[35] States can also set standards for provider education and competencies and offer professional development opportunities to local programs. For example, the University of Maryland developed a home visiting training certificate course that increased home visitor self-efficacy in key training topics (such as

communication, parenting, healthy relationships, mental health, substance use, and cultural sensitivity).[15] Several states have also developed home visitor competencies.[41]

Summary and Implications: Federal, Tribal, State, and Community Contexts

Although not a common focus of research, this level of the home visiting system exercises a great deal of influence on how home visiting programs are implemented and perceived. Decisionmakers at this level are responsible for funding allocation, reporting requirements, program approach, policies, guidelines, and implementation requirements. They also provide support through coordinated technical assistance and professional development.

Quality considerations at this level highlight a need for research and evaluation to identify program components that drive individual program outcomes for different service populations. There is also a need to design program components and identify definitions of program success in collaboration with local stakeholders, to ensure services are culturally responsive and well-received.

Quality considerations at this level also suggest the importance of broad sustainable infrastructure; ample resources for technical assistance and professional development; and coordination and collaboration across service providers.

Local Implementing Agency and Home Visiting Program Contexts

When local implementing agencies and programs recruit and support a well-qualified workforce and provide services in alignment with common elements of effective prevention programs, they are more likely to successfully engage and retain families and provide high-quality services. A total of 86 articles provided information related to quality considerations at the level of the local implementing agency and home

Box 4. Quality Domains at the Local Implementing Agency and Home Visiting Program Level

- Program approach and monitoring
- Organizational climate
- Workforce supports
- Staffing

visiting program. We identified four quality domains (see box 4) across the 86 articles. The following section summarizes these quality domains and considerations. Exhibit 5 summarizes example outcomes drawn from empirical research associated with select quality considerations at this level.

Exhibit 5. Example Outcomes Associated With Select Quality Considerations: Implementing Agency and Home Visiting Program Contexts

Program approach and monitoring

Adapting program content

- Use of an adaptive recruitment strategy to enroll two-parent Latino households resulted in significantly higher rates of father enrollment, attendance, and participation. Parents also reported higher rates of self-efficacy, communication, and consistent discipline, and lower rates of harshness toward children after program participation.[42]

Program monitoring

- Children with home visitors participating in an intervention consisting of an online data collection system and training in data-based intervention decision making demonstrated significantly more growth in expressive communication, compared to children with home visitors who did not participate.[43]
- Participation in quality improvement cycles and implementation of strategies to increase the percentage of infants who receive at least three recommended well-child visits improved the percentage of infants receiving at least three visits, from 58 percent of infants prior to quality improvement cycles to 85 percent of infants after the quality improvement cycles.[44]

Organizational climate

Organizational culture and policies

- Child welfare systems with more positive organizational climates had significantly stronger youth outcomes.[45]

Leadership

- Parents receiving services from organizations with leadership that support implementation of evidence-based practices experienced greater increases in social connections.[46]

Workforce supports

Comprehensive and specialized training

- A communications training course for home visitors was associated with improved knowledge, attitudes, confidence, and skills in using motivational communication techniques with families.[47]

Targeted and individualized coaching

- Coaching provided to home visitors as part of a text messaging enhancement supported home visitors sending a greater number of text messages to families, which was associated with increased parent engagement and increased parent use of strategies to promote child language development.[48]
- Students whose teachers received a high level of support through individualized coaching as part of My Teaching Partner made greater language and literacy gains than students whose teachers received access to only a curricular supplement.[49]
- Participants in a workshop-plus-coaching group demonstrated significantly higher scores on perceived self-efficacy compared to participants in a workshop-only group.[50]
- Teachers exposed to a greater number of coaching cycles demonstrated greater improvement in classroom interactions over the year.[51]

Staffing

Staff selection and recruitment

- A study examining the implementation of a relationship-based school readiness intervention found significant positive associations between provider years of experience, education, and quality of intervention delivery.[52]

Staff well-being

- Provider personal financial resources were positively associated with global and instructional classroom quality.[53]

Program Approach and Monitoring

The nature of services provided to families, including both approach and content, is driven by models selected for implementation as well as policies and procedures established by the local implementing agency. This quality domain includes three quality considerations: (1) program theory and content, (2) adapting program content, and (3) program monitoring.

Program Theory and Content

Providing theory-driven comprehensive program services that can be flexibly implemented according to individual family needs supports program outcomes.[54,55] Nation et al. (2003) found that effective prevention programs are typically theory driven and include multiple components to address the specific behaviors and outcomes of interest.[55] Within the home visiting context, Filene et al. (2013) found that certain program components were significantly associated with program outcomes. These

components include teaching sensitive and responsive parenting, teaching discipline and behavior management techniques, and teaching problem-solving skills, which were associated with improved parenting behaviors. Additionally, stronger effects were found in programs using video-based feedback of parent-child interactions and negative effects were found for providing material goods to families.[3] Gubbels et al. (2021) also found larger effects for programs with more parenting program components and a focus on parental responsiveness and sensitivity to children's cues.[56] Other articles discussed the role of support and education in child development and health topics, the ability to support families of children with disabilities or delays, and the ability to serve families with significant stressors in promoting program outcomes.[57] Additionally, a number of articles discussed the importance of providing referrals or linkages to community services, material or concrete goods like diapers and wipes, and other supports such as transportation.[44,54,58–61] In general, these components were identified as contributors to positive program outcomes regardless of the model in which they were embedded.

Adapting Program Content

Providing culturally and linguistically relevant program content is essential in engaging families and assuring that program services are responsive to individual family values and needs.[19,57,62,63] This often requires adaptations and enhancements to program content. For example, tribal programs reported that adaptations were necessary to align program content with community norms and findings from community needs assessment. Adaptations included incorporating activities and lessons focused on and embedded in tribal practices, including discussions of cultural identity and awareness and development of curricula focused on cultural awareness and knowledge.[20,21] Adapting program content and potentially intended program outcomes is not only necessary for assuring relevance and family engagement but also promotes important aspects of health and well-being for particular service populations and contexts.[21] Other examples from the literature include program adaptations to increase father enrollment, involvement, and receptivity to program services and cultural adaptations of existing models.[42,64,65] These adaptations were associated with high father enrollment, high levels of family engagement, participation satisfaction with program modifications, and positive working relationships between families and home visitors.[42,65] Existing literature also highlighted adaptations to service delivery modes and found unique benefits—such as following families during residential moves and promoting continuity of services—from home visiting services delivered virtually.[66]

Program Monitoring

Ongoing program monitoring to identify areas for improvement, monitor progress toward goals, and inform program decisions emerged as a quality consideration across articles. Components of program monitoring include engaging in continuous quality improvement (CQI) activities, monitoring implementation adherence and fidelity, data-driven decision making, and program

evaluation.[32,55,63,67,68] Naturally, these components rely on programs having access to and ensuring that staff regularly use high-quality data systems and adhere to requirements for data collection.[69] These components also rely on availability and use of standard and reliable tools to monitor implementation adherence, program fidelity, and program outcomes.[69]

Organizational Climate

Organizational climate and program leadership competencies influence staff experiences and perceptions of their workplace and thus influence the quality of services provided to families. For example, organizational climate is associated with staff well-being—which influences staff ability to form positive relationships with families and provide high-quality services.[70] This domain includes two quality considerations: (1) organizational culture and policies and (2) leadership.

Organizational Culture and Policies

Organizational culture includes dimensions related to positive workplace relationships and dynamics; reasonable workloads, expectations, and demands; opportunities for shared decision making and collaboration; autonomy and flexibility; and support for personal and professional growth.[6,38,45,71,72] Organizational culture may also include organizational norms and support surrounding implementation practices and service delivery strategies. A few studies found associations between organizational culture and staff well-being, staff turnover, quality of services, and child and youth outcomes.[45,73,74] For example, Dennis and O'Connor (2013) found that early childhood centers with higher levels of positive overall organizational climate were also rated higher in measures of classroom process quality (such as positive teacher-child interactions, providing children with opportunities for self-selected small group play) from the Early Childhood Environment Rating Scale-Revised.[73] Additionally, Glisson and Green (2011) found that youth in child welfare systems with more positive organizational cultures had better outcomes in the form of improved psychosocial functioning, and that this association was not mediated or moderated by the quantity or quality (measured by caseworker perception of their success in providing necessary services to the child and family) of services.[45]

Leadership

Articles discussed several aspects of program leadership that can be developed to support staff, promote positive work environments, and successfully oversee programs, such as leadership knowledge, competencies, and skills in topical content areas (such as family strengthening or child development); program planning and decision making skills; engagement in data-informed decision making; fiscal management practices; and effective communication skills.[54,75] Additionally, several articles found that participation, endorsement, and awareness of training and professional

development initiatives from leadership supports sustained changes in staff practices as a result of training and professional development.[46,76]

Workforce Supports

Local implementing agencies and home visiting programs must provide initial and ongoing training as well as coaching and supervision to ensure staff have the necessary knowledge, skills, and competencies to carry out their job expectations. The quality domain of workforce supports includes three quality considerations: (1) comprehensive and specialized training, (2) targeted and individualized coaching, and (3) reflective and consistent supervision.

Comprehensive and Specialized Training

To effectively support the myriad of individual family's needs (such as addressing issues of intimate partner violence, substance abuse, or maternal depression), home visitors need training not only on implementation of the program or intervention they will deliver but also on specialized topics.[6,29,77] This assures that home visitors have the skills and knowledge necessary to support families in multiple content areas. Examples of specialized training topics include adaptations of programs/interventions for special populations, engaging families in program services, cultural sensitivity, trauma-informed care, and relationship-based infant mental health. For example, Beasley et al. (2014) offered provider training on Safe Care's adapted model for culturally congruency. Training for Safe Care's adapted model focused on in-depth understandings of culture, community contexts, and historical contexts. The authors also offered training and practice modules in English and Spanish.[65] Articles found that training is more likely to lead to changes in knowledge acquisition and skills that translate to changes in practice when it includes didactic instruction to provide background information, theory, and rationale for a particular program/practice along with demonstration of skills and skill-building opportunities through role-plays, observation, and self-reflection.[67,78] Additionally, trainings should provide supportive and safe peer-learning communities and regularly scheduled booster sessions.[69,76] Providing peer-learning communities offers a space for staff to generate ideas for incorporating new knowledge and skills into existing practices and promotes shared knowledge, beliefs, and attitudes.[76] Booster sessions are important to ensure sustained benefits of training and to prevent deviations from intended program service components, which can decrease the likelihood of achieving intended program outcomes.[69]

Targeted and Individualized Coaching

Providing coaching, in addition to training, positively impacts staff well-being, changes in practices, and service quality.[48,49,79,80] Chaffin et al. (2012) noted that coaching is distinct from supervision in that it serves an advisory function rather than supervisory.[79] In the context of home visiting, implementation of a text messaging enhancement benefited from monthly coaching sessions

provided to home visitors. The text messaging enhancement was designed to promote language-rich learning environments by sending text messages to parents with suggestions and tips for how to promote early language skills during daily activities (such as discussing the color and texture of items at the grocery store). Home visitors received monthly coaching sessions that included sharing summaries of home visitor implementation fidelity data and parent implementation fidelity, to help home visitors monitor their use of text messages to parents and the impact of text messages on parents' interactions with children.[48] Likewise, researchers for My Teaching Partner (a web-mediated professional development system) found that professional development that includes coaching is necessary to change teacher practices to a degree that translates to positive changes in children's language and literacy skills.[49,51] However, one study found that the positive effects of home visitor coaching on family outcomes were more pronounced in families that were facing comparatively more challenging circumstances, suggesting that coaching may have a differential impact depending on the populations with whom home visitors are working.[79]

Reflective and Consistent Supervision

In addition to training and coaching, several articles discussed the role of ongoing and reflective supervision in maintaining implementation adherence and fidelity, supporting staff well-being and self-efficacy, and promoting service quality through positive relationships.[81–83] Supervision should be available for direct service providers as well as program supervisors and managers, and a combination of group and individual supervision should be offered.[77] In a study of infant and early childhood mental health consultation, the quality of the consultative alliance—or the working alliance between a teacher and the mental health consultant—predicted teacher self-efficacy, positive job perceptions, and improvements in classroom climate.[83] Additionally, Chiapa et al. (2015) suggested that site-specific supervision in their fidelity study helped prevent declines in fidelity over time.[82] Last, using the four-factor Reflective Supervision Rating Scale, Gallen et al. (2016) found that the factors (i.e., mentoring, supervision structure, reflective process and skills, and mentalization) were associated with higher levels of job satisfaction and lower levels of stress.[84]

Staffing

Local implementing agencies and home visiting programs are responsible for staffing programs with a qualified and supported workforce. Supporting staff knowledge competencies and well-being also plays a role in retaining a qualified workforce. The domain of staffing includes three quality considerations: (1) staff selection and recruitment, (2) staff knowledge and competencies, and (3) staff well-being.

Staff Selection and Recruitment

A critical step for long-term program success includes recruitment and selection of a well-qualified workforce.[25,35,85] Definitions of what is specifically meant by a "well-qualified" workforce varies according to model-specific standards and requirements. Regardless, the ability to recruit a qualified workforce in alignment with model expectations often depends on the availability of a qualified workforce in the local community. For example, a case study of home visiting programs in Texas reported that it was difficult to find staff with necessary qualifications due to a shortage of nurses in the community to implement Nurse Family Partnership as well as a lack of Spanish-speaking home visitors and translators for families speaking other languages.[25] Evidence is mixed within the home visiting field with respect to the necessary educational backgrounds of program staff.[3] Specifically, evidence is mixed surrounding the type of educational background associated with different outcomes. For example, programs employing paraprofessional home visitors demonstrated larger effect sizes on birth outcomes.[3] However, use of professional home visitors (such as a nurse, psychologist, or social worker) was a significant predictor of better child physical health outcomes.[3] Within the field of early childhood, however, having staff with a higher education degree in early childhood education or a related field was associated with higher quality interactions with children.[86] Additionally, articles suggest that hiring culturally sensitive and responsive staff with lived experiences that reflect the experiences and backgrounds of families served promotes family engagement.[56,63,77,87,88] Recruiting and hiring well-qualified staff who clearly understand required job functions also supports staff feelings of confidence and efficacy in carrying out their job responsibilities. Staff self-efficacy and confidence supports workforce stability, which is associated with higher rates of participant retention.[89]

Staff Knowledge and Competencies

Home visitors provide services to families on a wide range of topics, requiring knowledge and competencies across multiple domains. This includes, but is not limited to, content knowledge and competencies in the domains of child development, maternal physical and mental health, parent-child relationships, intimate partner violence, child health and safety, breastfeeding, safe sleep, caregiver education, and employment. More broadly, home visitors also need knowledge and competencies in relationship formation, communication, and collaboration with families.[65,85,90] Home visitors must also clearly understand the model and/or prevention program they are implementing.[85] Additionally, to provide culturally competent services, home visitors should have deep knowledge, awareness, and curiosity about the cultural backgrounds, beliefs, and practices of the families they work with.[65]

Staff Well-Being

In one study, staff psychological well-being emerged as a driver of the quality of the working alliance between home visitors and families.[91] In another study, home visitors reported that work-related stress, such as paperwork and data entry, diminished their engagement with program participants.[92] Research in early childhood education programs also found associations between staff psychological well-being, work engagement, and observations of classroom quality (such as positive and supportive interactions with children and emotional and behavioral supports) and child outcomes.[53,70,93] Example indicators of staff well-being addressed in studies include depressive symptoms, availability of positive relationships, self-efficacy and confidence, autonomy, personal financial resources, and job satisfaction.[53,72,80,91,94] Several articles also discussed the impact of organizational culture and climate on staff well-being, whereby more positive and supportive organizational climates promote staff psychological well-being and program quality.[72,94] For example, staff in early childhood education programs that offer more social-emotional supports to staff and with lower levels of overall workplace stress report better psychological health and are more likely to have positive teacher-child relationships.[53,72,94]

Summary and Implications: Local Implementing Agency and Home Visiting Program Contexts

Policies, procedures, and organizational climates at the level of local implementing agencies and home visiting programs influence home visitors' ability to provide high-quality home visiting services to families.

Quality considerations at this level suggest a need for theory-driven programs with well-specified and structured program components. Additional considerations suggest the need to take a close look at the cultural relevance and congruency of existing models and program components. There may be a need for cultural adaptations and enhancements to ensure alignment of program goals and content with cultural values and practices.

Additional quality considerations highlight the importance of workforce supports through comprehensive training, targeted and individualized coaching, supervision, and positive workplace climates to promote staff well-being.

Program Service Delivery Contexts

As we have been documenting, many factors influence the focus and nature of the services families receive from local home visiting programs. Regardless of these many and diverse external factors, we identified one unique quality domain (see box 5) as being central to the service delivery level. Regardless of the inputs into a program's structure coming from other levels of the home visiting system, the relationship between a specific home visitor and program participants is constructed at the local service delivery level. A total of 63 articles provided information related to quality considerations at the level of program service delivery. The following section summarizes these quality considerations. Exhibit 6 summarizes example outcomes drawn from empirical research associated with select quality considerations at this level.

Box 5. Quality Domain at the Program Service Delivery Level

- Ability to effectively engage families in program services

Ability to Effectively Engage Families in Program Services

Initial and ongoing family engagement is necessary to achieve intended program outcomes. Thus, home visitors need to use specific techniques to not only engage families but to also facilitate family understanding of and incorporation of program content into their daily lives. The quality domain of the ability to effectively engage families in program services includes three quality considerations: (1) strong interpersonal skills, (2) facilitating family understanding and use of program content, and (3) individualizing services.

Exhibit 6. Example Outcomes Associated With Select Quality Considerations: Program Service Delivery Contexts

Ability to effectively engage families in program services

Strong interpersonal skills

- Positive engagement with parents (defined as showing warmth and support, reinforcing parents for sharing information, using good active listening skills, validating and normalizing parent experiences, and respecting all values and belief systems) predicted parent attendance in program sessions. Parent attendance moderated the effects of fidelity on parent competence in practicing skills at home, which accounted for increases in the quality of parent-child relationships and decreases in child internalizing and externalizing behavior problems.[95,96]
- Combined scores on the Home Visiting Rating Scales (HOVRS) for home visiting practices (including home visitor *relationship* with family members, home visitor *responsiveness* to family strengths and culture, home visitor *facilitation* of parent-child interaction, and home visitor *nonintrusiveness)* directly predicted parent support for language development and indirectly predicted child language outcomes.[97]
- Family relationship quality with the home visitor was an important predictor of early maternal and paternal program engagement.[98]

Facilitating family understanding and use of program content

- Provider skillful presentation (defined as good understanding of material, providing helpful illustrative examples, expressing confidence that skills will work for the family, and linking other parts of the program through forecasting and referring back) was positively correlated with participant attendance.[95,96]
- Engaging families in triadic interactions (including the home visitor, parent, and child) is associated with higher levels of family engagement during home visits and higher ratings of quality as rated by the HOVRS.[99,100]

Individualizing services

- Home visitor consideration of how to individualize their approach to the unique needs of each family was significantly associated with home visitor responsiveness to families during visits and facilitation of parent-child interaction during visits.[59]

Strong Interpersonal Skills

The relationship between program providers and clients is clearly established in the literature as critical for ensuring family engagement, which supports stronger program outcomes. Multiple articles, for example, focus specifically on provider interpersonal and communication skills.[38,54,58,77,87,96,98,101–103] In a survey of home visiting programs in California, staff agreed that a home visitor's ability to build trust, display warmth, empower families, and accept families where they are is directly related to family engagement.[103] Other interpersonal skills associated with stronger family engagement include enthusiasm, commitment, and motivation in working with families.[101] Staff must also have the knowledge, skills, and willingness to employ a relationship-based approach in their work with families and utilize effective communication techniques.[77] These interpersonal

skills can be supported and enhanced through ongoing training, professional development, and technical assistance provided by entities at broader levels of the home visiting system.

Facilitating Family Understanding and Use of Program Content

In addition to having strong interpersonal skills, staff must be able to deliver program content in a manner that enables families to clearly understand, value, and incorporate program knowledge and skills into their daily lives. For example, existing research highlights specific techniques and activities that promote stronger family engagement and outcomes. One option is for staff to engage families in triadic interactions, defined as interactions in which home visitors provide information and support while engaging the parent and child together.[99] Other techniques associated with family engagement include facilitating parent-child interactions and focusing on child-related content.[104] Additionally, providing opportunities to demonstrate and practice skills—active learning—during program service delivery is associated with stronger program outcomes.[3,44,56,77,87,101,104]

Individualizing Services

Individualizing services to a family's needs and beliefs is another key aspect of ensuring family engagement. O'Brien et al. (2012) found that sites that were flexible in implementing Nurse Family Partnership program guidelines to adapt to individual participant needs and related program content to specific participant concerns and goals also had lower rates of family attrition.[105] Supplee et al.

Summary and Implications: Program Service Delivery Contexts

The limited quality considerations at this level highlight the embedded nature of program service delivery and the need for greater attention to quality considerations operating at broader contexts given the influence broader contexts have on the content and nature of program service delivery.

It is not surprising that quality considerations at this level are relational in nature and suggest the importance of interpersonal skills, facilitation skills, and ability to understand an individual family's needs and interests and modify program content and delivery accordingly.

Quality domains and considerations at this level are somewhat lacking in specificity given a lack of empirical research examining how use of specific service delivery techniques (such as specific communication and facilitation strategies) is associated with program, family, and child outcomes.

(2018) also identified several provider characteristics related to participant recruitment and retention, including "being flexible and adaptable, nonjudgmental, understanding, and able to work within family systems."[58] This involves staff ability to assess and acknowledge family needs, set individualized goals, and tailor services to meet those needs and goals.[24,25,58,61] It also includes simple techniques like maintaining flexibility to families' scheduling needs. Individualizing services also requires staff awareness and sensitivity to cultural differences and beliefs of individuals within the community they serve. The provider's ability to tailor the program and curriculum to the cultural norms of the community and the clients they serve is important to family engagement and utility of program services.[21,55,58,59,61,106]

Summary and Conclusions

The purpose of this literature review was to identify quality considerations across multiple levels of the home visiting system. We identified and reviewed 125 unique sources, including journal articles, seminal publications, and highly relevant gray literature. We included theoretical, descriptive, and empirical literature. Fewer than half of the sources included in the review used quasi-experimental or randomized controlled trials (54 of 125 sources). Most of the literature was from the home visiting or early childhood education field. Below we summarize key gaps and implications for future work by levels of the home visiting system.

Federal, tribal, state, and community contexts. While articles provided important quality considerations at this level, there is a general lack of empirical research examining how identified quality considerations influence program implementation at other levels of the home visiting system. For example, there is limited understanding of the information entities at state and local levels need in the form of research and evaluation to decide which models are a good fit for identified community needs and intended outcomes. There is also limited information on the level of specificity programs need surrounding core program components to ensure understanding of and adherence to intended program implementation. Additionally, while there is a consensus that engaging stakeholders in program decision making is a best practice, there is a lack of direction surrounding how to effectively engage stakeholders—including families—to inform program adaptations or enhancements. There is also limited empirical research examining if and how locally valued concepts of program success (such as cultural awareness, pride, and connectedness) are associated with improved outcomes.

- **Implications for future work.** Better understandings of how quality considerations at this level influence program implementation would help advance a broader conceptualization of home visiting quality that is applicable across program models and recognizes the embedded nature of home visiting programs. Future work may also utilize qualitative and mixed methods approaches to better understand the information needs of decisionmakers at the level of local implementing agencies and home visiting programs to select program models that are good fit for identified

community needs. Likewise, future work might examine the information home visiting programs and direct service providers need (in terms of operationalizing core program components and providing supports for adhering to core program components) to ensure intended program implementation. There is also a need for research on how to effectively engage stakeholders in program planning and decision-making processes and greater specification on the process of making program adaptations and enhancements in response to stakeholder input. Last, future work should explore how locally valued concepts of success are associated with improved family and child outcomes.

Local implementing agency and home visiting contexts. While there is strong support for most quality considerations at this level, some of the quality considerations that are generally upheld as a best practice lack empirical evidence. For example, evidence supporting the effectiveness of reflective supervision in achieving intended outcomes is limited. Prior studies of reflective supervision have focused on individual worker outcomes but have not addressed more distal outcomes, such as staff retention or family engagement. There is also mixed evidence surrounding program content that is most likely to achieve intended outcomes and the necessary staff knowledge and competencies to support outcomes. Last, while other fields have examined the importance of individualized and targeted coaching, organizational climate, and staff well-being, there is limited research on these topics in the home visiting field.

- **Implications for future work.** More work is needed to operationalize reflective supervision in the home visiting context and examine how it influences program implementation and outcomes. Additional work is also needed to more carefully examine program content that is most likely to yield outcomes within specific domains. For example, program content needed to support positive parent-child interactions is likely different than the program content needed to support positive birth outcomes. Additionally, future work should focus on improving the efficacy of existing training and professional development opportunities through individualized and targeted coaching. Last, additional work is needed to understand factors that influence organizational climate and home visitor well-being as well as strategies to support positive organizational climates and staff well-being, thus supporting service quality and outcomes.

Service delivery contexts. Evidence suggests that home visitor's interpersonal skills are associated with family engagement and support stronger program outcomes. However, there is not a clear understanding of how to support and enhance interpersonal skills that are often only vaguely defined in the literature (such as displaying warmth and enthusiasm and being accepting of individual family values and beliefs). Beyond interpersonal skills, there is a general lack of research in the home visiting field identifying specific techniques that facilitate family engagement and support family and child outcomes. There is also a lack of empirical evidence examining if these techniques might differ according to the outcomes under consideration and participant characteristics.

- **Implications for future work.** The home visiting field needs greater specification of the skills and techniques home visitors use that translate to intended family and child outcomes. This specification can inform development of training and coaching to support home visitor acquisition

of specific skills and the ability to successfully use techniques during home visits, thus promoting stronger family engagement and child and family outcomes.

Limitations of This Review

There are some limitations that should be considered when interpreting findings from this review. Regarding the body of literature included in this review, we completed a broad sweep of existing literature to identify salient themes within each level of the home visiting system. Thus, we do not provide an exhaustive summary of literature and research for each of the identified quality domains and considerations. Findings from the review can and should be enhanced with existing and ongoing work providing more in-depth explorations of the identified quality domains and considerations. For example, this review could be supplemented by existing, focused reviews of individual quality considerations such as service coordination, best practices for training, or workplace climate.

Measure Review Findings

Overview of Methods and Measures Reviewed

We reviewed a wide range of program quality measures,[ii] including standardized and nonstandardized assessments, observational protocols, best practice standards, and model-specific guidelines and expectations. Candidate measures were first identified from articles included in the literature review. Additional candidate measures were identified through reviews and compendiums of measures[9,85] and through an iterative process involving home visiting expert stakeholder feedback. This resulted in identification of a total of 29 measures from the fields of home visiting, early care and education, and K-12 education. Of these 29, three were excluded due to access restrictions or a focus on program performance and/or outcomes instead of program quality,[iii] and 26 were selected for inclusion in the review (see exhibit 7, which shows the final list of measures, the data collection approaches, and the purposes of the measures reviewed).

Measures Reviewed

As shown in exhibit 7, the measures included in this summary used a range of approaches for collecting data, including live observation, review of video recordings, surveys and questionnaires, self-assessment, and document review. Measures also differ in their purpose, although they may be used for a variety of reasons beyond their initially intended purpose. Some measures are meant to support supervision and professional development, others to assess and measure fidelity or outcomes of a program or system, and others to guide implementation and CQI. For additional information on the eight instruments developed specifically to assess implementation in the home visiting context (noted in exhibit 7 with asterisks), see appendix C; measure profiles include measurement strategies, scales, and, when available, psychometric information.

[ii] Throughout this section, we use "measure" as an umbrella term for all the assessment types we reviewed.

[iii] Excluded measures included (1) *Cultural Exchange Inventory* [Palinkas LA, Garcia A, Aarons G, et al. Measuring collaboration and communication to increase implementation of evidence-based practices: the cultural exchange inventory. *Evid Policy.* 2018;14(1):35–61.]; (2) *MIECHV Form 2 Program Performance and System Outcome Measures* [*MIECHV Form 2 Program Performance and System Outcome Measures*. HRSA; 2018. Accessed May 3, 2021. https://mchb.hrsa.gov/sites/default/files/mchb/MaternalChildHealthInitiatives/HomeVisiting/performanceresources/attachment-b-form2-benchmark-performance-measures.pdf]; and (3) *PEW Process and Outcome Indicators; Descriptive Factors* [*Using Data to Measure Performance: A New Framework for Assessing the Effectiveness of Home Visiting*. The Pew Charitable Trusts; 2015. Accessed May 24, 2021. https://www.pewtrusts.org/-/media/assets/2015/10/hv_datainitiativereport.pdf].

Exhibit 7. Purpose and Approach of Included Measures

Measure	Purpose	Approach
Client Cultural Competency Inventory[107]	Assesses cultural competence in behavioral managed care organizations	Client survey or questionnaire
COACH*[108]	Designed to assess the overall ability of the home visitor in providing services in adherence to the Family Check-Up model	Live observation by external observer
Community Supports for Wraparound Inventory[109]	Assesses the extent to which a local community or system has developed the capacity to support high-quality wraparound services	Program or agency staff survey or questionnaire
Drivers Best Practice[110]	Assesses current supports and resources for implementation of driver best practices	Program or agency staff survey or questionnaire
Early Childhood Work Environment Survey[111]	Includes measures of school leadership, teacher interactions, and workplace factors that influence organizational climate and staff well-being	Program or agency staff survey or questionnaire
Early Head Start Early Childhood Development and Health Services Implementation Rating Scale[112]	Developed to rate Early Head Start programs' level of implementation according to key program requirements and performance standards	Site visit and document review by team (evaluators, program staff, outside expert)
Even Start Program Self-Assessment Tool[113]	Self-assessment tool for Even Start Family Literacy programs to identify strengths, areas for improvement, and plans for staff development	Program or agency staff survey or questionnaire
Evidence-Based Home Visiting Fidelity Measurement[114]	Measures structural and dynamic fidelity according to model standards	Program staff survey or questionnaire
Healthy Families America Self-Assessment Tool 2008–2010[115]	Self-assessment tool for Healthy Families America programs to guide program implementation and determine program's current state of quality according to Healthy Families America program standards	Program or agency staff survey or questionnaire

Measure	Purpose	Approach
Home Instruction Program for Preschool Youngsters (HIPPY) Program Accreditation Standards, 2015[116]	Outlines specific implementation requirements and standards for HIPPY program	Site visit and document review by team (program or agency staff, home visitor, and parent; model assessor)
Home Visit Rating Scales–Adapted*[117]	Assesses home visitor effectiveness in engaging parent and child in parent-child interactions and home visit activities	Live observation or video recording by external observer
Home Visit Characteristics and Content Form*[118]	Provides documentation of the content of home visits and activities occurring in home visits	Live observation or video recording by external observer
Home Visit Assessment Instrument*[119]	Designed to measure the overall knowledge and behavior of the home visitor	Interview, live observation, or video recording by external observer
Home Visitation Developmental Assessment Scale*[120]	Assesses the communication skills, problem-solving skills, character, attitude, and values of home visitors	Self-assessment survey or questionnaire; observation by external observer
Home Visit Observation Form*[121]	Developed to document the content covered and interactions occurring during home visits	Live observation or video recording by external observer
Home Visiting Program Quality Rating Tool Version 2.0*[122]	Designed to measure the quality of programs that provide home visiting to families of young children (including prenatal period) as their primary service delivery strategy	Site visit by external assessor
Implementation Leadership Scale[123]	A brief measure of unit-level leadership for implementation of evidence-based practices	Program or agency staff survey or questionnaire
Michigan's Home Visiting Quality Assurance System Tool Version 1.0*[124]	Self-assessment tool of a site's ability to meet implementation quality and fidelity standards and measures	Program or agency staff survey or questionnaire; site visit and document review by external assessor
Nurse-Family Partnership Core Model Elements[125]	Core elements of Nurse-Family Partnership model	No measurement approach; list of model elements and requirements

Measure	Purpose	Approach
Organizational Climate Description Questionnaire for Elementary Schools[126]	Designed to measure climate of school leadership and teacher interactions	Program or agency staff survey or questionnaire
Organizational Social Context Measure[127]	Assesses and tracks the cultures and climates of child welfare and mental health organizations	Program or agency staff survey or questionnaire
Parents as Teachers Essential Requirements 2019[128]	Essential requirements for Parents as Teachers model implementation	No measurement approach; list of model elements and requirements
Program Sustainability Index[129]	Self-assessment tool to help organizations assess their status on seven essential elements of sustainability	Program or agency staff survey or questionnaire
Self-Assessment Tool for States[130]	Self-assessment tool that helps states define the home visiting system, assess system capacity, and prioritize areas for improvement	Program or agency staff survey or questionnaire
Supportive Interactions with Families—A Self Rating Scale*[131]	Measures quality of home visitor interactions with parents and caregivers during home visits	Live observation or video recording; self-report
Working Alliance Inventory—Short Revised[132]	Measures the therapeutic alliance across three key aspects: (1) agreement on tasks, (2) agreement on goals, and (3) development of an affective bond	Client survey or questionnaire

Note: *Instruments developed specifically to assess implementation in the home visiting context

Coding

Because measure coding and literature extraction were occurring simultaneously, we adopted an iterative coding process, refining codes as needed over time to reflect the emerging findings from the literature review. During the early phases of the coding, we developed codes based on common themes across measures (e.g., supervision, visit frequency). As the literature review took shape, we recoded items to better align with the quality domains and considerations emerging from the literature. To ensure consistency, we engaged in a quality check process at each phase of the coding. One member of the research team who had not assigned the original codes reviewed 7 of the 26 measures included (~25 percent) and independently coded the items for accuracy. Two other members of the research team then reviewed the specific codes with identified discrepancies across all 26 measures.

We coded each individual item within each measure according to (1) the quality consideration or domain assessed by the item and (2) the level of the home visiting system at which the item is most applicable (i.e., federal, tribal, state, and community contexts [henceforth referred to as Level 1]; local implementing agency and home visiting program contexts [Level 2]; and program service delivery contexts [Level 3]). Each of these is explained in further detail below.

Quality Consideration Codes

The content codes we applied to measure items are as follows:

- **Coordination and collaboration.** Includes items that assess relationships among home visiting programs and other community service providers, including formal and informal partnerships, Memorandums of Understanding (MOUs), shared data systems, service coordination for families, shared resources, funding, data, and common agenda/missions across systems of care.
- **Program content.** Includes items assessing program components, including curriculum, materials, screenings, and other home practices. Also includes program standards and expectations around service delivery, including target populations and frequency and intensity of services.
- **Goals, Measurement, and CQI.** Includes components of program monitoring, including engaging in CQI activities, monitoring implementation adherence and fidelity, data-driven decision making and course adjustments, and program evaluation. Also includes access to data systems that allow timely and easy documentation.
- **Organizational Climate.** Includes structural dimensions related to positive workplace and dynamics, including expectations around caseload and service delivery. Also includes items assessing less tangible aspects of organizational climate, such as strong leadership, workplace collegiality, and emphasis on staff well-being.
- **Funding.** Includes items assessing adequacy of funding as well as items assessing processes associated with funding acquisition and allocation, such as transparency with staff about how decisions are made and collaboration with other organizations around shared funding.
- **Workforce characteristics, recruitment, and professional development.** Includes items that assess program hiring practices and support structures, including training, supervision, and opportunities for career advancement. Also includes items assessing home visiting staff characteristics, skills, and competencies.
- **Equity and cultural responsiveness.** Includes items that assess the extent to which services are designed and implemented in a manner that is respectful of and responsive to families' and communities' cultural contexts, such as hiring practices, diverse representation on advisory groups, and incorporation of family voice in decision making processes.
- **Program reach, family engagement, and home visitor-client relationship.** Includes items that assess actual home visitor practices and behaviors related to families, specific to the point of interaction.

Home Visiting System-Level Codes

We coded each item according to the *level of the home visiting system at which that item is most applicable*. Levels were coded as follows:

- **Level 1 codes** were applied to items that assessed behaviors, structures, or practices within the contexts outside of the local implementing agency (LIA) or program site, such as state agencies and funders. (e.g., "State has made an effort to 'cross-walk' program standards or create a common set of standards to assist local programs that may integrate multiple models" [A Self-Assessment Tool for States[130]]).
- **Level 2 codes** were applied to items assessing a program component or practice that is meant to occur at the LIA or program level, or where responsibility for that item is held largely by site or agency administrators (e.g., "The program has formal and comprehensive policies that cover indicators of retention and regularly monitor the retention rate of participants" [Home Visiting Assessment Instrument[119]]).
- **Level 3 codes** were applied to items that pertained to something that should be happening during the home visit or an element of implementation for which the home visitor is largely responsible (e.g., "Visitor warmly greets the child" [Home Visit Assessment Instrument[119]] or "Home visitor successfully instructs assigned parents (not children) in the effective utilization of the curriculum" [HIPPY Program Accreditation Standards[116]]).

It is important to note that level codes were applied regardless of how that item was intended to be used. As noted above, we included a wide range of measure types in this review; while some of these were designed to be used as instruments in evaluating or assessing the quality of program practices, others (e.g., the model best practice standards or core program elements) represent guidelines or expectations—not measurements—around what should be happening at that level. For instance, many items coded at Level 3 provide guidelines or expectations for what is intended to happen during program service delivery but do not directly measure or assess service delivery. In fact, while 14 measures included items that we coded as relevant to Level 3, only nine of those measures directly measure or assess program service delivery, and only seven of those rely on actual observation of home visitors.

In the following section, we describe the quality considerations assessed by the reviewed measures, noting the levels at which items related to each quality consideration are applicable. This section is followed by a summary of strengths and gaps in the reviewed measures.

Quality Domains and Considerations

In this section, we discuss findings from the measure review. Exhibit 8 presents a high-level summary of these findings, showing the quality domains and considerations assessed by each measure as well as the level of the home visiting system at which items in that measure were

applicable. As seen in this table, the quality considerations most well-represented across the reviewed measures are *program reach, family engagement, and home visitor-client relationship; workforce characteristics, recruitment, and professional development;* and *program content*. Less frequently represented are items pertaining to *funding* and *equity and cultural responsiveness*. In terms of levels of the home visiting system, most measures contain items that pertain to the local implementing agency/program level (Level 2) and/or the service delivery level (Level 3) of the home visiting system, while only two measures contain items that are applicable at the federal, tribal, state, and community level (Level 1).

As a reminder, because this review includes best practice standards and core elements in addition to standardized instruments, one should interpret the results presented in this table as a snapshot of the quality considerations and levels of the home visiting system that have been given the most attention or considered to be the most important for high-quality implementation, by the field. The results should not be interpreted as providing information about which measures should be used to assess a particular quality domain at a particular level.

Exhibit 8. Measures by Quality Domains and Considerations and Levels of the Home Visiting System

Measure	Coordination and collaboration	Program content	Goals, measurement, and CQI	Organizational climate	Funding	Workforce characteristics, recruitment, and professional development	Equity and cultural responsiveness	Program reach, family engagement, and home visitor-client relationship
Client Cultural Competency Inventory[107]							L3	L3
Family Check-Up: COACH Ratings Manual[a,108]		L3					L3	L3
Community Supports for Wraparound Inventory[133]	L1, L2		L1		L1, L2	L2	L2	
Drivers Best Practice[110]	L2			L2		L2		
Early Childhood Work Environment Survey[111]				L2		L2		
Early Head Start Early Childhood Development and Health Services Implementation Rate Scale[a,112]	L2	L2	L2	L2		L2	L3	L2
Evidence-Based Home Visiting Fidelity Measurement[114]		L2				L2		L2

Measure	Coordination and collaboration	Program content	Goals, measurement, and CQI	Organizational climate	Funding	Workforce characteristics, recruitment, and professional development	Equity and cultural responsiveness	Program reach, family engagement, and home visitor-client relationship
Even Start Program Self-Assessment Tool[a,b,113]	L2	L2				L2		L2
Healthy Families America Self-Assessment Tool 2008–2010[a,b,115]	L2	L2	L2	L2		L2	L2	L2
HIPPY Program Accreditation Standards, 2015[a,116]	L2	L2, L3	L2		L2	L2	L2	L2
Home Visit Assessment Instrument[119]		L3						L3
Home Visit Characteristics and Content Form[118]		L3						
Home Visit Observation Form[121]		L3						L3
Home Visiting Program Quality Rating Tool Version 2.0[122]	L2	L2, L3	L2	L2	L2	L2	L3	L2, L3
Home Visit Rating Scales—Adapted[117]								L3

Measure	Coordination and collaboration	Program content	Goals, measurement, and CQI	Organizational climate	Funding	Workforce characteristics, recruitment, and professional development	Equity and cultural responsiveness	Program reach, family engagement, and home visitor-client relationship
Home Visitation Developmental Assessment Scale[120]								L3
Implementation Leadership Scale[123]				L2				
Michigan's Home Visiting Quality Assurance System Tool Version 1.0[124]	L2	L2	L2	L2		L2		L2
Nurse-Family Partnership Core Model Elements[a,b,125]	L2	L3	L2			L2		L2
Organizational Climate Description Questionnaire for Elementary Schools[b,126]				L2				

Measure	Coordination and collaboration	Program content	Goals, measurement, and CQI	Organizational climate	Funding	Workforce characteristics, recruitment, and professional development	Equity and cultural responsiveness	Program reach, family engagement, and home visitor-client relationship
Organizational Social Context Measure[127]				L2		L2		
Parents as Teachers Essential Requirements 2019[a,128]	L2	L2, L3	L2			L2		L2
Program Sustainability Index[129]	L2		L2	L2	L2	L2	L2	
Self-Assessment Tool for States[130]	L1		L1		L1	L1		
Supportive Interactions With Families—A Self-Rating Scale[131]		L3						L3
Working Alliance Inventory—Short Revised[132]								L3

Notes: [a]Home visiting model- or early childhood intervention-specific measure. [b]Measure or article provided only limited detail about items and domains. **L1** = Level 1: Federal, tribal, state, and community contexts; **L2** = Level 2: Local implementing agency and home visiting program contexts; **L3** = Level 3: Service delivery contexts.

Coordination and Collaboration

Thirteen of the reviewed measures include items related to coordination and collaboration.

Level 1: Federal, Tribal, State, and Community Contexts

Two of the reviewed measures—ZERO TO THREE's Self-Assessment Tool for States (SAT)[130] and the Community Supports and Wraparound Inventory (CSWI)[133]—focus on aspects of coordination and collaboration that are primarily applicable at Level 1. The SAT for States includes a range of items on the state's support for home visiting and integration of home visiting with other early childhood programs. Items include the presence of an entity that coordinates home visiting efforts across the state; integration of home visiting with other early childhood planning efforts; whether there is a central intake system for assigning families to home visiting models; and convening of early childhood stakeholders across sectors to inform the development of the state's home visiting system.[130] The measure also includes items on sustainability efforts, such as how effective states are at engaging the public in home visiting through legislative hearings and conferences as well as its efforts to educate the public about the need for home visiting in the state and garner support.[130] While items in the SAT for States are mostly applicable for state and tribal entities, items on the CSWI pertaining to coordination and collaboration are more applicable at the local community level. Items include, for instance, the diversity of sectors (such as government, nonprofit, health, early childhood care, and education) represented among collaborating agencies and programs; whether there is a shared vision among community stakeholders about the initiative's purpose and strategies; and plans for efficient data and information sharing across programs. Items also assess the extent to which the partnerships extend to state agencies and contribute to fiscal sustainability for all community partners.[133]

Level 2: Local Implementing Agency and Home Visiting Program Contexts

Eleven measures include items assessing coordination and collaboration that are applicable at Level 2.[110,112,115,116,122,124,125,128,129,133,134] Items at this level include the extent to which programs collaborate with and involve community partners and stakeholders in program administration and planning, as well as how effective agencies and programs are at fostering a shared understanding among community providers about the home visiting programs' goals, services, and target populations. Several measures assess the program's relationships with external service providers, including how well a program integrates into the broader service system or landscape of resources and agencies within its community and how programs facilitate and track transitions from a home visiting program into other programs or another early childhood program. For instance, the Early Head Start Early

Childhood Development and Health Services Implementation Rate Scale (EHS-ECDHSIRS) specifically includes an item on whether programs facilitate access to or directly provide childcare.[112] Finally, several measures assess the extent to which programs have in place advisory councils to inform the program, including parent advisory councils, policy councils, and special topic advisory groups. [112,115,116,124,125,128,133]

Program Content

Seventeen measures contain items related to program content, focused on Levels 2 and 3 of the home visiting system.

Level 2: Local Implementing Agency and Home Visiting Program Contexts

The eight measures[112–116,122,124,128] that include items pertaining to program content were focused on service coordination, policies, and procedures that guide the approach and content of providers'[iv] work with families and adequate resources for providers. Items related to service coordination assess how effectively agencies and programs facilitate (e.g., through community partnerships, referral making, and systems for referral follow-up) participants' access to services, such as early intervention, medical, dental, and mental health. Items focusing on policies and procedures assess the extent to which the agencies and programs have clear and consistent policies in place to guide providers' practice, including screening schedules, curricula, approaches to be used, and topics to be covered in visits. Finally, there are items across these measures that assess whether agencies and programs provide adequate materials for providers to use, including curricula, screening and assessment tools, and activities designed to promote parent-child interaction and child development.

Level 3: Program Service Delivery Contexts

Nine measures include items related to program content at Level 3.[108,116,118,119,121,122,125,128,131] These items focus on specific activities that a home visitor or other service provider may engage in with families, including the following areas of visit content: family goal setting; activities to promote child development, including language and literacy; home visitor's facilitation of parent-child interactions; health and safety promotion activities; activities aimed at addressing challenges or promoting parents' skills in navigating challenges; administration of screenings and referral making; and general use of curriculum and materials.

[iv] We use the word "provider" whenever the group of measures referenced draws from fields in addition to home visiting.

Goals, Measurement, and CQI

Ten measures contain items related to goals, measurement, and CQI, concentrated at Levels 1 and 2.

Level 1: Federal, Tribal, State, and Community Contexts

At Level 1, items in this area assess quality considerations such as consistency in state performance standards across program models, whether there is a system in place to track standards for key implementation areas, and whether program-specific quality efforts align with state and federal monitoring requirements.[130,133] The SAT for States includes items on the state's efforts to create a common set of standards that can be used across home visiting models or a crosswalk of model standards. Items also examine the state's use of a quality assurance plan, existence of a strategic or financial plan that guides home visiting efforts, allocation of resources to facilitate evaluation, and dissemination of evaluation results.[130] The CSWI includes similar items at the community services level, pertaining to ongoing data collection, quality assurance, data-driven performance, and shared monitoring systems across providers.[133]

Level 2: Local Implementing Agency and Home Visiting Program Contexts

At Level 2 of the home visiting system, eight of the reviewed measures[112,115,116,122,124,125,128,129] include items that relate to goals, measurement, and CQI. These items range from assessing whether a program has a CQI plan in place to looking more closely at the details of that plan, including specific assessment and data collection strategies. In addition, items assess whether programs are delivering services with fidelity to the model and in accordance with the program goals and whether participants are achieving the expected outcomes. Finally, there are items that assess how programs manage and report the data they collect and the extent to which they use findings from these processes to inform program improvements and course corrections.

Organizational Climate

Ten measures contain items pertaining to organizational climate, largely concentrated at Level 2. There are 10 measures that address this area, including items focused on specific leadership and organizational practices and policies, and practices that may contribute to staff morale and turnover as well as more global assessments of workplace climate.[110–112,115,122–124,126,127,129] Items include assessments of, for instance, whether the agency or program has a guiding mission or vision that providers share and buy into; the extent to which leadership is transparent in its decision making;

and whether there are systems in place that facilitate open communication between administration and staff. Global assessment items are more focused on staff perceptions of climate, such as asking providers about job satisfaction, workplace collegiality, and staff morale.

Funding

Only six measures contain items related to funding; these are focused on Levels 1 and 2.

Level 1: Federal, Tribal, State, and Community Contexts

At Level 1, both the CSWI and SAT for States include items focused on the availability, stability, and sustainability of funding for service systems. The SAT for States examines whether there is available funding to expand programs and whether there is funding specifically dedicated to supporting technical assistance and systems-level program needs.[130] The measure also includes items addressing funding management and coordination—whether the state has a central repository of information about sources of home visiting funding and whether the state coordinates funding streams to reduce administrative burden and competition.[130] Finally, the SAT for States includes items addressing the provision of funding, technical assistance, and support to new program sites as well as the state's assessment processes for site-level technical assistance needs.[130] Again, the CSWI assesses many of the same quality considerations measured by the SAT for States, only at the community services level. CSWI items examine whether there is sufficient funding, both for the short term and for longer-term sustainability; whether initiative partners assume collective, as opposed to siloed, fiscal responsibility for supporting families; and whether there is transparency around how funding decisions are made and funds are allocated.[133]

Level 2: Local Implementing Agency and Home Visiting Program Contexts

At Level 2, four of the reviewed measures[116,122,129,133] include items pertaining to funding, all of which focus on programs having sufficient funding to cover operating costs and staff programs appropriately, and one of which specifies the need for a sustainability plan. Items also examined financial structures and administration, including financial leadership and management, funding sufficiency, and funding sustainability.

Workforce Characteristics, Recruitment, and Professional Development

Fifteen measures contain items related to the home visiting workforce and supports infrastructure, focused on Levels 1 and 2.

Level 1: Federal, Tribal, State, and Community Contexts

At Level 1, the SAT for States examines whether there is sufficient infrastructure for training and professional development, including items on the state's development of core competencies for home visitors and available systems to support both cross-model and model-specific training.[130] In addition, SAT for States items address whether the state has incentives to link professional development with compensation rates and whether the state's system provides the support and resources home visiting supervisors need.[130]

Level 2: Local Implementing Agency and Home Visiting Program Contexts

Fourteen measures include items that are applicable at Level 2 of the home visiting system for this area.[110–112,114–116,122,124,125,127–129,133,134] These measures include items that, for instance, assess training, orientation, and professional development; supervision content and frequency; performance evaluations; staff satisfaction, burnout, and turnover; staff recognition; clear policies and job expectations; and use of evidence-based materials and resources to support staff and their work.

Equity and Cultural Responsiveness

Only eight measures contain items related to equity, focused on Levels 2 and 3.

Level 2: Local Implementing Agency and Home Visiting Program Contexts

Four measures include items that specifically assess equity and cultural responsiveness at Level 2 of the system.[115,116,129,133] These measures examine whether the agency or program offers culturally responsive services that align with community demographics, culture, and preferences. Items include, for instance, assessment of whether programs have sufficient language capacity to meet the needs of the community, whether materials reflect the community demographics and language preferences, whether hiring practices result in staff who reflect and/or are from the community, and

whether there are systems in place to monitor and assess programs' cultural responsiveness to community needs.

Level 3: Program Service Delivery Contexts

Four measures include items addressing equity and cultural competence at Level 3.[107,108,112,122] Measures with items regarding equity and cultural responsiveness examined several aspects of this topic, including home visitors' cultural awareness and respect (including whether a home visitor was from a similar background as the client); home visitors' ability to be respectful and nonjudgmental; and home visitors' understanding of systematic barriers a family might face and efforts to overcome those barriers.

Program Reach, Family Engagement, and Home Visitor-Client Relationship

Eighteen measures contain items related to program reach, family engagement, and the home visitor-client relationship, focused on Levels 2 and 3.

Level 2: Local Implementing Agency and Home Visiting Program Contexts

Nine measures include items addressing program reach and family engagement at Level 2.[112,114–116,122,124,125,128,134] These include items pertaining to outreach, recruitment, and eligibility; enrollment and initiation; visit frequency and overall dosage of services delivered; and retention and program completion rates. Measures with items pertaining specifically to family engagement include those measuring opportunities for families to engage in program events or parent groups; the development of family partnerships, plans, or goals across implemented programs; and site-level facilitation and monitoring of family engagement. The EHS-ECDHSIRS specifically addresses programs' efforts to engage fathers.

Level 3: Program Service Delivery Contexts

Nine measures include items addressing home visitor or service provider relationships with families at Level 3.[107,108,117,119,120–122,131,132] These include the use of individualized or family-led approaches, relationship development between the home visitor and the family, and feedback and summary of next steps shared with a family at the end of a visit. One measure, the Working Alliance Inventory—Short Revised (Therapist Version) focused specifically on the client's perception of the relationship with the service provider, that is, the therapeutic alliance.

Summary and Conclusion

Our approach to this project has been to broaden the conceptualization of home visiting quality to take into account the multiple systems and contexts in which programs are designed and implemented. Indeed, our review revealed a broad range of measures from home visiting and related fields, designed to assess different levels of the home visiting system, aimed at different purposes, and using an assortment of measurement approaches. The diversity of available measures suggests that leaders could select those that align with their needs and capacity.

However, significant gaps emerged from our review. First, very few of the measures focused thoroughly on more than one level of the home visiting system. In fact, only six[112,116,122,125,128,133] include items at more than one level of the home visiting system, and most of those measures (4) are model performance or implementation standards, which may be less applicable for state systems looking across models. Zero of the reviewed measures include items across all three levels of the home visiting system. Significantly, even among the measures that had items at multiple levels of the home visiting system, few specifically examined how certain considerations at different levels of the system might affect each other. In other words, alignment or interrelationships between implementation levels were not explicitly covered in the reviewed measures.

There are also some content areas that the research suggests are critical for quality home visiting that are notably sparse among the reviewed measures. First, in training and professional development, while plenty of items address presence, availability, and quantity of trainings offered to home visitors, very few measures are devoted to understanding the effectiveness and/or associated outcomes from those trainings. Similarly, in the case of workplace supports, more attention is paid to whether programs provide access to supervision and professional development opportunities (e.g., how much time home visitors spend in supervision weekly), rather than assessing the quality of these supports or their connection to home visiting staff retention and well-being.

Another important area in this field, but one that still has a limited representation in available measures, is how well programs attend to racial equity. Most items pertaining to this issue focus on whether programs have sufficient cultural, language, and material capacity to meet the needs of their focus populations. Also, at the service delivery level, there are items that emphasize the importance of individual home visitors' understanding of and respect for cultural differences. But none of the measures we reviewed specifically addressed ways in which home visiting programs should incorporate antiracist principles into their work. Similarly, while a handful of measures discussed the importance of having family representation on advisory councils, there was no measurement of how family voice should be incorporated into decision making at the program level; the only discussion of the importance of family voice being heard was at the service delivery level, where items assessed the extent to which home visitors adapted services to meet families' needs.

Finally, as noted at the beginning of this section, only a handful of the reviewed measures were specifically designed to be used as observational assessment instruments in the home visiting context, and of those, only the HOVRS has been demonstrated to have strong predictive and convergent validity. There is a clear need in the field for standardized, validated tools that can be used to examine, across levels of the home visiting system, some of the quality considerations that have been highlighted in this review, and by our expert stakeholders and MIECHV awardees, as important.

The findings from this literature and measures review lay important groundwork for better understanding quality in the context of home visiting. The next phase in the Measuring Implementation Quality in MIECHV-funded Evidence-based Home Visiting Programs project is to take the learnings from this report and the perspectives of various awardee and other expert stakeholders to develop a conceptual framework of home visiting quality. Building from that conceptual framework and the needs of MIECHV awardees, we will then present a series of study design reports aimed at providing a road map for how key gaps in our knowledge of home visiting quality can be filled.

This document was prepared for the U.S. Department of Health and Human Services (HHS), Health Resources and Services Administration (HRSA), by Child Trends in partnership with James Bell Associates, under HRSA contract number 75R60219D00026.The views expressed do not reflect the position of HRSA or HHS. Authors for the report are Mariel Sparr, Jessica Goldberg, Amanda Thomson, Kerry Ryan, Maggie Kane, and Maggie Haas.

References

1. Duffee JH, Mendelsohn AL, Kuo AA, Legano LA, Earls MF. Early childhood home visiting. *Pediatrics*. 2017;140(3), 1-12. doi:10.1542/peds.2017-2150

2. Duggan A, Portilla XA, Filene JH, et al. Implementation of evidence-based early childhood home visiting: Results from the Mother and Infant Home Visiting Program Evaluation. *OPRE Report 2018-76A*. Accessed July 1, 2021. https://www.acf.hhs.gov/sites/default/files/documents/opre/mihope_implementation_report_2018_10_26_508b.pdf

3. Filene JH, Kaminski JW, Valle LA, Cachat P. Components associated with home visiting program outcomes: a meta-analysis. *Pediatrics*. 2013;132(suppl 2):S100. doi:10.1542/peds.2013-1021H

4. Michalopoulos C, Faucetta K, Hill CJ, et al. Impacts on family outcomes of evidence-based early childhood home visiting: Results from the Mother and Infant Home Visiting Program Evaluation. *OPRE Rep 2019-07*. Research, and Evaluation, Administration for Children and Families, US. DHHS. January 2019. Accessed July 28, 2021. https://www.acf.hhs.gov/opre/report/impacts-family-outcomes-evidence-based-early-childhood-home-visiting-results-mother-and.

5. Mathematica. Early childhood home visiting models: Reviewing evidence of effectiveness. *OPRE Report 2020-126.* Accessed July 1, 2021. https://homvee.acf.hhs.gov/sites/default/files/2021-09/HomVEE_Summary_Brief_Sept2021_0.pdf

6. Durlak JA, DuPre EP. Implementation matters: A review of research on the influence of implementation on program outcomes and the factors affecting implementation. *Am J Community Psychol*. 2008;41(3):327. doi:10.1007/s10464-008-9165-0

7. National Home Visiting Resource Center. *Home Visiting Yearbook*. James Bell Associates and Urban Institute; 2020. Accessed June 17, 2021. https://nhvrc.org/yearbook/2020-yearbook/.

8. Green BL. Understanding quality in home visiting—how far have we come and where do we need to go? *Infant Ment Health J*. 2019;40(3):395-400. doi:10.1002/imhj.21778

9. Schodt S, Parr J, Araujo MC, Rubio-Codina M. *Measuring the Quality of Home-Visiting Services: A Review of the Literature*. Inter-American Development Bank; October 2015.

10. *Introduction to Precision Home Visiting*. The Home Visiting Applied Research Collaborative; 2018. Accessed June 17, 2021. https://www.hvresearch.org/precision-home-visiting/introduction-to-precision-home-visiting/.

11. Green AE, Trott E, Willging CE, Finn NK, Ehrhart MG, Aarons GA. The role of collaborations in sustaining an evidence-based intervention to reduce child neglect. *Child Abuse Negl*. 2016;53:4-16. doi:10.1016/j.chiabu.2015.11.013

12. Hargreaves M, Cole R, Coffee-Borden B, Paulsell D, Boller K. Evaluating infrastructure development in complex home visiting systems. *Am J Eval*. 2013;34(2):147-169. doi:10.1177/1098214012469271

13. Brookman-Frazee L, Turner S, Gordon J, et al. Evaluating implementation strategies in a community model to facilitate early identification and treatment of developmental and social-emotional problems in young children in out-of-home placement. *Child Youth Serv Rev*. 2018;88:504-513. doi:10.1016/j.childyouth.2018.03.037

14. Goodman D, Zagaria AB, Flanagan V, et al. Feasibility and acceptability of a checklist and learning collaborative to promote quality and safety in the perinatal care of women with opioid use disorders. *J Midwifery Womens Health*. 2019;64(1):104-111. doi:10.1111/jmwh.12943

15. Schultz DA, Schacht RL, Shanty LM, et al. The development and evaluation of a statewide training center for home visitors and supervisors. *Am J Community Psychol*. 2019;63(3-4):418-429. doi:https://doi.org/10.1002/ajcp.12320

16. Hallam RA, Bargreen KN, Ridgley R. Quality in family child care settings: the relationship between provider educational experiences and global quality scores in a statewide quality rating and improvement system. *J Res Child Educ*. 2013;27(4):393-406. doi:10.1080/02568543.2013.822950

17. Adirim T, Supplee L. Overview of the federal home visiting program. *Pediatrics*. 2013;132(suppl 2):S59-S64. doi:10.1542/peds.2013-1021C

18. Testa MF, Kelly D. The evolution of federal child welfare policy through the Family First Prevention Services Act of 2018: opportunities, barriers, and unintended consequences. *Ann Am Acad Pol Soc Sci*. 2020;692(1):68-96. doi:https://doi.org/10.1177/0002716220976528

19. Kemp L. Adaptation and fidelity: a recipe analogy for achieving both in population scale implementation. *Prev Sci Off J Soc Prev Res*. 2016;17(4):429-438. doi:10.1007/s11121-016-0642-7

20. Morales JR, Ferron C, Whitmore C, et al. Performance measurement in tribal home visiting: challenges and opportunities. *Infant Ment Health J*. 2018;39(3):312-325. doi:10.1002/imhj.21703

21. Whitesell NR, Bolan M, Chomos JC, et al. Measurement issues in home-visiting research within tribal communities: challenges and strategies. *Infant Ment Health J*. 2018;39(3):326-334. doi:10.1002/imhj.21713

22. Adirim T, Meade K, Mistry K. A new era in quality measurement: the development and application of quality measures. *Pediatrics*. 2017;139(1): e20163442. doi:10.1542/peds.2016-3442

23. Finello KM, Poulsen MK. Unique system of care issues and challenges in serving children under age 3 and their families. *Am J Community Psychol*. 2012;49(3-4):417-429. doi:10.1007/s10464-011-9458-6

24. Nye-Lengerman K, Gunty A, Johnson D, Hawes M. What matters: lessons learned from the implementation of PROMISE model demonstration projects. *J Vocat Rehabil*. 2019;51(2):275-284. doi:10.3233/JVR-191045

25. *Policy Brief: Taking Home Visiting Programs to Scale in Texas: Lessons Learned From Implementation*. Child and Family Research Partnership; *CFRP* 2018.

26. Chen WB, Schachner AC, Gaylor E, Hudson L. *RISE Home Visiting Evaluation Rural Case Study Brief Report.* SRI International; 2017.

27. Morrison C, Sparr M. *Strengthening Service Coordination Between Home Visitors and Pediatric Primary Care Providers*. James Bell Associates. 2019. Accessed June 17, 2021. https://nhvrc.org/wp-content/uploads/NHVRC-Brief-071619-FINAL.pdf.

28. Sides K, Baggett S. *Coordinating Comprehensive Healthcare With Home Visits for New Families: A Case Study of Home Visitation Integration With the Family-Centered Medical Home at Carolina Health Centers*. FirstFocus. 2015. Accessed July 22, 2021. https://firstfocus.org/wp-content/uploads/2015/03/Coordinating-Comprehensive-Healthcare.pdf.

29. Chinman M, Hunter SB, Cannon JS, Kilburn MR, Harvey M, Rudnick M. Process evaluation of the New Mexico Maternal, Infant, and Early Childhood Home Visiting competitive development grant. *Rand Health Q*. 2014;4(3):3.

30. Wideman ES, Dunnigan A, Jonson-Reid M, et al. Nurse home visitation with vulnerable families in rural areas: a qualitative case file review. *Public Health Nurs*. 2020;37(2):234-242. doi:10.1111/phn.12699

31. Fraser MR. Bringing it all together: effective maternal and child health practice as a means to improve public health. *Matern Child Health J*. 2013;17(5):767-775. doi:10.1007/s10995-012-1064-1

32. Johnson K. *State-based home visiting: strengthening programs through state leadership.* National Center for Children in Poverty. February 2009. https://www.nccp.org/publication/state-based-home-visiting-strengthening-programs-through-state-leadership/

33. Sparr M, Joraanstad A, Atukpawu-Tipton G, Miller N, Leis J, Filene J. *Promoting Prenatal Health and Positive Birth Outcomes: A Snapshot of State Efforts.* Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services; 2017. Accessed May 28, 2021.https://www.mdrc.org/sites/default/files/2017_MIHOPE_Strong_Start_Final.pdf

34. Herzfeldt-Kamprath R, Calsyn M, Huelskoeter T. *Medicaid and Home Visiting: Best Practices From States*. Washington, DC: Center for American Progress. 2017. Accessed July 22, 2021. https://www.americanprogress.org/issues/early-childhood/reports/2017/01/25/297160/medicaid-and-home-visiting/.

35. Schachner A, Gaylor E, Chen W-B, Hudson L, Garcia D. *RISE Home Visiting Evaluation: Final Evaluation Report*. SRI International; 2017.

36. Spielberger J, Gitlow E, Winje C, Harden A. *Building a System of Support for Evidence-Based Home Visitation Programs in Illinois: Findings From Year 4 of the Strong Foundations Evaluation*. Chapin Hall at the University of Chicago; 2014.

37. Gay JL, Saunders RP, Rees-Punia E, Dowda M, van den Berg AE. Role of organizational support on implementation of an environmental change intervention to improve child fruit and vegetable intake: a randomized cross-over design. *Prev Sci Off J Soc Prev Res*. 2019;20(8):1211-1218. doi:10.1007/s11121-019-01043-z

38. Gopalan G, Hooley C, Winters A, Stephens T. Perceptions among child welfare staff when modifying a child mental health intervention to be implemented in child welfare services. *Am J Community Psychol*. 2019;63(3-4):366-377. doi:10.1002/ajcp.12309

39. Morgan IA, Tucker C, Urlaub DM, Shuler TO, Cilenti D. Leveraging an academic-practice partnership to improve maternal and child health outcomes in North Carolina. *N C Med J*. 2020;81(1):5-13. doi:10.18043/ncm.81.1.5

40. Arbour M, Mackrain M, Cano C, Atwood S, Dworkin P. National home visiting collaborative improves developmental risk detection and service linkage. *Acad Pediatr*. 2021;21(5):809-817. doi:10.1016/j.acap.2020.08.020

41. Peters R, Sandstrom H. *Creating Core Competency Frameworks for Successful Home Visitors*. James Bell Associates and Urban Institute; 2019. Accessed May 28, 2021. https://live-nhvrc.pantheonsite.io/wp-content/uploads/NHVRC-Brief-092519-FINAL.pdf

42. Garcia-Huidobro D, Diaspro-Higuera MO, Palma D, et al. Adaptive recruitment and parenting interventions for immigrant Latino families with adolescents. *Prev Sci*. 2019;20(1):56-67. doi:10.1007/s11121-018-0898-1

43. Buzhardt J, Greenwood CR, Walker D, Anderson R, Howard W, Carta JJ. Effects of web-based support on Early Head Start home visitors' use of evidence-based intervention decision making and growth in children's expressive communication. *NHSA Dialog*. 2011;14(3):121-146. doi:10.1080/15240754.2011.587614

44. Goyal NK, Ammerman RT, Massie JA, Clark M, Van Ginkel JB. Using quality improvement to promote implementation and increase well child visits in home visiting. *Child Abuse Negl*. 2016;53:108-117. doi:10.1016/j.chiabu.2015.11.014

45. Glisson C, Green P. Organizational climate, services, and outcomes in child welfare systems. *Child Abuse Negl*. 2011;35(8):582-591. doi:10.1016/j.chiabu.2011.04.009

46. Garcia AR, Kim M, Myers C, Trinh X. Do implementation contexts for the Positive Parenting Program improve child and parental well-being? *J Soc Work*. 2020; 0(0):1-21. doi:10.1177/1468017320957497

47. West A, Gagliardi L, Gatewood A, et al. Randomized trial of a training program to improve home visitor communication around sensitive topics. *Matern Child Health J*. 2018;22(suppl 1):70-78. doi:10.1007/s10995-018-2531-0

48. Bigelow KM, Walker D, Jia F, Irvin D, Turcotte A. Text messaging as an enhancement to home visiting: building parents' capacity to improve child language-learning environments. *Early Child Res Q*. 2020;51:416-429. doi:10.1016/j.ecresq.2019.12.010

49. Cabell SQ, Downer JT. Improving preschoolers' language and literacy skills through web-mediated professional development. *NHSA Dialog*. 2011;14(4):316-322. doi:10.1080/15240754.2011.613130

50. Gardner-Neblett N, de Marco A, Sexton S. "At first I wouldn't talk so much…": Coaching and associated changes in language-supportive self-efficacy among infant/toddler educators. *Early Educ Dev, 1-20*. 2020. doi:10.1080/10409289.2020.1823769

51. Pianta RC, DeCoster J, Cabell S, et al. Dose–response relations between preschool teachers' exposure to components of professional development and increases in quality of their interactions with children. *Early Child Res Q*. 2014;29(4):499-508. doi:10.1016/j.ecresq.2014.06.001

52. Knoche LL, Sheridan SM, Edwards CP, Osborn AQ. Implementation of a relationship-based school readiness intervention: a multidimensional approach to fidelity measurement for early childhood. *Early Child Res Q*. 2010;25(3):299-313. doi:10.1016/j.ecresq.2009.05.003

53. Forry N, Iruka I, Tout K, et al. Predictors of quality and child outcomes in family child care settings. *Early Child Res Q*. 2013;28(4):893-904. doi:10.1016/j.ecresq.2013.05.006

54. Korfmacher J, Sparr M, Chawla N, Fulford J, Fleming J. Illinois Prevention Initiative (PI) Birth to Three Program Evaluation. Herr Research Center for Children and Social Policy, Erikson Institute. 2012. https://www.erikson.edu/wp-content/uploads/2017/12/Erikson-IBSE-0-3-Summary-Report.pdf

55. Nation M, Crusto C, Wandersman A, et al. What works in prevention: principles of effective prevention programs. *Am Psychol*. 2003;58(6-7):449.

56. Gubbels J, van der Put CE, Stams G-JJM, Prinzie PJ, Assink M. Components associated with the effect of home visiting programs on child maltreatment: a meta-analytic review. *Child Abuse Negl*. 2021;114:104981. doi:10.1016/j.chiabu.2021.104981

57. Gudger K, Cartagena D, Lowe K. Program evaluation of a home visiting program: perspectives of home visitors. *Home Healthc Now*. 2020;38(6):311-317. doi:10.1097/NHH.0000000000000914

58. Supplee LH, Parekh J, Johnson M. Principles of precision prevention science for improving recruitment and retention of participants. *Prev Sci*. 2018;19(5):689-694. doi:10.1007/s11121-018-0884-7

59. Korfmacher J, Frese M, Gowani S. Examining program quality in early childhood home visiting: from infrastructure to relationships. *Infant Ment Health J*. 2019;40(3):380-394. doi:10.1002/imhj.21773

60. Lam W, Dawson A, Fowler C. Approaches to better engage parent-child in health home-visiting programmes: a content analysis. *J Child Health Care Prof Work Child Hosp Community*. 2017;21(1):94-102. doi:10.1177/1367493516653260

61. West A, Duggan AK, Gruss K, Minkovitz CS. Creating a measurement framework for service coordination in maternal and early childhood home visiting: an evidence-informed, expert process. *Child Youth Serv Rev*. 2018;89:289-297. doi:10.1016/j.childyouth.2018.04.037

62. Bennett CT, Buchan JL, Letourneau N, et al. A realist synthesis of social connectivity interventions during transition to parenthood: the value of relationships. *Appl Nurs Res ANR*. 2017;34:12-23. doi:10.1016/j.apnr.2016.11.004

63. Dawson-McClure S, Calzada EJ, Brotman LM. Engaging parents in preventive interventions for young children: working with cultural diversity within low-income, urban neighborhoods. *Prev Sci*. 2017;18(6):660-670. doi:10.1007/s11121-017-0763-7

64. Brotherson SE, Holmes EK, Bouwhuis CJ. Impacts of a parenting newsletter on fathers of kindergarten children. *Father J Theory Res Pract Men Fathers*. 2012;10(1):31-46.

65. Beasley LO, Silovsky JF, Owora A, et al. Mixed-methods feasibility study on the cultural adaptation of a child abuse prevention model. *Child Abuse Negl*. 2014;38(9):1496-1507. doi:10.1016/j.chiabu.2014.04.017

66. Traube DE, Hsiao H-Y, Rau A, Hunt-O'Brien D, Lu L, Islam N. Advancing home based parenting programs through the use of telehealth technology. *J Child Fam Stud*. 2020;29(1):44-53. doi:10.1007/s10826-019-01458-w

67. Metz AJ, Blase K, Bowie L. Implementing evidence-based practices: Six "drivers" of success. *Child Trends Res--Results Brief Wash DC Atl Philanthr.* 2007. Accessed April 14, 2021. https://www.childtrends.org/wp-content/uploads/2013/07/2007-29EVPSuccess.pdf.

68. Fifolt M, Preskitt J, Johnson HH, Johns E, Zeribi KA, Arbour M. Using continuous quality improvement tools to promote tobacco cessation among primary caregivers in a home visiting program in Alabama. *J Public Health Manag Pract JPHMP*. 2019;25(6):543-546. doi:10.1097/PHH.0000000000000833

69. Henggeler SW, Schaeffer CM. Multisystemic therapy®: clinical overview, outcomes, and implementation research. *Fam Process*. 2016;55(3):514-528. doi:10.1111/famp.12232

70. Kwon K-A, Ford TG, Salvatore AL, et al. Neglected elements of a high-quality early childhood workforce: Whole teacher well-being and working conditions. *Early Child Educ J, 1-12*. 2020. doi:10.1007/s10643-020-01124-7

71. Elicker J, Wen X, Kwon K-A, Sprague JB. Early Head Start relationships: Association with program outcomes. *Early Educ Dev*. 2013;24(4):491-516. doi:10.1080/10409289.2012.695519

72. Whitaker RC, Dearth-Wesley T, Gooze RA. Workplace stress and the quality of teacher–children relationships in Head Start. *Early Child Res Q*. 2015;30(pt A):57-69. doi:10.1016/j.ecresq.2014.08.008

73. Dennis SE, O'Connor E. Reexamining quality in early childhood education: exploring the relationship between the organizational climate and the classroom. *J Res Child Educ*. 2013;27(1):74-92. doi:10.1080/02568543.2012.739589

74. Paulsell D. *Replicating and Scaling Up Evidence-Based Home Visiting Program: The Role of Implementation Research*. Mathematica Policy Research; 2012.

75. Bruns DA, LaRocco DJ, Sharp OL, Sopko KM. Leadership competencies in US early intervention/early childhood special education service systems: a national survey. *Infants Young Child*. 2017;30(4):304-319. doi:10.1097/IYC.0000000000000104

76. Douglass A, Klerman L. The strengthening families initiative and child care quality improvement: how strengthening families influenced change in child care programs in one state. *Early Educ Dev*. 2012;23(3):373-392. doi:10.1080/10409289.2012.666193

77. Bromer J, Korfmacher J. Providing high-quality support services to home-based child care: a conceptual model and literature review. *Early Educ Dev*. 2017;28(6):745-772. doi:10.1080/10409289.2016.1256720

78. Schachter RE, Gerde HK, Hatton-Bowers H. Guidelines for selecting professional development for early childhood teachers. *Early Child Educ J*. 2019;47(4):395-408. doi:10.1007/s10643-019-00942-8

79. Chaffin M, Hecht D, Bard D, Silovsky JF, Beasley WH. A statewide trial of the SafeCare home-based services model with parents in Child Protective Services. *Pediatrics*. 2012;129(3):509-515. doi:10.1542/peds.2011-1840

80. Gill S, Nathans LL, Seidel AJ, Greenberg MT. Early Head Start start–up planning: implications for staff support, job satisfaction, burnout, and turnover. *J Community Psychol*. 2017;45(4):443-458. doi:10.1002/jcop.21857

81. Casillas KL, Fauchier A, Derkash BT, Garrido EF. Implementation of evidence-based home visiting programs aimed at reducing child maltreatment: a meta-analytic review. *Child Abuse Negl*. 2016;53:64-80. doi:10.1016/j.chiabu.2015.10.009

82. Chiapa A, Smith JD, Kim H, Dishion TJ, Shaw DS, Wilson MN. The trajectory of fidelity in a multiyear trial of the family check-up predicts change in child problem behavior. *J Consult Clin Psychol*. 2015;83(5):1006-1011. doi:10.1037/ccp0000034

83. Davis AE, Barrueco S, Perry DF. The role of consultative alliance in infant and early childhood mental health consultation: Child, teacher, and classroom outcomes. *Infant Mental Health Journal*, *42*(2), 246-262. 2020. Doi:10.1002/imhj.21889

84. Gallen RT, Ash J, Smith C, Franco A, Willford JA. How do I know that my supervision is reflective? Identifying factors and validity of the reflective supervision rating scale. *Zero Three*. 2016;37(2):30-37.

85. Korfmacher J, Laszewski A, Sparr M, Hammel J. Assessing home visiting program quality: A final report to Pew Center on the States. *Pew Charit Trusts Phila*. 2012. Accessed April 14, 2021.https://www.pewtrusts.org/~/media/legacy/uploadedfiles/pcs_assets/2013/HomeVisitingProgramQualityRatingToolreportpdf.pdf.

86. Schaack DD, Le VN, Setodji CM. Home-based child care provider education and specialized training: associations with caregiving quality and toddler social-emotional and cognitive outcomes. *Early Educ Dev*. 2017;28(6):655-668. Doi:10.1080/10409289.2017.1321927

87. Roggman LA, Cook GA, Innocenti MS, et al. The home visit rating scales: revised, restructured, and revalidated. *Infant Ment Health J*. 2019;40(3):315-330. Doi:10.1002/imhj.21781

88. So M, Almeida Rojo AL, Robinson LR, et al. Parent engagement in an original and culturally adapted evidence-based parenting program, legacy for children™. *Infant Mental Health Journal, 41*(3), 356-377.2020. doi:10.1002/imhj.21853

89. Hicks D, Larson C, Nelson C, Olds DL, Johnston E. The influence of collaboration on program outcomes: The Colorado nurse—family partnership. *Eval Rev*. 2008;32(5):453-477. doi:10.1177/0193841X08315131

90. Beatson R, Molloy C, Perini N, Harrop C, Goldfeld S. Systematic review: an exploration of core componentry characterizing effective sustained nurse home visiting programs. *J Adv Nurs*. 2021. doi:10.1111/jan.14755

91. Becker BD, Patterson F, Fagan JS, Whitaker RC. Mindfulness among home visitors in head start and the quality of their working alliance with parents. *J Child Fam Stud*. 2016;25(6):1969-1979. doi:10.1007/s10826-015-0352-y

92. Alitz PJ, Geary S, Birriel PC, et al. Work-related stressors among Maternal, Infant, and Early Childhood Home Visiting (MIECHV) home visitors: a qualitative study. *Matern Child Health J*. 2018;22(suppl 1):62-69. doi:10.1007/s10995-018-2536-8

93. Lee A, Kim H, Faulkner M, Gerstenblatt P, Travis DJ. Work engagement among child-care providers: an application of the job demands–resources model. *Child Youth Care Forum*. 2019;48(1):77-91. doi:10.1007/s10566-018-9473-y

94. Zinsser KM, Christensen CG, Torres L. She's supporting them; who's supporting her? Preschool center-level social-emotional supports and teacher well-being. *J Sch Psychol*. 2016;59:55-66. doi:10.1016/j.jsp.2016.09.001

95. Berkel C, Sandler IN, Wolchik SA, et al. "Home practice is the program": parents' practice of program skills as predictors of outcomes in the New Beginnings Program effectiveness trial. *Prev Sci Off J Soc Prev Res*. 2018;19(5):663-673. doi:10.1007/s11121-016-0738-0

96. Berkel C, Mauricio AM, Sandler IN, Wolchik SA, Gallo CG, Brown CH. The cascading effects of multiple dimensions of implementation on program outcomes: a test of a theoretical model. *Prev Sci Off J Soc Prev Res*. 2018;19(6):782-794. doi:10.1007/s11121-017-0855-4

97. Roggman LA, Cook GA, Innocenti MS, et al. Home visit quality variations in two Early Head Start programs in relation to parenting and child vocabulary outcomes. *Infant Ment Health J*. 2016;37(3):193-207. doi:10.1002/imhj.21565

98. Sierau S, Brand T, Jungmann T. Parental involvement in home visiting: interpersonal predictors and correlates. *Infant Ment Health J*. 2012;33(5):489-495. doi:10.1002/imhj.21322

99. Hughes-Belding K, Peterson CA, Clucas Walter M, et al. Quality home visits: activities to promote meaningful interactions. *Infant Ment Health J*. 2019;40(3):331-342. doi:10.1002/imhj.21779

100. Peterson CA, Hughes-Belding K, Rowe N, et al. Triadic interactions in MIECHV: relations to home visit quality. *Matern Child Health J*. 2018;22(suppl 1):3-12. doi:10.1007/s10995-018-2534-x

101. Gallitto E, Romano E, Drolet M. Caregivers' perspectives on the SafeCare® programme: implementing an evidence-based intervention for child neglect. *Child Fam Soc Work*. 2018;23(2):307-315.

102. Shanti C. Engaging parents in early head start home-based programs: how do home visitors do this? *J Evid-Inf Soc Work*. 2017;14(5):329-359. doi:10.1080/23761407.2017.1302858

103. Smith LE. *Healthy Families California: A Review of Standards and Best Practices in Home Visiting Programs Across California*. 1995. Accessed March 17, 2021. https://files.eric.ed.gov/fulltext/ED411952.pdf.

104. Hughes-Belding K, Hegland S, Stein A, Sideris J, Bryant D. Predictors of global quality in family child care homes: Structural and belief characteristics. *Early Educ Dev*. 2012;23(5):697-712. doi:10.1080/10409289.2011.574257

105. O'Brien RA, Moritz P, Luckey DW, et al. Mixed methods analysis of participant attrition in the nurse-family partnership. *Prev Sci*. 2012;13(3):219-228. doi:10.1007/s11121-012-0287-0

106. Snider TC, Raglin Bignall WJ, Hostutler CA, Hoet AC, Walker BL, Bailey J. Development and implementation of a culturally tailored early childhood program in an integrated pediatric primary care practice. *Clin Pract Pediatr Psychol*. 2020;8(3):288-297. doi:10.1037/cpp0000363

107. Switzer GE, Scholle SH, Johnson BA, Kelleher KJ. The Client Cultural Competence Inventory: an instrument for assessing cultural competence in behavioral managed care organizations. *J Child Fam Stud*. 1998;7(4):483-491.

108. Dishion TJ, Knutson N, Brauer L, Gill A, Risso J. *Family Check-Up: COACH Ratings Manual*. University of Oregon; 2010.

109. Walker JS, Sanders B. The community supports for wraparound inventory: an assessment of the implementation context for wraparound. *J Child Fam Stud*. 2011;20(6):747-757. doi:10.1007/s10826-010-9432-1

110. Ward C, Metz A, Louison L, Loper A, Cusumano D. *Drivers Best Practices Assessment*. National Implementation Research Network, University of North Carolina at Chapel Hill; 2018.https://nirn.fpg.unc.edu/resources/drivers-best-practices-assessment-dbpa

111. Jorde-Bloom, P. Assess the climate of your center: use the early childhood work environment survey. *Early Childhood Educ J*. 1988;15:9-11. doi:https://doi.org/10.1007/BF02361666

112. *The Early Childhood Development and Health Services Implementation Rating Scale*. Early Head Start National Evaluation; 1997.

113. Even Start. Program self-assessment: Even Start family literacy programs. *Portsmouth NH RMC Research Corp*. 1994.

114. Daro D, Hart B, Boller K, Bradley MC. Replicating home visiting programs with fidelity: Baseline data and preliminary findings. Princeton, NJ: Mathematica Policy Research

115. *Healthy Families America Self-Assessment Tool, Best Practice Standards, 2008–2012*. Healthy Families America; 2008. Accessed June 14, 2021. https://www.ok.gov/health2/documents/2008-2012%20HFA%20SAT%20Best%20Practices%20-%20Updated%203-10.pdf.

116. *HIPPY Excellence: Model, Guidance, and Accreditation*. HIPPYUSA; 2015. Accessed March 22, 2021.http://floridahippy.fmhi.usf.edu/docs/MGA-Website-Edition-2015-03-31.pdf.

117. Roggman LA, Cook GA, Innocenti MS, Jump Norman VK, Christiansen K, Boyce LK, Aikens N, Boller K, Paulsell D, & Hallgren K. Home Visit Rating Scales—Adapted and Extended (HOVRS-A+) version 2. Adapted from Roggman, L. A., et al. (2008). Home Visit Rating Scales. In L. Roggman, L. Boyce, and M. Innocenti, Developmental Parenting (pp. 209-217). Baltimore: Paul H. Brookes Publishing. 2010.

118. Boller K, Vogel C, Cohen R, Aikens N, Hallgren K. Home visit characteristics and content form. Princeton, NJ: *Mathematica Policy Research*. 2009.

119. Wasik BH & Sparling JJ. Home visit assessment instrument. Chapel Hill, NC: School of Education, University of North Carolina, Chapel Hill.1995.

120. *Home Visitation Developmental Assessment Scale (HVDAS)*. Family Service of Milwaukee; 1997.

121. McBride SL, Peterson C. Home-based early intervention with families of children with disabilities: who is doing what? *Topics Early Child Spec Educ*. 1997;17(2):209-233. doi:10.1177%2F027112149701700206

122. Korfmacher J, Baquedano J, Reznicek E. *Home Visit Program Quality Rating Tool (HVPQRT) Version 2.0*. Erikson Institute; 2021.

123. Aarons GA, Ehrhart MG, Farahnak LR. The implementation leadership scale (ILS): development of a brief measure of unit level implementation leadership. *Implement Sci*. 2014;9(1):45. doi:10.1186/1748-5908-9-45

124. *Michigan's Home Visiting Quality Assurance System Tool Version 1.0.* Michigan Home Visiting Initiative; 2018.

125. *NFP Model Elements*. Nurse-Family Partnership; 2020. Accessed March 22, 2021. https://nfpinternational.ucdenver.edu/nfp-model#:~:text=NFP%20has%20six%20key%20areas,%2C%20and%20health%20%26%20human%20services.

126. Hoy WK. *The Organizational Climate Description for Elementary Schools (OCDQ-RE)*. 2013. Accessed July 14, 2021. http://waynekhoy.com/pdfs/ocdq-re.pdf

127. Glisson C, Green P, Williams NJ. Assessing the organizational social context (OSC) of child welfare systems: implications for research and practice. *Child Abuse Negl*. 2012;36(9):621-632. doi:10.1016/j.chiabu.2012.06.002

128. PAT essential requirements for 2018-2019. Parents as Teachers National Center; 2017. Accessed March 22, 2021. https://static1.squarespace.com/static/56be46a6b6aa60dbb45e41a5/t/59bc3b9046c3c4ee1974b66b/1505508240435/proposed-updated-essential-requirements-18-19.pdf.

129. Mancini J, Marek L. Sustaining community-based programs for families: conceptualization and measurement. *Family Relations*. 2004;53(4):339-347. doi:10.1111/j.0197-6664.2004.00040.x

130. Schreiber L. Key Components of a Successful Early Childhood Home Visitation System: A Self-Assessment Tool for States. ZERO TO THREE. 2010. Accessed July 23, 2012. file:///C:/Users/sparr/Downloads/Key%20Components%20of%20a%20Successful%20Early%20Childhood%20Home%20Visitation%20System.pdf

131. Twombly, L, Waddell, & Harrison. *Supportive Interactions With Families: A Self-Rating Scale*. 2003. Unpublished manuscript, University of Oregon EIP.

132. Horvath A. Working Alliance Inventory - Short Revised (WAI-SR).

133. Walker JS & Sanders B. *The Community Supports for Wraparound Inventory*: An Assessment of the Implementation Context for Wraparound. *J Child Fam Stud* 20, 747–757. 2011. https://doi.org/10.1007/s10826-010-9432-1

134. *Program Self-Assessment: Even Start Family Literacy Programs*. RMC Research Corp; 1994.

135. Davies KS. Formulating the evidence based practice question: a review of the frameworks. *Evid Based Libr Inf Pract*. 2011;6(2):75-80.

Appendix A. List of Articles Included in the Literature Review

The following list provides citations for the 125 articles included in the literature review. Following each citation are symbols that indicate the dimensions of home visiting implementation quality the article provided information on.

Exhibit A-1. Literature Review Key

	Federal, tribal, state, and community
	Local implementing agency and home visiting program
	Program service delivery

1. Abner KS, Gordon RA, Kaestner R, Korenman S. Does child-care quality mediate associations between type of care and development? *J Marriage & Fam*. 2013;75(5):1203-1217.
2. Aboud FE, Prado EL. Measuring the implementation of early childhood development programs. *Ann N Y Acad Sci*. 2018;1419(1):249-263. doi:10.1111/nyas.13642
3. Adirim T, Meade K, Mistry K. A new era in quality measurement: the development and application of quality measures. *American Academy of Pediatrics*. 2017;139(1). doi:10.1542/peds.2016-3442
4. Akin BA, Strolin-Goltzman J, Collins-Camargo C. Successes and challenges in developing trauma-informed child welfare systems: a real-world case study of exploration and initial implementation. *Children and Youth Services Review*. 2017;82:42-52. doi:10.1016/j.childyouth.2017.09.007
5. Albers B, Mildon R, Lyon AR, Shlonsky A. Implementation frameworks in child, youth and family services–results from a scoping review. *Child Youth Serv Rev*. 2017;81:101-116.
6. Banerjee R, Rude H. Using standards-based and evidence-based content in early childhood professional development. *Social Welfare: Interdisciplinary Approach*. 2013;2(3):42-51.

7. Beasley LO, Silovsky JF, Owora A, et al. Mixed-methods feasibility study on the cultural adaptation of a child abuse prevention model. *Child Abuse Negl*. 2014;38(9):1496-1507. doi:10.1016/j.chiabu.2014.04.017
8. Beatson R, Molloy C, Perini N, Harrop C, Goldfeld S. Systematic review: an exploration of core componentry characterizing effective sustained nurse home visiting programs. *J Adv Nurs*. 2021;77(6):2581-2594. doi:10.1111/jan.14755
9. Becker BD, Patterson F, Fagan JS, Whitaker RC. Mindfulness among home visitors in head start and the quality of their working alliance with parents. *J Child Fam Stud.* 2016;25(6):1969-1979.
10. Bekemeier B, Jones M. Relationships between local public health agency functions and agency leadership and staffing: a look at nurses. *J Public Health Manag Pract*. 2010;16(2):E8-E16. doi:10.1097/PHH.0b013e3181bdebfe
11. Bennett CT, Buchan JL, Letourneau N, et al. A realist synthesis of social connectivity interventions during transition to parenthood: the value of relationships. *Appl Nurs Res*. 2017;34:12-23. doi:10.1016/j.apnr.2016.11.004
12. Berkel C, Mauricio AM, Sandler IN, Wolchik SA, Gallo CG, Brown CH. The cascading effects of multiple dimensions of implementation on program outcomes: a test of a theoretical model. *Prev Sci*. 2018;19(6):782-794. doi:10.1007/s11121-017-0855-4
13. Bigelow KM, Walker D, Jia F, Irvin D, Turcotte A. Text messaging as an enhancement to home visiting: building parents' capacity to improve child language-learning environments. *Early Child Res Q*. 2020;51:416-429. doi:10.1016/j.ecresq.2019.12.010
14. Black KJ, Wenger MB, O'Fallon M. Developing a fidelity assessment instrument for nurse home visitors. *Res Nurs Health*. 2015;38(3):232-240. doi:10.1002/nur.21652
15. Breitenstein SM, Fogg L, Garvey C, Hill C, Resnick B, Gross D. Measuring implementation fidelity in a community-based parenting intervention. *Nurs Res*. 2010;59(3):158-165. doi:10.1097/NNR.0b013e3181dbb2e2
16. Bromer J, Korfmacher J. Providing high-quality support services to home-based child care: a conceptual model and literature review. *Early Educ Dev*. 2017;28(6):745-772. doi:10.1080/10409289.2016.1256720
17. Brookman-Frazee L, Turner S, Gordon J, et al. Evaluating implementation strategies in a community model to facilitate early identification and treatment of developmental and social-emotional problems in young children in out-of-home placement. *Child Youth Serv Rev*. 2018;88:504-513. doi:10.1016/j.childyouth.2018.03.037
18. Brotherson SE, Holmes EK, Bouwhuis CJ. Impacts of a parenting newsletter on fathers of kindergarten children. *Fathering*. 2012;10(1):31-46.

19. Bruns DA, LaRocco DJ, Sharp OL, Sopko KM. Leadership competencies in US early intervention/early childhood special education service systems: A national survey. *Infants Young Child.* 2017;30(4):304-319. doi:10.1097/IYC.0000000000000104
20. Buchanan R, Chamberlain P, Price JM, Sprengelmeyer P. Examining the equivalence of fidelity over two generations of KEEP implementation: a preliminary analysis. *Child Youth Serv Rev*. 2013;35(1):188-193. doi:10.1016/j.childyouth.2012.10.002
21. Buzhardt J, Greenwood CR, Walker D, Anderson R, Howard W, Carta JJ. Effects of web-based support on Early Head Start home visitors' use of evidence-based intervention decision making and growth in children's expressive communication. *NHSA Dialog*. 2011;14(3):121-146. doi:10.1080/15240754.2011.587614
22. Cabell SQ, Downer JT. Improving preschoolers' language and literacy skills through web-mediated professional development. *NHSA Dialog.* 2011;14(4):316-322. doi:10.1080/15240754.2011.613130
23. Casillas KL, Fauchier A, Derkash BT, Garrido EF. Implementation of evidence-based home visiting programs aimed at reducing child maltreatment: a meta-analytic review. *Child Abuse Negl*. 2016;53:64-80. doi:10.1016/j.chiabu.2015.10.009
24. Chaffin M, Hecht D, Bard D, Silovsky JF, Beasley WH. A statewide trial of the SafeCare home-based services model with parents in Child Protective Services. *Pediatrics*. 2012;129(3):509-515. doi:10.1542/peds.2011-1840
25. Chen W-B, Schachner AC, Gaylor E, Hudson L. RISE Home Visiting Evaluation rural case study brief report. *SRI International*. 2017.
26. Chiapa A, Smith JD, Kim H, Dishion TJ, Shaw DS, Wilson MN. The trajectory of fidelity in a multiyear trial of the family check-up predicts change in child problem behavior. *J Consult Clin Psychol*. 2015;83(5):1006-1011. doi:10.1037/ccp0000034
27. Child and Family Research Partnership. CFRP Policy Brief: Taking Home Visiting Programs to Scale in Texas: Lessons Learned from Implementation. 2018.
28. Chinman M, Hunter SB, Cannon JS, Kilburn MR, Harvey M, Rudnick M. Process evaluation of the New Mexico Maternal, Infant, and Early Childhood Home Visiting competitive development grant. *Rand Health Q.* 2014.
29. Cho J, Bae D, Terris DD, Glisson RE, Brown A. Community contextual effects on at-risk mothers' engagement in Georgia's Maternal, Infant, and Early Childhood Home Visiting programme. *Child Fam Soc Work.* 2018;23(4):590-598. doi:10.1111/cfs.12448
30. Cruz T, Woelk L, Cervantes I. *Increasing Home Visiting Referrals Through Implementation, Dissemination and Evaluation: Perspectives From Rural Healthcare Providers.* University of New Mexico; 2019.
31. Dauber S, John T, Hogue A, Nugent J, Hernandez G. Development and implementation of a screen-and-refer approach to addressing maternal depression, substance use, and intimate

partner violence in home visiting clients. *Child Youth Serv Rev*. 2017;81:157-167. doi:10.1016/j.childyouth.2017.07.021

32. Davis AE, Barrueco S, Perry DF. The role of consultative alliance in infant and early childhood mental health consultation: child, teacher, and classroom outcomes. *Infant Ment Health J.* 2020;42(2):246-262. doi:10.1002/imhj.21889
33. Davis RA, Gustafson DT. Academic-practice partnership in public health nursing: working with families in a village-based collaboration. *Public Health Nurs*. 2015;32(4):327-338. doi:10.1111/phn.12135
34. Dawson-McClure S, Calzada EJ, Brotman LM. Engaging parents in preventive interventions for young children: working with cultural diversity within low-income, urban neighborhoods. *Prev Sci.* 2017;18(6):660-670. doi:10.1007/s11121-017-0763-7
35. Dennis SE, O'Connor E. Reexamining quality in early childhood education: exploring the relationship between the organizational climate and the classroom. *J Res Child Educ.* 2013;27(1):74-92. doi:10.1080/02568543.2012.739589
36. Douglass A, Klerman L. The strengthening families initiative and child care quality improvement: how strengthening families influenced change in child care programs in one state. *Early Educ Dev.* 2012;23(3):373-392. doi:10.1080/10409289.2012.666193
37. Durden T, Mincemoyer C, Crandall L, Alviz K, Garcia A. Gateway to quality: online professional development for family childcare providers. *Early Child Dev Care.* 2016;186(7):1079-1095. doi:10.1080/03004430.2015.1076400
38. Durlak JA, DuPre EP. Implementation matters: a review of research on the influence of implementation on program outcomes and the factors affecting implementation. *Am J Community Psychol.* 2008;41(3):327. doi:10.1007/s10464-008-9165-0
39. Egert F, Fukkink RG, Eckhardt AG. Impact of in-service professional development programs for early childhood teachers on quality ratings and child outcomes: a meta-analysis. *Rev Educ Res.* 2018;88(3):401-433. doi:10.3102/0034654317751918
40. Elicker J, Wen X, Kwon KA, Sprague JB. Early head start relationships: association with program outcomes. *Early Educ Dev*. 2013;24(4):491-516. doi:10.1080/10409289.2012.695519
41. Fifolt M, Preskitt J, Johnson HH, Johns E, Zeribi KA, Arbour M. Using continuous quality improvement tools to promote tobacco cessation among primary caregivers in a home visiting program in Alabama. *J Public Health Manag Pract*. 2019;25(6):543-546. doi:10.1097/PHH.0000000000000833
42. Filene JH, Kaminski JW, Valle LA, Cachat P. Components associated with home visiting program outcomes: a meta-analysis. *Pediatrics.* 2013;132(suppl 2):S100. doi:10.1542/peds.2013-1021H

43. Finello KM, Poulsen MK. Unique system of care issues and challenges in serving children under age 3 and their families. *Am J Community Psychol*. 2012;49(3-4):417-429. doi:10.1007/s10464-011-9458-6
44. Forry N, Iruka I, Tout K, et al. Predictors of quality and child outcomes in family child care settings. *Early Child Res Q*. 2013;28(4):893-904. doi:10.1016/j.ecresq.2013.05.006
45. Franx G, Dixon L, Wensing M, Pincus H. Implementation strategies for collaborative primary care-mental health models. *Curr Opin Psychiatry*. 2013;26(5):502-510. doi:10.1097/YCO.0b013e328363a69f
46. Fraser MR. Bringing it all together: effective maternal and child health practice as a means to improve public health. *Matern Child Health J*. 2013;17(5):767-775. doi:10.1007/s10995-012-1064-1
47. Gallitto E, Romano E, Drolet M. Caregivers' perspectives on the SafeCare® programme: implementing an evidence-based intervention for child neglect. *Child Fam Soc Work*. 2018;23(2):307-315.
48. Garcia AR, Kim M, Myers C, Trinh X. Do implementation contexts for the Positive Parenting Program improve child and parental well-being? *J Soc Work*. 2020; 0(0):1-21. doi:10.1177/1468017320957497
49. Garcia-Huidobro D, Diaspro-Higuera MO, Palma D, et al. Adaptive recruitment and parenting interventions for immigrant Latino families with adolescents. *Prev Sci.* 2019;20(1):56-67. doi:10.1007/s11121-018-0898-1
50. Gardner-Neblett N, de Marco A, Sexton S. "At first I wouldn't talk so much…": coaching and associated changes in language-supportive self-efficacy among infant/toddler educators. *Early Educ Dev.* 2020. doi:10.1080/10409289.2020.1823769
51. Gay JL, Saunders RP, Rees-Punia E, Dowda M, van den Berg AE. Role of organizational support on implementation of an environmental change intervention to improve child fruit and vegetable intake: a randomized cross-over design. *Prev Sci*. 2019;20(8):1211-1218. doi:10.1007/s11121-019-01043-z
52. Gill S, Nathans LL, Seidel AJ, Greenberg MT. Early Head Start start–up planning: implications for staff support, job satisfaction, burnout, and turnover. *J Community Psychol.* 2017;45(4):443-458. doi:10.1002/jcop.21857
53. Glisson C, Green P. Organizational climate, services, and outcomes in child welfare systems. *Child Abuse Negl*. 2011;35(8):582-591. doi:https://doi.org/10.1016/j.chiabu.2011.04.009
54. Goldberg J, Bumgarner E, Jacobs F. Measuring program- and individual-level fidelity in a home visiting program for adolescent parents. *Eval Program Plann*. 2016;55(C):163-173

55. Goodman D, Zagaria AB, Flanagan V, et al. Feasibility and acceptability of a checklist and learning collaborative to promote quality and safety in the perinatal care of women with opioid use disorders. *J Midwifery Womens Health*. 2019;64(1):104-111. doi:10.1111/jmwh.12943
56. Gopalan G, Hooley C, Winters A, Stephens T. Perceptions among child welfare staff when modifying a child mental health intervention to be implemented in child welfare services. *Am J Community Psychol.* 2019;63(3-4):366-377. doi:10.1002/ajcp.12309
57. Goyal NK, Ammerman RT, Massie JA, Clark M, Van Ginkel JB. Using quality improvement to promote implementation and increase well child visits in home visiting. *Child Abuse Negl*. 2016;53:108-117. doi:10.1016/j.chiabu.2015.11.014
58. Green AE, Trott E, Willging CE, Finn NK, Ehrhart MG, Aarons GA. The role of collaborations in sustaining an evidence-based intervention to reduce child neglect. *Child Abuse Negl*. 2016;53:4-16. doi:10.1016/j.chiabu.2015.11.013
59. Gubbels J, van der Put CE, Stams GJ, Prinzie PJ, Assink M. Components associated with the effect of home visiting programs on child maltreatment: a meta-analytic review. *Child Abuse Negl.* 2021;114:104981. doi:10.1016/j.chiabu.2021.104981
60. Gudger K, Cartagena D, Lowe K. Program evaluation of a home visiting program: perspectives of home visitors. *Home Healthc Now*. 2020;38(6):311-317. doi:10.1097/NHH.0000000000000914
61. Haine-Schlagel R, Brookman-Frazee L, Janis B, Gordon J. Evaluating a learning collaborative to implement evidence-informed engagement strategies in community-based services for young children. *Child Youth Care Forum*. 2013;42(5). doi:10.1007/s10566-013-9210-5
62. Haine-Schlagel R, Fettes DL, Finn N, Hurlburt M, Aarons GA. Parent and caregiver active participation toolkit (PACT): adaptation for a home visitation program. *J Child Fam Stud*. 2020;29(1):29-43.
63. Hallam, RA, Bargreen, KN, Ridgley, R. Quality in family child care settings: the relationship between provider educational experiences and global quality scores in a statewide quality rating and improvement system. *J Res Child Educ.* 2013;27(4):393-406. doi:10.1080/02568543.2013.822950
64. Hargreaves M, Cole R, Coffee-Borden B, Paulsell D, Boller K. Evaluating infrastructure development in complex home visiting systems. *Am J Eval.* 2013;34(2):147-169. doi:10.1177/1098214012469271
65. Haroz EE, Ingalls A, Wadlin J, et al. Utilizing broad-based partnerships to design a precision approach to implementing evidence-based home visiting. *J Community Psychol*. 2020;48(4):1100-1113

66. Henggeler SW, Schaeffer CM. Multisystemic therapy®: clinical overview, outcomes, and implementation research. *Fam Process.* 2016;55(3):514-528. doi:10.1111/famp.12232
67. Hicks D, Larson C, Nelson C, Olds DL, Johnston E. The influence of collaboration on program outcomes: the Colorado nurse—family partnership. *Eval Rev.* 2008;32(5):453-477. doi:10.1177/0193841X08315131
68. Hooper A, Hallam R. Identifying profiles of listed home-based child care providers based on their beliefs and self-reported practices. *Early Child Res Q*. 2019;47:194-205. doi:10.1016/j.ecresq.2018.11.008
69. Hooper A, Slicker G, Riser D. Identifying a typology of unlisted paid home-based child care providers using latent profile analysis. *Early Educ Dev*. 2020; 32(7):1053-1056. doi:10.1080/10409289.2020.1829293
70. Hughes-Belding K, Hegland S, Stein A, Sideris J, Bryant D. Predictors of global quality in family child care homes: structural and belief characteristics. *Early Educ Dev.* 2012;23(5):697-712. doi:10.1080/10409289.2011.574257
71. Hughes-Belding K, Peterson CA, Clucas Walter M, et al. Quality home visits: activities to promote meaningful interactions. *Infant Ment Health J*. 2019;40(3):331-342. doi:10.1002/imhj.21779
72. Hurlburt M, Aarons GA, Fettes D, Willging C, Gunderson L, Chaffin MJ. Interagency collaborative team model for capacity building to scale-up evidence-based practice. *Child Youth Serv Rev.* 2014;39:160-168. doi:10.1016/j.childyouth.2013.10.005
73. Johnson K. *State-based home visiting: strengthening programs through state leadership.* National Center for Children in Poverty. February 2009. https://www.nccp.org/publication/state-based-home-visiting-strengthening-programs-through-state-leadership/
74. Jones Harden B, Chazan-Cohen R, Raikes H, Vogel C. Early Head Start home visitation: the role of implementation in bolstering program benefits. *J Community Psychol*. 2012;40(4):438-455. doi:10.1002/jcop.20525
75. Kahn J, Moore KA. What works for home visiting programs: lessons from experimental evaluations of programs and interventions. *Child Trends*. 2010. https://www.childtrends.org/wp-content/uploads/2005/07/2010-17WWHomeVisit.pdf
76. Kemp L. Adaptation and fidelity: a recipe analogy for achieving both in population scale implementation. *Prev Sci*. 2016;17(4):429-438. doi:10.1007/s11121-016-0642-7
77. Knoche LL, Sheridan SM, Edwards CP, Osborn AQ. Implementation of a relationship-based school readiness intervention: a multidimensional approach to fidelity measurement for early childhood. *Early Child Res Q*. 2010;25(3):299-313. doi:10.1016/j.ecresq.2009.05.003

78. Korfmacher J, Frese M, Gowani S. Examining program quality in early childhood home visiting: from infrastructure to relationships. *Infant Ment Health J*. 2019;40(3):380-394. doi:10.1002/imhj.21773
79. Korfmacher J, Laszewski A, Sparr M, Hammel J. Assessing home visiting program quality: a final report to Pew Center on the states*. Pew Center on the States.* 2012.
80. Korfmacher J, Sparr M, Chawla N, Fulford J, Fleming J. *Illinois Prevention Initiative (PI) Birth to Three Program Evaluation.* Herr Research for Children and Social Policy Erikson Institute; 2012.
81. Kutash K, Acri M, Pollock M, Armusewicz K, Olin SC, Hoagwood KE. Quality indicators for multidisciplinary team functioning in community-based children's mental health services. *Adm Policy Ment Health*. 2014;41(1):55-68. doi:10.1007/s10488-013-0508-2
82. Lam W, Dawson A, Fowler C. Approaches to better engage parent–child in health home-visiting programmes: a content analysis. *J Child Health Care*. 2017;21(1):94-102. doi:10.1177/1367493516653260
83. La Paro KM, Van Schagen A, King E, Lippard C. A systems perspective on practicum experiences in early childhood teacher education: focus on interprofessional relationships. *Early Child Educ J*. 2018;46(4):365-375. doi:10.1007/s10643-017-0872-8
84. Lipscomb ST, Schmitt SA, Pratt ME. Professional development scholarships increase qualifications of diverse providers. *J Early Child Teach Educ*. 2018;36(3):232-249. doi:10.1080/10901027.2015.1062829
85. Manz PH, Power TJ, Roggman LA, et al. Integrating the little talks intervention into Early Head Start: an experimental examination of implementation supports involving fidelity monitoring and performance feedback. *Child Youth Serv Rev*. 2017;79:87-96. doi:10.1016/j.childyouth.2017.05.034
86. Markussen-Brown J, Juhl CB, Piasta SB, Bleses D, Højen A, Justice LM. The effects of language- and literacy-focused professional development on early educators and children: a best-evidence meta-analysis. *Early Child Res Q*. 2017;38:97-115. doi:10.1016/j.ecresq.2016.07.002
87. Metz AJR, Blase K, Bowie L. Implementing evidence-based practices: six "drivers" of success. *Child Trends.* 2007. https://www.childtrends.org/wp-content/uploads/2013/07/2007-29EVPSuccess.pdf
88. Molloy C, Beatson R, Harrop C, Perini N, Goldfeld S. Systematic review: effects of sustained nurse home visiting programs for disadvantaged mothers and children. *J Adv Nurs*. 2020;77:147-161. doi:10.1111/jan.14576
89. Morales JR, Ferron C, Whitmore C, et al. Performance measurement in tribal home visiting: challenges and opportunities. *Infant Ment Health J*. 2018;39(3):312-325. doi:10.1002/imhj.21703

90. Morgan IA, Tucker C, Urlaub DM, Shuler TO, Cilenti D. Leveraging an academic-practice partnership to improve maternal and child health outcomes in North Carolina. *N C Med J*. 2020;81(1):5-13. doi:10.18043/ncm.81.1.5
91. Movahedazarhouligh S, Banerjee R. Leadership in implementation of quality family-centred services in early childhood: an exploration of administrators' perceptions, needs and realities. *Early Child Dev Care.* 2018:190(4):948-962. doi:10.1080/03004430.2018.1503256
92. Nation M, Crusto C, Wandersman A, et al. What works in prevention: principles of effective prevention programs. *Am Psychol*. 2003;58(6-7):449.
93. Nievar MA, Van Egeren LA, Pollard S. A meta-analysis of home visiting programs: moderators of improvements in maternal behavior. *Infant Ment Health J*. 2010;31(5):499-520. 10.1002/imhj.20269
94. Nye-Lengerman K, Gunty A, Johnson D, Hawes M. What matters: lessons learned from the implementation of PROMISE model demonstration projects. *J Vocat Rehabil.* 2019;51(2):275-284. doi:10.3233/JVR-191045
95. O'Brien RA, Moritz P, Luckey DW, McClatchey MW, Ingoldsby EM, Olds DL. Mixed methods analysis of participant attrition in the nurse-family partnership. *Prev Sci*. 2012;13(3):219-228. doi:10.1007/s11121-012-0287-0
96. O'Connor C, Laszewski A, Hammel J, Durkin MS. Using portable computers in home visits: effects on programs, data quality, home visitors and caregivers. *Child Youth Ser Rev*. 2011;33(7):1318-1324. doi:10.1016/j.childyouth.2011.03.006
97. Oxford ML, Spieker SJ, Lohr MJ, Fleming CB, Dillon C, Rees J. Ensuring implementation fidelity of a 10-week home visiting program in two randomized clinical trials. *Matern Child Health J*. 2018;22(3):376-383. doi:10.1007/s10995-017-2387-8
98. Paulsell D. Replicating and scaling up evidence-based home visiting program: the role of implementation research. *Mathematica Policy Research*. 2012. https://www.child-encyclopedia.com/sites/default/files/textes-experts/en/912/replicating-and-scaling-up-evidence-based-home-visiting-programs-the-role-of-implementation-research.pdf
99. Paulsell D, Del Grosso P, Supplee L. Supporting replication and scale-up of evidence-based home visiting programs: assessing the implementation knowledge base. *Am J Public Health*. 2014;104(9):1624-1632
100. Peterson CA, Hughes-Belding K, Rowe N, et al. Triadic interactions in MIECHV: relations to home visit quality. *Matern Child Health J*. 2018;22(S1):3-12. doi:10.1007/s10995-018-2534-x
101. Pianta RC, DeCoster J, Cabell S, et al. Dose–response relations between preschool teachers' exposure to components of professional development and increases in quality of their interactions with children. *Early Child Res Q*. 2014;29(4):499-508. doi:10.1016/j.ecresq.2014.06.001

102. Roggman LA, Cook GA, Innocenti MS, et al. Home visit quality variations in two early head start programs in relation to parenting and child vocabulary outcomes. *Infant Ment Health J*. 2016;37(3):193-207. doi:10.1002/imhj.21565
103. Rotheram-Fuller EJ, Swendeman D, Becker KD, et al. Replicating evidence-based practices with flexibility for perinatal home visiting by paraprofessionals. *Matern Child Health J.* 2017;21(12):2209-2218. doi:10.1007/s10995-017-2342-8
104. Schaack DD, Le VN, Setodji CM. Home-based child care provider education and specialized training: associations with caregiving quality and toddler social-emotional and cognitive outcomes. *Early Educ Dev*. 2017;28(6):655-668. doi:10.1080/10409289.2017.1321927
105. Schachner A, Gaylor E, Chen WB, Hudson L, Garcia D. *RISE Home Visiting Evaluation: Final Evaluation Report.* SRI International. 2017.
106. Schachter RE, Gerde HK, Hatton-Bowers H. Guidelines for selecting professional development for early childhood teachers. *Early Child Educ J*. 2019;47(4):395-408. doi:10.1007/s10643-019-00942-8
107. Schultz DA, Schacht RL, Shanty LM, et al. The development and evaluation of a statewide training center for home visitors and supervisors. *Am J Community Psychol*. 2019;63(3-4):418-429. doi:10.1002/ajcp.12320
108. Shanti C. Engaging parents in early head start home-based programs: how do home visitors do this? *J Evid Inf Soc Work.* 2017;14(5):329-359. doi:10.1080/23761407.2017.1302858
109. Shen S, Doyle-Thomas KAR, Beesley L, et al. How and why should we engage parents as co-researchers in health research? A scoping review of current practices. *Health Expect*. 2017;20(4):543-554. doi:10.1111/hex.12490
110. Sierau S, Brand T, Jungmann T. Parental involvement in home visiting: interpersonal predictors and correlates. *Infant Ment Health J*. 2012;33(5):489-495. doi:10.1002/imhj.21322
111. Smith LE. Healthy Families California: a review of standards and best practices in home visiting programs across California. *California Consortium to Prevent Child Abuse.*1995. https://files.eric.ed.gov/fulltext/ED411952.pdf
112. Snider TC, Raglin Bignall WJ, Hostutler CA, Hoet AC, Walker BL, Bailey J. Development and implementation of a culturally tailored early childhood program in an integrated pediatric primary care practice. *Clin Pract Pediatr Psychol*. 2020;8(3):288-297. doi:10.1037/cpp0000363
113. Snyder P, Hemmeter ML, Meeker KA, Kinder K, Pasia C, McLaughlin T. Characterizing key features of the early childhood professional development literature. *Infants & Young Children*. 2012;25(3):188-212. doi:10.1097/IYC.0b013e31825a1ebf

114. So M, Almeida RAL, Robinson LR, et al. Parent engagement in an original and culturally adapted evidence-based parenting program, Legacy for Children™. *Infant Ment Health J*. 2020;41(3):356-377. doi:10.1002/imhj.21853
115. Spiegel M, Hill Z, Gennetian LA. Harnessing a behavioral economic framework for supporting providers in improving early childhood care. *Early Years*. 2020. doi:10.1080/09575146.2020.1732877
116. Spielberger J, Gitlow E, Winje C, Harden A. Building a system of support for evidence-based home visitation programs in Illinois: findings from year 4 of the Strong Foundations Evaluation. *Chapin Hall at the University of Chicago*. 2014.
117. Supplee LH, Parekh J, Johnson M. Principles of precision prevention science for improving recruitment and retention of participants. *Prev Sci*. 2018;19(5):689-694. doi:10.1007/s11121-018-0884-7
118. Totenhagen CJ, Hawkins SA, Casper DM, Bosch LA, Hawkey KR, Borden LM. Retaining early childhood education workers: a review of the empirical literature. *J Res Child Educ*. 2016;30(4):585-599. doi:10.1080/02568543.2016.1214652
119. Traube DE, Hsiao HY, Rau A, Hunt-O'Brien D, Lu L, Islam N. Advancing home based parenting programs through the use of telehealth technology. *J Child Fam Stud*. 2020;29(1):44-53. doi:10.1007/s10826-019-01458-w
120. West A, Duggan AK, Gruss K, Minkovitz CS. Creating a measurement framework for service coordination in maternal and early childhood home visiting: an evidence-informed, expert process. *Child Youth Serv Rev*. 2018;89:289-297. doi:10.1016/j.childyouth.2018.04.037
121. West A, Gagliardi L, Gatewood A, et al. Randomized trial of a training program to improve home visitor communication around sensitive topics. *Matern Child Health J*. 2018;22(S1):70-78. doi:10.1007/s10995-018-2531-0
122. Whitaker RC, Dearth-Wesley T, Gooze RA. Workplace stress and the quality of teacher–children relationships in Head Start. *Early Child Res Q*. 2015;30(pt A):57-69. doi:10.1016/j.ecresq.2014.08.008
123. Whitesell NR, Bolan M, Chomos JC, et al. Measurement issues in home-visiting research within tribal communities: challenges and strategies. *Infant Ment Health J*. 2018;39(3):326-334. doi:10.1002/imhj.21713
124. Wideman ES, Dunnigan A, Jonson-Reid M, et al. Nurse home visitation with vulnerable families in rural areas: a qualitative case file review. *Public Health Nurs*. 2020;37(2):234-242. doi:10.1111/phn.12699
125. Zinsser KM, Christensen CG, Torres L. She's supporting them; who's supporting her? Preschool center-level social-emotional supports and teacher well-being. *J Sch Psychol*. 2016;59:55-66. doi:10.1016/j.jsp.2016.09.001

Appendix B. Literature Review Methodology

Search Strategy

The search for relevant literature was completed in four steps:

1. **Preliminary scan.** Researchers searched for existing literature reviews, measures, and conceptual models of program quality within home visiting and related fields (e.g., early care and education, home-based childcare, or early intervention). The search for existing literature reviews included those related to implementation science, both in general and specific to home visiting. The preliminary scan provided information on key domains of quality that informed data extraction categories.
2. **Rapid review of peer-reviewed articles.** Researchers performed a rapid review of peer-reviewed publication search engines (including MEDLINE, PubMed, PsycINFO, and Sociology Source Ultimate). Search terms and eligibility criteria for literature identified in this step are provided in exhibit B-1 and exhibit B-2.
3. **Review of literature from existing projects.** Researchers reviewed existing literature from prior relevant projects, including the Home Visiting Program Quality Rating Tool and the National Home Visiting Resource Center's reference catalog. Researchers also requested literature and assessments to consider for review from Health Resources and Services Administration, consultants, awardees, and expert stakeholders.
4. **Review of gray literature.** Researchers searched the internet for gray literature, such as technical reports, briefs, and conference presentations.

Rapid Review Search Terms

Search terms were developed using the PICO (population, intervention, comparison, outcome) framework.[135] This assisted researchers in generating groups of terms specific to the population, intervention, and outcomes that articles of interest should include.

Exhibit B-1 presents the list of search terms used for the rapid review of peer-reviewed publication search engines. Citations yielded through the search were managed using Zotero reference management software to allow easy access and management of citations and abstracts.

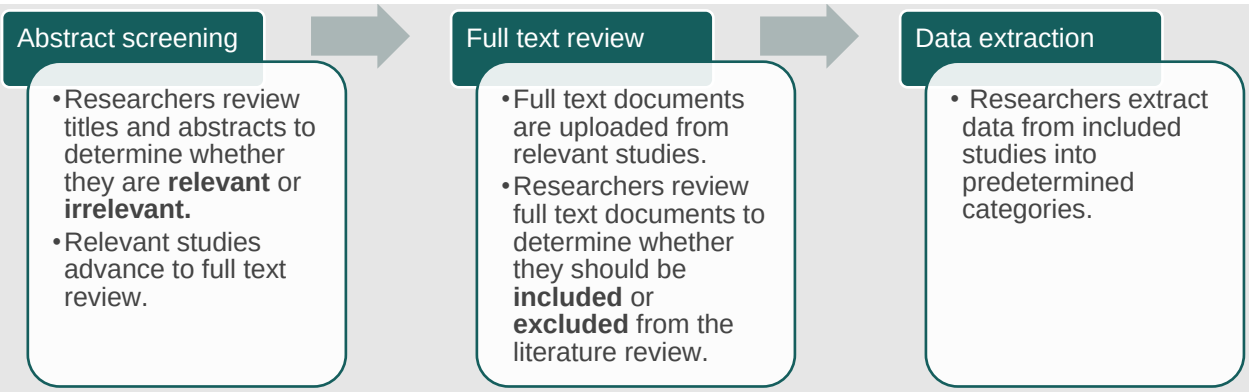
Exhibit B-1. List of Search Terms Used in Rapid Review

Population	Intervention	Outcome
Home visit* OR house calls OR home-based OR home care OR early childhood educat* OR childcare OR early childhood OR maternal-child health OR social workers OR home OR family development	Implementation quality OR quality OR program quality OR quality assurance OR quality improvement OR quality measurement OR quality assessment OR quality indicators OR quality measures OR implementation systems OR implementation science OR fidelity OR fidelity assessment OR performance measures OR performance indicators OR program performance OR best practice OR best practice elements	Program outcomes OR child outcomes OR family outcomes OR family engagement OR parent engagement OR program retention OR dosage OR improved outcomes OR family functioning OR family well-being OR child health OR child development OR workforce outcomes OR workforce development OR community outcomes OR service coordination OR systems building OR sustainability OR systems building and coordination

Review Process

Citations and abstracts were uploaded into Covidence to facilitate three phases of the review process: (1) abstract screening, (2) full text review, and (3) data extraction (see exhibit B-2). In abstract screening, researchers reviewed titles and abstracts to determine whether they were relevant or irrelevant to the study. Next, in full text review, full text articles for relevant abstracts were reviewed to determine if they should be included or excluded from the study. Finally, in data extraction, information from included articles was extracted into predetermined categories.

Exhibit B-2. Phases of Review Process



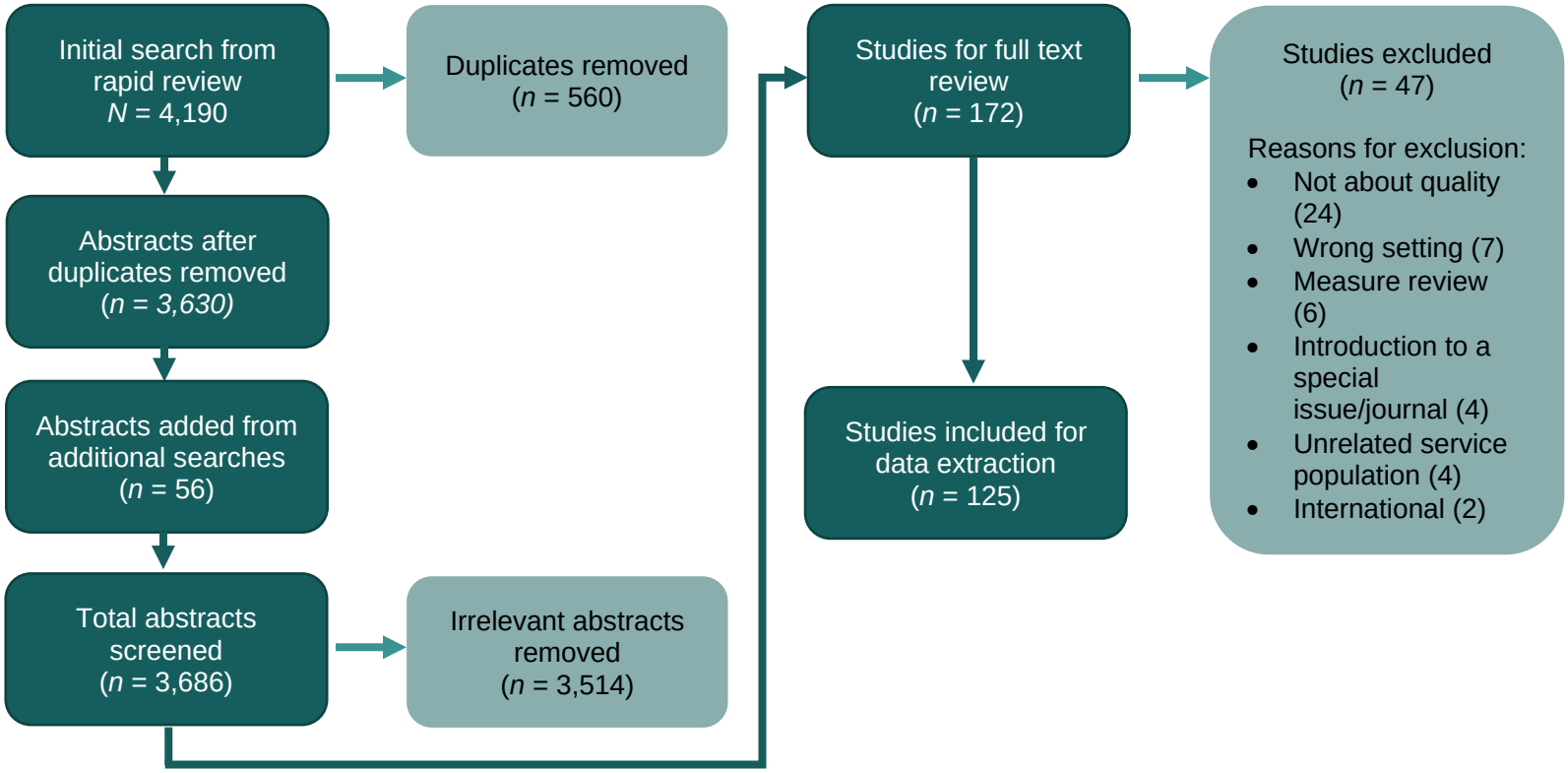
Researchers determined whether articles were relevant/irrelevant (abstract screening) or included/excluded (full text review) using the eligibility criteria in exhibit B-3. Articles from the rapid review needed to meet all the criteria listed in exhibit B-3, while articles identified from gray literature or existing projects were only required to meet criteria 1, 2, and 3. For quality monitoring purposes, the task lead reviewed decisions made by other team members and resolved any discrepancies through discussions with the project team.

Exhibit B-3. Literature Eligibility Criteria

Criteria	Applied to which articles	
	Rapid review	Additional reviews
1. Addresses one of the guiding questions for the review	•	•
2. Intervention or program under investigation works with expectant families or families with young children (infants through age 8) in the child or family's home or in an early childhood, educational, or healthcare setting	•	•
3. Published in English language	•	•
4. Literature or assessment is published after 2010	•	
5. Must be peer reviewed; will not include dissertations, theses, etc.	•	

The rapid review yielded a total of 4,190 abstracts. After removing duplicates, 3,630 articles were screened from the rapid review process. Additional searches resulted in 56 additional abstracts for a total of 3,686 articles screened. In abstract screening, 3,514 did not meet eligibility criteria, resulting in a total of 172 articles eligible for full text review. In full text review, 47 of the 172 articles eligible for full text review did not meet eligibility criteria, most often because the article was not about quality (*n* = 24). This resulted in a total of 125 articles included in data extraction and the final report. See exhibit B-4 for a visualization of this process.

Exhibit B-4. Search Process



Note: Articles that were excluded for measure review were excluded from literature review findings but included in measure review section of the report.

Data Extraction

We extracted information from articles using standard categories (see exhibit B-5). If the article did not include information for all categories, the information was listed as unavailable and reported as a missing element. The task lead reviewed approximately one-third of extractions, and discrepancies were resolved through project team discussions.

Exhibit B-5. Extraction Categories

General study information

Study information
• Field/discipline of study
  ○ Home visiting
  ○ Home-based childcare
  ○ Early intervention
  ○ Early childhood education
  ○ Other two-generation support programs
  ○ Child welfare
  ○ Public health
  ○ Other (please describe)
• Study aims/research questions
• Study design
  ○ Randomized controlled trial
  ○ Quasi-experimental design
  ○ Descriptive study
  ○ Systematic review or meta-analysis
  ○ Not provided
  ○ Other (please describe)
• Data collection methods
  ○ Quantitative
  ○ Qualitative
  ○ Mixed methods
  ○ Not provided
  ○ Other (please describe)
• Theoretical basis and/or conceptual model of the study or program/intervention implemented

Community characteristics

- Geography
- Urban/rural/frontier
- Race and ethnicity
- Socioeconomic status
- Availability of resources

Participant characteristics

- General participant characteristics
- Sample size

Staffing characteristics

- General characteristics
- Sample size

Intervention, program, or strategy characteristics

- Program/intervention name and basic description
- Target service population

Description of independent variables, quality indicators, or best practice elements

Independent variables, quality indicators, or best practice elements

- Federal, state/tribal, or community systems level
- Implementing agency or home visiting program level
- Service delivery level

Other information on independent variables, quality indicators, or best practice elements

- Theoretical basis or rationale

Measures used to assess quality

- Measures used to assess quality, implementation, fidelity, etc., or to measure independent and/or dependent variables.
- Citation

Dependent variable(s): outcomes associated with independent variables, quality indicators, or best practice elements

- Findings for dependent variables and/or outcomes associated with quality indicators or best practice elements
- Type of analysis to explore associations between independent and dependent variables

Analysis and Coding

Information from data extractions was exported from Covidence to create a data extraction database. Researchers then used a content analysis approach to code emergent themes and subthemes within three levels of the home visiting system: (1) federal, state, tribal, and community contexts; (2) implementing agency and home visiting program contexts; and (3) service delivery contexts. Through an iterative process the team met to discuss themes, and they collapsed and added codes as understanding of themes evolved. The team also discussed which levels of the home visiting system the themes and subthemes fit into most appropriately and restructured and organized themes/subthemes accordingly.

Appendix C. Profiles of Measures Reviewed

COACH Rating System	
Purpose	This tool assesses a home visitor's ability to provide services. The COACH rating system was developed to examine treatment fidelity to the Family Check Up (FCU) model. It can be used to monitor fidelity to the intervention to ensure implementation effectiveness and reduce drift after initial training.
Population	Home visiting programs
Scores	Scores available by the following scales: 1. Conceptual accuracy and adherence to the FCU model 2. Observant and responsive to client needs 3. Actively structures sessions to optimize effectiveness 4. Careful and appropriate teaching 5. Hope and motivation are generated 6. Client engagement
Publication date	2010
Administration	Observation of a live home visiting session
Administration time	Fifteen-minute segment rated for home visitor supervision purposes. For research purposes, an entire classroom visit is observed and rated.
Authors	Dishion, T.J., Knutson, N., Brauer, L., Gill, A., & Risso, J.
Publisher	Not applicable
Development process	Based on the Fidelity of Implementation Rating System (FIMP), an observational fidelity coding system designed to assess therapist fidelity to parenting interventions
Technical	
Standardization	Not applicable; standardized scores not reported
Reliability	Acceptable to excellent inter-rater reliability (intraclass correlation coefficient range of 0.57 to 0.87, with an average score of 0.67).
Validity	Not provided

COACH Rating System	
References	Dishion TJ, Knutson N, Brauer L, Gill A, Risso J. *Family Check-Up: COACH Ratings Manual*. University of Oregon; 2010. *Home Visit Observation Brief: Overview of Observational Measurement Instruments Available for Home Visiting*. James Bell Associates; 2012. Accessed July 22, 2021. https://www.jbassoc.com/resource/home-visit-observation-brief-overview-observational-measurement-instruments-available-home-visiting/ Schodt S, Parr J, Araujo MC, Rubio-Codina M. *Measuring the Quality of Home-Visiting Services: A Review of the Literature*. Inter-American Development Bank; 2015.

Home Visit Observation Form (HVOF)	
Purpose	This tool describes the process of delivering home visits and the content covered during a visit. The assessment was adapted from a similar assessment for home visits provided by early childhood special educators to young children with disabilities and their families.
Population	Home visiting programs
Scores	Scores available by the following scales and subscales: 1. Interaction partners (interventionist-child, interventionist-parent, joint interventionist-child, other-child, interventionist-other, parent-other, parent-child, other joint interaction, no interaction) 2. Content of interaction (child's skill development and care taking, family issues, community services, administrative/scheduling, other [transition talk], no interaction) 3. Role of home interventionist (direct teaching with child, providing or asking for information, transition, general conversation, listening, observe interaction, facilitate child's play, model for parents, coaching/supporting parents, no interaction)
Publication date	1996
Administration	Observation of live home visiting session or video recording
Administration time	Categories coded during 30-second observation intervals
Authors	McBride, S. & Peterson, C.
Publisher	Not applicable
Development process	Initial categories and subcategories drew from available guidelines for home visiting and factors that researchers identified as markers of successful early intervention implementation using a family systems approach.
Technical	
Standardization	Not applicable, standardized scores not reported
Reliability	Mean percentage of agreement across observers averaged 85 percent across categories and was at or above 80 percent for each category. The range for each category throughout the study varied: primary interactors (63 to 98 percent), interaction content (80 to 100 percent), role of interventionist (40 to 99 percent). *Note: Category names in original study differ from category names in current tool.*
Validity	Not provided

Home Visit Observation Form (HVOF)	
References	*Home Visit Observation Brief: Overview of Observational Measurement Instruments Available for Home Visiting*. James Bell Associates; 2012. Accessed July 22, 2021. https://www.jbassoc.com/resource/home-visit-observation-brief-overview-observational-measurement-instruments-available-home-visiting/ McBride SL, Peterson, C. Home-based early intervention with families of children with disabilities: who is doing what? *Topics Early Child Spec Educ.* 1997;17(2):209. doi:10.1177/027112149701700206

The Home Visit Rating Scales (HOVRS-3)	
Purpose	This tool was designed for practitioners and supervisors seeking home visiting excellence in programs aiming to help caregivers support the early development of their infants and young children. This tool is designed to help better engage parents and improve home visiting practices and quality. The full measure can be used multiple times per year and can be used in varied ways to work on specific skills or domains. The Home Visit Rating Scales are recommended for supporting home visiting practice, guiding professional development, and tracking continuous quality improvement, but not for evaluating individual practitioners. The Scales can be used to provide feedback to practitioners and supervisors for program improvement.
Population	Home visiting programs
Scores	Each of the Home Visit Rating Scales has a series of items with a set of indicators at different levels of quality for a particular home visit practice. Scores are available by the following scales and subscales: 1. Home Visitor Practices (relationship building with family, responsiveness to family strengths, facilitation of caregiver-child interaction, collaboration with caregiver) 2. Family Engagement (caregiver-child interaction, caregiver engagement, child engagement)
Publication date	2019
Administration	Includes an observational measure with multiple scales to be completed by a trained supervisor or coach
Administration time	Observers complete the scale after viewing a live or video observation of a home visit at least 30 minutes long.
Authors	Roggman, L., Cook, G., Innocenti, M., Norman, V.J., Boyce, L., Olson, T., Christiansen, K., & Peterson, C.
Publisher	Not applicable
Development process	The Home Visit Rating Scales (HOVRS) were initially developed from field-based descriptions of successful home visits and are supported by home visiting research in multiple disciplines.
Technical	
Standardization	Not applicable, standardized scores not reported
Reliability	For all HOVRS-3 scales, intraclass correlations were greater than .70 and for most scales greater than .80, reflecting good cohesiveness among the items within each of the HOVRS-3 scales. The HOVRS-3 has inter-rater reliability and scale internal consistency.

The Home Visit Rating Scales (HOVRS-3)	
Validity	The HOVRS-3 has convergent and predictive validity in relation to program outcomes.
References	Innocenti MS. *The Active Ingredients in Home Visiting: Using the Home Visit Rating Scales (HOVRS) to Engage Families and Improve Outcomes.* Utah State University, Center for Persons with Disabilities; 2020. Roggman LA, Cook GA, Innocenti MS, et al. The home visit rating scales: revised, restructured, and revalidated. *Infant Ment Health J.* 2019;40(3):315-330.

Home Visit Assessment Instrument (HVAI)	
Purpose	This observational tool examines primarily the behavior of the service provider during a home visit. The HVAI was initially designed as a tool for use in supervision and professional development but is also used in evaluative research.
Population	Home visiting programs
Scores	The HVAI is comprised of three sections: (1) pre-visit details, (2) observation of the home visit, and (3) post-visit details. Section Two consists of 10 categories: 1. Family needs 2. Child focus 3. Parent-child focus 4. Family 5. Health/safety 6. Parenting coping/problem solving 7. Case management 8. Closure and planning 9. Clinical skills 10. Post-assessment
Publication date	1995
Administration	The pre- and post-visit details come from observer interviews with the provider. Section Two is comprised of a set of scales to be completed by the observer during the visit. For supervision purposes, the observer completes all three sections, but for research purposes, only Section Two is necessary.
Administration time	One-day site visit to complete all scales and interviews
Authors	Wasik, B., & Sparling, J. Joseph Sparling
Publisher	Not applicable
Development process	Not provided
Technical	
Standardization	Not applicable; standardized scores not reported
Reliability	Not provided
Validity	Content validity was determined by an expert review panel of home visitors from the Infant Health and Development Program.

Home Visit Assessment Instrument (HVAI)	
References	*Home Visit Observation Brief: Overview of Observational Measurement Instruments Available for Home Visiting*. James Bell Associates; 2012. Accessed July 22, 2021. https://www.jbassoc.com/resource/home-visit-observation-brief-overview-observational-measurement-instruments-available-home-visiting/

Home Visit Characteristics and Content Form	
Purpose	This tool documents the features of a home visit, including visit length, participants, and the language of the visit. The tool was originally developed as a supplement to the Home Visiting Rating Scales, but it can be used alone or to supplement other observational tools.
Population	Home visiting programs
Scores	Scores available by the following scales: 1. Number of children/adults that participated 2. Use of an interpreter 3. Identification of family strengths and challenges 4. Language of visit 5. Checklist of activities covered in visit 6. Extent of environmental distractions 7. Time allocation of activities
Publication date	2009
Administration	Observation of live home visiting session or video recording
Administration time	Length of one observed home visit (virtual or in-person)
Authors	Kimberly Boller, K., Vogel, C., Cohen, R., Aikens, N., & Hallgren, K.
Publisher	Mathematica Policy Research
Development process	Originally developed to supplement the HOVRS form
Technical	
Standardization	Not applicable; standardized scores not reported
Reliability	Tool has not undergone a reliability study
Validity	Tool has not undergone a validity study
References	*Home Visit Observation Brief: Overview of Observational Measurement Instruments Available for Home Visiting*. James Bell Associates; 2012. Accessed July 22, 2021. https://www.jbassoc.com/resource/home-visit-observation-brief-overview-observational-measurement-instruments-available-home-visiting/ Schodt S, Parr J, Araujo MC, Rubio-Codina M. *Measuring the Quality of Home-Visiting Services: A Review of the Literature.* Inter-American Development Bank; 2015.

Home Visitation Developmental Assessment Scale (HVDAS)	
Purpose	This tool assesses home visitors' qualities and characteristics
Population	Home visiting programs
Scores	Scores available by the following scales and subscales: 1. Communication Skills—rapport building, trust promotion, demeanor, listening, session-closing skills, respect for diversity of culture and lifestyle, acceptance skills, humor, termination skills, documentation skills 2. Problem Solving—assessment skills, diagnostic skills, goal-setting skills, implementation skills in discipline, evaluation skills, safety promotion, situation management, negotiations, peer collaboration, resource management, time management, fostering independence 3. Self (Character, Attitude, and Values)—humility, expertise, professional boundaries, personal limitations, self-disclosure skills, integrity, professional development, self-direction, flexibility, energy level, self-care, safety, personal satisfaction
Publication date	1995
Administration	Administered during an observation or as a self-assessment
Administration time	Not provided
Authors	Family Service of Milwaukee
Publisher	Family Service of Milwaukee
Development process	Not provided
Technical	
Standardization	Not applicable; standardized scores not reported
Reliability	Not provided
Validity	Not provided

Home Visitation Developmental Assessment Scale (HVDAS)	
References	*Home Visitation Developmental Assessment Scale (HVDAS)*. Family Service of Milwaukee; 1997:8. Korfmacher J, Laszewski A, Sparr M, Hammel J. *Assessing home visiting program quality: A final report to Pew Center on the States.* Pew Charitable Trusts Philadelphia. Published online 2012. Accessed July 21, 2021. https://www.pewtrusts.org/~/media/legacy/uploadedfiles/pcs_assets/2013/HomeVisitingProgramQualityRatingToolreportdf.pdf

Home Visiting Program Quality Rating Tool (HVPQRT)	
Purpose	This tool provides a practical and multidimensional evaluation of a home visiting program's capacity to provide high-quality home visiting services to families with infants and toddlers. Also intended to provide a measure of best practice elements that are applicable across program models.
Population	Home visiting programs
Scores	Scores available by the following scales and subscales: 1. Home Visiting Staff Qualities—education and professional experience; promotion of child development and well-being; working with families; referrals; and follow-up 2. Program Service Delivery—program recruitment and enrollment, prenatal enrollment, frequency and length of services, family outreach/involvement, transition plans 3. Program Characteristics—program model, program emphasizes child development and well-being, program emphasizes strong working relationships with families, services tailored to family strengths and needs 4. Program Management and Development—leadership qualifications, leadership practice, work environment, written policies for program administration, professional development, supervision, strategic planning, community partnerships/resource networks 5. Progress Monitoring—program monitoring and outcome measurement
Publication date	2012
Administration	Includes external assessment and self-administered surveys/questionnaires
Administration time	One-day site visit to complete all scales and subscales
Authors	Korfmacher, J., Laszewski, A., Sparr, M., & Hammel, J.
Publisher	Not applicable
Development process	Used an iterative approach divided into six steps: (1) literature review; (2) development of an initial list of quality constructs; (3) facilitated discussion with key stakeholders; (4) operationalization of constructs into measurable indicators; (5) development of data collection and scoring guidelines; and (6) piloting and review. Pilot tested with 30 home visiting programs.
Technical	
Standardization	Not applicable, standardized scores not reported

Home Visiting Program Quality Rating Tool (HVPQRT)	
Reliability	Percentage agreement for evaluators ranged from 68 to 88 percent across scales, with an average of 79 percent agreement within 1 point. Intraclass correlations ranged from .62 to .88 across scales, with an average of 0.60.
Validity	Not provided
References	Korfmacher J, Laszewski A, Sparr M, Hammel J. *Assessing home visiting program quality: A final report to Pew Center on the States.* Pew Charitable Trusts Philadelphia. Published online 2012. Accessed July 21, 2021. https://www.pewtrusts.org/~/media/legacy/uploadedfiles/pcs_assets/2013/HomeVisitingProgramQualityRatingToolreportdf.pdf

Michigan's Home Visiting Quality Assurance System (MHVQAS)	
Purpose	This is a tool and procedure for monitoring implementation quality across models. It is expected that all home visiting programs funded with state direct or pass-through dollars will ultimately put in place policies and practices that demonstrate that they meet or exceed the standards and measures detailed in the tool.
Population	Reviewers and home visiting sites
Scores	The tool is organized into 8 domains, 19 standards, and 72 measures. The criteria for ratings are specific to each measure. Scores available by the following domains and standards: 1. Recruitment and Enrollment—recruit and enroll families that meet eligibility criteria 2. Home Visitor and Supervisor Caseloads—maintain appropriate home visitor caseloads, maintain appropriate supervisor caseloads 3. Assessment of Family Needs and Referral to Services—assess family needs and provide referrals when appropriate, conduct developmental screenings and provide referrals when appropriate 4. Dosage and Duration—provide home visits with the frequency and length of visit necessary to achieve intended outcomes for families, retain families until they complete services, and support families as they exit the program 5. Home Visit Content—individualize program delivery to family risks and needs, use evidence-informed content/curriculum/curricula, build positive and productive relationships between home visitors and families 6. Staff Qualifications and Supervision—staffed by qualified supervisors; staffed by qualified home visitors; provide home visitors with supervision that reduces the emotional stress of home visiting, reduces burnout and turnover, and improves performance; provide supervisors with supervision that improves their skill and effectiveness 7. Professional Development—provide staff with the training necessary to deliver the program as designed 8. Organizational Structure and Support—receive guidance and support from partners, have the infrastructure necessary to support high-quality implementation, assure and improve program quality, be integrated within the broader service system for children and families in their communities
Publication date	2018
Administration	Tool was designed to be completed by trained reviewers
Administration time	For the field study, trained reviewers complete review of documentation and data prior to and during a daylong site visit.
Authors	Michigan Home Visiting Initiative

Michigan's Home Visiting Quality Assurance System (MHVQAS)	
Publisher	Not applicable
Development process	Developed through review of model requirements from evidence-based home visiting models, the research literature, MIECHV benchmarks and constructs, and existing instruments for monitoring quality, along with discussion with experts in the field
Technical	
Standardization	Not applicable; standardized scores not reported
Reliability	Some differences found in inter-rater reliability and perceived reliability between models. Perceived reliability was analyzed using scales of 13 items from the Local Implementing Agency Staff Satisfaction Survey ($\alpha = 0.978$) and 13 items from the Reviewer Satisfaction Survey ($\alpha = 0.979$). Inter-rater reliability was compared across models. The Cohen's Kappa (κ) agreement scores for each model ranged from 0.240 (fair agreement) to 0.452 (moderate agreement).
Validity	No significant differences between models in perceived validity. Face validity of the tool was analyzed using scales of three items from the Local Implementing Agency Staff Satisfaction Survey (Cronbach's $\alpha = 0.833$) and two items from the Reviewer Satisfaction Survey ($\alpha = 0.836$).
References	Heany J, Torres J, Zagar C, Kostelec T. Monitoring quality across home visiting models: a field test of Michigan's Home Visiting Quality Assurance System. *Matern Child Health J*. 2018;22(1):13-21.

Supportive Interactions With Families: A Self-Rating Scale	
Purpose	This tool examines the quality of the home visitor's interactions with parents/caregivers during a home visit. An emphasis is on how the home visitor (1) utilizes strategies to ensure well-being/empowerment/mental health of parent related to parenting their child and facilitating their child's social-emotional development and (2) facilitates the quality of parent/child interactions.
Population	Home visitors
Scores	The scale consists of five items: 1. Home visit focus 2. Communication skills 3. Support of parent/child interactions 4. Problem solving (goal setting) 5. Professionalism Accompanying each item is a list of examples of home visitor strategies to help guide the observer in selecting a rating.
Publication date	2003
Administration	Includes self-administered survey items for home visitors to use to assess completed home visits
Administration time	Length of one observed home visit (virtual or in-person)
Authors	Twombly, L., Waddell, M., & Harrison
Publisher	Not applicable
Development process	Not provided
Technical	
Standardization	Not applicable; standardized scores not reported
Reliability	Not provided
Validity	Not provided
References	*Home Visit Observation Brief: Overview of Observational Measurement Instruments Available for Home Visiting*. James Bell Associates; 2012. Accessed July 22, 2021. https://www.jbassoc.com/resource/home-visit-observation-brief-overview-observational-measurement-instruments-available-home-visiting/