Understanding Family Engagement in Home Visiting: Literature Synthesis

January 2023

OPRE Report #2023-004

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Rebecca Kleinman, Patricia Del Grosso, Jessica F. Harding, Ruth Hsu, Mary Kalb, Joseph O'Brien, and Emily Rosen, Mathematica

Catherine Ayoub, McMillan Gaither, Christina Mondi-Rago, Joanne Roberts, and Mindy Rosengarten, Brazelton Touchpoints Center

Submitted to:

Kelly Jedd McKenzie and Jesse Coe
Office of Planning, Research, and Evaluation
Administration for Children and Families
U.S. Department of Health and Human Services

Submitted by:

Patricia Del Grosso, Project Director
Mathematica
1100 First Street, NE, 12th Floor
Washington, DC 20002-4221

Contract number: 47QRAA18D00BQ/75ACF121F80023

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Overview

Introduction

Early childhood home visiting is a service delivery strategy that supports a range of positive outcomes, including improved child and maternal health, children's development and school readiness, family economic self-sufficiency, and the reduction of child abuse and neglect. Evidence-based home visiting programs reached about 278,000 families in 2021, according to the National Home Visiting Resource Center, but many more families are eligible and could benefit from these programs. This literature synthesis aims to deepen understanding of the facilitators of and barriers to family engagement in home visiting, the strategies programs use to support engagement, and topics that would benefit from further research.

Research questions

1. Which factors (facilitators or barriers) influence family engagement at each stage in which programs and families interact: outreach, recruitment, retention, and active participation?
    - What are the factors at the family, home visitor, program, community, and systems levels of influence, and how do these factors interact across levels?
    - What is known about families that are not served by home visiting? Do eligible families that are less likely to enroll or remain in a home visiting program share common characteristics? Are there systemic barriers to access within the service system?
2. What strategies are programs using to support family engagement at each stage? How effective are these strategies, and for whom are they effective?

Purpose

This synthesis is one component of the Understanding and Expanding the Reach of Home Visiting (HV-REACH) project, funded by the Office of Planning, Research, and Evaluation in the Administration for Children and Families, in collaboration with the Health Resources and Services Administration. HV-REACH is identifying, developing, studying, and disseminating evidence-informed resources and strategies that early childhood home visiting programs can use to achieve more equitable access to and participation in home visiting services and, ultimately, better outcomes for children and families.

The literature synthesis seeks to inform program practitioners and policymakers about factors and strategies that facilitate family engagement in home visiting and barriers to engagement. The synthesis also informs the project's conceptual framework of family engagement in home visiting, a toolkit of engagement resources, and research topics for further study.

Key findings and highlights

Key facilitators to family engagement across the stages (outreach, recruitment, retention, and active participation) include the following, and their absence can be barriers to engagement:

- **Relevant program content and support.** Families enroll and remain in home visiting when they perceive it as beneficial and believe it meets their expectations and ongoing needs for support or information.

- **A positive dynamic between home visitors and families.** A relationship with a home visitor that is trusting, supportive, and stable—that begins during outreach and persists over time—also supports family engagement.
- **Flexibility.** Scheduling flexibility supports families' enrollment and retention.

Home visiting programs and home visitors can develop strategies to promote engagement:

- **Strengthen outreach and recruitment.** Programs can achieve this by (1) building relationships with varied community referral partners and having smooth referral processes; (2) disseminating clear, complete, and linguistically accessible information; (3) ensuring program staff conduct outreach in all eligible neighborhoods within the community and are persistent in building trusting relationships with families; (4) working with families to help spread the word; and (5) having clear and simple enrollment processes.
- **Support a favorable match and a positive dynamic between home visitors and families.** Home visitors with favorable interpersonal qualities and, potentially, similar personalities or life experiences as families can support a positive dynamic. For some families, being paired with a home visitor from their community can influence engagement.
- **Offer flexible scheduling, content, and activities to prioritize families' needs and goals.** Flexible scheduling for the day, time, and meeting location can help accommodate families' work or school schedules. Programs can also prioritize information, instruction, and activities that families most want and need.

Methods

The literature synthesis draws on 36 research manuscripts. The project team searched for peer-reviewed and gray literature on family engagement in home visiting published from 2011 to 2021. They also searched for and included applicable literature reviews on early care and education and parent training programs that support child mental health—fields that also engage families in voluntary services. The team prioritized articles with information on (1) outreach or recruitment or (2) factors or strategies at the program, community, or systems levels that influence engagement. They accepted all research designs and did not assess study quality.

Citation

Kleinman, Rebecca, Catherine Ayoub, Patricia Del Grosso, Jessica F. Harding, Ruth Hsu, McMillan Gaither, Christina Mondi-Rago, Mary Kalb, Joseph O'Brien, Joanne Roberts, Emily Rosen, and Mindy Rosengarten. (2023). Understanding Family Engagement in Home Visiting: Literature Synthesis." OPRE Report #2023-004. Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

Glossary

Active participation: A family's responsiveness during services. It encompasses a family's responsiveness to the home visitor and program content, perceptions of or satisfaction with home visiting, and application of new skills learned through home visiting.

Family engagement: Family engagement occurs when programs and families interact; interactions begin at outreach and recruitment and, for families that enroll, extend to retention and active participation.

Outreach: Efforts to strengthen program awareness and referrals. It encompasses how programs or staff recognize and connect with eligible or potentially eligible families.

Recruitment: Efforts to enroll families and a family's enrollment decision. It encompasses a program's marketing, messaging, and relationship-building efforts; and reasons families do or do not enroll.

Retention: A family's continued attendance in services. It encompasses ways programs or staff encourage families to continue attending services; and reasons families continue to participate (or do not continue).

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Executive Summary

Purpose and methods

> ***Family engagement*** occurs when home visiting programs and families interact; interactions begin at outreach and recruitment and, for families that enroll, extend to retention and active participation.

Early childhood home visiting is a service delivery strategy to support child and maternal health, children's development and school readiness, and family economic self-sufficiency, and reduce child abuse and neglect. Home visiting programs are supported by the U.S. Department of Health and Human Services through its Maternal, Infant, and Early Childhood Home Visiting (MIECHV) Program, and by states and other funders. Collectively, evidence-based home visiting programs reached about 278,000 families in 2021; MIECHV-funded programs reached about 71,000 families,[1] although many more are eligible and could benefit from these programs.[2] This literature synthesis is designed to deepen understanding of the facilitators of and barriers to family engagement in home visiting, the strategies programs use to support engagement, and the topics that would benefit from further research. This synthesis is conducted on behalf of the Office of Planning, Research, and Evaluation (OPRE) in the Administration for Children and Families (ACF), in collaboration with the Health Resources and Services Administration (HRSA), as part of the Understanding and Expanding the Reach of Home Visiting (HV-REACH) project.

The literature synthesis addressed the following research questions:

1. Which factors (facilitators or barriers) influence family engagement at each stage in which programs and families interact: outreach, recruitment, retention, and active participation?
    - What are the factors at the family, home visitor, program, community, and systems levels of influence, and how do these factors interact across levels?
    - What do we know about families that are not served by home visiting? Do eligible families that are less likely to enroll or remain in a home visiting program share common characteristics? Are there systemic barriers to access within the service system?
2. What strategies are programs using to support family engagement at each stage? How effective are these strategies, and for whom are they effective?

We reviewed 36 manuscripts using the following approach:

- We searched for peer-reviewed and gray literature (for example, research publications from foundations, government agencies, or universities) of all study designs and home visiting program models; we included applicable literature reviews from related fields.
- To fill research gaps, we prioritized manuscripts with information on (1) outreach or recruitment, or (2) factors or strategies at the program, community, or systems levels that influenced engagement; we excluded manuscripts recently reviewed in a comprehensive synthesis (Bower et al. 2020).
- We systematically extracted and compiled information from prioritized manuscripts to identify factors that facilitate, hinder, or do not consistently influence engagement.

Exhibit ES.1 summarizes factors identified in this review that may facilitate or hinder family engagement in home visiting.

[1] The National Home Visiting Resource Center (NHVRC) 2022; HRSA 2022

[2] Zaid et al. (2022) estimates that before March 2020, when the COVID-19 pandemic disrupted home visiting services, 35 percent of MIECHV-funded programs served less than 85 percent of the number of families it could serve at a given time.

Exhibit ES.1. Facilitators and barriers to family engagement in home visiting

Synopsis and topics that would benefit from further research

Next, we highlight facilitators that, according to the research, support family engagement across the engagement stages and areas where further research would be helpful.

What supports family engagement in home visiting?

- **Relevant program content and support.** Families enroll and remain in home visiting when they perceive it as beneficial and believe it meets their expectations and ongoing needs for support or information.
- **A positive dynamic between home visitors and families.** A relationship with a home visitor that is trusting, supportive, and stable—that begins during outreach and persists over time—also supports family engagement.
- **Flexibility.** Scheduling flexibility supports families' enrollment and retention.

Most of the findings involve descriptive evidence and are often based on limited research (for example, one to two studies). Although much existing research has studied the association between mothers' characteristics—such as race, ethnicity, age, education, income, and health—and whether and for how long they attend home visits, most of these characteristics did not consistently facilitate or hinder families' engagement across the manuscripts reviewed.[3] This could be in part because the studies tended to examine mothers' characteristics apart from other factors. Mothers' characteristics might have more influence on engagement in combination with family circumstances and the program and community context.

What can home visiting programs and home visitors do to promote engagement?

- **Strengthen outreach and recruitment.** This can be achieved by (1) building relationships with varied community referral partners and having smooth referral processes; (2) disseminating clear, complete, and linguistically accessible information; (3) ensuring program staff conduct outreach in all eligible neighborhoods within the community and are persistent in building trusting relationships with families; (4) working with families to help spread the word; and (5) having clear and simple enrollment processes.
- **Support a favorable match and a positive dynamic between home visitors and families.** Home visitors with favorable interpersonal qualities and, potentially, similar personalities or life experiences as families may support a positive dynamic. For some families, being paired with a home visitor from their community may influence engagement.
- **Offer flexible scheduling, content, and activities to prioritize families' needs and goals.** Flexible scheduling for the day, time, and meeting location can help accommodate families' work or school schedules. Programs can also prioritize information, instruction, and activities that families most want and need.

[3] Throughout the synthesis, we note that there is a lack of consistency across manuscripts when findings conflicted across at least two manuscripts.

What topics would benefit from further research?

- Families' reasons for enrollment, including the information and supports they are most interested in
- Strategies that can help programs offer flexibility and tailor content to families' needs and goals
- Strategies for matching home visitors and families
- Strategies for building partnerships that support referrals to and from home visiting
- Outreach limitations and the subsequent consequences for equitable access to home visiting
- Strategies for reengaging families that miss scheduled visits
- Understanding how funder and program model requirements influence engagement at every stage, including ways they inform enrollment and retention policies and practices

As the findings underscore, interactions among a range of factors—at the family, home visitor, program, community, and system levels—are central to family engagement; yet these interactions represent most of the key topics that would benefit from further research. For instance, research has not thoroughly documented the ways programs and home visitors work within the available community services to reach and recruit families. Further, it may be of interest to program administrators to understand whether the community providers that comprise a program's main referral pathways, and the language and messaging included in outreach and enrollment materials, systematically exclude any eligible families that might benefit from and be interested in home visiting. As another example, flexibility has emerged as a potential family engagement strategy; future research would benefit from exploring the ways home visiting models and programs interact to determine how much flexibility they can offer families on the frequency, duration, and location of visits or the topics and lessons covered during visits. Such exploration might include the benefits and trade-offs of offering an option for virtual home visits, which many programs have been offering since the start of the COVID-19 pandemic, and for which research was beginning to emerge at the time of this synthesis.[4]

A priority for future research should also involve incorporating family voices by, for example, asking families for their input on the topics that would benefit from further research, including families when designing research, and incorporating participatory or qualitative research methods that ask families about their experiences.

[4] See for example, Korfmacher et al. 2021a, 2021b; and Sparr and Ryan n.d. Virtual home visiting was not a focus of this synthesis, and studies of family engagement in virtual home visiting were not reviewed.

I. Purpose and methods

Purpose

Early childhood home visiting is a service delivery strategy to support child and maternal health, children's development and school readiness, and families' economic self-sufficiency, and reduce child abuse and neglect. The U.S. Department of Health and Human Services (HHS) supports home visiting through its Maternal, Infant, and Early Childhood Home Visiting (MIECHV) Program.

About the HV-REACH project

The Understanding and Expanding the Reach of Home Visiting (HV-REACH) project is identifying, developing, studying, and disseminating evidence-informed resources and strategies that home visiting programs can use to achieve more equitable access to and participation in home visiting services, and, ultimately, better outcomes for children and families. On behalf of the Office of Planning, Research, and Evaluation (OPRE) in the Administration for Children and Families (ACF), in collaboration with the Health Resources and Services Administration (HRSA), Mathematica is conducting this project in partnership with the Brazelton Touchpoints Center, Social Grove, and the Association of Maternal and Child Health Programs.

The federal MIECHV Program provides funding to states, territories, and tribal entities to develop and implement voluntary, evidence-based programs that best meet their communities' needs, and provide a continuum of home visiting services "for expectant and new parents with children up to kindergarten entry age who live in communities that are at-risk for poor maternal and child health outcomes."[1, 2] For their MIECHV-funded programs, states, territories, and tribal entities develop eligibility criteria and select home visiting program models that align with their needs assessments and MIECHV goals and statutes. For example, states might prioritize families with low incomes, women who are pregnant and younger than 21, or families with a history of substance use or interactions with child welfare, among other groups.[3] The goals of the MIECHV Program include (1) improving service coordination, and (2) identifying and providing comprehensive services to strengthen outcomes for families that reside in communities at risk of poor maternal and child health outcomes.[4]

In addition to the MIECHV Program, states support maternal and early childhood home visiting programs through other funding sources, such as state appropriations, nonprofit grants, and the Family First Prevention Services Act (2018).[5]

Collectively, evidence-based home visiting programs reached about 278,000 families in 2021.[6] MIECHV-funded programs reached about 71,000 families, or an estimated 15 percent of the more than 465,000 families that were likely eligible and could potentially benefit from MIECHV-funded home visiting.[7] Although, practically, resources are not available for programs to serve this many families, and not all families will choose to participate in home visiting, one estimate suggests that 35 percent of MIECHV-

[1] Health Resources and Services Administration (HRSA) 2022
[2] As of October 2022, 20 models were eligible for implementation as an evidence-based model with MIECHV funding. To be eligible for implementation, a model must meet HHS' criteria for evidence of effectiveness and, as required by HRSA, meet all other statutory requirements for model eligibility (HRSA 2022).
[3] HRSA 2022; for a complete list of MIECHV priority populations, see SSA Section 511, 42 U.S.C. 711, n.d.
[4] SSA Section 511, 42 U.S.C. 711, n.d.
[5] Administration for Children and Families (ACF) 2021
[6] National Home Visiting Resource Center (NHVRC) 2022
[7] HRSA 2022

funded programs were under their enrollment capacity before March 2020, when the COVID-19 pandemic disrupted services.[8] These estimates help motivate programs' efforts to reach eligible, interested families.

The purpose of this literature synthesis is to better understand facilitators and barriers to family engagement in home visiting, the strategies these programs use to support engagement, and topics that would benefit from further research. This synthesis is conducted as part of the Understanding and Expanding the Reach of Home Visiting (HV-REACH) project. HV-REACH aims to deepen understanding of the ways home visiting programs can better expand access to and full use of voluntary home visiting services among families that are eligible and interested but not currently served.

Methods

> ***Family engagement*** occurs when programs and families interact; interactions begin at outreach and recruitment and, for families that enroll, extend to retention and active participation.

We define *family engagement* as the full range of interactions between families and programs, from outreach and recruitment to retention and active participation. This view of family engagement differs from previous conceptualizations, which consider engagement as a family's *participation* or *retention* in services.[9] More recently, the definition of family engagement has expanded to include families' perspectives about the *quality* of services and home visitor interactions,[10] or the *process* of building positive, goal-oriented relationships between visitors and families.[11] In this synthesis, we broaden the definition of family engagement to encompass outreach and recruitment because, in practice, work to engage families begins at these stages—in other words, engagement precedes participation. We seek to understand (1) how families learn about home visiting and why they enroll (or choose not to enroll), continue participating (or choose to end participation), and actively participate in services; and (2) strategies programs can use to support engagement at each of these stages. This way, we can begin to identify systemic factors that shape home visiting access and experiences.

In this synthesis, we also acknowledge that families, home visitors, and programs operate in the context of their communities and related systems. Community resources, funder and program model policies or guidance, and other systems (such as health care or education) can influence families, home visitors, and programs, for instance. Thus, factors at all levels—family, home visitor, program, community, and systems—can interact to influence family engagement.

Research questions

This synthesis addressed the following research questions:

1. Which factors (facilitators or barriers) influence family engagement at each stage in which programs and families interact: outreach, recruitment, retention, and active participation?
    - What are the factors at the family, home visitor, program, community, and systems levels of influence, and how do these factors interact across levels?

[8] Zaid et al. 2022. This study characterizes a program as being at capacity if it served at least 85 percent of the targeted number of families it could serve at a given point in time, and as being under capacity if it served less than 85 percent of the target.
[9] For example, McCurdy and Daro 2001
[10] Bower et al. 2020; Korfmacher et al. 2008
[11] National Center on Parent, Family, and Community Engagement 2018

- What do we know about families that are not served by home visiting? Do eligible families that are less likely to enroll or remain in a home visiting program share common characteristics? Are there systemic barriers to access within the service system?

2. What strategies are programs using to support family engagement at each stage? How effective are these strategies, and for whom are they effective?

Box 1. Study terms

Outreach. Efforts to strengthen program awareness and referrals. Outreach encompasses the ways programs or staff recognize and connect with eligible or potentially eligible families (such as through interagency referral partnerships, marketing, or community outreach). Studies might measure outreach in terms of program staff's efforts to spread the word about the program.

Recruitment. Efforts to enroll families or a family's enrollment decision. Recruitment encompasses the ways programs or staff encourage families to enroll (such as through marketing, messaging, or relationship-building); the processes programs have in place to enroll families; and families' enrollment decisions and reasons for enrolling (or choosing not to enroll). Studies might measure recruitment by families' agreement to participate or receipt of at least one visit, and might examine the characteristics of enrolled families.

Retention: Efforts to encourage continued attendance in services. Retention encompasses the ways programs or staff encourage families to continue attending services (including through service referrals), and the reasons families continue (or do not continue) attending. Studies might measure retention in terms of service quantity (such as the number of visits received or the duration of service receipt) and might examine the family and home visitor characteristics associated with retention.

Active participation. Responsiveness during services. Active participation encompasses the ways programs or staff encourage families to engage with the home visitor or apply new skills; the reasons families are responsive (or not responsive) to the home visitor and program content; and families' perceptions of or satisfaction with home visiting. Studies might measure active participation in terms of service quality (such as the quality of home visitor and family interactions, or families' or home visitors' satisfaction or engagement ratings).

Approach

To address these questions, we conducted a targeted literature review designed to build on previous reviews. We used the approach outlined below. (Appendix A has a detailed discussion of the methods.)

- We searched for peer-reviewed and gray literature (for example, research publications from foundations, government agencies, or universities) on family engagement in home visiting. We also searched for and included applicable literature reviews on early care and education, and parent training programs that support child mental health, which also engage families in voluntary services.
- We included research about any home visiting model, not just models eligible for MIECHV funding.(That is, we did not limit the search to models that meet federal criteria for evidence of effectiveness or satisfy other statutory requirements for model eligibility.[12]) We used a broad scope because home

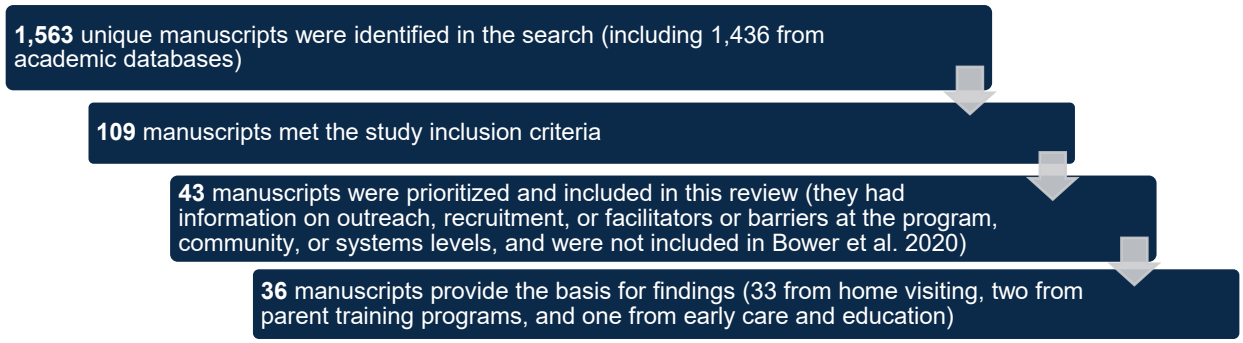
[12] HHS established criteria for evidence of effectiveness for early childhood home visiting service delivery models. To be eligible for implementation as an evidence-based model with MIECHV funding, a model must meet HHS' criteria for evidence of effectiveness and, as required by HRSA, meet all other statutory requirements for model eligibility (HRSA 2022).

visiting is an expansive category, and there may be informative research from a range of programs. For instance, universal perinatal home visiting programs may have innovative outreach approaches.

- We prioritized manuscripts that could help fill gaps identified in two recent literature reviews on family engagement in home visiting: Bower et al. (2020) and an unpublished report conducted for HRSA (McCombs-Thornton et al. 2021). Specifically, we prioritized manuscripts with information on (1) outreach or recruitment, or (2) factors or strategies at the program, community, or systems level that influence engagement. If a study only examined how family characteristics relate to program dropout, for instance, we did not prioritize it for review. We excluded manuscripts already reviewed in the article by Bower et al. (2020) and instead used Bower et al. (2020) to inform our review.
- We accepted all research designs, including conceptual or theoretical papers, but studies had to be conducted in the United States and published between 2011 and 2021.

After searching for manuscripts and applying these criteria, we identified 43 manuscripts to review (Exhibit 1, with details in Appendix A). Of these 43 manuscripts, 7 were conceptual or theoretical papers we used for background information, or literature syntheses of applied behavioral economics interventions; from the latter, we extracted engagement strategies that might apply to home visiting.[13] The findings outlined in Sections II through V are based on the remaining 36 manuscripts. These findings are organized by engagement stage to address the research questions. Findings are summarized at the end of each section and detailed findings are in Appendix B.

Exhibit 1. Summary of manuscripts identified and reviewed



[13] Applied behavioral economics interventions make small changes to programs to help people achieve goals, such as changing messaging or simplifying paperwork so more people apply for a program. We looked to these interventions for ideas home visiting programs could potentially use to strengthen family engagement. We reviewed four syntheses of behavioral economics interventions and discuss them separately from the main findings because, although they offer insights for home visiting engagement, the practices were highly tailored to their contexts.

II. Factors and strategies for conducting outreach

Few manuscripts discussed outreach. Those that did covered several strategies that could facilitate outreach. These strategies were not evaluated or assessed for their effectiveness using quantitative methods; rather, they were typically derived from qualitative research methods that drew on the practice wisdom of staff, and they may appear in just a single manuscript.

Box 2. Characteristics of 10 manuscripts with findings on outreach

Fields: 9 from home visiting; 1 from parent training

Study designs: 3 qualitative; 2 quantitative (quasi-experimental); 2 mixed methods; 3 literature reviews

Sample sizes:

- Quantitative sample sizes ranged from 2,191 families enrolled in home visiting to nearly 125,000 parents; the largest sample size drew on state Medicaid birth records.
- Qualitative respondents included families, home visitors, program administrators, and/or referral partners. Sample sizes, when reported, included 23–320 parents, 27–98 program staff, and 28 referral partners; one study included 150 administrators, home visitors, and clients.
- Literature reviews included 19–35 qualitative, quantitative, and mixed methods studies.

Concepts studied: Strategies programs can use to support outreach and referrals

What facilitates outreach?[14,15]

Strong partnerships with varied referral providers. Programs and individual home visitors can strengthen personal relationships with contacts at referral partners by, for example, frequent communication or co-locating staff at the partner's office.[16] Partnering with providers in various systems (such as primary care, pediatric care, schools, or faith organizations) can also broaden outreach and help home visiting programs reach families connected to different systems.[17]

Smooth referral pathways. Programs can establish smooth referral pathways with varied providers and systems in several ways, including data-sharing agreements,[18] standard referral protocols,[19] universal screening,[20] and educating partners about home visiting services and referral or eligibility criteria.

Families conducting outreach themselves. Outreach that creates a positive reputation in a community can support successful recruitment.[21] Hiring parents[22] or recruiting volunteers to share their experiences

[14] Throughout this synthesis, facilitators include factors that relate favorably to engagement, as well as strategies programs or staff use to support engagement.
[15] We used the following notations when citing the literature reviewed in Sections II through V: L = literature review; M = mixed methods design; Ql = qualitative design; Qn = quantitative design.
[16] Holm-Hansen et al. 2017 [Ql]; Whittaker et al. 2021 [Ql]; Williams et al. 2021b [Ql]
[17] Folger et al. 2016 [Qn]; Kåks and Målqvist 2020 [L]; Stetler et al. 2018 [M]; Williams et al. 2021b [Ql]
[18] Holm-Hansen et al. 2017 [Ql]; Williams et al. 2021b [Ql]
[19] Raffo et al. 2021 [Qn]
[20] Holm-Hansen et al. 2017 [Ql]); Stetler et al. 2018 [M]
[21] Houle et al. 2022 [L]
[22] We use the term "parents" throughout to include biological parents, foster parents, or other types of guardians or parental figures.

on social media or with peers in their networks can help programs drum up interest.[23] Word of mouth among fathers in home visiting might be especially helpful for reaching other fathers.[24]

Box 3. Strategy in focus: Smooth referral pathways

Universal screening and standard referral protocols can increase enrollment into a home visiting program (Raffo et al. 2021). In a study of strategies to increase enrollment into a home visiting program (called the Maternal Infant Health Program [MIHP]), a federally qualified health center (FQHC) and hospital-based ob-gyn practice developed standard procedures for medical providers to follow. The procedures guided them to routinely screen, connect, and coordinate care with the home visiting program for all pregnant patients who were Medicaid-insured and thus eligible for MIHP. The parent agencies operated MIHP, but separate staff administered it. They used several strategies:

- Scheduling patients for an initial orientation visit when they called to schedule their first prenatal appointment. At the FQHC site, the initial MIHP visit entailed speaking with patients about what to expect in their prenatal care, available community resources (including MIHP), patients' concerns, and conducting a risk screening.
- Entering risk-screening data into the patient's electronic health records so the data would not have to be duplicated during the medical appointment.
- Having protocols in place to follow up with patients who declined the initial visit. For example, physicians recommended MIHP to patients during appointments, using a script.
- Co-locating MIHP staff at the clinics to support ongoing collaboration, such as biweekly case conferences to coordinate patients' care.
- Offering mini MIHP services for those reluctant to commit to the full schedule of visits (Raffo et al. 2021).

What are barriers to outreach?

Few, informal referral partners and unclear or inconsistent referral processes. Based on the strategies that promote outreach, a lack of partners and clear processes might hinder outreach. Referral partners that are unfamiliar with program requirements might not make appropriate referrals and could set false expectations if a referred family later learns that they are ineligible. Keeping track of eligibility requirements might be especially challenging for partners referring to programs that offer multiple home visiting models or services with differing eligibility criteria.[25]

Relying on busy providers to refer families. Simple screening and referral protocols might help partners make referrals, but there may be inherent limits when relying on busy partners for referrals. For example, a pilot program found more success using administrative data (electronic birth certificate records) to screen for a universal home visiting program than it did when relying on referrals from busy hospital nurses.[26]

[23] Kåks and Målqvist 2020 [L]; Whittaker et al. 2021 [Ql]
[24] Burcher et al. 2021 [L]
[25] Bhuiya 2019 [M]; Holm-Hansen et al. 2017 [Ql]
[26] Stetler et al. 2018 [M]

Takeaways: What influences outreach?

Families might learn about home visiting when:

- Programs and home visitors have strong partnerships with varied referral providers
- There are smooth referral pathways
- Other families in their networks share their home visiting experiences

Families might not learn about home visiting when:

- There are few informal referral partners, and referral processes are not clear or consistently applied
- Referral providers have limited time for screening and referral

Topics that would benefit from further research:

- Strategies that help programs build relationships with varied referral partners and establish smooth referral processes
- The influence of funder and program model policies and available community resources on referral partnerships
- The ways referral partner selection, the referral process, and messaging influence who does and does not learn about home visiting

III. Factors and strategies for recruiting families

Limited literature (typically drawing on interviews or focus groups with program staff and families) suggests varied reasons families might or might not enroll in home visiting programs and outlines strategies programs and home visitors can use to help overcome enrollment barriers. However, several of these enrollment factors and recruitment strategies were explored in just one manuscript each. In contrast, multiple quantitative analyses explored whether families' demographic and socioeconomic characteristics predict enrollment, and the results tend to be contradictory.[27]

Box 4. Characteristics of 18 manuscripts with findings on recruitment

Fields: 16 from home visiting, 1 from early care and education, and 1 from parent training

Study designs: 6 qualitative; 4 quantitative (3 descriptive and 1 quasi-experimental); 4 mixed methods; 4 literature reviews

Sample sizes:

- 3 quantitative analyses had small sample sizes (ranging from 8 agencies to 148 parents), 3 had large sample sizes (1,314 to 3,786 families), and 2 had more than 10,000 records in their samples (one used state birth records, and the other used a national survey data set).
- Qualitative respondents included families, home visitors, program administrators, and/or community partners; sample sizes, when reported, included 21 to 320 parents, 27 to 98 program staff, and 23 to 28 community partners.
- 2 literature reviews included 25 and 28 qualitative, quantitative, and mixed methods manuscripts, respectively; the others did not report this information.

Concepts studied: Characteristics of families (usually mothers) enrolled in or attending at least one visit; reasons families enroll in home visiting; and the recruitment process

What facilitates recruitment?[28]

Applicable content and support. When families perceive home visiting to be beneficial and able to meet their information or support needs, they are more likely to enroll.[29] Families might be most interested in information about parenting, child development, or healthy pregnancies and children;[30] they may desire support when they have health issues or are experiencing pregnancy complications.[31] In addition, to help make their services relevant and accessible to families that speak different languages and have different cultural backgrounds, programs can tailor program content, train staff, or hire staff who are bilingual and understand the cultural nuances of diverse families.[32]

[27] Throughout the synthesis, we note that there is a lack of consistency across manuscripts when findings conflicted across at least two manuscripts.
[28] We use the term *recruitment* to describe actions programs or staff can take to reach or recruit families, and the term *enroll* to characterize a family's decision to join a home visiting program.
[29] Bower et al. 2020 [L]; Wolfe Turner et al. 2020 [Ql]
[30] Bower et al. 2020 [L]; Burrell et al. 2018 [Qn]; Williams et al. 2021a [Ql]; Wolfe Turner et al. 2020 [Ql]
[31] Bower et al. 2020 [L]; Duggan et al. 2018 [M]
[32] Bhuiya 2019 [M]; Owora et al. 2013 [Ql]; Houle et al. 2022 [L]

Flexibility. Parents need the time and flexibility to commit to the home visits programs require. Programs and home visitors can try to accommodate family schedules with flexible and convenient scheduling and a willingness to meet in locations other than families' homes.[33]

Trusting relationships and consistent outreach. Building trust with families is an important part of recruitment.[34] Home visitors described a need to be persistent and hold multiple conversations with families, including over text messages, to foster a trusting relationship.[35] For families, a positive first encounter can contribute to their decision to enroll; this may include, for example, a visitor with a positive demeanor or a first visit that went as expected based on the visitor's description.[36]

Box 5. Strategy in focus: Trusting relationships and consistent outreach

Mothers who were referred to and enrolled in the Nurse-Family Partnership home visiting program but did not remain in the program for the full length of available services felt the nurse's recruitment approaches influenced their decision to enroll in the program (Williams et al. 2021a). In interviews, mothers identified aspects of the recruitment efforts that helped to build their trust:

- Nurses held outreach meetings with mothers at mothers' preferred locations and times (including their home, a coffee shop, or a substance use treatment facility).
- Nurses were warm, caring, and interested in hearing about the mothers and their experiences.
- Nurses shared how they received mothers' contact information.
- Nurses let mothers know what they could expect from the program.

In contrast, mothers who did not enroll received less information about the program and less follow-up from nurses.

Families' interest in home visiting can also change over time (Holm-Hansen et al. 2017). Home visiting staff interviewed in Holm-Hansen et al. (2017) suggested that visitors follow up with families as they move from pregnancy to parenting to see how the family is doing and whether their interest in the program has changed.

Shared demographics with home visitors. Having home visitors with demographics similar to the communities they served facilitated recruitment in Tribal MIECHV Programs.[37] Specifically, employing Indigenous home visitors from the communities being served helped build trust and reinforce local ownership. (However, as discussed below, shared racial identities did not necessarily promote retention among other families.)

Adequate information and clear outreach materials and processes. Families might be more receptive to enrolling when programs or referral providers offered (1) specific information about the offerings and benefits compared with other community services;[38] (2) simple, clear outreach materials that were culturally applicable and linguistically accessible;[39] and (3) an accessible enrollment process.[40]

[33] Bhuiya 2019; Houle et al. 2022 [L]; Sandstrom and Lauderback 2019 [L]; Williams et al. 2021a [Ql]; Wolfe Turner et al. 2020 [Ql]
[34] Barlow et al. 2018 [Ql]; Baxter et al. 2022 [L]; Holm-Hansen et al. 2017 [Ql]; Houle et al. 2022 [L]; Williams et al. 2021a [Ql]
[35] Barlow et al. 2018 [Ql]; Holm-Hansen et al. 2017 [Ql]
[36] Williams et al. 2021a [Ql]
[37] Barlow et al. 2018 [Ql]
[38] Williams et al. 2021a [Ql]
[39] Baxter et al. 2022 [L]; Goyal et al. 2017 [Qn]; Owora et al. 2013 [Ql]
[40] Baxter et al. 2022 [L]

Multiple program model offerings. When possible, offering multiple program models can expand an agency's recruitment base and help overcome the challenge of brief eligibility windows (described below under barriers).[41]

Box 6. Successful recruitment strategies from behavioral economics interventions[42]

Behavioral economics interventions aim to make small changes in the environment to support people to make decisions that support their goals (Richburg-Hayes et al. 2017), such as—potentially—enrolling in a home visiting program.

- **Redesign outreach materials and approaches.** Strategies that were successful across several randomized trials include incorporating reminders, providing written guidance, encouraging participants to make plans and emphasizing deadlines, using personalized greetings, and reminding participants to reengage in program activities to maintain eligibility (Richburg-Hayes et al. 2017).
- **Reduce task complexity.** For example, a pre-populated Free Application for Federal Student Aid form, extra guidance for completing the rest of the application, automatic online submission, personalized financial aid estimates, and tuition cost comparisons for nearby colleges helped students complete more years of college (Gopalan and Pirog 2017).
- **Use pride-based self-affirmations.** Recalling a proud moment increased parents' interest in parenting programs and resources; this was particularly true among parents highly concerned about being judged for seeking help (Gennetian 2021).
- **Automatically enroll participants in a complementary service.** For example, mothers enrolled in a home visiting program were automatically enrolled in a text message-based early language program, with the option to decline the language program (Gennetian 2021).

What are barriers to recruitment?

Families do not feel they need the program. Parents and home visitors both suggested that parents might not enroll in home visiting because they do not think they need the program (for example, if they are in good health or their children are developing normally) or it was not appropriate for their needs, even though they perceived the program as otherwise valuable.[43]

Families have competing commitments, and programs lack flexibility. Program hours that are limited, inflexible, or overlap with parents' work and/or school schedules, and frequent home visits, can make it difficult for families to participate.[44] (Strategies that encourage flexibility are described above as facilitators.)

Distrust or discomfort with home visits. Some reasons parents gave for not (or potentially not) enrolling in home visiting included previous negative experiences with health care, stigma, and distrust of a provider in their home (including fear of immigration repercussions).[45] (The importance of building trust with families is described above as a facilitator.)

[41] Kellom et al. 2018 [Ql]
[42] The behavioral economics interventions included in this synthesis offer insights for home visiting engagement. These interventions are shown separately from the main findings because they were implemented in different study contexts. The number of manuscripts reviewed for outreach does not include these behavioral economics manuscripts.
[43] Williams et al. 2021a [Ql]; Wolfe Turner et al. 2020 [Ql]
[44] Sandstrom and Lauderback 2019 [L]; Stahlschmidt et al. 2018 [M]; Wolfe Turner et al. 2020 [Ql]
[45] Bhuiya 2019 [M]; Williams et al. 2021a [Ql]; Wolfe Turner et al. 2020 [Ql]

Housing instability or community stressors. Homelessness, housing instability, and lack of consistent contact information are typically cited in the literature as barriers to enrollment;[46] however, one manuscript did not find a link between moving more than once in the past year and receiving a home visit.[47] Additionally, limited access to necessary services, such as housing, transportation, mental health services, and child care, might be stressors that influence families' enrollment decisions.[48]

Inadequate information and complicated materials and processes. Parents might not enroll in home visiting if they are not knowledgeable of the program benefits.[49] Too much paperwork or complicated enrollment processes might also be a barrier for some parents.[50] (Outreach and recruitment strategies that adequately inform parents and are accessible are described above as facilitators.)

Staff have limited time to recruit, or they avoid certain neighborhoods. Constraints such as staff burnout and turnover can limit a program's capacity to recruit new families. Staff may also avoid recruiting in neighborhoods they perceive to be dangerous (such as those with a history of gun violence).[51]

Brief eligibility windows. A limited window to enroll families (such as models that focus on expectant families or those with newborns) can be a challenge for recruitment. Staff might not connect with families in time, or families might discover the program too late to enroll.[52] (As noted in Box 8, modifying the eligibility criteria may be possible in some cases.[53])

Recruitment during an overwhelming period. The timing of the referral may matter. Mothers who were referred during an overwhelming period, such as immediately following delivery, were less likely to remember that they had even been offered the program.[54] Committing to home visits after delivery, when a parent's health, energy, or mood can fluctuate on a given day, could also deter some families.[55]

Which factors do not consistently influence recruitment?

Other potential motivations: mothers' behavioral health, infant health, pregnancy, or parenting experience. The research literature does not point to any other common motivations for enrolling. For example, although parents might need more support or referrals when caring for infants with medical needs or coping with their own behavioral health needs (such as those stemming from depression, substance use, or intimate partner violence), quantitative analyses did not find that these concerns were consistently related to enrollment in home visiting.[56] Pregnancy can also be a time of need for parents, and many programs try to recruit expectant families to support healthy deliveries. However, the association between prenatal referrals and enrollment was also inconsistent.[57]

Having other sources of support. Some parents said they did not or would not enroll in home visiting programs because they already had adequate family or social support; however, this finding did not hold

[46] Baxter et al. 2022 [L]; Bhuiya 2019 [M]; Stahlschmidt et al. 2018 [M]; Williams et al. 2021a [Ql]
[47] Duggan et al. 2018 [M]
[48] Bhuiya 2019 [M]
[49] Bhuiya 2019 [M]; Houle et al. 2022 [L]; Williams et al. 2021a [Ql]
[50] Bhuiya 2019 [M]
[51] Bhuiya 2019 [M]
[52] Bhuiya 2019 [M]
[53] Barlow et al. 2018 [Ql]
[54] Williams et al. 2021a [Ql]
[55] Wolfe Turner et al. 2020 [Ql]
[56] Bower et al. 2020 [L]; Bhuiya 2019 [M]; Duggan et al. 2018 [M]
[57] Bower et al. 2020 [L]; Duggan et al. 2018 [M]

up in one quantitative analysis.[58] In addition, results from several quantitative analyses conflicted on whether having a spouse or strong social networks and support systems influenced enrollment in home visiting or parent training programs.[59]

Mothers' demographic characteristics. Age, race, ethnicity, and language did not consistently predict enrollment when studied independently of other factors; quantitative analyses examining the association between a single characteristic and enrollment found a mix of no associations and associations in opposite directions.[60] For example, parent age was not consistently related to home visiting enrollment in two quantitative analyses: one found that parents younger than 21 were more likely to enroll in home visiting, and one found that younger mothers were more likely to schedule but not complete a visit.[61] A review of parent training programs likewise found no clear pattern of association between parent age and enrollment.[62] Possibly, however, mothers' characteristics, in combination with other factors (for example, eligibility criteria, outreach practices, program content, or the fit between family and visitor), might influence enrollment.

Mothers' socioeconomic indicators. Various socioeconomic indicators (such as education level and employment status) had mixed associations with enrollment in home visiting or parenting programs.[63] That said, home visiting may be a less appealing option to families if their economic instability threatens their housing stability (as discussed under recruitment barriers).

Recruitment incentives. Providing families or children with ancillary incentives or supports promoted enrollment in parent training programs, according to one review, but offering financial incentives did not influence enrollment.[64]

Home visiting program model. According to one quantitative analysis, families recruited for one national model were more likely to receive at least one home visit compared with families recruited for one of three other national models. Among these three other models, families were equally likely to receive at least one home visit.[65] (Models that have a brief recruitment window may also face recruitment challenges, as discussed under barriers.)

Certain organizational aspects. This same quantitative analysis found that certain aspects of an organization or program, such as caseload size and organizational culture, were not related to whether a family received a home visit. Organizational culture was measured in terms of the home visiting organization's resistance, rigidity, and proficiency, or the organization's ability to recruit qualified home visitors.[66]

Neighborhood disadvantage or geography. Neighborhood poverty or disadvantage was not consistently related to enrollment in two quantitative analyses, nor was a community's status as rural or urban.[67] That said, a lack of community resources may be a strain on families (as noted under barriers).

[58] Burrell et al. 2018 [Qn]; Williams et al. 2021a [Ql]; Wolfe Turner et al. 2020 [Ql]
[59] Bhuiya 2019 [M]; Duggan et al. 2018 [M]; Heidari et al. 2018 [Qn]; Houle et al. 2022 [L]
[60] Bhuiya 2019 [M]; Bower et al. 2020 [L]; Duggan et al. 2018 [M]; Heidari et al. 2018 [Qn]; Houle et al. 2022 [L]. Associations are in opposite directions when one finding suggests a favorable relationship to an enrollment measure and another suggests an unfavorable relationship.
[61] Bhuiya 2019 [M]; Bower et al. 2020 [L]; Duggan et al. 2018 [M]; Heidari et al. 2018 [Qn]
[62] Houle et al. 2022 [L]
[63] Bower et al. 2020 [L]; Brind'Amour 2016 [Qn]; Duggan et al. 2018 [M]); Houle et al. 2022 [L]
[64] Houle et al. 2022 [L]
[65] Duggan et al. 2018 [M]
[66] Duggan et al. 2018 [M]
[67] Bower et al. 2020 [L]; Duggan et al. 2018 [M]; Heidari et al. 2018 [Qn]

Takeaways: What influences recruitment?

Families might enroll in home visiting if:

- They believe it can address their needs and goals; it is culturally appropriate and linguistically accessible
- Programs offer flexible scheduling and meeting locations to accommodate families' work and school hours; parents have the time and flexibility to participate in visits
- The home visitor builds a trusting relationship with the family
- Programs provide adequate information about services; there are clear enrollment materials and processes, adapted as necessary for different languages and cultures

Families might not enroll in home visiting if:

- They do not want or feel they need it or have not been fully informed about it
- They are uncomfortable with or mistrustful of home visits due to factors such as past negative experiences in health care or fears of negative repercussions
- They have competing commitments (such as work or school) and programs lack flexibility; stressors in their community (such as a lack of affordable housing, housing instability, or child care) might supersede their ability to enroll
- Staff have limited time to recruit or do not recruit in neighborhoods they perceive as dangerous
- Enrollment materials or processes are not straightforward; eligibility windows are brief

Well-researched topics:

- The association between mothers' demographic and socioeconomic characteristics and enrollment in home visiting programs. Based on numerous studies, these characteristics alone do not consistently predict who enrolls in home visiting.

Topics that would benefit from further research:

- Families' reasons for enrolling in home visiting
- Strategies that support facilitators and reduce barriers, including how to:
  - Align outreach materials and service offerings to families' needs
  - Offer flexibility so families can enroll around other commitments
  - Ensure staff can recruit from the full catchment area and establish a positive dynamic with families, and consider the importance of matching home visitors and families based on shared demographics
- Alternative sources of support that families consider when contemplating enrollment

IV. Factors and strategies for retaining families

As with recruitment, much quantitative research on retention has explored statistical associations between characteristics of families (usually mothers) and whether and to what extent families attended or completed services; often, there were contradictory results. Some quantitative research has also explored the characteristics of home visitors or program organizations in relation to retention. Limited qualitative research has explored the reasons families leave services or the strategies used to support their retention. Overall, findings about certain facilitators of or barriers to retention (such as program content or topics that support retention) draw on little research; other factors (such as the role of the home visitor–family relationship in supporting retention) have been studied more thoroughly.

Box 7. Characteristics of 26 manuscripts with findings on retention

Fields: 24 from home visiting, 1 from early care and education, and 1 from parent training

Study designs: 5 qualitative; 10 quantitative (9 descriptive, 1 quasi-experimental); 5 mixed methods; 6 literature reviews

Sample sizes:

- 5 quantitative analyses had small samples (ranging from 8 agencies to 148 parents), 8 had large sample sizes (from 837 to 4,057 families), and 1 had a sample of more than 10,000 state birth records.
- Qualitative respondents included families, home visitors, and/or program administrators; sample sizes, when reported, ranged from 23 to 40 families and 25 to 50 program staff; one study interviewed 150 administrators, staff, and clients.
- 4 literature reviews included 8–39 qualitative, quantitative, and mixed methods manuscripts; the others did not report this information.

Concepts studied: Characteristics of families (usually mothers) associated with service completion status, duration enrolled, or number of visits; reasons families leave services; strategies to support retention (such as coordination with needed services)

What facilitates retention?

Families need supports, and programs meet their needs and expectations. Research suggests that families tend to remain in home visiting while they are satisfied with it and perceive that it is meeting their goals, expectations, and ongoing needs for support. Some research documented a link between retention and families' level of satisfaction.[68] Other research focused on topics or resources associated with retention. Families might be especially interested in information on parenting or child development; this aligns with research suggesting that parents with younger children at enrollment tend to have higher retention.[69] Families might also be especially interested in mental health topics and quick screening and referrals to community resources.[70] Finally, to help align services with families' needs and expectations, programs and home visitors can try to tailor content to meet families where they are (such as by

[68] Burrell et al. 2018 [Qn]; Bower et al. 2020 [L]
[69] Bower et al. 2020 [L]
[70] Azzi-Lessing 2013 [L]; Barlow et al. 2018 [Ql]; Barton et al. 2020 [Qn]; Bower et al. 2020 [L]; Burrell et al. 2018 [Qn]; Haroz et al. 2020 [M]; Heidari et al. 2018 [Qn]; Ingoldsby 2010 [L]; West et al. 2021 [Qn]

addressing the most relevant topics first) and to reflect their values, customs (such as multigenerational child-rearing), and languages.[71]

Box 8. Strategy in focus: Supports and programs that meet families' needs and expectations

Barlow et al. (2018) offered examples of how rural and urban Tribal MIECHV Programs (funded through Tribal MIECHV or state MIECHV grants) tailored or customized programs for their communities, which were culturally distinct and historically disenfranchised.

- Programs flexibly met parents where they were in several ways: (1) responding to families' immediate needs first, such as by delivering case management early or the most relevant home visiting lessons first; and (2) not restricting visits to families' homes. To help families that lacked transportation, visitors delivered lessons while driving families to pediatric appointments or a referral agency, or while waiting with them at the destination. When homes were crowded or families experienced homelessness, visits occurred in vehicles or other private or public settings.
- Multigenerational child-rearing was the norm and programs embraced the participation of extended family members, such as grandparents, aunts, uncles, cousins, and older children. This supported the value that the wellness of the whole family is in children's interest, and honored the traditional role extended family members play in child-rearing and elders in transmitting knowledge and wisdom to the next generation.

Programs also took other steps to align services to their community values:

- Programs selected models that enabled them to hire local home visitors, who could navigate cultural and social traditions and whom families trusted.
- Programs did not limit services to families that included first-time or expectant mothers, as called for by some of the selected models. This restriction conflicted with Indigenous cultural value systems that prioritize inclusion and sharing of resources with all who can benefit.

Partnerships that support community referrals. To facilitate referrals, service coordination, and case planning, programs and home visitors developed partnerships with community organizations.[72] For example, some programs hired staff dedicated to referral coordination; in other programs, home visiting nurses worked collaboratively with their counterparts in health care systems on behalf of mutual clients.[73]

Trusting, supportive, and stable relationships. Research consistently emphasizes the importance of a positive, trusting, and supportive relationship dynamic between families and home visitors to promote retention.[74] Families described valuing home visitors who were flexible, friendly, nonjudgmental, personable, reliable, respectful, and supportive.[75] Low home visitor turnover also typically promotes retention.[76]

[71] Barlow et al. 2018 [Ql]; Baxter et al. 2022 [L]; Bhuiya 2019 [M]
[72] Azzi-Lessing 2013 [L]; Baxter et al. 2022 [L]; Kåks and Målqvist 2020 [L]
[73] Williams et al. 2021b [Ql]
[74] Bower et al. 2020 [L]; Haroz et al. 2020 [M]; Kåks and Målqvist 2020 [L]
[75] Azzi-Lessing 2013 [L]; Bower et al. 2020 [L]
[76] Bhuiya 2019 [M]; Bower et al. 2020 [L]; Ramakrishnan et al. 2022 [Qn]. Bhuiya (2019) and three studies reviewed in Bower et al. (2020) identified staff turnover as a barrier to retention, although Ramakrishnan et al. (2020) did not identify a statistically significant relationship.

Flexible scheduling. In programs that can last for extended periods, parents must continue to have the time and flexibility to maintain their participation. Giving families flexibility and control over dosage, visit time, and location tended to facilitate retention.[77]

Social connections with other families. Limited opportunities for families to socialize with each other can discourage retention.[78] Thus, to promote retention, some programs offer social activities for families.[79] Social activities may be especially helpful for families in rural areas. For example, home visitors in a rural program helped families plan and execute playdates and held two-family visits (at, for example, a playground) to support parents with fewer organic opportunities for connecting.[80]

Intentionally including fathers supports fathers' participation. Home visitor comfort with fathers and the use of father-inclusive practices promotes fathers' participation in home visits alongside mothers. Father-inclusive practices included accommodating fathers' schedules, making eye contact, and verbally inviting fathers to participate. Simple approaches like showing genuine interest in fathers also contributed to their participation. Including fathers in home visits might be easier when they live with the mother and child who are the main program enrollees, but these practices can be considered with non-resident, co-parenting fathers as well.[81]

Box 9. Successful retention strategies from behavioral economics interventions

Behavioral economics suggests that making behaviors easy, attractive, social, and timely can encourage participants to remain in a program. These strategies are from a literature review of behavioral economics interventions tested in randomized controlled trials with students ages 16 and older in the United Kingdom (Hume et al. 2018).

- **Send messages and reminders to encourage attendance.** Weekly text messages focused on mindsets, belonging, social support, and reminders resulted in increased math and English class attendance.
- **Promote support from social networks.** Students asked adults to support them throughout the school year, and the adults received texts encouraging them to ask the students about their progress, praise the students' efforts, and wish them luck before assessments. The supportive messages improved students' math and English class attendance.
- **Provide personal and buddy incentives.** Offering an incentive improved attendance among parents in an adult learning course. Parents who received an incentive for attending a portion of classes had higher attendance than those who received no incentive. Parents who received an incentive if they and their buddy attended a portion of classes had the strongest attendance.
- **Support families' grit.** An online grit intervention, which taught skills like setting specific goals, raised students' short-term math and English class attendance; however, this improvement was not maintained through the school year.

[77] Barlow et al. 2018 [Ql]; Bhuiya 2019 [M]; Bower et al. 2020 [L]; Kåks and Målqvist 2020 [L]. One study reviewed in Bower et al. (2020 [L]) found no association between program flexibility and retention, but others consistently discussed flexibility as a facilitator.
[78] Bower et al. 2022 [L]
[79] Baxter et al. 2022 [L]; Kellom et al. 2018 [Ql]
[80] Whittaker et al. 2021 [Ql]
[81] Burcher et al. 2021[L]

What are barriers to retention?

A negative home visitor–family dynamic. Families' experiences with home visiting are shaped by their sense of connection to their home visitor. Signs of a negative relationship dynamic can include a reluctance to be open with the home visitor, a poor fit, families not feeling they have enough control and flexibility in the relationship, and families perceiving home visitors as forceful or pushy.[82]

Negative program experiences. Unmet program expectations, messages that conflict with a family's culture or values, or feeling disconnected from other parents are possible barriers.[83] Experiencing discrimination, racism, or oppression from program staff or during other types of service encounters can also influence a family's willingness to stay in home visiting.[84]

Changes in family circumstances or needs. Both quantitative and qualitative reports indicate that conflicts with school or work schedules and moves out of the service area are consistent barriers to retention.[85] Over time, families may also perceive fewer benefits from the program as they become more comfortable caring for their children or find other sources of support.[86] However, a crisis might encourage families to stay in home visiting if they can.[87]

Minimal reengagement efforts. Conducting less outreach to families while they are enrolled, particularly to those who miss appointments, and unenrolling families when they miss multiple visits, contributes to program attrition.[88]

Communities with few resources. High rates of housing mobility or instability in a community were associated with lower retention.[89] Living in a community with limited access to transportation and few resources to support housing, mental health, and child care can also dampen retention.[90] (As noted in Box 8, home visitors may be able to support families that lack transportation by driving them to appointments.)

Which factors do not consistently influence retention?

Other potential motivations for support: enrollment timing, initial reasons for enrolling, parenting experience, or mother's or child's health. Retention was not clearly related to whether parents were pregnant at or after enrollment, or to their initial reasons for enrolling (which might have been based on pregnancy status or their child's age).[91] First-time parents were not more likely to be retained.[92]. Other potential reasons for needing support, such as children's health risk factors and mothers' physical or behavioral health risk factors, had inconsistent associations across many quantitative analyses.[93]

[82] Bower et al. 2020 [L]
[83] Baxter et al. 2022 [L]; Bhuiya 2019; Bower et al. 2020 [L]
[84] Azzi-Lessing 2013 [L]; Baxter et al. 2022 [L]
[85] Azzi-Lessing 2013 [L]; Baxter et al. 2022 [L]; Bhuiya 2019 [M]; Bower et al. 2020 [L]; Duggan et al. 2018 [M]; Goyal et al. 2017 [M]; Ramakrishnan et al. 2022 [Qn]; Stahlschmidt et al. 2018 [M]; Williams et al. 2021a [Ql]
[86] Bhuiya 2019 [M]; Bower et al. 2020 [L]; Williams et al. 2021a [Ql]
[87] Azzi-Lessing 2013 [L]
[88] Stahlschmidt et al. 2018 [M]
[89] Bae et al. 2019 [Qn]; Cho et al. 2018 [Qn]
[90] Bhuiya 2019 [M]; Baxter et al. 2022 [L]; Barlow et al. 2018 [Ql]
[91] Barton et al. 2020 [Qn]; Bower et al. 2020 [L]; Burrell et al. 2018 [Qn]; Duggan et al. 2018 [M]; Ramakrishnan et al. 2022 [Qn]
[92] Bae et al. 2019 [Qn]; Duggan et al. 2018 [M]
[93] Azzi-Lessing 2013 [L]; Bae et al. 2019 [Qn]; Baxter et al. 2022 [L]; Bhuiya 2019 [M]; Bower et al. 2020 [L]; Burrell et al. 2018 [Qn]; Duggan et al. 2018 [M]; Folger et al. 2016 [Qn]; Goyal et al. 2016 [Qn]; Haroz et al. 2020 [M]; McGuigan and Gassner 2016 [Qn]; Ramakrishnan et al. 2022 [Qn]

Having other sources of parenting support. Being married, in a relationship, or living with a partner were inconsistently related to retention in quantitative research.[94] Other indicators of a need for parenting support, such as experiencing isolation, distrusting others, or marital or family problems, did not exhibit a clear pattern.[95]

Mothers' demographics and socioeconomic indicators. A mother's age, race, ethnicity, English proficiency, education level, and employment and income indicators did not consistently predict retention across many quantitative analyses.[96] Housing instability, which can precede a family move and which research suggests might be a barrier to enrolling in home visiting, is not necessarily a barrier to retention.[97]

Certain indicators of neighborhood disadvantage. Although the resources available in a community might factor into retention, several quantitative markers of neighborhood disadvantage did not necessarily influence retention. Measures of community health, neighborhood violence, neighborhood income or unemployment, and neighborhood racial or ethnic makeup did not consistently relate to retention.[98]

Home visitor demographic characteristics. A home visitor's age, race, and bilingual capabilities were not associated with retention; however, research on this topic was limited.[99] In one manuscript, matching home visitors and families based on shared racial identities was described as a strategy, but results from quantitative analyses were inconsistent.[100]

Home visitor education, experience, and support. Manuscripts examined a variety of home visitor experiences and skills, and no clear pattern emerged. Studies conflicted on whether a home visitor's education level, prior experience, tenure, and commitment to or satisfaction with the job relate to retention. Professional skills measured differently had different results. For example, the ability to identify family needs and develop a case plan were facilitators in one analysis, but the ability to handle challenging cases was not associated with retention in another. Home visitors benefit from high-quality supervision or support, but the amount of support or supervision needed for retention is not clear from the research.[101]

Fathers' characteristics and father participation. A father's race, ethnicity, education level, mental health, and history of domestic violence did not consistently factor into their participation; neither did having a male home visitor or one with similar demographics. In addition, fathers' participation did not consistently influence mothers' retention.[102]

[94] Bae et al. 2019 [Qn]; Barton et al. 2020 [Qn]; Bhuiya 2019 [M]; Bower et al. 2020 [L]; Duggan et al. 2018 [M]; Heidari et al. 2018 [Qn]; Ramakrishnan et al. 2022 [Qn]
[95] Baxter et al. 2022 [L]; Bower et al. 2020 [L]; Duggan et al. 2018 [M]; McGuigan and Gassner 2016 [Qn]
[96] Bae et al. 2019 [Qn]; Barton et al. 2020 [Qn]; Baxter et al. 2022 [L]; Burrell et al. 2018 [Qn]; Bhuiya 2019 [M]; Bower et al. 2020 [L]; Cho et al. 2018 [Qn]; Duggan et al. 2018 [M]; Folger et al. 2016 [Qn]; Goyal et al. 2016 [Qn]; Heidari et al. 2018 [Qn]; McGuigan and Gassner 2018 [Qn]; Ramakrishnan et al. 2022 [Qn]
[97] Bae et al. 2019 [Qn]; Baxter et al. 2022 [L]; McGuigan and Gassner 2016 [Qn]
[98] Bower et al. 2020 [L]; Cho et al. 2018 [Qn]; Duggan et al. 2018 [M]; McGuigan and Gassner 2016 [Qn]
[99] Barton et al. 2020 [Qn]; McGuigan and Gassner 2016 [Qn]
[100] Azzi-Lessing 2013 [L]; Bower et al. 2020 [L]; Kåks and Målqvist 2020 [L]
[101] Azzi-Lessing 2013 [L]; Barton et al. 2020 [Qn]; Bower et al. 2020 [L]; Duggan et al. 2018 [M]; McGuigan and Gassner 2016 [Qn]
[102] Bower et al. 2020 [L]; Burcher et al. 2021 [L]

Home visiting program model and length of home visits. The type of home visiting model was not consistently associated with retention,[103] and length of home visits (which a model might prescribe) was not associated with retention.[104]

Ancillary incentives. The research explored different incentives, and no overall pattern emerged. Mothers interviewed in one study appreciated small gifts, such as children's books or self-care items, and some home visitors in another study gave families diapers to encourage retention. However, monetary incentives were not associated with retention, suggesting a lack of clarity on whether incentives are a best practice.[105]

Certain organizational features. Several features were examined in a single manuscript each, and they were not found to relate to retention. These included staff training in continuous quality improvement, staff recruitment challenges, program age, organizational culture, and caseload size. However, programs with processes that are relatively more centralized (such as home visitors needing more permissions) and formalized (for example, home visitors routinely following the same steps) were more likely to have high program dosage in another manuscript.[106]

[103] Bae et al. 2019 [Qn]; Duggan et al. 2018 [M]
[104] Bower et al. 2020 [L]
[105] Bower et al. 2020 [L]; Goyal et al. 2017 [M]
[106] Bae et al. 2019 [Qn]; Bower et al. 2020 [L]; Duggan et al. 2018 [M]; Ramakrishnan et al. 2022 [Qn]

Takeaways: What influences retention?

Families might stay in home visiting when:

- The program meets their expectations and needs through referrals and linkages to needed services; content is tailored or relevant to their goals and culture
- Programs offer flexibility on dosage or location
- They have a trusting, supportive relationship with their home visitor
- They can build social connections with other families
- Home visitors' intentions for including fathers supports fathers' participation

Families might leave home visiting when:

- They have a negative dynamic with a home visitor, experience discrimination, or their expectations are not met
- Their circumstances change (for example, they move away or have work or school conflicts) or their need for support decreases over time

Well-researched topics:

- The association between mothers' demographic and socioeconomic characteristics and retention; the research suggests that these characteristics alone do not consistently predict retention in home visiting

Topics that would benefit from further research:

- Strategies that support facilitators and reduce barriers, including how best to:
  - Offer families flexibility and reengage them if they miss visits
  - Tailor content to families' needs and goals
  - Match families and home visitors, and sustain a positive dynamic
  - Strengthen or sustain partnerships to support referrals and service coordination; and identify the program and home visitor's role in facilitating coordination
- Factors that distinguish between families that disengage from home visiting because their needs have been met or are better met elsewhere and those that disengage because they are dissatisfied with the program

V. Factors and strategies for supporting active participation

Only four manuscripts discussed active participation, and they tended to measure parent engagement or service quality aspects. One study tested an approach for encouraging parents to use learned skills outside home visits. Overall, the research revealed a lack of attention to and consistency in studying this stage of engagement.

Box 10. Characteristics of 4 manuscripts with findings on active participation

Fields: All 4 from home visiting

Study designs: 2 quantitative (1 randomized controlled trial, 1 descriptive); 2 literature reviews

Sample sizes:

- Quantitative sample sizes were 91 home visits and 127 families, respectively.
- 1 literature review included 25 qualitative, quantitative, and mixed methods manuscripts; the other did not report this information.

Concepts studied: Parent participation and use of new skills during home visiting; parent engagement; quality of or satisfaction with the program

What facilitates active participation?

Programs that meet families' needs and support their goals. When visits focused on child development, prenatal health, or parenting topics, parents' program satisfaction or perception of home visiting quality was higher.[107] The quality of active participation (measured as the quality of parent-child interactions, parent engagement, and child engagement as assessed by a trained observer) was also higher when parents and home visitors spent more time on activities involving the parent, child, and home visitor together (instead of parent-child activities the home visitor observed) and child- or parenting-focused content (including child development, health, or safety), and less time on administrative activities (such as scheduling).[108]

Similarities between home visitors and families, and home visitors' cultural competence. Having home visitors with similar personalities or life experiences as the families they visit can support a positive relationship dynamic and parents' overall program experience.[109] Home visitors with higher cultural competence ratings also had higher satisfaction ratings from families in one quantitative analysis.[110]

[107] Bower et al. 2020 [L]
[108] Hughes-Belding et al. 2019 [Qn]
[109] Azzi-Lessing 2013 [L]
[110] Bower et al. 2020 [L]

Box 11. Successful active participation strategies from behavioral economics interventions

Behavioral economics suggests that a parent's decision making is influenced by their context; for instance, stress (from living in poverty, for example) limits the ability to focus on or digest information and to act on goals. These strategies come from a literature review of behavioral economics interventions tested in randomized controlled trials of parenting interventions (Gennetian 2021).

- **Include personalization, activity planners, reminders, and commitment reinforcement to encourage families to participate in activities with their children.** Receiving personalized invitations, child-friendly activity planners, text reminders, and encouragement to attend events led parents in a school readiness intervention to spend more time with their children on educational activities outside the classroom.
- **Use reminders and goal setting to strengthen families' participation in educational activities with their children.** Providing parents with tablets containing digital libraries and supporting them with reminders and goal setting increased the time parents spent reading to their children.

What are barriers to active participation?

Mothers' depressive symptoms and relationship insecurity. Mothers experiencing severe depressive symptoms and relationship insecurity (which includes anxiety that others will not be available and difficulty depending on or trusting others) rated home visitors lower on trust and quality of education.[111]

Which factors do not consistently influence active participation?

Texting families with information, encouragement, or suggestions. In an evaluation of a text message intervention, home visitors texted at least three messages per week to mothers randomly assigned to a treatment group. The messages included language-promotion strategies parents could use with their infants or toddlers during their daily routines, information on topics discussed, encouragement, or suggestions for family activities. The intervention did not significantly raise parents' active participation or their overall use of language-promotion strategies.[112] However, among some parents, it showed promise for supporting active participation. Among parents in the treatment group, those with more education and income used significantly more strategies; parents of children with an identified disability or delay before age 3 used significantly fewer strategies. Parents who received more texts from the home visitor had significantly higher active participation. Overall, parents felt that the texts helped them stay in contact with their home visitor, and most home visitors valued sending them.[113]

Program flexibility. Tailoring the number and frequency of home visits was one strategy for meeting families' needs.[114] However, one quantitative analysis found that participants, identified as African American, American Indian, or Latino/a, who received a more manualized program that was relatively

[111] Bower et al. 2020 [L]. The analysis cited in Bower et al. (2020) used the Attachment Style Questionnaire to measure general (rather than romantic) attachment security. Parents rated the extent to which they agreed or disagreed with statements about two dimensions of relationship insecurity: relationship anxiety (also called attachment anxiety) and discomfort with trust (also called attachment avoidance).
[112] Home visitors and parents rated dimensions of what the study referred to as parent engagement. Areas evaluated included how much the parent participated in discussion, practiced new skills during the session, and showed mastery of strategies; how easy or difficult it was for the home visitor to engage the parent in the session; whether the parent completed "homework;" and whether they used new information or strategies outside the visit.
[113] Bigelow et al. 2020 [Qn]
[114] Azzi-Lessing 2013 [L]

prescriptive and inflexible gave home visitors higher ratings on cultural competence. This suggests the need for more research on who benefits from tailored services and how to tailor services while maintaining consistent procedures.[115] (Such research would complement work underway through precision home visiting efforts, which seek to understand what aspects of home visiting work for which families and in which circumstances.[116])

Takeaways: What influences active participation?

Families might actively participate in home visiting when:

- Program content addresses their needs or goals
- Home visits prioritize discussions on child development or parenting, and activities involving the parent, child, and home visitor together; and less time spent on administrative activities
- Home visitors and families have similar personalities or lived experiences; home visitors are culturally competent

Families might not actively participate in home visiting when:

- They are experiencing both depressive symptoms and relationship insecurity, which can potentially hinder efforts to build trust with home visitors

Topics that would benefit from further research:

- Very little research has been conducted on active participation, and much is unknown. To start, more research is needed, using a consistent definition of *active participation*, on the facilitators of and barriers to active participation at all levels of influence.
- Strategies to support retention—such as flexibility and efforts to reengage families—could also be examined for their influence on active participation.
- Strategies that encourage families to practice skills between visits or utilize community resources that home visitors recommend; for example, supportive text messages or collaboration with community providers.
- The best ways to offer families flexibility within funder and model guidelines and equip home visitors to confidently and consistently tailor services to families' needs; this would complement work underway through precision home visiting efforts.

[115] Bower et al. 2020 [L]
[116] For instance, see Home Visiting Research Collaborative, available at https://www.hvresearch.org/precision-home-visiting/.

VI. Summary

Defining family engagement in the home visiting context

The home visiting field's language for and conceptualization of family engagement has evolved over time. Much of the research literature in this synthesis discusses engagement as synonymous with attending home visits. More recently, the meaning of engagement has been expanded to include families' feelings about the quality of home visitor interactions and services received[117] or the process of building positive, goal-oriented relationships between home visitors and families.[118]

Because engagement was used differently in different manuscripts, we developed a definition to serve the project goals. We learned from interviews conducted with program staff for another project activity that, ideally, work to engage families begins with outreach and recruitment; that is, engagement *precedes* enrollment. Based on this understanding and other conceptual literature, we defined family engagement as occurring at all points at which home visiting programs and families interact; interactions begin at outreach and recruitment and, for families that enroll, extend to retention and active participation.

Synopsis and topics that would benefit from further research

Which factors support family engagement in home visiting?

Based on the research reviewed, the following factors support family engagement in home visiting. Most of the findings involve descriptive evidence and are often based on limited research (for example, one to two studies).[119]

- **Relevant program content and support**. Families enroll and stay in home visiting when they think the programs are beneficial and can meet their expectations and ongoing need for support or information. One finding, based on a limited number of studies, suggests families might be especially interested in home visiting if it includes community referrals and information on parenting, child development, healthy pregnancies, and mental health. Families might prefer activities that involve the parent, child, and home visitor all together or offer discussions about family members' functioning or needs. They may especially prefer content tailored to their needs, goals, language, and culture that is still formalized and consistent across home visitors. Families may need assessments and referrals right away, possibly requiring infrastructure in the program, community, or other service systems capable of connecting families to the supports and services they need to thrive—for example, to address mental health, substance use, child behavior concerns, housing, or other needs. Finally, feeling connected to similarly situated families and the program at large may also be important to families.
- **A positive dynamic between home visitors and families**. A relationship with a home visitor that is trusting, supportive, and stable—that begins during outreach and persists over time—can facilitate recruitment, retention, and active participation. Home visitors play a key role in family engagement; thus, studies have examined their characteristics. This research suggests families respond positively to

[117] Bower et al. 2020; Korfmacher et al. 2008.
[118] National Center on Parent, Family, and Community Engagement 2018.
[119] Much existing research has examined statistical associations between mothers' characteristics (such as race, ethnicity, age, education, income, and health) and whether and for how long they attend home visits. According to findings across studies, most of these characteristics do not consistently facilitate or hinder families' engagement. This may be, in part, because several characteristics were examined apart from other factors and in multiple studies (with varied home visiting interventions, participant samples, and contexts), whereas findings on some facilitators are based on only one or two studies.

home visitors with favorable qualities, such as being flexible, nonjudgmental, personable, reliable, supportive, and respectful. The family-home visitor relationship may also be strengthened, at least initially, if both parties share a racial or ethnic background (especially for American Indian and Alaska Native families). However, it is unclear if racial and ethnic similarity matter as much as other factors.[120] For example, similar personalities and life experiences might also help, whereas families may be deterred if they lack control and flexibility in the relationship or view the home visitor as forceful or pushy. Other qualities (such as perspective taking and empathy) did not show the expected statistical association when studied quantitatively. The same is true for home visitors' experience, tenure, or education, although this research is more limited. Overall, we conclude that the dynamic between the home visitor and family is key for supporting family engagement.

- **Flexibility**. Enrollment and retention are more likely when families have time or flexibility in their schedules to accommodate visits, especially if visits are frequent or occur over extended periods. Conversely, families may have work, school, or other demands on their time that keep them from enrolling. For instance, stressors such as housing instability might occupy a family's attention. Family schedules, priorities, and residences can also change over time, resulting in new conflicts that present barriers to participation in home visiting.

What can home visiting programs and home visitors do to promote engagement?

- **Strengthen outreach and recruitment**. To build outreach and recruitment capacity, some of the literature suggests that programs and home visitors build relationships with varied referral partners in the community and develop smooth referral processes with these partners. Programs can also work with families to help spread the word about home visiting in their social networks. This can bolster a positive reputation in the community and help ensure that families throughout the catchment area—including neighborhoods with limited access to transportation or health and social services—learn about home visiting. Research also highlights the importance of disseminating clear, complete program information; having clear and simple enrollment processes; and ensuring that information is linguistically and culturally accessible to all families. Families that are unaware of the program and its benefits or experience burdensome application and enrollment processes may choose not to enroll.
- **Explore opportunities to offer flexible scheduling, content, and activities to prioritize families' needs and goals**. Flexibility around visit frequency and appointment times, along with a willingness to meet families in places other than their homes, when possible within home visiting model and program guidelines, might support recruitment and retention. Programs and home visitors could tailor content by prioritizing information, instruction, or activities that families most want or need. They might also create opportunities for families to socialize with each other, helping them establish and cultivate social connections.
- **Support a favorable match**. Programs can support a positive dynamic and a good match between home visitors and families. As noted, favorable interpersonal qualities and, potentially, similar personalities or experiences may support a positive dynamic more than other factors. The research examined for this synthesis did not, however, focus on strategies for matching families and home visitors (refer to directions for future research).

[120] Two manuscripts examining the association between racial similarity and retention had conflicting results (Bower et al. 2020 [L]; Azzi-Lessing 2013 [L]).

How do factors at the family, home visitor, program, community, and systems levels interact?

Research points to factors at each level that influence family engagement; however, qualitative studies indicate that interactions between levels are complex and nuanced. Initially, we tried to distinguish the facilitators and barriers unique to each level and those that operate across levels, but we found the levels were highly integrated. For example, programs work within the services that are available in their community when building partnerships to support outreach and recruitment or referring families to other needed supports. As another example, the characteristics of families enrolled in home visiting are partly shaped by program model and/or funder guidance. A family's relationship with the home visitor and perception of program content help shape their home visiting experience. The topics we propose as directions for future research further underscore the importance of these interactions.

Directions for future research

This synthesis highlights many topics that would benefit from further research. Although less is known about active participation and systems-level influences, the literature we found underscores the need for more research on the interrelationships between levels—for example, on the ways programs and home visitors work within communities and systems to reach and recruit families, and on approaches for pairing home visitors and families with similar personalities and lived experiences. Ideally, future family engagement research will continue to study the roles of programs, communities, and systems. Generally, rigorous designs will help when testing the impacts of engagement strategies.

Incorporating family voices will benefit future research on any topic, starting with asking families for their input on the research topics that resonate most with them and including families in the research process. Incorporating principles of culturally responsive and equitable evaluation or community-based participatory research such as these and others into future engagement research is ideal for understanding home visiting equity and perspectives of diverse families. To date, much research on engagement has used quantitative methods to examine the association between maternal characteristics and home visiting attendance; we have less insight into the program from a family's perspective. This synthesis also draws on (and gives equal weight to) qualitative research, some of which includes firsthand family accounts about their program experiences and reasons for enrolling. More qualitative (or mixed methods) approaches that ask families about their experiences and motivations, while using an equitable evaluation approach, are key to understanding their engagement.[121]

Topics that would benefit from further research

1. **Families' reasons for enrollment.** This synthesis suggests that families enroll in home visiting when they expect it to offer needed information or support. However, research on the topics and supports of most interest to families is limited, and quantitative analyses of factors that might be linked to families' reasons for enrolling (such as maternal depression or infant birth weight) have not been conclusive. It is also unclear whether the availability of informal sources of support (such as extended family members) influences enrollment. Generally, discussions about how families evaluate home visiting compared to alternative sources of support (such as from clinics or schools) did not come up.

[121] This conclusion echoes that of McCurdy and Daro (2001): "Engagement studies will need to move beyond the easily captured variables such as age, race, gender, training, worker experience, and caseload toward a more qualitative understanding of the reasons participants seek help, the perceptions held about the help they are getting, the strategies workers use to form relationships with participants, and the 'help seeking values' of the participants and the communities in which they live. To gain this knowledge will require a greater emphasis on qualitative data than has been the case to date."

Qualitative *and* quantitative research that investigates parents' reasons for enrolling in home visiting could help understand families' stated and revealed preferences for home visiting.

2. **Program flexibility and tailoring.** Flexibility has emerged as an important topic in precision home visiting.[122] Questions for future research might include the following: How much flexibility should program models give programs and families on frequency, duration, or location of visits? How can program models and programs prioritize topics, lessons, or activities that interest families and inspire retention and active participation without sacrificing fidelity or consistency? Who is responsible for tailoring programs (model developers, program leaders, or home visitors), and what supports do home visitors need? Research on family engagement in virtual home visiting, which gained momentum when the COVID-19 pandemic began in 2020, might explore the extent to which programs have continued to offer virtual home visits as an option to promote flexibility, and the benefits and trade-offs of virtual home visiting for engagement. Future research should also consider how measures of attrition can capture pathways out of home visiting as positive or neutral (for example, when families feel ready to move on or graduate from home visiting or they need more intensive or specialized services).
3. **Matching home visitors and families.** The engagement research we examined does not clearly indicate the best approaches for matching families and home visitors. In tribal communities, for example, home visitors who represent the community and the American Indian and Alaska Native families served might be important; but other studies on matching families and home visitors based on racial identities had conflicting results. Similar life experiences and personalities might be more important for some families. Future research can examine which factors matter in the home visitor–family relationship and strategies programs can use for matching. Future literature reviews can examine these questions to the extent existing research is available.
4. **Partnerships that support referrals to and from home visiting.** Research suggests that partnerships between home visiting programs and other providers can facilitate outreach, recruitment, and retention. However, engagement research has only begun to document strategies for building these interagency collaborations and ensuring they run smoothly. For example, we know little about the benefits and considerations of centralized intake processes. Programs could benefit from guidance on data sharing for referred families and information on the costs or resources involved in building and maintaining strong partnerships.
5. **Outreach limitations and the consequences for equitable access to home visiting.** An important question for administrators is whether home visiting is systematically not serving certain families. Yet little research investigates outreach factors and strategies, and the research does not tend to consider the multifaceted influences on outreach and access (for example, the influences of model and funder eligibility criteria, program model, and catchment area). Questions for further research include the following: Do common outreach and referral pathways or messages systematically exclude any families that might benefit from home visiting? For example, if Head Start or public preschools are a main referral pathway, how can programs reach families that use home-based care or no outside child care? If obstetricians or health clinics are a main referral pathway, how do programs reach families that are not well connected to health care systems? In addition to messaging that is clear and available in the primary languages of the community, does the message content resonate with families from the various races, ethnicities, cultures, and life experiences within the community? Firsthand accounts from families that are eligible for but unaware of or uninterested in home visiting will be useful.

[122] The Home Visiting Research Collaborative defines precision home visiting as "home visiting that differentiates what works, for whom, and in what contexts to achieve specific outcomes." Available at https://www.hvresearch.org/precision-home-visiting/.

6. **Practices and policies for reengaging families that miss scheduled visits.** The manuscripts in this synthesis did not include much discussion about strategies that facilitate reengagement after families miss appointments. Practices such as sending appointment reminders and allowing families to take breaks while remaining officially enrolled occur, but their trade-offs and effect on retention are not well studied. For example, do home visitors assess why families miss visits or are disengaged? Do the families allowed to stay enrolled despite not attending eventually return? Which reengagement approaches are effective? Ideas rooted in behavioral economics and tested rigorously could be developed and tested for home visiting.
7. **Funder and program model requirements.** Funders and program models touch every stage of engagement, yet they generally are not discussed in family engagement research. For example, funders (including MIECHV) influence which families programs focus on, the program model selected, the desired outcomes for families, and the performance measures to collect and report. Future research should incorporate the varied influences of funders and program models when studying family engagement, including ways they inform program outreach, enrollment, and retention policies and practices.

Bibliography

Research manuscripts included in the review

Azzi-Lessing, L. "Serving Highly Vulnerable Families in Home-Visitation Programs." *Infant Mental Health Journal,* vol. 34, no. 5, 2013, pp. 376–30.

Bae, D., J. Cho, D. Terris, R. Glisson, A. Brown, and T. Nelson. "Multilevel Interaction Effects of Family and Community Factors on Mothers' Engagement in Evidence-Based Home Visiting." *Family & Community Health,* vol. 42, no. 3, 2019, pp. 203–212.

Barlow, A., J. McDaniel, F. Marfani, A. Lowe, C. Keplinger, M. Beltangady, and N. Goklish. "Discovering Frugal Innovations Through Delivering Early Childhood Home-Visiting Interventions in Low-Resource Tribal Communities." *Infant Mental Health Journal,* vol. 39, no. 3, 2018, pp. 276–286.

Barton, J., P.N. Jimenez, J. Biggs, T.A. Garstka, and T.C. Ball. "Strengthening Family Retention and Relationships in Home Visiting Programs Through Early Screening and Assessment Practices." *Children and Youth Services Review,* vol. 118, 2020.

Baxter, C., N. Aikens, L. Tarullo, C. Ayoub, J. Roberts, C. Mondi-Rago, and M. Ilderton Gaither. "Recruitment, Selection, Enrollment, and Retention Strategies with Head Start-Eligible Families Experiencing Adversity." Washington, DC: Mathematica, May 2022.

Bhuiya, N.S. "Characterizing Family Engagement in Rhode Island's Home Visiting Programs." Doctoral dissertation, Harvard University, 2019.

Bigelow, K., D. Walker, F. Jia, D. Irvin, and A. Turcotte. "Text Messaging as an Enhancement to Home Visiting: Building Parents' Capacity to Improve Child Language-Learning Environments." *Early Childhood Research Quarterly,* vol. 51, 2nd Quarter, 2020, pp. 416–429.

Bower, K., M. Nimer, A. West, and D. Gross. "Parent Involvement in Maternal, Infant, and Early Childhood Home Visiting Programs: An Integrative Review." *Prevention Science*, vol. 21, no. 5, 2020, pp. 728–747.

Brind'Amour, K. "Maternal and Child Health Home Visiting Evaluations Using Large, Pre-Existing Data Sets." Doctoral dissertation, Ohio State University, 2016. Available at http://rave.ohiolink.edu/etdc/view?acc_num=osu1468965739. Accessed March 17, 2022.

Burcher, S., L. Corey, K. Mentzer, L. Davis, H. McNamee, M. Horning, S. Brown, et al. "Family Home Visiting and Fathers: A Scoping Review." *Children and Youth Services Review,* vol. 128, 2021.

Burrell, L., S. Crowne, K. Ojo, R. Snead, K. O'Neill, F. Cluxton-Keller, and A. Duggan. "Mother and Home Visitor Emotional Well-Being and Alignment on Goals for Home Visiting as Factors for Program Engagement." *Maternal and Child Health Journal,* vol. 22, no. 1, 2018, pp. 43–51.

Cho, J., D. Bae, D. Terris, R. Glisson, and A. Brown. "Community Contextual Effects on At-Risk Mothers' Engagement in Georgia's Maternal, Infant, and Early Childhood Home Visiting Programme." *Child & Family Social Work,* vol. 23. no. 4, 2018, pp. 590–598.

Duggan, A., X.A. Portilla, J.H. Filene, S.S. Crowne, C.J. Hill, H. Lee, and V. Knox. "Implementation of Evidence-Based Early Childhood Home Visiting: Results from the Mother and Infant Home Visiting Program Evaluation." OPRE Report #2018-76A. Washington, DC: U.S. Department of Health and Human Services, Administration for Children and Families, Office of Planning, Research, and Evaluation, 2018.

Folger, A., A. Brentley, N. Goyal, E. Hall, T. Sa, J. Peugh, A. Teeters, et al. "Evaluation of a Community-Based Approach to Strengthen Retention in Early Childhood Home Visiting." *Prevention Science,* vol. 17, no. 1, 2016, pp. 52–61.

Gennetian, L. "How a Behavioral Economic Framework Can Support Scaling of Early Childhood Interventions." In *The Scale-Up Effect in Early Childhood and Public Policy*, edited by John List, Dana Suskind, and Lauren Suplee. Taylor & Francis, 2021.

Gopalan, M., and M.A. Pirog. "Applying Behavioral Insights in Policy Analysis: Recent Trends in the United States." *Policy Studies Journal*, vol. 45, no. S1, 2017, pp. S82–S114.

Goyal, N., A.T. Folger, E.S. Hall, A. Teeters, J.B. Van Ginkel, and R.T. Ammerman. "Multilevel Assessment of Prenatal Engagement in Home Visiting.' *Journal of Epidemiology and Community Health,* vol. 70, no. 9, 2016, pp. 888–94.

Goyal, N., M.G. Rome, J.A. Massie, C. Mangeot, R.T. Ammerman, J. Breckenridge, and C.M. Lannon. "Piloting a Statewide Home Visiting Quality Improvement Learning Collaborative." *Maternal and Child Health Journal,* vol. 21, no. 2, 2017, pp. 275–282.

Haroz, E., A. Ingalls, J. Wadlin, C. Kee, M. Begay, N. Neault, and A. Barlow. "Utilizing Broad-Based Partnerships to Design a Precision Approach to Implementing Evidence-Based Home Visiting." *Journal of Community Psychology,* vol. 48, no. 4, 2020, pp. 1100–1113.

Heidari, Z., T.D. Gissandaner, and J.F. Silovsky. "Differences in Recruiting and Engaging Rural and Urban Families in Home-Based Parenting Programs." *Journal of Rural Mental Health,* vol. 42, no. 2, 2018, pp. 133–144.

Holm-Hansen, C., D. Thomsen, and S. Mom. "Home Visiting Referral Process: Highlights From a Qualitative Exploration of Parent Retention and Engagement in Early Childhood Home Visiting." Wilder Research. St. Paul, MN: Amherst Wilder Foundation, 2017.

Houle, A.A., T. Besnard, and A. Bérubé. "Factors that Influence Parent Recruitment into Prevention Programs in Early Childhood: A Mixed Studies Systematic Review." *Children and Youth Services Review*, Volume 133, 2022.

Hughes-Belding, K., C. A. Peterson, M. Clucas Walter, N. Rowe, L. Fan, L. J. Dooley, C. Steffensmeier, W. Wang, J. Bao, and K. Goodman. "Quality Home Visits: Activities to Promote Meaningful Interactions." *Infant Mental Health Journal,* vol. 40, no. 3, 2019, pp. 331–342.

Hume, S., F. O'Reilly, B. Groot, E. Kozman, J. Barnes, X. Soon, R. Chande, et al. "Retention and Success in Maths and English: A Practitioner Guide to Applying Behavioural Insights." London: The Behavioral Insights Team, 2018.

Ingoldsby, E.M. "Review of Interventions to Improve Family Engagement and Retention in Parent and Child Mental Health Programs." *Journal of Child and Family Studies*, vol. 19, no. 5, 2010, pp. 629–645.

Kåks, P., and M. Målqvist. "Peer Support for Disadvantaged Parents: A Narrative Review of Strategies Used in Home Visiting Health Interventions in High-Income Countries." *BMC Health Services Research,* vol. 20, no. 1, 2020, pp. 1–15.

Kellom, K., M. Matone, A. Adejare, F.K. Barg, D.M. Rubin, and P.F. Cronholm. "A Qualitative Exploration of Co-Location as an Intervention to Strengthen Home Visiting Implementation in Addressing Maternal Child Health." *Maternal and Child Health Journal*, vol. 22, no. 6, 2018, pp. 883–892.

Korfmacher, J., B. Green, F. Staerkel, C. Peterson, G. Cook, L. Roggman, R.A. Faldowski, and R. Schiffman. "Parent Involvement in Early Childhood Home Visiting." *Child & Youth Care Forum*, vol. 37, no. 4, 2008, pp. 171–196.

McCurdy, K., and D. Daro. "Parent Involvement in Family Support Programs: An Integrated Theory." *Family Relations*, vol. 50, no. 2, 2001, pp. 113–121.

McGuigan, W.M., and B. Gassner. "Engagement and Retention in Home Visiting Child Abuse Prevention Programs." In *Home Visitation Programs: Preventing Violence and Promoting Healthy Early Child Development*, edited by Lori Roggman and Nancy Cardia. Springer International, 2016.

Owora, A.H., J.F. Silovsky, L.O. Beasley, P. DeMoraes-Huffine, and I. Cruz. "Lessons Learned From Adaptation and Evaluation of Home Visitation Services for Latino Communities." *International Public Health Journal,* vol. 4, no. 3, 2013, pp. 303–313.

Piotrowska, P.J., L.A. Tully, R. Lenroot, E. Kimonis, D. Hawes, C. Moul, P.J. Frick, et al. "Mothers, Fathers, and Parental Systems: A Conceptual Model of Parental Engagement in Programmes for Child Mental Health—Connect, Attend, Participate, Enact (CAPE)." *Clinical Child and Family Psychology Review*, vol. 20, no. 2, 2017, pp. 146–161.

Raffo, J.E., C. Titcombe, S. Henning, C.I. Meghea, K.L. Strutz, and L.A. Roman. "Clinical-Community Linkages: The Impact of Standard Care Processes that Engage Medicaid-Eligible Pregnant Women in Home Visiting." *Women's Health Issues*, vol. 31, no. 6, 2021, pp. 532–539.

Ramakrishnan, R., V. Holland, N. Agu, C. Brady, and J. Marshall. "Characteristics Associated with Participant Attrition and Retention in a Perinatal Home Visiting Program." *Prevention Science*, vol. 23, no. 6, 2022, pp. 1007–1017.

Richburg-Hayes, L., C. Anzelone, N. Dechausay, and P. Landers. "Nudging Change in Human Services: Final Report of the Behavioral Interventions to Advance Self-Sufficiency (BIAS) Project." OPRE Report #23. Washington, DC: U.S. Department of Health and Human Services, Administration for Children and Families, Office of Planning, Research, and Evaluation, 2017.

Sandstrom, H., and E. Lauderback. "Father Engagement in Home Visiting: Benefits, Challenges, and Promising Strategies." National Home Visiting Resource Center, Research Snapshot Brief. Arlington, VA: James Bell Associates and Urban Institute, 2019.

Stahlschmidt, M.J., M. Jonson-Reid, L. Pons, J. Constantino, P.L. Kohl, B. Drake, and W. Auslander. "Trying to Bridge the Worlds of Home Visitation and Child Welfare: Lessons Learned from a Formative Evaluation." *Evaluation and Program Planning,* vol. 66, 2018, pp. 133–140.

Stetler, K., C. Silva, S.E. Manning, E.M. Harvey, E. Posner, B. Walmer, K. Downs, et al. "Lessons Learned: Implementation of Pilot Universal Postpartum Nurse Home Visiting Program, Massachusetts 2013–2016." *Maternal Child Health Journal*, vol. 22, no. 1, 2018.

West, A., A. Duggan, K. Gruss, and C. Minkovitz. "Service Coordination to Address Maternal Mental Health, Partner Violence, and Substance Use: Findings from a National Survey of Home Visiting Programs." *Prevention Science*, vol. 22, no. 5, 2021, pp. 633–644.

Whittaker, J., K. Kellom, M. Matone, and P. Cronholm. "A Community Capitals Framework for Identifying Rural Adaptation in Maternal-Child Home Visiting." *Journal of Public Health Management and Practice,* vol. 27, no. 1, 2021, pp. E28–E36.

Williams, V.N., C.Y. Franco, C.C. Lopez, M.A. Allison, D.L. Olds, and G.J. Tung. "A Qualitative Study of Mothers' Perspectives on Enrolling and Engaging in an Evidence-Based Nurse Home Visiting Program." *Prevention Science*, vol. 22, no. 7, 2021a, pp. 845–855.

Williams, V.N., B.M. McManus, A. Brooks-Russell, E. Yost, M.A. Allison, D.L. Olds, and G.J. Tung. "A Qualitative Study of Effective Collaboration Among Nurse Home Visitors, Healthcare Providers and Community Support Services in the United States." *Health & Social Care in the Community*, vol. 30, no. 5, 2021b, pp. 1881–1893.

Wolfe Turner, M., A. Cabello-De la Garza, A. Kazouh, A.J. Zolotor, J.B. Klika, C. Wolfe, and P. Lanier. "Intention to Engage in Maternal and Child Health Home Visiting." *Social Work in Public Health*, vol. 35, no. 4, 2020, pp. 197–212.

Other references

Administration for Children and Families (ACF), Children's Bureau. "State Requirements for Electing Title IV-E Prevention and Family Services and Programs." Washington, DC: U.S. Department of Health and Human Services, Administration for Children and Families, July 2021. Available at PI-18-09 | The Administration for Children and Families (hhs.gov).

Health Resources and Services Administration (HRSA). "The Maternal, Infant, and Early Childhood Home Visiting Program." Washington, DC: U.S. Department of Health and Human Services, Health Resources and Services Administration, Administration for Children and Families, September 2022. Available at https://mchb.hrsa.gov/sites/default/files/mchb/about-us/program-brief.pdf.

Korfmacher, J., P. Molloy, and M. Frese. "'But It's Not the Same.' What Happens in Virtual Home Visits?" Research Brief. Chicago, IL: Erikson Institute and the Home Visiting Applied Research Collaborative, October 2021a.

Korfmacher, J., P. Molloy, and M. Frese. "Virtually the Same? Virtual Home Visits in Response to COVID-19." Research Brief. Chicago, IL: Erikson Institute and the Home Visiting Applied Research Collaborative, October 2021b.

McCombs-Thornton, K., M. Poes, E. Morehouse, and D. Bragato. "Family Engagement and Health Equity: Current Approaches and Future Directions." U.S. Department of Health and Human Services. Health Resources and Services Administration, Washington, DC: James Bell Associates, October 2021 (unpublished).

National Center on Parent, Family, and Community Engagement. "Head Start Parent, Family, and Community Engagement Framework." Washington, DC: U.S. Department of Health and Human Services, Administration for Children and Families, Office of Head Start, National Center on Parent, Family, and Community Engagement, 2018. Available at https://eclkc.ohs.acf.hhs.gov/sites/default/files/pdf/pfce-framework.pdf.

National Home Visiting Resource Center (NHVRC). "2022 Home Visiting Yearbook." Washington, DC: James Bell Associates and the Urban Institute, 2022.

Social Security Administration (SSA). "Maternal, Infant, and Early Childhood Home Visiting Programs." Section 511, 42 U.S.C. 711.Washington, DC: Social Security Administration, n.d. Available at https://www.ssa.gov/OP_Home/ssact/title05/0511.htm.

Sparr, M., and K. Ryan. "A Study Design Exploring Virtual Service Delivery in Home Visiting." U.S. Department of Health and Human Services, Health Resources and Services Administration; n.d. Available at https://mchb.hrsa.gov/sites/default/files/mchb/programs-impact/report-virtual-service-delivery.pdf.

Zaid, S., K. McCombs-Thornton, K. Faucetta, L. Childress, P. Cachat, and J. Filene. "Family Level Assessment and State of Home Visiting Outreach and Recruitment Study Report." OPRE Report #2022-110. U.S. Department of Health and Human Services, Administration for Children and Families, Office of Planning, Research, and Evaluation, July 2022.

Appendix A: Methodology

This appendix describes the methodology that the project team used to search for literature, screen references and prioritize ones for review, and review manuscripts that screened in. It also lists all manuscripts included in this synthesis.

Searching for literature

Home visiting literature. We conducted a systematic search for peer-reviewed manuscripts (including literature reviews, meta-analyses, and individual studies) and gray literature (such as reports, briefs, or white papers) conducted in the past 10 years (from 2011 through 2021).

- To find peer-reviewed literature, we used relevant social science databases and a set of keyword terms (Table A.1).
- To find gray literature, we conducted a customized Google search of relevant research organizations, national advocacy groups, foundations, and government agencies with high-quality or peer-reviewed studies of maternal, infant, and early childhood home visiting (MIECHV). We considered the first 100 sources listed in the Google search.
- Last, we solicited recommendations for scholarly and gray literature from the project team, experts engaged for the project, and staff at the Administration for Children and Families (ACF) and Health Resources and Services Administration (HRSA).

Additional literature. To maximize our understanding of the research questions, we expanded our search beyond home visiting using three approaches.

1. We identified a literature review on engaging families with low incomes in early care and education programs, particularly Head Start. Because families eligible for Head Start have considerable overlap with families eligible for the MIECHV Program, we were interested in understanding what other approaches have been used to engage families in Head Start or other early care programs. This literature review was known to the authors because it was co-written by some team members and also conducted on behalf of OPRE.
2. We conducted targeted keyword searches in PubMed for literature reviews in other fields that also engage families for voluntary services. We found relevant literature reviews from the field of parenting training programs for children's mental health. Key differences between parent training and home visiting programs are that parent training services may be outside of the home (such as in clinics), held with individual parents or groups of parents, and include children older than age 5. Using this approach, we identified three studies.
3. We looked to behavioral economics for ideas on how to encourage family engagement in services (for example, how to use behavioral nudges to encourage enrollment). We conducted a Google Scholar search and visited federal websites known to project team members as supporting behavioral science applications, including websites with resources from the Office of Planning, Research, and Evaluation (OPRE) within ACF, and from a behavioral insights unit in the United Kingdom's Behavioral Insights Team. Using this approach, we identified five syntheses.

Table A.1. Data sources and search terms for home visiting literature

Parameter	Final data sources and search terms
Databases for peer-reviewed studies	Cochrane Database of Systematic Reviews, Academic Search Premier, Education Research Complete, ERIC, APA PsycInfo, Sage Journals, Scopus, SocINDEX, Sociological Abstracts, PubMed, Social Science Research Network
Database search terms	**Population terms (within title):** (Family, families, child, children, childhood, early childhood, infant, baby, babies, toddler, newborn, neonate, pregnant, gravid, prenatal, postnatal, antenatal, perinatal, postpartum, maternal, mother, father, parent, client, participant, caregiver, dad, OR MIECHV) AND (home visitor OR home-based OR home visit) AND **Home visiting terms (within title or abstract):** Home visitor, home-based, home visit, home visiting, doula, nurse, parent training, OR parenting skills AND **Engagement terms (within title or abstract):** Nonconsumer, identify, identification, recruit, enroll, retain, retention, engage, engagement, involve, involving, access, connect, attend, eligibility, eligible, attrition, dropout, reach, refuse, refusal, outreach, leave, exit, OR participate
Gray literature websites	• Abt Associates • American Institutes for Research • Child Trends • MDRC • James Bell Associates • Department of Health and Human Services, ACF/OPRE and HRSA (including Tribal MIECHV websites) • Child Welfare Information Gateway • National Home Visiting Resource Center • Home Visiting Applied Research Collaborative • National Center for Children in Poverty • National Center on Parent, Family, and Community Engagement • Zero to Three • Start Early • Association of Maternal and Child Health Programs
Gray literature search terms	"Home visiting" AND (nonconsumer OR identify OR refer OR recruit OR enroll OR enrollment OR retain OR retention OR engage OR involve OR involving OR access OR connect OR attend OR eligibility OR eligible OR attrition OR dropout OR reach OR refuse OR refusal OR outreach OR leave OR exit OR participate)

Screening process

Home visiting literature. The project team developed inclusion criteria that reviewers used to screen all references for relevance (Table A.2). Trained reviewers used the title and abstract to determine whether a reference met the study inclusion criteria. To ensure consistency across reviewers, the first 100 studies were dually screened by two team members. A senior team member resolved any conflicts between reviewers' decisions and any references team members were unsure as to whether to screen in.

Table A.2. Study inclusion and exclusion criteria for database and gray literature screening

Inclusion criteria	Exclusion criteria
Substantive study design. Literature review, meta-analysis, impact or outcome study, descriptive study, correlational, implementation, exploratory; conceptual models/theoretical studies grounded in research	**Not an eligible study design.** Non-studies—for example, press releases, newspaper articles, opinion pieces; studies that validate an instrument
On topic. Study explores (1) factors related to engaging families in home visiting (or another selected field) at any level of influence; or (2) strategies for improving engagement in home visiting (or the other selected fields), the effectiveness of the strategies, or the process by which the strategies might work. "Engagement" refers to efforts related to outreach, recruitment, enrollment, or retention, or to support active participation among families. Home visiting studies may be on *any* home visiting program or model, but their purpose should reflect the MIECHV Program goals (maternal health; child health; child development; school readiness; family economic self-sufficiency; child abuse, neglect, and welfare)	**Off topic.** Includes mostly medical or physical health care topics (such as in-home care for chronic illness); home visiting studies that mention only program impacts and not "engagement" (such as those that report only the effectiveness of a home visiting program on child outcomes, parenting skills, maternal health, and so on); home visitor workforce studies (such as recruiting or retaining home visitors, unless explicitly related to engaging families)
Population. Maternal, infant, and early childhood; pregnant or parenting mothers, fathers, caregivers, or families with children ages 0–5	**COVID-focused topics.** Includes studies on using telehealth for home visits
Language. Published in English	**Not an eligible population**
Conducted in the United States	**Not conducted in the United States** (for literature reviews, excluded if most of the reviewed studies were conducted outside the United States)
Published since 2011 (with possible exception for seminal or recommended studies conducted earlier)	**Published before 2011** (unless the study was considered to be seminal)

Additional literature. Senior team members screened and prioritized studies on parent training programs, early care and education programs, and from behavioral economics, against the inclusion criteria as they conducted the targeted keyword searches. The team members aimed to identify up to 10 relevant references total.

Prioritization process

Home visiting literature. Because we sought to review up to 50 manuscripts, we prioritized results to fill strategic gaps. Two recent reviews on family engagement in home visiting—Bower et al. (2020) and an unpublished report conducted for HRSA (McCombs-Thornton et al. 2021)—uncovered more research on program retention in services and less on outreach and recruitment. Additionally, individual-level factors were most often studied. Based on these gaps, among the references from the peer-reviewed database search of home visiting studies that met initial screening criteria, we prioritized manuscripts with findings on conducting outreach to and recruiting families (at any level of influence), or factors or strategies at the program, community, or systems level (at any engagement stage). While screening titles and abstracts, reviewers marked whether studies were likely to contain findings in the prioritized categories; a senior team member checked their classifications. We also excluded references that were included in Bower et al. (2020) and another literature review (Burcher et al. 2021) to avoid duplicating their work; instead, we relied on the findings as summarized in these reviews. We applied the same prioritization criteria to studies recommended by experts, study team members, OPRE, or HRSA.

Additional literature. The senior team members who searched and screened for literature reviews outside of the home visiting field selected the most relevant ones to include in the review.

Prioritization results (across all fields). In total, 43 of the 109 manuscripts that met initial inclusion criteria were prioritized and included in this review (Table A.3). The manuscripts used various study methods (Table A.4). All 43 studies are shown in Table A.5.

- Of the 1,436 manuscripts identified through the peer-reviewed database search for home visiting studies, 94 met inclusion criteria, and 28 of these were prioritized for review. Of the 94 manuscripts, 51 did not meet prioritization criteria, and 9 were represented in another literature review, yielding 34 manuscripts. Upon closer review of these 34 full texts, an additional 6 did not meet the inclusion criteria, yielding 28 manuscripts for inclusion in the review.
- None of the 100 references identified through the gray literature search met inclusion criteria. (The Google search results mostly returned web pages mentioning or discussing family engagement but not research manuscripts.)
- Six of the 14 references recommended by experts, project team members, OPRE, or HRSA met inclusion and prioritization criteria.
- Nine of the references we identified from outside of the home visiting field met inclusion criteria and were relevant to review.

Of the 43 manuscripts that met inclusion and prioritization criteria, 36 directly addressed the research questions of interest and are the basis of findings that appear in Sections II through V. Three of the others were conceptual or theoretical papers, which we drew on for background information, and four were syntheses of applied behavioral economics interventions that we discussed separately from the main findings; although they offer insights into engagement practices, the specific practices were highly tailored to their contexts.

Table A.3. Number of resources identified and included in the review, by data source

Source	Number of resources identified	Number that met initial inclusion criteria	Number of resources included in review
Database search for peer-reviewed studies on home visiting	1,436	94	28
Customized Google search for gray literature	100	0	0
Recommendations from experts, project team members, OPRE, or HRSA	14	6	6
Targeted search in other fields (applied behavioral science and parent training interventions)	13	9	9
Total	1,563	109	43

Table A.4. Design of studies included in the review

Study design	Number of studies
Quantitative (randomized controlled trial or quasi-experimental design)	4
Quantitative (descriptive)	11
Qualitative (descriptive)	8
Mixed methods	6
Literature review	11
Conceptual or theoretical paper	3

Studies included in the review

Table A.5 lists all studies used for this synthesis, including the author; study design; select characteristics; and inclusion of findings on outreach, recruitment, retention, or active participation.

Table A.5. Information on studies included in the review

Author (year)	Study design[a]	Family characteristic represents > 50% of the sample[b]	Race/ethnicity represents > 50% of the sample	Outreach	Recruitment	Retention	Active participation
Studies from the home visiting field							
Azzi-Lessing (2013)	Literature review	Not specified	Not specified			✓	✓
Bae et al. (2019)	Quantitative	No majority	African American			✓	
Barlow et al. (2018)	Qualitative	Low income	American Indian/Alaska Native		✓	✓	
Barton et al. (2020)	Quantitative	Single or never married	White, non-Hispanic			✓	
Bhuiya (2019)	Mixed methods	Single or never married	Quantitative sample: no majority Qualitative sample: non-White	✓	✓	✓	
Bigelow et al. (2020)	Quantitative (RCT)	Low income	Not specified				✓
Bower et al. (2020)	Literature review	Not specified	Not specified		✓	✓	✓
Brind'Amour (2016)	Quantitative	Low income	White		✓		
Burcher et al. (2021)	Literature review	Not specified	Not specified	✓		✓	
Burrell et al. (2018)	Quantitative	Pregnant women and mothers younger than 21	No majority		✓	✓	
Cho et al. (2018)	Quantitative	Low income	Black			✓	
Duggan et al. (2018)	Mixed methods	Low income; pregnant women and mothers younger than 21	No majority		✓	✓	

Author (year)	Study design[a]	Family characteristic represents > 50% of the sample[b]	Race/ethnicity represents > 50% of the sample	Outreach	Recruitment	Retention	Active participation
Folger et al. (2016)	Quantitative (QED)	Pregnant women and mothers younger than 21; low income	African American	✓	✓	✓	
Goyal et al. (2016)	Quantitative	Families with an infant; low income; parents without a high school education; single or never married	Black			✓	
Goyal et al. (2017)	Mixed methods	Low income	Not specified		✓	✓	
Haroz et al. (2020)	Mixed methods	Not specified	Not specified			✓	
Heidari et al. (2018)	Quantitative	Low income; single or never married	Not specified		✓	✓	
Holm-Hansen et al. (2017)	Qualitative	Not applicable[c]	No majority	✓	✓		
Hughes-Belding et al. (2019)	Quantitative	Low income; single or never married	White				✓
Kåks and Målqvist (2020)	Literature review	Not specified	Not specified	✓		✓	
Kellom et al. (2018)	Qualitative	Not applicable[c]	Not specified		✓	✓	
Korfmacher et al. (2008)	Conceptual/theoretical	Not applicable	Not applicable			✓	✓
McCurdy and Daro (2001)	Conceptual/theoretical	Not applicable	Not applicable		✓	✓	
McGuigan and Gassner (2016)	Quantitative	Low income; parents without a high school education; single or never married	White			✓	
Owora et al. (2013)	Qualitative	Parents without a high school education	Latino/Spanish speaking		✓		
Raffo et al. (2021)	Quantitative (QED)	Low income; single or never married	No majority	✓			
Ramakrishnan et al. (2022)	Quantitative	Families with an infant; low income; single or never married	No majority			✓	
Sandstrom and Lauderback (2019)	Literature review	Not specified	Not specified		✓		
Stahlschmidt et al. (2018)	Mixed methods	Not specified	Not specified		✓	✓	
Stetler et al. (2018)	Mixed methods	Not specified	Not specified	✓			
West et al. (2021)	Quantitative	Not applicable[c]	Not specified			✓	
Whittaker et al. (2021)	Qualitative	Not applicable[c]	Not specified	✓		✓	
Williams et al. (2021a)	Qualitative	Families with an infant; low income	Not specified		✓	✓	

Author (year)	Study design[a]	Family characteristic represents > 50% of the sample[b]	Race/ethnicity represents > 50% of the sample	Outreach	Recruitment	Retention	Active participation
Williams et al. (2021b)	Qualitative	Not specified	Not specified	✓		✓	
Wolfe Turner et al. (2020)	Qualitative	Families with an infant; pregnant women and mothers younger than 21	Not specified		✓		
Studies from the parent training field							
Houle et al. (2022)	Literature review	Not specified	Not specified	✓	✓		
Ingoldsby (2010)	Literature review	Not specified	Not specified			✓	
Piotrowska et al. (2017)	Conceptual/theoretical	Not applicable	Not applicable	✓	✓	✓	✓
Study from the early care and education field							
Baxter et al. (2022)	Literature review	Low income	Not specified		✓	✓	
Studies from the behavioral economics field							
Gennetian (2021)	Literature review	Not applicable	Not applicable		✓		✓
Gopalan and Pirog (2017)	Literature review	Not applicable	Not applicable		✓		
Hume et al. (2018)	Literature review	Not applicable	Not applicable			✓	
Richburg-Hayes et al. (2017)	RCT synthesis	Not applicable	Not applicable		✓		

[a] Unless specified, quantitative studies used a descriptive study design.

[b] We recorded whether samples mainly represented the following groups of families: families with an infant; families with low incomes; pregnant women and mothers younger than 21; single or never married mothers or pregnant women; and parents without a high school education.

[c] Study samples did not represent parents (for example, study interviewed program staff).

QED = quasi-experimental design; RCT = randomized controlled trial.

Approach to reviewing studies

Trained reviewers used a standardized template to document relevant information from each study selected for review (Table A.6). The review template focused on extracting empirical and theoretical factors that drive outreach, recruitment, retention, and active participation; strategies to improve engaging families; ways in which family, home visitor, program, community or neighborhood, and systems-level factors individually and interactively influence engagement (see Table A.7 for definitions of these levels); and findings that contribute to our understanding of equitable access to home visiting for families eligible for programs funded through MIECHV. We did not review the quality or rigor of study methodology and thus did not exclude studies based on their quality or rigor. An experienced reviewer separately reviewed each team member's first assignment and inspected all subsequent reviews to ensure information was extracted completely, accurately, and consistently across reviewers.

Table A.6. Key information documented for each study

Category	Key information extracted
Reference information	• Title • Authors and study year • Abstract
Screening information	• Study design • Engagement stage (outreach, recruitment, retention, active participation) • Level of influence (family, home visitor, program, community, systems, interaction of categories) • Addresses a research gap (that is, in outreach or recruitment; or program, community, or systems levels) • Program field (home visiting or another field) • Whether conceptual model is included
Study context	• Home visiting model(s) studied • Study methods (study design and data sources) • Study setting or location • Study sample (sample size, types of study participants, whether a family characteristic represented the majority of the sample) • Race and ethnicity of sample (whether a group represented the majority of the sample)
Study findings	• Engagement factors and definitions (description of factors and strategies explored for outreach, recruitment, retention, and active participation, and how defined) • Levels of influence explored (defined in Table A.7) • Conceptual model and underlying theories • Empirical findings (by engagement stage and level of influence)
Study implications	• Whether findings discuss ways the enrollment or screening process influences engagement • Whether findings discuss the influence of the program model on engagement • Authors' assessment of implications for policy, practice, or research

Table A.7. Study definitions of levels of influence

Level of influence	Study definition
Family	Refers to the mother, father, child, caregiver, and/or extended family member who are eligible and recruited for or participate in home visiting. Includes, but is not limited to, demographic, socioeconomic, or health characteristics; child age; or personal reasons or motivation that influence their decisions to enroll in or exit from home visiting services.
Home visitor	Refers to the program staff responsible for delivering individualized services to families in their homes or in a place that is comfortable for the family. Home visitors may also interact with families when conducting community outreach or working to recruit eligible families. Encompasses the home visitor–family relationship and home visitor skills or characteristics. Includes, but is not limited to, home visitor experience, skill at establishing relationship with families, type of home visitor (such as a nurse or paraprofessional), demographic or education characteristics of the home visitor, supervision or training, turnover, or strategies providers use to engage families.
Program	Refers both to the agency that implements a home visiting program(s), sometimes also called the local implementing agency (LIA), and the home visiting program(s) and model(s) the LIA implements. LIAs establish policies and practices that align with guidance or requirements at the systems level. Includes, but is not limited to, program model or curriculum elements, structural aspects of the program (such as caseload size, staffing requirements, or staff turnover rates), agency management, and other program-wide strategies or philosophies that programs use to engage families and meet their needs.
Community	Refers to the neighborhood or community where families eligible for home visiting live. Includes, but is not limited to, community-level demographics or economic indicators (such as neighborhood poverty level); cultures and other characteristics that define a social community (such as a family's social network or community connectedness); geographic features (such as rurality or transportation infrastructure); and the availability and accessibility of resources within the community that support and serve families (including child care and early education, transportation, housing, health care, and food sources).
Systems	Refers to the larger service and policy environment in which the home visiting program operates. Includes, but is not limited to, partnerships with service systems that promote outreach to or accept referrals from programs (such as referral partners in education or health care systems, or centralized intake systems); the state, tribal, and national contexts within which the home visiting program operates (such as the state, tribal, or federal policies that govern a program); requirements or guidance from program model developers and program funders or funding sources; and support from home visiting technical assistance providers.

Appendix B: Findings in detail

Appendix B includes the factors and strategies identified in the research literature for each family engagement stage (Tables B.1 through B.4). We synthesized findings across manuscripts to identify facilitators, barriers, and factors that did not influence engagement or did not consistently influence engagement. Specifically:

- **Facilitators** include factors identified in qualitative and quantitative research that support or might support engagement, and strategies that program staff use to support engagement as described in qualitative analyses. For example, facilitators include reasons families enroll (or might enroll) or stay in services based on qualitative data collected from families and/or program staff, and characteristics positively associated with engagement identified in quantitative analyses.
- **Barriers** include factors identified in qualitative and quantitative analyses as potentially hindering engagement. These include reasons families might not engage in services (as cited by families or program staff) and characteristics negatively associated with engagement identified in quantitative analyses.
- **Factors not consistently related** to engagement tend to come from quantitative analyses and include null results (from a single analysis or multiple analyses), and characteristics examined across multiple analyses with conflicting results. We determined that results conflicted if there was a mix of positive, negative, or null associations in two or more studies. **Because the recruitment and retention stages had a relatively large number of inconsistent findings, we also expand on these findings below the following tables to help explain select results.**

For Tables B.1 through B.4, we break out findings by the family, home visitor, program, community, or systems levels to better understand how each level influences engagement. These levels also interact in various ways. To simplify reporting, we show findings under the higher level of influence. For example, findings on the home visitor–family relationship—an interaction between families and visitors—are shown with the home visitor level for simplicity.

Detailed outreach findings

Table B.1. Summary of factors and strategies for conducting outreach

Level	Facilitators	Barriers	Not consistently related[a]
Family	None identified	None identified	None identified
Home visitor	None identified	None identified	None identified
Program	Positive reputation in community;[1] working with parents to help spread the word[2,6,9]	None identified	None identified
Community	None identified	None identified	None identified
Systems	Relationships with varied referral partners[3,6,8,10] Smooth referral process (e.g., sharing data, standard referral protocols, universal screening, co-locating, education)[4,7,8,10] Personal relationship between home visitor and referral partner[4,9,10]	Referral partners lack information[1,4] Relying on busy providers (e.g., hospital nurses) to refer families[8]	None identified

[a] Includes factors for which a manuscript found no statistical association with outreach, or findings were mixed across manuscripts.

Sources:

[1] Bhuiya (2019) (mixed methods [M])

[2] Burcher et al. (2021) (literature review [L])

[3] Folger et al. (2016) (quantitative [Qn])

[4] Holm-Hansen et al. (2017) (qualitative [Ql])

[5] Houle et al. (2022) [L]

[6] Kåks and Målqvist (2020) [L]

[7] Raffo et al. (2021) [Qn]

[8] Stetler et al. (2018) [M]

[9] Whittaker et al. (2021) [Ql]

[10] Williams et al. (2021b) [Ql]

Detailed recruitment findings

Table B.2. Summary of factors and strategies for recruiting families

Level	Facilitators	Barriers	Not consistently related[a]
Family	Perceiving home visiting as valuable, able to meet needs for information or support[4,8,18] Receiving information on parenting, child development, having a healthy pregnancy and child;[4,6,17,18] support for poor maternal health, pregnancy complications[4,7] Having the time and flexibility (for mothers' and fathers' participation)[3,15,17,18]	Not perceiving a need for the program (in good health, wanting to be self-sufficient)[17,18] Distrust or discomfort with home visits, previous negative health care experience, stigma[3,17,18] Competing priorities (work, school; for mothers' and fathers' participation)[3,15,16, 17,18] Referred during an overwhelming period (such as immediately following delivery)[17,18] Housing instability, homelessness, inconsistent contact information[2,3,16,17]	Parenting experience[7,12,17] Having family or social support,[6,17,18] or a partner or spouse[3,7,10,12] Being pregnant at enrollment[4,7] Poor infant health, low birth weight[3,4] Maternal behavioral health indicators (depression, relationship anxiety, avoidant relationship style, substance use, intimate partner violence)[4,7] Maternal age[3,4,7,10,12] Maternal race, ethnicity, language[3,7,10,12] Maternal education,[5,7] socioeconomic indicators,[4,5,12] mobility[7,16]
Home visitor	Building a strong and trusting relationship when recruiting families (multiple conversations, persistence, positive first encounters)[1,2,11,12,17] Having similar demographics to parent or community[1]	Focusing on mothers can disengage fathers[15]	None identified
Program	Giving adequate information about the program;[2,17] simple, clear enrollment materials and process; adapted for different languages, cultures as necessary[2,9,14] Offering bilingual, culturally appropriate services[3,12,14] Offering multiple program models to expand eligibility[13] Offering flexible scheduling to accommodate parents' work, school hours, location[3,12,15,17,18]	Lack of awareness or information[3,12,17] Too much paperwork, complicated enrollment process[2,3] Limited or inflexible program hours, frequent visits[15,16,18] Limited enrollment window[3] Staffing constraints (e.g., burnout can limit ability to recruit)[3] Inadequate curricula and training to meet fathers' needs[15]	Recruitment incentives[12] Home visiting program model[7] Organizational culture (the resistance, rigidity, and proficiency of the organization), the organization's ability to recruit qualified home visitors[7] Caseload size[7]

Level	Facilitators	Barriers	Not consistently related[a]
Community	None identified	Home visitor not feeling safe in the neighborhood[3] Limited access to essential services in community (e.g., housing, transportation, child care)[3]	Neighborhood poverty or disadvantage[4,7] Geography (rural or urban)[10]
Systems	None identified	None identified	None identified

[a] Includes factors for which a manuscript found no statistical association with recruitment, or findings were mixed across manuscripts.

Sources:

[1] Barlow et al. (2018) (qualitative [Ql])

[2] Baxter et al. (2022) (literature review [L])

[3] Bhuiya (2019) (mixed methods [M])

[4] Bower et al. (2020) [L]

[5] Brind'Amour (2016) [quantitative (Qn)]

[6] Burrell et al. (2018) [Qn]

[7] Duggan et al. (2018) [M]

[8] Folger et al. (2016) [Qn]

[9] Goyal et al. (2017) [Qn]

[10] Heidari et al. (2018) [Qn]

[11] Holm-Hansen et al. (2017) [Ql]

[12] Houle et al. (2022) [L]

[13] Kellom et al. (2018) [Ql]

[14] Owora et al. (2013) [Ql]

[15] Sandstrom and Lauderback (2019) [L]

[16] Stahlschmidt et al. (2018) [M]

[17] Williams et al. (2021a) [Ql]

[18] Wolfe Turner et al. (2020) [Ql]

Description of inconsistent recruitment findings

Below we detail select findings that appear in the *Not consistently related* column in Table B.2. This discussion is limited to (1) findings that were inconsistent, or mixed, across manuscripts (as opposed to a finding found to be only null, for example) and (2) among the mixed findings, those that could not be explained in detail in the main text.[1]

- **Potential motivations for enrollment: mothers' behavioral health, infant health, pregnancy status, or parenting experience**

Mothers' behavioral health and infant health. Maternal depression had mixed associations with enrollment or having ever received a home visit.[2] Intimate partner violence and substance use,[3] and mothers' relationship style (avoidant or not) or relationship anxiety,[4] were not associated with home visiting enrollment. Literature on infant health indicators also was conflicted. Poor infant health (low birth weight, birth complications, and other medical diagnosis) was associated with fewer scheduled home visits,[5] but another analysis found low birth weight did not predict enrollment.[6]

Pregnancy status. Although one manuscript found that prenatal referral was associated with enrollment compared to those who were referred postpartum, another found prenatal referral was not related to whether mothers ever received a home visit after having enrolled.[7] The timing of the referral might matter: mothers who were referred during an overwhelming period, such as immediately following delivery, were less likely to remember that they had even been offered the program.[8]

Parenting experience. Mothers with previous children were nearly 5 percent more likely to receive a home visit compared to first-time mothers,[9] and parents' self-perception of themselves as a competent and effective parent supported enrollment.[10] Yet, experienced parents were among those in a qualitative analysis who felt they did not need home visiting,[11] and having more children was negatively related to enrollment in parent training programs.[12]

- **Being in a relationship or having adequate social supports**

Some parents cited having adequate family or social supports as a reason for not enrolling or potentially not enrolling in home visiting.[13] Yet in one quantitative analysis, having strong social networks and support systems was related to enrollment,[14] and a literature review identified it as a facilitator.[15] Having a partner or spouse also had mixed associations with enrollment.[16]

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[1] We used the following notations when citing the research we reviewed: L = literature review; M = mixed methods design; Ql = qualitative design; and Qn = quantitative design.
[2] Bower et al. 2020 [L]; Duggan et al. 2018 [M]
[3] Bower et al. 2020 [L]
[4] Duggan et al. 2018 [L]
[5] Bower et al. 2020 [L]
[6] Bhuiya 2019 [M]
[7] Bower et al. 2020 [L]; Duggan et al. 2018 [M]
[8] Williams et al. 2021a [Ql]
[9] Duggan et al. 2018 [M]
[10] Houle et al. 2022 [L]
[11] Williams et al. 2021a [Ql]
[12] Houle et al. 2022 [L]
[13] Williams et al. 2021a [Ql]; Wolfe Turner et al. 2020 [Ql]
[14] Burrell et al. 2018 [Qn]
[15] Houle et al. 2022 [L]
[16] Bhuiya 2019 [M]; Burrell et al. 2018 [Qn]; Duggan et al. 2018 [M]; Heidari et al. 2018 [Qn]; Houle et al. 2022 [L]

- **Mothers' demographic characteristics**

Age. A literature review of parent training programs found mixed results for age across six studies,[17] and two quantitative analyses of home visiting found no association.[18] Additionally, in one quantitative analysis, mothers younger than 21 were more likely to enroll in home visiting, whereas another analysis found the opposite—younger mothers were more likely to schedule a visit but not complete it.[19]

Race, ethnicity, and language. In one manuscript, racial and ethnic minority status was associated with higher enrollment rates, but two other studies found no association.[20] Findings were also mixed in a literature review of parent training programs.[21] Additionally, speaking a language other than English at home did not predict enrollment in home visiting services.[22]

- **Mothers' education and socioeconomic indicators (excepting housing instability)**

Education. One analysis found that mothers in home visiting were less likely to have a high school education;[23] another found that high school-level education was not related to receiving a home visit. Rather, the latter found that mothers with some college education were more likely to receive a home visit. Both study samples mostly comprised families with low incomes.[24]

Socioeconomic indicators. One manuscript reported that mothers were more likely to be unemployed or working but with income below the federal poverty level and using welfare services than those not enrolled in home visiting.[25] However, according to a study in a home visiting review, families that lacked private insurance were more likely to schedule but not complete a home visit.[26] Socioeconomic status also had no relation to recruitment in a review of parent training programs.[27]

- **Neighborhood poverty or disadvantage**

One quantitative analysis found that neighborhood poverty was associated with a decreased likelihood of completing a scheduled visit, whereas another found no association between neighborhood socioeconomic disadvantage and ever receiving a home visit.[28] A neighborhood's rural or urban status was also not related to enrollment.[29]

[17] Houle et al. 2022 [L]
[18] Duggan et al. 2018 [M]; Heidari et al. 2018 [Qn]
[19] Bhuiya 2019 [M]; Bower et al. 2020 [L]
[20] Bhuiya 2019 [M]; Duggan et al. 2018 [M]; Heidari et al. 2018 [Qn]
[21] Houle et al. 2022 [L]
[22] Bhuiya 2019 [M]; Duggan et al. 2018 [M]
[23] Brind'Amour 2016 [Qn]
[24] Duggan et al. 2018 [M]
[25] Brind'Amour 2016 [Qn]
[26] Bower et al. 2020 [L]
[27] Houle et al. 2022 [L]
[28] Bower et al. 2020 [L]; Duggan et al. 2018 [M]
[29] Heidari et al. 2018 [Qn]

Detailed retention findings

Table B.3. Summary of factors and strategies for retaining families

Level	Facilitators	Barriers	Not consistently related[a]
Family	Positive experience in program (satisfied, expectations met, ongoing need for support)[7,9,25] Fathers living with mother and child (fathers' participation in visits)[11]	Not satisfied with the program (expectations not met,[7] feeling isolated or discriminated,[1,5] different values[6]) Decreased need for support over time[7,25] Life circumstances change (school or work schedules,[5,6,7,14] relocation,[1,6,7,11,14,21,22,25] tired postpartum[25])	Being pregnant at enrollment[4,9,11,21] Parenting experience[2,11] Initial reason for enrolling[7] Infant or child health[5,6,7,12,13,20] Maternal health[5,13] or behavioral health challenges,[1,2,5,6,7,9,11,12,15,20,21] intimate partner violence[7,21] Maternal demographics (age,[2,6,7,9,10,11,12,13,16,20,21] race, ethnicity, language[2,4,5,6,7,9,10,11,13,16,20,21]) Maternal socioeconomic indicators (including education, employment)[2,4,5,6,7,11,13,15,16,21] Unstable housing[2,5,20] Fathers' characteristics and fathers' participation[8] Mistrust of others (not necessarily of home visitor) or formal services[1,7,11] Other sources of support (having social support, a partner or spouse, living with a partner, feeling isolated)[2,4,5,6,7,11,16,20,21]
Home visitor	Positive, collaborative relationship between visitor and family (trusting, supportive)[7,15,18] Visitor has favorable personal qualities, certain soft skills[1,7] Home visitor's comfort with and inclusion of fathers (fathers' participation in visits)[7,8]	Negative relationship dynamic between visitor and family (unfavorable visitor qualities, lack of fit, family not having enough control)[7] Home visitor turnover[6,7,21]	Home visitor's training or skills,[1,4,5,7,17,20] experience as a home visitor,[4,7,11,20] education[4,7,20] Home visitor's supervision,[1,11,20] job satisfaction, or commitment[7,9,11] Home visitor's age,[20] race, ethnicity,[4,20] demographic similarity to families[1,7,18] Home visitor's relationship anxiety, depression[11] Fathers having a male home visitor or one with similar demographics and fathers' participation[7,8]

Level	Facilitators	Barriers	Not consistently related[a]
Program	Program content, activities meet or are tailored to meet family's needs or goals (such as through topics, early screening, and referrals)[1,3,4,5,6,7,8,15,16,17,23] and culture or values[3,5,6] Scheduling flexibility (such as on dosage, location, meeting hours)[3,6,7,18] Opportunities for families to socialize with one another[5,7,19,24] Giving families voice on the intervention[7,12]	Perception of large time commitment or paperwork[6,7] Low reengagement efforts (less outreach or ending participation when families miss appointments)[22]	Home visiting model or length of visits[2,7,11] Ancillary incentives (children's books, self-care items, diapers, monetary incentives)[7,14] Certain organizational features (centralized or formalized program, training in continuous quality improvement, staff recruitment challenges, age of program, organizational culture, caseload size)[2,7,11,21]
Community	Strategies to address resource constraints of rural areas[24]	High community rates of housing instability, family relocation, single-parent households[2,10] Limited community resources and fractured systems for housing, mental health, child care[3,6] Geographic isolation (such as lack of transportation)[3,5,6]	Certain indicators of neighborhood disadvantage (poor community health, violence, poverty, unemployment), neighborhood race or ethnicity[7,10,11,20]
Systems	Partnerships with community organizations to coordinate referrals or services[1,5,18,26]	None identified	None identified

[a]Includes factors for which a manuscript found no statistical association with retention, or findings were mixed across manuscripts.

Sources:

[1] Azzi-Lessing (2013) (literature review [L])

[2] Bae et al. (2019) (quantitative [Qn])

[3] Barlow et al. (2018) (qualitative [Ql])

[4] Barton et al. (2020) [Qn]

[5] Baxter et al. (2022) [L]

[6] Bhuiya (2019) (mixed methods [M])

[7] Bower et al. (2020) [L]

[8] Burcher et al. (2021) [L]

[9] Burrell et al. (2018) [Qn]

[10] Cho et al. (2018) [Qn]
[11] Duggan et al. (2018) [M]
[12] Folger et al. (2016) [Qn]
[13] Goyal et al. (2016) [Qn]
[14] Goyal et al. (2017) [Qn]
[15] Haroz et al. (2020) [M]
[16] Heidari et al. (2018) [Qn]
[17] Ingoldsby (2010) [L]
[18] Kåks and Målqvist (2020) [L]
[19] Kellom et al. (2018) [Ql]
[20] McGuigan and Gassner (2016) [Qn]
[21] Ramakrishnan et al. (2022) [Qn]
[22] Stahlschmidt et al. (2018) [M]
[23] West et al. (2021) [Qn]
[24] Whittaker et al. (2021) [Ql]
[25] Williams et al. (2021a) [Ql]
[26] Williams et al. (2021b) [Ql]

Description of inconsistent retention findings

This section provides details on select findings that appear in the *Not consistently related* column in Table B.3. As with the detailed findings on factors that influence recruitment, the discussion is limited to (1) findings that were inconsistent or mixed across manuscripts (as opposed to a finding found to be only null, for example), and (2) among the mixed findings, those that could not be explained in detail in the main text.

- **Potential motivations for support: enrollment timing, initial reasons for enrolling, or mothers' or children's health**

Pregnancy status, enrollment reason, or parenting experience. According to three manuscripts, pregnancy status at enrollment was not statistically related to retention.[1] However, another manuscript found that women who enrolled during their pregnancy stayed enrolled significantly longer than women who enrolled after delivery.[2] Two manuscripts considered parenting experience: they found that the number of children delivered and first-time mother status were not related to retention.[3] A literature review also reported no association between families' initial reasons for enrolling (which could theoretically correspond with pregnancy or parenting experience) and retention at six months.[4]

Mothers' health. Mothers' health indicators had mixed results across study designs, with some analyses showing they were facilitators of retention, others showing they were barriers to retention, and others showing null results. Factors examined included smoking status and conditions such as hypertension, diabetes, and obesity;[5] presence of substance use disorder;[6] and mental health indicators or stress.[7] For example, one quantitative analysis identified an association between program attrition and low emotional availability (measured as having high scores on relationship avoidance and depressive symptoms scales),[8] whereas other analyses did not find an association between depression and ending participation early.[9] Experiences of intimate partner violence also had mixed results, although it was unclear whether this was measured as current or past experiences, or any experience with intimate partner violence.[10]

Children's health. Findings on children's health indicators were also mixed. In quantitative analyses, child health risk factors (child developmental delay or low birthweight, for instance) had no association with retention, whereas a review of early care and education programs suggested that families facing child or parent health issues might have difficulty attending programs.[11]

[1] Barton et al. 2020 [Qn]; Burrell et al. 2018 [Qn]; Duggan et al. 2018 [M]
[2] Ramakrishnan et al. 2022 [Qn]
[3] Bae et al. 2019 [Qn]; Duggan et al. 2018 [M]
[4] Bower et al. 2020 [L]
[5] Baxter et al. 2022 [L]; Goyal et al. 2016 [Qn]
[6] Azzi-Lessing 2013 [L]; Haroz et al. 2020 [M]; McGuigan and Gassner 2016 [Qn]; Ramakrishnan et al. 2022 [Qn]; Bower et al. 2020 [L]
[7] Azzi-Lessing 2013 [L]; Bae et al. 2019 [Qn]; Baxter et al. 2022 [L]; Bhuiya 2019 [M]; Bower et al. 2020 [L]; Burrell et al. 2018 [Qn]; Duggan et al. 2018 [M]; Folger et al. 2016 [Qn]; Haroz et al. 2020 [M]; Ramakrishnan et al. 2022 [Qn]
[8] Burrell et al. 2018 [Qn]
[9] Duggan et al. 2018 [M]; Ramakrishnan et al. 2022 [Qn]
[10] Ramakrishnan et al. 2022 [Qn]; Bower et al. 2020 [L]
[11] Baxter et al. 2022 [L]; Bhuiya 2019 [M]; Bower et al. 2020 [L]; Folger et al. 2016 [Qn]; McGuigan and Gassner 2016 [Qn]

- **Being in a relationship or having adequate social supports**

Marital or relationship status[12] and living arrangements[13] had mixed results across quantitative analyses. Specifically, one manuscript reported that cohabiting supported retention,[14] whereas two studies reported in a literature review did not find any association between cohabitation and retention,[15] and still others found that being in a single-parent household was a barrier to retention.[16] Additionally, having marital or family problems was not related to retention in another quantitative analysis.[17]

- **Mothers' demographic characteristics**

Age. Older maternal age was related to retention in three quantitative analyses,[18] and younger maternal age was related to attrition in two.[19] However, age was not related to retention in six other quantitative analyses.[20]

Race, ethnicity, and language. In four manuscripts, including in a review of engaging families with low incomes in early care and education programs, Hispanic parents, White parents, or both had high retention.[21] However in two manuscripts, White, Black, and Latina or Latino parents had low retention,[22] and in quantitative analyses conducted in nine manuscripts, maternal race and ethnicity were not related to retention.[23] Similarly, lack of English proficiency was not consistently related to retention.[24]

- **Mothers' education and socioeconomic indicators**

Education. Six quantitative analyses found that education level was not related to retention,[25] and two reviews, one of which drew on early care and education literature, found that education level was inconsistent with retention.[26] One quantitative analysis found that higher educational attainment was associated with higher retention, but another analysis noted lower retention.[27]

Socioeconomic indicators. Employment status was not consistently related to retention,[28] nor was income level or poverty status.[29] Additionally, unstable housing was not consistently related to retention—it was identified as a barrier to retention in two manuscripts (including one review from early

[12] Barton et al. 2020 [Qn]; Bhuiya 2019 [M]; Bower et al. 2020 [L]; Duggan et al. 2018 [M]; Heidari et al. 2018 [Qn]; Ramakrishnan et al. 2022 [Qn]
[13] Bae et al. 2019 [Qn]; Bower et al. 2020 [L]; Duggan et al. 2018 [M]
[14] Bae et al. 2019 [Qn]
[15] Bower et al. 2020 [L]
[16] Bower et al. 2020 [L]; Duggan et al. 2018 [M]
[17] McGuigan and Gassner 2016 [Qn]
[18] Folger et al. 2016 [Qn]; McGuigan and Gassner 2016 [Qn]; Ramakrishnan et al. 2022 [Qn]
[19] Duggan et al. 2018 [M]; Goyal et al. 2016 [Qn]
[20] Bae et al. 2019 [Qn]; Burrell et al. 2018 [Qn]; Bhuiya 2019 [M]; Cho et al. 2018 [Qn]; Goyal et al. 2016 [Qn]; Heidari et al. 2018 [Qn]
[21] Bower et al. 2020 [L]; Baxter et al. 2022 [L]; McGuigan and Gassner 2018 [Qn]; Ramakrishnan et al. 2022 [Qn]
[22] Baxter et al. 2022 [L]; McGuigan and Gassner 2016 [Qn]
[23] Bae et al. 2019 [Qn]; Barton et al. 2020 [Qn]; Burrell et al. 2018 [Qn]; Bhuiya 2019 [M]; Cho et al. 2018 [Qn]; Duggan et al. 2018 [M]; Goyal et al. 2016 [Qn]; Heidari et al. 2018 [Qn]; Ramakrishnan et al. 2022 [Qn]
[24] Baxter et al. 2022 [L]; Bhuiya 2019 [M]; McGuigan and Gassner 2016 [Qn]; Ramakrishnan et al. 2020 [Qn]; Bower et al. 2020 [L]
[25] Barton et al. 2020 [Qn]; Bhuiya 2019 [M]; Duggan et al. 2018 [M]; Goyal et al. 2016 [Qn]; Heidari et al. 2018 [Qn]; Ramakrishnan et al. 2022 [Qn]
[26] Baxter et al. 2022 [L]; Bower et al. 2020 [L]
[27] Bae et al. 2019 [Qn]; Goyal et al. 2016 [Qn]
[28] Baxter et al. 2022 [L]; Bower et al. 2020 [L]; Barton et al. 2020 [Qn]; Ramakrishnan et al. 2022 [Qn]
[29] Bower et al. 2020 [L]; Baxter et al. 2022 [L]; Ramakrishnan et al. 2022 [Qn]

care and education),[30] yet it was unrelated to retention in another home visiting manuscript.[31] Fewer analyses examined other markers of family disadvantage, such as food insecurity,[32] a history of adverse childhood experiences,[33] and history of child abuse, which typically had no association with retention.[34]

- **Fathers' characteristics**

One literature review of 35 manuscripts examined factors associated with fathers' participation in home visiting,[35] in which participation is defined as attending visits or interacting with home visitors. (These findings generally speak to factors that influence a father's decision to participate in visits along with the child's mother, so we include them in the retention discussion.) Six manuscripts in the literature review found that fathers who live with the mother and their child were more likely to remain in home visiting programs, although another manuscript did not find a difference between resident and non-resident fathers, regardless of marital status, in home visiting participation. Other factors had less consistent results, however:

  – Findings on fathers' race and ethnicity were mixed. For example, one manuscript found that Hispanic fathers were more likely to participate in home visits than fathers who are Black or White, whereas another found differences in race and ethnicity depending on the event (such as father-only or whole-family meetings).
  – Three manuscripts found that more education was related to fathers' participation, but another found the opposite.
  – Across several manuscripts, fathers' mental health or history of domestic violence either increased or decreased their involvement.
  – Fathers with a strong desire to support their child's education or those emotionally engaged with their children were more likely to participate in home visits but not necessarily stay in home visiting.

- **Home visitor training, support, and job satisfaction**

Education or experience. Two quantitative analyses showed no association between a home visitor's education level and family retention,[36] whereas another analysis showed that having a bachelor's degree was associated with retention.[37] Similarly, in one quantitative analysis, prior experience or length of employment as a home visitor was a facilitator,[38] but three other analyses found no association.[39]

Professional skills. No clear pattern emerged across several studies examining different types of professional skills. A provider's experience with children and practicing motivational interviewing were identified as facilitators to family retention (one of these manuscripts looked specifically at parent training programs to support child mental health),[40] but other skills had mixed results. Cultural competency and sensitivity—that is, "providers demonstrating understanding, knowledge, and inclusion of the child's

[30] Bae et al. 2019 [Qn]; Baxter et al. 2022 [L]
[31] McGuigan and Gassner 2016 [Qn]
[32] Duggan et al. 2018 [M]
[33] Haroz et al. 2020 [M]
[34] Ramakrishnan et al. 2022 [Qn]
[35] Burcher et al. 2021 [L]
[36] Barton et al. 2020 [Qn]; McGuigan and Gassner 2016 [Qn]
[37] Bower et al. 2020 [L]
[38] Barton et al. 2020 [Qn]
[39] Bower et al. 2020 [L]; Duggan et al. 2018 [M]; McGuigan and Gassner 2016 [Qn]
[40] Azzi-Lessing 2013 [L]; Bower et al. 2020 [L]; Ingoldsby 2010 [L]

culture in the delivery of services" —supported retention, according to a review on engaging families with low incomes in early care and education programs.[41] Yet, two other manuscripts showed that scores reflecting perspective taking or empathic concern and provider's relationship-building skills were not associated with retention.[42] Similarly, one quantitative analysis found the ability of the provider to identify family needs and develop a case plan were associated with retention,[43] but another found the home visitor's ability to handle challenging cases and the supervisor's rating of a home visitor were not associated with retention.[44]

Supervision and job satisfaction. In one quantitative analysis, the amount of support that home visitors received did not influence retention; this analysis measured a number of domains in which providers could feel supported (such as number of supervisory sessions related to issues facing clients).[45] Yet, a literature review identified general benefits to frequent, high-quality supervision—especially reflective supervision[46]—and one quantitative analysis found that families were more likely to remain in the program if the provider received more monthly hours of supervision.[47] Other manuscripts considered a provider's commitment to or satisfaction with the job, and results were also mixed. Two quantitative analyses found that a home visitor's job commitment or job satisfaction was a facilitator to retention, but another analysis found that having a home visitor who intends to leave employment as a home visitor was not associated with retention.[48] Emotional exhaustion was related to shorter enrollment in another analysis, but only among some families.[49]

- **Demographic and socioeconomic characteristics of home visitors**

Two quantitative analyses showed no association between education level of the provider and family retention,[50] whereas another showed that having a bachelor's degree was associated with retention.[51] Demographic characteristics of home visitors, such as race,[52] being bilingual,[53] and age,[54] were not associated with retention. Additionally, three manuscripts examined racial concordance between parent and home visitor race: one described it as a strategy for matching home visitors and families, [55] one quantitative analysis that included families from different racial and ethnic backgrounds found no association,[56] and another found that racial concordance facilitated retention among African American parents.[57] Relationship anxiety or depression in providers was not associated with family retention.[58]

[41] Baxter et al. 2022 [L]
[42] Barton et al. 2020 [Qn]; McGuigan and Gassner 2016 [Qn]
[43] Bower et al. 2020 [L]
[44] Barton et al. 2020 [Qn]
[45] Duggan et al. 2018 [M]
[46] Azzi-Lessing 2013 [L]
[47] McGuigan and Gassner 2016 [Qn]
[48] Bower et al. 2020 [L] Duggan et al. 2018 [M]
[49] Burrell et al. 2018 [Qn]
[50] Barton et al. 2020 [Qn]; McGuigan and Gassner 2016 [Qn]
[51] Bower et al. 2020 [L]
[52] Barton et al. 2020 [Qn]; McGuigan and Gassner 2016 [Qn]
[53] Barton et al. 2020 [Qn]
[54] McGuigan and Gassner 2016 [Qn]
[55] Kåks and Målqvist 2020 [L]
[56] Bower et al. 2020 [L]
[57] Azzi-Lessing 2013 [L]
[58] Duggan et al. 2018 [M]

- **Home visiting program model**

One quantitative analysis found an association between home visiting model and retention. It found that families in home visiting programs that implemented one of two national home visiting models stayed in home visiting programs longer when compared to programs offering one of two other national models (that is, two national models had higher retention compared with two other models).[59] However, another study examined the association between retention and three of the same models and found that retention in home visiting did not vary based on the model a program offered.[60]

- **Neighborhood poverty or disadvantage**

Certain indicators of neighborhood socioeconomic disadvantage were not consistently related to retention. One quantitative analysis found that poor community health, neighborhood violence, and poverty were barriers to retention.[61] Yet in another analysis, poverty, income, and unemployment levels, and racial composition of neighborhoods and communities, were not associated with retention.[62] Across manuscripts, findings on varied measures of neighborhood disadvantage were mixed, with one manuscript finding positive associations, another finding a negative association, and three finding no associations.[63]

[59] Duggan et al. 2018 [M]
[60] Bae et al. 2019 [Qn];
[61] McGuigan and Gassner 2016 [Qn]
[62] Cho et al. 2018 [Qn]
[63] Bower et al. 2020 [L]; Duggan et al. 2018 [M]

Detailed active participation findings

Table B.4. Summary of factors and strategies for supporting active participation

Level	Facilitators	Barriers	Not consistently related[a]
Family	None identified	Exhibiting both maternal severe depressive symptoms and relationship insecurity[3]	None identified
Home visitor	Parent and home visitor similarity in personalities or life experiences[1] Home visitor's cultural competence[3]	None identified	None identified
Program	Content focused on parents' needs or goals (child development, prenatal health, parenting)[3,4] Time spent in activities involving the parent, child, and home visitor together[4]	Time spent in administrative activities[4]	Receiving at least three text messages a week on parenting strategies from a home visitor (no overall impact in a randomized controlled trial, but families with more education or income and those who received more texts per week benefited more than other families also randomly assigned to receive the text messages)[2] Program flexibility (some benefits to tailoring frequency or number of home visits, and some benefits of a more manualized program)[1,3]
Community	None identified	None identified	None identified
Systems	None identified	None identified	None identified

[a]Includes factors for which a study found no statistical association with active participation, or findings were mixed across studies.

Sources:

[1] Azzi-Lessing (2013) (literature review [L])

[2] Bigelow et al. (2020) (quantitative [Qn])

[3] Bower et al. (2020) [L]

[4] Hughes-Belding et al. (2019) [Qn]

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