

HEALTH RESOURCES AND SERVICES ADMINISTRATION

ASSESSING AND DESCRIBING PRACTICE TRANSITIONS AMONG
EVIDENCE-BASED HOME VISITING PROGRAMS IN RESPONSE
TO THE COVID-19 PUBLIC HEALTH EMERGENCY
(ADAPT-HV)

ENHANCING PROFESSIONAL DEVELOPMENT TRAININGS FOR VIRTUAL HOME VISITING
THROUGH RAPID-CYCLE LEARNING
SEPTEMBER 2024



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PURPOSE

The COVID-19 Public Health Emergency (PHE) drastically affected the needs of families and societal norms for in-person interactions. In response, many home visiting programs and models adjusted their practices to better serve families, such as by shifting to virtual home visits, modifying professional development practices, using different engagement techniques, or changing visit content. These shifts in service delivery and practice have presented challenges but also opportunities for innovation in how home visiting programs operate to address families’ health, education, and other needs. They also presented opportunities to innovate how home visiting programs engage and deliver services to families.

The goal of the Assessing and Describing Practice Transitions Among Evidence-Based Home Visiting Programs in Response to the COVID-19 Public Health Emergency (ADAPT-HV) project is to identify, develop, study, and disseminate evidence-informed strategies and resources that home visiting programs can use to strengthen home visiting services, and, ultimately, achieve better outcomes for children and families. The study team is conducting this project on behalf of the *Health Resources and Services Administration (HRSA)*, and in collaboration with the *Office of Planning, Research, and Evaluation (OPRE)* in the *Administration for Children and Families (ACF)*.

As part of ADAPT-HV, the study team first conducted an **environmental scan** to identify practice changes in home visiting and related social support programs implemented in response to the COVID-19 PHE. The practice changes they identified fell into five categories: service delivery modality, visit delivery and implementation, visit content, staffing practices and patterns (including professional development), and family reach. The ADAPT-HV team identified these practice changes, supported by existing evidence that varied in amount and strength, as showing potential for further testing and implementation.

This memo presents a study design examining staffing practices – in particular, the study design in this memo aims to help training facilitators of home visiting models implement synchronous professional development trainings for home visitors who work virtually with families. The study design also aims to help policymakers and model developers better understand opportunities for improvement, technical assistance, or changes to home visiting professional development related to delivering virtual home visiting.

Box 1. Key Terms

Rapid-cycle learning (RCL): an iterative process that involves collecting data on short-term outcomes and using the data repeatedly to refine a strategy to meet co-created goals

Learning cycle: one iteration of a RCL process

Practice change: the change that home visiting programs adopted during the COVID-19 PHE that the ADAPT-HV project’s environmental scan identified and selected

Strategy: the specific ways home visiting programs implemented the practice change identified in the co-definition stage of the rapid-cycle learning framework

Refinements: modifications to the implementation of the strategies, or the strategies themselves, based on lessons learned during the learning cycles

Model: a home visiting intervention model in which trained home visitors meet with expectant parents or families with young children to deliver a specified set of services through a specified set of interactions

Professional development trainings: training that models provide to home visitors on how to implement the intervention model. These trainings can include core modules (such as onboarding or initial trainings provided to new home visitors), annual refresher training courses (which might include the incorporation of new content), and optional advanced courses on specific home visiting content.

Model staff: national model leadership (professionals from models who design or implement the trainings) and training facilitators

Training facilitator: model professionals who implement professional development trainings for home visitors

Program administrators: Maternal, Infant, and Early Childhood Home Visiting (MIECHV) and Tribal MIECHV grant awardees and administrators with expertise in social service program delivery

Home visitors: people who conduct early childhood home visits with families

Virtual home visiting: a home visit that takes place via an electronic platform, such as a video call, rather than in person

MOTIVATIONS FOR THE STUDY DESIGN

When the COVID-19 PHE began, models had to find new ways to reach families, including delivering home visiting services virtually. This change prompted model developers to introduce new guidelines for program staff, which included the logistics of virtual home visits (such as obtaining and setting up appropriate technology), and training home visitors to deliver services virtually. These trainings included content on how to build trust with families; model and observe child–parent interactions; set goals with families; deliver content, screenings, and assessments to families; and connect families with referral partners virtually.^{1,2,3} Home visiting programs’ use of these activities delivered through virtual home visits has continued since the end of the PHE. Additionally, the Jackie Walorski Maternal and Child Home Visiting Reauthorization Act of 2022 requires that training standards for virtual home visiting must be equivalent to those that apply to in-person home visits.⁴ The focus of this study is to understand how models can best train staff to deliver services virtually and establish effective content and training strategies across models’ current training formats.

Some resources the ADAPT-HV literature review assessed suggested that some home visitors felt supported by new professional development trainings on conducting virtual home visits. These home visitors also reported having increased confidence in identifying family strengths and supporting family-child interactions during virtual visits. In both virtual and in-person trainings, there is always the risk of placing additional burden on the home visitors and increasing their chance of burnout when asking them to develop new skills.^{5,6} Because of the increased use of virtual professional development trainings and virtual home visiting, the limited evidence to date presents a need to better understand (1) the content and practices used to implement these different synchronous training formats (including both virtual and in-person trainings); (2) how to address challenges to implementing them; and (3) how home visitors apply and perceive those trainings during virtual home visits. Understanding the content and practices that models use to train home visiting staff will inform and improve future delivery of virtual home visits for families.

¹ Marshall, J., Kihlström, L., Buro, A., Chandran, V., Prieto, C., Stein-Elger, R., Koeut-Futch, K., Parish, A., & Hood, K. (2020). Statewide implementation of virtual perinatal home visiting during COVID-19. *Maternal and Child Health Journal*, 24(10), 1224–1230. <https://doi.org/10.1007/s10995-020-02982-8>. Chazan-Cohen, R., Fisk, E., Ginsberg, I., Gordon, A., Green, B. L., Kappesser, K., Lau, S., Ordonez-Rojas, D., Perry, D. F., Reid, D., Rodriguez, L., & Tomkunas, A. (2021, September). *Parents’ experiences with remote home visiting and infant mental health programs during COVID-19: Important lessons for future service delivery*. Perigee Fund. <https://perigeefund.org/wp-content/uploads/2021/10/ParentVoices-FullReport-English.pdf>. Korfmacher, J., Molloy, P., & Frese, M. (2021, October). *Virtually the same? Virtual home visits in response to COVID-19* [Research Brief]. Erikson Institute. <https://www.erikson.edu/wp-content/uploads/2021/10/Research-Brief-1-HV-COVID-Survey.pdf>. Korfmacher, J., Molloy, P., & Frese, M. (2021, October). *“But it’s not the same”: What happens in virtual home visits?* [Research Brief]. Erikson Institute. <https://www.erikson.edu/wp-content/uploads/2021/10/Research-Brief-2-HV-COVID-Obs-Int.pdf>

² Hadley, A., Hayes, J., Pai-Samant, S., & Stern, F. (2023). *Virtual home visiting during the COVID-19 pandemic: Lessons learned for research, practice, and policy* (OPRE Report No. 2023-05). Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services. <https://www.acf.hhs.gov/opre/report/virtual-home-visiting-during-covid-19-pandemic-lessons-learned-research-practice-policy>

³ Shanty, L. M. (2022). *Facilitating parent-child interaction in home visiting: Staff experiences and supervisory support* (Publication No. 29259753) [Doctoral dissertation, University of Maryland]. ProQuest Dissertations and Theses Global.

⁴ Social Security Act, Title V, § 511(d)(4)(B).

⁵ Bultinck, E., Falletta, K., Stoeppelwerth, P., Crowne, S. S., & Hegseth, D. (2022). *Understanding the needs of ParentChild+ staff and families during the COVID-19 pandemic*. *Child Trends*. <https://doi.org/10.56417/3442g5692k>

⁶ Crouch, E., Radcliff, E., Browder, J., Workman, L., & McClam, M. (2022). Assessing levels of support provided to home visitors in the US during the COVID-19 pandemic. *Journal of Health Visiting*, 10(10), 428-433. <https://doi.org/10.12968/johv.2022.10.10.428>

RESEARCH QUESTIONS AND STUDY DESIGN

RESEARCH QUESTIONS

The purpose of this study is to better understand how home visiting models train home visiting staff to deliver services virtually to families during home visits. This study also aims to understand how home visitors apply trainings during virtual home visits, how satisfied home visitors are with the trainings they receive, and how the trainings influence home visitors' self-efficacy for educating and instructing families during virtual home visits. The following are three primary research questions and several secondary questions the study seeks to answer.

- 1. How do models train home visitors to deliver services virtually to families?**
 - a. What synchronous training (both virtual and in person) do models use to prepare home visitors to deliver services virtually to families during a visit?
 - b. How do the trainings differ from those used for in-person service delivery?
- 2. How can models improve trainings for delivering services virtually to families?**
 - a. What enables successful synchronous training implementation? What are barriers to implementation?
 - b. What refinements to trainings have the potential to improve or scale implementation?
 - c. Do the refinements improve implementation? What further refinements are needed?
- 3. What are home visitors' experiences with the trainings?**
 - a. How do home visitors apply what they learn from model trainings to how they deliver services to families during a virtual home visit?
 - b. How satisfied are home visitors with the trainings related to delivering services to families during a virtual home visit?
 - c. How are training approaches (including virtual vs. in-person training delivery) related to home visitors' engagement and active participation during trainings?
 - d. How do trainings influence home visitors' self-efficacy for delivering services to families during a virtual home visit?

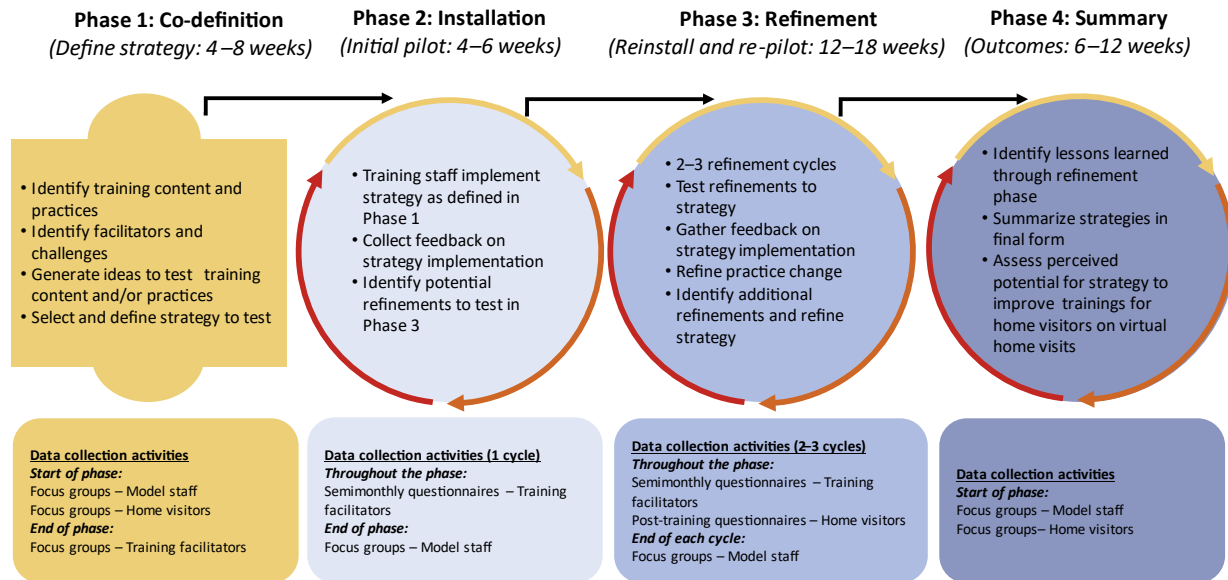
STUDY DESIGN

Drawing on the principles of co-definition, implementation science, and iterative improvement, the study team will address the three primary research questions through a formative RCL framework.⁷ Using an 8-to-10-month RCL study allows for rapid improvements to be tested over a shorter time period than the typical impact/implementation study. The RCL framework can help identify, test, and improve upon promising strategies for delivering synchronous training to home visiting staff who are delivering virtual services that can be scaled to other programs and contexts. This study will help models and training facilitators strengthen training in an analytic, evidence-informed, and sustainable way. The study will have four phases, described below, and summarized in Figure 1.⁸ The study's data collection period reflects the expected timing and frequency of when trainings are offered.

⁷ Derr, M., Person, A., & McCay, J. (2017, December). *Learn, innovate, improve (LI²): Enhancing programs and improving lives*. Mathematica. https://www.acf.hhs.gov/sites/default/files/documents/opre/li2_brief_final_b508.pdf

⁸ Damschroder, L. J., Aron, D. C., Keith, R. E., Kirsh, S. R., Alexander, J. A., & Lowery, J. C. (2009). Fostering implementation of health services research findings into practice: A consolidated framework for advancing implementation science. *Implementation Science*, 4(1), 50. <https://doi.org/10.1186/1748-5908-4-50>

Figure 1. Illustrative Example of Co-definition Phase and Learning Cycles



Note: Administration of training facilitator questionnaires should be adjusted depending on the training frequency of the home visiting model. Participant characteristic questionnaire will occur at the end of each focus group.

CO-DEFINITION PHASE (4 TO 8 WEEKS)

The goals of the **co-definition phase** are to: (1) understand how models have used professional development trainings to prepare home visiting staff to deliver services to families during a virtual home visit (Research Question 1); (2) have participating models prioritize and select a training strategy (or strategies) to implement; and (3) define, with each model, the context, type, and purpose of the training strategy they will implement during Phase 2.

During the **co-definition phase**, the study team will work closely with national model staff (i.e., professionals from models who design or implement the trainings) at each selected model to identify and define the strategy they will test. Some examples of strategies to test include types of interactive activities used during synchronous training (dyadic, small group, or facilitated discussion), frequency of trainings offered, and amounts and types of content that are delivered asynchronously, synchronously, didactically, or interactively.

First, the study team will hold focus groups (one per model) with national model staff and training facilitators to identify and understand their strategies for training home visitors to conduct virtual home visits, including the challenges and facilitators to implementing these strategies. Then, the study team will hold home visitor focus groups (one per model) to gather information on their satisfaction with and perception of the utility of the strategies. The phase will conclude with follow-up focus groups with model staff (one per model) to co-define strategies to test (see Appendix A for sample focus group topics). During the follow-up focus groups with model staff, the study team will share lessons from the initial focus groups, relevant findings from the [environmental scan](#), and best practices from the implementation science field. Through this process, the study team will work with each model to define and select a strategy to test that builds on its existing practices but further refines and standardizes the strategy. Each model will also work with the study team during the co-definition phase to determine the

best data collection approach that fits their contexts, and adjust questionnaire content as needed. Example modifications include adjusting the frequency of questionnaire completion, modifying the sample of home visitors or training facilitators, or adjusting data collection to be on-demand whenever a training occurs.

Although strategies might be similar across models, each model will work with the study team to select and define the specific strategy they will implement and test. During this phase, the study team will ask federal partners to review and provide input on the selected list of identified strategies.

INSTALLATION AND INITIAL PILOT PHASE (4 TO 6 WEEKS)

The goals of the **installation and initial pilot phase** are to: (1) implement the content or training strategies selected for each model as defined in the **co-definition phase**; (2) gather implementation data and feedback from training facilitators and home visitors on the strategies as initially defined; and (3) identify refinements that might improve the selected training strategies.

This phase involves training facilitators who will pilot test the defined strategy, gathering rapid formative feedback about implementation and training facilitators' comfort with the strategies, and reflecting on ways to improve the strategies that the **refinement phase** might test. This information will come from a brief learning cycle form for training facilitators administered every two weeks⁹ throughout the **installation phase** and focus groups with training facilitators at the end of the phase (see Appendix A). The learning cycle form will provide contemporaneous feedback on how the facilitators implemented the strategies and what they thought of them. The focus group will provide time for reflecting on the data gathered through the brief form, identifying potential refinements, and agreeing on refinements to be tested in the next phase.

REFINEMENT PHASE (12 TO 18 WEEKS)

Following the **installation phase** are two or three cycles of strategy refinement.¹⁰ The goals of this phase are to: (1) implement the refinements to strategies identified for each model (identified refinements come from the **installation and initial pilot phase** and potentially the first cycle of this phase); (2) gather implementation data and feedback from training facilitators and home visitors on the refinements; and (3) assess perceived improvements in the training strategies following the refinements (Research Question 2).

Similar to the **installation phase**, each cycle continues to use learning cycle forms for training facilitators every two weeks. The study team will hold focus groups with training facilitators at the end of the rapid cycle to gather formative feedback and assess and refine strategy implementation. In addition to these activities, the study team will gather information through a brief home visitor post-training form to assess their perceptions of the refinements to the training strategies. At the end of each four-week cycle, the study team will hold a training facilitator focus group, during which they will review the data collected during the learning cycle, reflect on implementation successes and barriers, and select refinements to test in the next cycle.

⁹ As described in the **co-definition phase**, data collection approach and timing may be adjusted by the study team based on a model's training schedules and/or the frequency of a strategy of interest.

¹⁰ The number and duration of refinement cycles can be modified depending on the needs and contexts of participating sites and their chosen strategies. For example, researchers could choose to implement additional refinement cycles to accommodate additional tests and refinements, or modify the length of cycles depending on the frequency or scale of strategies being tested. As cycles progress, it is also possible that the topics and focus of cycles may change to fit any evolving contexts.

SUMMARY PHASE (6 TO 12 WEEKS)

The **summary phase** focuses on reviewing and assessing overall implementation and process outcomes collected during the study. The goals of this final phase are to: (1) assess home visitors’ perceptions of the trainings and their confidence to deliver virtual home visits (Research Question 3); and (2) summarize the strategy in its most useful form based on the iterative testing and staff’s perceptions about its potential to improve virtual home visiting service delivery. In this phase, the study team will hold another model staff focus group, during which they will ask participants to identify lessons learned from the **refinement phase** and discuss the RCL findings. The study team will hold focus groups with home visitors who have participated in the trainings during the study to discuss how they applied the trainings during virtual home visits as well as their satisfaction with and perception of the utility of the trainings.

STUDY DESIGN LIMITATIONS AND PROPOSED SOLUTIONS

A strength of this study’s co-creative approach is that strategies can adapt to the needs and contextual factors of a specific model and home visitor. Because of this, applicability of certain content and practices might vary depending on the home visiting models, the other characteristics of the programs, or both. The definitions and applications of content and practices might also vary across sites, with inconsistent terminology across training facilitators and home visitors. To address this variability, the study team will explicitly define the relevant adaptations and contextual factors when framing the findings so that future models can examine their own contexts and pursue appropriate strategies.

DATA COLLECTION PLAN

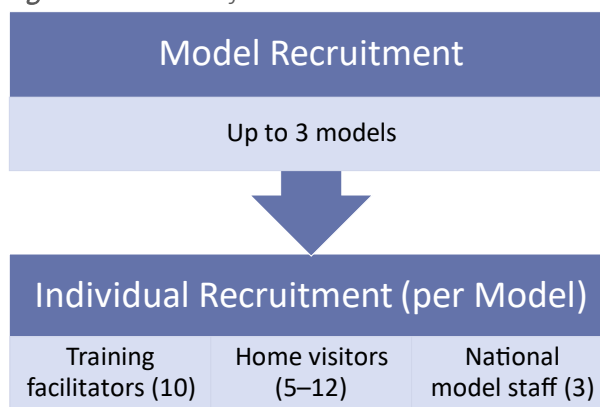
MODEL IDENTIFICATION AND RECRUITMENT

The study team will follow a staged process to identify and recruit home visiting models to participate in ADAPT-HV.¹¹

MODEL IDENTIFICATION AND RECRUITMENT

The first step in identifying models will be a recruitment phone call with all national model leaders, hosted by federal partners. The call will explain the study goals and expectations related to participation. During the call, the study staff will assess the model developers’ willingness and capacity to participate in the study. To facilitate these conversations, the study team will create easy-to-understand information sheets describing what the study would ask of the model as well as the potential benefits of participating to the model, their programs, and home visitors.

Figure 2. Site Identification and Recruitment Process



¹¹ The number of participating models can vary, if researchers can ensure that sufficient data are available for meaningful analysis of implementation changes. Typically, to keep the RCL process nimble, efficient, and iterative, studies first engage with a small subset of one to five sites, and may gradually expand to additional sites as needed. These additional sites can adjust and refine any iterative findings to better fit their circumstances, and explore different levels of analyses (e.g., simultaneously exploring implementation across different contexts, or increasing the number of strategies being tested throughout a study).

The study team will work closely with federal partners to identify up to three home visiting models currently implemented with MIECHV funding that train home visitors on delivering services to families during a virtual visit. If a selected model declines to participate, the study team will work with federal partners to select an alternative model to contact and recruit.

After each model agrees to participate, the study team will work with its national model leaders to complete a study agreement that lays out roles and responsibilities. Models will receive an honorarium for participation in the study, including training facilitators' participation in data collection and the model's assistance in recruiting home visitors. They will receive half the payment at the start of their participation and the other half after study completion. The study team will work with the staff of each participating model to designate a liaison who will help with ongoing data collection efforts and individual-level recruitment, including coordinating focus groups with training facilitators and home visitors.

The study team expects variation in the content, practices, and training strategies across models, as well as in the stages of strategy implementation in each model (e.g., differences in regional offices). Models in various stages of implementing training strategies will be eligible to participate in the study. For example, models might already be systematically implementing a training strategy to deliver virtual services, testing implementation of strategies, implementing a strategy within a subset of training facilitators, or implementing strategies informally or on an ad hoc basis.

INDIVIDUAL RECRUITMENT

The study team will work with the model to formalize a recruitment plan for individual study participants. Training facilitators and home visitors will self-select for participation via an internal message from model leaders inviting them to participate in the study, or model leaders will directly recommend them. To facilitate individual recruitment by the model, the study team will create easy-to-understand information sheets describing what the study would ask of each type of participant as well as the potential benefits of participating. Models will ask home visitors who recently completed trainings whether they would be willing to participate in the Phase 1 and Phase 4 focus groups.¹² The study team will work with models to ask additional home visitors to consent to participate in surveys during training registration. In all interactions with training facilitators and home visitors, the study team will use plain language to describe the studies, their purpose, and the level of effort required by study participants.

When possible, the study team will consider criteria to increase diversity when recruiting training facilitators and home visitors, such as professional background, caseload, and length of experience facilitating trainings about virtual home visiting. To increase diversity of the home visitor sample, the study team will attempt to have each participating home visitor be from a different home visiting program and geographic location. During learning cycles, the study team will work with models to recruit training facilitators and home visitors who can appropriately reflect on the relevant training content, strategies, and refinements being tested.

¹² In some cases, focus group respondents may not be able to participate in more than one focus group. Please refer to Table 2 for the range of respondents.

DATA COLLECTION ACTIVITIES

Each phase and learning cycle could use multiple sources of data to assess implementation and the success of the tested training strategies. Specifically, the study team will use the RCL methods described above to collect questionnaire, focus group, and administrative data iteratively over the course of the study. The study team will work with models to implement each of the following data collection opportunities as appropriate for the strategy being tested. Table 1 presents the data collection activities that will help answer each research question.

Table 1. Research Questions and Data Sources

Research Questions	Data Source(s)
<p>1. How do models train home visitors to deliver services virtually to families?</p> <p>a. What synchronous training (both virtual and in person) do models use to prepare home visitors to deliver services virtually to families during a visit?</p> <p>b. How do the trainings differ from those used for in-person service delivery?</p>	<ul style="list-style-type: none"> • Model-level documentation request • Training facilitator questionnaires • Model staff focus groups • Model-level documentation request • Model staff focus groups • Model-level documentation request
<p>2. How can models improve trainings for delivering services virtually to families?</p> <p>a. What enables successful synchronous training implementation? What are barriers to implementation?</p> <p>b. What refinements to trainings have the potential to improve or scale implementation?</p> <p>c. Do the refinements improve implementation? What further refinements are needed?</p>	<ul style="list-style-type: none"> • Training facilitator questionnaires • Home visitor questionnaires • Model staff focus groups • Home visitor focus groups • Training facilitator questionnaires • Model staff focus groups • Training facilitator questionnaires • Model staff focus groups • Training facilitator questionnaires • Home visitor questionnaires • Model staff focus groups • Home visitor focus groups
<p>3. What are home visitors' experiences with the trainings?</p> <p>a. How do home visitors apply what they learn from model trainings to how they deliver services to families during a virtual home visit?</p> <p>b. How satisfied are home visitors with the trainings related to delivering services to families during a virtual home visit?</p> <p>c. How are training approaches (including virtual vs. in-person training delivery) related to home visitors' engagement and active participation during trainings?</p> <p>d. How do trainings influence home visitor's self-efficacy for delivering services to families during a virtual home visit?</p>	<ul style="list-style-type: none"> • Home visitor questionnaires • Home visitor focus groups • Home visitor questionnaires • Home visitor focus groups • Home visitor questionnaires • Home visitor focus groups • Home visitor questionnaires • Home visitor focus groups • Home visitor questionnaires • Home visitor focus groups

LEARNING CYCLE FORM FOR TRAINING FACILITATORS

The study team will ask training facilitators to complete brief (15-minute) online questionnaires semimonthly throughout each learning cycle of the **installation** and **refinement phases** to measure their ongoing feedback on their use of training strategies and their perceptions of implementation. Forms will collect data on the frequency, mode, and purpose of training strategies, facilitators and challenges to implementation, and training facilitators' self-efficacy. Respondents can use any Wi-Fi-enabled device (e.g., phone or computer) to complete the form.

POST-TRAINING FORM FOR HOME VISITORS

During each learning cycle of the **refinement phase**, facilitators will administer a brief online feedback questionnaire to home visitors at the end of trainings that involved strategy testing. These questionnaires will measure home visitors' satisfaction, engagement, challenges, and self-efficacy to deliver instruction and education to families during future virtual home visits. Respondents can use any Wi-Fi-enabled device (e.g., phone or computer) to complete the form.

The study team will seek input from models when developing these proposed constructs and the questionnaire items. Whenever possible, the study team will work with models to build on existing surveys they might already be administering with their professional development trainings for home visitors.

MODEL STAFF AND HOME VISITOR FOCUS GROUP PROTOCOLS

The study team will conduct focus groups at several points over the course of the study, drawing on findings from the [environmental scan](#) and best practices in implementation science to develop the discussion topics.¹³ The study team will collect participation information of all focus group participants, such as demographics and tenure, using a brief (two-minute) questionnaire. During the **co-definition phase**, focus groups for model staff and home visitors will provide qualitative information about training strategies as well as contexts relating to their implementation.

At the end of each learning cycle, in the **installation** and **refinement phases**, the study team will conduct focus groups to gather training facilitators' perspectives on the overall strategies and refinements tested during each cycle. Specifically, focus groups for training facilitators will use a review-reflect-revise approach. They will review and reflect on data gathered from the learning cycle and post-training forms about how they implemented training strategies, their perceptions of how strategies are working, and suggestions for improvement. They will use this information to identify refinements for the next cycle.

During the **summary phase**, focus groups for national model staff, training facilitators, and home visitors will reflect on lessons learned about refinements tested across cycles, seek to understand home visitors' reactions to the training strategies, and discuss the perceived potential to improve future trainings.

Two members of the study team will conduct the focus groups via phone or virtual meeting platform. The study team will have one focus group facilitator and one notetaker from the study team at each session. At the beginning of each session, the focus group facilitator will explain to all participants the purpose of the study, their privacy rights, and the voluntary nature of the study. If participants consent to be recorded, the study team will record and transcribe each focus group. The recordings and transcriptions will only be shared within the study team and will be destroyed at the end of the study.

¹³ See footnote 6.

After each focus group, the study team will prompt training facilitators to complete a two-minute web-based form via email, which will highlight focus group participant characteristics and demographic data.

REQUEST FOR ADMINISTRATIVE INFORMATION

Between the model staff focus groups conducted during the **co-definition phase**, the study team will use an online request form for administrative information. In it, the team will request documentation from model staff that contains the guidance they have created on training strategies and information about planning for and measuring the success of their training strategies. Near the end of the study, the team will use study findings to define training strategies and suggest relevant updates to any administrative documents received through the initial request.

Table 2. Summary of Data Collection Activities

Instrument	Phase	Respondent, Content, and Purpose of Collection	Mode	Duration and Frequency
Protocol for focus groups with model staff	Co-definition Phase	<p>Respondent: National model staff and training facilitators</p> <p>Estimated number of respondents per model: 6</p> <p>Estimated number of respondents across all models: 24</p> <p>Content: Guidance about strategies for conducting professional development trainings; facilitators of and challenges to implementation; trainer self-efficacy</p> <p>Purpose: Understand the strategies used in professional development trainings, implementation successes and challenges</p>	In-person, phone, or virtual meeting platform	90 minutes (twice)
Request form for administrative information	Co-definition Phase	<p>Respondent: National model staff</p> <p>Estimated number of respondents per model: 1</p> <p>Estimated number of respondents across all models: 4</p> <p>Content: Guidance about training strategies; information about planning for and measuring the success of those strategies to promote home visitor self-efficacy and satisfaction</p> <p>Purpose: Understand factors and outcomes related to the strategies</p>	Web-based	20 minutes (once)
Protocol for focus groups with home visitors	Co-definition and Summary Phases	<p>Respondent: Home visitors</p> <p>Estimated number of respondents per model: 5–12¹⁴</p> <p>Estimated number of respondents across all models: 20–36</p> <p>Content: Overall impression of, satisfaction with, and perceived utility of trainings; participant characteristics (race/ethnicity, tenure in position, tenure with agency)</p> <p>Purpose: Understand impressions of trainings strategy, perceptions of how they work, and suggestions for improvement</p>	Phone or virtual meeting platform	60 minutes (once per phase)
Protocol for focus groups with training facilitators	Installation and Refinement Phases	<p>Respondent: Training facilitators</p> <p>Estimated number of respondents per model: 6</p> <p>Estimated number of respondents across all models: 24</p> <p>Content: Training strategies; training facilitator self-efficacy; home visitors’ satisfaction, engagement, and participation with trainings; participant characteristics (race/ethnicity, tenure in position, tenure with agency)</p> <p>Purpose: Understand how staff implement a strategy, their perceptions of how it is working, and suggestions for improvement</p>	Phone or virtual meeting platform	60 minutes (once per cycle)

¹⁴ Estimated range of home visitor respondents based on assumption that home visitors may or may not be available to participate in more than one focus group.

Table 2. Summary of Data Collection Activities (Continued)

Instrument	Phase	Respondent, Content, and Purpose of Collection	Mode	Duration and Frequency
Learning cycle form for training facilitators	Installation and Refinement Phases	<p>Respondent: Training facilitators</p> <p>Estimated number of respondents per model: 10</p> <p>Estimated number of respondents across all models: 40</p> <p>Content: Content and practice strategies in trainings; facilitator perceptions of engagement and self-efficacy; challenges with facilitating trainings</p> <p>Purpose: Understand training and strategies used, challenges, and facilitator self-efficacy</p>	Web-based	15 minutes, semi-monthly (three per cycle)
Post-training form for home visitors	Refinement Phase	<p>Respondent: Home visitors</p> <p>Estimated number of respondents per model: 5-6</p> <p>Estimated number of respondents across all models: 20-24</p> <p>Content: Home visitor self-efficacy, satisfaction, and engagement; challenges</p> <p>Purpose: Understand how training strategies influence home visitors' self-efficacy to deliver instruction and education to families during virtual home visits</p>	Web-based	Three minutes (one per training)
Protocol for focus groups with model staff – Summative	Summary Phase	<p>Respondent: National model staff and training facilitators</p> <p>Estimated number of respondents per model: 6</p> <p>Estimated number of respondents across all models: 24</p> <p>Content: Lessons learned and reflection about training strategies used throughout learning cycles; training facilitator self-efficacy; home visitors' satisfaction with strategies; home visitors' perceived engagement and participation; self-efficacy</p> <p>Purpose: Understand type, frequency, and purpose of strategies used, perceived potential to improve services</p>	Phone or virtual meeting platform	60 minutes (once)

DATA QUALITY

To collect data consistently, the study team will develop appropriate processes for each data collection activity. For all questionnaires, the study team will develop web-based survey response criteria. For example, the study team will have numeric range restrictions on questions about caseload, age, and program start and end dates, among others. The instrument will include skip patterns to ask respondents only the most relevant questions. When analyzing quantitative questionnaire data, such as from a learning cycle form for training facilitators or a post-training form for home visitors, the study team will use simple descriptive statistics and cross tabulations to assess sample size, sample characteristics, and data quality through response rates.

The study team leaders will train all focus group facilitators and notetakers. The study team will meet regularly during the data collection period to support ongoing training. For instance, the team will revisit the intent of questions or tips to use phrasing that elicits on-track responses.

Team leadership will also train study team members to review each type of administrative material received from the models using a standardized checklist. They will develop standardized templates with clear guidance on the process for extracting administrative information from each document.

OFFICE OF MANAGEMENT AND BUDGET AND INSTITUTIONAL REVIEW BOARD APPROVAL

The study team will begin developing instruments at least 10 months before the start of data collection to account for the time needed to obtain Office of Management and Budget (OMB) and Institutional Review Board (IRB) approval. The study team will seek approval to provide tokens of appreciation to study participants, such as model payments. Where required, the team will obtain consent from participants for data collection activities. Early in the model recruitment process, the study team will determine whether a potential study site has a local IRB process that should be factored into the planning process.

INTERESTED PARTY ENGAGEMENT

The study team will engage interested parties (including national model staff, program administrators, home visitors, and subject matter experts) to provide feedback on several aspects of the study design and implementation.

As the study team develops focus group protocols, they will gather input from models and home visitors through the advisory boards developed for this study. Doing so will provide a valuable opportunity to ensure that the questions are easy to understand and based on the real-world operations or actions of models, home visitors, and home visiting program staff. If expert recommendations do not identify enough models during the recruitment phase, the study team will consult interested parties to identify models that train their home visitors on delivering virtual home visits. The study team will ask program implementers, program administrators, and national model staff in the interested party group to provide feedback on the study approach and feasibility of changes or refinements the study participants test throughout the learning cycle process.

Learning from subject matter experts who have studied similar research questions about professional development and training facilitation in home visiting will be particularly valuable. During the **co-definition phase**, the study team will ask subject matter experts to help identify and provide feedback on specific training strategies related to virtual service delivery in home visiting. The study team will seek expert group input on summative findings and implications for the study designs. Understanding how the themes and findings align with existing research, practice, and policy will help us to frame this study's findings in a larger context and help to confirm the interpretations of the data.

ANALYSIS PLAN

Over the course of the study, the study team will assess the implementation of strategies, refinements to strategies, and changes in short-term outcomes. The study team will work with programs to identify indicators and set benchmarks for the success of a strategy based on: (1) data from the previous learning cycle, when available; and (2) programming goals, such as home visitors' satisfaction, engagement, and self-efficacy. Throughout each learning cycle, the study team will meet with model staff to discuss progress, identify challenges and barriers, monitor data, and refine the strategy, as necessary. They will discuss these analysis steps with model staff for all types of data collected.

FOCUS GROUPS

After collecting data during each learning cycle, the study team will prepare the data for analysis, extract topics and themes from each focus group discussion, and summarize themes and findings. The study team will use a professional service to transcribe all recorded conversations, and interviewers will

review the transcripts for accuracy and completeness. As needed, they will use the recording and their notes to fill in any information the transcriptionist omitted or miswrote because of a recording's inaudibility.

After each round of data collection, the study team will use a deductive approach to code all focus group transcripts, extract key ideas about each coded excerpt, and group data thematically for analysis. To analyze qualitative data, the study team will develop and apply a coding scheme to identify common themes across topics or respondent types. The codes will be based on topics from the research questions, data collection instruments, and input from data collectors. For example, the study team will review the focus group protocols to identify potential codes because the protocol questions reflect topics of interest relevant to the research questions. Coders will review output for various codes and summarize any high-level themes about individual codes or groups of codes.

During the **co-definition phase**, the study team will develop a codebook to promote coder reliability. A senior qualitative researcher will review the codebook, and the study team will use the codebook during each learning cycle to complete a two-step analytic process encompassing primary coding of transcripts and secondary analysis of information collected from their review of administrative documents. A senior qualitative researcher will oversee these processes to promote reliable coding and theme generation.

QUESTIONNAIRE DATA

The study team will collect and analyze data regularly to examine whether strategies are affecting implementation or proximal outcomes.

When analyzing quantitative questionnaire data from the learning cycle form for training facilitators and the post-training form for home visitors, the study team will review summary statistics – such as descriptive tables, cross tabulations, correlations, and trend analyses – to identify patterns and common themes, such as connections between home visitors' satisfaction and active participation and the training strategies that training facilitators used.

SUMMARY OF THEMES AND FINDINGS

After each learning cycle, the study team will share findings with model staff, such as summary statistics from a learning cycle form or initial themes identified during the analysis of focus group data. Then, as described above, the study team will hold a discussion with model staff about interpreting the data and determining next steps. Based on the discussion, programs could: (1) adjust the strategy based on their experience and test the version of the strategy in the next cycle; (2) identify another emerging challenge to address in the next learning cycle; or (3) implement the strategy with new training facilitators interested in scaling up the strategies within their models.

At the end of the study, the team will summarize high-level themes identified across learning cycles and models and share the summative findings with model staff and federal partners, such as the themes and recommendations identified through data collection activities and analysis. Findings will be shared in a summative report, as well as through other dissemination methods. The study team will craft a dissemination plan that includes outreach to model developers, home visitors, and other interested parties. For example, summative findings and recommendations could be adapted into a shorter and more accessible brief or fact sheet, or into presentation format. The summative report will also serve as the basis for other dissemination products (such as conference presentations, manuscripts, and web-based products) that can inform practice, policy, technical assistance, and future research.

ESTIMATED TIMELINE

Table 3 presents the key tasks within the proposed study schedule.

Table 3. Estimated Timeline for Study Activities

Task		Year 1					Year 2					Year 3					
		1	3	5	7	9	11	1	3	5	7	9	11	1	3	5	7
3	Interested party engagement																
5	Study design and OMB																
	OMB clearance																
	IRB																
6	Conduct research study																
6.1	Model identification																
6.2	Individual recruitment																
6.3	Data collection																
6.4	Progress reports																
7	Analysis and reports																
8	Dissemination																

APPENDIX A. SAMPLE DATA COLLECTION TOPICS AND QUESTIONS

Tables A.1 and A.2 provide illustrative lists of sample topics, constructs or measures, and items that the proposed quantitative and qualitative data collection instruments may include.

Table A.1. Sample Topics, Constructs or Measures, and Items for Questionnaires

Instrument	Topic	Key Constructs	Sample Items
Learning cycle form for training facilitators	Strategy implementation	<ul style="list-style-type: none"> • Training and strategies used • Challenges • Training facilitators' perceptions of engagement and self-efficacy 	<ul style="list-style-type: none"> • What types of strategies did you use in trainings? • On a scale of 1 to 5 (1 being not at all confident and 5 being very confident), how confident are you that you trained home visitors to deliver services during a virtual home visit? • What were the biggest challenges to implementing the content and practice strategies when training home visitors? • On a scale of 1 to 5 (1 being not at all and 5 being a great deal), how engaged were home visitors during the training?
Post-training form for home visitors	Strategy implementation	<ul style="list-style-type: none"> • Satisfaction with trainings received • Engagement 	<ul style="list-style-type: none"> • On a scale of 1 to 5 (1 being poor and 5 being excellent), how well did the training facilitator present the content? • On a scale of 1 to 5 (1 being very unsatisfied and 5 being very satisfied), how satisfied are you overall with the training on delivering virtual visits? • On a scale of 1 to 5 (1 being not at all and 5 being a great deal), how engaging did you find the training content? • On a scale of 1 to 5 (1 being not at all and 5 being a great deal), how well were you able to pay attention during the training?
	Service delivery	<ul style="list-style-type: none"> • Home visitors' self-efficacy 	<ul style="list-style-type: none"> • Do you think the training you received will improve your virtual visits?

Table A.2. Sample Topics, Items, and Probes for Focus Groups

Instrument	Topic	Sample Items	Sample Probes
Protocol for focus groups with model staff – co-definition phase	Guidance	<ul style="list-style-type: none"> • Do you have any guidance for home visiting programs about professional development for delivering virtual home visits? 	<ul style="list-style-type: none"> • What guidance documents does your model provide to home visiting programs?
	Community contexts	<ul style="list-style-type: none"> • How does the context of the home visitors' local community influence your training? • What feedback do home visitors have about whether or how the model's trainings enhance virtual home visits? 	<ul style="list-style-type: none"> • How do you collect this feedback? • How did you minimize the challenges related to professional development for delivering virtual services?
	Implementation and challenges	<ul style="list-style-type: none"> • What strategies does your model use to deliver professional development for home visitors about delivering virtual home visits? • What challenges has your model experienced regarding these professional development trainings? • How and why did your model begin providing these trainings? 	<ul style="list-style-type: none"> • What are key topics you discuss with home visitors when delivering these trainings? • Did the trainings present any challenges that might influence home visitors' satisfaction? • Did the trainings present any challenges that might influence a home visitor's workload?
	Self-efficacy	<ul style="list-style-type: none"> • On a scale of 1 to 5 (1 being not at all confident and 5 being very confident), how confident are you that you can adequately train home visitors on delivering virtual services? 	<ul style="list-style-type: none"> • What has made it particularly difficult to effectively train home visitors to deliver virtual services? • Could you tell me more about why you do or do not feel confident to deliver these trainings?

Table A.2. Sample Topics, Items, and Probes for Focus Groups (Continued)

Instrument	Topic	Sample Items	Sample Probes
Protocol for focus groups with training facilitators – learning cycles (installation and refinement phases)	Implementation strategy progress Perceptions of home visitors' satisfaction Suggestions for improvement	<ul style="list-style-type: none"> • What strategies have home visitors used when providing professional development training? • Do you think home visitors are satisfied with the trainings they are receiving? • What barriers or challenges have come up when delivering professional development trainings on virtual home visiting? • What suggestions do you have for how to improve the strategies you have been using? 	<ul style="list-style-type: none"> • What strategies have worked to help communicate the training content? • Do you have any other ideas on changes or additional strategies that you could try to improve current trainings?
Protocol for focus groups with home visitors – co-definition and summary phases	Experience and perception of trainings Application of training content Challenges Home visitors' self-efficacy	<ul style="list-style-type: none"> • What has been your recent experience with these trainings? • What do you like and not like about these trainings? • What training have you used when delivering services during your virtual home visits? • How challenging was it for you to apply the training when delivering virtual services? • On a scale of 1 to 5 (1 being not at all confident and 5 being very confident), how confident are you that you can deliver services during a virtual home visit? 	<ul style="list-style-type: none"> • Do you think the training facilitators are attuned to your program's needs? • Do you think the training you received has enhanced the quality of your virtual home visits?
Protocol for focus groups with model staff – summary phase	Lessons learned Training facilitators' self-efficacy	<ul style="list-style-type: none"> • What training and strategies have been the most successful? • What challenges have you faced when implementing the trainings? • On a scale of 1 to 5 (1 being not at all confident and 5 being very confident), how confident are you that you can train home visitors to effectively deliver virtual services to families? 	<ul style="list-style-type: none"> • Did the strategies you tested improve your confidence to train home visitors in delivering virtual services?