Precision Research and Evaluation Planning and Reflection Tool to Optimize Home Visiting Outcomes

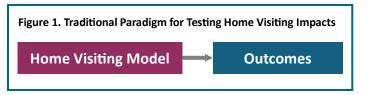


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INTRODUCTION

This document introduces a research and evaluation planning and reflection tool to help home visiting researchers design and carry-out intervention studies that advance knowledge of what works for whom, in what contexts, why, and how.

This tool builds on decades of rigorous study and important home visiting research findings. These studies confirmed that home visiting *can* improve a range of outcomes and form the empirical rationale for designating specific home visiting models as "evidence-based." To be evidence-based, home visiting models must demonstrate favorable outcomes using moderate- or high-quality study designs. Many of these studies used experimental designs that tested the average effects of full home visiting models on outcomes (see **Figure 1**). Average effects, however, can mask meaningful positive and negative differences in impact across varied contexts.



To advance home visiting's efficiency and impact on family outcomes, HARC promotes precision research that:

- Explores specific components of interventions within home visiting (see panel) and identifies those that are most effective, alone or in combination with other components.
- Examines whether some families or communities may benefit more, or differently, from these interventions than others.
- Identifies which program practices, adaptations, and enhancements are customizable to optimize benefits for families, and whether new practices, adaptations, and enhancements are needed.
- Explores how implementation systems can be strengthened to support home visiting staff.

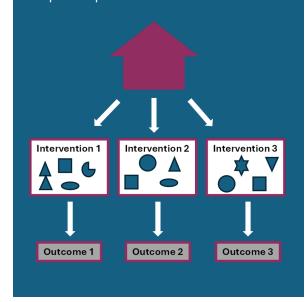
Better understanding how, why, and for whom different home visiting components are most effective can help inform better practices that achieve better outcomes for families.

A CLOSER LOOK AT HOME VISITING

Home visiting is a service strategy that aims to improve a broad set of family-level outcomes. For each outcome a home visiting model or local implementing agency aims to address, there should be a specific intervention for achieving the specified outcome.

Each intervention can be broken down into component parts – including specific techniques home visitors use with families, how often, and when.

For example, a home visiting program might address three outcomes: 1) reduce parenting stress, 2) increase family economic self-sufficiency, and 3) reduce child injury. Achieving each outcome requires a different intervention, with a mix of relevant component parts.



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PRECISION RESEARCH PLANNING TOOL

HARC has developed resources to advance home visiting research. HARC's resources are centered around five elements of precision home visiting research (see box below).

Five Elements of Precision Home Visiting Research

- 1. <u>Focus on Intervention Components</u>: Consider what home visiting staff do, how often, and when, to promote positive outcomes. Take a closer look at the specific components of interventions within home visiting, including techniques such as goal setting or information sharing, and aspects of delivery such as timing and mode.
- 2. <u>Intervention Coherence</u>: Provide an explicit rationale or theory of change for how specific components of interventions within home visiting are expected to promote positive outcomes. Include how this will work in different contexts, and how it is grounded in theory, prior research, and lived experience.
- 3. <u>Study Coherence</u>: Align the study's scope and methods with the theory of change and study questions. Explicitly define key concepts and how they will be measured.
- 4. **Study Efficiency:** Design studies in ways that accelerate development and use of any new knowledge produced.
- 5. <u>Varied Perspectives</u>: Promote the relevance and usefulness of study findings by thoughtfully engaging an array of interested parties in intentional ways throughout all phases of the study—from design to dissemination.

Organized around the five elements, this planning tool presents a set of reflection questions intended to support study teams in designing a home visiting study that uses a precision approach. It utilizes the Precision Paradigm as a grounding framework. The tool is applicable to quantitative, qualitative, and mixed methods studies that aim to develop and test interventions, enhancements, or adaptations within home visiting. While it focuses on family-level outcomes, it is also applicable for studies exploring staff outcomes.

When using the tool, keep in mind:

- An individual study may not address all five elements of precision home visiting research, but study teams can explore whether and how the study's impact could be improved with further consideration.
- For each reflection question, study teams can decide if their study addresses the question; currently does not address it, but the team wants to consider it; or the question is not applicable to their study. There is not an expected number of "Yes, addressed" responses.
- For qualitative studies, it is perfectly acceptable to select "Not applicable" for questions related to quantitative designs.
- Study teams can use the open-ended "Comments and next steps for your study team" to reflect on their responses. This could include more detail on how the team has addressed the question or rationale for why they have not and whether it is feasible in the current study. Some suggested reflections (see "Tip") are included in the "Comments" section, but study teams should use this open-ended section for whatever is useful to them!
- Use the links provided throughout the tool to access more detailed information and additional HARC resources that can assist your team.
- Refer to the Appendix for a glossary of terms that are often referenced in this tool, as well as links to learn more and access resources.

Contact the HARC technical assistance team at harc@hvresearch.org with any questions or to request a study design consultation session.

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REFLECTION QUESTIONS

Element 1: Focus on Intervention Components

Take a closer look at the specific <u>components</u> of interventions within home visiting. Consider what home visiting staff do, how often, and when, to promote specific outcomes.

a.	Does the study aim to understand or assess specific components of the interventions within home visiting (e.g., techniques, delivery method)?		
	☐ Yes, addressed	☐ No, consider further	☐ Not applicable
b.	Are the specific components of the intervention being studied described in a way that others could replicate or compare findings?		
	☐ Yes, addressed	☐ No, consider further	☐ Not applicable
c.	Does the study use an approach that allows for understanding or testing individual components of the intervention vs. looking at the intervention as a whole?		
	☐ Yes, addressed	☐ No, consider further	☐ Not applicable
d.	Is there a focus on understanding which specific components of the intervention will be most useful and effective in specific contexts, why, and how?		
	☐ Yes, addressed	☐ No, consider further	☐ Not applicable
Со	mments and next steps	for your study team.	
Tip	. For questions that are	addressed, study teams can provid	e further detail on the specific

Tip. For questions that are addressed, study teams can provide further detail on the specific components of interventions examined in their study. For questions that are not addressed, study teams can describe whether it is feasible or/or desirable to explore specific components of interventions in the current study or in a future study.

Add your thoughts here:

Element 2: Intervention Coherence

Provide an explicit rationale or theory of change for how specific components of interventions within home visiting are expected to promote positive outcomes. The rational should be grounded in theory, prior research, and lived experience.

a. Are the specific components of the intervention informed by a theory of change that is growing high quality theory, empirical evidence, and/or home visiting experience?			, ,
	☐ Yes, addressed	☐ No, consider further	☐ Not applicable
b. Does the theory of change describe a logical <u>pathway</u> through which the intervention are intended to achieve the <u>outcome</u> ?			ugh which the specific components of the
	☐ Yes, addressed	☐ No, consider further	☐ Not applicable
c.	•	how the specific components of the transfer to the theolead to the expected o	•
	☐ Yes, addressed	☐ No, consider further	☐ Not applicable
d. Does the study examine how the specific components of the intervention may influent engagement?			he intervention may influence <u>reach or</u>
	☐ Yes, addressed	☐ No, consider further	☐ Not applicable
e.	Does the study clearly describe the population and subgroups of interest—the intended families and communities receiving the intervention?		
	☐ Yes, addressed	☐ No, consider further	☐ Not applicable
f.	Does the study examine the relevant <u>contextual factors</u> that may influence the <u>intervention</u> , reach or engagement, and outcomes?		
	☐ Yes, addressed	☐ No, consider further	☐ Not applicable
Со	mments and next steps fo	or your study team.	
an	d how the study maps ont		e further detail on their theory of change dressed, study teams can describe ent study or in a future study.
Ad	Add your thoughts here:		

Element 3: Study Coherence

Align the study's scope and methods with the theory of change and study questions and define and measure key concepts explicitly.

a.	Does the study explore and measure each aspect of the theory of change under consideration?			
	☐ Yes, addressed	☐ No, consider further	☐ Not applicable	
b.	Does the study design examine or account for the relevant contextual factors that influence reach or engagement?			
	☐ Yes, addressed	\square No, consider further	☐ Not applicable	
c.	Does the study design examine or account for the relevant contextual factors that influence expected outcomes?			
	☐ Yes, addressed	\square No, consider further	☐ Not applicable	
d.	Does the study sample reflect the population of interest from the theory of change?			
	☐ Yes, addressed	☐ No, consider further	☐ Not applicable	
e.	Is the sample size and composition adequate to understand how the specific components of the intervention may be differentially effective for subgroups of families?			
	☐ Yes, addressed	\square No, consider further	☐ Not applicable	
f.	Will the sampling plan ensure you obtain a sufficient and/or representative sample from the population of interest?			
	☐ Yes, addressed	\square No, consider further	☐ Not applicable	
g.	Have the selected measures been validated or tested in the population and subgroups of interest?			
	☐ Yes, addressed	☐ No, consider further	☐ Not applicable	
h.	Does analysis plan align with the theory of change?			
	☐ Yes, addressed	\square No, consider further	☐ Not applicable	
i.	Is there a rationale for each variable you include or exclude in your analytic model?			
	☐ Yes, addressed	☐ No, consider further	☐ Not applicable	
Со	mments and next steps f	or your study team.		
•	•	•	further detail on their study design, I, study teams can describe whether it is	

Add your thoughts here:

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feasible or desirable to address them in the current study or in a future study.

Ele	ement 4: Study Effici	iency		
De	rsign studies in ways tha	t accelerate development and use of	new knowledge.	
a.	Do the aims or study questions build on past evidence or aim to fill gaps in the evidence base?			
	☐ Yes, addressed	☐ No, consider further	☐ Not applicable	
b.	Are the aims or study questions relevant and timely, and will they inform practice or policy?			
	☐ Yes, addressed	☐ No, consider further	☐ Not applicable	
c.	Is the study part of a longer-term plan for building new knowledge and strengthening evidence on specific components of interventions within home visiting?			
	☐ Yes, addressed	☐ No, consider further	☐ Not applicable	
d.	Does the study design allow for efficient translation of findings into practice (e.g., descriptive studies, rapid cycle designs, pragmatic trials, factorial trials, implementation-effectiveness designs)?			
	☐ Yes, addressed	☐ No, consider further	☐ Not applicable	
e.	Are principles of Open Science considered or utilized?			
	☐ Yes, addressed	☐ No, consider further	☐ Not applicable	
f.	Does the study utilize a common framework (e.g., Precision Paradigm) and/or terminology that promotes learning across studies?			
	☐ Yes, addressed	☐ No, consider further	☐ Not applicable	
g.	Does the study optimize the use of existing data?			
	☐ Yes, addressed	☐ No, consider further	☐ Not applicable	
Со	mments and next steps	for your study team.		
ac	celerate development a		further detail on how their study will ons that are not addressed, study teams in the current study or in a future study.	
Ad	d your thoughts here:			

Element 5: Varied Perspectives

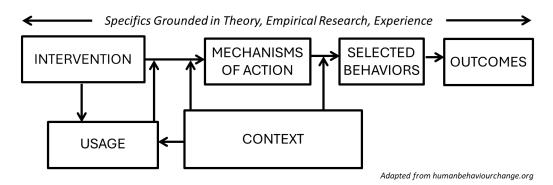
Promote the relevance and usefulness of study findings by <u>engaging</u> the right people in all phases of the study—from design to dissemination.

а.	Did the study team consider how to best engage all potential interest holders who might be affected by the intervention or the study findings?			
	☐ Yes, addressed	☐ No, consider further	☐ Not applicable	
b.	Are interest holders who stand to be most directly affected, positively or negatively, by the intervention or study findings engaged in developing the study questions, study design, interpretation of findings, and implementation decisions?			
	☐ Yes, addressed	☐ No, consider further	☐ Not applicable	
c.	Will findings be disseminated to audiences that could benefit most in an accessible manner?			
	☐ Yes, addressed	☐ No, consider further	☐ Not applicable	
Со	mments and next steps	for your study team.		
Fo	r questions that are not a	•	further detail on their engagement plan. whether it is feasible or desirable to	

Add your thoughts here:

APPENDIX

The Precision Paradigm is a framework for organizing and defining concepts and how they are related to one another. The overall purpose of the Precision Paradigm is to guide home visiting research and evaluation that helps us understand what works for whom, in which contexts, why, and how (<u>Learn more</u>).



The Glossary below provides descriptions of concepts within the Precision Paradigm that are often referenced in this tool, as well as links to learn more and access resources.

Glossary			
Concept	Description	Resources	
Theory	Theories provide rationale for how interventions result in change and how and why systems and context moderate that change. (<u>Learn more</u>)	Theories of Behavior Change Resource	
Intervention components	Interventions, such as those within home visiting, have three main parts: content (techniques and dose), delivery (schedule, style, mode, and source), and tailoring. (Learn more)		
Behavior	Selected behaviors are behaviors or actions that theory or prior research suggests will ultimately lead to intended outcomes. (<u>Learn more</u>)		
Pathway	Pathways provide rationale for how an intervention leads to an outcome. Mechanisms of action are the processes, or mediators, through which specific intervention techniques influence behavior and achieve intended outcomes. (Learn more)	Mechanisms of Action Taxonomy	
Context / Contextual factors	Context is the social ecosystem in which home visiting participants and programs exist. Contextual factors include characteristics arising from systems, communities, organizations, families, and individuals that may influence families' experiences with home visiting, home visiting access, implementation quality, intervention effectiveness, and outcomes. (Learn more)	Contextual Factors Taxonomy	
Reach and engagement	Reach focuses on "coverage" of home visiting programs, including availability, accessibility, awareness, and eligibility. Engagement focuses on families' thoughts and feelings (internal states) and behaviors (external states) regarding their home visiting providers and the service provided. (Learn more)	Directory of Self-Report Measures of Internal Engagement	
Outcomes	Outcomes are the <i>intended long-term impacts or ultimate results of an intervention</i> and may be defined at multiple levels of the home visiting system. (<u>Learn more</u>)		

Evidence-based

Evidence-based home visiting models have demonstrated favorable outcome domains including child development and school readiness; child health; family economic self-sufficiency; linkages and referrals; maternal health; positive parenting practices; reductions in child maltreatment; and reductions in juvenile delinquency, family violence, and crime.

Home Visiting Evidence of