



Family Spirit's Approach to Precision Home Visiting

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Family Spirit Intervention



Home-Based Outreach



Structured, home-based curriculum taught by AI Home Visitors to young mothers from pregnancy – 36 mos post-partum



Family Involvement



Community Referrals



Family Spirit Impact

Parenting knowledge

Parenting self-efficacy



Parenting stress



Depression
Substance use



Social emotional development



People need and want different things



VS.



National Home Visiting Programs

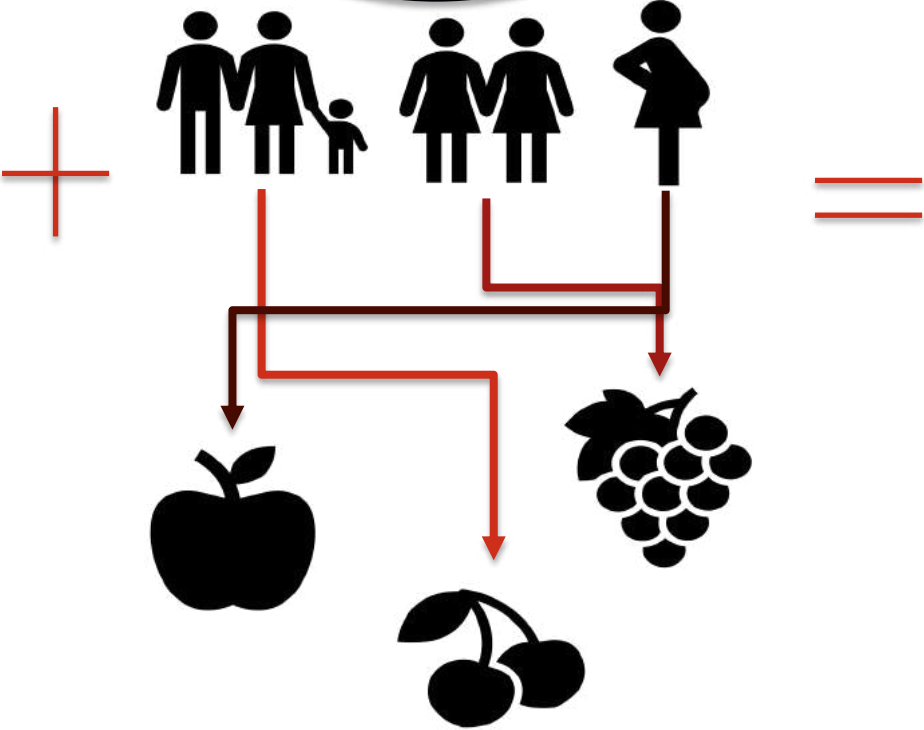
- Average effect sizes across models are usually small indicating a need to explore heterogeneity in effects
- Retention is challenging – only 50% of families retained by 12 months
- Some evidence to suggest tailoring services improves engagement and retention, but little systematic guidance on how we do that

Precision Home Visiting

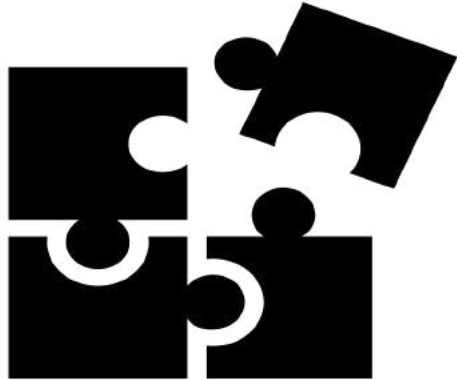
Identify Active ingredients



Identify meaningful subgroups



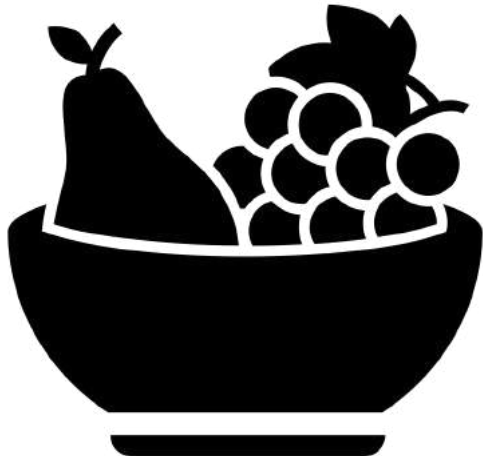
Applying design modularity to put it together



Utilizing broad-based partnerships to design a precision approach to implementing evidence-based home visiting

Emily E. Haroz¹ | Allison Ingalls¹ | Joshua Wadlin² | Crystal Kee¹ |
Marissa Begay¹ | Nicole Neault¹ | Allison Barlow¹

Identifying
active
ingredients



Survey of program implementers (N = 71)

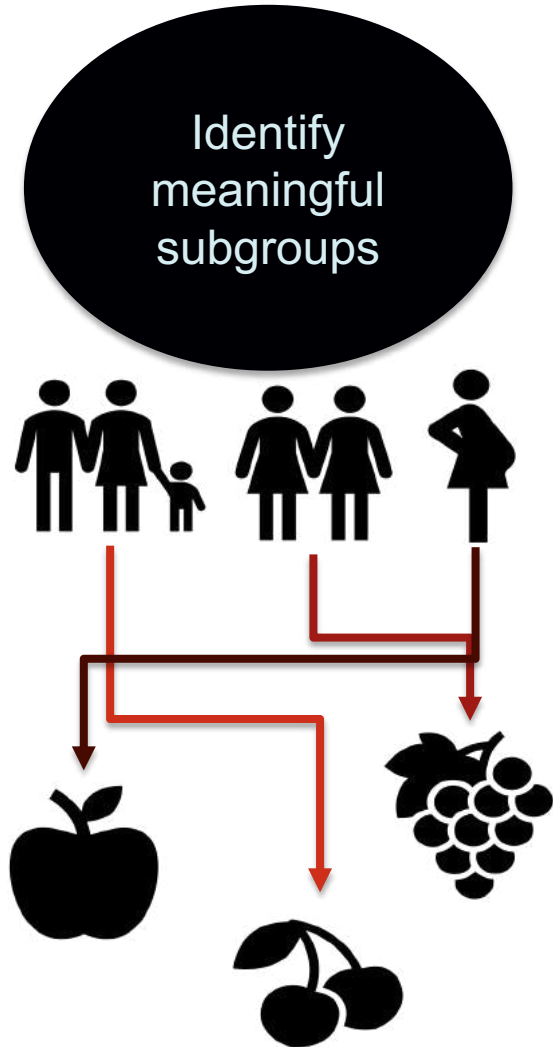
Below is a list of Family Spirit lessons from the Prenatal Care module. Based on your experience and knowledge of moms living in the community you serve, we want you to decide how important each lesson is to **improving parenting**. Slide the grey bar to indicate how much each lesson contributes to improved parenting.



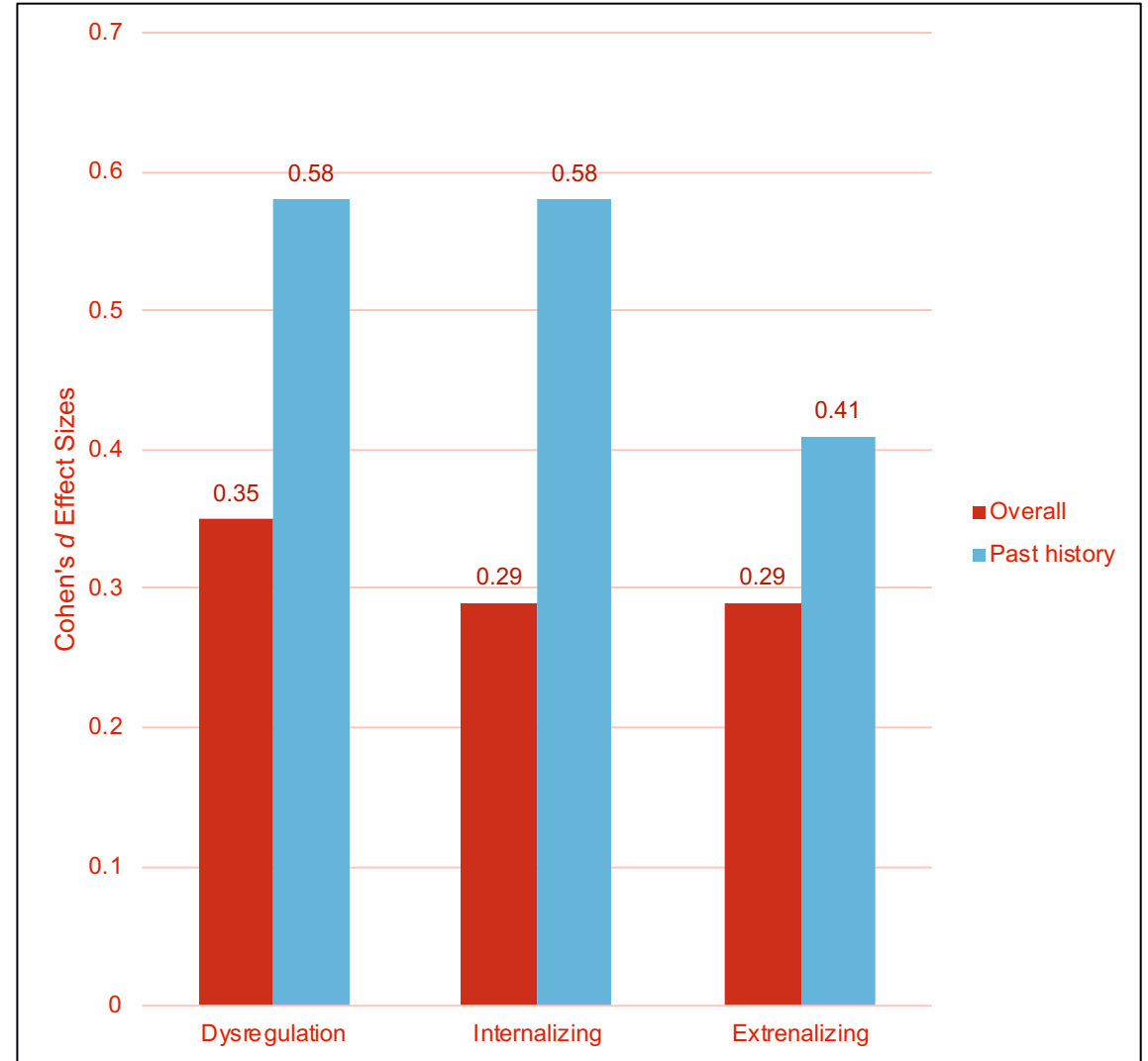
Informing Precision Home Visiting: Identifying Meaningful Subgroups of Families Who Benefit Most from Family Spirit

E. E. Haroz , A. Ingalls, C. Kee, N. Goklish, N. Neault, M. Begay & A. Barlow

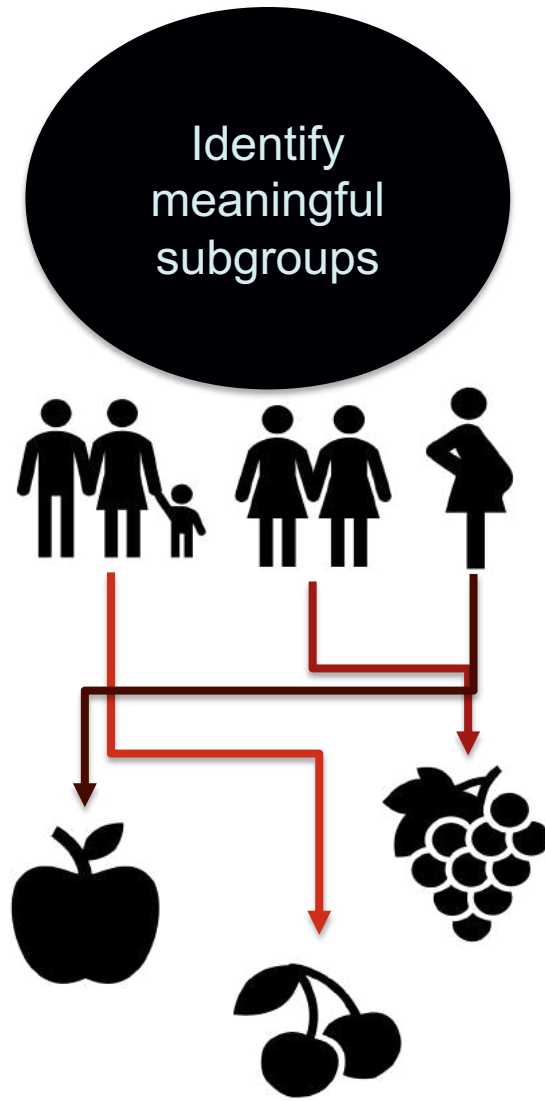
[Prevention Science](#) 20, 1244–1254(2019) | [Cite this article](#)



Child outcomes by history of maternal substance use (N = 322)



Survey of program implementers (N = 71)



After Your Baby is Born - mom's emotional/physical changes

How to Feed

How to Diaper

How to Dress

Bedtime Safety

How to Bathe

How to Comfort Your Crying Child

How to Protect - from injuries

What to Do if Your Baby is Sick

What are Immunizations and Why do we Need Them?

More about Immunizations

Parenting Techniques - beginning to recognize patterns in baby's behavior

Protecting Children from Abuse and Neglect

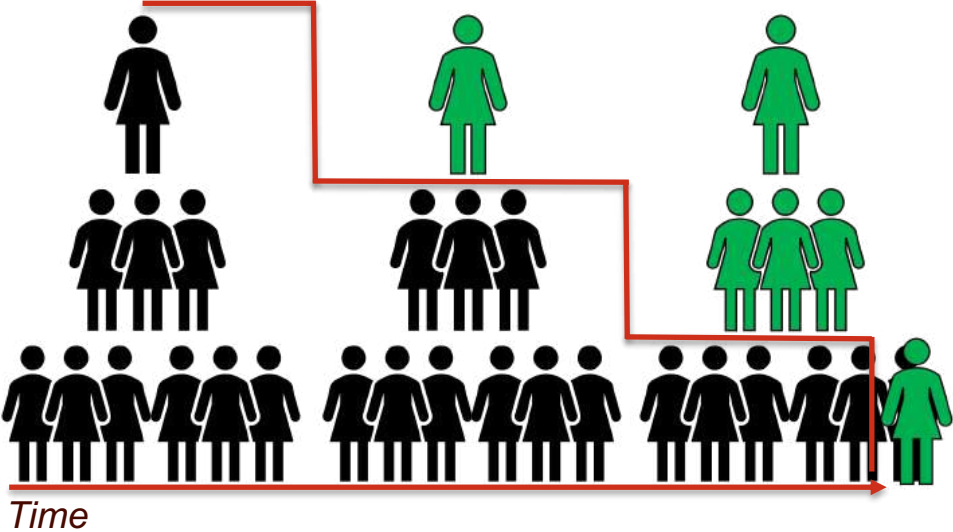
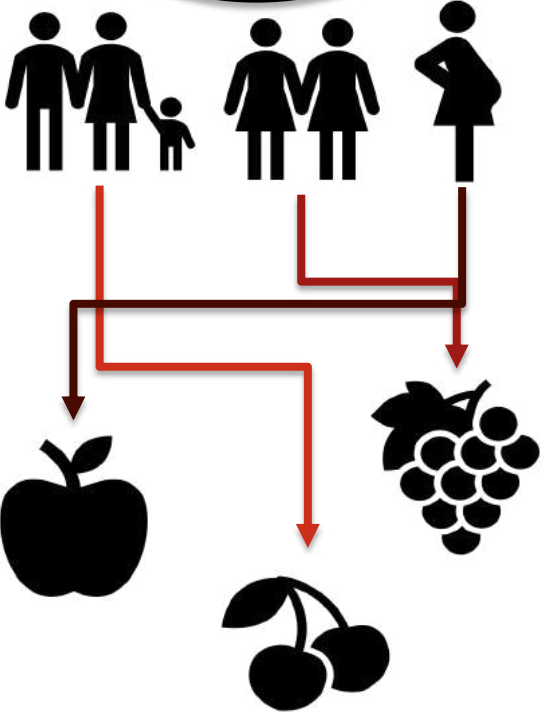
Introducing Solid Foods to Your Baby

Introduction to Oral Health Care

Oral Health Care: Getting a Healthy Start

Secondary Data Analysis (N = 322)

Identify meaningful subgroups

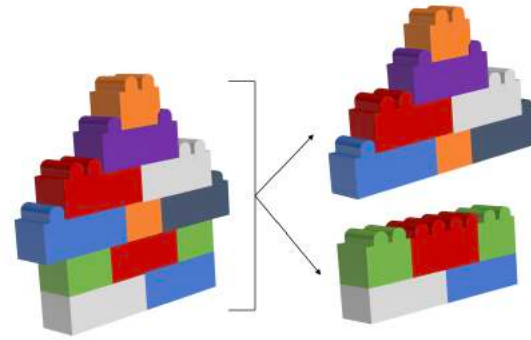


50% of participants improved significantly by 24 months PP across a range of outcomes

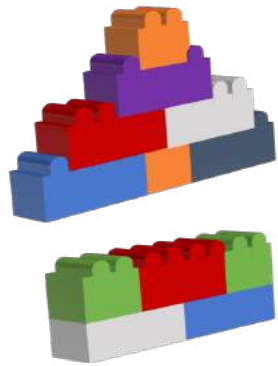
Design Modularity



Each Lego = Active ingredient



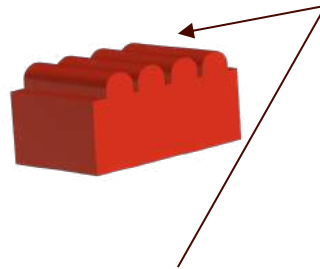
Interventions can be broken down into modules containing active ingredients



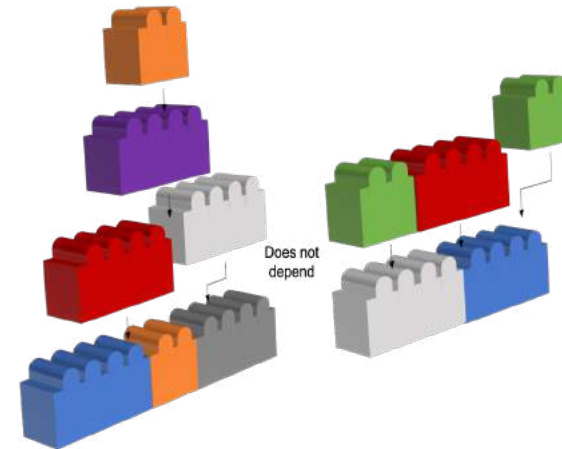
= Roof

= Foundation

Each module produces a result

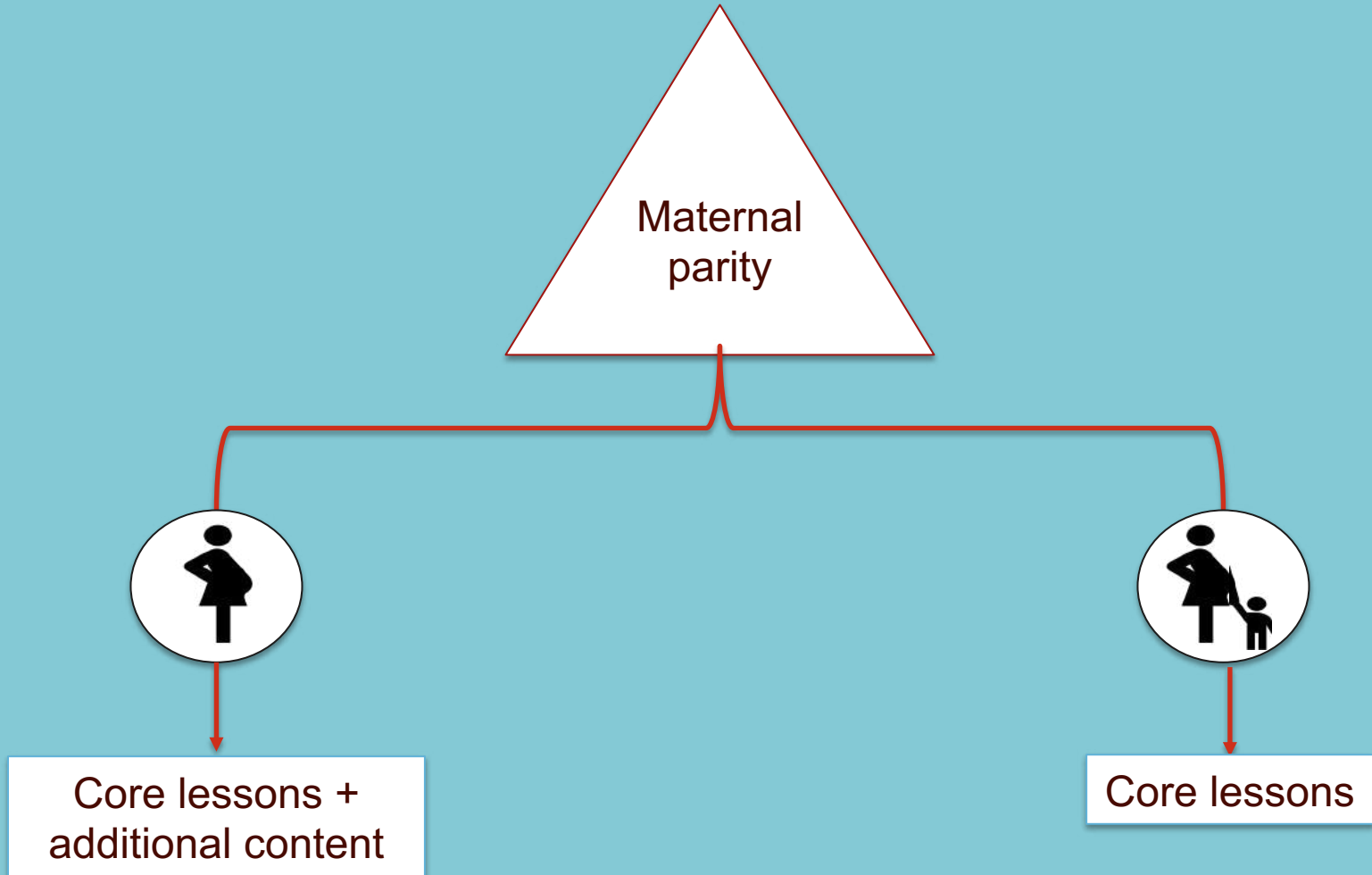
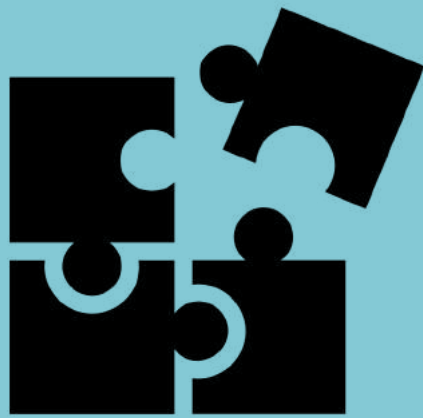


Each module connects to other modules in the same way

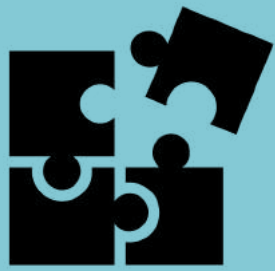


How you put together a module does not depend on how you put together another module

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Design Priority





Piloting a Precision Approach to Family Spirit



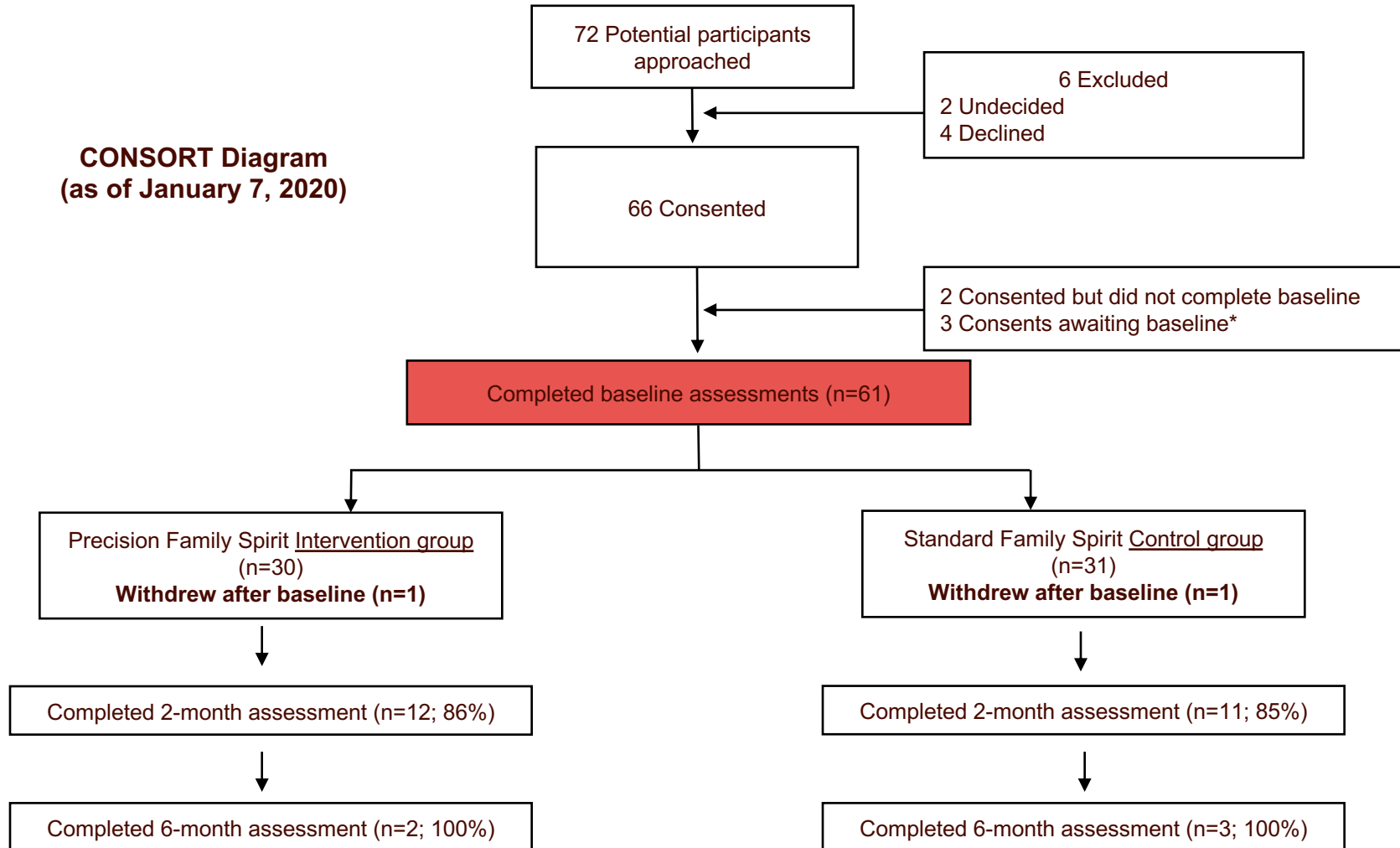
Aims

A hybrid Type-III Pilot Implementation trial to:

- 1) Explore the acceptability and feasibility of a precision approach to home visiting from the perspective of enrolled mothers;
- 2) Examine the difference between *Precision Family Spirit* and *Standard Family Spirit* on program satisfaction, client-home visitor relationship, goal alliance and retention; and
- 3) Inform study design and other features for a fully powered study

Precision Family Spirit Pilot Study

CONSORT Diagram
(as of January 7, 2020)



**Study staff have been unable to contact these participants, but they have not yet fallen out of the baseline window.*

Sample Demographics

		Standard FS	Precision FS
N		31	30
Age, mean (SD)		26.7 (5.3)	26.3 (5.1)
Race/Ethnicity	American Indian or Alaska Native	15 (48%)	16 (53%)
	Black or African American	0 (0%)	6 (20%)
	White or Caucasian	15 (48%)	8 (27%)
	Don't Know	1 (3%)	0 (0%)
Hispanic	No	28 (90%)	26 (87%)
	Yes	3 (10%)	4 (13%)
Income Category	50% and under	12 (39%)	12 (41%)
	51%-100%	7 (23%)	13 (45%)
	100%-133%	2 (6%)	1 (3%)
	134%-200%	5 (16%)	3 (10%)
	201%-300%	3 (10%)	0 (0%)
	>300%	2 (6%)	0 (0%)
First time mother	No	15 (48%)	21 (70%)
	Yes	16 (52%)	9 (30%)
Ever use alcohol	No	1 (3%)	3 (10%)
	Yes	30 (97%)	27 (90%)
Ever use drugs	No	14 (47%)	15 (50%)
	Yes	16 (53%)	15 (50%)
Nutrition concerns	No	28 (90%)	25 (83%)
	Yes	3 (10%)	5 (17%)
Housing concerns	No	26 (84%)	23 (77%)
	Yes	5 (16%)	7 (23%)

Update: Precision Family Spirit Pilot Study

- Visit check-ins
 - Administered at each precision FS group lesson visit to assess specific outcomes
 - Measurement-based approach
 1. Respond to emergent needs
 2. Track clients over time
- Example: Top Problems Scale
 - First assessed at baseline
 - Same challenges tracked throughout study

2. What are the challenges you are most worried about right now related to parenting?

* **Top Parenting Challenge #1** Routine

On a scale of 0 (not at all) to 10 (very, very much), how big of a challenge is this for you?

No difficulty

A little difficulty

A moderate amount of difficulty

A lot of difficulty

Refuse to Answer

Top Parenting Challenge #2 Discipline

On a scale of 0 (not at all) to 10 (very, very much), how big of a challenge is this for you?

No difficulty

A little difficulty

A moderate amount of difficulty

A lot of difficulty

Refuse to Answer

Top Parenting Challenge #3 Teaching/learning

On a scale of 0 (not at all) to 10 (very, very much), how big of a challenge is this for you?

No difficulty

A little difficulty

A moderate amount of difficulty

A lot of difficulty

Refuse to Answer

Update: Precision Family Spirit Pilot Study

- Home visitor perspectives:
 - Recognition that “tailoring” was already happening but needs to be studied and validated
 - Useful to have guidance and consistency in questions participants are asked
 - More accountability for focusing on content delivery and not just “crisis management” – education is important even during tough situations
 - Lesson pathways allow for skipping lessons that are not relevant to families
 - Appreciate that Care4 provides schedule of lessons based on family’s needs

Precision Group: “I really liked the program, because I just, I get like she brings books and stuff for me. And it’s really helpful to know more like about what to do with my baby how to play with her and like, what to make for her, so she can eat food.”

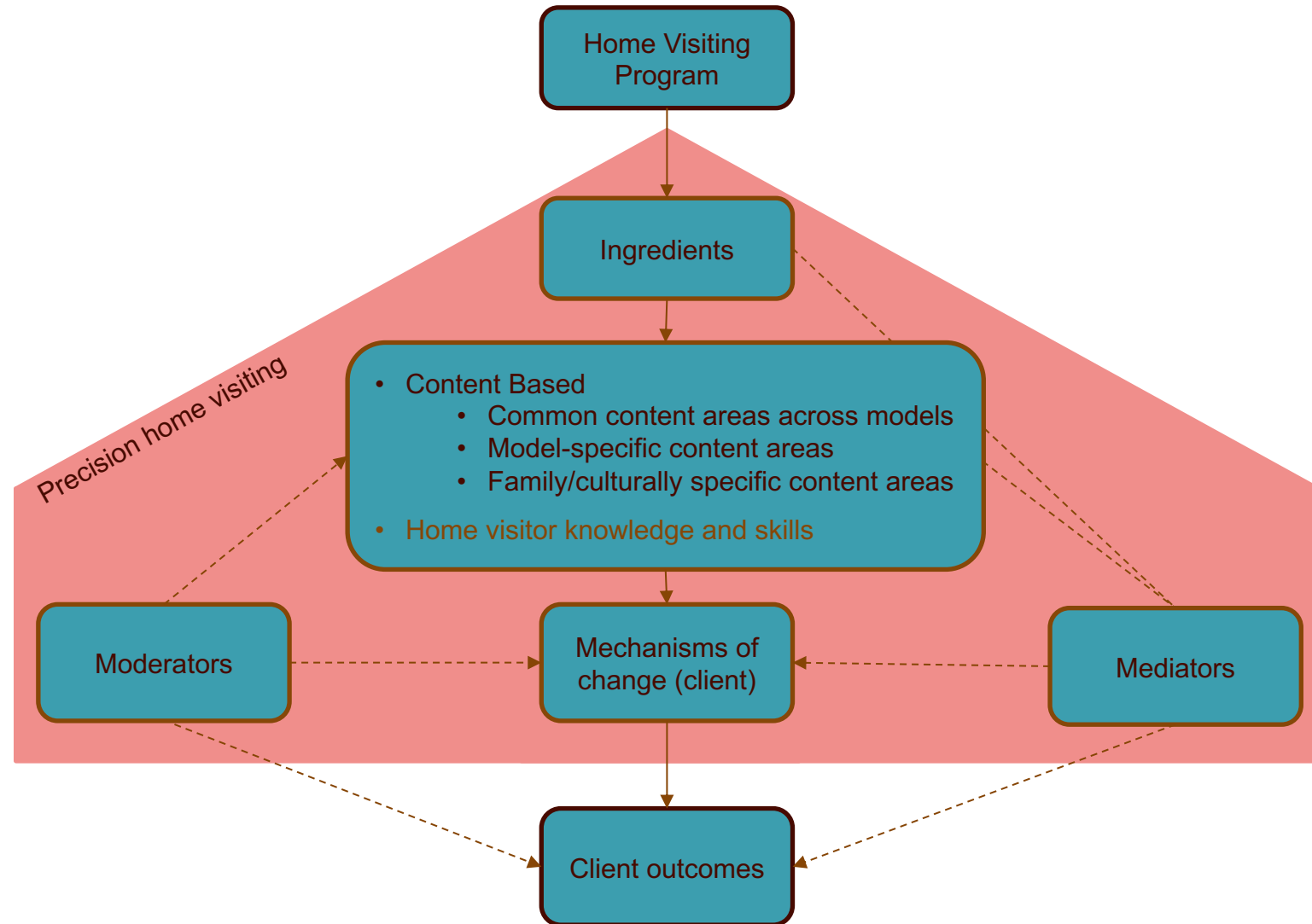
Standard Group: “[the least helpful thing has been] smoking questions and education because it is irrelevant in our household.”

Limitations

- Identification of active ingredients based on opinions
- Modules created only within existing Family Spirit content
- Under powered pilot trial

A Peak into Next Steps

- National level work to identify common elements across home visiting models
- Expert panels – taxonomy of common content areas across evidence-based models
- Coding of model manuals/curriculum based on taxonomy



How to get involved?

- Feedback/thoughts welcome
- Join the expert panel!
 - Questionnaire
 - 2-3 Webinars
- Join our team of coders

Thank you for listening. If you would like to learn more about our work or get involved, please contact one of our study team members:

- Dr. Emily Haroz, Study PI
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- Allison Ingalls, Research Coordinator
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