Improving Hispanic children's early language environments

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HÁBLAME BEBÉ

Introduction

- Early language exposure is critical for the development of foundational brain circuitry required for higher learning
- A child's early language exposure sets the foundation for cognitive ability, literacy, school readiness, and ultimately, educational achievement
- The best language interaction happens when caregivers speak their home language to their infants and children
- The Language Nutrition solution

Study rationale

- Our precision home-visiting approach
- The problem:
  - Disparities facing low-income Hispanics
  - Low-income Hispanic children's developmental and language-related delays identified significantly later
  - The language ideology problem in the US (Baralt, Darcy Mahoney, & Brito, in press)
  - A striking absence of accessible, culturally acceptable, and evidence-based interventions that teach about the role of bilingual language development for low-income Hispanic families
- Our hypothesis
- Nurse-Family Partnership

Role of an Háblame Bebé Coach

- Nurses at Nurse-Family Partnership in Miami-Dade County will be trained to educate and coach expectant and new mothers about why and how to talk with their babies

Believe every parent has the power to help their child learn → Share knowledge and enthusiasm for Language Nutrition → Explicitly address language ideology, why/how to be proud to be Hispanic → Increase verbal transactions between mothers and babies

PARENT GUIDE

T

TALK
with your baby, paying attention to his or her social and verbal communication

- Talk about everything.
- Ask your baby questions.
- Answer for your baby.
- Respond to your baby's expressions, vocalizations, and movements.

I

INTERACTIONS
will grow your baby's brain

- Feed your baby words.
- Be a "sportscaster." Narrate what you do all day long.

P

PRACTICE

- Talk with your baby all the time!
- Talk with your baby everywhere you go!

S

SING
read, and tell stories

- Sing songs.
- Read books to your baby.
- Tell your baby stories.

HÁBLAME BEBÉ (Talk to me Baby)

1. **U.S. *Learn the Signs, Act Early***
   Developmental milestones in Spanish

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2. **Bilingual vocabulary tracker in Spanish and in English**

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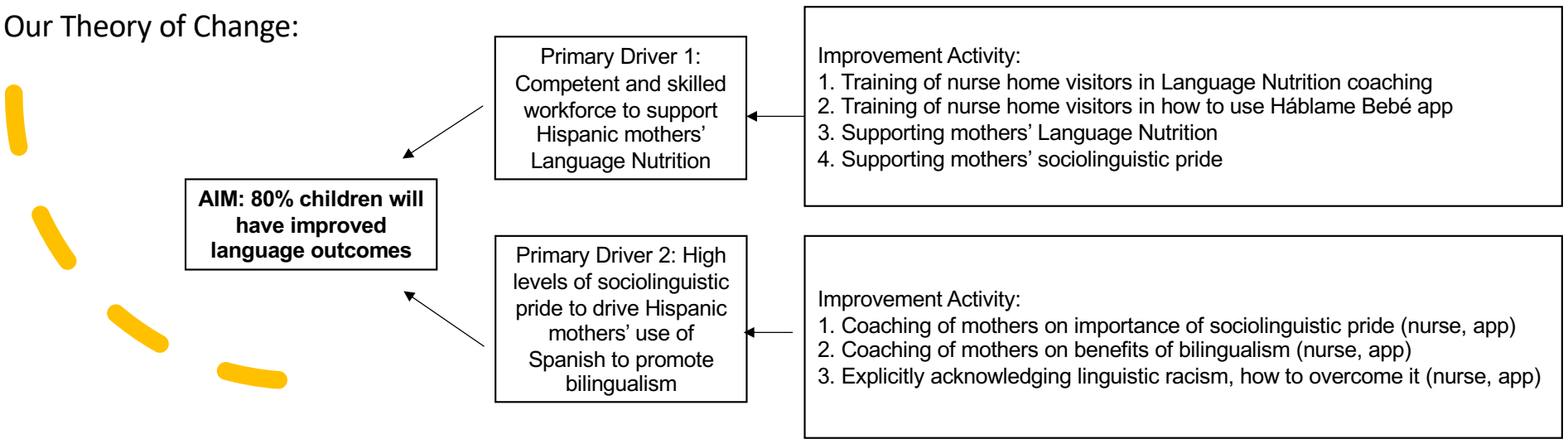
3. **Videos and educational modules**
4. **Motivational push notifications**

Objectives

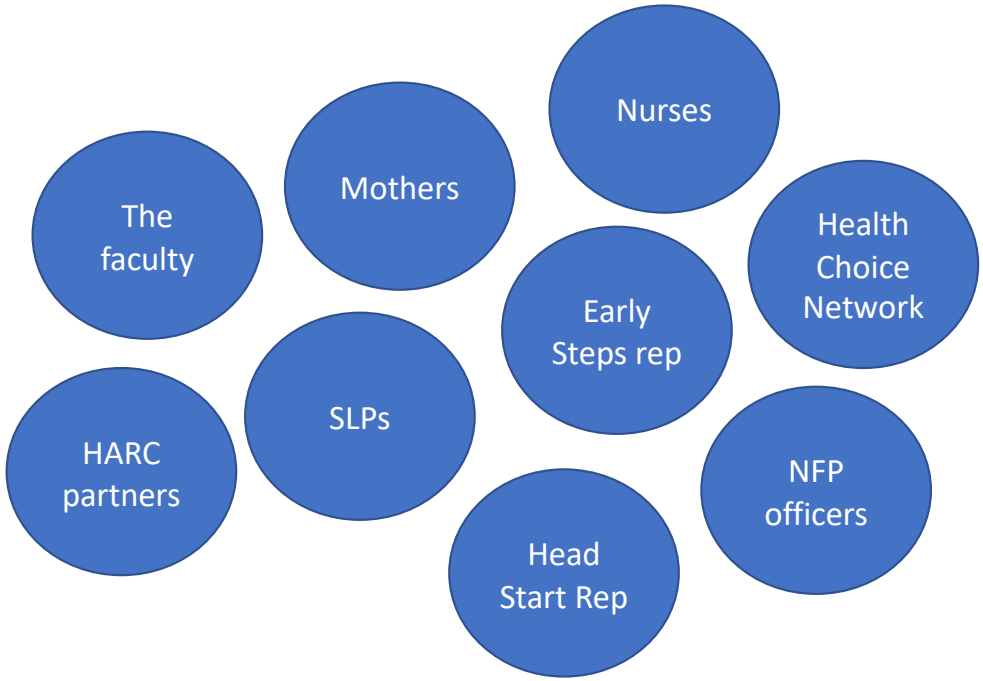
OUR AIM:	To improve the Language Nutrition of low-income Hispanic children enrolled in Nurse-Family Partnership.
OUR MEASURES:	We will measure outcomes for nurses, mothers, and children. These may change as we progress across our PSDA cycles and as determined by the nurses and team.
OUR IDEAS:	Ideas, or the changes made to meet our aim, will be determined as they will be generated from the rapid cycle testing, where each cycle is guided by the Plan-Study-Do-Act (PSDA) method.

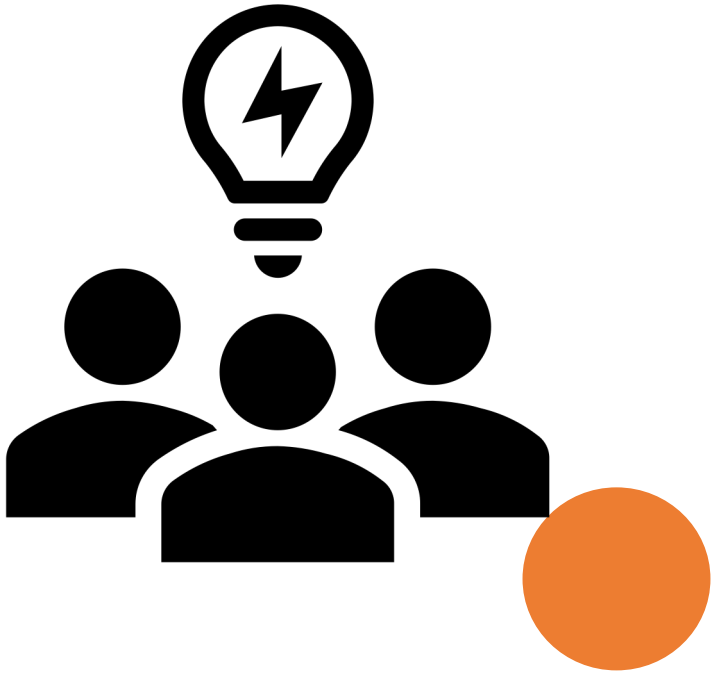
Our Theory of Change:



Methods

- **<u>Step 1</u>: Team formation**

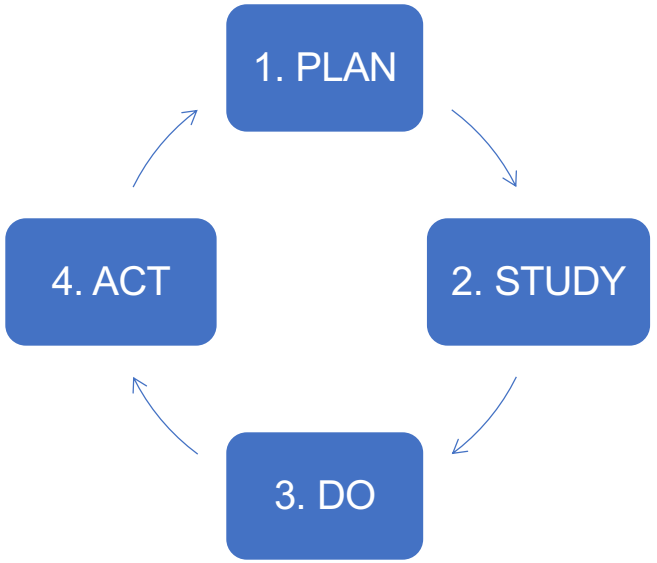




Methods

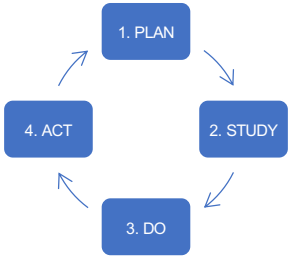
- **<u>Step 2</u>: PSDA cycles** (CQI Model for Improvement)

Following the Breakthrough Series Collaborative Model (Arbour et al., 2019), we will use a rapid-cycle evaluation framework that allows for continuous adjustments and new ideas to be added to our intervention based on team-based ideas that are generated from iterations of data feedback. We will do this across <u>three</u> Plan-Study-Do-Act cycles.



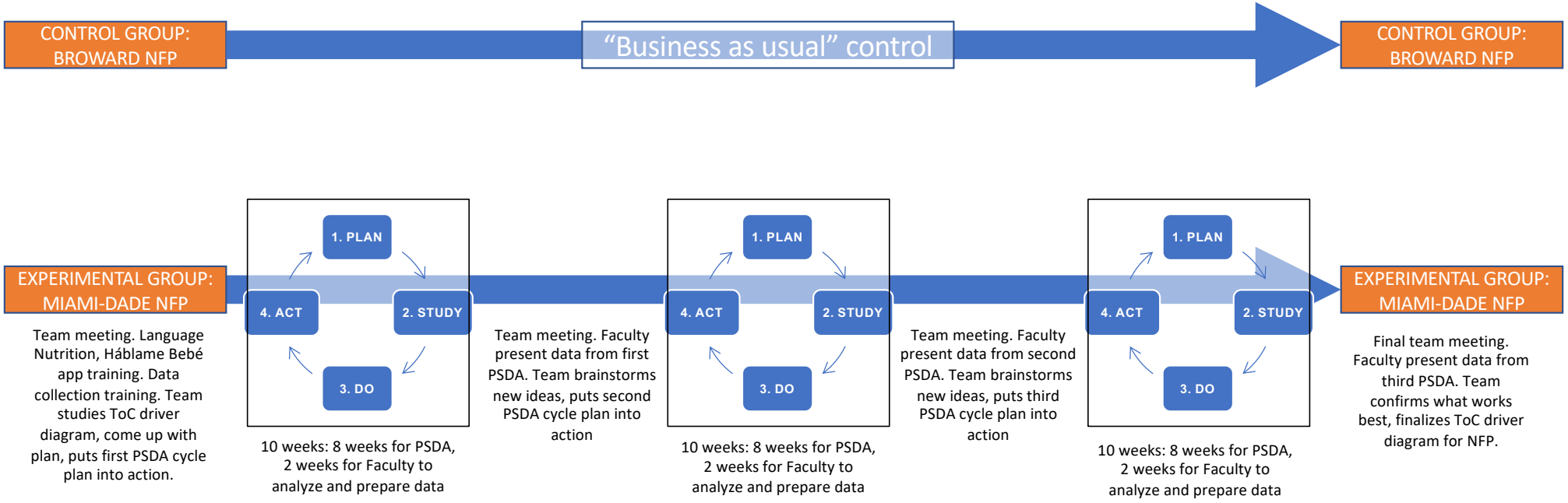
Methods

- **<u>Step 3</u>: Team-based ideation** (with the nurses as the frontline leaders!) to generate strategies affiliated with our drivers
  - Nurse home visitors collect the weekly/biweekly measures
  - Nurse home visitors also complete their own assessments anonymously (self-efficacy, etc.)
  - Faculty analyzes all measures, prepare report to the team
  - **Team meets again face-to-face** to assess our data, devise next Plan-Study-Do Act cycle 1.0

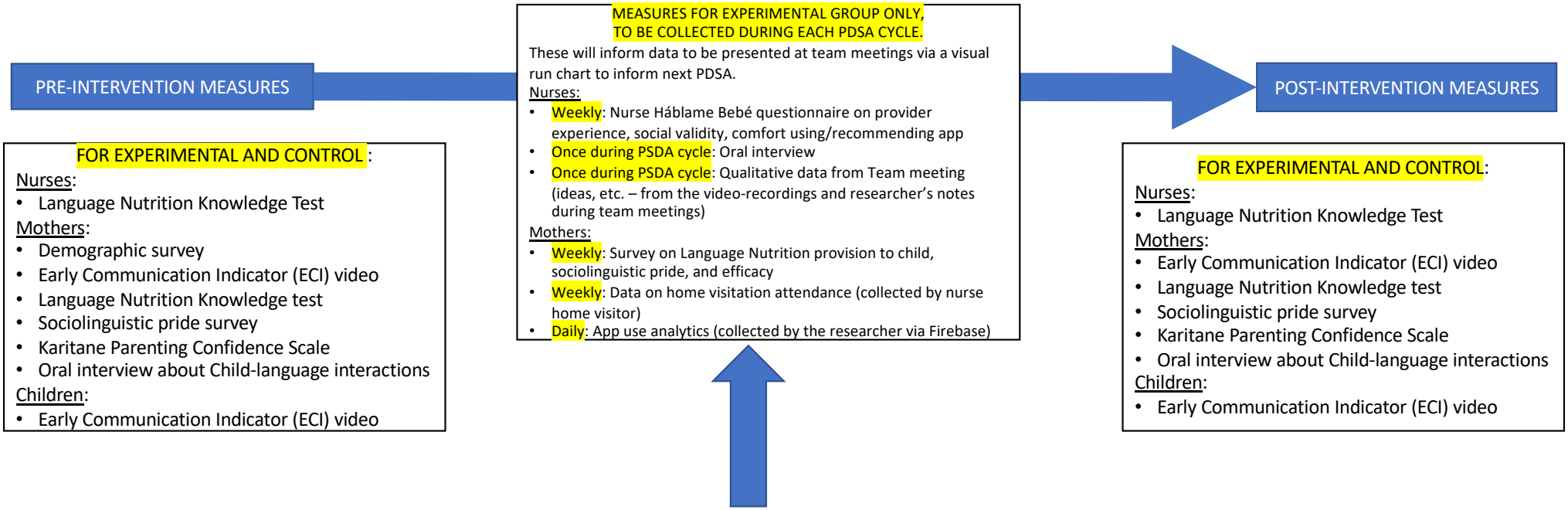


  - Nurse home visitors implement new plan across the next eight weeks

Experimental design



Measures



This is the data that will inform each PSDA cycle! We will analyze this together as a team

Discussion

- Our team-based, CQI plan's use of precision home visiting aims to shed light on the key ingredients in the nurse-client relationship
  - And use of a free ancillary tool to deliver health information to Hispanic families
- By working closely with nurses, families, and key stake-holders, and by using iterative feedback, this project will shed light on how PHV can:
- → Help low-income Hispanic mothers in NFP talk more to their baby in their home language
- → Improve low-income Hispanic children's early language environments to ensure kindergarten readiness