

The Family Spirit Nurture Project: Home Visiting with American Indians to Prevent Early Childhood Obesity

Center for American Indian Health, Johns Hopkins Bloomberg School of Public Health

Background

- JHCAIH has a 35+ year history of health innovations with Southwestern tribal partners who helped create and evaluate *Family Spirit*
- Family Spirit* home-visiting model is:
 - Federally endorsed through HomVEE and SAMHSA
 - Demonstrated impacts on **parenting practices, maternal substance use and depression, and child developmental outcomes** until 3 years postpartum¹⁻⁴
- Family Spirit Nurture* builds on original Family Spirit to address **urgent issue of early childhood obesity**
 - Tailored curriculum emphasizing: optimal early childhood nutrition, reduced intake of Sugar Sweetened Beverages, responsive feeding, physical activity
- Why is this work important?**
 - Native American children suffer greatest disparities in overweight and obesity status of any racial or ethnic group
 - Nearly 1/3 of all Native youth 2-19 years old are obese⁵
 - >20% Native children 2 to 5 years old are obese⁵
 - Diabetes rates among Native youth 10-19 years old are 2.6 times higher than US All Races⁶
 - A greater percentage of Native women give birth to large for gestational age babies than other US races/ethnicities⁷
 - Native children's challenges are sentinel for other high-risk, low-resource populations



Family Spirit Nurture Curriculum Overview



- Formative Work on *Family Spirit Nurture* curriculum:**
 - Phase 1 (Oct – Jan 2016):** in-depth interviews with providers and focus groups with health technicians and traditional practitioners
 - Phase 2 (Feb – Sep 2017):** materials shared with local home visitors and feedback incorporated into lessons
 - Cultural messaging** woven throughout fabric of curriculum content
- Who teaches the curriculum?**
 - Native community members**, called Family Health Coaches, deliver *Family Spirit Nurture* lessons one-on-one using tabletop flipcharts
 - Builds sustainable, scalable workforce
 - Curriculum is taught in the mother's home or another private location
- Lessons are timed to match children's development and are highly-visual and interactive**
 - Drawings by Native artists
 - Stories/scenarios to illustrate key points
 - Motivational interviewing techniques and goal-setting
- Family Health Coaches also provide social support** and help with problem solving using pre-tested tools from the original *Family Spirit* program
 - Facilitated **referrals to community programs**, including federal food programs

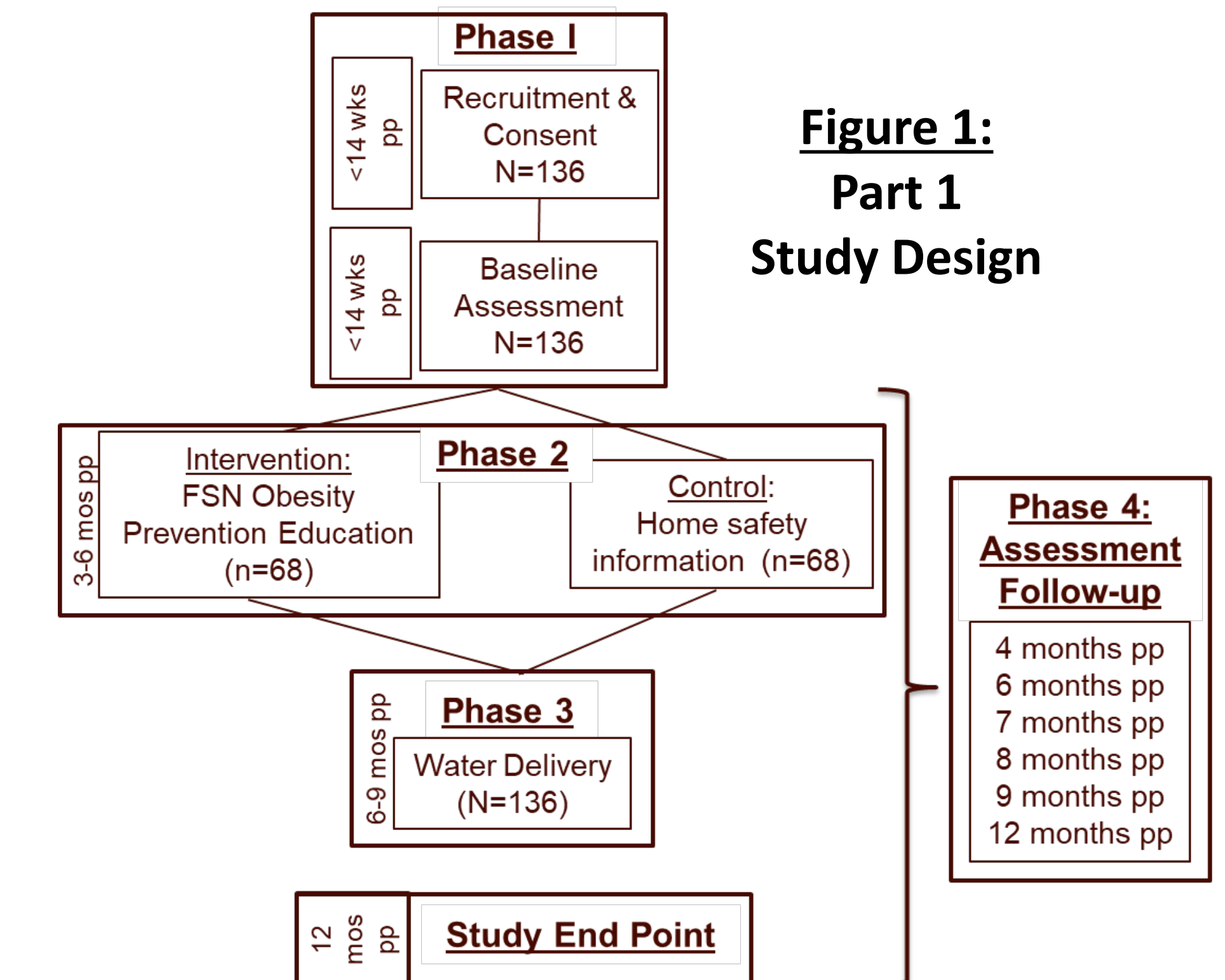
Acknowledgements

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- IRBs:** Johns Hopkins University Institutional Review Board, Navajo Nation Human Research Review Board, Phoenix Area Indian Health Service Institutional Review Board

Evaluation Designs

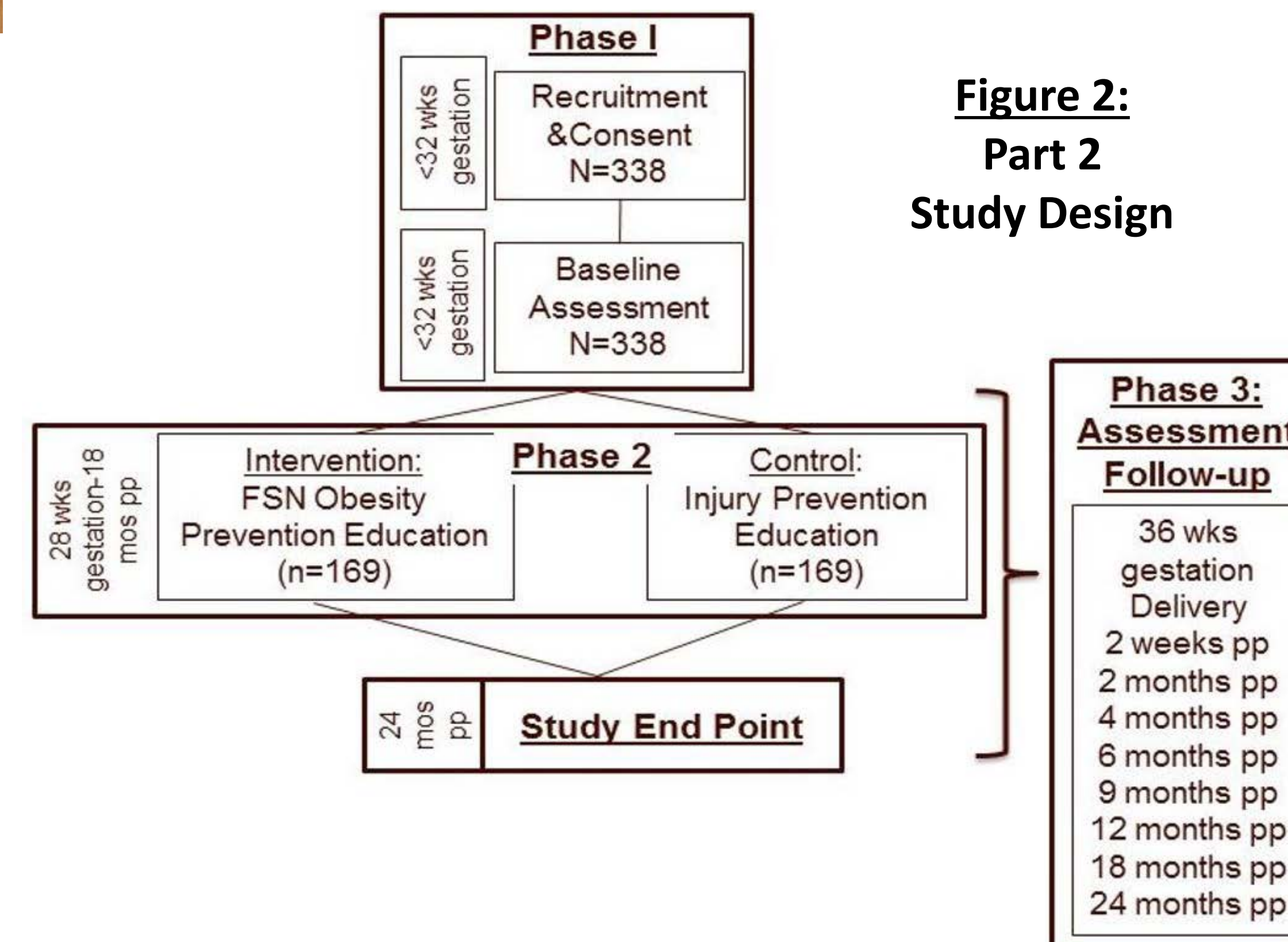
Part 1 Study: Evaluation of a Brief *Family Spirit Nurture* Curriculum (3-9 months postpartum)

- Site:** Shiprock, NM | **Participants:** 134 moms/infants | **Recruitment:** Mar 2017 – May 2018 | **Design:** Randomized Controlled Trial
- Intervention:** 6 home-based *Family Spirit Nurture* lessons focused on eliminating/reducing sugar-sweetened beverage (SSB) intake among infants and positive infant feeding practices
 - Control:** 3 injury prevention education lessons
 - Additional study components:** 1) **drinking water deliveries** for *all* participants to examine impact of water security status on SSB consumption and 2) **oral health data collection** to inform future research



**Figure 1:
Part 1
Study Design**

Figure 2: Part 2 Study Design



Part 2 Study: Evaluation of the Full *Family Spirit Nurture* Curriculum (Prenatal-18 months postpartum)

- Sites:** Shiprock, Fort Defiance/Gallup, Whiteriver | **Participants:** 338 pregnant moms, 14-24 years old
Recruitment: Oct 2017 – Dec 2019 | **Design:** RCT
- Intervention:** 36 home-based *Family Spirit Nurture* lessons focused on optimal infant feeding; infant/toddler physical activity; maternal psychosocial well-being; optimization of food/beverage availability; safe play spaces in the home
 - Control:** 8 injury prevention education lessons
 - Additional study components:** 1) **transportation** for *all* participants to prenatal and well-child visits and 2) **blood collection** from moms and babies

Significance

- Family Spirit Nurture* has the potential to **yield new innovations for tribal communities and home-visiting field** to overcome global early childhood obesity crisis
- Positive findings will **provide new evidence base for federal Maternal, Infant, and Early Childhood Home Visiting (MIECHV) Program** – none of the currently endorsed models have demonstrated impacts on preventing childhood obesity among Native Americans
- Findings will be shared to **support advocacy efforts and inform future research and practice**
- Original *Family Spirit* network that exists across 19 US states provides **ready platform for scaling** the *Family Spirit Nurture* module



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