

**Title**

Perceived and Measured Impact of a Healthy Postpartum Meal Delivery Program on Infant Nutrition Among Households with Food Insecurity

**PI**

[Redacted]

**Funding Path**

Nutrition in Underserved Communities Young Investigator Award (Nutrition YIA)

**Primary Mentor**

[Redacted]

**Statistical Mentor**

[Redacted]

**Division Director**

[Redacted]

**Department Chair**

[Redacted]

**Participation Statement**

If funded, I agree to participate in any conference calls and/or in-person grantee meetings.

[Redacted]

## Specific Aims

More than 38.2 million people in the U.S. grapple with food insecurity, including 14.8% of households with children, and an estimated 20% of pregnant women.<sup>1,2</sup> **Household food insecurity is associated with poorer physical health and impaired emotional development in young children.**<sup>3,4</sup>

Physical health disparities may result in part from shorter breastfeeding rates, earlier introduction of complementary foods, and poorer quality of complementary foods provided in low-income households.<sup>5</sup> In fact, mothers with food insecurity have reported limiting healthy foods provided to the infant.<sup>6</sup> Caregivers with food insecurity may introduce foods early, particularly if infant formula runs out at the end of the month.<sup>6-8</sup> Unfortunately, even when controlling for breastfeeding status, **introduction of complementary foods before 4 months of age has negative impacts on infant health**, including hard stool, diarrhea, fever, cough or wheeze.<sup>9</sup> Furthermore, feeding of complementary foods before 4 months displaces important nutrients that would otherwise be obtained from nutritionally complete breast milk or formula, and/or provides excess additional calories. Receiving complementary foods before 4 months and receiving poor quality foods during infancy (e.g. juice) may also increase risks for obesity, celiac disease and type 1 diabetes.<sup>10-13</sup> Poor quality complementary foods are also associated with lower quality diets later in childhood.<sup>14</sup>

The World Health Organization (WHO) recommends that complementary foods be introduced at 6 months of age.<sup>15</sup> The American Academy of Pediatrics recommends introduction of complementary foods between 4 and 6 months of age depending on an infant's developmental readiness, and also accommodates the newer guidelines for some infants to begin highly allergenic foods between 4 and 6 months of age.<sup>16,17</sup> While recommendations about the exact timing of introduction of complementary foods vary, leading child health organizations agree that complementary foods should not be introduced prior to 4 months of age. Despite this, **it is common for infants in the U.S. to receive complementary foods before 4 months**, especially in low-income households.<sup>18</sup>

The proposed study utilizes an existing funded pilot study to examine the effect of a novel intervention called [REDACTED] that provides daily nutritious meals and social media-based education and support to postpartum mothers with food insecurity on infant feeding practices at 4 and 6 months of age.

Specifically, this study aims:

Aim 1. To explore mothers' perceptions of receiving the [REDACTED] intervention on maternal and infant nutrition at 6 months postpartum.

*This aim will be achieved through exploratory qualitative interviews to understand decision-making regarding complementary feeding, and to understand how the intervention influenced decisions and perceptions regarding infant feeding/nutrition.*

Aim 2. To examine whether the [REDACTED] intervention is associated with a reduced risk for early introduction of solids (<4 months) compared to usual care.

*Hypothesis: Infants of mothers who receive healthy daily meals and education are less likely to receive complementary foods before 4 months of age compared to those who received usual care.*

Aim 3. To examine whether the [REDACTED] intervention is associated with provision of more nutrient-dense (vegetables, fruits) and less inappropriate (juice, cow's milk) foods in infancy at 6 months.

*Hypothesis: Infants of mothers who receive healthy daily meals and education are more likely to receive daily vegetables, fruits, or meats, and less likely to receive juice, sweets, or cow's milk at 6 months of age.*

## Background

Food insecurity is a major problem in the U.S. and affects 6.1 million children.<sup>1</sup> It is defined as “limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable foods in socially acceptable ways.”<sup>19</sup> Food insecurity can have short- and long-term detrimental effects on children as well as their mothers.<sup>3,4,20-22</sup>

Home-delivered meals among individuals with food insecurity and specific chronic diseases have been associated with decreased hospital readmissions, decreased stress, and improved perceptions of health and quality of life.<sup>23-26</sup> Despite these successes, no such programs have been trialed among postpartum mothers with food insecurity, who may experience barriers to obtaining and/or preparing healthy foods.

Additionally, social media-based interventions have been successful at engaging postpartum individuals during the transition phase of parenting a newborn.<sup>27</sup> Although Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) provides substantial food and education to peripartum women, the time required to obtain and transform the knowledge and raw ingredients into healthy meals is not insignificant. Furthermore, attending WIC clinic appointments with an infant can be challenging and a barrier to obtaining these benefits at all.<sup>28,29</sup>

The PI is co-leading a pilot study called [REDACTED]—a randomized controlled trial assessing the impact of daily home-delivered nutritious meals plus social media-based education and support to postpartum mothers with food insecurity. The aims of [REDACTED]

are to improve i) mental health and well-being and ii) diet quality of mothers with food insecurity in the early postpartum period.

Healthy, ready-to-heat meals may spare resources (time and money), reduce stress, and improve health, while asynchronous postpartum support may boost coping strategies and knowledge about key postpartum and infant care and nutrition topics that may impact behavior.<sup>27</sup> Interventions among postpartum mothers with food insecurity have implications for both immediate and long-term health outcomes of mothers and their infants (Figure 1).

The proposed study for the Nutrition in Underserved Communities YIA will leverage the data collected during this prospective randomized pilot study called [REDACTED] to further knowledge on whether this postpartum intervention is associated with more appropriate complementary feeding behaviors. Ultimately, these findings could elucidate mechanisms to more effectively reduce adverse intergenerational health consequences among populations exposed to perinatal food insecurity.

## Significance and Commitment to APA Priorities

This innovative project uses **two evidence-based interventions** (home-delivered nutritious meals and social media intervention) for improving health and well-being **in a novel population of food insecure postpartum mothers and their infants**. This project aligns with the mission of this call for grants to address nutrition across the life course and to examine programs that support optimal nutrition. Food insecurity affects a substantial portion of

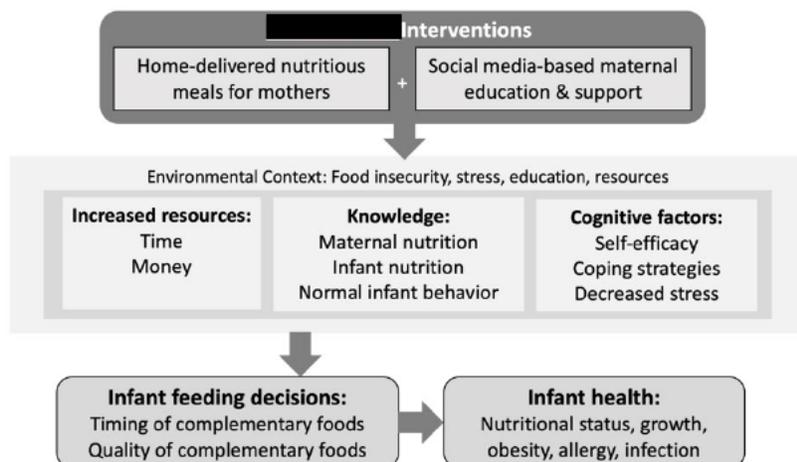


Figure 1. Conceptual framework of impact of [REDACTED] pilot interventions on decisions regarding feeding of complementary foods and downstream effects on infant health.

households with children and is a risk factor for negative outcomes among postpartum mothers and their infants. This study examines effectiveness of a novel strategy to improve outcomes among mother-infant dyads experiencing food insecurity.

## Methods

**Setting and Study Population:** [REDACTED] is situated in [REDACTED] counties in [REDACTED]. Food insecurity prevalence among children is 24% and 19.7%, respectively – higher than the national average.<sup>30</sup> Mothers who are eligible for [REDACTED] and this study will: receive obstetrical care at [REDACTED]; screen positive for food insecurity during pregnancy or be eligible for either the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) or the Supplemental Nutrition Assistance Program (SNAP); and be enrolled during their 3<sup>rd</sup> trimester. We will exclude individuals with severe food allergies or a medical condition requiring specific dietary intervention (e.g. renal disease, type 1 diabetes, malabsorptive disorders). Eighty mothers will be enrolled and randomized in blocks of 12 to receive either the two-part intervention (n=40) or routine care (n=40). Upon discharge from the delivery hospitalization, participants randomized into the intervention group begin receiving the two-part intervention:

- 1- Seven home-delivered nutritious meals will be provided weekly to participants for 12 weeks postpartum. These meals were developed by dietitians at [REDACTED] and selected for the study to provide healthy proteins (especially fish and chicken), vegetables, and whole grains. Seven snacks per week will also be provided to complement the nutritional profile of the meals (particularly providing fruits, nuts, low-fat dairy). Overall, meals plus snacks will provide 1/3 of average daily nutrient needs (based on the Dietary Guidelines for American's recommendations for an average postpartum lactating woman).
- 2- Postpartum education and support will be provided through a social media-based support group using private Facebook groups created specifically for this study. Participants will be assigned to cohorts based on month of delivery. The social media educational content was developed jointly by mental health professionals and the PIs for the [REDACTED] project and adapted existing curriculum from the March of Dimes "Becoming a Mom/Comenzando bien." Psychoeducation, nutrition education, and other content related to health and well-being will be provided in posts three times per week for 12 weeks. Content during weeks 4-5 will be devoted to maternal nutrition and timing and appropriate types of complementary food introduction for their infants. Social media-based intervention posts include short videos, activities to encourage self-analysis and reflection, and encourage posts and interaction between participants. Participants may also post questions to the group; groups will be moderated daily by trained mental health clinicians, and nutrition-related questions will be fielded to the PI when necessary.

**Qualitative (Aim 1) Data Collection and Analysis:** Qualitative interviews (in both English and Spanish) will be conducted with the first ~20 study participants in the intervention group at 6 months postpartum to explore factors related to decisions regarding complementary feeding (Box 1). An interview guide will be used to conduct semi-structured interviews with participants, allowing participants to direct the flow of the conversation. An experienced, trained researcher will conduct the interviews. Interviews will be audio-recorded, transcribed verbatim using a professional transcription service, double-checked for accuracy, and deidentified. Spanish transcripts will be translated into English prior to analysis.

Coding of transcripts will be iterative and take place concurrently with data analysis, allowing for emerging themes to be examined in subsequent interviews. The PI and a research assistant will use thematic analysis to code each transcript at least twice.<sup>31</sup> Regular discussions will facilitate consensus development on coding, emergent themes, and overall qualitative

findings. Data collection will cease once data saturation is reached. Peer debriefing and member checking will be used to ensure validity and trustworthiness.

### **Box 1. Example interview questions**

Tell me about the first time your child was given a food or drink that was not breast milk or formula. Probes: how old was your child? What was given and why?

What are some of the things that affected the timing of giving \_\_\_ to your child?

Probes: Did you feel like that was the right time? Why or why not?

What are some of the things that affected your choice in providing that specific food/drink?

What types of advice or information did you receive from family or friends about giving foods to your child? What types of advice or information did you receive from health professionals about giving foods/other drinks to your child?

What types of information did you receive from the [REDACTED] study about giving foods/other drinks to your child?

Probes: Which information did you think was right for you? How confident did you feel about the advice/information from these different sources?

Is there something more that would have been helpful to you in making decisions about feeding your child? What kinds of information would you have liked to know?

How could have [REDACTED] better provided you with information about feeding your child?

Quantitative Data Collection: The 80 mothers (n=40 control, n=40 intervention) enrolled into the [REDACTED] study will be enrolled into this study. Data for the parent [REDACTED] study will be collected at baseline (at enrollment during pregnancy), weeks 2, 6, 12, and months 4 and 6. Data collection will be in-person at baseline, and conducted via online Qualtrics surveys at weeks 2, 6, 12, and months 4 and 6 with phone call follow ups to fill in gaps as needed.

Primary data collected for this study will be obtained at 4 and 6 months using questions adapted from the Infant Feeding Practices Study II, a national longitudinal study conducted by the Centers for Disease Control and Prevention.<sup>32</sup> Data collected will include the age of the baby (or date) when complementary foods are first given. This includes anything that is neither breast milk nor formula, and excludes medicines and vitamin/mineral supplements (e.g. vitamin D). The types of complementary foods provided to the infant will also be ascertained, including: the first food offered, the provision of daily vegetables, fruits, and meats, and any provision of inappropriate foods (juice, cow's milk, sweets).

Additional data collected from the pilot study include key demographic variables and medical needs or diagnoses that are associated with infant feeding behaviors including: breastfeeding status; formula introduction; WIC participation; delivery mode; maternal age, parity, and education; gestational age at birth (weeks); birth weight (kilograms); NICU stay, infant comorbidities, infant development; speech or feeding therapy; need for tube feedings.

### Quantitative Analysis Plan:

Aim 2: The primary outcome is the early introduction of solids (before 4 months), a dichotomous variable. A multivariable logistic regression analysis will be performed with odds ratios calculated to examine significant differences in early introduction of solids between the [REDACTED] intervention group and the usual care group. The model will include variables to account for recruitment block and any covariates that are not balanced between the [REDACTED] intervention group and the usual care group, including WIC participation, maternal age, education, receipt of speech or feeding therapy. The model will be reduced by backwards elimination.

Aim 3: Using data from six months, dichotomous variables will be created for receiving vegetables daily (y/n), fruits daily (y/n), and meats daily (y/n). A dichotomous variable for any

receipt of inappropriate foods (juice, sweets, and cow’s milk) will also be created. Pearson’s chi-square tests will examine differences between the [REDACTED] intervention and control groups.

Sample size calculation: Results from the National Survey of Early Childhood Health reported showed that 62% of parents reported introducing solids to their child between 4–6 months of age.<sup>33</sup> Using a conservative estimate of 52% of women in the usual care introducing solids to their child compared to 20% in the [REDACTED] intervention group, we will need to recruit 68 women (34 in each group) to reject the null hypothesis 80% power and a type I error probability of 0.05. To account for a potential 10% to 15% attrition, we will recruit 80 women (40 in each group) for the proposed project.

**Timeline**

Funding for the [REDACTED] pilot project was received in January 2022. IRB protocols are currently in progress. We will begin enrolling subjects into the [REDACTED] pilot study beginning in March 2022, with the intervention beginning in April 2022. We expect to enroll approximately 4 participants per week, requiring ~20 weeks (<5 months) to complete recruitment. Data collection will be complete approximately 7 months after recruitment ends.

	Pre-award	Months 1-3	Months 4-6	Months 7-9	Months 10-12	Post-award
Amend IRB	█					
Recruitment		█	█	█		
Aims 2 & 3 data collection		█	█	█	█	
Aims 2 & 3 data cleaning & analysis				█	█	█
Qualitative data collection & analysis				█	█	
Submission of PAS abstract					█	
Present at PAS						█
Prepare manuscript					█	█
Prepare PCORI Application						█

**Description of key personnel**

Key Personnel	Role	Responsibilities
[REDACTED]	Principal Investigator	Study design and execution, nutritional measures, data analysis, manuscript preparation
[REDACTED]	Primary Mentor	Study design consultation, infant and child health outcomes measures
[REDACTED]	Statistics Mentor	Study design, randomization, statistical analysis, maternal health outcomes
[REDACTED]	Co-Principal Investigator of [REDACTED]	Study design consultation and execution
TBD	Research Assistant	Assist with study execution, recruitment, data collection, publication

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# Academic Pediatric Association Young Investigator Award Program

Item	Detail	In-kind (optional)	Amount requested from APA	Total Amount	Justification
Research Assistant	\$19.41/hr (inc fringe) * 4 hr/wk for 52 weeks		\$4,038	\$4,038	The research assistant will conduct qualitative interviews, double-check and de-identify interviews, assist with qualitative analysis, and assist with data collection at key timepoints.
Transcription	\$2.25/minute * 60 minutes * 20 subjects		\$2,700	\$2,700	An estimated 20 participants will be needed for verbatim transcription of qualitative interviews with study participants in the intervention group (Aim 1).
Translation	\$50/page * 10 pages * 7 subjects		\$3,500	\$3,500	An estimated 8 of the 20 participants for qualitative interviews will be Spanish-speaking, and transcripts will need to be translated into English.
Remuneration	\$50 * 20 subjects		\$1,000	\$1000	Participant incentive for the qualitative interview.
Statistical consultant	Biostatistician \$60 * 20 hours * 14.19% fringe		\$1,370	\$1,370	Statistical analysis for aims 2 and 3.
Local travel	8 miles/trip* 20 * \$0.56/mile		\$90	\$90	Travel to participant interviews estimated to be ~9 miles per trip x 20 trips.
PAS travel	Hotel: \$400 Airfare: \$650 Food: \$180		\$1230	\$1230	Funds will be used to present preliminary findings at the PAS Conference 2023. Includes airfare, 2-3 nights of lodging, and transportation expenses.
<b>TOTAL</b>			<b>\$13,928</b>	<b>\$13,928</b>	

**BIOGRAPHICAL SKETCH**

Provide the following information for the Senior/key personnel and other significant contributors. Follow this format for each person. **DO NOT EXCEED FIVE PAGES.**

NAME: [REDACTED]

eRA COMMONS USER NAME (credential, e.g., agency login): [REDACTED]

POSITION TITLE: Assistant Professor of Pediatrics

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)

INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

**A. Personal Statement**

This proposal "Perceived and Measured Impact of a Healthy Postpartum Meal Delivery Program on Infant Nutrition Among Households with Food Insecurity" focuses on improving maternal and infant health by addressing maternal food insecurity and providing education and support. My extensive training and foundational knowledge in maternal and child nutrition prepare me well for conducting this research. The area of focus throughout my career has been on maternal and child health and nutrition, particularly in the "first 1000 days." I am the author of the [REDACTED] topic "[REDACTED]" which is regularly updated and revised, and maternal and child health as it pertains to breastfeeding has been central to my research. Furthermore, my previous work as a clinical pediatric dietitian gives me practical knowledge and perspective related to infant-feeding, decision-making, food acquisition, and consumption of meals in diverse and food insecure populations.

My extensive experience with conducting qualitative research in 2 studies and 4 publications (see Contributions to Science below) provides me with the necessary skills to successfully complete Aim 1. These studies centered around perinatal mothers and health professionals who provided care to perinatal women, thus in life stages that overlap with this project. My experience also includes work on randomized trials, including 2 pilot studies that I designed and implemented as a Master's student that aimed to improve breastfeeding outcomes among obese mothers through hospital-based interventions, and work on an NIH-funded trial as an undergraduate research assistant. Finally, my post-graduate work as a Research Associate at [REDACTED] was a collaboration with [REDACTED], and focused review of a global online educational curriculum in Infant and Young Child Feeding. These skills and knowledge base along with mentorship from [REDACTED] (an experienced pediatrician and mentor) and [REDACTED] (an exemplary epidemiologist) prepare me to successfully complete the proposed study.

**B. Positions and Honors**

**Positions**

[REDACTED]

[REDACTED]

**Honors and Scientific Appointments**

[REDACTED]

**Memberships**

Academic Pediatric Association

[REDACTED]

**C. Contributions to Science**

My career and research interests focus on maternal and child nutrition and health in the first 1000 days. The health of mother and child are inextricably connected, especially during pregnancy and breastfeeding/lactation, but even beyond that as the mother's well-being influences the child in many ways. My specific contributions are as follows:

**1. Understanding obese mothers' experiences breastfeeding in the U.S.**

[REDACTED]

**2. Understanding how health professionals provide breastfeeding-related care in the U.S.**

[REDACTED]

[Redacted]

[Redacted]

[Redacted]

**3. Implementing pilot interventions to improve breastfeeding success among obese mothers.**

[Redacted]

[Redacted]

**4. Assessing online training of global health professionals in Infant and Young Child Feeding**

[Redacted]

[Redacted]

**5. The effect of the COVID-19 pandemic on breastfeeding and breastfeeding care.**

[Redacted]

[Redacted]

**BIOGRAPHICAL SKETCH**

Provide the following information for the Senior/key personnel and other significant contributors. Follow this format for each person. **DO NOT EXCEED FIVE PAGES.**

NAME: [REDACTED]

eRA COMMONS USER NAME (credential, e.g., agency login):

POSITION TITLE: Professor of Pediatrics, Residency Program Director Department of Pediatrics, [REDACTED]

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)

INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

**A. Personal Statement**

I am a board certified pediatrician. As an ambulatory pediatrician in busy academic faculty practice, I spend a significant amount of time counseling mothers on nutrition and complementary food introduction to infants. As a member of [REDACTED], I am well aware of the interplay between a mother's nutritional state and the subsequent result on the health of her newborn. I am passionate about addressing social determinants of health that have the opportunity to impact the long-term outcomes of the health and well being of children. I am an experienced mentor, and I have a history of inter-professional collaboration for research as evidenced by work in research assessing the effectiveness of hippotherapy for children with developmental delays.

[REDACTED]

**B. Positions and Honors**  
**Positions**

[REDACTED]



4.

[Redacted text block]

**D. Additional Information: Research Support and/or Scholastic Performance**

[Redacted text block]

**BIOGRAPHICAL SKETCH**

Provide the following information for the Senior/key personnel and other significant contributors. Follow this format for each person. **DO NOT EXCEED FIVE PAGES.**

NAME: [REDACTED]

eRA COMMONS USER NAME (credential, e.g., agency login): [REDACTED]

POSITION TITLE: Assistant Professor

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

**A. Personal Statement**

I am an epidemiologist with advanced training in epidemiologic methods focusing on statistical theory and analysis. My primary research goals are broad and directed at understanding the etiology and prevention of chronic diseases, specifically cardiovascular disease with emphasis on women, reproductive health, and minority as well as underserved populations. Other research interests include the intersection of infectious and chronic diseases on long-term health. I have served in the capacities of co-investigator and consultant on statistics for several intramural and externally-funded (NIH and US Department of Defense) grants. I have collaborated on several NHLBI-funded cohorts include studies among pregnant women examining the influence of gestational diabetes on cardiac structure and function assessed by echocardiography and research among postmenopausal women such as those assessing the relation of age at menopause with incident heart failure.

As the director of [REDACTED], I teach epidemiology and applied statistics courses. I also serve as a consultant with [REDACTED], I oversee the statistical design, conduct and analysis, and assist in the interpretation of results for researchers. I also have expertise in the design and analysis of observational studies and trials as well as comprehensive and specialized knowledge of statistical programming and analysis pertaining to longitudinal and repeated-events failure times, risk prediction, missing data methods, mediation analysis, generalized estimating equations, survival analysis and generalized linear regression models methodology. I look forward to continued collaboration on the [REDACTED] program which will have important implications for management of perinatal food insecurity.

Ongoing and recently completed projects I would like to highlight:

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

Citations:

1. [Redacted]
- [Redacted]
- [Redacted]
- [Redacted]

**B. Positions, Scientific Appointments, and Honors**

**Positions and Scientific Appointments**

[Redacted]	[Redacted]

**Honors**

[REDACTED]

**C. Contributions to Science**

1. [REDACTED]

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

2. [REDACTED]

- [REDACTED]

b. [Redacted text block]

[Redacted text block]

a. [Redacted text block]

### BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors.  
Follow this format for each person. DO NOT EXCEED FIVE PAGES.

NAME: [REDACTED]			
eRA COMMONS USER NAME (credential, e.g., agency login): [REDACTED]			
POSITION TITLE: Assistant Professor			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training and residency training if applicable.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	Completion Date MM/YYYY	FIELD OF STUDY
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

**A. Personal Statement**

I am an Assistant Professor and Pediatric Hospitalist in [REDACTED]. As a general pediatrician and researcher, I am able to bring the combination of skills and attributes needed to contribute to successful execution of the proposed study entitled, "Perception and Impact of Daily Healthy Home-Delivered Meals on Child Nutrition Among Mothers with Food Insecurity". For the past 4 years, I have provided clinical care in the newborn nursery. I also regularly care for infants in the first year of life admitted to the pediatric ward. This clinical experience allows me to understand the pertinent clinical questions and pathways to directly impact and improve maternal and child health outcomes.

I have formal training and experience in clinical research. My previous roles have included serving as Principal Investigator of a funded, large multi-hospital collaborative to understand which newborns fail the car seat tolerance screen. I have also published in the field of maternal child health including a large, federally funded study to examine mental health treatments during pregnancy and more recently on Covid-19 vaccination in breastfeeding mothers.

Finally, as a faculty member in pediatrics affiliated with [REDACTED] we have connections and collaborations with other clinicians and researchers focused on maternal and infant nutrition access. My faculty position has dedicated time to execute this proposed project. In sum, my background provides the appropriate clinical experience and insight, research capability, and passion and motivation needed for this study.

**B. Positions, Scientific Appointments, and Honors**

**Positions and Scientific Appointments**

[REDACTED] Academic Pediatric Association [REDACTED]

**Clinical Licensure and Specialty Board Certification**

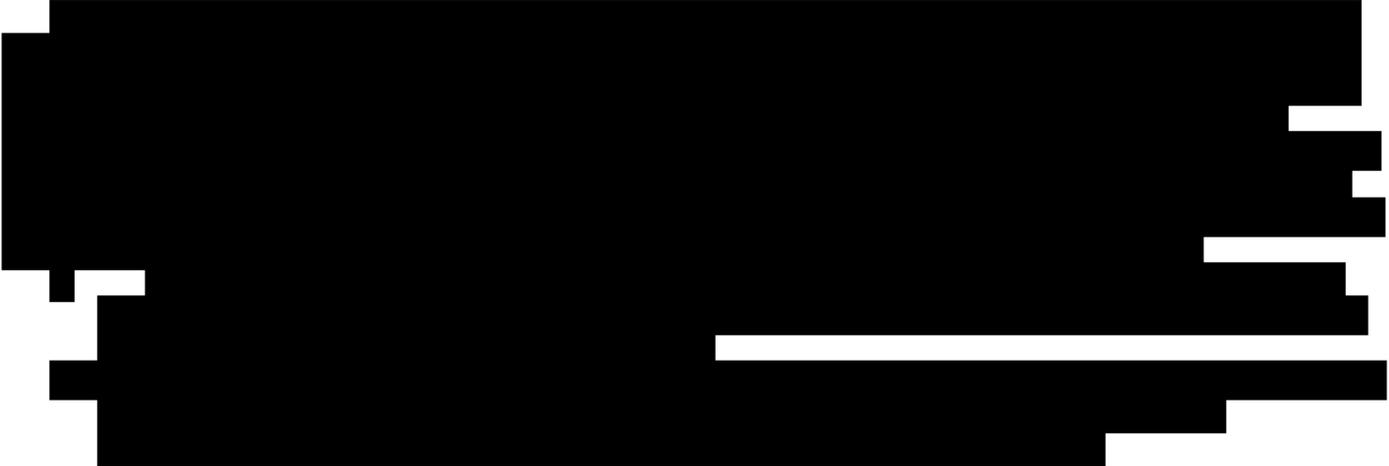
**Honors**

[REDACTED]



**C. Contributions to Science**

1. 

2. 

**Complete List of Published Work in My Bibliography:**





successful progress on your own research (conceptualization and funding of the [REDACTED] pilot program; breastfeeding in the pandemic research) and publishing record.

I look forward to working with you on this important project that has the opportunity to impact the life-long nutrition of a child.

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Dear [REDACTED]:

I enthusiastically write this letter in support of your project titled "Perceived and Measured Impact of a Healthy Postpartum Meal Delivery Program on Infant Nutrition Among Households with Food Insecurity" which is being submitted for the Academic Pediatric Association Nutrition in Underserved Communities Young Investigator Award. This project will leverage data and infrastructure from a funded parent project [REDACTED] a study that examines the effect of home-delivered nutritious meals and educational support for postpartum mothers with food insecurity, and for which I have also provided guidance on design and analysis plans. This is an important project to improve maternal and infant health among households with food insecurity, an underserved population. I am pleased to be involved as a statistical mentor on this project.

As an epidemiologist with advanced training in epidemiologic methods and statistical theory and analysis, my primary research goals are broad and directed at understanding the etiology and prevention of chronic diseases, specifically cardiovascular disease with emphasis on women, reproductive health, and minority as well as underserved populations. I have served as co-investigator and consultant on statistics for several intramural and externally funded (NIH and US Department of Defense) grants. I also serve as a consultant for [REDACTED], where I oversee and assist with the statistical design, conduct, and analysis of health research.

Again, I look forward to collaborating and providing statistical advice and guidance in the design and analysis for this proposed project. I wish you the best on this unique and exciting application.

Sincerely,

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

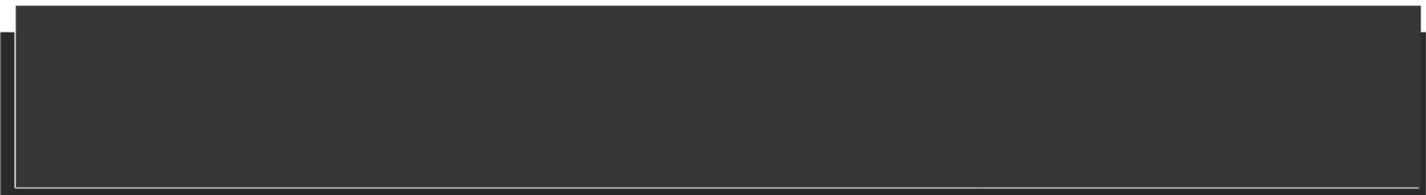
[REDACTED] program for food insecure mothers, I would like to offer enthusiastic support for the Pediatric Association Young Investigator Awards Nutrition in Underserved Communities program titled "The Association and Impact of Daily Healthy Home-Delivered Meals on Child Health and Food Security". The [REDACTED] research group, housed by [REDACTED], nurtures the academic success and career development of early career health professionals engaged in research, advocacy, and health equity. We along with the local [REDACTED] share a vision to create a successful academic and community partnership that strives for optimal health and well-being for all children in our community—particularly those from systemically marginalized communities.

As a practicing pediatrician, I have observed the direct and indirect health impact of peripartum food insecurity on maternal and infant well-being ranging from health problems (such as preterm birth and obesity) to societal issues (such as poor well-being and unemployment). With your joint leadership, the [REDACTED] program was created to address the systemic inequality in the access to properly prepared, healthy meals following child birth among women with perinatal food insecurity. The overall aims of the [REDACTED] program include reducing maternal mental health symptoms and improving maternal nutrition within the first 12 weeks following childbirth. The aims proposed in this Young Investigator Proposal are nicely aligned with [REDACTED]. In addition to the direct impact on maternal health and well-being, the educational component of [REDACTED] should impact infant feeding behaviors that may reduce the long-term risk for complications related to early introduction of solids including improper growth, and childhood overweight and obesity.

Specifically, the [REDACTED] program has received to date two grants awards from [REDACTED] totaling \$210,000 for the development and implementation of this [REDACTED] pilot program. The [REDACTED] program will support this proposal as follows:

- [REDACTED] will provided the infrastructure to implement the study and collect the study outcomes. Personnel will adapt the IRB protocol to allow for the addition of the specific aims and methodology outlined in this proposal
- [REDACTED] personnel will facilitate the execution of this proposal. Key personnel include a Program Coordinator, Medical Student Summer Research Students, Graduate Student Research Assistants, and Biostatistical Consultant.

[REDACTED]



We wish you all the best of luck with your submission!

[Redacted text block]

## Extended Eligibility Request

[REDACTED]

Upon completion of [REDACTED] doctorate at [REDACTED] in [REDACTED], [REDACTED] chose to take an extended family leave to complete fertility treatments and eventually have 2 children, one in [REDACTED] and one in [REDACTED]. During this time, [REDACTED] put [REDACTED] own research program on hold but completed contract work remotely with [REDACTED], and also became clinical (unpaid) faculty at [REDACTED] to serve as a guest lecturer and assist with certain research projects. In [REDACTED], [REDACTED] hired [REDACTED] as an Assistant Professor in Pediatrics where [REDACTED] has begun to develop a robust research program, including the [REDACTED] pilot study.