Healing, Equity, Advocacy, Respect: Leveraging Technology for Maternal Health

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INTRODUCTION

- South Carolina (SC) is currently ranked 8th in the nation in maternal mortality, with stark disparities in race/ethnicity and urban/rurality status.
- Between 2018 - 2021, deaths/100,000 live births in SC were **significantly higher for Black women** (61.3), compared to their White (27.2) and Hispanic (30.9) counterparts.
- Pregnant and postpartum women living in **rural SC counties and insured by Medicaid** are at higher risk of death than their urban and privately insured counterparts.
- The Alliance for Innovation on Maternal Health (AIM) have created Safety Bundles to **Reduce Racial and Ethnic Disparities in Maternal Health Care** and ensure that all patients receive evidence-based standard of care (SOC) including **Postpartum Discharge Transition** i.e., identifying warning signs/symptoms of postpartum complications, and who to call in case of an emergency.
- Implementation of these safety bundles has been challenging. The goal of this study is to improve implementation of AIM safety bundles to reduce disparities and improve maternal health using simple, text/phone-based screening and referral program (**H.E.A.R. 4 Mamas**; see *Figure 1*) to identify potential postpartum complications early and connect participants to appropriate care during the postpartum year.

STANDARD OF CARE (SOC)

- Delivery hospitals in SC have adopted several AIM safety bundles including Reduction of Racial and Ethnic Disparities in Maternal Healthcare and the Postpartum Discharge Transition and is considered the Standard of Care (SOC).
- Participants randomized to the control condition receive the SOC i.e., AIM safety bundles delivered in person within the healthcare setting.

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H.E.A.R 4 MAMAS INTERVENTION

- Participants randomized to the H.E.A.R. 4 Mamas condition will receive daily check in (DCI) surveys via text message from study Day 0 (enrollment) to Day 62 (total of 8 weeks) and at least monthly screens throughout the postpartum year.
  - Screen for warning signs of postpartum complications, social determinants of health (SDOH), mood/anxiety disorders, substance use disorders, intimate partner violence, and other barriers to postpartum or primary care.
- Surveys are monitored by an obstetric nurse advocate (ONA)
  - Contacts participant upon any positive screening (Brief Intervention)
  - Assists with needed referrals to resources, treatment, and/or education
  - Connects with OB/Pediatrics team as needed.
  - Available as a resource to participants for 1 year.

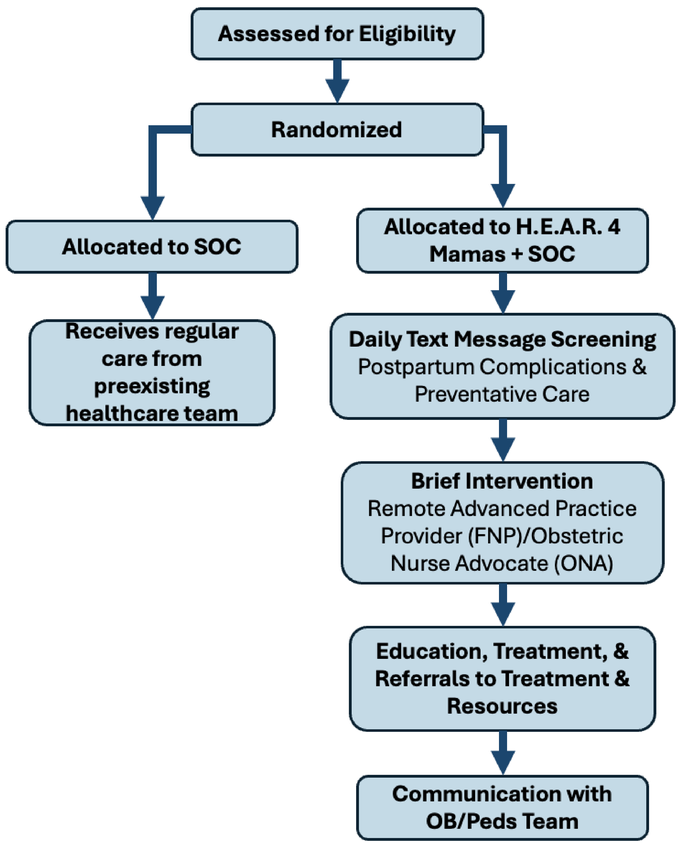

Figure 1. H.E.A.R 4 Mamas Intervention Model vs. SOC

PRIMARY OUTCOMES

- We hypothesize that women assigned to H.E.A.R. for Mamas, compared to SOC will have:
  - lower rates of ED visits 0-6 weeks postpartum measured by Medicaid health insurance claims data, administrative claims data, and data from billing and birth records (primary outcome)
  - lower rates of ED visits at 3, 6 and 12 months postpartum measured by Medicaid health insurance claims data, administrative claims data, and data from billing and birth records (secondary outcomes).

METHODS

- Currently recruiting a sample of 2,894 postpartum Medicaid-insured women living in SC, aged 16-49.
- Participants will be randomly assigned to **H.E.A.R. for Mamas** + SOC vs. SOC-only (control) with 1:1 allocation.
- All participants are enrolled within 2 weeks of delivery.
- Participation in the study will last for 1 year.
- All participants will complete patient reported outcomes (PROs) surveys at enrollment (baseline-0), 3, 6, and 12-months postpartum.
  - PROs measure maternal well-being and functioning, depression, anxiety, discrimination, and substance use
- Patients are recruited on site at postpartum units of local hospitals, via social media marketing, via referrals from Medicaid Managed Care Organizations (MCOs) and through statewide community events.
- Process evaluation interviews with enrolled patients, medical providers, and administrators are being conducted concurrently.

PROGRESS/NEXT STEPS

- As of September 2025, 868 patients are currently enrolled in the study, with 434 in the intervention, and 434 in the control group.
- Over 50% of participants identify as Black/African American (see *Figure 2*), and 11% of all participants identify as Hispanic.
- H.E.A.R. 4 Mamas was perceived by providers/administrators as an **effective way to reduce barriers to effective postpartum care**.
- Participants receiving the H.E.A.R. 4 Mamas program have indicated that the **daily check-ins encourage regular self-assessment of their mental and physical health.**
- Participants have indicated that the **Obstetric Nurse Advocate is a helpful resource** for emotional and resource support.
- Currently looking for opportunities to expand outreach toward more rural SC communities

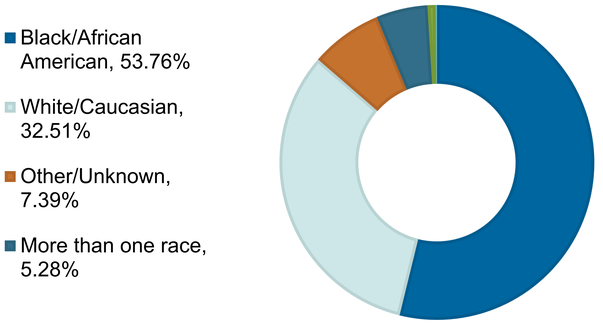

Figure 2. Racial Demographics (n = 868).

POTENTIAL OUTCOMES/IMPACT

- H.E.A.R. 4 Mamas has the potential to improve maternal health outcomes by identify early warning signs of postpartum complications and connecting individuals to timely care and resources.
- The remote modality affords participants a level of privacy not available to them through in-person screenings, increasing likelihood of disclosure of health concerns.
- The remote, text/phone-based modality supports accessibility to a trusted healthcare provider regardless of physical location and allows for potential further dissemination beyond SC.

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