Implementing a Text/Phone-based Maternal Behavioral Health Screening and Referral Program

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Introduction

- The United States has the highest maternal mortality rate of every developed country in the world.
- Black and American Indian/Alaskan Native women are 2-3 times more likely to die compared to white, Asian, and Hispanic women.
- Mental health conditions are one of the leading causes of pregnancy-related deaths via suicide and drug overdose. Yet, perinatal mental health conditions are **underrecognized and undertreated**.
- Although the standard of care is Screening, Brief Intervention, and Referral to Treatment (SBIRT), only 1 in 8 women will be screened for mental health conditions, and only 1 in 4 women will receive treatment.
- There are disparities in SBIRT completion rates, with Black women receiving treatment at significantly lower rates than white women.

Barriers to Successful Screening & Intervention

Patient	Provider	System
• Stigma • Fear of legal consequences • Lack of access to providers due to transportation, childcare, work, insurance	• Insufficient time • Unfamiliar with SBIRT • Lack of MH/SUD knowledge • Lack of available providers	• Cost • Lack of SBIRT training and re-training due to staff turnover • Lack of care coordination across providers and health systems

Listening to Women & Pregnant & Postpartum People (LTWP)

- We created a text/phone-based maternal **mental health**, **substance use**, **intimate partner violence**, and **social determinants of health** screening and referral program called Listening to Women and Pregnant and Postpartum People (LTWP).
- LTWP is integrated into routine prenatal care, and individuals can be enrolled at any point during pregnancy, labor and delivery, or the postpartum year.
- LTWP screens individuals via text message in each trimester of pregnancy, 1 month after delivery, and every 3 months throughout the postpartum year.
- A care coordinator (MSW) calls at-risk patients to perform a brief assessment and provides resources and treatment referrals if indicated.

Previous Randomized Controlled Trial of LTWP

- RCT that compared LTWP to Usual Care (UC), which is in-person screening and referral to treatment within prenatal care.
- 72.2% (415/575) of eligible individuals agreed to take part in the study.
- 68.4% (284/415) of participants were screened.
- Among those who were screened, participants assigned to LTWP were:
  - 3.1 times more likely to screen positive, 95% CI:[1.8, 5.4]*
  - 4.4 times more likely to be referred to treatment, 95% CI:[1.1, 18.1]**
  - 5.7 times more likely to attend treatment, 95% CI:[0.8, 41.7]***

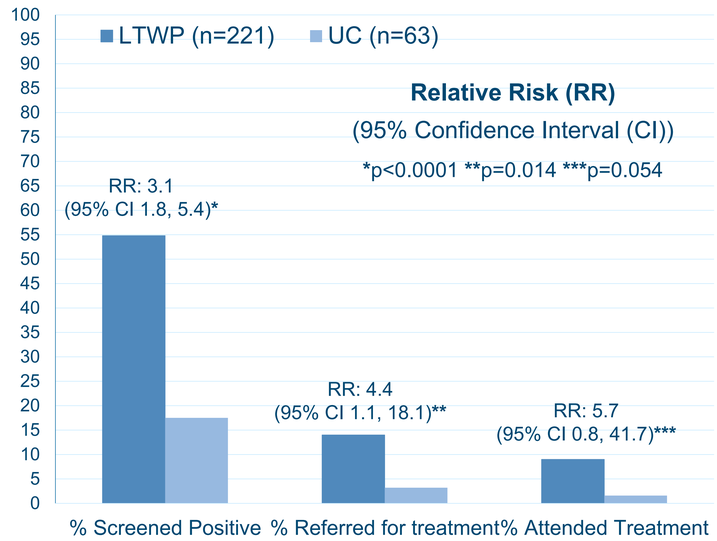


Figure 1. Comparing LTWP to UC based on percent of patients that screened positive, percent of patients referred to treatment, and percent of patients that received treatment.

Ongoing Stepped-Wedge RCT of LTWP

- Currently, we are implementing LTWP in a study with **10,000 participants** at MUSC obstetric clinics.
- **Aim 1:** Compare LTWP (n=5000) to in-person SBIRT (n=5000) in terms of treatment attendance and retention during pregnancy and the postpartum year.
- **Aim 2:** Determine differences between patients receiving LTWP and those receiving SBIRT in terms of Patient-Reported Outcomes (PROs), including depressive symptoms, substance use, and maternal functioning and well-being, at baseline, 2-, 5-, 8- and 11-months postpartum.
- **Aim 3:** Establish real-world efficacy and identify barriers and facilitators to implementation of the program through qualitative interviews with patients, providers, and administrators.

- **Study design:** 5-year stepped-wedge randomized controlled trial
  - 9 women's health clinics divided into "13" clinics with 3 clinics per wedge
  - 4 wedges of clinics, each randomized to initiate LTWP at different times throughout the study (Figure 2)

	Study Design & Sample Size											
Clinics	1-6	7-12	13-18	19-24	25-30	31-36	37-42	43-48	49-54	55-60	Active	Control
1-4		450	450	450	450	450	FU	FU	FU		1,800	450
5-7		450	450	450	450	450	FU	FU	FU		1,350	900
8-10		450	450	450	450	450	FU	FU	FU		900	1,350
11-13		450	450	450	450	450	FU	FU	FU		450	1,800
Totals											4,500	4,500

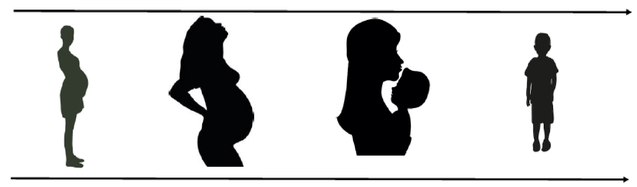
Figure 2. Estimated number of participants throughout the study by month. Study startup occurred in months 1-6. Light blue represents the control/SBIRT group. Dark blue represents the active/LTWP group. Green represents participants in follow-up. Data analysis will occur in months 55-60.

Progress & Challenges

- The final wedge of clinics implemented LTWP on April 1st, 2025, so the study is now in the follow-up stage (month 37).
- LTWP implementation challenges:
  - Digital Divide: Over 98% of participants are willing to use their phone for this program, but gaps in cell service and broadband are a challenge for a small percentage of patients.
  - Spanish Speaking Staff: Interpretive services are available to the care coordinators and providers, but native or bi-lingual Spanish-speaking providers would be ideal. In our experience, they are difficult to recruit due to the paucity of applicants despite outreach to the Spanish speaking community.
  - Sustainability: Program support to date has been exclusively through research funding (NIH, HRSA, PCORI).

Potential Outcomes & Impact

- This study represents a significant step forward in ensuring that all peripartum individuals receive effective, evidence-based screening and referral to care.
- Improved screening, identification, and treatment of perinatal mental health issues and substance use disorder has the potential to mitigate preventable causes of maternal morbidity and mortality.
- Preliminary results of this study underscore the need to improve digital literacy and increase affordable internet service and access to reliable broadband and devices.



Research reported in this poster was funded through a **Patient-Centered Outcomes Research Institute (PCORI) Award (IHS-2021C3-24493).** The statements in this abstract are solely the responsibility of the authors and do not necessarily represent the views of the Patient-Centered Outcomes Research Institute (PCORI), its Board of Governors or Methodology Committee.