Addressing Racial Disparities in Perinatal Care for African American/Black Individuals in the Chicago Community Health Setting

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Problem & Background

- Significant disparities persist in maternal and infant perinatal outcomes for African American (AA)/Black women compared with non-Hispanic White (NHW) women in the US.
- Non-Hispanic Black women are three to four times more likely to die from pregnancy-related causes than NHW women.[1]
- In Illinois specifically, Black women's pregnancy mortality ratios (PMRs) was nearly 4 times that of white women.[2]
- 60% of pregnancy related deaths are preventable.[3]
- AA/Black individuals are less likely to receive care in the 1st trimester and the majority of high-risk patients receive <80% of the components recommended for their needs including depression screening, referral to case management, and referral to the Women, Infants, and Children (WIC) program.[4,5]
- AA/Black pregnant individuals encounter many systemic, structural, and psychosocial barriers.
- Patient Navigation (PN) has been shown to increase visit adherence as well as address social determinants of health (SDH) such as financial/health insurance, food insecurity, inadequate housing, transportation, violence.[6,7]

Project Objectives

Evaluate the implementation of the *OPTIMIZE* intervention using the Consolidated Framework for Implementation Research (CFIR) and a mixed-methods approach (process evaluation, multilevel modeling, qualitative interviews) to evaluate implementation of the *OPTIMIZE* intervention in CHC settings, and implementation facilitators and barriers.

Develop OPTIMIZE (perinatal care checklist with patient navigation) informed by a mixed methods approach (environmental scans, key informant interviews, and stakeholder (N=20) and patient (N=48) interviews and focus groups) to design a new perinatal care model intended to address the multi-level barriers to perinatal care for an underserved, predominantly AA/Black patient population.

Compare the effectiveness of the *OPTIMIZE* intervention relative to standard care in improving AA pregnant individual's receipt of recommended perinatal care components and postpartum depression and anxiety, breastfeeding initiation and duration, postpartum contraception uptake and vaccine adherence

Conduct a Hybrid Type I cluster randomized effectiveness-implementation pragmatic trial of approximately 20 clinics in Chicago (n=600 pregnant-individuals) over 3 years to compare the OPTIMIZE intervention to standard of care throughout the course of pregnancy and postpartum period.

Key Aspects to Implementation: Challenges and Solutions

Study Design

Goal: Design a study in which OPTIMIZE intervention can be compared to standard of care via clinic randomization while recognizing limitations to controlling mediating factors present in a pragmatic trial such as this one.

Partners & Study Sites: Access Community Health Network (ACCESS) and AllianceChicago Network Clinics

Challenge	Solution/justification
Clinic variability (location, patient population, staffing, and motivation) may have effects on outcome measures not related to the intervention.	Matching similar clinics to opposite arms of the intervention is not feasible due to low clinic enrollment and requirement for randomization. This variability in clinics is acceptable in a pragmatic trial and may be able to be controlled for in analysis.
Since providers often work at more than one clinic, it may be difficult to ensure providers adhere to intervention arm the clinic is assigned to.	Though providers may work at multiple clinics, patient navigators (the main intervention) will not move clinics. Providers will also be aware of which clinics are/are not in intervention arm.
Partly due to the COVID-19 pandemic, recruiting 20 separate clinics has been difficult as many clinic focus their limited resources on other initiatives.	Instead of recruiting 20 separate clinics with 30 subjects each, study power can be maintained by recruiting 11 separate clinics with increased subjects per clinic.

Intervention

Goal: Intervention is composed of:

1. **OPTIMIZE checklist**

- Digital record of patient's adherence to ACOG-recommended prenatal and postpartum visit schedule and procedures.
- Completion of SDH screening throughout continuum of prenatal and postpartum care.
- Checklist undergoes constant iteration, informed heavily by weekly meetings with both enrolled clinic organizations as well as interviews with stakeholders and patients.

2. **Patient Navigator (PN) Role**

- Fulfilled by a nurse/social worker/care coordinator who will conduct biweekly review of the OPTIMIZE checklist for each patient (through 12-weeks postpartum)
- PN will interface with healthcare team members (e.g., providers, lactation support, care coordinators/case managers, social workers) as needed to address problem areas.

Challenge	Solution/justification
Inability (due to COVID-19 pandemic) to meet with co-investigators and recruit patients to inform intervention	Frequent virtual meetings among clinic co-investigators facilitates progress. Because NU research team cannot recruit potential interviewees in-person, clinic partners have graciously filled that role.
Background/profession of PN is variable among clinics as is their experience in addressing topics of pregnancy	Ensure that the PN checklist does not include discussions of medical topics and remains appropriate for non-nurse level PN to maintain standard throughout clinics

Integration

Goal: Integrate the OPTIMIZE checklist into the electronic medical record (EMR) to achieve a standardized, simple documentation process and incorporate PN role into clinics' preexisting workflows.

Challenge	Solution/justification
ACCESS uses Epic whereas AllianceChicago associated clinics use Centricity as their EMR, posing challenges in standardizing functionality of checklist among all clinics.	Collaboration between Northwestern University research team and both ACCESS and AllianceChicago to elucidate commonalities between EMRs to make OPTIMIZE checklist accessible and generalizable to multiple EMR programs.
While tools within EMRs possess the capability of streamlining documentation, an increase in electronic documentation has been associated with medical provider stress and burnout. This may limit provider use of developed checklist for this study..	Frequent meetings with EMR developers and post-intervention development interviews will provide additional feedback on ways to improve EMR tools to increase useability, adherence, and generalizability of OPTIMIZE intervention

Conclusions

- In partnering with ACCESS and AllianceChicago, the Center for Health Equity Transformation (CHET) at Northwestern University Feinberg School of Medicine is refining the OPTIMIZE intervention which seeks to reduce perinatal morbidity and mortality in AA/Black individuals by standardizing perinatal care with PN support.
- To date, we have conducted stakeholder (N=17) and patient (N=4) interviews to refine the OPTIMIZE intervention.
- Future direction includes building OPTIMIZE intervention into the EMR of clinics and enrolling participants in the pragmatic trial in 2021.

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