Maternal Health Matters

Cohort:
2018-2021

Team Members:
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Location:
New York, New York

Focus Areas:
Disease Prevention & Health Promotion
Maternal & Infant Health

Background

The Mount Sinai Hospital Obstetrics and Gynecology Ambulatory Practice is a long-standing community clinic serving all of NYC, centered in Harlem. A largely Medicaid and public insurance population, the clinic has worked hard to provide comprehensive and evidence-based medicine while also offering a network of support services including close follow-up with Social Work, Dieticians, Specialists, and multi-disciplinary referrals. Education and counseling are key components throughout a patient's prenatal care; however, the postpartum retention and follow-up rate remains low. The current case management care model depends on clinic-based teaching and telephonic self-management education and support in the postpartum period.[14] Though this has shown some success, the no-show rate remains high, especially among those mothers with high-risk obstetrical issues, adding to the overall community plagues of maternal morbidity associated with chronic and evolving medical conditions. ACOG has new postpartum recommendations for contact with a provider within 3 weeks following delivery followed by a comprehensive visit no later than 12 weeks postpartum. However, these recommendations have not yet been adapted mainstream and by insurance companies, and patients are still scheduled for only a standard 6 week visit follow up postpartum. In the OB/GYN Clinic, there is an approximately 40% no-show rate to

postpartum visits, despite telephone call reminders prior to visits. Studies have not yet focused on using mobile health (mHealth) specifically to improve postpartum care.

Wicked Problem Description

The United States has the highest rate of maternal deaths among developed countries, 60 percent of which are preventable with better access to prenatal and postpartum care and self-management of chronic diseases. In New York City between 2006-2010, African American women were 12 times more likely to die from pregnancy-related causes than non-Hispanic White women; Asian/Pacific Islander women were more than four times as likely and Hispanic women were more than three times as likely to die from pregnancy-related causes during the same time period. Similar trends are noted for severe maternal morbidity, which is defined as a life-threatening diagnosis or life-saving procedure during delivery hospitalization. While the severe maternal morbidity rate differed by race/ethnicity, overall severe maternal morbidity was highest in the lowest income zip codes in NYC. In Harlem, where Mount Sinai operates, severe maternal morbidity occurs in 302.6 per 10,000 births, compared with 108 in the neighboring Upper East Side.

The reasons for race and place disparities in maternal health outcomes are complex, and recent studies have attributed them to a high burden of pre-existing chronic illness, chronic stress, and racial bias of health care. Furthermore, the U.S. has an overall system of care that focuses more intently on the baby than the mother, particularly in the postpartum period. Mothers are taught to take their prenatal vitamins, avoid pathogens from unpasteurized products, and count belly kicks, but are often unarmed in knowing when and how to seek care for their own illnesses, or how that care relates to the health of their baby. Postpartum women often fall through the cracks in the system, and preventable emergencies occur, such as hypertensive crises, seizure, stroke, ketoacidosis and worsening comorbid conditions. Women also often do not receive the health maintenance and disease management instruction and care that they need in the postpartum period: for instance, very few women with gestational diabetes return for the recommended postpartum glucose testing. Women often do not have adequate breastfeeding support postpartum and disparities in breastfeeding initiation and maintenance are associated with race and income. Additionally, low-income mothers in particular have low rates of receiving critical blood pressure checks, depression screenings, and other support that can help women get and keep their health on track after childbirth.

Strategies Your Team is Undertaking

This project employs mixed methods to explore the barriers, needs, and assets of these prenatal and postpartum women, their families, and their communities. This project will also begin supportive measures during pregnancy and postpartum with digital health solutions, including focused nutritional counseling and text-message based education support, based on previously found gaps in care, with ongoing program development based on perceived needs by the community.

Currently the team has completed or is actively working on the following:

- Bi-weekly team planning meetings and regular timeline review
- A stakeholder analysis regarding the program and related health programming and policies
- Review of logic model and evaluation measures
- Literature review and research planning, including NYS Task Force Report review
- Outreach to community organizations and creating a flyer for informational purposes
- Compilations of community resources the clinic is currently using and referring patients
- Collection of educational material and information distributed for curriculum planning
- Review of epidemiology data from NYC for important health outcomes
- Interview guide for needs and assets assessment
- Institutional Review Board (IRB) protocol and research application submitted and approved
- Design and conduct qualitative inquiry (in-depth interviews) with prenatal/postpartum women (Mount Sinai Hospital patients) to be understand their experiences, feelings, thoughts surrounding: clinical care, social support, community resources, chronic condition self-management (ongoing)
- Design a text-message based postpartum support program for pregnant women to provide educational, social, and logistical support during the six-week period prior to their scheduled postpartum appointment, to include both general pregnancy population and specific messaging for those with hypertension.
- Institute the use of tele-health video visits for nutritional counseling by a certified dietician for pregnant women, especially those with diabetes in pregnancy

Future Actions

- Formation of steering committee for program ongoing development
- Provide education to health care providers based on needs/assets assessment findings
- Perform outreach to community organizations informed by needs/assets assessment findings
- Collaborate with a local food pantry for monthly waiting-room programming, including cooking demonstration
- Community assets/resource mapping (via Mount Sinai social work and via patient interviews)
- Curriculum development for training health coaches in pregnancy and postpartum maternal health support
- Maternal health coaching program educational material and “toolkit” of training material

- Rollout of the program with referral of eligible patients to health coaching program, to include a variety of activities to support women through their pregnancy and liaison with their provider.
- Evaluation of program with measured outcomes and assessment of sustainability and feasibility to broaden referral base.

Outcomes

Completed Outcomes

1. Review and compilation of literature, research, educational material, resources, and stakeholders.
2. Creation of interview guide and training of health coach in involvement with interviews
3. Submission of IRB protocol and associated research requirements.

Anticipated Future Outcomes

1. Development of programming to improve health (physical, emotional, mental) of pregnant and postpartum women with diabetes/gestational diabetes and/or hypertension/preeclampsia in Upper Manhattan (long-term) based on needs and assets assessment
2. Reduce severe maternal morbidity in Upper Manhattan (long-term)
3. Disseminate program model to become NYC-wide initiative (long-term)

Timeline

Year 1

- IRB approval and research requirements completed
- Literature review, stakeholder analysis, community asset/resource mapping, epi scan.
- Needs assessment with community and clinical partners via in-depth interviews
- Development of interview guide for patients and women on community needs assessment

Year 2

- Recruitment of participants and comprehensive interviews with patients and women who are pregnant and postpartum on support assessment and needs
- Development of a supportive text message program with the Sinai App Lab including content for 6-week postpartum period, pilot program with postpartum patients

- Development of IT infrastructure for nutrition telehealth video visit programming and collaboration for food demonstration waiting-room programming

Year 3

- Develop educational program for health care providers and community outreach messaging based on assessment findings
- Evaluation of text program and update based on feedback; roll out of text-messaging postpartum support program to wider clinic population
- Begin nutrition telehealth visits for pilot program of pregnant and diabetic patients and ongoing waiting-room programming.
- Lay groundwork for curriculum development for coach training in maternal health program with input from Obstetrics and steering committee, development of an educational booklet and training of coaches
- Convene with clinical and health departments for implementation in other NYC areas

Partnerships

Extended team members:

- Brett Ives, NP, CDE for collaboration on program design, implementation and evaluation
- Leny Rivera, Lead Diabetes Health Coach and Spanish-language interviewer
- OBGYN Clinic Social Worker Team as the point person for program referrals

Evaluation Strategies

Process and impact evaluations of the overall Maternal Health Matters project will be conducted using primarily quantitative and some qualitative methods and will be designed and put in place before program initiation. Process and impact indicators are presented below; all metrics will be collected monthly and analyzed quarterly. In regard to the text messaging program, patients for the postpartum text messaging program will be randomized to intervention or control and measured for the outcomes indicated below.

Contact Person Information

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