Maternal Health Matters

Cohort:
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Team Members:
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Location:
New York, New York

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

Background

City Health Works utilizes a community-based health workforce in Harlem, New York, to enable patients and clinicians to be more proactive in achieving better health and averting costly crises. City Health Works will adapt its well-established networks, proven neighborhood-based care model, and custom technology to maternal health in New York City in collaboration with The Mount Sinai Hospital Department of Obstetrics and Gynecology. The Women's Health practice at Mount Sinai Hospital is a long-standing community clinic serving an inner-city population in Harlem, the South Bronx and Queens. 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, dietitians and multi-disciplinary referrals to specialists. Education and counseling are key components throughout a patient's prenatal care; however, follow-up rates remain low, especially among those mothers with high-risk obstetrical issues, adding to the overall community problem of maternal morbidity associated with chronic and evolving health conditions. This proposed project and collaboration will bring much needed patient support into the home, extending beyond the medical clinic and into the community with highly trained, clinically supervised City Health Works community health workers.

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 rate differed by race/ethnicity, overall severe maternal morbidity was highest in the lowest income zip codes in NYC. In Harlem, where City Health Works and the OB/GYN clinic at Mount Sinai Hospital operate, 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 health maintenance and disease management that they need in the postpartum period: very few women with gestational diabetes return for the recommended postpartum glucose testing. Low income mothers in particular have low rates of receiving critical blood pressure checks, depression screenings, and other support that can help women get their health on track after childbirth. Finally, women do not have adequate breastfeeding support postpartum and disparities in breastfeeding initiation and maintenance are associated with race and income.

Project Strategies

The Maternal Health Matters team is well positioned to support women in pregnancy, the “fourth trimester,” and beyond, to reduce the risk of maternal health complications and to improve outcomes for health issues such as hypertension, diabetes, and depression. The project team will develop a home visit program for pregnant and postpartum women with diabetes and hypertension (chronic as well as newly diagnosed disease). The program will take place in Upper Manhattan (Harlem, Washington Heights, Inwood and Morningside Heights) and the South Bronx and will include the following activities:

- Training of health coaches in pertinent pregnancy health care issues, focused initially on hypertension and diabetes and maternal nutrition.
- Support women with pre-existing diabetes/hypertension or newly developed gestational diabetes/hypertension/preeclampsia from the second trimester to 6 months postpartum with goal-directed health promotion and disease self-management counseling. The City Health Works care team will identify/escalate obstetric emergencies promptly to the appropriate care team member in conjunction with the OB/GYN clinic.
- Interface with OB providers and social worker team to identify, discuss, and address any medical, social, or mental health needs of the client.
- Provide clients with motivation, education and behavior change support to have a healthy pregnancy, focused on both infant and maternal health: address nutrition, physical activity, chronic disease self-management, stress management, emotional health, adequate rest, and adherence to medication.
- Offer breastfeeding promotion and support, when interest or desire expressed.
- Provide health care coordination and linkage to other community resources

Outcomes

Three intended outcomes for the project are as follows:

- Improve health (physical, emotional, mental) and address social needs of pregnant and postpartum women with diabetes/gestational diabetes and/or hypertension/preeclampsia in Manhattan and South Bronx (short-term)
- Reduce severe maternal morbidity in Upper Manhattan and South Bronx (long-term)
- Disseminate program model to become NYC-wide initiative (long-term)

Timeline

Year 1:

- Conduct needs assessment with community and clinical partners
- Perform stakeholder analysis
- Initiate program planning meetings with Obstetrics team and other key stakeholders. Design evaluation concurrently
- Train all coaches in maternal health program curricula and workflows
- Pilot program with small group of patients at Mount Sinai OB/GYN Clinic
- Conduct formative evaluation soon after implementation to inform revisions of the program
- Finalize evaluation plan; set up capacity for monthly and quarterly impact and process data reviews

Year 2:

- Revise program to adapt for current needs and patient issues and fully roll out program to eligible patients at the Mount Sinai OB/GYN Clinic

Year 3:

- Continue program operations. Refine and formalize model, assess potential for translation
- Convene with clinical and health departments for discussion about implementation in other NYC areas

Partnerships

Community health workers will be hired through City Health Works and trained in the proposed program. Social workers, nursing, and physician staff at the Mount Sinai Hospital OB/GYN clinic will partner with community health workers for continuity in patient care. An advisory board will consist of an interdisciplinary team of clinical and community partners, including physicians, nutritionists, public health specialists, nurses, social workers, community health workers, as well as hospital administration and community leaders, to guide and inform program development and implementation. City Health Works has existing partnerships with community-based organizations specializing in home environmental issues, home delivery of medically-tailored meals, SNAP and WIC benefits, job training, housing, legal services, food assistance and case management. We will engage these partners as we design the program and operations.

Evaluation Strategies

Process and impact evaluations of the program will be conducted using primarily quantitative and some qualitative methods, and will be planned as part of the program design process. Process measures will include the number of postpartum women receiving recommended glucose, blood pressure, and depression screening. Outcome measures will include maternal health behaviors, physical and mental health markers, and presence of delivery/postpartum complications. Stakeholder interviews will be conducted soon after implementation to allow for program revisions.