



Prenatal Risk Assessment at Broadway Family Medicine: Quantifying Risk and Improving Screening Efficacy

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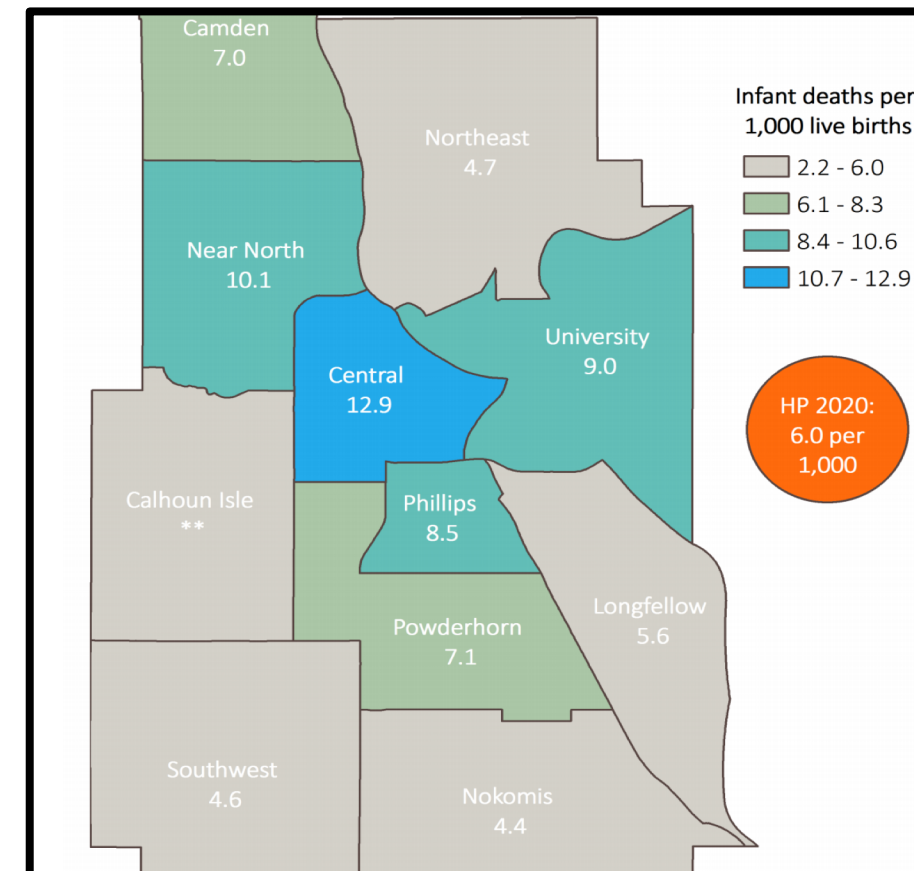
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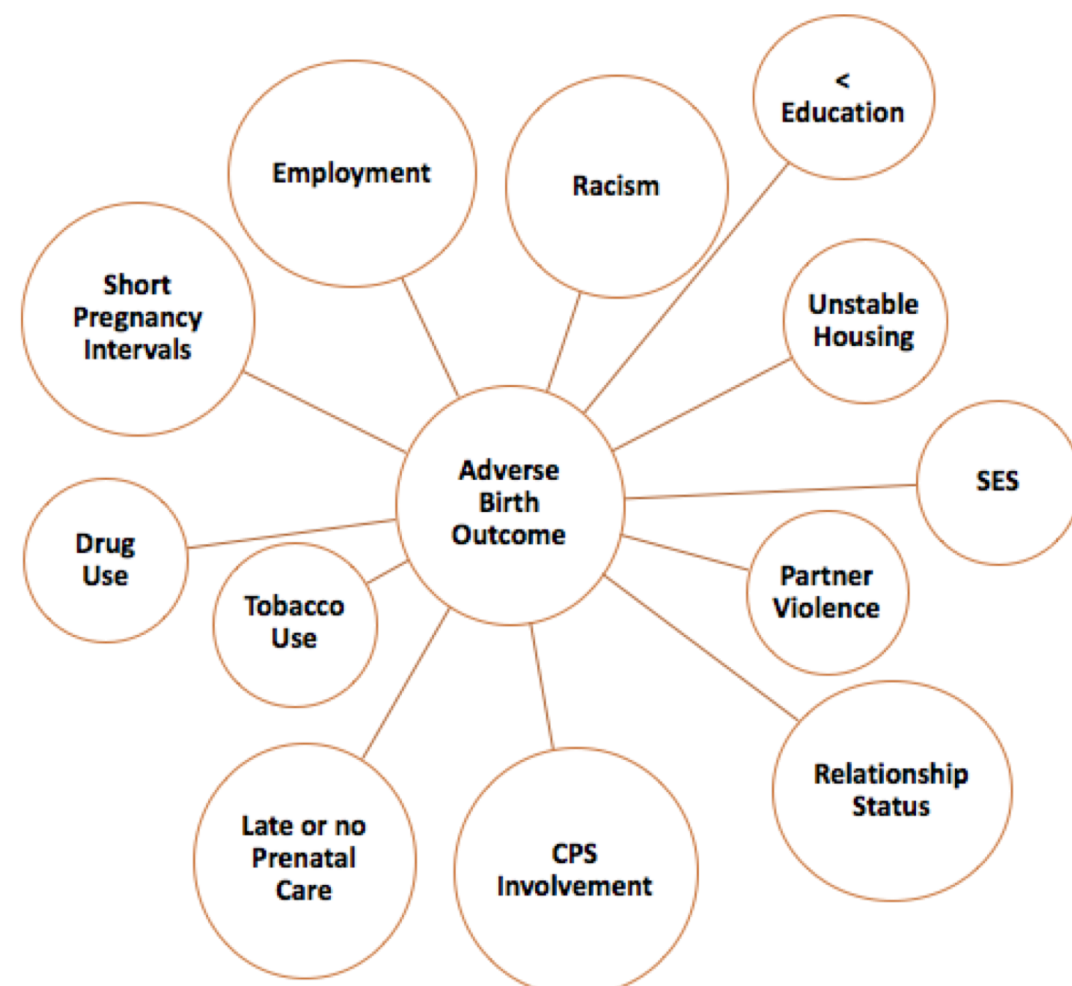
Background

Problem: The North Minneapolis Community has a 2x higher rate of infant mortality compared to the state of Minnesota (10.1 vs 5.0)¹⁻².

Broadway family medicine (BFM) serves the North Minneapolis Community



Adverse birth outcomes are associated with a number of individual and community level factors, and associated with social determinants of health³⁻⁶



Prenatal Risk Overview (PRO)

- BFM uses screening tool PRO to quantify and address some of the factors associated with adverse birth outcomes,
- PRO developed by Minnesota Department of Health addresses 13 psychosocial domains known to be associated with adverse birth outcomes⁷
- Administered all new OB patients at initial prenatal visit
- Based on screen, patients are referred to community resources
- At 24 weeks patients are asked about follow-up on referrals



- A movement in healthcare to assess actionable social factors⁸⁻¹⁰
- Uses empathetic questioning, validated questions and promotes patient-provider relationship

Objectives

- Quantify factors associated with adverse birth outcomes at BFM
- Assess current referral system
- Improve prenatal screen workflow
- Assess and update PRO using PRAPARE
- Update PRO for 2020

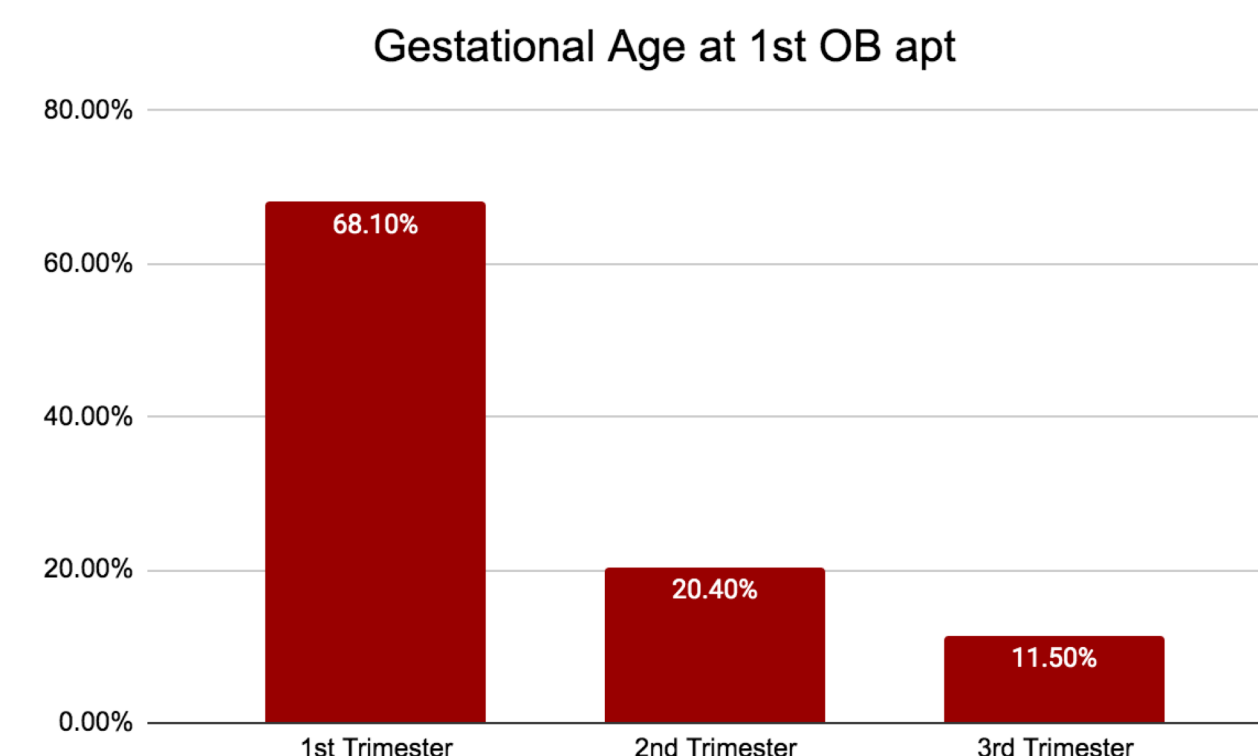
Methods

- PRO forms Jan-Dec 2019, n= 114
- REDCap used to analyze and identify most common at-risk domains and referrals
- PRAPARE toolkit to assess method for questionnaire administration
- Analyzed PRO content based on PRAPARE core measures
- Requested stakeholder input
- Reviewed literature to update screening for 2020
- This research was granted an exemption from the IRB at the University of Minnesota.

Results

Selected demographics

- 81.4% African American
- 84.1% Single
- 55.5% Unemployed
- 68.1% of patients presented in first trimester vs. 84.8% goal in Healthy People 2020¹¹.
- 17% history of previous Preterm Birth
- 26.5% first pregnancy



Housing instability

- 10.7% reported staying in a shelter in past 12 months
- 36.6% stayed with relatives or friends in past 12 months

Food insecurity

- 19 reported food insecurity
- Only 2 was food insecurity added to problem list in chart

Domestic Violence

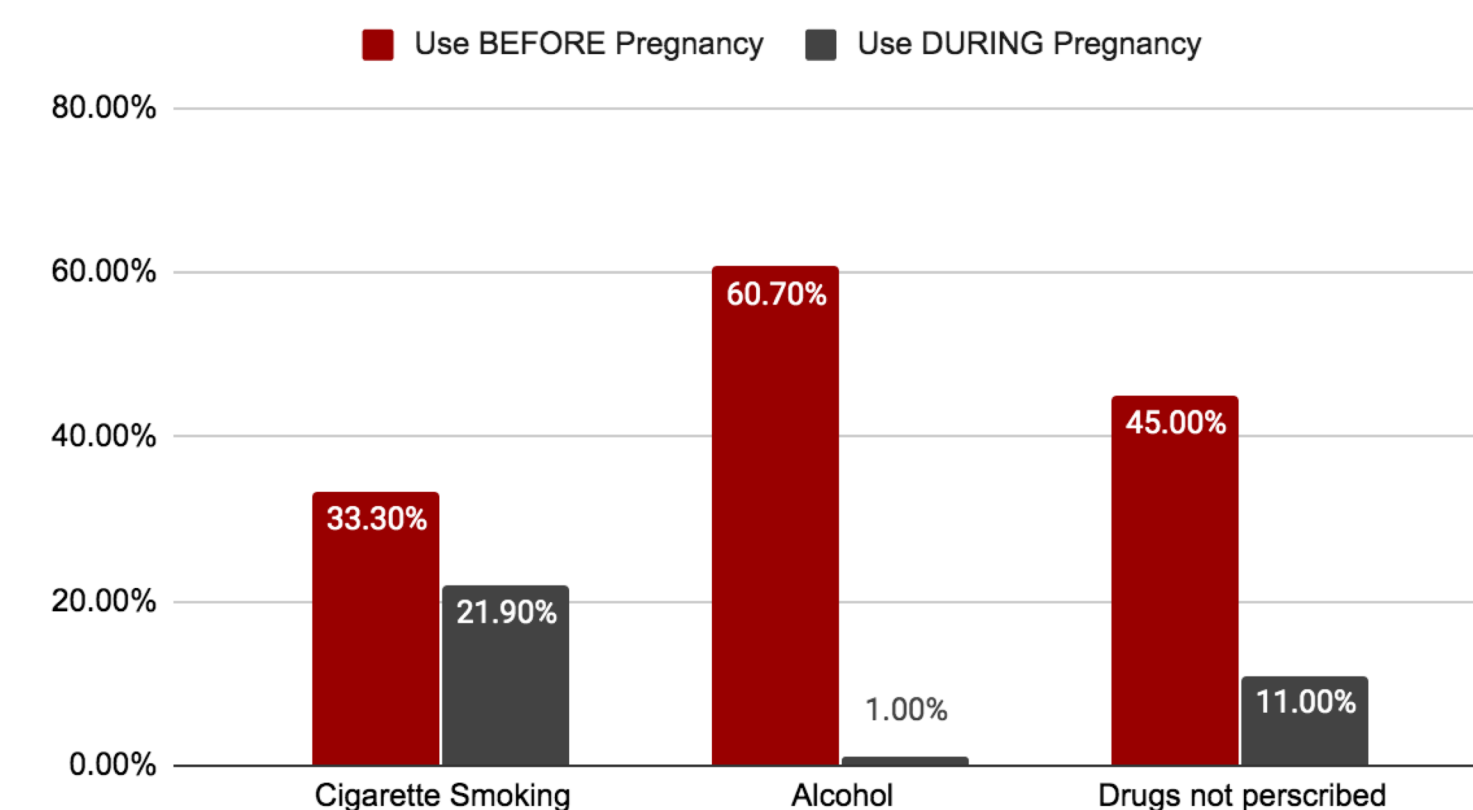
- 11 screened positive
- Only 1 was documented to have received resources

Results Cont.

Substance Use

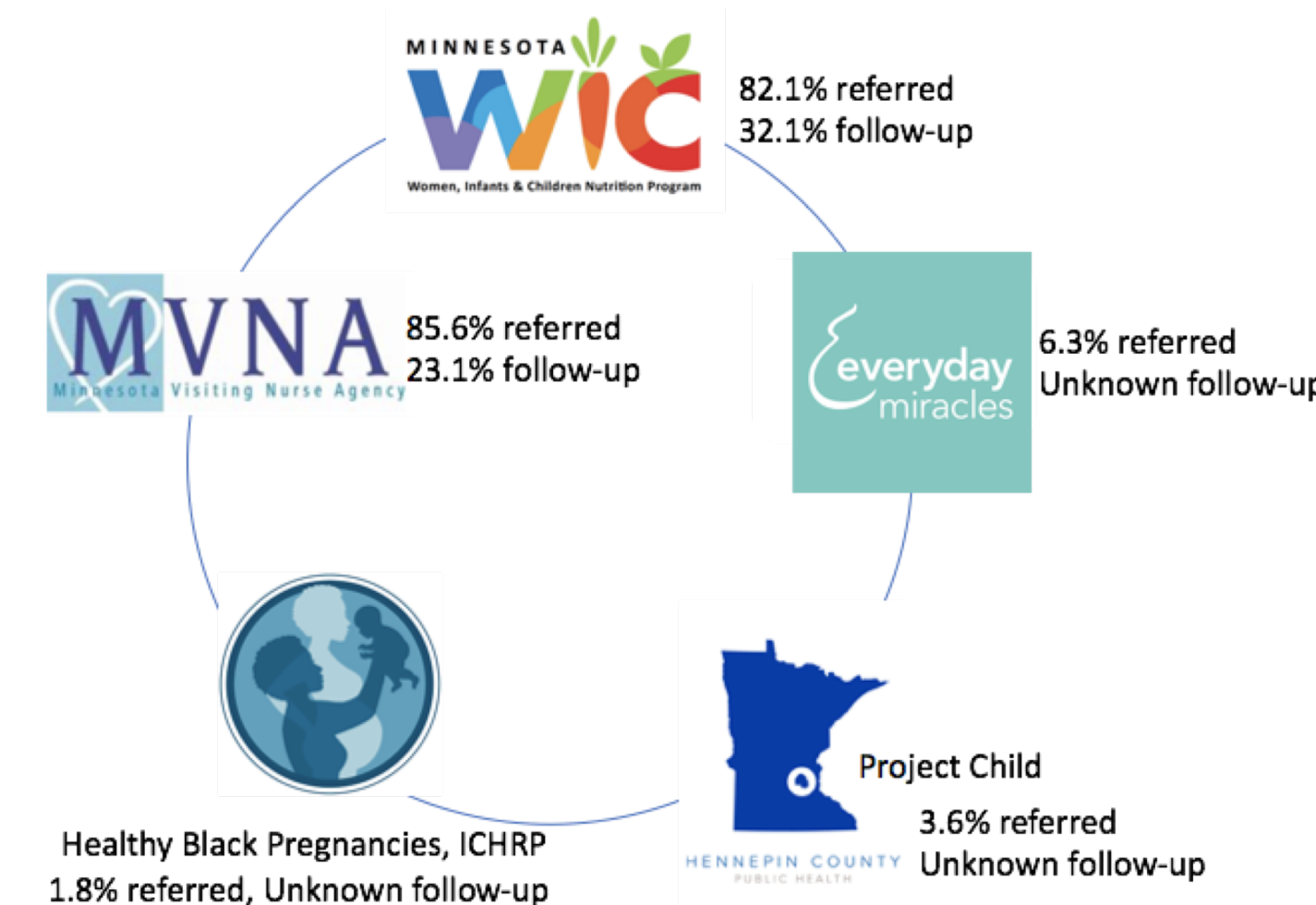
- Declined during pregnancy vs before pregnancy
- Healthy People 2020 goals in pregnancy¹¹: Cigarette smoking: 1.4%, alcohol 1.7%, illicit drugs: 0%

Substance Use Before and During Pregnancy



Referrals

- Automatic referrals to WIC and MVNA → high referral rates, though low patient follow-up rates.
- Follow-up unclear in the EHR for 38.5% MVNA and 29.5% WIC referrals



PRAPARE

PRO and annual screener capture 12/16 core PRAPARE measures (yellow). Two measures were added to the PRO (red). White measures were not added¹⁰.

Race	Neighborhood
Ethnicity	Education
Migrant/seasonal farm work	Employment
Veteran Status	Insurance
Language	Income
Housing Status	Material Security
Housing Stability	Transportation
Social Integration & Support	Stress

Discussion and Recommendation

Update PRO for 2020

- Ask about e-cigarette use¹²
- Add racism and discrimination screen¹³⁻¹⁴
- Evaluate if CPS question value added or more stigmatizing¹⁵

PRAPARE

- Added questions about education, income
- Standardize introductory script
 - Explicit goal is to connect to resources
 - Acknowledge stigma associated with some questions
 - Ask patient if they would prefer to fill out on paper
 - Ask patient if it's okay to begin
 - Ask patients to identify their strengths

Work-Flow

- Screen patients a second time
- Documentation in EHR
 - Standardize role and expectation for documentation
 - PRO form built into EHR (currently on paper) to improve continuity of care

Partnerships and future steps

- Utilize all resources (not just WIC and MVNA)
- Interview triage staff to establish how decision to refer is made
- Illicit voice of the patient through focus groups

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