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Racial Disparities in Newborn Drug Testing after Implementation of Question-Based Screening for Prenatal Substance Use

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Background

- Risk-based biological testing for prenatal substance use is associated with disproportionate reporting of Black families to child welfare
- ACOG recommends universal question-based screening with a validated tool
- Few studies on implementation of universal screening

Objectives

- 1. Evaluate the implementation of universal verbal screening on the frequency and racial disparity of prenatal and newborn biological drug testing
- 2. Describe the outcome of positive substance use screens on brief interventions and treatment

Methods

- Retrospective cohort of 32,802 live births from July 2014 to July 2022 at Michigan Medicine before and after 2018 adoption of verbal substance use screening
- Screening done with a 6 question screening tool
- Primary outcomes: biological drug test orders
- Chart reviews for patients “struggling to stop”

Table 1: Substance Use Screening Questionnaire

1. Have you ever used drugs or alcohol during pregnancy?
2. Have you ever had a problem with drugs or alcohol in the past?
3. Does your partner have a problem with drugs or alcohol?
4. Do you consider one of your parents to be an addict or alcoholic?
5. Now that you know you are pregnant, are you struggling to stop using drugs/alcohol?
6. Would you like help?

Results

Figure 1: Biological Drug Test Rates by Race/Ethnicity Before and After Questionnaire Implementation

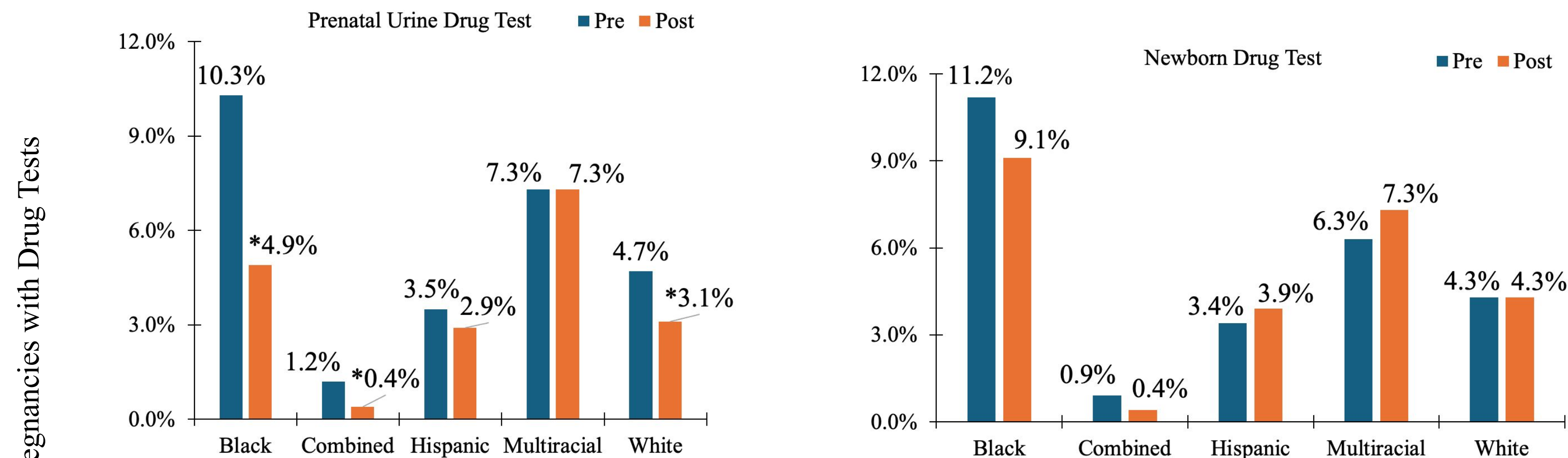
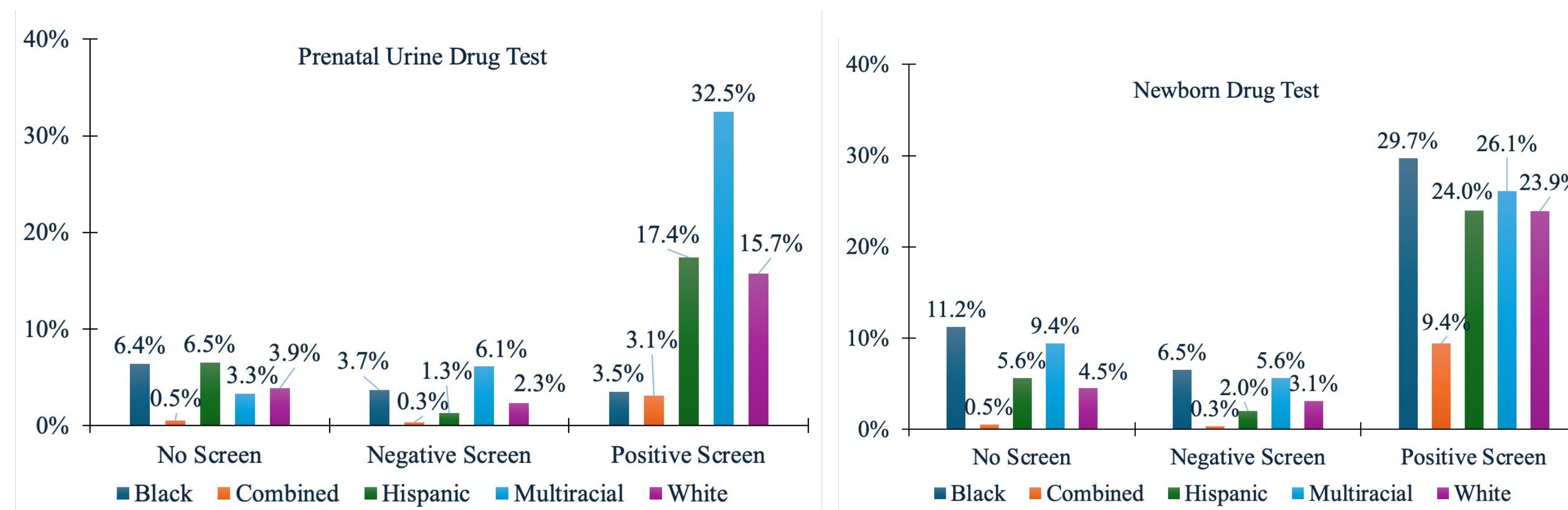


Figure 2: Biological Drug Test Rates by Race/Ethnicity and by Question-Based Screening Result



Findings

- Positive screen (“yes” to question 1 or 5) in 5.1% of pregnancies
- Prenatal urine drug testing rates decreased following implementation (5.0% to 3.1%) with a significant reduction for White and Black individuals
- Newborn drug testing rates and racial disparities did not change significantly following implementation
- Chart reviews of 39 patients “struggling to stop” with only 22 with active documented substance use
 - 36% of patients had documented notification of mandatory CPS reporting prior to delivery
 - Cannabis use (91%): 60% documented health risk discussion and 60% newborn drug testing

Conclusion

- Universal implementation of verbal prenatal substance use screening reduced racial disparities in prenatal drug testing but not newborn drug testing
- Clinician responses to patients struggling to stop using were variable, particularly for patients using cannabis
- Need to standardize and incorporate evidence-based treatment

Future Directions

- Findings shared with appropriate departments
- Nursing education to improve early Social Work referral

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