

# Addressing racial disparities in cesarean delivery rates using a digital program: Preliminary findings



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## BACKGROUND

**C-section is high-risk and costly:** C-section is associated with higher maternal morbidity and mortality, longer recovery, and higher costs when compared to vaginal delivery.

**Black mothers are at risk for C-section:** Current U.S. data indicate that there are racial disparities in cesarean delivery rates, with black mothers most likely to deliver via cesarean.

**Virtual health platforms may help address this disparity:** Digital services may help patients find providers and facilities that best support their needs. Connecting patients with comprehensive services, including robust information and autonomy-supportive care coordination and counseling, may help decrease risk of cesarean delivery.

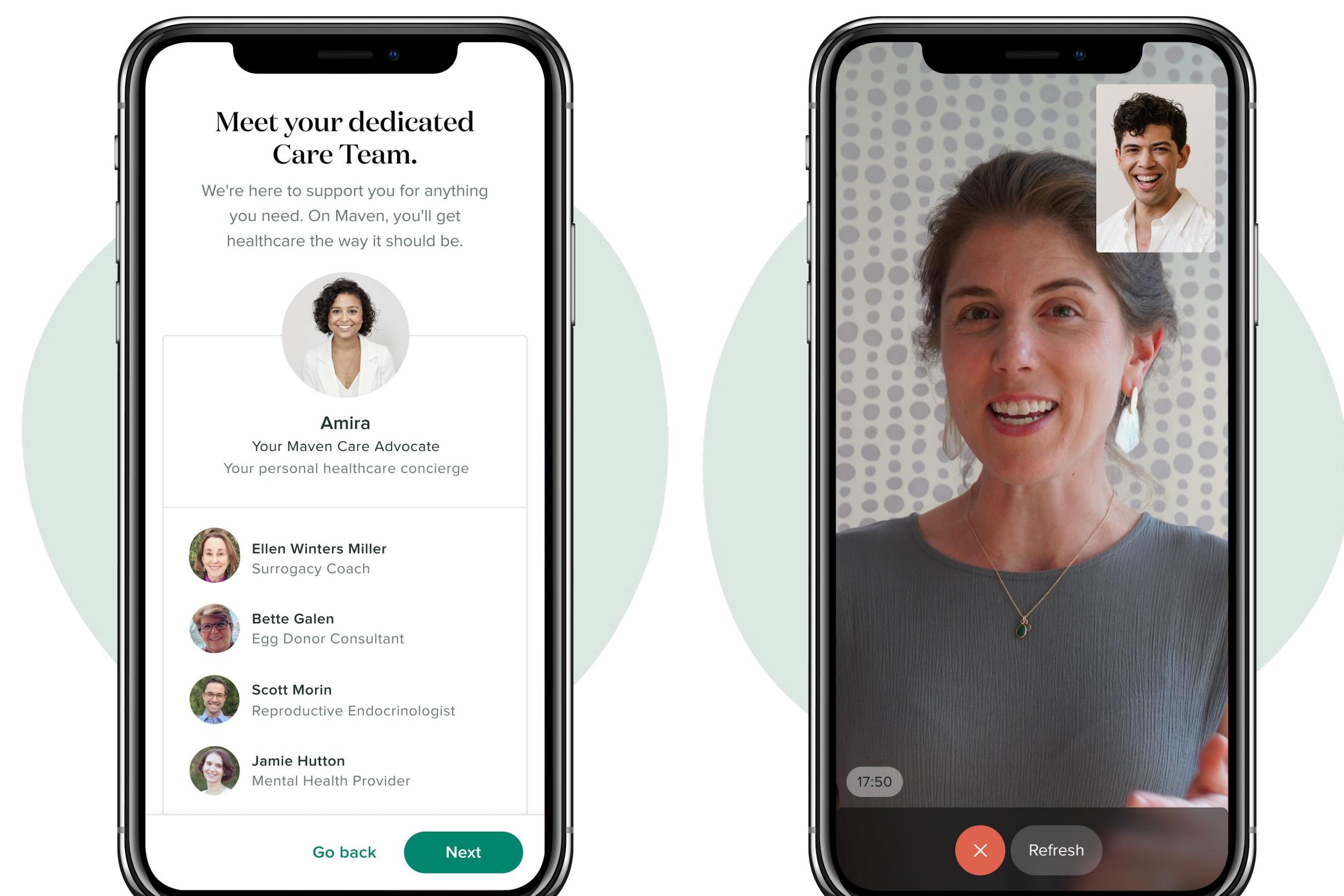
## METHODS

**Sample:** Participants were 2447 nulliparous pregnant people who enrolled in a digital health program since 2020 and completed self-report questionnaires on race/ethnicity, medical history, and pregnancy outcomes.

**Predictors:** Number of virtual appointments

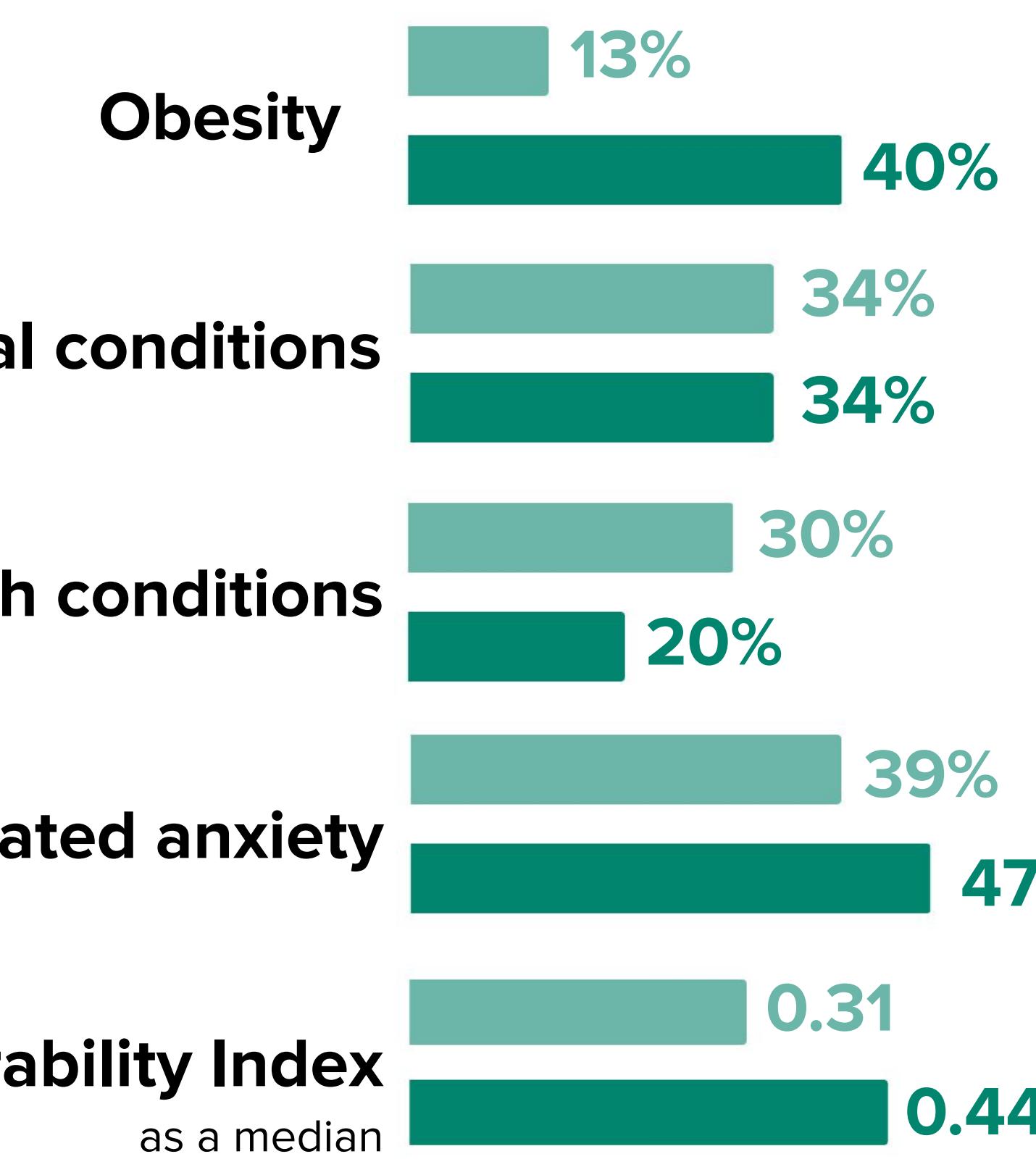
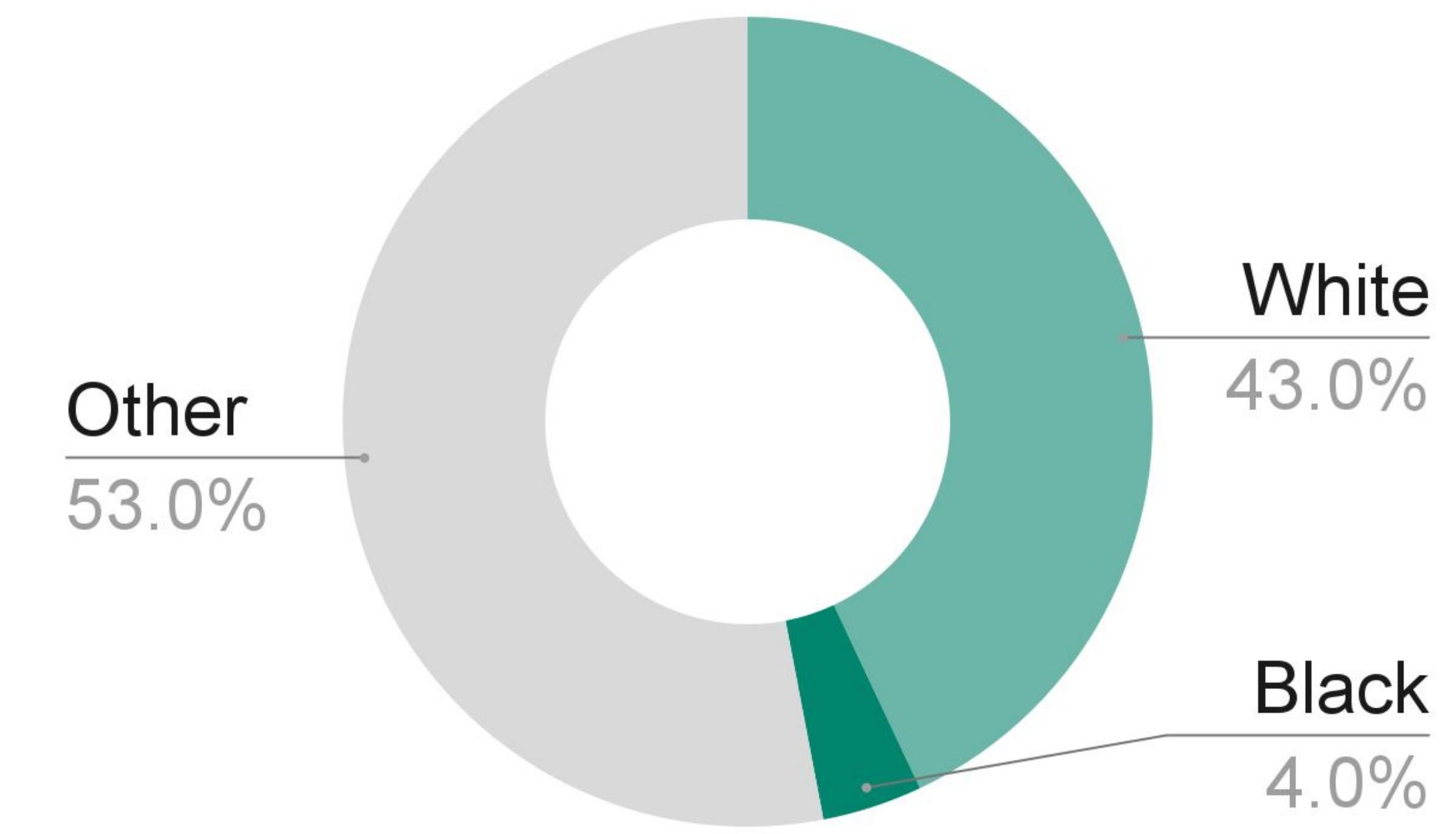
**Outcome:** Vaginal delivery

**Analysis:** Descriptive statistics and logistic regression controlling for age, obesity, medical conditions, mental health conditions, pregnancy-related anxiety, Social Vulnerability Index, and preferred mode of delivery

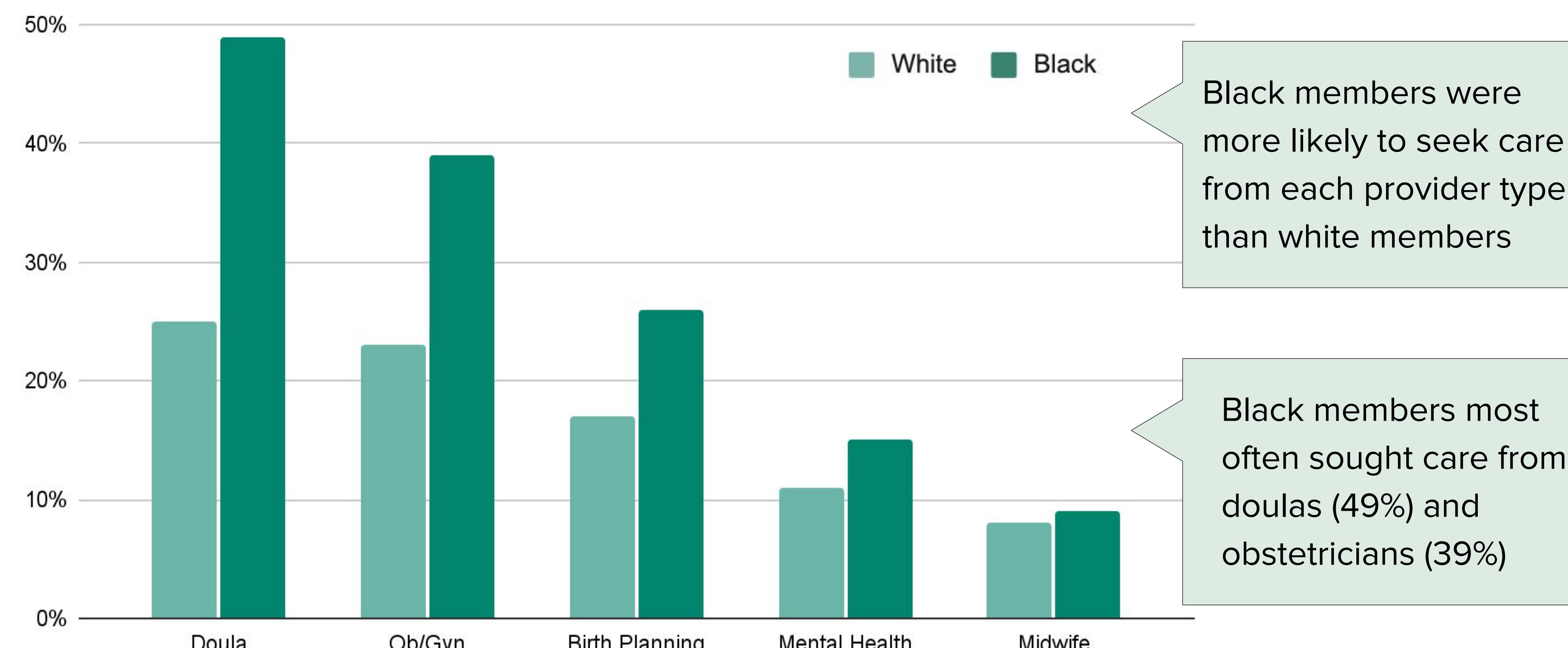


## RESULTS

### Participant characteristics



### Percent of participants seeking appointments, by provider and race



### Effect of total appointments on vaginal delivery, by race

	OR	aOR
White members	1.00 (0.97, 1.03)	1.01 (0.98, 1.04)
Black members	1.04 (0.91, 1.19)	1.05 (0.91, 1.24)

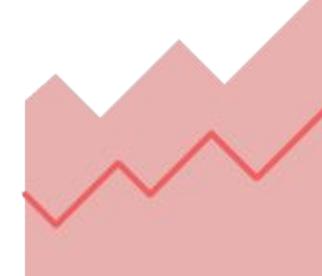
Total appointments were not associated with greater odds of vaginal delivery

## CONCLUSIONS

- Black members had higher medical and social risk factors than white members, even in an employer-based benefit program.
- Black members had double the number of virtual appointments and sought more appointments with each provider type when compared to white members.
- Higher utilization did not translate into higher vaginal birth rates.

## FUTURE DIRECTIONS

Future work is needed to understand the relationship between digital prenatal care services and birth outcomes, including:

-  How to specifically design services to meet Black members' needs
-  How digital services can enhance labor and delivery care received in health centers
-  How compounding medical and social risk factors may affect birth outcomes

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