



# Maternal Depression in Michigan's Pregnancy Risk Assessment Monitoring System (PRAMS), 2012-2014

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## BACKGROUND

- ❖ The epidemiological prevalence of postpartum depression is poorly understood. A systematic review of literature regarding PPD found prevalence rates ranging between 6.5-12.9%<sup>1</sup>.
- ❖ There is no single accepted way to measure and record data on PPD, and collecting population level data is difficult and expensive.
- ❖ PPD has been shown to threaten a woman and her child's health and wellbeing<sup>2</sup>. This project aims to identify the prevalence and demographic differences of PPD.

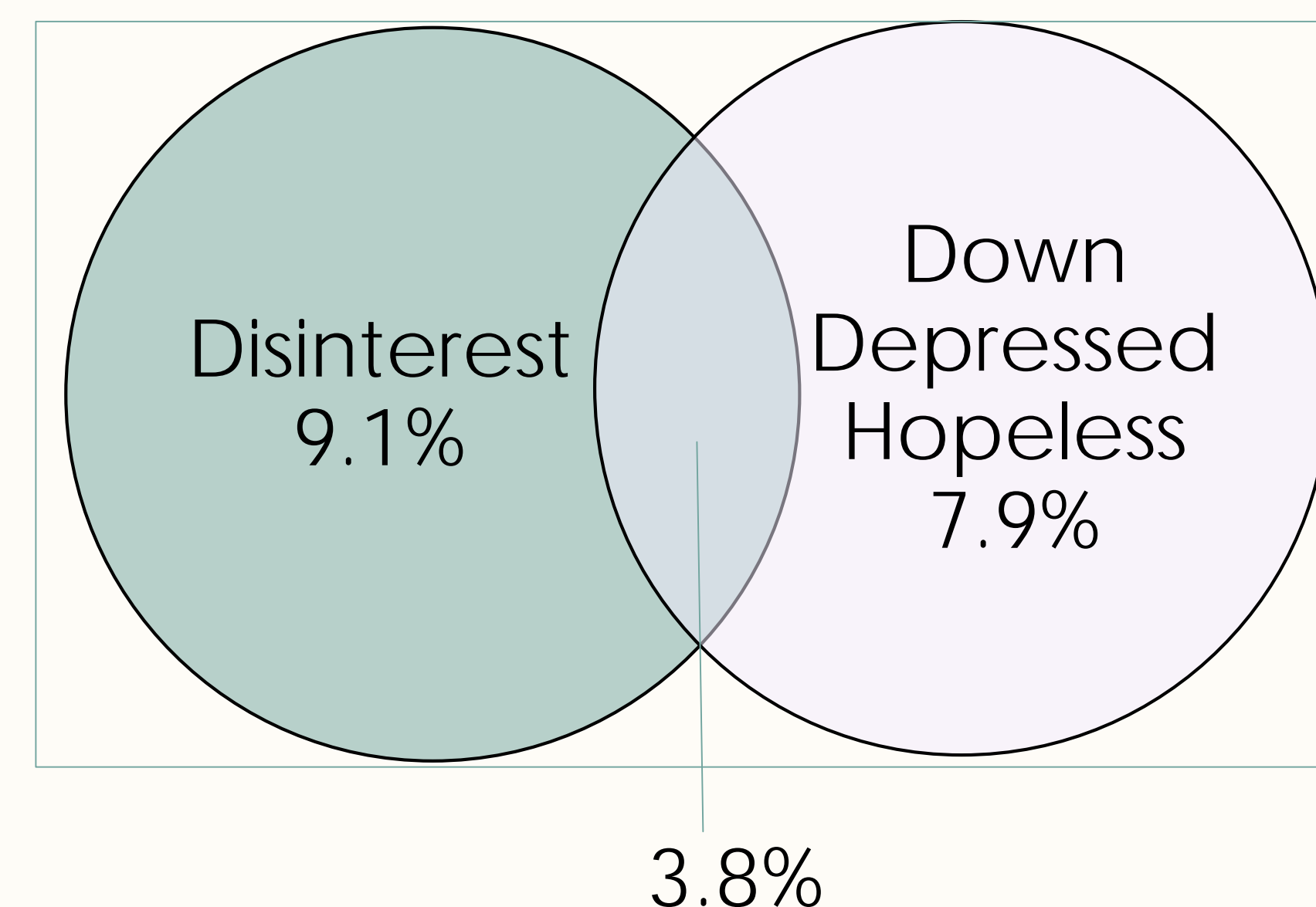
## METHODS

- ❖ MI PRAMS collects survey data using representative samples. PPD was measured using three questions:
  - ❖ Since your new baby was born, how often have you felt down, depressed, or hopeless?
  - ❖ Since your new baby was born, how often have you had little interest or little pleasure in doing things?
  - ❖ Before you got pregnant with your new baby, did a doctor, nurse, or other health care worker tell you that you had any of the following health conditions [Depression]?
- ❖ This descriptive analysis was conducted using data from MI PRAMS for birth years 2012-2014.
- ❖ Answers from approximately 5,600 respondents representing 331,000 mothers were aggregated into a single data set, with an average response rate of 59%.
- ❖ We investigated variations of respondents having these three depression symptoms as well as demographic differences.

## VARIATIONS IN DEPRESSIVE SYMPTOMS

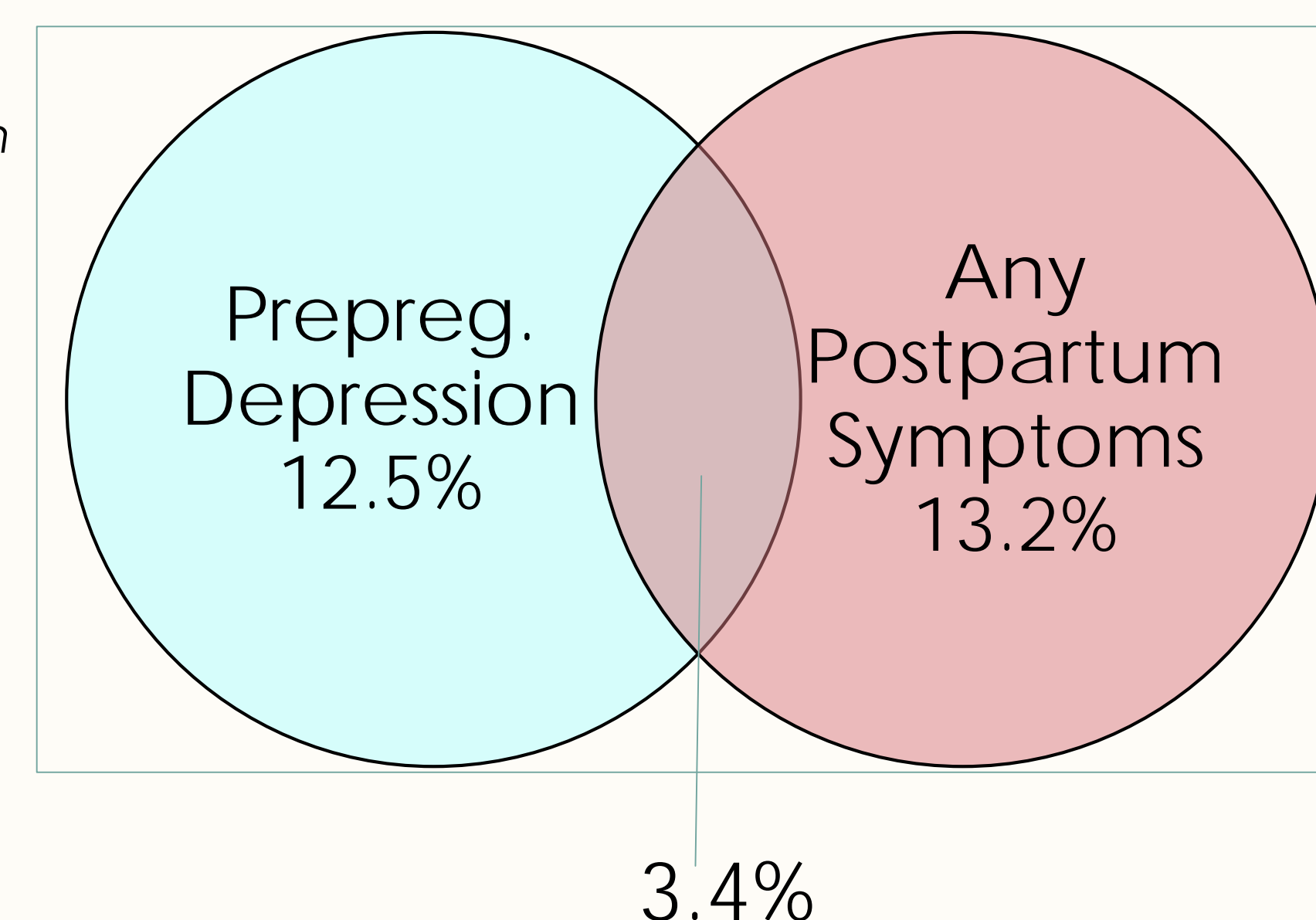
**Figure 1**

Prevalence of answering "yes" to one or both postpartum depressive symptoms, disinterest or feeling depressed.



**Figure 2**

Comparison of prepregnancy depression diagnosis and postpartum depression symptoms.



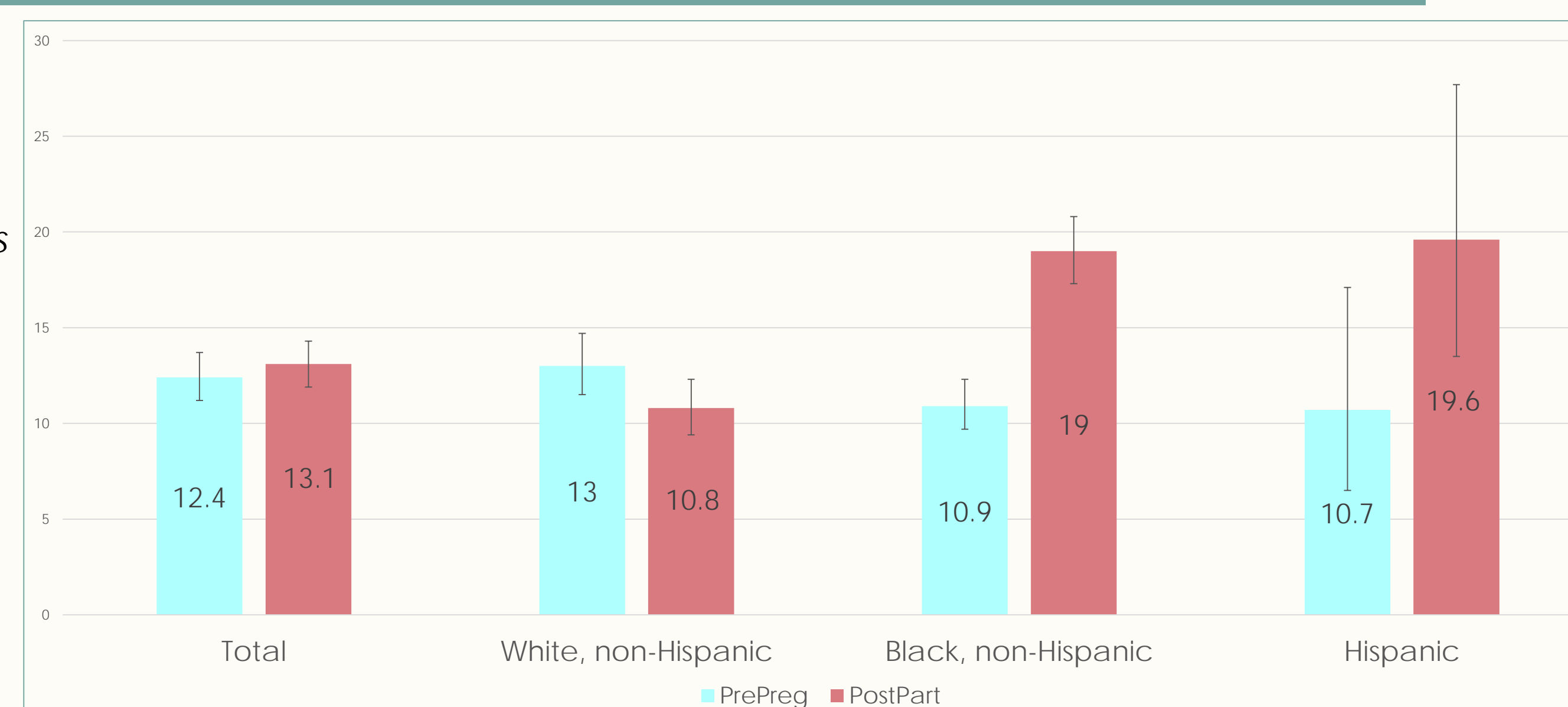
## RESULTS

- ❖ Before becoming pregnant, 12.5% of all Michigan mothers were diagnosed with depression, and 13.1% of all mothers reported symptoms of depression during the postpartum months (Figure 3).
- ❖ Of these women reporting postpartum symptoms, most (73.0%) did not report depression before conception.
- ❖ Respondents who answered that they experienced both feelings of disinterest and depression represented 3.8% of mothers (Figure 1).
- ❖ Few Michigan mothers (3.4%) report persistent depression both before and after pregnancy (Figure 2).
- ❖ Non-Hispanic black mothers were almost twice as likely to report new onset depression symptoms after pregnancy as non-Hispanic white mothers, 14.5% vs. 7.5% (Figure 4).

## PPD DEMOGRAPHICS BY RACE

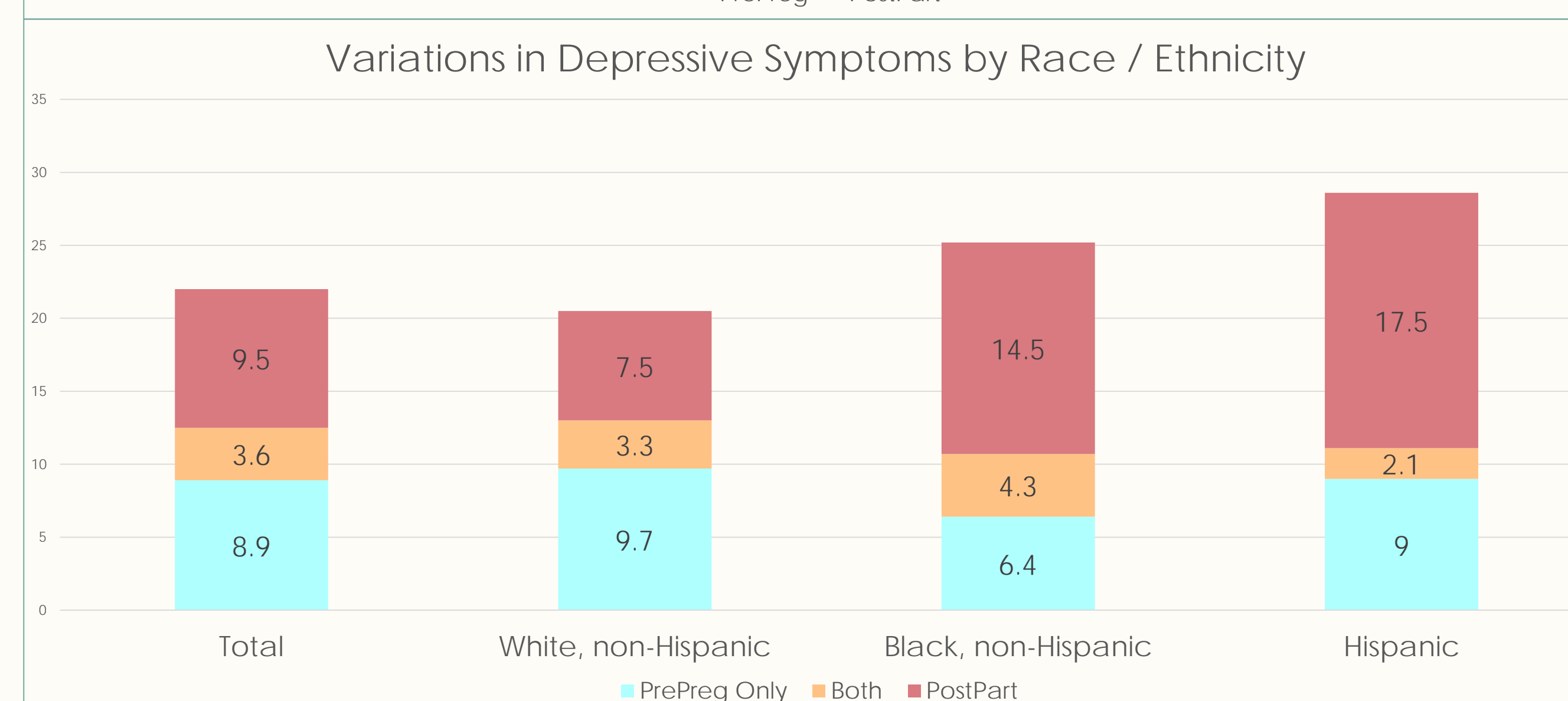
**Figure 3**

Prepregnancy depression diagnosis and any postpartum depression symptoms by maternal race / ethnicity.



**Figure 4**

Variations in prepregnancy only, postpartum only, and both prepregnancy and postpartum depressive symptoms by maternal race/ethnicity.



## CONCLUSIONS

- ❖ The majority of women with postpartum depression symptoms did not report prepregnancy depression.
- ❖ A small but significant proportion of mothers report depression before and after pregnancy.
- ❖ There are significant differences regarding the development of postpartum depression in non-Hispanic black and non-Hispanic white women.

## REFERENCES

<sup>1</sup>Gavin, N., Gaynes, B., Lohr, K., & Meltzer-Brody, S. (11/01/2005). Obstetrics and gynecology (new york, 1953): Perinatal depression - A systematic review of prevalence and incidence Elsevier.  
<sup>2</sup>Stein, Alan, et al. "Effects of Perinatal Mental Disorders on the Fetus and Child." The Lancet 384.9956 (2014): 1800-19. ProQuest. Web. 13 Jan. 2017.