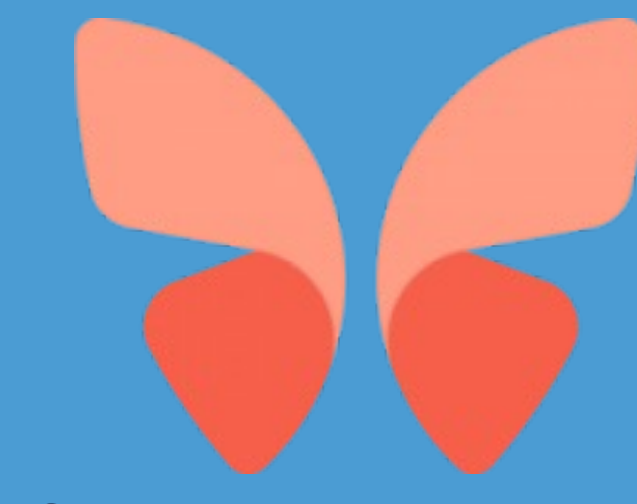




# Pre-Diagnosis Symptoms Reported Among Endometrial Cancer Survivors

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## Background

- Incidence and mortality of endometrial cancer (EC) are increasing.<sup>1</sup>
- There are significant EC outcome disparities between Black and White patients.<sup>2</sup>
- Postmenopausal bleeding is generally accepted as the most common symptom of EC.<sup>3</sup> However, symptom experience may vary according to the presence of uterine fibroids or comorbid obesity, conditions which are more common among Black women.<sup>4,5</sup>
- The aim of this study is to describe the pre-diagnosis symptoms and reporting by EC survivors by race.

## Methods

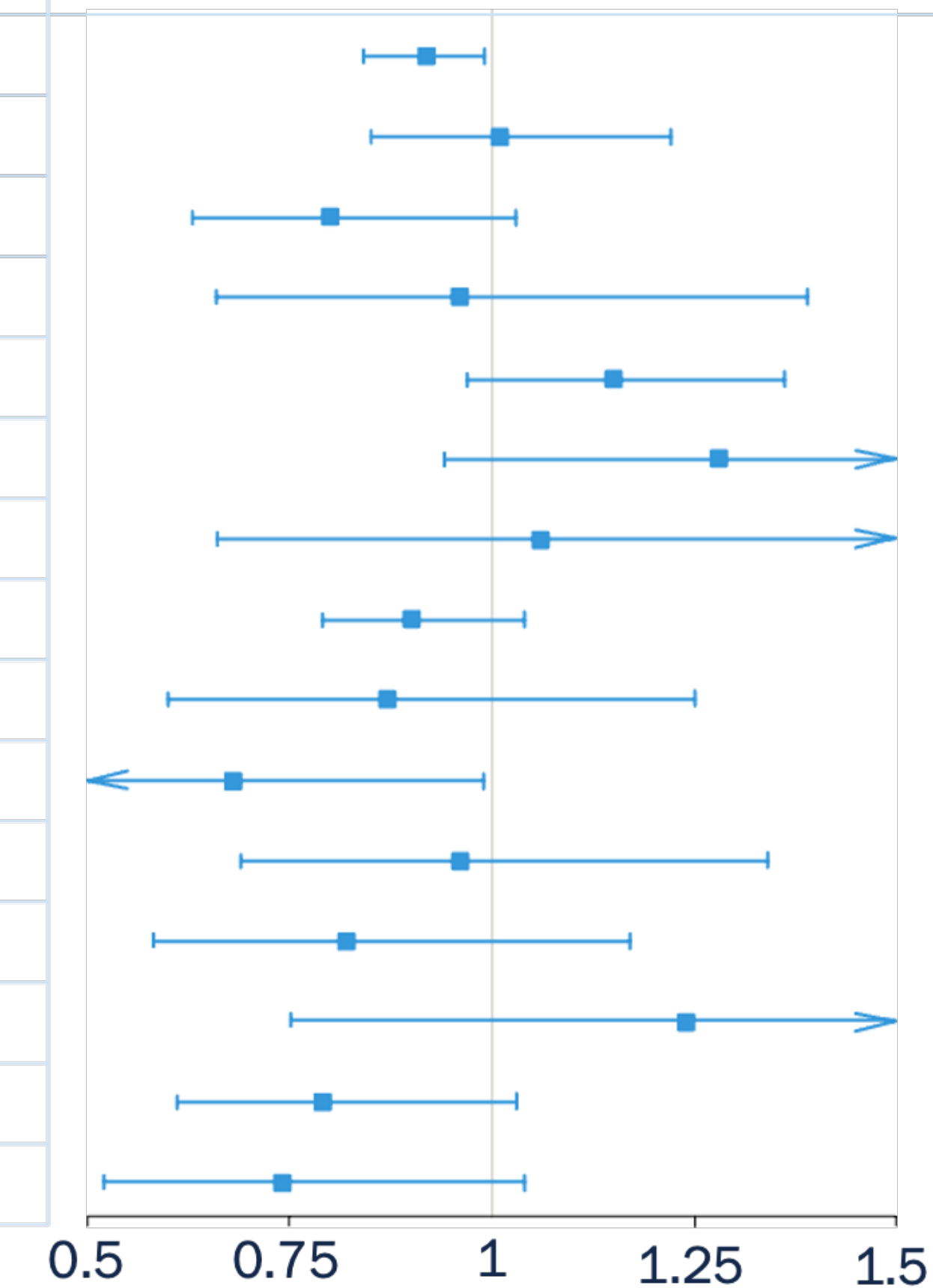
**Participants:** The Carolina Endometrial Cancer Study (CECS) is prospectively recruiting participants with newly-diagnosed EC in North Carolina using the statewide Central Cancer Register's rapid case ascertainment program. This is a preliminary analysis of the first 355 participants recruited to the CECS.

**Measures:** We used baseline survey to data to describe the distribution of 6 menstrual and 7 non-menstrual pre-diagnosis symptoms among Black and White participants. We also used baseline survey data to assess knowledge of postmenopausal bleeding and reporting of EC symptoms to healthcare providers. Stage at diagnosis and histology was abstracted from the medical records of participants.

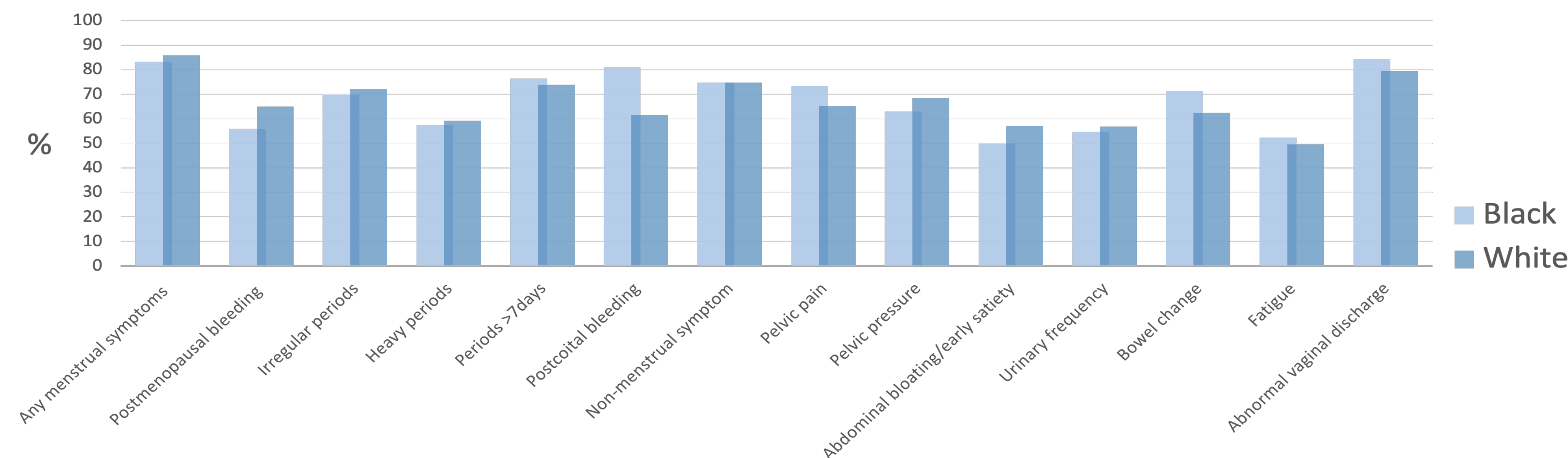
**Statistical Approach:** We calculated prevalence ratios and 95% confidence intervals (CI) using Poisson regression models for the association between race and symptom experience.

**Table 1. Age-adjusted prevalence ratios with 95% confidence intervals for pre-diagnosis symptoms**

| Experienced symptom                 | Black participants (N=93 post-menopausal, 120 total) |       | White participants (N=173 post-menopausal, 213 total) |       | Age-adjusted PR for symptom experience (95% CI)** |
|-------------------------------------|------------------------------------------------------|-------|-------------------------------------------------------|-------|---------------------------------------------------|
|                                     | (n)                                                  | (%)   | (n)                                                   | (%)   |                                                   |
| Pre-diagnosis symptoms              |                                                      |       |                                                       |       |                                                   |
| Any menstrual symptoms              | 101                                                  | 84.2% | 198                                                   | 93.0% | 0.92(0.84, 0.99)                                  |
| Post-menopausal bleeding*           | 55                                                   | 59.1% | 122                                                   | 70.5% | 1.01(0.85, 1.22)                                  |
| Irregular periods                   | 43                                                   | 35.8% | 107                                                   | 50.2% | 0.80(0.63, 1.03)                                  |
| Intermenstrual bleeding             | 28                                                   | 23.3% | 60                                                    | 28.2% | 0.96(0.66, 1.39)                                  |
| Heavy periods                       | 75                                                   | 62.5% | 125                                                   | 58.7% | 1.15(0.97, 1.36)                                  |
| Periods longer than 7 days          | 38                                                   | 31.7% | 61                                                    | 28.6% | 1.28(0.94, 1.74)                                  |
| Bleeding after sex                  | 21                                                   | 17.5% | 39                                                    | 18.3% | 1.06(0.66, 1.70)                                  |
| Any non-menstrual symptom           | 83                                                   | 69.2% | 166                                                   | 77.9% | 0.90(0.79, 1.04)                                  |
| Pelvic pain                         | 30                                                   | 25.0% | 66                                                    | 31.0% | 0.87(0.60, 1.25)                                  |
| Pelvic pressure                     | 27                                                   | 22.5% | 73                                                    | 34.3% | 0.68(0.47, 0.99)                                  |
| Abdominal bloating or early satiety | 36                                                   | 30.0% | 70                                                    | 32.9% | 0.96(0.69, 1.34)                                  |
| Urinary frequency                   | 33                                                   | 27.5% | 72                                                    | 33.8% | 0.82(0.58, 1.17)                                  |
| Bowel change                        | 21                                                   | 17.5% | 32                                                    | 15.0% | 1.24(0.75, 2.05)                                  |
| Fatigue                             | 44                                                   | 36.7% | 105                                                   | 49.3% | 0.79(0.61, 1.03)                                  |
| Abnormal vaginal discharge          | 32                                                   | 26.7% | 78                                                    | 36.6% | 0.74(0.52, 1.04)                                  |



Only **21%** of participants knew that EC can cause postmenopausal bleeding prior to diagnosis.



**Figure 1. Percent of women who discussed symptoms with providers, among women who experienced symptom, by race**

## Conclusions

- Pre-diagnosis symptoms were generally similar by race.
- The overall low rate of knowledge pertaining to postmenopausal bleeding as a potential symptom for endometrial cancer suggests opportunity for improved patient education.

## Future Directions

- Further study is needed to assess how pre-diagnosis experiences contribute to Black-White EC outcome disparities.

## Selected References

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