

PURPOSE / OBJECTIVES

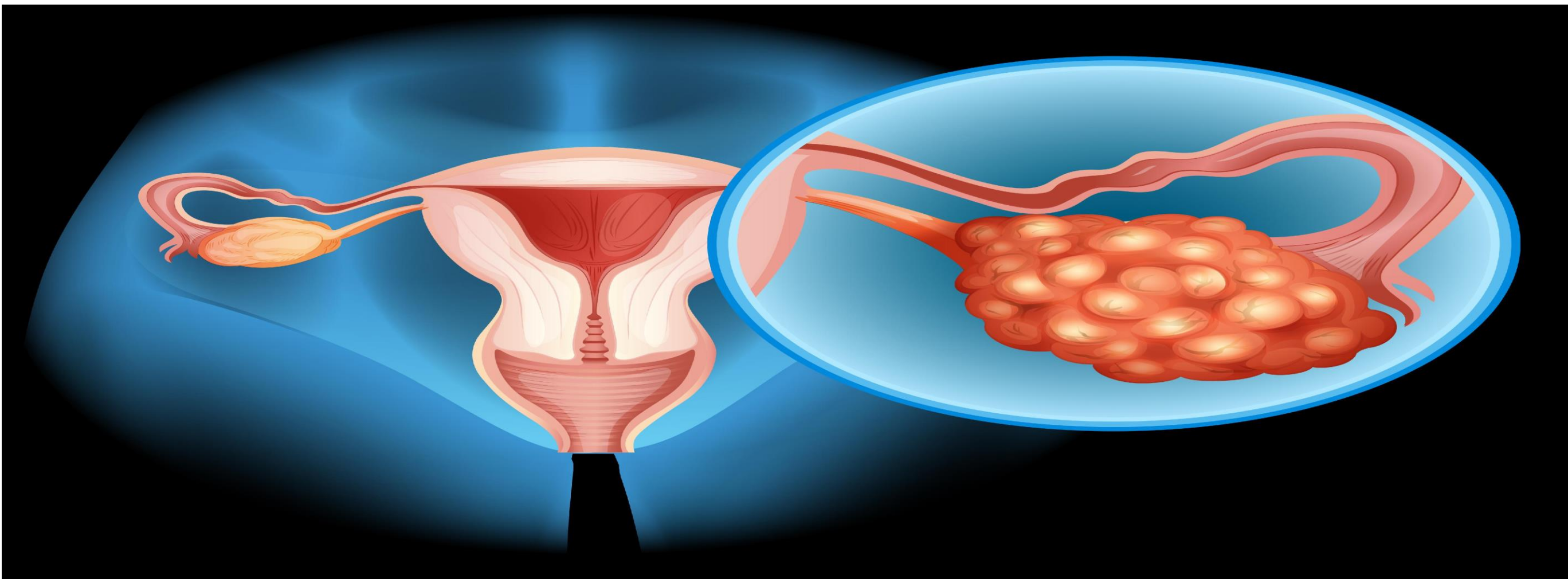
- Ovarian malignancies remain one of the most typical causes of cancer-specific mortality among women in the United States.
- About 20,000 women are projected to be diagnosed with the disease in 2023 and more than 13,000 women are expected to die from the condition in the same year.
- A woman's risk of ovarian cancer is 1.3%, with her lifetime risk of dying from the disease reported at 0.9%.
- Social Determinants of Health (SDOHs) play an essential role in the incidence, diagnosis, and overall survival of cancer patients in the United States.

OBJECTIVE

- To determine the independent association between patient's race/ethnicity and socioeconomic factors (insurance type, median household income, and neighborhood socioeconomic deprivation) and short-term outcomes of a malignant ovarian neoplasm following admission.

MATERIAL & METHODS

- We utilized the Maryland State Inpatient Sample database (SID 2018-2020) to conduct a retrospective analysis of women with malignant ovarian cancers.
- We determined the influence of SDOHs on 30-day in-hospital mortality, hospital length of stay, and discharge disposition.
- In addition, we included women's age, preexisting comorbidities, and treatment modalities in the multivariate analysis.



RESULTS

- There were 3238 malignant ovarian neoplasms in the study period. Most of these women were Whites (63.0%), 25.0% were Blacks, and 4.5% were Hispanics.
- The median age at admission was 65 (IQR 56-73) years. 60.2% of the women reside in rich neighborhoods and 35.1% utilize private insurance. 20.0% were on chemotherapy, irradiation, or both, while 15.3% were on palliative care.
- The in-hospital mortality rate was 4.9%. Median hospital stay was 4 (IQR 4-7) days. 42.3% of women were discharged to a special care facility after the in-hospital treatment.
- On multivariate analysis, there was no association between SDOHs and the measured outcomes.
- Black women, however, have higher odds of in-hospital mortality; OR=1.67 (95% CI 1.06 -2.62) and more extended hospital stay, OR=1.51 (95% CI 1.23 - 1.85).

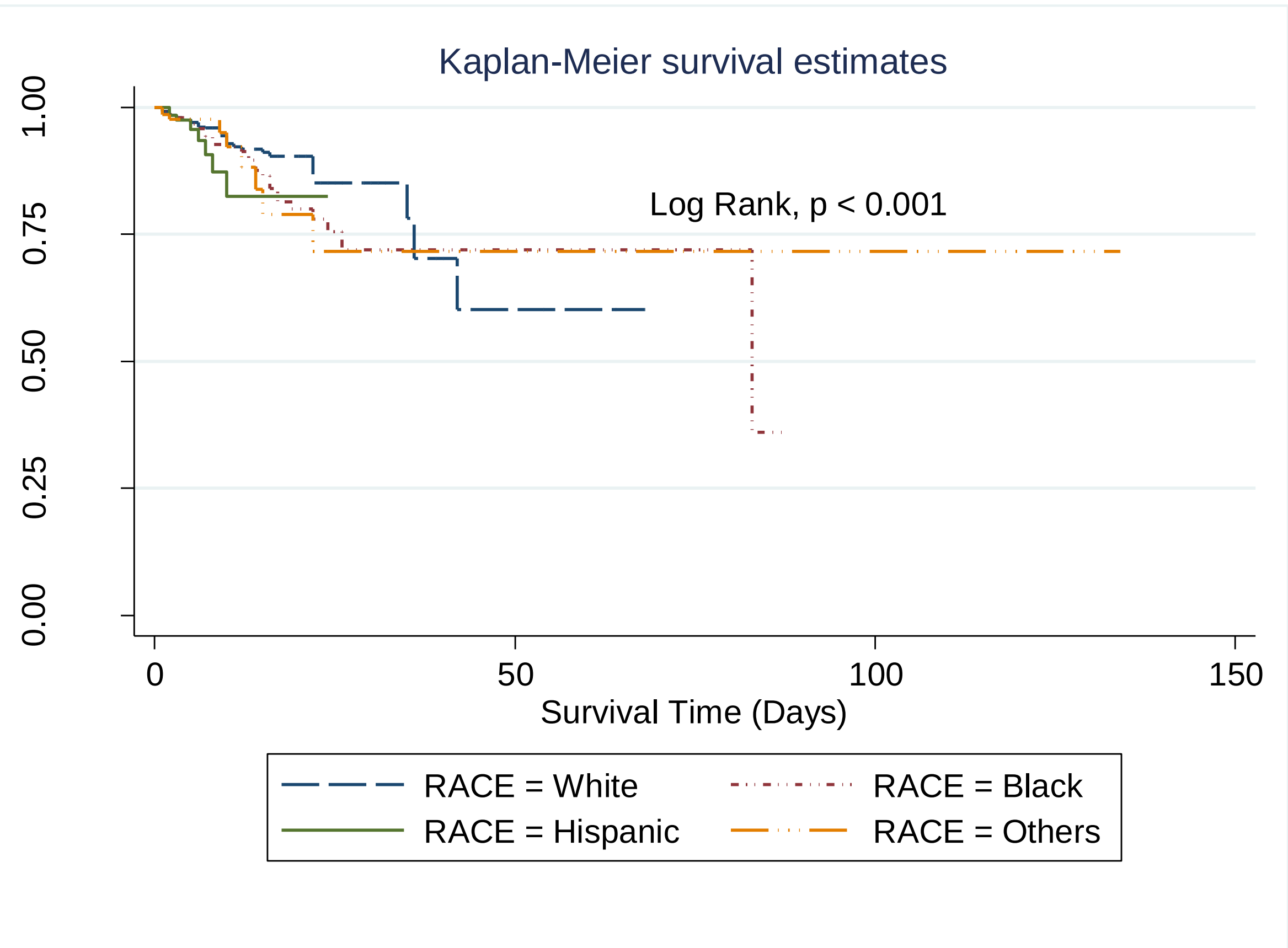


Fig 1. Kaplan Meier Plot comparing Survival among different Race/Ethnicities

Table 1: Association of Patients Race/Ethnicity on Selected Outcomes among Women with Malignant Ovarian Cancers (Maryland SID, 2018-2020)

Variables	In-Hospital Mortality	Length of hospital Stay	Discharge Disposition		
			Home	SNF	Mortality
Race/ethnicity					
White	Reference	Reference	Reference	Reference	Reference
Black	1.67 (1.06 -2.62)	1.51 (1.23 - 1.85)		1.20 (0.99-1.46)	2.02 (1.35-3.02)
Hispanic	1.13 (0.43-2.94)	0.69 (0.47-1.01)		0.97 (0.64-1.46)	0.95 (0.38-2.38)
Others	1.48 (0.69-3.14)	0.90 (0.65-1.24)		1.16 (0.82-1.65)	1.64 (0.81-3.31)

Table 1: Association of Community Level Deprivation (DCI) on Selected Outcomes among Women with Malignant Ovarian Cancers (Maryland SID, 2018-2020)

Variables	In-Hospital Mortality	Length of hospital Stay	Discharge Disposition		
			Home	SNF	Mortality
Distress					
Community Index					
Prosperous	Reference	Reference		Reference	Reference
Comfortable	1.46 (0.85-2.52)	0.90 (0.71-1.14)		0.89 (0.69-1.14)	1.39 (0.79-2.44)
Mid-Tier	2.34 (1.17-4.68)	0.89 (0.66-1.21)		0.88 (0.63-1.22)	2.21 (1.08-4.51)
At-Risk	2.27 (0.93-5.53)	0.78 (0.52-1.15)		1.01 (0.66-1.53)	2.26 (0.90-5.63)
Distressed	1.38 (0.49-3.85)	0.79 (0.52-1.22)		0.95 (0.60-1.51)	1.35 (0.47-3.86)

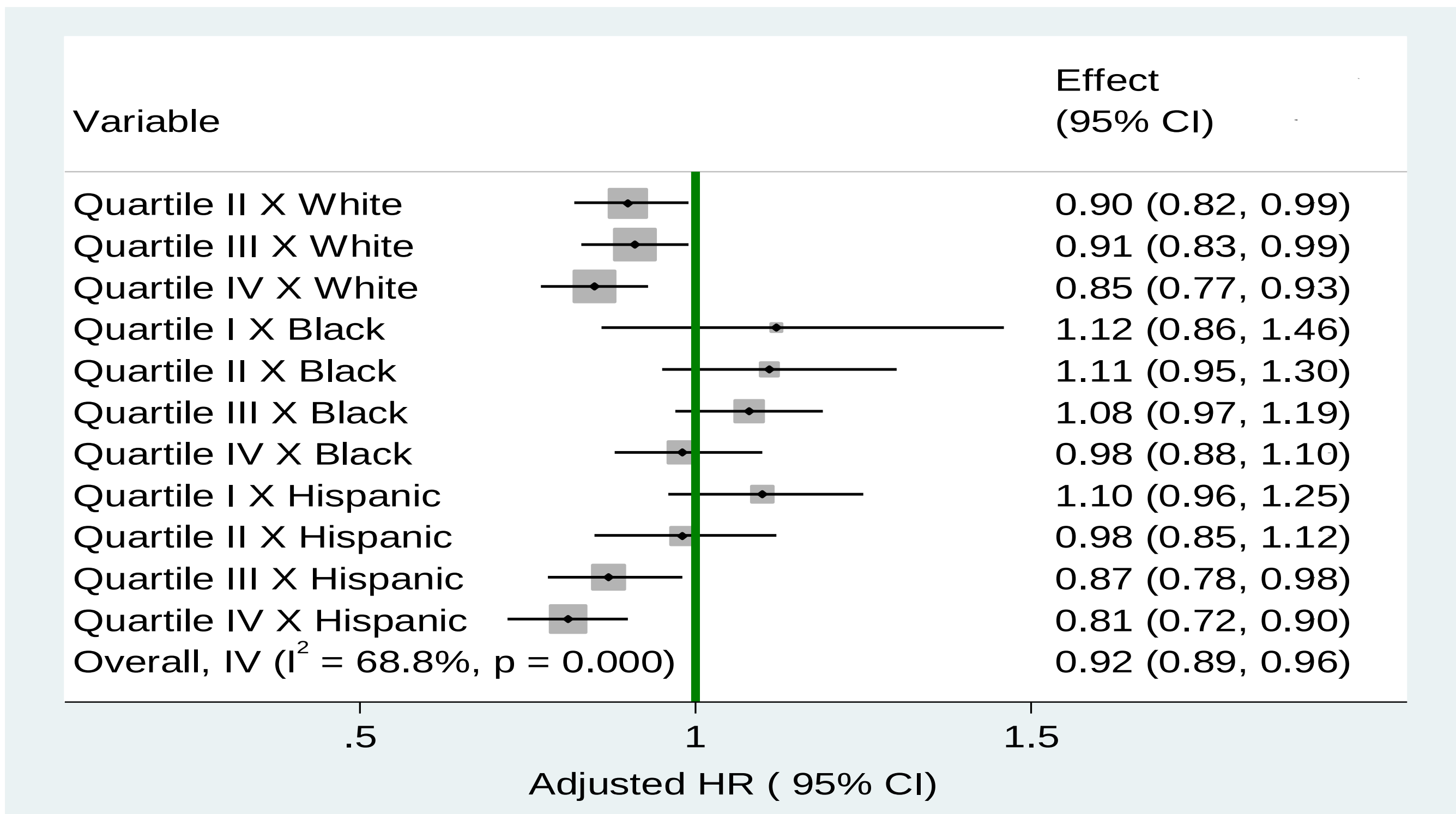


Fig 2. Interaction between Women' Race/Ethnicity and Median Household Income on Cancer-Specific Mortality

SUMMARY / CONCLUSION

- Though there was a positive association between the prevalence of malignant ovarian neoplasms and higher socioeconomic status, SDOHs did not seem to influence short term outcomes in this cohort of patients from Maryland.
- Significant racial/ethnic disparities exist among patients with malignant ovarian cancers with Black women having worse short-term outcomes.
- This emphasizes the need for further studies to investigate evidence of a genetic contribution to this disparity.

POLICY IMPLICATION

- This study reveals racial disparities in short-term outcomes among women with malignant ovarian cancers in Maryland, emphasizing the need for targeted interventions and improved access to quality care for Black women.
- Although social determinants of health did not directly influence outcomes in this cohort, exploring genetic contributions to disparities is crucial.
- Policy implications include addressing racial disparities, promoting access to healthcare, and conducting further research on genetic factors.

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