

PURPOSE / OBJECTIVES

- Ovarian cancer remains a significant cause of morbidity and mortality among women in the United States. Approximately 20,000 women were diagnosed with the disease in 2022.
- Approximately 13,000 women are projected to die from the disease in the same year. A small proportion of these women have ovarian cancer as a second malignancy.
- Few studies have explored the influence of previous exposure to cancer screening and treatment on the overall cancer-specific survival in subsequent ovarian malignancy.

OBJECTIVE

- In the present study, we explored the characteristics and outcomes among women who developed ovarian cancer as a primary versus second malignancy.
- We also determine the risk factors for improved survival among women with ovarian cancers.

MATERIAL & METHODS

- We utilized the Surveillance, Epidemiology, and End Results (SEER) 18 Registry to conduct a retrospective analysis of women with a primary diagnosis of ovarian cancer from 2000 to 2019.
- Our primary outcome was to determine the cancer-specific mortality rate for this period.
- We compared characteristics, and outcomes among women who developed Ovarian cancer as a primary versus second malignancy.

RESULTS

- There were 102,981 women diagnosed with ovarian cancer in the study period. 77.0% of these women were primary ovarian cancer and 13.0% were as a secondary diagnosis.
- Among women with ovarian cancer as a secondary diagnosis, 70.9% were non-Hispanic whites (NHW), 7.9% non-Hispanic Blacks (NHB), 13.2% were Hispanics, and 8.1% were non-Hispanic Asian/Pacific Islanders (NHAPI).
- The median age at diagnosis was 63 years (interquartile range 52-74 years). The 5-year survival rate among second ovarian malignancies compared to primary malignancies was (50.5% vs. 44.5%, $p<0.001$).
- Women who developed ovarian cancer as a second malignancy have better survival (OR=0.88, 95% CI 0.84-0.91, $p<0.01$) than those who developed it as a primary malignancy. NHB (OR=1.15 95%CI 1.10-1.20, $P<0.01$) and women who were not recommended for surgery (OR=2.52 95%CI 2.43-2.60, $P<0.01$) have the worse survival.
- Black women (29.5%) were more likely not to be recommended for surgery than any other race/ethnicity; (19.9%of NHW, 18.7% of Hispanics, and only 14.9% of NHAPI).
- Compared to women with primary ovarian malignancies, women with ovarian cancer as a secondary diagnosis were diagnosed later for early stage I disease (24.6% vs 22.6%, $p<0.001$) and earlier for advanced stage V disease (28.3% vs 32.1% $p<0.001$).

	Not Recommended for Curative Surgery
Non-Hispanic White Women	19.9%
Non-Hispanic Black Women	29.5%
Hispanic	18.7%
Non-Hispanic Other Races	14.9%

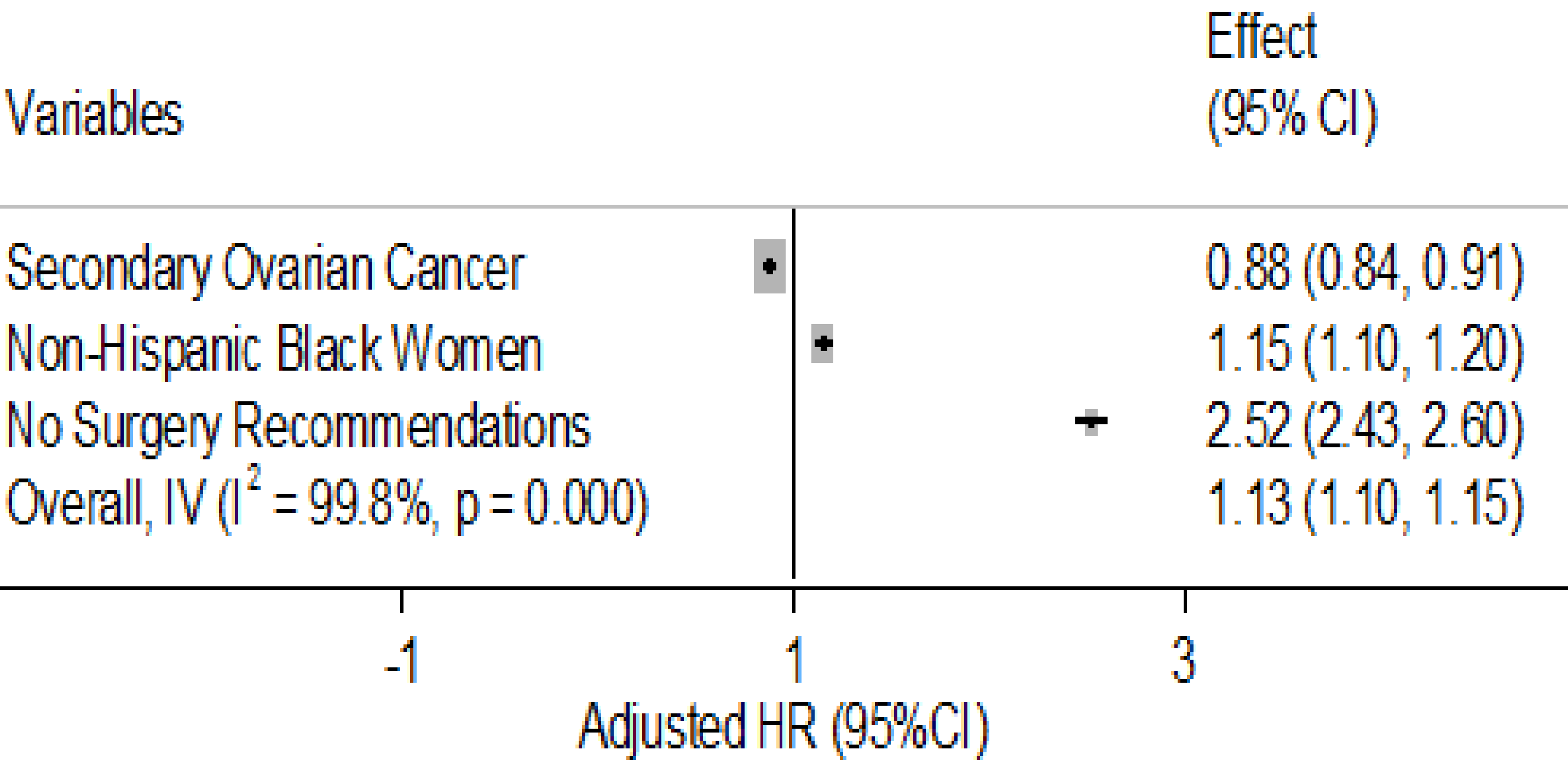


Fig 2. A Kaplan-Meier Curve Demonstrating the Impact of Some Selected Risk Factors on Survival Rates in Women Diagnosed with Ovarian Malignancies

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SUMMARY / CONCLUSION

- Women who developed ovarian cancer as a second malignancy have better survival than those who developed it as a primary malignancy.
- Increased surveillance due to primary cancer diagnosis may contribute the better survival rate.

POLICY IMPLICATION

- Ovarian cancer remains a significant health concern, leading to substantial morbidity and mortality among women in the United States.
- This study reveals that women who develop ovarian cancer as a second malignancy have better survival rates compared to those with a primary diagnosis. These findings highlight the potential benefits of increased surveillance resulting from prior cancer diagnosis, which may contribute to earlier detection and improved outcomes.
- Policy efforts should prioritize comprehensive cancer screening and surveillance programs to enhance early detection and management of ovarian cancer in high-risk populations.

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A comprehensive source for cancer statistics in the United States