Incidence of Ovarian Cancer Stratified by Race/Ethnicity

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Introduction

Ovarian cancer is one of the leading causes of cancer death among women in the United States and remains the deadliest gynecologic malignancy. Because the disease often presents at an advanced stage, early detection is difficult and mortality rates remain high. Tracking incidence across demographic groups is crucial for identifying disparities, allocating resources, and coming up with prevention strategies.

The data used in this analysis come from the Surveillance, Epidemiology, and End Results (SEER) Program, which collects population-based cancer incidence information across 17 registries (SEER-17). The dataset covers the years 2000 through 2022 and provides ovarian cancer case counts, population denominators, and age-adjusted incidence rates per 100,000. Cases can be stratified by race and ethnicity to compare the burden across groups.

The objectives of this project is to: 1.describe ovarian cancer incidence in the United States by race/ethnicity, 2.summarize these patterns in a formatted table 3.visualize temporal trends in age-adjusted rates to highlight disparities over time.

Table 1: The table summarizes ovarian cancer cases and average age-adjusted incidence rates by race/ethnicity from 2000 to 2022. White women had the highest number of cases overall, while Black women showed lower incidence rates. Smaller populations such as American Indian/Alaska Native and Asian/Pacific Islander had fewer cases but comparable rates when adjusted for population size.

Table 1: Ovarian cancer cases and mean age-adjusted incidence (per 100,000) by race/ethnicity

Race/Ethnicity	Total cases	Mean rate per 100,000
White	103228	6.67
Black	10446	5.50
Asian or Pacific Islander	10883	5.33
American Indian/Alaska Native	935	4.27
Unknown	614	NA

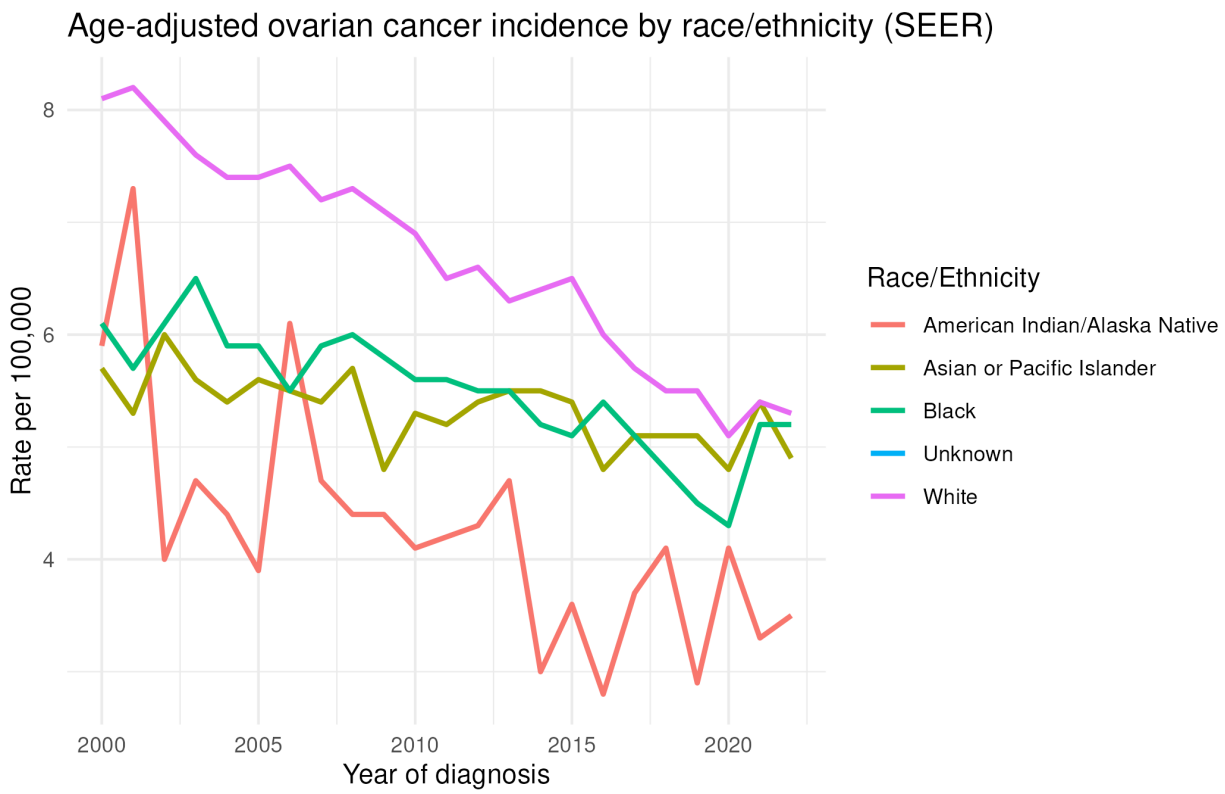

Figure 1: The graph displays age-adjusted incidence rates over time by race/ethnicity. Rates for White women remained higher throughout the study period, while Black women consistently had lower incidence. Variability in the American Indian/Alaska Native and Asian/Pacific Islander groups likely reflects smaller population sizes.