

Gynecologic Cancers in New Jersey

Cancer Health Equity Center of Excellence, **Rutgers Cancer Institute**

Gynecologic cancers (GCs) is an umbrella term for several different cancers that exclusively occurs in individuals with female reproductive organs. This includes cervical, ovarian, uterine, vaginal, and vulvar cancers [1]. There is also a sixth very rare type of GC in the fallopian tubes [1]. These cancers are some of the leading causes of death in females nationwide and, certain types—uterine and ovarian—of GCs are amongst the ten highest incidence and mortality rates across the United States (US). The three GCs this fact sheet will focus on include cervical, uterine, and ovarian cancer.

In the US, 71 out of every 100,000 females were diagnosed with GCs between 2018-2022. For cervical, uterine, and ovarian cancer, the number of new diagnoses during these years were about 10, 39, and 14 out of every 100,000 individuals, respectively. These statistics are represented in **Figure 1** below.

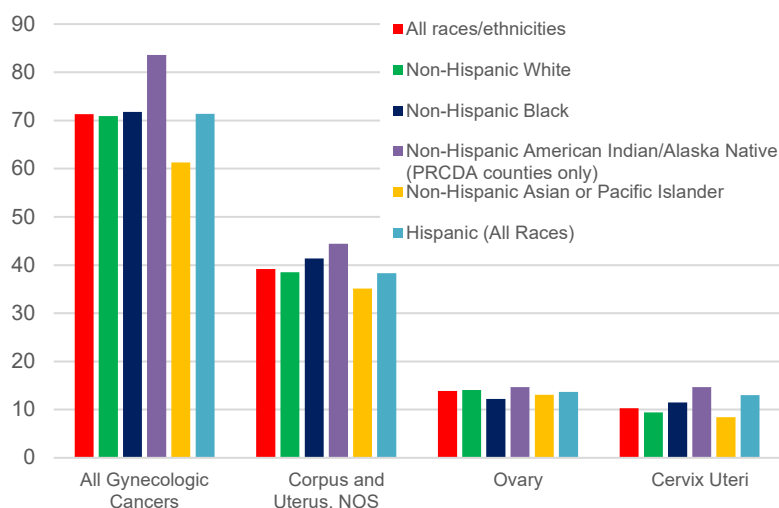


Figure 1. Age-Adjusted Rate of New GCs by Site and Race and Ethnicity, United States, 2018-2022. Rates per 100,000. Source: *Incidence – SEER Research Plus Data, 17 Registries, Nov 2024 Sub (2000-2022)*.

Ovarian and uterine cancers ranked among the top ten causes of cancer-related deaths, with rates of 6.0 and 5.2 per 100,000, respectively, based on 2018-2022 data [2]. The reason for these high rates in both new cancer diagnoses and deaths can be attributed to the lack of effective screening and treatment options for GC patients [3].

Risk Factors for GCs

Cervical: According to Penn Medicine, more than 90% of cervical cancers occur in individuals with high-risk strains of human papillomavirus (HPV) [4]. HPV can be prevented with vaccination(s). Cervical cancer risk can increase in individuals with high-risk HPV who also have other behavioral risk factors such as smoking and long-term use of birth control [4].

Uterine: The most common type of uterine cancer—endometrial—is primarily caused by increased estrogen exposure (early menstruation, late menopause, never being pregnant, use of estrogen-only hormone therapy) [4]. Obesity, diabetes, and metabolic syndrome are also risk factors for uterine cancer [4].

Ovarian: This GC is linked to mutations in the BRCA1 and BRCA2 genes [4]. Women with these mutations can have up to 50% lifetime risk of developing ovarian cancer, as well as up to 75% lifetime risk of developing breast cancer [4]. A family or personal history of breast, ovarian, or colon cancer also increases this ovarian cancer risk [4].

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In New Jersey (NJ), the rate of new GCs is similar, though slightly higher than the US. From 2018-2022, this number was about 77 for every 100,000 females, with 16,947 cases reported during this time. **Figure 2** below shows the rates of new diagnoses and deaths (mortality) in NJ from 2017-2021 for all GCs. For cervical, uterine, and ovarian cancer, the incidence rates during these years were about 7, 30, and 11 out of every 100,000 individuals, respectively [2]. The mortality rates were about 2, 6, and 6 out of every 100,000, respectively [2].

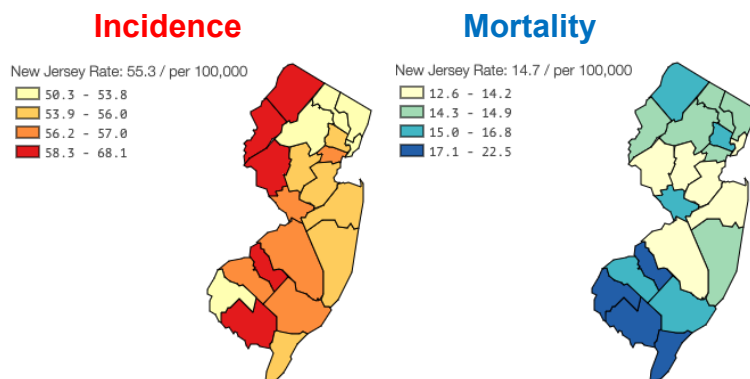


Figure 2. Age-Adjusted GC Incidence (L) and Mortality (R) Rates for all Female Genital System Cancers in New Jersey, by County (2017-2021) [5, 6].

Disparities & Social Determinants in GCs

As seen in **Figure 2**, specifically the mortality map, there is a clear geographic disparity in mortality rates across the state. The Southern counties (Salem, Cumberland, Camden, Cape May, Atlantic, and Gloucester) have the highest mortality rates from GCs. This is largely because, according to the Rutgers Cancer Institute, these Southern counties rank highest in the Area Deprivation Index (ADI), which is a tool to assess US neighborhood-level disadvantages or deprivations [7]. It accounts for education, employment, occupation, income, housing characteristics, and poverty levels [7]. These counties also have lower cancer screening rates or resources, as well as a higher prevalence of obesity and smoking compared to other counties [7].

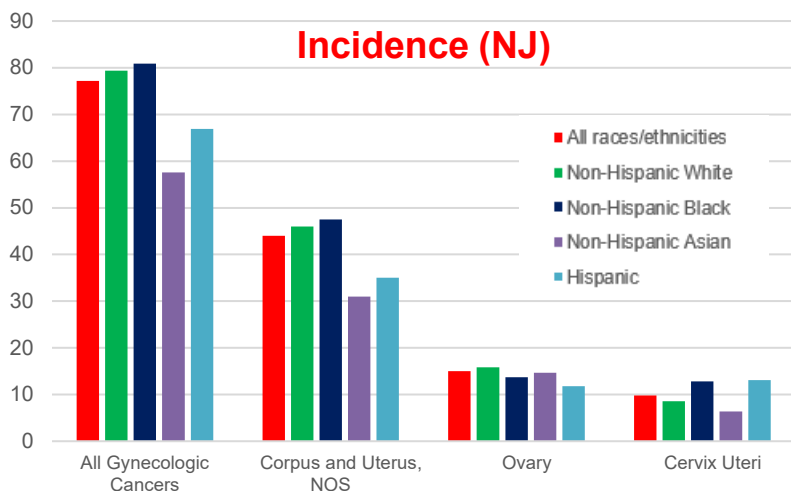


Figure 3a. Age-Adjusted Rate of New Gynecologic Cancers by Cancer Type & Race/Ethnicity. New Jersey, 2018-2022. Rates per 100,000. Source: *Incidence – SEER Research Plus Data, 17 Registries, Nov 2024 Sub (2000-2022)*.

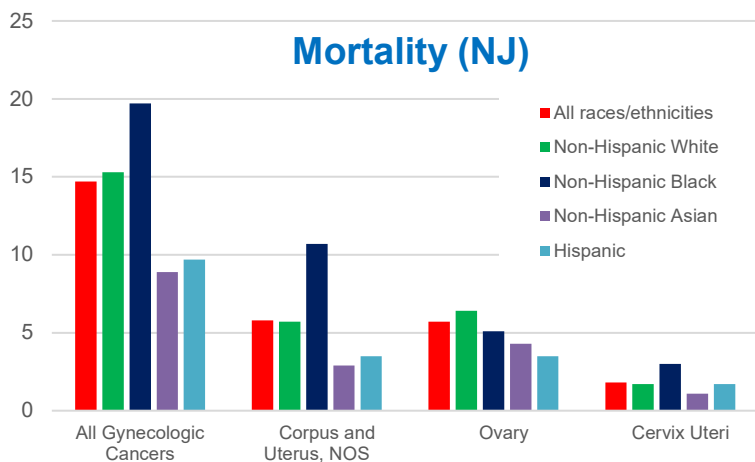


Figure 3b. Age-Adjusted Cancer Mortality Rates in New Jersey, 2018-2022 by Cancer Type & Race/Ethnicity [2]. *American Indian and Alaskan Natives (AI/AN) statistics suppressed due to small numbers.

Racial/Ethnic Disparities

Not only do GCs present geographic disparities throughout NJ, but there are also significant racial and ethnic disparities. These are shown in **Figures 3a** and **3b**. For cervical cancer, Non-Hispanic Black and Hispanic females have the highest incidence and mortality rates. The uterine cancer incidence rates are highest in Non-Hispanic Black and Non-Hispanic White females. However, Non-Hispanic Black females have a significantly higher mortality rate than any other racial and ethnic group. For ovarian cancer, Non-Hispanic White females have slightly higher rates for both incidence and mortality here, but not by much. These disparities can be attributed to several factors, including geographic factors and social determinants of health. A study conducted in the US looking at cervical cancer patients from 2004-2014 worked to determine if access to gynecologic oncologists (GO's) is related to disparate outcomes among these cancer patients, particularly among Black women [8]. They found that, in terms of geography, women in Southern states have less access to care, including fewer GO's, fewer cancer centers, and fewer privately insured residents when compared to women living in the Northeast [8]. As for the race disparity, they found that Black women in the South were less likely to receive optimal treatment and more likely to die after their cervical cancer diagnosis compared to non-Black women in the same area [8]. They conclude that all of this can be a result of social determinants of health that affect the South, such as their high poverty rate, for example [8].

Recent Trends and Outlook

While GC incidence rates have been steadily decreasing in NJ in recent years for several different race and ethnic groups (**Figure 4**), we see an increase for Hispanic females (light blue line). We also see that both the Non-Hispanic Black (dark blue line) and Non-Hispanic White (green line) females have higher incidence rates over these past 5 years than all racial and ethnic groups, with the Non-Hispanic Black females consistently having the highest rate since 2020.

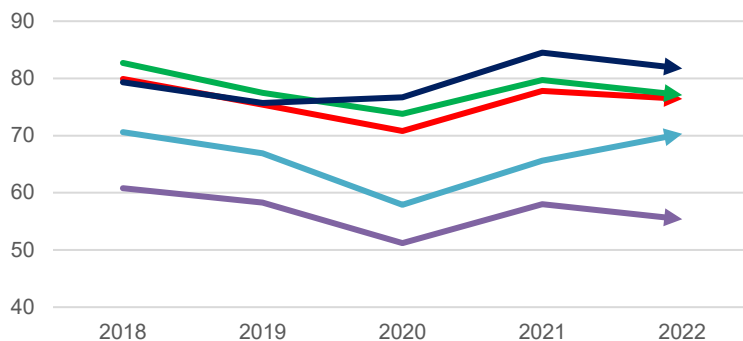


Figure 4. Age-Adjusted All GC Incidence Trends in New Jersey, 2018-2022. Rates per 100,000 Source: *Incidence – SEER Research Plus Data, 17 Registries, Nov 2024 Sub (2000-2022)*.

For more information about Rutgers Cancer Institute Cancer Health Equity Center of Excellence, [click here](#) or visit <https://www.cinj.org/outreach/cancer-health-equity-center-excellence>.

For more information regarding screening guidelines, recommendations, and other resources, refer to the following links:

[Cancer Screening Recommendations](#) from the United States Preventive Services Task Force (USPSTF):

https://www.uspreventiveservicestaskforce.org/uspstf/topic_search_results?topic_status=P&category%5B%5D=15&searchterm=

[Cancer Screening Guidelines](#) from the American Cancer Society (ACS): <https://www.cancer.org/cancer/screening/american-cancer-society-guidelines-for-the-early-detection-of-cancer.html>.

[ScreenNJ](#) for prevention, education, and detection information: <https://screennj.org/>.

For information regarding Rutgers Cancer Institute clinical trials (what is open, at which sites, general clinical trials page, interest in diversity in clinical trials, etc.) [click here](#) or visit <https://www.cinj.org/clinical-trials/find-clinical-trial>.

Link to Fact Sheet References: https://go.rutgers.edu/cancerfacts_reference