

Melanoma Risk in New Jersey

Cancer Health Equity Center of Excellence, Rutgers Cancer Institute

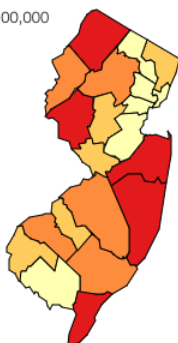
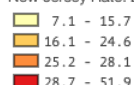
Melanoma, the most serious form of skin cancer, is one of the most common types of cancer in the United States (US). The Centers for Disease Control and Prevention (CDC) estimates that for every 100,000 people, 22.7 were diagnosed with melanoma of the skin from 2017-2021 [1]. Although anyone can develop melanoma, the population that is at the highest risk are Non-Hispanic (NH) White individuals. In the NH White population, 30 out of every 100,000 were diagnosed with melanoma and about 3 out of every 100,000 died from the disease [1]. It is the cancer with the fifth highest incidence rate in this population in the US [1].

Melanoma in New Jersey

The New Jersey (NJ) age-adjusted rate of new melanoma diagnoses (incidence), for all ages, races, and ethnicities was 20.7 for every 100,000 people from 2017-2021 [2]. However, within the NH White population the rate is higher at 29.6 per 100,000 [2] (Figure 1).

Overall

New Jersey Rate: 20.7 / per 100,000



NH White Only

New Jersey Rate: 29.6 / per 100,000

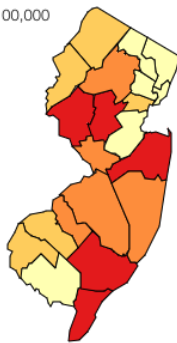
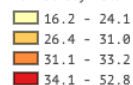


Figure 1. Age-Adjusted Invasive Melanoma Cancer Incidence Rates in New Jersey Overall (L) and NH White Population (R), 2017-2021 [2].

Key Risk Factors

Risk factors for melanoma include family history, old age, and a weakened immune system. However, one of the greatest risks is exposure to ultraviolet (UV) rays from sunlight, tanning beds and sun lamps [3]. These rays damage skin cells, more specifically the DNA inside of these skin cells. If UV rays start to damage or affect the DNA (genes) that control skin cell growth, melanomas can begin to develop [3].

As stated previously, the White population in New Jersey has the highest rates of melanoma. This is primarily because of their lighter, fairer skin tones which are more sensitive to sun and other forms of UV ray exposures as compared to other racial and ethnic groups such as Non-Hispanic Black or Hispanic populations. This difference lies within the brown pigment that appears in individual's with naturally darker skin tones, referred to as melanin. Melanin acts as a "shield" against UV rays, helping to "block out damaging UV rays" [3]. NH White individuals lack this "shield" resulting in higher rates of UV exposure which can ultimately lead to the development of skin cancer. However, it is important to note that all populations can still develop melanoma, albeit at a lower rate.

Melanoma Risk in Younger Populations

Similar to other cancers, melanoma risk increases as individuals get older. However, melanoma is one of the most common cancers diagnosed among young adults in the US. "In 2020, about 2,400 cases of melanoma were estimated to be diagnosed in people aged 15 to 29 in the United States" [4]. This is why early detection, screening, and more importantly preventive strategies such as wearing sunscreen and avoiding tanning beds are crucial to decreasing this cancer burden.

Hereditary Risk

While "genetic changes in melanoma tumor cells cannot be passed down" [5], genetic changes that increase the risk of developing melanoma can be. Individuals with these inherited genes have a genetic predisposition that increases the risk of developing cancer in their lifetime. Individuals who have a genetic predisposition for melanoma are typically diagnosed at a younger age. Genetic testing is available for getting ahead of this cancer, and more information can be found at the following link:

<https://www.curemelanoma.org/blog/article/how-genetics-and-family-history-contribute-to-melanoma-risk>.

Race and Sunburn Rates

As mentioned previously, we know the White population in New Jersey has the highest rates of melanoma. Again, this is because of their fairer skin tones and heightened UV exposure levels due to their lack of melanin. These characteristics often result in increased risks of sunburn and skin damage, which are key factors in developing melanoma of the skin.



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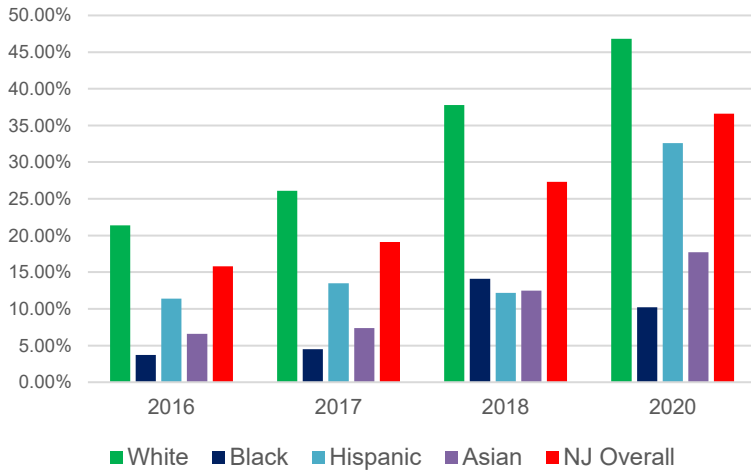


Figure 3. Percentage of Adults Who Reported having a Sunburn in the Past Year, by Race and Ethnicity, 2016-2020 [6].

Figure 3 shows that the White population had the highest percentage of reported sunburn from the years 2016-2020 [6]. This provides an explanation to the large imbalance in melanoma rates across the state. We can also see that the Hispanic population has the second highest rate of reported sunburns. In fact, it has been reported that the Hispanic population’s rate of melanoma has risen by 20% over the past two decades [7]. A reason for high sunburn percentages could be due to the Hispanic population’s high rates of outdoor occupations [8]. According to the Bureau of Labor Statistics, the three occupations with the highest concentrations of Hispanic workers include “Farming, Fishing, & Forestry” (43.0%), “Building & Grounds Cleaning & Maintenance” (37.9%), and “Construction & Extraction” (35.7%) [9]. Most of the time in these occupations specifically involve outdoor, manual labor, in which these workers are out in the sun being exposed to UV rays.

Recent Trends and Outlook

Figure 4 shows the trends in the new melanoma diagnoses (incidence) rates from 2000-2020 in New Jersey. We can see that the overall incidence tracks with the NH White population. The Hispanic population, on the other hand, have incidence rates suggestive of a steady increase. In the US, according to the Melanoma Research Alliance, “rates of melanoma have increased by more than 20% over the last two decades among Hispanic people” [7].

The reasons for this steady increase is likely due lower preventive behaviors such as use of sunscreen and lower skin cancer screening. Some doctors are also likely to “overlook melanoma among Hispanic people...because [some doctors] may also assume their patients of color are at reduced risk of melanoma” [7]. This could result in delayed diagnosis of skin cancer in this ethnic group.

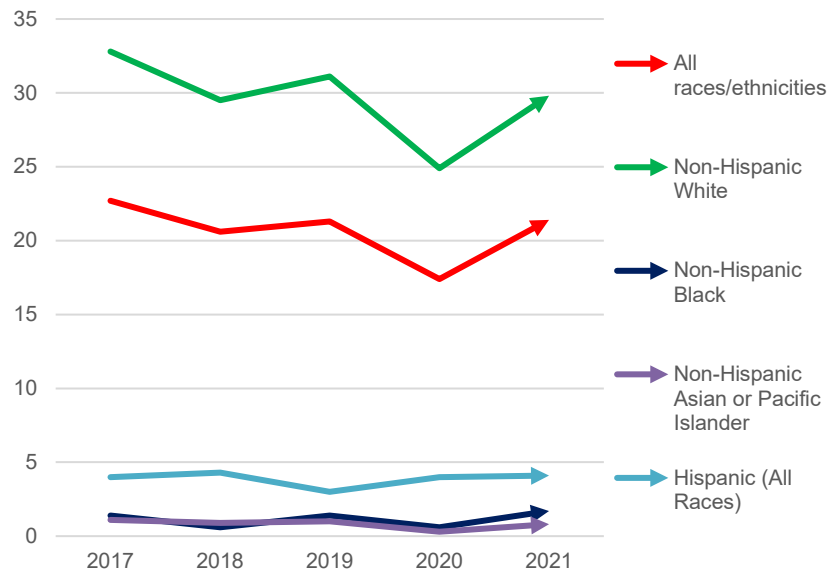


Figure 4. Age-Adjusted Melanoma Incidence Trends in New Jersey, 2017-2021. Male and Female. Rates per 100,000 Source: *Incidence – SEER Research Plus Data, 17 Registries, Nov 2023 Sub (2000-2021)*.

What Can We Do?

To help decrease the melanoma rates across New Jersey, it is important to raise awareness for certain preventive measures such as wearing sunscreen in high UV exposure settings (“covering up”) and avoiding sunburn. Cancer screening and early detection are also important to improve survival. Any measures that will reduce UV exposure and increase protective behaviors are needed to decrease the burden of this disease, not only in New Jersey, but nationwide [6].

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