

Needles in a Haystack: Key Insights on Cancer in the Upstate

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We analyzed the demographic data of 6474 patients collected from the years 2012-2021 and stored in the biorepository at the Institute for Translational Oncology Research at the Health Sciences Center of Prisma Health Upstate. Our goal was to better understand the role race and gender play in the cancer disease course. The data represents information from individual tumor biopsy samples including the race, age, gender, tissue site, cancer stage, etc. of patients who underwent an oncological surgery. Our results revealed that significant racial disparities were not present in the data set related to representation and treatment. However, we did find that a significantly higher ($p < 0.001$) number of surgeries were performed for women over men. Additionally, for all non-reproductive related cancers, we found that men had significantly more surgeries for kidney and skin cancer than women. These findings align with national cancer statistics from the American Cancer Society. Women had been treated significantly more for stomach cancer than men. This is contrary to nationally reported data, which suggests a regional difference could be impacting our findings. Our analysis sheds light on an area that requires greater attention: the role gender plays in cancer incidence and progression. These factors may be influenced by differences in sex hormone concentrations, inherent biology, exposure to occupational hazards, and lifestyle. Future research in cancer, especially of kidney, skin, and stomach, that delineates between male and female populations is critical to generating more informed treatments and preventative measures to ensure positive outcomes in cancer care.

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