

New Study Shows Fewer Cancer Surgeries, Chemotherapy and Radiation Treatments During Start of COVID-19 Pandemic

American Cancer Society researchers stress more studies are needed to determine full extent of cancer care disruption during the pandemic

ATLANTA, November 9, 2023 — A large study led by researchers at the [American Cancer Society](#) (ACS) shows there were approximately 100,000 fewer cancer surgeries performed during the first months of the pandemic, an estimated 40,000 fewer chemotherapy treatments initiated, and more than 55,000 fewer radiation treatments in the United States. Scientists attribute these significant deficits to a drop in the number of cancer diagnoses instead of changes in cancer treatment strategies. The study was published today in the *Journal of the American Medical Association (JAMA) Oncology*.

"These findings are very concerning," said [Dr. Leticia Nogueira](#), scientific director, health services research at the American Cancer Society and lead author of the study. "We knew the COVID-19 pandemic led to disruptions in access to healthcare, including cancer care, but we're now beginning to see the full extent of the damage."

For the study, researchers performed a retrospective cross-sectional study including adults aged 18 years old and older diagnosed with solid tumors between January 2018 and December 2020. They used the National Cancer Database, a nationwide hospital-based cancer registry jointly sponsored by the American College of Surgeons and the ACS. This registry includes approximately 70% of all newly diagnosed cancer patients in the U.S. The expected number of procedures for each treatment modality (surgery, radiation therapy, chemotherapy, immunotherapy, and hormonal therapy) in 2020 was calculated using historical data (January 2018 – December 2019). The reported deficits in treatment reflect the difference between expected and observed numbers.

The study included a total of 3,504,342 patients (1,214,918 in 2018, 1,235,584 in 2019, and 1,053,840 in 2020). Compared to expected treatment from previous years' trends, there were approximately 98,000 fewer curative intent surgeries performed, 38,800 fewer chemotherapy regimens, 55,500 fewer radiation therapy, 6,800 fewer immunotherapy regimens, and 32,000 fewer hormonal therapies initiated in 2020. For the majority of cancer sites and stages evaluated, there was no statistically significant change in the type of cancer treatment provided during the first year of the pandemic, the exception being a statistically significant decrease in the proportion of patients receiving breast-conserving surgery and radiation therapy with a simultaneous statistically significant increase in the proportion of patients undergoing mastectomy for treatment of stage I breast cancer during the first months of the pandemic.

"More studies still need to be done concerning cancer care and disruptions during the pandemic, mainly if these treatment deficits resulted in changes in cancer survival and mortality," added Nogueira. "Future studies should also evaluate whether clinical, socioeconomic, and facility characteristics are associated with changes in cancer treatments during the pandemic."

[Dr. Robin Yabroff](#) is senior author of the study. Other ACS authors include [Elizabeth J. Schafer](#), [Dr. Qinjin Fan](#), [Dr. Nikita Sandeep Wagle](#), [Jingxuan Zhao](#), [Kewei Sylvia Shi](#), [Dr. Xuesong Han](#), and [Dr. Ahmedin Jemal](#).

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