

# Study finds small increase in incidence of advanced breast cancer among younger women

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An analysis of breast cancer trends in the U.S. finds a small but statistically significant increase in the incidence of advanced breast cancer for women 25 to 39 years of age, without a corresponding increase in older women, according to a study appearing in the February 27 issue of *JAMA*.

"In the United States, breast cancer is the most common [malignant tumor](#) in adolescent and young [adult women](#) 15 to 39 years of age, accounting for 14 percent of all cancer in men and [women](#) in the age group. The individual average risk of a woman developing breast cancer in the United States was 1 in 173 by the age of 40 years when assessed in 2008. [Young women](#) with breast cancer tend to experience more [aggressive disease](#) than older women and have lower [survival rates](#). Given the effect of the disease in young people and a clinical impression that more young women are being diagnosed with advanced disease, we reviewed the national trends in breast cancer incidence in the United States," the authors write.

Rebecca H. Johnson, M.D., of Seattle Children's Hospital and University of Washington, Seattle, and colleagues conducted a study in which breast cancer incidence, incidence trends, and survival rates as a function of age and extent of disease at diagnosis were obtained from 3 U.S. [National Cancer Institute](#) Surveillance, Epidemiology, and End Results (SEER) registries. These registries provide data spanning 1973-2009,

1992-2009, and 2000-2009. SEER defines localized as disease confined to the breast, regional to contiguous and adjacent organ spread (e.g., lymph nodes, chest wall), and distant disease to remote [metastases](#) (bone, brain, lung, etc).

Since 1976, there has been a steady increase in the incidence of distant disease breast cancer in 25- to 39-year-old women, from 1.53 per 100,000 in 1976 to 2.90 per 100,000 in 2009. The researchers note that this is an absolute difference of 1.37 per 100,000, representing an average compounded increase of 2.07 percent per year over the 34-year interval, a relatively small increase, "but the trend shows no evidence for abatement and may indicate increasing epidemiologic and clinical significance."

"The trajectory of the incidence trend predicts that an increasing number of young women in the United States will present with metastatic breast cancer in an age group that already has the worst prognosis, no recommended routine screening practice, the least health insurance, and the most potential years of life," the authors write.

The researchers also found that the rate of increasing incidence of distant disease was inversely proportional to age at diagnosis. The greatest increase occurred in 25- to 34-year-old women. Progressively smaller increases occurred in older women by 5-year age intervals and no statistically significant incidence increase occurred in any group 55 years or older.

"For young women aged 25 to 39 years, the incidence of distant disease increased in all races/ethnicities assessed since at least 1992, when race/ethnicity became available in the SEER database," the authors write. These increases occurred in both metropolitan and nonmetropolitan areas, and were statistically significant in African American and non-Hispanic white populations.

Incidence for women with estrogen receptor-positive subtypes increased more than for women with estrogen receptor-negative subtypes.

"Whatever the causes—and likely there are more than 1—the evidence we observed for the increasing incidence of [advanced breast cancer](#) in young women will require corroboration and may be best confirmed by data from other countries. If verified, the increase is particularly concerning, because young age itself is an independent adverse prognostic factor for breast cancer, and the lowest 5-year breast cancer survival rates as a function of age have been reported for 20- to 34-year-old women. The most recent national 5-year survival for distant disease for 25- to 39-year-old women is only 31 percent according to SEER data, compared with a 5-year survival rate of 87 percent for women with locoregional [breast cancer](#)," the authors write.

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