Generation X and Millennials in U.S. Have Higher Risk of Developing 17 Cancers Compared to Older Generations, New Study Suggests

American Cancer Society researchers stress the need for interventions to address the rising burden of early-onset cancers in younger generations

ATLANTA, July 31, 2024 — A new large study led by researchers at the American Cancer Society (ACS) suggests incidence rates continued to rise in successively younger generations in 17 of the 34 cancer types, including breast, pancreatic, and gastric cancers. Mortality trends also increased in conjunction with the incidence of liver (female only), uterine corpus, gallbladder, testicular, and colorectal cancers. The report will be published today in the journal *The Lancet Public Health.*

“These findings add to growing evidence of increased cancer risk in post-Baby Boomer generations, expanding on previous findings of early-onset colorectal cancer and a few obesity-associated cancers to encompass a broader range of cancer types,” said Dr. Hyuna Sung, lead author of the study and a senior principal scientist of surveillance and health equity science at the American Cancer Society. “Birth cohorts, groups of people classified by their birth year, share unique social, economic, political, and climate environments, which affect their exposure to cancer risk factors during their crucial developmental years. Although we have identified cancer trends associated with birth years, we don’t yet have a clear explanation for why these rates are rising.”

In this analysis, researchers obtained incidence data from 23,654,000 patients diagnosed with 34 types of cancer and mortality data from 7,348,137 deaths for 25 types of cancer for individuals aged 25–84 years for the period Jan 1, 2000, to Dec 31, 2019, from the North American Association of Central Cancer Registries and the U.S. National Center for Health Statistics, respectively. To compare cancer rates across generations, they calculated birth cohort-specific incidence rate ratios and mortality rate ratios, adjusted for age effect and period effect, by birth years, separated by five-year intervals, from 1920 to 1990.

Researchers found that incidence rates increased with each successive birth cohort born since approximately 1920 for eight of 34 cancers. In particular, the incidence rate was approximately two-to-three times higher in the 1990 birth cohort than in the 1955 birth cohort for pancreatic, Kidney, and small intestinal cancers in both male and female individuals; and for liver cancer in female individuals. Additionally, incidence rates increased in younger cohorts, after a decline in older birth cohorts, for nine of the remaining cancers including breast cancer (estrogen-receptor positive only), uterine corpus cancer, colorectal cancer, non-cardia gastric cancer, gallbladder cancer, ovarian cancer, testicular cancer, anal cancer in male individuals, and Kaposi sarcoma in male individuals. Across cancer types, the incidence rate in the 1990 birth cohort ranged from 12% for ovarian cancer to 169% for uterine corpus cancer higher than the rate in the birth cohort with the lowest incidence rate. Notably, mortality rates increased in successively younger birth cohorts alongside incidence rates for liver cancer (female only), uterine corpus, gallbladder, testicular, and colorectal cancers.

“The increase in cancer rates among this younger group of people indicate generational shifts in cancer risk and often serve as an early indicator of future cancer burden in the country. Without effective population-level interventions, and as the elevated risk in younger generations is carried over as individuals age, an overall increase in cancer burden could occur in the future, halting or reversing decades of progress against the disease,” added Dr. Ahmedin Jemal, senior vice president, surveillance and health equity science at the American Cancer Society and senior author of the study. “The data highlights the critical need to identify and address underlying risk factors in Gen X and Millennial populations to inform prevention strategies.”

"The increasing cancer burden among younger generations underscores the importance of ensuring people of all ages have access to affordable, comprehensive health insurance, a key factor in cancer outcomes," said Lisa Lacasse, president of the American Cancer Society Cancer Action Network (ACS CAN). "To that end, ACS CAN will continue our longstanding work to urge lawmakers to expand Medicaid in states that have yet to do so as well as continue to advocate for making permanent the enhanced Affordable Care Act tax subsidies that have opened

the door to access to care for millions."

Other ACS researchers participating in the study include: Chenxi Jiang, Dr. Priti Bandi, Dr. Farhad Islami, and Rebecca Siegel.

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About the American Cancer Society
The American Cancer Society is a leading cancer-fighting organization with a vision to end cancer as we know it, for everyone. For more than 110 years, we have been improving the lives of people with cancer and their families as the only organization combating cancer through advocacy, research, and patient support. We are committed to ensuring everyone has an opportunity to prevent, detect, treat, and survive cancer. To learn more, visit cancer.org or call our 24/7 helpline at 1-800-227-2345. Connect with us on Facebook, X, and Instagram.

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