Annual Report to the Nation: Cancer deaths continue downward trend; modest improvements in survival for pancreatic cancer

Overall cancer death rates continued to decline among men, women, children, and adolescents and young adults in every major racial and ethnic group in the United States from 2015 to 2019, according to the latest Annual Report to the Nation on the Status of Cancer. From 2014 to 2018, overall cancer incidence, or new cases of cancer, remained stable for men and children but increased for women and adolescents and young adults. This year's report, published October 27, 2022, in *Cancer*, also highlights longer-term trends in pancreatic cancer, as well as racial and ethnic disparities in incidence and death rates for many individual cancer sites.

All of the findings in this report are based on data from before the COVID-19 pandemic.

"Today's report is good news in our fight against cancer and is a reminder of the importance of President Biden's Cancer Moonshot℠ initiative," said Department of Health and Human Services Secretary Xavier Becerra. "I'm deeply impressed by the progress we're making against cancer and firmly believe we can meet the President's goal of reducing the death rate from cancer by at least 50% over the next 25 years. We can and must end cancer as we know it."

The Annual Report to the Nation on the Status of Cancer is a collaborative effort among the National Cancer Institute (NCI), part of the National Institutes of Health; the Centers for Disease Control and Prevention (CDC); the American Cancer Society (ACS); and the North American Association of Central Cancer Registries (NAACCR).

The report is based on a combined cancer incidence data set from NAACCR composed of data collected by CDC's National Program of Cancer Registries (NPCR) and NCI's Surveillance, Epidemiology, and End Results (SEER) Program, as well as mortality data from CDC's National Center for Health Statistics.

The report shows that from 2015 to 2019, overall cancer death rates decreased by 2.1% per year in men and women combined. Among men, death rates decreased by 2.3% per year; among women, death rates decreased by 1.9% per year. The annual declines in death rate accelerated from 2001 to 2019 in both men and women.

The declines in death rates were steepest in lung cancer and melanoma (by 4% to 5% per year) among both men and women. Death rates increased for cancers of the pancreas, brain, and bones and joints among men, and for cancers of the pancreas and uterus among women.

"The findings in this year's Annual Report to the Nation show our ongoing progress against cancer, continuing a more than two-decade trend in declining mortality that reflects improvements in preventing, detecting, and treating cancer," said Monica M. Bertagnolli, M.D., director of NCI. "The advances shown in the report underscore the importance of working together across society to develop effective, equitable approaches to tackle this complex disease. I look forward to working with all our partners in the cancer community to meet these challenges head-on, because people affected by cancer—and that includes all of us—are counting on it."

The report showed that cancer incidence rates were relatively stable in men and women combined from 2014 to 2018. Among men, incidence rates remained stable during this period, but among women incidence rates rose by 0.2% per year.

Over the same time period, incidence rates increased for three of the 18 most common cancers among men: pancreas, kidney, and testis. Incidence rates in men remained stable for seven of the most common cancers and decreased for the remaining eight cancers. For women, incidence rates increased for seven of the 18 most common cancers: liver, melanoma, kidney, myeloma, pancreas, breast, and oral cavity and pharynx. Incidence rates among women remained stable for four of the most common cancers and decreased for the other seven cancers.

In men, the greatest incidence rate increase was seen in pancreatic cancer, which increased by 1.1% per year, and the steepest incidence rate decrease was seen in lung cancer, which fell by 2.6% per year. In women,

melanoma had the steepest increase in incidence, rising by 1.8% per year, and thyroid cancer had the sharpest decrease, falling by 2.9% per year.

“Through funding scientific breakthroughs and raising awareness about prevention and early detection, we are making progress against a subset of the more than 200 diseases we call cancer,” said Karen E. Knudsen, M.B.A, Ph.D., chief executive officer, American Cancer Society. “However, for certain cancer types, concerning trends persist, and durable cures remain elusive for many people. We are committed to improving the lives of all cancer patients and their families, through accelerating research, increasing access to care through advocacy, and by providing direct patient support in communities across the nation, toward the shared goal of eliminating cancer as we know it.”

Among other key findings of this year’s report:

- Overall cancer incidence rates during 2014 to 2018 were highest among non-Hispanic American Indian and Alaska Native (AI/AN) people, followed closely by non-Hispanic White people and non-Hispanic Black people. Overall cancer incidence rates were lowest among non-Hispanic Asian/Pacific Islander (API) and Hispanic people.
- Incidence rates for all sites combined decreased among non-Hispanic Black, non-Hispanic API, and Hispanic men, but increased among non-Hispanic White, non-Hispanic API, non-Hispanic AI/AN, and Hispanic women from 2014 to 2018. Incidence rates were stable among non-Hispanic White and non-Hispanic AI/AN men and non-Hispanic Black women.
- Among children younger than 15, overall cancer death rates decreased from 2015 to 2019, and incidence rates remained stable from 2014 to 2018. Overall cancer incidence rates were stable for non-Hispanic Black children over this period but increased for non-Hispanic White, non-Hispanic API, non-Hispanic AI/AN, and Hispanic children.
- Among adolescents and young adults ages 15 to 39, overall cancer incidence rates increased by 0.9% per year from 2014 to 2018. The overall cancer death rate decreased by 3.0% per year from 2001 to 2005, but the decline slowed to 0.9% per year from 2005 to 2019.
- The incidence of breast cancer, the most common cancer among adolescents and young adults, increased by an average of 1.0% per year from 2010 to 2018.

The researchers noted that racial and ethnic disparities exist for many individual cancer sites. For example, from 2014 to 2018, incidence rates for bladder cancer declined in non-Hispanic White, non-Hispanic Black, non-Hispanic API, and Hispanic men but increased among non-Hispanic AI/AN men. Incidence rates for uterine cancer increased among women of every racial and ethnic group from 2014 to 2018 except for non-Hispanic White women, who had stable rates.

From 2015 to 2019, prostate cancer death rates were stable among non-Hispanic White and non-Hispanic Black men but decreased among non-Hispanic API, non-Hispanic AI/AN, and Hispanic men. Colorectal cancer death rates were stable among non-Hispanic AI/AN men but decreased in men of all other racial and ethnic groups. Among women, death rates for lung, breast, and colorectal cancer decreased in nearly every racial and ethnic group. The exceptions were non-Hispanic API women, among whom breast cancer death rates remained stable, and non-Hispanic AI/AN women, among whom breast cancer death rates increased and colorectal cancer death rates remained stable.

“Factors such as race, ethnicity, and socioeconomic status should not play a role in people’s ability to be healthy or determine how long they live,” said Lisa C. Richardson, M.D., M.P.H., director of CDC’s Division of Cancer Prevention and Control. “CDC works with its public health partners—within and outside the government—to address these disparities and advance health equity through a range of key initiatives, including programs, research, and policy initiatives. We know that we can meet this challenge together and create an America where people are free of cancer.”

This year’s report includes a special focus on trends in pancreatic cancer incidence, death, and survival rates. Although pancreatic cancer accounts for only 3% of new cancer diagnoses, it accounts for 8% of cancer deaths and is the fourth leading cause of cancer deaths in the United States for both men and women.

From 2001 to 2018, incidence rates of pancreatic cancer increased by 1% per year among both men and women,

and from 2001 to 2019, death rates increased by 0.2% per year for both sexes. From 2001 to 2018, incidence rates of two common subtypes of pancreatic cancer, neuroendocrine tumors and adenocarcinomas, increased in both men and women, while unspecified subtypes and other pancreatic tumors decreased.

The report also describes survival improvements by subtype. For example, one-year relative survival of people diagnosed with pancreatic neuroendocrine tumors increased from 65.9% to 84.2% between 2001 and 2017, and for people diagnosed with pancreatic adenocarcinomas it increased from 24.0% to 36.7%. Five-year relative survival also increased between 2001 and 2013, from 43.4% to 65.2% for people with pancreatic neuroendocrine tumors, and from 4.4% to 6.6% for people with pancreatic adenocarcinoma.

These improvements in survival may be associated with improvements in therapy, the researchers said. No improvement was seen for unspecified and other pancreatic tumors, which tended to have a higher proportion diagnosed at older ages than the other types.

The researchers noted that the increases in survival for both adenocarcinomas and neuroendocrine tumors are tempered by the overall increase in the incidence of pancreatic cancer, which is generally attributed to the growing prevalence of obesity. And progress in treating pancreatic adenocarcinomas, which account for 80% of pancreatic cancer cases, remains incremental at best, the researchers said.

“Pancreatic cancer incidence and survival reflect both the underlying risk of disease as well as the difficulty of diagnosing pancreatic cancer at a treatable stage,” said Betsy A. Kohler, M.P.H., NAACCR executive director. “As advancements in screening technology and effective treatments for early-stage disease become available, we are hopeful for greater improvements in pancreatic cancer survival, which historically has been a particularly lethal cancer type.”

For more about the report, see: https://seer.cancer.gov/report_to_nation/.

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About the National Cancer Institute (NCI): NCI leads the National Cancer Program and NIH’s efforts to dramatically reduce the prevalence of cancer and improve the lives of cancer patients and their families, through research into prevention and cancer biology, the development of new interventions, and the training and mentoring of new researchers. For more information about cancer, please visit the NCI website at cancer.gov or call NCI’s contact center, the Cancer Information Service, at 1-800-4-CANCER (1-800-422-6237).

About the National Institutes of Health (NIH): NIH, the nation’s medical research agency, includes 27 Institutes and Centers and is a component of the U.S. Department of Health and Human Services. NIH is the primary federal agency conducting and supporting basic, clinical, and translational medical research, and is investigating the causes, treatments, and cures for both common and rare diseases. For more information about NIH and its programs, visit nih.gov.

About the American Cancer Society (ACS): The American Cancer Society is a global grassroots force of 1.5 million volunteers dedicated to saving lives, celebrating lives, and leading the fight for a world without cancer. For more than 100 years, the American Cancer Society has been the preeminent cancer-fighting organization in the United States through research, education, advocacy, and patient services. We have helped lead the evolution in the way the world prevents, detects, treats, and thinks about cancer. For more information go to www.cancer.org.

About the Centers for Disease Control and Prevention (CDC): CDC works 24/7 protecting America’s health, safety, and security. Whether diseases start at home or abroad, are curable or preventable, chronic or acute, or from human activity or deliberate attack, CDC responds to America’s most pressing health threats. CDC is headquartered in Atlanta and has experts located throughout the United States and the world.

About the North American Association of Central Cancer Registries (NAACCR): The North American Association of Central Cancer Registries, Inc., is a professional organization that develops and promotes uniform data standards for cancer registration; provides education and training; certifies population-based registries; aggregates and publishes data from central cancer registries; and promotes the use of cancer surveillance data and systems for cancer control and epidemiologic research, public health programs, and patient care to reduce

the burden of cancer in North America. For more, see naaccr.org.

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