American Cancer Society report finds continued progress in reducing cancer mortality

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The American Cancer Society's annual cancer statistics report shows that between 2004 and 2008, overall cancer incidence rates declined by 0.6% per year in men and were stable in women, while cancer death rates decreased by 1.8% per year in men and by 1.6% per year in women.

The report, Cancer Statistics 2012, published online ahead of print in *CA: A Cancer Journal for Clinicians* says over the past 10 years of available data (1999-2008), cancer death rates have declined in men and women of every racial/ethnic group with the exception of American Indians/Alaska Natives, among whom rates have remained stable. The reduction in overall cancer death rates since 1990 in men and 1991 in women translates to the avoidance of more than a million total deaths from cancer during that time period.

Each year, the American Cancer Society estimates the numbers of new cancer cases and deaths expected in the United States in the current year and compiles the most recent data on cancer incidence, mortality, and survival based on incidence data from the National Cancer Institute and Centers for Disease Control and Prevention, as reported by the North American Association of Central Cancer Registries, and mortality data from the National Center for Health Statistics. Cancer Facts & Figures 2012, the report's accompanying consumer publication, includes a Special Section each year, which in 2012 focuses on cancers with increasing incidence rates.

Other highlights include

- A total of 1,638,910 new cancer cases and 577,190 deaths from cancer are projected to occur in the United States in 2012.
- The most rapid declines in death rates occurred among African American and Hispanic men (2.4% and 2.3% per year, respectively).
- Death rates continue to decline for all four major cancer sites (lung, colorectum, breast, and prostate), with lung cancer accounting for almost 40% of the total decline in men and breast cancer accounting for 34% of the total decline in women.
- About 1,024,400 cancer deaths (732,900 in men and 291,500 in women) were averted from 1991/1992 through 2008 as a result of 18 years of consistent declines in cancer death rates.
- Cancer incidence and death rates vary considerably among racial and ethnic groups. For all cancer sites combined, African American men have a 15% higher incidence rate and a 33% higher death rate than white men, whereas African American women have a 6% lower incidence rate but a 16% higher death rate than white women.
- Compared with whites, African American men and women have poorer survival once cancer is diagnosed. The 5-year relative survival is lower in African Americans than in whites for every stage of diagnosis for nearly every type of cancer.
- Cancer incidence and death rates are lower in other racial and ethnic groups than in whites and African Americans for all cancer sites combined and for the four most common cancer sites. However, incidence and death rates for cancers related to infectious agents, such as those of the uterine cervix, stomach, and liver, are generally higher in minority populations than in whites.
- Further progress can be accelerated by applying existing cancer

> control knowledge across all segments of the population, with an emphasis on those groups in the lowest socioeconomic bracket.

The Special Section, which is also published as a standalone article in CA, finds that despite declines in incidence rates for the most common cancers, the incidence of several cancers has increased in the past decade, including cancers of the pancreas, liver, thyroid, and kidney and melanoma of the skin, as well as esophageal adenocarcinoma and certain subsites of oropharyngeal cancer associated with human papillomavirus (HPV) infection. Researchers led by Edgar P. Simard, PhD MPH, examined trends in incidence rates from 1999 through 2008 for those seven cancers to detail changes by race, sex, and age.

They found rates for HPV-related oropharyngeal cancer, esophageal adenocarcinoma, and melanoma increased only in whites, except for esophageal adenocarcinoma, which also increased in Hispanic men. Liver cancer rates increased in white, black, and Hispanic men and in black women only. In contrast, incidence rates for thyroid and kidney cancers increased in all racial/ethnic groups except American Indian/Alaska Native men.

Increases in incidence rates by age were steepest for liver and HPV-related oropharyngeal cancers among those ages 55 to 64 years and for melanoma in those aged 65 years and older. Notably, for HPV-related oropharyngeal cancer in men and thyroid cancer in women, incidence rates were higher in those ages 55 to 64 years than in those aged 65 years and older. Rates increased for both local and advanced stage diseases for most cancer sites.

The reasons for these increasing trends are not entirely known. Part of the increase (for esophageal adenocarcinoma and cancers of the pancreas, liver, and kidney) may be linked to the increasing prevalence of obesity as well as increases in early detection practices for some

cancers. The special section says these rising trends will exacerbate the growing cancer burden associated with population expansion and aging and that additional research is needed to determine their underlying cause.

These annual reports have become critical tools for scientists, public health experts, and policymakers in assessing the current burden of cancer to help prioritize efforts to fight the disease. The estimates are some of the most widely quoted cancer statistics in the world. The Society's leading team of epidemiologic researchers compiles and analyzes incidence and mortality data to estimate the number of new cancer cases and deaths for the current year nationwide and in individual states.

The expected numbers of new cancer cases and cancer deaths should be interpreted with caution because these estimates are based on statistical models and may vary considerably from year to year. Not all changes in cancer trends can be captured by modeling techniques and sometimes the model may be too sensitive to recent trends, resulting in over- or under-estimates. For these reasons, the estimates should not be compared from year-to-year to determine trends; age-standardized cancer incidence and death rates are the best way to monitor changes in cancer occurrence and death. Despite these limitations, the American Cancer Society's estimates of the number of new cancer cases and deaths in the current year provide reasonably accurate estimates of the burden of new cancer cases and deaths in the United States. Such estimates will assist in continuing efforts to reduce the public health burden of cancer.

More information: Cancer Statistics 2012 can be viewed at cacancerjournal.com , while Cancer Facts & Figures 2012 is available at cancer.org/statistics .

Provided by American Cancer Society