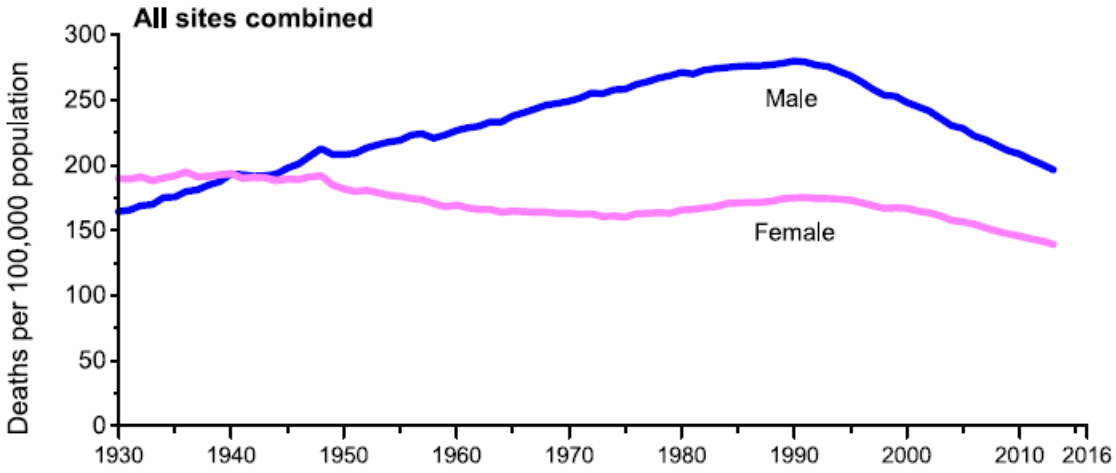
Cancer Mortality Milestone: 25 years of Continuous Decline

Racial gap narrowing while socioeconomic inequalities widen



A steady, 25-year decline has resulted in a 27% drop in the overall cancer death rate in the United States, translating to approximately 2.6 million fewer cancer deaths between 1991 and 2016. The data come from Cancer Statistics, 2019, the American Cancer Society's widely-quoted annual report on cancer rates and trends. The article appears early online in *CA: A Cancer Journal for Clinicians*, and is accompanied by a consumer version, *Cancer Facts & Figures 2019*.

> *"These [poor] counties are low-hanging fruit for locally focused cancer control efforts, including increased access to basic health care and interventions for smoking cessation, healthy living, and cancer screening programs."*

The report estimates* that in 2019, 1,762,450 new cancer cases and 606,880 cancer deaths will occur in the U.S. Since its peak of 215.1 deaths (per 100,000 population) in 1991, the cancer death rate has dropped steadily by approximately 1.5% per year to 156.0 in 2016, an overall decline of 27%. This translates to an estimated 2,629,200 fewer cancer deaths than would have occurred if mortality rates had remained at their peak.

The decline in cancer mortality over the past two decades is primarily the result of steady reductions in smoking and advances in early detection and treatment, which are reflected in the declines for the four major cancers: lung, breast, prostate, and colorectal.

The death rate for lung cancer dropped by 48% from 1990 to 2016 among men and by 23% from 2002 to 2016 among women, with declines accelerating among both men and women in recent years. The death rate for female breast cancer dropped by 40% from 1989 to 2016. For prostate cancer, mortality dropped 51% from 1993 to 2016. Colorectal cancer mortality dropped by 53% from 1970 to 2016.

In contrast to declines for the most common cancers, death rates rose from 2012 through 2016 for liver (1.2% per year in men; 2.6% per year in women), pancreatic (men only, by 0.3% per year), and uterine corpus (endometrial) cancers (2.1% per year), as well as for cancers of the brain and other nervous system, soft tissue (including heart), and sites within the oral cavity and pharynx associated with the human papillomavirus (HPV).

The cancer incidence rate was stable in women and declined by approximately 2% per year in men over the past decade of available data (2006-2015). In men, the drop reflects accelerated declines during the past 5 years of approximately 3% per year for lung and colorectal cancers, as well as a drop of 7% per year for prostate cancer, which is attributed to decreased PSA testing. For women, declines in incidence have continued for lung cancer, but have tapered in recent years for colorectal cancer, while rates for other common cancers are increasing or stable, e.g., an increase of 0.4% per year for breast cancer.

Although the racial gap in cancer mortality is slowly narrowing, socioeconomic inequalities are widening, with residents of the poorest counties experiencing an increasingly disproportionate burden of the most preventable

cancers. For example, cervical cancer mortality among women in poor counties in the U.S. is twice that of women in affluent counties, while lung and liver cancer mortality is more than 40% higher in men living in poor counties compared to those in affluent ones. Meanwhile, socioeconomic inequalities in cancer mortality are small or non-existent for cancers that are less amenable to prevention and/or treatment, like pancreatic and ovarian cancers.

Prior to the 1980s, socioeconomic deprivation was associated with lower cancer mortality. The most striking socioeconomic shift occurred for colorectal cancer mortality; rates in men in the poorest counties were approximately 20% lower than those in affluent counties in the early 1970s, but are now 35% higher. This reversal reflects changes in dietary and smoking patterns that influence CRC risk, as well as the slower dissemination of screening and treatment advances among disadvantaged populations.

“These [poor] counties are low-hanging fruit for locally focused cancer control efforts, including increased access to basic health care and interventions for smoking cessation, healthy living, and cancer screening programs,” write the authors. “A broader application of existing cancer control knowledge with an emphasis on disadvantaged groups would undoubtedly accelerate progress against cancer.”

Other statistics from the report:

- In 2016, 22% of all deaths were from cancer, making it the second leading cause of death after heart disease in both men and women.
- Cancer is the leading cause of death in many states, as well as in Hispanic and Asian Americans and people under 80.
- Incidence has increased for melanoma and cancers of the liver, thyroid, uterine corpus, and pancreas.
- Survival rates have improved for most cancer types, but advances have been slow for lung and pancreatic cancers, partly because greater than one-half of cases are diagnosed at a distant stage.

Article: Cancer Statistics, 2019, CA: Cancer J Clin doi: 10.3322/caac.21551.

**Estimates should not be compared year-to year. They are based on computer models of cancer trends and population and may vary considerably. Cancer trends should be based on age-adjusted cancer incidence and death rates (expressed as the number of cancer deaths per 100,000 people).*