University of California
San Francisco

Greater Bay Area
CANCER REGISTRY

I. TRENDS IN INVASIVE CANCER INCIDENCE AND MORTALITY IN THE GREATER BAY AREA

Cancer incidence and mortality have decreased significantly during the 31-year period from 1988 through 2018 in the Greater Bay Area. For each cancer site, there are notable differences by sex and race/ethnicity, but overall, there are promising patterns of decreasing incidence and mortality for most cancer sites. This report focuses on sex- and race/ethnicity-specific cancer rates and trends as well as notable trends seen among all populations combined. Since 1988, the incidence and mortality rates of cancer (calculated as number of new cases and deaths per 100,000 individuals, respectively) have greatly decreased in the Greater Bay Area, with distinct declines seen in the latest 10-year period of available data from 2009 through 2018 **(Figures 1-4)**.

Incidence

Decreasing incidence of many cancers, as evident from the average annual percent changes, is due in part to changes in cancer screening and the reduction in smoking prevalence.

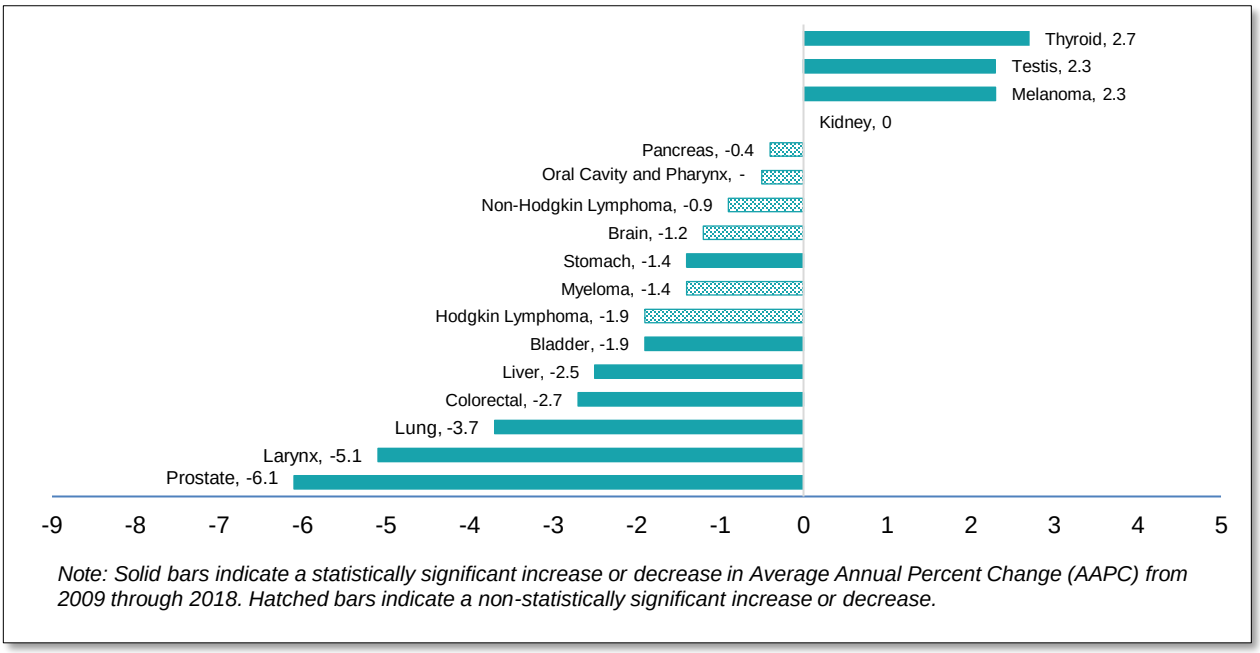
In the past 10 years alone (2009-2018), cancer incidence rates declined annually for several cancers including colorectal (males: -2.7%, females: -2.6%), lung (males: -3.7%, females: -2.6%), bladder (males: -1.9%, females: -3.1%), and stomach cancers (males: -1.4%, females: -1.2%). Additionally, males experienced significant average annual decreases in the incidence of prostate cancer (-6.1%), which may be attributable to changes in prostate cancer screening guidelines during this time frame that limited the ages of males recommended for routine screening by prostate-specific antigen or PSA testing. Only thyroid cancer (2.7%), malignant melanoma (2.3%), and testicular cancer (2.3%) increased significantly on an annual basis during this period among males **(Figure 1)**. For females, annual incidence rates increased significantly for malignant melanoma (2.5%), thyroid (1.5%), and uterine cancers (0.7%) **(Figure 2)**.

Mortality

Cancer mortality rates for the Greater Bay Area have also declined since 1988, by an average annual percent of -2.0% for males, and -1.7% for females. Significant decreases in cancer deaths were also noted nationwide in the Annual Report to the Nation in 2020 [3].

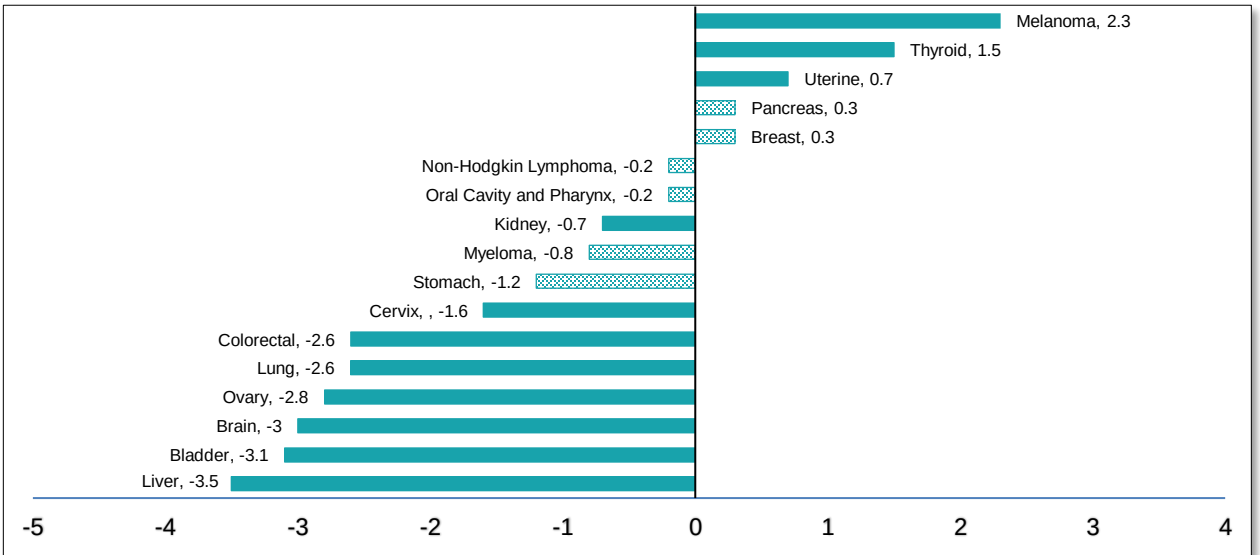
During the most recent 10-year period, mortality in the GBACR declined by an average of -2.4% per year in males, and -2.3% in females. More specifically, cancer mortality rates declined for several of the most common cancers such as lung cancer (males: -4.7%, females: -4.5%), colorectal cancer (males: -3.1%, females: -3.0%), and Non-Hodgkin lymphoma (males: -2.9%, females: -3.1%) **(Figures 3, 4)**. Males experienced significant annual declines in mortality rates of stomach (-2.1%), Non-Hodgkin lymphoma (-2.9), colorectal, (-3.1%), lung (-4.7%), melanoma (-5.2%) and laryngeal cancers (-6.4%). Females experienced significant annual declines in mortality rates of myeloma (-2.6%), oral cavity/ pharynx cancer (-2.8%), lung cancer, (-4.5%), colorectal (-3.0%), ovary (-2.8%), and breast cancer (-2.3%). The only cancer site with a significant increase in mortality rates was female uterine cancer (4.1%), and there were no significantly increased mortality rates for males for any cancer from 2009 through 2018.

Figure 1: Average Annual Percent Change of Invasive Cancer Incidence Rates among Males in the Greater Bay Area, 2009-2018



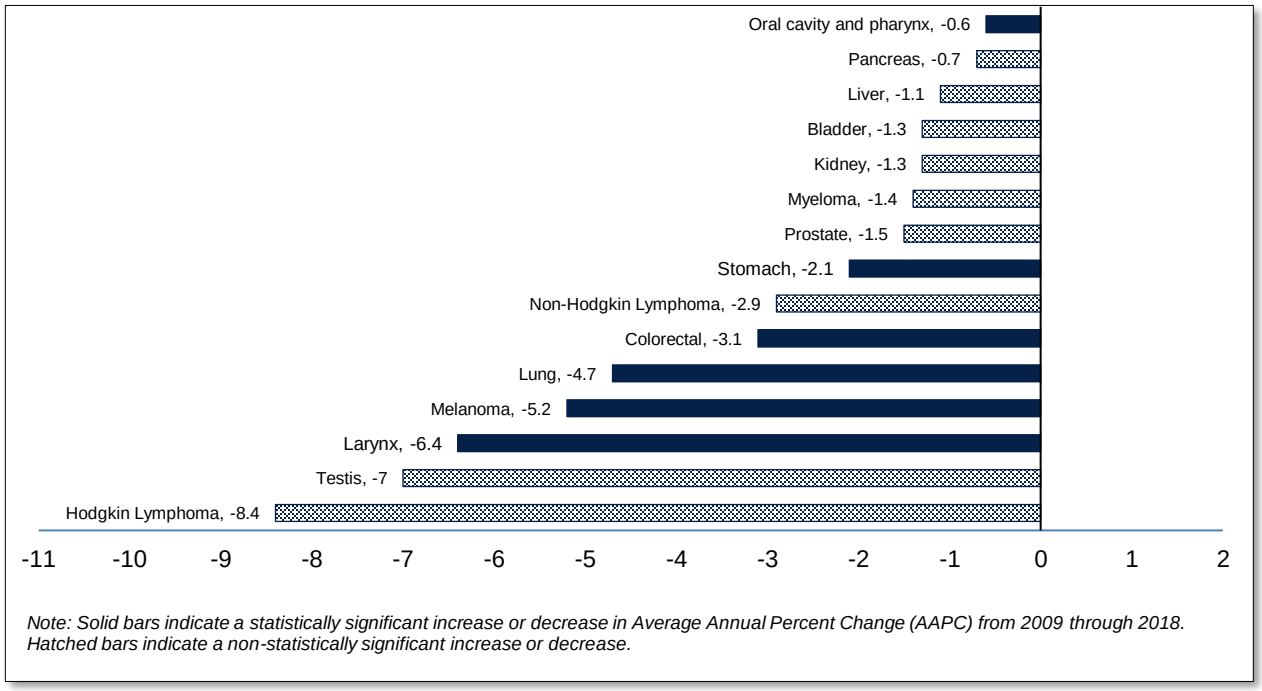
Note: Solid bars indicate a statistically significant increase or decrease in Average Annual Percent Change (AAPC) from 2009 through 2018. Hatched bars indicate a non-statistically significant increase or decrease.

Figure 2: Average Annual Percent Change of Invasive Cancer Incidence Rates among Females in the Greater Bay Area, 2009-2018



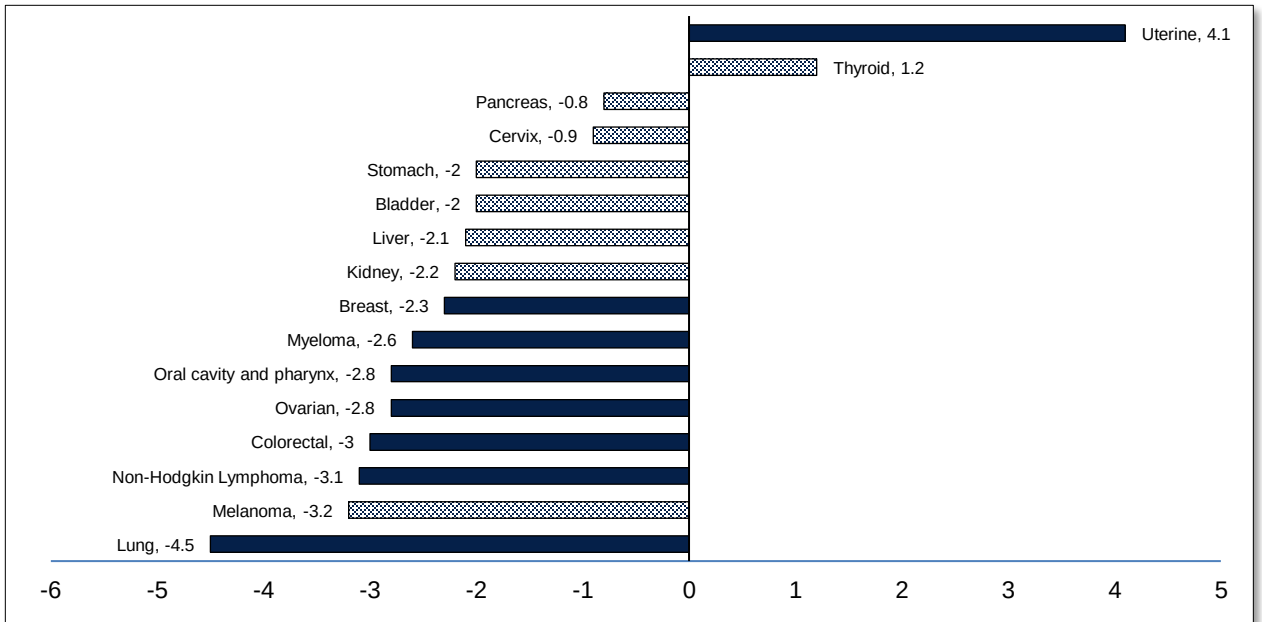
Note: Solid bars indicate a statistically significant increase or decrease in Average Annual Percent Change (AAPC) from 2009 through 2018. Hatched bars indicate a non-statistically significant increase or decrease.

Figure 3: Average Annual Percent Change of Cancer Mortality Rates among Males in the Greater Bay Area, 2009-2018



Note: Solid bars indicate a statistically significant increase or decrease in Average Annual Percent Change (AAPC) from 2009 through 2018. Hatched bars indicate a non-statistically significant increase or decrease.

Figure 4: Average Annual Percent Change of Cancer Mortality Rates among Females in the Greater Bay Area, 2009-2018



Note: Solid bars indicate a statistically significant increase or decrease in Average Annual Percent Change (AAPC) from 2009 through 2018. Hatched bars indicate a non-statistically significant increase or decrease.