

## VIII. COLORECTAL CANCER

Invasive colorectal cancer (cancer of the colon or rectum) is the 4th most commonly diagnosed cancer among males and females in the Greater Bay Area. Obesity, smoking, history of colorectal polyps, and a diet high in red meat are associated with increased risk of this cancer [45, 46]. Among both males and females, incidence rates of invasive colorectal cancer have been declining over time from 1988 through 2018, with any increases being temporary and non-significant. Significant annual declines have occurred in all racial/ethnic groups among males: NH White males (-2.5% per year), NH Black males (-2.2%), Hispanic males (-1.7%), and Asian/Pacific Islander males (-2.0%). Among females, there were also significant annual declines in colorectal cancer incidence rates in all racial/ethnic groups except NH Black: NH White females (-1.7% per year), Hispanic females (-1.2%), and Asian/Pacific Islander females (-1.9%). While over time from 1988 through 2018, the decline in incidence among NH Black females was not statistically significant, there was a dramatic decrease of -3.9% per year from 2005-2018. Overall declines in incidence have been attributed to greater uptake of colorectal cancer screening [47].

Colorectal cancer screening is important clinically because it can identify polyps that could lead to in situ or invasive cancer, allowing for intervention (removal of the polyp). Recently, the U.S. Preventive Services Task Force revised their recommendation for screening to include those age 45 -75 years [48]. Since 1988, there was an overall decrease in incidence, commensurate with improved screening uptake. While incidence of colorectal cancer is decreasing overall, a recent

analysis of incidence in California evaluated early onset cases (< 50 years) compared to those aged  $\geq$  50 years, and found that early onset colorectal cancer incidence significantly increased for NH White and Hispanic males and females [49].

The 2014-2018 invasive colorectal cancer incidence rates were higher for males (37.6 per 100,000) than females (29.9 per 100,000). Among both males and females, incidence rates for NH Black males and females were higher than rates for other racial/ethnic groups (45.2 and 38.5 per 100,000, respectively). Incidence rates were lowest for Asian/Pacific Islander males and females (35.1 and 25.7 per 100,000, respectively). For 2014-2018, incidence rates for NH White males in the Greater Bay Area were lower than in California, whereas incidence rates for NH Black, Asian/Pacific Islander, and Hispanic males were comparable to rates in California. Incidence rates for females in the GBACR were comparable to incidence rates in California in all racial/ethnic groups (**Figure 15**).

Mortality due to colorectal cancer for both males and females declined substantially from 1988 through 2018 for all racial/ethnic groups (**Figure 16**). This is likely due to early detection as a result of effective cancer screening strategies. The greatest annual declines in mortality were observed in NH White males (-3.2% per year) and NH White females (-2.8%). For 2014-2018, the mortality rate of colorectal cancer among males was highest for NH Black males (20.4 per 100,000) and lowest for Asian/Pacific Islander males (11.2 per 100,000). Similarly, among females, the mortality rate was highest

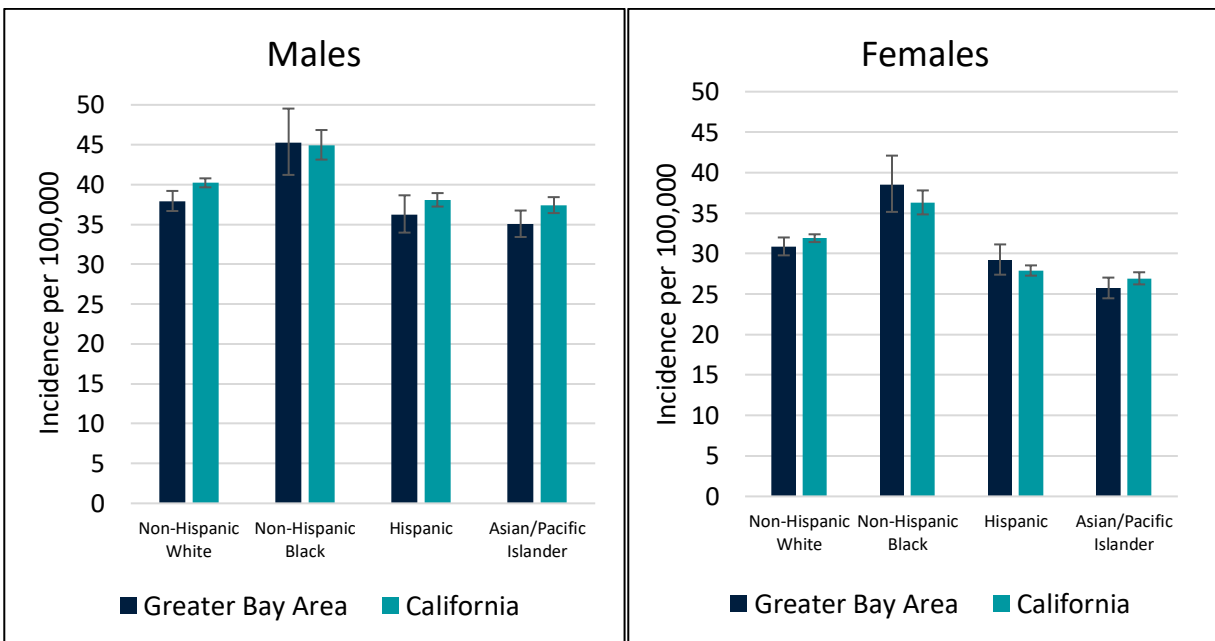
for NH Black females (15.7 per 100,000) and lowest for Asian/Pacific Islander females (7.95 per 100,000).

*In situ* colorectal cancer is detected before it has spread beyond the inner layer of the colon or rectum [46]. The declines in both *in situ* and invasive colorectal cancer incidence and mortality in the Greater Bay Area likely reflect the success from wide implementation of colorectal cancer screening across the population [45-47]. Annual declines in incidence of *in situ* colorectal cancer from 1988 through 2018 were observed for both males (-4.9% per year) and females (-5.5%). Significant average annual declines in incidence were observed since 1988 in all racial/ethnic groups, for males and females combined: NH White (-6.6% per year), NH

Black (-4.6), Hispanic (-4.2%), and Asian/Pacific Islander (-4.5%). For 2014-2018, *in situ* colorectal cancer incidence rates for NH Black and Asian/Pacific Islander females in the Greater Bay Area were lower than rates in California, whereas rates for NH White and Hispanic females, and for males of all racial/ethnic groups in the GBACR were comparable to rates in California.

Mortality rates of colorectal cancer in the Greater Bay Area were lower than rates in California for NH White males and females, and for Asian/Pacific Islander males. Mortality rates in the GBACR were comparable to rates in California for NH Black and Hispanic males and females, and for Asian/Pacific Islander females.

Figure 15: Invasive Colorectal Cancer Age-Adjusted Incidence Rates<sup>1</sup> by Sex, Race/Ethnicity, and Region<sup>2</sup>, 2014-2018



<sup>1</sup> Error bars (in black at the top of the bars) indicate 95% confidence intervals surrounding the corresponding incidence rates.

<sup>2</sup> The two regions represented include: (1) the Greater Bay Area (nine-county region) and (2) all of California (including the nine-county region of the Greater Bay Area)

**Figure 16: Invasive Colorectal Cancer Age-Adjusted Annual Incidence and Mortality Rates and Trends in the Greater Bay Area by Race/Ethnicity, 1988-2018**

