

# Liver Cancer in the Greater Bay Area, 1990 - 2015



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## General Facts

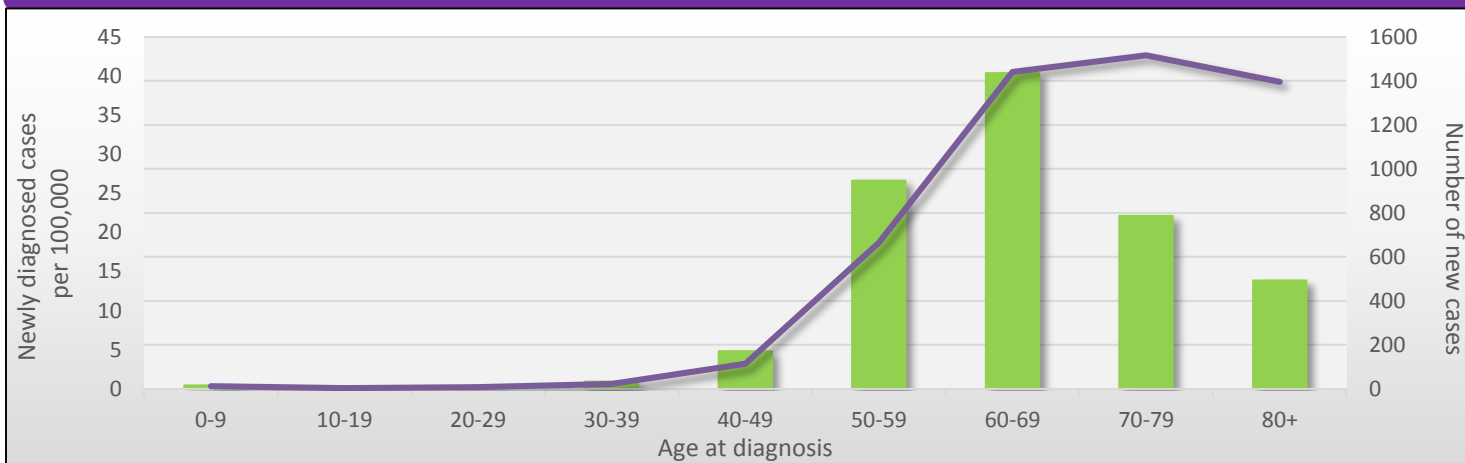
**What is the Liver?** The liver is the largest organ in the body and is divided into lobes. The main functions include cleaning toxins, making bile, making blood clotting factors, releasing sugar for energy, and breaking down many of the nutrients needed by the body.

**What is liver cancer?** Cells in the liver can form several types of cancerous and non-cancerous tumors. The most common type is hepatocellular carcinoma.

**What are liver cancer risk factors?** (1) infection with certain types of the hepatitis virus (B or C), (2) cirrhosis of the liver, usually a result of infection by hepatitis C virus or by heavy alcohol consumption, and (3) certain metabolic conditions (e.g., obesity, high blood sugars, high blood pressure).

In the Greater Bay Area, the average age of onset of liver cancer is 64 years, with 90% of cases occurring in those who are 45 years and older (Figure 1). In the most recent time period for which data are available (2011-2015), liver cancer was the 10<sup>th</sup> most common cancer diagnosed among males and the 17<sup>th</sup> among females.

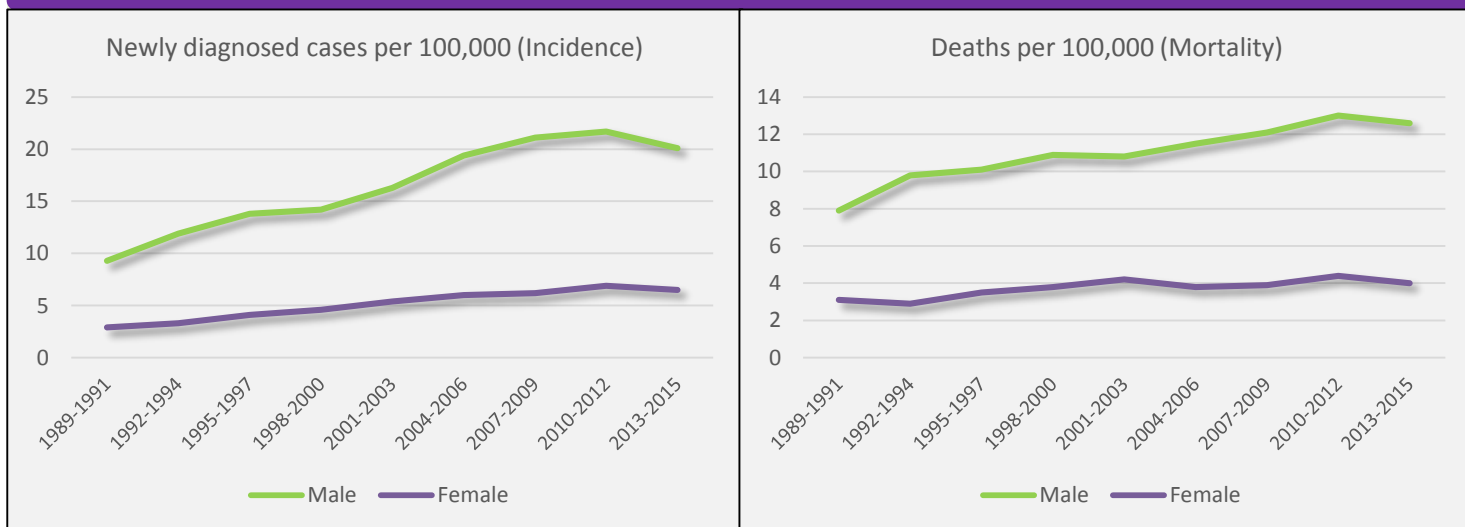
Rate of newly diagnosed cases & number of cases by age in the Greater Bay Area, 2011-2015, Figure 1:



**Liver cancer is three times more common in men than women in the Greater Bay Area.** The 2011-2015 rate of newly diagnosed cases was 20.8 in males and 6.6 in females age 20 and older. With regard to the rate of deaths, a similar difference was also seen between males and females. More importantly, rates of newly diagnosed cases and death rates have been increasing in recent years (Figure 2). This same trend is seen in California and the U.S.

**Why are rates increasing?** This could be due to how common the previously mentioned risk factors are in our population (hepatitis virus infection, cirrhosis of the liver, obesity, and high blood pressure), but also for reasons we don't yet understand.

Trends in rates of newly diagnosed liver cancer cases & deaths in the Greater Bay Area, 1989-2015, Figure 2:



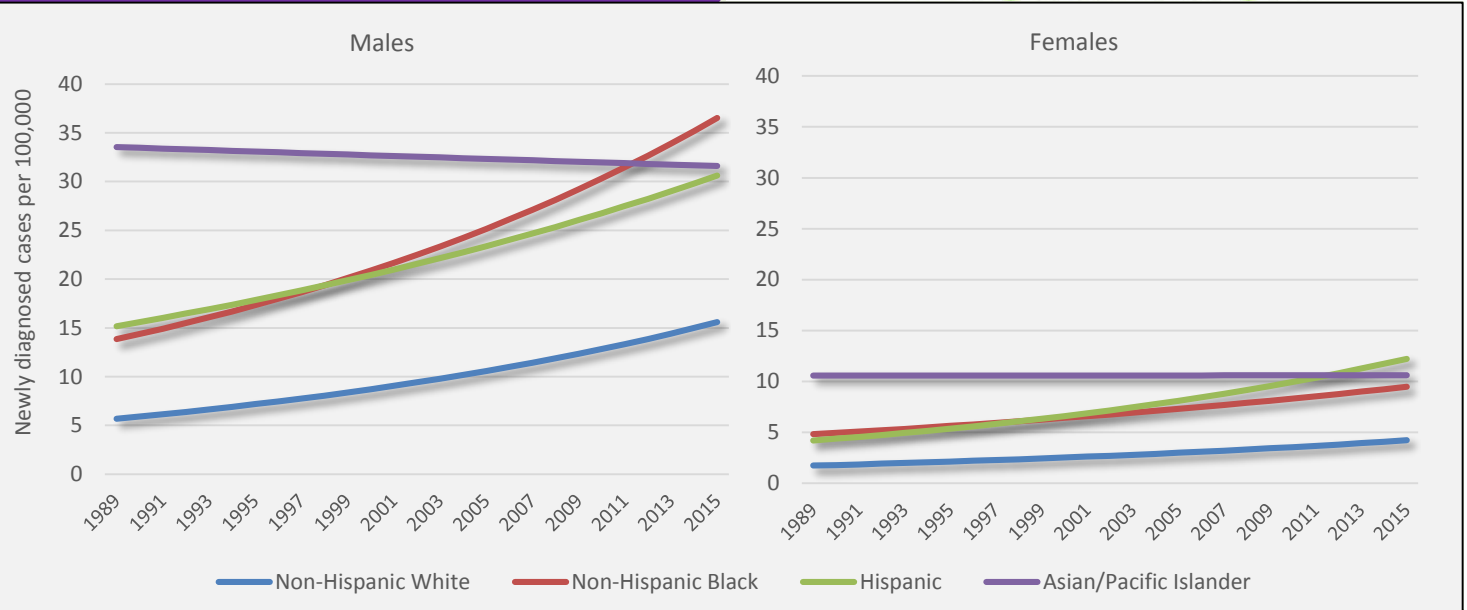
# Liver Cancer in the Greater Bay Area, 1990 - 2015, cont'd



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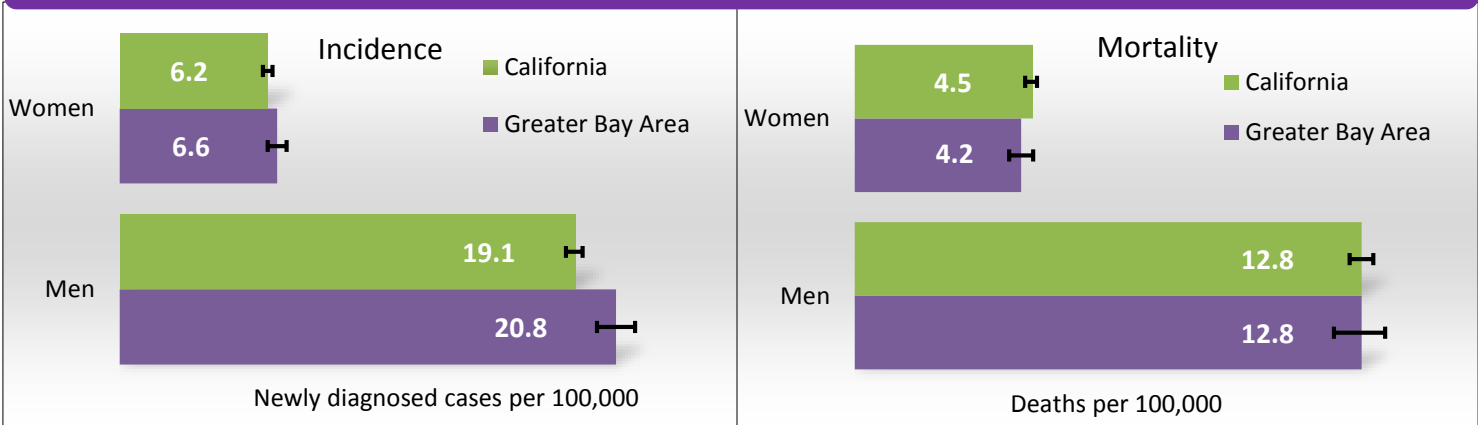
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## Racial/Ethnic Trends by Sex, Figure 3:



The rates of newly diagnosed cases of liver cancer have not increased equally across racial/ethnic groups. The rate for Asian/Pacific Islander females has been relatively stable, and among males, the rate has declined (Figure 3). Rates for Hispanic and Non-Hispanic Black males have increased most significantly. As a result, rates among Hispanic and Asian/Pacific Islander males are now comparable, and Non-Hispanic Black males have the highest rate. Similar but less dramatic patterns were seen for females. Among females, liver cancer has increased most significantly among Hispanics.

## Regional Differences in Recent Years, 2011-2015, Figure 4:



From 2011-2015, the Greater Bay Area population had a significantly higher rate for newly diagnosed cases in males compared to rates for California. However, the rate of deaths due to liver cancer in the Greater Bay Area was equal to the rate for California (Figure 4). These patterns are likely due to the larger population of Asians/Pacific Islanders in the Greater Bay Area, among whom liver cancer is much more common.

## Conclusion

While liver cancer is relatively rare, there is an increasing prevalence of risk factors in the Greater Bay Area, which may explain much of the increase in rates of newly diagnosed cases. **The difference in rates across racial/ethnic groups are not fully understood.** As one of the few cancers in which rates are increasing, these patterns speak to the need for continued monitoring of trends and the importance of research into causes, treatments, and prevention.

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