

# Trends in Cancer Incidence and Mortality in California, 1988–2010



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This publication was prepared by California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, University of California Davis Health System

1631 Alhambra Blvd., Suite 200  
Sacramento, CA 95816  
(916) 731-2500  
<http://www.ucdmc.ucdavis.edu/iph/>

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***Prepared by:***

Cyllene R. Morris, D.V.M., Ph.D.  
Research Program Director  
CalCARES Program  
Institute for Population Health Improvement  
UC Davis Health System

Elizabeth E. Angel, B.S., M.S.  
Research Scientist  
CalCARES Program  
Institute for Population Health Improvement  
UC Davis Health System

Robert P. Martinsen, B.S.  
Research Statistician  
CalCARES Program  
Institute for Population Health Improvement  
UC Davis Health System

Sara Cook, M.P.H., C.H.E.S.  
Health Educator  
CalCARES Program  
Institute for Population Health Improvement  
UC Davis Health System

Arti Parikh-Patel, Ph.D., M.P.H.  
Program Director  
CalCARES Program  
Institute for Population Health Improvement  
UC Davis Health System

Kenneth W. Kizer, M.D., M.P.H.  
Distinguished Professor, UC Davis School of Medicine  
and Betty Irene Moore School of Nursing  
and  
Director, Institute for Population Health Improvement  
UC Davis Health System

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*Inquiries regarding the content of this report should be directed to:*  
California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program  
Institute for Public Health Improvement, UC Davis Health System  
1631 Alhambra Blvd., Suite 200  
Sacramento, CA 95816  
(916) 731-2500  
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**Trends in Cancer Incidence and  
Mortality in California, 1988 – 2010**

## SUMMARY

- This report presents trends in cancer incidence (new cases) and mortality (deaths) by sex and race/ethnicity for Non-Latino white, African American, Latino, and Asian/Pacific Islander California residents. Annual percent changes (APC) in cancer rates were calculated for the period from 1988 through 2010. Rather than showing trends as single straight lines, the statistical method used in this report detects whether trends change direction at any given year. Whenever such changes in direction were detected, trends for the most recent period are emphasized.
- Incidence rates declined for the majority of cancers in California, although there was substantial variation in trends by sex and race/ethnicity. Incidence rates for the following cancers/cancer sites declined among all or most population groups: cervical, colorectal, esophagus (mostly squamous cell carcinomas), larynx, lung and bronchus, oral cavity and pharynx (mostly men), ovary, prostate, stomach, and urinary bladder (whites and Latinas). The observed declining trends for several of these cancers is materially due to decreasing rates of smoking and other tobacco use in California.
- Incidence rates during the past decade increased in most population groups for the following cancers: melanoma, testis, kidney, thyroid, pancreas (in some groups), and uterus (minority women). For some of these cancers, the increase in incidence was likely due to increased awareness and screening. Rising obesity rates may have contributed to the increased incidence of cancers of the kidney and uterus.
- During the last ten years covered in this report, 2001 through 2010, mortality rates declined for most cancers in California. For the majority of these cancers, declining mortality followed declines in incidence, while for others it was mostly due to improved treatment and earlier detection (e.g. breast cancer and lymphomas). For some cancer sites, such as liver, mortality increases were attributable to a corresponding increase in the incidence of the disease. Mortality rates for cancers such as melanoma, kidney, and testicular cancer remained largely stable, despite substantial increases in incidence. Heightened awareness and screening may explain why incidence for these cancers increased but mortality did not.
- Trends for invasive female breast cancer incidence in California varied markedly by race/ethnicity. Between 2001 and 2010, rates among Asian Pacific Islanders increased by 12 percent. Rates among African Americans also increased, but to a much lesser degree (three percent). Trends for whites and Latinas were not significantly changed. Mortality rates declined significantly in all racial/ethnic backgrounds. During the past 10 years covered in this report, deaths due to breast cancer declined by 19 percent.
- Trends for prostate cancer followed a complex pattern that is consistent with the introduction and widespread use of the prostate-specific antigen (PSA) test. In the early 1990s, after the rapid increase in the incidence of the disease, rates dropped and stabilized until 2001, when rates began to significantly decline. Since 2001, prostate cancer incidence rates declined by at least 20 percent among men of all racial/ethnic backgrounds. Although incidence rates have fluctuated since 1988, mortality rates due to prostate cancer declined steadily in men of all race/ethnicities, ranging from 25 percent among Latinos to 50 percent among Asian/Pacific Islanders.
- Incidence and mortality rates for colorectal cancer declined significantly among men and women. Deaths due to colorectal cancer decreased by about 40 percent since 1988 except for Latino men. In 2010, Latinos also had the lowest screening rates for colorectal cancer in California. Despite generally downward trends, there are still marked disparities in colorectal cancer incidence and mortality, with the highest rates occurring among African Americans.

- The incidence of lung cancer decreased significantly among men of all racial/ethnic groups, reflecting the continued decline in rates of smoking. Among women, for whom smoking trends declined only recently, significant decreases in lung cancer incidence were detected after the mid to late 1990s among whites and Latinas. Trends in lung cancer mortality largely paralleled incidence trends except for African American women, for whom lung cancer deaths decreased significantly since the early 1990s even though its incidence did not.
- The incidence of leukemia overall did not materially change in any racial/ethnic group, although declines in mortality were observed. Acute myeloid leukemia (AML) was the only type of cancer for which mortality rates increased in the absence of a corresponding increased incidence. This increased mortality was confined to older patients, who tend to respond less favorably to aggressive AML treatment.

## INTRODUCTION

Reporting of newly diagnosed cancers in California has been mandated by law since 1985 (Health & Safety Code Section 103885). The authorizing statute called for regional population-based cancer registries to become operational and to begin reporting to a central statewide registry by no later than July 1, 1988. The statewide California Cancer Registry (CCR) became operational January 1, 1988, at which time there were ten operating regions. Later some regions were combined so that there are now eight regions. Since July 1, 2012, the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, which is organizationally housed within the University of California Davis Health System's Institute for Population Health Improvement, has partnered with the California Department of Public Health to manage the day-to-day operations of the CCR program

### CCR and cancer surveillance in California

California's statewide, population-based cancer surveillance system monitors the incidence and mortality of specific cancers over time and analyzes differential risks of cancer by geographic region, age, race/ethnicity, sex, and other population characteristics. Cancer incidence data are gathered through the CCR, which conducts and collaborates with diverse investigators to determine the epidemiology, etiology, treatment efficacy, risk factors, and prevention of cancer. The CCR is additionally designed to monitor patient survival with regard to type of cancer, extent of disease, therapy, demographics, and other factors. Such analyses provide the foundation for studies evaluating the efficacy of clinical therapies, changes in diagnostic procedures, public awareness campaigns, and other cancer control initiatives, among other things.

### Importance of cancer trends

Monitoring cancer trends is one of the most important functions of a cancer surveillance system. There are many uses for trend data. Changes in the occurrence of cancer in a population often instigate research on potential reasons for the observed increase or decrease in cancer rates. For example, if changes in cancer incidence are accompanied by changes in exposure to some risk factors, it may be possible to establish a link between cancer and the particular risk factor. Monitoring cancer trends is also important to evaluate the efficacy of cancer screening and detection methods, as well as to determine priorities in cancer control programs. Government officials and policy makers also use information on cancer trends to allocate resources for cancer research and prevention.

### Site-Specific Trends in Cancer Incidence and Mortality by Sex and Race/Ethnicity

The current report presents trends in cancer incidence and mortality for the period 1988 through 2010, for data reported to the CCR as of October 2013. Trends in incidence and mortality are presented for cancers occurring at major anatomic sites among the four largest race/ethnic groups in California: non-Latino whites, Latinos, African Americans, and Asian/Pacific Islanders. For each cancer site, a brief description of its risk factors is presented, followed by the main findings from the trend analysis. Where applicable, two sets of graphs are provided - incidence and mortality among men and women. Within each figure, vertical bars represent the observed annual rates of cancer incidence or mortality, while lines represent trends estimated by regression analysis. Incidence rates represent invasive cancers diagnosed in California residents. For three types of cancer (female breast, colorectal, and melanoma), trends are also presented for in situ tumors. These tumors are early stage cancers that are typically found through screening.

For each cancer site, which are presented in alphabetical order, estimates of the *average annual percent change* (AAPC) for the ten-year period 2001 through 2010 are presented in a table. Trends for some cancer sites were well described by a single straight line and a single *annual percent change* (APC) for the entire period 1988 through 2010. For other cancers, trends were best described when the trend line was broken into different time periods, each with its corresponding APC and overall percent change during the period. Tables showing the APC within each corresponding time period by sex and race/ethnicity for each cancer site are included in the Appendix.

## BRAIN AND NERVOUS SYSTEM CANCER

In 2010, 2,115 Californians were diagnosed with brain cancer, and 1,515 died from the disease. Incidence of the different types of brain tumors vary by sex and race/ethnicity. Brain tumors occur more often among whites and men, although meningiomas are more common in women. Even though most brain tumors are detected in older adults, consistent with cancer generally occurring more frequently in older persons, brain cancer is the second most common cancer in children.

The cause of brain cancer is not known, and there are no known means of preventing brain tumors. Research aimed at linking the occurrence of brain tumors with infections, head injuries, or electromagnetic fields (e.g., from electric power lines or cell phones) has been inconclusive. The following factors are associated with an increased risk of developing brain cancer:

- Occupational exposures to certain chemicals (e.g., formaldehyde, vinyl chloride, and acrylonitrile)
- Exposure to high doses of gamma radiation (e.g., workers in the nuclear power industry)
- A family history of brain cancer

### Trends in Incidence and Mortality in California, 1988 through 2010

The incidence of brain cancer among whites, Asian/Pacific islanders, African Americans, and Latino men did not significantly change. Incidence rates for Latinas increased until 2002, when the trend reversed and rates declined significantly by 2.5 percent per year through 2010.

Mortality rates declined among white women by 10 percent. Among African Americans, mortality rates declined significantly by 28 percent among women and by 29 percent among men. Mortality rates among Latinas followed a pattern similar to that for incidence, a significant increase followed by a decrease in rates beginning in 1998. There were no significant changes in mortality rates among Latino men. Mortality rates among Asian/Pacific Islander women increased until 1993 and decreased significantly afterwards. Among Asian/Pacific Islander men, mortality rates increased slightly but not significantly.

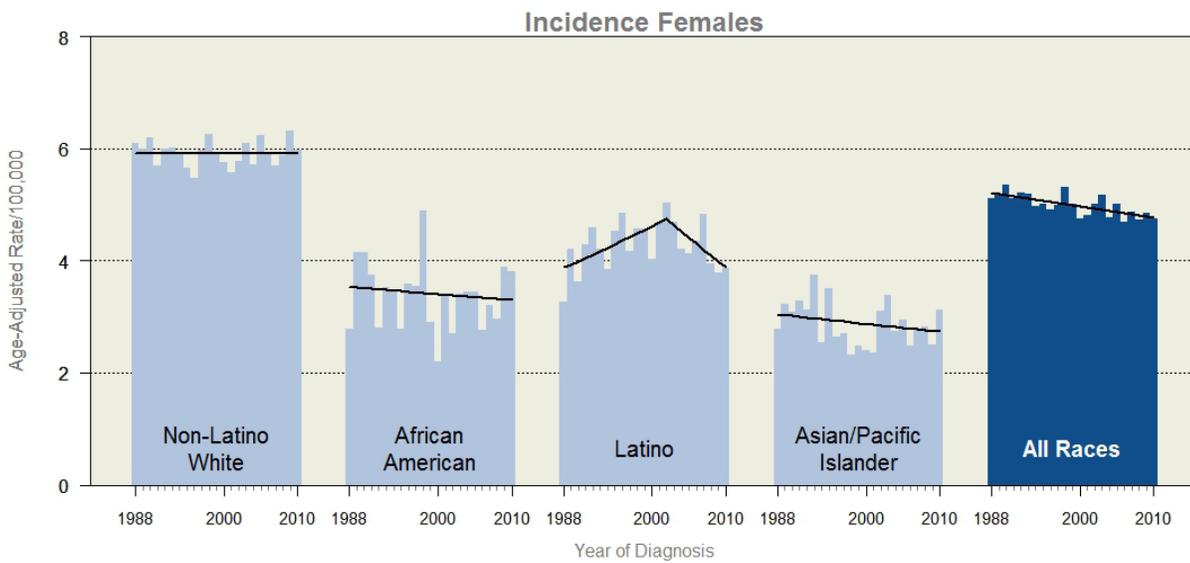
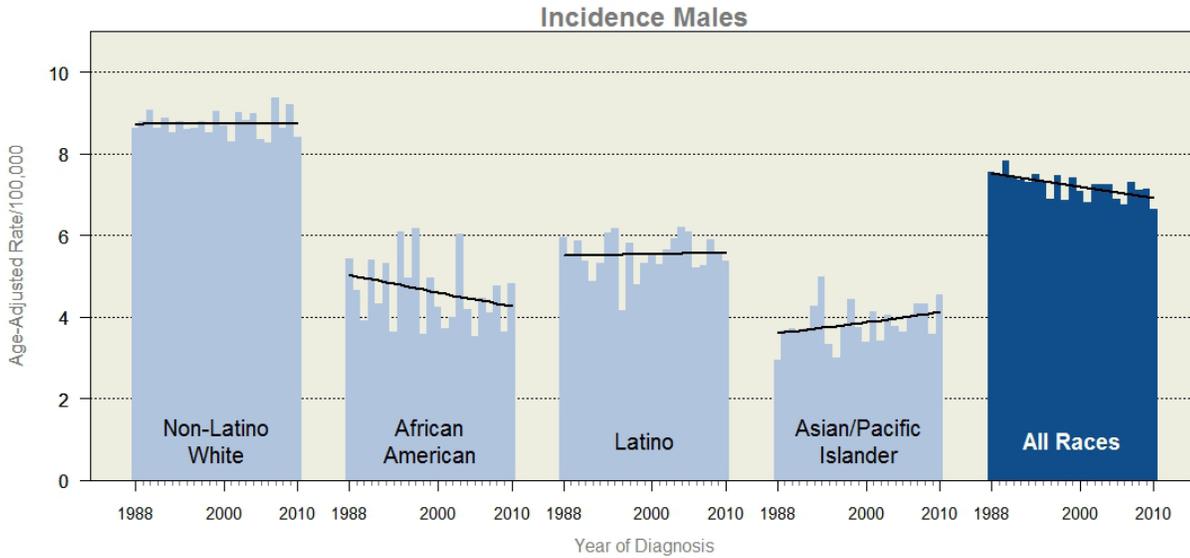
Ten-Year Average Annual Percent Change (AAPC) and Overall Percent Change in Age-Adjusted Cancer Incidence and Mortality Rates by Race/Ethnicity and Sex in California, 2001-2010:  
Brain and Central Nervous System

Race/Ethnicity	INCIDENCE			MORTALITY		
	AAPC	Overall % Change		AAPC	Overall % Change	
Male and female						
All Races Combined	-0.4	-3.9	↓	-0.8	-7.7	
Male						
Non-Latino White	0.0	0.0		-0.3	-3.0	
African American	-0.7	-6.8		-2.6	-23.2	
Latino	0.1	1.0		-0.2	-2.0	
Asian/Pacific Islander	0.6	6.2		0.8	8.3	
All Races Combined	-0.4	-3.9	↓	-0.6	-5.8	
Female						
Non-Latino White	0.0	0.0		-0.5	-4.9	
African American	-0.3	-3.0		4.7	58.3	
Latino	-2.1	-19.1	↓	-1.3	-12.3	
Asian/Pacific Islander	-0.5	-4.9		2.3	25.5	
All Races Combined	-0.4	-3.9	↓	-0.7	-6.8	

↑ Statistically significant increase      ↓ Statistically significant decrease

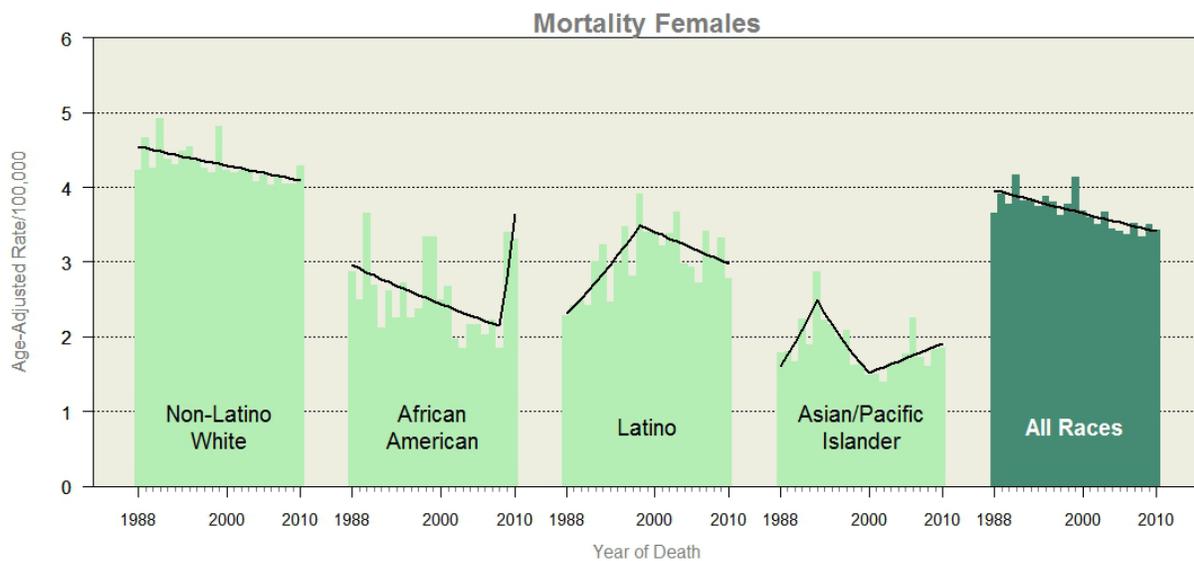
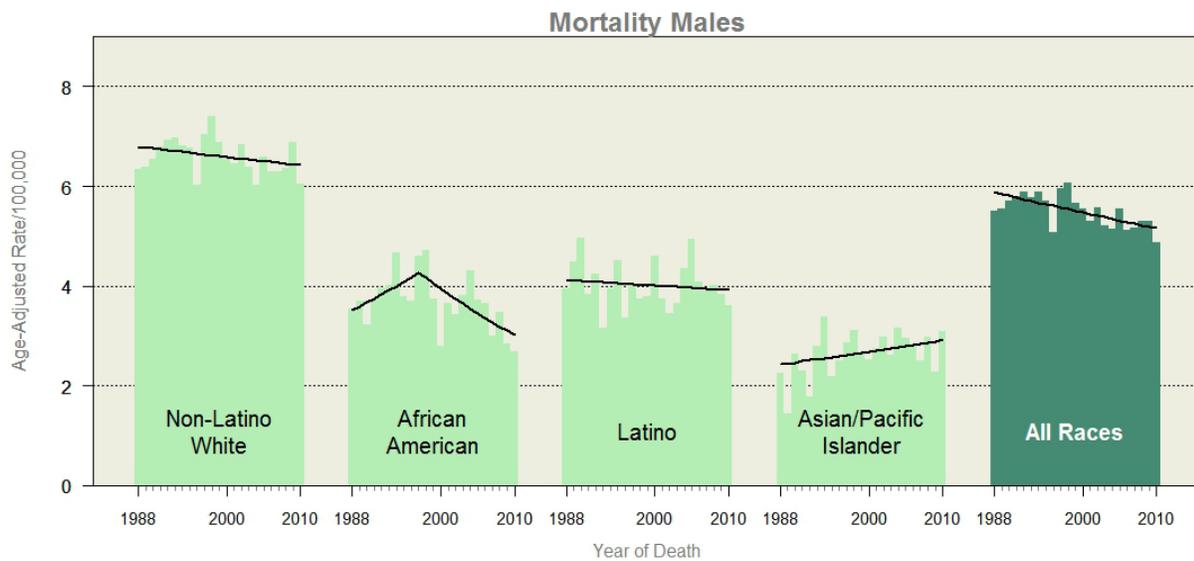
Source of data: California Cancer Registry, California Department of Public Health  
Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Trends in Age-Adjusted Incidence Rates by Race/Ethnicity in California, 1988-2010:  
Brain and Central Nervous System Cancer**



Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for  
 Population Health Improvement, UC Davis Health System

**Trends in Age-Adjusted Mortality Rates by Race/Ethnicity in California, 1988-2010:  
Brain and Central Nervous System Cancer**



Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

## BREAST CANCER (FEMALE)

Breast cancer is the most common female cancer in California and the U.S. In 2010, 28,978 California women were diagnosed with breast cancer (23,520 with invasive and 5,458 with in situ tumors) and 4,225 died from the disease.

The risk of developing breast cancer increases with age, with most cases developing in women after menopause. Breast cancer rates vary by race/ethnicity. White women are more likely to develop breast cancer, but African-American women are more likely to die from it. The cause of breast cancer is not known, and it is likely that multiple factors influence the development of the disease, although many women having no apparent risk factors develop breast cancer. The following factors increase a woman's risk of developing breast cancer:

- Personal history of breast cancer or diagnosis of atypical hyperplasia of the breast
- History of breast cancer in a first-degree relative (i.e., mother, sister, daughter)
- Genetic mutations to BRCA1, BRCA2, and other breast cancer genes
- Long time exposure to estrogen (e.g., onset of menstruation before age 12, menopause after age 55, first pregnancy after age 30, or never having had a full-term pregnancy)
- Use of estrogen hormone replacement therapy
- Lifestyle factors such as obesity, lack of exercise, and alcohol use
- High doses of radiation, particularly from puberty through child bearing years

### Trends in Incidence and Mortality in California, 1988 through 2010

Trends for female breast cancer varied markedly by race/ethnicity. Among white women, for whom breast cancer incidence had slightly increased since 1988, trends declined sharply from 2001 through 2004 but have again increased in recent years. Incidence rates for in situ cancers in white women, which are detected mostly through screening, increased sharply until 1999 and then more slowly through 2010. Mortality rates declined steadily. Rates in 2010 were 45 percent lower than in 1988.

Among African Americans, the incidence of invasive breast cancer increased significantly (7 percent). Mortality declined among African Americans by almost 20 percent. The incidence of in situ tumors increased at a slower pace since 1995.

Among Latinas, incidence rates of invasive breast cancer increased by about 10 percent until 2000, after which trends have fluctuated without a clear pattern. Rates of in situ tumors increased until 2005, but less in recent years. Mortality rates among Latinas decreased by about 1.3 percent per year, for an overall decrease of 25 percent during the period.

The incidence of invasive breast cancer among Asian/Pacific Islanders increased steadily by about 1.1 percent per year (27 percent overall). Incidence of in situ tumors increased sharply in this group until 2002, after which there has not been a clear pattern. Mortality rates declined among Asian/Pacific Islanders, but not as much as in other racial/ethnic groups.

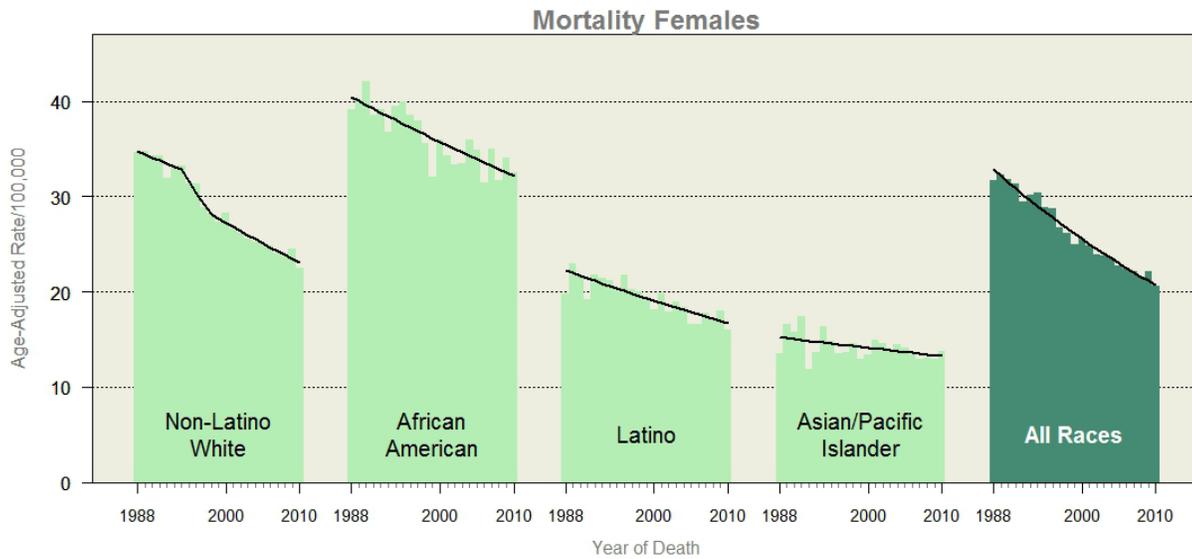
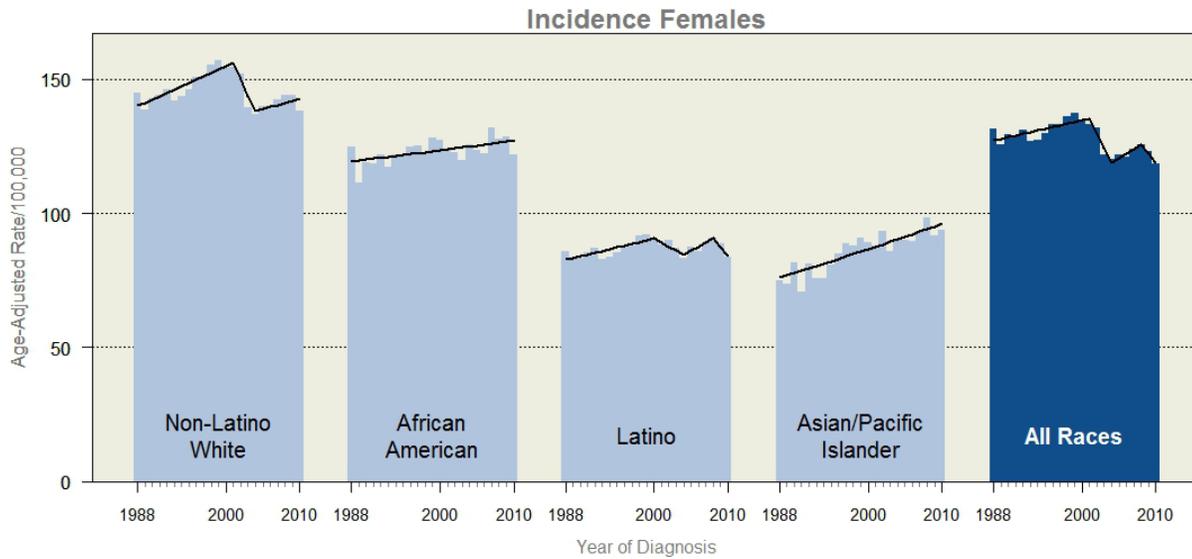
Ten-Year Average Annual Percent Change (AAPC) and Overall Percent Change in Age-Adjusted Cancer Incidence and Mortality Rates by Race/Ethnicity and Sex in California, 2001-2010:  
**Breast (Female)**

Race/Ethnicity	INCIDENCE			MORTALITY		
	AAPC	Overall % Change		AAPC	Overall % Change	
<b>Invasive</b>						
Non-Latino White	-1.0	-9.6		-1.6	-14.9	↓
African American	0.3	3.0	↑	-1.0	-9.6	↓
Latino	-0.6	-5.8		-1.3	-12.3	↓
Asian/Pacific Islander	1.1	11.6	↑	-0.6	-5.8	↓
All Races Combined	-1.4	-13.2		-2.1	-19.1	↓
<b>In Situ</b>						
Non-Latino White	1.1	11.6	↑	...	...	
African American	2.7	30.5	↑	...	...	
Latino	1.3	13.8		...	...	
Asian/Pacific Islander	2.4	26.8		...	...	

↑ Statistically significant increase    ↓ Statistically significant decrease    ... Mortality data not available

Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Trends in Age-Adjusted Incidence and Mortality Rates by Race/Ethnicity in California, 1988-2010:  
Breast (Female)**



Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

## CERVIX UTERI CANCER

In 2010, 1,432 California women were diagnosed with invasive cervical cancer, and 474 women died from the disease. Incidence rates of cervical cancer in California are highest among Latinas and lowest among whites. The most important risk factor for cervical cancer is infection with human papillomavirus (HPV), which is transmitted primarily through sexual intercourse. Two HPV vaccines are currently available to protect against infection with the two HPV types (16 and 18) most commonly responsible for cervical cancer. Proper use of these vaccines has the potential to markedly reduce the burden of cervical cancer. Women who smoke, or whose mothers were given diethylstilbestrol during pregnancy, are also at increased risk for cervical cancer. Screening via regular gynecologic examinations and Pap smears followed by treatment of precancerous abnormalities decreases the incidence and mortality of cervical cancer.

### Trends in Incidence and Mortality in California, 1988 through 2010

Incidence and mortality rates for cervical cancer declined among all racial/ethnic groups. Among Latinas and African-American women, incidence declined steeply; cervical cancer rates in 2010 were less than half of those in 1988. Incidence rates among Asian/Pacific Islander women declined sharply between 1994 and 2000, then less so. Mortality rates due to cervical cancer decreased significantly in women of all racial/ethnic groups, ranging from 37 percent among Latinas to almost 60 percent among Asian/Pacific Islanders.

Survey data from the Centers for Disease Control and Prevention show that 80.8% of California women in 2010 had a Pap smear test within the past three years. The Healthy People 2010 goal was that at least 90% of women would have reported having a recent Pap test.

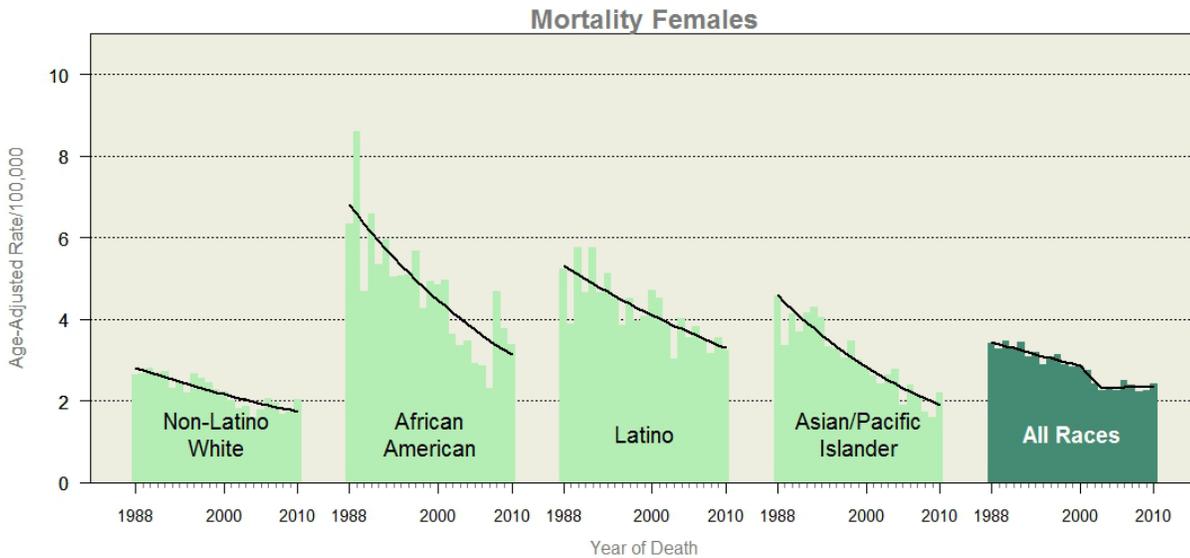
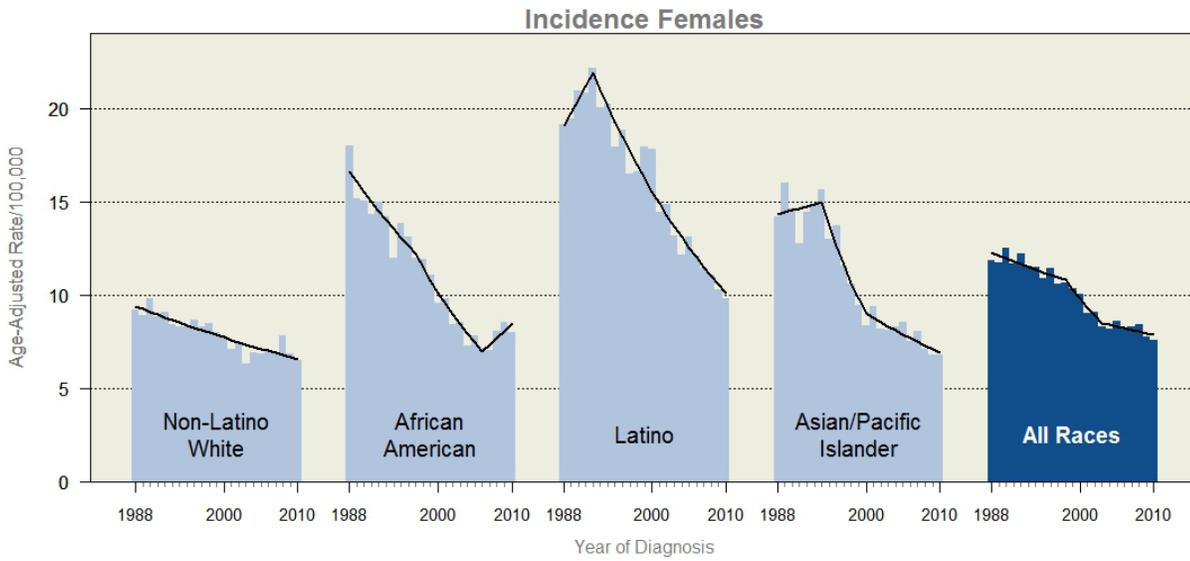
### Ten-Year Average Annual Percent Change (AAPC) and Overall Percent Change in Age-Adjusted Cancer Incidence and Mortality Rates by Race/Ethnicity and Sex in California, 2001-2010: Cervix Uteri

Race/Ethnicity	INCIDENCE			MORTALITY		
	AAPC	Overall % Change		AAPC	Overall % Change	
Female						
Non-Latino White	-1.6	-14.9	↓	-2.2	-19.9	↓
African American	-1.3	-12.3		-3.5	-30.0	↓
Latino	-4.2	-34.9	↓	-2.1	-19.1	↓
Asian/Pacific Islander	-2.6	-23.2	↓	-4.0	-33.5	↓
All Races Combined	-1.9	-17.5	↓	-1.4	-13.2	

↑ Statistically significant increase      ↓ Statistically significant decrease

Source of data: California Cancer Registry, California Department of Public Health  
Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Trends in Age-Adjusted Incidence and Mortality Rates by Race/Ethnicity in California, 1988-2010:  
Cervix Uteri**



Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for  
 Population Health Improvement, UC Davis Health System

## COLON AND RECTUM CANCER

Cancer of the colon and rectum is the third most commonly diagnosed cancer in California, and the third most common cause of cancer death. In 2010, 15,025 Californians were diagnosed with colorectal cancer (14,575 invasive and 450 in situ tumors), and 5,134 died from the disease. Rates of invasive colorectal cancer are highest among African Americans, followed by whites.

Tumors often begin in adenomas, i.e., noncancerous growths or polyps that may develop on the inner wall of the colon and rectum, as people get older. Colorectal cancer can often be prevented through regular screening by colonoscopy, which can identify and remove precancerous polyps. Regular screening also allows colorectal cancers to be detected early, when treatment is more likely to be successful.

The cause of colorectal cancer is not known, but the following factors increase the risk of developing the disease:

- Increased age - more than 90 percent of colorectal cancers occur in people over 50
- Presence of adenomas in the colon and rectum (if not removed)
- Family history of colorectal cancer in a first-degree relative (i.e., parents, siblings, or children).
- Smoking and, possibly, a diet high in animal fat
- Inherited conditions such as hereditary nonpolyposis colon cancer and familial adenomatous polyposis.
- Ulcerative colitis or Crohn's disease

### Trends in Incidence and Mortality in California, 1988 through 2010

#### *Colon and Rectum Cancer*

Significant and pronounced declines in incidence and mortality rates of cancers of the colon and rectum were observed, although trends followed slightly different patterns. For men, decreases in incidence were more pronounced among whites (particularly after 2000) than among African Americans and Asian/Pacific Islanders. Incidence rates among Latino men remained stable during the period. Decreases in incidence for women, although slightly smaller than among males, were statistically significant in all racial/ethnic groups. In contrast with Latino men, Latinas experienced a small but significantly decreased incidence.

Overall, rates of in situ colorectal cancer declined by over 60 percent. Rates declined sharply and significantly among men and women of all major racial/ethnic groups, suggesting that Californians have increasingly followed screening recommendations for the disease. Survey data from the Centers for Disease Control and Prevention show that the percent of California adults who ever had a sigmoidoscopy or colonoscopy increased from 46.6 percent in 1997 to 61.5 percent in 2010.

Mortality rates declined steeply in all groups (40 percent among men and by 39 percent among women), except Latino men, for whom the rates were unchanged. These declines are consistent with the increase in colorectal cancer screening rates in California. Mortality rates among Latinas remained unchanged until 2006, but then declined by 21 percent in the subsequent five years. Latinos had the lowest 2010 screening rates for colorectal cancer in all racial/ethnic groups in California

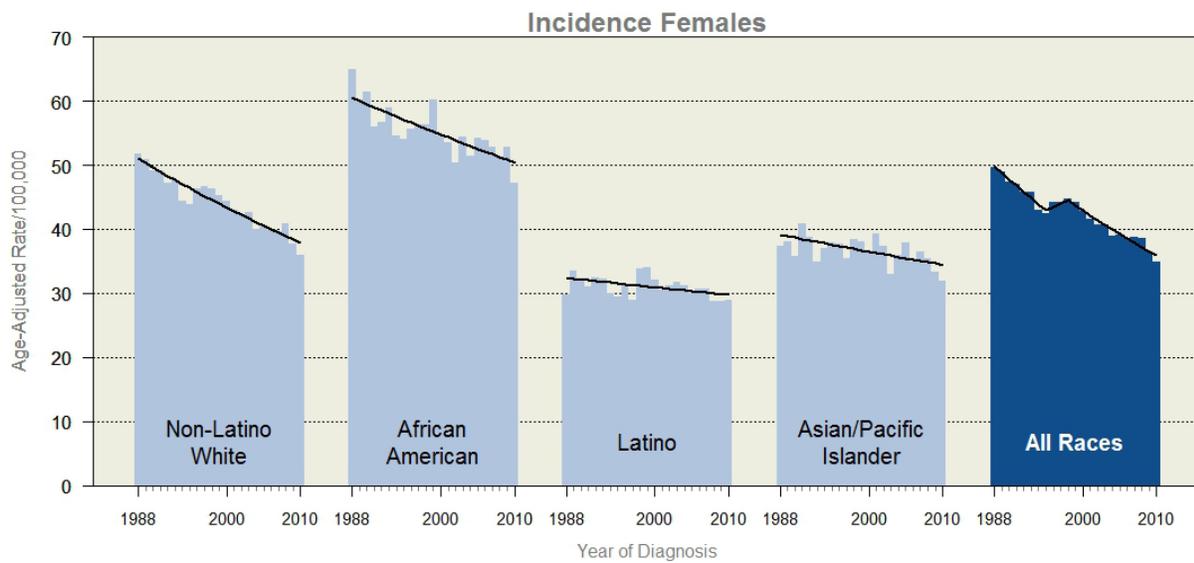
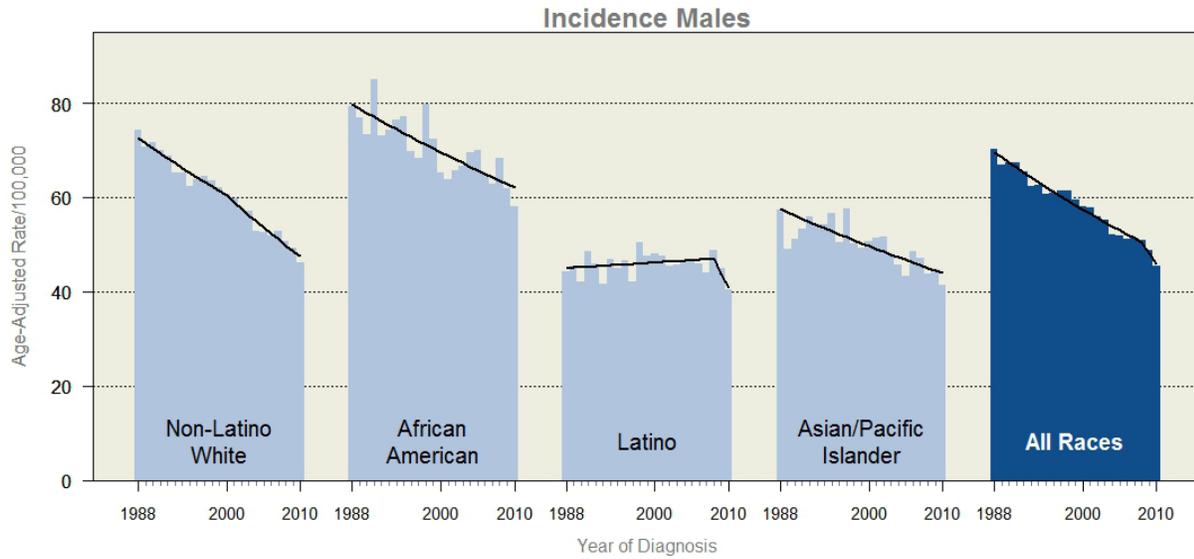
Ten-Year Average Annual Percent Change (AAPC) and Overall Percent Change in Age-Adjusted Cancer Incidence and Mortality Rates by Race/Ethnicity and Sex in California, 2001-2010:  
**Colon and Rectum**

Race/Ethnicity	INCIDENCE			MORTALITY		
	AAPC	Overall % Change		AAPC	Overall % Change	
<b>Invasive</b>						
Male and Female						
All Races Combined	-1.9	-17.5	↓	-2.1	-19.1	↓
Male						
Non-Latino White	-2.4	-21.6	↓	-2.5	-22.4	↓
African American	-1.1	-10.5	↓	-1.4	-13.2	↓
Latino	-1.4	-13.2		-0.2	-2.0	
Asian/Pacific Islander	-1.2	-11.4	↓	-1.9	-17.5	↓
All Races Combined	-2.3	-20.8	↓	-2.3	-20.8	↓
Female						
Non-Latino White	-1.3	-12.3	↓	-2.2	-19.9	↓
African American	-0.8	-7.7	↓	-1.7	-15.8	↓
Latino	-0.4	-3.9	↓	-2.7	-23.9	↓
Asian/Pacific Islander	-0.6	-5.8	↓	-1.6	-14.9	↓
All Races Combined	-1.8	-16.6	↓	-2.2	-19.9	↓
<b>In Situ</b>						
Male and Female						
All Races Combined	-4.2	-34.9	↓	...	...	
Male						
Non-Latino White	-5.0	-40.1	↓	...	...	
African American	-2.6	-23.2	↓	...	...	
Latino	-2.0	-18.3	↓	...	...	
Asian/Pacific Islander	-2.8	-24.7	↓	...	...	
All Races Combined	-4.5	-36.9	↓	...	...	
Female						
Non-Latino White	-4.3	-35.6	↓	...	...	
African American	-2.5	-22.4	↓	...	...	
Latino	-2.4	-21.6	↓	...	...	
Asian/Pacific Islander	-1.6	-14.9	↓	...	...	
All Races Combined	-3.9	-32.8	↓	...	...	

↑ Statistically significant increase    ↓ Statistically significant decrease    ... Mortality data not available

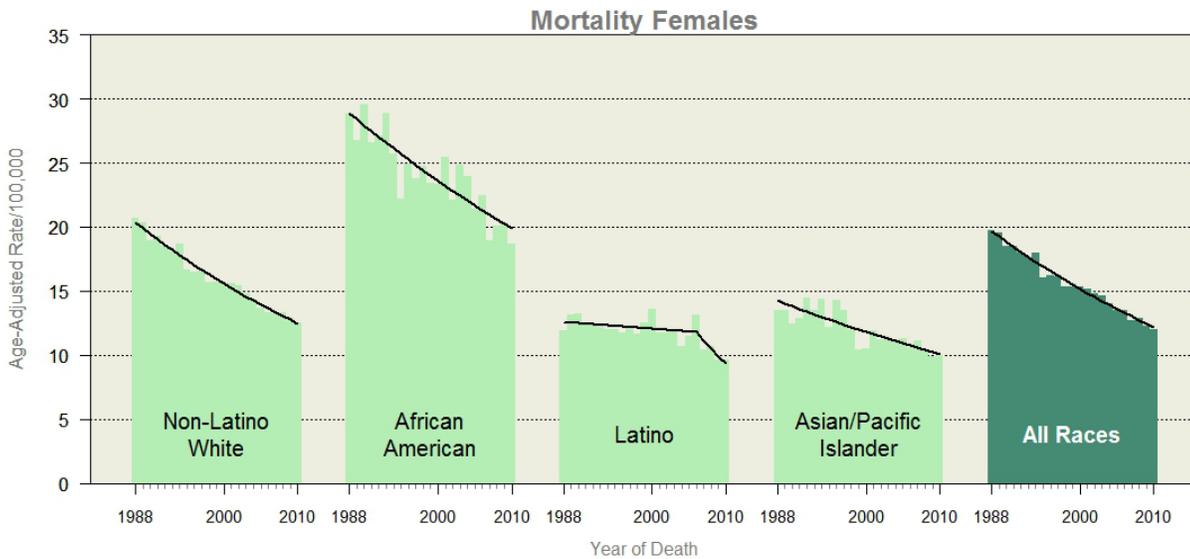
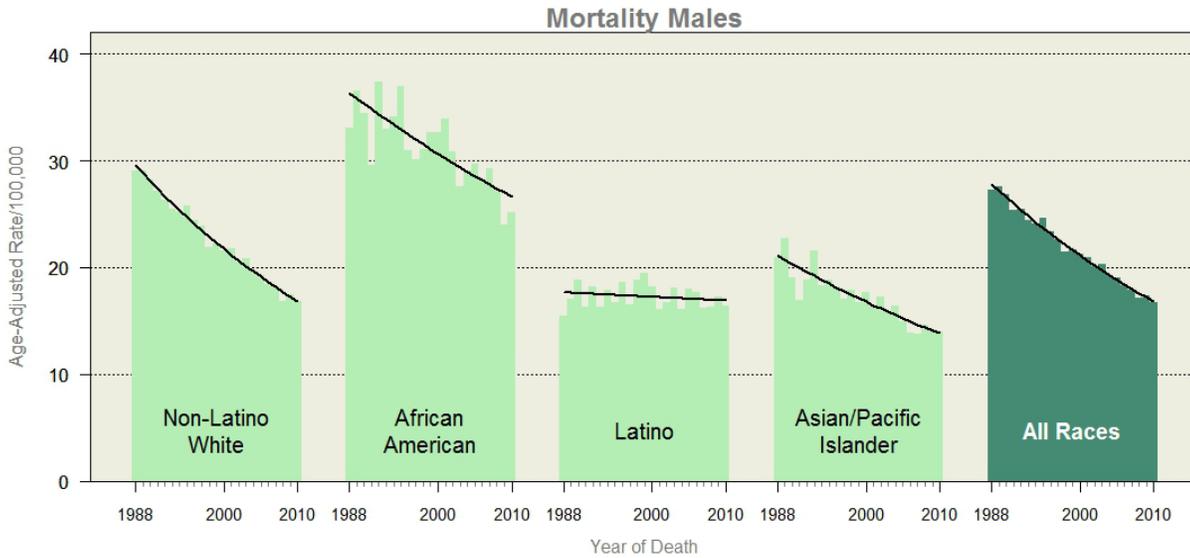
Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

Trends in Age-Adjusted Incidence Rates by Race/Ethnicity in California, 1988-2010:  
**Colon and Rectum**



Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for  
 Population Health Improvement, UC Davis Health System

**Trends in Age-Adjusted Mortality Rates by Race/Ethnicity in California, 1988-2010:  
Colon and Rectum**



Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for  
 Population Health Improvement, UC Davis Health System

## Colon Cancer (Invasive)

The incidence of invasive colon cancer for both men and women decreased significantly among whites and African Americans and among male Asian/Pacific Islanders, but fluctuated without a definite pattern in the other population groups. Mortality rates tended to parallel incidence rates, with significant declines observed in men and women of all racial/ethnic groups except among Latino men, for whom mortality rates remained unchanged.

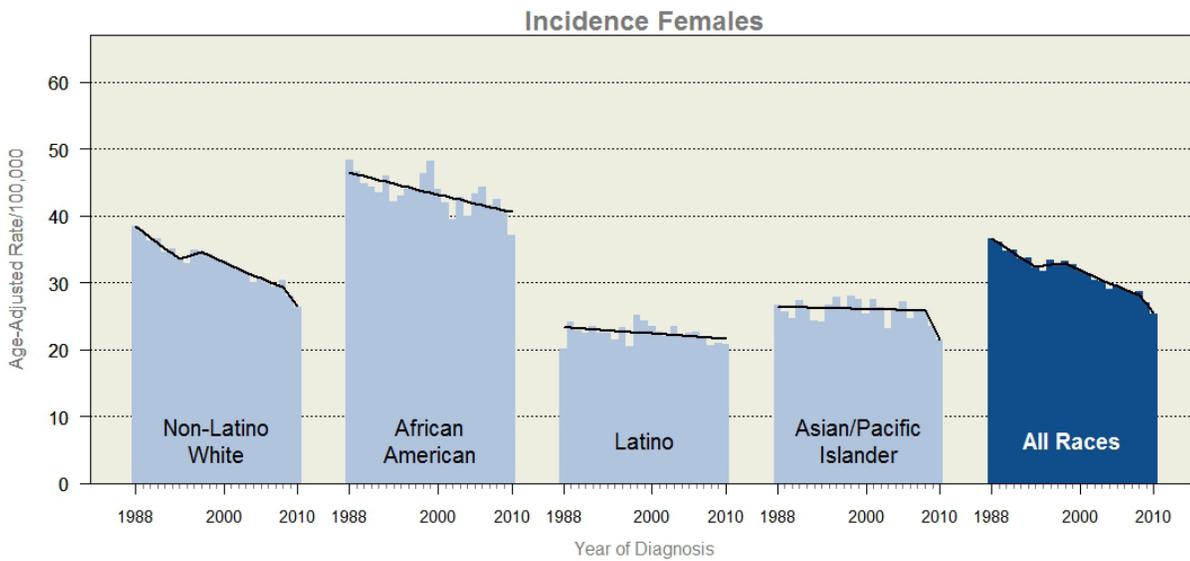
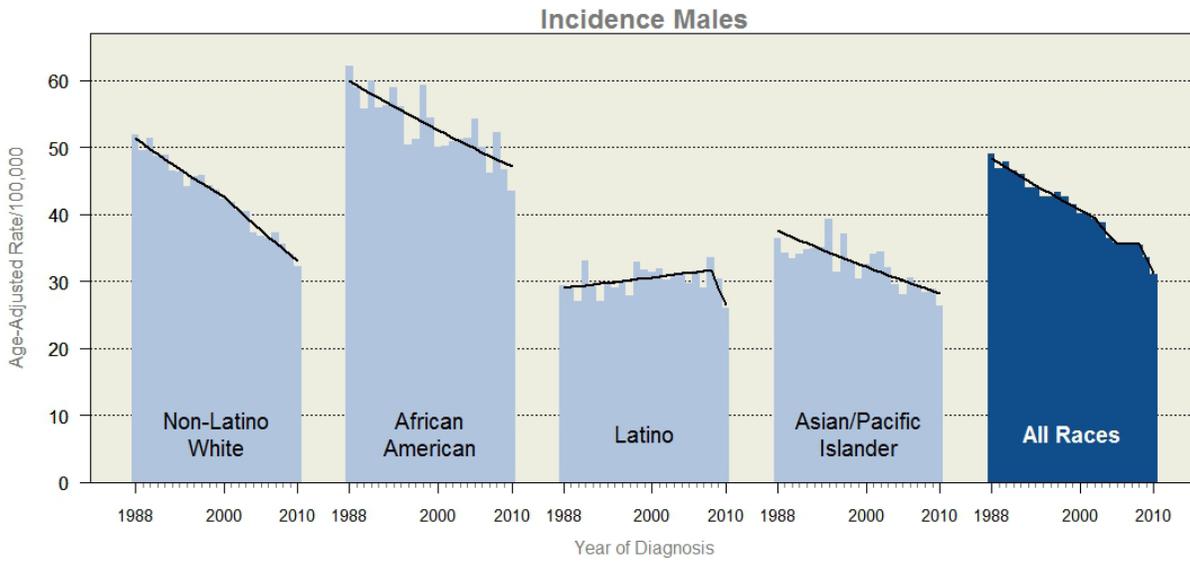
### Ten-Year Average Annual Percent Change (AAPC) and Overall Percent Change in Age-Adjusted Cancer Incidence and Mortality Rates by Race/Ethnicity and Sex in California, 2001-2010: Colon

Race/Ethnicity	INCIDENCE			MORTALITY		
	AAPC	Overall % Change		AAPC	Overall % Change	
Male and Female						
All Races Combined	-2.4	-21.6	↓	-2.8	-24.7	↓
Male						
Non-Latino White	-2.5	-22.4	↓	-2.7	-23.9	↓
African American	-1.1	-10.5	↓	-1.6	-14.9	↓
Latino	-1.6	-14.9		-0.1	-1.0	
Asian/Pacific Islander	-1.3	-12.3	↓	-2.1	-19.1	↓
All Races Combined	-2.8	-24.7	↓	-2.4	-21.6	↓
Female						
Non-Latino White	-2.3	-20.8	↓	-2.4	-21.6	↓
African American	-0.6	-5.8	↓	-1.5	-14.0	↓
Latino	-0.4	-3.9		-3.2	-27.8	↓
Asian/Pacific Islander	-2.1	-19.1		-1.6	-14.9	↓
All Races Combined	-2.3	-20.8	↓	-2.3	-20.8	↓

↑ Statistically significant increase    ↓ Statistically significant decrease

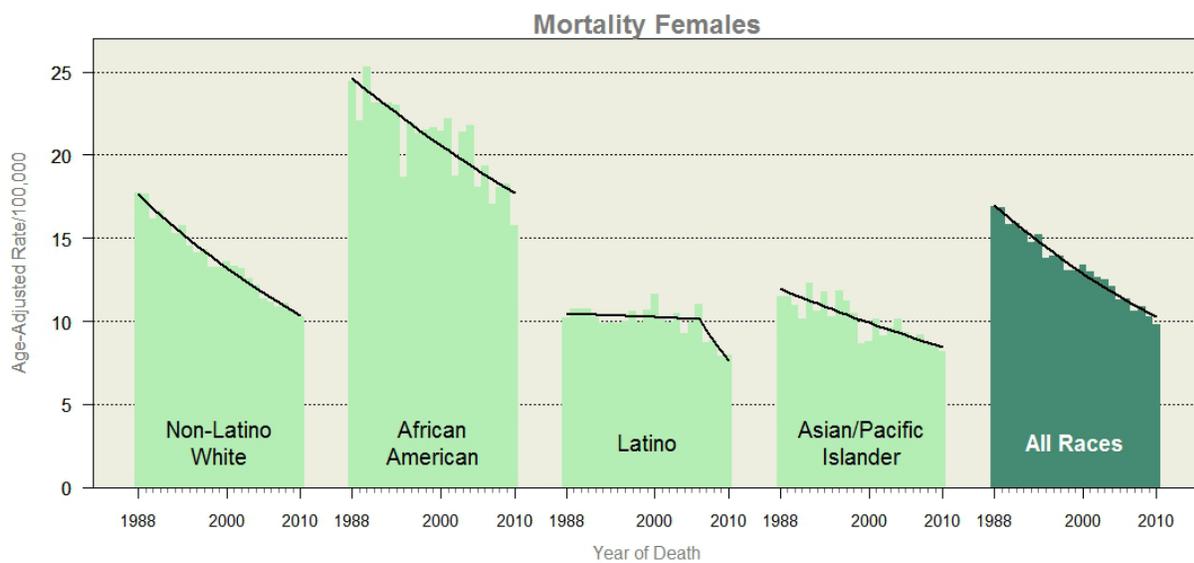
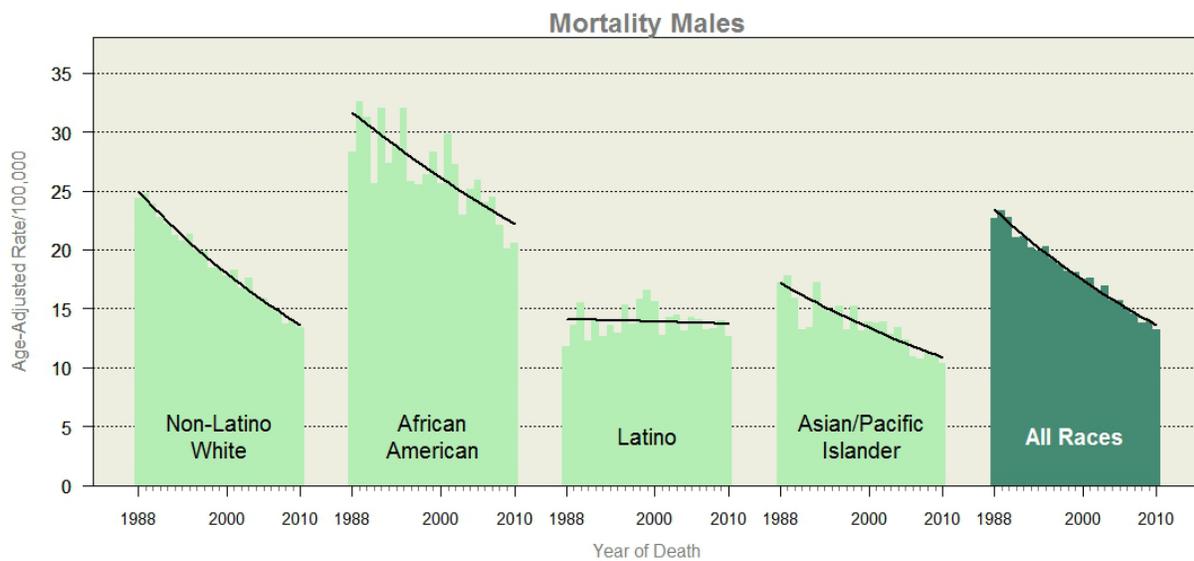
Source of data: California Cancer Registry, California Department of Public Health  
Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

Trends in Age-Adjusted Incidence Rates by Race/Ethnicity in California, 1988-2010:  
**Colon**



Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

Trends in Age-Adjusted Mortality Rates by Race/Ethnicity in California, 1988-2010:  
**Colon**



Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

## Rectum and Rectosigmoid Cancer (Invasive)

Incidence rates of invasive rectal cancer declined significantly among men and women of all racial/ethnic groups except Latino men, for whom incidence did not change significantly. Overall, incidence rates for rectal cancer declined by about 13 percent since 2001. Mortality rates for rectal cancer declined steady and significantly in all Californians except Latino and African-American men.

### Ten-Year Average Annual Percent Change (AAPC) and Overall Percent Change in Age-Adjusted Cancer Incidence and Mortality Rates by Race/Ethnicity and Sex in California, 2001-2010: Rectum and Rectosigmoid

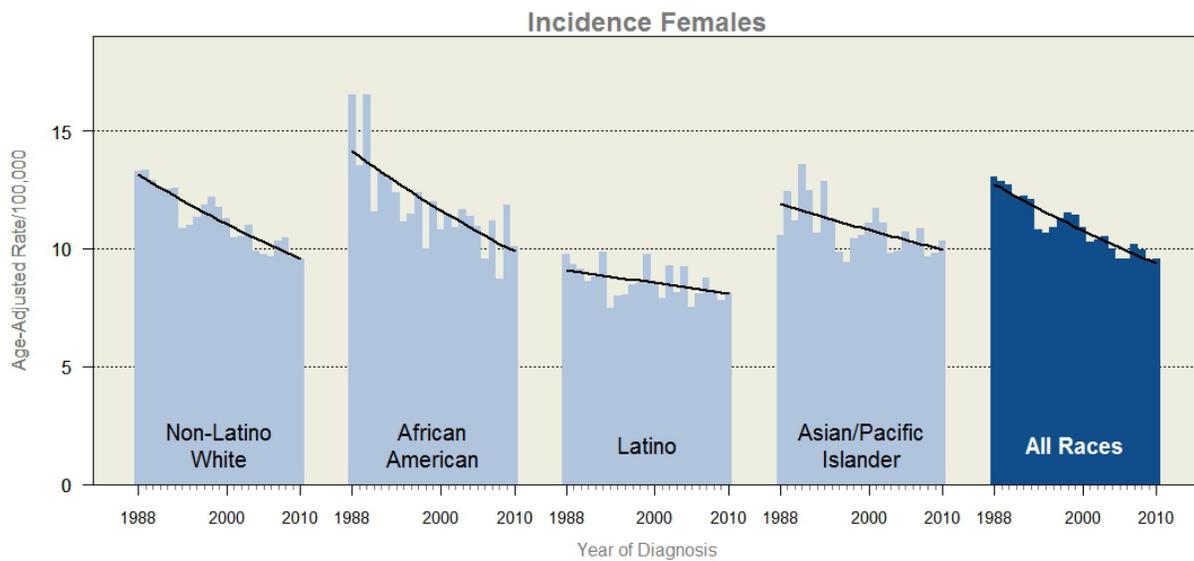
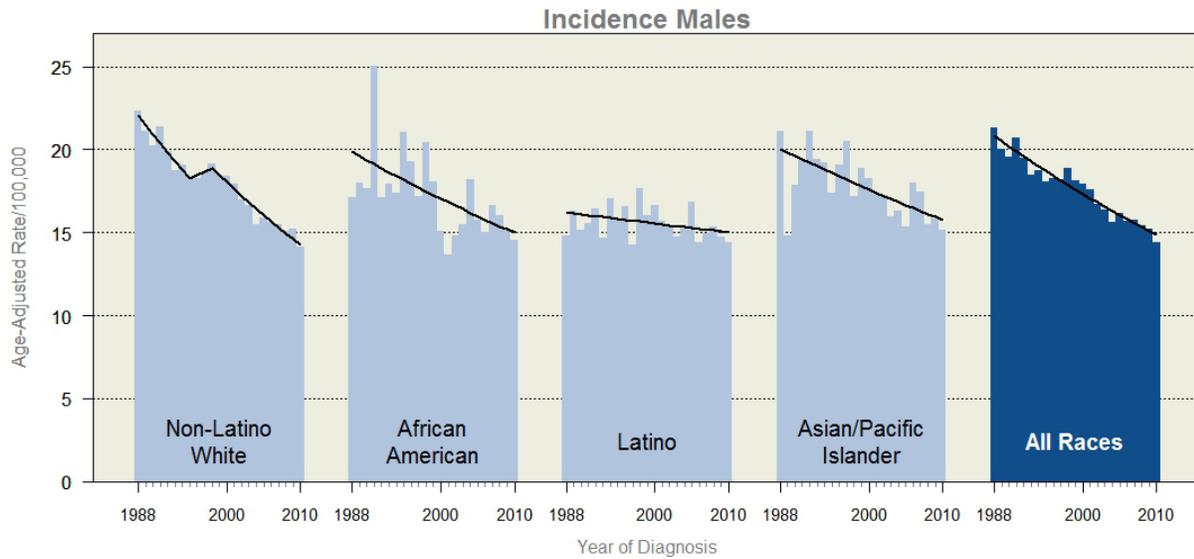
Race/Ethnicity	INCIDENCE			MORTALITY		
	AAPC	Overall % Change		AAPC	Overall % Change	
Male and female						
All Races Combined	-1.4	-13.2	↓	-0.4	-3.9	
Male						
Non-Latino White	-2.3	-20.8	↓	-1.6	-14.9	↓
African American	-1.3	-12.3	↓	-0.3	-3.0	
Latino	-0.4	-3.9		-0.5	-4.9	
Asian/Pacific Islander	-1.1	-10.5	↓	-1.4	-13.2	↓
All Races Combined	-1.5	-14.0	↓	-0.5	-4.9	
Female						
Non-Latino White	-1.4	-13.2	↓	-1.2	-11.4	↓
African American	-1.6	-14.9	↓	-2.9	-25.5	↓
Latino	-0.5	-4.9	↓	-1.1	-10.5	↓
Asian/Pacific Islander	-0.8	-7.7	↓	-1.6	-14.9	↓
All Races Combined	-1.4	-13.2	↓	-1.5	-14.0	↓

↑ Statistically significant increase    ↓ Statistically significant decrease

Source of data: California Cancer Registry, California Department of Public Health

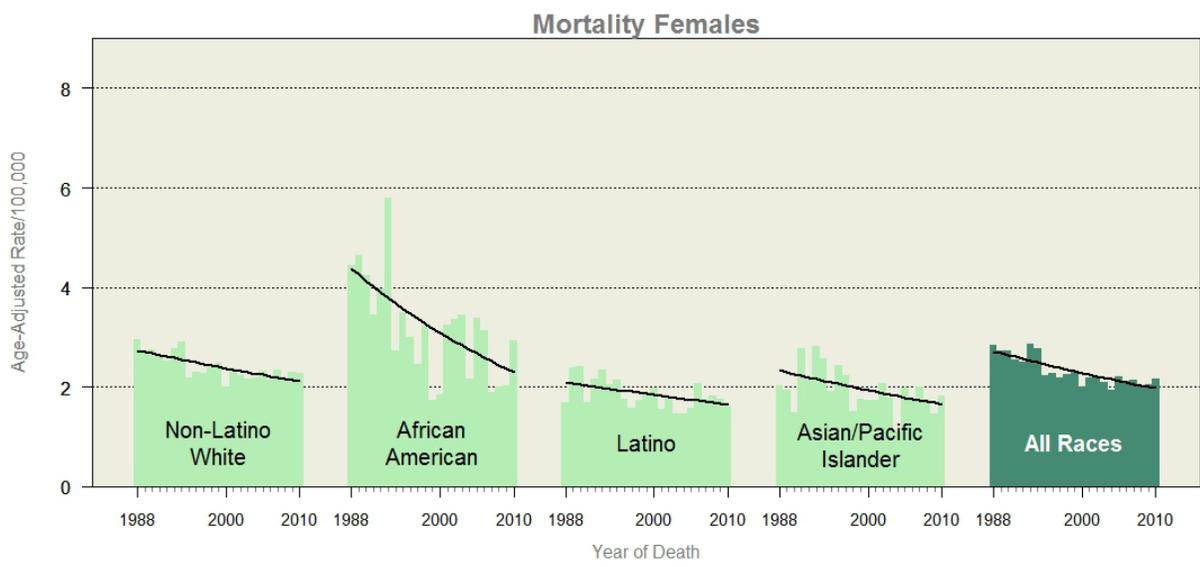
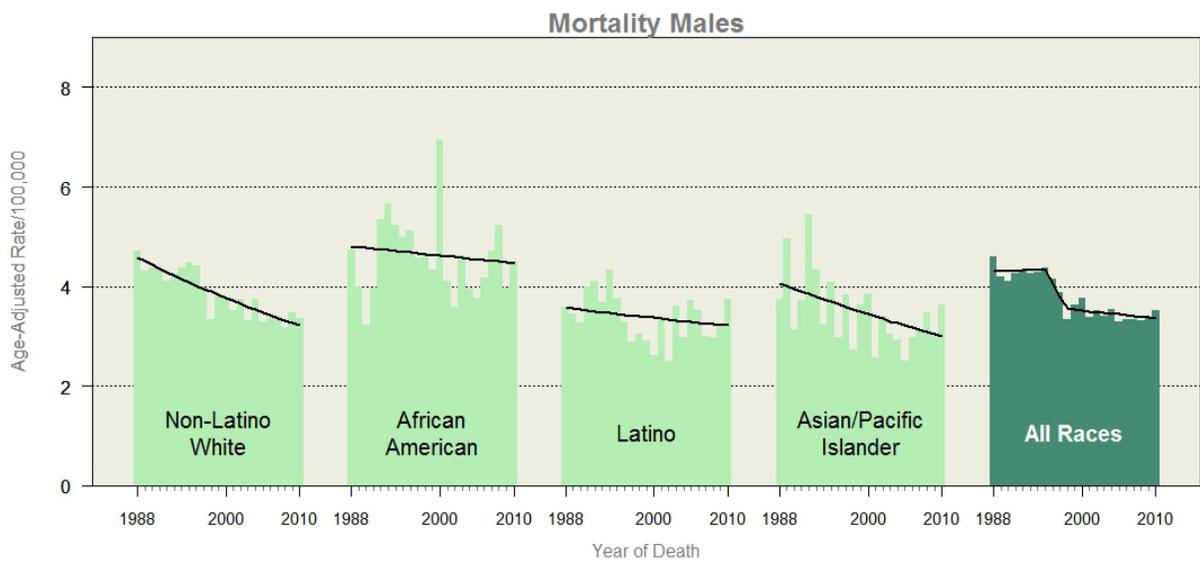
Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Trends in Age-Adjusted Incidence Rates by Race/Ethnicity in California, 1988-2010:  
Rectum and Rectosigmoid**



Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for  
 Population Health Improvement, UC Davis Health System

**Trends in Age-Adjusted Mortality Rates by Race/Ethnicity in California, 1988-2010:  
Rectum and Rectosigmoid**



Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for  
 Population Health Improvement, UC Davis Health System

## ESOPHAGUS CANCER

In 2010, 1,410 Californians were diagnosed with, and 1,246 died from cancer of the esophagus. The two main types of esophageal cancer are squamous cell carcinomas, which occur in the upper esophagus, and adenocarcinomas, which occur in the lower esophagus near the stomach. These two types of esophageal cancer have different risk factors, and their incidence varies by sex and race/ethnicity. The following factors increase the risk of developing esophageal cancer:

### Squamous Cell Carcinomas

- Tobacco use, including smoking cigarettes, cigars, or pipes, and tobacco dipping or chewing
- Alcohol use, especially when combined with tobacco use
- Atrophic gastritis (a condition caused by chronic infection with *Helicobacter pylori*)

### Adenocarcinomas

- Barrett's esophagus (a condition caused by chronic gastroesophageal reflux disease)
- Obesity or severe overweight

## Trends in Incidence and Mortality in California, 1988 through 2010

### *Esophagus Cancer (All Types)*

The incidence of esophageal cancer remained unchanged until 1999, when rates began to decline by about one percent per year. Rates increased significantly (by 2.1 percent) per year among white men, but have been unchanged after 2001. During the last ten years, incidence rates decreased significantly for African-Americans, Asian/Pacific Islander men, and Latinas. The interpretation of these trends is difficult because the two main types of esophageal cancer have distinct risk factors. The trends for the two types of esophageal cancer are presented separately here.

Because death certificates do not distinguish between the two histological types of esophageal cancer, trends in mortality rates are presented for esophageal cancer in the aggregate. Mortality rates for Asian/Pacific Islander and African American men declined sharply (by 46 percent and 66 percent, respectively), while rates among Latino men declined less (by 23 percent since 1993). Mortality rates for white men increased until 2000, but have been unchanged since then. African American women and Latinas experienced significant declines in mortality rates during the entire period, while mortality rates for white women decreased by 18 percent after 1999. Mortality trends for Asian/Pacific Islander women could not be calculated due to the small number of esophageal cancer deaths in this population.

Ten-Year Average Annual Percent Change (AAPC) and Overall Percent Change in Age-Adjusted Cancer Incidence and Mortality Rates by Race/Ethnicity and Sex in California, 2001-2010:  
**Esophagus**

Race/Ethnicity	INCIDENCE			MORTALITY		
	AAPC	Overall % Change		AAPC	Overall % Change	
Male and female						
All Races Combined	-1.0	-9.6	↓	-1.4	-13.2	↓
Male						
Non-Latino White	-0.1	-1.0		-0.4	-3.9	
African American	-4.5	-36.9	↓	-4.8	-38.9	↓
Latino	-0.7	-6.8		-1.5	-14.0	↓
Asian/Pacific Islander	-2.6	-23.2	↓	-2.8	-24.7	↓
All Races Combined	0.1	1.0		-0.4	-3.9	↓
Female						
Non-Latino White	-0.7	-6.8	↓	-1.8	-16.6	↓
African American	-3.1	-27.0	↓	-3.5	-30.0	↓
Latino	-3.8	-32.1	↓	-1.8	-16.6	↓
Asian/Pacific Islander	-0.4	-3.9		-	-	
All Races Combined	-1.3	-12.3	↓	-1.2	-11.4	↓

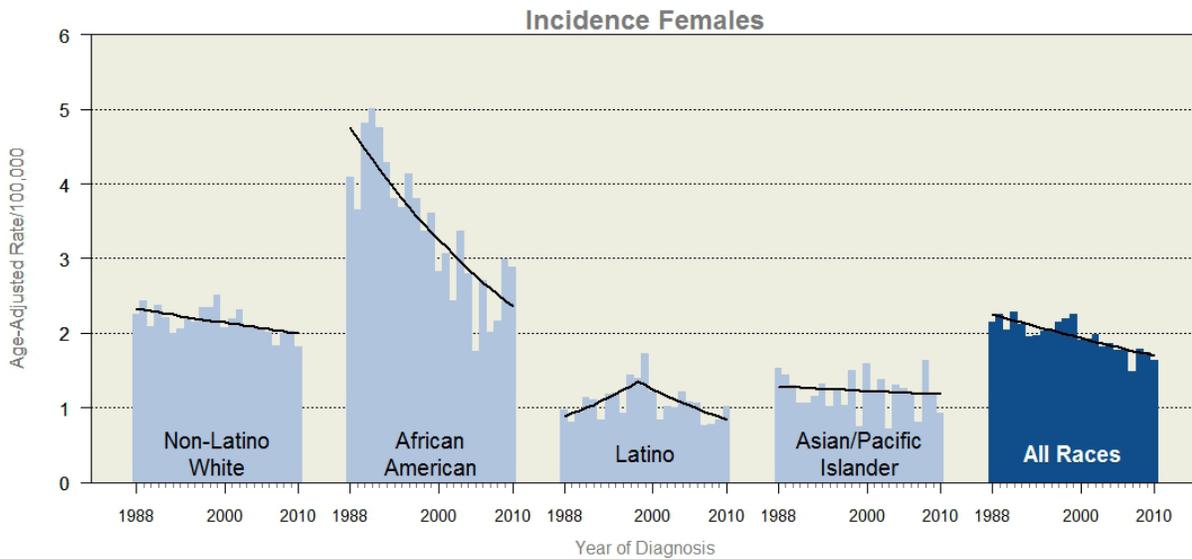
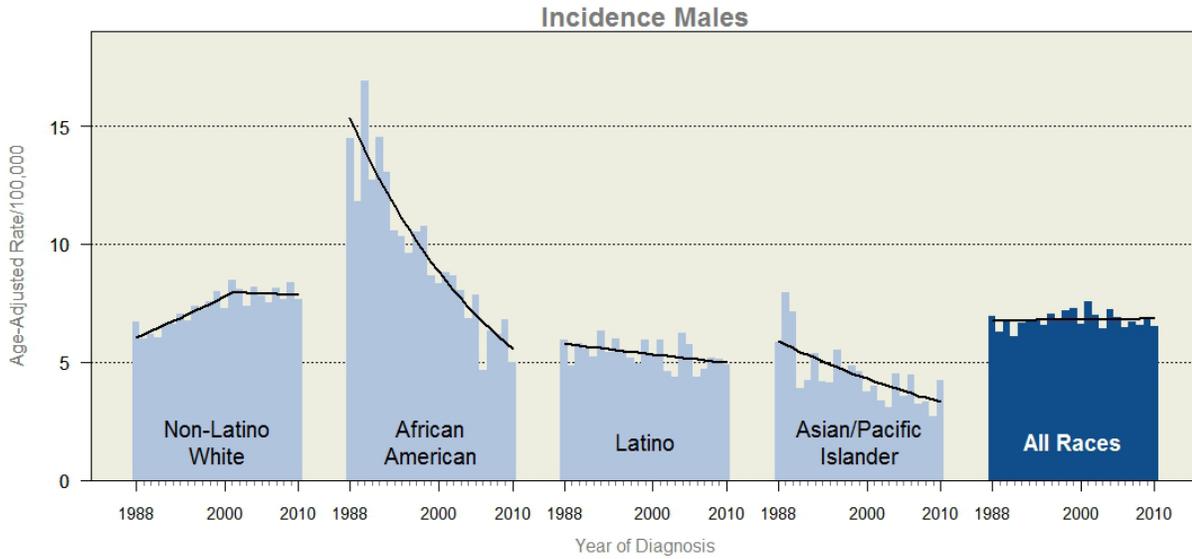
↑ Statistically significant increase      ↓ Statistically significant decrease

- Rates not calculated due to less than 8 deaths per year.

Source of data: California Cancer Registry, California Department of Public Health

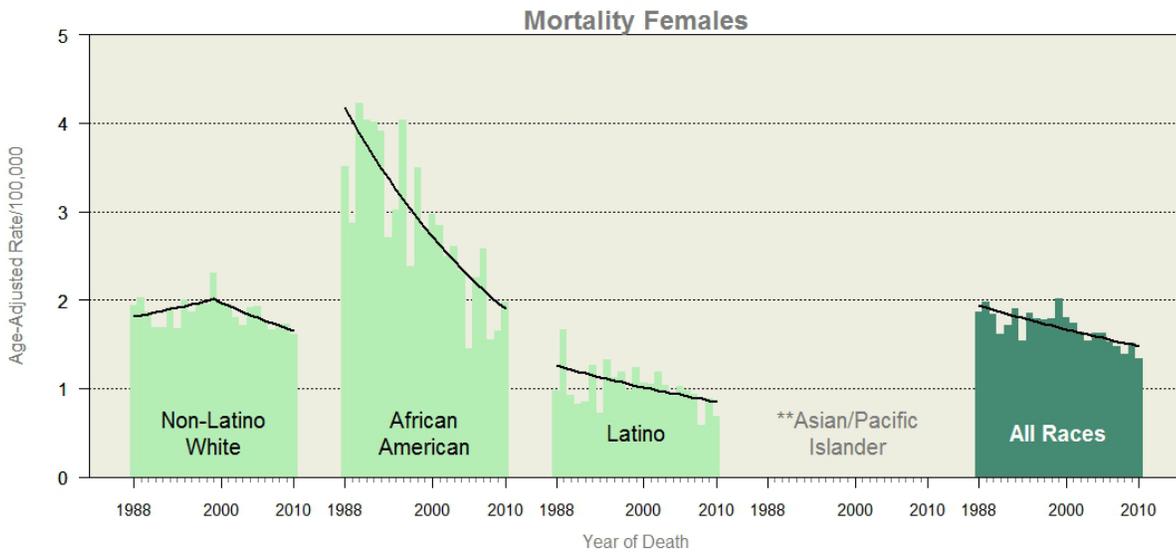
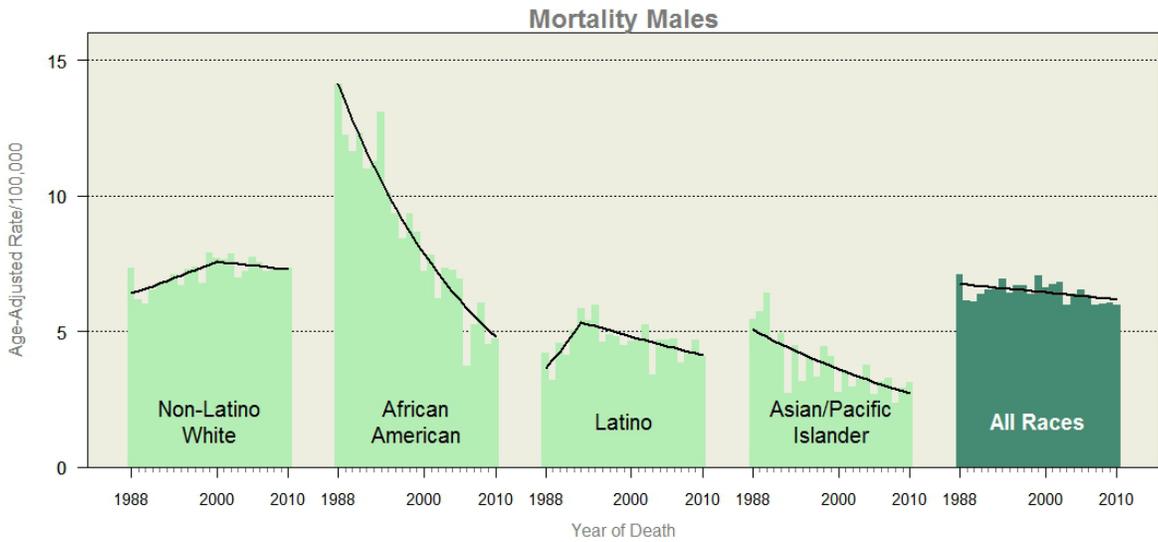
Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Trends in Age-Adjusted Incidence Rates by Race/Ethnicity in California, 1988-2010:  
Esophagus**



Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Trends in Age-Adjusted Mortality Rates by Race/Ethnicity in California, 1988-2010:  
Esophagus**



Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

## Esophagus: Squamous Cell Carcinomas and Adenocarcinomas (Incidence)

Rates of squamous cell carcinoma declined sharply and significantly among men and women of all racial/ethnic backgrounds (except among Asian/Pacific Islander women, for whom trends could not be calculated). Overall incidence declined 48 percent. The decline was most dramatic among African Americans, who have the highest incidence of squamous cell carcinoma in California. These findings are similar to those observed for stomach cancer and are consistent with the decline in tobacco use in California. The percentage of current smokers in California declined from 17.2 in 2001 to 12.1 in 2010 (<http://apps.nccd.cdc.gov/brfss/display.asp?cat=OB&yr=2010&qkey=4409&state=CA>, View Trend Data option).

Due to the small number of adenocarcinomas of the esophagus, trends could not be calculated for all racial/ethnic groups. However, it was evident that incidence rates for these tumors, which are associated with obesity, did not decline. Incidence rates of esophageal adenocarcinomas among Latinos increased significantly (by 15 percent) since 2001. An increased incidence of esophageal adenocarcinomas has been observed in other countries, and it has been suggested that this is at least partly explained by the increasing prevalence of obesity. According to the Centers for Disease Control and Prevention, the percentage of obese Californians increased from 15 percent in 1995 to almost 25 percent in 2010.

### Ten-Year Average Annual Percent Change (AAPC) and Overall Percent Change in Age-Adjusted Cancer Incidence Rates by Race/Ethnicity and Sex in California, 2001-2010: Esophagus: Squamous Cell Carcinoma and Adenocarcinoma

Race/Ethnicity	INCIDENCE					
	AAPC	Overall % Change		AAPC	Overall % Change	
	Squamous Cell Carcinoma			Adenocarcinoma		
Male and female						
All Races Combined	-2.9	-25.5	↓	0.2	2.0	
Male						
Non-Latino White	-2.5	-22.4	↓	0.6	6.2	
African American	-5.9	-45.6	↓	-	-	
Latino	-2.9	-25.5	↓	1.4	14.9	↑
Asian/Pacific Islander	-3.7	-31.4	↓	-	-	
All Races Combined	-3.0	-26.3	↓	0.1	1.0	
Female						
Non-Latino White	-2.5	-22.4	↓	0.0	0.0	
African American	-3.5	-30.0	↓	-	-	
Latino	-2.6	-23.2	↓	-	-	
All Races Combined	-2.8	-24.7	↓	-0.8	-7.7	

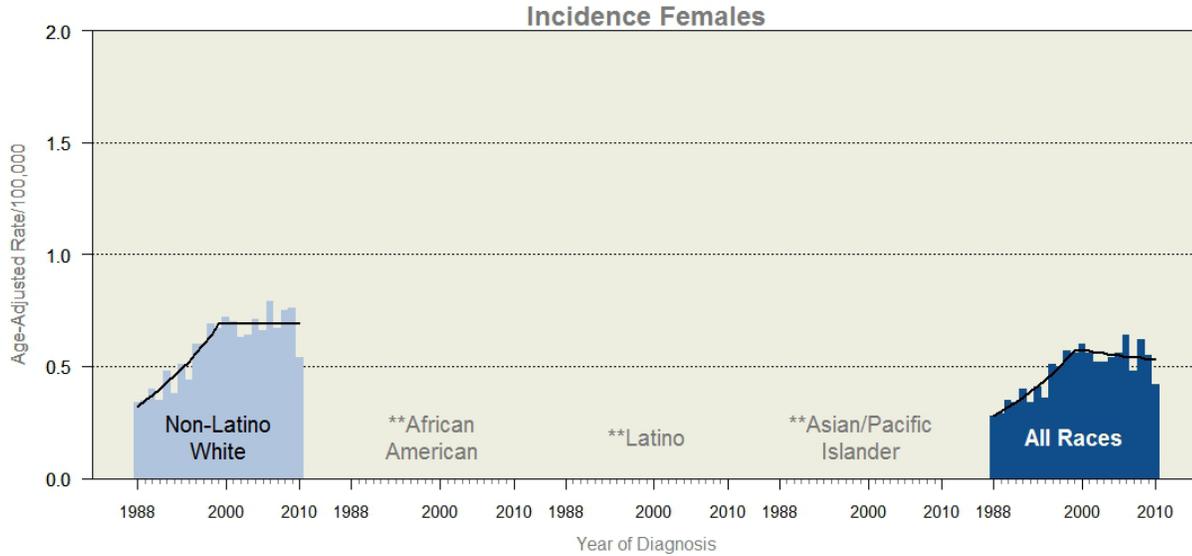
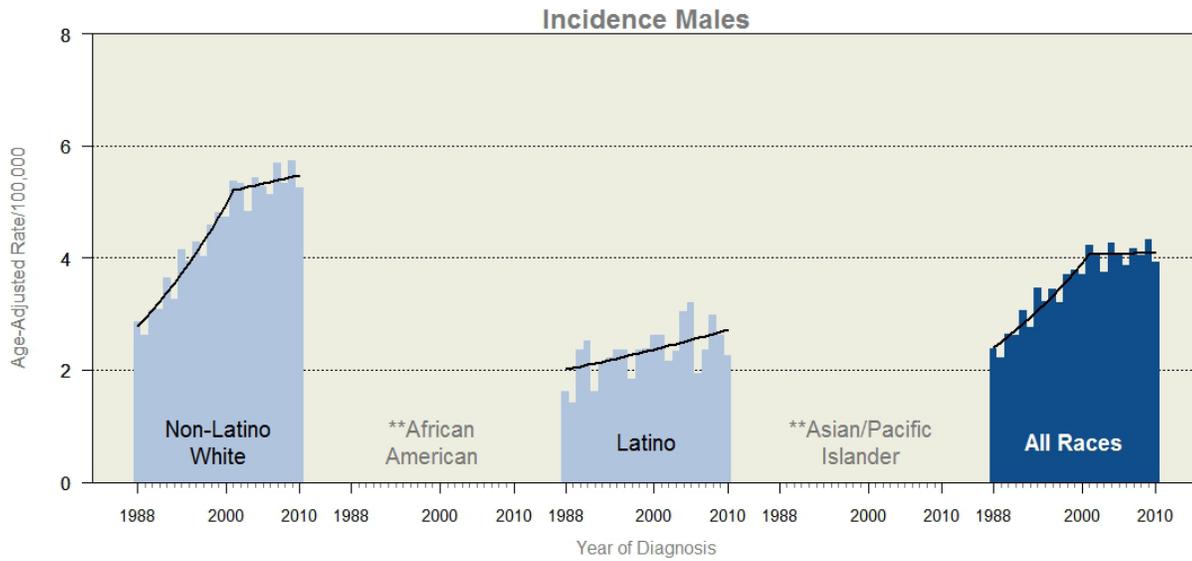
↑ Statistically significant increase      ↓ Statistically significant decrease

- Rates not calculated due to less than 8 deaths per year.

Source of data: California Cancer Registry, California Department of Public Health

Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

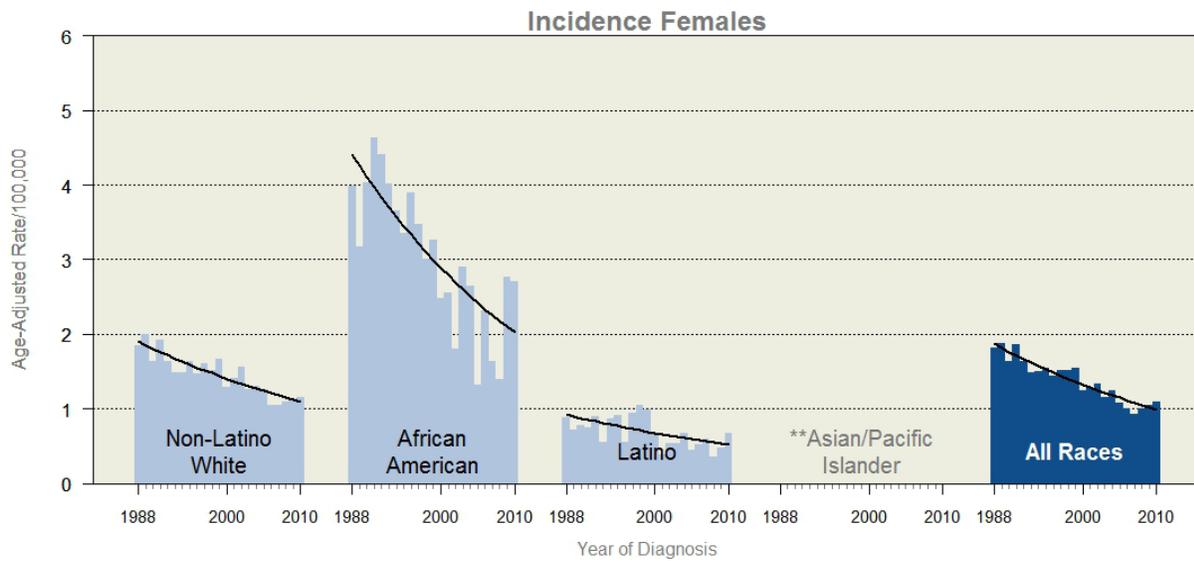
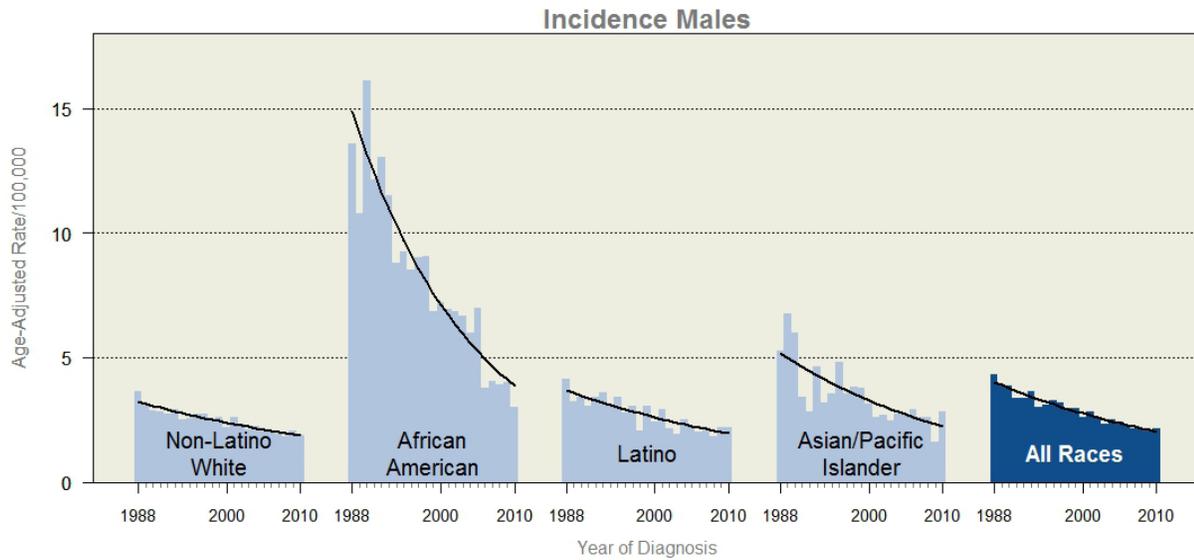
Trends in Age-Adjusted Incidence Rates by Race/Ethnicity in California, 1988-2010:  
**Esophagus: Adenocarcinomas**



\*\* Rates not calculated due to less than 8 cases or deaths per year

Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

Trends in Age-Adjusted Incidence Rates by Race/Ethnicity in California, 1988-2010:  
**Esophagus: Squamous Cell Carcinomas**



\*\* Rates not calculated due to less than 8 cases or deaths per year

Source of data: California Cancer Registry, California Department of Public Health

Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

## HODGKIN LYMPHOMA

Hodgkin lymphoma is a cancer of the immune system characterized by the presence of an abnormal lymphocyte (white blood cell) known as the Reed-Sternberg cell. In 2010, 946 Californians were diagnosed with and 153 died from Hodgkin lymphoma. Hodgkin lymphoma occurs most often in people between the ages of 15 and 35 and in people over age 55. The cause of the disease is not known, but the following factors increase a person's risk of developing Hodgkin lymphoma:

- Infection with the Epstein-Barr virus (EBV) or the human immunodeficiency virus (HIV)
- Weakened immune system (e.g., due to treatment after an organ transplant or certain inherited conditions)
- Family history of Hodgkin disease, particularly in brothers or sisters

### Trends in Incidence and Mortality in California, 1988 through 2010

Incidence rates of Hodgkin lymphoma fluctuated without a statistically significant pattern. White women were the only group for whom a significantly increased incidence was clearly observed. Despite unremarkable incidence trends, Hodgkin lymphoma mortality rates decreased significantly, by 37 percent among men and 31 percent among women.

### Ten-Year Average Annual Percent Change (AAPC) and Overall Percent Change in Age-Adjusted Cancer Incidence and Mortality Rates by Race/Ethnicity and Sex in California, 2001-2010: Hodgkin Lymphoma

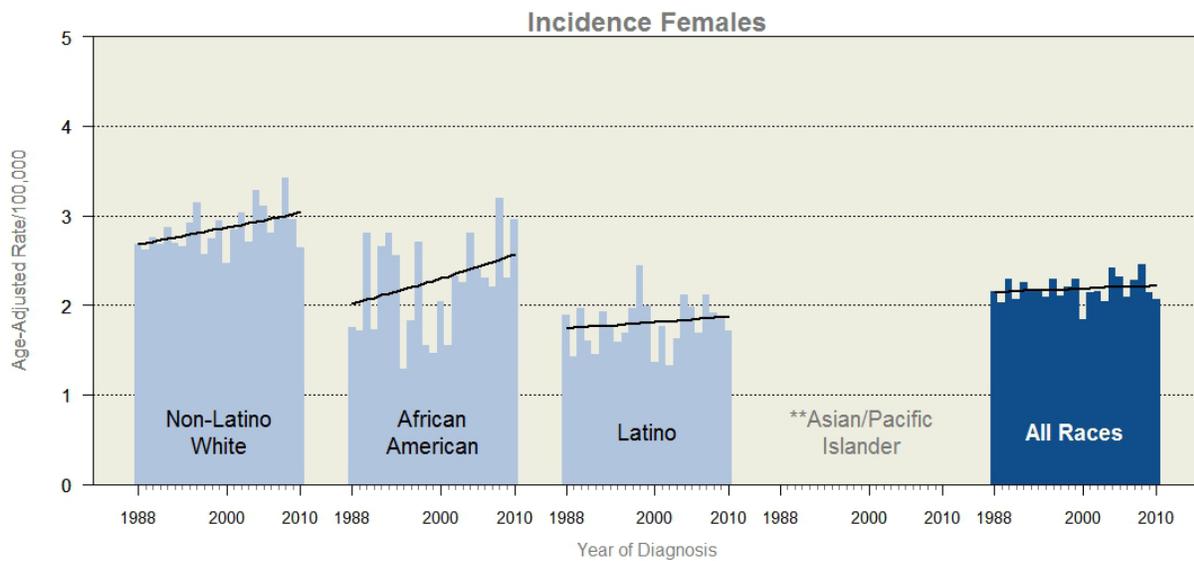
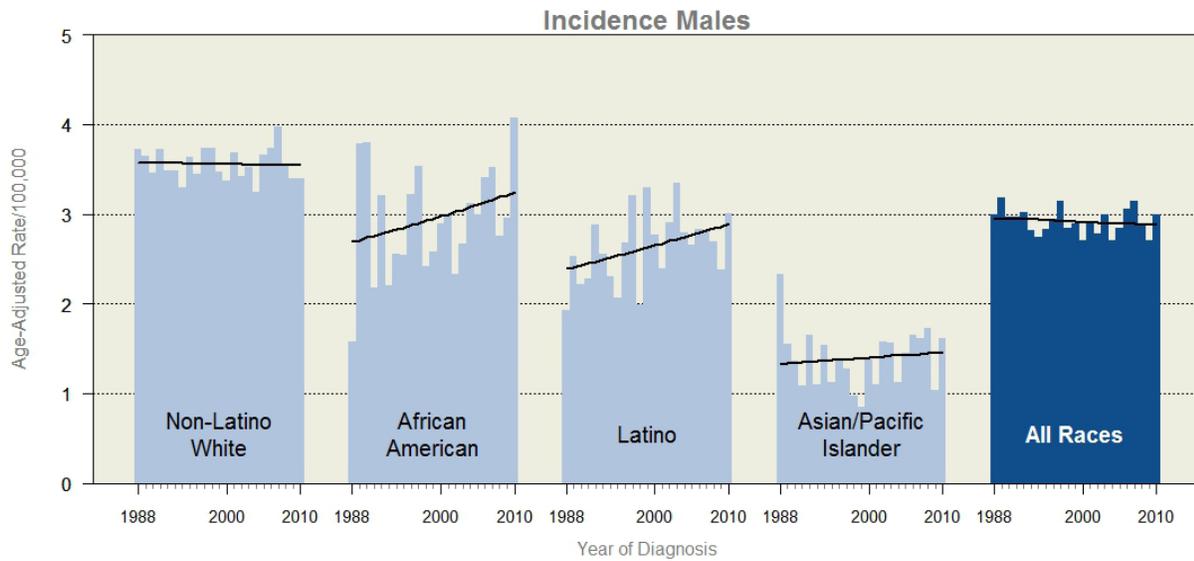
Race/Ethnicity	INCIDENCE			MORTALITY		
	AAPC	Overall % Change		AAPC	Overall % Change	
Male and female						
All Races Combined	0.0	0.0		-2.1	-19.1	↓
Male						
Non-Latino White	0.0	0.0		-2.3	-20.8	↓
African American	0.8	8.3		-	-	
Latino	0.9	9.4		-1.7	-15.8	↓
Asian/Pacific Islander	0.4	4.1		-	-	
All Races Combined	-0.1	-1.0		-2.2	-19.9	↓
Female						
Non-Latino White	0.6	6.2	↑	-1.7	-15.8	↓
African American	1.1	11.6		-	-	
Latino	0.3	3.0		-	-	
All Races Combined	0.2	2.0		-1.7	-15.8	↓

↑ Statistically significant increase    ↓ Statistically significant decrease  
 - Rates not calculated due to less than 8 deaths per year.

Source of data: California Cancer Registry, California Department of Public Health

Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Trends in Age-Adjusted Incidence Rates by Race/Ethnicity in California, 1988-2010:  
Hodgkin Lymphoma**

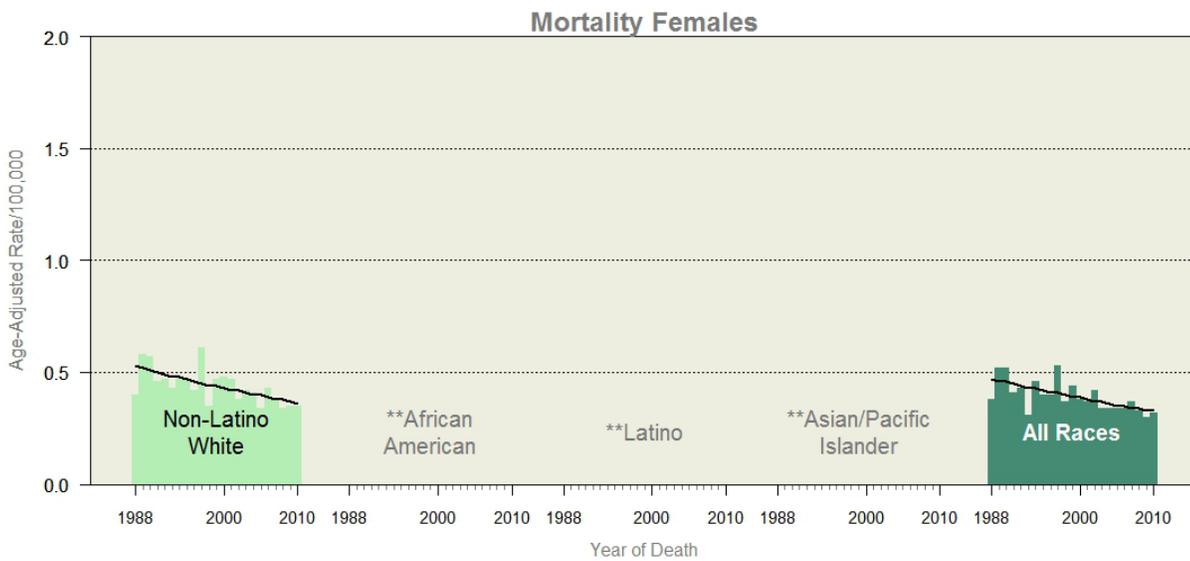
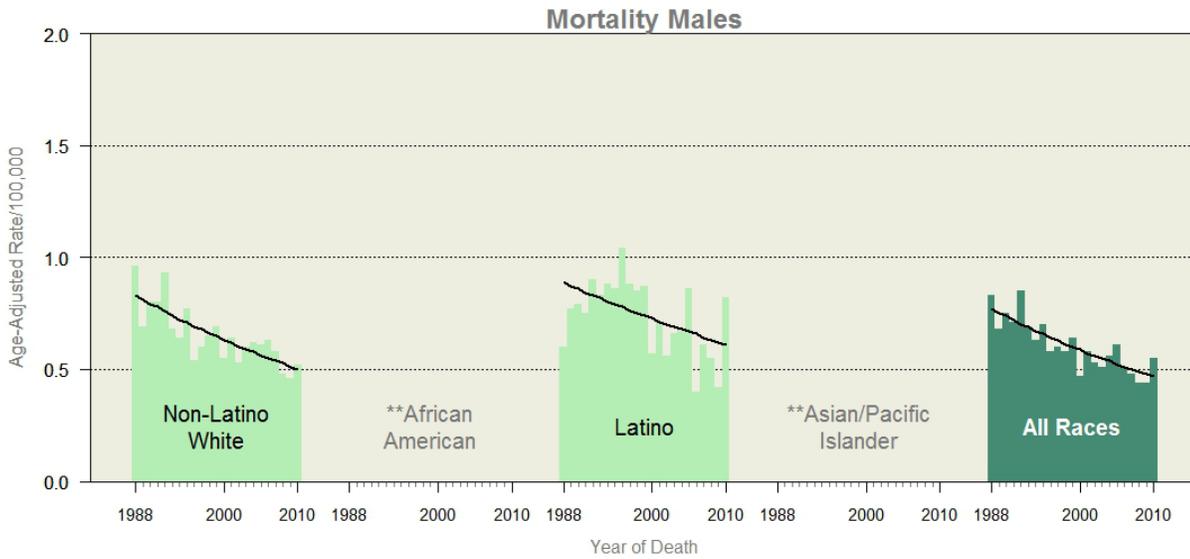


\*\* Rates not calculated due to less than 8 cases or deaths per year

Source of data: California Cancer Registry, California Department of Public Health

Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Trends in Age-Adjusted Mortality Rates by Race/Ethnicity in California, 1988-2010:  
Hodgkin Lymphoma**



\*\* Rates not calculated due to less than 8 cases or deaths per year

Source of data: California Cancer Registry, California Department of Public Health

Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

## KIDNEY AND RENAL PELVIS CANCER

In 2010, 2,252 Californians were diagnosed with kidney cancer, and 1,224 died from it. Kidney cancer is usually diagnosed in people over 40, and occurs two to three times more often in men. The causes of the disease are unknown, but the following factors raise a person's risk of developing kidney cancer:

- Smoking (doubles the risk of developing kidney cancer)
- Obesity
- Hypertension (high blood pressure)
- Long-term dialysis
- Von Hippel-Lindau syndrome (a rare inherited disorder)
- Occupational exposures to asbestos or cadmium

### Trends in Incidence and Mortality in California, 1988 through 2010

The incidence of kidney cancer increased sharply and significantly in both men and women of all race/ethnic groups. In the last ten years, increased incidence rates ranged from 27 percent among Asian/Pacific Islander women to 41 percent among white women. The increased prevalence of obesity in California may help explain the increased incidence (<http://apps.nccd.cdc.gov/brfss/display.asp?cat=TU&yr=2010&qkey=4396&state=CA>, *View Trend Data* option). Mortality rates for kidney cancer did not change significantly except for white men and women, for whom rates decreased significantly by 12 and 18 percent, respectively.

Ten-Year Average Annual Percent Change (AAPC) and Overall Percent Change in Age-Adjusted Cancer Incidence and Mortality Rates by Race/Ethnicity and Sex in California, 2001-2010:  
**Kidney and Renal Pelvis**

Race/Ethnicity	INCIDENCE			MORTALITY		
	AAPC	Overall % Change		AAPC	Overall % Change	
Male and female						
All Races Combined	2.8	31.8	↑	-0.9	-8.6	↓
Male						
Non-Latino White	2.8	31.8	↑	-0.6	-5.8	↓
African American	2.8	31.8	↑	0.4	4.1	
Latino	2.7	30.5	↑	-0.4	-3.9	
Asian/Pacific Islander	2.9	33.1	↑	1.3	13.8	
All Races Combined	2.8	31.8	↑	-0.4	-3.9	↓
Female						
Non-Latino White	3.5	41.1	↑	-0.9	-8.6	↓
African American	2.7	30.5	↑	-1.0	-9.6	
Latino	2.5	28.0	↑	0.3	3.0	
Asian/Pacific Islander	2.4	26.8	↑	-	-	
All Races Combined	2.9	33.1	↑	-0.6	-5.8	↓

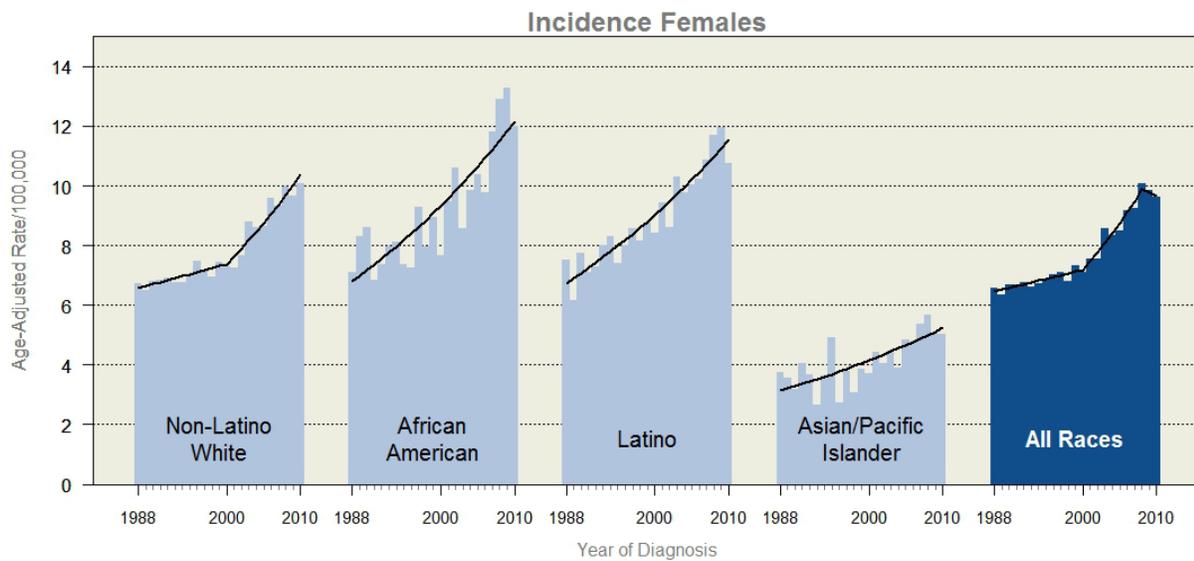
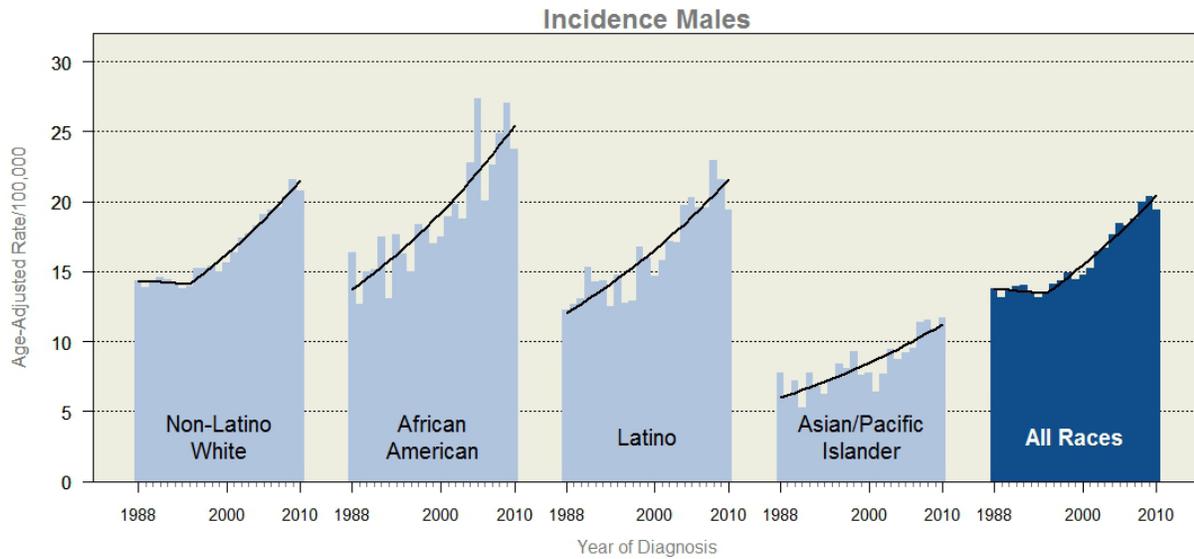
↑ Statistically significant increase    ↓ Statistically significant decrease

- Rates not calculated due to less than 8 deaths per year.

Source of data: California Cancer Registry, California Department of Public Health

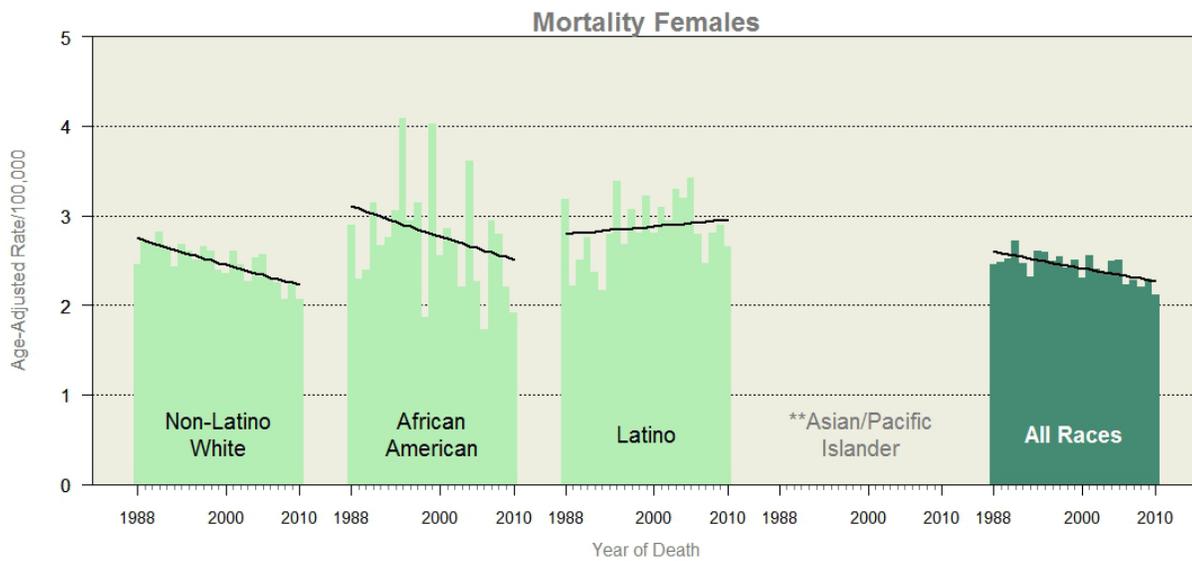
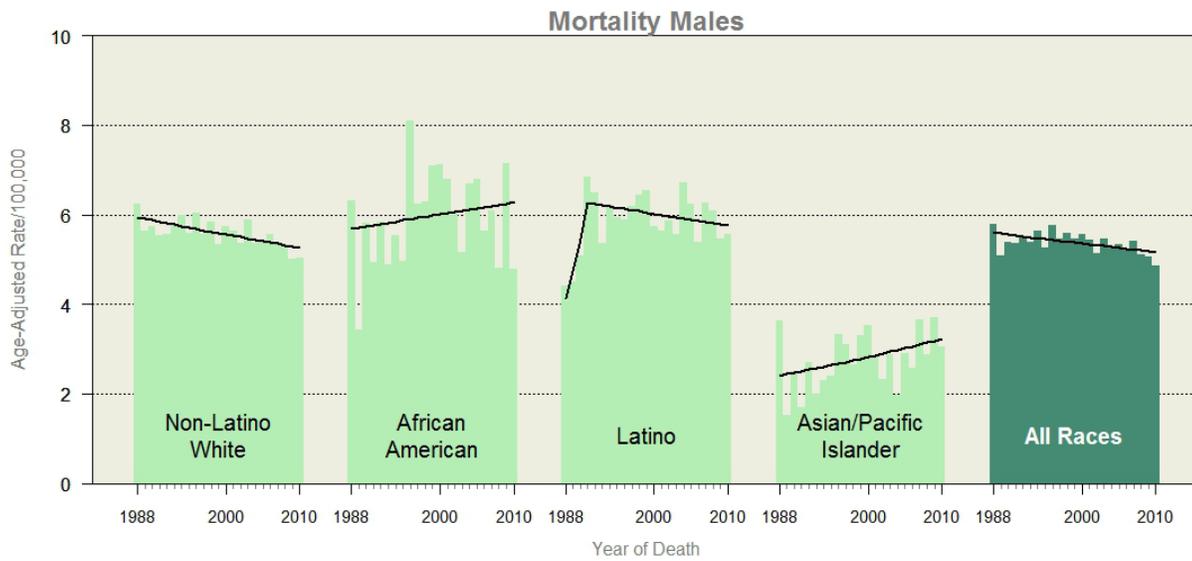
Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Trends in Age-Adjusted Incidence Rates by Race/Ethnicity in California, 1988-2010:  
Kidney and Renal Pelvis**



Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Trends in Age-Adjusted Mortality Rates by Race/Ethnicity in California, 1988-2010:  
Kidney and Renal Pelvis**



\*\* Rates not calculated due to less than 8 cases or deaths per year

Source of data: California Cancer Registry, California Department of Public Health

Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

## LARYNX CANCER

Laryngeal cancer is one of the most common cancers of the head and neck. In 2010, 888 Californians were diagnosed with and 299 died from cancer of the larynx. Men are four to five times more likely than women to develop laryngeal cancer, and African Americans are more likely than whites to develop the disease. Laryngeal cancer is more common in persons over age 55. Factors that can raise a person's risk of developing laryngeal cancer include:

- Tobacco use, including smoking cigarettes, cigars, pipes, and using smokeless tobacco (tobacco use is linked to 85 percent of head and neck cancers.)
- Alcohol consumption, especially when associated with tobacco use
- Gastroesophageal reflux disease (GERD)(i.e., a condition in which stomach acid flows into the esophagus)
- Occupational exposure to sulfuric acid mist, nickel, or asbestos

### Trends in Incidence and Mortality in California, 1988 through 2010

The incidence of cancer of the larynx declined, steadily and significantly, by 3.3 percent per year among Californians of all racial/ethnic groups, corresponding to an overall decline of 52 percent. The decline in incidence rates ranged from 31 percent among Latino men to 54 percent among white women. Consistent with the lower incidence, mortality rates for laryngeal cancer decreased significantly (by 41 percent). These trends are most likely due to the drop in tobacco use rates.

### Ten-Year Average Annual Percent Change (AAPC) and Overall Percent Change in Age-Adjusted Cancer Incidence and Mortality Rates by Race/Ethnicity and Sex in California, 2001-2010:

#### Larynx

Race/Ethnicity	INCIDENCE			MORTALITY		
	AAPC	Overall % Change		AAPC	Overall % Change	
Male and female						
All Races Combined	-3.3	-28.5	↓	-2.4	-21.6	↓
Male						
Non-Latino White	-3.2	-27.8	↓	-2.3	-20.8	↓
African American	-3.3	-28.5	↓	-2.0	-18.3	↓
Latino	-1.7	-15.8	↓	-2.0	-18.3	↓
Asian/Pacific Islander	-3.3	-28.5	↓	-	-	
All Races Combined	-3.2	-27.8	↓	-2.4	-21.6	↓
Female						
Non-Latino White	-3.5	-30.0	↓	-2.3	-20.8	↓
African American	-3.0	-26.3	↓	-	-	
Latino	-2.7	-23.9	↓	-	-	
All Races Combined	-3.9	-32.8	↓	-2.9	-25.5	↓

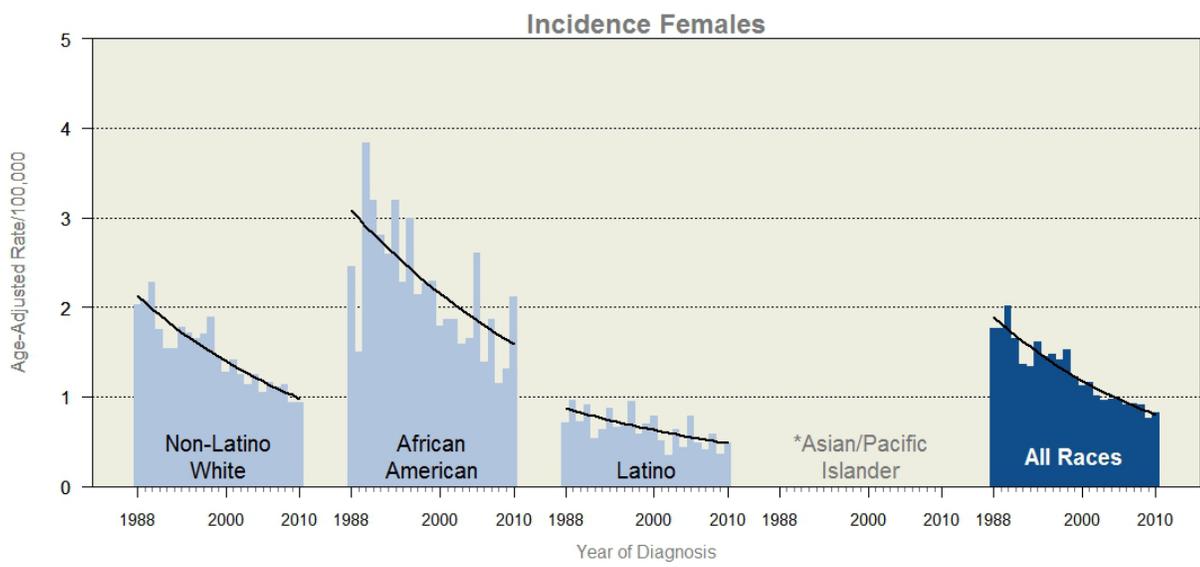
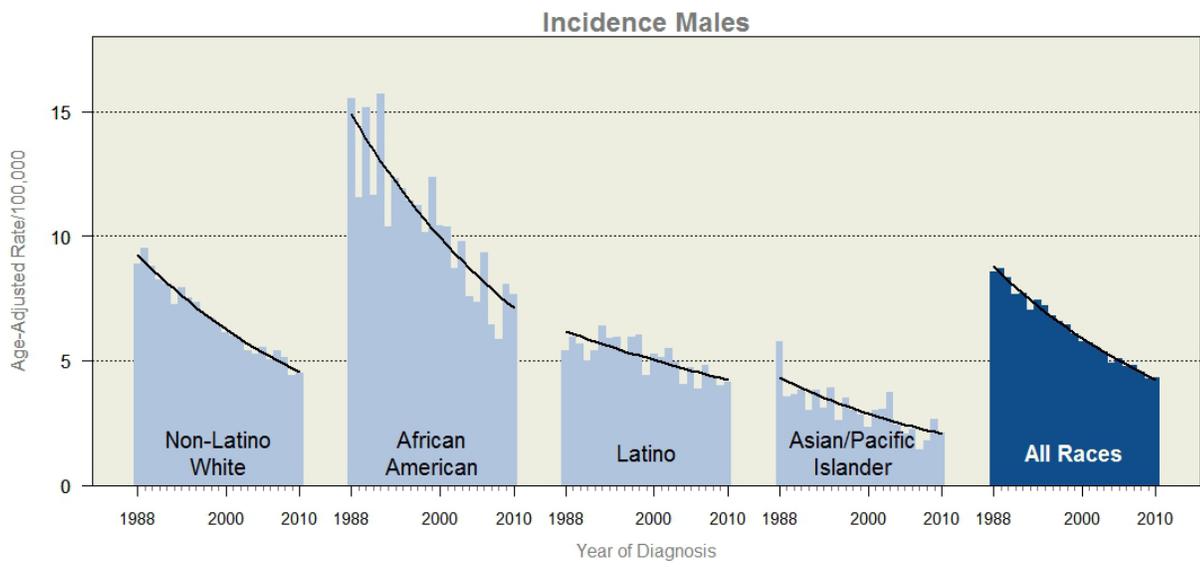
↑ Statistically significant increase      ↓ Statistically significant decrease

- Rates not calculated due to less than 8 deaths per year.

Source of data: California Cancer Registry, California Department of Public Health

Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

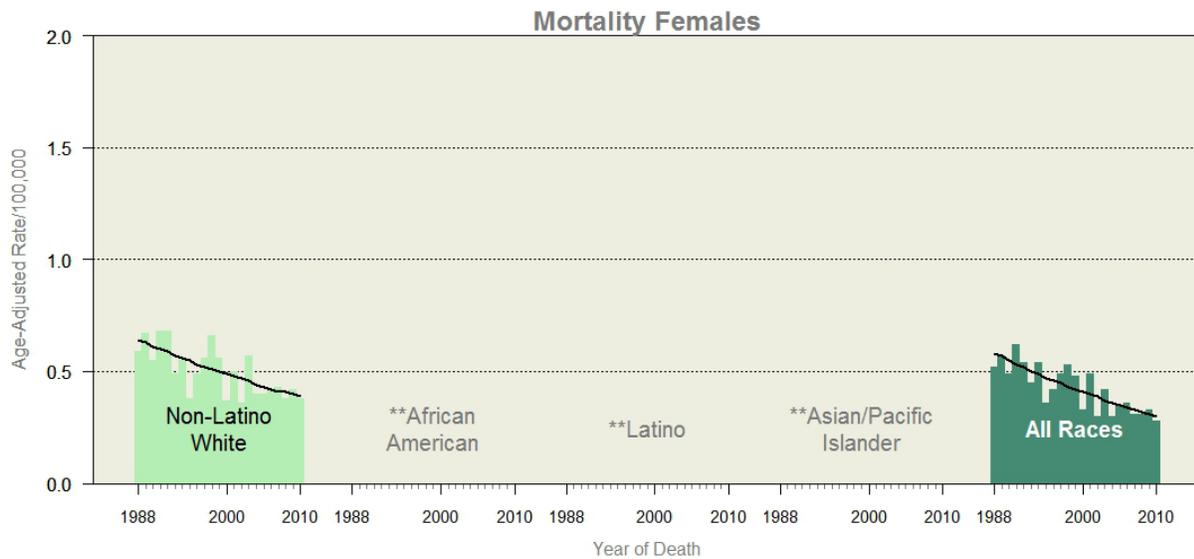
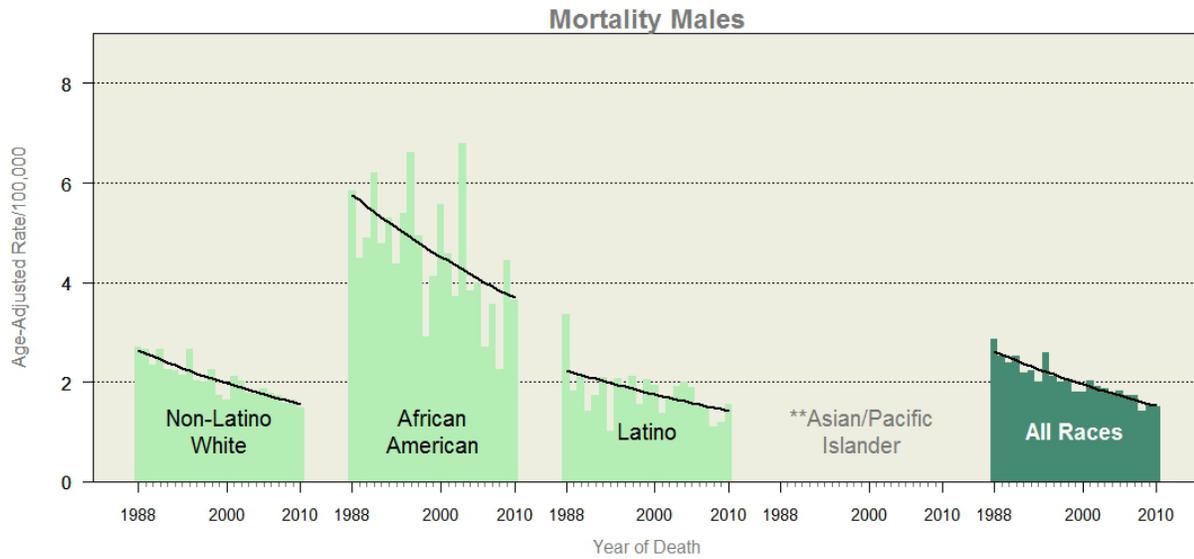
**Trends in Age-Adjusted Incidence Rates by Race/Ethnicity in California, 1988-2010:  
Larynx**



\* Rates not calculated due to less than 8 cases or deaths per year

Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

Trends in Age-Adjusted Mortality Rates by Race/Ethnicity in California, 1988-2010:  
**Larynx**



\*\* Rates not calculated due to less than 8 cases or deaths per year

Source of data: California Cancer Registry, California Department of Public Health

Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

## LEUKEMIA

In 2010, 4,484 Californians were diagnosed with leukemia, and 2,356 died from the disease. Leukemia is a cancer of the white blood cells and is grouped into 4 main types based on how quickly the disease progresses and the type of white blood cell involved: acute lymphocytic leukemia (ALL), chronic lymphocytic leukemia (CLL), acute myeloid leukemia (AML), and chronic myeloid leukemia (CML). Chronic types of leukemia occur mostly in adults, while the acute types occur in both adults and children. The causes of leukemia are unknown, but the following factors increase the risk of developing the disease:

- Exposure to high doses of radiation (e.g., due to medical treatment or among survivors of atomic bomb blasts or nuclear power plant accidents)
- Occupational exposure to high levels of benzene or formaldehyde
- History of chemotherapy (e.g., for another type of cancer)
- Down syndrome and certain other genetic disorders characterized by abnormal chromosomes
- Human T-cell leukemia virus-I (HTLV-I) infection is linked to a rare type of CLL
- Myelodysplastic syndrome (increases the risk for AML)

### Trends in Incidence and Mortality in California, 1988 through 2010

The incidence of leukemia overall did not increase in any race/ethnic group except for Asian/Pacific Islander men, for whom incidence rates increased by 14 percent. Decreasing trends in leukemia mortality were observed among men of all race/ethnicities. While mortality rates also declined among women, the decline was statistically significant only among white women.

Trends in incidence and mortality for the four main histologic types of leukemia are described below.

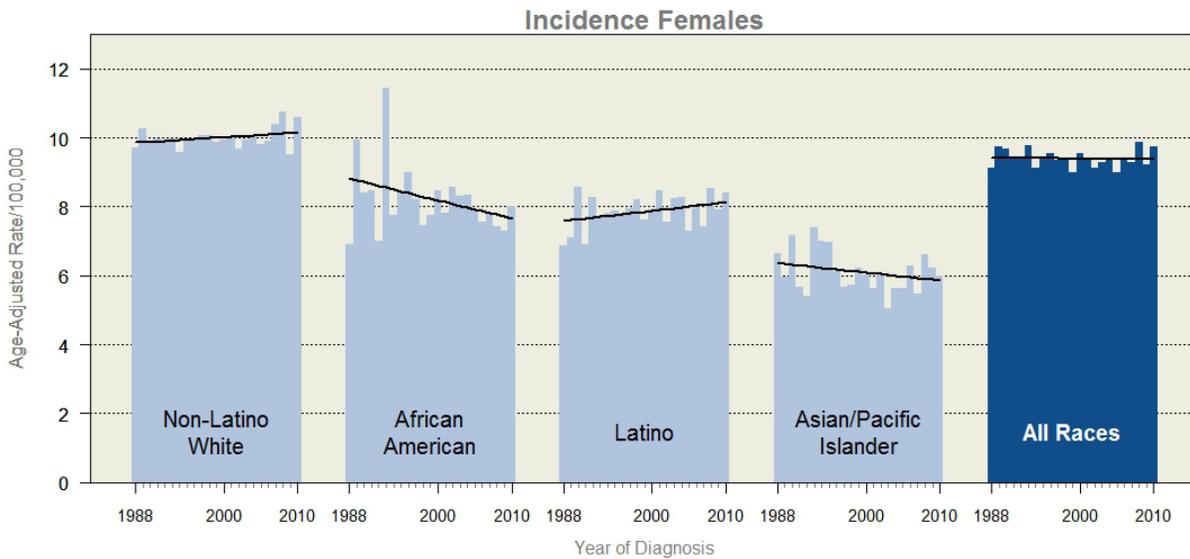
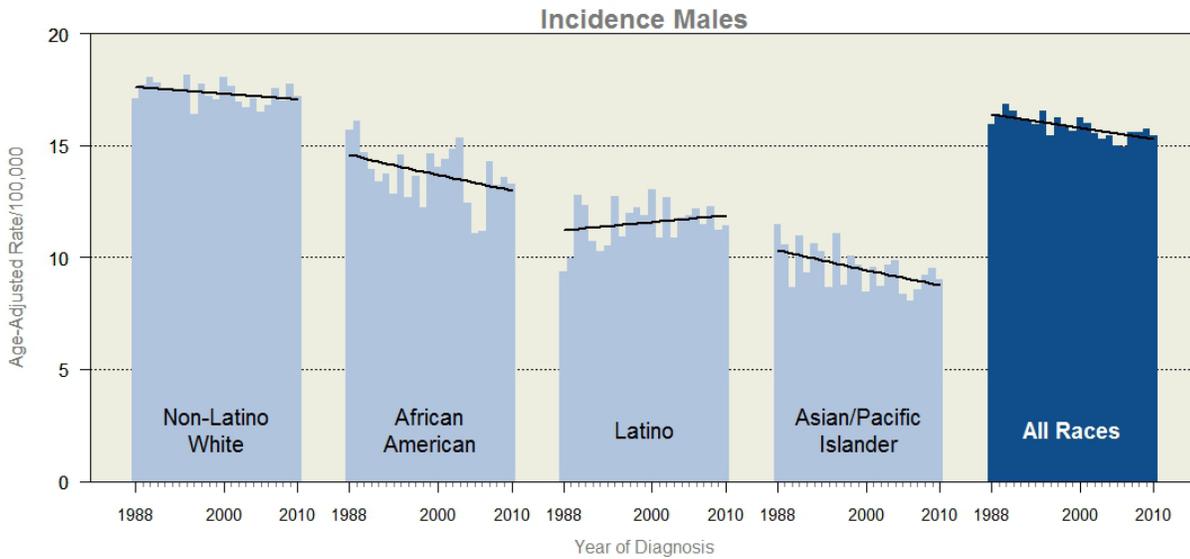
Ten-Year Average Annual Percent Change (AAPC) and Overall Percent Change in Age-Adjusted Cancer Incidence and Mortality Rates by Race/Ethnicity and Sex in California, 2001-2010:  
**Leukemia (All Types)**

Race/Ethnicity	INCIDENCE			MORTALITY		
	AAPC	Overall % Change		AAPC	Overall % Change	
Male and Female						
All Races Combined	-0.1	-1.0	↓	-0.8	-7.7	↓
Male						
Non-Latino White	-0.1	-1.0		-0.8	-7.7	↓
African American	-0.5	-4.9		-1.2	-11.4	↓
Latino	0.3	3.0		-0.4	-3.9	
Asian/Pacific Islander	-0.7	-6.8	↓	-1.3	-12.3	↓
All Races Combined	-0.3	-3.0	↓	-1.0	-9.6	↓
Female						
Non-Latino White	0.1	1.0		-0.6	-5.8	↓
African American	-0.6	-5.8		-0.7	-6.8	
Latino	0.3	3.0		-0.5	-4.9	
Asian/Pacific Islander	-0.4	-3.9		-0.6	-5.8	
All Races Combined	0.0	0.0		-0.8	-7.7	↓

↑ Statistically significant increase      ↓ Statistically significant decrease

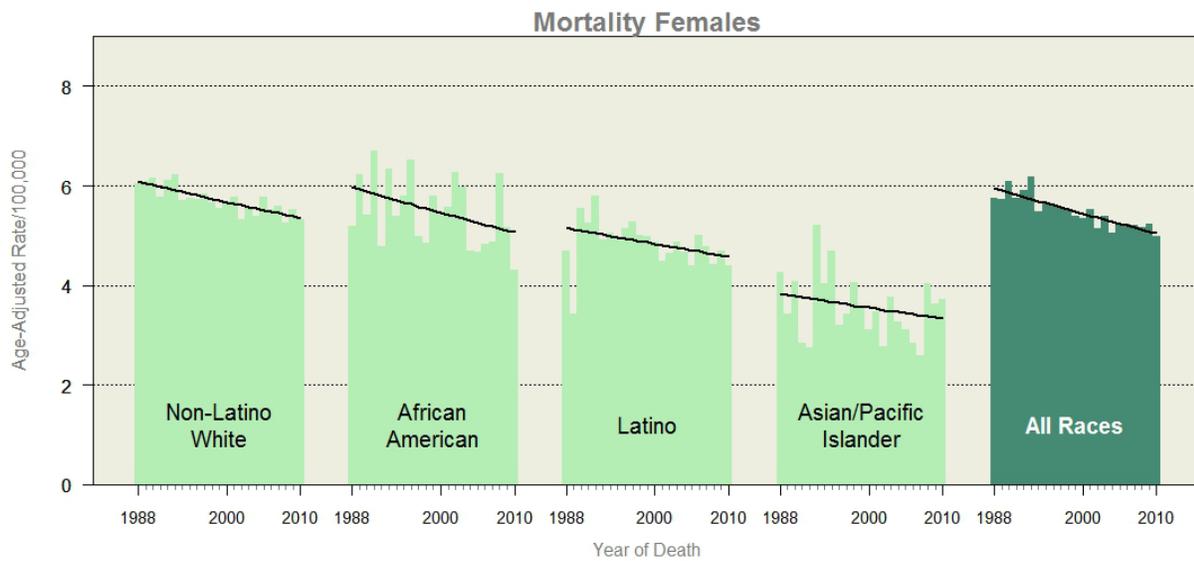
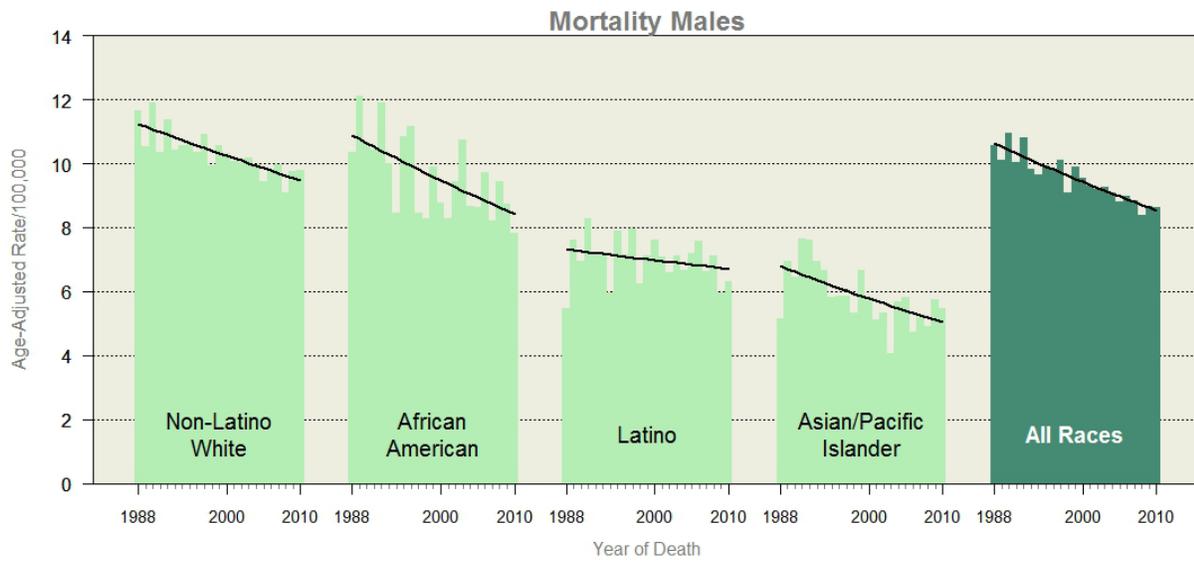
Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Trends in Age-Adjusted Incidence Rates by Race/Ethnicity in California, 1988-2010:  
Leukemia**



Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

Trends in Age-Adjusted Mortality Rates by Race/Ethnicity in California, 1988-2010:  
**Leukemia**



Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

## Acute and Chronic Lymphocytic Leukemia (ALL and CLL)

The incidence of ALL remained unchanged among whites and Asian/Pacific Islanders. Due to the small number of cases, trends for African Americans were not computed. Incidence rates increased significantly for Latinos (by 36 percent among men, and 58 percent among women). Incidence rates for CLL, the chronic form of the disease, increased among white men and women since the late 1990s, but did not significantly change for other population groups.

Mortality rates for lymphocytic leukemias decreased significantly among white and African-American men (by 18 percent and 30 percent, respectively), but did not change significantly in other population groups.

### Ten-Year Average Annual Percent Change (AAPC) and Overall Percent Change in Age-Adjusted Cancer Incidence and Mortality Rates by Race/Ethnicity and Sex in California, 2001-2010: Lymphocytic Leukemia

Race/Ethnicity	INCIDENCE			MORTALITY		
	AAPC	Overall % Change		AAPC	Overall % Change	
<b>Acute Lymphocytic Leukemia</b>						
Male and Female						
All Races Combined	1.1	11.6	↑	-0.3	-3.0	
Male						
Non-Latino White	0.5	5.1		-1.5	-14.0	↓
Latino	1.4	14.9	↑	0.3	3.0	
Asian/Pacific Islander	-0.3	-3.0		-	-	
All Races Combined	1.0	10.5	↑	-0.7	-6.8	
Female						
Non-Latino White	0.2	2.0		-1.1	-10.5	
Latino	2.1	23.1	↑	1.2	12.7	
Asian/Pacific Islander	-0.2	-2.0		-	-	
All Races Combined	1.2	12.7	↑	0.2	2.0	
<b>Chronic Lymphocytic Leukemia</b>						
Male and Female						
All Races Combined	0.8	8.3	↑	-0.7	-6.8	↓
Male						
Non-Latino White	1.3	13.8	↑	-0.5	-4.9	
African American	-0.3	-3.0		-1.2	-11.4	
Latino	0.0	0.0		-	-	
All Races Combined	0.6	6.2		-1.0	-9.6	↓
Female						
Non-Latino White	1.6	17.2	↑	0.2	2.0	
African American	-1.1	-10.5		-	-	
Latino	-0.9	-8.6		-	-	
All Races Combined	0.9	9.4		-0.6	-5.8	

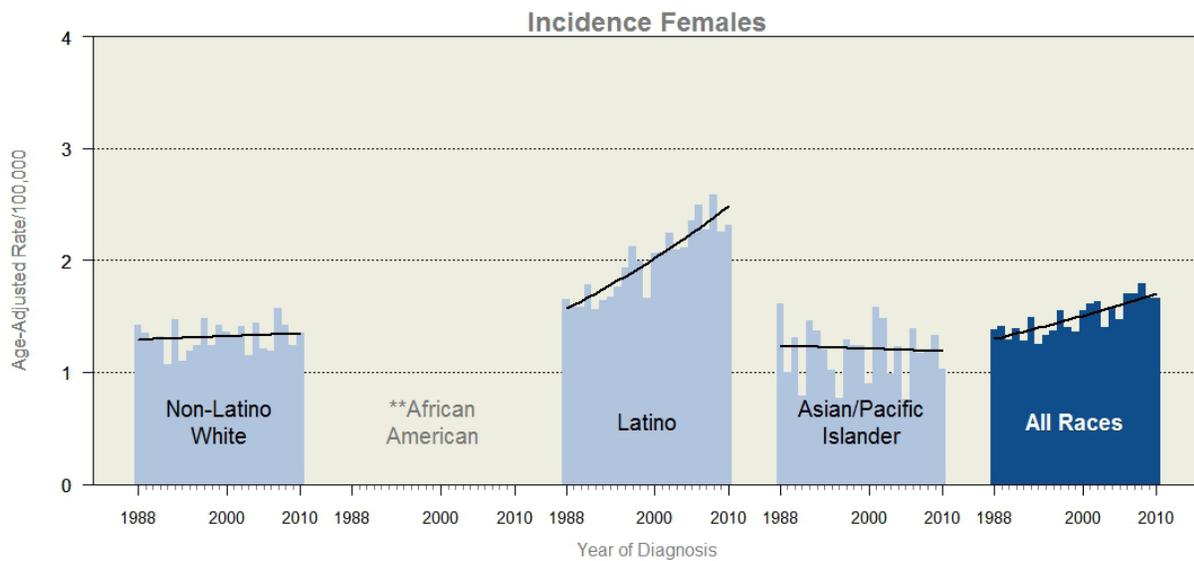
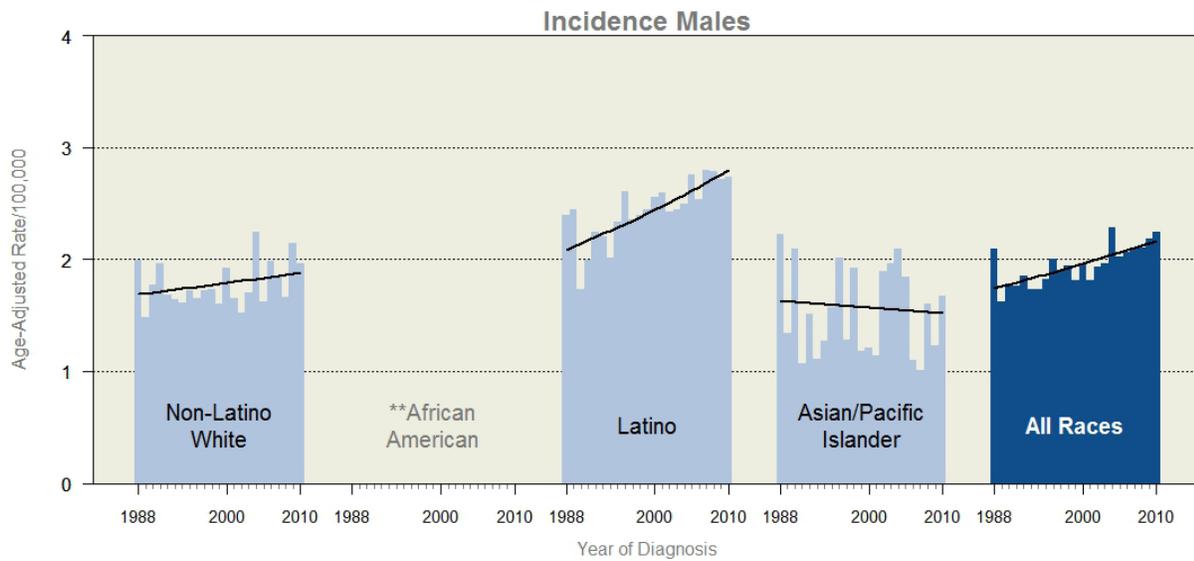
↑ Statistically significant increase    ↓ Statistically significant decrease

- Rates not calculated due to less than 8 deaths per year.

Source of data: California Cancer Registry, California Department of Public Health

Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Trends in Age-Adjusted Incidence Rates by Race/Ethnicity in California, 1988-2010:  
Acute Lymphocytic Leukemia**

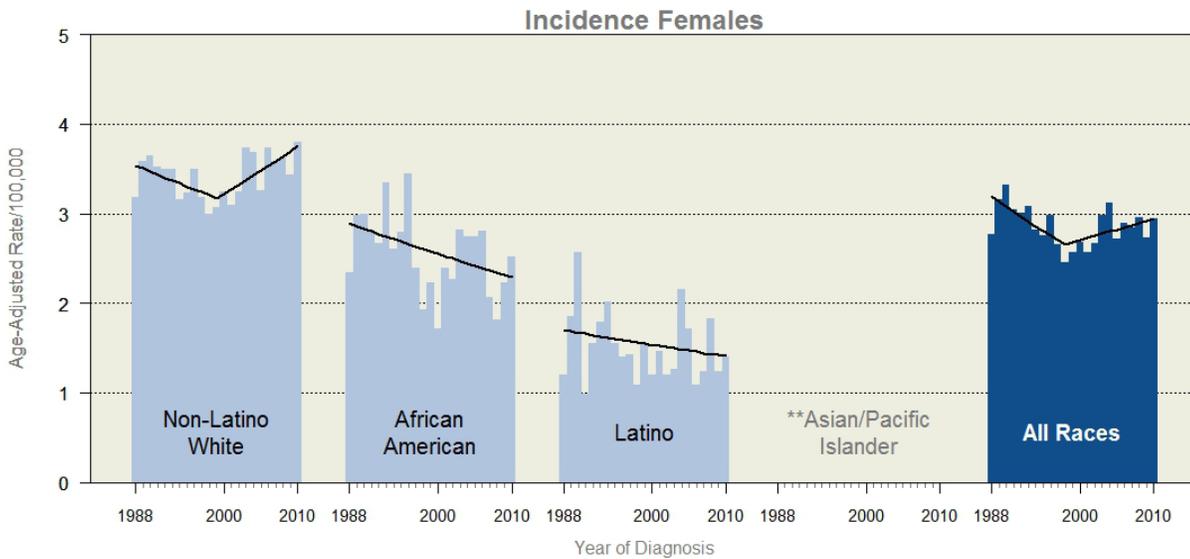
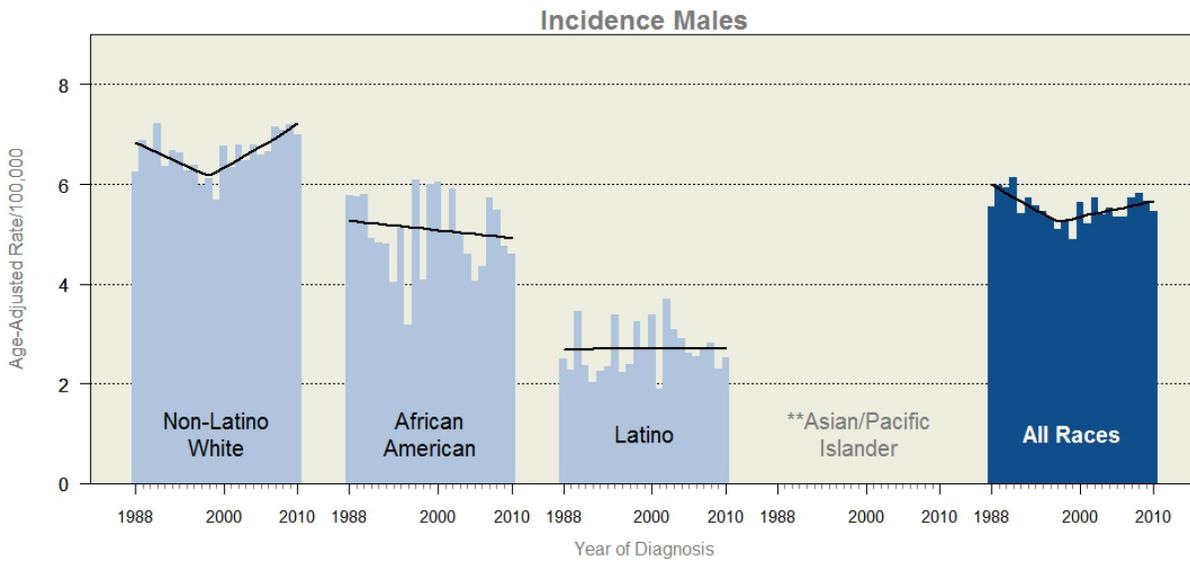


\*\* Rates not calculated due to less than 8 cases or deaths per year

Source of data: California Cancer Registry, California Department of Public Health

Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Trends in Age-Adjusted Incidence Rates by Race/Ethnicity in California, 1988-2010:  
Chronic Lymphocytic Leukemia**

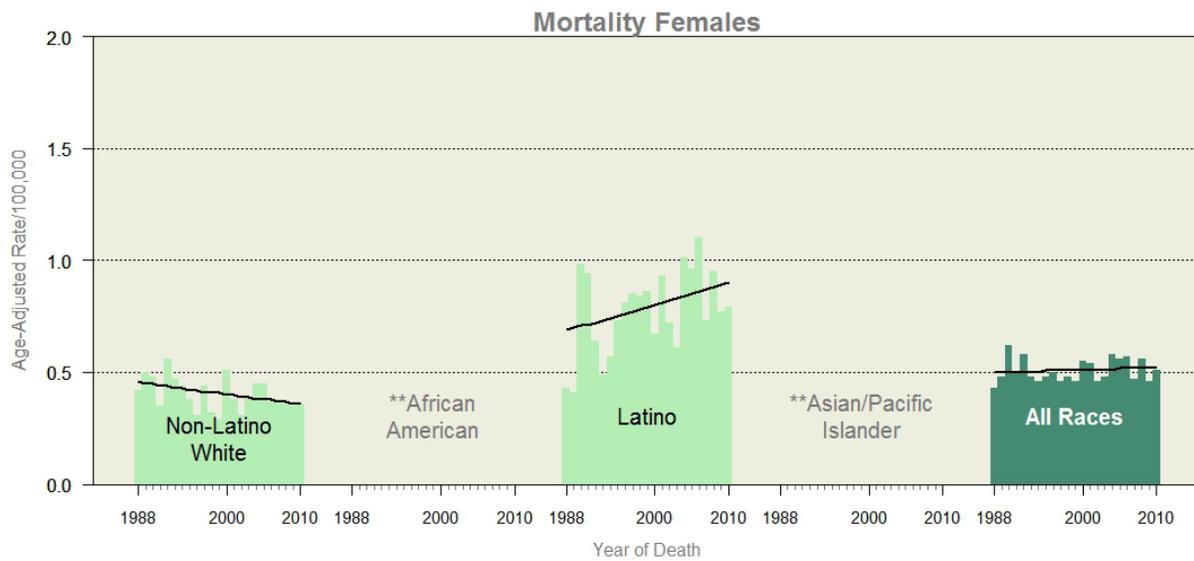
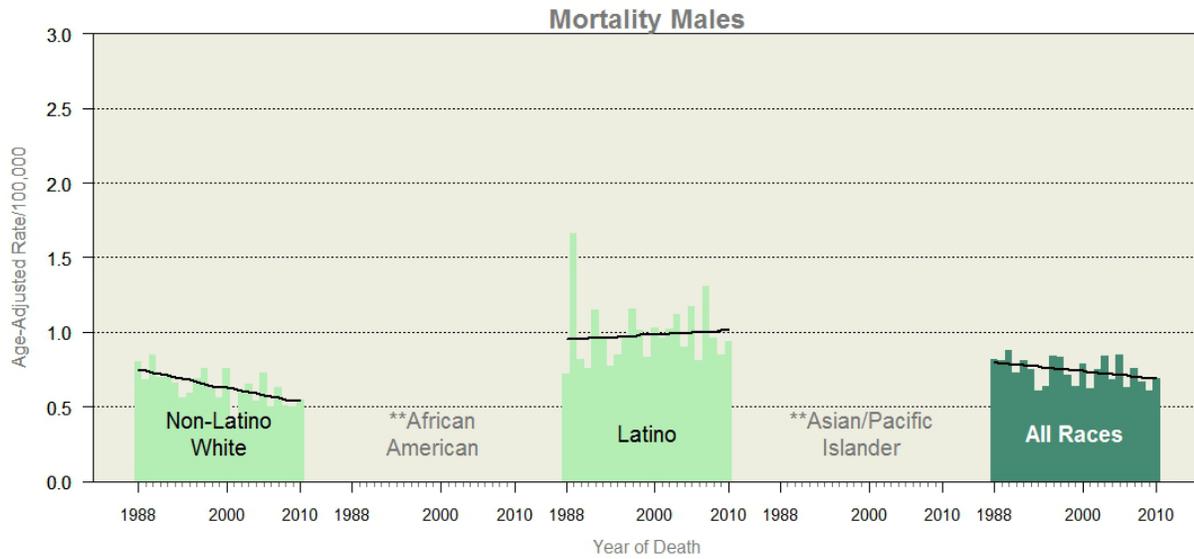


\*\* Rates not calculated due to less than 8 cases or deaths per year

Source of data: California Cancer Registry, California Department of Public Health

Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Trends in Age-Adjusted Mortality Rates by Race/Ethnicity in California, 1988-2010:  
Acute Lymphocytic Leukemia**

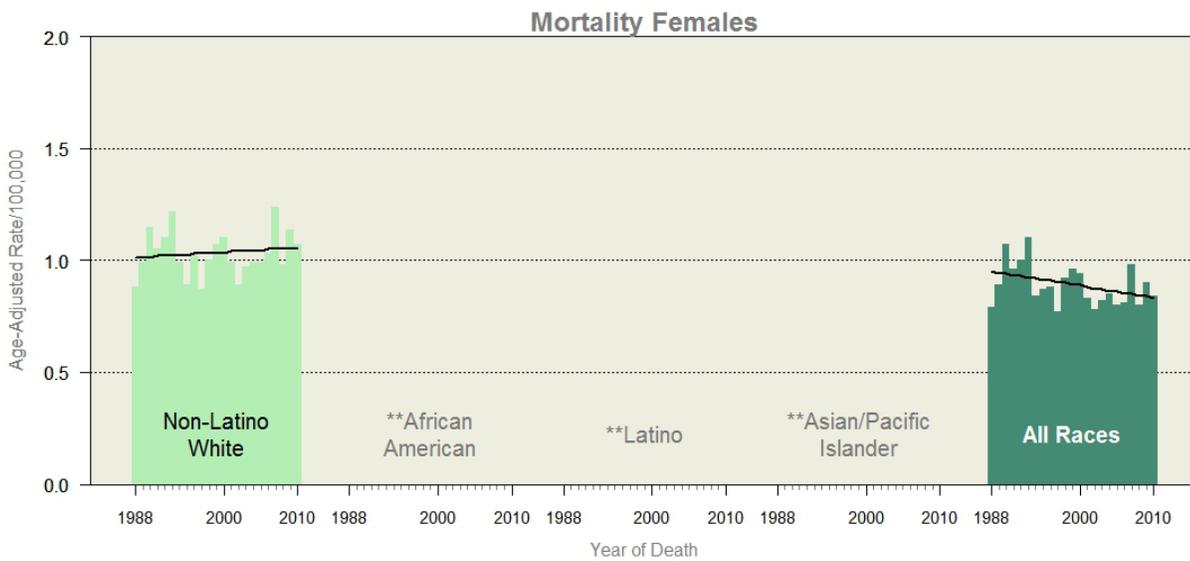
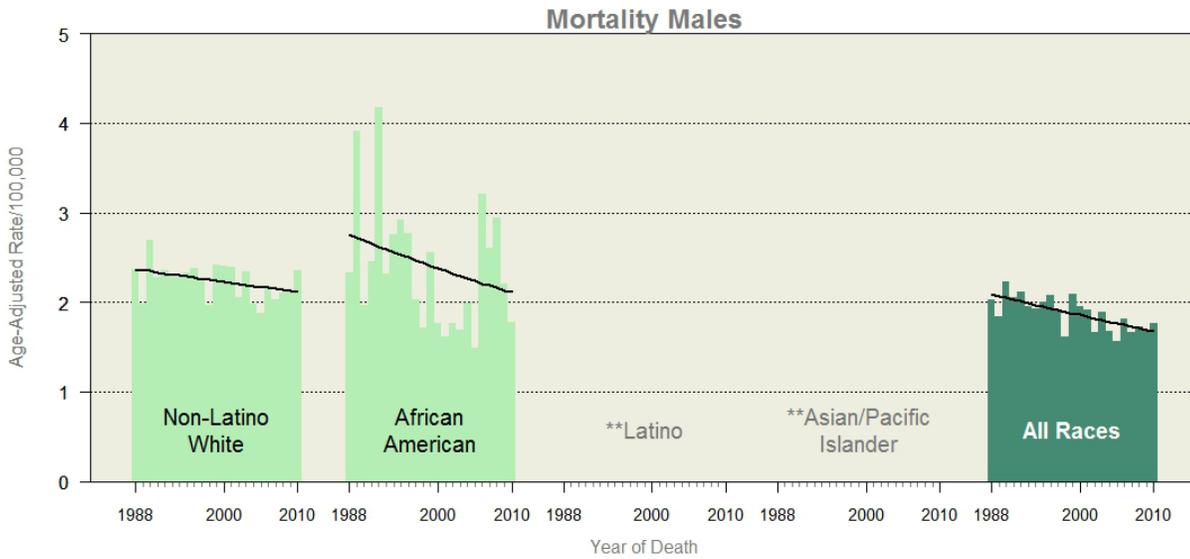


\*\* Rates not calculated due to less than 8 cases or deaths per year

Source of data: California Cancer Registry, California Department of Public Health

Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Trends in Age-Adjusted Mortality Rates by Race/Ethnicity in California, 1988-2010:  
Chronic Lymphocytic Leukemia**



\*\* Rates not calculated due to less than 8 cases or deaths per year

Source of data: California Cancer Registry, California Department of Public Health

Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

## Acute and Chronic Myeloid Leukemia (AML and CML)

AML incidence rates did not change except among whites. Rates increased among white men until the late 1990s but then significantly declined (by 12 percent). For white women, rates increased by 14 percent over the period. The incidence of CML declined in both genders and in all racial/ethnic groups, although the decrease was statistically significant only among white and African American men, Latinas, and Asian/Pacific Islander women. The decline in rates for these groups ranged from 16 to 46 percent.

Mortality rates for AML increased significantly among men and women of all race/ethnicities, although not significantly among Asian/Pacific Islanders. AML is one of the few types of cancer for which mortality rates increased during the past two decades. Additional analysis not presented in this report shows that the increase in AML mortality occurred only among persons 65 and older. The increase in mortality was most remarkable among persons 75 and older, who respond less favorably to AML treatment. Mortality rates for CML declined dramatically since the mid-1990s among whites (by 60 for men and 73 percent for women).

Ten-Year Average Annual Percent Change (AAPC) and Overall Percent Change in Age-Adjusted Cancer Incidence and Mortality Rates by Race/Ethnicity and Sex in California, 2001-2010:  
**Myeloid Leukemia**

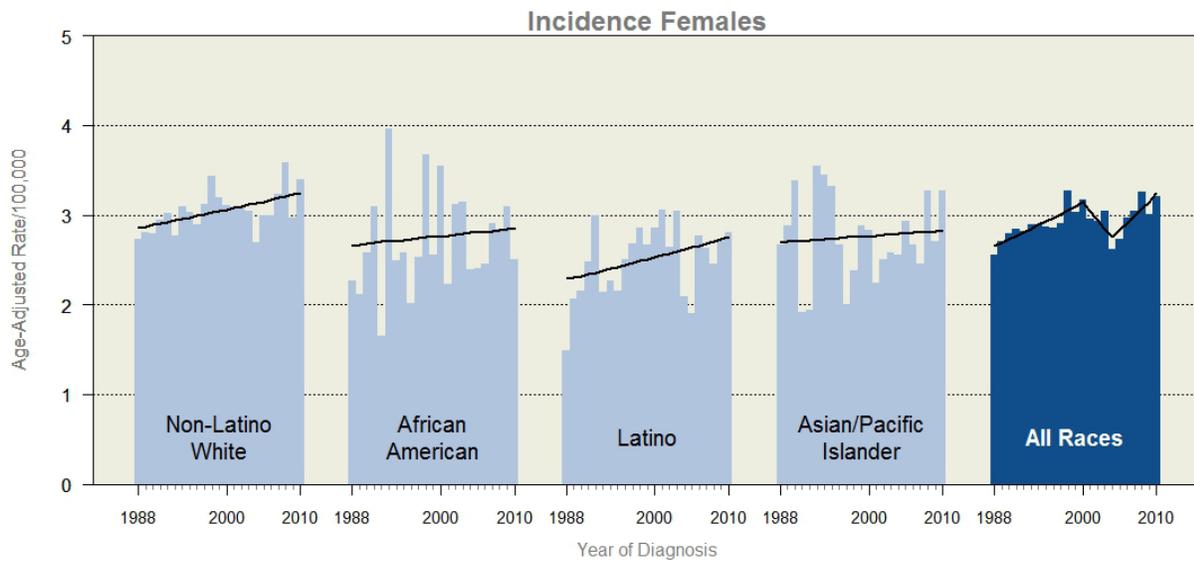
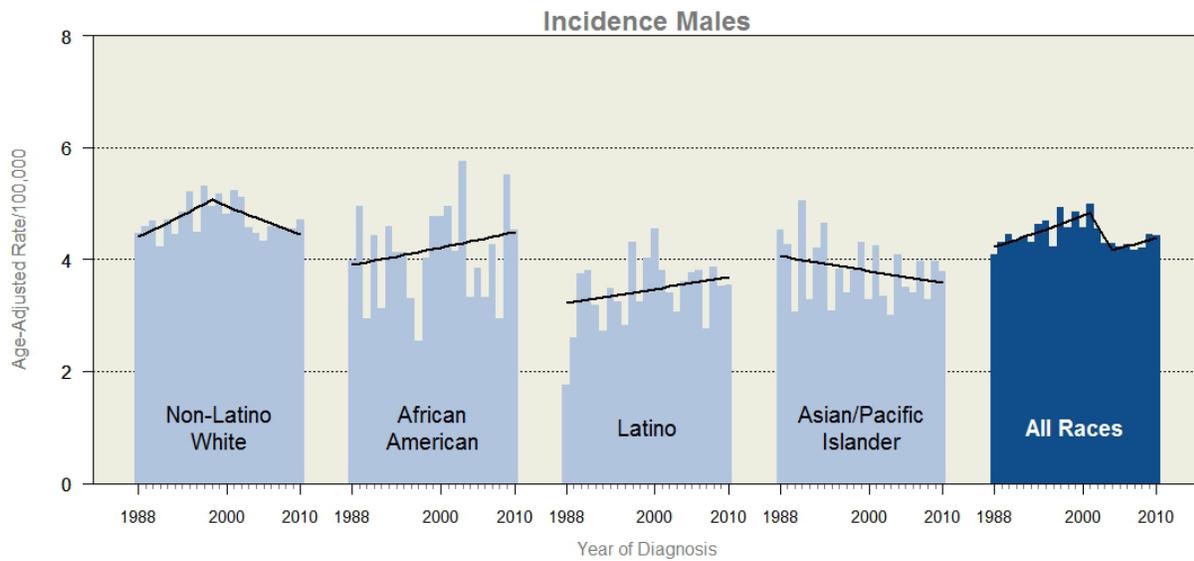
Race/Ethnicity	INCIDENCE			MORTALITY		
	AAPC	Overall % Change		AAPC	Overall % Change	
<b>Acute Myeloid Leukemia</b>						
Male and Female						
All Races Combined	-0.3	-3.0		1.4	14.9	↑
Male						
Non-Latino White	-1.1	-10.5	↓	1.6	17.2	↑
African American	0.6	6.2		1.7	18.4	↑
Latino	0.6	6.2		1.7	18.4	↑
Asian/Pacific Islander	-0.6	-5.8		0.7	7.2	
All Races Combined	-1.1	-10.5		1.3	13.8	↑
Female						
Non-Latino White	0.6	6.2	↑	1.6	17.2	↑
African American	0.3	3.0		-	-	
Latino	0.8	8.3		1.7	18.4	↑
Asian/Pacific Islander	0.2	2.0		1.1	11.6	
All Races Combined	0.7	7.2		1.4	14.9	↑
<b>Chronic Myeloid Leukemia</b>						
Male and Female						
All Races Combined	-0.1	-1.0		-5.6	-43.8	↓
Male						
Non-Latino White	-0.8	-7.7	↓	-4.5	-36.9	↓
African American	-2.3	-20.8	↓	-	-	
Latino	-1.1	-10.5		-	-	
Asian/Pacific Islander	-1.1	-10.5		-	-	
All Races Combined	-1.1	-10.5	↓	-4.7	-38.2	↓
Female						
Non-Latino White	-0.4	-3.9		-8.3	-58.0	↓
Latino	-1.7	-15.8	↓	-	-	
Asian/Pacific Islander	-2.8	-24.7	↓	-	-	
All Races Combined	-1.0	-9.6	↓	-4.5	-36.9	

↑ Statistically significant increase    ↓ Statistically significant decrease  
 - Rates not calculated due to less than 8 deaths per year.

Source of data: California Cancer Registry, California Department of Public Health

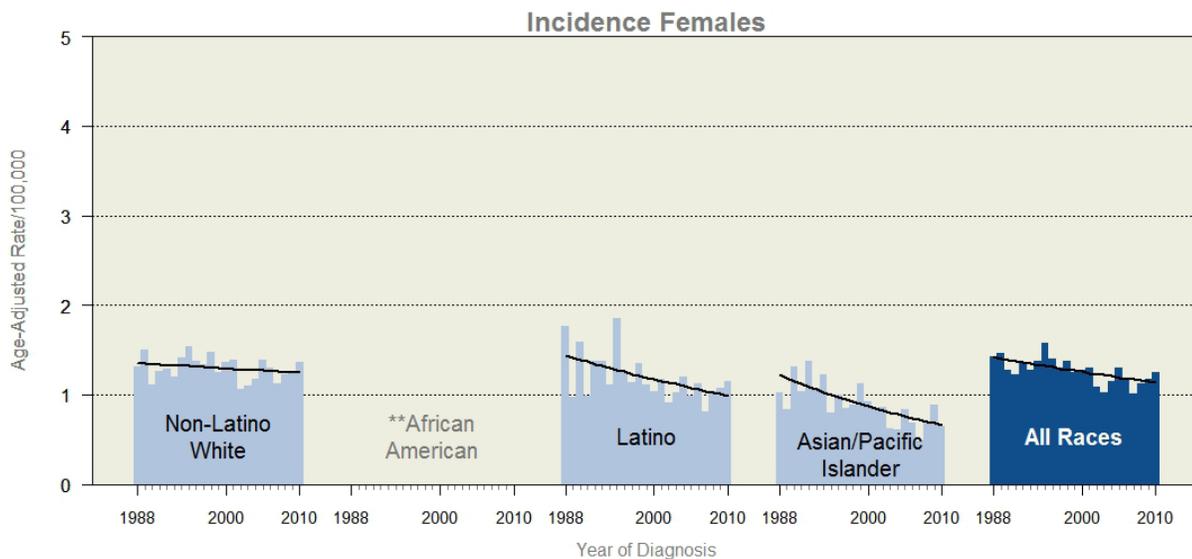
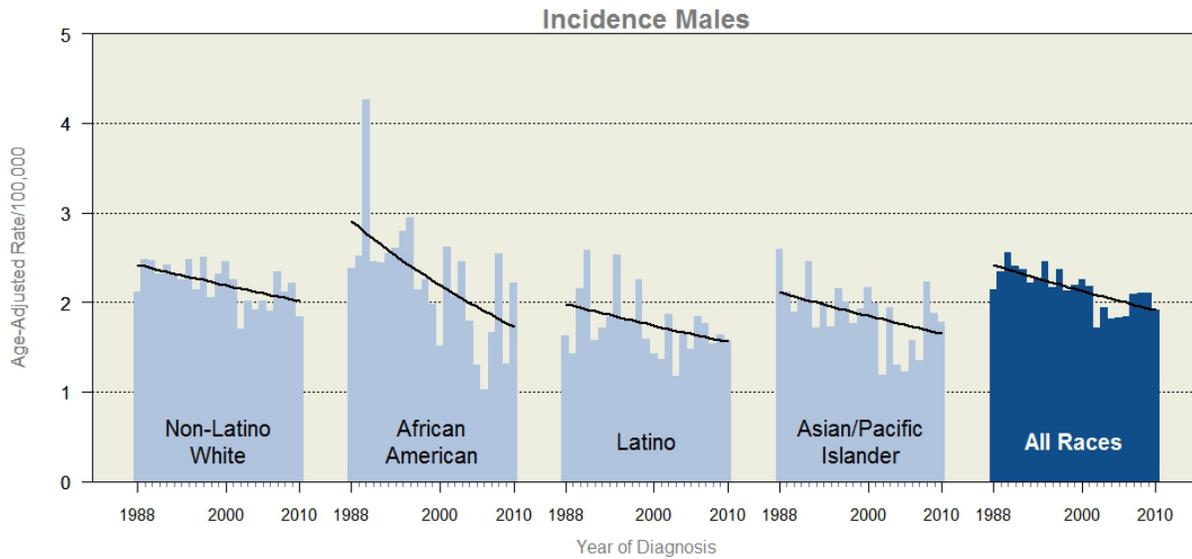
Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Trends in Age-Adjusted Incidence Rates by Race/Ethnicity in California, 1988-2010:  
Acute Myeloid Leukemia**



Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Trends in Age-Adjusted Incidence Rates by Race/Ethnicity in California, 1988-2010:  
Chronic Myeloid Leukemia**

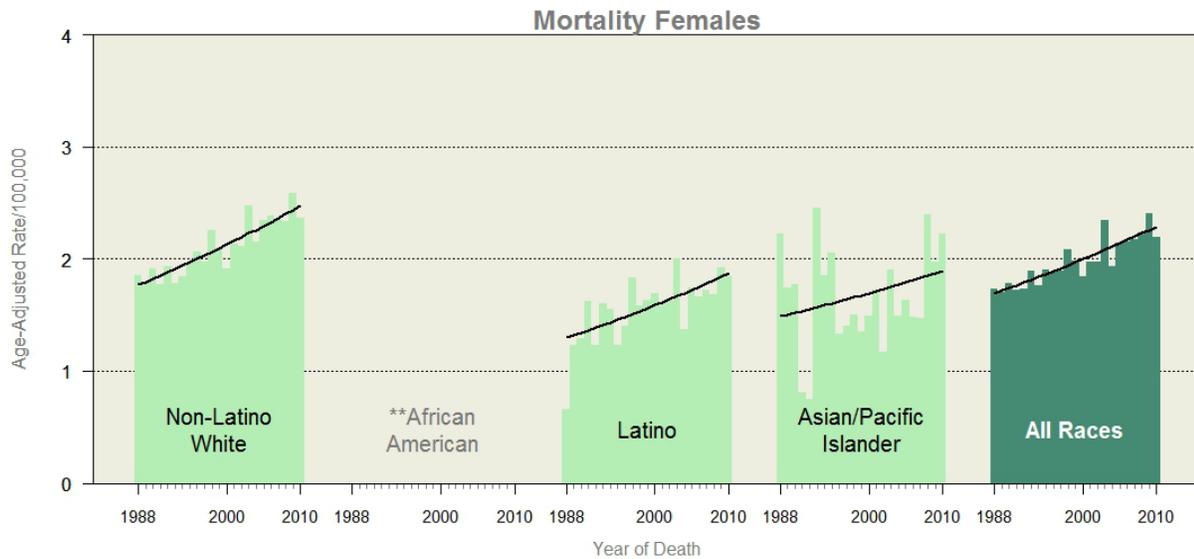
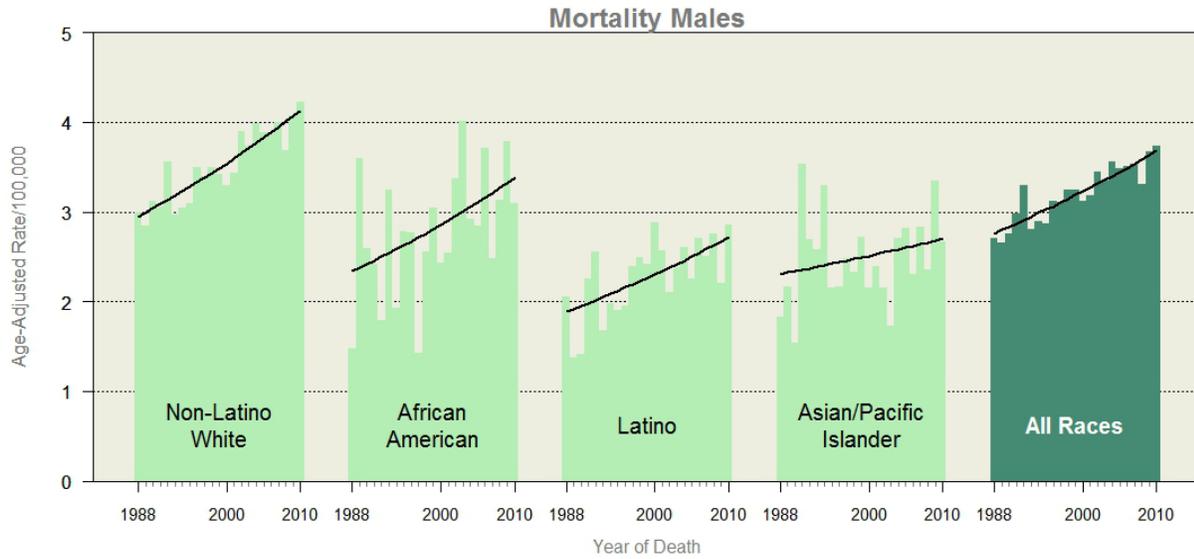


\*\* Rates not calculated due to less than 8 cases or deaths per year

Source of data: California Cancer Registry, California Department of Public Health

Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

Trends in Age-Adjusted Mortality Rates by Race/Ethnicity in California, 1988-2010:  
**Acute Myeloid Leukemia**

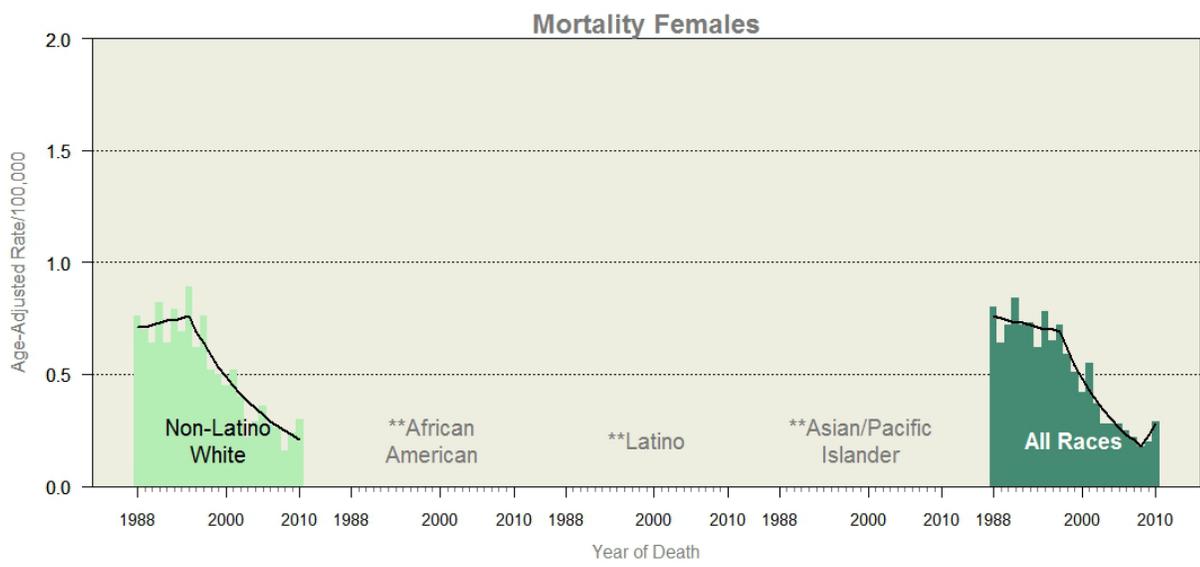
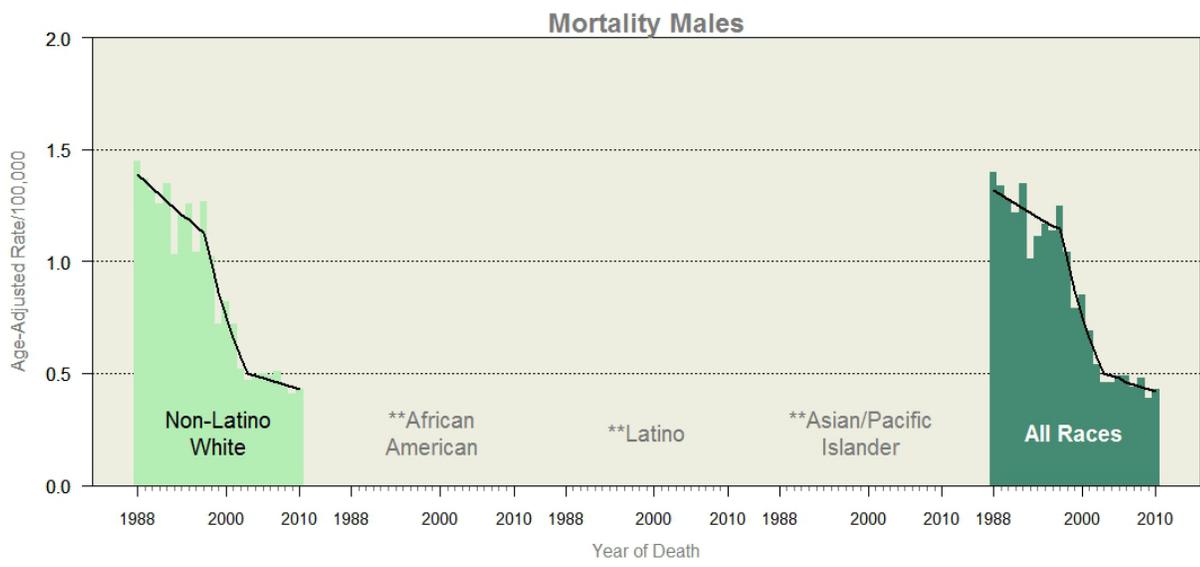


\*\* Rates not calculated due to less than 8 cases or deaths per year

Source of data: California Cancer Registry, California Department of Public Health.

Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Trends in Age-Adjusted Incidence Rates by Race/Ethnicity in California, 1988-2010:  
Chronic Myeloid Leukemia**



\*\* Rates not calculated due to less than 8 cases or deaths per year

Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

## LIVER AND INTRAHEPATIC BILE DUCT CANCER

Liver cancer is one of the most commonly diagnosed cancers in the world, although it occurs less commonly in the United States than in many other parts of the world. In 2010, 3,619 persons were diagnosed with and 2,683 died from liver cancer.

The major risk factors for liver cancer are chronic infection with the hepatitis B or hepatitis C virus. A hepatitis B vaccine is recommended for all children to protect against infection. There is no vaccine for hepatitis C. Cirrhosis of the liver, caused mostly by chronic alcoholism and hepatitis C, is another risk factor for liver cancer. The risk of developing liver cancer may also be increased by eating grains or nuts contaminated with the mold aflatoxin.

### Trends in Incidence and Mortality in California, 1988 through 2010

Liver cancer is one of the few types of cancer for which incidence increased substantially, a trend that also has been observed in other developed countries. From 2001 through 2010, incidence rates of liver cancer among California men and women increased significantly (by 44 percent and 28 percent, respectively). Increases in liver cancer incidence were detected among all racial/ethnic groups except Asian/Pacific Islanders, for whom rates fluctuated without a discernible pattern. Because liver cancer is highly fatal, mortality rates paralleled those for incidence and increased in men and women of all race/ethnic groups except among Asian/Pacific Islander men, in whom mortality rates declined significantly (by 16 percent) since 1996.

#### Ten-Year Average Annual Percent Change (AAPC) and Overall Percent Change in Age-Adjusted Cancer Incidence and Mortality Rates by Race/Ethnicity and Sex in California, 2001-2010: Liver and Intrahepatic Bile Duct

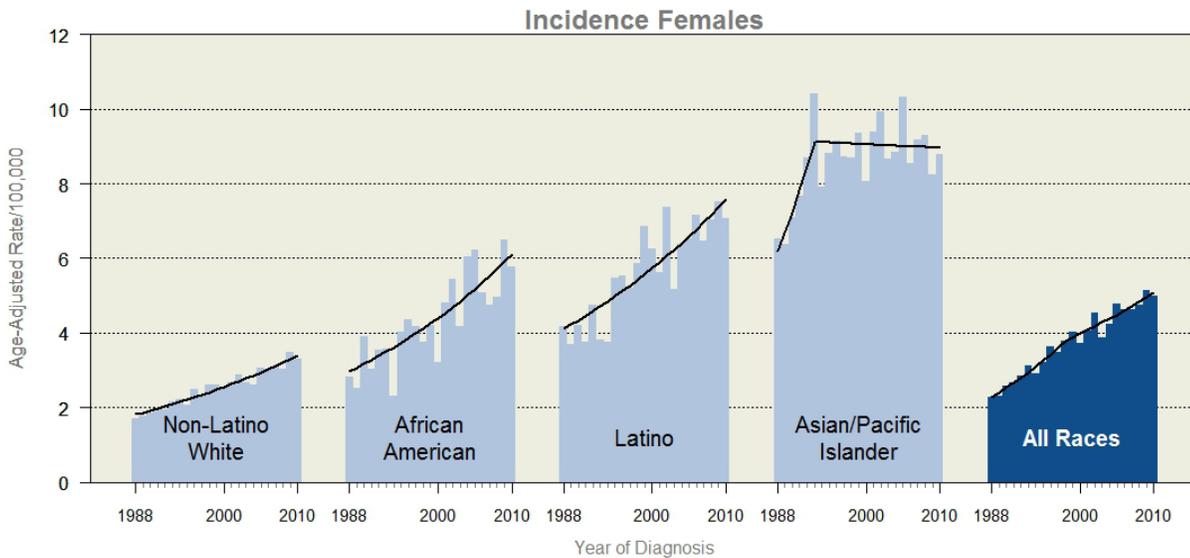
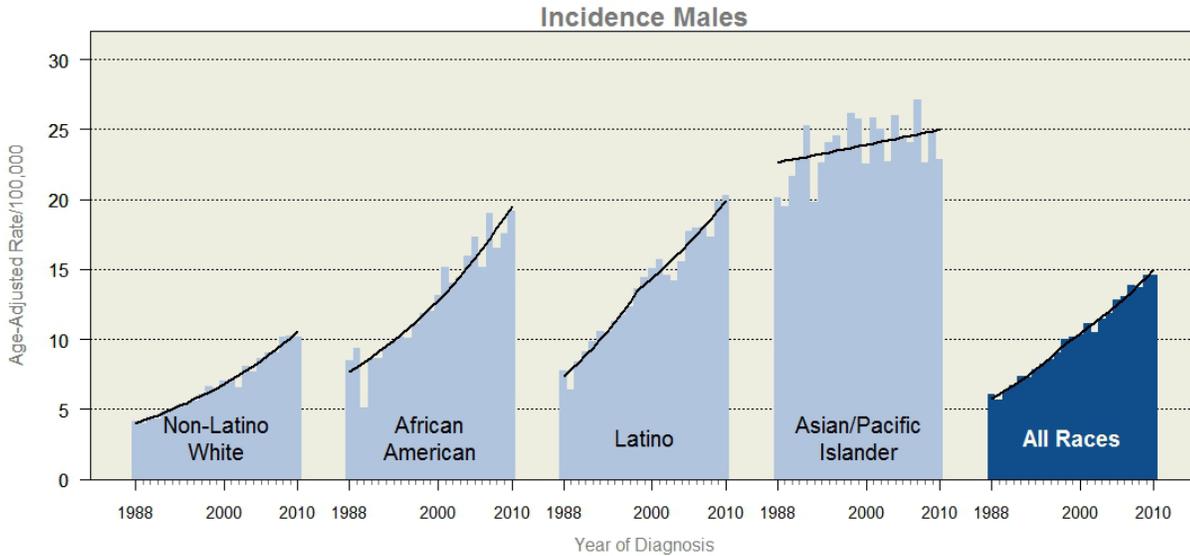
Race/Ethnicity	INCIDENCE			MORTALITY		
	AAPC	Overall % Change		AAPC	Overall % Change	
Male and female						
All Races Combined	3.4	39.7	↑	2.2	24.3	↑
Male						
Non-Latino White	4.5	55.3	↑	2.7	30.5	↑
African American	4.3	52.4	↑	2.9	33.1	↑
Latino	3.3	38.4	↑	1.7	18.4	↑
Asian/Pacific Islander	0.5	5.1		-0.6	-5.8	↓
All Races Combined	3.7	43.8	↑	2.7	30.5	↑
Female						
Non-Latino White	2.9	33.1	↑	2.0	21.9	↑
African American	3.3	38.4	↑	2.0	21.9	↑
Latino	2.8	31.8	↑	2.5	28.0	↑
Asian/Pacific Islander	-0.1	-1.0		-0.8	-7.7	
All Races Combined	2.5	28.0	↑	1.3	13.8	↑

↑ Statistically significant increase    ↓ Statistically significant decrease

Source of data: California Cancer Registry, California Department of Public Health

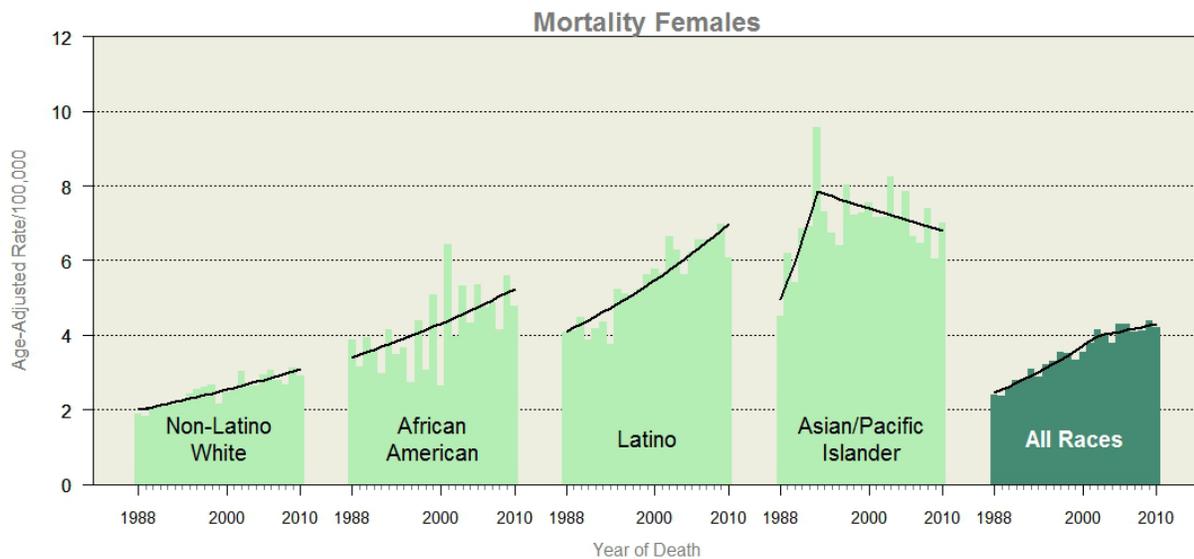
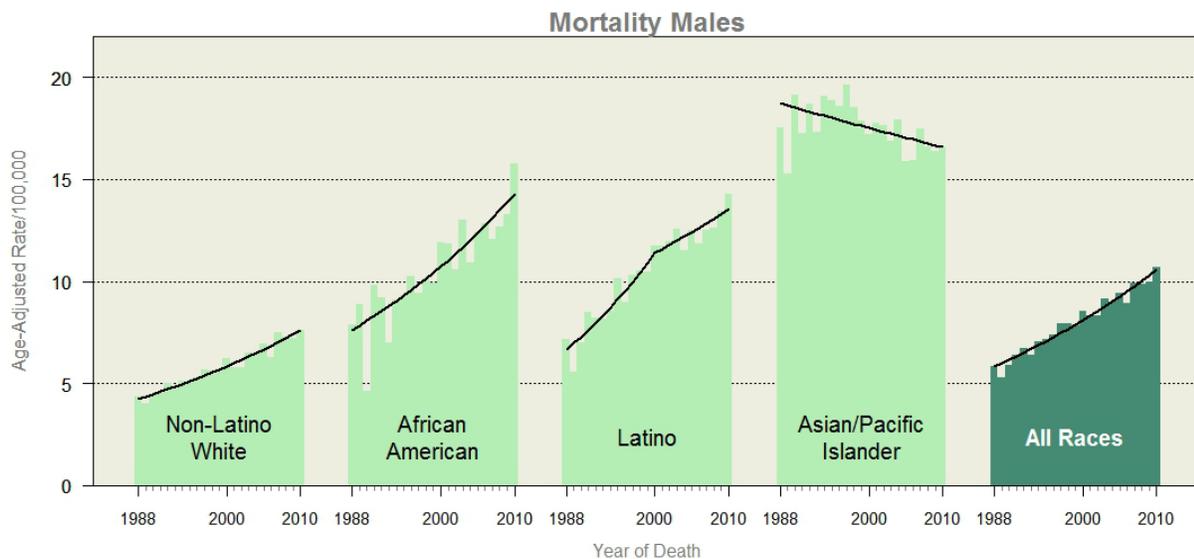
Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Trends in Age-Adjusted Incidence Rates by Race/Ethnicity in California, 1988-2010:  
Liver and Intrahepatic Bile Duct**



Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for  
 Population Health Improvement, UC Davis Health System

**Trends in Age-Adjusted Mortality Rates by Race/Ethnicity in California, 1988-2010:  
Liver and Intrahepatic Bile Duct**



Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

## LUNG AND BRONCHUS CANCER

Lung cancer is the leading cause of cancer deaths in both men and women. In 2010, 17,102 Californians were diagnosed with lung cancer, and 12,880 died from the disease.

Smoking is the predominant cause of lung cancer. Tobacco smoke also increases the chance of developing lung cancer when other environmental risk factors are present. Other substances that can cause lung cancer, even among people who have never smoked, include asbestos, radon, arsenic, chromium, nickel, tar, and soot. The impact of these chemicals on the incidence of lung cancer is small compared to smoking.

### Trends in Incidence and Mortality in California, 1988 through 2010

The incidence of lung cancer in California declined significantly among men of all racial/ethnic groups, reflecting the continuing decline of smoking among Californians. Among women, for whom smoking trends declined only recently, significant decreases in lung cancer incidence were detected after 1997, when rates began to decline by 1.1 percent per year among white women and by 0.5 percent per year among Latinas. Incidence rates for Asian/Pacific Islander and African-American women remained unchanged.

Trends in lung cancer mortality paralleled those for incidence, and decreased among men of all racial/ethnic backgrounds, particularly in recent years. Since the early 1990s, mortality rates for African-American women declined by 14 percent. Among Latinas and white women, mortality trends shifted direction around 1997, when rates started to decline, by 13 percent among white women and by ten percent among Latinas. Similar to what is described for incidence rates, lung cancer mortality among Asian/Pacific Islander women did not change significantly during the period.

### Ten-Year Average Annual Percent Change (AAPC) and Overall Percent Change in Age-Adjusted Cancer Incidence and Mortality Rates by Race/Ethnicity and Sex in California, 2001-2010: Lung and Bronchus

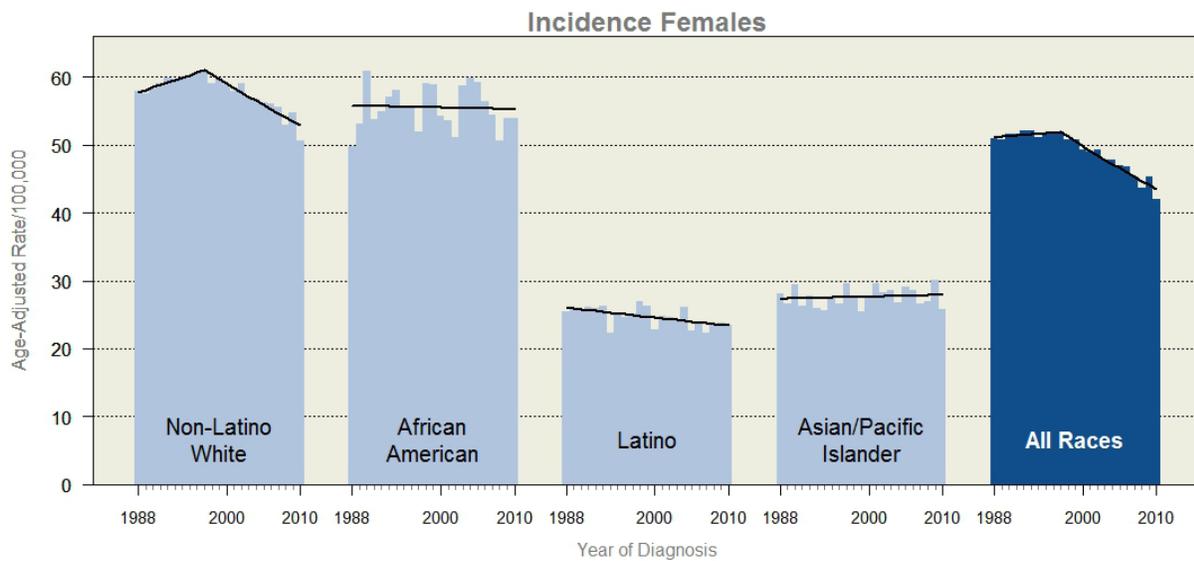
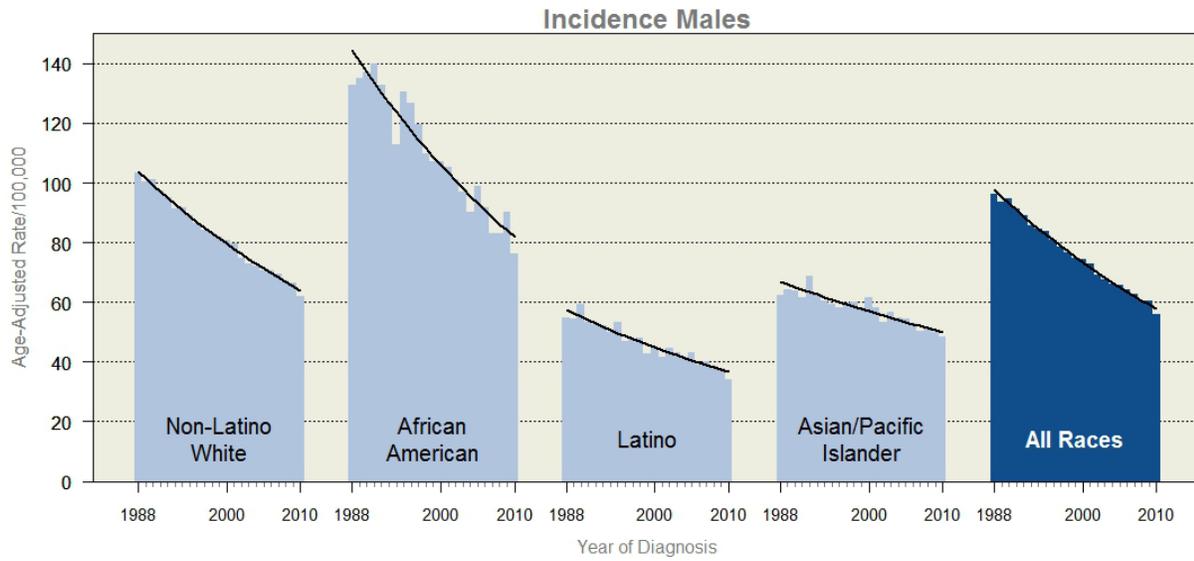
Race/Ethnicity	INCIDENCE			MORTALITY		
	AAPC	Overall % Change		AAPC	Overall % Change	
Male and female						
All Races Combined	-1.9	-17.5	↓	-2.7	-23.9	↓
Male						
Non-Latino White	-2.2	-19.9	↓	-2.9	-25.5	↓
African American	-2.5	-22.4	↓	-3.3	-28.5	↓
Latino	-2.0	-18.3	↓	-2.7	-23.9	↓
Asian/Pacific Islander	-1.3	-12.3	↓	-1.3	-12.3	↓
All Races Combined	-2.4	-21.6	↓	-3.1	-27.0	↓
Female						
Non-Latino White	-1.1	-10.5	↓	-1.9	-17.5	↓
African American	0.0	0.0		-0.8	-7.7	↓
Latino	-0.5	-4.9	↓	-1.6	-14.9	↓
Asian/Pacific Islander	0.1	1.0		-0.4	-3.9	
All Races Combined	-1.4	-13.2	↓	-2.3	-20.8	↓

↑ Statistically significant increase    ↓ Statistically significant decrease

Source of data: California Cancer Registry, California Department of Public Health

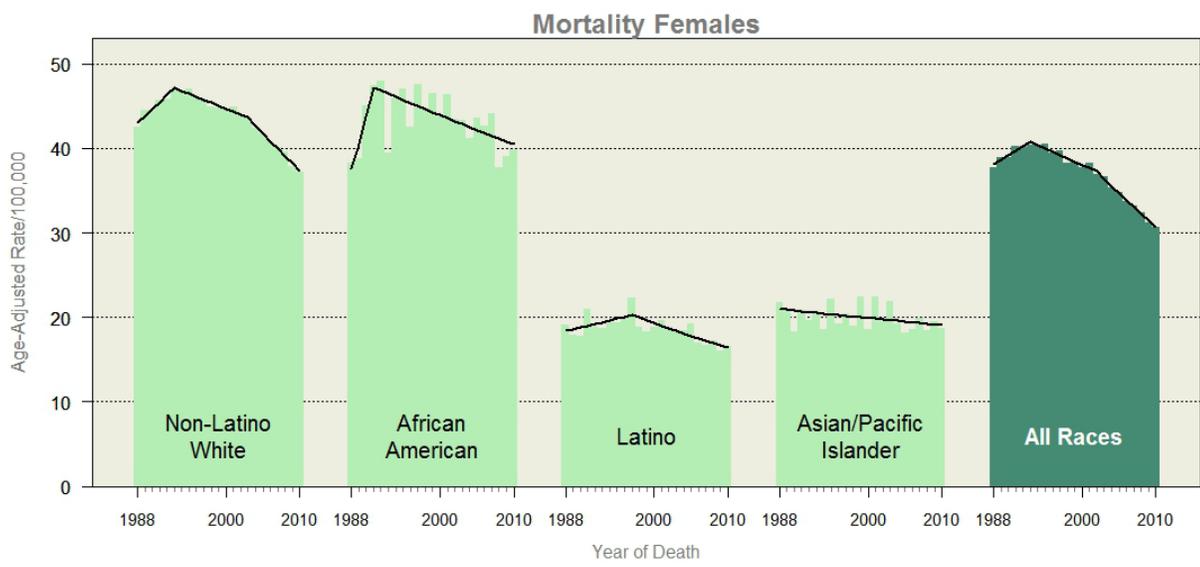
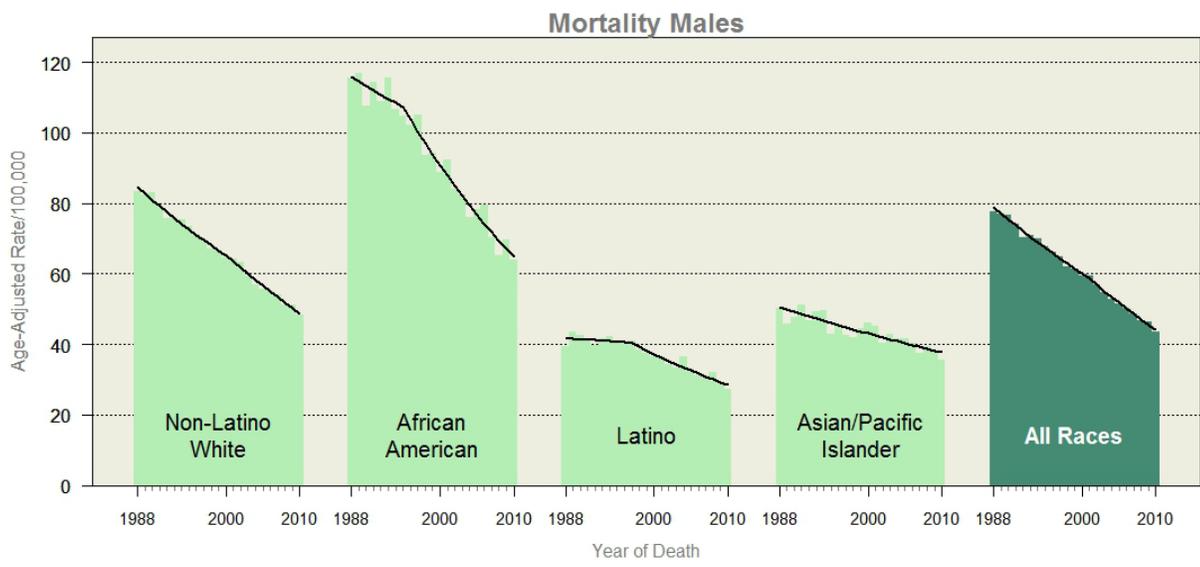
Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Trends in Age-Adjusted Incidence Rates by Race/Ethnicity in California, 1988-2010:  
Lung and Bronchus**



Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Trends in Age-Adjusted Mortality Rates by Race/Ethnicity in California, 1988-2010:  
Lung and Bronchus**



Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for  
 Population Health Improvement, UC Davis Health System

## MELANOMA OF THE SKIN

Melanoma is the most serious and aggressive type of skin cancer. In 2010, 13,382 Californians were diagnosed with melanoma (including 5,748 persons diagnosed with in situ melanomas), and 968 died from the disease. The chance of developing a melanoma increases with age, although the disease occurs in people of all ages, and in any skin surface. Melanoma is more common among whites than in African Americans. The following factors increase the risk of developing melanoma:

- Having a large number of ordinary moles or dysplastic nevi (moles with irregular color and shape)
- Having light hair, light-colored eyes, and fair skin that burns or freckles easily
- Family history of melanoma (present in about ten percent of patients with melanoma)
- History of blistering sunburns
- Exposure to natural or artificial sources of ultraviolet (UV) radiation
- Weakened immune system (e.g., by certain cancers or immunosuppressant drugs)

### Trends in Incidence and Mortality in California, 1988 through 2010

Starting around 1993, the incidence of invasive melanoma of the skin increased sharply among whites. Incidence rates have also increased among Latino men, although not as sharply (by 1.3 percent per year). Among African Americans and Asian/Pacific Islanders, trends could not be calculated due to the small number of melanomas diagnosed in these groups. The incidence of in situ melanomas (i.e. lesions that have not yet spread beyond the outer layer of the skin) quadrupled among whites. The incidence of in situ melanomas among Latinas tripled. Increasing trends for in situ melanomas may reflect heightened awareness and screening for skin cancers. These data underscore the need for protection against harmful sun exposure. Despite increases in incidence, mortality due to melanoma did not significantly increase, and actually decreased among white women (by 18 percent).

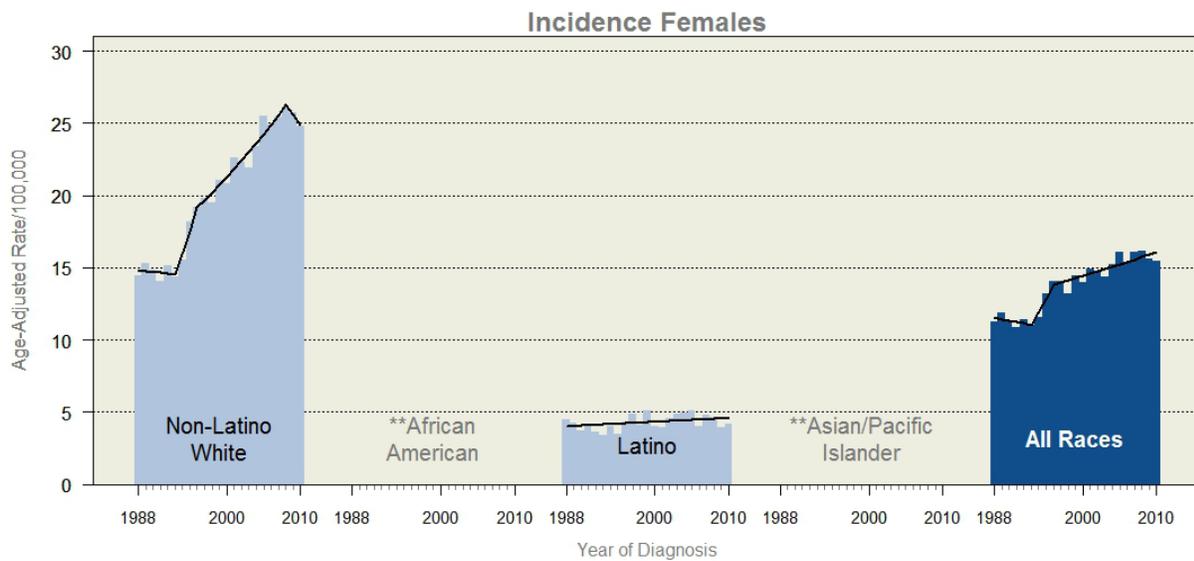
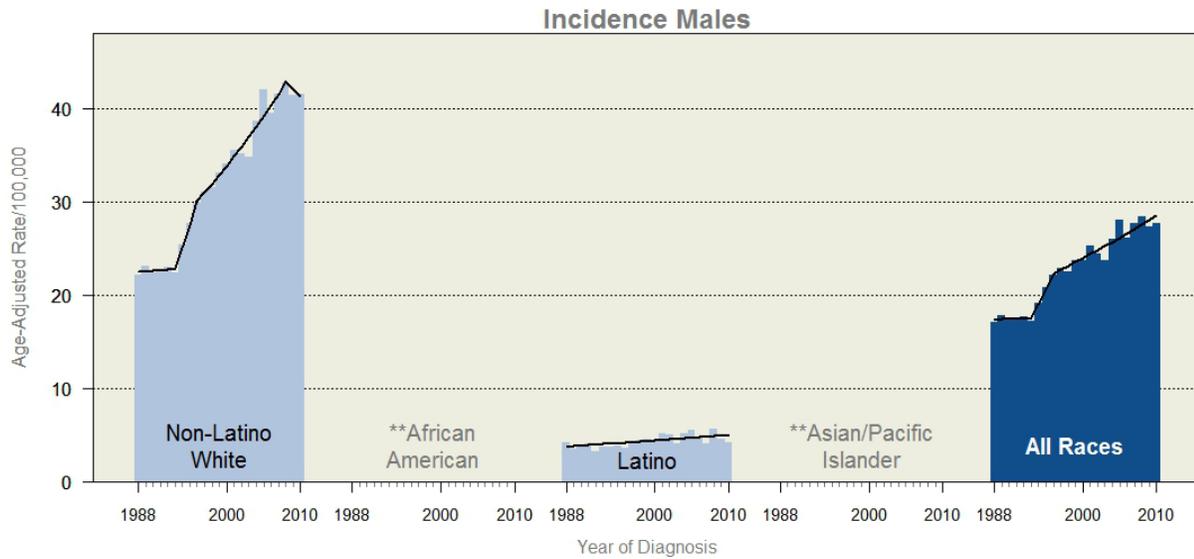
Ten-Year Average Annual Percent Change (AAPC) and Overall Percent Change in Age-Adjusted Cancer Incidence and Mortality Rates by Race/Ethnicity and Sex in California, 2001-2010:  
**Melanoma of the Skin**

Race/Ethnicity	INCIDENCE			MORTALITY		
	AAPC	Overall % Change		AAPC	Overall % Change	
Invasive						
Male and Female						
All Races Combined	1.5	16.1	↑	-0.9	-8.6	↓
Male						
Non-Latino White	1.9	20.7	↑	0.2	2.0	
Latino	1.3	13.8	↑	1.1	11.6	
All Races Combined	1.8	19.5	↑	-0.5	-4.9	↓
Female						
Non-Latino White	1.4	14.9		-0.9	-8.6	↓
Latino	0.6	6.2		-0.2	-2.0	
All Races Combined	1.1	11.6	↑	-0.2	-2.0	
In Situ						
Male and Female						
All Races Combined	3.0	34.4	↑	...	...	
Male						
Non-Latino White	3.6	42.4	↑	...	...	
All Races Combined	3.4	39.7	↑	...	...	
Female						
Non-Latino White	3.2	37.0	↑	...	...	
Latino	3.2	37.0	↑	...	...	
All Races Combined	2.5	28.0	↑	...	...	

↑ Statistically significant increase    ↓ Statistically significant decrease    ... Mortality data not available

Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

Trends in Age-Adjusted Incidence Rates by Race/Ethnicity in California, 1988-2010:  
**Melanoma of the Skin**

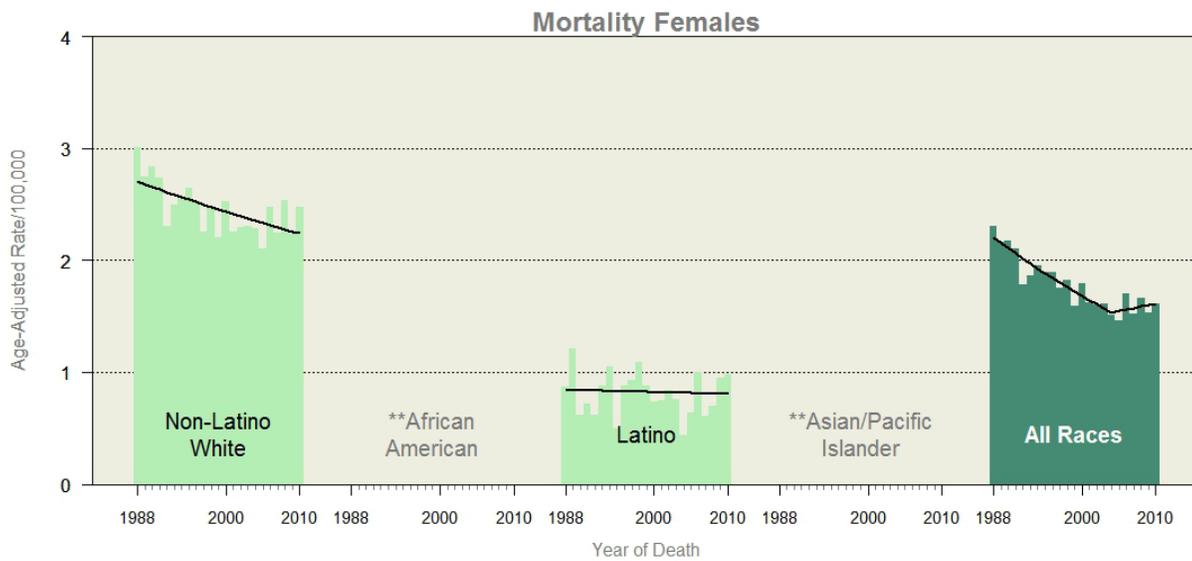
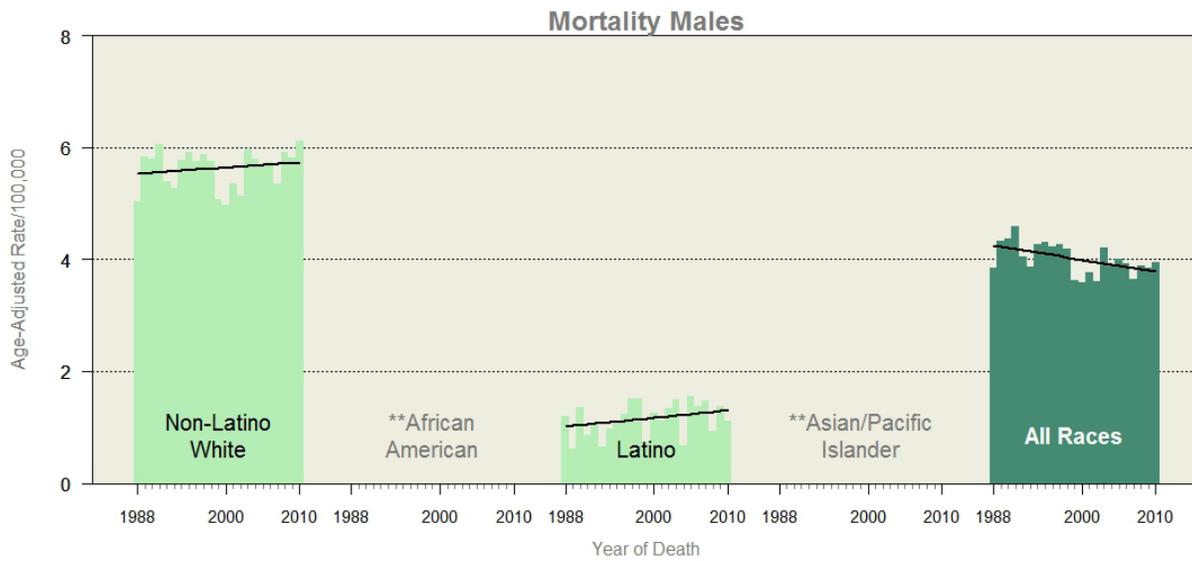


\*\* Rates not calculated due to less than 8 cases or deaths per year

Source of data: California Cancer Registry, California Department of Public Health

Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Trends in Age-Adjusted Mortality Rates by Race/Ethnicity in California, 1988-2010:  
Melanoma of the Skin**



\*\* Rates not calculated due to less than 8 cases or deaths per year

Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

## MULTIPLE MYELOMA

Multiple myeloma is a cancer that begins in plasma cells, a type of white blood cell responsible for producing antibodies. The cause(s) of myeloma is not known, and there are no known major risk factors for myeloma or ways to prevent it. The risk of multiple myeloma increases with age, and it occurs more often among African Americans than in whites. A personal history of monoclonal gammopathy of undetermined significance (MGUS), in itself a benign condition, increases the risk of lymphoma and multiple myeloma. In 2010, 2,149 Californians developed multiple myeloma and 1,117 died from the disease.

### Trends in Incidence and Mortality in California, 1988 through 2010

Incidence rates for multiple myeloma were unchanged except among white men, for whom rates increased significantly since 2002 (by 16 percent). Mortality rates for the disease declined significantly among Latinas, particularly after 2000, in which time they declined by 28 percent. Mortality rates also declined among African-American men (by 18 percent). Multiple myeloma rates for persons of other racial/ethnic groups did not change significantly.

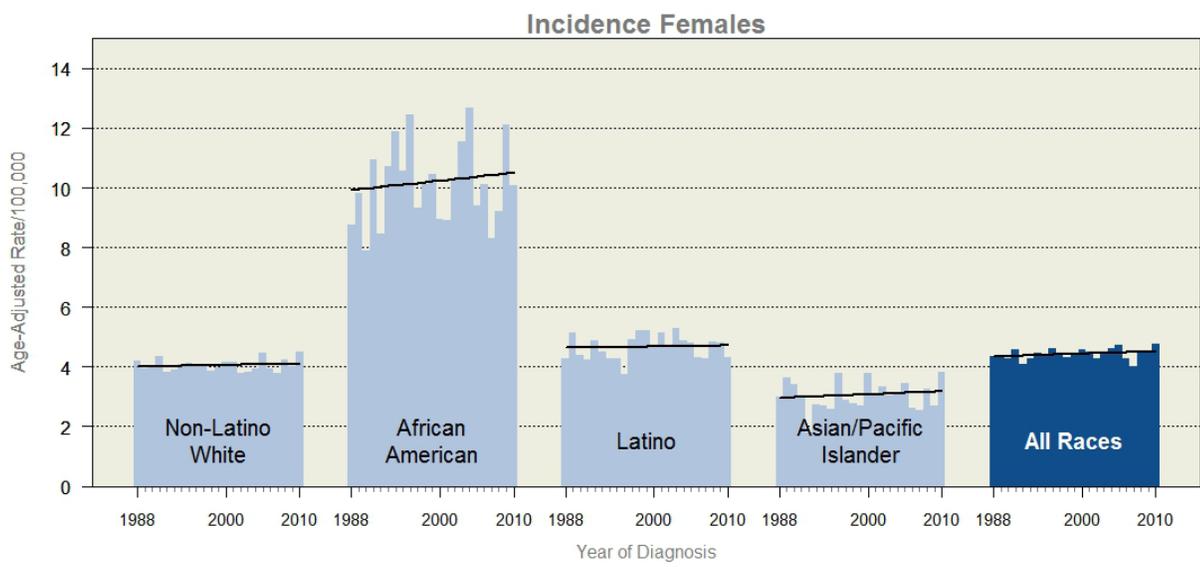
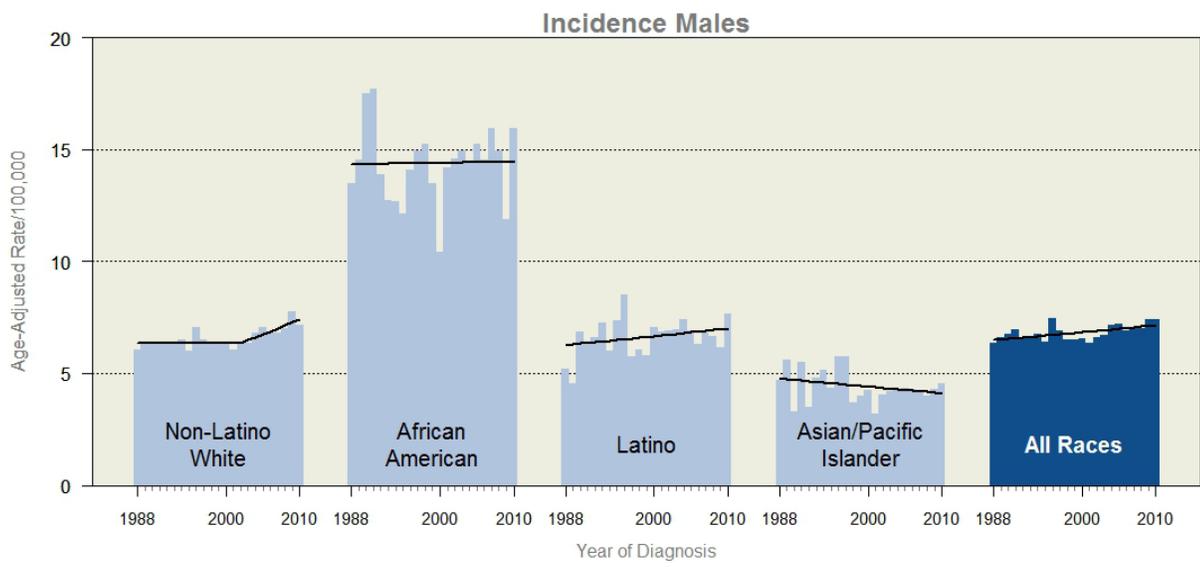
### Ten-Year Average Annual Percent Change (AAPC) and Overall Percent Change in Age-Adjusted Cancer Incidence and Mortality Rates by Race/Ethnicity and Sex in California, 2001-2010: Multiple Myeloma

Race/Ethnicity	INCIDENCE			MORTALITY		
	AAPC	Overall % Change		AAPC	Overall % Change	
Male and female						
All Races Combined	0.4	4.1	↑	-0.7	-6.8	↓
Male						
Non-Latino White	1.7	18.4	↑	-0.4	-3.9	
African American	0.0	0.0		-0.9	-8.6	↓
Latino	0.5	5.1		-0.5	-4.9	
Asian/Pacific Islander	-0.7	-6.8		-0.2	-2.0	
All Races Combined	0.4	4.1	↑	-0.5	-4.9	↓
Female						
Non-Latino White	0.1	1.0		-1.1	-10.5	↓
African American	0.3	3.0		-0.6	-5.8	
Latino	0.1	1.0		-3.2	-27.8	↓
Asian/Pacific Islander	0.3	3.0		-0.6	-5.8	
All Races Combined	0.2	2.0		-0.9	-8.6	↓

↑ Statistically significant increase    ↓ Statistically significant decrease

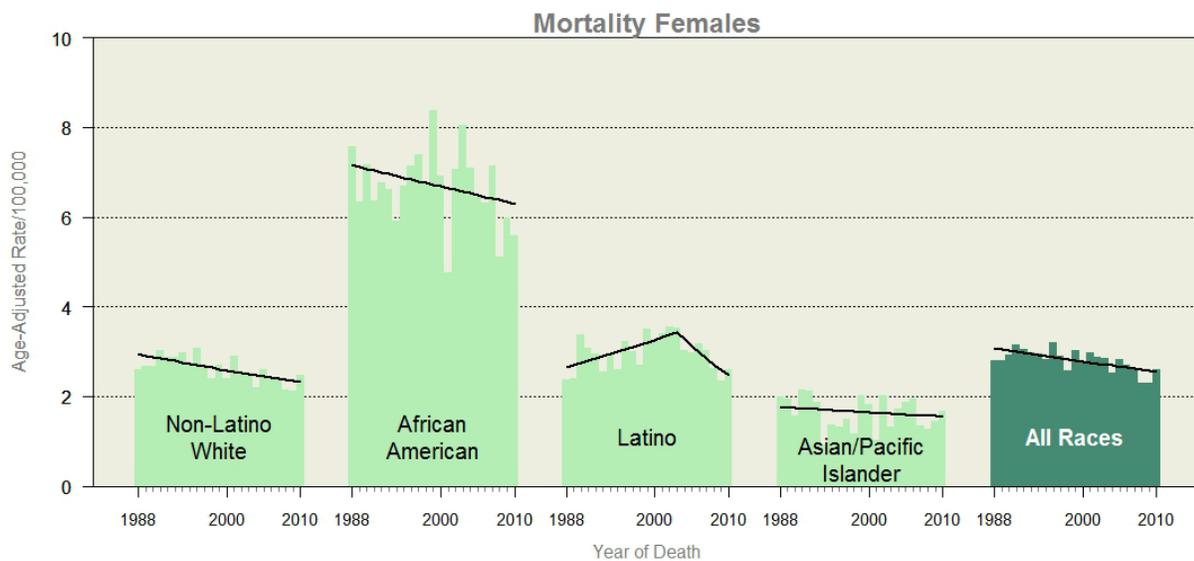
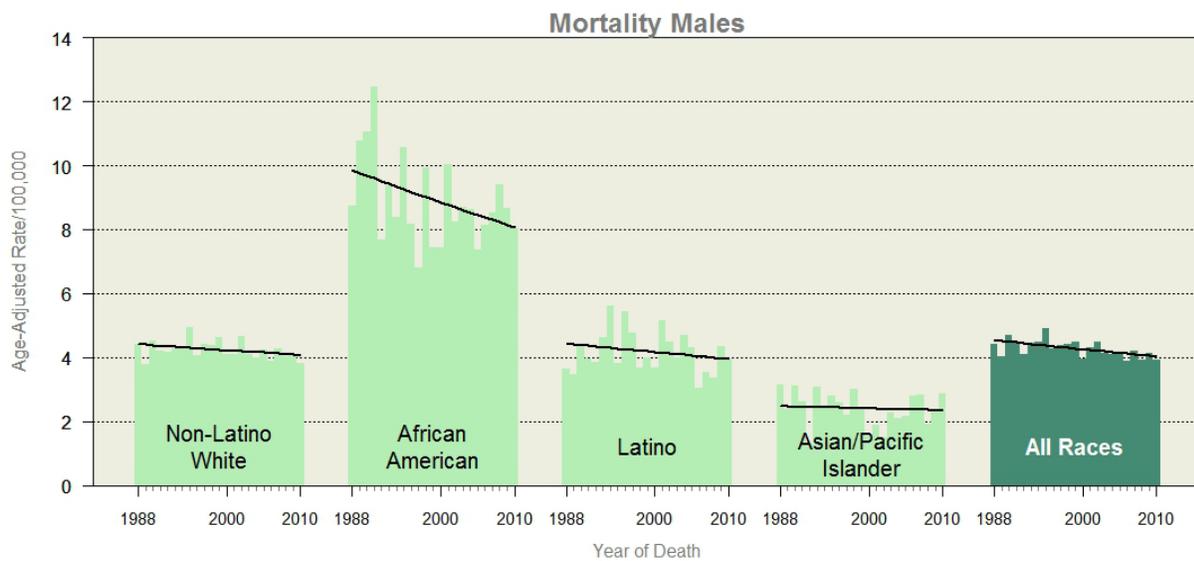
Source of data: California Cancer Registry, California Department of Public Health  
Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Trends in Age-Adjusted Incidence Rates by Race/Ethnicity in California, 1988-2010:  
Multiple Myeloma**



Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

Trends in Age-Adjusted Mortality Rates by Race/Ethnicity in California, 1988-2010:  
**Multiple Myeloma**



Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for  
 Population Health Improvement, UC Davis Health System

## NON-HODGKIN LYMPHOMA

Non-Hodgkin lymphoma (NHL) comprises a large group of cancers of the immune system. The risk of developing NHL increases with age; the most common types are usually diagnosed after age 60. In 2010, 6,944 persons were diagnosed with NHL, and 2,088 died from it. The cause of NHL is unknown, but certain factors raise the risk of developing the disease.

- Infection with human immunodeficiency virus (HIV), Epstein-Barr virus (EBV), human T-cell leukemia/lymphoma virus type 1 (HTLV-1), hepatitis C virus, and the bacterium *Helicobacter pylori*
- Immunosuppression from treatment with immunosuppressant drugs or from some inherited conditions
- Occupational exposure to certain herbicides and other chemicals

### Trends in Incidence and Mortality in California, 1988 through 2010

Incidence rates for non-Hodgkin lymphoma increased among white and African-American men until the early and mid-1990s but have since stabilized (the initial increase was statistically significant for white men only.) Rates among Latinos increased slowly but significantly. Incidence rates among women increased significantly until the late 1990s (by 22 percent among whites and 55 percent among African Americans), but have stabilized since then. No significant change in incidence rates was observed among Asian/Pacific Islanders.

Mortality rates among men followed a pattern similar to incidence, with rates increasing up to the mid and late 1990s but decreasing significantly after that (except among African American men, for whom the rates did not change significantly). Mortality rates among men decreased significantly (by 24 percent) during the past 10 years. Mortality rates for white women were the only ones that decreased significantly (by 29 percent during the past 10 years).

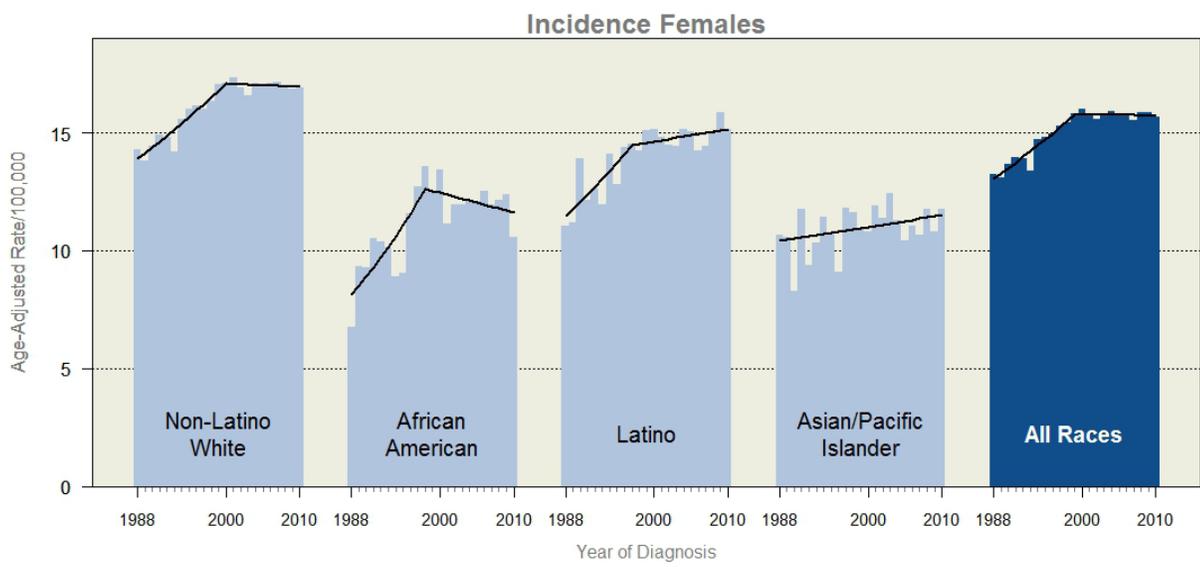
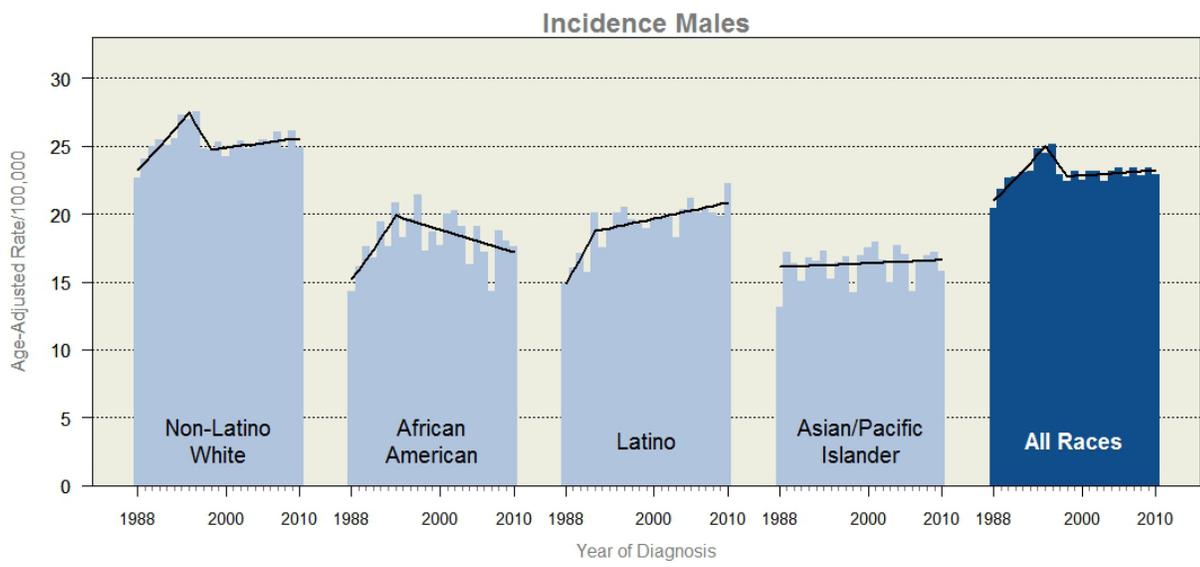
Ten-Year Average Annual Percent Change (AAPC) and Overall Percent Change in Age-Adjusted Cancer Incidence and Mortality Rates by Race/Ethnicity and Sex in California, 2001-2010:  
**Non-Hodgkin Lymphoma**

Race/Ethnicity	INCIDENCE			MORTALITY		
	AAPC	Overall % Change		AAPC	Overall % Change	
Male and female						
All Races Combined	0.0	0.0		-2.8	-24.7	↓
Male						
Non-Latino White	0.3	3.0		-2.7	-23.9	↓
African American	-0.9	-8.6		-0.8	-7.7	
Latino	0.6	6.2	↑	-2.0	-18.3	↓
Asian/Pacific Islander	0.1	1.0		-2.3	-20.8	↓
All Races Combined	0.2	2.0		-2.7	-23.9	↓
Female						
Non-Latino White	-0.1	-1.0		-3.4	-29.2	↓
African American	-0.7	-6.8		0.0	0.0	
Latino	0.4	4.1		-0.5	-4.9	
Asian/Pacific Islander	0.5	5.1		-0.3	-3.0	
All Races Combined	0.0	0.0		-2.9	-25.5	↓

↑ Statistically significant increase      ↓ Statistically significant decrease

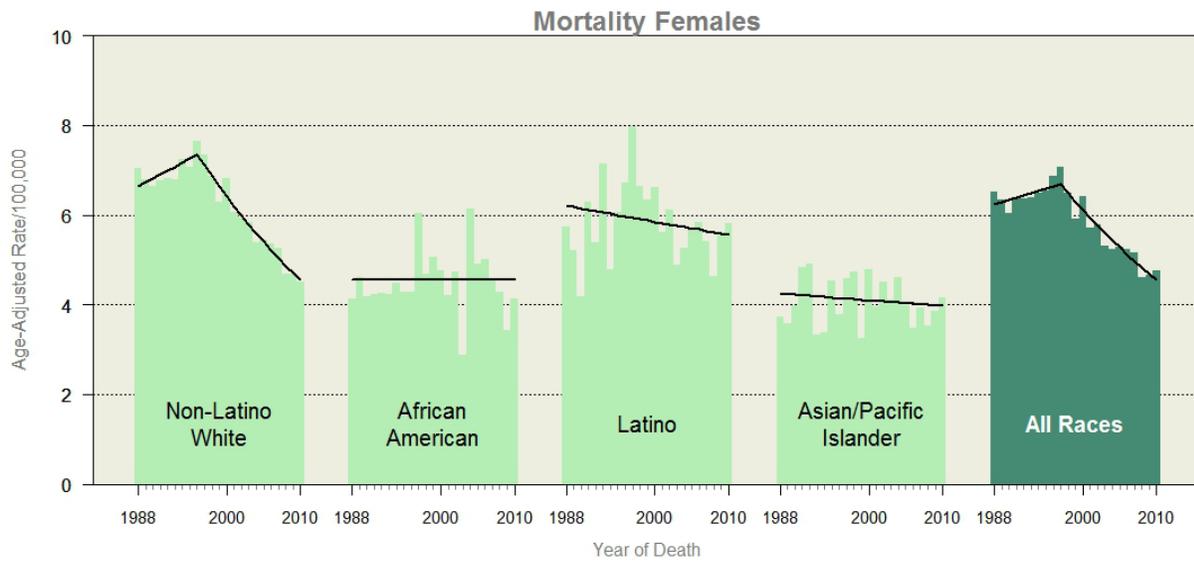
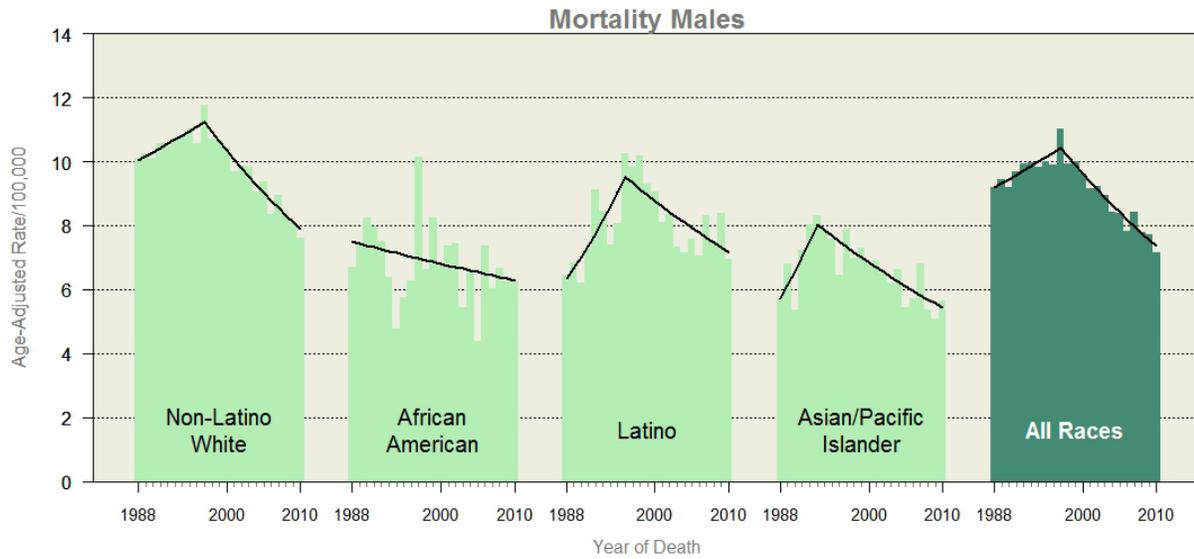
Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Trends in Age-Adjusted Incidence Rates by Race/Ethnicity in California, 1988-2010:  
Non-Hodgkin Lymphoma**



Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Trends in Age-Adjusted Mortality Rates by Race/Ethnicity in California, 1988-2010:  
Non-Hodgkin Lymphoma**



Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

## ORAL CAVITY AND PHARYNX CANCER

Oral cancer can develop in any part of the oral cavity or oropharynx; the most common sites are the tongue, lip, and floor of the mouth. In 2010, 3,897 Californians were diagnosed with oral cancer, and 919 died from the disease. Rates of oral cancer are more than two times higher in men than women. Many oral cancers could be prevented by controlling known risk factors for the disease, including:

- Tobacco use (including smoking cigarettes, cigars, pipes, and use of smokeless tobacco) is the strongest risk factor for oral cancer
- Alcohol consumption, with the risk increasing significantly if combined with tobacco use
- Prolonged sun exposure (linked to cancer in the lip area)
- Infection with Human papillomavirus (HPV)

### Trends in Incidence and Mortality in California, 1988 through 2010

For both sexes and all races combined, incidence rates for oral cancer declined significantly until 2003, when rates started to increase. However, trends were very different across sex and racial/ethnic groups. Among white men, trends decreased significantly, followed by a rapid and sharp increase until 2008. After 2008, rates have declined but it is uncertain if this represents a significant trend. Incidence rates among African American, Latino, and Asian/Pacific Islander men decreased by 43, 14, and 22 percent, respectively. Among white women, rates decreased by 23 percent until 2004, after which a non-significant increase of about 1.2% per year was observed. Incidence rates among Latinas followed a more complex pattern, but have increased significantly (by 21 percent) since 2004. Incidence rates for African-American women decreased slightly but non-significantly, while a significant decline of 27 percent was detected among Asian/Pacific Islander women.

The decline in incidence rates is consistent with the decline of smoking in California. A recent study based on SEER data observed that the risk for oral cancer among persons 45 years and younger was linked with infection with the human papillomavirus (HPV) (<http://seer.cancer.gov/about/news/oral-cancer.html>). An increase in rates of HPV-related cancers has been described in California and the US. Mortality rates due to oral cancer have declined significantly except for Latinas, who experienced only a small and statistically insignificant decline. Decreased mortality rates were observed among men and women from all other racial/ethnic backgrounds, ranging from 58 percent among African-American men to 27 percent among white men.

Ten-Year Average Annual Percent Change (AAPC) and Overall Percent Change in Age-Adjusted Cancer Incidence and Mortality Rates by Race/Ethnicity and Sex in California, 2001-2010:  
**Oral Cavity and Pharynx**

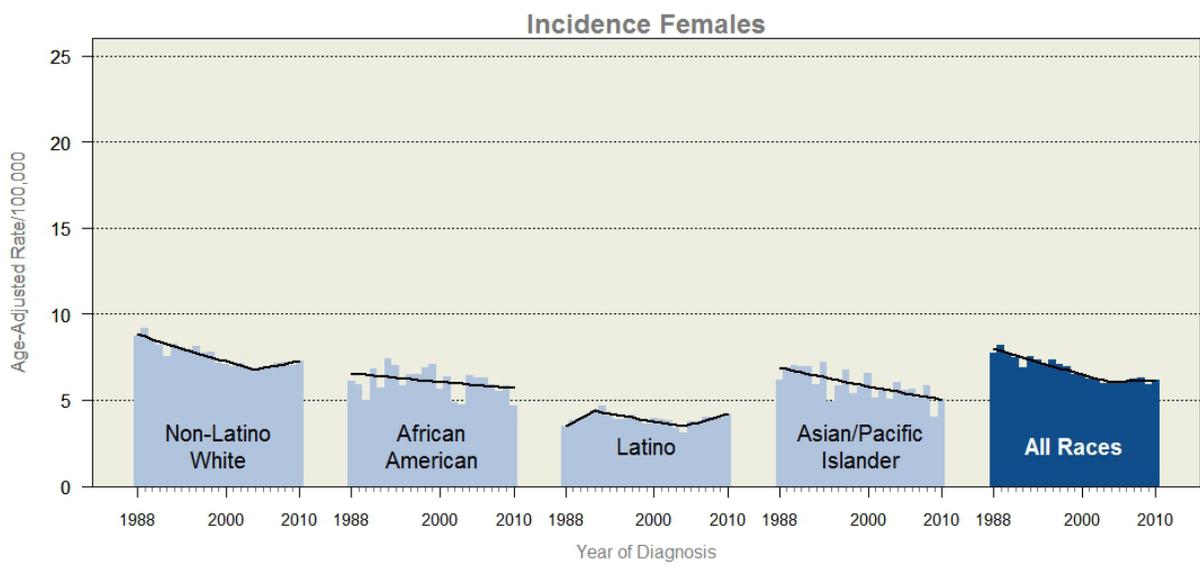
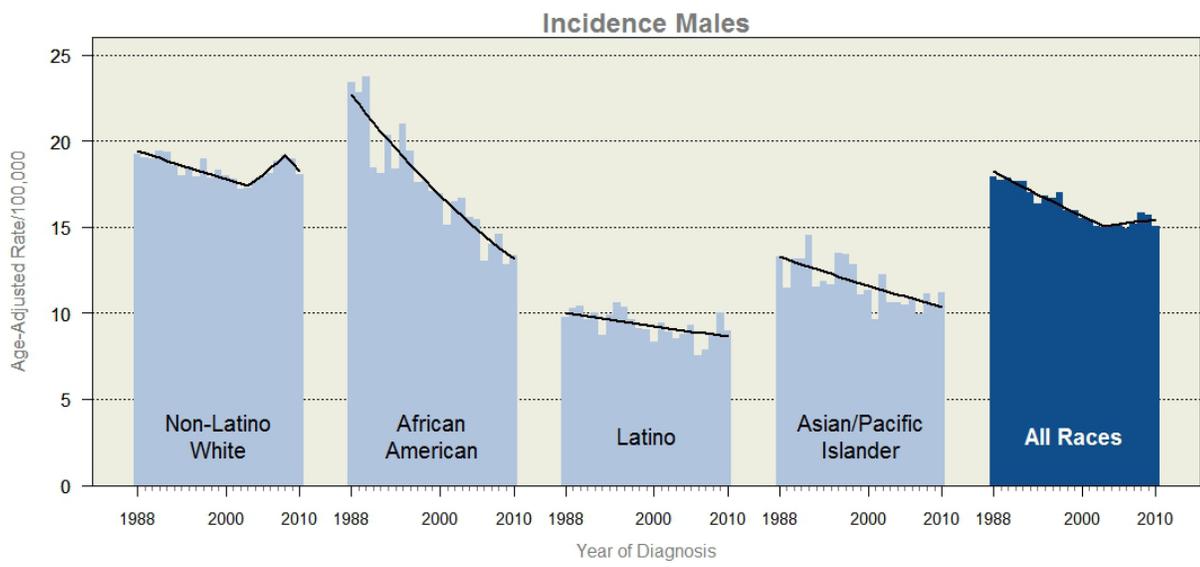
Race/Ethnicity	INCIDENCE			MORTALITY		
	AAPC	Overall % Change		AAPC	Overall % Change	
Male and female						
All Races Combined	0.0	0.0		-2.0	-18.3	↓
Male						
Non-Latino White	0.4	4.1		-1.4	-13.2	↓
African American	-2.5	-22.4	↓	-3.9	-32.8	↓
Latino	-0.7	-6.8	↓	-1.7	-15.8	↓
Asian/Pacific Islander	-1.1	-10.5	↓	-2.3	-20.8	↓
All Races Combined	0.0	0.0		-1.8	-16.6	↓
Female						
Non-Latino White	0.2	2.0		-2.5	-22.4	↓
African American	-0.6	-5.8		-2.2	-19.9	↓
Latino	1.5	16.1	↑	-0.4	-3.9	
Asian/Pacific Islander	-1.4	-13.2	↓	-2.1	-19.1	↓
All Races Combined	-0.4	-3.9		-2.5	-22.4	↓

↑ Statistically significant increase      ↓ Statistically significant decrease

Source of data: California Cancer Registry, California Department of Public Health

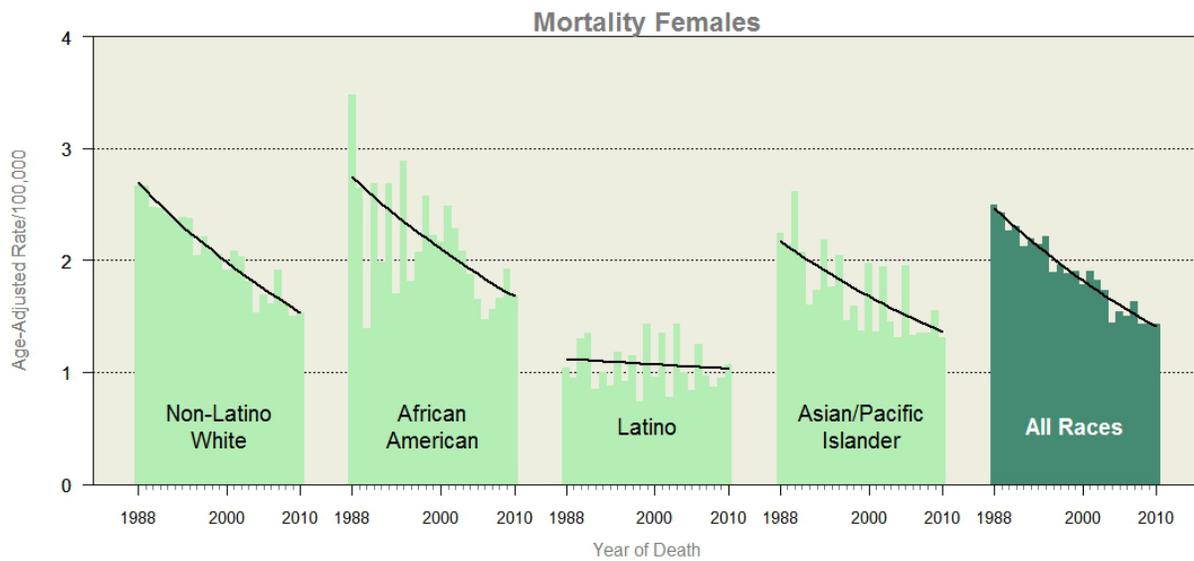
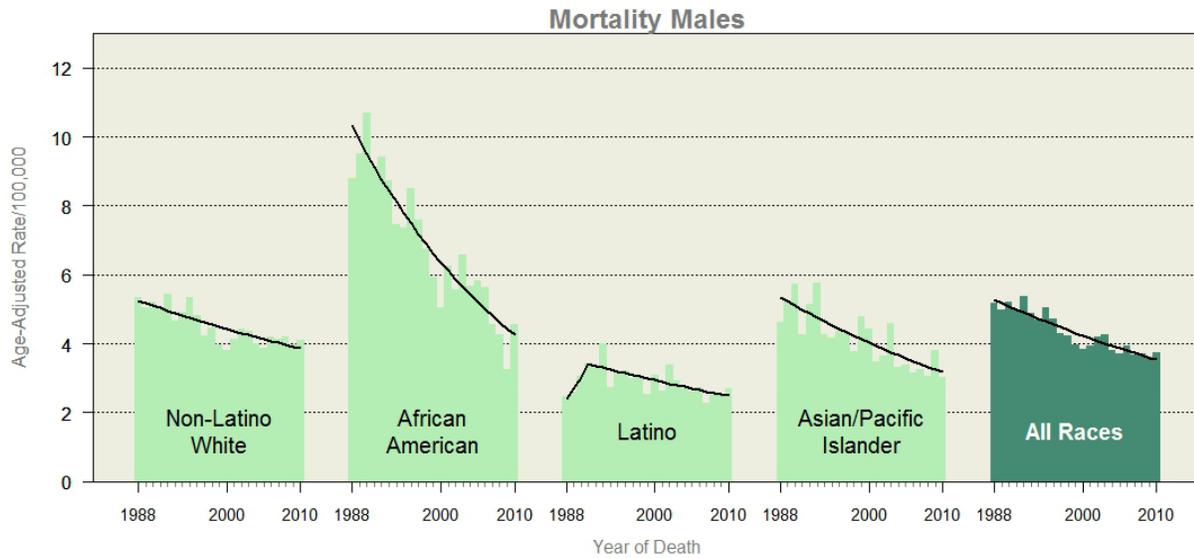
Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Trends in Age-Adjusted Incidence Rates by Race/Ethnicity in California, 1988-2010:  
Oral Cavity and Pharynx**



Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

Trends in Age-Adjusted Mortality Rates by Race/Ethnicity in California, 1988-2010:  
**Oral Cavity and Pharynx**



Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

## OVARY CANCER

Ovarian cancer is the most deadly of all gynecologic cancers. In 2010, 2,351 women were diagnosed with and 1,542 died from ovarian cancer. Over 90 percent of ovarian cancers are of epithelial origin. The incidence of ovarian cancer increases with age. Use of oral contraceptives, undergoing tubal ligation (sterilization), or having a hysterectomy decreases the risk of developing ovarian cancer. The cause(s) of ovarian cancer is unknown, but increased risk is associated with:

- Family history of ovarian cancer in the mother, daughter, or sister
- Personal history of breast, uterus, or colorectal cancer
- Inherited mutations in the BRCA1, BRCA2, or hereditary non-polyposis colon cancer genes
- Use of estrogen hormone replacement therapy after menopause
- Obesity

### Trends in Incidence and Mortality in California, 1988 through 2010

The incidence of ovarian cancer declined among all racial/ethnic groups except among Latinas, for whom there was a small but not statistically significant decline. Incidence rates decreased from 16 percent among Asian/Pacific Islanders to 22 percent among whites. A corresponding decline in ovarian cancer mortality rates was observed among white women only, for whom a 17 percent decrease in rates was noted after 2006.

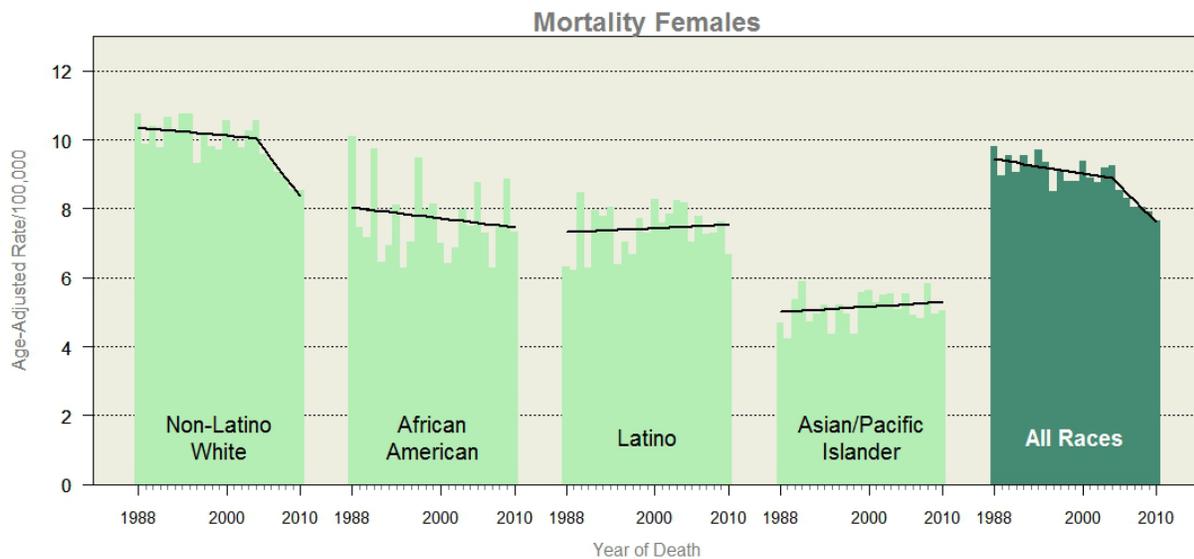
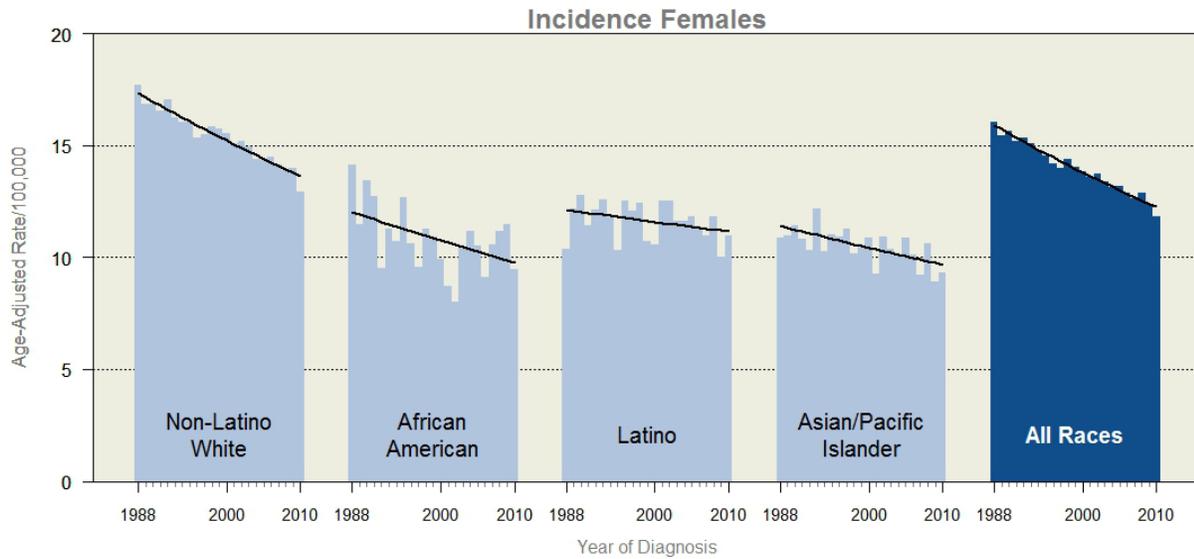
### Ten-Year Average Annual Percent Change (AAPC) and Overall Percent Change in Age-Adjusted Cancer Incidence and Mortality Rates by Race/Ethnicity and Sex in California, 2001-2010: Ovary

Race/Ethnicity	INCIDENCE			MORTALITY		
	AAPC	Overall % Change		AAPC	Overall % Change	
Female						
Non-Latino White	-1.1	-10.5	↓	-2.1	-19.1	↓
African American	-0.9	-8.6	↓	-0.3	-3.0	
Latino	-0.4	-3.9		0.1	1.0	
Asian/Pacific Islander	-0.8	-7.7	↓	0.3	3.0	
All Races Combined	-1.2	-11.4	↓	-1.8	-16.6	↓

↑ Statistically significant increase      ↓ Statistically significant decrease

Source of data: California Cancer Registry, California Department of Public Health  
Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

Trends in Age-Adjusted Incidence and Mortality Rates by Race/Ethnicity in California, 1988-2010:  
Ovary



Source of data: California Cancer Registry, California Department of Public Health  
Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

## PANCREAS CANCER

In 2010, 4,296 Californians developed pancreatic cancer, and 3,796 died from the disease. Cancer of the pancreas is most commonly diagnosed among men, African Americans, and people older than 60 years. Although the cause of pancreatic cancer is not known, the following factors increase a person's risk of developing pancreatic cancer:

- Cigarette smoking (doubles or triples the risk of pancreatic cancer)
- Long term diabetes
- Family history of pancreatic, colon, or ovarian cancer
- Chronic pancreatitis

### Trends in Incidence and Mortality in California, 1988 through 2010

Incidence rates for pancreatic cancer among men declined significantly since 1988, but have increased by about 10% since 2001. This pattern was similar in men of all race/ethnicities except among African Americans, for whom rates have not increased. Among white and Asian/Pacific Islander women, a slowly increasing incidence was observed. Rates remained unchanged among Latinas and African-American women.

Mortality rates among Latinas and Asian/Pacific Islander women increased significantly (by 20 and 26 percent, respectively). Such an increase in mortality rates not accompanied by a corresponding increase in incidence rates suggests that these two groups experienced poor survival after being diagnosed with pancreatic cancer. Competing trends in risk factors for pancreatic cancer (i.e., the decline in smoking is counteracted by an increase in diabetes) complicates making projections about the disease. According to the Center for Disease Control and Prevention, the percent of Californians ever diagnosed with diabetes increased from 7.1 percent in 2004 to 8.6 percent in 2010.

Ten-Year Average Annual Percent Change (AAPC) and Overall Percent Change in Age-Adjusted Cancer Incidence and Mortality Rates by Race/Ethnicity and Sex in California, 2001-2010:

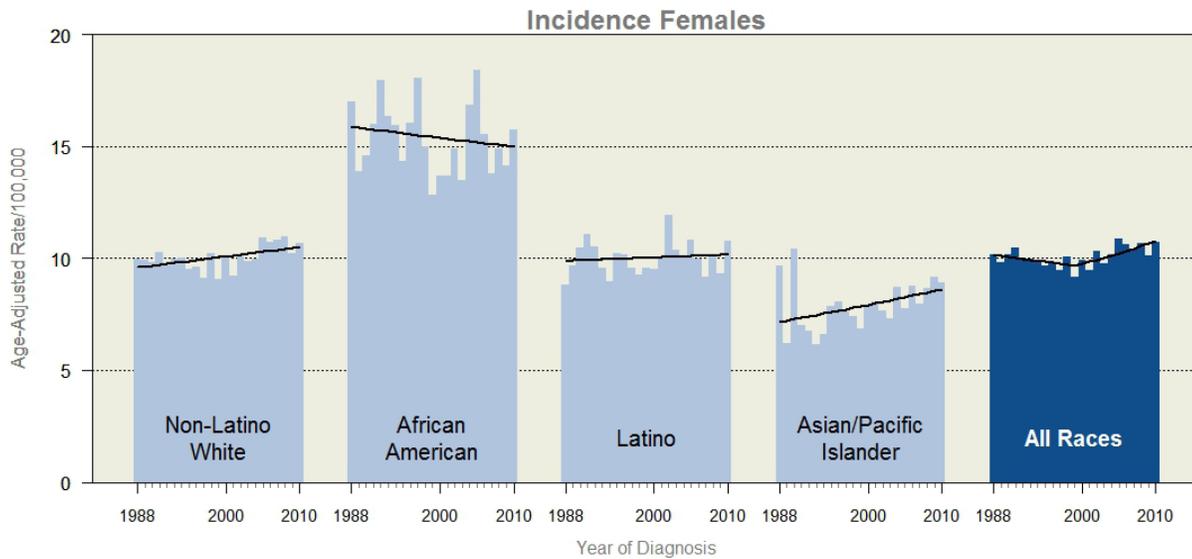
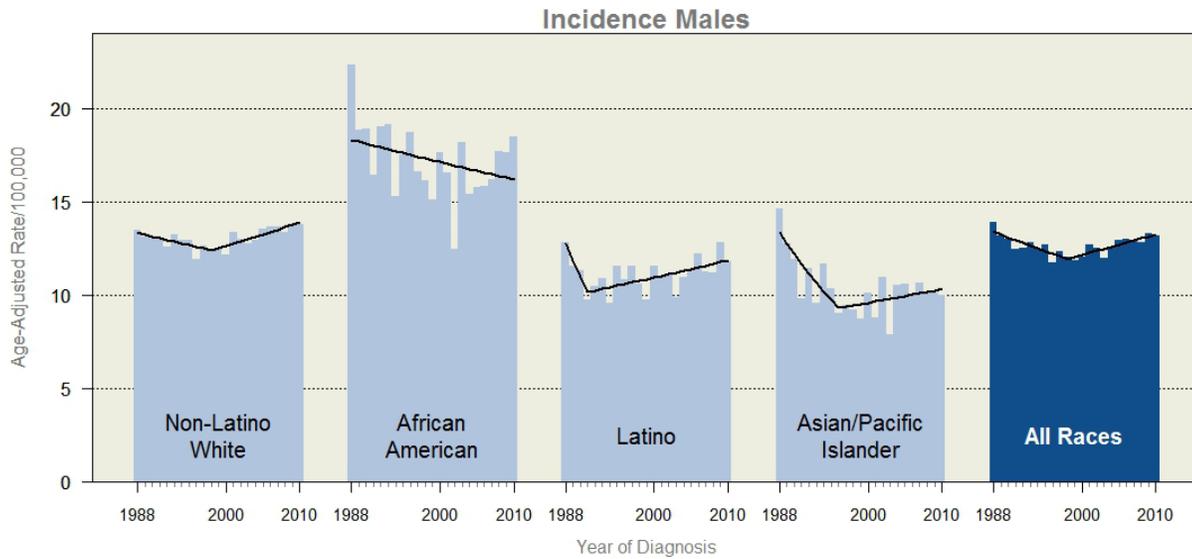
**Pancreas**

Race/Ethnicity	INCIDENCE			MORTALITY		
	AAPC	Overall % Change		AAPC	Overall % Change	
Male and female						
All Races Combined	1.0	10.5	↑	0.5	5.1	↑
Male						
Non-Latino White	1.0	10.5	↑	0.0	0.0	
African American	-0.6	-5.8		1.0	10.5	
Latino	0.8	8.3	↑	0.6	6.2	
Asian/Pacific Islander	0.7	7.2		1.1	11.6	
All Races Combined	0.9	9.4	↑	-0.2	-2.0	
Female						
Non-Latino White	0.4	4.1	↑	0.7	7.2	↑
African American	-0.3	-3.0		-0.4	-3.9	
Latino	0.1	1.0		0.7	7.2	↑
Asian/Pacific Islander	0.8	8.3	↑	1.3	13.8	↑
All Races Combined	1.0	10.5	↑	0.1	1.0	

↑ Statistically significant increase    ↓ Statistically significant decrease

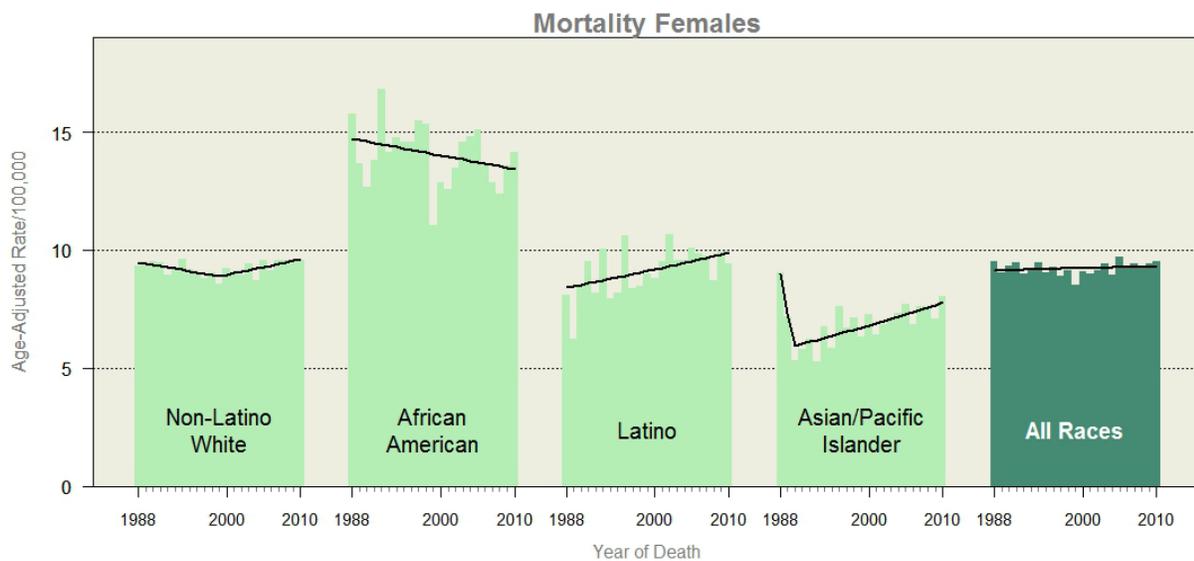
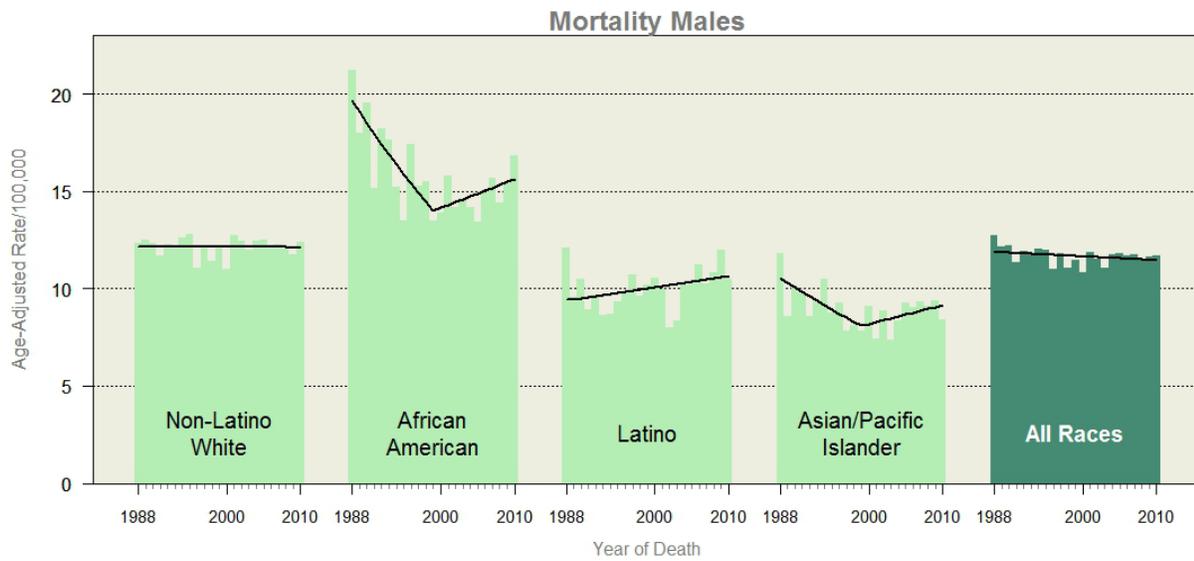
Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Trends in Age-Adjusted Incidence Rates by Race/Ethnicity in California, 1988-2010:  
Pancreas**



Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

Trends in Age-Adjusted Mortality Rates by Race/Ethnicity in California, 1988-2010:  
**Pancreas**



Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

## PROSTATE GLAND CANCER

Prostate cancer is the most commonly diagnosed non-skin cancer among men in California and the U.S. In 2010, 22,205 men in California were diagnosed with prostate cancer, and 3,049 died from the disease. The incidence of prostate cancer is highest among African Americans, followed by non-Latino whites, Latinos, and Asian/Pacific Islanders. The incidence of prostate cancer increases with age. The cause of prostate cancer is unknown, but the following risk factors increase the risk of developing the disease:

- Family history of prostate cancer in a brother or father
- High levels of testosterone
- Diet high in fat, and especially animal fat

### Trends in Incidence and Mortality in California, 1988 through 2010

Trends in prostate cancer in California followed a complex pattern that is best described in four periods. Following the introduction and widespread use of the prostate-specific antigen (PSA) test, the incidence of the disease climbed rapidly, peaking in the early 1990s. Around 1992-1993, incidence rates dropped and stabilized until 2001, when incidence rates again began to decline significantly (by about 20 percent). This pattern was similar in all four racial/ethnic groups. A very different pattern was observed for prostate cancer-related mortality. Since 1988 (or from around 1993 among white men), mortality rates have declined steadily in all racial/ethnic groups, from 25 percent among Latinos to 50 percent among Asian/Pacific Islanders. Among white men, mortality rates declined very sharply after 1993 and then more slowly after 1998. PSA screening rates in California were unchanged from 2002 through 2010.

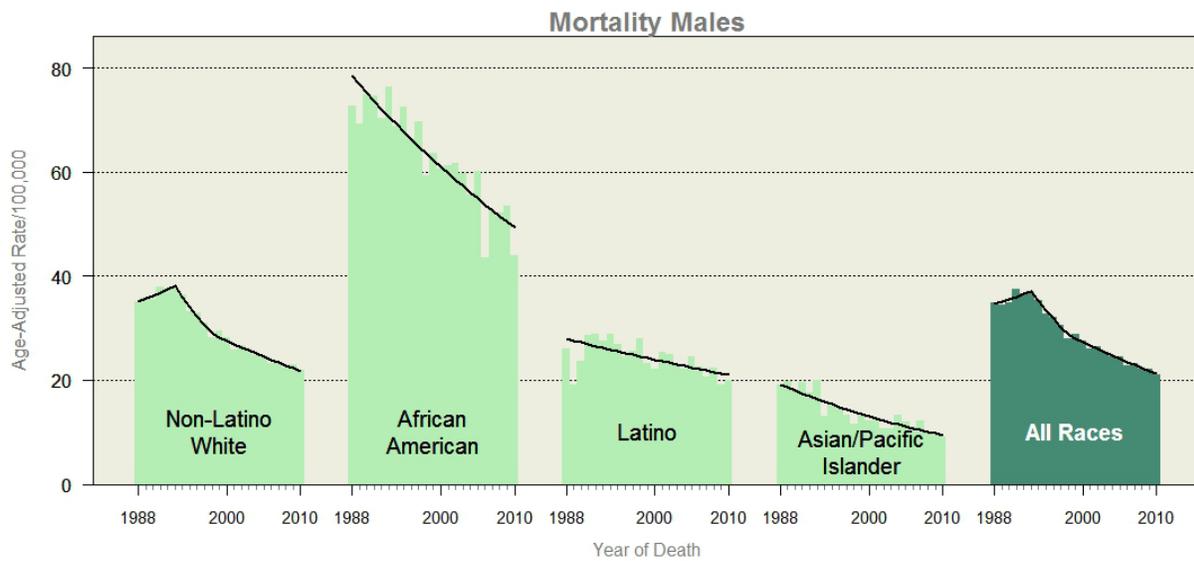
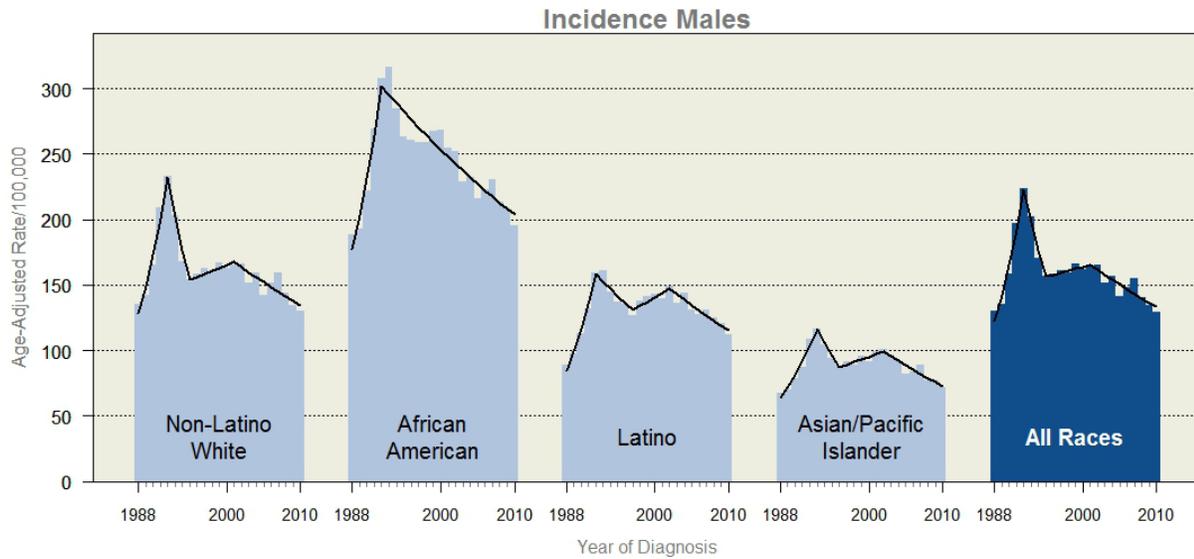
### Ten-Year Average Annual Percent Change (AAPC) and Overall Percent Change in Age-Adjusted Cancer Incidence and Mortality Rates by Race/Ethnicity and Sex in California, 2001-2010: Prostate Gland

Race/Ethnicity	INCIDENCE			MORTALITY		
	AAPC	Overall % Change		AAPC	Overall % Change	
Male						
Non-Latino White	-2.4	-21.6	↓	-2.4	-21.6	↓
African American	-2.2	-19.9	↓	-2.1	-19.1	↓
Latino	-2.4	-21.6	↓	-1.3	-12.3	↓
Asian/Pacific Islander	-3.2	-27.8	↓	-3.1	-27.0	↓
All Races Combined	-2.4	-21.6	↓	-2.5	-22.4	↓

↑ Statistically significant increase      ↓ Statistically significant decrease

Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Trends in Age-Adjusted Incidence and Mortality Rates by Race/Ethnicity in California, 1988-2010:  
Prostate Gland**



Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

## STOMACH CANCER

Stomach cancer is the fourth most commonly occurring cancer worldwide. In 2010, 2,834 Californians were diagnosed and 1,598 died from the disease. Most cases of stomach cancer occur in people over 70 years old, and men are much more likely to develop the disease than women. The following factors increase the risk of developing stomach cancer:

- Diets high in smoked, salted, or pickled foods
- Infection with the bacteria *Helicobacter pylori* and chronic atrophic gastritis
- Stomach surgery and pernicious anemia
- Smoking and high alcohol consumption
- Certain genetic disorders, hereditary non-polyposis colorectal cancer and familial adenomatous polyposis

### Trends in Incidence and Mortality in California, 1988 through 2010

The incidence of stomach cancer declined significantly in all population groups (ranging from 25 percent among Latinas to 43 percent among Asian/Pacific Islanders). Mortality rates for the disease declined by 44 percent among men and 31 percent among women. The decline in mortality rates among Latino men started around 2001, but rates have decreased by 31 percent since then. The largest decreases in mortality rates were observed among white men (by 55 percent) and Asian/Pacific Islander men (by 53 percent). Declining trends in stomach cancer incidence and mortality have been described in other countries as well. A decrease in the prevalence of *H. pylori* infection, together with dietary changes and decreased smoking, may have contributed to the declining trends in stomach cancer.

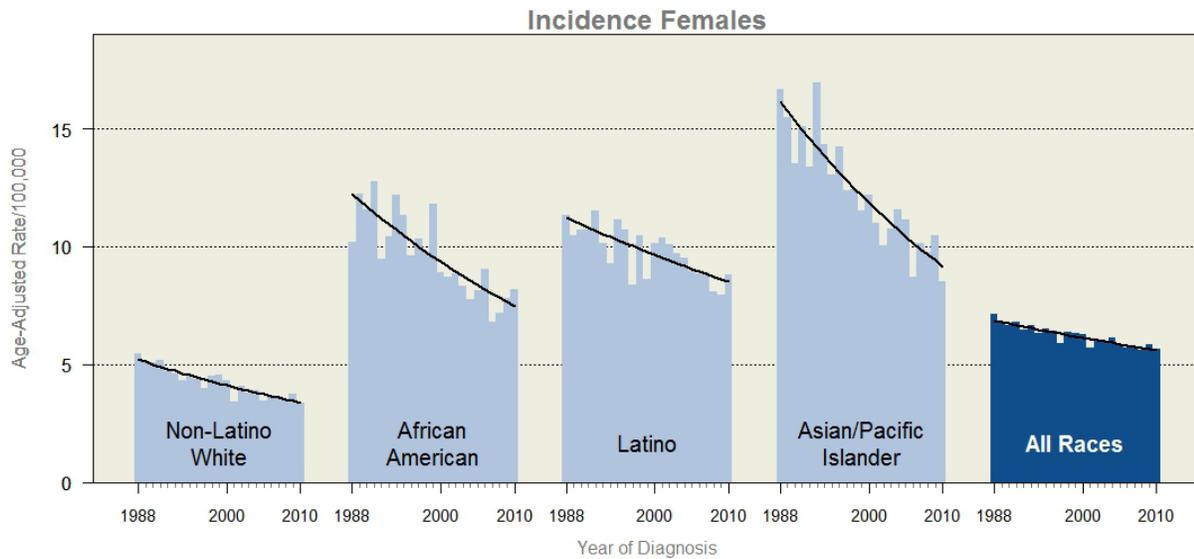
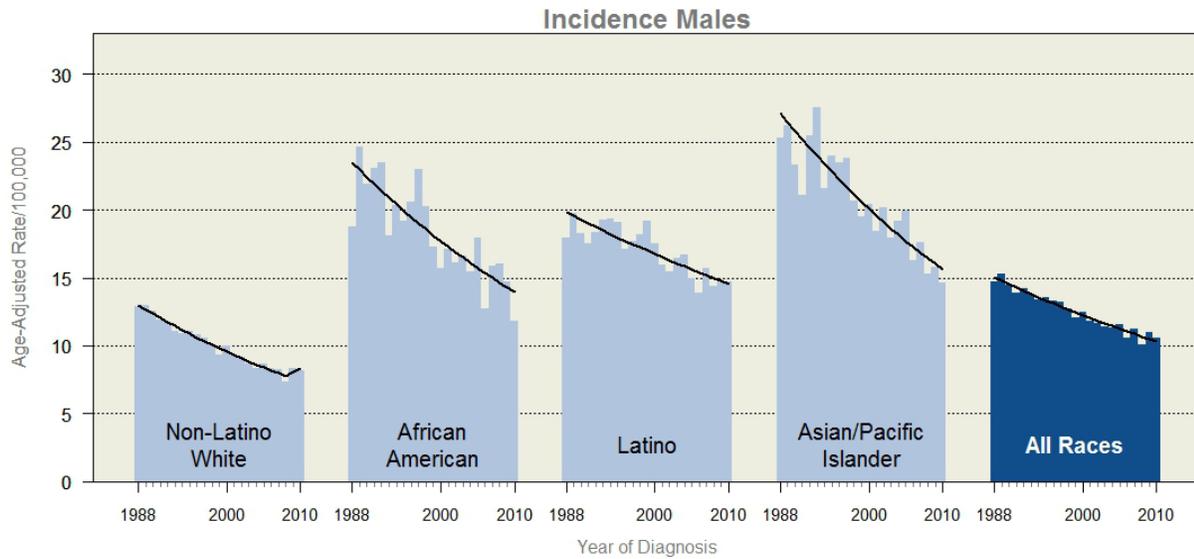
### Ten-Year Average Annual Percent Change (AAPC) and Overall Percent Change in Age-Adjusted Cancer Incidence and Mortality Rates by Race/Ethnicity and Sex in California, 2001-2010: Stomach

Race/Ethnicity	INCIDENCE			MORTALITY		
	AAPC	Overall % Change		AAPC	Overall % Change	
Male and female						
All Races Combined	-1.3	-12.3	↓	-2.3	-20.8	↓
Male						
Non-Latino White	-1.2	-11.4		-3.6	-30.7	↓
African American	-2.3	-20.8	↓	-3.2	-27.8	↓
Latino	-1.4	-13.2	↓	-4.0	-33.5	↓
Asian/Pacific Islander	-2.5	-22.4	↓	-3.4	-29.2	↓
All Races Combined	-1.7	-15.8	↓	-2.6	-23.2	↓
Female						
Non-Latino White	-1.9	-17.5	↓	-3.2	-27.8	↓
African American	-2.2	-19.9	↓	-2.2	-19.9	↓
Latino	-1.3	-12.3	↓	-1.6	-14.9	↓
Asian/Pacific Islander	-2.5	-22.4	↓	-3.0	-26.3	↓
All Races Combined	-0.9	-8.6	↓	-1.7	-15.8	↓

↑ Statistically significant increase    ↓ Statistically significant decrease

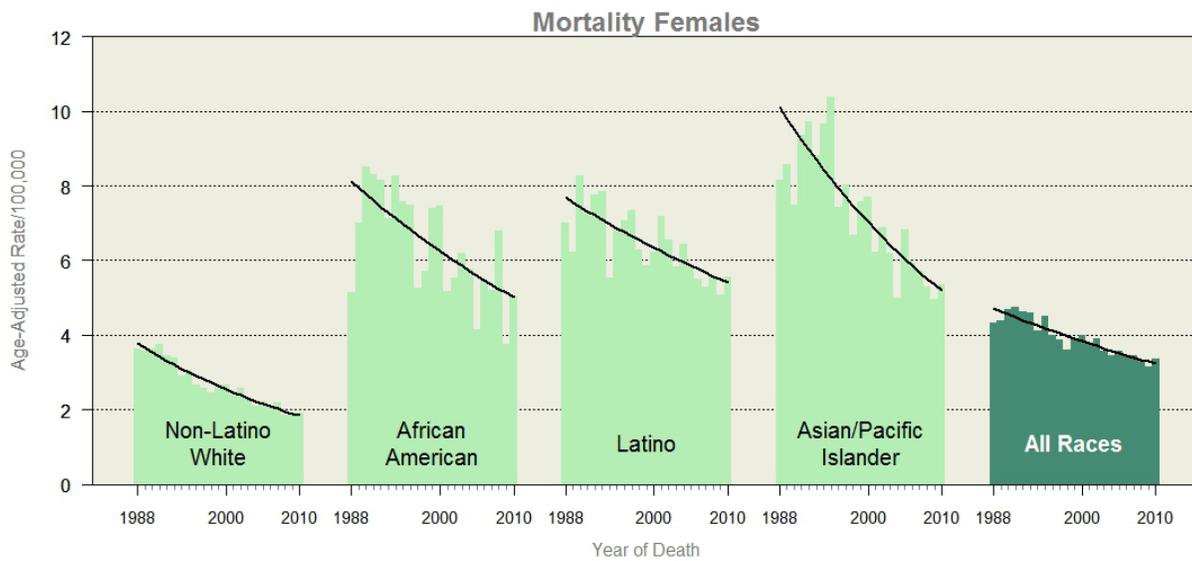
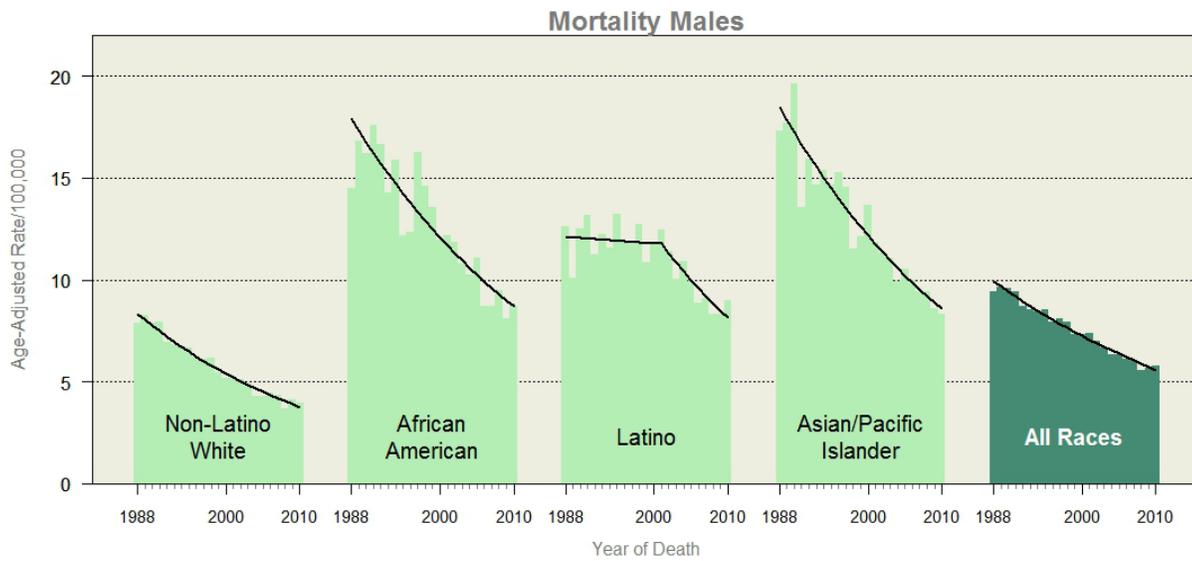
Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Trends in Age-Adjusted Incidence Rates by Race/Ethnicity in California, 1988-2010:  
Stomach**



Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for  
 Population Health Improvement, UC Davis Health System

**Trends in Age-Adjusted Mortality Rates by Race/Ethnicity in California, 1988-2010:  
Stomach**



Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

## TESTIS CANCER

Testicular cancer is a relatively rare disease. In 2010, 1,100 California men were diagnosed with testicular cancer, and 59 died from the disease. Testicular cancer occurs most often in men between the ages of 20 and 39, and is the most common cancer among men between the ages of 15 and 34. The cause of testicular cancer is not known, but the following factors are known to increase a man's risk of developing the disease:

- Cryptorchidism (undescended testicle)
- History of testicular cancer increases the risk of cancer in the other testicle
- Family history of testicular cancer in a brother or father

### Trends in Incidence and Mortality in California, 1988 through 2010

The incidence of testicular cancer increased significantly (by 72 percent, 51 percent, and 24 percent among Latinos, African Americans, and white men, respectively). Incidence rates among Asian/Pacific Islander men changed slightly but not significantly. Despite the observed increase in the incidence of the disease, testicular cancer mortality among Latino and white men did not change significantly. Due to the small number of testicular cancer deaths, trends in mortality rates could not be evaluated for African-American and Asian/Pacific Islander men.

### Ten-Year Average Annual Percent Change (AAPC) and Overall Percent Change in Age-Adjusted Cancer Incidence and Mortality Rates by Race/Ethnicity and Sex in California, 2001-2010:

#### Testis

Race/Ethnicity	INCIDENCE			MORTALITY		
	AAPC	Overall % Change		AAPC	Overall % Change	
Male						
Non-Latino White	1.0	10.5	↑	-0.8	-7.7	
African American	1.9	20.7	↑	-	-	
Latino	2.5	28.0	↑	1.2	12.7	
Asian/Pacific Islander	0.6	6.2		-	-	
All Races Combined	0.8	8.3	↑	-0.2	-2.0	

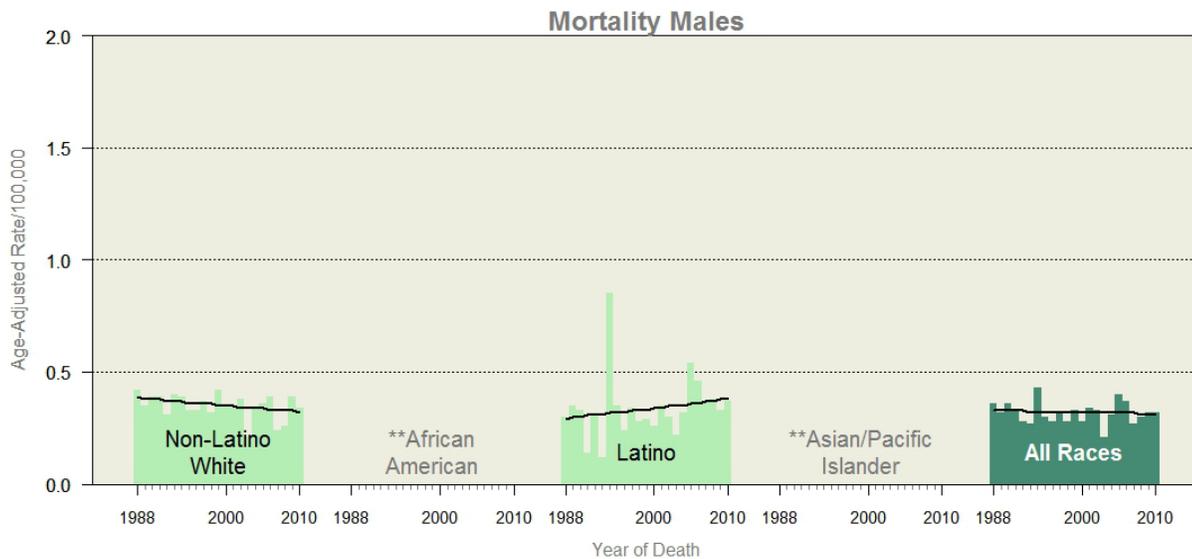
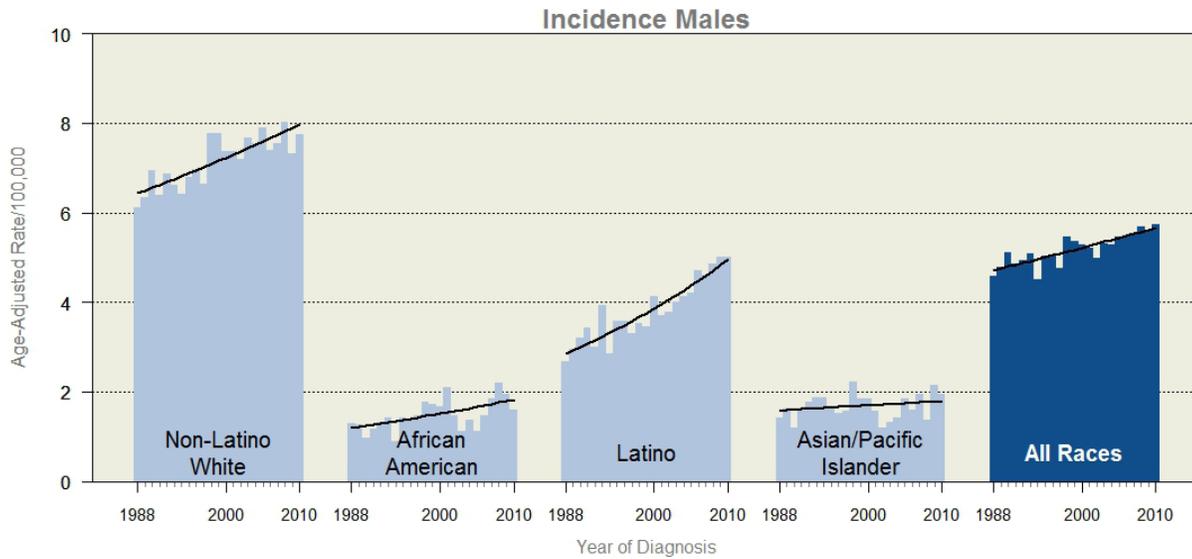
↑ Statistically significant increase    ↓ Statistically significant decrease

- Rates not calculated due to less than 8 deaths per year.

Source of data: California Cancer Registry, California Department of Public Health

Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Trends in Age-Adjusted Incidence and Mortality Rates by Race/Ethnicity in California, 1988-2010:  
Testis**



\*\* Rates not calculated due to less than 8 cases or deaths per year

Source of data: California Cancer Registry, California Department of Public Health

Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

## THYROID GLAND CANCER

In 2010, 4,539 persons were diagnosed with thyroid cancer in 2010, and 201 died from the disease. Thyroid cancer is more often diagnosed after age 45, and is almost three times more common in women than in men. The following are risk factors for thyroid cancer:

- Radiation exposure from radiotherapy to the head and neck
- Radioactive fallout from atomic weapons and nuclear power plant accidents
- Mutation to the RET proto-oncogene (associated with medullary thyroid cancer)
- History of goiters or familial adenomatous polyposis

### Trends in Incidence and Mortality in California, 1988 through 2010

The incidence of thyroid cancer increased dramatically in all racial/ethnic groups, and especially after the late 1990s. During the past ten years, incidence rates increased by 70 percent among men and by 84 percent among women. Importantly, the sharp increase in incidence was not accompanied by a similar increase in mortality. Since 2001, thyroid cancer mortality rates increased significantly (by 16 and 14 percent, respectively, among men and women). Due to the small number of thyroid cancer deaths, mortality trends could not be evaluated for all racial/ethnic groups. The increased incidence trends may be partly due to increased screening with more sensitive diagnostic techniques, which can detect small thyroid tumors before clinical signs are present.

### Ten-Year Average Annual Percent Change (AAPC) and Overall Percent Change in Age-Adjusted Cancer Incidence and Mortality Rates by Race/Ethnicity and Sex in California, 2001-2010: Thyroid Gland

Race/Ethnicity	INCIDENCE			MORTALITY		
	AAPC	Overall % Change		AAPC	Overall % Change	
Male and female						
All Races Combined	6.2	82.5	↑	1.4	14.9	↑
Male						
Non-Latino White	5.8	75.7	↑	2.0	21.9	↑
African American	3.3	38.4	↑	-	-	
Latino	5.1	64.4	↑	-	-	
Asian/Pacific Islander	2.8	31.8	↑	-	-	
All Races Combined	5.4	69.2	↑	1.5	16.1	↑
Female						
Non-Latino White	6.8	93.1	↑	0.8	8.3	
African American	6.0	79.1	↑	-	-	
Latino	4.3	52.4	↑	-0.4	-3.9	
Asian/Pacific Islander	5.1	64.4	↑	-	-	
All Races Combined	6.3	84.2	↑	1.3	13.8	↑

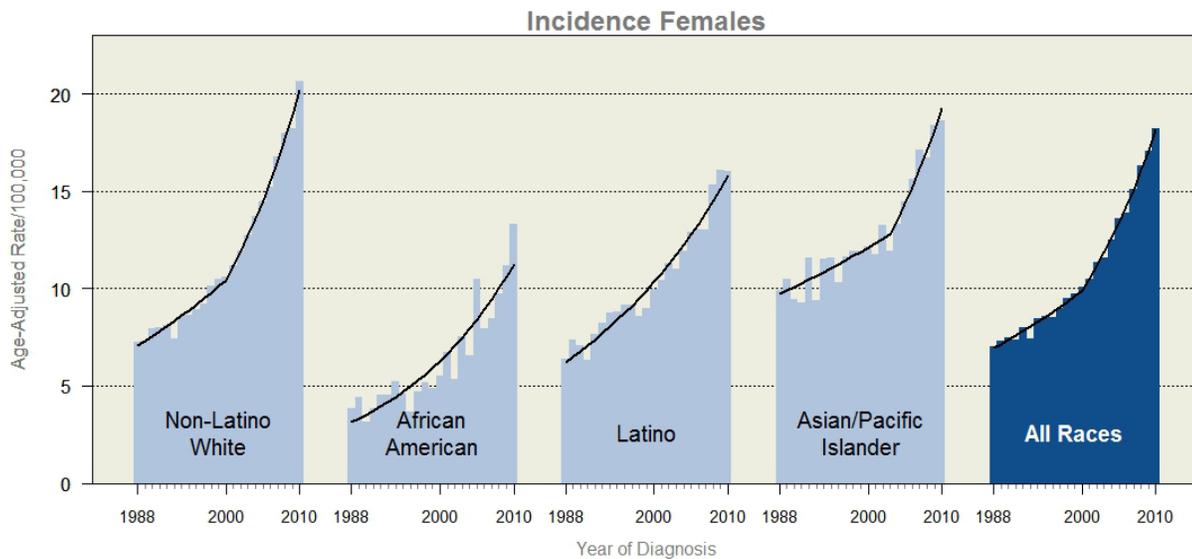
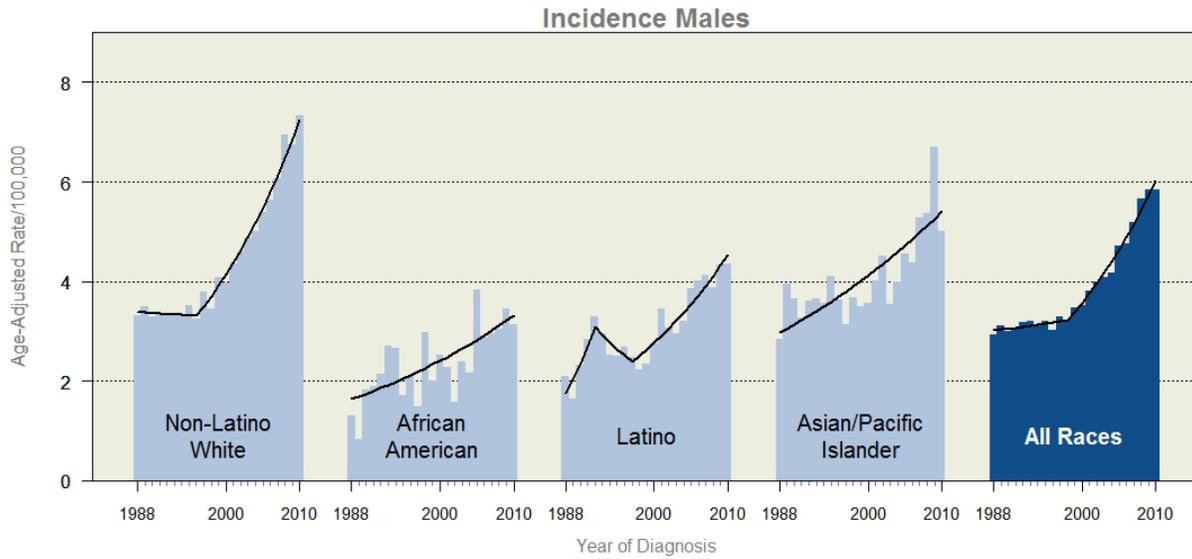
↑ Statistically significant increase    ↓ Statistically significant decrease

- Rates not calculated due to less than 8 deaths per year.

Source of data: California Cancer Registry, California Department of Public Health

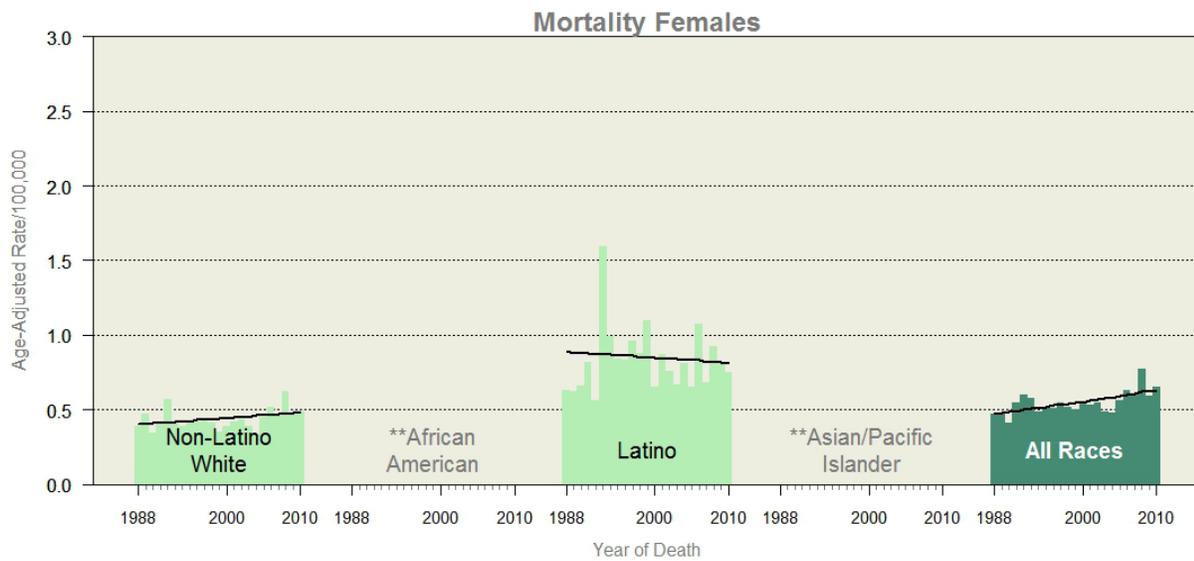
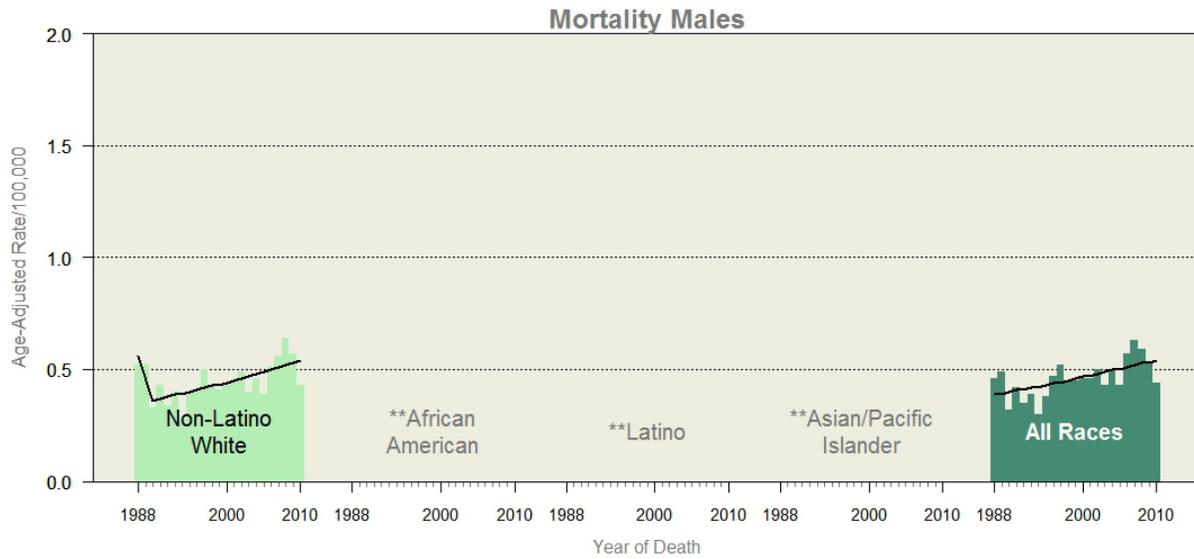
Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

Trends in Age-Adjusted Incidence Rates by Race/Ethnicity in California, 1988-2010:  
**Thyroid**



Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

Trends in Age-Adjusted Mortality Rates by Race/Ethnicity in California, 1988-2010:  
**Thyroid**



\*\* Rates not calculated due to less than 8 cases or deaths per year

Source of data: California Cancer Registry, California Department of Public Health

Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

## URINARY BLADDER CANCER

The incidence and mortality for bladder cancer vary by age, gender, race/ethnicity and other factors. In 2010, 6,687 Californians were diagnosed with bladder cancer, and 1,430 died from the disease. Men are two to three times more likely to develop bladder cancer than women. Whites are diagnosed with bladder cancer twice as often as African Americans and Latinos. African-American women have higher bladder cancer mortality rates than women of other racial/ethnic groups. The incidence of bladder cancer increases with age. The following are known risk factors for bladder cancer:

- Smoking tobacco (increases the risk of developing bladder cancer two to three times)
- Occupational exposure to textile, rubber, leather, dye, paint, or print industries and to chemicals known as aromatic amines
- Treatment with cyclophosphamide or arsenic
- Family history of bladder cancer

### Trends in incidence and mortality in California, 1988 through 2010

Because of the difficulty in interpreting the language used by pathologists to describe the extent of invasion of bladder cancers, in situ and invasive bladder tumors were combined in this report. A small but significant decline (10 and 16 percent) in the incidence of bladder cancer was observed among men and women in California. The decrease in incidence was statistically significant among whites and Latinas (for whom the 20 percent decline was the largest in all groups). African-American men were the only group in which an increased incidence was observed (14 percent). Mortality rates did not change significantly in any racial/ethnic group except for Latinas, among whom mortality rates increased 58 percent by 2003 but have declined since then.

Ten-Year Average Annual Percent Change (AAPC) and Overall Percent Change in Age-Adjusted Cancer Incidence and Mortality Rates by Race/Ethnicity and Sex in California, 2001-2010:  
**Urinary Bladder**

Race/Ethnicity	INCIDENCE			MORTALITY		
	AAPC	Overall % Change		AAPC	Overall % Change	
Male and female						
All Races Combined	-0.5	-4.9	↓	-0.3	-3.0	
Male						
Non-Latino White	-0.2	-2.0	↓	-0.1	-1.0	
African American	0.6	6.2	↑	-0.6	-5.8	
Latino	-0.1	-1.0		0.6	6.2	
Asian/Pacific Islander	0.2	2.0		-0.3	-3.0	
All Races Combined	-0.5	-4.9	↓	-0.5	-4.9	↓
Female						
Non-Latino White	-0.2	-2.0	↓	0.0	0.0	
African American	-0.3	-3.0		-0.4	-3.9	
Latino	-1.0	-9.6	↓	-4.0	-33.5	
Asian/Pacific Islander	-0.6	-5.8		-	-	
All Races Combined	-0.8	-7.7	↓	-0.4	-3.9	

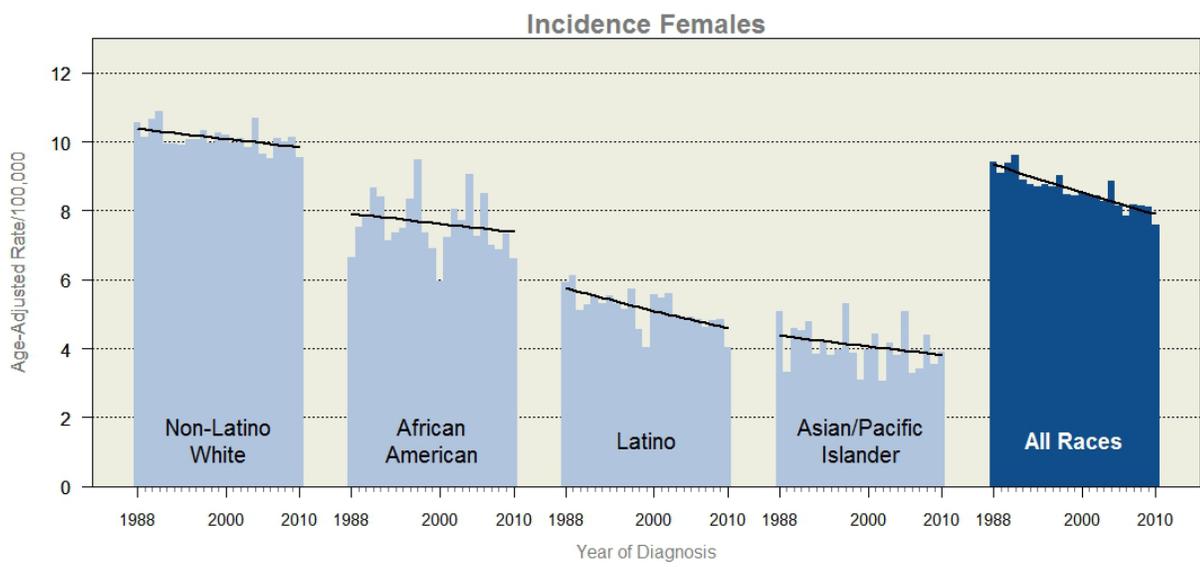
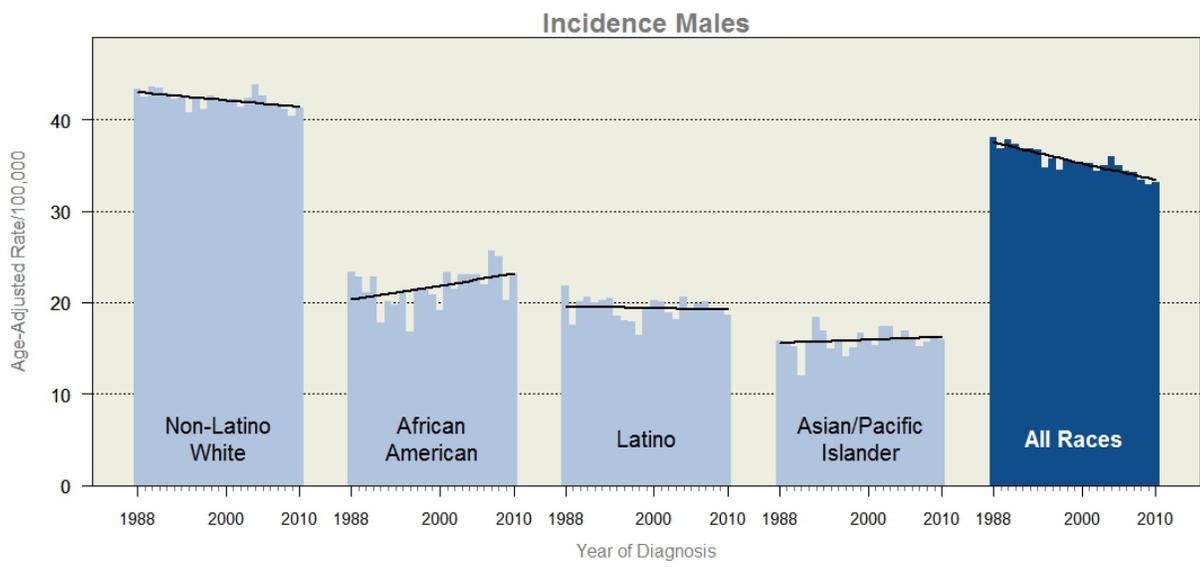
↑ Statistically significant increase      ↓ Statistically significant decrease

- Rates not calculated due to less than 8 deaths per year.

Source of data: California Cancer Registry, California Department of Public Health

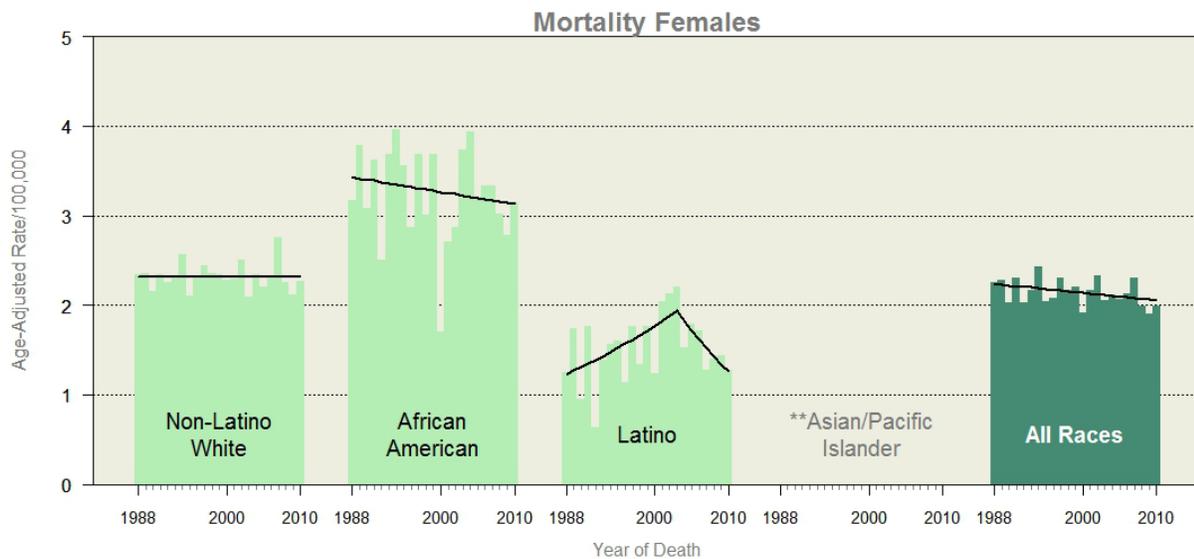
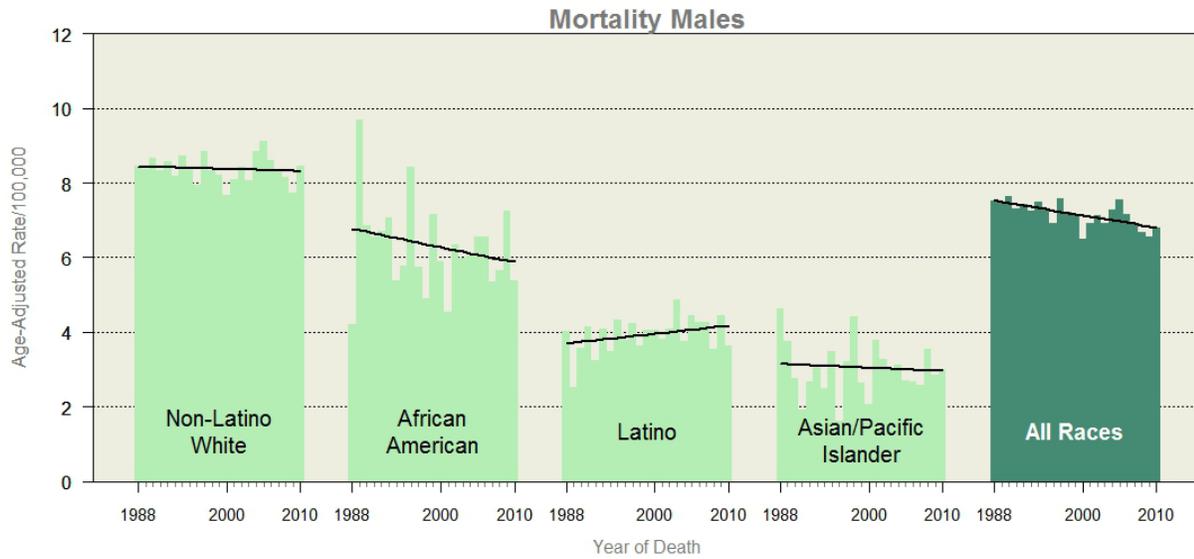
Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Trends in Age-Adjusted Incidence Rates by Race/Ethnicity in California, 1988-2010:  
Urinary Bladder**



Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

Trends in Age-Adjusted Mortality Rates by Race/Ethnicity in California, 1988-2010:  
**Urinary Bladder**



\*\* Rates not calculated due to less than 8 cases or deaths per year

Source of data: California Cancer Registry, California Department of Public Health

Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

## UTERUS AND CORPUS CANCER

In 2010, 4,887 women were diagnosed with uterine cancer, and 889 died from the disease. Endometrial cancer, or cancer of the lining of the uterus, is the most common invasive cancer of the female reproductive system. The incidence of endometrial cancer is highest among white women. The disease is usually diagnosed after menopause. The following factors increase a woman's risk of developing uterine cancer:

- Lifetime exposure to the hormone estrogen, which is higher among women who started menstruating before age 12, had a late menopause, were never pregnant, or who received estrogen (without progesterone) replacement after menopause
- Hereditary non-polyposis colon cancer syndrome
- Treatment with the drug tamoxifen
- Polycystic ovary syndrome
- Obesity

### Trends in Incidence and Mortality in California, 1988 through 2010

Incidence rates of uterine cancer increased among African Americans, Latinas, and Asian/Pacific Islanders; since 2003, rates increased among white women as well (by 14 percent). The overall increase in incidence rates ranged from 19 percent among Latinas to 48 percent among Asian/Pacific Islanders. Mortality rates for the disease increased sharply among Asian/Pacific Islanders and African Americans (by 39 and 30 percent, respectively). Rates also increased among Latinas, but by a lesser degree. Uterine cancer mortality rates among white women were unchanged.

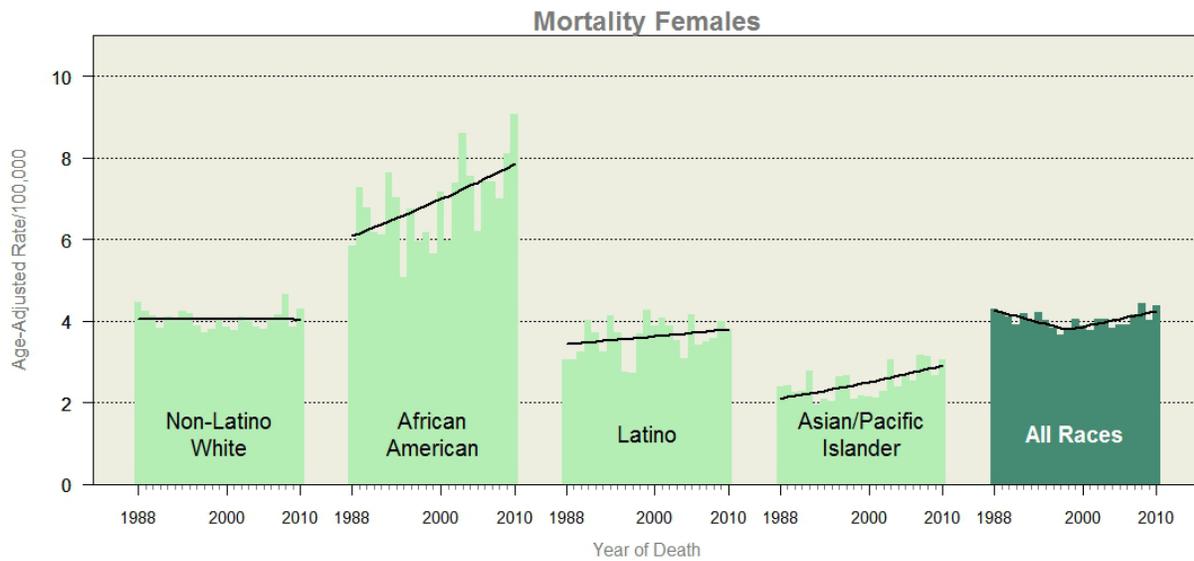
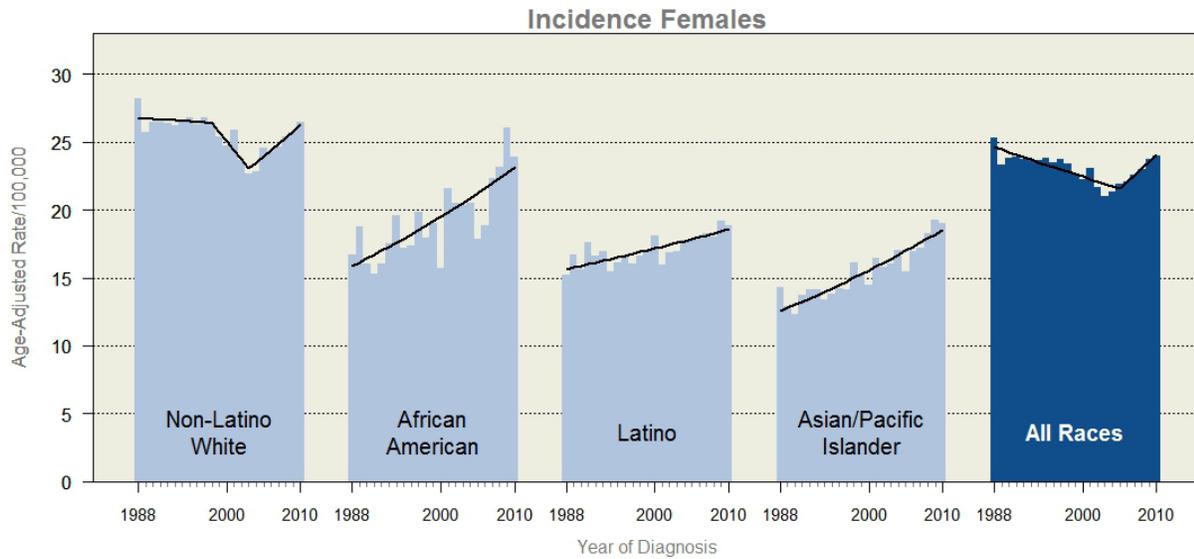
### Ten-Year Average Annual Percent Change (AAPC) and Overall Percent Change in Age-Adjusted Cancer Incidence and Mortality Rates by Race/Ethnicity and Sex in California, 2001-2010: Uterus and Corpus

Race/Ethnicity	INCIDENCE			MORTALITY		
	AAPC	Overall % Change		AAPC	Overall % Change	
Female						
Non-Latino White	0.9	9.4		0.0	0.0	
African American	1.7	18.4	↑	1.2	12.7	
Latino	0.8	8.3	↑	0.5	5.1	
Asian/Pacific Islander	1.8	19.5	↑	1.5	16.1	
All Races Combined	0.9	9.4	↑	0.9	9.4	

↑ Statistically significant increase      ↓ Statistically significant decrease

Source of data: California Cancer Registry, California Department of Public Health  
Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Trends in Age-Adjusted Incidence and Mortality Rates by Race/Ethnicity in California, 1988-2010:  
Uterus and Corpus**



Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for  
 Population Health Improvement, UC Davis Health System

## TECHNICAL NOTES

### 1. Incident cases

This report includes cancer cases diagnosed between January 1, 1988 and December 31, 2010, and reported to CCR as of October 2013. A “case” is defined as a primary cancer; if a cancer resulted from spread from a primary site to another organ it is not counted as a new case. Except where noted, only invasive cancers are included in this report. Regional registries covering the entire state report cancer incidence data to the California Cancer Registry, which specifies standards for data abstracting, collection, and reporting. Only cases diagnosed in California residents are included in this report: persons who were treated for cancer in California, but were residents of another state or country, are not included.

#### *Cancer behavior*

Cancers are distinguished by whether they are invasive- i.e., have infiltrated the tissue of the organ of origin - or whether they are in situ- i.e., have not yet penetrated the basement membrane or extended beyond the epithelial tissue. Data are presented separately for in situ cancers of the breast, of the colon and rectum combined, and for melanomas of the skin.

#### *Classification of anatomic site*

Cancers were grouped according to conventions of the National Cancer Institute’s Surveillance, Epidemiology and End Results (SEER) program. Primary anatomic site and histologic type of cases were coded according to the International Classification of Diseases for Oncology. Cases diagnosed from 1988-1991 were coded using the Field Trial Edition, cases diagnosed from 1992-2000 were coded using the Second Edition (ICD-O-2), and those diagnosed from 2001- 2010 were coded using the Third Edition (ICD-O-3). Conversions from original coding schemes to the current ICD-O-3 edition were accomplished through computerized programs developed by SEER.

### 2. Cancer Mortality

Computerized files containing information on cancer-related deaths were obtained from the California Department of Public Health, Center for Health Statistics. Beginning in 1999, cause of death was coded by the International Classification of Diseases, Tenth Edition (ICD-10). All mortality analyses presented in this report are the responsibility of the authors, and were not reviewed or endorsed by the Center for Health Statistics prior to publication. Only deaths among California residents were included in these analyses.

### 3. Sources of Data

The following databases were used in this report:

Cancer incidence data: California Cancer Registry ([www.ccrca.org](http://www.ccrca.org)), California Department of Public Health. SEER\*Stat Database: Incidence - California, October 2013 (1988-2011), 11/21/2013; NAACCR 3339 Version.

Cancer mortality data: California all-cause mortality 1988-2011, California Department of Public Health, Center for Health Statistics Death Master Files 1988-2011.

Population data: Benchmarked DOF 1988-1989 population estimates, 6/12/2006; NCHS population estimates 1990-2011.

### 4. Definition of Race/Ethnicity

Race/ethnicity was grouped into the mutually exclusive categories of non-Latino white (white), non-Latino African American (African American), Latino, and non-Latino Asian/Pacific Islander. Race and ethnicity were reported as separate data items during data collection for both cases and deaths. Persons with race reported as white, African

American, or unknown, but with a last name on the 1980 U.S. Census list of 12,497 Hispanic surnames, were categorized as Latino for analyses in this report. Maiden name, when present, was used instead of last name to identify Latino women by surname. Similarly, persons with race coded as white, African American, or unknown, but with a Vietnamese or Hmong surname were categorized as Asian.

## 5. Statistical Methods

### *Calculation of Age-Adjusted Rates*

Rates were calculated as the number of new cases (incidence) or deaths (mortality) in specific age groups per 100,000 persons each year, and were age-adjusted to the 2000 United States standard population. Age-adjusted rates are weighted averages of age-specific rates, where the weights represent the age distribution of a standard population. Such adjustment eliminates differences in rates due to changes in the age of a population over time, or due to differences in age distribution between population groups. Rates in this report were calculated using the Surveillance Research Program, National Cancer Institute SEER\*Stat software version 8.1.2 (<http://srab.cancer.gov/seerstat>). Rates based on less than eight cases (or deaths) in any given year were not calculated.

### *Annual Percent Change (APC)*

The estimated annual percent change (APC) represents the average percent increase or decrease in cancer rates per year over a specified period of time. It is calculated by first fitting a linear regression to the natural logarithm of the annual age-adjusted rates ( $r$ ), using calendar year as the predictor variable:  $\ln(r) = m(\text{year}) + b$ . From the slope of the regression line, the APC is calculated as  $APC = 100*(e^m - 1)$ . Testing the hypothesis that the APC is equal to zero is equivalent to testing the hypothesis that the slope of the line in the regression is equal to zero. Statistical significance was set at  $\alpha = 0.05$ . That is, the trend in cancer rates was considered statistically significant if there was less than a five percent chance that the difference was the result of random variation.

### *Average Annual Percent Change (AAPC)*

Average Annual Percent Change (AAPC) is a summary measure of a trend over a pre-specified fixed interval. It allows us to use a single number to describe the average APCs (Annual Percent Changes) over a period of multiple years. It is valid even if the joinpoint model indicates that there were changes in trends during those years. It is computed as a weighted average of the APC's from the joinpoint model, with the weights equal to the length of the APC interval.

### *Joinpoint Analysis of Trends*

Joinpoint linear regression was used to determine trends in cancer incidence and mortality. In this analysis, a statistical algorithm detects joinpoints, or points in time where the slope of the regression line significantly changes. Thus, the model describes trends during different time segments. At each segment, trends in rates are measured using the estimated APC, which assumes that rates change by a constant percentage each year. The SEER JoinPoint regression software version 3.0 (<http://srab.cancer.gov/joinpoint>) was used for all trend analyses in this report.

## 6. Cancer Risk Factors

Information on cancer risk factors was obtained from the National Cancer Institute's Comprehensive Cancer Information (<http://www.cancer.gov/>) and from the American Society of Clinical Oncology Cancer.Net guides (<http://www.cancer.net/patient/Cancer+Types>). A risk factor is anything that increases a person's chance of developing cancer. Some risk factors can be avoided, such as smoking, and some cannot, such as age and family history. Although risk factors can influence the development of cancer, most do not directly cause cancer. People with several risk factors do not always develop the disease, while many cancer patients have no known risk factors. Information on the prevalence of cancer screening and risk factors in California was obtained from the Center for Disease Control and Prevention's Behavioral Risk Factor Surveillance System (BRFSS), which conducts telephone surveys within California and the US (<http://www.cdc.gov/brfss/index.htm>).

## 7. Cautions on Interpretation

The validity of rates depends on the completeness of cancer reporting and on the accuracy of population estimates. Incidence data in this report are based on cases of primary cancer which were first diagnosed among California residents between January 1, 1988 and December 31, 2010, and which were reported to CCR as of October 2013. However, cancer surveillance is a dynamic process and cases diagnosed in earlier years may be reported long after incidence data are considered “complete”. The delay in reporting of cancer cases may affect trends in cancer incidence, particularly for the most recent years of diagnosis. An internal review conducted within the CCR suggested that rates for 2010 may still increase by an average of 1.5 percent in the next year.

The reliability of race-specific cancer rates depends on the accuracy of race classification in both cases and deaths, and in population estimates. Some variation in race-specific rates may reflect misclassification bias, rather than a true difference in cancer risk. Population estimates were based in part on self-identification at the time of the 2010 Census. Race/ethnicity information for cancer cases is based primarily on information contained in the patient’s medical record. This information may be based on self-identification by the patients, on assumptions made by an admissions clerk or other medical personnel, or on an inference using race/ethnicity of parents, birthplace, maiden name, or last name. Race/ethnicity for cancer deaths, on the other hand, is based on information on the death certificate, which is often completed by the funeral director or coroner, and may not always be based on information provided by next-of-kin. The reporting of race/ethnicity in either system may be influenced by the race/ethnic distribution of the local population, by local interpretation of data collection guidelines, and other factors. While the use of surname lists partially compensates for misclassification of some race/ethnic groups, it is likely that some differences in race-specific rates reflect biases of classification rather than true differences in risk.

Finally, statistically significant variation in rates can occur by chance alone, and additional assessment is required to separate chance occurrences from true public health concerns. Statistical significance does not necessarily determine the relevance of the results.

**APPENDIX:**  
**Annual Percent Change Tables (1-27)**

**Table 1. Annual Percent Change (APC) and Overall Percent Change in Age-Adjusted Cancer Incidence and Mortality Rates by Race/Ethnicity, Sex, and Time Period in California, 1988-2010: Brain and Central Nervous System**

Sex	Race/Ethnicity	Time Period	APC		APC 95% Confidence Interval	Overall Change
<b>Incidence Trends</b>						
Male and Female	All Races Combined	1988 – 2010	-0.4	↓	-0.5, -0.2	-8.4
Male	Non-Latino White	1988 – 2010	0.0		-0.2, 0.2	0.0
	African American	1988 – 2010	-0.7		-1.9, 0.4	-14.3
	Latino	1988 – 2010	0.1		-0.5, 0.6	2.2
	Asian/ Pacific Islander	1988 – 2010	0.6		-0.2, 1.4	14.1
	All Races Combined	1988 – 2010	-0.4	↓	-0.6, -0.2	-8.4
Female	Non-Latino White	1988 – 2010	0.0		-0.3, 0.3	0.0
	African American	1988 – 2010	-0.3		-1.4, 0.8	-6.4
	Latino	1988 – 2002	1.5	↑	0.2, 2.8	23.2
		2002 – 2010	-2.5	↓	-4.7, -0.2	-18.3
	Asian/ Pacific Islander	1988 – 2010	-0.5		-1.4, 0.4	-10.4
	All Races Combined	1988 – 2010	-0.4	↓	-0.6, -0.2	-8.4
<b>Mortality Trends</b>						
Male and female	All Races Combined	1988 – 1991	2.8		-1.9, 7.7	8.6
		1991 – 2010	-0.8	↓	-1.0, -0.5	-14.2
Male	Non-Latino White	1988 – 2010	-0.3		-0.6, 0.1	-6.4
		African American	1988 – 1997	2.2		-1.5, 6.0
		1997 – 2010	-2.6	↓	-4.6, -0.7	-29.0
	Latino	1988 – 2010	-0.2		-1.0, 0.5	-4.3
	Asian/Pacific Islander	1988 – 2010	0.8		-0.2, 1.9	19.2
Female	All Races Combined	1988 – 2010	-0.6	↓	-0.9, -0.3	-12.4
	Non-Latino White	1988 – 2010	-0.5	↓	-0.8, -0.2	-10.4
		African American	1988 - 2008	-1.6	↓	-3.0, -0.2
		2008 - 2010	30.2		-13.4, 95.7	69.5
	Latino	1988 - 1998	4.2	↑	1.3, 7.2	50.9
		1998 - 2010	-1.3		-2.8, 0.2	-14.5
	Asian/Pacific Islander	1988 - 1993	9.1		-1.8, 21.3	54.6
		1993 - 2000	-6.8	↓	-12.6, -0.7	-38.9
		2000 - 2010	2.3		-0.1, 4.9	25.5
	All Races Combined	1988 - 2010	-0.7	↓	-1.0, -0.4	-14.3

↑ Statistically significant increase      ↓ Statistically significant decrease

Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Table 2. Annual Percent Change (APC) and Overall Percent Change in Age-Adjusted Cancer Incidence and Mortality Rates by Race/Ethnicity, Sex, and Time Period in California, 1988-2010: Breast (Female)**

Sex	Race/Ethnicity	Time Period	APC		APC 95% Confidence Interval	Overall Change	
<b>Breast (Invasive)</b>							
<b>Incidence Trends</b>							
Female	Non-Latino White	1988 - 2001	0.8	↑	0.5, 1.1	10.9	
		2001 - 2004	-4.0		-9.4, 1.7	-11.5	
		2004 - 2010	0.6		-0.4, 1.6	3.7	
	African American	1988 - 2010	0.3	↑	0.1, 0.5	6.8	
		Latino	1988 - 2000	0.8	↑	0.3, 1.2	10.0
			2000 - 2004	-1.7		-4.7, 1.4	-6.6
	2004 - 2008		1.7		-1.1, 4.6	7.0	
	2008 - 2010	-3.7		-8.6, 1.5	-7.3		
	Asian/ Pacific Islander	1988 - 2010	1.1	↑	0.8, 1.4	27.2	
	All Races Combined	1988 - 2001	0.5	↑	0.2, 0.8	6.7	
		2001 - 2004	-4.2		-9.2, 1.1	-12.1	
		2004 - 2008	1.3		-1.3, 4.0	5.3	
2008 - 2010		-2.7		-7.6, 2.5	-5.3		
<b>In Situ Breast</b>							
<b>Incidence Trends</b>							
Female	Non-Latino White	1988 - 1999	4.7	↑	3.6, 5.8	65.7	
		1999 - 2010	1.1	↑	0.2, 2.0	12.8	
	African American	1988 - 1995	7.9	↑	4.0, 11.9	70.3	
		1995 - 2010	2.7	↑	1.9, 3.5	49.1	
	Latino	1988 - 2005	5.4	↑	4.5, 6.4	144.5	
		2005 - 2010	-1.9		-5.3, 1.7	-9.1	
	Asian/ Pacific Islander	1988 - 2002	8.1	↑	7.2, 9.1	197.5	
		2002 - 2005	-3.4		-13.6, 8.1	-9.9	
		2005 - 2008	9.4		-0.9, 20.7	30.9	
	2008 - 2010	-1.3		-9.6, 7.8	-2.6		
	All Races Combined	1988 - 1999	4.9	↑	3.8, 6.0	69.3	
		1999 - 2010	1.1	↑	0.3, 1.8	12.8	

*continued on page 112*

**Table 2** continued from page 111

Sex	Race/Ethnicity	Time Period	APC		APC 95% Confidence Interval	Overall Change
Mortality Trends						
Female	Non-Latino White	1988 - 1994	-1.0		-2.0, 0.1	-5.9
		1994 - 1998	-3.7	↓	-6.9, -0.4	-14.0
		1998 - 2010	-1.6	↓	-2.1, -1.2	-17.6
	African American	1988 - 2010	-1.0	↓	-1.3, -0.7	-19.8
	Latino	1988 - 2010	-1.3	↓	-1.6, -1.0	-25.0
	Asian/Pacific Islander	1988 - 2010	-0.6	↓	-1.1, -0.1	-12.4
	All Races Combined	1988 - 2010	-2.1	↓	-2.2, -1.9	-37.3

↑ Statistically significant increase      ↓ Statistically significant decrease

Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Table 3. Annual Percent Change (APC) and Overall Percent Change in Age-Adjusted Incidence and Mortality Rates by Race/Ethnicity, Sex, and Time Period in California, 1988-2010: Cervix Uteri**

Sex	Race/Ethnicity	Time Period	APC		APC 95% Confidence Interval	Overall Change
<b>Incidence Trends</b>						
Female	Non-Latino White	1988 - 2010	-1.6	↓	-2.0, -1.2	-29.9
	African American	1988 - 1997	-3.4	↓	-4.9, -1.8	-26.8
		1997 - 2006	-6.0	↓	-8.0, -3.9	-42.7
		2006 - 2010	4.9		-2.0, 12.3	21.1
		1988 - 1992	3.5		-2.5, 9.9	14.8
	Latino	1992 - 2010	-4.2	↓	-4.7, -3.7	-53.8
		1988 - 1994	0.7		-2.6, 4.1	4.3
	Asian/ Pacific Islander	1994 - 2000	-8.1	↓	-11.8, -4.3	-39.8
		2000 - 2010	-2.6	↓	-3.9, -1.2	-23.2
		1988 - 1998	-1.3	↓	-2.1, -0.5	-12.3
	All Races Combined	1998 - 2003	-4.7	↓	-7.8, -1.5	-21.4
		2003 - 2010	-1.1		-2.6, 0.3	-7.5
<b>Mortality Trends</b>						
Female	Non-Latino White	1988 - 2010	-2.2	↓	-2.8, -1.6	-38.7
	African American	1988 - 2010	-3.5	↓	-4.6, -2.3	-54.3
	Latino	1988 - 2010	-2.1	↓	-2.8, -1.4	-37.3
	Asian/Pacific Islander	1988 - 2010	-4.0	↓	-4.7, -3.2	-59.3
	All Races Combined	1988 - 2000	-1.5	↓	-2.3, -0.8	-16.6
		2000 - 2003	-6.9		-17.8, 5.4	-19.3
		2003 - 2010	0.3		-1.4, 2.0	2.1

↑ Statistically significant increase      ↓ Statistically significant decrease

Source of data: California Cancer Registry, California Department of Public Health

Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Table 4. Annual Percent Change (APC) and Overall Percent Change in Age-Adjusted Incidence and Mortality Rates by Race/Ethnicity, Sex, and Time Period in California, 1988-2010: Colon and Rectum**

Sex	Race/Ethnicity	Time Period	APC		APC 95% Confidence Interval	Overall Change
<b>Invasive Colon and Rectum</b>						
<b>Incidence Trends</b>						
Male and Female	All Races Combined	1988 - 1995	-1.9	↓	-2.6, -1.2	-12.6
		1995 - 1998	0.6		-4.5, 6.0	1.8
		1998 - 2010	-1.9	↓	-2.2, -1.6	-20.6
Male	Non-Latino White	1988 - 2000	-1.5	↓	-1.9, -1.1	-16.6
		2000 - 2010	-2.4	↓	-2.9, -1.9	-21.6
	African American	1988 - 2010	-1.1	↓	-1.5, -0.8	-21.6
	Latino	1988 - 2008	0.2		-0.2, 0.6	4.1
		2008 - 2010	-6.7		-16.1, 3.6	-13.0
	Asian/ Pacific Islander	1988 - 2010	-1.2	↓	-1.6, -0.8	-23.3
	All Races Combined	1988 - 2008	-1.6	↓	-1.7, -1.4	-27.6
		2008 - 2010	-4.8		-10.1, 0.8	-9.4
Female	Non-Latino White	1988 - 2010	-1.3	↓	-1.5, -1.1	-25.0
	African American	1988 - 2010	-0.8	↓	-1.1, -0.6	-16.2
	Latino	1988 - 2010	-0.4	↓	-0.7, -0.1	-8.4
	Asian/ Pacific Islander	1988 - 2010	-0.6	↓	-0.9, -0.2	-12.4
	All Races Combined	1988 - 1995	-2.1	↓	-2.8, -1.3	-13.8
		1995 - 1998	1.1		-4.2, 6.8	3.3
		1998 - 2010	-1.8	↓	-2.1, -1.5	-19.6
<b>In Situ Colon and Rectum</b>						
<b>Incidence Trends</b>						
Male and Female	All Races Combined	1988 - 2010	-4.2	↓	-4.5, -3.8	-61.1
Male	Non-Latino White	1988 - 2010	-5.0	↓	-5.5, -4.6	-67.6
	African American	1988 - 2010	-2.6	↓	-3.5, -1.7	-44.0
	Latino	1988 - 2010	-2.0	↓	-3.0, -1.1	-35.9
	Asian/ Pacific Islander	1988 - 2010	-2.8	↓	-3.8, -1.7	-46.5
	All Races Combined	1988 - 2010	-4.5	↓	-4.9, -4.1	-63.7
Female	Non-Latino White	1988 - 2010	-4.3	↓	-4.8, -3.9	-62.0
	African American	1988 - 2010	-2.5	↓	-4.5, -0.5	-42.7
	Latino	1988 - 2010	-2.4	↓	-3.7, -1.1	-41.4
	Asian/ Pacific Islander	1988 - 2010	-1.6	↓	-2.9, -0.4	-29.9
	All Races Combined	1988 - 2010	-3.9	↓	-4.3, -3.4	-58.3

*continued on page 115*

**Table 4** continued from page 114

Sex	Race/Ethnicity	Time Period	APC		APC 95% Confidence Interval	Overall Change
Colon and Rectum						
Mortality Trends						
Male and female	All Races Combined	1988 - 2010	-2.1	↓	-2.2, -2.1	-37.3
Male	Non-Latino White	1988 - 2010	-2.5	↓	-2.7, -2.4	-42.7
	African American	1988 - 2010	-1.4	↓	-1.9, -0.9	-26.7
	Latino	1988 - 2010	-0.2		-0.6, 0.2	-4.3
	Asian/Pacific Islander	1988 - 2010	-1.9	↓	-2.3, -1.5	-34.4
	All Races Combined	1988 - 2010	-2.3	↓	-2.4, -2.2	-40.1
Female	Non-Latino White	1988 - 2010	-2.2	↓	-2.4, -2.0	-38.7
	African American	1988 - 2010	-1.7	↓	-2.1, -1.3	-31.4
	Latino	1988 - 2006	-0.4		-0.8, 0.1	-7.0
		2006 - 2010	-5.6	↓	-9.3, -1.8	-20.6
	Asian/Pacific Islander	1988 - 2010	-1.6	↓	-2.0, -1.1	-29.9
	All Races Combined	1988 - 2010	-2.2	↓	-2.3, -2.0	-38.7

↑ Statistically significant increase      ↓ Statistically significant decrease

Source of data: California Cancer Registry, California Department of Public Health

Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Table 5. Annual Percent Change (APC) and Overall Percent Change in Age-Adjusted Incidence and Mortality Rates by Race/Ethnicity, Sex, and Time Period in California, 1988-2010:**  
**Colon**

Sex	Race/Ethnicity	Time Period	APC		APC 95% Confidence Interval	Overall Change	
Colon							
Incidence Trends							
Male and Female	All Races Combined	1988 - 1995	-1.7	↓	-2.1, -1.3	-11.3	
		1995 - 1998	0.2		-2.9, 3.3	0.6	
		1998 - 2008	-1.7	↓	-2.0, -1.4	-15.8	
		2008 - 2010	-4.9	↓	-7.8, -1.9	-9.6	
Male	Non-Latino White	1988 - 2000	-1.5	↓	-1.9, -1.1	-16.6	
		2000 - 2010	-2.5	↓	-3.0, -2.0	-22.4	
	African American	1988 - 2010	-1.1	↓	-1.4, -0.7	-21.6	
		Latino	1988 - 2008	0.4		0.0, 0.9	8.3
			2008 - 2010	-8.4		-18.8, 3.2	-16.1
	Asian/ Pacific Islander	1988 - 2010	-1.3	↓	-1.7, -0.9	-25.0	
	All Races Combined	1988 - 2002	-1.4	↓	-1.7, -1.2	-17.9	
		2002 - 2005	-3.4		-7.8, 1.2	-9.9	
		2005 - 2008	0.0		-4.5, 4.8	0.0	
		2008 - 2010	-6.5	↓	-10.8, -2.0	-12.6	
Female	Non-Latino White	1988 - 1994	-2.2	↓	-2.8, -1.6	-12.5	
		1994 - 1997	0.9		-2.8, 4.8	2.7	
		1997 - 2008	-1.5	↓	-1.8, -1.2	-15.3	
		2008 - 2010	-4.9	↓	-8.9, -0.9	-9.6	
	African American	1988 - 2010	-0.6	↓	-0.9, -0.3	-12.4	
		Latino	1988 - 2010	-0.4		-0.7, 0.0	-8.4
	Asian/ Pacific Islander	1988 - 2008	-0.1		-0.6, 0.4	-2.0	
		2008 - 2010	-8.7		-19.3, 3.4	-16.6	
	All Races Combined	1988 - 1994	-2.0	↓	-2.8, -1.2	-11.4	
		1994 - 1998	0.4		-1.9, 2.7	1.6	
1998 - 2008		-1.6	↓	-2.0, -1.2	-14.9		
2008 - 2010		-4.8	↓	-9.0, -0.5	-9.4		

*continued on page 117*

**Table 5** continued from page 116

Sex	Race/Ethnicity	Time Period	APC		APC 95% Confidence Interval	Overall Change
<b>Mortality Trends</b>						
Male and female	All Races Combined	1988 - 2003	-2.1	↓	-2.2, -1.9	-27.3
		2003 - 2010	-3.0	↓	-3.5, -2.5	-19.2
Male	Non-Latino White	1988 - 2010	-2.7	↓	-2.9, -2.6	-45.2
	African American	1988 - 2010	-1.6	↓	-2.1, -1.0	-29.9
	Latino	1988 - 2010	-0.1		-0.7, 0.4	-2.2
	Asian/Pacific Islander	1988 - 2010	-2.1	↓	-2.6, -1.6	-37.3
	All Races Combined	1988 - 2010	-2.4	↓	-2.6, -2.3	-41.4
	Female	Non-Latino White	1988 - 2010	-2.4	↓	-2.6, -2.2
Female	African American	1988 - 2010	-1.5	↓	-1.9, -1.0	-28.3
	Latino	1988 - 2006	-0.2		-0.7, 0.3	-3.5
		2006 - 2010	-6.8	↓	-10.6, -2.8	-24.5
	Asian/Pacific Islander	1988 - 2010	-1.6	↓	-2.0, -1.1	-29.9
	All Races Combined	1988 - 2010	-2.3	↓	-2.4, -2.1	-40.1

↑ Statistically significant increase      ↓ Statistically significant decrease

Source of data: California Cancer Registry, California Department of Public Health

Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Table 6. Annual Percent Change (APC) and Overall Percent Change in Age-Adjusted Incidence and Mortality Rates by Race/Ethnicity, Sex, and Time Period in California, 1988-2010: Rectum and Rectosigmoid**

Sex	Race/Ethnicity	Time Period	APC		APC 95% Confidence Interval	Overall Change	
Rectum and Rectosigmoid							
Incidence Trends							
Male and Female	All Races Combined	1988 - 1995	-2.3	↓	-3.0, -1.7	-15.0	
		1995 - 1998	1.4		-3.6, 6.8	4.3	
		1998 - 2004	-2.3	↓	-3.4, -1.3	-13.0	
		2004 - 2010	-0.9	↓	-1.8, -0.1	-5.3	
Male	Non-Latino White	1988 - 1995	-2.7	↓	-3.7, -1.6	-17.4	
		1995 - 1998	1.1		-6.8, 9.7	3.3	
		1998 - 2010	-2.3	↓	-2.8, -1.8	-24.4	
	African American	1988 - 2010	-1.3	↓	-2.0, -0.5	-25.0	
	Latino	1988 - 2010	-0.4		-0.7, 0.0	-8.4	
	Asian/ Pacific Islander	1988 - 2010	-1.1	↓	-1.6, -0.6	-21.6	
	All Races Combined	1988 - 2010	-1.5	↓	-1.7, -1.3	-28.3	
	Female	Non-Latino White	1988 - 2010	-1.4	↓	-1.7, -1.1	-26.7
African American		1988 - 2010	-1.6	↓	-2.3, -1.0	-29.9	
Latino		1988 - 2010	-0.5	↓	-1.0, 0.0	-10.4	
Asian/ Pacific Islander		1988 - 2010	-0.8	↓	-1.3, -0.3	-16.2	
All Races Combined		1988 - 2010	-1.4	↓	-1.6, -1.1	-26.7	
Mortality Trends							
Male and female	All Races Combined	1988 - 1994	-0.4		-1.8, 1.0	-2.4	
		1994 - 1998	-4.3	↓	-8.2, -0.3	-16.1	
		1998 - 2010	-0.4		-0.9, 0.1	-4.7	
Male	Non-Latino White	1988 - 2010	-1.6	↓	-2.0, -1.2	-29.9	
	African American	1988 - 2010	-0.3		-1.5, 0.8	-6.4	
	Latino	1988 - 2010	-0.5		-1.3, 0.4	-10.4	
	Asian/Pacific Islander	1988 - 2010	-1.4	↓	-2.4, -0.3	-26.7	
	All Races Combined	1988 - 1995	0.1		-1.4, 1.6	0.7	
	1995 - 1998	-6.4		-15.9, 4.2	-18.0		
Female	All Races Combined	1998 - 2010	-0.5		-1.1, 0.1	-5.8	
		Non-Latino White	1988 - 2010	-1.2	↓	-1.6, -0.7	-23.3
		African American	1988 - 2010	-2.9	↓	-4.4, -1.3	-47.7
		Latino	1988 - 2010	-1.1	↓	-1.9, -0.3	-21.6
		Asian/Pacific Islander	1988 - 2010	-1.6	↓	-2.8, -0.3	-29.9
All Races Combined	1988 - 2010	-1.5	↓	-1.9, -1.0	-28.3		

↑ Statistically significant increase      ↓ Statistically significant decrease

Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Table 7. Annual Percent Change (APC) and Overall Percent Change in Age-Adjusted Incidence and Mortality Rates by Race/Ethnicity, Sex, and Time Period in California, 1988-2010: Esophagus**

Sex	Race/Ethnicity	Time Period	APC		APC 95% Confidence Interval	Overall Change	
<b>Esophagus (All)</b>							
<b>Incidence Trends</b>							
Male and Female	All Races Combined	1988 – 1999	0.6		-0.1, 1.4	6.8	
		1999 – 2010	-1.0	↓	-1.6, -0.3	-10.5	
Male	Non-Latino White	1988 – 2001	2.1	↑	1.3, 2.9	31.0	
		2001 – 2010	-0.1		-1.3, 1.0	-0.9	
	African American	1988 – 2010	-4.5	↓	-5.3, -3.7	-63.7	
		Latino	1988 – 2010	-0.7		-1.4, 0.0	-14.3
			Asian/ Pacific Islander	1988 – 2010	-2.6	↓	-3.7, -1.4
	All Races Combined	1988 – 2010	0.1		-0.3, 0.4	2.2	
	Female	Non-Latino White	1988 – 2010	-0.7	↓	-1.2, -0.3	-14.3
African American			1988 – 2010	-3.1	↓	-4.1, -2.1	-50.0
Latino		1988 – 1998	4.4		-0.6, 9.7	53.8	
		1998 – 2010	-3.8	↓	-6.4, -1.2	-37.2	
Asian/ Pacific Islander		1988 – 2010	-0.4		-2.0, 1.2	-8.4	
All Races Combined		1988 – 2010	-1.3	↓	-1.7, -0.9	-25.0	
<b>Squamous Cell Carcinoma</b>							
<b>Incidence Trends</b>							
Male and Female	All Races Combined	1988 – 2010	-2.9	↓	-3.2, -2.6	-47.7	
Male	Non-Latino White	1988 – 2010	-2.5	↓	-2.9, -2.0	-42.7	
		African American	1988 – 2010	-5.9	↓	-6.9, -5.0	-73.8
	Latino	1988 – 2010	-2.9	↓	-3.6, -2.1	-47.7	
		Asian/Pacific Islander	1988 – 2010	-3.7	↓	-4.9, -2.5	-56.4
	All Races Combined	1988 – 2010	-3.0	↓	-3.4, -2.7	-48.8	
Female	Non-Latino White	1988 – 2010	-2.5	↓	-3.0, -1.9	-42.7	
		African American	1988 – 2010	-3.5	↓	-4.8, -2.2	-54.3
	Latino	1988 – 2010	-2.6	↓	-4.2, -0.9	-44.0	
		All Races Combined	1988 – 2010	-2.8	↓	-3.3, -2.4	-46.5

*continued on page 120*

**Table 7** continued from page 119

Sex	Race/Ethnicity	Time Period	APC		APC 95% Confidence Interval	Overall Change
<b>Adenocarcinoma</b>						
<b>Incidence Trends</b>						
Male and Female	All Races Combined	1988 – 2000	4.7	↑	3.6, 5.9	73.5
		2000 – 2010	0.2		-0.8, 1.3	2.0
Male	Non-Latino White	1988 – 2001	4.9	↑	3.9, 6.0	86.2
		2001 – 2010	0.6		-0.8, 2.0	5.5
	Latino	1988 – 2010	1.4	↑	0.2, 2.5	35.8
	All Races Combined	1988 – 2001	4.1	↑	3.0, 5.2	68.6
		2001 – 2010	0.1		-1.3, 1.4	0.9
Female	Non-Latino White	1988 – 1999	7.2	↑	4.6, 9.8	114.9
		1999 – 2010	0.0		-2.0, 2.0	0.0
	All Races Combined	1988 – 1999	6.8	↑	4.0, 9.6	106.2
			1999 – 2010	-0.8		-2.7, 1.2
<b>Esophagus (All)</b>						
<b>Mortality Trends</b>						
Male and female	All Races Combined	1988 – 1999	0.5		-0.2, 1.2	5.6
		1999 – 2010	-1.4	↓	-2.1, -0.8	-14.4
Male	Non-Latino White	1988 – 2000	1.4	↑	0.5, 2.4	18.2
		2000 – 2010	-0.4		-1.5, 0.7	-3.9
	African American	1988 – 2010	-4.8	↓	-5.5, -4.0	-66.1
	Latino	1988 – 1993	7.9		-2.0, 18.9	46.3
		1993 – 2010	-1.5	↓	-2.6, -0.4	-22.7
	All Races Combined	1988 – 2010	-2.8	↓	-3.9, -1.7	-46.5
Female	Non-Latino White	1988 – 1999	0.9		-0.3, 2.2	10.4
		1999 – 2010	-1.8	↓	-3.0, -0.6	-18.1
	African American	1988 – 2010	-3.5	↓	-4.6, -2.4	-54.3
	Latino	1988 – 2010	-1.8	↓	-3.1, -0.5	-32.9
	All Races Combined	1988 – 2010	-1.2	↓	-1.7, -0.7	-23.3

↑ Statistically significant increase      ↓ Statistically significant decrease

Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Table 8. Annual Percent Change (APC) and Overall Percent Change in Age-Adjusted Incidence and Mortality Rates by Race/Ethnicity, Sex, and Time Period in California, 1988-2010: Hodgkin Lymphoma**

Sex	Race/Ethnicity	Time Period	APC		APC 95% Confidence Interval	Overall Change
<b>Incidence Trends</b>						
Male and Female	All Races Combined	1988 - 2010	0.0		-0.3, 0.3	0.0
Male	Non-Latino White	1988 - 2010	0.0		-0.4, 0.3	0.0
	African American	1988 - 2010	0.8		-0.4, 2.1	19.2
	Latino	1988 - 2010	0.9		0.0, 1.8	21.8
	Asian/Pacific Islander	1988 - 2010	0.4		-1.0, 1.9	9.2
	All Races Combined	1988 - 2010	-0.1		-0.4, 0.2	-2.2
Female	Non-Latino White	1988 - 2010	0.6	↑	0.1, 1.1	14.1
	African American	1988 - 2010	1.1		-0.4, 2.6	27.2
	Latino	1988 - 2010	0.3		-0.7, 1.3	6.8
	All Races Combined	1988 - 2010	0.2		-0.3, 0.6	4.5
	<b>Mortality Trends</b>					
Male and female	All Races Combined	1988 - 2010	-2.1	↓	-2.5, -1.6	-37.3
Male	Non-Latino White	1988 - 2010	-2.3	↓	-3.0, -1.5	-40.1
	Latino	1988 - 2010	-1.7	↓	-3.1, -0.2	-31.4
	All Races Combined	1988 - 2010	-2.2	↓	-2.9, -1.6	-38.7
Female	Non-Latino White	1988 - 2010	-1.7	↓	-2.5, -0.8	-31.4
	All Races Combined	1988 - 2010	-1.7	↓	-2.5, -0.9	-31.4

↑ Statistically significant increase      ↓ Statistically significant decrease

Source of data: California Cancer Registry, California Department of Public Health

Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Table 9. Annual Percent Change (APC) and Overall Percent Change in Age-Adjusted Incidence and Mortality Rates by Race/Ethnicity, Sex, and Time Period in California, 1988-2010: Kidney and Renal Pelvis**

Sex	Race/Ethnicity	Time Period	APC		APC 95% Confidence Interval	Overall Change
<b>Incidence Trends</b>						
Male and Female	All Races Combined	1988 - 1999	0.8	↑	0.3, 1.2	9.2
		1999 - 2008	3.8	↑	3.2, 4.4	39.9
		2008 - 2010	-0.7		-5.3, 4.1	-1.4
Male	Non-Latino White	1988 - 1995	-0.2		-1.4, 1.0	-1.4
		1995 - 2010	2.8	↑	2.5, 3.2	51.3
	African American	1988 - 2010	2.8	↑	2.1, 3.6	83.6
		Latino	1988 - 2010	2.7	↑	2.1, 3.3
	Asian/ Pacific Islander	1988 - 2010	2.9	↑	2.1, 3.7	87.6
	All Races Combined	1988 - 1995	-0.3		-1.8, 1.2	-2.1
		1995 - 2010	2.8	↑	2.5, 3.2	51.3
	Female	Non-Latino White	1988 - 2000	1.0	↑	0.2, 1.7
2000 - 2010			3.5	↑	2.6, 4.3	41.1
African American		1988 - 2010	2.7	↑	2.0, 3.4	79.7
Latino		1988 - 2010	2.5	↑	2.1, 2.9	72.2
Asian/ Pacific Islander		1988 - 2010	2.4	↑	1.4, 3.3	68.5
All Races Combined		1988 - 2000	0.9	↑	0.3, 1.4	11.4
		2000 - 2008	4.1	↑	3.0, 5.1	37.9
			2008 - 2010	-1.0		-7.3, 5.6
<b>Mortality Trends</b>						
Male and female	All Races Combined	1988 - 1998	0.3		-0.3, 0.9	3.0
		1998 - 2010	-0.9	↓	-1.3, -0.5	-10.3
Male	Non-Latino White	1988 - 2010	-0.6	↓	-0.8, -0.3	-12.4
	African American	1988 - 2010	0.4		-0.7, 1.6	9.2
	Latino	1988 - 1991	14.9		-1.0, 33.4	51.7
		1991 - 2010	-0.4		-1.0, 0.2	-7.3
	Asian/Pacific Islander	1988 - 2010	1.3		0.0, 2.7	32.9
	All Races Combined	1988 - 2010	-0.4	↓	-0.6, -0.1	-8.4
Female	Non-Latino White	1988 - 2010	-0.9	↓	-1.3, -0.6	-18.0
	African American	1988 - 2010	-1.0		-2.4, 0.6	-19.8
	Latino	1988 - 2010	0.3		-0.5, 1.1	6.8
	All Races Combined	1988 - 2010	-0.6	↓	-0.9, -0.3	-12.4

↑ Statistically significant increase      ↓ Statistically significant decrease

Source of data: California Cancer Registry, California Department of Public Health

Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Table 10. Annual Percent Change (APC) and Overall Percent Change in Age-Adjusted Incidence and Mortality Rates by Race/Ethnicity, Sex, and Time Period in California, 1988-2010:  
Larynx**

Sex	Race/Ethnicity	Time Period	APC		APC 95% Confidence Interval	Overall Change
<b>Incidence Trends</b>						
Male and Female	All Races Combined	1988 - 2010	-3.3	↓	-3.5, -3.1	-52.2
Male	Non-Latino White	1988 - 2010	-3.2	↓	-3.5, -2.9	-51.1
	African American	1988 - 2010	-3.3	↓	-4.1, -2.5	-52.2
	Latino	1988 - 2010	-1.7	↓	-2.3, -1.1	-31.4
	Asian/ Pacific Islander	1988 - 2010	-3.3	↓	-4.6, -2.0	-52.2
	All Races Combined	1988 - 2010	-3.2	↓	-3.4, -3.1	-51.1
Female	Non-Latino White	1988 - 2010	-3.5	↓	-4.1, -2.8	-54.3
	African American	1988 - 2010	-3.0	↓	-4.5, -1.4	-48.8
	Latino	1988 - 2010	-2.7	↓	-4.2, -1.2	-45.2
	All Races Combined	1988 - 2010	-3.9	↓	-4.4, -3.3	-58.3
<b>Mortality Trends</b>						
Male and female	All Races Combined	1988 - 2010	-2.4	↓	-2.8, -2.0	-41.4
Male	Non-Latino White	1988 - 2010	-2.3	↓	-2.9, -1.8	-40.1
	African American	1988 - 2010	-2.0	↓	-3.5, -0.5	-35.9
	Latino	1988 - 2010	-2.0	↓	-3.4, -0.6	-35.9
	All Races Combined	1988 - 2010	-2.4	↓	-2.9, -2.0	-41.4
Female	Non-Latino White	1988 - 2010	-2.3	↓	-3.3, -1.3	-40.1
	All Races Combined	1988 - 2010	-2.9	↓	-3.8, -2.0	-47.7

↑ Statistically significant increase      ↓ Statistically significant decrease

Source of data: California Cancer Registry, California Department of Public Health  
Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Table 11.** Annual Percent Change (APC) and Overall Percent Change in Age-Adjusted Incidence and Mortality Rates by Race/Ethnicity, Sex, and Time Period in California, 1988-2010:  
**Leukemia**

Sex	Race/Ethnicity	Time Period	APC		APC 95% Confidence Interval	Overall Change
<b>Incidence Trends</b>						
Male and Female	All Races Combined	1988 - 2010	-0.1	↓	-0.3, 0.0	-2.2
Male	Non-Latino White	1988 - 2010	-0.1		-0.3, 0.0	-2.2
	African American	1988 - 2010	-0.5		-1.1, 0.0	-10.4
	Latino	1988 - 2010	0.3		-0.2, 0.8	6.8
	Asian/ Pacific Islander	1988 - 2010	-0.7	↓	-1.3, -0.2	-14.3
	All Races Combined	1988 - 2010	-0.3	↓	-0.5, -0.2	-6.4
Female	Non-Latino White	1988 - 2010	0.1		-0.1, 0.3	2.2
	African American	1988 - 2010	-0.6		-1.3, 0.1	-12.4
	Latino	1988 - 2010	0.3		-0.1, 0.7	6.8
	Asian/ Pacific Islander	1988 - 2010	-0.4		-1.0, 0.2	-8.4
	All Races Combined	1988 - 2010	0.0		-0.2, 0.2	0.0
<b>Mortality Trends</b>						
Male and female	All Races Combined	1988 - 2010	-0.8	↓	-1.0, -0.7	-16.2
Male	Non-Latino White	1988 - 2010	-0.8	↓	-1.0, -0.5	-16.2
	African American	1988 - 2010	-1.2	↓	-1.8, -0.5	-23.3
	Latino	1988 - 2010	-0.4		-1.0, 0.2	-8.4
	Asian/Pacific Islander	1988 - 2010	-1.3	↓	-2.1, -0.6	-25.0
	All Races Combined	1988 - 2010	-1.0	↓	-1.2, -0.8	-19.8
Female	Non-Latino White	1988 - 2010	-0.6	↓	-0.8, -0.4	-12.4
	African American	1988 - 2010	-0.7		-1.5, 0.0	-14.3
	Latino	1988 - 2010	-0.5		-1.1, 0.0	-10.4
	Asian/Pacific Islander	1988 - 2010	-0.6		-1.8, 0.5	-12.4
	All Races Combined	1988 - 2010	-0.8	↓	-0.9, -0.6	-16.2

↑ Statistically significant increase      ↓ Statistically significant decrease

Source of data: California Cancer Registry, California Department of Public Health

Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Table 12. Annual Percent Change (APC) and Overall Percent Change in Age-Adjusted Incidence and Mortality Rates by Race/Ethnicity, Sex, and Time Period in California, 1988-2010: Lymphocytic Leukemia**

Sex	Race/Ethnicity	Time Period	APC		APC 95% Confidence Interval	Overall Change		
<b>Acute Lymphocytic Leukemia</b>								
<b>Incidence Trends</b>								
Male and Female	All Races Combined	1988 - 2010	1.1	↑	0.8, 1.4	27.2		
Male	Non-Latino White	1988 - 2010	0.5		-0.2, 1.2	11.6		
	Latino	1988 - 2010	1.4	↑	0.9, 1.8	35.8		
	Asian/ Pacific Islander	1988 - 2010	-0.3		-2.0, 1.4	-6.4		
	All Races Combined	1988 - 2010	1.0	↑	0.6, 1.4	24.5		
Female	Non-Latino White	1988 - 2010	0.2		-0.5, 0.9	4.5		
	Latino	1988 - 2010	2.1	↑	1.6, 2.6	58.0		
	Asian/ Pacific Islander	1988 - 2010	-0.2		-1.6, 1.2	-4.3		
	All Races Combined	1988 - 2010	1.2	↑	0.8, 1.7	30.0		
<b>Mortality Trends</b>								
Male and female	All Races Combined	1988 - 2010	-0.3		-0.8, 0.3	-6.4		
Male	Non-Latino White	1988 - 2010	-1.5	↓	-2.5, -0.6	-28.3		
	Latino	1988 - 2010	0.3		-0.9, 1.5	6.8		
	All Races Combined	1988 - 2010	-0.7		-1.4, 0.1	-14.3		
Female	Non-Latino White	1988 - 2010	-1.1		-2.2, 0.0	-21.6		
	Latino	1988 - 2010	1.2		-0.2, 2.7	30.0		
	All Races Combined	1988 - 2010	0.2		-0.5, 0.9	4.5		
<b>Chronic Lymphocytic Leukemia</b>								
<b>Incidence Trends</b>								
Male and Female	All Races Combined	1988 - 1998	-1.4	↓	-2.4, -0.4	-13.2		
		1998 - 2010	0.8	↑	0.1, 1.4	10.0		
Male	Non-Latino White	1988 - 1998	-1.0		-2.1, 0.1	-9.6		
		1998 - 2010	1.3	↑	0.5, 2.1	16.8		
		African American	1988 - 2010	-0.3		-1.3, 0.7	-6.4	
			Latino	1988 - 2010	0.0		-1.2, 1.3	0.0
			All Races Combined	1988 - 1997	-1.5	↓	-2.7, -0.2	-12.7
		1997 - 2010	0.6		0.0, 1.2	8.1		
Female	Non-Latino White	1988 - 1999	-1.0		-2.2, 0.2	-10.5		
		1999 - 2010	1.6	↑	0.4, 2.7	19.1		
		African American	1988 - 2010	-1.1		-2.1, 0.0	-21.6	
			Latino	1988 - 2010	-0.9		-2.4, 0.7	-18.0
			All Races Combined	1988 - 1998	-1.8	↓	-3.2, -0.4	-16.6
				1998 - 2010	0.9		-0.1, 1.9	11.4

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**Table 12** *continued from page 125*

Sex	Race/Ethnicity	Time Period	APC		APC 95% Confidence Interval	Overall Change
Mortality Trends						
Male and female	All Races Combined	1988 - 2010	-0.7	↓	-1.1, -0.3	-14.3
Male	Non-Latino White	1988 - 2010	-0.5		-1.0, 0.0	-10.4
	African American	1988 - 2010	-1.2		-2.9, 0.5	-23.3
Female	All Races Combined	1988 - 2010	-1.0	↓	-1.5, -0.5	-19.8
	Non-Latino White	1988 - 2010	0.2		-0.5, 0.8	4.5
	All Races Combined	1988 - 2010	-0.6		-1.2, 0.0	-12.4

↑ Statistically significant increase      ↓ Statistically significant decrease

*Source of data: California Cancer Registry, California Department of Public Health  
Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System*

**Table 13. Annual Percent Change (APC) and Overall Percent Change in Age-Adjusted Incidence and Mortality Rates by Race/Ethnicity, Sex, and Time Period in California, 1988-2010: Myeloid Leukemia**

Sex	Race/Ethnicity	Time Period	APC		APC 95% Confidence Interval	Overall Change
<b>Acute Myeloid Leukemia</b>						
<b>Incidence Trends</b>						
Male and Female	All Races Combined	1988 - 2001	1.2	↑	0.8, 1.6	16.8
		2001 - 2004	-4.4		-10.7, 2.3	-12.6
		2004 - 2010	1.8	↑	0.6, 2.9	11.3
Male	Non-Latino White	1988 - 1998	1.4	↑	0.0, 2.8	14.9
		1998 - 2010	-1.1	↓	-2.0, -0.1	-12.4
	African American	1988 - 2010	0.6		-0.7, 2.0	14.1
	Latino	1988 - 2010	0.6		-0.5, 1.7	14.1
	Asian/ Pacific Islander	1988 - 2010	-0.6		-1.4, 0.3	-12.4
	All Races Combined	1988 - 2001	1.1	↑	0.5, 1.7	15.3
		2001 - 2004	-4.9		-14.4, 5.6	-14.0
2004 - 2010		0.9		-0.8, 2.6	5.5	
Female	Non-Latino White	1988 - 2010	0.6	↑	0.2, 1.0	14.1
	African American	1988 - 2010	0.3		-1.0, 1.7	6.8
	Latino	1988 - 2010	0.8		-0.2, 1.9	19.2
	Asian/ Pacific Islander	1988 - 2010	0.2		-0.9, 1.3	4.5
	All Races Combined	1988 - 2000	1.4	↑	0.7, 2.1	18.2
		2000 - 2004	-3.2		-8.3, 2.2	-12.2
		2004 - 2010	2.7	↑	0.9, 4.5	17.3
<b>Mortality Trends</b>						
Male and female	All Races Combined	1988 - 2010	1.4	↑	1.2, 1.6	35.8
Male	Non-Latino White	1988 - 2010	1.6	↑	1.2, 1.9	41.8
	African American	1988 - 2010	1.7	↑	0.2, 3.2	44.9
	Latino	1988 - 2010	1.7	↑	0.7, 2.6	44.9
	Asian/Pacific Islander	1988 - 2010	0.7		-0.6, 2.0	16.6
	All Races Combined	1988 - 2010	1.3	↑	1.0, 1.6	32.9
Female	Non-Latino White	1988 - 2010	1.6	↑	1.2, 1.9	41.8
	Latino	1988 - 2010	1.7	↑	0.8, 2.6	44.9
	Asian/Pacific Islander	1988 - 2010	1.1		-0.6, 2.8	27.2
	All Races Combined	1988 - 2010	1.4	↑	1.0, 1.7	35.8

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**Table 13** continued from page 127

Sex	Race/Ethnicity	Time Period	APC		APC 95% Confidence Interval	Overall Change
Chronic Myeloid Leukemia						
Incidence Trends						
Male and Female	All Races Combined	1988 - 2000	-0.4		-1.1, 0.3	-4.7
		2000 - 2003	-6.3		-16.9, 5.8	-17.7
		2003 - 2010	1.8	↑	0.2, 3.3	13.3
Male	Non-Latino White	1988 - 2010	-0.8	↓	-1.4, -0.2	-16.2
	African American	1988 - 2010	-2.3	↓	-3.9, -0.8	-40.1
	Latino	1988 - 2010	-1.1		-2.2, 0.0	-21.6
	Asian/ Pacific Islander	1988 - 2010	-1.1		-2.3, 0.1	-21.6
	All Races Combined	1988 - 2010	-1.1	↓	-1.6, -0.6	-21.6
Female	Non-Latino White	1988 - 2010	-0.4		-1.0, 0.3	-8.4
	Latino	1988 - 2010	-1.7	↓	-2.7, -0.6	-31.4
	Asian/Pacific Islander	1988 - 2010	-2.8	↓	-4.0, -1.6	-46.5
	All Races Combined	1988 - 2010	-1.0	↓	-1.6, -0.4	-19.8
Mortality Trends						
Male and female	All Races Combined	1988 - 1997	-1.3		-3.2, 0.6	-11.1
		1997 - 2004	-12.1	↓	-15.8, -8.2	-59.5
		2004 - 2010	-2.2		-7.0, 2.9	-12.5
Male	Non-Latino White	1988 - 1997	-2.2	↓	-4.3, -0.1	-18.1
		1997 - 2003	-12.7	↓	-18.2, -6.9	-55.7
		2003 - 2010	-2.0		-6.5, 2.7	-13.2
	All Races Combined	1988 - 1997	-1.6		-3.5, 0.3	-13.5
		1997 - 2003	-13.0	↓	-17.7, -8.0	-56.6
		2003 - 2010	-2.2		-6.0, 1.7	-14.4
Female	Non-Latino White	1988 - 1995	1.0		-4.8, 7.1	7.2
		1995 - 2010	-8.3	↓	-10.5, -6.0	-72.7
	All Races Combined	1988 - 1997	-1.0		-3.9, 1.9	-8.6
		1997 - 2008	-11.3	↓	-14.1, -8.4	-73.3
		2008 - 2010	23.6		-23.1, 98.7	52.8

↑ Statistically significant increase      ↓ Statistically significant decrease

Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Table 14. Annual Percent Change (APC) and Overall Percent Change in Age-Adjusted Incidence and Mortality Rates by Race/Ethnicity, Sex, and Time Period in California, 1988-2010: Liver and Intrahepatic Bile Duct**

Sex	Race/Ethnicity	Time Period	APC		APC 95% Confidence Interval	Overall Change	
<b>Incidence Trends</b>							
Male and Female	All Races Combined	1988 - 1998	5.5	↑	4.7, 6.3	70.8	
		1998 - 2010	3.4	↑	3.0, 3.8	49.4	
Male	Non-Latino White	1988 - 2010	4.5	↑	4.2, 4.8	163.4	
	African American	1988 - 2010	4.3	↑	3.7, 5.0	152.5	
	Latino	1988 - 1998	6.2	↑	4.1, 8.4	82.5	
		1998 - 2010	3.3	↑	2.4, 4.2	47.6	
	Asian/ Pacific Islander	1988 - 2010	0.5		-0.1, 1.0	11.6	
	All Races Combined	1988 - 1998	5.4	↑	4.4, 6.3	69.2	
		1998 - 2010	3.7	↑	3.3, 4.2	54.6	
	Female	Non-Latino White	1988 - 2010	2.9	↑	2.6, 3.3	87.6
African American		1988 - 2010	3.3	↑	2.3, 4.4	104.3	
Latino		1988 - 2010	2.8	↑	2.0, 3.6	83.6	
Asian/ Pacific Islander		1988 - 1993	8.1	↑	0.1, 16.7	47.6	
		1993 - 2010	-0.1		-0.8, 0.6	-1.7	
All Races Combined		1988 - 1998	5.1	↑	3.6, 6.7	64.4	
		1998 - 2010	2.5	↑	1.7, 3.3	34.5	
<b>Mortality Trends</b>							
Male and female	All Races Combined	1988 - 1997	4.1	↑	3.2, 4.9	43.6	
		1997 - 2010	2.2	↑	1.9, 2.6	32.7	
Male	Non-Latino White	1988 - 2010	2.7	↑	2.4, 3.0	79.7	
	African American	1988 - 2010	2.9	↑	2.1, 3.7	87.6	
	Latino	1988 - 2000	4.6	↑	3.2, 6.0	71.5	
		2000 - 2010	1.7	↑	0.6, 2.8	18.4	
	Asian/Pacific Islander	1988 - 2010	-0.6	↓	-0.9, -0.2	-12.4	
	All Races Combined	1988 - 2010	2.7	↑	2.5, 3.0	79.7	
	Female	Non-Latino White	1988 - 2010	2.0	↑	1.5, 2.5	54.6
		African American	1988 - 2010	2.0	↑	0.7, 3.3	54.6
Latino		1988 - 2010	2.5	↑	1.9, 3.0	72.2	
Asian/Pacific Islander		1988 - 1993	9.6		-0.1, 20.3	58.1	
		1993 - 2010	-0.8		-1.7, 0.0	-12.8	
All Races Combined		1988 - 2002	3.5	↑	2.8, 4.2	61.9	
		2002 - 2010	1.0		-0.2, 2.2	8.3	

↑ Statistically significant increase      ↓ Statistically significant decrease

Source of data: California Cancer Registry, California Department of Public Health

Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Table 15. Annual Percent Change (APC) and Overall Percent Change in Age-Adjusted Incidence and Mortality Rates by Race/Ethnicity, Sex, and Time Period in California, 1988-2010: Lung and Bronchus**

Sex	Race/Ethnicity	Time Period	APC		APC 95% Confidence Interval	Overall Change
<b>Incidence Trends</b>						
Male and Female	All Races Combined	1988 - 1998	-1.2	↓	-1.5, -0.9	-11.4
		1998 - 2010	-1.9	↓	-2.1, -1.7	-20.6
Male	Non-Latino White	1988 - 2010	-2.2	↓	-2.3, -2.1	-38.7
	African American	1988 - 2010	-2.5	↓	-2.9, -2.2	-42.7
	Latino	1988 - 2010	-2.0	↓	-2.3, -1.7	-35.9
	Asian/ Pacific Islander	1988 - 2010	-1.3	↓	-1.6, -1.1	-25.0
	All Races Combined	1988 - 2010	-2.4	↓	-2.4, -2.3	-41.4
	Female	Non-Latino White	1988 - 1997	0.6	↑	0.2, 1.1
1997 - 2010			-1.1	↓	-1.3, -0.8	-13.4
African American		1988 - 2010	0.0		-0.4, 0.3	0.0
Latino		1988 - 2010	-0.5	↓	-0.8, -0.2	-10.4
Asian/ Pacific Islander		1988 - 2010	0.1		-0.3, 0.5	2.2
All Races Combined		1988 - 1997	0.2		-0.3, 0.6	1.8
		1997 - 2010	-1.4	↓	-1.6, -1.1	-16.7
<b>Mortality Trends</b>						
Male and female	All Races Combined	1988 - 1994	-0.6	↓	-1.0, -0.3	-3.5
		1994 - 2001	-1.7	↓	-2.1, -1.4	-11.3
		2001 - 2010	-2.7	↓	-2.8, -2.5	-21.8
Male	Non-Latino White	1988 - 2001	-2.2	↓	-2.4, -1.9	-25.1
		2001 - 2010	-2.9	↓	-3.4, -2.5	-23.3
	African American	1988 - 1995	-1.1		-2.5, 0.4	-7.5
		1995 - 2010	-3.3	↓	-3.8, -2.8	-39.5
	Latino	1988 - 1997	-0.4		-1.5, 0.8	-3.5
		1997 - 2010	-2.7	↓	-3.2, -2.1	-29.9
	Asian/Pacific Islander	1988 - 2010	-1.3	↓	-1.6, -1.0	-25.0
	All Races Combined	1988 - 2001	-2.2	↓	-2.4, -2.1	-25.1
		2001 - 2010	-3.1	↓	-3.5, -2.8	-24.7

*continued on page 131*

**Table 15** continued from page 130

Sex	Race/Ethnicity	Time Period	APC		APC 95% Confidence Interval	Overall Change
Female	Non-Latino White	1988 - 1993	1.9	↑	1.2, 2.5	9.9
		1993 - 2003	-0.8	↓	-1.0, -0.5	-7.7
		2003 - 2010	-2.2	↓	-2.6, -1.8	-14.4
	African American	1988 - 1991	7.9		-1.7, 18.6	25.6
		1991 - 2010	-0.8	↓	-1.3, -0.3	-14.2
	Latino	1988 - 1997	1.1		-0.3, 2.5	10.3
		1997 - 2010	-1.6	↓	-2.3, -1.0	-18.9
	Asian/Pacific Islander	1988 - 2010	-0.4		-0.9, 0.0	-8.4
	All Races Combined	1988 - 1993	1.4	↑	0.7, 2.1	7.2
		1993 - 2002	-1.0	↓	-1.3, -0.7	-8.6
		2002 - 2010	-2.4	↓	-2.7, -2.1	-17.7

↑ Statistically significant increase      ↓ Statistically significant decrease

Source of data: California Cancer Registry, California Department of Public Health

Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Table 16. Annual Percent Change (APC) and Overall Percent Change in Age-Adjusted Incidence and Mortality Rates by Race/Ethnicity, Sex, and Time Period in California, 1988-2010:  
Melanoma of the Skin**

Sex	Race/Ethnicity	Time Period	APC		APC 95% Confidence Interval	Overall Change
<b>Melanoma of the Skin</b>						
<b>Incidence Trends</b>						
Male and Female	All Races Combined	1988 - 1993	-0.3		-3.1, 2.6	-1.5
		1993 - 1996	8.1		-3.8, 21.3	26.3
		1996 - 2010	1.5	↑	1.0, 2.0	23.2
Male	Non-Latino White	1988 - 1993	0.3		-2.5, 3.3	1.5
		1993 - 1996	9.7		-2.4, 23.3	32.0
		1996 - 2008	3.0	↑	2.3, 3.7	42.6
		2008 - 2010	-1.8		-10.1, 7.3	-3.6
	Latino	1988 - 2010	1.3	↑	0.5, 2.2	32.9
	All Races Combined	1988 - 1993	0.1		-2.9, 3.3	0.5
		1993 - 1996	8.4		-4.1, 22.6	27.4
		1996 - 2010	1.8	↑	1.3, 2.2	28.4
Female	Non-Latino White	1988 - 1993	-0.4		-3.0, 2.3	-2.0
		1993 - 1996	9.7		-1.8, 22.5	32.0
		1996 - 2008	2.6	↑	2.0, 3.3	36.1
		2008 - 2010	-2.6		-11.0, 6.6	-5.1
	Latino	1988 - 2010	0.6		-0.2, 1.4	14.1
	All Races Combined	1988 - 1993	-0.9		-3.6, 2.0	-4.4
		1993 - 1996	7.7		-4.2, 21.1	24.9
		1996 - 2010	1.1	↑	0.6, 1.6	16.6
<b>In Situ Melanoma of the Skin</b>						
<b>Incidence Trends</b>						
Male and Female	All Races	1988 - 1998	9.7	↑	7.9, 11.5	152.4
		1998 - 2010	3.0	↑	2.3, 3.8	42.6
Male	Non-Latino White	1988 - 1998	11.2	↑	9.5, 13.0	189.1
		1998 - 2010	3.6	↑	2.8, 4.3	52.9
	All Races Combined	1988 - 1997	10.4	↑	8.4, 12.5	143.6

*continued on page 133*

**Table 16** continued from page 132

Sex	Race/Ethnicity	Time Period	APC		APC 95% Confidence Interval	Overall Change
		1997 - 2010	3.4	↑	2.7, 4.0	54.4
Female	Non-Latino White	1988 - 1999	11.1	↑	9.4, 12.8	218.3
		1999 - 2010	3.2	↑	2.1, 4.2	41.4
	Latino	1988 - 2010	3.2	↑	1.8, 4.5	100.0
	All Races Combined	1988 - 1999	9.0	↑	7.2, 10.8	158.0
		1999 - 2010	2.5	↑	1.5, 3.6	31.2
<b>Mortality Trends</b>						
Male and female	All Races Combined	1988 - 2010	-0.9	↓	-1.2, -0.6	-18.0
Male	Non-Latino White	1988 - 2010	0.2		-0.2, 0.6	4.5
	Latino	1988 - 2010	1.1		-0.6, 2.9	27.2
	All Races Combined	1988 - 2010	-0.5	↓	-0.9, -0.1	-10.4
Female	Non-Latino White	1988 - 2010	-0.9	↓	-1.3, -0.4	-18.0
	Latino	1988 - 2010	-0.2		-1.7, 1.3	-4.3
	All Races Combined	1988 - 2004	-2.2	↓	-2.8, -1.6	-29.9
		2004 - 2010	0.9		-1.8, 3.5	5.5

↑ Statistically significant increase      ↓ Statistically significant decrease

Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Table 17. Annual Percent Change (APC) and Overall Percent Change in Age-Adjusted Incidence and Mortality Rates by Race/Ethnicity, Sex, and Time Period in California, 1988-2010: Multiple Myeloma**

Sex	Race/Ethnicity	Time Period	APC		APC 95% Confidence Interval	Overall Change
<b>Incidence Trends</b>						
Male and Female	All Races Combined	1988 - 2010	0.4	↑	0.2, 0.6	9.2
Male	Non-Latino White	1988 - 2002	0.0		-0.6, 0.6	0.0
		2002 - 2010	1.9	↑	0.6, 3.2	16.3
	African American	1988 - 2010	0.0		-0.7, 0.8	0.0
	Latino	1988 - 2010	0.5		-0.3, 1.3	11.6
	Asian/ Pacific Islander	1988 - 2010	-0.7		-1.6, 0.3	-14.3
	All Races Combined	1988 - 2010	0.4	↑	0.2, 0.7	9.2
Female	Non-Latino White	1988 - 2010	0.1		-0.2, 0.4	2.2
	African American	1988 - 2010	0.3		-0.6, 1.2	6.8
	Latino	1988 - 2010	0.1		-0.5, 0.7	2.2
	Asian/ Pacific Islander	1988 - 2010	0.3		-0.8, 1.4	6.8
	All Races Combined	1988 - 2010	0.2		-0.1, 0.4	4.5
<b>Mortality Trends</b>						
Male and female	All Races Combined	1988 - 2010	-0.7	↓	-0.9, -0.4	-14.3
Male	Non-Latino White	1988 - 2010	-0.4		-0.8, 0.1	-8.4
	African American	1988 - 2010	-0.9	↓	-1.8, 0.0	-18.0
	Latino	1988 - 2010	-0.5		-1.6, 0.5	-10.4
	Asian/Pacific Islander	1988 - 2010	-0.2		-1.7, 1.2	-4.3
	All Races Combined	1988 - 2010	-0.5	↓	-0.9, -0.2	-10.4
Female	Non-Latino White	1988 - 2010	-1.1	↓	-1.6, -0.6	-21.6
	African American	1988 - 2010	-0.6		-1.4, 0.3	-12.4
	Latino	1988 - 2003	1.8	↑	0.5, 3.1	30.7
		2003 - 2010	-4.6	↓	-7.6, -1.6	-28.1
	All Races Combined	1988 - 2010	-0.6		-2.1, 0.9	-12.4
	All Races Combined	1988 - 2010	-0.9	↓	-1.3, -0.4	-18.0

↑ Statistically significant increase      ↓ Statistically significant decrease

Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Table 18. Annual Percent Change (APC) and Overall Percent Change in Age-Adjusted Incidence and Mortality Rates by Race/Ethnicity, Sex, and Time Period in California, 1988-2010: Non-Hodgkin Lymphoma**

Sex	Race/Ethnicity	Time Period	APC		APC 95% Confidence Interval	Overall Change
<b>Incidence Trends</b>						
Male and Female	All Races Combined	1988 - 2010	0.0		-0.3, 0.3	0.0
Male	Non-Latino White	1988 - 2010	0.0		-0.4, 0.3	0.0
	African American	1988 - 2010	0.8		-0.4, 2.1	19.2
	Latino	1988 - 2010	0.9		0.0, 1.8	21.8
	Asian/ Pacific Islander	1988 - 2010	0.4		-1.0, 1.9	9.2
	All Races Combined	1988 - 2010	-0.1		-0.4, 0.2	-2.2
Female	Non-Latino White	1988 - 2010	0.6	↑	0.1, 1.1	14.1
	African American	1988 - 2010	1.1		-0.4, 2.6	27.2
	Latino	1988 - 2010	0.3		-0.7, 1.3	6.8
	All Races Combined	1988 - 2010	0.2		-0.3, 0.6	4.5
<b>Mortality Trends</b>						
Male and female	All Races Combined	1988 - 2010	-2.1	↓	-2.5, -1.6	-37.3
Male	Non-Latino White	1988 - 2010	-2.3	↓	-3.0, -1.5	-40.1
	Latino	1988 - 2010	-1.7	↓	-3.1, -0.2	-31.4
	All Races Combined	1988 - 2010	-2.2	↓	-2.9, -1.6	-38.7
Female	Non-Latino White	1988 - 2010	-1.7	↓	-2.5, -0.8	-31.4
	All Races Combined	1988 - 2010	-1.7	↓	-2.5, -0.9	-31.4

↑ Statistically significant increase      ↓ Statistically significant decrease

Source of data: California Cancer Registry, California Department of Public Health

Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Table 19. Annual Percent Change (APC) and Overall Percent Change in Age-Adjusted Incidence and Mortality Rates by Race/Ethnicity, Sex, and Time Period in California, 1988-2010:  
Oral Cavity and Pharynx**

Sex	Race/Ethnicity	Time Period	APC		APC 95% Confidence Interval	Overall Change
<b>Incidence Trends</b>						
Male and Female	All Races Combined	1988 - 1997	-1.0	↓	-1.4, -0.6	-8.6
		1997 - 2003	-1.8	↓	-2.7, -0.9	-10.3
		2003 - 2010	0.6	↑	0.0, 1.1	4.3
Male	Non-Latino White	1988 - 2003	-0.7	↓	-1.0, -0.5	-10.0
		2003 - 2008	1.9	↑	0.1, 3.8	9.9
		2008 - 2010	-2.4		-7.7, 3.2	-4.7
	African American	1988 - 2010	-2.5	↓	-2.9, -2.0	-42.7
	Latino	1988 - 2010	-0.7	↓	-1.2, -0.2	-14.3
	Asian/ Pacific Islander	1988 - 2010	-1.1	↓	-1.6, -0.6	-21.6
	All Races Combined	1988 - 2003	-1.3	↓	-1.5, -1.0	-17.8
		2003 - 2010	0.4		-0.4, 1.1	2.8
	Female	Non-Latino White	1988 - 2004	-1.6	↓	-2.0, -1.3
2004 - 2010			1.2		-0.6, 3.0	7.4
African American		1988 - 2010	-0.6		-1.4, 0.2	-12.4
Latino		1988 - 1992	5.7		0.0, 11.7	24.8
		1992 - 2004	-1.9	↓	-2.8, -1.0	-20.6
		2004 - 2010	3.3	↑	1.3, 5.3	21.5
Asian/ Pacific Islander		1988 - 2010	-1.4	↓	-2.1, -0.7	-26.7
All Races Combined		1988 - 2004	-1.8	↓	-2.1, -1.4	-25.2
		2004 - 2010	0.3		-1.3, 1.9	1.8
<b>Mortality Trends</b>						
Male and female	All Races Combined	1988 - 2010	-2.0	↓	-2.3, -1.8	-35.9
Male	Non-Latino White	1988 - 2010	-1.4	↓	-1.8, -1.0	-26.7
	African American	1988 - 2010	-3.9	↓	-4.7, -3.2	-58.3
	Latino	1988 - 1991	12.5		-6.3, 35.1	42.4
		1991 - 2010	-1.7	↓	-2.5, -0.8	-27.8
	Asian/Pacific Islander	1988 - 2010	-2.3	↓	-3.1, -1.6	-40.1
	All Races Combined	1988 - 2010	-1.8	↓	-2.1, -1.5	-32.9
Female	Non-Latino White	1988 - 2010	-2.5	↓	-2.9, -2.2	-42.7
	African American	1988 - 2010	-2.2	↓	-3.4, -1.0	-38.7
	Latino	1988 - 2010	-0.4		-1.7, 1.0	-8.4
	Asian/Pacific Islander	1988 - 2010	-2.1	↓	-3.1, -1.1	-37.3
	All Races Combined	1988 - 2010	-2.5	↓	-2.8, -2.2	-42.7

↑ Statistically significant increase      ↓ Statistically significant decrease

Source of data: California Cancer Registry, California Department of Public Health  
Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Table 20. Annual Percent Change (APC) and Overall Percent Change in Age-Adjusted Incidence and Mortality Rates by Race/Ethnicity, Sex, and Time Period in California, 1988-2010: Ovary**

Sex	Race/Ethnicity	Time Period	APC		APC 95% Confidence Interval	Overall Change
Incidence Trends						
Female	Non-Latino White	1988 - 2010	-1.1	↓	-1.2, -1.0	-21.6
	African American	1988 - 2010	-0.9	↓	-1.7, -0.2	-18.0
	Latino	1988 - 2010	-0.4		-0.8, 0.1	-8.4
	Asian/ Pacific Islander	1988 - 2010	-0.8	↓	-1.2, -0.3	-16.2
	All Races Combined	1988 - 2010	-1.2	↓	-1.3, -1.1	-23.3
Female		1988 - 2004	-0.2		-0.6, 0.2	-3.2
		2004 - 2010	-3.0	↓	-4.9, -1.0	-16.7
	African American	1988 - 2010	-0.3		-1.2, 0.6	-6.4
	Latino	1988 - 2010	0.1		-0.5, 0.7	2.2
	Asian/Pacific Islander	1988 - 2010	0.3		-0.3, 0.9	6.8
	All Races Combined	1988 - 2004	-0.4	↓	-0.7, 0.0	-6.2
		2004 - 2010	-2.6	↓	-4.1, -1.0	-14.6

↑ Statistically significant increase      ↓ Statistically significant decrease

Source of data: California Cancer Registry, California Department of Public Health

Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Table 21. Annual Percent Change (APC) and Overall Percent Change in Age-Adjusted Incidence and Mortality Rates by Race/Ethnicity, Sex, and Time Period in California, 1988-2010: Pancreas**

Sex	Race/Ethnicity	Time Period	APC		APC 95% Confidence Interval	Overall Change
<b>Incidence Trends</b>						
Male and Female	All Races Combined	1988 - 1999	-0.7	↓	-1.1, -0.3	-7.4
		1999 - 2010	1.0	↑	0.6, 1.3	11.6
Male	Non-Latino White	1988 - 1998	-0.7	↓	-1.3, -0.1	-6.8
		1998 - 2010	1.0	↑	0.5, 1.4	12.7
	African American	1988 - 2010	-0.6		-1.2, 0.1	-12.4
		1988 - 1991	-7.3		-17.7, 4.4	-20.3
	Latino	1991 - 2010	0.8	↑	0.3, 1.4	16.3
		1988 - 1996	-4.4	↓	-7.8, -0.9	-30.2
	Asian/ Pacific Islander	1996 - 2010	0.7		-0.4, 1.9	10.3
		1988 - 1998	-1.1	↓	-1.7, -0.5	-10.5
All Races Combined	1998 - 2010	0.9	↑	0.5, 1.3	11.4	
	1988 - 2010	0.4	↑	0.1, 0.7	9.2	
Female	African American	1988 - 2010	-0.3		-0.9, 0.4	-6.4
	Latino	1988 - 2010	0.1		-0.4, 0.6	2.2
	Asian/ Pacific Islander	1988 - 2010	0.8	↑	0.1, 1.6	19.2
	All Races Combined	1988 - 1999	-0.5		-1.1, 0.2	-5.4
		1999 - 2010	1.0	↑	0.4, 1.6	11.6
<b>Mortality Trends</b>						
Male and female	All Races Combined	1988 - 1999	-0.6	↓	-0.9, -0.2	-6.4
		1999 - 2010	0.5	↑	0.2, 0.8	5.6
Male	Non-Latino White	1988 - 2010	0.0		-0.3, 0.2	0.0
		1988 - 1999	-3.0	↓	-4.6, -1.4	-28.5
	African American	1999 - 2010	1.0		-0.5, 2.5	11.6
		1988 - 2010	0.6		-0.1, 1.2	14.1
	Asian/Pacific Islander	1988 - 1999	-2.4	↓	-4.4, -0.3	-23.4
		1999 - 2010	1.1		-0.4, 2.6	12.8
All Races Combined	1988 - 2010	-0.2		-0.4, 0.1	-4.3	
Female	Non-Latino White	1988 - 1999	-0.6	↓	-1.1, -0.1	-6.4
		1999 - 2010	0.7	↑	0.2, 1.2	8.0
	African American	1988 - 2010	-0.4		-1.0, 0.2	-8.4
		1988 - 2010	0.7	↑	0.1, 1.4	16.6
	Asian/Pacific Islander	1988 - 1990	-18.6		-40.3, 11.0	-33.7
		1990 - 2010	1.3	↑	0.8, 1.9	29.5
All Races Combined	1988 - 2010	0.1		-0.1, 0.3	2.2	

↑ Statistically significant increase      ↓ Statistically significant decrease

Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Table 22. Annual Percent Change (APC) and Overall Percent Change in Age-Adjusted Incidence and Mortality Rates by Race/Ethnicity, Sex, and Time Period in California, 1988-2010: Prostate Gland**

Sex	Race/Ethnicity	Time Period	APC		APC 95% Confidence Interval	Overall Change
<b>Incidence Trends</b>						
Male	Non-Latino White	1988 - 1992	15.9	↑	10.1, 21.9	80.4
		1992 - 1995	-12.8		-24.5, 0.8	-33.7
		1995 - 2001	1.4		-1.9, 4.9	8.7
		2001 - 2010	-2.4	↓	-3.7, -1.1	-19.6
	African American	1988 - 1992	14.2	↑	8.0, 20.7	70.1
		1992 - 2010	-2.2	↓	-2.6, -1.7	-33.0
	Latino	1988 - 1992	16.9	↑	11.4, 22.7	86.7
		1992 - 1997	-3.8	↓	-7.1, -0.2	-17.6
		1997 - 2002	2.3		-0.9, 5.6	12.0
		2002 - 2010	-3.0	↓	-3.9, -2.1	-21.6
	Asian/ Pacific Islander	1988 - 1993	12.8	↑	7.2, 18.6	82.6
		1993 - 1996	-9.2		-22.9, 7.0	-25.1
		1996 - 2002	2.2		-1.0, 5.6	13.9
		2002 - 2010	-3.8	↓	-5.1, -2.5	-26.6
	All Races Combined	1988 - 1992	16.1	↑	10.7, 21.8	81.7
		1992 - 1995	-11.1		-22.0, 1.2	-29.7
1995 - 2001		0.9		-2.0, 3.9	5.5	
2001 - 2010		-2.4	↓	-3.5, -1.3	-19.6	
<b>Mortality Trends</b>						
Male	Non-Latino White	1988 - 1993	1.6		0.0, 3.3	8.3
		1993 - 1998	-5.3	↓	-7.4, -3.2	-23.8
		1998 - 2010	-2.4	↓	-2.8, -1.9	-25.3
	African American	1988 - 2010	-2.1	↓	-2.5, -1.6	-37.3
	Latino	1988 - 2010	-1.3	↓	-1.9, -0.7	-25.0
	Asian/Pacific Islander	1988 - 2010	-3.1	↓	-3.8, -2.5	-50.0
	All Races Combined	1988 - 1993	1.4	↑	0.0, 2.8	7.2
		1993 - 1998	-5.0	↓	-6.7, -3.2	-22.6
1998 - 2010		-2.5	↓	-2.8, -2.1	-26.2	

↑ Statistically significant increase      ↓ Statistically significant decrease

Source of data: California Cancer Registry, California Department of Public Health

Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Table 23. Annual Percent Change (APC) and Overall Percent Change in Age-Adjusted Incidence and Mortality Rates by Race/Ethnicity, Sex, and Time Period in California, 1988-2010: Stomach**

Sex	Race/Ethnicity	Time Period	APC		APC 95% Confidence Interval	Overall Change
<b>Incidence Trends</b>						
Male and Female	All Races Combined	1988 - 2010	-1.3	↓	-1.4, -1.2	-25.0
Male	Non-Latino White	1988 - 2008	-2.5	↓	-2.8, -2.3	-39.7
		2008 - 2010	3.5		-4.6, 12.4	7.1
	African American	1988 - 2010	-2.3	↓	-3.0, -1.7	-40.1
	Latino	1988 - 2010	-1.4	↓	-1.8, -1.0	-26.7
	Asian/ Pacific Islander	1988 - 2010	-2.5	↓	-3.0, -2.0	-42.7
	All Races Combined	1988 - 2010	-1.7	↓	-1.9, -1.5	-31.4
Female	Non-Latino White	1988 - 2010	-1.9	↓	-2.3, -1.6	-34.4
	African American	1988 - 2010	-2.2	↓	-2.9, -1.5	-38.7
	Latino	1988 - 2010	-1.3	↓	-1.7, -0.8	-25.0
	Asian/ Pacific Islander	1988 - 2010	-2.5	↓	-3.1, -2.0	-42.7
	All Races Combined	1988 - 2010	-0.9	↓	-1.1, -0.7	-18.0
<b>Mortality Trends</b>						
Male and female	All Races Combined	1988 - 1990	2.0		-5.4, 9.8	4.0
		1990 - 2010	-2.3	↓	-2.5, -2.1	-37.2
Male	Non-Latino White	1988 - 2010	-3.6	↓	-3.8, -3.3	-55.4
	African American	1988 - 2010	-3.2	↓	-3.9, -2.6	-51.1
	Latino	1988 - 2001	-0.2		-1.4, 1.0	-2.6
		2001 - 2010	-4.0	↓	-5.7, -2.3	-30.7
	Asian/Pacific Islander	1988 - 2010	-3.4	↓	-3.9, -3.0	-53.3
	All Races Combined	1988 - 2010	-2.6	↓	-2.8, -2.4	-44.0
Female	Non-Latino White	1988 - 2010	-3.2	↓	-3.6, -2.8	-51.1
	African American	1988 - 2010	-2.2	↓	-3.3, -1.1	-38.7
	Latino	1988 - 2010	-1.6	↓	-2.2, -1.0	-29.9
	Asian/Pacific Islander	1988 - 2010	-3.0	↓	-3.8, -2.2	-48.8
	All Races Combined	1988 - 2010	-1.7	↓	-2.0, -1.4	-31.4

↑ Statistically significant increase      ↓ Statistically significant decrease

Source of data: California Cancer Registry, California Department of Public Health  
 Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Table 24.** Annual Percent Change (APC) and Overall Percent Change in Age-Adjusted Incidence and Mortality Rates by Race/Ethnicity, Sex, and Time Period in California, 1988-2010:

**Testis**

Sex	Race/Ethnicity	Time Period	APC		APC 95% Confidence Interval	Overall Change
<b>Incidence Trends</b>						
Male	Non-Latino White	1988 - 2010	1.0	↑	0.0, 0.0	24.5
	African American	1988 - 2010	1.9	↑	0.6, 3.3	51.3
	Latino	1988 - 2010	2.5	↑	2.1, 3.0	72.2
	Asian/ Pacific Islander	1988 - 2010	0.6		-0.6, 1.7	14.1
	All Races Combined	1988 - 2010	0.8	↑	0.6, 1.1	19.2
<b>Mortality Trends</b>						
Male	Non-Latino White	1988 - 2010	-0.8		-1.8, 0.2	-16.2
	Latino	1988 - 2010	1.2		-1.2, 3.6	30.0
	All Races Combined	1988 - 2010	-0.2		-1.2, 0.8	-4.3

↑ Statistically significant increase      ↓ Statistically significant decrease

Source of data: California Cancer Registry, California Department of Public Health

Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Table 25. Annual Percent Change (APC) and Overall Percent Change in Age-Adjusted Incidence and Mortality Rates by Race/Ethnicity, Sex, and Time Period in California, 1988-2010: Thyroid**

Sex	Race/Ethnicity	Time Period	APC		APC 95% Confidence Interval	Overall Change	
<b>Incidence Trends</b>							
Male and Female	All Races Combined	1988 - 2000	2.6	↑	2.1, 3.1	36.1	
		2000 - 2010	6.2	↑	5.7, 6.6	82.5	
Male	Non-Latino White	1988 - 1996	-0.2		-1.7, 1.2	-1.6	
		1996 - 2010	5.8	↑	5.2, 6.3	120.2	
	African American	1988 - 2010	3.3	↑	1.6, 4.9	104.3	
		Latino	1988 - 1992	15.0		-0.4, 32.7	74.9
	1992 - 1997		-5.0		-15.4, 6.7	-22.6	
			1997 - 2010	5.1	↑	3.7, 6.5	90.9
	Asian/ Pacific Islander	1988 - 2010	2.8	↑	1.8, 3.7	83.6	
Female	All Races Combined	1988 - 1998	0.7		-0.2, 1.5	7.2	
		1998 - 2010	5.4	↑	4.9, 5.9	88.0	
	Non-Latino White	1988 - 2000	3.3	↑	2.6, 4.0	47.6	
		2000 - 2010	6.8	↑	6.1, 7.5	93.1	
Female	African American	1988 - 2010	6.0	↑	4.9, 7.1	260.4	
		Latino	1988 - 2010	4.3	↑	3.9, 4.7	152.5
	Asian/ Pacific Islander		1988 - 2003	1.9	↑	1.0, 2.7	32.6
		2003 - 2010	6.0	↑	4.3, 7.7	50.4	
	All Races Combined	1988 - 2000	3.0	↑	2.5, 3.5	42.6	
		2000 - 2010	6.3	↑	5.8, 6.7	84.2	
<b>Mortality Trends</b>							
Male and female	All Races Combined	1988 - 2010	1.4	↑	0.7, 2.0	35.8	
Male	Non-Latino White	1988 - 1990	-19.2		-47.1, 23.4	-34.7	
		1990 - 2010	2.0	↑	0.9, 3.2	48.6	
	All Races Combined	1988 - 2010	1.5	↑	0.6, 2.5	38.8	
Female	Non-Latino White	1988 - 2010	0.8		-0.1, 1.8	19.2	
		Latino	1988 - 2010	-0.4		-2.0, 1.2	-8.4
	All Races Combined	1988 - 2010	1.3	↑	0.6, 2.0	32.9	

↑ Statistically significant increase      ↓ Statistically significant decrease

Source of data: California Cancer Registry, California Department of Public Health

Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Table 26. Annual Percent Change (APC) and Overall Percent Change in Age-Adjusted Incidence and Mortality Rates by Race/Ethnicity, Sex, and Time Period in California, 1988-2010: Urinary Bladder**

Sex	Race/Ethnicity	Time Period	APC		APC 95% Confidence Interval	Overall Change
<b>Incidence Trends</b>						
Male and Female	All Races Combined	1988 - 2010	-0.5	↓	-0.6, -0.3	-10.4
Male	Non-Latino White	1988 - 2010	-0.2	↓	-0.3, -0.1	-4.3
	African American	1988 - 2010	0.6	↑	0.0, 1.2	14.1
	Latino	1988 - 2010	-0.1		-0.5, 0.3	-2.2
	Asian/ Pacific Islander	1988 - 2010	0.2		-0.3, 0.7	4.5
	All Races Combined	1988 - 2010	-0.5	↓	-0.6, -0.4	-10.4
Female	Non-Latino White	1988 - 2010	-0.2	↓	-0.4, 0.0	-4.3
	African American	1988 - 2010	-0.3		-1.1, 0.4	-6.4
	Latino	1988 - 2010	-1.0	↓	-1.6, -0.5	-19.8
	Asian/ Pacific Islander	1988 - 2010	-0.6		-1.7, 0.4	-12.4
	All Races Combined	1988 - 2010	-0.8	↓	-0.9, -0.6	-16.2
<b>Mortality Trends</b>						
Male and female	All Races Combined	1988 - 2010	-0.3		-0.5, 0.0	-6.4
Male	Non-Latino White	1988 - 2010	-0.1		-0.4, 0.2	-2.2
	African American	1988 - 2010	-0.6		-1.8, 0.5	-12.4
	Latino	1988 - 2010	0.6		-0.2, 1.3	14.1
	Asian/Pacific Islander	1988 - 2010	-0.3		-1.7, 1.2	-6.4
	All Races Combined	1988 - 2010	-0.5	↓	-0.7, -0.2	-10.4
Female	Non-Latino White	1988 - 2010	0.0		-0.4, 0.5	0.0
	African American	1988 - 2010	-0.4		-1.5, 0.7	-8.4
	Latino	1988 - 2003	3.1	↑	0.3, 5.9	58.1
		2003 - 2010	-6.0		-11.8, 0.3	-35.2
	All Races Combined	1988 - 2010	-0.4		-0.8, 0.0	-8.4

↑ Statistically significant increase      ↓ Statistically significant decrease

Source of data: California Cancer Registry, California Department of Public Health

Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System

**Table 27. Annual Percent Change (APC) and Overall Percent Change in Age-Adjusted Incidence and Mortality Rates by Race/Ethnicity, Sex, and Time Period in California, 1988-2010: Uterus and Corpus**

Sex	Race/Ethnicity	Time Period	APC		APC 95% Confidence Interval	Overall Change
<b>Incidence Trends</b>						
Female	Non-Latino White	1988 - 1998	-0.1		-0.7, 0.5	-1.0
		1998 - 2003	-2.7	↓	-5.0, -0.3	-12.8
		2003 - 2010	1.9	↑	0.9, 2.9	14.1
	African American	1988 - 2010	1.7	↑	1.1, 2.4	44.9
	Latino	1988 - 2010	0.8	↑	0.5, 1.0	19.2
	Asian/ Pacific Islander	1988 - 2010	1.8	↑	1.4, 2.1	48.1
	All Races Combined	1988 - 2005	-0.8	↓	-1.0, -0.5	-12.8
		2005 - 2010	2.2	↑	0.8, 3.6	11.5
	<b>Mortality Trends</b>					
Female	Non-Latino White	1988 - 2010	0.0		-0.4, 0.4	0.0
	African American	1988 - 2010	1.2	↑	0.4, 2.0	30.0
	Latino	1988 - 2010	0.5		-0.3, 1.3	11.6
	Asian/Pacific Islander	1988 - 2010	1.5	↑	0.6, 2.4	38.8
	All Races Combined	1988 - 1998	-1.2	↓	-2.1, -0.2	-11.4
		1998 - 2010	0.9	↑	0.3, 1.6	11.4

↑ Statistically significant increase    ↓ Statistically significant decrease

Source of data: California Cancer Registry, California Department of Public Health

Prepared by the California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, UC Davis Health System





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