

California



Cancer Facts & Figures

A sourcebook for planning and implementing programs for cancer prevention and control

2012



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Introduction

Welcome to California Cancer Facts & Figures 2012. Every year, this new edition represents the culmination of an important collaboration between the American Cancer Society, California Division, Inc. and the California Cancer Registry of the California Department of Public Health. This 2012 edition contains the most recent data available regarding cancer incidence and mortality, as well as expected cancer cases and deaths in the year ahead.

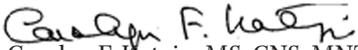
Between 1988 and 2009, we have seen overall cancer incidence rates decrease by 11%. In this same time period, mortality rates have decreased by 23%. However, in 2012, an estimated 144,800 Californians will be diagnosed with cancer. This is equivalent to more than 16 new cases every hour of every day. An estimated 55,415 people will die of the disease next year, which works out to nearly 150 people each day.

As always, these facts remind us that it is essential to continue to raise awareness of the importance of prevention and early detection. Nearly two-thirds of all cancer deaths could be prevented through tobacco cessation, adoption of a regular exercise program, healthy weight maintenance, and appropriate nutrition. Survival rates are as high as 100% for most common forms of cancer when they are detected in the earliest stages.

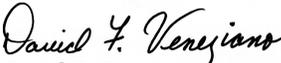
This year's California Cancer Facts and Figures includes a section addressing American Indians and Alaska Natives, their California demographics, and the disparate cancer burdens these communities face. You will also once again find a section dedicated to the California Cancer Research Act (CCRA). If passed, the CCRA will increase the excise tax on cigarettes by one dollar, and the funds raised will be used to help support cancer research, as well as tobacco prevention and cessation programs.

We hope that you will find this 2012 edition of California Cancer Facts & Figures informative, and that it will inspire you to join us in working to create a world with less cancer and more birthdays.

Sincerely,


Carolyn F. Katzin, MS, CNS, MNT
Chair of the Board


Clifford C. Eke, MD, FACS, FICS
President of the Division


David F. Veneziano
Chief Executive Officer

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California Basic Cancer Data

What is cancer?

Cancer is a large group of diseases characterized by uncontrolled growth and spread of abnormal cells. If the spread is not controlled or checked, it results in death. However, many cancers can be cured if detected and treated promptly, and many others can be prevented by lifestyle changes, especially avoidance of tobacco.

Cancer strikes at any age. In California, it kills more children from birth to age 14 than any other disease. Among adults, it occurs more frequently with advancing age.

How many people alive today have ever had cancer?

More than 1,277,200 Californians who are alive today have a history of cancer. Most of these prevalent cases (persons who were ever diagnosed with cancer) can be considered cured, while others still have evidence of cancer. "Cured" usually means that a patient has no evidence of disease and has the same life expectancy as a person who has never had cancer.

How many new cases will there be this year?

In 2012, nearly 144,800 Californians will be diagnosed with cancer. (This estimate does not include non-melanoma skin cancer and carcinoma *in situ* for sites other than bladder.) This is equivalent to more than 16 new cases every hour of every day.

How many people will die?

In 2012, nearly 55,415 people will die of the disease – about 150 people each day. Of every four deaths in California, one is from cancer. Cancer is the second leading cause of death, accounting for 24% of all deaths in 2009.

How many people survive?

In the early 1900s, few cancer patients had any hope of long-term survival. In the 1930s, less than one in five was alive five years after treatment, in the 1940s it was one in four, and in the 1960s it was one in three. In 2012, more than three out of five cancer patients will be alive five years after diagnosis and treatment.

Almost 94,120 Californians who get cancer this year will be alive five years after diagnosis. When normal life expectancy is taken into consideration (factors such as dying of heart disease, accidents, and diseases of old age), a "relative" five-year survival rate of 65% is seen for all cancers combined. The relative survival rate is commonly used to measure progress in the early detection and treatment of cancer and estimates the proportion of potentially curable cancer patients.

Could more people be saved?

Cancers caused by tobacco and heavy use of alcohol can be prevented. The American Cancer Society estimates that more than 16,397 lives will be lost to cancer in California because of tobacco use. About 1,700 cancer deaths were related to excessive alcohol use, frequently in combination with tobacco use.

Early diagnosis saves lives by identifying cancers when they are most curable. Five-year relative survival rates for common cancers such as breast, prostate, colon and rectum, cervix, and melanoma of the skin, are 89 to 100% if they are discovered

before having spread beyond the organ where the cancer began. Following American Cancer Society cancer detection guidelines and encouraging others to do so can save lives.

How do cancer incidence rates in California compare to the rest of the United States?

Cancer rates for the U.S. are estimated by the Surveillance, Epidemiology, and End Results (SEER) Program. The SEER Program registers cancer patients in geographic areas covering about 26% of the U.S. population, including all of California.

In 2004-2008, the overall cancer incidence rate in California was lower compared to the nation excluding California. California cancer incidence rates for Asian/Pacific Islanders, African Americans, and non-Hispanic whites were between one and three percent lower than the nation. Hispanics in California had a nearly 9% lower incidence rate than other Hispanics in the nation. Some of the differences in rates may reflect difference in classifying the race/ethnicity of cancer cases between California and SEER.

Why are California Cancer Registry cancer data several years behind?

All cancer registries which publish high quality data have a substantial lag period before the data for a given year are complete. A number of circumstances are involved in the delay before a cancer case is reported to the CCR. Complete information on the case and on the first course of treatment may not be available until six months after the initial diagnosis. Another factor is the increasing number of cancer patients who are diagnosed and treated in doctors' offices without ever being admitted to a hospital; more effort is required to find these cases. The strict quality control procedures needed to produce complete and accurate data are labor intensive, and the CCR has limited resources.

The vast majority of cases are reported to the CCR within 12 months of the diagnosis date, but the data cannot be published until case reporting is estimated to be at least 95% complete, and the last 10% are the hardest to complete.

Underreporting of Cancer by Veterans Administration (VA) Hospitals

Veteran's Health Administration (VHA) hospitals in California did not report cancer cases to the California Cancer Registry from 2005 through 2009. Although there is no way to know how many unreported cancer cases were diagnosed in these facilities, historically VHA-reported cases have accounted for approximately four percent of all new male cancers reported to the CCR. Therefore, rates of new cancer diagnoses (incidence rates) for 2005-2009 in this publication are based upon case counts that the CCR believes to be underestimates of the true counts. This lack of reporting affects the interpretation of cancer statistics presented in this publication.

For more information, please visit the California Cancer Registry web site at <http://www.ccrca.org>.

Expected Numbers of New Cases, Deaths, and Existing Cases of Common Cancers in California, 2012

		New Cases		Deaths		Existing Cases	
Male	Prostate	20,195	28%	3,085	11%	240,200	42%
	Lung	8,450	12%	6,975	25%	17,300	3%
	Colon & Rectum	7,530	10%	2,615	9%	57,200	10%
	Leukemia & Lymphoma	6,265	9%	2,520	9%	49,500	9%
	Urinary Bladder	4,685	6%	935	3%	39,200	7%
	All Cancers Combined	73,060	100%	28,260	100%	577,600	100%
Female	Breast	23,280	32%	4,335	16%	292,400	42%
	Lung	8,090	11%	6,070	22%	20,700	3%
	Colon & Rectum	7,000	10%	2,505	9%	58,500	8%
	Uterus & Cervix	6,155	9%	1,225	5%	91,400	13%
	Leukemia & Lymphoma	5,010	7%	2,005	7%	43,200	6%
	All Cancers Combined	71,740	100%	27,150	100%	699,600	100%

Source: California Cancer Registry, California Department of Public Health. Excludes non-melanoma skin cancers and *in situ* cancers, except bladder. Deaths include persons who may have been diagnosed in previous years. These projections are offered as a rough guide and should not be regarded as definitive. For more information please visit the California Cancer Registry web site at <http://www.ccrca.org/>

California Statistics

- ◆ Cancer incidence rates in California declined by 11% from 1988 to 2009.
- ◆ Over the same period, cancer mortality rates declined by 23%. Mortality rates declined for all four major racial/ethnic groups in the state.
- ◆ Tobacco-related cancers continue to decline, including cancers of the lung and bronchus, larynx, oral cavity, pancreas, stomach, and bladder. California has experienced a much larger decrease in lung cancer incidence rates than the U.S. in large part due to the success of the California tobacco control initiative.
- ◆ The female breast cancer incidence rate in California has decreased by 7%, but the mortality rate has decreased by 30%.
- ◆ The prostate cancer incidence rate increased by 72% from 1988 to 1992, but since then has declined to 1990 levels. The mortality rate has declined by 36% since 1988.
- ◆ Colon and rectum cancer incidence and mortality rates are declining sharply in most racial/ethnic groups.
- ◆ Cancer incidence in California is about the same or somewhat lower than elsewhere in the U.S. for most types of cancer.
- ◆ Despite these improvements, nearly one out of every two Californians born today will develop cancer at some point in their lives, and it is likely that one in five will die of the disease.

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

Cancer incidence rates are calculated using two components: the numerator (the number of newly diagnosed cancer cases) and the denominator (the number of people in the population). The California Cancer Registry continuously updates cancer case counts as new information is received. This may result in the addition of new cases upon receipt of new reports or the removal of cases as duplicates are identified. At the same time, population counts are continuously revised by state and federal officials to reflect updated information on population growth. These changes will affect cancer rates, and may result in the revision of a previously published cancer rate. These revised rates impact previously published estimates of fluctuations in cancer rates over time. For more information please visit the California Cancer Registry web site at <http://www.ccrca.org/>

Expected New Cancer Cases & Deaths in California – 2012

Site	Expected New Cases			Expected Deaths		
	Total*	Male	Female	Total*	Male	Female
All Sites	144,800	73,060	71,740	55,415	28,260	27,150
Oral Cavity and Pharynx	3,665	2,535	1,135	870	590	280
Digestive System	28,095	15,520	12,575	14,830	8,210	6,620
Esophagus	1,365	1,040	325	1,235	945	290
Stomach	2,615	1,550	1,065	1,500	870	630
Small Intestine	575	305	270	140	65	75
Colon excluding Rectum	10,295	5,080	5,215	4,185	2,080	2,100
Rectum and Rectosigmoid	4,235	2,450	1,785	935	535	405
Anus, Canal and Anorectum	685	285	400	80	30	50
Liver and Intrahepatic Bile Duct	3,095	2,245	850	2,545	1,665	880
Gallbladder	365	110	255	215	65	150
Other Biliary	670	370	305	145	70	70
Pancreas	3,755	1,890	1,860	3,625	1,790	1,835
Retroperitoneum	125	65	65	30	15	10
Respiratory System	17,575	9,255	8,325	13,465	7,285	6,180
Nasal Cavity, Middle Ear	215	115	100	60	40	20
Larynx	810	670	140	295	235	60
Lung and Bronchus	16,540	8,450	8,090	13,045	6,975	6,070
Pleura	5	5	5	25	20	10
Bones and Joints	325	195	130	155	95	60
Soft Tissue including Heart	1,135	615	520	455	255	200
Melanomas of the Skin	7,050	4,180	2,870	925	610	315
Other Non-Epithelial Skin	735	455	280	340	250	85
Breast	23,460	180	23,280	4,360	25	4,335
Female Genital System	8,975	0	8,975	2,985	0	2,985
Cervix Uteri	1,455	0	1,455	435	0	435
Corpus Uteri and Uterus, NOS**	4,700	0	4,700	790	0	790
Ovary	2,305	0	2,305	1,560	0	1,560
Vagina	130	0	130	45	0	45
Vulva	375	0	375	105	0	105
Male Genital System	21,360	21,360	0	3,175	3,175	0
Prostate	20,195	20,195	0	3,085	3,085	0
Testis	1,045	1,045	0	60	60	0
Penis	125	125	0	30	30	0
Urinary System	11,425	8,005	3,420	2,645	1,785	860
Urinary Bladder	6,210	4,685	1,525	1,325	935	390
Kidney and Renal Pelvis	5,050	3,240	1,810	1,240	795	440
Ureter	170	100	70	35	20	15
Eye and Orbit	275	155	120	40	15	25
Brain and Other Nervous System	2,105	1,200	900	1,545	875	670
Thyroid Gland	4,430	1,050	3,380	210	85	130
Other Endocrine, Thymus	260	135	125	110	55	55
Hodgkins Disease	895	475	420	130	70	60
Non-Hodgkins Lymphomas	6,385	3,505	2,880	2,090	1,160	925
Multiple Myeloma	1,770	980	785	1,055	605	455
Leukemias	3,990	2,285	1,710	2,305	1,290	1,020
Lymphocytic Leukemia	1,990	1,205	785	675	390	290
Acute Lymphocytic Leukemia	690	385	305	210	115	95
Chronic Lymphocytic Leukemia	1,165	725	435	420	245	175
Myeloid and Monocytic Leukemia	1,845	1,020	825	1,195	665	525
Acute Myeloid Leukemia	1,205	650	555	1,000	550	455
Acute Monocytic Leukemia	95	50	45	15	10	5
Chronic Myeloid Leukemia	495	295	200	100	65	35
Ill Defined/Unknown	3,050	1,510	1,540	3,810	2,000	1,810

Source: California Cancer Registry, California Department of Public Health. Excludes non-melanoma skin cancers and carcinoma *in situ*, except bladder. Deaths include persons who may have been diagnosed in previous years. These projections are offered as a rough guide, and should not be regarded as definitive.

* Male and female cases and deaths do not sum up to the total because of rounding of numbers.

** NOS: Not Otherwise Specified

For more information please visit the California Cancer Registry web site at <http://www.ccrca.org/>

Expected New Cancer Cases by County – 2012

County	All	Colon &					Uterus &		NHL*	Melanoma	Oral	Leukemia	Pancreas	Myeloma
		Breast	Prostate	Lung	Rectum	Bladder	Cervix	Bladder						
Alameda	5,945	995	860	710	555	215	255	285	190	145	155	180	85	
Alpine	5	.	.	.	.	.	.	.	.	.	.	.	.
Amador	250	45	35	30	25	15	5	5	15	5	0	5	5	
Butte	1,235	220	195	165	105	60	30	50	55	30	30	25	5	
Calaveras	290	40	40	50	25	15	10	15	30	10	10	5	0	
Colusa	95	15	10	15	10	5	5	0	5	0	5	0	0	
Contra Costa	4,710	755	705	470	465	215	200	225	295	95	115	120	65	
Del Norte	150	20	15	25	10	5	5	5	0	0	0	10	0	
El Dorado	985	150	145	115	90	55	30	35	75	20	15	30	15	
Fresno	3,150	450	435	370	270	110	125	140	120	80	110	90	40	
Glenn	125	20	15	20	5	10	10	10	5	0	5	5	0	
Humboldt	645	85	80	85	65	40	25	20	45	15	10	15	5	
Imperial	580	100	90	55	50	15	25	30	15	5	10	15	10	
Inyo	115	25	20	15	10	5	5	5	0	0	5	0	0	
Kern	2,605	395	285	345	250	115	110	95	95	85	70	65	30	
Kings	430	55	40	45	45	25	15	20	15	15	15	15	5	
Lake	400	50	35	60	50	30	5	20	25	10	10	10	5	
Lassen	120	15	20	20	5	5	5	5	5	5	0	0	0	
Los Angeles	36,270	5,905	4,940	3,630	3,820	1,410	1,690	1,665	1,175	805	1,060	920	460	
Madera	605	80	85	85	55	20	25	30	25	15	15	20	5	
Marin	1,545	250	275	135	150	65	50	70	145	40	40	30	20	
Mariposa	110	10	15	15	10	5	5	5	10	0	5	0	0	
Mendocino	475	65	65	60	50	30	15	20	30	10	10	10	0	
Merced	800	100	95	120	70	40	25	35	30	20	15	30	15	
Modoc	60	10	10	10	5	0	0	0	5	0	0	0	0	
Mono	30	10	5	0	0	0	0	0	0	0	0	0	0	
Monterey	1,510	230	240	155	100	65	55	80	50	35	45	35	25	
Napa	835	100	125	105	80	45	20	40	60	15	25	25	15	
Nevada	575	115	90	85	30	25	15	20	35	15	15	15	10	
Orange	12,005	2,015	1,600	1,295	1,080	500	445	535	740	305	340	265	140	
Placer	1,860	310	255	240	165	95	60	60	150	35	35	35	30	
Plumas	115	15	25	15	10	0	5	5	5	5	5	0	0	
Riverside	8,045	1,230	1,180	955	865	395	325	310	390	200	200	195	75	
Sacramento	6,035	945	825	755	590	260	255	240	270	165	125	160	55	
San Benito	200	35	45	20	10	10	10	10	5	5	5	5	0	
San Bernardino	6,830	1,065	1,055	765	735	280	300	290	235	175	175	170	85	
San Diego	12,280	2,000	1,690	1,390	1,180	505	450	510	730	340	330	300	135	
San Francisco	3,665	545	470	440	395	155	145	135	165	95	75	95	40	
San Joaquin	2,565	360	425	330	225	75	105	90	100	60	85	75	40	
San Luis Obispo	1,340	225	195	160	105	60	35	45	140	25	30	30	20	
San Mateo	3,470	600	465	370	360	140	135	160	195	80	80	90	45	
Santa Barbara	1,790	300	235	190	145	70	75	85	135	35	40	45	20	
Santa Clara	6,940	1,115	1,130	650	635	275	285	335	305	175	165	160	75	
Santa Cruz	1,125	175	215	100	85	50	45	45	80	25	20	20	10	
Shasta	1,015	145	140	155	75	65	30	40	55	30	30	30	15	
Sierra	15	.	.	.	.	.	.	.	.	.	.	.	.
Siskiyou	270	30	35	40	25	20	5	10	15	5	10	10	0	
Solano	1,875	290	255	215	180	75	55	85	95	60	50	50	25	
Sonoma	2,520	410	345	280	235	135	105	100	205	70	55	45	35	
Stanislaus	2,025	310	275	260	215	80	75	85	95	60	50	55	20	
Sutter	360	65	60	55	25	15	15	15	15	5	10	5	5	
Tehama	340	45	40	65	25	20	10	15	20	10	10	10	5	
Trinity	90	10	10	20	10	5	5	0	5	0	0	0	0	
Tulare	1,435	215	160	200	160	50	75	55	50	35	40	40	20	
Tuolumne	400	50	45	50	35	30	5	25	30	15	15	10	5	
Ventura	3,500	625	450	325	340	150	160	155	240	80	75	55	30	
Yolo	735	115	105	75	55	45	25	35	35	25	20	15	10	
Yuba	310	40	45	60	25	15	10	10	20	10	5	10	0	

Source: California Cancer Registry, California Department of Public Health. Excludes non-melanoma skin cancers and carcinoma in situ, except bladder. Only the total number of expected cases is shown for counties with 15 or fewer expected cases. These projections are offered as a rough guide, and should not be regarded as definitive. * NHL: Non-Hodgkin Lymphoma; For more information please visit the California Cancer Registry web site at <http://www.ccrca.org/>

Expected Cancer Deaths by County – 2012

County	Colon &											Uterus &		
	All Lung	Rectum	Breast	Prostate	Pancreas	NHL* Leukemia	Stomach	Ovary	Bladder	Cervix	Myeloma			
Alameda	2,185	515	220	165	135	135	75	90	65	65	40	35		50
Alpine	0	.	.	.	.	.	.	.	.	.	.	.	.	.
Amador	95	25	5	10	5	10	5	5	0	5	0	5		0
Butte	485	125	40	40	35	30	20	20	10	15	10	5		10
Calaveras	115	40	10	10	5	5	5	5	0	0	0	0		0
Colusa	30	10	5	0	0	0	0	0	0	0	0	0		0
Contra Costa	1,680	385	170	125	85	125	65	75	40	50	40	25		30
Del Norte	65	20	5	5	5	5	5	0	0	0	0	0		0
El Dorado	345	80	30	25	20	35	15	15	5	5	5	5		5
Fresno	1,235	300	110	85	65	90	45	55	30	35	30	30		25
Glenn	55	20	5	0	5	5	5	5	0	0	0	0		0
Humboldt	275	70	25	25	15	15	10	5	5	5	10	10		5
Imperial	190	45	10	15	20	5	5	10	10	5	5	5		5
Inyo	35	5	5	5	0	0	0	0	0	0	0	0		0
Kern	1,075	305	85	70	60	65	35	40	20	30	20	25		20
Kings	155	35	15	15	10	10	5	5	5	5	5	5		5
Lake	170	55	10	10	10	10	5	5	5	0	5	0		0
Lassen	40	10	5	0	0	5	0	0	0	0	0	0		0
Los Angeles	13,565	2,935	1,365	1,145	765	905	510	620	495	410	315	385		270
Madera	205	45	25	10	10	10	5	5	5	5	5	5		0
Marin	450	90	50	35	30	35	20	20	5	15	10	10		15
Mariposa	45	15	0	5	5	0	0	0	0	0	0	0		0
Mendocino	190	50	15	20	10	15	10	5	5	5	5	0		5
Merced	315	85	30	20	15	20	10	10	10	10	5	5		5
Modoc	20	5	5	0	0	0	0	0	0	0	0	0		0
Mono	10	.	.	.	.	.	.	.	.	.	.	.		.
Monterey	525	110	35	40	30	35	25	30	15	15	10	10		10
Napa	310	65	35	15	20	20	10	15	5	10	10	5		5
Nevada	215	50	20	20	10	15	10	10	5	5	5	5		0
Orange	4,250	985	370	340	240	280	155	180	125	125	115	90		75
Placer	670	165	55	55	35	40	30	30	10	20	20	10		20
Plumas	45	10	5	5	5	5	0	0	0	0	0	0		0
Riverside	3,275	820	330	265	195	215	115	130	80	100	80	70		60
Sacramento	2,280	605	195	170	120	150	85	90	50	45	55	45		35
San Benito	75	15	5	10	0	5	5	0	0	0	0	0		0
San Bernardino	2,710	615	250	220	140	175	110	90	60	70	75	65		50
San Diego	4,735	1,110	405	390	285	315	185	210	100	135	110	95		100
San Francisco	1,370	330	125	90	60	95	50	55	50	40	35	25		15
San Joaquin	1,005	275	80	70	50	60	35	45	25	25	25	25		20
San Luis Obispo	505	130	45	35	25	35	15	20	10	10	15	10		15
San Mateo	1,175	260	110	90	55	85	55	50	35	35	30	25		15
Santa Barbara	665	155	45	45	45	45	25	25	15	15	15	15		15
Santa Clara	2,290	470	225	185	100	145	100	100	75	65	50	50		45
Santa Cruz	400	90	35	35	20	25	20	15	10	15	10	5		10
Shasta	460	140	35	20	30	30	15	20	5	10	10	5		5
Sierra	10	.	.	.	.	.	.	.	.	.	.	.		.
Siskiyou	125	35	10	10	10	10	5	0	0	0	5	0		0
Solano	700	180	65	50	40	45	25	20	15	15	15	15		10
Sonoma	940	225	80	80	55	60	40	40	20	25	25	20		20
Stanislaus	765	205	70	65	40	50	30	35	15	15	15	15		15
Sutter	150	55	15	10	10	5	5	5	5	5	5	0		5
Tehama	145	40	15	10	10	10	5	5	5	5	0	0		5
Trinity	50	15	5	0	0	5	0	0	0	0	0	0		0
Tulare	575	140	45	40	25	30	20	30	15	15	15	15		10
Tuolumne	140	45	15	10	10	5	5	5	5	5	0	0		0
Ventura	1,245	290	125	100	70	75	35	45	25	35	20	30		25
Yolo	265	65	25	25	15	15	5	10	5	10	5	5		5
Yuba	115	40	10	5	5	5	5	5	0	5	5	0		0

Source: California Cancer Registry, California Department of Public Health. Deaths include persons who may have been diagnosed in previous years. These projections are offered as a rough guide, and should not be regarded as definitive. Only the total number of expected deaths is shown for counties with 15 or fewer expected deaths. * NHL: Non-Hodgkin Lymphoma; For more information please visit the California Cancer Registry web site at <http://www.ccrca.org/>

Cancer Risk

Lifetime risk is the probability of an event occurring during a person's life, from birth to his or her eventual death. Cancer statistics provide two types of risk: the probability of developing cancer and the probability of dying of cancer from birth (lifetime risk) or conditional at a specific age.

Lifetime risk of developing cancer is a frequently misinterpreted statistic. The often-cited one in eight statistic for female breast cancer represents a newborn's likelihood of eventually being diagnosed with invasive breast cancer during her lifetime. This statistic does not apply to women of all ages.

The risk of developing breast cancer in the next one or two decades of life may be considerably lower than the risk perceived by most women. For example, the probability of being diagnosed with breast cancer over any 20-year period is much lower than commonly believed – one out of 21 women will be diagnosed with breast cancer from ages 45 through 64 if cancer-free at age 45. For women cancer-free at 65, one out of 14 women will be diagnosed with breast cancer between the ages of 65 and 84.

Causes of Cancer

Exactly why one individual develops cancer and another person with very similar life experiences does not is beyond current scientific understanding. Just as there are many different cancers, there are many factors that contribute to an individual's risk of developing cancer, and it is extremely difficult to point to any one factor as the cause. We know that the timing and duration of cancer-causing exposures impact one's risk, and exposures to the developing child during the prenatal period or the first years of life may be especially harmful. Yet although science has demonstrated that exposure to certain substances or circumstances will increase an individual's chance of getting cancer, cancer is never a certain outcome of any particular exposure.

For example, a family history of cancer means that a person may be more likely to develop cancer than someone without such a history. However, heredity appears to be the dominant cause of only about 5% of cancers. Exposure to tobacco smoke is known to significantly increase cancer risk, and is associated with an estimated 30% of all cancers, including 80% of lung cancers. As many as 40% of all cancers are thought to be associated with combinations of poor diet, inactivity, elevated body weight, excessive alcohol consumption, and high salt intake – collectively referred to as unhealthy lifestyle factors.

Exposure to other environmental substances has been variously estimated to be associated with from 2% to 15% of all cancers. Included in this category are exposures to certain viruses and bacteria, exposures to known workplace carcinogens, and exposures to radiation from sunlight, radon, or medical imaging, which sometimes involve many relatively small doses that accumulate over a long time. There is concern that an increase in radiation exposures among the general population due to growth in the use of diagnostic radiation imaging and losses in the ozone layer may give rise to more cancers of certain types than have been seen in the past. Long-term exposures to some consumer products and environmental pollutants, both natural and man-made, may similarly increase the risk of cancer through routes that have not yet been well studied. Although their roles in cancer development remain uncertain, such substances, including some pesticides, plasticizers and nano-materials, may cause subtle hormonal or other physiological alterations that could contribute to the development of cancer in later life.

Reducing your chances of developing cancer requires adopting a healthy lifestyle, reducing exposures to known carcinogens, and, if you have a family history of cancer, talking to your doctor on a regular basis. See the American Cancer Society guidelines on nutrition, physical activity and cancer prevention in the next section for a list of things you can do today to improve your chances of never getting cancer and of enjoying many future birthdays.

Probability of Being Diagnosed With Certain Cancers Over Selected Age Intervals¹, California, 2004-2009

Current Age	Birth		25		45		65	
	20	Eventually	45	Eventually	65	Eventually	85	Eventually
Risk by Age	One in:	One in:	One in:	One in:	One in:	One in:	One in:	One in:
All Sites								
Male	270	2	64	2	7	2	2	2
Female	309	2	35	2	8	2	4	3
Breast								
Female	*	8	97	8	21	8	14	12
Colon and Rectum								
Male	*	19	699	19	77	19	28	21
Female	*	21	737	20	100	21	35	23
Lung and Bronchus								
Male	*	15	1,921	15	81	14	19	15
Female	*	17	1,757	17	95	17	24	19
Prostate								
Male	*	7	1,727	6	22	6	8	7

¹ Assuming person is cancer-free at the beginning of the age interval. * Probability is extremely small.

Source: California Cancer Registry, June 2011. Prepared by the California Department of Public Health, Cancer Surveillance Section.

Causes of Death

Cancer is the second leading cause of death in California, causing more than 50,000 deaths each year. Smoking, poor diet, and obesity are key risk factors for cancer as well as other diseases, such as heart disease, cerebrovascular disease, chronic lung disease, and diabetes. Following American Cancer Society guidelines for cancer prevention will also lower your risk for other diseases.

Leading Causes of Death in California, 2009

Cause	Deaths	Percent
Heart Disease	58,801	25%
Cancer	55,753	24%
Cerebrovascular Disease	13,410	6%
Chronic Lower Respiratory Disease	12,905	6%
Accidents	10,608	5%
Alzheimer's Disease	9,882	4%
Diabetes	6,961	3%
Influenza and Pneumonia	6,350	3%
Cirrhosis	4,256	2%
Intentional Self-Harm	3,760	2%
All Deaths	231,764	100%

Survival by Stage at Diagnosis

Five-year relative survival has improved for many cancers in the past several decades. Relative survival estimates the probability that an individual will not die from a given cancer during the specified time following diagnosis, after adjustment for the expected mortality from other causes.

One of the strongest predictors of survival is the degree to which the cancer has spread when discovered. This is referred to as the stage at diagnosis. Generally, the earlier the stage, the better the prognosis. The following terminology is often used to summarize stage at diagnosis:

In Situ The tumor is at the earliest stage and has not extended through the first layer of cells (the basement membrane) in the area in which it is growing.

Localized The tumor has broken through the basement membrane, but is still confined to the organ in which it is growing.

Regional The tumor has spread to lymph nodes or adjacent tissues.

Distant The tumor has spread to other parts of the body (metastasized).

An invasive tumor has spread beyond the layer of tissue in which it developed and is growing into surrounding, healthy tissues. Diagnosis at early stage is a tumor diagnosed at *in situ* or localized stage. It is an indication of screening and early detection. Diagnosis at late stage is a tumor diagnosed at regional or distant stage and associated with poorer prognosis.

Five -Year Relative Survival by Stage at Diagnosis in California, 2000-2009

Cancer Type	All Stages	Localized	Regional	Distant
Female Breast	91%	100%	85%	26%
Cervix Uteri	71%	93%	61%	19%
Uterus	83%	97%	69%	18%
Ovary	45%	92%	75%	30%
Prostate	100%	100%	100%	29%
Testis	94%	99%	95%	72%
Oral & Pharynx	63%	85%	59%	35%
Colon & Rectum	66%	94%	72%	12%
Pancreas	6%	23%	8%	2%
Lung & Bronchus	15%	55%	26%	4%
Melanoma	91%	99%	62%	16%
Hodgkin Lymphoma	83%	89%	91%	73%
NHL*	66%	80%	70%	58%
Leukemia**	52%	--	--	52%
Childhood (0-19)	78%	--	--	78%
Adult (20+)	47%	--	--	47%

*NHL: Non-Hodgkin Lymphoma

**All leukemias are staged as distant disease; thus survival cannot be calculated for other stages.

Note: Follow-up is through December 2009.

Source: California Cancer Registry, June 2011. Prepared by the California Department of Public Health, Cancer Surveillance Section.

For more information please visit the California Cancer Registry website at <http://www.ccrca.org/>

Stage at Diagnosis

The percent of cancers diagnosed at an early stage (*in situ* or localized) is an indication of screening and early detection for the cancers listed below. The fifteen most populous counties listed in the table account for 80% of California's population. The numbers are actual cases reported to the CCR for 2009, while pages 4 and 5 show the expected number of cancers in 2012.

Percent of Cancer Cases Diagnosed at Early Stage, California and Selected Counties, 2009								
	Non-Hispanic White		African American		Hispanic		Asian/Pacific Islander	
	Total Cases	Percent Early	Total Cases	Percent Early	Total Cases	Percent Early	Total Cases	Percent Early
Breast - Females								
California	18,778	71	1,789	62	4,947	64	3,579	73
Alameda	687	74	203	66	125	68	279	71
Contra Costa	693	72	78	62	98	60	121	74
Fresno	378	68	25	60	155	59	34	82
Kern	294	67	34	47	117	58	.	.
Los Angeles	3,516	70	753	62	1,686	63	1,103	73
Orange	1,784	72	38	68	373	65	347	73
Riverside	1,108	71	86	60	312	69	70	70
Sacramento	813	70	90	71	100	67	113	64
San Bernardino	662	67	110	56	315	62	95	68
San Diego	1,809	73	98	62	435	61	233	73
San Francisco	353	79	53	62	46	70	255	74
San Joaquin	250	73	39	64	83	61	36	81
San Mateo	505	75	28	79	89	70	205	75
Santa Clara	918	73	15	73	195	72	383	75
Ventura	534	74	.	.	139	70	49	84
Prostate - Males								
California	13,693	77	1,855	77	3,526	73	1,543	75
Alameda	455	85	175	81	80	84	125	80
Contra Costa	508	84	96	83	65	82	56	86
Fresno	262	75	30	70	117	76	16	63
Kern	224	80	27	81	88	75	.	.
Los Angeles	2,433	68	704	73	1,195	65	460	67
Orange	1,052	74	29	72	200	69	143	75
Riverside	831	83	98	70	231	77	32	78
Sacramento	514	78	111	83	68	79	48	79
San Bernardino	571	78	132	80	240	77	32	81
San Diego	1,302	77	112	74	268	73	108	72
San Francisco	269	77	60	83	32	94	135	85
San Joaquin	186	80	43	88	72	76	26	65
San Mateo	352	84	27	85	59	90	84	83
Santa Clara	673	87	36	89	162	76	141	83
Ventura	350	71	16	75	82	68	16	50

Source: California Cancer Registry, California Department of Public Health. Data not shown if fewer than 15 cases were reported.

For more information please visit the California Cancer Registry web site at <http://www.ccrca.org/>

Stage at Diagnosis continued

Percent of Cancer Cases Diagnosed at Early Stage, California and Selected Counties, 2009								
	Non-Hispanic White		African American		Hispanic		Asian/Pacific Islander	
	Total Cases	Percent Early	Total Cases	Percent Early	Total Cases	Percent Early	Total Cases	Percent Early
Invasive Cervix - Females								
California	657	52	91	32	570	49	194	41
Alameda	15	73	.	.	.	.	16	63
Contra Costa	20	55	.	.	.	.	.	.
Fresno	.	.	.	.	18	44	.	.
Kern	17	47	.	.	19	42	.	.
Los Angeles	126	55	42	29	239	50	76	36
Orange	60	47	.	.	28	61	19	58
Riverside	45	49	.	.	46	70	.	.
Sacramento	37	57	.	.	.	.	.	.
San Bernardino	28	50	.	.	42	43	.	.
San Diego	59	61	.	.	33	39	18	44
San Francisco	.	.	.	.	.	.	.	.
San Joaquin	.	.	.	.	.	.	.	.
San Mateo	.	.	.	.	.	.	.	.
Santa Clara	25	48	.	.	20	55	.	.
Ventura	18	44	.	.	17	65	.	.
Colon & Rectum - Males								
California	4,945	46	604	47	1,529	42	955	44
Alameda	180	46	41	41	42	48	76	50
Contra Costa	202	43	29	41	22	45	21	38
Fresno	92	43	.	.	48	60	.	.
Kern	87	49	.	.	44	32	.	.
Los Angeles	975	46	255	47	546	40	320	44
Orange	410	52	.	.	92	42	103	50
Riverside	312	47	34	47	81	47	16	25
Sacramento	233	47	28	39	33	45	36	42
San Bernardino	252	47	37	54	95	42	25	36
San Diego	447	46	28	57	105	32	61	49
San Francisco	97	47	24	46	18	56	77	42
San Joaquin	84	51	.	.	33	36	16	56
San Mateo	118	46	.	.	18	33	41	49
Santa Clara	188	52	.	.	76	46	90	42
Ventura	115	47	.	.	49	61	17	12
Colon & Rectum - Females								
California	4,867	44	578	39	1,142	41	972	42
Alameda	178	40	61	44	34	38	89	45
Contra Costa	179	42	24	42	32	53	28	43
Fresno	81	46	.	.	42	38	.	.
Kern	91	37	.	.	21	43	.	.
Los Angeles	976	46	280	35	397	42	336	41
Orange	451	44	.	.	66	70	97	40
Riverside	318	40	20	30	55	27	.	.
Sacramento	188	34	32	28	29	38	42	33
San Bernardino	218	48	36	53	72	32	25	44
San Diego	387	46	32	38	87	31	47	30
San Francisco	95	53	.	.	26	54	88	50
San Joaquin	85	51	.	.	23	43	.	.
San Mateo	137	48	.	.	16	44	38	37
Santa Clara	225	44	.	.	55	44	73	44
Ventura	109	52	.	.	35	46	15	47

Source: California Cancer Registry, California Department of Public Health. Data not shown if fewer than 15 cases were reported.

For more information please visit the California Cancer Registry web site at <http://www.ccrca.org/>

American Cancer Society Guidelines

Nutrition, Physical Activity, and Cancer Prevention

Accumulating evidence indicates that for the majority of individuals who don't smoke, consuming a mostly plant-based diet (including five or more servings of vegetables and fruit daily), being physically active, and maintaining a healthy weight are the most important means to reduce cancer risk. Besides smoking, the most important risk factor to control is a combination of diet and physical activity. Scientific evidence suggests that about one-third of cancer deaths are due to nutrition and physical activity factors, including excess weight.

The number of overweight and obese adults is increasing among men and women and people of all ages, races, and educational backgrounds. According to the National Center for Health Statistics, almost two-thirds of adults are so overweight that it poses a risk to their health. In children, overweight and obesity rates have doubled over the last two decades; 14 percent of children and 12 percent of teens are obese. Overweight and obese children are at increased risk for becoming obese adults, which could increase future cancer rates.

Nutrition and physical activity directly affect cancer risk. Physical activity reduces the risk of breast, colon, and, possibly, endometrial and prostate cancers. Eating a diet high in fruits and vegetables is associated with lower risk of cancers of the mouth and pharynx, esophagus, lung, stomach, colon and rectum.

The American Cancer Society is committed to improving the ability of all population groups to eat a healthy diet and be physically active because of proven health benefits and the corresponding reduction in cancer risk. Introducing a healthy diet and a physically active lifestyle at any time from childhood to old age can promote health and reduce cancer risk. The American Cancer Society guidelines include a recommendation for community action to ensure access to healthy foods and safe environments for physical activity. The guidelines are as follows:

1. *Don't smoke! Don't use any tobacco products.*
2. Maintain a healthful weight throughout life:
 - Balance caloric intake with physical activity.
 - Avoid excessive weight gain throughout the lifecycle.
 - Achieve and maintain a healthy weight if currently overweight or obese.
3. Adopt a physically active lifestyle.
 - Adults should engage in at least 30 minutes of moderate to vigorous physical activity, beyond the activities of daily living, on five or more days of the week. Forty-five to 60 minutes of intentional physical activity are preferable to reduce breast and colon cancer risk.
4. Talk to your doctor about cancer screening tests.
5. Consume a healthful diet:
 - Choose foods and beverages in amounts that help maintain a healthful weight.
 - Eat five or more servings of a variety of fruits and vegetables each day.
 - Choose whole grains instead of processed (refined) grains and sugars.
 - Limit consumption of processed and red meats.
6. If you drink alcoholic beverages, limit your consumption. Women should have no more than one drink per day and men should have no more than two drinks per day.
7. Recommendation for Community Action-- communities should work together to:
 - Create a healthy environment where everyone has access to healthy food choices and safe places to be active.
 - Increase access to healthy foods in schools, worksites, and communities.
 - Provide safe, enjoyable, and accessible environments for physical activities in schools and for transportation and recreation in communities.

Social, economic and cultural factors strongly influence individual choices and attitudes about diet and physical activity. While individuals must ultimately take responsibility for adopting a healthy lifestyle, social and community actions are critical for fostering healthy behaviors and removing the substantial barriers that make it difficult to follow diet and activity recommendations.

The American Cancer Society recognizes that efforts to reduce cancer risk depend heavily on the promotion of healthy eating and physical activity, and the prevention of obesity. Prevention activities can be significantly increased through continued and sustained efforts that employ multiple strategies, including the development of public and private partnerships as well as collaborations at national, state and local levels.

American Cancer Society Recommendations for the Early Detection of Cancer in Average-Risk, Asymptomatic People

CANCER SITE	POPULATION	TEST OR PROCEDURE	FREQUENCY
Breast	Women, age 20+	Clinical breast examination+	Every 3 years, ages 20-39
		Mammography	Annual, starting at age 40
		Breast self-examination	Optional, monthly, starting at age 20
Colon and Rectum	Men & Women (average risk), age 50+	Tests that find polyps and cancer:	
		Flexible sigmoidoscopy*	Every five years
		Colonoscopy	Every ten years
		Double contrast barium enema*	Every five years
		CT colonography (virtual colonoscopy)*	Every five years
		Tests that mainly find cancer:	
		Fecal occult blood test (FOBT)*, **	Every year
		Fecal immunochemical test (FIT)*, **	Every year
		Stool DNA test (sDNA)*	Interval uncertain
Prostate	Men, age 50+	Prostate-specific antigen (PSA) blood test and digital rectal exam (DRE), after a discussion of risks and benefits with their healthcare provider. †	Men who choose to be tested who have a PSA of less than 2.5 ng/ml, may only need to be retested every 2 years. Screening should be done yearly for men whose PSA level is 2.5 ng/ml or higher.
Cervix	Women, age 21+	Pap test and pelvic examination	Begin screening about 3 years after start of vaginal intercourse (no later than 21 years of age) on an annual basis with conventional cytology smear. Every 2 years with liquid-based cytology. After age 30, if 3 consecutive normal tests, screening may be every 2-3 years.
Cancer-related check up	Men and Women, age 20+	Examinations every 3 years from ages 20 to 39 years and annually after age 40. The cancer-related check up should include examination for cancers of the thyroid, testicles, ovaries, lymph nodes, oral cavity, and skin, as well as health counseling about tobacco, sun exposure, diet and nutrition, risk factors, sexual practices, and environmental and occupational exposures.	

+ Beginning at age 40, annual clinical breast examination should be performed prior to mammography.

* Colonoscopy should be done if test results are positive.

** For FOBT or FIT used as a screening test, the take-home multiple sample method should be used. A FOBT or FIT done during a digital rectal exam in the doctor's office is not adequate for screening.

† The American Cancer Society recommends that a discussion about screening should take place at age 50 for men who are at average risk of prostate cancer, or at age 45 for men at high risk (i.e., African Americans and men who have a first-degree relative – father, brother, or son – diagnosed with prostate cancer at an younger than age 65).

Cancer Types and Screening Guidelines

Breast Cancer

Breast cancer is the most common cancer among women in California, regardless of race/ethnicity. Survival is excellent when diagnosed early. If confined to the breast when discovered, five-year survival is 100%. (Breast cancer survival by stage at diagnosis can be found on page 7.)

Breast cancer incidence in California has been fairly stable since 1988. More cancers are being diagnosed at an early stage, and the rate of late-stage disease has declined. About 71% of female breast cancers diagnosed in California in 2009 were found at an early stage. This shift to earlier stage diagnoses reflects, in part, the successful efforts of the American Cancer Society and other organizations to increase the number of women who receive regular breast cancer screening (see next page).

Breast cancer mortality in California has declined by more than 30% due to the combined effects of better treatment and earlier diagnosis. While this is very good news for California women, breast cancer incidence rates may begin to rise in the next decade as the large number of women born after World War II reach the age in which breast cancer becomes more common. This group of women may be at higher risk of breast cancer than their mothers due to earlier menarche, smaller family size, delayed childbearing, and other factors. This effect may already be seen in women of Asian/Pacific Islander ancestry. Since 1988, the breast cancer incidence rate among this group of women has increased by 26.7%.

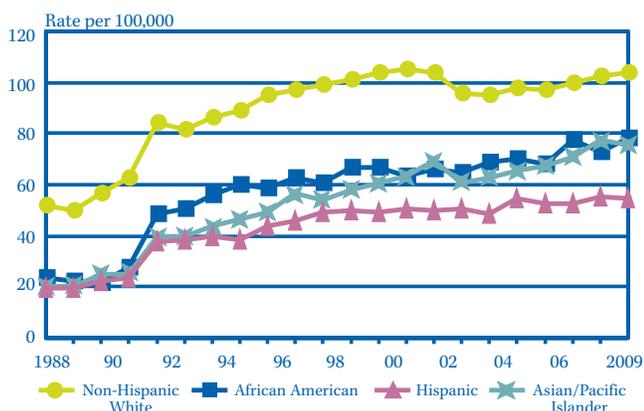
Although breast cancer mortality has been declining among non-Hispanic white women for some time, declines are now statistically significant for African American and Hispanic women as well. From 1988 to 2009, breast cancer

mortality declined by 12% among African American women, 8% among Hispanic women, and 30% among non-Hispanic white women. Mortality rates among Asian/Pacific Islander women also decreased but not significantly despite the increase in incidence. These trends may in part be attributed to earlier diagnosis due to more effective cancer screening.

Asian women, who commonly have low breast cancer incidence rates in their native countries, experience increasing rates upon migrating and assimilating into the United States. Research in Los Angeles County has found that breast cancer rates among Japanese Americans are twice those of Chinese and Korean women and are quickly approaching rates of non-Hispanic whites. This increase can be explained in part by the fact that the Japanese were the first large Asian population to migrate to Los Angeles County and to adopt the Western lifestyle. Breast cancer incidence rates may continue to increase in the future as more Asian subgroups adopt more Westernized lifestyles.

Nationally, breast cancer incidence has been decreasing since the late 1990s, with a dramatic decrease between 2002 and 2003, particularly in the 50-69 year age

Trends in Early-Stage Female Breast Cancer Incidence by Race/Ethnicity in California, 1988-2009



Note: Rates are age-adjusted to the 2000 U.S. population. Early-stage cancers are *in situ* or less than 2 cm in size with no lymph nodes involved.
Source: California Cancer Registry, California Department of Public Health.
Prepared by the California Department of Public Health, Cancer Surveillance Section.

Trends in Female Breast Cancer by Race/Ethnicity in California, 1988-2009



Note: Rates are age-adjusted to the 2000 U.S. population.
Source: California Cancer Registry, California Department of Public Health.
Prepared by the California Department of Public Health, Cancer Surveillance Section.

(Click on graphs to see data tables.)

groups. This may be due to the reduced use of hormone replacement therapy.

For reasons that are not completely understood, being well-educated and financially well-off are associated with a higher risk of developing breast cancer. In each racial/ethnic group in California, breast cancer incidence increases with socioeconomic status (SES). Non-Hispanic white women in the highest SES category are at highest risk. Some geographic variation in breast cancer rates within California may be related to these factors.

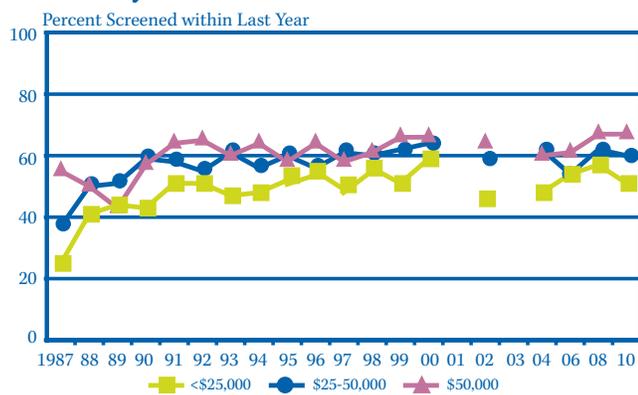
In 2004-2008, the invasive female breast cancer incidence rate in California as compared to the nation excluding California was the same among Asian/Pacific Islanders, 5% higher among African Americans, 10% lower among Hispanics, and 8% higher among non-Hispanic whites. (For more information on the U.S. cancer rate refer to page 1.)

Roughly 130 men are diagnosed with breast cancer each year in California and about 30 die of the disease annually. Breast cancer in men is clinically very similar to the disease in women, but the prognosis is often poorer because men tend to be diagnosed at a later stage.

Breast Cancer Screening

Early detection is the best defense against breast cancer. A breast health program of clinical breast examination by a health provider every three years should begin at age 20, with annual mammograms and clinical breast examinations starting at age 40. Women at increased risk (e.g., family history, genetic tendency, past breast cancer) should talk with their doctors about the benefits and limitations of starting mammography screening earlier, having additional tests (e.g., breast ultrasound and MRI), and/or having more frequent exams. Breast self-examinations are optional.

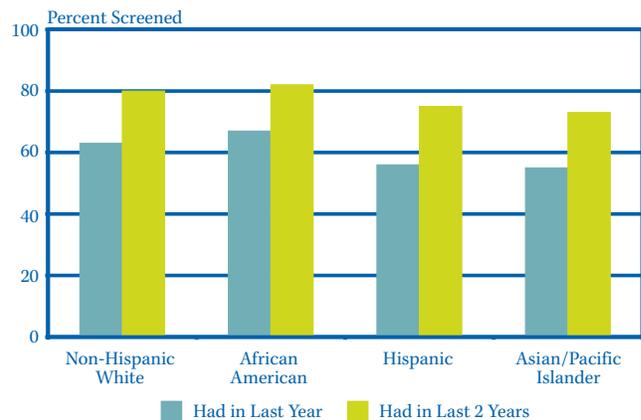
Mammography Use Among Females Ages 40 and Older by Income in California, 1987-2010



Note: Data are weighted to the 1990 California population.
Source: California Behavioral Risk Factor Survey.
Income categories are based on annual household income. Data were not collected in 2001.
Prepared by the California Department of Public Health, Cancer Surveillance Section.

In 2010, 61% of women of screening age reported that they had a mammogram in the past year, compared to only 39% in 1987. However, a recent trend in mammography rates reflect as much as a 4% decline nationwide. Poor women have shown the largest increase in mammography use, especially in recent years. Non-Hispanic white women were most likely to have been recently screened (63%), while screening among Hispanic, non-Hispanic black, and Asian women were (66%, 56%, and 55% respectively).

Mammography Use Among Females Ages 40 and Older by Race/Ethnicity, 2010



Note: Data are age-adjusted to the 1990 California population.
Source: California Behavioral Risk Factor Survey.
Prepared by the California Department of Public Health, Cancer Surveillance Section.

American Cancer Society Breast Cancer Activities

The American Cancer Society is a leading advocate for the early detection of breast cancer. The Society is especially focused on advocacy efforts that will increase funding for the state's *Every Woman Counts* program, which provides breast cancer screening and treatment for medically uninsured women in California. The Society helps women learn about breast cancer screening and the importance of mammography through a variety of community health education programs and awareness campaigns. With a wide variety of materials, many available in languages other than English; the toll free number (1-800-227-2345), which can also provide language appropriate services; and its Web site (cancer.org), the Society provides answers to questions about the nature of breast cancer, its causes, and risk factors. In 2010, the Society's *Reach to Recovery*® program helped 781 newly diagnosed women, and *Look Good...Feel Better* reached 4,664 women undergoing cancer treatment. Breast cancer patients and their caregivers also participated in our educational program series, *I Can Cope*, to help them in their cancer journey.

Cervical Cancer

In general, the risk of developing cancer is much lower for persons of Hispanic and Asian/Pacific Islander origin than for non-Hispanic whites and African Americans. However, this is not true for cervical cancer. Hispanic women have the highest risk of developing cervical cancer, about one and a half times higher than non-Hispanic white women, African American, and Asian/Pacific Islander women. Cervical cancer is a major problem among many of the groups recently immigrating to California (see page 23).

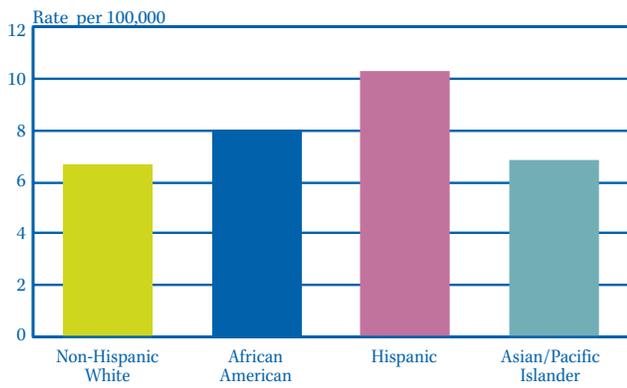
The American Cancer Society recommends that all women begin screening about three years after the start of vaginal intercourse but no later than 21 years of age. Screening should occur on an annual basis with conventional Pap tests, or every two years using liquid-based Pap tests. At or after age 30, women with three consecutive normal tests may be screened every two to three years.

The Federal Food and Drug Administration has approved a vaccine for the prevention of HPV infection. It will not treat an existing infection. **Studies show the vaccine has the potential to prevent up to 70% of the more than 1,500 invasive cervical cancer cases and over 440 cervical cancer deaths in California each year.**

The American Cancer Society recommends:

- Routine HPV vaccination for females aged 11 to 12 years
- HPV vaccination for females aged 13 to 18 years to catch up missed vaccines or to complete the series
- Women ages 19 to 26 talk to their doctors or nurses about whether to get the vaccine based on their risk of previous HPV exposure and potential benefit from the vaccine.
- Females as young as age nine can receive HPV Vaccination

Invasive Cervical Cancer Incidence by Race/Ethnicity in California, 2009



Note: Rates are age-adjusted to the 2000 U.S. population.
Source: California Cancer Registry, California Department of Public Health.
Prepared by the California Department of Public Health, Cancer Surveillance Section.

Hispanic and Asian women are at greater risk of developing cervical cancer and are also less likely to receive routine screening, when compared to African American and non-Hispanic white women. In 2010, the percent of women ages 18 and older in California who reported having a Pap smear in the previous three years was 82% for African Americans, 82% for non-Hispanic white women, 82% for Hispanics, and 70% for Asians.

Colon and Rectum Cancer

Colon and rectum cancer is the third most common cancer in California among both men and women and is the third most common cause of cancer-related death for each gender. Although it is less common than either breast or prostate cancer, colon and rectum cancer has a poorer prognosis. The five-year survival rates for colon and rectum cancer is 66%, compared to 91% and 100% for breast and prostate cancers respectively. The poorer prognosis is related to more late stage detection. Colon and rectum cancer risk has declined steadily in California over the last 22 years. Colon and rectum cancer incidence rates declined significantly for all four major racial/ethnic groups since 1988. Incidence rates of colon and rectum cancer decreased 30% among non-Hispanic whites, 18% among African Americans, 14% among Asian/Pacific Islanders and 1% among Hispanics. Mortality rates decreased by 36% for all races combined. Among new cases, more of the decline in colon and rectum cancer rates has been among late-stage tumors.

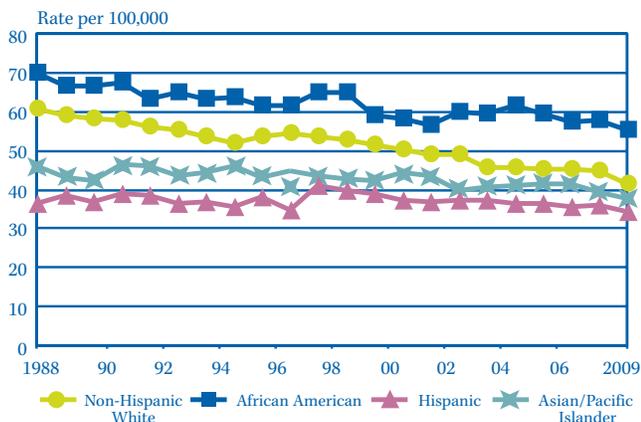
The reasons for declining colon and rectum cancer rates are not clearly understood. It has been suggested that increased use of endoscopic screening (sigmoidoscopy or colonoscopy) has resulted in the removal of benign polyps that would have progressed to cancer. Among the other possible contributors to declining rates are the increased use of aspirin to prevent heart disease, and dietary changes including increased calcium intake.

New Cases, Percent of Early Stage at Diagnosis, and Deaths for Three Common Cancers, California, 2009*

Cancer Type	Total New Cases Diagnosed	Percent Early Stage	Total Deaths
Female Breast	23,588	71%	4,386
Prostate	20,746	74%	3,093
Colon and Rectum	14,392	44%	5,133

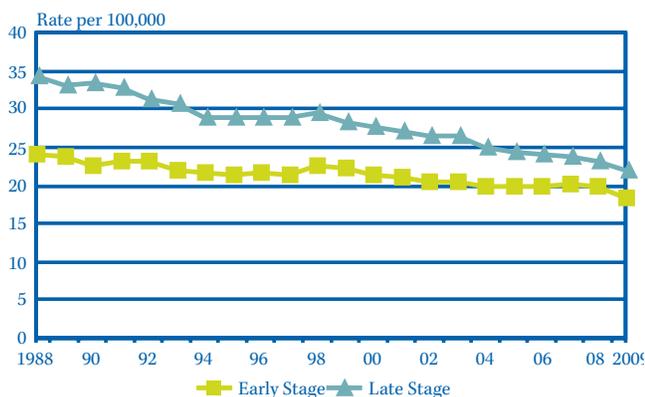
Note: Deaths include persons who may have been diagnosed in previous years.
Source: California Cancer Registry, California Department of Public Health.

Trends in Invasive Colon and Rectum Cancer Incidence by Race/Ethnicity in California, 1988-2009*



Note: Rates are age-adjusted to the 2000 U.S. population.
Source: California Cancer Registry, California Department of Public Health.
Prepared by the California Department of Public Health, Cancer Surveillance Section.

Trends in Colon and Rectum Cancer Incidence by Stage at Diagnosis in California, 1988-2009*



Note: Rates are age-adjusted to the 2000 U.S. population. Early-stage cancers are *in situ* or localized (i.e., have not extended beyond the colon or rectum). Late-stage tumors have spread further.
Source: California Cancer Registry, California Department of Public Health.
Prepared by the California Department of Public Health, Cancer Surveillance Section.

In 2004-2008, the invasive colon and rectum cancer incidence rate in California, as compared to the nation excluding California, was 6% higher among Asian/Pacific Islanders, 1% higher among African Americans, 15% lower among Hispanics, and 7% lower among non-Hispanic whites. (For more information on the U.S. cancer rate refer to page 1.)

Colon and Rectum Cancer Screening

Survival from colon and rectum cancer is nearly 91% when the cancer is diagnosed before it has extended beyond the intestinal wall. Colon and rectum cancers are harder to detect when asymptomatic than breast and prostate cancers, and are less likely to be diagnosed at an early stage (*in situ* or localized).

In 2008, about 44% of colon and rectum cancers diagnosed in California were early-stage, compared to about 77% for prostate, and 70% for breast cancer. The American Cancer Society recommends that both men and women begin routine screening for this cancer at age 50. (For more information on stage at diagnosis and screening guidelines for this cancer, refer to page 9.)

In 2010, only 51% of California adults ages 50 and over reported having had sigmoidoscopy or colonoscopy within the past five years. The proportion screened was even lower among persons in poverty (31%), and among Hispanics (38%).

In 2010, 37% of Californians over age 50 reported having a fecal occult blood test using a home kit in the past five years. Individuals with low incomes, Hispanics, and Asian/Pacific Islanders were less likely to have had the exam (29%, 26%, and 30% respectively).

American Cancer Society guidelines for colon and rectal cancer screening were developed in collaboration with a consortium of major gastroenterology and radiology organizations. These guidelines focus on preventing colon and rectum cancer as well as early detection of cancer. The recommendations include two screening methods to the list of options: stool DNA testing and CT colonography (also referred to as "virtual colonoscopy"). According to these guidelines, some tests that are typically more invasive offer the best chance of preventing cancer because they can find colon growths (polyps) that can be removed before they become cancerous. Other tests are less likely to find polyps, but can still detect most cancers.

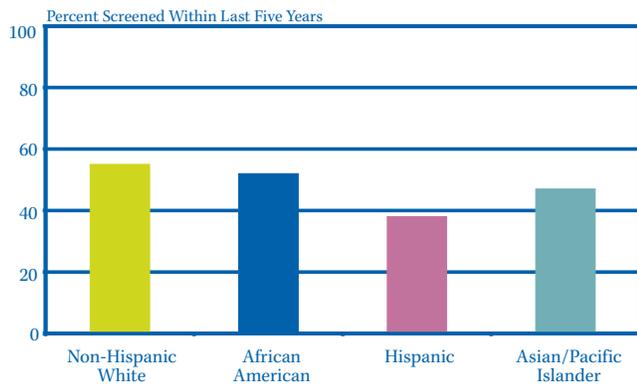
Sigmoidoscopy/Colonoscopy Use Among Persons Ages 50 and Older by Annual Household Income in California, 2010



Note: Data are weighted to the 2000 California population.
Source: California Behavioral Risk Factor Survey.
Prepared by the California Department of Public Health, Cancer Surveillance Section.

*Veterans Health Administration hospitals did not report cancer cases to the California Cancer Registry (CCR) in 2005. Therefore, case counts and incidence rates for adult males in 2005 are underestimated and should be interpreted with caution (see page 1 or <http://www.ccrca.org/VAtchnotes.html>)

Sigmoidoscopy/Colonoscopy Use Among Persons Ages 50 and Older by Race/Ethnicity in California, 2010



Note: Data are weighted to the 2000 California population.
Source: California Behavioral Risk Factor Survey.
Prepared by the California Department of Public Health, Cancer Surveillance Section.

American Cancer Society Colon and Rectum Cancer Activities

The American Cancer Society has an aggressive, multi-pronged initiative to reduce incidence and mortality from colon and rectum cancer: Educating men and women ages 50 and over that they need to get tested; encouraging physicians and other health care providers to recommend screening to their eligible patients; and working with health plans and health insurers who set policy and control payment for screening procedures. The legislative advocacy campaign targets activities to increase funding to support research into the causes, cures, and care of colon and rectum cancer and addresses legislation for programs to provide coverage for screening.

The Society is also a strong supporter and participant in the statewide California Colorectal Cancer Coalition (C4), whose mission is to save lives and reduce suffering from colorectal cancer. C4 has provided Colorectal Cancer education to Californians through community forums. In Spring 2011, C4 held its Annual Lobby Day at the State Capitol to increase awareness among the State Legislators the importance of adequate screening resources for all Californians.

Prostate Cancer

Prostate cancer is the most common cancer among men in almost all racial/ethnic groups in California. The number of prostate cancers diagnosed each year rose dramatically in the early 1990s when the prostate-specific antigen (PSA) test began to be widely used to detect this cancer. Incidence rates peaked in 1992-93 and were approximately 2% lower in 2009 than in 1988, depending on

race/ethnicity. These trends are consistent with the rapid introduction of a new, sensitive screening method.

African American men are at especially high risk for prostate cancer. They are over 56% more likely to develop this disease than non-Hispanic white men, over 78% more likely than Hispanic men, and nearly three times more likely than Asian/Pacific Islanders. Unlike breast cancer, prostate cancer tends to be diagnosed late in life. Nearly 70% of prostate cancers are diagnosed among men ages 65 and older.

Very little is known about the causes of prostate cancer. Large international differences in prostate cancer risk indicate that lifestyle factors such as diet may be involved, and it is likely that diet interacts with hormonal status in complex ways.

The survival rate for prostate cancer is quite high (see page 7), especially when diagnosed early. Prostate cancer mortality in California decreased by 36% after 1988,

Trends in Prostate Cancer by Race/Ethnicity in California, 1988-2009*



Note: Rates are age-adjusted to the 2000 U.S. population.
Source: California Cancer Registry, California Department of Public Health.
Prepared by the California Department of Public Health, Cancer Surveillance Section.

*Veterans Health Administration hospitals did not report cancer cases to the California Cancer Registry (CCR) in 2005. Therefore, case counts and incidence rates for adult males in 2005 are underestimated and should be interpreted with caution (see page 1 or <http://www.ccrca.org/VATechnotes.html>)

with declines among men in each racial/ethnic group. Nonetheless, it remains the second leading cause of cancer-related mortality among men.

In 2004-2008, the prostate cancer incidence rate in California as compared to the nation excluding California, was 17% lower among Asian/Pacific Islanders, 6% lower among African Americans, 5% lower among Hispanics, and 7% lower among non-Hispanic white men. (For more information on the U.S. cancer rate refer to page 1.)

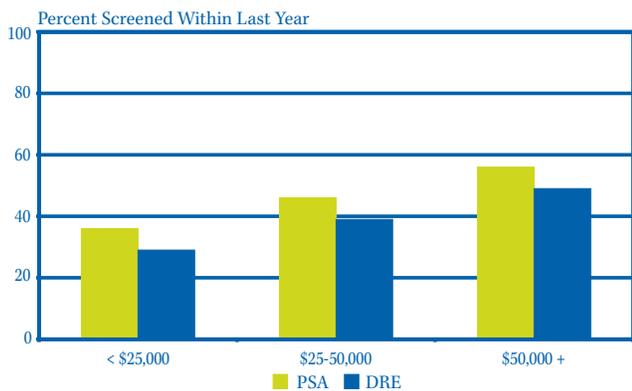
Prostate Cancer Screening

Unlike breast cancer, clinical trials have not clearly demonstrated a decrease in mortality following screening for prostate cancer, and many uncertainties remain surrounding the early detection of this disease. One of the reasons for this is that unlike many other cancers, prostate cancer often grows very slowly. Because of this, many undiagnosed prostate cancers never become life-threatening. Although early diagnosis and treatment may help some men live longer, it may have no impact on the lifespan of other men. Since testing for early detection of prostate cancer became common around 1990, the prostate cancer death rate has dropped, but it has not been conclusively proven that this is a direct result of screening. In addition, prostate cancer treatment can affect a man's quality of life. Studies are underway which may resolve this issue.

The American Cancer Society recommends that health care providers offer the PSA blood test and digital rectal examination annually, beginning at age 50, to men who have at least a ten-year life expectancy. Men in high-risk groups, such as African Americans or those with brothers or fathers who have had prostate cancer, should begin screening at age 45 (see page 11). To assist men in making informed decisions about testing, physicians should inform their patients of the potential risks and benefits of early detection and treatment.

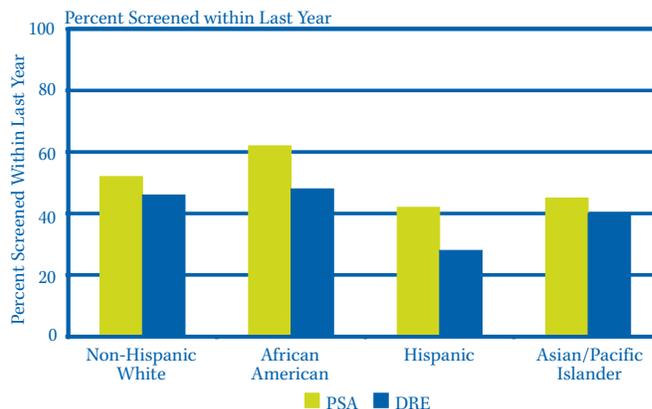
In 2010, 73% of Californian men aged 50 and over reported having had at least one PSA test while 82% reported having at least one digital rectal exam (DRE) test. Non-Hispanic white and African American men were more

PSA and DRE Testing Among Men Ages 50 and Older by Annual Household Income in California, 2010



Note: Data are weighted to the 2000 California population.
Source: California Behavioral Risk Factor Survey.
Prepared by the California Department of Public Health, Cancer Surveillance Section.

PSA and DRE Testing Among Men Ages 50 and Older by Race/Ethnicity in California, 2010



Note: Data are weighted to the 2000 California population.
Source: California Behavioral Risk Factor Survey.
Prepared by the California Department of Public Health, Cancer Surveillance Section.

likely than Hispanic and Asian men to have been tested in the last year. Men from households above poverty level were more likely to have had a prostate cancer screening test than men from households below poverty. (For information on stage at diagnosis by race/ethnicity, refer to page 8.)

American Cancer Society Prostate Cancer Activities

The American Cancer Society recommends that men have a chance to make an informed decision with their health care provider about whether to be screened for prostate cancer. The decision should be made after getting information about the uncertainties, risks, and potential benefits of prostate cancer screening. Men should not be screened unless they have received this information. After this discussion, those men who want to be screened should be tested with the prostate specific antigen (PSA) blood test. The digital rectal exam (DRE) may also be done as a part of screening.

In 2010, 1,376 men participated in the *Man To Man* program, the Society's support group program for men and their loved ones to share information available about prostate cancer, treatment, and offers education and support other prostate cancer patients and their partners. *Lets Talk About It*, a collaboration of the American Cancer Society and the 100 Black Men of America, is aimed at educating African American men about prostate cancer. These programs provide men with opportunities to share experiences, learn more about the disease, and gain skills to meet individual needs following diagnosis and treatment. The Society also supports legislative activities to improve the availability of treatment for low-income prostate cancer patients and research to help fight the disease.

Skin Cancer and Sun Avoidance

Skin cancer of all kinds is associated with exposure to the sun. Childhood sunburns can increase the risk of developing skin cancer as an adult. Even a suntan is harmful. Sunburns and tanning hurt the skin and serve as outward signs of internal skin damage. Malignant melanoma is the most serious type of skin cancer. It often appears on parts of the body not regularly exposed to sunlight. While light-skinned people have a greater risk of getting melanoma, this disease is increasing among people of color. In California, incidence rates of both *in situ* and invasive melanoma of the skin have increased in the past 22 years for all racial/ethnic groups, a statistically significant increase for Hispanics and non-Hispanic whites. (For information on survival and stage at diagnosis, refer to pages 7 and 8.)

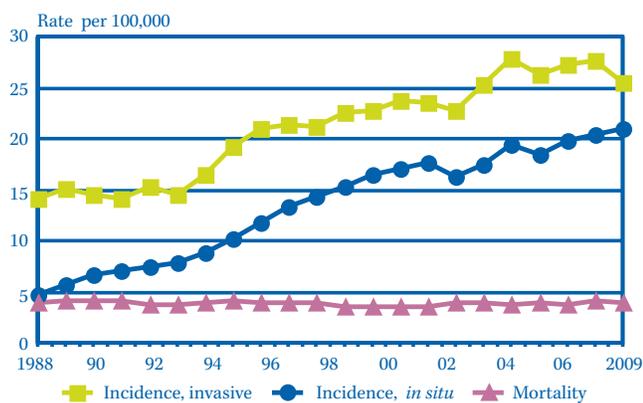
To reduce your risk of skin cancer:

- Reduce sun exposure between 10:00 AM and 4:00 PM.
- Reduce/Eliminate exposure to tanning beds and sunlamps.
- Wear tightly woven, loose-fitting clothing that covers as much of the body as possible, sunglasses and a wide-brimmed hat (at least 4 inches) that produces a shadow that covers the eyes, nose, face, ears, and neck.
- Liberally apply sunscreen with SPF 15 or greater and broad-spectrum (UVA and UVB) protection, 15 minutes before going outdoors and every two hours once outdoors or more often if sweating or swimming.
- Protect children from over-exposure to the sun. Place play equipment in the shade. Babies younger than 6 months should be kept out of direct sunlight and protected from the sun using hats and protective clothing.

The State of California runs the *California Skin Cancer Prevention Program*, targeting children under 15 years of age, their parents, and other care providers for children, and outdoor workers. The program's mission is to:

- Increase public awareness regarding the dangers of over exposure to sunlight

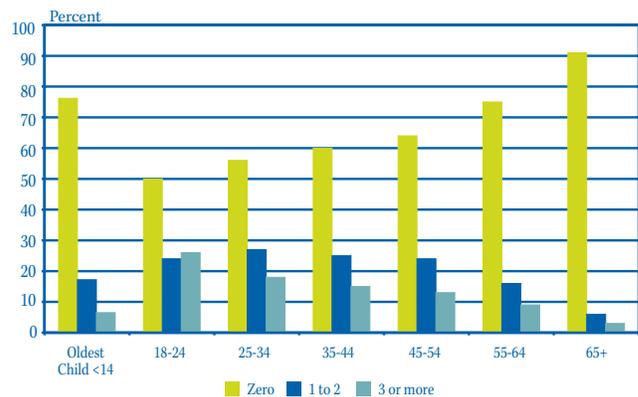
Trends in Melanoma Incidence and Mortality Among Non-Hispanic Whites in California, 1988-2009*



Note: Rates are age-adjusted to the 2000 U.S. population.
Source: California Cancer Registry, California Department of Public Health.
Prepared by the California Department of Public Health, Cancer Surveillance Section.

*Veterans Health Administration hospitals did not report cancer cases to the California Cancer Registry (CCR) in 2005. Therefore, case counts and incidence rates for adult males in 2005 are underestimated and should be interpreted with caution (see page 1 or <http://www.ccrca.org/VATechnotes.html>)

Number of Sunburns in Past 12 Months in California, 2004



Note: Data are weighted to the 2000 California population.
Children data from 2003 California Behavioral Risk Factor Survey.
Source: California Behavioral Risk Factor Survey.
Prepared by the California Department of Public Health, Cancer Surveillance Section.

- Increase individual and organization-wide practice of sun-safety behaviors; and
- Decrease future incidents (new cases) of skin cancer among California residents.

For more information, go to www.AvoidSkinCancer.com.

Skin Cancer Screening Guidelines

The American Cancer Society recommends a cancer-related checkup by a physician, including skin examination, during a periodic health examination for people ages 20 and older. Everyone should know their own pattern of moles, blemishes, freckles, and other marks on the skin so they can notice changes during monthly self-examinations. Key warning signs of non-melanoma skin cancers are new growth, a spot that is getting larger, or a visible sore that does not heal within three months.

For melanoma, the most important warning sign is a change in the size, shape, or color of a mole or signs that its border is becoming more ragged. Other symptoms include scaling, bleeding, or change in the appearance of a bump or nodule; the spread of pigmentation beyond its borders; or a change in sensation, itchiness, or pain. People who notice these kinds of signs should see their doctor immediately.

Tobacco-Related Cancers

About 85% of lung cancer is caused by cigarette smoking. Lung cancer alone kills over 13,000 Californians each year, more than prostate, breast, and colon and rectum cancers combined. However, many other cancers are caused by tobacco as well. Overall, one out of every three cancer deaths is due to tobacco.

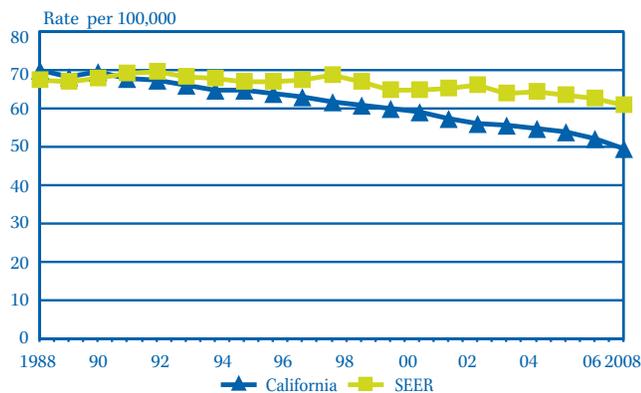
Besides lung cancer, tobacco use also increases risk of cancers of the mouth, nasal cavities, larynx, pharynx,

esophagus, stomach, liver, pancreas, kidney, bladder, uterine cervix, and of myeloid leukemia.

Lung cancer incidence rates in California decreased by 29% from 1988 to 2009, while rates in the nation excluding California dropped by only 10% between 1988 and 2008. Rates for other smoking-related cancers are declining as well. These achievements are due, in large part, to the success of California tobacco control initiatives.

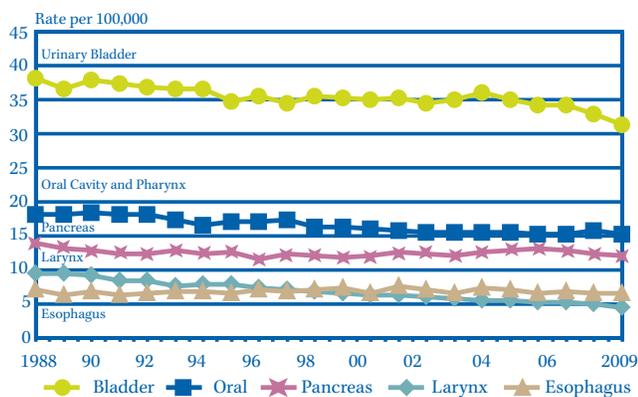
Cigar smoking increases your risk of death from several cancers including cancer of the lung, oral cavity (lip, tongue, mouth, throat), esophagus (the tube connecting the mouth to the stomach), and larynx (voice box). Studies have shown that male cigar smokers are four to 10 times more likely to die from oral and laryngeal cancers than nonsmokers. Cigar smokers may spend up to an hour smoking a single large cigar that can contain as much tobacco as a pack

Trends in Lung Cancer Incidence in California and SEER Areas Other than California, 1988-2008



Note: Rates are age-adjusted to the 2000 US population.
Source: California Cancer Registry, California Department of Public Health.
Prepared by the California Department of Public Health, Cancer Surveillance Section.

Trends in the Incidence of Smoking-Related Cancers Other than Lung Among Men in California, 1988-2009*



Note: Rates are age-adjusted to the 2000 U.S. population.
Source: California Cancer Registry, California Department of Public Health.
Prepared by the California Department of Public Health, Cancer Surveillance Section.

of cigarettes. Smoking more cigars each day or inhaling cigar smoke leads to more exposure and higher risks. Studies have shown your risk of death is higher if you smoke three or more cigars than if you smoke two or fewer cigars a day.

The most serious health effect of spit tobacco is an increased risk of cancer of the mouth and pharynx and of leukoplakia. Oral cancer occurs several times more frequently among snuff dippers compared with non-tobacco users. The risk of cancer of the cheek and gums may increase nearly 50-fold among long-term snuff users.

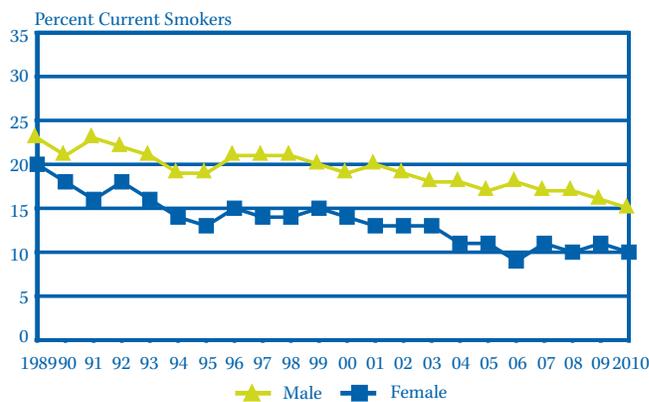
Smoking Trends

Smoking rates among California adults declined steadily among both men and women from 1989 to 2010. In 2009, 13% of California adults smoked and in 2012, 12% still smoked.

Overall smoking rates have declined for middle school and high school students. In California during 2004, 3.9% of middle school students and 13.2% of high school students reported smoking during the last 30 days. The smoking prevalence in California is lower than what is experienced by the rest of the U.S.

In California, 18-24 year olds were smoking at an increasing rate and were recognized as the fastest growing age group using tobacco. Tobacco companies have been targeting them in earnest as the "smokers of the future." The smoking rate for 18-24 year olds was 17% in 2008. However in 2009, the rate was 13% and in 2010, it was 12% in this age group. The highest rate of smoking was 16% among 25-34 year olds.

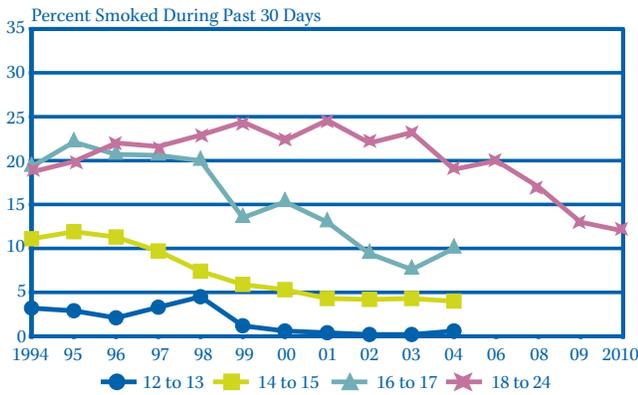
Trends in Adult Smoking by Sex in California, 1989-2010



Note: Data are weighted to the 2000 California population.
Source: California Behavioral Risk Factor Survey and California Adult Tobacco Survey.
Prepared by the California Department of Public Health, Cancer Surveillance Section.

*Veterans Health Administration hospitals did not report cancer cases to the California Cancer Registry (CCR) in 2005. Therefore, case counts and incidence rates for adult males in 2005 are underestimated and should be interpreted with caution (see page 1 or <http://www.ccrca.org/VAtchnotes.html>)

Trends in Smoking Among Youth Ages 12-24 in California, 1994-2010



Note: Data are weighted to the 1990 California population.
 Source: California Youth Tobacco Survey and California Behavioral Risk Factor Survey, and California Adult Tobacco Survey.
 Prepared by the California Department of Public Health, Cancer Surveillance Section.

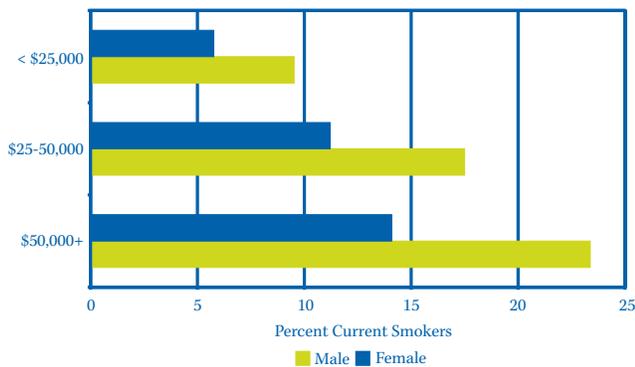
Kicking the Habit

In 2010, 56% of adult smokers in California reported that they tried to quit in the last year. Nicotine, the drug in tobacco, causes addiction with pharmacologic and behavioral processes similar to those that determine addiction to cocaine and heroin. Because of this, quitting can be a difficult challenge but nonetheless, millions of Californians have kicked the habit. For those who do quit, the risk of lung cancer decreases over time. After 15 years, the risk is only slightly higher than among persons who have never smoked, even among those who smoked more than a pack a day.

Secondhand Smoke

In 2007, the U.S. Surgeon General's report on environmental tobacco smoke (ETS) found that there is no risk-free level of secondhand smoke exposure. Even brief exposure can be dangerous. Each year, about 3,400 non-smoking adults in the U.S. die of lung cancer as a result of breathing secondhand smoke. ETS can be particularly harmful to children. In 2010,

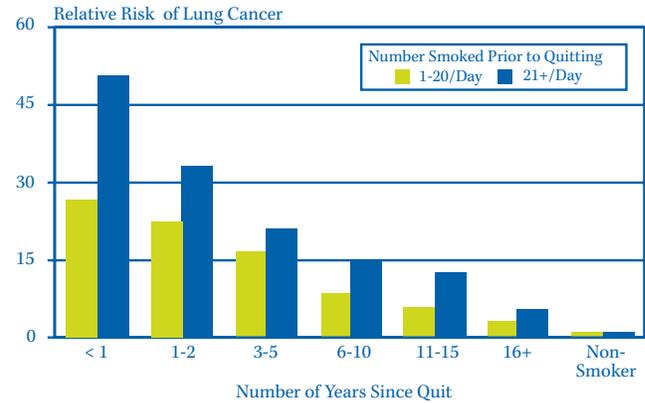
Adult Smoking by Annual Household Income and Sex in California, 2010



Note: Data are weighted to the 2000 California population.
 Source: California Behavioral Risk Factor Survey and California Adult Tobacco Survey.
 Prepared by the California Department of Public Health, Cancer Surveillance Section.

81.1% of California households with children five years old or younger completely prohibited smoking in the home.

Effect of Smoking Cessation on Lung Cancer Risk Among Men



Source: Cancer Rates and Risks, 4th Edition. National Cancer Institute, 1996.
 Prepared by the California Department of Public Health, Cancer Surveillance Section.

American Cancer Society Tobacco Control Activities

The Society has long been a leader in preventing tobacco use and in assisting people to stop their use of tobacco products. Our advocacy efforts to increase tobacco taxes, promote clean air legislation, and decrease access to tobacco products have helped California become one of the most progressive states in the country for tobacco control. Since 2010, the Society has devoted great efforts to qualify the California Cancer Research Act (CCRA) to increase the excise tax on cigarettes by \$1 per pack with equivalent increases on other tobacco products. The measure is expected to generate nearly \$855 million a year in revenue. The initiative is expected to be before California voters in 2012.

Cancer and the Environment

In response to public concerns and evolving science, the California Division is actively monitoring environmental issues related to cancer causation, reaching out to environmental organizations to share information and consider collaborations, and engaging in education and advocacy efforts where appropriate. A team of experts and concerned citizens was established in 2001 to assist in the development of science-based approaches related to environmental issues. Some of the topics that the team has reviewed are cancer clusters; asbestos; integrated pest management policies for schools and day care sites; diesel exhaust emissions; air pollution; biomonitoring; environmental justice; healthy communities; medical radiation and carcinogens in consumer products. The team seeks updates on the science from experts in academia and state agencies, including the California Department of Public Health, the Cal-EPA's Office of Environmental Health Hazard Assessment and the California Air Resources Board. The team also reviews and recommends action on relevant state regulations and legislation, and works with state agencies on implementation of new laws. Working with subject experts and the National American Cancer Society, the team conducts trainings for volunteers and staff and provides guidance when local environmental concerns emerge.

Nutrition, Obesity, Physical Activity, and Cancer

The American Cancer Society recently published a study in the *New England Journal of Medicine* linking obesity with cancer. The researchers document the association between Body Mass Index and death from most forms of cancer, concluding that 90,000 cancer deaths nationwide are related to weight. The study proves that poor diet, obesity, and lack of physical activity are critical pieces to the cancer puzzle, which is frightening considering a nationwide survey in 2002 found that only one percent of Californians identified maintaining a healthful weight as a way to decrease cancer risk.

Poor diet, obesity, and physical inactivity may be responsible for one out of every three cancer deaths – just as many as smoking (see page 7). American Cancer Society guidelines on diet, nutrition, and cancer prevention emphasize maintaining a healthy weight throughout life, adopting a physically active lifestyle, and eating a healthy diet, including fruits and vegetables, whole grains, and limited red meats and other high fat foods (see page 10). Helping Californians of all ages achieve healthy eating habits and enjoy a physically active lifestyle is critical to reducing the rate of new cancer by one-quarter by 2015.

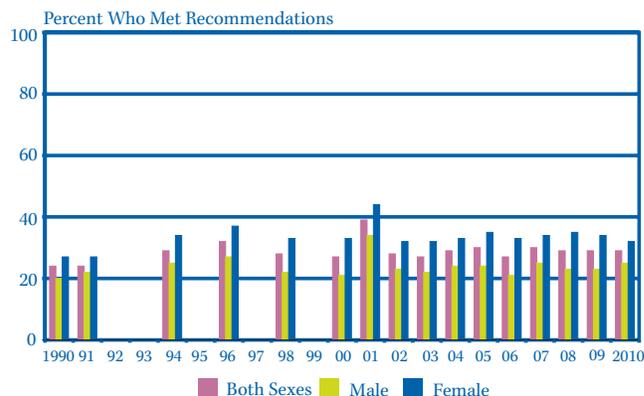
Healthy eating means consuming at least five servings of fruits and vegetables each day for children, adults, and teen girls, and at least seven servings a day for teen boys. Surveys conducted in 2000 among 12-17 year olds, and in 2001 among children ages 9-11 and adults, found that only a minority of Californians met these recommendations (California Teen Eating, Exercise and Nutrition Survey, 2000; California Children’s Healthy Eating and Exercise Practices Survey, 2001).

Twenty-nine percent of California adults ate five or more servings of fruits and vegetables in 2010. Women were more likely than men to consume five or more servings (32% compared to 25%).

Along with healthy eating, regular physical activity is one of the best ways to prevent chronic disease. The American Cancer Society recommends moderate physical activity for 30 minutes or more for adults and at least 60 minutes for children and adolescents on five or more days of the week.

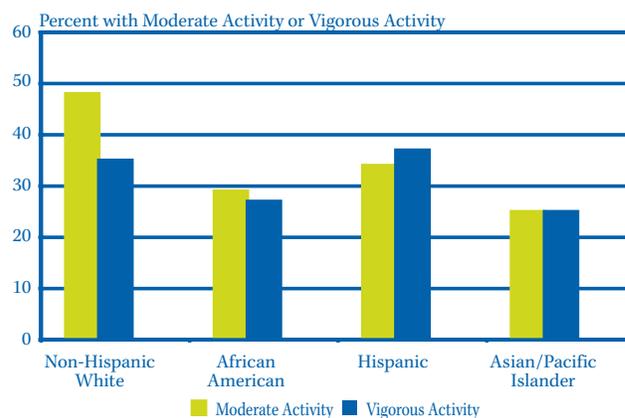
California is far from reaching this goal. In 2010, 39% of California adults reported being engaged in moderate physical activity for 30 minutes or more at least five times a week.

Percent of California Adults Who Eat “Five A Day,” by Sex, 1990-2010*



Note: Data are weighted to the 2000 California population.
 Source: California Behavioral Risk Factor Survey.
 *2001 included more types of fruits and vegetables.
 Prepared by the California Department of Public Health, Cancer Surveillance Section.

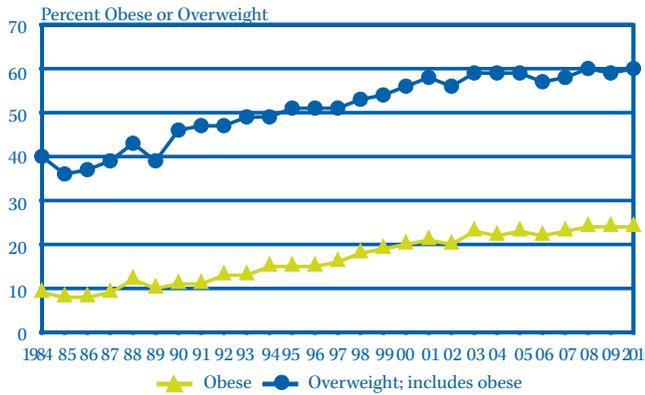
Physical Activity Among Adults in California, 2010



Note: Data are age-adjusted to the 2000 California population.
 Source: California Behavioral Risk Factor Survey.
 Prepared by the California Department of Public Health, Cancer Surveillance Section.

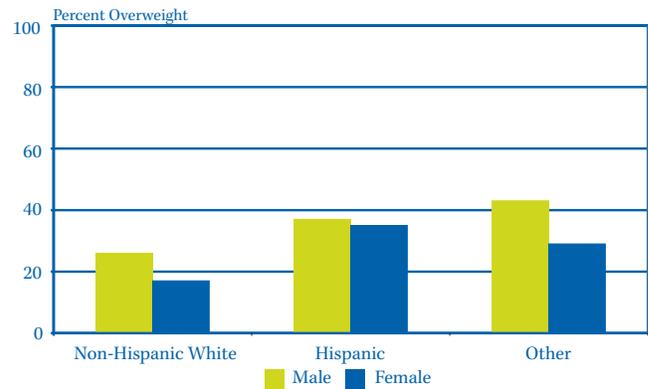
The proportion of adults who are overweight in California is reaching alarming proportions. Body weight status is based on the body mass index (BMI). Self-reported weight and height are used to calculate the BMI. A person with a BMI greater than or equal to 30 is defined as obese and a person with a BMI greater than or equal to 25 but less than 30 is defined as overweight. Based on self-reported weight and height, 59.8% of California adults were considered overweight or obese in 2010, compared to 40% in 1984, and nearly one out of every five (24%) California adults was obese.

Trends in Adult Obesity and Adult Overweight in California, 1984-2010



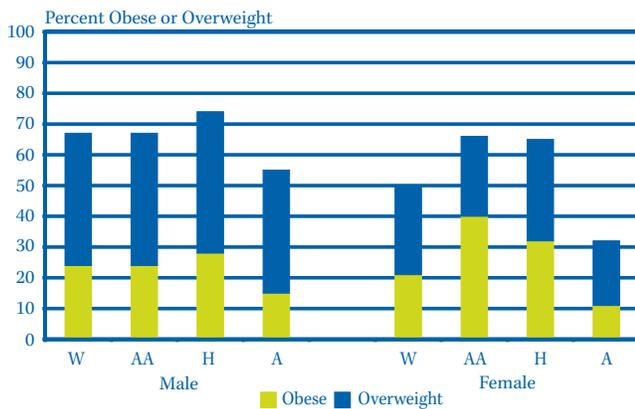
Note: Data are weighted to the 2000 California population.
 Source: California Behavioral Risk Factor Survey.
 Prepared by the California Department of Public Health, Cancer Surveillance Section.

Overweight Among Youth Ages 12-17 by Race/Ethnicity and Sex in California, 2004



Note: Data are weighted to the 1990 California population. Overweight is based on Year 2000 Guidelines for Youth.
 Source: California Youth Tobacco Survey.
 Prepared by the California Department of Public Health, Cancer Surveillance Section.

Adult Obesity and Adult Overweight by Race/Ethnicity and Sex in California, 2010



Note: W=non-Hispanic white, AA=African American, H=Hispanic, A=Asian/Other. Data are age-adjusted to the 2000 California population.
 Source: California Behavioral Risk Factor Survey.
 Prepared by the California Department of Public Health, Cancer Surveillance Section.

American Cancer Society Nutrition Education and Physical Activity Promotion

The Society partners with the Department of Public Health's Network for a Healthy California to promote many prevention programs, including some of the programs mentioned in this section. The Society and its partners actively promote the *Coordinated School Health* model in 50 California school districts to emphasize the connection between school health and academic performance. *Active for Life* is a motivating 10-week program designed to promote physical activity in the workplace while boosting office morale and encouraging teamwork. *Meeting Well* can be used to help plan healthy meetings and events and offers healthy vending machine options and snack suggestions. *Body and Soul* is a dynamic week nutrition education program for the faith-based community designed to increase fruit and vegetable consumption. Communities and individuals can also participate in the *Great American Health Challenge*, a year-round program, which encourages individuals to make a commitment to take the following actions to reduce their cancer risk, or detect cancer when it is treatable: Check, Nourish, Move, Quit (smoking).

In general, men are more likely to be overweight than women, however, women are just as likely to be obese. Excess weight (overweight) and obesity are associated with a wide range of negative health effects and increased risk for major chronic diseases, including cancer.

Using new guidelines released by the Centers for Disease Control and Prevention, the percentage of teenagers ages 12-17 who are overweight is about 29% -- nearly one out of every three. Although this is lower than among adults, it is alarmingly high, especially among Hispanic males.

Select Cancer Demographics

California's Diverse Populations

Five Most Common Cancers and Number of New Cases by Sex and Detailed Race/Ethnicity, California, 2005-2009

	Males					Females				
	Rank					Rank				
	1	2	3	4	5	1	2	3	4	5
African American	Prostate 9,190	Lung 3,441	C&R 2,665	Kidney 1,062	Bladder 846	Breast 7,150	Lung 2,899	C&R 2,817	Uterus 1,213	Pancreas 790
American Indian	Prostate 296	Lung 149	C&R 144	Liver 93	Kidney 78	Breast 369	Lung 168	C&R 126	Uterus 104	Kidney 61
Kampuchean	Liver 62	Lung 46	C&R 56	Prostate 30	NHL 22	Breast 68	C&R 59	Lung 34	Cervix 27	Liver 25
Chinese	Prostate 1,938	Lung 1,368	C&R 1,157	Liver 658	Bladder 418	Breast 2,719	C&R 1,215	Lung 966	Uterus 481	Thyroid 428
Filipino	Prostate 2,253	Lung 1,223	C&R 993	Liver 379	NHL 388	Breast 3,655	C&R 1,031	Lung 872	Uterus 805	Thyroid 735
Hawaiian	Prostate 68	C&R 30	Lung 30	Liver 12	NHL 13	Breast 85	C&R 27	Lung 22	Uterus 24	NHL 10
Hispanic	Prostate 16,682	C&R 6,593	Lung 4,745	Kidney 3,245	NHL 3,326	Breast 18,678	C&R 5,364	Lung 3,854	Uterus 3,889	Thyroid 3,695
Japanese	Prostate 719	C&R 563	Lung 405	Stomach 198	NHL 151	Breast 1,230	C&R 602	Lung 465	Uterus 228	Stomach 178
Korean	C&R 456	Prostate 399	Stomach 362	Lung 336	Liver 239	Breast 791	C&R 407	Stomach 272	Lung 239	Thyroid 159
Laotian	Liver 37	Lung 52	C&R 31	Oral 21	NHL 19	Breast 43	C&R 29	Lung 22	Cervix 16	Liver 21
Pacific Islander	Prostate 188	Lung 90	C&R 76	Liver 33	Bladder 33	Breast 279	Uterus 116	Lung 70	C&R 65	Thyroid 46
South Asian	Prostate 530	C&R 167	Lung 120	NHL 120	Leukemia 88	Breast 715	C&R 136	Uterus 125	Thyroid 116	Ovary 84
Vietnamese	Lung 654	Liver 607	Prostate 499	C&R 455	Stomach 183	Breast 920	C&R 396	Lung 350	Thyroid 240	Liver 188
Non-Hispanic White	Prostate 68,653	Lung 31,106	C&R 23,599	Bladder 18,689	Melanoma 18,695	Breast 74,485	Lung 30,678	C&R 22,691	Uterus 13,628	Melanoma 12,266

Source: California Cancer Registry, California Department of Public Health. Note: C&R = colon and rectum; NHL = Non-Hodgkin lymphoma.

The U.S. Census Bureau estimates California's population to be more than 37.3 million. Of these, 40.1% are non-Hispanic whites; 6.2% are African Americans; 37.6% are Hispanics; 13.0% are Asians; 1.0% are American Indians and Alaskan Natives; and 0.4% are Native Hawaiians and Other Pacific Islanders. This great diversity is further enhanced due to the fact that the Asian/Pacific Islander and Hispanic populations are composed of numerous nationalities, many of whom are recent immigrants.

Prostate cancer is a common cancer for males in most ethnic groups, but lung cancer is the most common among Laotian, and Vietnamese males. Breast cancer is the number one cancer among women of all racial/ethnic groups.

In general, the types of cancers that commonly develop are similar regardless of race/ethnicity. In most racial/ethnic groups in California, prostate, lung and bronchus, and colon and rectum cancer are among the top four cancers for males, while breast, lung and bronchus, and colon and

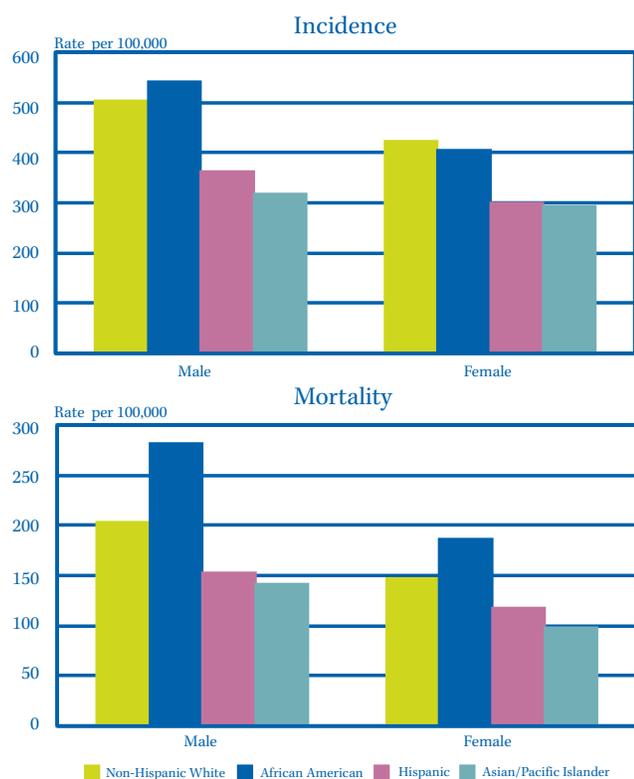
rectum cancer are among the top four cancers for females. Cancer is the second leading cause of death for all racial/ethnic groups combined.

The risk of developing cancer varies considerably by race/ethnicity. African American males have the highest overall cancer rate, followed by non-Hispanic white males. Among females, non-Hispanic white women are the most likely to be diagnosed with cancer, but African American women are more likely to die of the disease. Cancer rates are considerably lower among persons of Asian/Pacific Islander origin and persons of Hispanic ethnicity than among other Californians. However, both groups have substantially higher rates of certain cancers, such as liver and stomach cancer. Asian/Pacific Islander and Hispanic women are also more likely to develop and die from cervical cancer. Research indicates that cancer rates in populations immigrating to the U.S. tend to increase over time.

The reasons for racial/ethnic differences in cancer risk are not well understood. It is likely that they result from a complex combination of dietary, lifestyle, environmental, occupational, and genetic factors. Higher mortality rates among some populations are due in part to poverty, which may increase the risk of developing certain cancers and limit access to and utilization of preventive measures and screening. Poor health among persons in poverty may also limit treatment options and decrease cancer survival.

Results from the 2007 California Health Interview Survey show that more than 6.4 million children and non elderly adults in California were uninsured for all or part of 2007. Insurance status varied by race/ethnicity. Our challenge is to help improve the plight of those at risk, to identify the apparent protective cultural practices which explain lower incidence and mortality in some groups, and to assist other groups to adopt protective practices.

Cancer by Race/Ethnicity and Sex in California, 2009*



Note: Rates are age-adjusted to the 2000 US population.
 Source: California Cancer Registry, California Department of Public Health.
 Prepared by the California Department of Public Health, Cancer Surveillance Section.

Racial/Ethnic Differences in Cancer Risk in California, 2009

The risk of developing cancer varies considerably by race/ethnicity. The reasons for these differences are not well understood. It is likely that they result from a combination of dietary, lifestyle, socioeconomic, environmental, and genetic factors. Research into racial/ethnic differences in cancer risk may help us understand some of the underlying causes of cancer.

Non-Hispanic black males have the highest overall cancer incidence and mortality rates. Among females, non-Hispanic white women are the most likely to be diagnosed with cancer, but non-Hispanic black women are more likely to die of cancer. Non-Hispanic blacks have substantially higher rates of cancers of the stomach, liver, and larynx, myeloma, and Kaposi Sarcoma than non-Hispanic whites.

In general, cancer rates are about 25% lower among persons of Asian/Pacific Islander origin and persons of Hispanic ethnicity than among non-Hispanic white Californians. However, as with non-Hispanic blacks, both of these groups have substantially higher rates of stomach and liver cancer. Hispanics also have higher rates of Acute Lymphocytic Leukemia, Kaposi Sarcoma, and cervical cancer than non-Hispanic whites. Cancer is the second leading cause of death among all four major racial/ethnic groups in California.

Lesbian, Gay, Bisexual, and Transgender (LGBT) Differences in Cancer Risk

The Lesbian, Gay, Bisexual, and Transgender (LGBT) population is at greater risk of cancer due to a variety of unique social factors and a history of discrimination. Past negative experiences with health care providers may cause some members of the LGBT community to wait too long before seeking health care services. As a result, they may not undergo regular screening tests and may be diagnosed with cancer at a later stage, when the disease is more difficult to treat. Compounding the problem is fact that LGBT are more likely to be uninsured.

The following are a few examples affecting LGBT community cancer risk: 1) In a large, nationwide study, lesbians reported having fewer mammograms and pelvic exams than the heterosexual population; 2) another study reported less frequent Pap tests among lesbians; and 3) when compared with the general population, gay men are more likely to smoke, which puts them at a much higher risk of lung and other tobacco-related cancers. The 2010 California Cancer Facts and Figures dedicated a page of data and information related to cancer in the LGBT population.

*Veterans Health Administration hospitals did not report cancer cases to the California Cancer Registry (CCR) in 2005. Therefore, case counts and incidence rates for adult males in 2005 are underestimated and should be interpreted with caution (see page 1 or <http://www.ccrca.org/VATechnotes.html>)

Comparison of Age-Adjusted Cancer Incidence Rates Among Other Racial/Ethnic Groups to Non-Hispanic Whites, 2005-2009

Difference	Asian/Pacific Islander	Hispanic	Non-Hispanic Black
Lower (At least 50 percent lower than the incidence rate among non-Hispanic whites)	Esophagus Anus, Anal Canal, and Anorectum Larynx Melanoma Vagina Vulva Testis Penis Urinary Bladder Eye and Orbit Brain and ONS* Hodgkin Lymphoma Chronic Lymphocytic Leukemia Mesothelioma Kaposi Sarcoma	Oral Cavity & Pharynx Anus, Anal Canal, and Anorectum Lung and Bronchus Melanoma Urinary Bladder Ureter Eye and Orbit	Melanoma of the Skin Testis Eye and Orbit Brain and ONS*
Higher (At least 50 percent higher than the incidence rate among non-Hispanic whites)	Stomach Liver and IBD** Gallbladder	Stomach Liver and IBD** Gallbladder Cervix Penis Acute Lymphocytic Leukemia	Stomach Small Intestine Liver and IBD** Myeloma Kaposi Sarcoma

Source: California Cancer Registry, June 2011
 Prepared by the California Department of Public Health, Cancer Surveillance Section
 *ONS: Other Nervous System
 **IBD: Intrahepatic Bile Duct

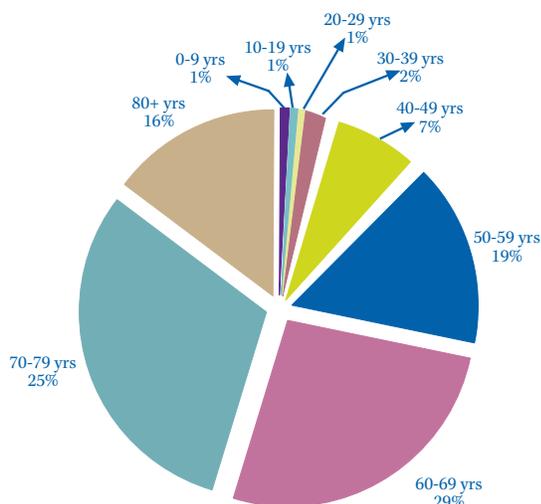
Common Cancers by Age and Sex

Cancer risk varies considerably by age, with only one percent of all cancers occurring before the age of 19, and about 52% occurring after age 65. In fact, nearly half of all cancers occur between ages 55-74, and more cancers occur after age 85 than before age 35.

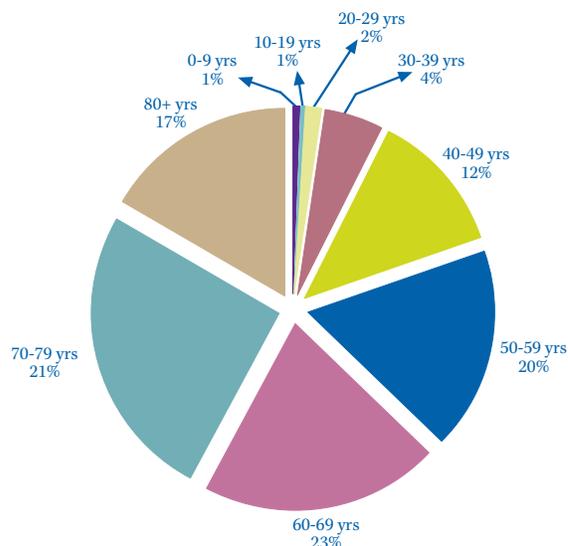
Cancers occurring before the age of 20 are typically nonepithelial in origin, with the most common types being leukemias, tumors of the brain and central nervous system, and lymphomas. Melanoma is a common cancer among both young adult males and females.

Percent of New Cancers Diagnosed by Age and Sex, California, 2009*

Male



Female



Prepared by the California Department of Public Health, Cancer Surveillance Section.

Kaposi sarcoma is no longer among the top five cancers for males aged 35-44, due to recent dramatic decreases in this AIDS-related cancer. The introduction of highly active anti-retroviral therapy (HAART) has resulted in a decrease in AIDS-related cancer incidence and improved survival.

Breast cancer is the most common cancer among adult women of all ages, while prostate cancer is the most common among males after age 45. Lung and bronchus cancer is the second most common cancer among both men and women after age 45, followed closely by colon and rectum cancer. Bladder cancer is common among elderly men, while cancer of the uterus is common among elderly women.

Childhood Cancer

More than 1,600 children and young adults under the age of 20 are diagnosed with cancer in California. Of these, over 1100 are under the age of 15. Although accidents kill about three times more children than cancer, an estimated one of every 340 children will develop some form of cancer before they are 20 years old.

Number of Children and Young Adults Diagnosed with Cancer by Age at Diagnosis and Race/Ethnicity in California, 2009					
	0-4	5-9	10-14	15-19	Total
Non Hispanic White	144	114	103	211	572
African American	19	20	25	28	92
Hispanic	236	166	179	290	871
Asian/Pacific Islander	44	25	40	8	117

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

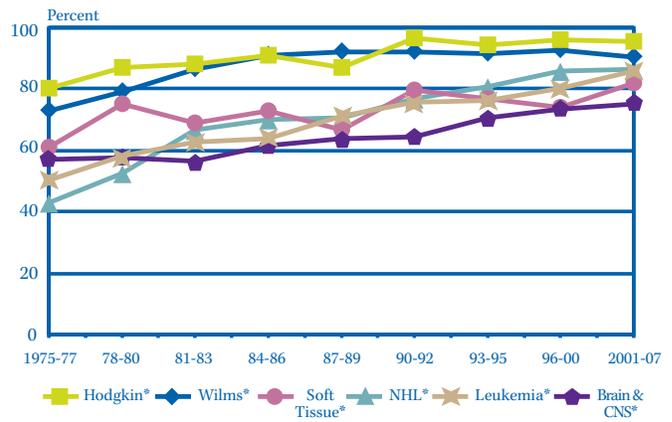
In 2004-2008, the cancer incidence rate among children less than 15 years old in California compared to the nation excluding California, had an overall increase of 2%. Among non-Hispanic whites incidence rates were 5% higher, 10% lower among African Americans, 16% higher among Hispanics, and almost identical among Asian/Pacific Islanders. (For more information on the U.S. cancer rate refer to page 1.)

Cancer Incidence Among Children Ages 0-14 by Race/Ethnicity in California, 2009		
	Cases	Rate
Non Hispanic White	361	17.8
African American	64	13.5
Hispanic	581	17.6
Asian/Pacific Islander	161	14.1

Rates are per 100,000 and age-adjusted to the 2000 U.S. standard.
Source: California Cancer Registry, California Department of Public Health.

Progress in the treatment of childhood cancer over the last 30 years has been impressive. The majority of children with cancer now grow to adulthood and lead productive lives. Children with cancer must be treated at institutions that provide the intensive treatment, supportive care, and psychosocial services required to achieve these successful outcomes. Clinical trials are available to help improve outcomes for all children with cancer and must be considered in the evaluation of each child at the time of diagnosis.

Trends in Five-Year Relative Survival Among Children Ages 0-14 by Year of Diagnosis



Note: Based on follow-up through 2008.
Source: SEER Cancer Statistics Review, 1975-2007. National Cancer Institute, 2009.
*The difference between 1975-1977 and 1999-2007 is statistically significant (p<.05).
Prepared by the California Department of Public Health, Cancer Surveillance Section.

American Cancer Society Childhood Cancer Activities

The California Division offers support programs, information, transportation, and a variety of quality of life programs that help meet the needs of children with cancer and their families. In 2010 the *Young Cancer Survivor Scholarship Program* awarded 39 college-bound or enrolled young cancer survivors scholarships for college tuition and related costs for up to four years. Local Society offices may offer a variety of activities for children diagnosed with cancer and their family members. For example, *Courageous Kids Day*, always on Mother's Day, gives pediatric cancer patients and their families a free day at *California's Great America* in Northern California. In 2010, over 420 California children currently in treatment participated in this day of fun with 2,442 family members. The Society also has a number of overnight camps for young cancer patients and survivors. In 2010, 326 young cancer patients and their siblings attended such camps across California. The American Cancer Society offers opportunities for children with cancer and their families to enjoy time together for a day of fun at an amusement park, to spend a week among friends and families who face similar challenges and achievements, or to participate in a community celebration of the strength and courage of those affected by cancer.

Major Cancer Sites

	Risk Reduction	Early Detection (ED) & Warning Signs (WS)*	Treatment
CORE CANCERS			
Breast	Follow American Cancer Society nutrition and physical activity guidelines, maintain normal weight, exercise three times per week or more. Chemoprevention for high-risk women may be considered.	ED- Mammography, annual clinical breast examinations, breast self-examinations (optional) WS- Breast lump or a thickening, bleeding from nipple, skin irritation, retraction	Surgery (breast conserving therapy with radiation, or mastectomy with or without radiation) plus chemotherapy and/or hormone therapy, depending on tumor size, spread to lymph nodes, and/or prognostic features
Colon and Rectum	Removal of polyps, follow the American Cancer Society nutrition and physical activity guidelines. Recent studies suggest certain drugs may reduce risk.	ED- Fecal occult blood test (FOBT), flexible sigmoidoscopy, colonoscopy, double-contrast barium enema WS- Rectal bleeding, change in bowel habits, blood in the stools	Surgery plus radiation therapy and/or chemotherapy for later stages
Prostate	Follow American Cancer Society nutrition and physical activity guidelines. Clinical trials are underway to determine if vitamin E and selenium can reduce risk.	ED - Digital rectal examination, Prostate specific antigen (PSA) WS- In most cases, there are no symptoms associated with early prostate cancer. For more advanced disease: urination difficulties, nagging pain in the back, hips or pelvis	Surgery, radiation therapy, hormone manipulation, or watchful waiting, depending on stage
Lung and Bronchus	Avoid tobacco products in all forms, avoid secondhand smoke, follow workplace safety practices	ED - Early detection tests are in clinical trial. WS- Nagging cough, coughing up blood, unresolved pneumonia	Non-small cell: Surgery plus radiation therapy and/or chemotherapy for later stages Small-cell: Chemotherapy plus radiation therapy, and sometimes surgery, depending on prognostic factors
OTHER CANCERS			
Bladder (Urinary)	Avoid use of tobacco products, use workplace safety precautions if working in high-risk industry	ED- Health-related checkups may identify early signs and symptoms. WS- Blood in urine	Surgery plus radiation therapy, immunotherapy, and/or chemotherapy for later stages
Brain	None known	ED- Health-related checkups may identify early signs and symptoms. WS- Headaches, convulsions, personality changes, visual problems, unexplained vomiting	Surgery, radiation therapy, and/or chemotherapy depending on tumor location. Drugs are available to alleviate symptoms related to brain or other nervous system tumors.
Cervix Uteri	Safe sex practices, avoid use of tobacco products	ED- Pap smear and pelvic examination WS- Abnormal vaginal bleeding	Surgery and/or radiation therapy, plus chemotherapy for later stages

Major Cancer Sites, continued

	Risk Reduction	Early Detection (ED) & Warning Signs (WS)*	Treatment
OTHER CANCERS			
Endometrium (Uterine Cancer)	When considering estrogen replacement therapy, benefits and risks must be weighed by patient and physician	<p>ED- No screening examinations available for women without symptoms who are at average risk for endometrial cancer</p> <p>WS- Unusual bleeding, spotting, or abnormal discharge; especially if after menopause, pelvic pain or mass, unexplained weight loss</p>	Surgery plus radiation therapy, chemotherapy, or hormone therapy for later stages
Hodgkin Disease	None known	<p>ED- Health-related checkups may identify early signs and symptoms.</p> <p>WS- Night sweats, itching, unexplained fever, lymph node enlargement</p>	Chemotherapy and/or radiation therapy with bone marrow transplant for recurrent disease
Leukemia	Reduce exposure to radiation and hazardous chemicals, avoid cigarette smoking	<p>ED- Health-related checkups may identify early signs and symptoms.</p> <p>WS- Fatigue, pallor, repeated infection, easy bruising, nose bleeds</p>	Chemotherapy, plus stem cell transplant depending on prognostic factors, Gleevec (imatinib mesylate) for treatment of chronic myeloid leukemia
Lymphoma (Non-Hodgkin)	None known	<p>ED- Health-related checkups may identify early signs and symptoms.</p> <p>WS- Lymph node enlargement, fever</p>	Chemotherapy and/or radiation therapy, plus stem cell transplant for advanced disease
Melanoma (Skin)	Protect against sun exposure, especially in childhood, use protective clothing and sunscreens, and avoid tanning beds	<p>ED- Skin examinations by an experienced physician, monthly self-exams</p> <p>WS- A change in a mole or a sore that does not heal</p>	Surgery, immunotherapy for later stages
Oral	Avoid tobacco products in all forms, limit alcohol use, eat a diet high in fresh fruits and vegetables	<p>ED- Regular oral exams</p> <p>WS- Sore in mouth that does not heal, color change in an area of the mouth</p>	Surgery and/or radiation therapy, chemotherapy for later stages
Ovary	Following American Cancer Society nutrition guidelines may be helpful.	<p>ED- Health-related checkups may identify early signs and symptoms.</p> <p>WS- Often “silent,” abdominal symptoms, pain</p>	Surgery, plus chemotherapy and sometimes radiation therapy for later stages
Pancreas	Following American Cancer Society nutrition guidelines may be helpful; avoid use of tobacco products	<p>ED- Health-related checkups may identify early signs and symptoms.</p> <p>WS- Vague abdominal symptoms, pain, and jaundice</p>	Surgery, radiation therapy, and/or chemotherapy depending on stage
Stomach	Avoid food high in nitrates, avoid use of tobacco products, eat a diet high in fresh fruits and vegetables	<p>ED- Health-related checkups may identify early signs and symptoms.</p> <p>WS- Indigestion</p>	Surgery plus chemotherapy and radiation therapy for later stages
Testis	None known	<p>ED- Testicular self-examination in young males has been suggested.</p> <p>WS- Testicular mass or enlargement</p>	Surgery plus radiation therapy and chemotherapy for later stages

**Early cancer in most cases has no symptoms or warning signs. Early detection guidelines should be followed.*

American Cancer Society, California Division

Our Commitment

In 2012, an estimated 144,035 Californians will be diagnosed with cancer. A cancer diagnosis brings major changes to cancer patients and their loved ones, and the American Cancer Society provides help at every point, from linking new patients with survivors, to providing valuable information about the latest clinical trials, to providing transportation for patients to and from medical appointments. The American Cancer Society is committed to providing comprehensive support 24 hours a day, seven days a week.

Financial Support

The generosity of our donors enables us to fight cancer on many fronts. Donations fund research, education, advocacy, and patient services. In the last fiscal year, 38% of funds raised went directly to patient support; prevention and risk reduction; and detection and treatment in California. Beginning in fiscal year 2011, 42 grants totaling \$14,930,500 were awarded to California researchers. Without the support of individual and corporate donors, the American Cancer Society could not accomplish our mission of eliminating cancer as a major health problem, and helping to improve the quality of life of cancer patients and their families.

Volunteer Engagement

The American Cancer Society would not be what it is today without the dedication and inspiration of its many volunteers. The California Division is led by volunteer Board of Directors comprised of community leaders, healthcare providers, and concerned citizens. In total, more than 307,000 people volunteer with the California Division of the American Cancer Society to help raise funds, provide office support, and provide patient services to assist cancer patients and their caregivers. In fiscal year 2010, more than 2000 volunteers helped provide patient and caregiver support services in their local communities. Our volunteers come from every walk of life and represent nearly every occupation, age, and ethnic group.

In California, volunteers are essential to nearly every American Cancer Society program and are primarily responsible for our continued success. They provide transportation for patients who need help getting to and from medical appointments via *Road to Recovery*; help cancer patients undergoing radiation and chemotherapy with cosmetic techniques and advice via *Look Good...Feel Better*; provide inspiration as cancer survivors on the *Cancer Survivor Network*; and help coordinate and participate in the many fundraising events the American Cancer Society holds each year.

Communities

In 2010, the California Division of the American Cancer Society reached 54,483 individuals with patient-related information and services, including 25,026 patients diagnosed within the past year.

- 26,527 callers received free patient-related information and support from American Cancer Society Cancer Information Specialists staffing the 24/7 toll-free information line; 16,652 others were referred to the American Cancer Society by their health care provider.
- 10,190 cancer patients in California received free transportation assistance from the Society for a total of 387,651 rides.
- 781 breast cancer patients were visited by a *Reach to Recovery* volunteer, our one-on-one volunteer support program for women with breast cancer.
- 4,664 patients attended Look Good...Feel Better sessions to learn how to deal with appearance-related side effects of treatment.
- 32,310 cancer survivors were honored at *Relay For Life* events and 2,717 survivors attended *Making Strides Against Breast Cancer* events in California.
- 12,239 patients in California received a Personal Health Manager information and organizer toolkit.

Advocacy Activities

For nearly a half century, the American Cancer Society has worked to pass laws that help cancer patients and reduce cancer incidence and mortality in California. Today, statewide and regional Government Relations staff work with thousands of Society volunteers engaging in the full range of advocacy activities, including lobbying, policy analysis, training and mobilization of grassroots volunteers, media advocacy, and campaign management.

At the federal level, Divisions Government Relations staff work with the American Cancer Society Cancer Action Network (ACS CAN), the nonprofit, nonpartisan advocacy affiliate of the American Cancer Society in Washington, DC. Together, we work with Members of Congress to hold them accountable for their words and their actions. Top federal legislative priorities include increasing funding for the National Institutes of Health, the National Cancer Institute and the Centers for Disease Control and Prevention; fighting to provide access to care for all; and health care reform. The Society is proud to have been a leader in the effort that led to the final passage of *The Patient Protection and Affordable Care Act* signed into law by President Barak Obama on March 23, 2010.

At the state level, the Division's Sacramento-based Government Relations Office works with state legislators and their staff to support the Society's policy agenda to:

- Promote prevention and early detection of cancer
- Enhance the quality of life for cancer patients
- Improve access to quality health care
- Increase funding for cancer research

Advocacy is also a priority at the local level as American Cancer Society staff and volunteers work with elected city and county officials, school officials and allied groups to secure local cancer-related policies. Examples of local advocacy efforts include: smoke-free beaches, parks, housing and entrance ways, retail tobacco licensing ordinances, nutrition and physical activity standards for schools and local planning policies that promote physical activity and obesity prevention.

At the heart of the American Cancer Society's advocacy movement is a cadre of Legislative Ambassadors, volunteers who have taken on leadership roles in the area of advocacy. They are instrumental in ensuring the voices of constituents are heard by federal, state, and local officials. Along with the new volunteers they recruit to join in the cause, Legislative Ambassadors are responsible for building a groundswell of support on cancer issues.

ACS CAN

ACS CAN is a community-based grassroots movement that gives ordinary people extraordinary power to fight cancer in the legislative arena. Members are kept informed of legislative activity in Sacramento and Washington DC and receive information on which bills are moving and when contacts with legislators are needed. For more information on ACS CAN, Legislative Ambassadors, or updated information on the American Cancer Society's local, state and federal legislative efforts, visit www.acscan.org or call 1.800.252.6066.

The Research Program of the American Cancer Society

The American Cancer Society is the largest non-profit non-government funder of cancer research in the United States. Since our research program began in 1946, the American Cancer Society has devoted more than \$3.6 billion to cancer research.

As the nation's largest private source of funds for scientist studying cancer, the American Cancer Society focuses its funding on investigator-initiated, peer-reviewed proposals. This process ensures that scientists propose projects that they believe are ready to be tackled with the available knowledge and techniques, rather than working on projects designed by administrators who are far removed from the front lines of research. This intellectual freedom encourages discovery in areas where scientist believe we are most likely to solve the problems of cancer.

Developments in Cancer Research

The Cancer Prevention Studies are a cornerstone of the American Cancer Society's research program and focus on identifying risk factors for cancer and how to prevent it. The Cancer Prevention Study-II continues to provide important insights into cancer risk factors, but the study population is aging. Thus, the American Cancer Society launched the next generation study, Cancer Prevention Study-3 (CPS-3), to continue its important epidemiologic research. The goal of CPS-3 is to enroll at least 300,000 men and women between the ages of 30 and 65 years who have never been diagnosed with cancer, with at least 25% of study volunteers representing racially/ethnically diverse populations. At enrollment, study volunteers will provide a small blood sample, waist circumference measurement, and complete a comprehensive survey on lifestyle, medical, family history, occupation, and other factors. They will then be followed through mailed surveys at home every few years for the next few decades. The American Cancer Society's Epidemiology Research Program is continuing recruitment of CPS-3 through December 2013.

CPS-3 builds on a 60-year legacy of conducting epidemiologic studies that have led to over 600 scientific publications examining lifestyle, behavioral, environmental, and genetic risk factors for cancer. Among the many scientific contributions from the Cancer Prevention Studies, key findings include uncovering the link between smoking and lung cancer, daily aspirin use and lower risk of colon cancer, obesity and higher risk of various cancers, and sitting time and higher risk of premature death.

CPS-3 is a critical research initiative for the next generation of cancer prevention research because it will position Society researchers to further examine the interplay between lifestyle, environmental, behavioral, and genetic risk factors for cancer in diverse populations. The changing landscape of lifestyle and environment, such as the rapid rise in obesity or technologic advancements leading to a dramatic increase in sedentary behavior and how these changes may impact cancer risk, needs to be examined. And California, having already enrolled approximately 15,000 study volunteers, plays a critical role in this recruitment effort because of the size and diversity of the population.

Extramural and Intramural Expenditures: Funding in Selected Priority Areas*: FY 2010

Areas of Research	\$ Awarded
Society Priority Areas	
Breast	31,949,000
Disparities+	18,715,000
Colon/rectum	14,070,000
Lung	13,846,000
Cancer Continuum	
Cause/Etiology	24,061,000
Treatment	17,032,000
Prevention	13,656,000
Prevention (uncategorized)	8,331,000
Nutrition	440,000
Tobacco Control	4,885,000
Detection	9,275,000
Survivorship	2,888,000
Quality of Life	2,119,000
End of Life	1,500,000
Other Research Areas	
Psychosocial and behavioral	20,695,000
Health Policy/health services	11,711,000
Epidemiology	10,784,000
Childhood cancer	7,165,000
Environmental carcinogenesis	5,296,000
Major Organ Sites	
Prostate	11,227,000
Leukemia	10,148,000
Brain and nervous system	7,644,000
Ovary	7,286,000
Lymphoma	5,656,000
Pancreas	4,476,000
Melanoma	3,241,000

* Not mutually exclusive categories; e.g. a grant that is both prevention and detection is counted twice, as is a grant that studies both breast and prostate cancers. A grant emphasizing nutrition in breast and prostate cancer is counted in full in all three places. Dollar amounts are rounded off to the nearest \$1,000.

+ Disparities include medically underserved and special populations, such as the elderly and disabled.

American Cancer Society Research Leadership

Society Professorships

The Society's **Professorships** are among the most prestigious individual awards given to researchers. The highly competitive, peer-reviewed programs select some of the nation's most gifted scientists, freeing them from major administrative responsibilities and thereby enabling them to devote their work to cancer research.

Research Professors:

- Christine Guthrie, PhD, University of California, San Francisco
- Iswar K. Hariharan, MD, PhD, University of California, Berkeley
- Cynthia J. Kenyon, PhD, University of California, San Francisco
- Kevin Shannon, MD, University of California, San Francisco
- Inder Verma, PhD, Salk Institute for Biological Studies, La Jolla

Clinical Research Professor:

- Christine A. Miaskowski, RN, PhD, FAAN

Early Detection Professorship:

- Beth Y. Karlan, MD, Cedars-Sinai Medical Center, Los Angeles

Nobel Prize Winners

The Society is proud of the **44** investigators that we supported before they went on to win the Nobel prize, considered the highest accolade any scientist can receive.

The American Cancer Society has Been Involved in Many of the Major Cancer Research Breakthroughs of the Century:

- 80% 5-year survival rates for many childhood leukemias
- Pap smear crusade to detect cervical cancer
- Mammography to screen for breast cancer
- Lumpectomy + radiation for treatment of breast cancer
- PSA test for prostate cancer screening
- 5-FU (chemotherapy) for colon cancer
- Identification of smoking as cause for lung cancer
- Creation of recombinant DNA and gene cloning
- Discovery of cancer-causing oncogenes and tumor suppressor genes
- Discovery of genes for inherited breast and colon cancer
- Use of tamoxifen to reduce risk of second or first breast cancer
- Development of monoclonal antibodies to treat breast cancer (Herceptin) and lymphoma (Rituxan)
- Use of small molecule inhibitors to target genes that are at the root of cancer such as Gleevec for treatment of chronic myeloid leukemia

Contemporary Cancer Research is Poised to Make Great Advances in the Coming Decade in the Areas of:

- Targeted drugs designed to attack the altered genes that are at the root of cancer, e.g., anti-telomerase, pro-apoptosis, anti-angiogenesis, oncogene inhibitors.
- Immunotherapy-therapeutic vaccines and monoclonal antibodies, anti-body-guided therapy of drugs or radioactive compounds attached to anti-tumor antibodies
- Chemoprevention- selective estrogen receptor modulators (SERM), anti-inflammatory drugs (celecoxib), antioxidants (selenium, vitamin E, omega-3 oils)
- Gene therapy
- Gene-environment interactions leading to increased susceptibility to cancer
- Intensity-modulated radiation therapy (IMRT), using a radiation gun that focuses pinpoint, varying intensity X-rays or proton beams on tumors that previously were not considered good targets for radiation therapy (prostate, nasopharyngeal)
- Imaging techniques to detect cancer at its earliest stages and to monitor the effectiveness of therapy
- Pharmacogenomics to identify the genetic signatures of patients to reduce toxicity and optimize therapy
- Tumor genomic profiling for better management of the disease and determination of the most effective therapy
- Proteomic techniques for early detection of cancer in blood samples

Summary of Research Grants and Fellowships

In effect during the fiscal year ending August 31, 2011.

#		Total Amount	#		Total Amount
1	California Department of Public Health	\$300,000	14	Stanford University	\$4,604,000
2	California Institute of Technology	\$300,000	5	The Scripps Research Institute	\$1,881,000
1	California Pacific Medical Center	\$720,000	8	University of California, Berkeley	\$3,147,500
2	Cedars-Sinai Medical Center	\$1,120,000	2	University of California, Davis	\$1,190,000
1	Children's Hospital of Los Angeles	\$720,000	6	University of California, Irvine	\$3,300,000
7	City of Hope & Beckman Research Center	\$6,573,700	9	University of California, Los Angeles	\$5,429,000
1	Claremont Graduate University	\$699,000	13	University of California, San Diego	\$5,762,500
6	Salk Institute for Biological Studies	\$2,436,500	34	University of California, San Francisco	\$12,178,066
3	San Diego State University	\$2,842,000	9	University of Southern California	\$5,384,000
5	Sanford Burnham Institute for Medical Research	\$1,878,000			
			129	Total	\$60,465,266

Note: These awards represent multiple-year funding for grants that maybe carried out for three or four years.

California Cancer Research Act

On June 5, 2012, California voters will have the opportunity to vote on the California Cancer Research Act (CCRA) to increase the excise tax on cigarettes by \$1 per pack with equivalent increases on other tobacco products. The measure is expected to generate nearly \$855 million a year in revenue. If passed, California would be second only to the U.S. federal government in terms of funding cancer research.

Revenues will be directed as follows:

- 60% Research of cancer and tobacco-related diseases (approximately \$468 million annually)
- 15% Facilities and capital equipment for research (approximately \$117 million annually)
- 20% Tobacco prevention and cessation (approximately \$156 million annually)
- 3% Anti-tobacco law enforcement (approximately \$23 million annually)
- <2% administration (approximately \$16 million annually)

Throughout the 1990s and early 2000s, California was a worldwide leader of tobacco control programs, leading to a decrease in tobacco use from 22.7% in 1988 to 13.8% in 2007. Unfortunately, the California Tobacco Control Program has been severely underfunded in recent years, while youth tobacco use has started to increase again. Passage of CCRA would give tobacco control in California a much needed boost to the fight against tobacco companies promoting cigarettes to our state's youth. Support from CCRA is expected to reduce youth smoking by 13.7% and prevent more than 200,000 youth from ever starting to smoke.

The impact this measure will have in the fight against cancer can't be overstated. Increasing the price of cigarettes alone will save more than 100,000 Californians from premature death attributed to tobacco use. In addition to saving lives, it will save the state more \$5.1 billion in long term health care spending.

CCRA is led by a coalition of health advocates including the American Cancer Society, American Lung Association, American Heart Association, Campaign for Tobacco Free Kids, Stand Up 2 Cancer and LIVESTRONG.

The Patient Protection and Affordable Care Act – ACS CAN Implementation Priorities

The American Cancer Society is proud to have been a leader in the effort to pass the Patient Protection and Affordable Care Act signed into law by President Barak Obama on March 23, 2010. Throughout the national discussion on meaningful health care reform, the fundamental principles guiding the American Cancer Society position are that everyone should have meaningful public or private health insurance that is *adequate, available, affordable, and administratively simple*.

As the new law is implemented, the Society and its affiliate ACS CAN continue to use the “cancer lens” to identify those priorities that have the biggest impact on cancer

patients, survivors and their families; to remain a “visible leader” in communicating those priorities effectively to our stakeholders and to the public; and to translate them into reality through the state legislative and federal regulatory process. In accordance with this approach, the Society and ACS CAN have identified four priority areas.

- **Pre-Existing Condition Insurance Plan:** One of the first elements of federal health reform to take affect was the plan to subsidize California residents who cannot get coverage because of pre-existing health conditions. Called the Pre-Existing Condition Insurance Plan (PCIP), the program was established by California state legislation supported by the American Cancer Society in 2010 and opened for enrollment with coverage that would begin in October 2012. A temporary program, PCIP is an important bridge to further provisions that will take effect in 2014, prohibiting insurance companies from denying coverage to anyone with pre-existing conditions. PCIP is an important option for cancer patients who face barriers and difficulties obtaining coverage. The intent of PCIP is to cover people who have previously been unable to get coverage.
- **California Health Benefit Exchange:** California was the first state to pass legislation in 2010, supported by the American Cancer Society, to set up a Health Benefit Exchange as called for through federal health reform. The Exchange is charged with creating a new insurance marketplace in which individuals and small businesses will be able to purchase competitively priced health plans using federal tax subsidies and credits beginning in 2014. It is overseen by a five-member board appointed by the Governor and Legislature. When implemented, the California Health Benefit Exchange will increase competition among insurance plans; provide consumers and businesses with tools to compare benefits, pricing and quality; offer high quality benefits; and give small businesses and individuals the same purchasing power that large businesses enjoy.
- **Prevention:** The law introduces extensive changes that improve the availability and delivery of prevention education and services for individuals and communities.
- **Medicaid:** The law significantly expands Medicaid coverage to all Americans under age 65 with income up to 133% of the federal poverty level.

ACS CAN Continues to Lead the Health Care System Fight

ACS CAN is the leading voice for patients in this debate. Strictly non-partisan, its only goal is to significantly improve the health care system for cancer patients, survivors, and their families. ACS CAN is working to ensure that the new law is implemented as effectively as possible for people with cancer and is strengthened through the continuing legislative and regulatory processes.

For more information about ACS CAN's efforts in support of meaningful health care reform, visit www.acscan.org/healthcare.

Learn more about the California Cancer Research Act at: www.californiansforacure.org

American Indians and Alaska Natives

This article is meant only to serve as a primer to better understand the American Indian and Alaska Native communities in California. The issues are far too deep and complex to address here, however, the references below are good starting points to learn more about the complex relationships between AIANs in California compared to AIANs in other states, as well as how cancer impacts California AIANs compared to other AIAN communities nationwide.

According to the U.S. Bureau of Indian Affairs, there are 565 federally recognized tribes in the United States, including 115 in the state of California. Each tribe has its own unique culture, thus, there is great diversity within American Indian and Alaska Native political, social, cultural, and spiritual communities.¹ According to the 2010 U.S. Census Bureau, the states with the highest numbers of American Indians are California (372,540), Oklahoma (322,616), and Arizona (294,033). Perhaps because the AIAN population is just 1.0% of the state's population, compared to 14.8% in Alaska, 9.4% in New Mexico, and 8.8% in South Dakota, California's AIAN population is often a forgotten minority group in the state.

Unlike what may come to mind when thinking about AIANs, California's AIAN are mostly urban, and not reservation-based. There is a great intertribal presence in California's urban areas including more than 76,000 in Los Angeles County, the largest urban Indian population in the United States. The American Indian population of Los Angeles represents over 250 different tribes, predominately Sioux, Navajo, Chickasaw, Choctaw, Apache, and Cherokee, as well as tribes indigenous to California (American Indian Clinic database, 1995). AIANs living in California cannot utilize Indian Health Service (IHS) facilities because none exist within the state; all medical services are contracted with community health clinics or other public and private providers.

There are 217 native languages spoken today and most, if not all, indigenous languages do not include a word for "cancer."² As was true in earlier years,³ data from the 2000 U.S. Census continues to report AIANs as having a younger median age in comparison to other racial groups.⁴ Since cancer is primarily a disease that affects older people, this younger median age partially explains why cancer appears to be less common among selected Native communities. However, cancer rates which were previously reported to be lower in AIANs have been shown to be increasing in the past twenty years.^{5,6} The following are some cancer facts and figures to give a sense of the disease impact on the AIAN community.

- Cancer is the second leading cause of death among American Indians and Alaska Natives over the age of 45.^{5,6}
- Cancer data for American Indians/Alaska Natives from one region of the country cannot be used to generalize to Native people living in another part of the country. The types of cancer experienced within Native communities varies significantly by geographic region with some unusual patterns (e.g., colon and lung cancer among Alaska Natives; lung, cervical, breast, and prostate cancer among Northern Plains tribes; stomach and gallbladder cancer among southwestern tribes).^{7,8,9}
- American Indians and Alaska Natives continue to have the poorest survival from all cancers combined than any other racial group.^{10,11,12}

- There is a 40-50% misclassification of American Indians as either White or Hispanic. Misclassification is primarily due to (a) use of Spanish surnames to determine race; (b) personal observation by data collectors to determine race; (c) lack of American Indian/Alaska Native response category on forms; (d) inconsistent definitions of American Indians/Alaska Natives; (e) federal recognition of tribal Nation in addition to state recognition (i.e., non-federally recognized tribal member may not identify as American Indians/Alaska Natives).¹³
- Lung cancer is the most common type of cancer death in eight of the nine Indian Health Service (IHS) Areas (three IHS Areas not included due to significant statistical errors).¹⁴
- National Interview Survey data show that adult smoking among American Indians and Alaska Natives is the highest (40%) of the five racial and ethnic groups.¹⁵
- Participants in most clinical trials typically have a college degree and high incomes. American Indians and Alaska Natives who have less than a college degree are rarely included in any type of cancer clinical trials (i.e., prevention, screening/early detection, diagnosis, treatment, quality of life)¹⁶

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California Department of Public Health Cancer Control Activities

Cancer Surveillance

Cancer rates among Californians are monitored by the Cancer Surveillance Section, CDPH, through the California Cancer Registry (CCR), which collects information on all cancers diagnosed in California since 1988. To date, the CCR has collected detailed information on over two million cases of cancer, with over 130,000 new cases added annually. The database includes information on demographics, cancer type, extent of disease at diagnosis, treatment, and survival. With this high quality data, leading cancer researchers are able to advance scientific knowledge about the causes, treatment, cures, and prevention of cancer.

The CCR in conjunction with American Cancer Society produces California Facts and Figures. Additionally, through annual and special-topic reports, the CCR keeps health professionals, policy-makers, cancer advocates, and researchers informed about the status of cancer in California. CCR data is the cornerstone of cancer research in California.

California Dialogue on Cancer

The California Dialogue on Cancer (CDOC) is a statewide coalition of leaders in various areas of cancer control concerned with the burden of cancer on Californians. CDOC was created to provide guidance and coordination for comprehensive cancer control activities in California while minimizing duplication of efforts by the California Department of Public Health (CDPH), the California Division of the American Cancer Society, and other organizations engaged in cancer prevention and control activities. CDOC originally convened in March 2003 to develop the California Comprehensive Cancer Control (CCC) Plan. The development, adoption, and implementation of the CCC Plan continues to assist CDPH in addressing existing gaps in cancer control, particularly those relating to disparities in cancer burden among ethnic minorities and the medically underserved.

CDOC's subcommittees, or implementation teams, focus their efforts on the following four areas: Prevention; Disparities, Access to Care, and Early Detection; Research, Surveillance, & Evaluation; and Treatment and Survivorship. Issues related to access to care continue to be the main priority for the coalition in 2009. The coalition's Access to Care team has successfully convened community forums and initiated the formation of local coalitions/regional cancer care alliances throughout the state and looks to continue and enhance these efforts in the upcoming year. CDOC has also played an instrumental role in supporting and establishing the California Colorectal Cancer Coalition (C4) and, in conjunction with the CDPH Cancer Surveillance and Research Branch, has effectively secured resources for additional program components including the Skin Cancer Prevention Program, the Colorectal Cancer Program, and the California Ovarian Cancer Awareness Program (COCAP).

Tobacco Control

The strongest anti-tobacco legislation in the nation was passed by citizens of California in 1988—the Tobacco Tax and Health Promotion Act (Proposition 99). Since then, CDPH has used funds from Proposition 99 taxes on tobacco products to launch an award-winning anti-smoking media campaign, to fund local prevention programs, and to monitor smoking prevalence and other use of tobacco products throughout the state. Lung cancer mortality rates are now falling faster in California than elsewhere in the U.S.

Cancer Prevention

The Cancer Prevention and Nutrition Section was established in 1986 to develop technical capacity in CDPH for implementing large-scale dietary improvement measures. Its activities include the development and implementation of the *5 a Day – for Better Health!* Campaign in 1988, *California Dietary Practices Surveys* starting in 1989, and the *Network for Healthy California*.

Breast and Cervical Detection

The largest public cancer screening program in the nation, CDPH provides free breast and cervical cancer screening, and diagnostic and treatment services to low-income women with no or limited health insurance. Ten regional cancer detection partnerships assist in outreach and education to women, quality assurance, and provider education. More than 2,000 doctors and clinics provide clinical services. To determine eligibility for free screening, women can call 1-800-511-2300. Calls are accepted in English, Spanish, Mandarin, Cantonese, Vietnamese, and Korean.

Surveillance of Health-Related Behaviors

The CDPH Survey Research Group (SRG) has collected information on health-related behaviors since 1984. More than 4,200 telephone surveys are conducted each year with a random sample of California adults to determine how many people are following cancer prevention and screening recommendations. These data are used by other programs to assess need, target interventions, and measure success. SRG also has ongoing surveys of teens, women, and smoking behavior.

California Cancer Registry

CCR is a collaborative effort among the California Department of Public Health's Cancer Surveillance and Research Branch (CSRB), the Public Health Institute, regional cancer registries, health care providers, cancer registrars, and cancer researchers throughout California and the nation. CSRB collects, analyzes, and disseminates information on cancer incidence and mortality. The statewide population-based cancer surveillance system monitors the incidence and mortality of specific cancers over time and analyzes differential cancer risks cancer by geographic region, age, race/ethnicity, sex, and other social characteristics of the population. It gathers cancer incidence data through CCR, and conducts and collaborates with other researchers on special cancer research projects concerning the etiology, treatment, risk factors, and prevention of specific cancers. In addition, the system is designed to monitor patient survival with respect to the type of cancer, extent of disease, therapy, demographics, and other parameters of prognostic importance. In general, data generated from CCR are utilized to:

- Monitor the amount of cancer and cancer incidence trends by geographic area and time in order to detect potential cancer problems of public health significance in occupational settings and the environment, and to assist in their investigation,
- Provide information to stimulate the development and targeting of resources to benefit local communities, cancer patients, and their families.
- Promote high quality research into epidemiology and clinical medicine by enabling population-based studies to be performed to provide better information for cancer control.
- Inform health professionals and educate citizens regarding specific health risks, early detection, and treatment for cancers known to be elevated in their communities.
- Respond to public concerns and questions about cancer.

In California, legislation declaring mandatory cancer reporting became effective in 1985. Beginning in January 1988, under the Statewide Cancer Reporting Law (Section 103885 of the Health and Safety Code), CCR has covered the entire population of California through the regional population-based registries.

Cancer Reporting in California

- 1947 California Tumor Registry established in selected large hospitals
- 1960 Alameda County Cancer Registry established as the first population-based cancer registry in California
- 1969 San Francisco Bay Area Registry included in National Cancer Institute's (NCI) Third National Cancer Survey
- 1972 Cancer Surveillance Program (CSP) of Los Angeles County established
- 1973 San Francisco Bay Area Registry included in NCI's Surveillance, Epidemiology, and End Results (SEER) Program
- 1983 Cancer Surveillance Program of Orange County established
- 1985 California Cancer Reporting Law signed into effect (CCR established)
- 1988 Population-based cancer reporting initiated statewide
- 1992 CSP of Los Angeles County included in SEER Program
- 1997 50 years of cancer reporting in California
- 2000 Published ten years of complete statewide cancer reporting
- 2001 Greater California Registry included in SEER Program
- 2007 20 years of statewide population-based cancer reporting
- 2009 Published 20 years of complete statewide cancer reporting

Source: California Cancer Registry

For more information please visit the California Cancer Registry web site at <http://www.ccrca.org/>

Data Sources

Expected Cases and Deaths

Expected cases and deaths were estimated by the California Cancer Registry (CCR), California Department of Public Health (CDPH). These estimates will differ from those published by the National American Cancer Society, which are based on rates from the Surveillance, Epidemiology, and End Results (SEER) program.

Cancer Incidence and Mortality

Where not otherwise specified, cancer incidence data is from the most current data on the CCR. The CCR is a legally mandated, statewide, population-based cancer registry, implemented in 1988. Cancer mortality data is from the CDPH Center for Health Statistics and is based on the underlying cause of death.

California Behavioral Risk Factor Survey (BRFS), California Adult Tobacco Survey (CATS)

These surveys are conducted by the Survey Research Group (SRG), which is part of the CCR. They are a collaboration between the Centers for Disease Control and Prevention, the Public Health Institute, and the CDPH. To monitor key health behaviors, approximately 8,500 randomly selected adults and 2,400 youth ages 12-17 are interviewed by telephone annually. Not all questions are asked each year; the most recent data available is presented. For more information on these and other SRG surveys, visit the SRG website at <http://www.surveystresearchgroup.com/>.

CCR Acknowledgement and Disclaimer

All publications shall contain the following acknowledgment and disclaimer:

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Regional Cancer Registries

- Region 1/8:** Cancer Prevention Institute of California
2201 Walnut Avenue, Suite 300, Fremont,
CA 94538, (510) 608-5000, FAX (510) 608-5095
- Counties:** Region 1: Santa Clara Region (Monterey, San Benito, Santa Clara and Santa Cruz Counties).
Region 8: Bay Area Region (Alameda, Contra Costa, Marin, San Francisco and San Mateo Counties).
- Region 2:** Cancer Registry of Central California
1625 East Shaw Ave., Suite 155, Fresno, CA 93710,
(559) 244-4550, FAX (530) 345-3214
- Counties:** Central Region (Fresno, Kern, Kings, Madera, Mariposa, Merced, Stanislaus, Tulare and Tuolumne Counties).
- Region 3:** California Cancer Registry
1825 Bell Street, Suite 102, Sacramento, CA 95825
(916) 779-0300, FAX (916) 564-3900
- Counties:** Sacramento Region (Alpine, Amador, Calaveras, El Dorado, Nevada, Placer, Sacramento, San Joaquin, Sierra, Solano, Sutter, Yolo and Yuba Counties).
- Region 4:** California Cancer Registry
1825 Bell Street, Suite 102, Sacramento, CA 95825
(916) 779-0300, FAX (916) 564-3900
- Counties:** Tri-County Region (San Luis Obispo, Santa Barbara and Ventura Counties).
- Region 5:** Desert Sierra Cancer Surveillance Program
11306 Mt. View Ave., Suite B-100, Loma Linda, CA 92354
(909) 558-6170, FAX (909) 558-6178
- Counties:** Inland Empire Region (Inyo, Mono, Riverside and San Bernardino Counties).
- Region 6:** Cancer Registry of Northern California
25 Jan Court, Suite 130, Chico, CA 95928,
(530) 345-2483, FAX (530) 345-3214
- Counties:** North Region (Butte, Colusa, Del Norte, Glenn, Humboldt, Lake, Lassen, Mendocino, Modoc, Napa, Plumas, Shasta, Siskiyou, Sonoma, Tehama and Trinity Counties).
- Region 7/10:** California Cancer Registry
1825 Bell Street, Suite 102, Sacramento, CA 95825
(916) 779-0300, FAX (916) 564-3900
- Counties:** Region 7: San Diego Region (Imperial and San Diego Counties). Region 10: Orange County.
- Region 9:** Cancer Surveillance Program
University of Southern California
2001 N. Soto Street, MC 9238, Los Angeles, CA 90089
(323) 442-2300, FAX (323) 442-2301
- Counties:** Los Angeles County.



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