Dear Californians,

This is the second Comprehensive Cancer Control Plan issued by California Dialogue on Cancer (CDOC), a coalition of cancer control stakeholders from across the state. The goals of CDOC are to reduce cancer suffering and mortality in California. This plan sets forth strategies that will help to accomplish these goals. CDOC’s first plan, published in 2004, helped guide California’s efforts to reduce the burden of cancer through 2010. During this period, cancer mortality and incidence rates steadily decreased; however, cancer continues to be a major health threat. Cancer, second only to heart disease as the cause of death of Californians, has touched all of our lives. Approximately every four minutes, a Californian will be diagnosed with cancer, and every ten minutes, a Californian will die of cancer. Thus, we must not relax our efforts to combat this terrible scourge.

This plan summarizes current data on the most common cancers we encounter in California. Cancer control stakeholders should use the objectives and strategies outlined in this plan to guide their efforts in reducing cancer incidence and mortality in the people they serve. In addition, this plan contains screening and lifestyle recommendations everyone can follow to reduce the risk of selected cancers.

Many experts throughout the state gave generously of their time and knowledge to develop this plan. Their cooperative efforts serve as a model of the kind of collaboration needed to accomplish our goals. I would like to thank the contributors listed on the following pages for their creative time, effort, and expertise.

Sincerely,

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CHAIRMAN, EXECUTIVE COMMITTEE
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DEDICATION

This cancer control plan is dedicated to all Californians whose lives have been affected by cancer.
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Introduction

What is Comprehensive Cancer Control?

The Centers for Disease Control and Prevention (CDC) defines Comprehensive Cancer Control as "a collaborative process through which a community pools resources to reduce the burden of cancer that results in risk reduction, early detection, better treatment, and enhanced survivorship." California is dedicated to this approach and believes that this is the best way to successfully eliminate cancer.

CDC created the National Comprehensive Cancer Control Program (NCCCP) to help states, tribes, and territories form coalitions to conduct comprehensive cancer control. California received funding from CDC in 2002 to establish California’s Comprehensive Cancer Control Program and the California Dialogue on Cancer (CDOC) coalition.

California Dialogue on Cancer

The California Dialogue on Cancer is a coalition of cancer control stakeholders from across the state. Stakeholders represent a variety of organizations and interest areas, including state and local governments; private and nonprofit organizations; health, medical, and business communities; academic institutions; researchers; cancer survivors; caregivers and advocates. The vision of CDOC is to reduce cancer suffering and mortality in California.

CDOC was created specifically to develop and implement California’s Comprehensive Cancer Control Plan. Implementation teams were established under the plan’s auspices to focus on vital issues that cut across the cancer control spectrum, including tobacco prevention, nutrition, physical activity, obesity prevention, early detection, disparities in care, treatment, and survivorship. Each year, the teams prioritize and conduct activities that address these issues.
CDOC offers many opportunities for individuals and organizations to be a part of comprehensive cancer control. *A Call to Action: What Can You Do?* (Appendix IV) provides suggestions and activities that support the implementation of California's plan. In addition, the *CDOC Membership Enrollment Form* (See Appendix V, or visit the CDOC website at [www.cdoc-online.org](http://www.cdoc-online.org)) describes how to get involved.

**What Is California’s Cancer Control Plan?**

*California’s Comprehensive Cancer Control Plan 2011–2015* (the Plan) is a strategic plan to reduce the cancer burden in our state. It is designed to provide guidance to individuals and organizations spanning a wide range of health and social disciplines that can play a role in controlling cancer. All aspects of the cancer continuum are addressed. These aspects include primary prevention, early detection and screening, treatment, quality of life and end-of-life care, as well as such cross-cutting issues as advocacy, eliminating disparities, research, and surveillance.

The Plan’s strategies are intended to direct collective efforts toward specific and measurable objectives that will reduce the cancer burden. Moreover, many of the outcomes will have health benefits extending beyond cancer to other leading causes of death such as heart disease and diabetes.

**A Brief History of California’s Comprehensive Cancer Control Plan**

The Comprehensive Cancer Control Steering Committee met on June 7, 2002, to begin the process of developing California’s first cancer plan, *Comprehensive Cancer Control in California, 2004*. The distinguished committee included over 200 diverse representatives from academia, corporations, community-based and grassroots organizations, insurance groups and healthcare institutions, advocacy groups, and others with an interest in cancer control. The committee examined the effectiveness of cancer control efforts as currently practiced and the adequacy of existing funding and resources, and identified barriers to be overcome and gaps to be bridged. After this careful analysis, the committee identified key strategies and tactics to produce successful cancer control outcomes.

Since 2004, many organizations and institutions statewide have collaborated to make progress toward achieving the Plan’s goals. The Progress Report section (page 20) describes the outcomes that were achieved through 2010.

California’s plan has been revised with updated goals and measurable objectives to support continued cancer control efforts through 2015. This updated Plan builds on the hard work and collaborations that have made comprehensive cancer control a success in California.
Cancer Plan Revision

The revision process began with CDOC’s executive committee (see Appendix II) and Comprehensive Cancer Control Program staff identifying key areas to be updated. A new plan structure emerged after a review of the 2010 Progress Report and cancer plans from other states. Next, the Cancer Plan Revision (CPR) Committee, comprised of CDOC stakeholders and other interested parties, was formed to continue and finalize the content of the plan. The committee’s diverse expertise laid the foundation needed to formulate a more effective cancer control plan.

Guiding Values of the 2011–2015 Plan:

1. Save more lives and improve quality of life
2. Reduce disparities in cancer
3. Ensure quality cancer research, education, and interventions

Over the next five years, these values will also guide implementation and evaluation efforts as California improves cancer care and control. In order to improve cancer outcomes and minimize disparities, the 2011–2015 Plan was developed to address the following key areas:

1. Aspects of the cancer continuum
2. Equal access to culturally appropriate cancer information and care
3. Cancer surveillance and data collection across all population subgroups
4. Research and clinical trials
5. The relationship of social factors and the environment to cancer.

Plan Implementation

With support from the CDC, states, tribes, and territories throughout the nation are working to combat cancer through an integrated and coordinated approach to establish cancer control infrastructures, develop and implement comprehensive cancer control plans, mobilize coalitions, build partnerships, collect and analyze cancer data, and evaluate cancer control activities.

The California Comprehensive Cancer Control Program (CCCCP) is charged with formulating and upholding a consolidated vision for reducing our state’s cancer burden. The program will lead the development and distribution of a comprehensive cancer control plan, promote the efforts of stakeholders and the CDOC coalition, foster statewide communication and collaboration on cancer control issues, and publish evaluation results in order to prioritize cancer control strategies.
While the program represents the infrastructure for coordinating California’s call to action, statewide cancer control stakeholders and community members are ultimately the driving force behind the achievement of the Plan’s goals and objectives. The implementation of the Plan is the responsibility of all cancer control stakeholders. Only through collective action will California succeed in reducing cancer incidence and mortality.

To assist with plan implementation, the CDC recommends modeling comprehensive cancer control activities after evidence-based public health programs:

“Evidence-based interventions are programs that have been evaluated as effective in addressing a specific health-related condition, in the context of a particular ethnicity or culture. These programs identify the target populations that benefited from the program, the conditions under which the program works, and sometimes the change mechanisms that account for their effects. They use various tested strategies that target a disease or behavior. A defining characteristic of evidence-based intervention is their use of health theory both in developing the content of the interventions and evaluation.”


To achieve the goals and objectives listed in the Plan, we need to implement strategies, practices, interventions, and/or programs that are grounded in evidence. Below are some resources that provide examples and further information about using evidence-based programs.

- Best Practices for Comprehensive Tobacco Control  
  [www.cdc.gov/tobacco/stateandcommunity/best_practices/index.htm](http://www.cdc.gov/tobacco/stateandcommunity/best_practices/index.htm)
- Cochrane Review  [www.cochrane.org/index.htm](http://www.cochrane.org/index.htm)
- Prevention Research Centers  [www.cdc.gov/prc/index.htm](http://www.cdc.gov/prc/index.htm)

Evidence-based strategies, practices, interventions, and programs are key to reducing the burdens imposed by cancer.
Evaluation

Program evaluation is the systematic collection of information about a program’s processes, short-term impacts, and long-term outcomes in order to identify problems, determine if goals and objectives are met, guide program improvements, and build on successes. Both quantitative (numerical) and qualitative (non-numerical) methods must be used.

CCCCP is responsible for developing and implementing an evaluation plan that will assess the 2011–2015 Plan. The ultimate measure of the Plan’s success will be the reduction of cancer mortality rates in California. However, since long-term outcomes take years to achieve, short-term impacts will be assessed through progress on measurable objectives in the Plan.

Quantitative data obtained from the California Cancer Registry will measure improvements in cancer incidence, stage of diagnosis, five-year survival and mortality. For progress on objectives related to screening and risk factors, other quantitative data sources will be used. In addition, a statewide survey of CDOC stakeholders will be conducted annually by the CCCC to collect quantitative and qualitative evaluation data on cancer control activities. All of the measurable objectives in the Plan will be followed in progress reports utilizing the most reliable data sources to assess cancer control progress, impacts, and outcomes in California. To see a list of all data sources used and/or referred to in the Plan, please see Appendix III.

While the Comprehensive Cancer Control Program is responsible for evaluating the Plan, it is assumed that stakeholders throughout California will also participate in monitoring progress and utilizing data from available data sources to guide their cancer control activities. Challenges are expected during the implementation and evaluation of the Plan as a result of shifts in science, healthcare, the economy, the environment, and the political climate. Accordingly, it is acknowledged that the Plan is a document that will evolve with time, new information, varying resources, and changing needs.
The Cancer Burden in California

Mission:

Eliminate the cancer burden in California.

Goal:

Reduce the number of new cancer cases and deaths due to cancer.

Nearly one in four deaths in California is attributed to cancer. In fact, cancer is the second-leading cause of death among Californians overall and first among Asian/Pacific Islanders. While overall cancer mortality rates have been declining, the absolute number of cancer-related deaths is expected to increase as California’s population grows and ages.

Although cancer remains a major cause of illness and death, incidence rates for most common cancers have declined among both men and women since statewide cancer reporting became mandatory in 1988. Much of this decline is the result of significant decreases in smoking-related cancers such as lung, oral cavity, laryngeal, stomach, cervical, and bladder cancers. Yet smoking remains a significant problem among some groups and among young people in California.

California has one of the nation’s leading resources for collecting cancer data, the California Cancer Registry (CCR). In order to identify areas of focus for this plan, pertinent data from CCR was used and is summarized in this section.
Understanding Surveillance Data Terms
National Cancer Institute, 2009

**Incidence** refers to the number of newly diagnosed cases during a specific time period. **Mortality** refers to the number of deaths during a specific time period. A **cancer incidence or mortality rate** is the number of new cancers of a specific site or the number of deaths due to a particular type of cancer occurring in a population during a specified time period, divided by the population at risk. Cancer incidence and mortality rates are usually expressed as the number of new cancer cases or deaths per 100,000 population at risk.

The **percent change (PC)** of a statistic is calculated over a given time interval:

\[
\text{Percent Change} = \frac{(\text{Final value} - \text{Initial value})}{\text{Initial value}} \times 100
\]

A positive PC corresponds to an increasing trend, a negative PC to a decreasing trend.

**THE CANCER BURDEN: OBJECTIVE 1**

By 2015, decrease the rate of combined cancer incidence in California by five percent, from the current baseline of 413/100,000 to the target rate of 392.4/100,000.

**THE CANCER BURDEN: OBJECTIVE 2**

By 2015, decrease the rate of combined cancer mortality in California by five percent, from the current baseline of 156.4/100,000 to the target rate of 148.6/100,000.

Raising awareness about the impact of cancer through community activities such as cancer walks is an important and valuable component of strategies to promote prevention and early detection that can decrease the burden of cancer.
Table 1. The California Cancer Burden

Prostate, lung, and colorectal cancers are the most commonly diagnosed cancers and the leading causes of cancer-related death among men. Similarly, breast, lung, and colorectal cancers are the most commonly diagnosed cancers and the leading causes of cancer-related death among women. For both sexes combined, melanoma of the skin is the fifth most commonly-diagnosed cancer, and pancreatic cancer is the fourth leading cause of cancer-related death.

Table 1. The ten leading causes of cancer incidence and mortality for males, females, and both sexes combined, 2008.

<table>
<thead>
<tr>
<th>Cancer Incidence, Both Sexes</th>
<th>Rate</th>
<th>Count</th>
<th>% of all Cancers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Female Breast</td>
<td>*</td>
<td>*</td>
<td>15.8%</td>
</tr>
<tr>
<td>2 Prostate</td>
<td>*</td>
<td>*</td>
<td>14.3%</td>
</tr>
<tr>
<td>3 Lung</td>
<td>49.3</td>
<td>16,715</td>
<td>11.1%</td>
</tr>
<tr>
<td>4 Colon &amp; Rectum</td>
<td>43.4</td>
<td>15,059</td>
<td>10.0%</td>
</tr>
<tr>
<td>5 Melanoma of the Skin</td>
<td>20.9</td>
<td>7,414</td>
<td>4.9%</td>
</tr>
<tr>
<td>6 Bladder</td>
<td>18.5</td>
<td>6,277</td>
<td>4.2%</td>
</tr>
<tr>
<td>7 Non-Hodgkin Lymphoma</td>
<td>18.5</td>
<td>6,458</td>
<td>4.3%</td>
</tr>
<tr>
<td>8 Kidney &amp; Renal Pelvis</td>
<td>14.1</td>
<td>4,969</td>
<td>3.3%</td>
</tr>
<tr>
<td>9 Corpus &amp; Uterus, NOS</td>
<td>*</td>
<td>*</td>
<td>2.9%</td>
</tr>
<tr>
<td>10 Leukemia</td>
<td>12.0</td>
<td>4,208</td>
<td>2.8%</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>151,084</strong></td>
<td><strong>73.5%</strong></td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Cancer Mortality, Both Sexes</th>
<th>Rate</th>
<th>Count</th>
<th>% of all Cancers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Lung</td>
<td>31.8</td>
<td>13,040</td>
<td>23.9%</td>
</tr>
<tr>
<td>2 Colon &amp; Rectum</td>
<td>14.5</td>
<td>5,103</td>
<td>9.3%</td>
</tr>
<tr>
<td>3 Female Breast</td>
<td>*</td>
<td>*</td>
<td>7.7%</td>
</tr>
<tr>
<td>4 Pancreas</td>
<td>10.2</td>
<td>3,543</td>
<td>6.5%</td>
</tr>
<tr>
<td>5 Prostate</td>
<td>*</td>
<td>*</td>
<td>5.5%</td>
</tr>
<tr>
<td>6 Leukemia</td>
<td>6.4</td>
<td>2,249</td>
<td>4.1%</td>
</tr>
<tr>
<td>7 Non-Hodgkin Lymphoma</td>
<td>5.9</td>
<td>2,052</td>
<td>3.8%</td>
</tr>
<tr>
<td>8 Liver</td>
<td>5.4</td>
<td>1,897</td>
<td>3.5%</td>
</tr>
<tr>
<td>9 Ovary</td>
<td>*</td>
<td>*</td>
<td>2.8%</td>
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<tr>
<td>10 Stomach</td>
<td>4.3</td>
<td>1,497</td>
<td>2.7%</td>
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<tr>
<td><strong>Total:</strong></td>
<td><strong>54,579</strong></td>
<td><strong>69.9%</strong></td>
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</table>

**Cancer Incidence, Males**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Site</th>
<th>Rate</th>
<th>Count</th>
<th>% of all Cancers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Prostate</td>
<td>136.3</td>
<td>21,571</td>
<td>28.3%</td>
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<tr>
<td>2</td>
<td>Lung</td>
<td>58.6</td>
<td>8,684</td>
<td>11.4%</td>
</tr>
<tr>
<td>3</td>
<td>Colon &amp; Rectum</td>
<td>49.9</td>
<td>7,714</td>
<td>10.1%</td>
</tr>
<tr>
<td>4</td>
<td>Bladder</td>
<td>32.6</td>
<td>4,748</td>
<td>6.2%</td>
</tr>
<tr>
<td>5</td>
<td>Melanoma of the Skin</td>
<td>27.7</td>
<td>4,373</td>
<td>5.7%</td>
</tr>
<tr>
<td>6</td>
<td>Non-Hodgkin Lymphoma</td>
<td>22.2</td>
<td>3,511</td>
<td>4.6%</td>
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<tr>
<td>7</td>
<td>Kidney &amp; Renal Pelvis</td>
<td>19.2</td>
<td>3,108</td>
<td>4.1%</td>
</tr>
<tr>
<td>8</td>
<td>Oral Cavity &amp; Pharynx</td>
<td>15.3</td>
<td>2,550</td>
<td>3.3%</td>
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<tr>
<td>9</td>
<td>Leukemia</td>
<td>15.1</td>
<td>2,395</td>
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<td>Liver</td>
<td>12.4</td>
<td>2,069</td>
<td>2.7%</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td></td>
<td><strong>76,902</strong></td>
<td><strong>79.5%</strong></td>
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**Cancer Mortality, Males**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Site</th>
<th>Rate</th>
<th>Count</th>
<th>% of all Cancers</th>
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<tr>
<td>1</td>
<td>Lung</td>
<td>46.5</td>
<td>6,888</td>
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<td>Prostate</td>
<td>21.7</td>
<td>3,018</td>
<td>10.9%</td>
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<td>Colon &amp; Rectum</td>
<td>16.9</td>
<td>2,553</td>
<td>9.2%</td>
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<tr>
<td>4</td>
<td>Pancreas</td>
<td>11.5</td>
<td>1,755</td>
<td>6.3%</td>
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<td>5</td>
<td>Leukemia</td>
<td>8.3</td>
<td>1,254</td>
<td>4.5%</td>
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<td>6</td>
<td>Liver</td>
<td>8.2</td>
<td>1,339</td>
<td>4.8%</td>
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<td>Non-Hodgkin Lymphoma</td>
<td>7.7</td>
<td>1,154</td>
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<td>Bladder</td>
<td>6.5</td>
<td>938</td>
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<td>9</td>
<td>Esophagus</td>
<td>6.0</td>
<td>909</td>
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<td>10</td>
<td>Stomach</td>
<td>5.5</td>
<td>848</td>
<td>3.0%</td>
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<td><strong>Total:</strong></td>
<td></td>
<td><strong>27,814</strong></td>
<td><strong>74.3%</strong></td>
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**Cancer Incidence, Females**

<table>
<thead>
<tr>
<th>Rank</th>
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<th>Rate</th>
<th>Count</th>
<th>% of all Cancers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Female Breast</td>
<td>125.1</td>
<td>23,662</td>
<td>31.6%</td>
</tr>
<tr>
<td>2</td>
<td>Lung</td>
<td>42.6</td>
<td>8,031</td>
<td>10.7%</td>
</tr>
<tr>
<td>3</td>
<td>Colon &amp; Rectum</td>
<td>38.2</td>
<td>7,345</td>
<td>9.8%</td>
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<tr>
<td>4</td>
<td>Corpus &amp; Uterus, NOS</td>
<td>23.0</td>
<td>4,423</td>
<td>5.9%</td>
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<tr>
<td>5</td>
<td>Thyroid</td>
<td>16.4</td>
<td>3,011</td>
<td>4.0%</td>
</tr>
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<td>6</td>
<td>Melanoma of the Skin</td>
<td>16.1</td>
<td>3,041</td>
<td>4.0%</td>
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<td>7</td>
<td>Non-Hodgkin Lymphoma</td>
<td>15.5</td>
<td>2,947</td>
<td>3.9%</td>
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<td>8</td>
<td>Ovary</td>
<td>12.6</td>
<td>2,389</td>
<td>3.2%</td>
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<tr>
<td>9</td>
<td>Pancreas</td>
<td>10.4</td>
<td>1,990</td>
<td>2.7%</td>
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<tr>
<td>10</td>
<td>Kidney &amp; Renal Pelvis</td>
<td>9.9</td>
<td>1,861</td>
<td>2.5%</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td></td>
<td><strong>74,902</strong></td>
<td><strong>78.3%</strong></td>
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</table>

**Cancer Mortality, Females**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Site</th>
<th>Rate</th>
<th>Count</th>
<th>% of all Cancers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lung</td>
<td>31.8</td>
<td>13,040</td>
<td>23.9%</td>
</tr>
<tr>
<td>2</td>
<td>Female Breast</td>
<td>21.4</td>
<td>4,188</td>
<td>9.3%</td>
</tr>
<tr>
<td>3</td>
<td>Colon &amp; Rectum</td>
<td>12.6</td>
<td>2,550</td>
<td>9.5%</td>
</tr>
<tr>
<td>4</td>
<td>Pancreas</td>
<td>9.1</td>
<td>1,788</td>
<td>6.7%</td>
</tr>
<tr>
<td>5</td>
<td>Ovary</td>
<td>8.0</td>
<td>1,554</td>
<td>5.8%</td>
</tr>
<tr>
<td>6</td>
<td>Leukemia</td>
<td>5.1</td>
<td>995</td>
<td>3.7%</td>
</tr>
<tr>
<td>7</td>
<td>Non-Hodgkin Lymphoma</td>
<td>4.5</td>
<td>898</td>
<td>3.4%</td>
</tr>
<tr>
<td>8</td>
<td>Corpus &amp; Uterus, NOS</td>
<td>4.4</td>
<td>853</td>
<td>3.2%</td>
</tr>
<tr>
<td>9</td>
<td>Stomach</td>
<td>4.1</td>
<td>649</td>
<td>2.4%</td>
</tr>
<tr>
<td>10</td>
<td>Liver</td>
<td>3.3</td>
<td>558</td>
<td>2.1%</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td></td>
<td><strong>26,765</strong></td>
<td><strong>75.4%</strong></td>
<td></td>
</tr>
</tbody>
</table>

* Sex-specific cancers can be found in their respective tables.
Rates are per 100,000 and age-adjusted to the 2000 US Std Population (19 age groups: Census P25-1130) standard. **Source:** California Cancer Registry, California Department of Public Health.

Note: The Veteran’s Health Administration (VHA) modified its protocol for reporting cancer cases diagnosed in VHA facilities to CCR in 2005. Subsequently, case counts and incidence rates for adult males in 2005 and forward are underestimated and should be interpreted with caution.
**Figures 1 & 2. Cancer Disparities**

The burden of cancer does not fall equally on all Californians, and the risk of developing cancer varies considerably by race/ethnicity. Among men, African Americans have the highest incidence and mortality from cancer, followed by non-Hispanic whites. Among women, non-Hispanic whites have the highest incidence of cancer, but African Americans have the highest cancer mortality. In general, persons of Asian/Pacific Islander and Hispanic origin have cancer rates that are about 30 to 35 percent lower than non-Hispanic whites. However, Asian/Pacific Islanders and Hispanics are two to three times more likely than non-Hispanic whites to develop stomach and liver cancer. Hispanic women also have twice the risk of being diagnosed with invasive cervical cancer relative to non-Hispanic white women.

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

Note: The Veteran's Health Administration (VHA) modified its protocol for reporting cancer cases diagnosed in VHA facilities to CCR in 2005. Subsequently, case counts and incidence rates for adult males in 2005 and forward are underestimated and should be interpreted with caution. NHB = non-Hispanic Black.
The Cancer Burden in California

Tables 2A–2D. Cancer Disparities among California’s Major Racial/Ethnic Groups

Tables 2A, 2B, 2C, and 2D show the five leading causes of cancer incidence and mortality among California’s five major racial/ethnic groups by sex. In each of the racial/ethnic groups, prostate, lung, and colorectal cancers are among the top three most common cancers diagnosed among men; breast, lung, and colorectal cancers are among the top three most common cancers diagnosed among women.

Among men in each major racial/ethnic group, prostate cancer is the most commonly diagnosed cancer, and lung cancer is the most common cause of cancer-related death. Among women in each major racial/ethnic group, breast cancer is the most commonly diagnosed cancer, and lung cancer is the most common cause of cancer-related death.
### Table 2A. Top five common cancers by incidence for males, by racial/ethnic group, as compared with the state's male population overall, California, 2004-2008

<table>
<thead>
<tr>
<th>Cancer Type</th>
<th>All California Males</th>
<th>Non-Hispanic White Males</th>
<th>African-American/NHB Males</th>
<th>Hispanic Males</th>
<th>Asian/Pacific Islander Males</th>
<th>American Indian/Native American Males</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prostate</td>
<td></td>
<td></td>
<td>1</td>
<td>148.9</td>
<td>1 / 217.2</td>
<td>1</td>
</tr>
<tr>
<td>Lung</td>
<td>2</td>
<td>2</td>
<td>148.9</td>
<td>148.9</td>
<td>1 / 217.2</td>
<td>1</td>
</tr>
<tr>
<td>Colon &amp; Rectum</td>
<td>3</td>
<td>3</td>
<td>32.9</td>
<td>32.9</td>
<td>3 / 39.7</td>
<td>3</td>
</tr>
<tr>
<td>Bladder</td>
<td>4</td>
<td>4</td>
<td>23.6</td>
<td>32.9</td>
<td>3 / 39.7</td>
<td>3</td>
</tr>
<tr>
<td>Melanoma of the skin</td>
<td>5</td>
<td>5</td>
<td>27.7</td>
<td>27.7</td>
<td>3 / 32.9</td>
<td>5</td>
</tr>
<tr>
<td>Kidney &amp; Renal Pelvis</td>
<td>6</td>
<td>6</td>
<td>22.2</td>
<td>22.2</td>
<td>4 / 29.8</td>
<td>5 / 15.6</td>
</tr>
<tr>
<td>Oral Cavity &amp; Larynx</td>
<td></td>
<td></td>
<td>8 / 15.3</td>
<td>8 / 15.3</td>
<td>5 / 19.7</td>
<td>5 / 16.9</td>
</tr>
<tr>
<td>Leukemia</td>
<td>9</td>
<td>9</td>
<td>15.1</td>
<td>15.1</td>
<td>5 / 19.7</td>
<td>5 / 16.9</td>
</tr>
<tr>
<td>Liver</td>
<td>10</td>
<td>10</td>
<td>12.4</td>
<td>12.4</td>
<td>4 / 23.8</td>
<td>4 / 16.9</td>
</tr>
<tr>
<td>Stomach</td>
<td></td>
<td></td>
<td>16.9</td>
<td>16.9</td>
<td>5 / 23.8</td>
<td>5 / 17.7</td>
</tr>
</tbody>
</table>

Rates are per 100,000 and age-adjusted to the 2000 U.S. Std. Population (19 age groups - Census P25-1130) standard. Source: California Cancer Registry, California Department of Public Health.

Note: The Veteran’s Health Administration (VHA) modified its protocol for reporting cancer cases diagnosed in VHA facilities to ECR in 2005. Subsequently, case counts and incidence rates for adult males in 2005 and forward are underestimated and should be interpreted with caution.

### Table 2B. Top five common cancers by incidence for females, by racial/ethnic group, as compared with the state's female population overall, California, 2004-2008

<table>
<thead>
<tr>
<th>Cancer Type</th>
<th>All California Females</th>
<th>Non-Hispanic White Females</th>
<th>African-American/NHB Females</th>
<th>Hispanic Females</th>
<th>Asian/Pacific Islander Females</th>
<th>American Indian/Native American Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast</td>
<td>1</td>
<td>125.1</td>
<td>1</td>
<td>139.2</td>
<td>1 / 139.2</td>
<td>1</td>
</tr>
<tr>
<td>Lung</td>
<td>2</td>
<td>42.6</td>
<td>2</td>
<td>54.9</td>
<td>4 / 54.9</td>
<td>2</td>
</tr>
<tr>
<td>Colon &amp; Rectum</td>
<td>3</td>
<td>38.2</td>
<td>3</td>
<td>39.7</td>
<td>3 / 39.7</td>
<td>3</td>
</tr>
<tr>
<td>Corpus &amp; Uterus, NOS</td>
<td>4</td>
<td>23.0</td>
<td>5</td>
<td>23.8</td>
<td>4 / 19.5</td>
<td>4 / 17.8</td>
</tr>
<tr>
<td>Thyroid</td>
<td>5</td>
<td>16.4</td>
<td>5</td>
<td>16.4</td>
<td>5 / 16.4</td>
<td>5 / 16.1</td>
</tr>
<tr>
<td>Melanoma of the skin</td>
<td>6</td>
<td>16.1</td>
<td>6</td>
<td>24.7</td>
<td>6 / 24.7</td>
<td>6 / 24.7</td>
</tr>
<tr>
<td>NH Lymphoma</td>
<td>7</td>
<td>15.5</td>
<td>7</td>
<td>15.5</td>
<td>7 / 15.5</td>
<td>7 / 15.5</td>
</tr>
<tr>
<td>Ovary</td>
<td>8</td>
<td>12.6</td>
<td>8</td>
<td>12.6</td>
<td>8 / 12.6</td>
<td>8 / 12.6</td>
</tr>
<tr>
<td>Pancreas</td>
<td>9</td>
<td>10.4</td>
<td>9</td>
<td>10.4</td>
<td>9 / 10.4</td>
<td>9 / 10.4</td>
</tr>
<tr>
<td>Kidney &amp; Renal Pelvis</td>
<td>10</td>
<td>9.9</td>
<td>10</td>
<td>9.9</td>
<td>10 / 9.9</td>
<td>10 / 9.9</td>
</tr>
</tbody>
</table>

Rates are per 100,000 and age-adjusted to the 2000 U.S. Std. Population (19 age groups - Census P25-1130) standard. Source: California Cancer Registry, California Department of Public Health.

NHB = Non-Hispanic Black; Corpus & Uterus, NOS = Corpus & Uterus, Not Otherwise Specified; NH Lymphoma = Non-Hodgkin Lymphoma.
### Table 2C. Top five common cancers by mortality for males, by racial/ethnic group, as compared with the state's male population overall, California, 2004-2008

<table>
<thead>
<tr>
<th>Cancer Type</th>
<th>All California Males</th>
<th>Non-Hispanic White Males</th>
<th>African-American/NHB Males</th>
<th>Hispanic Males</th>
<th>Asian/Pacific Islander Males</th>
<th>American Indian/Native American Males</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lung</td>
<td>1 46.5</td>
<td>1 54.8</td>
<td>2 75.9</td>
<td>1 30.7</td>
<td>1 39.5</td>
<td>1 36.4</td>
</tr>
<tr>
<td>Prostate</td>
<td>2 21.7</td>
<td>2 23.5</td>
<td>2 52.0</td>
<td>2 20.6</td>
<td>4 11.0</td>
<td>3 16.8</td>
</tr>
<tr>
<td>Colon &amp; Rectum</td>
<td>3 16.9</td>
<td>3 18.5</td>
<td>3 29.1</td>
<td>3 15.9</td>
<td>3 14.4</td>
<td>2 18.3</td>
</tr>
<tr>
<td>Pancreas</td>
<td>4 11.5</td>
<td>4 12.3</td>
<td>4 15.0</td>
<td>4 10.1</td>
<td>5 14.6</td>
<td>5 7.4</td>
</tr>
<tr>
<td>Leukemia</td>
<td>5 / 8.3</td>
<td>5 / 9.6</td>
<td>4 / 10.1</td>
<td>4 / 14.6</td>
<td>5 / 11.0</td>
<td>4 / 11.0</td>
</tr>
<tr>
<td>Liver</td>
<td>6 / 8.2</td>
<td>5 / 11.6</td>
<td>4 / 10.1</td>
<td>2 / 14.6</td>
<td>4 / 11.0</td>
<td>5 / 7.4</td>
</tr>
<tr>
<td>NH Lymphoma</td>
<td>7 / 7.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bladder</td>
<td>8 / 6.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Esophagus</td>
<td>9 / 6.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stomach</td>
<td>10 / 5.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Rates are per 100,000 and age-adjusted to the 2000 U.S. Std. Population (19 age groups - Census P25-1130) standard. Source: California Cancer Registry, California Department of Public Health.

Note: The Veteran's Health Administration (VHA) modified its protocol for reporting cancer cases diagnosed in VHA facilities to CCR in 2005. Subsequently, case counts and incidence rates for adult males in 2005 and forward are underestimated and should be interpreted with caution.

NHB = Non-Hispanic Black; NH Lymphoma = Non-Hodgkin Lymphoma.

### Table 2D. Top five common cancers by mortality for females, by racial/ethnic group, as compared with the state's female population overall, California, 2004-2008

<table>
<thead>
<tr>
<th>Cancer Type</th>
<th>All California Females</th>
<th>Non-Hispanic White Females</th>
<th>African-American/NHB Females</th>
<th>Hispanic Females</th>
<th>Asian/Pacific Islander Females</th>
<th>American Indian/Native American Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lung</td>
<td>1 32.0</td>
<td>1 40.6</td>
<td>2 42.1</td>
<td>1 17.1</td>
<td>1 18.7</td>
<td>1 29.4</td>
</tr>
<tr>
<td>Breast</td>
<td>2 21.4</td>
<td>2 24.4</td>
<td>2 34.1</td>
<td>2 17.0</td>
<td>2 13.7</td>
<td>2 13.8</td>
</tr>
<tr>
<td>Colon &amp; Rectum</td>
<td>3 12.6</td>
<td>3 13.4</td>
<td>3 23.1</td>
<td>3 10.8</td>
<td>3 10.8</td>
<td>4 / 12.8</td>
</tr>
<tr>
<td>Ovary</td>
<td>8.0</td>
<td>9.4</td>
<td>5 / 7.5</td>
<td>5 / 7.3</td>
<td>5 / 5.8</td>
<td></td>
</tr>
<tr>
<td>Leukemia</td>
<td>6 / 5.1</td>
<td></td>
<td>5 / 7.5</td>
<td></td>
<td>5 / 5.8</td>
<td></td>
</tr>
<tr>
<td>NH Lymphoma</td>
<td>7 / 4.5</td>
<td></td>
<td></td>
<td></td>
<td>7 / 4.5</td>
<td></td>
</tr>
<tr>
<td>Corpus &amp; Uterus, NOS</td>
<td>8 / 4.4</td>
<td></td>
<td></td>
<td></td>
<td>8 / 4.4</td>
<td></td>
</tr>
<tr>
<td>Stomach</td>
<td>9 / 4.1</td>
<td></td>
<td></td>
<td></td>
<td>9 / 4.1</td>
<td></td>
</tr>
<tr>
<td>Liver</td>
<td>10 / 3.3</td>
<td></td>
<td></td>
<td></td>
<td>10 / 3.3</td>
<td></td>
</tr>
</tbody>
</table>

Rates are per 100,000 and age-adjusted to the 2000 U.S. Std. Population (19 age groups - Census P25-1130) standard. Source: California Cancer Registry, California Department of Public Health.

NHB = Non-Hispanic Black; NH Lymphoma = Non-Hodgkin Lymphoma, Corpus & Uterus, NOS = Corpus & Uterus, Not Otherwise Specified.
Tables 3A–3D. Cancer Disparities Among California’s Asian/Pacific Islander Subgroups

Although Asian/Pacific Islanders as a group have lower rates of cancer incidence and mortality compared to African Americans, non-Hispanic whites, and Hispanics, the burden of cancer varies greatly among the individual Asian sub-groups. Prostate cancer is the most commonly diagnosed cancer among Chinese, Japanese, Filipino, and South Asian men. Among Vietnamese, Laotian, and Cambodian men, lung cancer is the most common cancer, and among Korean men, colorectal cancer is the most common. In each Asian sub-group, lung cancer is the most common cause of cancer-related death among men. The only exception is South Asian men, for whom prostate cancer is the most common cause of cancer-related death.

Breast cancer is the most commonly diagnosed cancer among women in each of the Asian sub-groups, with the only exception being Cambodian women, for whom colorectal cancer is the most commonly diagnosed. Lung cancer is the most common cause of cancer-related death among Chinese, Japanese, Korean, Vietnamese, and Laotian women. Among Filipina and South Asian women, breast cancer is the most common cause of cancer-related death, and among Cambodian women, colorectal cancer is the most common cause of cancer-related death.
### Table 3A. Top five common cancers by incidence for **Asian ethnic groups, males**, California, 2004-2008

<table>
<thead>
<tr>
<th>Cancer Type</th>
<th>Chinese</th>
<th>Japanese</th>
<th>Filipino</th>
<th>Korean</th>
<th>South Asian</th>
<th>Vietnamese</th>
<th>Laotian</th>
<th>Cambodian</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prostate</td>
<td>1 70.8</td>
<td>1 84.7</td>
<td>2 111.4</td>
<td>2 59.3</td>
<td>1 81.6</td>
<td>3 55.6</td>
<td>4 29.6</td>
<td>4 45.9</td>
</tr>
<tr>
<td>Lung</td>
<td>2 51.2</td>
<td>3 42.8</td>
<td>3 65.2</td>
<td>2 54.9</td>
<td>2 24.3</td>
<td>4 17.1</td>
<td>1 72.5</td>
<td>1 61.0</td>
</tr>
<tr>
<td>C&amp;R</td>
<td>3 41.7</td>
<td>2 62.4</td>
<td>3 46.1</td>
<td>1 59.5</td>
<td>3 24.1</td>
<td>2 44.0</td>
<td>2 44.0</td>
<td>3 49.3</td>
</tr>
<tr>
<td>Liver</td>
<td>4 24.2</td>
<td>4 16.8</td>
<td>1 16.8</td>
<td>3 31.1</td>
<td>2 57.8</td>
<td>3 43.3</td>
<td>2 57.8</td>
<td>2 59.4</td>
</tr>
<tr>
<td>Stomach</td>
<td>5 16.4</td>
<td>4 22.1</td>
<td>3 55.6</td>
<td>4 11.5</td>
<td>5 23.0</td>
<td>2 83.1</td>
<td>5 28.0</td>
<td>5 20.2</td>
</tr>
<tr>
<td>Bladder</td>
<td>1 22.8</td>
<td>2 19.3</td>
<td>4 18.0</td>
<td>5 13.0</td>
<td>5 28.0</td>
<td>5 20.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NHL</td>
<td></td>
<td>22.0</td>
<td>4 19.3</td>
<td>5 13.0</td>
<td>5 28.0</td>
<td>5 20.2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Rates are per 100,000 and age-adjusted to the 2000 U.S. Std. Population (18 age groups - Census P25-1130) standard. Source: California Cancer Registry, California Department of Public Health.

Note 1: Ethnic-specific population estimates are only available in census years. Therefore, populations for each Asian ethnic group were estimated using linear interpolation for each year between 1990 and 2000. Extrapolation was used to generate estimates for 2001-2008. Linear interpolation assumes a fixed rate of growth for each year.

Note 2: C&R = Colon & Rectum; NHL = Non-Hodgkin Lymphoma.

### Table 3B. Top five common cancers by incidence for **Asian ethnic groups, females**, California, 2004-2008

<table>
<thead>
<tr>
<th>Cancer Type</th>
<th>Chinese</th>
<th>Japanese</th>
<th>Filipino</th>
<th>Korean</th>
<th>South Asian</th>
<th>Vietnamese</th>
<th>Laotian</th>
<th>Cambodian</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast</td>
<td>1 75.9</td>
<td>1 102.0</td>
<td>1 103.4</td>
<td>1 65.4</td>
<td>1 90.7</td>
<td>1 67.3</td>
<td>1 43.5</td>
<td>2 52.3</td>
</tr>
<tr>
<td>C&amp;R</td>
<td>3 36.6</td>
<td>3 45.4</td>
<td>3 31.9</td>
<td>4 39.2</td>
<td>3 24.1</td>
<td>4 18.6</td>
<td>4 37.8</td>
<td>2 53.4</td>
</tr>
<tr>
<td>Lung</td>
<td>3 29.1</td>
<td>3 30.0</td>
<td>3 27.1</td>
<td>4 22.1</td>
<td>4 11.5</td>
<td>3 32.6</td>
<td>3 25.5</td>
<td>3 28.9</td>
</tr>
<tr>
<td>Uterine</td>
<td>1 13.4</td>
<td>1 18.6</td>
<td>1 20.7</td>
<td>4 14.1</td>
<td>4 21.1</td>
<td>4 21.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cervical</td>
<td>3 27.1</td>
<td>2 12.7</td>
<td>4 19.9</td>
<td>5 12.9</td>
<td>5 15.5</td>
<td>2 20.3</td>
<td>2 20.7</td>
<td>4 21.7</td>
</tr>
<tr>
<td>Stomach</td>
<td>5 11.3</td>
<td>5 19.9</td>
<td>5 12.9</td>
<td>5 15.5</td>
<td>5 15.5</td>
<td>3 23.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thyroid</td>
<td></td>
<td>5 27.1</td>
<td>5 12.9</td>
<td>4 11.5</td>
<td>4 11.5</td>
<td>4 11.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liver</td>
<td></td>
<td>2 11.5</td>
<td>4 21.1</td>
<td>5 21.1</td>
<td>5 21.1</td>
<td>5 21.1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Rates are per 100,000 and age-adjusted to the 2000 U.S. Std. Population (18 age groups - Census P25-1130) standard. Source: California Cancer Registry, California Department of Public Health.

Note 1: Ethnic-specific population estimates are only available in census years. Therefore, populations for each Asian ethnic group were estimated using linear interpolation for each year between 1990 and 2000. Extrapolation was used to generate estimates for 2001-2008. Linear interpolation assumes a fixed rate of growth for each year.

Note 2: C&R = Colon & Rectum.
### Table 3C. Top five common cancers by mortality for Asian ethnic groups, males, California, 2004-2008

<table>
<thead>
<tr>
<th>Cancer Type</th>
<th>Chinese</th>
<th>Japanese</th>
<th>Filipino</th>
<th>Korean</th>
<th>South Asian</th>
<th>Vietnamese</th>
<th>Laotian</th>
<th>Cambodian</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lung</td>
<td>1 45.9</td>
<td>1 39.1</td>
<td>1 49.1</td>
<td>1 49.4</td>
<td>2 11.3</td>
<td>1 45.2</td>
<td>1 61.2</td>
<td>1 62.8</td>
</tr>
<tr>
<td>Liver</td>
<td>16.6</td>
<td>11.0</td>
<td>27.6</td>
<td>4 / 5.0</td>
<td>10.0</td>
<td>2 31.7</td>
<td>2 41.7</td>
<td>2 35.4</td>
</tr>
<tr>
<td>C&amp;R</td>
<td>3 16.2</td>
<td>3 15.3</td>
<td>20.5</td>
<td>4 / 5.0</td>
<td>10.0</td>
<td>3 25.0</td>
<td>3 13.3*</td>
<td></td>
</tr>
<tr>
<td>Stomach</td>
<td>5</td>
<td>5</td>
<td>2</td>
<td>1 12.9</td>
<td>8.1</td>
<td>4 19.2*</td>
<td>5 11.4*</td>
<td></td>
</tr>
<tr>
<td>Prostate</td>
<td>4 10.6</td>
<td>3 18.5</td>
<td>2 17.7</td>
<td>5 / 4.8</td>
<td>8.1</td>
<td>4 19.2*</td>
<td>5 11.4*</td>
<td></td>
</tr>
<tr>
<td>Pancreas</td>
<td>4 15.6</td>
<td>5 9.5</td>
<td>12.8</td>
<td>5 / 4.8</td>
<td>8.1</td>
<td>4 19.2*</td>
<td>5 11.4*</td>
<td></td>
</tr>
<tr>
<td>NHL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:
- Rates are per 100,000 and age-adjusted to the 2000 U.S. Std. Population (18 age groups - Census P25-1130) standard. Source: California Cancer Registry, California Department of Public Health.
- Rates are based on counts of less than 15 cases.
- * Rates are based on counts of less than 15 cases.
- Extrapolation was used to generate estimates for 2001-2008. Linear interpolation assumes a fixed rate of growth for each year.

### Table 3D. Top five common cancers by mortality for Asian ethnic groups, females, California, 2004-2008

<table>
<thead>
<tr>
<th>Cancer Type</th>
<th>Chinese</th>
<th>Japanese</th>
<th>Filipino</th>
<th>Korean</th>
<th>South Asian</th>
<th>Vietnamese</th>
<th>Laotian</th>
<th>Cambodian</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lung</td>
<td>23.8</td>
<td>24.2</td>
<td>17.0</td>
<td>18.5</td>
<td>6.5</td>
<td>18.0</td>
<td>24.3</td>
<td>14.2*</td>
</tr>
<tr>
<td>C&amp;R</td>
<td>3 13.2</td>
<td>3 17.2</td>
<td>3 11.3</td>
<td>3 12.5</td>
<td>4 / 4.5</td>
<td>3 8.5</td>
<td>2 24.0</td>
<td>1 18.2</td>
</tr>
<tr>
<td>Breast</td>
<td>13.4</td>
<td>17.3</td>
<td>19.0</td>
<td>9.3</td>
<td>9.3</td>
<td>7.2</td>
<td>13.1</td>
<td></td>
</tr>
<tr>
<td>Liver</td>
<td>6.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10.7</td>
<td>15.8*</td>
<td>12.5*</td>
</tr>
<tr>
<td>Stomach</td>
<td>5 8.5</td>
<td></td>
<td>2 13.9</td>
<td></td>
<td></td>
<td>4 7.7</td>
<td>5 10.4*</td>
<td></td>
</tr>
<tr>
<td>Pancreas</td>
<td>7.3</td>
<td>12.0</td>
<td>7.8</td>
<td>10.8</td>
<td>6.3</td>
<td>5 / 4.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ovary</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8.0*</td>
</tr>
<tr>
<td>NHL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cervix</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12.6*</td>
</tr>
</tbody>
</table>

Notes:
- Rates are per 100,000 and age-adjusted to the 2000 U.S. Std. Population (18 age groups - Census P25-1130) standard. Source: California Cancer Registry, California Department of Public Health.
- Rates are based on counts of less than 15 cases.
- * Rates are based on counts of less than 15 cases.
- Extrapolation was used to generate estimates for 2001-2008. Linear interpolation assumes a fixed rate of growth for each year.
- C&R = Colon & Rectum; NHL = Non-Hodgkin Lymphoma.
Table 4. Early Stage Diagnosis

Stage at diagnosis summarizes how far a cancer has spread when it is first discovered. It is one of the strongest predictors of survival. Tumors diagnosed before they have spread are much more likely to respond to treatment. Generally, patients diagnosed with early stage tumors (in situ or localized) have a better prognosis than patients diagnosed with late stage tumors. Cancer screening can diagnose some cancers at an early stage such as those of the breast, cervix, colon and rectum, melanoma (the deadliest form of skin cancer), and prostate.

The following terminology from the National Cancer Institute is often used to summarize stage at diagnosis:

**In situ:** Abnormal cells are present only in the layer of cells in which they developed.

**Localized:** Cancer is limited to the organ in which it began, without evidence of spread.

**Regional:** Cancer has spread beyond the primary site to nearby lymph nodes or organs and tissues.

**Distant:** Cancer has spread from the primary site to distant organs or distant lymph nodes.

Table 4 shows the percent of cancers diagnosed at an early stage by race/ethnicity and sex. In each racial/ethnic group, fewer than half of all colorectal cancers are being diagnosed at an early stage among both males and females. Less than half of cervical cancers are being diagnosed at an early stage among African-American and Asian/Pacific Islander females. African-American and Hispanic females are less likely than Asian/Pacific Islander and non-Hispanic white women to be diagnosed with breast cancer at an early stage.

<table>
<thead>
<tr>
<th></th>
<th>African American</th>
<th>Asian &amp; Pacific Islander</th>
<th>Hispanic</th>
<th>Non-Hispanic White</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Females</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Breast</td>
<td>63</td>
<td>73</td>
<td>64</td>
<td>72</td>
</tr>
<tr>
<td>Cervical</td>
<td>33</td>
<td>42</td>
<td>50</td>
<td>52</td>
</tr>
<tr>
<td>Colorectal</td>
<td>39</td>
<td>42</td>
<td>41</td>
<td>44</td>
</tr>
<tr>
<td>Melanoma</td>
<td>-</td>
<td>74</td>
<td>86</td>
<td>92</td>
</tr>
<tr>
<td><strong>Males</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prostate</td>
<td>78</td>
<td>76</td>
<td>76</td>
<td>78</td>
</tr>
<tr>
<td>Colorectal</td>
<td>46</td>
<td>43</td>
<td>41</td>
<td>46</td>
</tr>
<tr>
<td>Melanoma</td>
<td>-</td>
<td>66</td>
<td>76</td>
<td>90</td>
</tr>
</tbody>
</table>

Source: California Cancer Registry, California Department of Public Health
Data not shown if fewer than 15 cases were reported.
Table 5. Surviving Cancer

Relative survival estimates the probability that an individual will not die from a given cancer during the specified time period following diagnosis. Table 5 shows the five-year relative survival by stage at diagnosis for several cancers. For each cancer, relative survival decreases with later stage at diagnosis. For example, women who are diagnosed with localized breast cancer have a 99 percent chance of surviving five years after diagnosis whereas women who are diagnosed with distant stage breast cancer have a 25 percent chance of surviving five years.

<table>
<thead>
<tr>
<th>Cancer Type</th>
<th>All Stages</th>
<th>Localized</th>
<th>Regional</th>
<th>Distant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female Breast</td>
<td>91</td>
<td>99</td>
<td>85</td>
<td>25</td>
</tr>
<tr>
<td>Cervical</td>
<td>72</td>
<td>93</td>
<td>60</td>
<td>19</td>
</tr>
<tr>
<td>Uterus</td>
<td>85</td>
<td>96</td>
<td>70</td>
<td>18</td>
</tr>
<tr>
<td>Ovary</td>
<td>48</td>
<td>94</td>
<td>76</td>
<td>31</td>
</tr>
<tr>
<td>Prostate</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>32</td>
</tr>
<tr>
<td>Testis</td>
<td>94</td>
<td>99</td>
<td>96</td>
<td>70</td>
</tr>
<tr>
<td>Oral &amp; Pharynx</td>
<td>64</td>
<td>84</td>
<td>55</td>
<td>35</td>
</tr>
<tr>
<td>Colorectal</td>
<td>66</td>
<td>92</td>
<td>70</td>
<td>12</td>
</tr>
<tr>
<td>Pancreas</td>
<td>6</td>
<td>24</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Lung</td>
<td>17</td>
<td>55</td>
<td>26</td>
<td>4</td>
</tr>
<tr>
<td>Melanoma</td>
<td>92</td>
<td>98</td>
<td>62</td>
<td>15</td>
</tr>
<tr>
<td>Hodgkin Lymphoma</td>
<td>84</td>
<td>91</td>
<td>91</td>
<td>74</td>
</tr>
<tr>
<td>Non-Hodgkin Lymphoma</td>
<td>67</td>
<td>81</td>
<td>71</td>
<td>58</td>
</tr>
<tr>
<td>Leukemia</td>
<td>53</td>
<td>*</td>
<td>*</td>
<td>53</td>
</tr>
<tr>
<td>Childhood onset (0–19 years)</td>
<td>77</td>
<td>*</td>
<td>*</td>
<td>77</td>
</tr>
<tr>
<td>Adult onset (20+ years)</td>
<td>48</td>
<td>*</td>
<td>*</td>
<td>48</td>
</tr>
</tbody>
</table>

Source: California Cancer Registry, California Department of Public Health

* All leukemias are staged as distant disease; thus survival cannot be calculated for other stages.
CALIFORNIA’S CANCER PLAN 2004: PROGRESS SUMMARY

CDOC unveiled California’s first cancer control plan in 2004. Since then, stakeholders throughout the state have made strides towards achieving its goals (Table 6).

Outcomes were reported for achieving the first plan’s measurable goals in 2010, in California’s Comprehensive Cancer Control Plan: Progress Report, 2009. While California may not have achieved all of the goals set forth in the plan, substantial progress has been made for several. Below are statistically significant rate changes based on the most current data available from CCR (www.ccrcal.org).

- Cancer incidence rates for all malignant tumors combined have decreased from 1998 to 2008. Based on current rates, California has observed a nine percent reduction in overall cancer incidence (from 465.2 cases per 100,000 persons in 1998 to 412.9 in 2008).
- Cancer mortality rates for all malignant tumors combined have decreased since 1998. Based on current rates, California has observed a 13% reduction in overall cancer mortality (from 182.7 deaths per 100,000 persons in 1998 to 156.4 in 2008).
- Female breast cancer mortality rates have decreased among California females from 1998 to 2008. Based on current rates, California has observed a 15% reduction in female breast cancer mortality rates (from 26.1 deaths per 100,000 persons in 1998 to 21.4 in 2008).
- Cervical cancer mortality rates decreased from 1998 to 2008. Based on current rates, California has observed a 19% reduction in cervical cancer mortality (from 2.9 deaths per 100,000 persons in 1998 to 2.2 in 2008).

Table 6. Progress summary of objectives outlined in California’s Cancer Control Plan 2004.

<table>
<thead>
<tr>
<th>Cancer Type</th>
<th>Objective</th>
<th>Baseline 1988</th>
<th>2008 Level</th>
<th>Change Observed</th>
</tr>
</thead>
<tbody>
<tr>
<td>All cancers combined</td>
<td>Reduce incidence</td>
<td>465.2</td>
<td>412.9</td>
<td>–11%</td>
</tr>
<tr>
<td>All cancers combined</td>
<td>Reduce mortality</td>
<td>182.7</td>
<td>156.4</td>
<td>–14%</td>
</tr>
<tr>
<td>Female Breast</td>
<td>Reduce mortality</td>
<td>26.1</td>
<td>21.4</td>
<td>–18%</td>
</tr>
<tr>
<td>Cervical</td>
<td>Reduce mortality</td>
<td>2.9</td>
<td>2.2</td>
<td>–24%</td>
</tr>
<tr>
<td>Colorectal</td>
<td>Reduce mortality</td>
<td>18.0</td>
<td>14.5</td>
<td>–19%</td>
</tr>
<tr>
<td>Lung</td>
<td>Reduce mortality</td>
<td>48.3</td>
<td>38.1</td>
<td>–21%</td>
</tr>
<tr>
<td>Prostate</td>
<td>Reduce mortality</td>
<td>28.0</td>
<td>21.7</td>
<td>–23%</td>
</tr>
</tbody>
</table>

Source: California Cancer Registry, California Department of Public Health
* All leukemias are staged as distant disease, thus survival cannot be calculated for other stages.
• Colorectal cancer mortality rates in California have decreased from 1998 to 2008. Based on current rates, California has observed a 19% reduction in colorectal cancer mortality (from 18.0 deaths per 100,000 persons in 1998 to 14.5 in 2008).

• Lung cancer mortality rates have decreased from 1998 to 2008 for both sexes. Based on current rates, California has observed a 20% reduction in lung cancer mortality (from 48.3 deaths per 100,000 persons in 1998 to 38.1 in 2008).

• Prostate cancer mortality rates have decreased from 1998 to 2008. Based on current rates, California has observed a 22% reduction in prostate cancer mortality (from 28.0 deaths per 100,000 persons in 1998 to 21.7 in 2008).

California’s progress toward these goals and others is addressed in more detail in California’s Comprehensive Cancer Control Plan: Progress Report, 2009. The results of the report were used as a guide in revising this plan. Continued progress toward achieving the Plan’s goals will facilitate the allocation of existing state resources where they are most needed.

**CANCER PLAN 2011–2015: GOAL SUMMARY**

Below is a list of goals that relate to each chapter of the 2011–2015 Plan. In addition, site-specific goals address selected cancer objectives throughout the Plan.

**All Cancers Combined**  
Reduce the number of new cancer cases and deaths due to cancer, specifically among female breast, cervical, colorectal, melanoma, ovarian, and prostate cancers.

**Primary prevention**  
Reduce risk factors for developing cancer among all Californians with emphasis on tobacco use, obesity, human papillomavirus (HPV), and ultraviolet (UV) light exposure.

- **Human Papillomavirus**  
  Prevent the occurrence of new cases of human papillomavirus.

- **Obesity**  
  Halt and reverse the upward obesity and overweight trends among California adults, teens, and children.

- **Tobacco Use**  
  Decrease adult and youth tobacco use prevalence.

- **UV Light Exposure**  
  Reduce overexposure to ultraviolet light.
**Early detection**  
Increase early detection of cancer among Californians through appropriate and timely cancer screenings.

**Cancer-related health disparities**  
Eliminate cancer-related health disparities among all Californians.

**Survivorship**  
Improve California cancer survivors’ quality of life through increased awareness, education, and access to survivorship resources and services.

**Research**  
Enhance Californians’ awareness of, access to, and participation in cancer research, with special emphasis on minority and underserved populations.

**Surveillance**  
Ensure the collection, dissemination, and utilization of comprehensive and understandable cancer-related surveillance data for cancer control planning, implementation, and evaluation in California.

**Advocacy**  
Engage in cancer-related public policy and legislative advocacy in order to address cancer-related health disparities in California.

**Cancer Sites by Priority Areas**  
Below is a quick reference on where to locate the site-specific objectives by priority area.

<table>
<thead>
<tr>
<th>Cancer Site</th>
<th>Primary Prevention</th>
<th>Early Detection &amp; Screening</th>
<th>Cancer-Related Health Disparities</th>
<th>Survivorship</th>
<th>Advocacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cervical</td>
<td>pg. 25</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colorectal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melanoma</td>
<td>pp. 28-29</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ovarian</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prostate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 7.** Cancer sites by priority areas.
ON THE NEED FOR CANCER AWARENESS

Zul Surani
Son & Caregiver

"Even as a 14-year cancer control health professional in Los Angeles, I really didn’t know about the cancer experience—how patients and their families deal with cancer—until it happened in my family. My mother was diagnosed with lymphoma in 2009 and passed away just six weeks after she began treatment. While our family was really informed, we realized that we still didn’t know enough and needed information and support from health professionals—every step of the way."
Calif
or
nia Dialogue on Cancer

Goal:

To reduce risk factors for developing cancer among all Californians with emphasis on HPV, obesity, tobacco use, and UV exposure.

Primary Prevention

Primary prevention of cancer refers to actions taken by individuals, communities, or governments to protect against the occurrence of cancer. This includes promotion of measures that reduce the risk of developing cancer by encouraging healthy lifestyles and environments and empowering Californians to make informed decisions.

Adopting specific lifestyle behaviors can reduce cancer risk. The healthy lifestyle behaviors most effective in preventing cancer include avoiding use of tobacco products and exposure to secondhand smoke, minimizing alcohol intake, following a balanced diet, exercising regularly, and protecting against ultraviolet exposure. Other behaviors linked to cancer prevention include breastfeeding, practicing healthy sexual behaviors, and obtaining appropriate vaccinations. Raising awareness about the impact people can have on their own health through adopting healthy lifestyles is an important step toward cancer prevention. This chapter of the Plan will focus on prevention strategies pertaining to the human papillomavirus (HPV), obesity, tobacco use, and ultraviolet (UV) light exposure.
### Human Papillomavirus (HPV)

#### HPV: OBJECTIVE 1

By 2015, increase the percentage of girls 13–17 years old that have completed the HPV vaccine three-shot series by 60 percent, from the current baseline of 21.8% to 35%.

**STRATEGIES**

Promote comprehensive immunization of teens, including HPV immunization, whenever possible:

- Use the time of immunization for the newly required 7th–12th grade pertussis booster (2011–2012 and ongoing) along with the 7th grade pertussis booster requirement (2012–2013 and ongoing) as opportunities to encourage all immunizations.

Create awareness of HPV and HPV vaccination:

- Target media campaigns to parents and girls with the emphasis on HPV vaccine in cancer prevention.
- Promote HPV awareness sessions in middle and high schools.
- Engage community-based organizations to promote culturally and linguistically specific education on HPV vaccine in cancer prevention.

Increase vaccination rates by healthcare providers:

- Encourage providers to utilize client reminder and recall systems.
- Educate parents and boys regarding the voluntary recommendation for HPV vaccination among boys (to decrease rates of HPV infection, genital warts, and anal cancers in males).
- Decrease patient cost barriers to HPV immunization.
- Decrease physician cost barriers to providing HPV immunizations.
- Provide rewards to providers with high HPV vaccinations rates.

---

**Source:** Centers for Disease Control and Prevention

**Baseline:** 21.8%

<p>| |
||</p>
<table>
<thead>
<tr>
<th>Year</th>
<th>% of girls 13-17 years of age completing HPV vaccination</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>21.8%</td>
</tr>
<tr>
<td>2015</td>
<td>Target: 35.0%</td>
</tr>
</tbody>
</table>

**Source:** Centers for Disease Control and Prevention National Immunization Survey: Teen (2009)

---

HPV is spread through sexual contact, and certain strains are known to cause cervical cancer in women. It is estimated that 20 million Americans, most in their late teens and early 20s, are infected with HPV. Each year in the US, about 12,000 women are diagnosed with cervical cancer, and about 4,000 die from the disease. HPV vaccines are now available and have been shown to be very effective against the HPV strains that cause most cervical cancers, especially when given at an age before any HPV exposure might occur.

**Source:** Centers for Disease Control and Prevention
### Obesity

#### OBESITY: OBJECTIVE 1

By 2015, increase the percentage of farmers’ markets in California that accept electronic benefits transfers (EBTs) for payment by 50 percent, from the current baseline of 6.6% to 10%.

#### STRATEGIES

- Educate farmers’ market sponsoring organizations and marketing managers on the benefits of offering EBT as a payment method, to increase both sales and access to low-income families.
- Engage community members as advocates for adding EBT as a method of payment at existing farmers’ markets.

#### OBESITY: OBJECTIVE 2

By 2015, increase the daily consumption of the recommended servings of fruits and vegetables among California adults by 12 percent each, from baselines of 40.1% and 26.8% to 45% and 30%, respectively.

#### STRATEGIES

- Increase the number of healthy options via vending machine and cafeteria or other means at worksites.
- Portray healthy eating as the norm on TV and in movies and advertisements.
- Use product placement to promote healthy foods and beverages on TV and in movies.
- Limit advertisements of less healthy foods and beverages.

Good nutrition, including a diet rich in fresh fruits and vegetables, is vital to good health and disease prevention, and can help reduce the incidence of heart disease, cancer, and diabetes. In many low-income and underserved communities, however, access to stores that sell healthy foods may be limited, especially when it comes to high-quality fruits and vegetables. Making fresh produce outlets more accessible to low-income consumers, through efforts such as promoting the wider acceptance of electronic benefits transfers at farmers’ markets, can put healthier diets within closer reach for all.
OBESITY: OBJECTIVE 3
By 2015, increase the percent of California adults who participate in moderate or vigorous physical activities by 7.2 percent, from the current baseline of 51.3% to 55%.

| STRATEGIES |
| Create workplace policies supportive of regular physical activity during the workday. |
| Encourage health plans to include prevention and wellness activities in their benefit plan. |
| Increase member access to covered services that include nutrition, physical activity, and wellness services. |
| Portray active living strategies as the norm in television, film and advertisements. |

ACTIVITY DEFINITIONS
Moderate activity is anything that makes you breathe as hard as you do during a brisk walk. During moderate activities, you’ll notice a slight increase in heart rate and breathing, but you may not break a sweat.

Vigorous activities generally engage large muscle groups and cause a noticeable increase in heart rate, breathing depth and frequency, and sweating.

Tobacco Use

TOBACCO USE: OBJECTIVE 1
By 2015, decrease the prevalence of adult tobacco use by 23 percent, from the current baseline of 13.1% to 10%.

| STRATEGIES |
| Support efforts to increase the state tobacco excise tax with a portion of the taxes earmarked for efforts to dissuade tobacco use. |
| Promote the California Smokers’ Helpline to Californians seeking tobacco cessation treatment. |
| Support and implement policies that protect all Californians from exposure to secondhand smoke in the workplace under authority of local, state, and tribal governments. |
Primary Prevention

**TOBACCO USE: OBJECTIVE 2**

By 2015, decrease the prevalence of high school youth tobacco use by 45 percent, from the current baseline of 14.6% to 8%.

**STRATEGIES**

- Support efforts to increase the state tobacco excise tax with a portion of the taxes earmarked for efforts to dissuade tobacco use among youth.
- Decrease tobacco industry marketing to minors at point-of-sale checkout counters.
- Support and implement policies that prohibit tobacco use in all public schools, including direct-funded charters.

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**UV EXPOSURE: OBJECTIVE 1**

By 2015, decrease the proportion of adults 18 years and older who have had a sunburn in the past 12 months by 50 percent, from the current baseline of 30% to 15%.

**STRATEGIES**

- Educate the public regarding the dangers of unprotected exposure to UV light—including indoor tanning—and the recommended practices for decreasing melanoma risk, including using the UV index to identify the strength of UV light when outdoors.

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*Smoking and smokeless tobacco use in adulthood almost always starts, and the addiction established, during adolescence. More than 80% of adults smokers report having begun smoking as children or teenagers. Preventing the initiation of smoking during adolescence is a critical element in reducing smoking and tobacco use among adults.*

*Source: Centers for Disease Control and Prevention*
UV EXPOSURE: OBJECTIVE 2

By 2015, reduce the proportion of children under 12 years old who have had a sunburn within the previous 12 months by 50 percent, from the current baseline of 15% to 7.5%.

<table>
<thead>
<tr>
<th>Decrease the incidence of sunburn among children</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of children under age 12 reporting at least one sunburn in the prior 12 months</td>
</tr>
<tr>
<td>2011</td>
</tr>
<tr>
<td>20</td>
</tr>
<tr>
<td>Baseline: 15%</td>
</tr>
</tbody>
</table>

Source: California Health Interview Survey (2009)

STRATEGIES

- Support the integration of sun protection and melanoma prevention strategies (education and policies) into facilities serving children and youth.
- Educate parents regarding the harmful effects of overexposure of UV light for young children and indoor tanning for teens.
- Promote and disseminate existing skin cancer prevention education and policy resources to child care centers, schools (K–12), parks and recreation departments, sports venues, camps, and developers to support integration of sun protection strategies into their activities, policies, and structures.

It is estimated that from 65% to 90% of melanomas are caused by exposure to ultraviolet (UV) light, primarily from exposure to the sun through work and play. Hence, protection from the sun is important all year round, not just during the summer or at the beach.

Source: Centers for Disease Control and Prevention
Goal:

*Increase early detection of cancer among Californians through appropriate and timely cancer screenings.*

**Early Detection & Screening**

Early detection of cancer is the ability to detect cancer at its most treatable stage in order to prevent potentially curable cancer that has not spread (metastasized) from progressing to incurable cancer.

For certain cancers, screening tests can detect early pre-cancerous or cancerous changes that allow for prompt treatment and a greater likelihood for cancer prevention or cure. *Early detection is still the best way to reduce mortality* from these cancers. This chapter will focus on strategies to increase screening rates for breast, cervical, colorectal, and melanoma cancers. For prostate cancer, recommendations encouraging informed decision-making regarding screening are emphasized rather than focusing on increasing screening rates. In addition, strategies to decrease incidence rates of late-stage ovarian cancer with a focus on early detection are outlined.
Breast Cancer

Breast Cancer: Objective 1
By 2015, increase the prevalence of women 40 years and older who report having both a mammogram and a clinical breast exam (CBE) within the prior two years by 7.5 percent, from a baseline prevalence of 79.1% to 85%.

<table>
<thead>
<tr>
<th>STRATEGIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaborate to develop a consistent, public message used by government and private entities about breast cancer screening guidelines based on scientific evidence.</td>
</tr>
<tr>
<td>Increase funds from all sources spent on breast cancer screening outreach and public education messages.</td>
</tr>
<tr>
<td>Ensure that implementation of the Patient Protection and Affordable Care Act in California includes access to breast cancer screening, diagnostic, and treatment services.</td>
</tr>
</tbody>
</table>

Breast Cancer: Objective 2
By 2015, increase the proportion of early-stage diagnoses of breast cancer among all women by 29 percent, from the baseline proportion of 69% to 89%.

<table>
<thead>
<tr>
<th>STRATEGIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support efforts to improve screening behaviors in women with higher likelihood of late-stage disease diagnosis.</td>
</tr>
<tr>
<td>Support patient navigation services for all women undergoing screening, diagnostic, and treatment services, particularly for populations at increased risk for late-stage disease or with a higher mortality rate.</td>
</tr>
</tbody>
</table>
Cervical Cancer

CERVICAL CANCER: OBJECTIVE 1

By 2015, increase the overall percentage of women 21 years and older who have had a Pap test in the last three years by five percent, from the current baseline of 79.7% to 83.7%.

<table>
<thead>
<tr>
<th>Increase Pap test prevalence</th>
<th>90%</th>
<th>85%</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of women 21 years of age and older who have had a Pap test in the previous three years</td>
<td>Baseline: 79.7%</td>
<td>Target: 83.7%</td>
</tr>
</tbody>
</table>

2011 2015


STRATEGIES

- Promote evidence-based interventions and outreach efforts that target women not receiving recommended Pap tests (women who have never been screened or who have not been screened in the past three years: e.g., Asian/Pacific Islanders, Latinas, women less than 200 percent of the federal poverty level, etc.).
- Raise public awareness about the importance of cervical cancer screening:
  - Conduct broad-based public education focusing on the need for age-appropriate Pap tests.
  - Integrate prevention messages into all cervical cancer information disseminated to the public.
- Encourage testing through healthcare delivery interventions.
  - Ensure access to cervical cancer screening through state and federal programs (e.g., Family PACT and Every Woman Counts) for women not eligible for insurance through the Affordable Care Act.
  - Expand the use of provider reminder systems.
## Colorectal Cancer

### Colorectal Cancer: Objective 1

By 2015, increase colorectal cancer screening rates among people 50 years and older using one of the screening options recommended by the most current United States Preventive Services Task Force screening guidelines (2008) by 15 percent, from the current baseline of 68.1% to 78.3%.

**Strategies**

- Work with community organizations to spread culturally tailored messages about primary prevention and effective screening methods within ethnically diverse communities.
- Work with primary care providers to increase awareness of primary prevention and discuss screening strategies that can lead to higher screening rates in their clinical practices.
- Encourage health plans and public health departments to promote primary prevention and effective practice-based and population-based strategies to increase colorectal cancer screening rates. (For a list of effective strategies, visit [www.cacoloncancer.org](http://www.cacoloncancer.org)).

Despite the availability of highly effective colorectal cancer screening tests, almost half of all colorectal cancer cases in California are diagnosed at a late stage, after the disease has spread beyond the colon, resulting in increased difficulty in treatment and lower survival rates. In addition, African Americans and Asian and Pacific Islanders have the highest rates of late-stage diagnosis of colorectal cancer across all ethnic groups in California. To change this situation, objectives two and three and the strategies that follow address these issues.

### Colorectal Cancer: Objective 2

By 2015, decrease the proportion of late-stage diagnoses of colorectal cancer among all Californians by 15 percent, from the current proportion of 47.1% to 40%.
**COLORECTAL CANCER: OBJECTIVE 3**

By 2015, decrease the proportion of late-stage diagnoses of colorectal cancer among African Americans and Asian and Pacific Islanders by 20 percent, from the current proportions in African Americans of 51.5% to 41.2%, and in Asian and Pacific Islanders of 51.8% to 41.4%.

**STRATEGIES, OBJECTIVES 2 & 3**

- Develop screening, primary prevention, and treatment promotion campaigns and education programs that target populations with low screening rates and the primary care providers that attend to these populations.
- Promote the increased use of annual fecal immunoochemical testing (FIT) for average-risk screening in settings that serve patients with limited healthcare coverage, and for patients who prefer inexpensive, non-invasive testing.
- Advocate for expanded healthcare coverage to assure follow-up of abnormal tests with diagnostic testing and evidence-based treatment.

**MELANOMA: OBJECTIVE 1**

By 2015, decrease the proportion of late-stage (regional and distant) diagnoses of melanoma by 25 percent, from the current baseline of 6.9% to 5.2%.

**STRATEGIES**

- Educate and promote self-examination and annual skin screenings by a healthcare professional.
- Conduct free or low-cost screening events for high-risk (non-Hispanic whites and outdoor workers), uninsured, and under-insured populations.
- Advocate for funding the development of a statewide melanoma and other skin cancer screening and treatment program.
**Ovarian Cancer**

**OVARIAN CANCER: OBJECTIVE 1**

By 2015, decrease the proportion of ovarian cancer diagnoses at distant stage by eight percent, from the current baseline of 60.4% to 55.4%.

![Chart showing decrease in distant-stage diagnoses of ovarian cancer from 60.4% to 55.4% between 2011 and 2015.](chart)

**STRATEGIES**

- Increase awareness of ovarian cancer symptoms in women 40 years and older and healthcare providers to promote earlier detection and treatment.
- Inform women 40 years and older and healthcare providers about the latest diagnostic tools/recommendations and treatment modalities, including clinical trials.
- Support efforts to develop and implement an early detection test or method.
- Increase testing (in women with non-mucinous epithelial ovarian cancer) for genetic mutations that increase the risk of ovarian cancer, thereby increasing opportunities for risk-reduction strategies.

**Prostate Cancer**

Men should have a discussion with their healthcare providers in order to make an informed decision about whether to be screened for prostate cancer. In general, counseling can start as early as 40 years old for high-risk men and 50 years old for average-risk men. Routine screening is not advocated for men 75 years and older. The decision should be made after considering information about the uncertainties, risks, and potential benefits of prostate cancer screening—taking into account the patient’s family history, general health preferences and values. Men should not be screened unless they have considered this information. These objectives include the following risk groups for prostate cancer:

- **High-risk men** include African Americans and men who have a first-degree relative (father, brother, or son) diagnosed with prostate cancer at 65 years or younger.
- **Average-risk men** include all others, 50–75 years of age, who do not fit into the high-risk category.

![Image of a man discussing with healthcare provider.](image)
**PROSTATE CANCER: OBJECTIVE 1**

By 2015, increase the proportion of men 40 years and older who have talked with their healthcare providers about prostate cancer screening.

**STRATEGIES**

- Educate men about prostate cancer, its risk factors, and screening benefits and risks, and encourage them to consult with their healthcare providers and participate in shared decision-making regarding prostate cancer screening.
- Educate primary care providers to utilize appropriate risk assessment tools and discuss with their male patients the risks and benefits of prostate cancer screening to promote informed decision making at appropriate ages depending upon patients’ risk factors.
- Develop questions for prostate cancer screening regarding family history and informed decision making to include in data surveillance tools.
- Continue to monitor medical science and screening recommendations and unify the messages from cancer authorities about the benefits and risks of prostate cancer screening to promote informed decision making.
- Support funding for research to identify better screening tools for prostate cancer and to develop new and effective treatment options.

**PROSTATE CANCER: OBJECTIVE 2**

African-American men have the highest incidence and mortality rates for prostate cancer in California among all men. In addition, across all ethnic groups in California, African American men are among those with the lowest screening rates.

By 2015, increase the percentage of African Americans (non-Hispanic black) men 40 years and older who have ever had Prostate Specific Antigen (PSA) screening by 20 percent, from the current baseline of 61.2% to 73.4%.

![Increase prostate cancer screening among African-American men](image)

**STRATEGIES**

- Continue to monitor medical science and screening recommendations, and unify the message from cancer authorities about the benefits and risks of prostate cancer screening to promote informed decision making.
Educate primary care providers to utilize appropriate risk assessment tools and provide comprehensive, consistent, and balanced information about prostate screening to promote informed decision making for African-American men 40 years and older.

Educate African-American men 40 years and older who are at high risk for prostate cancer about prostate cancer risk factors, screening benefits and options, and the importance of consulting their healthcare providers and participating in shared decision making regarding prostate cancer screening.
Goal: To eliminate cancer-related health disparities among all Californians.

Cancer-Related Health Disparities

The National Cancer Institute describes cancer-related health disparities as the differences in the incidence, prevalence, mortality, burden of cancer, and other adverse cancer-related conditions that exist among specific population groups. Disparities in cancer prevention and control are usually found among those who encounter barriers to optimal cancer care, including education, prevention, detection, treatment, and rehabilitation. The underserved are often diagnosed at later stages and with higher incidences of cancers with higher mortality, such as lung cancer. The term “underserved” includes, but is not limited to, individuals and their children who are indigent, the working poor without adequate medical insurance, the elderly, the homeless, those with limited education, those with limited literacy or language ability, those with physical and/or mental disabilities, and those whose cultural beliefs and practices are not supported by Western biomedicine.

The risk of developing cancer varies by both ethnicity and economic level. Since well over half of California’s population is nonwhite and many residents regardless of ethnicity are low-income, uninsured, and/or rural, addressing health disparities is of monumental importance in reducing the incidence, morbidity, and mortality of cancer and improving the quality of life among all residents of the state. As of May 2011, California has no population majority and is unique as the most diverse state in the US (US Census Bureau, 2011). California has the largest Asian population in the US with the majority being first-generation immigrants. In addition, California has a significant number of first-generation immigrants from Mexico and Latin America and the largest number of American Indians in the US. Access to care is limited by lack of health insurance for a significant number of these Californians as well as others. Poverty not only acts as a barrier to prevention, screening, and treatment services, however; it can also contribute to the development of cancer through the social and physical environments in which low-income residents live and work.
**Health Disparities**

**HEALTH DISPARITIES: OBJECTIVE 1**

By 2015, increase the number of CDOC Access-to-Cancer-Care Community Coalitions to represent medically underserved areas.

**STRATEGIES**

- Identify medically underserved areas and provide marketing to key public health professionals in medically underserved areas to increase awareness of benefits of such community coalitions in providing resources to increase access to care by at-risk underserved groups.
- Provide capacity building, technical assistance, and resources to sustain local efforts.

**HEALTH DISPARITIES: OBJECTIVE 2**

By 2015, increase cultural targeting and tailoring to ethnic groups experiencing higher risks of specific cancers.

**STRATEGIES**

- Collaborate with existing coalitions, such as the NCI’s Community Network Programs.
- Expand the tailoring of marketing, outreach, and education for services related to targeting the screening of specific cancers to at-risk ethnic groups.
- Promote participation and enrollment of underserved groups in prevention programs to be covered under the new healthcare reform program.

**HEALTH DISPARITIES: OBJECTIVE 3**

By 2015, develop a network of existing resources that works to reduce disparities and disseminate these resources.

**STRATEGIES**

- Establish and maintain an online state and national service and financial resource directory, specifically of resources useful in reducing disparities among the medically underserved and provide these resources to organizations and agencies.
- Identify areas where national and state resources do not currently exist for specific ethnic groups, particularly for screenable cancers.
- Expand federal and state funding for services related to reducing disparities, especially in areas identified as gaps.
- Assist local coalitions in identifying outside private funding sources available to increase local services to the medically underserved communities where ethnic disparities exist.
Goal:
To improve California cancer survivors’ quality of life through increased awareness, education, and access to survivorship resources and services.

Survivorship
Survivorship entails improving quality of life for people from the moment of cancer diagnosis to living with or beyond cancer. A person is considered a survivor from the day of diagnosis through the remaining days of life.

Improvements in early detection and treatment together with successful prevention efforts have resulted in more people surviving longer after being diagnosed with cancer. Nationally, the number of cancer survivors tripled to 12 million people during the past 30 years (Livestrong, 2010). After the diagnosis and treatment of cancer, survivors and their families must still contend with a host of physical, psychological, and socioeconomic issues. Minimal resources have been devoted toward preventing or reducing these quality of life burdens that cancer survivors must face. Cancer survivors and their families and caregivers need to be informed and provided with a treatment summary so that they can anticipate the aftereffects of treatment. An aftercare plan helps patients understand their future care needs and equips them with all the resources available to assist them in making informed decisions after treatment in the hope that they will then enjoy a higher quality of life going forward.
Survivorship

**SURVIVORSHIP: OBJECTIVE 1**

By 2015, increase the number of cancer patients who have received an aftercare plan after completing treatment by ten percent, from the current baseline of 71.9% to 79.1%.

**STRATEGIES**

- Assess gaps in statewide survivorship resources by collaborating with relevant partners (e.g., American Cancer Society, Leukemia & Lymphoma Society, Lance Armstrong Foundation).
- Partner with hospitals, regional and community cancer centers, and nonprofit organizations to promote dissemination of survivor resources and services.

**SURVIVORSHIP: OBJECTIVE 2**

By 2015, increase awareness of and access to survivorship resources and services to cancer survivors, families, and caregivers.

**STRATEGIES**

- Educate healthcare professionals regarding the importance of integrating survivor care plans into standard practice.
- Promote the use of survivor care plans by healthcare providers and cancer patients.
- Promote systems change to integrate survivor care plans into systems of care.
SURVIVORSHIP: OBJECTIVE 3

By 2015, identify and collaborate with community points of contact to increase awareness among the general public, policymakers, survivors, providers, and others about survivorship issues and impacts.

STRATEGIES

- Increase the knowledge, availability, and use of patient navigation services.
- Partner with regional and community cancer centers and nonprofit organizations to offer treatment and survivorship educational presentations.
- Monitor and incorporate emerging information on cancer treatment and survivorship into the state’s comprehensive cancer control communications efforts.
- Develop opportunities for cancer survivors to be involved in advocacy and educating the public, healthcare providers, and policymakers about their post-treatment needs and impact of cancer (e.g., cancer survivor videos/story bank, Cancer Survivors Day activities).
If cancer was a person, and I could look it in the eye, I would tell it with gritted teeth that it picked the wrong woman to mess with. And after a good, old-fashioned butt kicking, just before I threw it out of my life on its rear end, I’d tell it, ‘Thank you. Thank you for showing me how much of a fighter I truly am.”
Goal:
To enhance Californians’ awareness of, access to, and participation in cancer research, with special emphasis on minority and underserved populations.

Research

Research is the process of conducting scientific study that is designed to answer a specific question about nature, health, or disease (National Cancer Institute). Research, especially clinical trials research, is crucial to cancer control because it provides answers that can improve how cancer is prevented, detected, and treated. Results of research studies on cancer can often be applied to clinical medicine and public health in ways that help to improve cancer prevention and control.

Many effective cancer treatment modalities currently in use have stemmed from cancer clinical trials. Clinical trials are research studies in which people help doctors find ways to improve health and cancer care. Each study tries to answer scientific questions and to find better ways to prevent, diagnose, or treat cancer. Significant barriers and challenges to promoting participation in clinical trials must be addressed to advance cancer research. Although the National Cancer Institute estimates that 20 percent of adults diagnosed with cancer may be eligible to participate in cancer clinical trials, fewer than five percent enroll each year. Furthermore, individuals disproportionately affected by cancer (such as women, the elderly, racial or ethnic minorities, or rural residents) are under-represented in cancer clinical trials, thereby making it difficult to generalize results. Low participation and/or under-representation may be the result of factors ranging from lack of awareness among community members and healthcare providers, lack of health insurance, or language and cultural differences to such practical considerations as lack of transportation or childcare expenses. Even more difficult to overcome among some patients and their families may be suspicion and mistrust regarding the motivations, intentions, or priorities of researchers engendered by infamous clinical trial abuses that occurred before international guidelines that govern the conduct of research and protect the people who participate were enacted.
One way to encourage participation in clinical trials and other types of research is called community-based participatory research, a type of research that involves community members and stakeholders in all aspects of the research process, from planning the study design through implementing and finalizing the study. This type of research helps to ensure that the results of these research studies will have a direct positive impact on the communities where the research is conducted. By involving community members in the process, researchers are able to design and conduct studies that can answer important questions about cancer prevention and control that are deeply relevant to the people who participate in the research studies (National Institutes of Health, Office of Behavioral and Social Sciences Research website).

**STRATEGIES**

**Raising Awareness about Clinical Trials and Community-Based Participatory Research**

- Educate community members and healthcare professionals about cancer research by providing resources and/or referral to organizations with comprehensive information (e.g., National Cancer Institute Clinical Trials Education Series, National Institutes of Health).
- Establish a cancer research awareness day, week or month to increase opportunities for community education and discussion of cancer clinical trials, community-based participatory research and biospecimen-based (i.e., based on tissue, blood, plasma or urine collected from participants) research initiatives.
- Inform community members and healthcare providers about California’s Cancer Clinical Trial Law, by which routine costs associated with treatment are covered by health insurance (including Medi-Cal and Medicare).

**Improving access to and participation in cancer clinical trials and community-based participatory research, particularly for Californians disproportionately affected by cancer**

- Support advocacy efforts that address the barriers faced by individuals who are medically underserved and under-represented in cancer clinical trials and other research. (For examples, refer to the National Cancer Institute’s Resource Guide for Outreach, Education, and Advocacy.)
- Collaborate with community members to develop and disseminate linguistically and culturally relevant resources about cancer research.
- Provide cultural competency training to healthcare providers to address the needs of minority and underserved populations and increase their referral to cancer clinical trials.

**Research Infrastructure**

To support its cancer research goal, California must strengthen its research infrastructure and address gaps in communication/coordination among cancer research programs, institutions, and other entities, as well as the limited availability of, and access to, statewide information on clinical trials and community-based participatory research. By promoting collaboration among cancer research entities, consolidating cancer research information, and making use of the latest technological developments (e.g., electronic medical record capability of community-based physicians), stakeholders will establish the foundation for comprehensive, statewide cancer research efforts that will benefit all Californians.
Strengthening California’s Research Infrastructure

- Organize a community-based participatory research advisory committee made up of community-based organizations, cancer researchers, and advocates to conduct baseline and follow-up surveys of cancer centers in California that will identify the number and types of community-based participatory research projects that are being conducted in the state.

- Develop a comprehensive, community-friendly list of California-specific and national resources about cancer research and make it widely available (e.g., cancer websites, list-servs, meetings, conferences, etc.).

- Form a statewide cancer clinical trials advisory committee made up of cancer researchers, advocates, and representatives from cancer clinical trials entities to discuss the development of a comprehensive clinical trials database to collect California-specific screening and enrollment data, establish a baseline for clinical trials enrollment, and monitor progress in increasing clinical trials participation.
ON TAKING PART IN CLINICAL TRIALS

Susan Ramos
Breast Cancer

“I traveled out of town for a clinical trial for a breast cancer vaccine for five years without knowing if I was getting the drug or not. Even though the study was unable to prove the efficacy of the drug, and it required significant effort from me to participate, the study gave me hope, and that is something every cancer patient values.”
Cancer Surveillance

Cancer surveillance is the systematic collection, analysis, and provision of data that is integrated into the implementation and evaluation of cancer prevention and control programs.

By collecting and analyzing data on cancer incidence, morbidity, survival, and mortality, cancer surveillance provides stakeholders with a better understanding of cancer and appropriate strategies and policies for cancer prevention, treatment, and control. Having statewide cancer data enables health researchers to analyze demographic and geographic factors that affect cancer risk, early detection, and effective treatment of cancer patients. In conjunction with behavioral, attitudinal, environmental, and structural data, cancer surveillance informs the development and implementation of early detection, educational, and other cancer-related programs.

The California Cancer Registry (CCR) is recognized as one of the leading cancer registries in the world and has been the cornerstone for cancer surveillance in California. A major partner in the development and evaluation of California’s Comprehensive Cancer Control Plan, CCR has outlined the following strategies to enhance its capacity to collect, process, analyze, and disseminate statewide cancer surveillance data. In addition to CCR, there are many other data collection systems that provide valuable cancer-related surveillance information for the state. Stakeholders are encouraged to utilize these sources to inform the planning, implementation, and evaluation of cancer control activities. (Please see Appendix III for a list, brief description, and web addresses of cancer-related data sources.)
Cancer Surveillance

SURVEILLANCE: OBJECTIVE 1
By 2015, improve CCR's data acquisition capacity and efficiency in data processing through the use of electronic data reporting.

STRATEGIES
- Support legislative efforts to require electronic reporting from pathology laboratories.
- Ensure that non-hospital sources such as ambulatory surgery centers and physician offices electronically report data to meet National Program of Cancer Registries (NPCR) program standards.
- Develop agreements between the CCR and treatment facilities for sharing electronic medical records data and implement integration profiles to standardize data transmission.
- Submit complete electronic data reports and records to CCR in a timely manner.
- Create an advisory committee for guidance on improving the collection of cancer data.

SURVEILLANCE: OBJECTIVE 2
By 2015, enhance the capacity of cancer surveillance data collection sources to produce and disseminate user-friendly cancer information and data reports that meet the needs of the general public, public health-based organizations, research-based institutions, and other stakeholders.

STRATEGIES
- Promote the availability and accessibility of cancer data from CCR and statewide surveys through a variety of media.
- Ensure a wider dissemination of cancer data by producing culturally and linguistically appropriate cancer reports.
- Expand CCR's analyses and dissemination of cancer incidence and risk, detection, mortality, and survival through the integration of cancer data with health survey data collected from the Behavioral Risk Factor Survey (BRFS), California Health Interview Survey (CHIS), California Women's Health Survey (CWHS), and the California Adult Tobacco Survey (CATS) to produce reports and maps displaying health behaviors, prevalence of cancer risk factors, socioeconomic characteristics, access and barriers to screening, and adherence to screening guidelines in California.
- Utilize relevant socio-demographic and geographic indicators in cancer data analyses to highlight disparities in cancer incidence, detection, and outcomes.
- Offer feedback on the usability of cancer data web tools and publications.
Advocacy

Goal: To engage in cancer-related public policy and legislative advocacy to address cancer-related health disparities in California.

Advocacy is the process of influencing public policies and legislation related to political, economic, and social systems and institutions that impact cancer.

There are a number of general strategies that stakeholders can utilize to engage in cancer-related public policy and legislative advocacy in California:

- Educate the public, healthcare professionals, and policy makers about cancer control issues and relevant data to garner support for funding.
- Engage in grassroots advocacy, including meeting and communicating with policy makers.
- Participate in local advocacy activities to support cancer-related policies and legislation.
- Participate in media advocacy efforts to encourage increased cancer control funding and other initiatives.

There are also many opportunities for California stakeholders to work together on cancer-related public policy and legislative advocacy efforts:

- Provide training opportunities for community leaders and other stakeholders on ways to engage their constituents in cancer-related grassroots and media advocacy.
- Develop a method of tracking statewide levels of engagement in cancer-related advocacy efforts.
- Organize an email alert system for California stakeholders to increase engagement in cancer-related public policy and legislative advocacy.
Numerous studies have shown that lack of access to quality healthcare and health insurance can contribute to cancer-related health disparities in California. Therefore, stakeholders can specifically engage in public policy and legislative advocacy to increase access to healthcare and health insurance coverage and decrease cancer-related health disparities for Californians.

Advocacy

**ADVOCACY: OBJECTIVE 1**

By 2015, advocate for increasing the number of Californians with health insurance coverage by ten percent, from the current baseline of 78.8% to 86.7%.

**STRATEGIES**

- Participate in legislative and policy advocacy to ensure state implementation of federal healthcare reforms.
- Educate the public regarding available and upcoming health insurance and healthcare coverage options.
- Advocate for state policy and legislative solutions to increase the accessibility and affordability of quality healthcare coverage.

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**ON ADVOCACY**

Florence Kurtilla
Colorectal Cancer

“I refused to let cancer have me—I had cancer. I tried to beat this intruder in my life and did so with the help of so many people. When I found out I could make a difference by becoming an advocate, I jumped at the chance. It may be a small thing, but it makes a huge difference.”
Additional Cancer Site-Specific Objectives

As a way to evaluate how much progress California is making toward the goal of reducing incidence and mortality rates, the Cancer Plan Revision Committee is focusing on evaluating cancers that have screening and early detection methods: female breast, cervical, colorectal, melanoma, ovarian, and prostate cancers.
**Breast Cancer**

**OBJECTIVE**

By 2015, reduce the mortality rate of female breast cancer by ten percent, from the current baseline rate of 21.4/100,000 to 19.3/100,000.

**STRATEGIES**

- Support research and grants for clinical trials with emphasis on populations with a higher mortality rate.
- Support state and federal funding for access to breast cancer screening, diagnosis, and treatment for uninsured and underinsured women.
- Support private funding and grants for uninsured and underinsured women and men who do not qualify for publicly-funded programs.

**Cervical Cancer**

**OBJECTIVE**

By 2015, decrease the incidence rate of cervical cancer by 15 percent, from the current baseline rate of 8.2/100,000 to 7.0/100,000.

**STRATEGIES**

- Develop and promote clinical standards and professional education materials that consistently promote timely, relevant, follow-up and treatment for abnormal cervical cancer screening tests.
- Support continued and increased funding for state and federally funded programs that provide access to treatment of cervical dysplasia and cervical cancer and ensure that follow-up and treatment services are available for uninsured and underinsured women who do not qualify for publicly-funded programs or treatment through other funding sources (private grants, etc.).

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**Reduce the breast cancer mortality rate**

<table>
<thead>
<tr>
<th>Year</th>
<th>Baseline</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>21.4/100,000</td>
<td>19.3/100,000</td>
</tr>
<tr>
<td>2015</td>
<td>19.3/100,000</td>
<td>19.3/100,000</td>
</tr>
</tbody>
</table>

**Reduce the cervical cancer incidence rate**

<table>
<thead>
<tr>
<th>Year</th>
<th>Baseline</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>8.2/100,000</td>
<td>7.0/100,000</td>
</tr>
<tr>
<td>2015</td>
<td>7.0/100,000</td>
<td>7.0/100,000</td>
</tr>
</tbody>
</table>

*Source: California Cancer Registry (2008)*
## Colorectal Cancer

### COLORECTAL CANCER: OBJECTIVE

By 2015, decrease the mortality rate of colorectal cancer by 17.5 percent, from the current baseline rate of 14.5/100,000 to 12.0/100,000.

**STRATEGIES**

- Distribute frequent, consistent messages about colorectal cancer risk-reduction and screening strategies to patients 50–75 years of age.
- Promote strategies for effective communication between clinicians and patients about abnormal test results that require immediate diagnostic follow-up, longer-term surveillance, or evaluation of at-risk family members.
- Increase access to affordable and timely diagnostic colonoscopy and colorectal cancer treatment in communities in diverse healthcare settings, including those that have traditionally cared for uninsured or under-insured patients.

### Melanoma

In the near future, the number of new cases of melanoma cancer is projected to increase by 1.5 percent each year. One way to measure successful outcomes of prevention activities is to slow the increase in new cases to one percent per year over the next five years.

### MELANOMA: OBJECTIVE 1

By 2015, reduce the projected increase in the incidence of melanoma among all Californians by four percent, from a projected rise to 23.1/100,000 in 2015 to the target rate of 22.2/100,000.

**STRATEGIES**

- Support the integration of sun protection and melanoma prevention strategies (education and policies) into facilities serving children and youth.
- Educate parents regarding the harmful effects of UV light overexposure on young children and use of indoor tanning beds by teens.
- Educate the public regarding the dangers of unprotected exposure to UV light—including indoor tanning—and the recommended practices for decreasing melanoma risk, including using the UV index to identify the strength of UV light when outdoors.
**MELANOMA: OBJECTIVE 2**

By 2015, decrease the mortality rate of melanoma in California by ten percent, from the current baseline of 2.6/100,000 to 2.3/100,000.

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**STRATEGIES**

- Educate youth and their parents about the importance of sun protection and reducing overexposure to UV light.
- Raise awareness about the dangers of UV light indoor tanning.
- Educate about the importance of self-exams and annual screenings by physicians for early detection.
- Advocate for funding the treatment of melanoma and other skin cancers for uninsured and under-insured populations.

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**Ovarian Cancer**

Ovarian cancer is the most lethal gynecologic cancer. The majority of women with ovarian cancer are diagnosed at a distant stage, when the rate of survival is about 30% (CCR, 2003–2005). It is hoped that the following objectives and strategies will contribute to a reduction in the mortality rate of ovarian cancer. Indeed, it is essential to strengthen ovarian cancer research efforts and enhance ovarian cancer patients’ survival following diagnosis, treatment, and/or recurrence to effectively combat this aggressive disease.

**OVARIAN CANCER: OBJECTIVE 1**

By July 2015, reduce the mortality rate of ovarian cancer by 15 percent, from the current baseline rate of 8.1/100,000 to 6.9/100,000.

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**OVARIAN CANCER: OBJECTIVE 2**

By July 2015, increase the survival rate of ovarian cancer patients by ten percent, from the current baseline of 46.4% to 51%.
**STRATEGIES, OBJECTIVES 1 & 2**

- Raise awareness of women and healthcare providers regarding the importance of referral of women with known or suspected ovarian cancer to a gynecologic oncologist.
- Provide resources on clinical trials to ovarian cancer patients, healthcare providers, and community-based organizations.
- Encourage molecular profiling diagnostic tests to help prioritize treatment options and clinical trials in order to improve treatment outcomes for recurrent ovarian cancer patients.

**OVARIAN CANCER: OBJECTIVE 3**

By July 2015, increase National Cancer Institute funding for ovarian cancer research in California by 38 percent, from the current baseline of $8.7 million to the target level of $12 million.

**STRATEGIES**

- Participate in statewide and nationwide advocacy efforts to increase research funding to develop and implement a method of early detection for ovarian cancer.
- Track results of ovarian cancer clinical trials and generalize findings for the public.
- Inform state legislators about ovarian cancer to garner support for research.
**Prostate Cancer**

**Prostate Cancer: Objective 1**

By 2015, decrease the mortality rate of prostate cancer among all Californians by ten percent, from the current baseline rate of 21.7/100,000 to 19.5/100,000.

<table>
<thead>
<tr>
<th>Prostate cancer mortality rate (per 100,000 California males)</th>
<th>25</th>
<th>20</th>
<th>15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline: 21.7/100,000</td>
<td>Target: 19.5/100,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>2015</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: *California Cancer Registry (2008)*

**Prostate Cancer: Objective 2**

By 2015, decrease the mortality rate of prostate cancer among African-American (non-Hispanic black) men by ten percent, from the current baseline rate of 51.6/100,000 to the target rate of 46.4/100,000.

<table>
<thead>
<tr>
<th>Prostate cancer mortality rate (per 100,000 African-American males)</th>
<th>55</th>
<th>50</th>
<th>45</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline: 51.6/100,000</td>
<td>Target: 46.4/100,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>2015</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: *California Cancer Registry (2008)*

**Strategies**

- Increase access to screening and treatment for men, especially those at increased risk:
  - Support continued and/or increased funding for the state prostate cancer treatment program for uninsured and under-insured men.
  - Compile and post a list of free or low-cost prostate cancer treatment resources.
- Support funding for research to identify better screening tools for prostate cancer and to develop new, effective treatment options.
APPENDIX I

Technical Definitions*

Age-adjusted rate
A weighted average of the age-specific incidence or mortality rates, where the weights are the proportions of persons in the corresponding age groups of a standard million population. The potential confounding effect of age is reduced when comparing age-adjusted rates computed using the same standard million population.

Cancer burden
A measure of the incidence of cancer within the population and an estimate of the financial, emotional, or social impact it creates. The burden of disease is not borne equally by all population groups in the United States.

Five-year survival rate
The percentage of people in a study or treatment group who are alive five years after they were diagnosed with or treated for a disease, such as cancer. The disease may or may not have come back.

Cancer incidence rate
The number of new cancer cases of a specific site or type occurring in a specified population during a year, usually expressed as the number of cancer cases per 100,000 population at risk:

\[
\text{Incidence Rate} = \frac{\text{new cancer cases}}{\text{population at risk}} \times 100,000
\]

Cancer mortality rate
The number of deaths, with cancer as the underlying cause of death, occurring in a specified population during a year. Cancer mortality is usually expressed as the number of deaths due to cancer per 100,000 population:

\[
\text{Mortality Rate} = \frac{\text{cancer deaths per year}}{\text{population}} \times 100,000
\]

Percent change (PC)
A statistic over a given time interval written as:

\[
\text{PC} = \frac{\text{Final value} - \text{Initial value}}{\text{Initial value}} \times 100
\]

A positive PC corresponds to an increasing trend, a negative PC to a decreasing trend.

Cancer prevalence
The number or percent of people alive on a certain date in a population who previously had a diagnosis of the disease. It includes new (incidence) and pre-existing cases, and is a function of both past incidence and survival.

SEER registries
The Surveillance, Epidemiology, and End Results (SEER) Program collects and compiles cancer incidence and survival data. Geographic areas are selected for inclusion in the SEER Program based on their ability to operate and maintain a high-quality population-based cancer reporting system and for their epidemiologically-significant population subgroups.

Stage
The extent of a cancer within the body. If the cancer has spread, the stage describes how far it has spread from the original site to other parts of the body.

Statistically significant
A mathematical measure of difference between groups. The difference is said to be statistically significant if it is greater than what might be expected to happen by chance alone.

Surveillance data (cancer)
Measures of cancer incidence, morbidity, survival, and mortality for persons with cancer. It also includes the assessment of genetic predisposition, environmental and behavioral risk factors, screening practices, and the quality of care from prevention through palliation.

Survival statistics
The proportion of patients alive at some point subsequent to the diagnosis of their cancer. Relative survival is an estimate of the percentage of patients who would be expected to survive the effects of their cancer. Observed survival is the actual percentage of patients still alive at some specified time after diagnosis of cancer. Survival considers deaths from all causes, cancer or otherwise.

* From the Glossary of Statistical Terms
National Cancer Institute 2009
APPENDIX II

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APPENDIX III

Cancer-Related Data Sources

- **Behavioral Risk Factor Surveillance System (BRFSS)**
  www.cdc.gov/BRFSS
  The BRFSS is a state-based system of health surveys that generates information about health risk behaviors, clinical preventive practices, and healthcare access and use primarily related to chronic diseases and injury.

- **California Adult Tobacco Survey (CATS)**
  www.surveyresearchgroup.org/sub.php?page=projects_adult_tobacco
  CATS collects information on adults' tobacco-related behaviors, attitudes, and beliefs.

- **California Cancer Registry (CCR)**
  www.ccrcal.org
  CCR collects, compiles, and publishes statewide data that help inform cancer control priorities and strategies.

- **California Health Interview Survey (CHIS)**
  www.chis.ucla.edu
  CHIS is the nation's largest state health survey and collects information on the health and healthcare needs of Californians.

- **California Student Tobacco Survey (CSTS)**
  www.wested.org/cs/we/view/pj/573
  The CSTS is a biennial survey administered to middle (grades 6–8) and high school (grades 9–12) students on tobacco-use behavior, beliefs, and exposure.

- **California Women's Health Survey (CWHS)**
  www.cdph.ca.gov/data/surveys/Pages/CWHS.aspx
  The CWHS is an annually conducted survey that collects information on the health and healthcare needs of women and girls in California.

- **National Immunization Survey (NIS)**
  www.cdc.gov/nchs/nis/participant.htm
  The NIS is a survey aimed at children's immunization providers to monitor childhood immunization coverage.

- **State Health Facts**
  www.statehealthfacts.org
  State Health Facts is a project of the Henry J. Kaiser Family Foundation that provides state-specific health data based on analysis of the Census Bureau’s Current Population Surveys.

- **The State of Health Insurance in California (SHIC)**
  www.healthpolicy.ucla.edu/ProgramDetails.aspx?id=24
  SHIC is a biennial report produced by the Health Insurance Studies Program at UCLA's Center for Health Policy Research that tracks health insurance coverage nationwide and in California with particular attention to health and healthcare disparities resulting from lack of insurance.

- **State Indicator Report on Fruits and Vegetables**
  Centers for Disease Control and Prevention (CDC)
  www.fruitsandveggiesmatter.gov/health_professionals/statereport.html
  The report provides national and state-specific information on fruit and vegetable consumption as well as policy and environmental indicators that measure a state's ability to support the consumption of fruits and vegetables.
Below are a few examples of what you can do to achieve the goals presented in the Plan. Use these examples, or create your own by filling in the blank spaces with other activities you can do to take action. Then submit your activities to cdoc@cdoc-online.org.
To see what others are doing, visit www.cdoc-online.org.

If you are a Californian

- Participate in cancer-related health surveys.
- Avoid overexposure to the sun and artificial tanning.
- Get cancer-preventive immunizations such as Hepatitis B and human papillomavirus (HPV).
- Know when to be screened and do it on schedule.
- Support smoke-free environments and avoid secondhand smoke.
- Consider enrolling in a cancer clinical trial.
- Volunteer to support cancer-related activities including joining CDOC efforts.

If you are a local health department

- Provide cancer information and resources to the community.
- Collaborate in community health activities and awareness events.
- Work with physicians to promote screening programs and case reporting.
- Provide space for survivor support groups.

If you are a community-based organization

- Provide cancer information and resources to clients.
- Promote cancer screening among clients.
- Encourage participation in cancer clinical trials.
- Collaborate to provide programs to the community on cancer prevention and screening.

If you are a professional organization

- Provide cancer information and resources to constituents.
- Educate constituents on the importance of promoting cancer clinical trials.
- Support cancer awareness activities of local affiliates.
- Provide cancer control trainings.

If you are an employer

- Provide healthy foods in vending machines and cafeterias.
- Collaborate with healthcare institutions to host screening events.
- Establish a worksite wellness committee.
- Offer employee benefits such as health insurance that covers smoking cessation aids and prevention screening.

See more options
If you are a school/university

- Include cancer prevention messages in health classes.
- Provide healthy foods in vending machines and cafeterias.
- Increase physical education requirements.
- Make your entire campus a smoke-free environment.
- Encourage sun-safe behaviors.

OR

If you are a faith-based organization

- Provide cancer prevention information to members.
- Provide healthy foods at church activities.
- Provide indoor space for walking clubs when the weather is inappropriate.
- Make your events smoke-free.

OR

If you are a hospital

- Submit complete cancer case reports in a timely manner to the state registry.
- Collaborate to sponsor community screening programs.
- Acquire or maintain American College of Surgeons membership.
- Implement a patient navigation system.

OR

If you are a physician or health insurer

- Ensure patients are screened for cancer in accordance with the most current guidelines.
- Implement a cancer screening reminder system.
- Refer patients to smoking cessation classes and nutrition programs.
- Submit complete cancer case reports in a timely manner to the state registry.
- Refer patients to and encourage patients to enroll in cancer clinical trials.

OR

If you are a legislator

- Sponsor or support legislation that promotes cancer prevention and control.
- Support efforts to fund comprehensive cancer control.
- Raise constituents’ awareness about cancer prevention and control programs in your district or help establish new programs where needed.
- Ensure that tobacco settlement funds are used for tobacco and cancer control purposes.

OR

Please tell us what you can do!

California Dialogue on Cancer
1825 Bell Street, Suite 102
Sacramento, CA 95825

Phone: (916) 779-2611
Email: cdoc@cdoc-online.org
Web: www.cdoc-online.org
The California Dialogue on Cancer (CDOC) was founded on the belief that partnership is critical to reducing the cancer burden in California. CDOC serves as the vehicle for comprehensive cancer control and was formed to help design and implement California’s Comprehensive Cancer Control Plan.

Please join us as we strive to achieve the goals of California’s Comprehensive Cancer Control Plan 2011–2015.

By completing this form, you will become a member of CDOC, joining hundreds of individuals and organizations in the united fight against cancer in California. The benefits of membership include collaboration on statewide projects, networking with cancer control throughout California, and enrollment in CDOC’s listserv and mailing list, which will keep you current on cancer control events, research, and funding opportunities.

Please complete and return the form, and you will be contacted by a CDOC representative.

Please return this form to:

California Dialogue on Cancer
1825 Bell Street, Suite 102
Sacramento, CA 95825

Or fax to: (916) 779-2608

Questions?

Please call, email, or visit us online.

Phone: (916) 779-2611
E-mail: cdoc@cdoc-online.org
Web: www.cdoc-online.org
For more information or to get involved, please contact:

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