CANCER STATISTICS REVIEW 1975-2007: INTRODUCTION

The annual *SEER Cancer Statistics Review* (***CSR***) contains incidence, mortality, prevalence, and survival statistics from 1975 through the most recent year for which data are available. This report is published by the Surveillance Research Program of the National Cancer Institute, which manages the Surveillance, Epidemiology, and End Results (SEER) Program. The scope and purpose of the ***CSR*** follow a report to the Senate Appropriations Committee (Breslow, 1988), which recommended that a broad profile of cancer be presented regularly to the American public.

The SEER program is an authoritative source of information on cancer incidence and survival in the United States. SEER collects and publishes these statistics from population-based registries covering 26% of the US population. The 17 SEER registries routinely collect data on patient demographics, primary tumor site, tumor morphology, extent of disease, first course of treatment, and active follow-up for vital status. Detailed information describing these fields can be found at *http://seer.cancer.gov/resources/*.

This report presents statistics on 27 primary sites and subsites, organized into site-specific chapters. Detailed statistics on cancer incidence, mortality, survival, and prevalence are reported by sex, race and ethnicity, age, stage at diagnosis, and geographic area. Information on tumor morphology is also presented. In addition, the ***CSR*** features chapters exclusively focusing on adolescent and young adult cancers and on childhood cancers. Information on some rare cancers can be found in the summary tables of section I. For a detailed list of primary sites, the summary tables provide incidence and death rates for the most recent 5-year period, trends from 1975 to the most recent year, median age at diagnosis, median age at death, and survival rates.

Delay-adjusted cancer incidence rates are a distinctive feature of the ***CSR***. Delay-adjustment corrects the current case count to account for underreporting and corrections to the data. The final delay-adjusted rates are valuable in more precisely estimating trends.

New features recently added to the ***CSR*** include detailed histology breakdowns for lymphomas and for cancers of the oral cavity and pharynx, soft tissue, and pancreas; cause-specific survival by expanded race and ethnic groups; SEER 13 delay-adjustment; and adjustments for Veterans' Administration (VA) underreporting.

The ***CSR*** files are provided in both PDF and HTML formats. The HTML format is provided as an alternative and accessible version of the *SEER Cancer Statistics Review*. The current edition of the ***CSR*** is available on the web at *http://seer.cancer.gov/csr/*. Statistics from SEER may also be obtained via ***FastStats*** (*http://seer.cancer.gov/faststats*) or ***Cancer Query Systems*** (*http://seer.cancer.gov/canques*), which allow the user to access over 10,000,000 cancer statistics. The SEER Research Data file (*http://seer.cancer.gov/data/*) may be accessed by the

public, either through ***SEER*Stat*** software or in an ASCII text format that can be analyzed with your own statistical software.

While most of the rates in this publication have been age-adjusted to the 2000 US standard population, some previous SEER publications have used the 1970 US standard million population. Therefore, rates given in this publication cannot be compared to rates given in those publications. This change conforms to a federal policy for reporting disease rates; it allows for the age-adjusted rate to more accurately reflect the current age distribution and burden of cancer.

INTERPRETATION OF CANCER STATISTICS

A number of factors may affect the interpretation of cancer incidence, mortality, and survival statistics provided in this report.

Survival rates for all cancers combined: The mix of cancers changes over time as the incidence of some cancers increases and the incidence of others decreases. The overall cancer survival rate can fluctuate even when the survival rates for site-specific cancers remain unchanged. (While it is possible to adjust the survival rate for all cancers combined on the basis of the relative frequencies of the component cancers, rates adjusted in this manner differ by only a small amount from unadjusted rates. In the future, such an adjustment may become more important if there are substantial changes in the incidence of various cancers.)

Early detection/screening: The improved earlier detection and diagnosis of cancers—caused by new screening procedures--may produce an *increase* in both incidence rates and survival rates. These increases can occur as a result of the introduction of a new procedure to screen subgroups of the population for a specific cancer; they need not be related to whether use of the screening test results in a decrease in mortality from that cancer. As the proportion of cancers detected at screening increases, presumably as a result of increased screening of the population, patient survival rates will *increase*, because they are based on survival time *after diagnosis*. The interval between the time a cancer is diagnosed by a screening procedure and the time when the cancer would have been diagnosed in the absence of screening is called **lead-time** (Zelen, 1976). (Screening for breast cancer has been demonstrated to result in increased survival over and above that resulting from lead-time alone and to reduce breast cancer mortality. The benefit of screening is being studied for some other cancers.)

If a new screening procedure consistently detects cancer in a *preinvasive* phase, it may result in a *decrease* in survival rates for *invasive* cancer. In this case, **length-biased sampling** (Zelen, 1976) may be operating. Length-biased sampling would result in the preferential detection—in a preinvasive phase—of those cancers that would have had a relatively good prognosis had they progressed to invasive disease; these potentially invasive cancers would be systematically eliminated. If this occurs, the mix of cancers that are not detected at screening and then

progress to invasive behavior may become less prognostically favorable, resulting in a *decrease* in survival rates for patients with invasive cancers. (Length-biased sampling may at least partially explain survival trends for cervical cancer. Other cancers possibly affected include breast, colon, rectum, and prostate.)

Changes in diagnostic criteria: Early detection of cancer--resulting from either screening or earlier response to symptoms--may result in the increasing diagnosis of small tumors that are not yet life-threatening. This may have the effect of raising the incidence rates and survival estimates without changing the mortality rates. Breast, colon, prostate, cervix uteri, bladder, and skin (melanoma) are the cancer sites most likely to be affected.

Technological advances in diagnostic procedures: In this report, trends in survival by stage at diagnosis are not presented for specific cancers; trends in stage distributions are presented rarely. However, it is possible to compare survival by stage.

The assignment of a given stage to a particular cancer may change over time due to advances in diagnostic technology. Introduction of new technology can give rise to a phenomenon known as **stage migration**. Stage migration occurs when diagnostic procedures change over time, resulting in an *increase* in the probability that a given cancer will be diagnosed in a *more advanced* stage. For example, certain distant metastases that would have been undetectable a few years ago can now be diagnosed by a computer tomography (CT) scan or by magnetic resonance imaging (MRI). Therefore, some patients who would have been diagnosed previously as having cancer in a *localized* or *regional* stage are now diagnosed as having cancer in a *distant* stage. The likely result would be to remove the worst survivors—those with previously undetected distant metastases—from the localized and regional categories and put them into the distant category. As a result, the stage-at-diagnosis distribution for a cancer may become less favorable over time, but the survival for each stage may improve: the early stage will *lose* cases that will survive *shorter* than those remaining in that category, while the advanced stage will *gain* cases that will survive *longer* than those already in that category. However, *overall survival would not change* (Feinstein et al., 1985). Stage migration is an important concept to understand when examining temporal trends in survival by stage at diagnosis as well as temporal trends in stage distributions; it could affect the analysis of virtually all solid tumors.

Evolution of stage classifications: Every few years, the American Joint Committee on Cancer produces a new cancer-staging manual (Greene et al, 2002). The evolution of such classifications reflects the identification of new prognostic factors that may influence choice of treatment. Historically, the SEER Program has only collected data on **extent of disease** (**EOD**), rather than stage. EOD is *more specific* than stage and usually determines stage, even when stage definitions change. Thus, SEER easily adapts to changes in stage definitions; moreover, trends in a newly redefined stage can usually be calculated. Recently the SEER Program has begun collecting Collaborative Stage. Collaborative Stage has the advantage of being a consolidated data collection system of three main staging systems (TNM, EOD, and

Summary Stage) and allows combined pathological and clinical stage to be captured. For those cancers for which new prognostic variables are introduced into staging, so that previously collected EOD data cannot determine new stage categories, there can be problems in assessing trends in stage of disease. Only by reviewing the evolution of staging for a given cancer is it possible to determine what effect changes in stage definitions have had on stage-specific survival and on stage-at-diagnosis distributions. Stage migration (mentioned above) and EOD migration need also be taken into account. For some sites, the historic stage (*localized*, *regional*, or *distant*) is not shown, either because of inconsistencies in its definition over time or because stage isn't appropriate (such as for leukemias, which are all considered to be distant at diagnosis).

Interpreting relative survival: The relative survival estimate is the ratio of observed survival to expected survival for a given patient cohort. Expected survival is based on mortality rates for the entire population, taking into account, as appropriate, the age, sex, race, and year of diagnosis of the patients. Assuming that the presence of cancer is the only factor that distinguishes the cancer patient cohort from the general population, the relative survival estimate approximates the probability that a patient will *not* die of the diagnosed cancer within the given time interval. This is the same as the probability that the patient will either survive the interval or die of a different cause.

A factor related to the risk of a cancer may also be related to the risk of dying from causes unrelated to the cancer. An example of such a factor is smoking. Smoking is a major risk factor for lung cancer; therefore, a cohort of lung cancer patients will contain a much higher proportion of smokers than does the general population. However, smoking is also a risk factor for other diseases, resulting in smokers having a shorter life expectancy than nonsmokers. For this reason, expected survival estimates for lung cancer patients that are based on the life tables for the general population will be unduly optimistic; they will result in relative estimates that are *lower* than they would be if the population consisted only of smokers. The problem cannot be easily corrected because separate life tables for smokers and nonsmokers are not available. Moreover, amount of smoking (usually measured in pack-years) is clearly an important variable and can't be easily quantified. The possibility that expected survival may not be appropriate for a given patient cohort should also be considered when examining relative survival for patients with cancers of the cervix uteri or breast, because the risk of these cancers has been associated with socioeconomic status (Baquet et al., 1991), which may be related to life expectancy.

Previous to the *CSR* for 1973–1996, the expected survival tables used were for 1970 and 1980; there were separate tables for whites, blacks, American Indians, Chinese, Japanese, Filipinos, white Hispanics, and Hawaiians. In updating the tables for 1990, several problems emerged. The US life tables are based on age, race, and sex information from death certificates. The information on race on the death certificate may not be accurate (Rosenberg et al., 1999). One reason is that funeral directors may inaccurately report race on a death certificate. Also, reported age at death, especially for those older than 85, may not be accurate because birth

certificates were not issued with as much regularity in the early 1900s as they are today. Although race misclassification and age-at-death misreporting exist across all races, they may be more problematic for races other than white or black because of those races' smaller population sizes. Therefore, life tables were generated for 1970, 1980, 1990, and 2000 only for white, black, and other; these life tables were used to produce the relative survival estimates in this book. There may be small variations among survival estimates calculated in this *CSR* and those in *CSR*s prior to 1973–1996.

Comparison with other databases: The SEER data are obtained from population-based cancer registries covering about 26 percent of the US population. It is sometimes of interest to compare cancer statistics for SEER areas with those from other registries both in the US and worldwide. In making such comparisons, one must carefully consider the factors considered above for both data sources. In addition, one should assess all of the following: (1) completeness of case ascertainment, (2) rules used to determine multiple primaries, (3) follow-up, (4) rules used in assigning and coding cause of death, and (5) the sources and procedures used in obtaining population estimates. Depending on the rates being compared, there could be other confounding factors which should be considered. The same standard or standard million population should be used for the age-adjustment of each group being compared; most statistics from outside the US are based on the 2000 world standard million population. Examples of other databases are US Cancer Statistics (*http://apps.nccd.cdc.gov/uscs*) and CINA+ Online (*http://www.naaccr.org/cinap/index.htm*).

It is sometimes interesting to compare survival for cancer patients in SEER areas with data from clinical trials. *This must be done with great caution.* Survival data from clinical trials may have been obtained from a patient population that differs from that of SEER patients in prognostic factors for the given cancer; any survival comparisons would have to adjust for such differences. Also, it is necessary to verify that the methodology used in computing survival is the same for both data sources. Furthermore, clinical-trials patients may differ from SEER patients in characteristics that may be related to survival but are not recorded in either database. If this were true for a given cancer, it would not be possible to make valid comparisons of this type.

Errors in data collection: In the process of registering cancer patients, errors may be made in abstracting and coding the data, which include demographic information, cancer site, histology, extent of disease, treatment, and patient survival. Quality control studies are periodically carried out to detect and correct this type of error, but no attempt is made to incorporate this source of error into the variance estimates of cancer rates reported here.

Comparison of this report with previous reports: The cancer registries that participate in the SEER Program submit data on all cancers diagnosed in their coverage areas to the NCI each year. Because of the dynamic nature of the registries' databases, *the reported number of new*

cancer cases in a particular race, sex, age, cancer category in a given calendar year may change from that which has been reported in a previous publication. For a given diagnosis year, additional cancer cases that were previously overlooked may have been found and reported to the central registry. There may have been follow-back of cancers diagnosed by death certificate only; successful efforts to establish the dates of diagnosis for such patients will change the number of patients reported for a given diagnosis year. Code changes may occur when a patient dies; for example, information on race is generally available on the death certificate and may be used to update a previously unknown value. There may have been elimination of duplicate records for the same patient, often due to name changes or misspellings.

Thus, a recent report may have a different number of cases for a given diagnosis year than an earlier report, with resulting effects on incidence and possibly survival. Population estimates may also change from one report to another for some calendar years. This occurs because the NCI receives population estimates that are regularly revised and updated by the Bureau of the Census (**BOC**). Such changes may result in some differences between incidence and mortality rates for a given calendar period as published in different reports. See our website for the most current information about the population estimates (*http://seer.cancer.gov/popdata/*).

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TECHNICAL NOTES

There are four measures that are commonly used to assess the impact of a cancer in the general population. The **incidence rate** is the number of new cases per year per 100,000 persons. The **death** (or **mortality**) **rate** is the number of deaths per year per 100,000 persons. The survival estimate is the proportion of patients alive at some point subsequent to the diagnosis of their cancer. The **prevalence count** is the number of people alive that have ever been diagnosed with a cancer. All four measures are employed in this report. The Surveillance, Epidemiology, and End Results (**SEER**) Program (*http://seer.cancer.gov*) (based within the Surveillance Research Program (**SRP**) at the National Cancer Institute (**NCI**)) collects incidence and survival data for all areas that participate in the Program. The National Center for Health Statistics (**NCHS**) provides mortality data for the entire United States (**US**). All incidence and mortality rates in this report are age-adjusted (see below) to the 2000 US standard population (see Appendix) unless otherwise specified. Age-adjustment minimizes the effect of a difference in age distributions when comparing rates.

THE SEER PROGRAM

The National Cancer Act of 1971 mandated the collection, analysis, and dissemination of data useful in the prevention, diagnosis, and treatment of cancer. This mandate led to the establishment of the SEER Program. The population-based cancer registries participating in NCI's SEER Program routinely collect data on all cancers occurring in residents of the participating areas. Trends in cancer incidence and patient survival in the US are derived from this database. See the SEER Research Data (*http://seer.cancer.gov/data/*) for more information.

The SEER Program is a sequel to two earlier NCI programs—the End Results Program and the Third National Cancer Survey. The initial SEER reporting areas were the States of **Connecticut**, **Iowa**, **New Mexico**, **Utah**, and **Hawaii**; the metropolitan areas of **Detroit**, Michigan, and **San Francisco-Oakland**, California; and the Commonwealth of Puerto Rico. Case ascertainment began with January 1, 1973, diagnoses.

In 1974-1975, the program was expanded to include the metropolitan area of New Orleans, Louisiana, the thirteen-county **Seattle-Puget Sound** area in the State of Washington, and the metropolitan area of **Atlanta**, Georgia. New Orleans participated in the program only through the 1977 data collection year. In 1978, ten predominantly African-American counties in **rural Georgia** were added. **American Indian residents of Arizona** were added in 1980. In 1983, four counties in New Jersey were added with coverage retrospective to 1979. New Jersey and Puerto Rico participated in the program until the end of the 1989 reporting year. The National Cancer Institute also began funding a cancer registry that, with technical assistance from SEER, collects information on cancer cases among **Alaska Native** populations residing in Alaska. In 1992, the SEER Program was expanded to increase coverage of minority populations, especially Hispanics, by adding **Los Angeles County** and four counties in the **San Jose-**

Monterey area south of San Francisco. In 2001, the SEER Program expanded coverage to include **Kentucky, Greater California** (the counties of California that were not already covered by SEER), **New Jersey,** and **Louisiana**.

The long-term incidence trends and survival data for this report are from five states (Connecticut, Hawaii, Iowa, New Mexico, and Utah) and four metropolitan areas (Detroit, Atlanta, San Francisco-Oakland, and Seattle-Puget Sound) (Fig. I-1); this set of registries is called the **SEER 9**. Additional tables show more recent incidence trends for the **SEER 13** areas (the 9 areas above plus Los Angeles, San Jose-Monterey, Alaska Native Registry, and rural Georgia) since 1992 and additional information on race and ethnicity. Other tables give statistics for the **SEER 17** areas; these are the SEER 13 plus Kentucky, Greater California, New Jersey, and Louisiana.

The participating regions were selected principally for their ability to operate and maintain a population-based cancer reporting system and for their epidemiologically significant population subgroups. With respect to selected demographic and epidemiologic factors, they are when combined a reasonably representative subset of the US population. Data from the 9, 13, or 17 SEER geographic areas are used in this report; the given areas contain, respectively, approximately 9,14, or 26 percent of the US population. By the end of the 2006 diagnosis year, the database of 13 SEER and 4 expansion registries (plus Arizona Indians) contained information on over 7 million cases diagnosed since 1973. New cases added in the most recent data year numbered over 385,000.

The goals of the SEER Program are:

1) to assemble and report, on a periodic basis, estimates of cancer incidence, mortality, survival, and prevalence in the US;
2) to monitor annual cancer incidence trends to identify unusual changes in specific forms of cancer occurring in population subgroups defined by geographic and demographic characteristics;
3) to provide continuing information on trends over time in the extent of disease at diagnosis, trends in therapy, and associated changes in patient survival; and
4) to promote studies designed to identify factors amenable to cancer control interventions, such as: (a) environmental, occupational, socioeconomic, dietary, and health-related exposures; (b) screening practices, early detection and treatment; and (c) determinants of the length and quality of patient survival.

DATA SOURCES

INCIDENCE AND SURVIVAL DATA

The SEER Program contracts with nonprofit, medically-oriented organizations having statutory responsibility for registering diagnoses of cancer among residents of their respective geographic coverage areas. Each SEER contractor:

1) maintains a cancer information reporting system;
2) abstracts records for *resident* cancer patients seen in every hospital both inside and outside the coverage area;
3) abstracts all death certificates of *residents* (dying both inside and outside the coverage area) on which cancer is listed as a cause of death;
4) strives for complete ascertainment of cases by searching records of private laboratories, radiotherapy units, nursing homes, and other health services units that provide diagnostic service;
5) registers all in situ and malignant neoplasms (with the exceptions of certain histologies for cancer of the skin and—beginning in 1996—in situ neoplasms of the cervix uteri);
6) records data on all newly diagnosed cancers, including selected patient demographics, primary site, morphology, diagnostic confirmation, extent of disease, and first course of cancer-directed therapy;
7) provides active follow-up on all living patients (except for those with in situ cancer of the cervix uteri);
8) maintains confidentiality of patient records;
9) at least annually submits electronically to NCI data on all reportable diagnoses of cancer made in residents of the coverage area.

For 1992 to 2000 diagnoses, the SEER program codes site and histology by the *International Classification of Diseases for Oncology*, second edition (**ICD-O-2**) (Percy, Van Holten, & Muir, 1990). All cases before 1992 were machine-converted to ICD-O-2. Beginning with 2001 diagnoses, cases have been coded according to the third edition (**ICD-O-3**) (Fritz et al., 2000). The primary site groupings used for incidence are found in the Appendix. Changes were made to the site recode for ICD-O-2 for comparability with cases coded to ICD-O-3. Follow-up rates are also in the Appendix.

Underreporting Adjustment for Veterans Affairs Cases: A recent policy change of the Department of Veterans Affairs (VA) regarding sharing of VA cancer data has resulted in incomplete reporting of VA hospital cases in some central cancer registries. The issue began to affect reporting in the 3rd quarter of 2004 diagnosis year and continues to be a concern through the 2007 diagnosis year. The section on VA reporting quantifies the missing number of VA patients in the SEER registries and provides adjustments of new case counts for 2005 and 2006 based on prior years information. These VA adjustment factors may be used to correct for underreporting of 2005, 2006, and 2007 age-specific incidence rates or age-adjusted incidence

rates for SEER-9 and SEER-17 regions. Underreporting appears more extensive for some population subgroups (e.g, adult Black males) and cancer sites (e.g., Lung and Bronchus, Prostate, and Liver and Intrahepatic Bile Duct). Additional details can be found in Howlader et al, 2009.

Excluded cancers: Some cancers were excluded from most of the analyses. Myelodysplastic syndrome (MDS), for example, was reclassified in ICD-O-3 (effective diagnosis year 2001) from nonmalignant to malignant; other cancers so reclassified include endometrial stromal sarcoma (low grade), papillary ependymoma, papillary meningioma, polycythemia vera, chronic myeloproliferative disease (NOS), myelosclerosis with myeloid metaplasia, essential thrombocythemia, refractory anemia, refractory anemia with sideroblasts, refractory anemia with excess blasts, and refractory anemia with excess blasts in transformation. In contrast, borderline tumors of the ovary were reclassified from malignant to nonmalignant at the same time. In addition, benign brain/CNS tumors were collected beginning for 2004 diagnoses. All of these cancers were excluded from most of the analyses, especially time trends. Pilocytic astrocytoma, although reclassified in ICD-O-3, was not excluded. Separate tables for MDS and benign brain/CNS are shown.

MORTALITY DATA

The SEER Program annually obtains from the National Center for Health Statistics (NCHS) a file containing information on all deaths occurring in the US by calendar year. Information on each death includes age at death, sex, geographic area of residence, and underlying and contributing causes of death. For this publication, only the underlying cause of death is used in the calculation of death rates. Cause of death for 1969-1978 was coded according to ICD-8; for 1979-1998, ICD-9 was used; beginning with deaths in 1999, ICD-10 was used. Mortality rates for the SEER geographic areas, for each state, and for the entire US are obtained from these data. A list of the mortality site groupings used in this publication is in the Appendix and reflects updates made in 2004.

POPULATION DATA

The population estimates used in the SEER*Stat software to calculate cancer incidence and mortality rates for this report are a modified version of the annual time series of July 1 county population estimates by age, sex, race, and Hispanic origin that are produced by the Population Estimates Program of the US Census Bureau (http://www.census.gov/popest/estimates.php) with support from the NCI through an interagency agreement. Descriptions of the methodologies employed by the Census Bureau for various sets of estimates may be found on the same website. County population estimates for 2000 and later years must be bridged from 31 race categories used in Census 2000 to the four race categories specified under earlier OMB

standards in order to report long-term cancer trends. The bridging methodology was developed by the National Center for Health Statistics and is described in a report (Ingram et al., 2003) and on their website http://www.cdc.gov/nchs/about/major/dvs/popbridge/popbridge.htm.

Modifications made by the NCI to the population estimates are documented in "Population Estimates Used in NCI's SEER*Stat Software" (http://seer.cancer.gov/popdata/methods.html) and the population data files are available for download (see "Download US Population Data" from http://seer.cancer.gov/popdata/download.html). Several of the modifications pertaining to the grouping of specific counties needed to assure the compatibility of all incidence, mortality and population datasets. Another modification affects only population estimates for the State of Hawaii. The Epidemiology Program of the Hawaii Cancer Research Center has developed its own set of population estimates, based on sample survey data collected by the Hawaii Department of Health. This effort grew out of a concern that the native Hawaiian population has been vastly undercounted in previous censuses. The "Hawaii-adjustment" to the Census Bureau's estimates has the net result of reducing the estimated white population and increasing the estimated Asian and Pacific Islander population for the state. The estimates for the total population, black population, and American Indian and Alaska Native populations in Hawaii are not modified.

The cancer incidence and mortality rates for American Indians and Alaska Natives (AI/AN) are based on the geographic areas (counties) included in the Indian Health Service's Contract Health Service Delivery Area (CHSDA). This reflects a concern that previously reported AI/AN rates were underestimated due to racial/ethnic misclassification of American Indian cases in geographic areas outside of CHSDA. This change has the net effect of higher, and more accurate, incidence and mortality rates for this population.

Usually the use of a population estimate for July 1 of a particular year reflects the average population of that area for the year. Both Hurricane Katrina and Hurricane Rita struck the Gulf Coast area of the United States in 2005. This had the effect of displacing large populations. Since there weren't any population estimates by age, race, sex, and county for time periods just after the hurricanes, it is very difficult to estimate the actual population at risk for certain areas along the Gulf Coast for 2005. For Louisiana, only the first six months of incidence data for 2005 coupled with ½ of the population estimate for July 1, 2005, were used to calculate cancer incidence. For death rate calculations, no adjustments were made to the total U.S. population, but for the Gulf area, an adjustment for displaced populations was made for 2005 state rates. For more details, see http://seer.cancer.gov/popdata/methods.html .

2000 US STANDARD POPULATION

Starting with the November 2004 SEER submission of data (diagnoses through 2002), the SEER Program age-adjusts using the 2000 US standard population based on single years of

age from the Census P25-1130 series estimates of the 2000 US population (Day, 1996). For the *CSR*, 19 age groupings were used for age-adjustment: <1, 1–4, 5–9, … , 80–84, 85+.

STATISTICAL METHODS

ESTIMATED CANCER CASES AND DEATHS IN 2009

The American Cancer Society (**ACS**) projects the numbers of new cancer cases and cancer deaths in the US in 2009 (American Cancer Society, 2009). The ACS projects incidence in 2009 based on incidence rates for 1995-2005 from 41 states, representing about 85% of the US population. These high quality incidence data were submitted to the North American Association of Central Cancer Registries (NAACCR) by 41 states belonging to the SEER Program and/or the National Program of Cancer Registries (NPCR). For additional details please refer to http://www.cancer.org/docroot/STT/STT_0.asp

LONG-TERM TRENDS, 1950-2007

Trends in cancer mortality from 1950 to 2007 are summarized by age both for all cancers combined and for lung cancer (Table I-2). These cancer mortality trends are based on the mortality experience in the entire US. Summaries of long-term trends back to 1950 in cancer survival are also shown for whites.

Use caution when interpreting these statistics. Evaluating trends over a long period of time may hide recent changes in the trends.

YEARS OF LIFE LOST DUE TO PREMATURE DEATH FROM VARIOUS CAUSES

Death rates alone give an incomplete picture of the burden that deaths impose on the population. Another measure, which adds a different dimension, is the years of life lost due to premature death. This shows the extent to which life is cut short by a particular cause or disease.

This measure is estimated by linking life table data to each death of a person of a given age and sex. The life table permits a determination of the number of additional years an average person of that age, race, and sex would be expected to live. In this report, the age groups used in the calculation were 1-year intervals. These remaining years of life left are summed over all deaths due to a particular cause, yielding the estimate of the number of person-years of life lost (**PYLL**). The average years of life lost (**AYLL**) is obtained by dividing the PYLL by the number of deaths. Both of these measures can be calculated for any cause of death.

CAUSE-SPECIFIC SURVIVAL

Cancer survival estimates differ substantially among race and ethnic groups in the United States. Evaluation of these differences via the relative survival method, however, is hampered by the non-availability of expected life tables for races other than White or Black. The relative survival method assumes a valid life-table for each race and ethnic group. Furthermore, the U.S. National Center for Health Statistics estimates (Rosenberg et al, 1999) that the published mortality rates are overstated for Whites (1%) and Blacks (5%), and grossly under-stated for American Indians (21%) and Asian Pacific Islanders (11%). Cause-specific can serve as an alternative method to estimate survival within diverse subgroups of the U.S. populations. However, this measure has not been systematically used in population-based registries because of misclassification of cause of death on death-certificates. For example, the site of metastasis might be reported as the cause of death as opposed to the original site of disease (Percy et al, 1981) creating ambiguity when attempting to define endpoints for reliable survival estimates.

Here we describe a new endpoint for calculating cause-specific survival that uses a broad definition of cause of death (COD) based on death certificate. The COD chosen varies depending on the sequence of the tumor and the site of the original cancer diagnosis. For those with one and only one cancer (i.e., sequence number 00), the end point of death is any cancer or HIV/AIDS with cancer. The rationale for including all malignant cancers or an AIDS/HIV diagnosis with cancer is that among patients diagnosed with only one cancer, cause of death coded to another cancer site is likely to be a misclassification, such as one due to metastatic disease (Percy et al, 1981). For those individuals who had more than one cancer, (i.e., sequence number 01, 02, 03, and beyond) cause-specific survival was calculated only for the first cancer diagnosed (sequence number 01) and the cause of death was limited to deaths due to that cancer, site-specific disorders, and to multiple cancers of known or unknown site. The cause of death classification and detailed ICD codes by primary cancer site can be found in the Appendix.

CANCER PREVALENCE

Methods: In this report prevalence is calculated at 1/1/2007. ***Limited-duration prevalence*** is calculated using the counting method implemented in the SEER*Stat software. This method calculates the number or proportion of people alive at the prevalence date who had a diagnosis of the disease within the past *x* years (e.g., *x* = 5, 10, 20, or the full history of the registry). Because SEER has available information for the various racial/ethnic groups for different numbers of years, different years and registries were used to estimate limited duration prevalence. Prevalence estimates for all races combined, for whites, and for blacks use cases from 1975 through 2006 from the SEER 9 registries; prevalence estimates for Asian Pacific Islanders and Hispanics use cases diagnosed from 1990 through 2006 from the SEER 11 areas and rural Georgia.

The limited duration prevalence method includes a correction for people lost to follow-up. For each individual lost to follow-up, a probability of being alive at the prevalence date is estimated from an appropriate survival function stratified by age at diagnosis (0–59, 60–69, 70+), sex, cancer site, year of diagnosis, and race, conditional on being alive at the time of loss to follow-up. Year of diagnosis is stratified into 5-year groups from the prevalence date, with the least recent interval being of varying length (4-8 years), depending on the length of years used to calculate prevalence. Race is stratified into white, black, other (American Indian/Alaska Native, Asian/Pacific Islander), and unknown/other-unspecified. When we use the SEER 11 registries, the same stratification as before is used, with American Indian/Alaska Native separated from Asian/Pacific Islander. Prevalence calculations for Hispanics use race stratified into: white, non-white, and unknown.

Different methods can be used to determine which tumors are to be included for people diagnosed with multiple tumors. Unless otherwise specified, prevalence calculations included only the *first malignant tumor per person*; that is, in situ cancers and second-or-later primary cancers were not included. Thus, if a woman had a melanoma prior to a breast cancer diagnosis, her melanoma would contribute to the prevalence of melanoma and to the prevalence of all sites, but the breast cancer would not contribute to the prevalence of breast cancer. Counting only one cancer per individual avoids some ambiguity in prevalence counts, and allows the counts for individual sites to sum to the all sites total. Prevalence using different selection criteria is compared in a table in the overview chapter. For more information on tumor selection criteria refer to http://srab.cancer.gov/prevalence/methods.html.

Complete prevalence is an estimate of the number of persons (or the proportion of population) alive on a specified date who had been diagnosed with the given cancer, no matter how long ago that diagnosis was. It was estimated for all races, whites, and blacks by applying the *completeness index method* (Capocaccia & De Angelis, 1997; Merrill et al., 2000; Mariotto et al., 2002) to limited-duration prevalence. The completeness index method is implemented in the COMPREV software which can be found at http://srab.cancer.gov/comprev/. Validation of the completeness index for all races and for whites was made by using data from the Connecticut Tumor Registry (CTR) beginning with 1940; for blacks, SEER 9 data beginning with 1975 were used. Identification of blacks is not possible in the CTR data prior to 1970. To validate the completeness index for blacks, we have compared the performance of the method to obtain 24-year prevalence from 10-year limited-duration prevalence. For all races combined and for whites, in cases where the validation indicated some lack of fit of the model, an approximation to the completeness index was derived from the CTR data. If there was a lack of fit for blacks, no estimate of complete prevalence was reported. Complete prevalence for Asian/Pacific Islanders and Hispanics is not available at this time. Complete prevalence by age for all races combined was validated by comparing estimated 10-year complete prevalence with observed prevalence from the CTR data. Prevalence by age is reported for the sites that validated well.

The US cancer prevalence counts at 1/1/2007 *were estimated* by multiplying the SEER age- and race-specific prevalence proportions by the corresponding US population estimates based on the average of 2006 and 2007 population estimates from the US Bureau of the Census. US cancer prevalence counts for all races were estimated by summing the US estimated counts for whites/unknown, blacks, and other races. For Hispanics, the estimates for Hispanics of white or unknown race and for Hispanics of other races were summed.

Complete prevalence estimates of the number of individuals in the U.S. diagnosed with cancer as children (ages 0-19), including those surviving for more than 32 years, is introduced this year using a statistical method that estimates the number of childhood survivors diagnosed before 1975 (Simonetti et al. 2008, Mariotto et al 2009). Limited-duration prevalence proportions by age at prevalence are not shown for childhood cancers (age at diagnosis 0-19) since many of these estimates are not informative. For example, the number of people diagnosed with childhood cancers in the last 25 years and who are currently age 50-59 is zero by definition. For more details on available prevalence estimates, see http://srab.cancer.gov/prevalence/index.html.

The overview chapter contains two prevalence tables. The first table reports US complete prevalence counts by age at prevalence and sex for some main cancer sites. The second table reports US prevalence counts for people diagnosed in the 5 years and 32 years prior to the prevalence date using different tumor inclusion criteria. Each site-specific chapter contains a prevalence table that reports limited-duration US prevalence counts by time since diagnosis for different racial/ethnic groups. US complete prevalence estimates are also reported when available. The second part of the site-specific tables displays the percent of the population in the SEER 11 areas diagnosed in the previous 17 years with the specific cancer by 10-year age groups for the different racial/ethnic groups.

PROBABILITY OF BEING DIAGNOSED WITH OR DYING FROM CANCER

Lifetime and interval risks of being diagnosed with cancer: The probability of being diagnosed with cancer is computed by applying cross-sectional age-specific 2005-2007 incidence rates from the SEER 17 areas and death rates from those same areas to a hypothetical cohort of 10,000,000 live births. This cohort is considered to be at risk for two mutually exclusive events: (1) developing the specified cancer, and (2) dying of other causes without developing the specified cancer. Using these two types of events, a standard **multiple decrement life table** (with 20 age groups from 0-4 to 90-94 and 95+) is derived. For each age interval, the number alive and free of the specified cancer at the beginning of the interval is decremented by the number who develop the specified cancer and the number who die of other causes. The lifetime risk of being diagnosed with the specified cancer is derived by summing all cancer cases from age 0-4 through age 95+ and dividing by 10,000,000. This calculation does

not assume that an individual lives to any particular age; rather, it is the sum over all age intervals of the probability of living to the beginning of that interval without developing the given cancer times the probability of developing the cancer in that interval. The probability of developing cancer during any time period (e.g., between age 50 and age 60) is calculated by adding up all the cancers in the life table over the specified age range and dividing by the number of individuals alive and free of the specified cancer at the beginning of the period. The methodology is described in detail in Fay (2003, 2004). To improve the precision of the calculations, rates were calculated beyond the usual last open ended age interval (i.e. 85+) for the age groups 85-89, 90-94, and 95+.

Lifetime risk of dying from cancer: The lifetime risk of dying from a specified cancer is derived using a standard multiple decrement life table (Elandt-Johnson & Johnson, 1980). For each age, the risks of dying of the specified cancer and of all other causes are calculated, based on mortality data from the entire United States.

Detailed methodology and software: The estimates of developing and dying from cancer are implemented in DevCan (Probablity of DEVeloping or dying from CANcer software). More details on the software, various databases, and the methodology can be found at http://srab.cancer.gov/devcan/.

U.S. CANCER DEATH RATES BY STATE

Each cancer-site-specific section presents the death rate for the given cancer for each state and the District of Columbia, specifying the five highest and the five lowest death rates by state for the most recent 5-year period for all persons, males only, and females only. The rates are per 100,000 persons; they are age-adjusted to the 2000 US standard population. (In some previous editions of the CSR, the 1970 US standard million population was used; *death rates standardized to the 2000 US standard million population cannot be compared to death rates standardized to the 1970 US standard million population.*)

The **percent difference (PD)** between a state rate and the rate for the total US is given by the formula:

$$PD = [(\text{State Rate} - \text{Total US Rate})/\text{Total US Rate}] * 100$$

The **standard error** for each age-adjusted state death rate is calculated, based on the assumptions that (1) for each age-specific rate, the number of deaths is a Poisson random variable (Keyfitz, 1966) and (2) the variance of the age-adjusted rate is a linear combination of the variances of the age-specific rates (Snedecor & Cochran, 1980; pp. 188-9).

The **standard error of the difference (SE_d)** between a state rate and the total US rate is given by the formula

$$SE_d = \text{Square Root of } [SE_S^2 + SE_U^2 - 2 * Cov_{S,U}]$$

where SE_S and SE_U are the standard errors of a state rate and of the total US rate, respectively, and $Cov_{S,U}$ is the covariance between the two rates. The variance of each rate (i.e., the square of the standard error) and the covariance between the two rates are based on the Poisson assumption. The standard error does not represent the total error that may be present in the age-adjusted rate; it is merely the square root of the variance associated with the rates. In addition to this variance, there also exist potential biases and errors in the measurement of the rate that are difficult to assess accurately and probably impact differently on the error calculations for different states.

The difference between each age-adjusted state rate and the age-adjusted US rate is tested for statistical significance (see below) by calculating a ***Z*** (standard normal) statistic from the formula:

$$Z = (\text{State rate} - \text{Total US rate}) / SE_d$$

Although the rates being compared are not independent because each state is part of the US, the statistical test may not be substantially affected if the state represents a small proportion of the total US. There is also an adjustment for multiple comparisons; see below under *Statistical Significance*.

JOINPOINT REGRESSION ANALYSIS OF CANCER TRENDS

An advance in the presentation of cancer trends is the use of joinpoint models (Kim et al., 2000). In some past issues of the *Cancer Statistics Review*, certain time intervals (e.g., 1973–1996) were specified and the annual percent changes (APC) were computed over those intervals. The choices of where to start and where to end an interval were arbitrary and sometimes did not give an accurate picture of the trend for a given cancer site. For example, the rates might be increasing and decreasing in different parts of the same interval. For some sites, increases occurred in the earlier years, followed by declines in more recent years.

To achieve greater descriptive accuracy, a statistical algorithm finds the optimal number and location of places where a trend changes. The point (in time) where a trend changes is called a **joinpoint**. Trends may change in different ways at a joinpoint: from up to down, from down to up, from up to up at a different rate, or from down to down at a different rate. A **joinpoint regression model** describes the trends by a sequence of connected segments where each segment is connected by a straight line on a log scale. Adjacent segments are connected at a joinpoint. The segments are connected because we assume that rates generally change smoothly, rather than "jump" abruptly. The rates are assumed to grow or decay exponentially, i.e., to change by a constant percentage each year. Thus the slope in each segment can be associated with a fixed annual percent change (**APC**).

Joinpoint analysis first assumes no joinpoints are needed to describe the data accurately, i.e., the trend over the entire interval 1975-2007 does not change. Joinpoints are added in turn if they are statistically significant. Thus, in the final model, each joinpoint represents a significant change in trend. Computational considerations currently limit the maximum possible number of segments to be no larger than five, with four joinpoints. Smoother polynomial models may provide a good fit overall, but are less sensitive to what is occurring at the ends of the data.

In running the Joinpoint program, we set the program parameters as follows: maximum number of joinpoints 4, minimum interval between joinpoints 2 years, minimum interval between a joinpoint and an endpoint 2 years, joinpoints occurring only at exact years. These restrictions provide some added stability to the resultant models. Different values for these parameters may yield a different joinpoint model. Since the test statistic to determine if additional joinpoints are necessary cannot be compared against any known standard distribution to determine significance, (e.g., the normal, t, or f) a permutation test is used which simulates the distribution of the test statistic under the null hypothesis. Thus an element of randomness is introduced by the random number stream used. However, for greater consistency in the p-values obtained if one were to change the random seed for each run, we run the program for 4499 permutations.

Average Annual Percent Change (AAPC) is a summary measure of a trend over a pre-specified fixed interval based on an underlying joinpoint model. It allows us to use a single number to describe the average trend over a period of multiple years. It can be estimated even if the joinpoint model indicates that there were changes in trends during those years, since it is estimated as a geometric weighted average of the joinpoint APCs, with the weights equal to the lengths of each segment over the pre-specified fixed interval. In this report, we have included AAPCs as an addendum to the underlying joinpoint trends, and as a summary measure to compare fixed interval trends by race/ethnicity. For more information on how the AAPC is calculated and the advantages of reporting an AAPC over APCs, see http://srab.cancer.gov/joinpoint/aapc.html.

A Windows-based program, *Joinpoint*, is freely available at http://srab.cancer.gov/joinpoint/; it accepts data from the *SEER*Stat* program, as well as user defined data. Further details on joinpoint regression may be found at the web site.

REPORTING DELAY

Timely and accurate calculation of cancer incidence rates is hampered by **reporting delay**, the time lapse before a diagnosed cancer case is reported to the NCI or the delay in receiving updated information for an existing case. Currently, the NCI allows a standard delay of 22 months between the end of the diagnosis year and the time the cancers are reported to the NCI in November, almost two years later. The data are released to the public in the spring of the following year. For example, cases diagnosed in 2007 were first reported to the NCI in

November 2009 and released to the public in April 2010. However, in each subsequent release of the SEER data, *records from all prior diagnosis years* (e.g., diagnosis years 2006 and earlier in the 2009 submission to the NCI) *are updated* as either new cases are found or new information is received about previously submitted cases.

The submissions for the most recent diagnosis year are, in general, about two percent below the total number of cancers that will eventually be submitted for that year, although this varies by cancer site and other factors.

The idea behind modeling reporting delay is *to adjust the recent rates to anticipate future corrections (additions, changes, and deletions) to the data*. These adjusted rates and the associated delay model are valuable in more precisely determining current cancer trends, as well as in monitoring the timeliness of data collection—an important aspect of quality control (Clegg et al., 2002). Reporting delay models have been previously used in the reporting of AIDS cases (Brookmeyer & Damiano, 1989; Pagano et al., 1994; Harris, 1990).

In this report, we show SEER age-adjusted incidence rates and trends, along with their calculated delay adjustments for SEER 9 and SEER 13 areas. The adjusted rates, factors, and trends are available for all cancers combined (malignant only except for urinary bladder), for female breast in situ, for urinary bladder (in situ and malignant), and for 22 malignant cancer sites: melanoma (for all races combined and whites only), lung/bronchus, colon/rectum, prostate, female breast, liver and intrahepatic bile duct, pancreas, cervix uteri, corpus and uterus, ovary, testis, kidney and renal pelvis, brain and other nervous system, Hodgkin lymphoma, non-Hodgkin lymphoma, all leukemias, esophagus, larynx, myeloma, oral cavity and pharynx, thyroid, and stomach.

For more information on cancer incidence rates adjusted for reporting delay, see http://srab.cancer.gov/delay/. Estimates of observed incidence rates, delay-adjusted incidence rates, and delay-adjustments factors may be found in the Cancer Query Systems at http://seer.cancer.gov/canques/

Adjustment for VA Case Backlog, Submission Year 2009

A policy change of the Department of Veterans Affairs (VA) regarding data sharing on VA cancer cases resulted in underreporting on VA hospital cases for submission years 2006-2008. Section 33 of this report provides factors to adjust for the lack of reporting of VA cases. In addition to the adjustments made in Section 33, some special adjustments to case counts are necessary to fit the delay adjustment model. In the 2009 submission of SEER data, some SEER registries began accounting for VA cases. This caused a backlog on the VA case reporting, i.e., the cases that would have been reported in 2006-2008 were reported in 2009. This sudden upsurge in cases could cause perturbation in the delay model if fit on the usual manner.

To take into account the VA backlog in the 2009 submission in the delay adjustment model, the counts are adjusted by re-distributing VA cases in the 2009 submission to previous submission years according to the expected counts from the delay distribution conditional on the current submission. More specifically, for each of the diagnosis years 2004-2006, given the total cancer count in submission year 2009, the proportion of cumulative cancer count in each subsequent submission year is calculated based on the estimated parameters from previous year's reporting delay model. The VA cases in 2009 are re-distributed to each of the submission years according to this proportion. The adjusted total cancer count in that submission year was then calculated by combining the non-VA cases and the re-distributed VA counts. Overall, the VA delay-adjustment is modest for the November 2009 submission. It was integrated into SEER 9 and SEER 13 delay models presented throughout the CSR. More details can be found at http://srab.cancer.gov/delay/vabacklog.html.

The SEER 9 delay model

For each cancer site, many combinations of covariates were considered in prediction models of delay probabilities. Potential covariates included delay time, year of diagnosis, age at diagnosis, sex, race, and reporting year effect [Zou et al, 2009]. Models were evaluated by fitting the SEER 9 models using 1983 and 2008 annual submissions, with a maximum 26 year delay, then predicting the counts for the 2009 submission. For each cancer site, the model that minimized the sum of squared prediction errors was chosen as the default final model. However, to choose a more parsimonious model, we added an additional selection step in which possible competing models were selected using the following criteria:

- the competing model had fewer number of parameters of the default model, and
- the percent change between the prediction errors of the competing and the default models per extra parameter (i.e., percent change in prediction errors divided by the difference in the numbers of parameters between the two models) was less than 1 percent.

If more than one competing model met the criteria, the model with the smallest percentage change per extra parameter was generally selected. However, if there are other competing models that had fewer parameters and the differences between their percentage changes per extra parameter and the smallest one did not exceed 0.02, the competing model with the fewest number of parameters (rather than the model with the smallest percentage change per extra parameter) was selected. The chosen model was then refitted using all data (1983-2009 submissions, 1981-2007 diagnosis years) to estimate delay distributions and calculate delay adjusted estimates of the cancer counts.

Age-adjusted (using the 2000 US standard population) cancer incidence rates were then calculated with and without adjusting for reporting delay. Joinpoint linear regression was used to obtain the annual percentage changes for the 1975-2007 incidence rates for the data series with

and without delay adjustment. Because the delay distribution was assumed complete after 27 years, incidence rates for diagnosis years prior to 1982 were not reporting-adjusted. In joinpoint regression analyses, up to four change points (i.e., 5 trend-line segments) were allowed, and these were modeled to fall at either whole years or midway between diagnosis years. Change points were constrained to be at least 2 years away from both the beginning and the end of the data series and at least 2 years apart. Models were fitted using weighted least squares (weighted by appropriate variances of age-adjusted incidence rates) of the joinpoint regression software.

Results show that adjusting for delay tends to raise cancer incidence rates in more current reporting years. While this adjustment increases the rate of change over the most recent diagnosis years, it probably will only rarely cause the detection of a new joinpoint, although this is possible. See Clegg et al. (2002) for details on the impact of reporting-delay adjustment to SEER cancer incidence rates.

The SEER 13 Delay Model

Starting with the April 2009 release of the *Cancer Statistics Review* we estimated delay adjusted rates for SEER 13 registries. SEER 13 consists of SEER 9 registries, covering diagnosis years 1975 through the present, plus 4 newer registries (Los Angeles, San Jose-Monterey, Rural Georgia, Alaska Native Tumor Registry) covering diagnosis years 1992 through the present. These four registries will be referred to here as SEER 13-9.

Delay-adjusted rates for SEER 13 were obtained through a 2 step process. First, the delay adjustment factors are derived separately for SEER 9 and SEER13-9. Delay adjusted age specific case counts are computed for SEER 9 and SEER 13-9 using their respective delay adjustment factors and then summed to get the delay-adjusted case counts for SEER 13. These adjusted case counts are then paired with the appropriate denominator to obtain age-specific rates, and are age-adjusted in the usual manner. The formula to compute the age-adjusted combined SEER 13 rates is:

$$\text{Delay adjusted rate for } i\text{th age group} =$$

$$\frac{\sum_j \text{delay counts for SEER 9 for age/stratum (i, j)} + \sum_j \text{delay counts for SEER 13-9 for age/stratum (i, j)}}{\sum_j \text{population for age/stratum (i, j)}}$$

$$\text{AAR} = \sum_i \frac{\text{Standard Population in } i\text{th age group}}{\text{Total Standard Population}} \times (\text{delay adjusted rate for } i\text{th age group})$$

i is for age, j is for stratum defined by multiple variables included in the delay model.

Future developments will include an application program to allow the computation of SEER 13 combined delay adjusted rates based on this formula.

Consecutive data submissions were not available for the Alaska Native Tumor Registry for the entire period of interest. Modeling SEER 13-9, therefore, was conducted using only Los Angeles, San Jose-Monterey and Rural Georgia though the final delay-adjustment factors were applied across the four registries.

In creating the SEER 13-9 model, we first followed the same process of model selection and delay adjustment factor estimation as is used in SEER 9. We then modified the SEER 13-9 factors to share the same delay adjustment factors as SEER 9 under the assumption that the data have the same delay distribution prior to 1992. The modified delay adjusted factors are then the final estimated factors for SEER 13-9. As with SEER 9, we also assume that in SEER 13-9 there is no delay after 27 year of reporting.

Cancer Sites and Variables

Delay-adjusted incidence rates and trends are reported for all cancers combined (malignant only except for urinary bladder), for female breast in situ, for urinary bladder (in situ and malignant), and for 22 malignant cancer sites: melanoma (for all races combined and whites only), lung/bronchus, colon/rectum, prostate, female breast, liver and intrahepatic bile duct, pancreas, cervix uteri, corpus and uterus, ovary, testis, kidney and renal pelvis, brain and other nervous system, Hodgkin lymphoma, non-Hodgkin lymphoma, all leukemias, esophagus, larynx, myeloma, oral cavity and pharynx, thyroid, and stomach.

A delay distribution models the probability of a cancer being reported after a delay of *d* years (*d* = 2, 3, ...25). The number of cancers reported at each delay year is assumed to follow a Poisson distribution. Cases are removed as corrections to the data are made, and the probability of removing cases is modeled as a binomial distribution. To reduce the number of parameters that have to be estimated and to achieve stability in the tails of the delay distributions, an assumption is made that all cancer cases will be reported within 25 years of diagnosis.

The delay distributions were modeled as a function of covariates using a discrete-time proportional hazards model. The following potential covariates are included: age at diagnosis, sex, diagnosis year, delay times, and race/ethnicity. For each cancer site, a delay distribution was calculated for all races combined and a separate delay distribution was calculated for whites and blacks. In the distributions for all races combined, if a patient's race value changed between two submission years the change of value does not contribute to the delay model. For melanoma, only all races combined and whites were analyzed because melanoma is rare for blacks. A complete list of covariates and as well this year's models for each cancer site can be found at http://srab.cancer.gov/delay/covariates.html

STATISTICAL SIGNIFICANCE

Errors may be made in the estimation of a given statistic. In order to test whether two groups (such as the populations of a state and the entire US) have the same or different *actual* rates, the *observed* rates for the groups are compared. Statisticians consider that a difference in observed rates can be explained by one of two hypotheses: (H_0) The actual rates are really the same, but the observed rates are different because of some combination of error-causing factors, or (H_1) the actual rates of the groups are really different. H_0 is called the **null hypothesis** (because it says there is *no* real difference); H_1 is called the **alternate hypothesis**. Typically, H_0 is rejected only if there is strong evidence in favor of H_1. (Thus, if the observed rates are equal, we cannot reject H_0.)

Using statistical theory, one can determine the distribution of the rate difference under the assumption that H_0 is true. Then values of the rate difference that are very unlikely to occur if H_0 is true are identified. More specifically, a small positive number, called **alpha** (α), is chosen; usually, α is 0.05 or 0.01. (Alpha is called the **significance level** of the hypothesis test.) One can then identify limits for the difference in rates such that, if H_0 is true, the probability of the difference being outside of those limits is α. If the observed difference is *outside* of these limits, then the observed result is *very unlikely* to happen if H_0 is true, so H_0 is rejected.

Another way of looking at the same process is to calculate, assuming H_0 is true, the probability that the observed difference or any greater observed difference would occur; this number is called the ***P*-value** of the observed result. If the *P*-value of a comparison is less than α (that is, the observed difference is *very unlikely* to happen if the null hypothesis is true), H_0 will be rejected. If the *P*-value of a test is greater than the significance level α, H_0 will not be rejected. When a difference in rates is sufficiently large to cause the null hypothesis to be rejected for a given value of α (usually 0.05), it is called a **statistically significant** difference.

When a null hypothesis is rejected, there remains a small chance that a wrong decision has been made. If many statistical comparisons are done, even with α = 0.01, the chance of making at least one wrong decision becomes a concern. In testing the differences between the total US rate and the rate for each state (or for the District of Columbia) for a given cancer, 51 statistical comparisons of the type described above are performed. Based on one of Bonferroni's inequalities (if there are n events and p_i is the probability of success in event i, then $P(\text{at least 1 success}) < p_1 + ... + p_n$) (Snedecor & Cochran,1980; p. 115-117), the significance level α for each individual comparison was set equal to $0.01/51 \approx 0.0002$. Thus, only individual-state-to-total-US comparisons with an associated *P*-value less than 0.0002 are considered to be statistically significant. That is, a *very small* significance level α (0.0002) is used in order to minimize the total risk (0.01) of falsely deciding that some pair of equal rates are unequal.

Use caution in assessing statistically significant differences. Population size has an important role in any calculation of statistical significance. Some states may have estimated rates that are

very close to the estimated total US rate, but because of their large population, the difference between their estimated rate and the estimated total US rate is found to be statistically significant. In this case, the true state rate and the true US rate are almost certainly different, because the observed difference, though small, is nearly impossible if the null hypothesis (equal rates) is true. A small difference in rates, however, may have no practical importance. On the other hand, some smaller states may have estimated rates that differ substantially from the estimated total US rate, but because of their relatively small population, the differences are found to be statistically nonsignificant. When this happens, if the true state rate and the true US rate were equal, the probability of obtaining a difference at least as large as what has been observed is greater than $\alpha \approx 0.0002$. Therefore, *because the evidence against it isn't strong enough, the null hypothesis (equal rates) is not rejected.*

If the percent difference (PD) between the two rates is small, there may be some question about the importance of the difference. It is difficult to specify a minimally significant absolute PD, below which the difference would always be unimportant, because the observed PD will depend on the populations of the areas involved. It may be of value to consider the size of the PD between a state rate and the US rate in assessing the importance of a statistically significant difference.

Comparing individual state rates with the US rate and assessing statistical significance is not an appropriate procedure for assessing geographic clustering of state rates. Identification of states which may represent regional clusters of high or low rates would require additional statistical and graphical analyses.

For a number of cancers, the District of Columbia has the highest death rates. *Use caution when comparing cancer rates for the District with those from the 50 states.* The District is an entirely urban area, whereas a state includes urban, suburban, and rural areas. Mortality rates for many cancers are higher in urban areas. Also, the District has a higher percentage of blacks (58% of the total population in 2005) than any state. In addition, their higher mortality rates for several types of cancer elevate the overall rate for the District.

STANDARD ERRORS OF RATES

Survival rates: In the tables presenting survival estimates, the magnitude of the standard error is given as a clue to the reliability of a given rate: the greater the standard error, the less reliable the rate. In addition, if there were fewer than 25 diagnoses in the first interval of the life table constructed to calculate survival, or if all cases became lost to follow-up within an interval, a validsurvival estimate could not be calculated, as is noted in the table footnotes.

The **standard error** (**SE**) of a relativesurvival estimate is obtained as follows (Ederer et al., 1961):

$$SE(CR_t) = CR_t * \text{square root of } [q_1/(e_1-d_1) + q_2/(e_2-d_2) + \ldots + q_t/(e_t-d_t)]$$

where CR_t is the t-year relative survival estimate, and for $i = 1, \ldots, t$,
q_i is the probability of dying in year i after diagnosis,
e_i is the effective number of patients at risk in year i after diagnosis, and
d_i is the number of deaths in year i after diagnosis.

Incidence and mortality rates: The standard errors of age-adjusted incidence and mortality rates are often not specified. However, the reader can approximate the SE of a particular incidence or mortality rate by the SE of a crude incidence or mortality rate (Keyfitz, 1966), that is, the SE can be approximated by the rate divided by the square root of the number of cancer cases (or the number of deaths).

Appendix tables provide numbers of cancer diagnoses within SEER areas and numbers of deaths in the entire US, respectively, by race and sex for the most recent 5-year period. These can be used to obtain approximations of the standard errors for associated age-adjusted rates for the same time period using the above formula. To approximate the standard error of a rate for a single year, use the formula but replace the number of cancer cases or deaths with the number of cancer cases or deaths divided by 5.

DEFINITIONS

Several technical terms are used in presenting the data in this report. Their definitions are presented here to clarify them for the reader.

Incidence rate: The cancer incidence rate is the number of new cancers of a specific site/type occurring in a specified population during a year, usually expressed as the number of cancers per 100,000 persons at risk. That is,

Incidence rate = (New cancers / Population) * 100,000.

The *numerator* of the incidence rate is the number of new cancers; the *denominator* of the incidence rate is the size of the population. The number of new cancers may include multiple primary cancers occurring in one patient. The primary site reported is the site of origin and not the metastatic site. In general, the incidence rate would not include recurrences. *The population used depends on the rate to be calculated.* For cancer sites that occur in only one sex, the sex-specific population (e.g., females for cervical cancer) is used.

The incidence rate can be computed for a given type of cancer or for all cancers combined. Except for 5-year age-specific rates, all incidence rates in this report are *age-adjusted* (see

below) to the 2000 US standard population (or, where appropriate, to the world standard million population). (In some previous editions of the *CSR*, the 1970 US standard million population was used; therefore, *incidence rates in this edition cannot be compared to rates published in those editions.*) Incidence rates are for *invasive cancer only*, unless otherwise specified. (Exceptions are the incidence rate for cancer of the urinary bladder (where both in situ and invasive cancers are counted) and breast cancer in situ, which is shown separately.)

Death rate: The cancer death (or mortality) rate is the number of deaths with cancer given as the underlying cause of death occurring in a specified population during a year, usually expressed as the number of deaths due to cancer per 100,000 persons. That is,

Death Rate = (Cancer Deaths / Population) * 100,000.

The *numerator* of the death rate is the number of deaths; the *denominator* of the death rate is the size of the population. As with the incidence rate, *the population used depends on the rate to be calculated.* The death rate can be computed for a given cancer site or for all cancers combined. Except for 5-year age-specific rates, all death rates in this report are *age-adjusted* (see below) to the 2000 US standard population (or, where appropriate, to the world standard million population). (In some previous editions of the *CSR*, the 1970 US standard million population was used; therefore, *death rates in this edition cannot be compared to rates published in those editions.*)

Age distribution: A table showing a partition of the entire lifespan into disjoint age intervals, along with the proportion of the population in each interval.

Median age: The age at which half of a population is younger and half is older.

Standard population: A **standard population** for a geographic area, such as the US or the world, is a table giving the proportions of the population falling into the age groups 0, 1-4, 5-9, ..., 80-84, and 85+. A **standard million population** for a geographic area is a table giving the number of persons in each age group 0, 1-4, ... , 85+ out of a theoretical cohort of 1,000,000 persons that is distributed by age in the same proportions as the standard population. Table A-7 shows the US 2000 standard population and the world standard million population. (Some World Health Organization mortality publications use a different world standard million population.)

Age-adjusted rate: An age-adjusted incidence or mortality rate is a weighted average of the age-specific incidence or mortality rates, where the weights are the counts of persons in the corresponding age groups of a standard population. The potential confounding effect of age is reduced when comparing age-adjusted rates based on the same standard population. For this report, the 2000 US standard population (or, where appropriate, the world standard million population) is used in computing age-adjusted rates, unless otherwise noted.

Percent change: The percent change (**PC**) in a statistic over a given time interval is

Percent change = (Final value – Initial value) / Initial value * 100.

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

Annual percent change: The annual percent change (**APC**) is calculated by first fitting a regression line to the natural logarithms of the rates (*r*) using calendar year (*x*) as a regressor variable. In this report the method of *weighted least squares* is used to calculate the regression equation. If **ln(r) = mx + b** is the resulting regression equation (with slope *m*), then **APC = 100 * (e^m – 1)**. A positive APC corresponds to an increasing trend, a negative APC to a decreasing trend.

Because the methods used in their calculation are mathematically different, *the signs of the PC and the APC for a given statistic and time interval may differ*, as occurs in a few of the tables presented. That is, one of these statistics may show an increasing trend, the other a decreasing trend.

Testing the hypothesis that the actual mean annual percent change is 0 is equivalent to testing the hypothesis that the theoretical slope estimated by the slope *m* of the line representing the equation **ln(r) = mx + b** is 0. The latter hypothesis is tested using the *t* distribution of m / SE_m with $n - 2$ degrees of freedom. The standard error of *m*, called SE_m, is obtained from the fit of the regression (Kleinbaum et al., 1988). (This calculation assumes that the rates increased or decreased at a constant rate over the entire calendar year interval; the validity of this assumption was not assessed.) In those few instances where at least one of the rates was 0, the linear regression was not calculated.

Average Annual Percent Change: The average annual percent change (**AAPC**) is a summary measure of a trend over a pre-specified fixed interval based on an underlying joinpoint model. It allows us to use a single number to describe the average trend over a period of multiple years. It can be estimated even if the joinpoint model indicates that there were changes in trends during those years, since it is estimated as a weighted average of the joinpoint APCs, with the weights equal to the lengths of each segment over the pre-specified fixed interval.

Life table: A table for a given population listing, for each sex and each age from 0 to 120, how many members die at that age and how many survive one more year.

Observed survival: The observed survival estimate represents the proportion of cancer patients surviving for a specified time interval after diagnosis. Note that some of those not surviving died of the given cancer and some died of other causes.

Relative percent: The relative survival estimate is calculated using a procedure (Ederer et al., 1961) whereby the observed survival estimate is adjusted for expected mortality. The relative survival estimate approximates the likelihood that a patient cohort will not die from causes associated specifically with the given cancer before some specified time after diagnosis. It is always larger than the observed survival estimate for the same group of patients.

Standard error: The standard error of a rate is a measure of the sampling variability of the rate.

Person-years of life lost: The person-years of life lost (**PYLL**) is calculated as follows: For each individual who dies of the cancer of interest, the number of years of expected additional life for an average person of that age, race, and sex is obtained from life tables for the US population (available from the NCHS). The PYLL in the general population associated with a particular cancer for a given year is simply the sum of this expectation over all those individuals who died of that cancer in that year.

Average years of life lost: The average years of life lost (**AYLL**) associated with a particular cancer for a given year is the PYLL associated with that cancer in the general population divided by the number of deaths from that cancer in the general population in that year.

Prevalence: Prevalence is defined as 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 (incident) and pre-existing cases and is a function of past incidence, past survival, and the size and age structure of the population**.** *Limited-Duration Prevalence* represents the proportion of people alive on a certain day who had a diagnosis of the disease within the past *x* years (e.g. *x* = 5, 10, or 20 years). *Complete prevalence* is an estimate of the number of persons (or the proportion of the population) alive on a specified date who had been diagnosed with the given disease, no matter how long ago that diagnosis was. For more details on cancer prevalence definitions and methods, refer to *http://srab.cancer.gov/prevalence/*.

Stage of disease at diagnosis: Extent-of-disease information determines stage of disease at diagnosis. The **SEER summary stage** presented has four levels. An invasive neoplasm confined entirely to the organ of origin is said to be **localized**. A neoplasm that has extended beyond the limits of the organ of origin, either directly into surrounding organs or tissues or into regional lymph nodes, is said to be **regional**. A neoplasm that has spread to parts of the body remote from the primary tumor, either by direct extension or by discontinuous metastasis, is said to be **distant**. When information is not sufficient to assign a stage, a neoplasm is said to be **unstaged**. In situ tumors (except those of the cervix uteri) are also collected by SEER but generally are not published in this series. For some cancers and diagnosis years, the extent of

disease information can also be converted to Stages 0-IV as defined by the American Joint Committee on Cancer (Greene et al, 2002).

SOFTWARE USED TO GENERATE THE SEER CANCER STATISTICS REVIEW

The SEER Cancer Statistics Review includes statistics generated by a variety of statistical software including:

- SEER*Stat, statistical software for the analysis of SEER and other cancer databases, was used to generate incidence, mortality, prevalence, and survival statistics presented in the CSR.
- Analysis generated by the Joinpoint Regression Program are presented to better describe trends that are not constant over time.
- The DevCan system generated the probability of developing cancer from twelve SEER areas and the probability of dying from cancer from the total United States.
- The ComPrev software was used to calculate complete prevalence estimates.

Additional statistics can be obtained via SEER's Cancer Query Systems. These data retrieval applications provide access to pre-calculated cancer statistics stored in online databases.

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Table 1.1

Estimated New Cancer Cases and Deaths for 2010
All Races, By Sex

Primary Site	Estimated New Cases			Estimated Deaths		
	Total	Males	Females	Total	Males	Females
All Sites	1,529,560	789,620	739,940	569,490	299,200	270,290
Oral Cavity and Pharynx	36,540	25,420	11,120	7,880	5,430	2,450
Tongue	10,990	7,690	3,300	1,990	1,300	690
Mouth	10,840	6,430	4,410	1,830	1,140	690
Pharynx	12,660	9,880	2,780	2,410	1,730	680
Other Oral Cavity	2,050	1,420	630	1,650	1,260	390
Digestive System	274,330	148,540	125,790	139,580	79,010	60,570
Esophagus	16,640	13,130	3,510	14,500	11,650	2,850
Stomach	21,000	12,730	8,270	10,570	6,350	4,220
Small Intestine	6,960	3,680	3,280	1,100	610	490
Colon[a]	102,900	49,470	53,430	51,370	26,580	24,790
Rectum	39,670	22,620	17,050			
Anus, Anal Canal, and Anorectum	5,260	2,000	3,260	720	280	440
Liver and Intrahepatic Bile Duct	24,120	17,430	6,690	18,910	12,720	6,190
Gallbladder and Other Biliary	9,760	4,450	5,310	3,320	1,240	2,080
Pancreas	43,140	21,370	21,770	36,800	18,770	18,030
Other Digestive	4,880	1,660	3,220	2,290	810	1,480
Respiratory System	240,610	130,600	110,010	161,670	89,550	72,120
Larynx	12,720	10,110	2,610	3,600	2,870	730
Lung and Bronchus	222,520	116,750	105,770	157,300	86,220	71,080
Other Respiratory	5,370	3,740	1,630	770	460	310
Bones and Joints	2,650	1,530	1,120	1,460	830	630
Soft Tissue	10,520	5,680	4,840	3,920	2,020	1,900
Skin (excl. basal & squamous)	74,010	42,610	31,400	11,790	7,910	3,880
Melanoma of the Skin[b]	68,130	38,870	29,260	8,700	5,670	3,030
Other non-epithelial skin	5,880	3,740	2,140	3,090	2,240	850
Breast[b]	209,060	1,970	207,090	40,230	390	39,840
Genital Organs	311,210	227,460	83,750	60,420	32,710	27,710
Cervix (uterus)	12,200		12,200	4,210		4,210
Endometrium (uterus)	43,470		43,470	7,950		7,950
Ovary	21,880		21,880	13,850		13,850
Vulva	3,900		3,900	920		920
Vagina and other genital organs, female	2,300		2,300	780		780
Prostate	217,730	217,730		32,050	32,050	
Testis	8,480	8,480		350	350	
Penis and other genital organs, male	1,250	1,250		310	310	
Urinary System	131,260	89,620	41,640	28,550	19,110	9,440
Urinary Bladder	70,530	52,760	17,770	14,680	10,410	4,270
Kidney and Renal Pelvis	58,240	35,370	22,870	13,040	8,210	4,830
Ureter and other urinary organs	2,490	1,490	1,000	830	490	340
Eye and Orbit	2,480	1,240	1,240	230	120	110
Brain and Other Nervous System	22,020	11,980	10,040	13,140	7,420	5,720
Endocrine System	46,930	11,890	35,040	2,570	1,140	1,430
Thyroid	44,670	10,740	33,930	1,690	730	960
Other Endocrine	2,260	1,150	1,110	880	410	470
Lymphoma	74,030	40,050	33,980	21,530	11,450	10,080
Hodgkin Lymphoma	8,490	4,670	3,820	1,320	740	580
Non-Hodgkin Lymphoma	65,540	35,380	30,160	20,210	10,710	9,500
Myeloma	20,180	11,170	9,010	10,650	5,760	4,890
Leukemia	43,050	24,690	18,360	21,840	12,660	9,180
Lymphocytic Leukemias	20,320	12,020	8,300	5,810	3,440	2,370
Myeloid Leukemias	17,200	9,390	7,810	9,390	5,470	3,920
Other leukemia	5,530	3,280	2,250	6,640	3,750	2,890
All Other Sites[c]	30,680	15,170	15,510	44,030	23,690	20,340

Cancer Facts & Figures – 2010, American Cancer Society (ACS), Atlanta, Georgia, 2010.
Excludes basal and squamous cell skin and *in situ* carcinomas except urinary bladder.

Incidence projections are based on rates from the North American Association of Central Cancer Registries(NAACCR) from 1995-2006, representing about 89% of the US population.
Estimated deaths are based on data from US Mortality Data, 1969-2007, National Center for Health Statistics, Centers for Disease Control and Prevention, 2010.

[a] Estimated deaths for colon & rectum cancers are combined.

[b] Carcinoma *in situ* of the breast accounts for about 54,010 new cases annually, and melanoma *in situ* accounts for about 46,770 new cases annually.

[c] More deaths than cases suggests lack of specificity in recording underlying causes of death on death certificate.

Table 1.2

58-Year Trends in U.S. Cancer Death Rates[a]

All Races, Males and Females

All Primary Cancer Sites Combined

Age Group	1950	1979	2007	Annual Percent Change 1950-1979	Annual Percent Change 1979-2007	Total Percent Change 1950-2007
Ages 0-4	11.1	4.3	2.1	-3.1*	-2.7*	-81.1
Ages 5-14	6.7	4.4	2.4	-1.4*	-2.3*	-64.1
Ages 15-24	8.6	6.1	3.9	-1.1*	-1.5*	-54.8
Ages 25-34	20.4	13.6	8.8	-1.4*	-1.6*	-57.1
Ages 35-44	63.6	49.8	30.7	-0.7*	-1.7*	-51.7
Ages 45-54	174.2	176.6	113.4	0.1*	-1.7*	-34.9
Ages 55-64	391.3	426.5	315.6	0.4*	-1.2*	-19.4
Ages 65-74	710.0	809.5	723.5	0.4*	-0.4*	1.9
Ages 75-84	1,167.2	1,213.8	1,241.8	0.1*	0.1	6.4
Ages 85+	1,450.7	1,540.0	1,589.3	0.1	0.1	9.6
All Ages	195.4	204.5	178.1	0.2*	-0.5*	-8.8

Lung and Bronchus Cancer[b]

Age Group	1950	1979	2007	Annual Percent Change 1950-1979	Annual Percent Change 1979-2007	Total Percent Change 1950-2007
Ages 0-4	-	-	-	-	-	-
Ages 5-14	-	-	-	-	-	-
Ages 15-24	0.2	0.1	0.1	-2.6*	-0.6	-62.4
Ages 25-34	0.8	0.7	0.3	-0.1	-2.2*	-57.0
Ages 35-44	4.6	9.8	4.3	2.9*	-2.4*	-6.7
Ages 45-54	20.2	52.0	28.2	3.4*	-2.6*	39.3
Ages 55-64	48.9	134.2	95.6	3.4*	-1.3*	95.7
Ages 65-74	59.4	223.0	251.8	4.2*	0.3	323.7
Ages 75-84	55.4	228.5	370.3	5.0*	1.5*	568.7
Ages 85+	42.3	162.5	300.1	5.1*	2.1*	609.7
All Ages	14.9	47.9	50.8	4.0*	0.1	239.8

Source: US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.

[a] Rates are per 100,000 and age-adjusted to the 2000 US Std Population (18 age groups - Census P25-1130).

[b] Due to coding changes throughout the years, Lung and Bronchus includes trachea and pleura.

* The APC is significantly different from zero ($p<.05$).

\- Statistic not shown. Rate based on less than 16 cases for the time interval. Trend based on less than 10 cases for at least one year within the time interval.

Table 1.3

Summary of Changes in Cancer Mortality, 1950-2007 and
5-Year Relative Survival (Percent), 1950-2006
Males and Females, By Primary Cancer Site

	All Races		Whites			
			U.S. Mortality Percent Change 1950-2007[b]		5-Year Relative Survival (Percent)[c]	
Primary Site	Estimated Cancer Cases in 2007[a]	Actual Cancer Deaths in 2007[b]	Total	APC	1950-1954	1999-2006
Oral cavity and pharynx	34,360	8,067	-51.6	-1.3*	46	64.7
Esophagus	15,560	13,592	28.5	0.8*	4	20.0
Stomach	21,260	11,388	-86.8	-3.4*	12	25.6
Colon and rectum	153,760	53,584	-50.6	-1.2*	37	67.9
Colon	112,340	43,968	-41.7	-0.8*	41	67.2
Rectum	41,420	9,616	-70.5	-2.4*	40	69.5
Liver and intrahepatic bile duct	19,160	20,496	37.5	0.7*	1	13.7
Pancreas	37,170	34,117	24.1	0.1*	1	5.8
Larynx	11,300	3,634	-36.3	-0.6*	52	65.4
Lung and bronchus	213,380	158,965	237.3	1.7*	6	16.8
Males	114,760	88,531	160.0	1.0*	5	14.5
Females	98,620	70,434	593.7	3.5*	9	19.4
Melanoma of the skin	59,940	8,461	168.1	1.4*	49	92.9
Breast(females)	178,480	40,598	-31.8	-0.5*	60	91.2
Cervix uteri	11,150	4,021	-81.4	-3.3*	59	72.5
Corpus and uterus, NOS	39,080	7,456	-68.4	-1.8*	72	86.2
Ovary	22,430	15,004	-4.2	-0.2*	30	45.0
Prostate	218,890	29,093	-25.8	-0.1	43	99.9
Testis	7,920	326	-75.1	-3.0*	57	96.7
Urinary bladder	67,160	14,276	-29.9	-0.8*	53	82.0
Kidney and renal pelvis	51,190	13,043	34.2	0.6*	34	69.9
Brain and nervous system	20,500	13,234	48.2	0.6*	21	35.4
Thyroid	33,550	1,562	-43.6	-1.2*	80	97.6
Hodgkin lymphoma	8,190	1,271	-78.0	-3.3*	30	87.7
Non-Hodgkin lymphoma	63,190	20,232	98.7	1.2*	33	70.5
Myeloma	19,900	10,976	222.3	1.5*	6	38.8
Leukemia	44,240	21,824	-0.2	-0.2*	10	56.2
Childhood (Ages 0-14)	10,400	1,395	-71.6	-2.7*	20	82.9
All Sites	1,444,920	562,867	-9.7	0.0	35	69.1

The APC is the Annual Percent Change over the time interval. Rates used in the calculation of the APC are age-adjusted to the 2000 U.S. standard population (18 age groups - Census P25-1130).

a Facts and Figures, 2007. American Cancer Society, Atlanta, Georgia, 2007.

b U.S. Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.
Due to coding changes throughout the years: Colon excludes other digestive tract; Rectum includes anal canal;
Liver & intrahepatic bile duct includes gallbladder & biliary tract, NOS; Lung & bronchus includes trachea & pleura;
Ovary includes fallopian tube; Urinary bladder includes other urinary organs; Kidney & Renal pelvis includes ureter;
NHL and myeloma each include a small number of leukemias; NHL includes a small number of ill-defined sites.

c Survival estimates for 1950-54 are from NCI Survival Report 5 with the exception of All Sites, Oral cavity & pharynx,
Colon & rectum, Non-Hodgkin lymphoma and Childhood cancers which come from historical Connecticut data.
Survival estimates for 1999-2006 are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa,
New Mexico, Seattle, Utah, and Atlanta). Rates are based on follow-up of patients into 2007.

* The APC is significantly different from zero (p<.05).

Table 1.4
Age-Adjusted SEER Incidence and U.S. Death Rates and 5-Year Relative Survival (Percent)
By Primary Cancer Site, Sex and Time Period

All Races

Site	Incidence[a] (2003-2007)			US Mortality[b] (2003-2007)			Survival[c] (%) (1999-2006)		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
All Sites	461.6	538.9	408.0	183.8	225.4	155.4	66.0	66.0	66.0
Oral Cavity & Pharynx:	10.4	15.4	6.1	2.5	3.9	1.4	60.9	59.8	63.6
Lip	0.7	1.2	0.3	0.0	0.0	0.0	90.4	90.1	91.3
Tongue	2.9	4.3	1.7	0.6	0.9	0.4	59.4	59.3	59.6
Salivary gland	1.3	1.7	1.0	0.2	0.4	0.1	73.7	67.9	81.1
Floor of mouth	0.6	0.9	0.3	0.0	0.1	0.0	53.1	50.8	59.0
Gum & other oral cavity	1.5	1.8	1.2	0.4	0.5	0.3	59.6	55.9	64.0
Nasopharynx	0.7	1.0	0.4	0.2	0.3	0.1	57.6	57.0	58.7
Tonsil	1.6	2.6	0.6	0.2	0.3	0.1	66.8	67.6	63.2
Oropharynx	0.4	0.6	0.2	0.2	0.3	0.1	38.4	38.7	37.8
Hypopharynx	0.7	1.2	0.3	0.1	0.2	0.0	29.4	29.1	30.5
Other oral cavity & pharynx	0.2	0.3	0.1	0.5	0.9	0.2	34.5	37.1	28.8
Digestive System:	87.0	106.1	71.7	44.0	56.4	34.2	45.2	43.3	47.4
Esophagus	4.5	7.8	1.9	4.4	7.8	1.7	17.0	16.8	17.7
Stomach	7.8	10.9	5.5	3.8	5.3	2.7	26.0	24.1	28.8
Small intestine	1.9	2.3	1.6	0.4	0.4	0.3	62.6	62.7	62.5
Colon & Rectum:	47.9	55.8	41.7	17.6	21.2	14.9	65.0	65.1	64.9
Colon	34.5	38.9	31.2	-	-	-	64.3	64.7	64.0
Rectum	13.4	16.9	10.6	-	-	-	66.5	65.9	67.2
Anus, anal canal & anorectum	1.6	1.4	1.8	0.2	0.2	0.2	66.2	60.8	69.8
Liver & intrahep. bile duct:	6.9	10.7	3.7	5.2	7.7	3.2	13.8	13.6	14.2
Liver	6.3	10.0	3.2	4.0	6.3	2.2	14.6	14.2	15.5
Intrahepatic bile duct	0.6	0.7	0.5	1.2	1.4	1.0	5.8	5.5	6.1
Gallbladder	1.2	0.9	1.5	0.6	0.5	0.8	15.9	14.1	16.5
Other biliary	1.8	2.2	1.5	0.5	0.6	0.4	16.8	17.8	15.6
Pancreas	11.7	13.3	10.5	10.7	12.3	9.4	5.6	5.3	5.9
Retroperitoneum	0.4	0.4	0.4	0.1	0.1	0.1	51.0	48.2	53.7
Peritoneum, omentum & mesentery	0.7	0.1	1.2	0.3	0.1	0.4	29.6	46.2	28.4
Other digestive system	0.5	0.6	0.5	0.3	0.3	0.2	11.4	10.9	11.8
Respiratory System:	66.8	83.6	54.3	54.0	71.5	41.2	19.0	18.4	19.8
Nose, nasal cavity & middle ear	0.7	0.9	0.5	0.2	0.2	0.1	56.3	54.6	58.2
Larynx	3.4	6.1	1.3	1.2	2.2	0.5	61.3	62.2	57.9
Lung & bronchus	62.5	76.2	52.4	52.5	68.8	40.6	15.8	13.5	18.3
Pleura[d]	0.0	0.1	0.0	0.1	0.1	0.0	28.8	28.0	29.8
Trachea & other respiratory organs	0.2	0.3	0.1	0.1	0.1	0.1	47.9	49.7	43.7
Bones & joints	0.9	1.0	0.8	0.4	0.5	0.4	68.2	65.0	72.2
Soft tissue (including heart)	3.2	3.8	2.7	1.3	1.4	1.1	66.9	66.6	67.3
Skin (excl. basal & squamous):	21.9	28.1	17.6	3.5	5.4	2.1	91.1	88.9	93.7
Melanoma of the skin	20.1	25.6	16.2	2.7	4.0	1.7	91.4	89.3	93.9
Other non-epithelial skin	1.8	2.5	1.4	0.8	1.4	0.4	88.0	84.8	91.9
Breast	66.5	1.2	122.9	13.5	0.3	24.0	89.0	86.0	89.0
Breast (*in situ*)	15.9	0.1	30.0	-	-	-	100.0	100.0	100.0

Note: Incidence and death rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

[a] SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey).

[b] US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.

[c] SEER 17 areas. California excluding SF/SJM/LA, Kentucky, Louisiana, and New Jersey contribute cases for diagnosis years 2000-2006. The remaining 13 SEER Areas contribute cases for the entire period 1999-2006.

[d] Mesotheliomas of the Pleura are included in the separate group Mesothelioma for incidence but are included in the Pleura grouping for mortality.

\- Statistic could not be calculated due to less than 16 cases in the time interval.

Table 1.4 - continued
Age-Adjusted SEER Incidence and U.S. Death Rates and 5-Year Relative Survival (Percent)
By Primary Cancer Site, Sex and Time Period

All Races

Site	Incidence[a] (2003-2007) Total	Males	Females	US Mortality[b] (2003-2007) Total	Males	Females	Survival[c] (%) (1999-2006) Total	Males	Females
Female Genital System:	25.8	-	48.1	9.0	-	16.0	69.5	-	69.5
Cervix uteri	4.2	-	8.1	1.3	-	2.4	70.2	-	70.2
Corpus uteri	12.3	-	22.9	1.1	-	1.9	83.8	-	83.8
Uterus, NOS	0.3	-	0.6	1.3	-	2.2	28.5	-	28.5
Ovary[d]	7.0	-	12.9	4.8	-	8.6	45.6	-	45.6
Vagina	0.4	-	0.7	0.1	-	0.2	51.4	-	51.4
Vulva	1.2	-	2.2	0.3	-	0.5	75.6	-	75.6
Other female genital system	0.4	-	0.7	0.1	-	0.2	64.3	-	64.3
Male Genital System:	73.0	163.4	-	9.7	25.2	-	98.7	98.7	-
Prostate	69.9	156.9	-	9.5	24.7	-	99.1	99.1	-
Testis	2.7	5.4	-	0.1	0.2	-	95.3	95.3	-
Penis	0.4	0.8	-	0.1	0.2	-	67.3	67.3	-
Other male genital system	0.1	0.2	-	0.0	0.0	-	85.8	85.8	-
Urinary System:	36.0	57.7	19.6	8.6	13.7	5.1	74.5	75.8	71.6
Urinary bladder	21.1	37.2	9.2	4.3	7.5	2.2	79.3	80.7	75.1
Kidney & renal pelvis	14.1	19.2	9.9	4.1	5.9	2.7	68.8	68.5	69.4
Ureter	0.6	0.8	0.4	0.1	0.1	0.1	53.3	56.8	48.4
Other urinary system	0.3	0.5	0.2	0.1	0.2	0.1	57.1	60.2	52.5
Eye & Orbit	0.8	1.0	0.7	0.1	0.1	0.1	83.6	82.1	85.3
Brain & Nervous System:[e]	6.5	7.6	5.5	4.3	5.2	3.5	35.1	33.1	37.6
Brain	6.1	7.2	5.0	-	-	-	31.8	30.3	33.6
Cranial nerves & other nervous system	0.4	0.4	0.4	-	-	-	80.4	76.9	83.6
Endocrine System:	10.9	6.0	15.8	0.8	0.8	0.8	94.9	89.6	96.6
Thyroid	10.2	5.2	15.2	0.5	0.5	0.5	97.3	94.4	98.0
Other endocrine & thymus	0.7	0.8	0.6	0.3	0.3	0.3	62.8	63.3	62.0
Lymphoma:	22.4	26.8	18.9	7.3	9.3	5.9	70.1	68.2	72.3
Hodgkin lymphoma	2.8	3.2	2.5	0.4	0.5	0.3	84.7	83.0	86.6
Non-Hodgkin lymphoma	19.6	23.6	16.5	6.9	8.7	5.5	67.4	65.4	69.6
Myeloma	5.6	7.1	4.5	3.6	4.4	2.9	38.2	39.3	36.9
Leukemia:	12.3	15.8	9.6	7.2	9.7	5.4	54.1	54.3	53.8
Lymphocytic:	6.2	8.2	4.6	2.1	2.9	1.4	74.2	73.7	75.0
Acute lymphocytic	1.6	1.9	1.4	0.5	0.6	0.4	65.2	64.9	65.7
Chronic lymphocytic	4.2	5.7	3.0	1.5	2.1	1.0	78.4	76.9	80.7
Other lymphocytic	0.4	0.7	0.2	0.1	0.2	0.1	82.9	86.4	73.4
Myeloid & Monocytic:	5.5	6.8	4.5	3.4	4.4	2.6	33.5	32.8	34.4
Acute myeloid	3.5	4.3	2.9	2.8	3.6	2.2	23.6	22.2	25.3
Chronic myeloid	1.5	2.0	1.1	0.4	0.5	0.3	56.8	56.3	57.6
Acute monocytic	0.3	0.3	0.3	0.0	0.0	0.0	24.3	23.0	25.5
Other myeloid & monocytic	0.2	0.2	0.1	0.2	0.3	0.1	32.2	30.9	32.7
Other leukemia:	0.7	0.8	0.6	1.8	2.3	1.4	25.9	24.6	27.4
Other acute leukemia	0.3	0.3	0.2	0.7	1.0	0.6	16.0	15.7	16.3
Aleukemic, subleukemic & NOS	0.4	0.5	0.4	1.0	1.4	0.8	34.4	32.1	36.9
Kaposi Sarcoma[f]	0.6	1.2	0.1	-	-	-	62.0	61.6	67.6
Mesothelioma[f]	1.1	1.9	0.4	-	-	-	7.6	5.6	14.0
Ill-defined & unspecified	9.7	11.0	8.6	13.9	17.6	11.3	16.9	20.4	13.5

Note: Incidence and death rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

[a] SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey).

[b] US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.

[c] SEER 17 areas. California excluding SF/SJM/LA, Kentucky, Louisiana, and New Jersey contribute cases for diagnosis years 2000-2006. The remaining 13 SEER Areas contribute cases for the entire period 1999-2006.

[d] Ovary excludes borderline cases or histologies 8442, 8451, 8462, 8472, and 8473.

[e] Due to coding changes, Brain & Nervous System mortality are no longer shown separately.

[f] Rate not shown for mortality. Category did not exist in mortality coding until 1999.

- Statistic could not be calculated due to less than 16 cases in the time interval.

Table 1.5
Age-Adjusted SEER Incidence and U.S. Death Rates and 5-Year Relative Survival (Percent)
By Primary Cancer Site, Sex and Time Period

Whites

Site	Incidence[a] (2003-2007)			US Mortality[b] (2003-2007)			Survival[c] (%) (1999-2006)		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
All Sites	469.2	541.5	419.6	182.4	222.5	155.0	66.9	66.8	67.0
Oral Cavity & Pharynx:	10.5	15.7	6.1	2.4	3.7	1.4	62.8	62.2	64.1
Lip	0.8	1.4	0.4	0.0	0.0	0.0	90.4	90.0	91.7
Tongue	3.1	4.5	1.7	0.6	0.9	0.4	61.8	61.9	61.7
Salivary gland	1.3	1.7	1.0	0.2	0.4	0.1	72.6	67.2	80.2
Floor of mouth	0.6	0.9	0.4	0.0	0.1	0.0	54.4	52.6	58.7
Gum & other oral cavity	1.5	1.7	1.2	0.4	0.5	0.3	60.2	57.3	63.8
Nasopharynx	0.4	0.6	0.2	0.2	0.2	0.1	52.8	54.3	48.9
Tonsil	1.7	2.8	0.6	0.2	0.3	0.1	69.6	70.7	64.9
Oropharynx	0.3	0.6	0.2	0.2	0.3	0.1	42.2	43.0	40.2
Hypopharynx	0.6	1.1	0.3	0.1	0.2	0.0	30.9	30.9	30.7
Other oral cavity & pharynx	0.2	0.3	0.1	0.5	0.8	0.2	37.5	41.0	30.0
Digestive System:	84.5	103.0	69.4	42.4	54.4	32.8	46.3	44.5	48.3
Esophagus	4.6	8.0	1.9	4.4	7.9	1.6	17.8	17.7	18.2
Stomach	6.8	9.6	4.7	3.3	4.6	2.4	24.4	22.6	27.4
Small intestine	1.9	2.2	1.6	0.3	0.4	0.3	64.5	65.0	63.9
Colon & Rectum:	47.4	55.4	40.9	17.1	20.6	14.4	65.9	66.0	65.7
Colon	34.1	38.6	30.6	-	-	-	65.4	65.7	65.1
Rectum	13.3	16.8	10.4	-	-	-	67.1	66.7	67.5
Anus, anal canal & anorectum	1.7	1.4	1.9	0.2	0.2	0.2	67.3	61.9	70.7
Liver & Intrahep. bile duct:	5.9	9.1	3.1	4.8	7.0	3.0	13.3	13.2	13.5
Liver	5.3	8.4	2.6	3.6	5.6	1.9	14.2	13.9	15.1
Intrahepatic bile duct	0.6	0.6	0.5	1.2	1.4	1.0	5.5	5.5	5.7
Gallbladder	1.1	0.8	1.4	0.6	0.4	0.8	15.7	13.2	16.7
Other biliary	1.7	2.1	1.5	0.5	0.6	0.4	16.9	18.6	15.1
Pancreas	11.6	13.2	10.3	10.5	12.2	9.1	5.6	5.4	5.7
Retroperitoneum	0.4	0.4	0.4	0.1	0.1	0.1	51.9	48.8	55.0
Peritoneum, omentum & mesentery	0.7	0.1	1.3	0.3	0.1	0.4	29.7	44.1	28.8
Other digestive system	0.5	0.6	0.4	0.3	0.3	0.2	11.0	10.7	11.2
Respiratory System:	68.2	83.5	56.7	54.4	70.8	42.2	19.3	18.7	20.1
Nose, nasal cavity & middle ear	0.7	0.9	0.5	0.1	0.2	0.1	56.3	54.1	58.8
Larynx	3.4	6.1	1.3	1.1	2.0	0.4	62.8	63.6	59.5
Lung & bronchus	63.8	76.3	54.7	52.9	68.3	41.6	16.1	13.8	18.6
Pleura[d]	0.0	0.1	0.0	0.1	0.2	0.0	28.5	25.8	33.6
Trachea & other respiratory organs	0.2	0.3	0.1	0.1	0.1	0.1	48.4	51.8	40.3
Bones & joints	0.9	1.1	0.8	0.5	0.6	0.4	68.1	64.2	72.8
Soft tissue (including heart)	3.2	3.9	2.7	1.3	1.5	1.1	67.4	67.1	67.8
Skin (excl. basal & squamous):	25.4	32.3	20.5	3.9	6.0	2.4	90.8	88.6	93.5
Melanoma of the skin	23.5	29.7	19.1	3.1	4.5	2.0	91.1	89.0	93.7
Other non-epithelial skin	1.9	2.6	1.4	0.9	1.5	0.4	86.6	83.2	90.4
Breast	67.9	1.2	126.5	13.1	0.3	23.4	90.2	87.0	90.2
Breast (*in situ*)	16.0	0.1	30.5	-	-	-	100.0	100.0	100.0

Note: Incidence and death rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

[a] SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey).

[b] US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.

[c] SEER 17 areas. California excluding SF/SJM/LA, Kentucky, Louisiana, and New Jersey contribute cases for diagnosis years 2000-2006. The remaining 13 SEER Areas contribute cases for the entire period 1999-2006.

[d] Mesotheliomas of the Pleura are included in the separate group Mesothelioma for incidence but are included in the Pleura grouping for mortality.

\- Statistic could not be calculated due to less than 16 cases in the time interval.

Table 1.5 - continued
Age-Adjusted SEER Incidence and U.S. Death Rates and 5-Year Relative Survival (Percent)
By Primary Cancer Site, Sex and Time Period

Whites

Site	Incidence[a] (2003-2007) Total	Males	Females	US Mortality[b] (2003-2007) Total	Males	Females	Survival[c] (%) (1999-2006) Total	Males	Females
Female Genital System:	26.4	-	49.6	8.8	-	15.9	70.6	-	70.6
Cervix uteri	4.0	-	7.9	1.2	-	2.2	71.7	-	71.7
Corpus uteri	12.7	-	23.9	1.0	-	1.8	85.6	-	85.6
Uterus, NOS	0.3	-	0.5	1.2	-	2.0	28.5	-	28.5
Ovary[d]	7.3	-	13.5	5.0	-	8.9	45.4	-	45.4
Vagina	0.4	-	0.7	0.1	-	0.2	53.6	-	53.6
Vulva	1.3	-	2.3	0.3	-	0.5	75.8	-	75.8
Other female genital system	0.4	-	0.8	0.1	-	0.2	63.4	-	63.4
Male Genital System:	71.3	157.8	-	9.0	23.3	-	99.2	99.2	-
Prostate	67.6	150.4	-	8.8	22.8	-	99.6	99.6	-
Testis	3.3	6.4	-	0.1	0.3	-	95.7	95.7	-
Penis	0.4	0.8	-	0.1	0.2	-	66.5	66.5	-
Other male genital system	0.1	0.2	-	0.0	0.0	-	88.2	88.2	-
Urinary System:	38.3	61.5	20.6	8.9	14.2	5.1	75.1	76.3	72.5
Urinary bladder	22.8	40.4	9.8	4.5	7.9	2.2	79.9	81.0	76.6
Kidney & renal pelvis	14.5	19.7	10.2	4.2	6.0	2.7	69.0	68.7	69.6
Ureter	0.6	0.9	0.4	0.1	0.2	0.1	53.3	57.1	48.1
Other urinary system	0.3	0.5	0.1	0.1	0.2	0.1	58.8	59.8	57.1
Eye & Orbit	0.9	1.1	0.8	0.1	0.1	0.1	83.3	81.8	85.0
Brain & Nervous System:[e]	7.1	8.4	6.0	4.6	5.6	3.8	34.3	32.6	36.5
Brain	6.7	8.0	5.5	-	-	-	31.1	29.9	32.6
Cranial nerves & other nervous system	0.4	0.4	0.4	-	-	-	81.2	78.5	83.7
Endocrine System:	11.4	6.3	16.6	0.8	0.8	0.7	95.3	90.2	97.0
Thyroid	10.7	5.5	16.0	0.5	0.5	0.5	97.6	94.6	98.2
Other endocrine & thymus	0.7	0.8	0.6	0.3	0.3	0.3	62.5	64.0	60.5
Lymphoma:	23.5	28.0	19.9	7.6	9.6	6.1	70.9	69.2	72.8
Hodgkin lymphoma	3.0	3.4	2.7	0.4	0.5	0.4	85.0	83.6	86.7
Non-Hodgkin lymphoma	20.5	24.6	17.2	7.2	9.1	5.7	68.3	66.6	70.2
Myeloma	5.2	6.7	4.1	3.3	4.2	2.7	38.0	39.4	36.2
Leukemia:	12.9	16.6	10.0	7.4	10.0	5.6	54.4	54.6	54.2
Lymphocytic:	6.6	8.8	4.9	2.1	3.0	1.5	74.6	74.0	75.4
Acute lymphocytic	1.8	2.0	1.5	0.5	0.6	0.4	65.5	65.3	65.8
Chronic lymphocytic	4.4	6.1	3.2	1.5	2.2	1.0	78.6	77.0	81.1
Other lymphocytic	0.4	0.7	0.2	0.1	0.2	0.1	83.0	86.7	73.2
Myeloid & Monocytic:	5.6	7.0	4.6	3.5	4.6	2.7	32.6	31.7	33.7
Acute myeloid	3.6	4.4	3.0	2.9	3.7	2.2	23.1	21.6	24.9
Chronic myeloid	1.5	2.0	1.2	0.4	0.5	0.3	55.4	54.7	56.4
Acute monocytic	0.3	0.4	0.3	0.0	0.1	0.0	24.4	22.3	26.4
Other myeloid & monocytic	0.2	0.2	0.1	0.2	0.3	0.1	31.0	29.9	31.1
Other leukemia:	0.7	0.8	0.6	1.8	2.4	1.4	24.8	23.7	26.1
Other acute leukemia	0.3	0.4	0.2	0.8	1.0	0.6	14.3	13.9	14.5
Aleukemic, subleukemic & NOS	0.4	0.5	0.3	1.0	1.4	0.8	34.5	32.8	36.2
Kaposi Sarcoma[f]	0.6	1.0	0.1	-	-	-	66.0	65.2	78.5
Mesothelioma[f]	1.2	2.1	0.5	-	-	-	7.1	5.2	13.4
Ill-defined & unspecified	9.8	11.2	8.7	13.9	17.5	11.3	17.7	21.9	13.7

Note: Incidence and death rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

[a] SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey).

[b] US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.

[c] SEER 17 areas. California excluding SF/SJM/LA, Kentucky, Louisiana, and New Jersey contribute cases for diagnosis years 2000-2006. The remaining 13 SEER Areas contribute cases for the entire period 1999-2006.

[d] Ovary excludes borderline cases or histologies 8442, 8451, 8462, 8472, and 8473.

[e] Due to coding changes, Brain & Nervous System mortality are no longer shown separately.

[f] Rate not shown for mortality. Category did not exist in mortality coding until 1999.

- Statistic could not be calculated due to less than 16 cases in the time interval.

Table 1.6
Age-Adjusted SEER Incidence and U.S. Death Rates and 5-Year Relative Survival (Percent)
By Primary Cancer Site, Sex and Time Period

Blacks

Site	Incidence[a] (2003-2007)			US Mortality[b] (2003-2007)			Survival[c] (%) (1999-2006)		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
All Sites	489.8	624.0	399.1	224.2	296.5	180.6	57.9	60.6	54.9
Oral Cavity & Pharynx:	10.2	16.1	5.8	3.6	6.3	1.5	42.2	37.5	53.2
Lip	0.1	0.1	-	-	-	-	87.4	90.8	81.5
Tongue	2.2	3.6	1.2	0.7	1.2	0.3	32.9	31.1	36.9
Salivary gland	1.0	1.1	1.0	0.2	0.2	0.1	72.9	65.4	79.3
Floor of mouth	0.6	1.0	0.3	0.1	0.1	-	42.0	36.7	58.4
Gum & other oral cavity	1.7	2.1	1.3	0.4	0.7	0.2	53.3	44.8	65.5
Nasopharynx	0.7	1.2	0.4	0.3	0.5	0.1	51.5	49.4	56.1
Tonsil	1.6	2.9	0.6	0.3	0.6	0.1	42.7	42.0	45.4
Oropharynx	0.7	1.2	0.3	0.4	0.7	0.2	20.7	20.5	21.4
Hypopharynx	1.2	2.3	0.4	0.2	0.4	0.0	21.3	19.8	27.3
Other oral cavity & pharynx	0.3	0.5	0.2	1.0	1.9	0.4	20.2	19.9	20.3
Digestive System:	109.5	133.9	92.0	60.4	79.1	47.4	38.4	35.2	41.7
Esophagus	5.4	8.9	2.9	5.1	8.9	2.5	11.2	10.2	13.8
Stomach	11.9	16.7	8.6	7.3	10.7	5.0	25.5	22.8	29.0
Small intestine	3.1	3.4	2.8	0.6	0.7	0.5	54.6	51.2	57.4
Colon & Rectum:	58.9	68.1	52.6	24.7	30.5	21.0	56.2	55.6	56.6
Colon	44.9	50.8	41.0	-	-	-	55.5	55.5	55.5
Rectum	14.0	17.2	11.6	-	-	-	58.1	55.9	60.3
Anus, anal canal & anorectum	1.7	1.7	1.7	0.2	0.2	0.2	58.3	51.4	64.7
Liver & Intrahep. bile duct:	8.6	14.0	4.4	7.0	11.1	3.9	9.5	8.4	12.2
Liver	8.1	13.6	3.9	5.9	9.8	3.0	9.7	8.7	12.3
Intrahepatic bile duct	0.5	0.4	0.5	1.1	1.2	0.9	6.0	2.7	9.3
Gallbladder	1.5	1.1	1.7	0.8	0.6	0.9	13.9	22.5	11.6
Other biliary	1.6	1.9	1.4	0.4	0.4	0.4	12.8	13.8	12.3
Pancreas	15.5	16.7	14.4	13.8	15.4	12.4	5.2	4.2	6.0
Retroperitoneum	0.4	0.4	0.4	0.1	0.1	0.1	41.0	37.2	42.9
Peritoneum, omentum & mesentery	0.4	0.1	0.6	0.2	0.1	0.2	31.1	58.5	25.4
Other digestive system	0.6	0.7	0.6	0.4	0.5	0.3	14.1	12.8	14.9
Respiratory System:	79.9	112.6	57.4	61.1	92.5	40.5	16.2	16.2	16.2
Nose, nasal cavity & middle ear	0.6	0.9	0.4	0.2	0.3	0.1	51.0	49.6	53.0
Larynx	5.4	10.3	1.9	2.3	4.6	0.7	50.7	51.8	46.6
Lung & bronchus	73.5	101.2	54.8	58.6	87.5	39.6	12.6	11.3	14.4
Pleura[d]	-	-	-	0.0	0.1	0.0	-	-	-
Trachea & other respiratory organs	0.2	0.2	0.2	0.1	0.1	0.1	43.1	37.1	52.9
Bones & joints	0.7	0.8	0.7	0.5	0.5	0.4	66.6	67.1	65.5
Soft tissue (including heart)	3.3	3.6	3.1	1.4	1.4	1.4	61.8	61.6	61.9
Skin (excl. basal & squamous):	2.2	2.2	2.2	0.9	1.4	0.6	87.1	85.0	88.8
Melanoma of the skin	1.0	1.1	1.0	0.4	0.5	0.4	74.6	70.0	77.9
Other non-epithelial skin	1.1	1.1	1.2	0.5	0.8	0.2	95.4	94.5	96.2
Breast	67.8	1.6	118.3	19.2	0.5	32.4	77.5	76.8	77.5
Breast (*in situ*)	15.7	0.2	27.7	-	-	-	100.0	97.8	100.0

Note: Incidence and death rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

[a] SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey).

[b] US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.

[c] SEER 17 areas. California excluding SF/SJM/LA, Kentucky, Louisiana, and New Jersey contribute cases for diagnosis years 2000-2006. The remaining 13 SEER Areas contribute cases for the entire period 1999-2006.

[d] Mesotheliomas of the Pleura are included in the separate group Mesothelioma for incidence but are included in the Pleura grouping for mortality.

- Statistic could not be calculated due to less than 16 cases in the time interval.

Table 1.6 - continued
Age-Adjusted SEER Incidence and U.S. Death Rates and 5-Year Relative Survival (Percent)
By Primary Cancer Site, Sex and Time Period

Blacks

Site	Incidence[a] (2003-2007) Total	Males	Females	US Mortality[b] (2003-2007) Total	Males	Females	Survival[c] (%) (1999-2006) Total	Males	Females
Female Genital System:	25.2	-	44.2	11.7	-	19.7	55.5	-	55.5
Cervix uteri	5.6	-	10.1	2.5	-	4.4	60.7	-	60.7
Corpus uteri	11.2	-	19.4	1.9	-	3.2	62.3	-	62.3
Uterus, NOS	0.7	-	1.1	2.4	-	4.1	25.7	-	25.7
Ovary[d]	5.9	-	10.2	4.3	-	7.2	36.8	-	36.8
Vagina	0.6	-	1.0	0.2	-	0.3	41.9	-	41.9
Vulva	1.0	-	1.8	0.2	-	0.3	69.4	-	69.4
Other female genital system	0.4	-	0.6	0.1	-	0.2	62.7	-	62.7
Male Genital System:	98.8	236.9	-	19.5	54.6	-	95.7	95.7	-
Prostate	97.8	234.6	-	19.3	54.2	-	95.8	95.8	-
Testis	0.6	1.2	-	0.1	0.2	-	88.4	88.4	-
Penis	0.4	0.9	-	0.1	0.3	-	69.7	69.7	-
Other male genital system	0.1	0.2	-	0.0	0.0	-	76.0	76.0	-
Urinary System:	29.0	43.4	18.9	7.9	11.6	5.6	65.4	67.5	62.0
Urinary bladder	12.8	20.7	7.6	3.7	5.4	2.7	65.5	71.2	55.5
Kidney & renal pelvis	15.4	21.8	10.7	4.0	6.0	2.7	66.3	65.5	67.4
Ureter	0.3	0.3	0.3	0.1	0.0	0.1	43.9	45.6	39.9
Other urinary system	0.4	0.5	0.3	0.1	0.1	0.2	35.5	41.0	31.5
Eye & Orbit	0.2	0.3	0.2	0.0	0.0	0.0	80.6	80.9	79.5
Brain & Nervous System:[e]	4.0	4.7	3.5	2.5	3.1	2.0	39.4	34.8	44.4
Brain	3.6	4.4	3.1	-	-	-	34.9	31.3	39.1
Cranial nerves & other nervous system	0.4	0.3	0.4	-	-	-	74.7	68.1	79.1
Endocrine System:	7.0	3.8	9.8	0.8	0.7	0.9	91.0	83.0	93.2
Thyroid	6.2	3.0	8.9	0.5	0.3	0.5	94.7	90.9	95.4
Other endocrine & thymus	0.9	0.9	0.8	0.3	0.4	0.3	62.0	61.1	62.6
Lymphoma:	17.4	20.9	14.6	5.2	6.5	4.2	63.0	58.3	68.6
Hodgkin lymphoma	2.6	3.0	2.3	0.4	0.5	0.3	81.5	77.0	86.4
Non-Hodgkin lymphoma	14.7	17.8	12.3	4.8	6.0	3.9	58.5	53.9	64.0
Myeloma	11.7	14.3	10.0	6.7	8.1	5.8	37.9	37.7	38.0
Leukemia:	9.8	12.7	7.8	6.3	8.4	5.0	46.5	46.8	46.2
Lymphocytic:	4.1	5.8	2.9	1.8	2.7	1.2	63.3	60.9	66.2
Acute lymphocytic	0.9	1.1	0.8	0.3	0.4	0.3	60.0	56.9	63.4
Chronic lymphocytic	3.0	4.4	2.0	1.4	2.1	0.9	65.0	62.4	68.3
Other lymphocytic	0.2	0.4	0.1	0.1	0.2	0.1	65.6	69.5	56.0
Myeloid & Monocytic:	4.9	5.8	4.2	2.8	3.4	2.4	34.9	36.4	33.3
Acute myeloid	3.1	3.5	2.7	2.2	2.7	1.9	24.3	25.3	22.7
Chronic myeloid	1.5	1.9	1.2	0.4	0.6	0.3	56.5	56.5	56.3
Acute monocytic	0.2	0.2	0.2	0.0	-	-	18.3	18.3	17.2
Other myeloid & monocytic	0.2	0.2	0.2	0.2	0.2	0.1	36.1	30.0	40.4
Other leukemia:	0.8	1.0	0.7	1.7	2.2	1.4	26.0	22.5	29.0
Other acute leukemia	0.3	0.3	0.2	0.6	0.8	0.5	23.4	22.7	22.1
Aleukemic, subleukemic & NOS	0.6	0.7	0.5	1.1	1.5	0.9	26.2	22.3	30.3
Kaposi Sarcoma[f]	1.2	2.4	0.2	-	-	-	45.4	46.0	32.0
Mesothelioma[f]	0.6	1.2	0.3	-	-	-	11.5	8.8	15.8
Ill-defined & unspecified	11.1	12.7	9.9	16.6	21.8	13.1	11.2	11.8	10.7

Note: Incidence and death rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

[a] SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey).

[b] US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.

[c] SEER 17 areas. California excluding SF/SJM/LA, Kentucky, Louisiana, and New Jersey contribute cases for diagnosis years 2000-2006. The remaining 13 SEER Areas contribute cases for the entire period 1999-2006.

[d] Ovary excludes borderline cases or histologies 8442, 8451, 8462, 8472, and 8473.

[e] Due to coding changes, Brain & Nervous System mortality are no longer shown separately.

[f] Rate not shown for mortality. Category did not exist in mortality coding until 1999.

- Statistic could not be calculated due to less than 16 cases in the time interval.

Table 1.7
SEER Incidence and U.S. Mortality Trends by Primary Cancer Site and Sex
All Races, 1998-2007

Site	Incidence[a] Total APC	Incidence[a] Males APC	Incidence[a] Females APC	US Mortality[b] Total APC	US Mortality[b] Males APC	US Mortality[b] Females APC
All Sites	-0.9*	-1.2*	-0.8*	-1.4*	-1.8*	-1.2*
Oral Cavity & Pharynx:	-1.1*	-1.3*	-1.1*	-1.6*	-1.5*	-2.1*
Lip	-6.3*	-7.0*	-4.3*	-4.5*	-5.1*	-2.9
Tongue	1.2*	1.5*	0.6	-0.4*	-0.4	-0.7*
Salivary gland	0.5	0.3	0.6	-1.0*	-0.7	-2.0*
Floor of mouth	-6.2*	-6.1*	-6.8*	-8.0*	-7.6*	-9.1*
Gum & other oral cavity	-2.5*	-2.9*	-2.1*	-3.7*	-3.8*	-3.7*
Nasopharynx	-0.2	-0.3	-0.1	-2.2*	-2.2*	-2.4*
Tonsil	1.9*	1.9*	0.8	0.3	0.7	-1.5
Oropharynx	0.3	0.5	-0.7	0.3	0.1	0.3
Hypopharynx	-4.8*	-4.7*	-5.1*	-4.5*	-4.1*	-6.7*
Other oral cavity & pharynx	-5.3*	-6.3*	-4.0*	-1.5*	-1.7*	-1.6*
Digestive System:	-1.3*	-1.5*	-1.2*	-1.3*	-1.3*	-1.5*
Esophagus	-0.9	-0.9	-1.3	-0.1	0.2	-1.4*
Stomach	-1.7*	-1.9*	-1.7*	-3.2*	-3.5*	-3.0*
Small intestine	1.1	1.4	0.5	-1.2*	-1.3*	-1.1
Colon & Rectum:	-2.6*	-3.0*	-2.4*	-2.9*	-3.0*	-2.9*
Colon	-2.6*	-3.1*	-2.3*	-	-	-
Rectum	-2.5*	-2.8*	-2.5*	-	-	-
Anus, anal canal & anorectum	1.8*	1.6*	2.1*	2.3*	2.3*	2.6*
Liver & intrahep. bile duct:	2.5*	2.6*	1.5*	2.1*	2.2*	1.4*
Liver	3.4*	3.5*	2.4*	1.7*	2.0*	0.5*
Intrahepatic bile duct	-4.4*	-6.0*	-2.6	3.5*	3.3*	3.6*
Gallbladder	-0.6	-0.4	-0.7	-2.1*	-1.9*	-2.1*
Other biliary	2.3*	1.8	2.6*	-3.0*	-3.3*	-2.8*
Pancreas	0.7*	0.5	0.9*	0.3*	0.2	0.3*
Retroperitoneum	-1.4	-2.8*	0.1	-4.5*	-4.2*	-5.3*
Peritoneum, omentum & mesentery	2.4*	1.5	2.5*	3.7*	0.5	4.3*
Other digestive system	4.6*	4.8*	4.3	-1.4	-1.0	-2.0
Respiratory System:	-1.6*	-2.4*	-0.6*	-1.2*	-2.1*	-0.2
Nose, nasal cavity & middle ear	-0.6	-1.1	-0.2	-1.9*	-2.2*	-1.6
Larynx	-3.1*	-2.8*	-4.4*	-2.2*	-2.4*	-2.4*
Lung & bronchus	-1.5*	-2.4*	-0.5*	-1.2*	-2.1*	-0.2
Pleura	-	-	-	-7.4*	-8.0*	-6.1*
Trachea & other respiratory organs	0.7	1.0	-0.7	-4.7*	-4.8*	-4.8*
Bones & joints	0.7	0.6	1.0	-0.1	-0.4	0.0
Soft tissue (including heart)	1.5*	1.3*	1.5*	-1.2*	-0.8	-1.5*
Skin (excl. basal & squamous):	1.5*	1.6*	1.5*	0.2	0.4	-0.4
Melanoma of the skin	1.6*	1.7*	1.6*	0.1	0.3	-0.4
Other non-epithelial skin	0.6	0.5	0.8	0.3	0.4	-0.3
Breast	-1.9*	0.0	-1.7*	-2.2*	-2.6*	-2.0*
Breast (*in situ*)	0.0	1.0	0.2	-	-	-

The APC is the Annual Percent Change over the time interval.

[a] SEER 13 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia). Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

[b] US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

* The APC is significantly different from zero (p<.05).

\- Statistic could not be calculated. Trend based on less than 10 cases for at least one year within the time interval.

Table 1.7 - continued
SEER Incidence and U.S. Mortality Trends by Primary Cancer Site and Sex
All Races, 1998-2007

Site	Incidence[a] Total APC	Incidence[a] Males APC	Incidence[a] Females APC	US Mortality[b] Total APC	US Mortality[b] Males APC	US Mortality[b] Females APC
Female Genital System:	-1.4*	-	-1.3*	-0.9*	-	-0.7*
Cervix uteri	-3.4*	-	-3.2*	-2.6*	-	-2.4*
Corpus uteri	-0.8*	-	-0.5*	-0.8*	-	-0.5*
Uterus, NOS	1.5	-	2.0	0.4*	-	0.8*
Ovary[c]	-1.8*	-	-1.6*	-0.8*	-	-0.6*
Vagina	-0.7	-	-0.6	-2.8*	-	-2.5*
Vulva	-1.4*	-	-1.2*	-0.3	-	0.2
Other female genital system	1.5	-	1.7	-2.2	-	-2.0
Male Genital System:	-1.2*	-1.6*	-	-3.1*	-3.8*	-
Prostate	-1.2*	-1.7*	-	-3.2*	-3.9*	-
Testis	1.1*	0.9*	-	-1.6*	-1.8*	-
Penis	-1.1	-1.4	-	0.7	0.1	-
Other male genital system	-3.7*	-3.9*	-	-2.6	-3.4	-
Urinary System:	0.7*	0.3	1.0*	-0.3*	-0.4*	-0.5*
Urinary bladder	-0.4*	-0.5*	-0.8*	0.0	-0.1	-0.6*
Kidney & renal pelvis	2.4*	2.0*	2.8*	-0.6*	-0.7*	-0.6*
Ureter	1.7	0.9	2.5	-0.6	-1.5	0.0
Other urinary system	0.3	-0.2	1.6	3.5	5.1	1.2
Eye & Orbit	-0.3	-0.2	0.0	-2.4*	-2.2	-2.8*
Brain & Nervous System:[d]	-0.6*	-0.7*	-0.6	-1.2*	-1.3*	-1.2*
Brain	-0.7*	-0.8*	-0.6	-	-	-
Cranial nerves & other nervous system	-0.3	-0.1	-0.7	-	-	-
Endocrine System:	5.8*	4.7*	6.2*	0.0	-0.1	0.1
Thyroid	6.1*	5.3*	6.5*	0.9*	1.6*	0.6
Other endocrine & thymus	1.7	1.7	1.5*	-1.5*	-2.3*	-0.7
Lymphoma:	0.2	0.1	0.3	-3.1*	-2.9*	-3.4*
Hodgkin lymphoma	0.8*	0.7	0.8	-1.9*	-2.0*	-1.8*
Non-Hodgkin lymphoma	0.1	0.1	0.2	-3.2*	-3.0*	-3.5*
Myeloma	-0.6	-0.4	-1.0	-1.3*	-1.0*	-1.8*
Leukemia:	-0.8*	-1.2*	-0.5	-1.0*	-0.9*	-1.4*
Lymphocytic:	0.5	0.2	0.9	-1.4*	-1.4*	-1.7*
Acute lymphocytic	1.1	1.5	0.6	-1.1*	-1.3*	-1.0
Chronic lymphocytic	0.7	0.2	1.5	-1.4*	-1.3*	-1.9*
Other lymphocytic	-3.7*	-3.2*	-5.0*	-2.2*	-2.1*	-2.9*
Myeloid & Monocytic:	-1.6*	-1.9*	-1.4*	-0.6*	-0.4	-1.1*
Acute myeloid	-1.8*	-2.2*	-1.4*	1.2*	1.5*	0.6
Chronic myeloid	-1.4*	-1.0	-2.2*	-10.5*	-10.6*	-10.5*
Acute monocytic	0.7	-1.6	3.3*	-6.2*	-6.5*	-5.7*
Other myeloid & monocytic	-2.8	-2.9	-2.6	1.1	1.2	0.3
Other leukemia:	-5.8*	-7.9*	-3.9*	-1.4*	-1.4*	-1.6*
Other acute leukemia	-10.2*	-10.7*	-9.8*	-4.1*	-4.1*	-4.2*
Aleukemic, subleukemic & NOS	-2.1	-5.5*	0.9	0.8*	0.9*	0.5
Kaposi Sarcoma[e]	-4.1*	-3.9*	-6.3*	-	-	-
Mesothelioma[e]	-1.4*	-2.2*	1.0	-	-	-
Ill-defined & unspecified	-3.5*	-3.7*	-3.4*	-1.5	-1.4	-1.8*

The APC is the Annual Percent Change over the time interval.

[a] SEER 13 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia). Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

[b] US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.
Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

[c] Ovary excludes borderline cases or histologies 8442, 8451, 8462, 8472, and 8473.

[d] Due to coding changes, Brain & Nervous System mortality are no longer shown separately.

[e] Trend not shown for mortality. Category did not exist in mortality coding until 1999.

* The APC is significantly different from zero (p<.05).

\- Statistic could not be calculated. Trend based on less than 10 cases for at least one year within the time interval.

Table 1.8
SEER Incidence and U.S. Mortality Trends by Primary Cancer Site and Sex
Whites, 1998-2007

Site	Incidence[a] Total APC	Incidence[a] Males APC	Incidence[a] Females APC	US Mortality[b] Total APC	US Mortality[b] Males APC	US Mortality[b] Females APC
All Sites	-0.9*	-1.1*	-0.9*	-1.3*	-1.7*	-1.1*
Oral Cavity & Pharynx:	-0.8*	-0.9*	-1.2*	-1.3*	-1.1*	-1.9*
Lip	-6.2*	-6.9*	-4.1*	-4.5*	-5.1*	-2.6
Tongue	1.7*	1.9*	1.3	0.1	0.2	-0.4
Salivary gland	0.5	0.5	0.1	-1.0*	-0.8	-1.8*
Floor of mouth	-5.9*	-5.7*	-6.7*	-7.7*	-7.4*	-8.5*
Gum & other oral cavity	-2.6*	-2.4*	-2.8*	-3.5*	-3.4*	-3.6*
Nasopharynx	0.4	0.4	-0.3	-2.5*	-2.7*	-2.5*
Tonsil	3.1*	3.1*	2.0	0.9	1.6*	-1.5
Oropharynx	-0.2	0.2	-1.8	0.9	0.7	0.5
Hypopharynx	-4.5*	-4.4*	-4.9*	-4.4*	-4.2*	-6.2*
Other oral cavity & pharynx	-6.0*	-6.9*	-5.0*	-1.0*	-1.2*	-1.3*
Digestive System:	-1.4*	-1.6*	-1.3*	-1.2*	-1.2*	-1.4*
Esophagus	-0.2	-0.2	-0.6	0.7*	0.9*	-0.7*
Stomach	-1.6*	-2.0*	-1.5*	-3.3*	-3.7*	-3.1*
Small intestine	1.7*	2.0*	1.2	-1.2*	-1.3	-1.4
Colon & Rectum:	-2.8*	-3.2*	-2.6*	-2.9*	-3.1*	-2.9*
Colon	-2.7*	-3.2*	-2.4*	-	-	-
Rectum	-3.0*	-3.2*	-3.0*	-	-	-
Anus, anal canal & anorectum	1.9*	1.7	2.2*	2.5*	2.5*	2.7*
Liver & intrahep. bile duct:	2.5*	2.9*	0.9	2.2*	2.2*	1.6*
Liver	3.7*	4.0*	2.0*	1.8*	1.9*	0.6*
Intrahepatic bile duct	-5.1*	-6.3*	-3.8*	3.6*	3.4*	3.6*
Gallbladder	-0.6	-0.1	-0.8	-2.3*	-2.2*	-2.3*
Other biliary	2.0*	1.6	2.2*	-3.0*	-3.3*	-2.8*
Pancreas	0.8*	0.6*	0.9*	0.4*	0.4*	0.4*
Retroperitoneum	-1.5	-2.5*	0.0	-4.1*	-3.5*	-5.3*
Peritoneum, omentum & mesentery	2.2*	-	2.2*	3.7*	0.6	4.3*
Other digestive system	4.8*	4.5*	4.9*	-1.2	-0.9	-1.7
Respiratory System:	-1.5*	-2.4*	-0.6*	-1.1*	-2.0*	-0.1
Nose, nasal cavity & middle ear	-0.7	-1.4	0.0	-1.8*	-2.2*	-1.5
Larynx	-2.8*	-2.6*	-4.1*	-2.0*	-2.2*	-2.0*
Lung & bronchus	-1.5*	-2.4*	-0.5*	-1.0*	-1.9*	-0.1
Pleura	-	-	-	-7.2*	-7.7*	-5.9*
Trachea & other respiratory organs	1.2	1.6	-0.7	-4.3*	-4.3	-4.8*
Bones & joints	0.9	0.9	1.0	0.0	-0.2	0.0
Soft tissue (including heart)	1.5*	1.7*	1.0	-1.0	-0.5	-1.4*
Skin (excl. basal & squamous):	1.9*	2.0*	1.8*	0.3*	0.5*	-0.2
Melanoma of the skin	2.0*	2.0*	2.0*	0.2	0.5	-0.2
Other non-epithelial skin	0.6	1.1	-0.2	0.7	0.8	-0.1
Breast	-2.2*	-0.1	-2.0*	-2.3*	-2.3*	-2.0*
Breast (*in situ*)	-0.4	-1.0	-0.2	-	-	-

The APC is the Annual Percent Change over the time interval.

[a] SEER 13 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia). Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

[b] US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.
Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

* The APC is significantly different from zero (p<.05).

\- Statistic could not be calculated. Trend based on less than 10 cases for at least one year within the time interval.

Table 1.8 - continued
SEER Incidence and U.S. Mortality Trends by Primary Cancer Site and Sex
Whites, 1998-2007

Site	Incidence[a] Total APC	Incidence[a] Males APC	Incidence[a] Females APC	US Mortality[b] Total APC	US Mortality[b] Males APC	US Mortality[b] Females APC
Female Genital System:	-1.6*	-	-1.4*	-0.9*	-	-0.6*
Cervix uteri	-3.2*	-	-3.0*	-2.4*	-	-2.2*
Corpus uteri	-1.1*	-	-0.8*	-1.0*	-	-0.7*
Uterus, NOS	0.7	-	1.2	0.3	-	0.7*
Ovary[c]	-2.0*	-	-1.8*	-0.7*	-	-0.5
Vagina	-0.4	-	-0.3	-2.6*	-	-2.4*
Vulva	-1.6*	-	-1.4*	0.0	-	0.6*
Other female genital system	1.8	-	2.0	-2.2	-	-2.0
Male Genital System:	-1.2*	-1.7*	-	-3.0*	-3.7*	-
Prostate	-1.3*	-1.8*	-	-3.0*	-3.8*	-
Testis	1.3*	1.1*	-	-1.7*	-1.8*	-
Penis	-1.2	-1.4	-	0.8	0.2	-
Other male genital system	-4.3*	-4.4*	-	-1.7	-2.5	-
Urinary System:	0.6*	0.3	0.9*	-0.1	-0.3*	-0.4*
Urinary bladder	-0.4*	-0.5*	-0.8*	0.2	0.0	-0.4
Kidney & renal pelvis	2.4*	2.0*	2.8*	-0.5	-0.7*	-0.5*
Ureter	1.6	0.9	2.4	-0.5	-1.6	0.2
Other urinary system	0.9	0.1	3.3	3.8	5.7	1.0
Eye & Orbit	-0.4	-0.2	-0.1	-2.1*	-2.0	-2.2
Brain & Nervous System:[d]	-0.6	-0.5	-0.7	-1.1*	-1.1*	-1.1*
Brain	-0.6	-0.6	-0.7	-	-	-
Cranial nerves & other nervous system	-0.3	0.5	-1.4	-	-	-
Endocrine System:	6.0*	4.8*	6.5*	-0.2	-0.2	-0.1
Thyroid	6.3*	5.5*	6.7*	0.9*	1.7*	0.5
Other endocrine & thymus	0.8	0.6	1.0	-1.9*	-2.7*	-1.1
Lymphoma:	0.2	0.2	0.3	-3.1*	-2.9*	-3.5*
Hodgkin lymphoma	0.4	0.4	0.2	-1.9*	-2.1*	-1.9*
Non-Hodgkin lymphoma	0.2	0.2	0.3	-3.2*	-3.0*	-3.5*
Myeloma	-0.6	-0.4	-1.0	-1.2*	-0.9*	-1.6*
Leukemia:	-0.7*	-1.0*	-0.5	-0.9*	-0.8*	-1.3*
Lymphocytic:	0.6	0.2	1.0	-1.3*	-1.3*	-1.4*
Acute lymphocytic	0.9	1.4	0.3	-1.0*	-1.4*	-0.6
Chronic lymphocytic	0.8	0.2	1.8	-1.3*	-1.2*	-1.7*
Other lymphocytic	-3.3*	-2.7*	-4.5	-2.1*	-2.0*	-2.6*
Myeloid & Monocytic:	-1.5*	-1.6*	-1.6*	-0.5	-0.2	-1.0*
Acute myeloid	-1.9*	-2.1*	-1.6*	1.3*	1.7*	0.7
Chronic myeloid	-1.1*	-0.4	-2.5*	-10.6*	-10.6*	-10.6*
Acute monocytic	0.6	-1.7	2.8	-5.9*	-6.5*	-4.7
Other myeloid & monocytic	-1.9	-2.6	-1.1	1.1	1.2	0.1
Other leukemia:	-6.3*	-8.6*	-4.1*	-1.3*	-1.3*	-1.6*
Other acute leukemia	-10.4*	-11.1*	-9.8*	-4.0*	-4.1*	-4.0*
Aleukemic, subleukemic & NOS	-2.8	-6.5*	0.7	0.9*	1.1*	0.5
Kaposi Sarcoma[e]	-4.0*	-3.9*	-	-	-	-
Mesothelioma[e]	-0.9	-1.7	1.3	-	-	-
Ill-defined & unspecified	-3.3*	-3.4*	-3.3*	-1.3	-1.2	-1.6

The APC is the Annual Percent Change over the time interval.

[a] SEER 13 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia). Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

[b] US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.
Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

[c] Ovary excludes borderline cases or histologies 8442, 8451, 8462, 8472, and 8473.

[d] Due to coding changes, Brain & Nervous System mortality are no longer shown separately.

[e] Trend not shown for mortality. Category did not exist in mortality coding until 1999.

* The APC is significantly different from zero ($p<.05$).

\- Statistic could not be calculated. Trend based on less than 10 cases for at least one year within the time interval.

Table 1.9
SEER Incidence and U.S. Mortality Trends by Primary Cancer Site and Sex
Blacks, 1998-2007

Site	Incidence[a] Total APC	Incidence[a] Males APC	Incidence[a] Females APC	US Mortality[b] Total APC	US Mortality[b] Males APC	US Mortality[b] Females APC
All Sites	-1.4*	-2.4*	-0.4	-2.0*	-2.6*	-1.4*
Oral Cavity & Pharynx:	-3.1*	-4.1*	-1.2	-3.3*	-3.1*	-3.8*
Lip	-	-	-	-	-	-
Tongue	-2.9*	-3.3*	-1.8	-3.4*	-3.5*	-2.2
Salivary gland	0.6	-3.5	4.3	-2.3	0.6	-5.7*
Floor of mouth	-9.7*	-11.0*	-	-9.9*	-9.1*	-
Gum & other oral cavity	-3.9	-7.2*	0.5	-5.4*	-6.4*	-4.2*
Nasopharynx	-0.3	-	-	-2.6	-0.8	-5.6*
Tonsil	-4.0*	-3.6*	-	-2.4	-3.0*	-0.7
Oropharynx	0.9	0.8	-	-2.0*	-1.6	-2.0
Hypopharynx	-3.1	-3.3	-	-4.3*	-2.7	-
Other oral cavity & pharynx	-	-	-	-2.8*	-2.7*	-3.4*
Digestive System:	-1.1*	-1.4*	-0.9*	-1.8*	-1.6*	-2.0*
Esophagus	-4.6*	-4.5*	-4.8*	-4.5*	-4.4*	-4.6*
Stomach	-2.6*	-2.1*	-3.2*	-3.7*	-3.5*	-4.0*
Small intestine	-1.8	-3.1	-1.2	-0.8	-1.4	-0.1
Colon & Rectum:	-1.8*	-2.3*	-1.5*	-2.3*	-1.9*	-2.7*
Colon	-2.1*	-2.7*	-1.8*	-	-	-
Rectum	-0.8	-1.1	-0.4	-	-	-
Anus, anal canal & anorectum	3.6	3.2	4.2*	1.8	1.1	2.8
Liver & intrahep. bile duct:	3.6*	3.6*	3.0*	2.0*	2.6*	0.4
Liver	4.2*	4.3*	3.4*	1.6*	2.5*	-0.6
Intrahepatic bile duct	-4.2	-	-	4.0*	4.0*	4.0*
Gallbladder	1.5	-	0.7	-0.3	1.1	-0.6
Other biliary	3.3*	1.8	4.4*	-2.8*	-3.4	-2.6*
Pancreas	0.3	-0.7	1.2	-0.4	-0.7*	-0.2
Retroperitoneum	-2.5	-	-	-6.5*	-	-
Peritoneum, omentum & mesentery	-	-	-	2.5*	-	3.1
Other digestive system	4.6	-	-	-2.9	-1.9	-4.2
Respiratory System:	-2.2*	-3.4*	-0.7	-1.9*	-2.9*	-0.4
Nose, nasal cavity & middle ear	-0.5	-	-	-1.6	-1.2	-1.2
Larynx	-3.4*	-3.2*	-4.0	-3.1*	-2.8*	-3.9*
Lung & bronchus	-2.2*	-3.4*	-0.5	-1.8*	-2.9*	-0.3
Pleura	-	-	-	-	-	-
Trachea & other respiratory organs	-	-	-	-7.6*	-	-
Bones & joints	0.2	-1.2	2.1	0.4	-0.5	1.3
Soft tissue (including heart)	1.2	-1.1	2.4	-2.7*	-2.9*	-2.5*
Skin (excl. basal & squamous):	-1.2	-4.3	1.5	-1.8	-2.0	-1.2
Melanoma of the skin	-2.8	-5.3*	-	-0.6	1.2	-1.9
Other non-epithelial skin	-0.1	-3.4	2.9	-2.7*	-3.7*	-0.1
Breast	-0.4	-	-0.3	-1.5*	-4.2*	-1.4*
Breast (*in situ*)	1.5*	-	1.5*	-	-	-

The APC is the Annual Percent Change over the time interval.

[a] SEER 13 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia). Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

[b] US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

* The APC is significantly different from zero (p<.05).

\- Statistic could not be calculated. Trend based on less than 10 cases for at least one year within the time interval.

Table 1.9 - continued
SEER Incidence and U.S. Mortality Trends by Primary Cancer Site and Sex
Blacks, 1998-2007

Site	Incidence[a] Total APC	Incidence[a] Males APC	Incidence[a] Females APC	US Mortality[b] Total APC	US Mortality[b] Males APC	US Mortality[b] Females APC
Female Genital System:	-0.6	-	-0.5	-1.1*	-	-1.0*
Cervix uteri	-5.2*	-	-5.1*	-3.6*	-	-3.5*
Corpus uteri	1.4	-	1.5	0.2	-	0.4
Uterus, NOS	-	-	-	0.9	-	1.1*
Ovary[c]	-0.4	-	-0.2	-0.9	-	-0.9
Vagina	-1.2	-	-0.9	-2.8*	-	-2.8*
Vulva	0.2	-	0.4	-1.6	-	-1.5
Other female genital system	-1.2	-	-1.3	-2.8	-	-2.6
Male Genital System:	-2.8*	-3.0*	-	-3.7*	-4.1*	-
Prostate	-2.8*	-3.1*	-	-3.8*	-4.2*	-
Testis	-2.2	-2.3	-	-1.6	-2.2	-
Penis	-	-	-	1.4	0.9	-
Other male genital system	-	-	-	-	-	-
Urinary System:	1.0*	0.7	1.3	-0.5*	-0.5	-0.6
Urinary bladder	0.0	-0.4	0.5	-0.6	-0.3	-1.1
Kidney & renal pelvis	2.1*	1.9	2.2*	-0.4	-0.6	-0.2
Ureter	-	-	-	-	-	-
Other urinary system	-	-	-	0.6	-1.2	1.2
Eye & Orbit	-	-	-	-	-	-
Brain & Nervous System:[d]	-0.5	-0.6	-0.5	-1.6*	-1.5*	-1.6*
Brain	-0.2	-0.6	0.3	-	-	-
Cranial nerves & other nervous system	-	-	-	-	-	-
Endocrine System:	6.4*	4.4*	7.1*	0.4	0.0	0.5
Thyroid	6.7*	5.0*	7.2*	0.6	-0.1	0.9
Other endocrine & thymus	4.4*	2.3	-	0.0	0.1	0.0
Lymphoma:	0.7	0.5	1.0	-2.5*	-2.6*	-2.5*
Hodgkin lymphoma	2.5*	1.7	3.3*	-1.1	-1.6	-0.7
Non-Hodgkin lymphoma	0.4	0.3	0.6	-2.6*	-2.7*	-2.6*
Myeloma	-0.3	-0.1	-0.6	-2.0*	-1.7*	-2.3*
Leukemia:	-1.0	-1.1	-0.7	-1.4*	-1.3*	-1.5*
Lymphocytic:	-0.4	0.3	-1.1	-1.5*	-1.0	-2.5*
Acute lymphocytic	2.0	1.9	1.6	-1.7	-1.8	-2.3
Chronic lymphocytic	-0.8	0.1	-1.5	-1.4*	-0.8	-2.4*
Other lymphocytic	-	-	-	-2.3	-0.9	-
Myeloid & Monocytic:	-1.3	-2.3*	-0.2	-1.5*	-1.9*	-0.9
Acute myeloid	-1.2	-2.4*	-0.2	0.5	0.1	1.0*
Chronic myeloid	-1.6	-3.2	0.8	-9.3*	-8.8*	-9.5*
Acute monocytic	-	-	-	-	-	-
Other myeloid & monocytic	-	-	-	1.8	-1.4	-
Other leukemia:	-1.7	-	-	-1.0	-0.6	-1.6
Other acute leukemia	-	-	-	-3.8*	-2.7*	-5.3*
Aleukemic, subleukemic & NOS	3.6	-	-	0.6	0.6	0.6
Kaposi Sarcoma[e]	-4.6*	-4.6*	-	-	-	-
Mesothelioma[e]	-	-	-	-	-	-
Ill-defined & unspecified	-4.7*	-5.8*	-4.0*	-2.5*	-2.4*	-2.7*

The APC is the Annual Percent Change over the time interval.

[a] SEER 13 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia). Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

[b] US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.
Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

[c] Ovary excludes borderline cases or histologies 8442, 8451, 8462, 8472, and 8473.

[d] Due to coding changes, Brain & Nervous System mortality are no longer shown separately.

[e] Trend not shown for mortality. Category did not exist in mortality coding until 1999.

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\- Statistic could not be calculated. Trend based on less than 10 cases for at least one year within the time interval.

Table 1.10

Age Distribution (%) of Incidence Cases by Site, 2003-2007

All Races, Both Sexes

Site	Age at Diagnosis <20	20-34	35-44	45-54	55-64	65-74	75-84	85+	All Ages	Cases
All Sites	1.1	2.7	5.7	14.0	22.3	24.7	21.8	7.7	100.0%	1,717,500
Oral Cavity & Pharynx:	0.6	2.3	6.4	20.8	26.8	21.3	15.8	6.0	100.0%	39,405
Lip	0.1	1.7	6.3	13.9	18.6	22.7	25.6	11.1	100.0%	2,754
Tongue	0.1	2.0	6.2	21.7	29.8	21.6	13.8	4.7	100.0%	10,983
Salivary gland	2.2	6.6	7.8	15.2	18.0	19.2	20.9	10.2	100.0%	4,682
Floor of mouth	0.3	0.2	3.8	20.7	30.7	24.9	15.3	4.2	100.0%	2,268
Gum & other oral cavity	0.7	1.9	5.0	14.5	22.3	22.5	22.6	10.6	100.0%	5,461
Nasopharynx	3.3	6.4	14.2	24.7	23.0	16.7	8.7	3.0	100.0%	2,551
Tonsil	0.0	0.6	7.6	32.7	33.6	17.0	7.2	1.3	100.0%	6,086
Oropharynx	0.0	0.3	4.3	21.1	32.6	23.0	13.8	5.0	100.0%	1,352
Hypopharynx	0.0	0.2	1.8	16.5	29.1	29.8	18.3	4.2	100.0%	2,500
Other oral cavity & pharynx	0.4	1.2	3.1	17.2	29.8	23.7	18.4	6.3	100.0%	768
Digestive System:	0.2	1.0	3.7	12.8	20.1	24.5	26.2	11.4	100.0%	322,348
Esophagus	0.0	0.4	2.3	12.0	24.3	27.7	25.0	8.2	100.0%	16,696
Stomach	0.1	1.6	4.8	11.9	18.1	24.2	27.2	12.2	100.0%	28,867
Small intestine	0.1	1.5	6.0	15.2	22.4	25.1	21.8	8.0	100.0%	7,080
Colon & Rectum:	0.1	1.1	3.8	12.4	19.2	24.4	26.8	12.2	100.0%	177,307
Colon	0.1	0.9	3.2	10.6	17.8	24.7	29.0	13.7	100.0%	127,157
Rectum	0.0	1.4	5.4	17.2	22.8	23.7	21.3	8.2	100.0%	50,150
Colon & Rectum (Male)	0.0	1.1	4.0	13.4	21.5	26.5	25.0	8.5	100.0%	90,161
Colon & Rectum (Female)	0.1	1.1	3.7	11.4	16.7	22.3	28.8	15.9	100.0%	87,146
Anus, anal canal & anorectum	0.0	1.1	9.7	24.1	24.3	18.5	15.8	6.5	100.0%	6,082
Liver & intrahep. bile duct:	1.1	1.0	3.4	20.2	26.3	22.9	19.3	5.8	100.0%	26,130
Liver	1.2	0.9	3.4	21.0	27.0	22.7	18.5	5.3	100.0%	23,961
Intrahepatic bile duct	0.0	1.2	3.6	12.2	18.8	25.3	27.2	11.6	100.0%	2,169
Gallbladder	0.0	0.6	2.6	8.9	17.9	24.8	30.8	14.4	100.0%	4,399
Other biliary	0.0	0.6	2.8	8.9	17.5	25.2	30.0	15.1	100.0%	6,615
Pancreas	0.0	0.4	2.3	9.7	19.6	25.6	29.4	13.0	100.0%	43,240
Retroperitoneum	9.0	5.3	9.4	16.1	19.6	18.9	16.4	5.4	100.0%	1,486
Peritoneum, omentum & mesentery	0.5	1.1	3.9	11.1	24.4	29.4	24.0	5.6	100.0%	2,534
Other digestive system	0.1	1.2	3.3	10.6	17.9	22.9	29.3	14.9	100.0%	1,912
Respiratory System:	0.1	0.4	1.9	9.2	21.3	31.0	28.3	7.8	100.0%	243,951
Nose, nasal cavity & middle ear	2.6	4.9	8.1	15.8	20.2	21.1	18.7	8.5	100.0%	2,579
Larynx	0.0	0.4	3.1	15.7	28.8	28.9	18.2	4.9	100.0%	12,818
Lung & bronchus	0.0	0.2	1.7	8.8	20.9	31.3	29.1	8.0	100.0%	227,671
Lung & bronchus (Male)	0.0	0.2	1.5	8.8	21.8	31.9	28.7	7.1	100.0%	120,930
Lung & bronchus (Female)	0.0	0.3	1.9	8.8	19.9	30.6	29.5	9.0	100.0%	106,741
Pleura	3.2	2.4	4.0	4.8	22.4	20.0	32.0	11.2	100.0%	125
Trachea & other respiratory organs	19.0	20.6	9.4	12.1	12.0	11.3	10.3	5.3	100.0%	758
Bones & joints	28.0	15.9	10.5	13.5	10.8	8.5	9.0	4.0	100.0%	3,415
Soft tissue (including heart)	9.4	9.8	10.9	15.0	16.3	15.3	16.4	6.9	100.0%	12,089
Skin (excl. basal & squamous):	0.9	7.4	11.4	18.0	19.9	17.8	17.8	6.7	100.0%	82,475
Melanoma of the skin	0.8	7.5	11.8	18.7	20.4	17.8	17.0	6.0	100.0%	75,642
Other non-epithelial skin	1.6	6.4	7.6	11.2	14.2	18.2	26.9	13.9	100.0%	6,833
Breast (Female)	0.0	1.9	10.5	22.6	24.1	19.5	15.8	5.6	100.0%	249,658
Breast (Female -*in situ*)	0.0	0.7	11.2	28.8	26.0	18.9	12.1	2.3	100.0%	60,592

Source: SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey).
Percents may not sum to 100 due to rounding.

Table 1.10 - continued

Age Distribution (%) of Incidence Cases by Site, 2003-2007

All Races, Both Sexes

Site	Age at Diagnosis <20	20-34	35-44	45-54	55-64	65-74	75-84	85+	All Ages	Cases
Female Genital System:	0.4	4.3	9.9	19.7	25.5	19.2	15.1	5.9	100.0%	97,835
Cervix uteri	0.2	14.5	26.1	23.7	16.3	10.4	6.5	2.4	100.0%	15,884
Corpus uteri	0.0	1.5	6.2	19.3	31.2	22.2	14.8	4.7	100.0%	46,874
Uterus, NOS	0.5	2.7	5.5	15.2	20.2	19.0	19.8	17.2	100.0%	1,199
Ovary[a]	1.3	3.5	7.4	19.2	22.9	19.5	18.4	7.8	100.0%	26,368
Vagina	1.2	0.9	5.8	14.0	21.7	21.6	22.1	12.7	100.0%	1,444
Vulva	0.2	2.2	8.0	16.2	17.8	17.4	24.0	14.3	100.0%	4,571
Other female genital system	0.6	7.9	9.0	16.7	22.6	19.4	17.1	6.7	100.0%	1,495
Male Genital System:	0.2	1.9	1.7	9.1	28.8	33.9	19.9	4.4	100.0%	270,179
Prostate	0.0	0.0	0.6	8.9	29.9	35.3	20.7	4.6	100.0%	257,962
Testis	5.8	47.4	27.4	13.7	3.7	1.2	0.6	0.2	100.0%	10,524
Penis	0.1	2.1	6.6	12.0	19.8	24.1	24.2	11.1	100.0%	1,299
Other male genital system	2.3	2.3	5.1	12.9	22.6	24.1	24.4	6.3	100.0%	394
Urinary System:	0.5	0.9	3.5	11.0	20.6	26.1	27.3	10.1	100.0%	132,680
Urinary bladder	0.1	0.5	1.8	7.5	17.9	27.4	32.1	12.8	100.0%	76,890
Kidney & renal pelvis	1.3	1.6	6.1	16.4	24.9	24.2	19.8	5.8	100.0%	52,590
Ureter	0.0	0.1	1.0	4.3	13.8	29.1	38.0	13.7	100.0%	2,152
Other urinary system	0.2	0.5	2.7	7.8	17.0	23.6	31.7	16.6	100.0%	1,048
Eye & Orbit	13.6	3.5	7.4	14.6	20.4	18.8	16.4	5.3	100.0%	3,083
Brain & Nervous System:	13.0	9.0	9.7	15.3	18.3	16.3	14.1	4.3	100.0%	24,404
Brain	12.3	9.0	9.5	15.2	18.5	16.7	14.5	4.4	100.0%	22,849
Cranial nerves & other nervous system	22.9	10.4	11.4	16.5	15.0	10.9	9.5	3.3	100.0%	1,555
Endocrine System:	3.1	15.7	20.8	23.5	17.6	11.5	6.4	1.5	100.0%	41,836
Thyroid	1.8	16.3	21.5	24.1	17.6	11.2	6.1	1.4	100.0%	39,133
Other endocrine & thymus	21.8	7.6	9.6	15.0	17.5	15.3	10.3	2.8	100.0%	2,703
Lymphoma:	3.0	7.4	8.1	13.6	18.1	20.4	21.4	8.0	100.0%	83,668
Hodgkin lymphoma	12.0	31.7	16.3	12.3	9.6	8.6	7.3	2.3	100.0%	10,702
Non-Hodgkin lymphoma	1.6	3.9	6.9	13.8	19.4	22.2	23.4	8.8	100.0%	72,966
Myeloma	0.0	0.6	3.2	11.8	21.4	26.2	27.3	9.5	100.0%	20,813
Leukemia:	10.9	4.8	5.4	10.2	15.4	19.8	22.9	10.6	100.0%	45,780
Lymphocytic:	16.5	3.1	3.5	9.0	16.1	20.3	21.7	9.7	100.0%	23,022
Acute lymphocytic	60.7	10.3	6.2	6.5	5.8	5.0	3.8	1.6	100.0%	6,231
Chronic lymphocytic	0.1	0.2	1.5	9.0	20.0	26.7	29.3	13.2	100.0%	15,258
Other lymphocytic	0.4	2.5	12.5	19.9	20.0	18.5	17.8	8.4	100.0%	1,533
Myeloid & Monocytic:	5.3	6.8	7.8	11.9	15.1	19.4	23.8	9.9	100.0%	20,269
Acute myeloid	6.1	6.5	6.7	11.3	15.1	19.9	24.5	9.9	100.0%	12,972
Chronic myeloid	2.5	7.4	10.1	13.3	15.0	19.0	22.7	9.9	100.0%	5,618
Acute monocytic	10.9	7.0	7.9	13.0	17.3	16.1	19.5	8.4	100.0%	1,094
Other myeloid & monocytic	3.4	7.0	8.5	9.7	13.5	19.7	25.8	12.3	100.0%	585
Other leukemia:	5.1	4.0	3.9	7.3	10.5	17.9	27.7	23.5	100.0%	2,489
Other acute leukemia	8.1	4.5	3.3	6.3	8.8	17.0	29.1	22.8	100.0%	986
Aleukemic, subleukemic & NOS	3.1	3.7	4.3	8.0	11.6	18.5	26.8	24.0	100.0%	1,503
Kaposi Sarcoma	0.1	17.2	35.2	18.2	8.0	6.4	9.3	5.6	100.0%	2,325
Mesothelioma	0.1	0.7	2.0	6.4	17.0	26.8	35.8	11.4	100.0%	3,841
Ill-defined & unspecified	0.5	1.0	2.8	9.7	17.3	22.1	29.5	17.2	100.0%	35,769

Source: SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey).
Percents may not sum to 100 due to rounding.

[a] Ovary excludes borderline cases or histologies 8442, 8451, 8462, 8472, and 8473.

Table 1.11
Median Age of Cancer Patients at Diagnosis[a], 2003-2007
By Primary Cancer Site, Race and Sex

Site	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
All Sites	66.0	67.0	65.0	67.0	67.0	66.0	63.0	63.0	62.0
Oral Cavity & Pharynx:	62.0	60.0	65.0	63.0	61.0	67.0	58.0	58.0	57.0
Lip	69.0	67.0	74.0	69.0	68.0	74.0	59.0	61.0	-
Tongue	61.0	60.0	64.0	61.0	60.0	65.0	59.0	59.0	56.0
Salivary gland	65.0	67.0	61.0	67.0	68.0	63.5	54.0	59.0	50.0
Floor of mouth	63.0	61.0	67.0	63.0	62.0	68.0	58.0	57.0	61.0
Gum & other oral cavity	67.0	64.0	71.0	68.0	65.0	72.0	59.0	58.5	61.0
Nasopharynx	55.0	55.0	56.0	59.0	57.0	62.0	50.0	50.0	49.5
Tonsil	57.0	56.0	60.0	57.0	56.0	60.0	56.0	56.0	55.0
Oropharynx	61.0	60.0	64.0	62.0	61.0	66.0	60.0	59.0	62.0
Hypopharynx	65.0	65.0	66.0	66.0	65.0	67.0	62.0	62.0	62.0
Other oral cavity & pharynx	64.0	62.0	68.0	64.0	62.0	70.0	61.0	61.0	62.0
Digestive System:	70.0	68.0	72.0	71.0	68.0	73.0	65.0	64.0	67.0
Esophagus	68.0	67.0	73.0	69.0	67.0	74.0	64.0	63.0	65.0
Stomach	70.0	69.0	73.0	71.0	69.0	74.0	68.0	67.0	71.0
Small intestine	66.0	65.0	68.0	67.0	66.0	69.0	63.0	63.0	63.5
Colon & Rectum:	70.0	68.0	72.0	71.0	69.0	74.0	66.0	65.0	67.0
Colon	72.0	70.0	74.0	73.0	71.0	75.0	67.0	66.0	68.0
Rectum	66.0	65.0	67.0	67.0	66.0	68.0	62.0	62.0	63.0
Anus, anal canal & anorectum	60.0	58.0	62.0	61.0	59.0	62.0	55.0	51.0	58.0
Liver & intrahep. bile duct:	64.0	61.0	70.0	64.0	62.0	71.0	58.0	57.0	63.0
Liver	63.0	61.0	70.0	64.0	61.0	71.0	58.0	57.0	62.0
Intrahepatic bile duct	70.0	68.0	73.0	71.0	69.0	73.0	66.0	62.0	69.0
Gallbladder	73.0	72.0	73.0	74.0	73.0	74.0	69.0	69.0	69.0
Other biliary	73.0	72.0	74.0	74.0	72.0	75.0	67.0	65.0	68.0
Pancreas	72.0	69.0	74.0	72.0	70.0	75.0	68.0	65.0	71.0
Retroperitoneum	60.0	60.0	60.0	61.0	61.0	61.0	56.0	57.5	56.0
Peritoneum, omentum & mesentery	68.0	62.0	68.0	68.0	63.0	68.0	65.0	56.0	66.5
Other digestive system	72.0	71.0	74.0	73.0	71.0	75.0	65.0	64.0	66.0
Respiratory System:	70.0	70.0	71.0	71.0	70.0	71.0	66.0	65.0	66.0
Nose, nasal cavity & middle ear	64.0	62.0	66.0	65.0	64.0	67.0	57.0	56.0	60.0
Larynx	65.0	65.0	65.0	66.0	66.0	66.0	62.0	62.0	62.0
Lung & bronchus	71.0	70.0	71.0	71.0	71.0	72.0	66.0	66.0	67.0
Pleura	73.0	73.5	67.0	73.0	73.0	71.0	-	-	-
Trachea & other respiratory organs	46.0	38.0	58.0	48.0	38.0	63.0	44.0	43.0	45.0
Bones & joints	41.0	40.0	43.0	42.0	41.0	43.0	36.0	34.0	37.0
Soft tissue (including heart)	58.0	58.0	57.0	59.0	59.0	59.0	48.0	45.0	51.0
Skin (excl. basal & squamous):	60.0	63.0	56.0	61.0	64.0	56.0	54.0	55.0	51.0
Melanoma of the skin	60.0	63.0	55.0	60.0	63.0	55.0	64.0	65.0	63.0
Other non-epithelial skin	70.0	71.0	68.0	72.0	73.0	70.0	47.0	48.0	46.0
Breast	61.0	68.0	61.0	61.0	69.0	61.0	57.0	63.0	57.0
Breast (*in situ*)	58.0	60.0	58.0	58.0	60.0	58.0	58.0	64.0	58.0

[a] SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey).

\- Statistic could not be calculated. Less than 16 cases were diagnosed during the time interval.

Table 1.11 - continued
Median Age of Cancer Patients at Diagnosis[a], 2003-2007
By Primary Cancer Site, Race and Sex

Site	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
Female Genital System:	60.0	-	60.0	61.0	-	61.0	60.0	-	60.0
Cervix uteri	48.0	-	48.0	47.0	-	47.0	50.0	-	50.0
Corpus uteri	62.0	-	62.0	62.0	-	62.0	63.0	-	63.0
Uterus, NOS	67.0	-	67.0	69.0	-	69.0	65.0	-	65.0
Ovary[b]	63.0	-	63.0	63.0	-	63.0	61.0	-	61.0
Vagina	68.0	-	68.0	69.0	-	69.0	61.0	-	61.0
Vulva	68.0	-	68.0	70.0	-	70.0	54.0	-	54.0
Other female genital system	61.0	-	61.0	63.0	-	63.0	52.5	-	52.5
Male Genital System:	67.0	67.0	-	67.0	67.0	-	64.0	64.0	-
Prostate	67.0	67.0	-	68.0	68.0	-	64.0	64.0	-
Testis	34.0	34.0	-	34.0	34.0	-	34.0	34.0	-
Penis	68.0	68.0	-	69.0	69.0	-	65.0	65.0	-
Other male genital system	66.5	66.5	-	67.0	67.0	-	57.0	57.0	-
Urinary System:	70.0	70.0	70.0	70.0	70.0	71.0	65.0	64.0	67.0
Urinary bladder	73.0	73.0	74.0	73.0	73.0	74.0	70.0	68.0	72.0
Kidney & renal pelvis	64.0	64.0	66.0	65.0	64.0	66.0	61.0	60.0	63.0
Ureter	75.0	74.0	76.0	75.0	74.0	77.0	70.0	69.0	71.5
Other urinary system	74.0	75.0	71.5	75.0	76.0	74.0	66.5	69.0	65.0
Eye & Orbit	60.0	60.0	59.0	61.0	61.0	60.0	3.5	22.0	2.0
Brain & Nervous System:	56.0	55.0	57.0	57.0	56.0	59.0	50.5	51.0	50.0
Brain	57.0	56.0	58.0	57.0	57.0	59.0	51.0	51.0	50.0
Cranial nerves & other nervous system	47.0	45.0	49.0	47.0	45.0	49.0	50.0	51.5	50.0
Endocrine System:	49.0	53.0	48.0	49.0	53.0	48.0	50.0	52.5	49.0
Thyroid	49.0	53.0	47.0	49.0	54.0	47.0	50.0	54.0	49.0
Other endocrine & thymus	52.0	50.0	54.0	53.0	51.0	55.0	49.0	44.5	51.0
Lymphoma:	64.0	63.0	67.0	65.0	64.0	68.0	54.0	52.0	56.0
Hodgkin lymphoma	38.0	40.0	37.0	39.0	41.0	37.0	36.0	37.0	34.0
Non-Hodgkin lymphoma	67.0	65.0	69.0	68.0	66.0	70.0	56.0	54.0	59.0
Myeloma	70.0	69.0	71.0	71.0	69.0	72.0	66.0	65.0	68.0
Leukemia:	66.0	65.0	68.0	67.0	66.0	69.0	60.0	59.0	61.0
Lymphocytic:	65.0	64.0	67.0	66.0	65.0	68.0	61.0	60.0	64.5
Acute lymphocytic	13.0	13.0	13.0	13.0	13.0	13.0	14.0	12.0	15.0
Chronic lymphocytic	72.0	70.0	74.0	72.0	71.0	74.0	68.0	66.0	71.0
Other lymphocytic	61.0	60.0	66.0	62.0	60.0	68.0	61.0	61.0	57.5
Myeloid & Monocytic:	66.0	66.0	67.0	68.0	67.0	68.0	58.0	58.0	58.0
Acute myeloid	67.0	67.0	67.0	68.0	68.0	68.0	59.0	58.0	61.0
Chronic myeloid	65.0	65.0	67.0	67.0	66.0	69.0	56.0	57.0	55.0
Acute monocytic	62.0	63.0	60.0	63.0	63.0	62.0	50.0	48.5	50.0
Other myeloid & monocytic	69.0	68.0	70.0	70.0	69.0	72.0	58.0	57.0	58.5
Other leukemia:	75.0	73.0	77.0	77.0	75.0	79.0	64.0	60.0	67.5
Other acute leukemia	76.0	73.0	77.5	77.0	75.0	79.0	65.0	57.0	74.0
Aleukemic, subleukemic & NOS	75.0	73.0	77.0	77.0	75.5	79.0	64.0	61.0	66.5
Kaposi Sarcoma	44.0	43.0	78.0	46.0	44.0	80.0	39.0	39.0	44.0
Mesothelioma	74.0	74.0	72.0	74.0	74.0	73.0	70.0	70.5	64.0
Ill-defined & unspecified	73.0	71.0	76.0	74.0	71.0	76.0	67.0	64.0	70.0

[a] SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey).

[b] Ovary excludes borderline cases or histologies 8442, 8451, 8462, 8472, and 8473.

\- Statistic could not be calculated. Less than 16 cases were diagnosed during the time interval.

Table 1.12

Age Distribution (%) of Deaths by Site, 2003-2007

All Races, Both Sexes

Site	Age at Death <20	20-34	35-44	45-54	55-64	65-74	75-84	85+	All Ages	Deaths
All Sites	0.4	0.8	2.6	9.0	17.8	24.9	29.7	14.9	100.0%	2,792,820
Oral Cavity & Pharynx:	0.2	0.8	3.3	14.6	24.0	23.8	22.1	11.3	100.0%	39,163
Lip	0.0	0.3	1.9	7.4	12.1	17.3	31.3	29.7	100.0%	323
Tongue	0.0	1.1	3.9	15.7	24.5	23.8	20.5	10.4	100.0%	9,644
Salivary gland	0.1	0.8	3.4	9.3	17.1	22.0	28.7	18.6	100.0%	3,535
Floor of mouth	0.0	0.5	3.2	16.9	29.5	23.5	18.5	7.7	100.0%	620
Gum & other oral cavity	0.4	0.6	2.2	9.7	18.5	21.6	26.6	20.5	100.0%	5,679
Nasopharynx	0.9	3.3	7.1	18.5	24.1	22.3	16.8	6.9	100.0%	3,160
Tonsil	0.0	0.2	4.3	24.1	29.6	21.8	15.2	4.7	100.0%	3,189
Oropharynx	0.0	0.2	2.7	15.1	27.2	23.9	21.1	9.8	100.0%	3,310
Hypopharynx	0.0	0.3	1.9	14.4	28.8	27.0	22.2	5.4	100.0%	1,592
Other oral cavity & pharynx	0.0	0.1	2.3	13.6	25.7	27.0	22.8	8.4	100.0%	8,111
Digestive System:	0.1	0.5	2.3	9.4	17.9	23.8	29.4	16.5	100.0%	670,796
Esophagus	0.0	0.3	2.1	11.0	23.6	27.4	26.0	9.7	100.0%	66,659
Stomach	0.0	1.2	4.0	9.9	16.0	22.6	29.3	17.0	100.0%	58,216
Small intestine	0.0	0.9	3.8	10.2	19.1	23.2	28.5	14.2	100.0%	5,476
Colon & Rectum:	0.0	0.6	2.4	8.1	15.6	22.2	30.4	20.6	100.0%	268,783
Colon & Rectum (Male)	0.0	0.7	2.5	9.1	18.2	25.2	29.7	14.5	100.0%	135,457
Colon & Rectum (Female)	0.0	0.5	2.2	7.2	12.9	19.2	31.0	26.8	100.0%	133,326
Anus, anal canal & anorectum	0.0	0.8	6.7	18.8	22.5	19.6	20.3	11.3	100.0%	2,994
Liver & intrahep. bile duct:	0.3	0.7	2.4	15.0	21.7	23.5	25.8	10.5	100.0%	79,773
Liver	0.4	0.7	2.3	16.6	22.6	23.1	24.6	9.7	100.0%	61,921
Intrahepatic bile duct	0.0	0.7	2.6	9.7	18.8	24.8	30.2	13.2	100.0%	17,852
Gallbladder	0.0	0.3	1.6	7.1	16.2	24.6	32.8	17.4	100.0%	9,754
Other biliary	0.0	0.2	1.4	5.8	13.5	22.0	33.8	23.2	100.0%	7,279
Pancreas	0.0	0.2	1.6	8.3	18.3	25.6	30.9	15.1	100.0%	162,878
Retroperitoneum	0.4	2.2	3.5	11.5	17.8	24.4	27.7	12.6	100.0%	1,042
Peritoneum, omentum & mesentery	0.1	0.6	2.3	7.7	19.4	29.0	31.0	9.8	100.0%	3,805
Other digestive system	0.0	0.6	1.9	6.8	14.6	21.4	30.8	23.8	100.0%	4,137
Respiratory System:	0.0	0.1	1.4	8.0	19.8	30.5	30.5	9.6	100.0%	815,805
Nose, nasal cavity & middle ear	0.3	1.3	6.5	12.7	19.4	20.3	25.7	13.9	100.0%	2,300
Larynx	0.0	0.1	1.7	11.7	25.2	28.9	23.8	8.6	100.0%	18,710
Lung & bronchus	0.0	0.1	1.4	7.9	19.7	30.6	30.7	9.6	100.0%	792,495
Lung & bronchus (Male)	0.0	0.1	1.3	8.1	20.6	31.5	30.1	8.3	100.0%	447,192
Lung & bronchus (Female)	0.0	0.1	1.5	7.7	18.4	29.5	31.4	11.3	100.0%	345,303
Pleura	0.0	0.2	1.7	4.0	15.6	26.8	38.4	13.3	100.0%	1,199
Trachea & other respiratory organs	0.8	5.0	3.9	12.4	16.3	22.7	27.0	11.9	100.0%	1,101
Bones & joints	14.0	14.4	6.9	10.0	11.8	14.0	18.0	10.9	100.0%	6,656
Soft tissue (including heart)	3.9	6.5	7.1	13.6	17.9	19.0	21.7	10.2	100.0%	19,215
Skin (excl. basal & squamous):	0.1	2.2	5.3	12.8	18.8	20.5	25.1	15.4	100.0%	53,851
Melanoma of the skin	0.1	2.7	6.3	14.3	19.6	20.9	24.1	11.9	100.0%	41,017
Other non-epithelial skin	0.0	0.5	1.9	7.8	16.0	19.2	28.1	26.5	100.0%	12,834
Breast (Female)	0.0	0.9	6.0	15.0	20.8	19.7	22.6	15.1	100.0%	205,107

Source: US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.
Percents may not sum to 100 due to rounding.

Table 1.12 - continued

Age Distribution (%) of Deaths by Site, 2003-2007

All Races, Both Sexes

Site	Age at Death <20	20-34	35-44	45-54	55-64	65-74	75-84	85+	All Ages	Deaths
Female Genital System:	0.0	1.3	4.6	11.8	19.8	23.3	25.7	13.5	100.0%	136,906
Cervix uteri	0.0	5.1	16.0	23.2	20.9	15.0	13.0	6.7	100.0%	19,690
Corpus uteri	0.0	0.3	1.9	6.9	20.2	28.1	27.9	14.6	100.0%	16,618
Uterus, NOS	0.0	0.5	2.4	8.8	19.8	24.8	27.5	16.2	100.0%	19,207
Ovary	0.1	0.7	2.8	11.1	20.1	24.5	27.7	13.1	100.0%	73,638
Vagina	0.0	0.8	3.3	8.2	14.8	17.7	28.3	26.9	100.0%	1,961
Vulva	0.0	0.6	2.5	6.9	11.3	17.5	32.1	29.1	100.0%	4,117
Other female genital system	0.1	1.8	4.3	11.3	17.0	25.7	25.1	14.8	100.0%	1,675
Male Genital System:	0.0	0.4	0.4	1.7	7.6	19.7	39.7	30.4	100.0%	148,042
Prostate	0.0	0.0	0.1	1.4	7.5	19.9	40.3	30.8	100.0%	144,926
Testis	2.9	32.6	25.2	18.2	9.1	4.9	4.2	2.9	100.0%	1,744
Penis	0.0	0.7	4.5	10.9	20.9	23.2	25.8	13.9	100.0%	1,189
Other male genital system	0.5	2.2	1.6	9.3	15.3	19.7	29.5	21.9	100.0%	183
Urinary System:	0.2	0.3	1.5	6.9	15.5	22.9	32.6	20.0	100.0%	131,722
Urinary bladder	0.0	0.1	0.8	4.1	11.3	21.0	36.7	26.0	100.0%	66,083
Kidney & renal pelvis	0.5	0.5	2.2	10.0	20.2	25.0	28.0	13.6	100.0%	62,198
Ureter	0.0	0.1	0.4	3.8	9.9	22.2	39.9	23.6	100.0%	1,705
Other urinary system	0.0	0.2	0.8	6.9	13.1	21.4	36.1	21.4	100.0%	1,736
Eye & Orbit	3.5	1.6	4.6	11.5	18.8	22.3	25.2	12.5	100.0%	1,159
Brain & Nervous System:	4.2	3.8	7.1	14.9	21.8	22.2	19.6	6.3	100.0%	65,002
Endocrine System:	7.9	2.5	4.3	10.0	17.0	21.2	24.4	12.7	100.0%	11,673
Thyroid	0.1	0.9	2.3	8.1	17.5	24.1	30.3	16.8	100.0%	7,263
Other endocrine & thymus	20.7	5.2	7.6	13.2	16.2	16.4	14.6	5.9	100.0%	4,410
Lymphoma:	0.5	2.3	3.1	7.3	14.0	22.0	33.1	17.7	100.0%	110,900
Hodgkin lymphoma	1.7	14.1	10.5	12.1	14.6	16.3	21.6	9.1	100.0%	6,493
Non-Hodgkin lymphoma	0.5	1.5	2.7	7.0	14.0	22.4	33.8	18.2	100.0%	104,407
Myeloma	0.0	0.1	1.3	6.3	15.9	26.3	34.8	15.2	100.0%	53,729
Leukemia:	3.0	3.1	3.3	6.4	12.6	21.6	31.6	18.4	100.0%	108,740
Lymphocytic:	4.8	3.7	2.5	5.0	10.9	19.2	30.4	23.5	100.0%	31,160
Acute lymphocytic	20.5	15.7	9.1	11.2	12.4	12.9	12.2	6.0	100.0%	7,071
Chronic lymphocytic	0.0	0.1	0.5	3.0	10.4	21.2	36.1	28.8	100.0%	22,178
Other lymphocytic	1.7	1.7	1.8	5.8	10.9	18.8	32.4	26.8	100.0%	1,911
Myeloid & Monocytic:	2.3	3.2	4.1	8.0	14.8	23.8	30.8	13.1	100.0%	50,927
Acute myeloid	2.4	3.3	4.1	8.1	15.4	24.6	30.4	11.6	100.0%	41,714
Chronic myeloid	1.2	3.5	5.5	9.0	12.9	19.2	28.5	20.2	100.0%	5,525
Acute monocytic	2.0	2.2	2.6	3.7	11.4	19.1	36.9	22.1	100.0%	507
Other myeloid & monocytic	1.7	1.4	2.0	5.2	10.8	22.0	38.3	18.5	100.0%	3,181
Other leukemia:	2.3	2.3	2.7	5.0	10.4	20.4	34.6	22.4	100.0%	26,653
Other acute leukemia	1.2	2.5	2.9	5.3	10.6	21.5	35.5	20.6	100.0%	11,006
Aleukemic, subleukemic & NOS	3.1	2.1	2.5	4.9	10.2	19.6	33.9	23.7	100.0%	15,647
Ill-defined & unspecified	0.2	0.7	2.3	8.3	16.7	23.4	30.7	17.7	100.0%	212,478

Source: US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.
Percents may not sum to 100 due to rounding.

Table 1.13
Median Age of Cancer Patients at Death[a], 2003-2007
By Primary Cancer Site, Race and Sex

Site	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
All Sites	73.0	72.0	73.0	73.0	73.0	74.0	68.0	68.0	68.0
Oral Cavity & Pharynx:	67.0	65.0	74.0	69.0	66.0	75.0	61.0	61.0	63.0
Lip	78.0	75.0	84.0	78.0	75.5	84.5	-	-	-
Tongue	66.0	64.0	73.0	67.0	64.0	74.0	61.0	61.0	60.5
Salivary gland	74.0	73.0	75.0	74.0	74.0	76.0	64.0	64.0	63.0
Floor of mouth	64.0	62.0	73.0	66.0	62.0	74.0	60.0	60.0	-
Gum & other oral cavity	73.0	68.0	80.0	75.0	69.0	80.0	62.0	60.0	69.0
Nasopharynx	63.0	61.0	67.0	65.0	63.0	70.0	57.0	56.0	60.0
Tonsil	61.0	60.0	67.0	62.0	60.0	68.0	58.0	57.0	61.0
Oropharynx	67.0	64.0	74.0	68.0	65.0	75.0	62.0	62.0	62.0
Hypopharynx	66.0	65.0	70.0	67.0	66.0	71.5	61.0	61.0	63.0
Other oral cavity & pharynx	68.0	66.0	72.0	69.0	67.0	72.0	62.0	62.0	65.0
Digestive System:	73.0	70.0	76.0	74.0	71.0	77.0	68.0	65.0	72.0
Esophagus	69.0	68.0	74.0	70.0	69.0	75.0	64.0	64.0	67.0
Stomach	73.0	71.0	76.0	74.0	72.0	77.0	70.0	68.0	74.0
Small intestine	71.0	70.0	74.0	72.0	71.0	75.0	65.0	65.0	65.0
Colon & Rectum	75.0	72.0	77.0	76.0	73.0	78.0	70.0	68.0	72.0
Anus, anal canal & anorectum	65.0	63.0	67.0	66.0	64.0	67.0	58.0	52.0	62.5
Liver & intrahep. bile duct:	69.0	66.0	74.0	70.5	68.0	75.0	61.0	59.0	69.0
Liver	68.0	65.0	75.0	70.0	67.0	76.0	60.0	58.0	69.0
Intrahepatic bile duct	72.0	71.0	73.0	73.0	72.0	74.0	68.0	67.0	69.0
Gallbladder	75.0	74.0	75.0	75.0	74.0	76.0	70.0	71.0	70.0
Other biliary	77.0	75.0	78.0	77.0	76.0	79.0	74.0	71.0	75.0
Pancreas	73.0	70.0	76.0	74.0	71.0	76.0	69.0	66.0	73.0
Retroperitoneum	70.0	68.0	73.0	71.0	69.0	74.0	62.0	58.0	65.0
Peritoneum, omentum & mesentery	72.0	68.0	72.0	72.0	68.0	73.0	68.0	64.5	69.0
Other digestive system	76.0	73.0	79.0	77.0	74.0	80.0	68.0	67.0	70.5
Respiratory System:	72.0	71.0	72.0	72.0	72.0	73.0	67.0	67.0	68.0
Nose, nasal cavity & middle ear	70.0	66.0	75.0	71.0	67.0	75.0	64.0	63.0	68.0
Larynx	68.0	68.0	70.0	69.0	69.0	71.0	65.0	64.0	65.0
Lung & bronchus	72.0	71.0	72.0	72.0	72.0	73.0	67.0	67.0	69.0
Pleura	75.0	75.0	75.0	75.0	75.0	75.0	69.0	69.0	69.0
Trachea & other respiratory organs	70.0	67.0	74.0	70.0	67.0	74.0	66.0	64.0	69.0
Bones & joints	58.0	55.0	64.0	60.0	56.0	66.0	50.0	46.5	56.0
Soft tissue (including heart)	65.0	65.0	65.0	66.0	66.0	67.0	55.0	53.0	57.0
Skin (excl. basal & squamous):	70.0	69.0	72.0	70.0	70.0	72.0	64.0	61.0	72.0
Melanoma of the skin	68.0	68.0	69.0	68.0	68.0	69.0	69.0	64.0	72.0
Other non-epithelial skin	76.0	74.0	81.0	77.0	75.0	81.0	61.0	59.0	71.0
Breast	68.0	72.0	68.0	70.0	73.0	70.0	61.0	66.0	60.5

[a] US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.

\- Statistic could not be calculated. Less than 16 deaths occurred during the time interval.

Table 1.13 - continued
Median Age of Cancer Patients at Death[a], 2003-2007
By Primary Cancer Site, Race and Sex

Site	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
Female Genital System:	70.0	-	70.0	71.0	-	71.0	67.0	-	67.0
Cervix uteri	57.0	-	57.0	57.0	-	57.0	57.0	-	57.0
Corpus uteri	72.0	-	72.0	73.0	-	73.0	70.0	-	70.0
Uterus, NOS	72.0	-	72.0	73.0	-	73.0	69.0	-	69.0
Ovary	71.0	-	71.0	71.0	-	71.0	68.0	-	68.0
Vagina	77.0	-	77.0	77.0	-	77.0	72.0	-	72.0
Vulva	79.0	-	79.0	79.0	-	79.0	66.0	-	66.0
Other female genital system	71.0	-	71.0	72.0	-	72.0	65.0	-	65.0
Male Genital System:	80.0	80.0	-	81.0	81.0	-	77.0	77.0	-
Prostate	80.0	80.0	-	81.0	81.0	-	77.0	77.0	-
Testis	40.0	40.0	-	40.0	40.0	-	38.5	38.5	-
Penis	70.0	70.0	-	71.0	71.0	-	65.0	65.0	-
Other male genital system	75.0	75.0	-	76.0	76.0	-	69.0	69.0	-
Urinary System:	75.0	74.0	77.0	76.0	75.0	78.0	71.0	68.0	75.0
Urinary bladder	78.0	78.0	80.0	79.0	78.0	81.0	76.0	74.0	77.0
Kidney & renal pelvis	71.0	69.0	75.0	72.0	70.0	75.0	67.0	64.0	71.0
Ureter	78.0	77.0	80.0	78.0	77.0	80.0	73.0	73.0	73.0
Other urinary system	77.0	76.0	77.0	78.0	77.0	79.0	66.0	68.0	65.5
Eye & Orbit	69.0	67.5	71.0	70.0	68.0	71.0	54.0	54.5	53.0
Brain & Nervous System	64.0	62.0	66.0	64.0	63.0	66.0	58.0	56.0	60.0
Endocrine System:	69.0	66.0	71.0	69.0	67.0	72.0	63.0	56.0	66.0
Thyroid	74.0	71.0	76.0	74.0	71.0	76.0	70.0	67.0	72.0
Other endocrine & thymus	56.0	55.0	58.0	58.0	56.0	61.0	48.0	42.0	53.0
Lymphoma:	75.0	73.0	77.0	75.0	73.0	78.0	63.0	60.0	68.0
Hodgkin lymphoma	63.0	60.0	66.0	65.0	61.0	69.0	48.0	49.0	45.0
Non-Hodgkin lymphoma	75.0	73.0	77.0	76.0	74.0	78.0	65.0	61.0	69.0
Myeloma	75.0	73.0	76.0	75.0	74.0	77.0	71.0	69.0	72.0
Leukemia:	74.0	73.0	76.0	75.0	74.0	77.0	68.0	66.0	70.0
Lymphocytic:	76.0	74.0	79.0	77.0	75.0	80.0	69.0	67.0	73.0
Acute lymphocytic	49.0	44.0	54.0	51.0	46.0	55.0	41.0	34.0	50.0
Chronic lymphocytic	79.0	77.0	82.0	79.0	77.0	82.0	73.0	71.0	76.0
Other lymphocytic	78.0	76.0	81.0	78.0	76.0	81.0	70.0	68.5	73.0
Myeloid & Monocytic:	72.0	72.0	73.0	73.0	72.0	74.0	64.0	64.0	65.0
Acute myeloid	72.0	71.0	72.0	72.0	72.0	73.0	65.0	64.0	65.0
Chronic myeloid	74.0	72.0	77.0	76.0	73.0	78.0	62.0	58.0	65.0
Acute monocytic	77.0	77.0	78.0	77.0	77.0	78.5	71.0	-	-
Other myeloid & monocytic	76.0	76.0	77.0	77.0	76.0	78.0	69.5	70.5	69.0
Other leukemia:	77.0	75.0	79.0	77.0	76.0	79.0	71.0	70.0	73.0
Other acute leukemia	76.0	75.0	78.0	77.0	76.0	78.0	72.0	71.0	73.0
Aleukemic, subleukemic & NOS	77.0	76.0	79.0	78.0	76.0	80.0	71.0	70.0	74.0
Ill-defined & unspecified	74.0	72.0	76.0	75.0	73.0	77.0	68.0	66.0	70.0

[a] US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.

\- Statistic could not be calculated. Less than 16 deaths occurred during the time interval.

Table 1.14

Lifetime Risk (Percent) of Being Diagnosed with Cancer by Site and Race/Ethnicity

Both Sexes, 17 SEER Areas, 2005-2007

Site	All Races Percent (95% C.I.)	Whites Percent (95% C.I.)	Blacks Percent (95% C.I.)
All Sites	40.77 (40.67, 40.86)	41.23 (41.13, 41.34)	36.46 (36.17, 36.75)
Invasive and In Situ	43.61 (43.51, 43.71)	44.13 (44.02, 44.24)	38.15 (37.86, 38.45)
Oral Cavity and Pharynx	1.02 (1.01, 1.04)	1.05 (1.04, 1.07)	0.79 (0.75, 0.83)
Esophagus	0.50 (0.49, 0.51)	0.52 (0.51, 0.53)	0.46 (0.43, 0.50)
Stomach	0.88 (0.86, 0.89)	0.76 (0.75, 0.78)	1.12 (1.07, 1.17)
Colon and Rectum	5.12 (5.09, 5.16)	5.09 (5.05, 5.13)	5.05 (4.94, 5.15)
Invasive and In Situ	5.37 (5.33, 5.40)	5.32 (5.29, 5.36)	5.33 (5.22, 5.44)
Liver and Intrahepatic Bile Duct	0.76 (0.75, 0.77)	0.65 (0.64, 0.67)	0.76 (0.73, 0.80)
Pancreas	1.41 (1.39, 1.43)	1.40 (1.38, 1.42)	1.50 (1.44, 1.56)
Larynx	0.36 (0.35, 0.37)	0.37 (0.36, 0.38)	0.46 (0.43, 0.49)
Invasive and In Situ	0.39 (0.38, 0.40)	0.40 (0.39, 0.41)	0.48 (0.45, 0.51)
Lung and Bronchus	6.95 (6.91, 6.99)	7.15 (7.11, 7.19)	6.53 (6.41, 6.65)
Melanoma of the Skin	1.93 (1.91, 1.95)	2.24 (2.22, 2.27)	0.09 (0.07, 0.10)
Invasive and In Situ	3.10 (3.08, 3.13)	3.55 (3.52, 3.58)	0.10 (0.09, 0.12)
Breast	6.29 (6.26, 6.33)	6.47 (6.43, 6.51)	5.41 (5.30, 5.51)
Invasive and In Situ	7.53 (7.49, 7.57)	7.71 (7.66, 7.75)	6.52 (6.40, 6.63)
Urinary Bladder (Invasive and In Situ)	2.39 (2.37, 2.42)	2.59 (2.56, 2.62)	1.18 (1.13, 1.23)
Kidney and Renal Pelvis	1.49 (1.47, 1.51)	1.55 (1.53, 1.57)	1.34 (1.29, 1.40)
Brain and Other Nervous System	0.61 (0.59, 0.62)	0.66 (0.65, 0.68)	0.32 (0.29, 0.34)
Thyroid	0.90 (0.89, 0.91)	0.94 (0.92, 0.95)	0.52 (0.49, 0.55)
Hodgkin Lymphoma	0.23 (0.23, 0.24)	0.25 (0.24, 0.26)	0.20 (0.18, 0.22)
Non-Hodgkin Lymphoma	2.10 (2.08, 2.12)	2.21 (2.19, 2.24)	1.20 (1.15, 1.25)
Myeloma	0.64 (0.63, 0.65)	0.60 (0.59, 0.61)	1.05 (1.00, 1.10)
Leukemia	1.30 (1.28, 1.31)	1.37 (1.35, 1.39)	0.82 (0.78, 0.87)
Acute Lymphocytic Leukemia	0.13 (0.12, 0.13)	0.14 (0.13, 0.14)	0.07 (0.06, 0.08)
Chronic Lymphocytic Leukemia	0.48 (0.47, 0.49)	0.51 (0.50, 0.52)	0.26 (0.24, 0.29)
Acute Myeloid Leukemia	0.38 (0.37, 0.39)	0.39 (0.38, 0.40)	0.27 (0.24, 0.29)
Chronic Myeloid Leukemia	0.16 (0.15, 0.16)	0.16 (0.16, 0.17)	0.12 (0.11, 0.14)
Kaposi Sarcoma	0.05 (0.05, 0.05)	0.04 (0.04, 0.05)	0.08 (0.07, 0.10)
Mesothelioma	0.12 (0.12, 0.13)	0.14 (0.13, 0.14)	0.06 (0.05, 0.07)

Devcan Version 6.5.0, April 2010, National Cancer Institute (http://srab.cancer.gov/devcan/).
Source: SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey).
Note: Invasive cancer only unless specified otherwise.
A percent or confidence interval value of 0.00 represents a value that is below 0.005.

Table 1.14 - continued

Lifetime Risk (Percent) of Being Diagnosed with Cancer by Site and Race/Ethnicity

Both Sexes, 17 SEER Areas, 2005-2007

Site	Asian/Pacific Islanders Percent (95% C.I.)	American Indian/ Alaska Natives[a] Percent (95% C.I.)	Hispanics[b] Percent (95% C.I.)
All Sites	34.98 (34.60, 35.37)	27.78 (26.61, 29.09)	35.58 (35.24, 35.92)
Invasive and In Situ	36.93 (36.55, 37.33)	29.00 (27.78, 30.35)	37.24 (36.89, 37.59)
Oral Cavity and Pharynx	0.85 (0.80, 0.91)	0.66 (0.52, 1.00)	0.67 (0.63, 0.72)
Esophagus	0.34 (0.30, 0.39)	0.46 (0.33, 0.80)	0.34 (0.31, 0.38)
Stomach	1.90 (1.81, 2.00)	1.19 (0.93, 1.63)	1.43 (1.36, 1.50)
Colon and Rectum	5.22 (5.06, 5.38)	4.15 (3.71, 4.75)	4.61 (4.48, 4.75)
Invasive and In Situ	5.41 (5.25, 5.57)	4.36 (3.91, 4.96)	4.80 (4.67, 4.94)
Liver and Intrahepatic Bile Duct	1.87 (1.78, 1.96)	1.00 (0.81, 1.37)	1.31 (1.25, 1.39)
Pancreas	1.48 (1.39, 1.58)	1.19 (0.95, 1.60)	1.51 (1.43, 1.60)
Larynx	0.15 (0.12, 0.18)	0.17 (0.10, 0.49)	0.27 (0.25, 0.30)
Invasive and In Situ	0.16 (0.14, 0.19)	0.18 (0.10, 0.49)	0.29 (0.27, 0.33)
Lung and Bronchus	5.55 (5.39, 5.72)	4.74 (4.23, 5.40)	4.12 (4.01, 4.25)
Melanoma of the Skin	0.16 (0.14, 0.19)	0.36 (0.25, 0.68)	0.48 (0.44, 0.53)
Invasive and In Situ	0.22 (0.19, 0.25)	0.55 (0.41, 0.89)	0.68 (0.63, 0.73)
Breast	5.12 (5.00, 5.25)	3.57 (3.22, 4.08)	4.77 (4.66, 4.89)
Invasive and In Situ	6.38 (6.24, 6.52)	4.09 (3.71, 4.61)	5.61 (5.50, 5.74)
Urinary Bladder(Invasive and In Situ)	1.37 (1.29, 1.46)	0.72 (0.55, 1.07)	1.49 (1.41, 1.57)
Kidney and Renal Pelvis	0.95 (0.89, 1.02)	1.68 (1.44, 2.09)	1.55 (1.49, 1.62)
Brain and Other Nervous System	0.40 (0.36, 0.45)	0.34 (0.25, 0.65)	0.53 (0.49, 0.57)
Thyroid	0.98 (0.93, 1.03)	0.45 (0.35, 0.76)	0.81 (0.77, 0.86)
Hodgkin Lymphoma	0.12 (0.10, 0.15)	0.07 (0.04, 0.39)	0.23 (0.21, 0.26)
Non-Hodgkin Lymphoma	1.68 (1.60, 1.78)	1.22 (1.00, 1.62)	1.99 (1.91, 2.07)
Myeloma	0.49 (0.44, 0.55)	0.50 (0.30, 0.90)	0.64 (0.59, 0.69)
Leukemia	0.84 (0.78, 0.91)	0.59 (0.46, 0.92)	1.02 (0.97, 1.08)
Acute Lymphocytic Leukemia	0.11 (0.09, 0.14)	0.07 (0.04, 0.38)	0.19 (0.17, 0.21)
Chronic Lymphocytic Leukemia	0.15 (0.12, 0.19)	0.12 (0.07, 0.44)	0.23 (0.20, 0.27)
Acute Myeloid Leukemia	0.38 (0.34, 0.43)	0.23 (0.15, 0.54)	0.32 (0.29, 0.35)
Chronic Myeloid Leukemia	0.10 (0.09, 0.13)	0.10 (0.05, 0.42)	0.14 (0.12, 0.17)
Kaposi Sarcoma	0.02 (0.01, 0.04)	0.03 (0.01, 0.35)	0.09 (0.07, 0.11)
Mesothelioma	0.05 (0.04, 0.07)	0.07 (0.03, 0.38)	0.12 (0.10, 0.15)

Devcan Version 6.5.0, April 2010, National Cancer Institute (http://srab.cancer.gov/devcan/).
Source: SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey).
Note: Invasive cancer only unless specified otherwise.
[a] Underlying incidence data for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.
[b] Hispanic is not mutually exclusive from whites, blacks, Asian Pacific Islanders, and American Indians/Alaska Natives. Underlying incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.
A percent or confidence interval value of 0.00 represents a value that is below 0.005.

Table 1.15

Lifetime Risk (Percent) of Being Diagnosed with Cancer by Site and Race/Ethnicity

Males, 17 SEER Areas, 2005-2007

Site	All Races Percent (95% C.I.)	Whites Percent (95% C.I.)	Blacks Percent (95% C.I.)
All Sites	44.29 (44.15, 44.44)	44.35 (44.19, 44.51)	40.35 (39.91, 40.80)
Invasive and In Situ	46.23 (46.08, 46.38)	46.36 (46.19, 46.52)	41.02 (40.57, 41.48)
Oral Cavity and Pharynx	1.41 (1.39, 1.43)	1.45 (1.43, 1.48)	1.12 (1.05, 1.19)
Esophagus	0.78 (0.77, 0.80)	0.82 (0.80, 0.84)	0.68 (0.62, 0.74)
Stomach	1.10 (1.08, 1.13)	0.98 (0.95, 1.00)	1.30 (1.22, 1.39)
Colon and Rectum	5.30 (5.25, 5.35)	5.30 (5.25, 5.35)	4.91 (4.76, 5.07)
Invasive and In Situ	5.58 (5.53, 5.63)	5.57 (5.52, 5.63)	5.21 (5.05, 5.37)
Liver and Intrahepatic Bile Duct	1.06 (1.04, 1.08)	0.92 (0.90, 0.94)	1.11 (1.04, 1.18)
Pancreas	1.41 (1.38, 1.43)	1.42 (1.39, 1.45)	1.33 (1.25, 1.42)
Larynx	0.60 (0.59, 0.62)	0.61 (0.59, 0.63)	0.77 (0.72, 0.83)
Invasive and In Situ	0.65 (0.63, 0.67)	0.66 (0.64, 0.68)	0.81 (0.75, 0.87)
Lung and Bronchus	7.67 (7.61, 7.73)	7.76 (7.69, 7.82)	7.65 (7.46, 7.85)
Melanoma of the Skin	2.36 (2.33, 2.40)	2.73 (2.70, 2.77)	0.08 (0.06, 0.11)
Invasive and In Situ	3.78 (3.74, 3.82)	4.30 (4.26, 4.35)	0.10 (0.08, 0.13)
Breast	0.13 (0.12, 0.13)	0.13 (0.12, 0.14)	0.13 (0.11, 0.17)
Invasive and In Situ	0.14 (0.13, 0.15)	0.14 (0.13, 0.15)	0.15 (0.12, 0.18)
Prostate	16.22 (16.13, 16.30)	15.67 (15.58, 15.76)	18.52 (18.23, 18.82)
Testis	0.37 (0.36, 0.38)	0.44 (0.42, 0.45)	0.08 (0.07, 0.10)
Urinary Bladder(Invasive and In Situ)	3.80 (3.76, 3.85)	4.13 (4.08, 4.18)	1.59 (1.51, 1.69)
Kidney and Renal Pelvis	1.88 (1.85, 1.90)	1.95 (1.92, 1.98)	1.64 (1.56, 1.73)
Brain and Other Nervous System	0.68 (0.66, 0.69)	0.74 (0.73, 0.76)	0.34 (0.31, 0.38)
Thyroid	0.46 (0.45, 0.48)	0.49 (0.48, 0.51)	0.24 (0.21, 0.28)
Hodgkin Lymphoma	0.26 (0.25, 0.27)	0.27 (0.26, 0.28)	0.22 (0.20, 0.25)
Non-Hodgkin Lymphoma	2.30 (2.27, 2.33)	2.43 (2.39, 2.46)	1.25 (1.18, 1.33)
Myeloma	0.73 (0.71, 0.75)	0.70 (0.68, 0.72)	1.09 (1.02, 1.16)
Leukemia	1.52 (1.50, 1.55)	1.62 (1.59, 1.65)	0.90 (0.84, 0.98)
Acute Lymphocytic Leukemia	0.14 (0.13, 0.14)	0.15 (0.14, 0.16)	0.08 (0.07, 0.10)
Chronic Lymphocytic Leukemia	0.59 (0.57, 0.60)	0.63 (0.61, 0.65)	0.33 (0.29, 0.38)
Acute Myeloid Leukemia	0.42 (0.41, 0.43)	0.44 (0.42, 0.46)	0.26 (0.23, 0.30)
Chronic Myeloid Leukemia	0.19 (0.18, 0.20)	0.19 (0.18, 0.21)	0.13 (0.11, 0.17)
Kaposi Sarcoma	0.08 (0.08, 0.09)	0.08 (0.07, 0.08)	0.15 (0.13, 0.18)
Mesothelioma	0.20 (0.19, 0.21)	0.22 (0.21, 0.24)	0.09 (0.07, 0.12)

Devcan Version 6.5.0, April 2010, National Cancer Institute (http://srab.cancer.gov/devcan/).
Source: SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey).
Note: Invasive cancer only unless specified otherwise.
A percent or confidence interval value of 0.00 represents a value that is below 0.005.

Table 1.15 - continued

Lifetime Risk (Percent) of Being Diagnosed with Cancer by Site and Race/Ethnicity

Males, 17 SEER Areas, 2005-2007

Site	Asian/Pacific Islanders Percent (95% C.I.)	American Indian/ Alaska Natives[a] Percent (95% C.I.)	Hispanics[b] Percent (95% C.I.)
All Sites	37.80 (37.23, 38.39)	27.25 (25.55, 29.33)	38.77 (38.24, 39.32)
Invasive and In Situ	38.72 (38.14, 39.31)	28.21 (26.41, 30.39)	39.64 (39.10, 40.20)
Oral Cavity and Pharynx	1.11 (1.02, 1.21)	0.77 (0.57, 1.63)	0.89 (0.82, 0.98)
Esophagus	0.50 (0.44, 0.58)	0.53 (0.34, 1.41)	0.56 (0.50, 0.64)
Stomach	2.32 (2.18, 2.48)	1.62 (1.07, 2.74)	1.68 (1.56, 1.81)
Colon and Rectum	5.41 (5.20, 5.64)	3.78 (3.24, 4.81)	4.96 (4.76, 5.18)
Invasive and In Situ	5.63 (5.41, 5.86)	4.00 (3.45, 5.04)	5.17 (4.97, 5.39)
Liver and Intrahepatic Bile Duct	2.47 (2.35, 2.61)	1.15 (0.87, 2.03)	1.71 (1.62, 1.83)
Pancreas	1.49 (1.36, 1.63)	1.10 (0.76, 2.04)	1.34 (1.24, 1.46)
Larynx	0.28 (0.23, 0.34)	0.21 (0.10, 1.09)	0.50 (0.46, 0.58)
Invasive and In Situ	0.30 (0.26, 0.37)	0.21 (0.10, 1.10)	0.54 (0.49, 0.62)
Lung and Bronchus	6.92 (6.67, 7.19)	5.01 (4.21, 6.28)	4.95 (4.75, 5.18)
Melanoma of the Skin	0.18 (0.14, 0.23)	0.34 (0.19, 1.22)	0.48 (0.42, 0.57)
Invasive and In Situ	0.22 (0.18, 0.28)	0.62 (0.39, 1.51)	0.71 (0.63, 0.82)
Breast	0.06 (0.05, 0.11)	0.09 (0.03, 1.00)	0.08 (0.06, 0.14)
Invasive and In Situ	0.08 (0.06, 0.12)	0.09 (0.03, 1.00)	0.09 (0.07, 0.15)
Prostate	11.58 (11.27, 11.90)	7.51 (6.68, 8.78)	14.27 (13.97, 14.58)
Testis	0.14 (0.12, 0.18)	0.29 (0.21, 1.14)	0.29 (0.27, 0.34)
Urinary Bladder(Invasive and In Situ)	2.22 (2.07, 2.38)	1.03 (0.76, 1.92)	2.35 (2.21, 2.52)
Kidney and Renal Pelvis	1.20 (1.11, 1.31)	1.86 (1.51, 2.78)	1.88 (1.78, 1.99)
Brain and Other Nervous System	0.43 (0.38, 0.51)	0.32 (0.21, 1.19)	0.55 (0.51, 0.63)
Thyroid	0.46 (0.41, 0.53)	0.24 (0.12, 1.13)	0.37 (0.33, 0.44)
Hodgkin Lymphoma	0.14 (0.12, 0.19)	0.05 (0.02, 0.96)	0.24 (0.22, 0.30)
Non-Hodgkin Lymphoma	1.97 (1.84, 2.12)	1.35 (1.02, 2.26)	2.03 (1.91, 2.16)
Myeloma	0.57 (0.50, 0.67)	0.68 (0.25, 1.79)	0.69 (0.62, 0.78)
Leukemia	0.95 (0.86, 1.06)	0.66 (0.47, 1.53)	1.17 (1.09, 1.29)
Acute Lymphocytic Leukemia	0.12 (0.10, 0.17)	0.11 (0.05, 1.00)	0.19 (0.17, 0.24)
Chronic Lymphocytic Leukemia	0.18 (0.13, 0.25)	0.18 (0.08, 1.07)	0.29 (0.24, 0.38)
Acute Myeloid Leukemia	0.40 (0.35, 0.48)	0.15 (0.06, 1.04)	0.34 (0.30, 0.40)
Chronic Myeloid Leukemia	0.13 (0.10, 0.18)	0.13 (0.04, 1.03)	0.18 (0.15, 0.24)
Kaposi Sarcoma	0.04 (0.03, 0.08)	0.04 (0.01, 0.95)	0.15 (0.12, 0.22)
Mesothelioma	0.08 (0.06, 0.14)	0.10 (0.03, 1.01)	0.18 (0.15, 0.24)

Devcan Version 6.5.0, April 2010, National Cancer Institute (http://srab.cancer.gov/devcan/).
Source: SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey).
Note: Invasive cancer only unless specified otherwise.
[a] Underlying incidence data for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.
[b] Hispanic is not mutually exclusive from whites, blacks, Asian Pacific Islanders, and American Indians/Alaska Natives. Underlying incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.
A percent or confidence interval value of 0.00 represents a value that is below 0.005.

Table 1.16

Lifetime Risk (Percent) of Being Diagnosed with Cancer by Site and Race/Ethnicity

Females, 17 SEER Areas, 2005-2007

Site	All Races	Whites	Blacks
	Percent (95% C.I.)	Percent (95% C.I.)	Percent (95% C.I.)
All Sites	37.76 (37.64, 37.88)	38.59 (38.45, 38.73)	33.01 (32.64, 33.39)
Invasive and In Situ	41.51 (41.38, 41.64)	42.41 (42.27, 42.56)	35.65 (35.26, 36.04)
Oral Cavity and Pharynx	0.66 (0.64, 0.68)	0.67 (0.65, 0.69)	0.50 (0.45, 0.54)
Esophagus	0.24 (0.23, 0.25)	0.24 (0.23, 0.25)	0.28 (0.24, 0.31)
Stomach	0.67 (0.66, 0.69)	0.57 (0.55, 0.59)	0.96 (0.89, 1.03)
Colon and Rectum	4.97 (4.92, 5.01)	4.90 (4.85, 4.95)	5.19 (5.04, 5.34)
Invasive and In Situ	5.18 (5.13, 5.22)	5.09 (5.04, 5.15)	5.47 (5.32, 5.63)
Liver and Intrahepatic Bile Duct	0.47 (0.46, 0.49)	0.40 (0.39, 0.41)	0.45 (0.41, 0.50)
Pancreas	1.41 (1.39, 1.44)	1.39 (1.36, 1.42)	1.64 (1.56, 1.73)
Larynx	0.14 (0.13, 0.15)	0.14 (0.14, 0.15)	0.18 (0.15, 0.21)
Invasive and In Situ	0.15 (0.14, 0.16)	0.16 (0.15, 0.16)	0.19 (0.16, 0.22)
Lung and Bronchus	6.35 (6.30, 6.40)	6.66 (6.60, 6.71)	5.55 (5.40, 5.71)
Melanoma of the Skin	1.56 (1.54, 1.58)	1.82 (1.80, 1.85)	0.09 (0.07, 0.11)
Invasive and In Situ	2.52 (2.49, 2.55)	2.91 (2.87, 2.94)	0.10 (0.08, 0.13)
Breast	12.15 (12.08, 12.21)	12.57 (12.50, 12.65)	10.21 (10.01, 10.40)
Invasive and In Situ	14.57 (14.50, 14.64)	15.02 (14.94, 15.11)	12.32 (12.11, 12.53)
Cervix Uteri	0.68 (0.67, 0.69)	0.66 (0.64, 0.68)	0.79 (0.74, 0.84)
Corpus and Uterus, NOS	2.58 (2.55, 2.61)	2.69 (2.66, 2.73)	2.06 (1.97, 2.15)
Invasive and In Situ	2.60 (2.57, 2.63)	2.72 (2.68, 2.75)	2.09 (2.00, 2.18)
Ovary[a]	1.39 (1.37, 1.42)	1.47 (1.45, 1.50)	0.96 (0.90, 1.03)
Urinary Bladder(Invasive and In Situ)	1.16 (1.13, 1.18)	1.22 (1.20, 1.25)	0.82 (0.75, 0.88)
Kidney and Renal Pelvis	1.13 (1.11, 1.16)	1.17 (1.15, 1.20)	1.07 (1.01, 1.14)
Brain and Other Nervous System	0.54 (0.52, 0.55)	0.59 (0.57, 0.60)	0.30 (0.27, 0.33)
Thyroid	1.34 (1.32, 1.36)	1.40 (1.38, 1.42)	0.77 (0.72, 0.82)
Hodgkin Lymphoma	0.21 (0.20, 0.22)	0.23 (0.22, 0.24)	0.18 (0.16, 0.21)
Non-Hodgkin Lymphoma	1.92 (1.89, 1.95)	2.02 (1.99, 2.06)	1.16 (1.09, 1.23)
Myeloma	0.56 (0.54, 0.57)	0.51 (0.49, 0.53)	1.02 (0.95, 1.08)
Leukemia	1.10 (1.07, 1.12)	1.15 (1.12, 1.17)	0.76 (0.70, 0.82)
Acute Lymphocytic Leukemia	0.11 (0.11, 0.12)	0.12 (0.12, 0.13)	0.06 (0.04, 0.07)
Chronic Lymphocytic Leukemia	0.38 (0.37, 0.39)	0.41 (0.39, 0.42)	0.21 (0.18, 0.24)
Acute Myeloid Leukemia	0.34 (0.33, 0.35)	0.35 (0.33, 0.36)	0.27 (0.24, 0.31)
Chronic Myeloid Leukemia	0.13 (0.12, 0.14)	0.13 (0.13, 0.14)	0.12 (0.10, 0.14)
Kaposi Sarcoma	0.01 (0.01, 0.02)	0.01 (0.01, 0.01)	0.02 (0.01, 0.03)
Mesothelioma	0.06 (0.05, 0.06)	0.06 (0.06, 0.07)	0.03 (0.02, 0.05)

Devcan Version 6.5.0, April 2010, National Cancer Institute (http://srab.cancer.gov/devcan/).
Source: SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey).
Note: Invasive cancer only unless specified otherwise.
[a] Ovary excludes borderline cases or histologies 8442, 8451, 8462, 8472, and 8473.
A percent or confidence interval value of 0.00 represents a value that is below 0.005.

Table 1.16 - continued

Lifetime Risk (Percent) of Being Diagnosed with Cancer by Site and Race/Ethnicity

Females, 17 SEER Areas, 2005-2007

Site	Asian/Pacific Islanders Percent (95% C.I.)	American Indian/ Alaska Natives[a] Percent (95% C.I.)	Hispanics[b] Percent (95% C.I.)
All Sites	32.78 (32.27, 33.31)	28.41 (26.77, 30.27)	33.19 (32.74, 33.65)
Invasive and In Situ	35.66 (35.13, 36.21)	29.93 (28.24, 31.85)	35.62 (35.17, 36.09)
Oral Cavity and Pharynx	0.63 (0.56, 0.71)	0.55 (0.36, 1.10)	0.47 (0.42, 0.53)
Esophagus	0.20 (0.15, 0.28)	0.39 (0.22, 0.95)	0.15 (0.12, 0.19)
Stomach	1.55 (1.43, 1.69)	0.86 (0.61, 1.44)	1.22 (1.13, 1.32)
Colon and Rectum	5.05 (4.84, 5.28)	4.47 (3.80, 5.40)	4.32 (4.14, 4.51)
Invasive and In Situ	5.22 (5.01, 5.46)	4.66 (3.98, 5.60)	4.49 (4.31, 4.68)
Liver and Intrahepatic Bile Duct	1.34 (1.23, 1.48)	0.86 (0.61, 1.44)	0.93 (0.84, 1.02)
Pancreas	1.47 (1.35, 1.62)	1.30 (0.98, 1.95)	1.64 (1.52, 1.77)
Larynx	0.03 (0.02, 0.08)	0.14 (0.06, 0.67)	0.06 (0.05, 0.10)
Invasive and In Situ	0.04 (0.02, 0.08)	0.14 (0.06, 0.67)	0.07 (0.05, 0.10)
Lung and Bronchus	4.40 (4.19, 4.62)	4.54 (3.87, 5.47)	3.47 (3.32, 3.63)
Melanoma of the Skin	0.14 (0.12, 0.20)	0.38 (0.24, 0.91)	0.49 (0.44, 0.56)
Invasive and In Situ	0.21 (0.17, 0.28)	0.50 (0.33, 1.04)	0.68 (0.62, 0.75)
Breast	9.58 (9.35, 9.82)	6.94 (6.26, 7.87)	9.15 (8.95, 9.37)
Invasive and In Situ	11.93 (11.68, 12.20)	7.96 (7.24, 8.93)	10.81 (10.60, 11.03)
Cervix Uteri	0.75 (0.69, 0.84)	0.66 (0.49, 1.20)	1.10 (1.03, 1.17)
Corpus and Uterus, NOS	1.92 (1.82, 2.04)	1.87 (1.45, 2.59)	1.98 (1.89, 2.08)
Invasive and In Situ	1.93 (1.83, 2.05)	1.87 (1.45, 2.60)	2.00 (1.91, 2.11)
Ovary[c]	1.14 (1.05, 1.24)	1.23 (0.93, 1.85)	1.30 (1.22, 1.40)
Urinary Bladder(Invasive and In Situ)	0.64 (0.57, 0.73)	0.41 (0.24, 0.96)	0.76 (0.69, 0.85)
Kidney and Renal Pelvis	0.73 (0.66, 0.82)	1.50 (1.17, 2.13)	1.25 (1.17, 1.34)
Brain and Other Nervous System	0.37 (0.32, 0.45)	0.36 (0.23, 0.89)	0.50 (0.46, 0.56)
Thyroid	1.45 (1.38, 1.54)	0.66 (0.51, 1.18)	1.26 (1.20, 1.34)
Hodgkin Lymphoma	0.10 (0.08, 0.15)	0.10 (0.04, 0.63)	0.21 (0.18, 0.26)
Non-Hodgkin Lymphoma	1.44 (1.33, 1.56)	1.11 (0.82, 1.73)	1.95 (1.84, 2.07)
Myeloma	0.41 (0.36, 0.49)	0.40 (0.25, 0.94)	0.59 (0.54, 0.66)
Leukemia	0.75 (0.67, 0.85)	0.52 (0.35, 1.06)	0.89 (0.83, 0.97)
Acute Lymphocytic Leukemia	0.10 (0.08, 0.15)	0.04 (0.02, 0.58)	0.18 (0.17, 0.22)
Chronic Lymphocytic Leukemia	0.12 (0.08, 0.19)	0.07 (0.02, 0.61)	0.19 (0.16, 0.24)
Acute Myeloid Leukemia	0.36 (0.31, 0.44)	0.30 (0.17, 0.84)	0.30 (0.26, 0.35)
Chronic Myeloid Leukemia	0.08 (0.06, 0.13)	0.07 (0.02, 0.61)	0.11 (0.09, 0.14)
Kaposi Sarcoma	0.00 (0.00, 0.05)	0.02 (0.00, 0.57)	0.03 (0.01, 0.06)
Mesothelioma	0.02 (0.01, 0.06)	0.04 (0.01, 0.58)	0.07 (0.05, 0.11)

Devcan Version 6.5.0, April 2010, National Cancer Institute (http://srab.cancer.gov/devcan/).

Source: SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey).

Note: Invasive cancer only unless specified otherwise.

[a] Underlying incidence data for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.

[b] Hispanic is not mutually exclusive from whites, blacks, Asian Pacific Islanders, and American Indians/Alaska Natives. Underlying incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.

[c] Ovary excludes borderline cases or histologies 8442, 8451, 8462, 8472, and 8473.

A percent or confidence interval value of 0.00 represents a value that is below 0.005.

Table 1.17

Lifetime Risk (Percent) of Dying from Cancer by Site and Race/Ethnicity

Both Sexes, Total U.S., 2005-2007

Site	All Races	Whites	Blacks
	Percent (95% C.I.)	Percent (95% C.I.)	Percent (95% C.I.)
All Sites	21.15 (21.12, 21.18)	21.33 (21.30, 21.36)	21.10 (21.01, 21.19)
Oral Cavity and Pharynx	0.28 (0.27, 0.28)	0.27 (0.27, 0.28)	0.31 (0.29, 0.32)
Esophagus	0.49 (0.48, 0.49)	0.50 (0.50, 0.51)	0.45 (0.44, 0.46)
Stomach	0.43 (0.43, 0.44)	0.38 (0.38, 0.39)	0.68 (0.67, 0.70)
Colon and Rectum	2.08 (2.07, 2.09)	2.05 (2.04, 2.06)	2.38 (2.35, 2.42)
Liver and Intrahepatic Bile Duct	0.59 (0.58, 0.59)	0.55 (0.55, 0.56)	0.64 (0.63, 0.66)
Pancreas	1.27 (1.26, 1.28)	1.27 (1.26, 1.28)	1.35 (1.32, 1.37)
Larynx	0.13 (0.13, 0.14)	0.13 (0.13, 0.13)	0.20 (0.19, 0.21)
Lung and Bronchus	5.93 (5.91, 5.95)	6.08 (6.06, 6.10)	5.41 (5.36, 5.46)
Melanoma of the Skin	0.30 (0.29, 0.30)	0.34 (0.33, 0.34)	0.04 (0.04, 0.05)
Breast	1.48 (1.48, 1.49)	1.47 (1.46, 1.48)	1.74 (1.71, 1.77)
Urinary Bladder	0.56 (0.56, 0.57)	0.59 (0.59, 0.60)	0.39 (0.38, 0.41)
Kidney and Renal Pelvis	0.47 (0.46, 0.47)	0.48 (0.48, 0.49)	0.38 (0.37, 0.40)
Brain and Other Nervous System	0.43 (0.43, 0.44)	0.47 (0.47, 0.48)	0.21 (0.20, 0.22)
Thyroid	0.06 (0.06, 0.06)	0.06 (0.06, 0.06)	0.05 (0.04, 0.06)
Hodgkin Lymphoma	0.04 (0.04, 0.04)	0.04 (0.04, 0.05)	0.03 (0.03, 0.04)
Non-Hodgkin Lymphoma	0.80 (0.79, 0.81)	0.85 (0.84, 0.86)	0.44 (0.42, 0.45)
Myeloma	0.42 (0.41, 0.42)	0.39 (0.39, 0.40)	0.63 (0.62, 0.65)
Leukemia	0.84 (0.83, 0.85)	0.88 (0.87, 0.89)	0.59 (0.57, 0.60)
Acute Lymphocytic Leukemia	0.04 (0.04, 0.04)	0.05 (0.04, 0.05)	0.03 (0.02, 0.03)
Chronic Lymphocytic Leukemia	0.19 (0.19, 0.19)	0.20 (0.20, 0.20)	0.14 (0.13, 0.15)
Acute Myeloid Leukemia	0.31 (0.31, 0.31)	0.33 (0.32, 0.33)	0.20 (0.19, 0.21)
Chronic Myeloid Leukemia	0.04 (0.04, 0.04)	0.04 (0.04, 0.04)	0.04 (0.03, 0.04)

Devcan Version 6.5.0, April 2010, National Cancer Institute (http://srab.cancer.gov/devcan/).
Source: NCHS public use data file for the total US.
A percent or confidence interval value of 0.00 represents a value that is below 0.005.

Table 1.17 - continued

Lifetime Risk (Percent) of Dying from Cancer by Site and Race/Ethnicity

Both Sexes, Total U.S., 2005-2007

Site	Asian/Pacific Islanders Percent (95% C.I.)	American Indian/ Alaska Natives[a] Percent (95% C.I.)	Hispanics[b] Percent (95% C.I.)
All Sites	18.24 (17.98, 18.51)	16.55 (16.04, 17.09)	17.15 (16.99, 17.30)
Oral Cavity and Pharynx	0.30 (0.27, 0.34)	0.25 (0.20, 0.36)	0.20 (0.18, 0.22)
Esophagus	0.31 (0.27, 0.35)	0.39 (0.31, 0.51)	0.30 (0.28, 0.32)
Stomach	1.16 (1.10, 1.24)	0.65 (0.53, 0.81)	0.81 (0.77, 0.85)
Colon and Rectum	2.04 (1.94, 2.14)	1.59 (1.43, 1.80)	1.91 (1.85, 1.97)
Liver and Intrahepatic Bile Duct	1.44 (1.38, 1.52)	0.86 (0.76, 1.01)	1.07 (1.03, 1.11)
Pancreas	1.32 (1.24, 1.41)	1.00 (0.88, 1.17)	1.21 (1.17, 1.26)
Larynx	0.07 (0.05, 0.09)	0.10 (0.07, 0.19)	0.12 (0.10, 0.13)
Lung and Bronchus	4.27 (4.14, 4.40)	4.02 (3.79, 4.29)	3.05 (2.98, 3.11)
Melanoma of the Skin	0.07 (0.05, 0.09)	0.13 (0.09, 0.22)	0.11 (0.10, 0.13)
Breast	0.93 (0.87, 0.99)	1.04 (0.90, 1.22)	1.08 (1.04, 1.12)
Urinary Bladder	0.35 (0.30, 0.40)	0.20 (0.15, 0.31)	0.38 (0.35, 0.41)
Kidney and Renal Pelvis	0.34 (0.30, 0.38)	0.60 (0.51, 0.74)	0.48 (0.46, 0.51)
Brain and Other Nervous System	0.26 (0.22, 0.30)	0.20 (0.15, 0.30)	0.33 (0.31, 0.35)
Thyroid	0.12 (0.10, 0.14)	0.04 (0.02, 0.13)	0.09 (0.08, 0.11)
Hodgkin Lymphoma	0.03 (0.02, 0.05)	0.02 (0.01, 0.10)	0.05 (0.05, 0.07)
Non-Hodgkin Lymphoma	0.67 (0.62, 0.72)	0.51 (0.42, 0.65)	0.73 (0.70, 0.76)
Myeloma	0.28 (0.25, 0.31)	0.31 (0.25, 0.42)	0.39 (0.37, 0.41)
Leukemia	0.60 (0.55, 0.65)	0.51 (0.41, 0.65)	0.62 (0.59, 0.65)
Acute Lymphocytic Leukemia	0.03 (0.03, 0.05)	0.04 (0.02, 0.12)	0.07 (0.06, 0.08)
Chronic Lymphocytic Leukemia	0.06 (0.04, 0.09)	0.12 (0.06, 0.24)	0.08 (0.07, 0.10)
Acute Myeloid Leukemia	0.28 (0.25, 0.32)	0.16 (0.12, 0.26)	0.22 (0.21, 0.24)
Chronic Myeloid Leukemia	0.03 (0.02, 0.05)	0.04 (0.02, 0.12)	0.03 (0.03, 0.04)

Devcan Version 6.5.0, April 2010, National Cancer Institute (http://srab.cancer.gov/devcan/).
Source: NCHS public use data file for the total US.
[a] Underlying mortality data for American Indian/Alaska Native are based on the CHSDA (Contract Health Service Delivery Area) counties.
[b] Hispanic is not mutually exclusive from whites, blacks, Asian Pacific Islanders, and American Indians/Alaska Natives. Underlying mortality data for Hispanics exclude deaths from the District of Columbia, Minnesota, New Hampshire and North Dakota.
A percent or confidence interval value of 0.00 represents a value that is below 0.005.

Table 1.18

Lifetime Risk (Percent) of Dying from Cancer by Site and Race/Ethnicity

Males, Total U.S., 2005-2007

Site	All Races Percent (95% C.I.)	Whites Percent (95% C.I.)	Blacks Percent (95% C.I.)
All Sites	23.20 (23.15, 23.24)	23.32 (23.27, 23.37)	23.49 (23.34, 23.63)
Oral Cavity and Pharynx	0.38 (0.37, 0.38)	0.37 (0.36, 0.37)	0.47 (0.45, 0.49)
Esophagus	0.79 (0.78, 0.80)	0.81 (0.81, 0.82)	0.68 (0.66, 0.71)
Stomach	0.53 (0.52, 0.53)	0.47 (0.46, 0.48)	0.82 (0.79, 0.85)
Colon and Rectum	2.17 (2.15, 2.18)	2.14 (2.12, 2.16)	2.44 (2.39, 2.50)
Liver and Intrahepatic Bile Duct	0.77 (0.76, 0.77)	0.71 (0.71, 0.72)	0.89 (0.86, 0.92)
Pancreas	1.28 (1.27, 1.29)	1.29 (1.28, 1.31)	1.23 (1.20, 1.27)
Larynx	0.22 (0.22, 0.23)	0.21 (0.20, 0.21)	0.35 (0.33, 0.37)
Lung and Bronchus	6.95 (6.92, 6.98)	7.04 (7.02, 7.07)	6.83 (6.75, 6.91)
Melanoma of the Skin	0.40 (0.39, 0.41)	0.46 (0.45, 0.46)	0.04 (0.04, 0.05)
Breast	0.03 (0.03, 0.03)	0.03 (0.03, 0.03)	0.04 (0.03, 0.05)
Prostate	2.79 (2.77, 2.81)	2.62 (2.60, 2.64)	4.45 (4.37, 4.53)
Testis	0.02 (0.02, 0.02)	0.02 (0.02, 0.02)	0.01 (0.01, 0.01)
Urinary Bladder	0.85 (0.84, 0.86)	0.90 (0.89, 0.91)	0.47 (0.44, 0.50)
Kidney and Renal Pelvis	0.60 (0.59, 0.60)	0.62 (0.61, 0.62)	0.48 (0.46, 0.50)
Brain and Other Nervous System	0.48 (0.48, 0.49)	0.53 (0.52, 0.53)	0.23 (0.22, 0.25)
Thyroid	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	0.03 (0.02, 0.03)
Hodgkin Lymphoma	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	0.04 (0.03, 0.05)
Non-Hodgkin Lymphoma	0.88 (0.87, 0.89)	0.93 (0.92, 0.94)	0.47 (0.45, 0.50)
Myeloma	0.46 (0.46, 0.47)	0.45 (0.44, 0.45)	0.64 (0.62, 0.67)
Leukemia	1.00 (0.99, 1.01)	1.05 (1.04, 1.06)	0.66 (0.63, 0.69)
Acute Lymphocytic Leukemia	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	0.03 (0.03, 0.04)
Chronic Lymphocytic Leukemia	0.24 (0.23, 0.24)	0.25 (0.24, 0.26)	0.17 (0.16, 0.19)
Acute Myeloid Leukemia	0.36 (0.36, 0.37)	0.39 (0.38, 0.39)	0.20 (0.19, 0.22)
Chronic Myeloid Leukemia	0.04 (0.04, 0.05)	0.05 (0.04, 0.05)	0.04 (0.03, 0.05)

Source: Devcan Version 6.5.0, April 2010, National Cancer Institute (http://srab.cancer.gov/devcan/).
NCHS public use data file for the total US.
A percent or confidence interval value of 0.00 represents a value that is below 0.005.

Table 1.18 - continued

Lifetime Risk (Percent) of Dying from Cancer by Site and Race/Ethnicity

Males, Total U.S., 2005-2007

Site	Asian/Pacific Islanders Percent (95% C.I.)	American Indian/ Alaska Natives[a] Percent (95% C.I.)	Hispanics[b] Percent (95% C.I.)
All Sites	20.53 (20.13, 20.93)	17.58 (16.78, 18.47)	19.54 (19.29, 19.80)
Oral Cavity and Pharynx	0.39 (0.34, 0.46)	0.32 (0.23, 0.55)	0.28 (0.25, 0.31)
Esophagus	0.45 (0.40, 0.52)	0.54 (0.43, 0.79)	0.50 (0.46, 0.54)
Stomach	1.40 (1.29, 1.52)	0.92 (0.70, 1.26)	0.98 (0.92, 1.05)
Colon and Rectum	2.06 (1.92, 2.22)	1.77 (1.50, 2.15)	2.02 (1.93, 2.11)
Liver and Intrahepatic Bile Duct	1.81 (1.71, 1.91)	1.01 (0.85, 1.29)	1.35 (1.29, 1.42)
Pancreas	1.30 (1.19, 1.42)	1.00 (0.82, 1.30)	1.14 (1.08, 1.21)
Larynx	0.12 (0.10, 0.17)	0.18 (0.11, 0.42)	0.23 (0.20, 0.27)
Lung and Bronchus	5.50 (5.29, 5.72)	4.32 (3.96, 4.78)	4.07 (3.95, 4.18)
Melanoma of the Skin	0.07 (0.05, 0.12)	0.17 (0.10, 0.40)	0.13 (0.11, 0.17)
Breast	0.01 (0.01, 0.05)	0.03 (0.00, 0.27)	0.01 (0.01, 0.03)
Prostate	2.27 (2.09, 2.47)	2.29 (1.89, 2.80)	3.08 (2.95, 3.22)
Testis	0.01 (0.01, 0.05)	0.01 (0.00, 0.25)	0.02 (0.02, 0.04)
Urinary Bladder	0.47 (0.39, 0.56)	0.30 (0.21, 0.55)	0.58 (0.53, 0.64)
Kidney and Renal Pelvis	0.41 (0.35, 0.49)	0.80 (0.66, 1.08)	0.63 (0.59, 0.67)
Brain and Other Nervous System	0.29 (0.25, 0.36)	0.22 (0.15, 0.45)	0.34 (0.32, 0.38)
Thyroid	0.08 (0.06, 0.13)	0.04 (0.01, 0.27)	0.09 (0.07, 0.12)
Hodgkin Lymphoma	0.03 (0.02, 0.08)	0.03 (0.01, 0.26)	0.06 (0.05, 0.08)
Non-Hodgkin Lymphoma	0.79 (0.71, 0.88)	0.53 (0.37, 0.84)	0.79 (0.74, 0.84)
Myeloma	0.32 (0.28, 0.39)	0.35 (0.26, 0.59)	0.43 (0.39, 0.47)
Leukemia	0.75 (0.67, 0.85)	0.56 (0.40, 0.85)	0.73 (0.68, 0.79)
Acute Lymphocytic Leukemia	0.04 (0.03, 0.08)	0.04 (0.02, 0.27)	0.07 (0.06, 0.09)
Chronic Lymphocytic Leukemia	0.08 (0.05, 0.13)	0.16 (0.05, 0.44)	0.10 (0.08, 0.12)
Acute Myeloid Leukemia	0.36 (0.31, 0.43)	0.18 (0.12, 0.41)	0.27 (0.24, 0.31)
Chronic Myeloid Leukemia	0.04 (0.02, 0.09)	0.05 (0.02, 0.28)	0.04 (0.03, 0.06)

Devcan Version 6.5.0, April 2010, National Cancer Institute (http://srab.cancer.gov/devcan/).
Source: NCHS public use data file for the total US.
[a] Underlying mortality data for American Indian/Alaska Native are based on the CHSDA (Contract Health Service Delivery Area) counties.
[b] Hispanic is not mutually exclusive from whites, blacks, Asian Pacific Islanders, and American Indians/Alaska Natives. Underlying mortality data for Hispanics exclude deaths from the District of Columbia, Minnesota, New Hampshire and North Dakota.
A percent or confidence interval value of 0.00 represents a value that is below 0.005.

Table 1.19

Lifetime Risk (Percent) of Dying from Cancer by Site and Race/Ethnicity

Females, Total U.S., 2005-2007

Site	All Races	Whites	Blacks
	Percent (95% C.I.)	Percent (95% C.I.)	Percent (95% C.I.)
All Sites	19.58 (19.54, 19.62)	19.80 (19.76, 19.84)	19.26 (19.14, 19.38)
Oral Cavity and Pharynx	0.18 (0.18, 0.19)	0.18 (0.18, 0.19)	0.16 (0.15, 0.17)
Esophagus	0.21 (0.21, 0.22)	0.21 (0.21, 0.22)	0.24 (0.23, 0.26)
Stomach	0.35 (0.34, 0.35)	0.30 (0.30, 0.31)	0.56 (0.54, 0.59)
Colon and Rectum	2.01 (2.00, 2.02)	1.97 (1.96, 1.99)	2.34 (2.30, 2.39)
Liver and Intrahepatic Bile Duct	0.42 (0.41, 0.42)	0.40 (0.39, 0.40)	0.42 (0.40, 0.44)
Pancreas	1.26 (1.25, 1.28)	1.25 (1.24, 1.26)	1.44 (1.41, 1.48)
Larynx	0.06 (0.05, 0.06)	0.06 (0.05, 0.06)	0.07 (0.06, 0.08)
Lung and Bronchus	5.05 (5.03, 5.07)	5.24 (5.22, 5.27)	4.20 (4.14, 4.26)
Melanoma of the Skin	0.21 (0.20, 0.21)	0.23 (0.23, 0.24)	0.05 (0.04, 0.05)
Breast	2.81 (2.79, 2.83)	2.79 (2.78, 2.81)	3.23 (3.18, 3.28)
Cervix Uteri	0.24 (0.23, 0.24)	0.21 (0.21, 0.22)	0.41 (0.39, 0.42)
Corpus and Uterus, NOS	0.53 (0.52, 0.54)	0.50 (0.49, 0.51)	0.81 (0.78, 0.83)
Ovary	1.04 (1.03, 1.05)	1.09 (1.08, 1.10)	0.74 (0.71, 0.77)
Urinary Bladder	0.33 (0.33, 0.34)	0.33 (0.33, 0.34)	0.34 (0.32, 0.36)
Kidney and Renal Pelvis	0.35 (0.34, 0.36)	0.36 (0.35, 0.37)	0.30 (0.28, 0.31)
Brain and Other Nervous System	0.38 (0.38, 0.39)	0.42 (0.41, 0.42)	0.20 (0.19, 0.21)
Thyroid	0.07 (0.06, 0.07)	0.06 (0.06, 0.07)	0.07 (0.06, 0.08)
Hodgkin Lymphoma	0.04 (0.04, 0.04)	0.04 (0.04, 0.04)	0.03 (0.02, 0.03)
Non-Hodgkin Lymphoma	0.73 (0.72, 0.74)	0.78 (0.77, 0.78)	0.41 (0.39, 0.43)
Myeloma	0.38 (0.37, 0.39)	0.35 (0.35, 0.36)	0.63 (0.61, 0.66)
Leukemia	0.71 (0.70, 0.72)	0.74 (0.73, 0.75)	0.53 (0.51, 0.55)
Acute Lymphocytic Leukemia	0.04 (0.04, 0.04)	0.04 (0.04, 0.04)	0.02 (0.02, 0.03)
Chronic Lymphocytic Leukemia	0.15 (0.15, 0.16)	0.16 (0.15, 0.16)	0.11 (0.10, 0.12)
Acute Myeloid Leukemia	0.26 (0.26, 0.27)	0.27 (0.27, 0.28)	0.19 (0.18, 0.21)
Chronic Myeloid Leukemia	0.04 (0.03, 0.04)	0.04 (0.03, 0.04)	0.03 (0.03, 0.04)

Devcan Version 6.5.0, April 2010, National Cancer Institute (http://srab.cancer.gov/devcan/).
Source: NCHS public use data file for the total US.
A percent or confidence interval value of 0.00 represents a value that is below 0.005.

Table 1.19 - continued

Lifetime Risk (Percent) of Dying from Cancer by Site and Race/Ethnicity

Females, Total U.S., 2005-2007

Site	Asian/Pacific Islanders Percent (95% C.I.)	American Indian/ Alaska Natives[a] Percent (95% C.I.)	Hispanics[b] Percent (95% C.I.)
All Sites	16.36 (16.02, 16.73)	15.89 (15.22, 16.63)	15.43 (15.23, 15.62)
Oral Cavity and Pharynx	0.22 (0.18, 0.28)	0.19 (0.12, 0.35)	0.13 (0.11, 0.15)
Esophagus	0.19 (0.15, 0.26)	0.23 (0.14, 0.43)	0.13 (0.11, 0.15)
Stomach	0.97 (0.89, 1.07)	0.43 (0.31, 0.63)	0.67 (0.63, 0.72)
Colon and Rectum	2.01 (1.87, 2.17)	1.47 (1.26, 1.74)	1.82 (1.75, 1.91)
Liver and Intrahepatic Bile Duct	1.13 (1.04, 1.25)	0.72 (0.59, 0.94)	0.82 (0.78, 0.87)
Pancreas	1.34 (1.23, 1.47)	1.02 (0.84, 1.28)	1.27 (1.21, 1.34)
Larynx	0.02 (0.01, 0.05)	0.02 (0.00, 0.17)	0.02 (0.02, 0.04)
Lung and Bronchus	3.25 (3.10, 3.42)	3.78 (3.46, 4.16)	2.21 (2.14, 2.29)
Melanoma of the Skin	0.06 (0.04, 0.10)	0.10 (0.05, 0.25)	0.09 (0.07, 0.11)
Breast	1.71 (1.60, 1.84)	1.98 (1.72, 2.30)	2.03 (1.96, 2.10)
Cervix Uteri	0.25 (0.22, 0.30)	0.28 (0.21, 0.45)	0.34 (0.32, 0.37)
Corpus and Uterus, NOS	0.36 (0.32, 0.43)	0.44 (0.30, 0.66)	0.44 (0.41, 0.48)
Ovary	0.72 (0.66, 0.80)	0.80 (0.64, 1.03)	0.84 (0.80, 0.89)
Urinary Bladder	0.25 (0.20, 0.32)	0.11 (0.06, 0.27)	0.22 (0.19, 0.25)
Kidney and Renal Pelvis	0.27 (0.22, 0.34)	0.42 (0.30, 0.62)	0.36 (0.33, 0.39)
Brain and Other Nervous System	0.23 (0.18, 0.29)	0.18 (0.12, 0.34)	0.31 (0.29, 0.34)
Thyroid	0.14 (0.11, 0.19)	0.04 (0.01, 0.19)	0.10 (0.09, 0.13)
Hodgkin Lymphoma	0.02 (0.01, 0.06)	0.01 (0.00, 0.16)	0.05 (0.04, 0.07)
Non-Hodgkin Lymphoma	0.57 (0.51, 0.64)	0.52 (0.40, 0.71)	0.68 (0.64, 0.73)
Myeloma	0.24 (0.21, 0.29)	0.27 (0.20, 0.44)	0.36 (0.33, 0.39)
Leukemia	0.47 (0.41, 0.54)	0.45 (0.32, 0.66)	0.54 (0.50, 0.58)
Acute Lymphocytic Leukemia	0.03 (0.02, 0.06)	0.03 (0.01, 0.18)	0.06 (0.06, 0.08)
Chronic Lymphocytic Leukemia	0.05 (0.02, 0.09)	0.09 (0.02, 0.28)	0.07 (0.06, 0.10)
Acute Myeloid Leukemia	0.21 (0.18, 0.26)	0.14 (0.08, 0.29)	0.18 (0.16, 0.21)
Chronic Myeloid Leukemia	0.02 (0.01, 0.06)	0.02 (0.01, 0.17)	0.03 (0.02, 0.04)

Devcan Version 6.5.0, April 2010, National Cancer Institute (http://srab.cancer.gov/devcan/).
Source: NCHS public use data file for the total US.
[a] Underlying mortality data for American Indian/Alaska Native are based on the CHSDA (Contract Health Service Delivery Area) counties.
[b] Hispanic is not mutually exclusive from whites, blacks, Asian Pacific Islanders, and American Indians/Alaska Natives. Underlying mortality data for Hispanics exclude deaths from the District of Columbia, Minnesota, New Hampshire and North Dakota.
A percent or confidence interval value of 0.00 represents a value that is below 0.005.

Table 1.20
U.S. and SEER Death Rates by Primary Cancer Site and Race/Ethnicity, 2003-2007

		Total United States[a]							SEER 17 Areas[ab]						
Site		Total	White	Black	AI/AN[c]	API[d]	Hisp[e]	W-NHisp[e]	Total	White	Black	AI/AN[c]	API[d]	Hisp[e]	W-NHisp[e]
All Sites	Both Sexes	183.8	182.4	224.2	156.7	110.8	122.1	186.7	177.1	178.5	225.1	139.4	118.9	123.4	185.1
	Male	225.4	222.5	296.5	183.7	134.2	150.5	227.5	213.9	214.5	289.4	159.0	145.2	149.5	222.1
	Female	155.4	155.0	180.6	138.0	94.1	102.3	158.8	152.4	154.4	185.5	125.0	100.2	105.5	160.3
Oral Cavity & Pharynx	Both Sexes	2.5	2.4	3.6	2.4	2.1	1.5	2.5	2.6	2.5	3.5	2.6	2.3	1.5	2.6
	Male	3.9	3.7	6.3	3.5	3.1	2.5	3.8	3.9	3.7	6.1	3.2	3.3	2.3	3.9
	Female	1.4	1.4	1.5	1.6	1.2	0.8	1.5	1.5	1.5	1.7	2.1	1.4	0.8	1.6
Esophagus	Both Sexes	4.4	4.4	5.1	3.8	1.9	2.2	4.6	4.0	4.2	4.6	3.5	1.9	2.2	4.4
	Male	7.8	7.9	8.9	6.4	3.2	4.0	8.2	7.0	7.3	8.0	5.4	3.3	3.9	7.8
	Female	1.7	1.6	2.5	1.7	0.8	0.8	1.7	1.6	1.6	2.2	2.1	0.9	0.8	1.7
Stomach	Both Sexes	3.8	3.3	7.3	6.3	7.2	6.0	3.1	4.4	3.7	7.5	6.8	7.5	6.6	3.3
	Male	5.3	4.6	10.7	9.2	9.4	8.0	4.3	6.0	5.1	10.9	10.6	10.0	8.8	4.6
	Female	2.7	2.4	5.0	4.2	5.6	4.6	2.1	3.2	2.7	5.3	4.0	5.7	5.1	2.3
Colon & Rectum	Both Sexes	17.6	17.1	24.7	15.5	11.3	12.7	17.4	17.0	16.8	24.9	15.7	12.3	12.4	17.2
	Male	21.2	20.6	30.5	19.2	13.2	15.6	20.9	20.3	20.1	29.5	18.3	14.7	15.6	20.6
	Female	14.9	14.4	21.0	12.9	9.9	10.5	14.6	14.6	14.2	21.9	13.7	10.5	9.9	14.7
Liver & Intrahepatic Bile Duct	Both Sexes	5.2	4.8	7.0	8.6	10.1	8.0	4.5	5.8	5.1	7.3	8.2	10.4	7.9	4.7
	Male	7.7	7.0	11.1	10.9	14.7	11.3	6.6	8.4	7.3	11.5	10.5	15.0	10.9	6.8
	Female	3.2	3.0	3.9	6.6	6.4	5.2	2.8	3.6	3.2	4.2	6.2	6.6	5.3	2.9
Pancreas	Both Sexes	10.7	10.5	13.8	8.8	7.4	8.3	10.7	10.7	10.6	14.2	8.8	8.0	8.8	10.8
	Male	12.3	12.2	15.4	9.9	8.2	9.1	12.4	12.1	12.2	15.2	10.0	8.9	9.2	12.6
	Female	9.4	9.1	12.4	8.0	6.9	7.5	9.2	9.5	9.3	13.2	7.9	7.4	8.3	9.4
Larynx	Both Sexes	1.2	1.1	2.3	0.9	0.4	0.9	1.2	1.1	1.1	2.3	-	0.4	0.8	1.1
	Male	2.2	2.0	4.6	1.9	0.8	1.8	2.1	2.0	1.9	4.4	-	0.9	1.7	1.9
	Female	0.5	0.4	0.7	-	0.1	0.1	0.5	0.4	0.4	0.8	-	0.1	0.1	0.5
Lung & Bronchus	Both Sexes	52.5	52.9	58.6	39.7	26.2	22.1	55.4	47.6	48.6	58.3	31.3	28.0	20.9	52.3
	Male	68.8	68.3	87.5	48.1	36.7	32.5	71.1	60.6	60.7	84.0	37.4	39.6	29.8	64.7
	Female	40.6	41.6	39.6	33.3	18.5	14.4	43.8	38.1	39.8	41.1	26.6	19.4	14.4	43.2
Melanoma of the Skin	Both Sexes	2.7	3.1	0.4	1.1	0.4	0.7	3.3	2.6	3.0	0.4	1.0	0.4	0.8	3.4
	Male	4.0	4.5	0.5	1.6	0.4	1.0	4.8	3.9	4.5	0.6	-	0.5	1.0	5.1
	Female	1.7	2.0	0.4	0.8	0.3	0.6	2.1	1.6	1.9	0.3	-	0.3	0.6	2.1
Breast	Female	24.0	23.4	32.4	17.6	12.2	15.3	23.9	23.9	23.9	33.5	15.9	13.7	15.3	25.0

[a] US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

[b] The SEER 17 areas are San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey.

[c] Rates for American Indian/Alaska Native (AI/AN) are based on the CHSDA(Contract Health Service Delivery Area) counties.

[d] Asian/Pacific Islander.

[e] Hispanic (Hisp) and White Non-Hispanic (W-NHisp) are not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Mortality data for Hispanics and White Non-Hispanics do not include cases from the District of Columbia, New Hampshire, and North Dakota.

- Statistic could not be calculated due to less than 16 cases in the time interval.

Table 1.20 - continued
U.S. and SEER Death Rates by Primary Cancer Site and Race/Ethnicity, 2003-2007

		Total United States[a]							SEER 17 Areas[ab]						
Site		Total	White	Black	AI/AN[c]	API[d]	Hisp[e]	W-NHisp[e]	Total	White	Black	AI/AN[c]	API[d]	Hisp[e]	W-NHisp[e]
Cervix	Female	2.4	2.2	4.4	3.4	2.1	3.1	2.1	2.4	2.2	4.0	2.5	2.2	3.1	2.0
Corpus & Uterus, NOS	Female	4.1	3.9	7.2	2.9	2.5	3.0	3.9	4.2	4.0	7.2	2.6	2.8	3.1	4.1
Ovary	Female	8.6	8.9	7.2	6.8	4.9	6.0	9.2	8.7	9.2	7.4	7.4	5.2	6.4	9.6
Prostate	Male	24.7	22.8	54.2	20.0	10.6	18.8	22.9	24.5	23.6	51.7	15.9	11.8	19.3	23.9
Testis	Male	0.2	0.3	0.2	-	0.1	0.3	0.3	0.2	0.3	0.1	-	0.1	0.3	0.3
Urinary Bladder	Both Sexes	4.3	4.5	3.7	1.8	1.6	2.3	4.6	4.2	4.5	3.9	1.3	1.8	2.3	4.8
	Male	7.5	7.9	5.4	3.0	2.6	3.9	8.2	7.3	7.9	5.4	-	2.9	3.8	8.4
	Female	2.2	2.2	2.7	0.9	0.9	1.3	2.3	2.2	2.2	3.0	-	1.0	1.3	2.3
Kidney & Renal Pelvis	Both Sexes	4.1	4.2	4.0	6.0	1.8	3.6	4.2	3.9	4.0	4.1	5.4	2.0	3.7	4.1
	Male	5.9	6.0	6.0	8.8	2.6	5.2	6.0	5.6	5.8	6.0	8.3	2.8	5.2	5.8
	Female	2.7	2.7	2.7	3.8	1.2	2.4	2.8	2.6	2.7	2.7	3.3	1.3	2.5	2.7
Brain & Nervous System	Both Sexes	4.3	4.6	2.5	2.1	1.9	2.8	4.8	4.3	4.7	2.6	1.5	2.1	3.0	5.0
	Male	5.2	5.6	3.1	2.7	2.3	3.2	5.8	5.2	5.7	3.3	2.2	2.6	3.5	6.1
	Female	3.5	3.8	2.0	1.6	1.6	2.4	3.9	3.5	3.8	2.1	-	1.7	2.5	4.0
Thyroid	Both Sexes	0.5	0.5	0.5	0.5	0.6	0.6	0.5	0.5	0.5	0.4	-	0.7	0.6	0.5
	Male	0.5	0.5	0.3	-	0.5	0.6	0.5	0.5	0.5	0.3	-	0.5	0.6	0.5
	Female	0.5	0.5	0.5	-	0.7	0.6	0.4	0.5	0.5	0.5	-	0.8	0.7	0.5
Hodgkin Lymphoma	Both Sexes	0.4	0.4	0.4	0.3	0.2	0.4	0.5	0.4	0.5	0.4	-	0.2	0.4	0.5
	Male	0.5	0.5	0.5	-	0.2	0.5	0.6	0.5	0.6	0.5	-	0.2	0.5	0.6
	Female	0.3	0.4	0.3	-	0.2	0.3	0.4	0.4	0.4	0.3	-	0.2	0.4	0.4
Non-Hodgkin Lymphoma	Both Sexes	6.9	7.2	4.8	4.9	4.4	5.3	7.3	6.8	7.2	5.0	3.4	4.8	5.4	7.3
	Male	8.7	9.1	6.0	5.3	5.5	6.3	9.2	8.6	9.1	6.1	3.3	6.0	6.5	9.4
	Female	5.5	5.7	3.9	4.6	3.5	4.4	5.8	5.4	5.7	4.1	3.3	3.9	4.6	5.8
Myeloma	Both Sexes	3.6	3.3	6.7	3.5	1.7	2.9	3.3	3.4	3.3	7.0	2.4	1.9	3.1	3.3
	Male	4.4	4.2	8.1	4.2	2.0	3.3	4.2	4.3	4.2	8.3	2.5	2.3	3.5	4.2
	Female	2.9	2.7	5.8	3.0	1.4	2.5	2.6	2.8	2.6	6.2	2.3	1.6	2.8	2.5
Leukemia	Both Sexes	7.2	7.4	6.3	4.8	3.8	4.8	7.5	7.0	7.4	6.3	4.0	3.9	4.9	7.5
	Male	9.7	10.0	8.4	5.8	4.9	6.0	10.2	9.3	9.9	8.7	4.9	5.1	6.1	10.2
	Female	5.4	5.6	5.0	3.9	2.9	3.9	5.6	5.3	5.6	4.8	3.1	3.0	4.0	5.7

[a] US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

[b] The SEER 17 areas are San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey.

[c] Rates for American Indian/Alaska Native (AI/AN) are based on the CHSDA(Contract Health Service Delivery Area) counties.

[d] Asian/Pacific Islander.

[e] Hispanic (Hisp) and White Non-Hispanic (W-NHisp) are not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Mortality data for Hispanics and White Non-Hispanics do not include cases from the District of Columbia, New Hampshire, and North Dakota.

- Statistic could not be calculated due to less than 16 cases in the time interval.

Table 1.21
U.S. Prevalence Counts, Invasive Cancers Only, January 1, 2007[a]
Using Different Tumor Inclusion Criteria[b]

Site	Sex	5-Year Limited Duration: 1st Invasive Tumor Ever[c]	5-Year Limited Duration: 1st Per Site in Previous 32 Years[d]	5-Year Limited Duration: 1st Per Site in Previous 5 Years[e]	32-year Limited Duration: 1st Invasive Tumor Ever[c]	32-year Limited Duration: 1st Per Site in Previous 32 Years[d]
All Sites	Both Sexes	4,128,739	4,208,495	4,587,516	11,196,431	11,396,724
	Male	2,110,305	2,140,911	2,323,221	5,248,197	5,310,771
	Female	2,018,434	2,067,584	2,264,295	5,948,234	6,085,953
Oral Cavity & Pharynx	Both Sexes	91,178	103,795	107,311	235,609	258,515
	Male	62,485	70,353	72,387	153,118	166,208
	Female	28,693	33,442	34,924	82,491	92,307
Esophagus	Both Sexes	18,697	22,371	22,384	28,549	33,324
	Male	14,341	17,140	17,153	21,695	25,162
	Female	4,356	5,231	5,231	6,854	8,162
Stomach	Both Sexes	32,686	39,128	39,293	63,730	72,980
	Male	19,323	23,318	23,348	36,215	41,618
	Female	13,363	15,810	15,945	27,515	31,362
Colon & Rectum	Both Sexes	404,997	468,117	476,559	1,076,622	1,199,140
	Male	202,765	234,821	238,838	527,903	584,590
	Female	202,232	233,296	237,721	548,719	614,550
Liver & Intrahepatic Bile Duct	Both Sexes	20,688	23,505	23,517	27,353	30,585
	Male	14,728	16,576	16,588	18,577	20,660
	Female	5,960	6,929	6,929	8,776	9,925
Pancreas	Both Sexes	24,579	29,347	29,358	32,616	38,193
	Male	12,128	14,558	14,569	15,897	18,650
	Female	12,451	14,789	14,789	16,719	19,543
Larynx	Both Sexes	30,163	35,886	36,142	87,367	97,387
	Male	23,925	28,340	28,574	69,746	77,350
	Female	6,238	7,546	7,568	17,621	20,037
Lung & Bronchus	Both Sexes	213,542	267,851	273,542	360,606	436,310
	Male	100,425	126,335	128,613	167,066	201,817
	Female	113,117	141,516	144,929	193,540	234,493
Melanoma of the Skin	Both Sexes	242,029	271,164	281,289	751,279	806,659
	Male	127,243	145,557	152,065	371,049	402,671
	Female	114,786	125,607	129,224	380,230	403,988
Breast	Female	796,935	857,596	904,022	2,509,315	2,661,082
Cervix	Female	38,618	40,422	40,532	195,066	200,672
Corpus & Uterus, NOS	Female	148,471	167,653	167,699	527,264	573,628
Ovary[f]	Female	53,433	62,494	62,552	156,901	176,514

[a] U.S. 2007 cancer prevalence counts are based on 2007 cancer prevalence proportions from the SEER 9 registries and 1/1/2007 U.S. population estimates based on the average of 2006 and 2007 population estimates from the U.S. Bureau of the Census.

[b] Prevalence estimates are ambiguous for those with multiple cancers, unless the tumor inclusion criteria are understood. Depending on the application, different inclusion criteria may be appropriate. This table provides three different methods of tumor inclusion:

[c] (c) First invasive tumor ever

[d] (d) First invasive tumor for each cancer site diagnosed during the previous 32 years (1975-2006)

[e] (e) First invasive tumor for each cancer site diagnosed during the previous 5 years (2002-2006)

For definitions (d) and (e) all sites is treated as a separate cancer "site".

Consider a woman who had three invasive cancers: Melanoma in 1981; Breast cancer in 2002; Melanoma in 2003.
In method (c) the melanoma is the woman's first cancer, and is counted for the melanoma and all sites 32-year limited duration prevalence. For 5-year limited duration prevalence, the woman is not counted at all since her first cancer occurred more than 5 years prior to 1/1/2007.
In method (d) the 1981 melanoma is counted for the melanoma and all sites 32-year limited duration prevalence. The 2002 breast cancer is counted for the breast 5-year and 32-year limited duration prevalence.
In method (e) the 2002 breast cancer is counted for the breast cancer and all sites 5-year limited duration prevalence. The 2003 melanoma is counted for 5-year limited duration prevalence for melanoma.

[f] Ovary excludes borderline cases or histologies 8442, 8451, 8462, 8472, and 8473.

Table 1.21 - continued
U.S. Prevalence Counts, Invasive Cancers Only, January 1, 2007[a]
Using Different Tumor Inclusion Criteria[b]

Site	Sex	5-Year Limited Duration: 1st Invasive Tumor Ever[c]	5-Year Limited Duration: 1st Per Site in Previous 32 Years[d]	5-Year Limited Duration: 1st Per Site in Previous 5 Years[e]	32-year Limited Duration: 1st Invasive Tumor Ever[c]	32-year Limited Duration: 1st Per Site in Previous 32 Years[d]
Prostate	Male	938,613	1,013,875	1,013,911	2,273,570	2,425,802
Testis	Male	39,905	40,672	41,227	179,020	181,360
Urinary Bladder	Both Sexes	189,135	233,199	237,692	518,286	598,692
	Male	141,812	175,570	179,094	384,498	443,555
	Female	47,323	57,629	58,598	133,788	155,137
Kidney & Renal Pelvis	Both Sexes	118,493	143,522	144,764	270,625	314,100
	Male	70,932	86,672	87,600	158,850	185,673
	Female	47,561	56,850	57,164	111,775	128,427
Brain & Nervous System	Both Sexes	40,293	42,551	42,885	112,726	116,105
	Male	22,134	23,505	23,659	60,362	62,268
	Female	18,159	19,046	19,226	52,364	53,837
Thyroid	Both Sexes	129,436	141,554	141,860	392,263	415,126
	Male	28,915	33,014	33,071	86,537	93,189
	Female	100,521	108,540	108,789	305,726	321,937
Hodgkin Lymphoma	Both Sexes	36,160	38,130	38,141	149,892	153,535
	Male	18,823	19,773	19,784	77,318	79,103
	Female	17,337	18,357	18,357	72,574	74,432
Non-Hodgkin Lymphoma	Both Sexes	182,913	212,380	213,902	427,401	474,880
	Male	95,299	111,717	112,437	221,132	245,677
	Female	87,614	100,663	101,465	206,269	229,203
Myeloma	Both Sexes	40,775	47,047	47,082	61,360	69,598
	Male	21,757	25,411	25,446	33,418	38,267
	Female	19,018	21,636	21,636	27,942	31,331
Leukemia	Both Sexes	99,568	112,939	113,079	238,435	259,889
	Male	57,160	65,055	65,125	134,732	147,037
	Female	42,408	47,884	47,954	103,703	112,852
Acute Lymphocytic Leukemia	Both Sexes	15,056	15,397	15,397	57,526	58,016
	Male	8,617	8,718	8,718	31,667	31,805
	Female	6,439	6,679	6,679	25,859	26,211
Childhood (Ages 0-19)	Both Sexes	59,446	59,545	59,919	269,403	269,864
	Male	32,002	32,057	32,201	138,408	138,607
	Female	27,444	27,488	27,718	130,995	131,257
Kaposi Sarcoma	Both Sexes	6,329	6,781	6,781	21,513	22,595
	Male	5,909	6,235	6,235	20,237	21,145
	Female	420	546	546	1,276	1,450
Mesothelioma	Both Sexes	2,943	3,641	3,641	4,427	5,271
	Male	2,066	2,537	2,537	2,655	3,237
	Female	877	1,104	1,104	1,772	2,034

[a] U.S. 2007 cancer prevalence counts are based on 2007 cancer prevalence proportions from the SEER 9 registries and 1/1/2007 U.S. population estimates based on the average of 2006 and 2007 population estimates from the U.S. Bureau of the Census.

[b] Prevalence estimates are ambiguous for those with multiple cancers, unless the tumor inclusion criteria are understood. Depending on the application, different inclusion criteria may be appropriate. This table provides three different methods of tumor inclusion:

[c] (c) First invasive tumor ever

[d] (d) First invasive tumor for each cancer site diagnosed during the previous 32 years (1975-2006)

[e] (e) First invasive tumor for each cancer site diagnosed during the previous 5 years (2002-2006)

For definitions (d) and (e) all sites is treated as a separate cancer "site".

Consider a woman who had three invasive cancers: Melanoma in 1981; Breast cancer in 2002; Melanoma in 2003.
In method (c) the melanoma is the woman's first cancer, and is counted for the melanoma and all sites 32-year limited duration prevalence. For 5-year limited duration prevalence, the woman is not counted at all since her first cancer occurred more than 5 years prior to 1/1/2007.
In method (d) the 1981 melanoma is counted for the melanoma and all sites 32-year limited duration prevalence. The 2002 breast cancer is counted for the breast 5-year and 32-year limited duration prevalence.
In method (e) the 2002 breast cancer is counted for the breast cancer and all sites 5-year limited duration prevalence. The 2003 melanoma is counted for 5-year limited duration prevalence for melanoma.

Table 1.22
U.S. Complete Prevalence Counts, Invasive Cancers Only, January 1, 2007[a]
By Age at Prevalence

Site/Sex	Age at Prevalence								
	All Ages[c]	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70+
All Sites									
Males	5,353,054	17,384	39,980	78,051	145,588	336,123	749,038	1,258,920	2,727,970
Females	6,360,682	15,217	33,503	84,509	213,851	604,412	1,155,959	1,395,096	2,858,136
Oral Cavity & Pharynx									
Males	161,112	34	462	1,460	3,306	14,446	38,574	42,305	60,526
Females	88,254	112	478	1,499	3,730	8,328	16,027	18,737	39,343
Esophagus									
Males	21,782	0	0	16	110	1,155	4,158	7,094	9,250
Females	6,947	0	0	12	71	215	906	1,589	4,154
Stomach									
Males	37,297	0	5	29	621	2,421	5,852	9,147	19,223
Females	28,342	5	11	106	575	2,139	3,970	4,882	16,654
Colon & Rectum									
Males	540,636	11	46	1,079	5,377	23,458	70,527	118,887	321,251
Females	571,857	0	109	1,421	4,924	21,129	59,895	98,155	386,224
Liver & Intrahep									
Males	18,644	408	525	363	435	1,451	6,731	4,464	4,268
Females	9,109	411	346	356	427	842	1,852	1,835	3,041
Pancreas									
Males	16,057	0	23	93	227	1,283	3,502	4,577	6,353
Females	16,936	0	53	137	418	1,208	3,029	4,061	8,031
Larynx									
Males	72,246	0	0	24	215	2,470	10,579	19,435	39,524
Females	18,192	0	0	57	77	1,144	3,131	4,429	9,355
Lung & Bronchus									
Males	172,739	34	75	375	1,109	6,021	23,958	50,028	91,141
Females	197,878	11	55	332	1,269	8,266	26,154	53,184	108,608
Melanoma of the Skin									
Males	385,054	94	750	5,271	16,607	46,961	86,015	93,408	135,947
Females	408,229	72	991	11,270	32,943	70,027	96,409	80,585	115,933

[a] U.S. 2007 cancer prevalence counts are based on 2007 cancer prevalence proportions from the SEER 9 registries (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta) and 1/1/2007 U.S. population estimates based on the average of 2006 and 2007 population estimates from the U.S. Bureau of the Census. Prevalence was calculated using the First Malignant Primary Only for a person.

[b] Cases diagnosed more than 32 years ago were estimated using the completeness index method (Capocaccia et. al. 1997, Merrill et. al. 2000).

[c] Due to rounding, the sum of the age specific estimates may not equal the all ages estimate.

Table 1.22 - continued
U.S. Complete Prevalence Counts, Invasive Cancers Only, January 1, 2007[a]
By Age at Prevalence

Site/Sex	All Ages[c]	Age at Prevalence 0-9	10-19	20-29	30-39	40-49	50-59	60-69	70+
Breast									
Males	13,326	0	0	29	93	497	2,014	3,353	7,340
Females	2,591,855	0	81	2,530	35,087	208,053	505,550	645,055	1,195,498
Cervix									
Females	247,180	11	81	2,348	17,537	43,343	58,279	48,897	76,684
Corpus & Uterus, NOS									
Females	575,108	0	67	452	5,116	23,123	78,436	129,723	338,192
Ovary[d]									
Females	177,162	84	949	3,571	6,786	20,117	37,716	40,600	67,339
Prostate									
Males	2,276,112	50	69	80	387	17,453	197,739	585,651	1,474,683
Urinary Bladder									
Males	395,480	11	131	702	2,434	12,104	42,058	87,203	250,837
Females	139,756	33	46	342	1,153	4,415	13,116	27,208	93,443
Kidney & Renal Pelvis									
Males	164,839	1,413	2,428	2,472	4,088	14,777	33,714	43,718	62,228
Females	116,651	1,441	2,633	2,809	3,988	10,792	19,272	25,537	50,178
Hodgkin Lymphoma									
Males	84,583	162	2,193	9,019	16,237	22,676	18,661	9,862	5,771
Females	79,690	107	1,397	10,426	16,314	21,812	16,409	7,293	5,934
Non-Hodgkin Lymphoma									
Males	226,855	689	3,434	7,073	12,028	27,188	44,816	51,557	80,070
Females	211,470	393	1,596	4,130	7,622	18,650	37,239	45,364	96,476
Myeloma									
Males	33,522	0	5	40	488	2,380	6,786	9,878	13,944
Females	28,120	0	0	23	215	1,671	5,234	7,536	13,441
Leukemia									
Males	137,398	6,452	11,601	11,047	9,522	11,671	18,275	24,790	44,041
Females	106,874	5,226	9,722	9,893	8,060	8,514	12,311	15,613	37,535
Acute Lymphocytic Leuk									
Males	33,394	5,340	10,132	8,470	5,396	2,320	905	538	291
Females	27,389	4,366	8,155	7,282	4,309	1,895	706	455	220

[a] U.S. 2007 cancer prevalence counts are based on 2007 cancer prevalence proportions from the SEER 9 registries (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta) and 1/1/2007 U.S. population estimates based on the average of 2006 and 2007 population estimates from the U.S. Bureau of the Census. Prevalence was calculated using the First Malignant Primary Only for a person.

[b] Cases diagnosed more than 32 years ago were estimated using the completeness index method (Capocaccia et. al. 1997, Merrill et. al. 2000).

[c] Due to rounding, the sum of the age specific estimates may not equal the all ages estimate.

Table 1.23
Age-Adjusted SEER Incidence Rates and Trends for the Top 15 Cancer Sites[a] by Race/Ethnicity

Both Sexes

All Races

	Rate[b] 2003-2007	APC[c] 1998-2007
All Sites	461.6	-0.9*
Prostate[f]	69.9	-1.2*
Breast	66.5	-1.9*
Lung and Bronchus	62.5	-1.5*
Colon and Rectum	47.9	-2.6*
Urinary Bladder	21.1	-0.4*
Melanoma of the Skin	20.1	1.6*
Non-Hodgkin Lymphoma	19.6	0.1
Kidney and Renal Pelvis	14.1	2.4*
Corpus and Uterus, NOS[f]	12.6	-0.7*
Leukemia	12.3	-0.8*
Pancreas	11.7	0.7*
Oral Cavity and Pharynx	10.4	-1.1*
Thyroid	10.2	6.1*
Stomach	7.8	-1.7*
Ovary[fh]	7.0	-1.8*

White

	Rate[b] 2003-2007	APC[c] 1998-2007
All Sites	469.2	-0.9*
Breast	67.9	-2.2*
Prostate[f]	67.6	-1.3*
Lung and Bronchus	63.8	-1.5*
Colon and Rectum	47.4	-2.8*
Melanoma of the Skin	23.5	2.0*
Urinary Bladder	22.8	-0.4*
Non-Hodgkin Lymphoma	20.5	0.2
Kidney and Renal Pelvis	14.5	2.4*
Corpus and Uterus, NOS[f]	13.0	-1.0*
Leukemia	12.9	-0.7*
Pancreas	11.6	0.8*
Thyroid	10.7	6.3*
Oral Cavity and Pharynx	10.5	-0.8*
Ovary[fh]	7.3	-2.0*
Brain and ONS[g]	7.1	-0.6

Black

	Rate[b] 2003-2007	APC[c] 1998-2007
All Sites	489.8	-1.4*
Prostate[f]	97.8	-2.8*
Lung and Bronchus	73.5	-2.2*
Breast	67.8	-0.4
Colon and Rectum	58.9	-1.8*
Pancreas	15.5	0.3
Kidney and Renal Pelvis	15.4	2.1*
Non-Hodgkin Lymphoma	14.7	0.4
Urinary Bladder	12.8	0.0
Stomach	11.9	-2.6*
Corpus and Uterus, NOS[f]	11.8	1.7
Myeloma	11.7	-0.3
Oral Cavity and Pharynx	10.2	-3.1*
Leukemia	9.8	-1.0
Liver & IBD[g]	8.6	3.6*
Thyroid	6.2	6.7*

Asian/Pacific Islander

	Rate[b] 2003-2007	APC[c] 1998-2007
All Sites	310.8	-0.7*
Breast	49.1	-0.4
Colon and Rectum	39.2	-2.1*
Prostate[f]	39.0	-1.2
Lung and Bronchus	38.7	-1.0*
Liver & IBD[g]	14.4	0.6
Stomach	13.2	-3.1*
Non-Hodgkin Lymphoma	12.9	-1.0
Thyroid	10.1	4.4*
Corpus and Uterus, NOS[f]	9.4	1.0
Urinary Bladder	9.1	-0.2
Pancreas	9.1	0.6
Oral Cavity and Pharynx	7.6	-1.3
Kidney and Renal Pelvis	7.3	3.6*
Leukemia	7.2	-1.5*
Ovary[fh]	5.3	-0.2

American Indian/Alaska Native[d]

	Rate[b] 2003-2007	APC[c] 1998-2007
All Sites	317.7	-0.6
Lung and Bronchus	45.3	0.8
Colon and Rectum	42.1	-1.7
Breast	41.4	0.3
Prostate[f]	34.4	-0.7
Kidney and Renal Pelvis	17.4	3.8*
Non-Hodgkin Lymphoma	11.4	-0.4
Stomach	10.9	-3.7
Liver & IBD[g]	10.6	0.8
Pancreas	10.3	1.1
Corpus and Uterus, NOS[f]	9.0	0.4
Urinary Bladder	7.7	-
Oral Cavity and Pharynx	7.3	-5.2
Leukemia	6.5	-2.3
Ovary[fh]	5.9	-1.3
Thyroid	5.8	-1.6

Hispanic[e]

	Rate[b] 2003-2007	APC[c] 1998-2007
All Sites	342.5	-1.3*
Prostate[f]	55.2	-2.2*
Breast	46.0	-1.5*
Colon and Rectum	37.3	-1.7*
Lung and Bronchus	32.1	-2.3*
Non-Hodgkin Lymphoma	16.5	-0.2
Kidney and Renal Pelvis	13.3	1.8*
Stomach	11.6	-2.0*
Urinary Bladder	11.0	-0.5
Pancreas	10.5	0.5
Liver & IBD[g]	10.5	1.7*
Leukemia	9.5	-0.6
Corpus and Uterus, NOS[f]	9.4	0.2
Thyroid	8.4	5.1*
Cervix Uteri[f]	6.1	-5.1*
Ovary[fh]	5.9	-1.8

[a] Top 15 cancer sites selected based on 2003-2007 age-adjusted rates for the race/ethnic group.

[b] Incidence data used in calculating the rates are from the 17 SEER areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey).
Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

[c] The APC is the Annual Percent Change over the time interval. Incidence data used in calculating the trends are from the 13 SEER areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia).
Trends are based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

[d] Rates for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.

[e] Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives.
Incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.

[f] The rates for sex-specific cancer sites are calculated using the population for both sexes combined.

[g] IBD = Intrahepatic Bile Duct. ONS = Other Nervous System.

[h] Ovary excludes borderline cases or histologies 8442, 8451, 8462, 8472, and 8473.

* The APC is significantly different from zero ($p<.05$).

- Statistic not shown. Rate based on less than 16 cases for the time interval. Trend based on less than 10 cases for at least one year within the time interval.

Table 1.24
Age-Adjusted SEER Incidence Rates and Trends for the Top 15 Cancer Sites[a] by Race/Ethnicity

Males

All Races

	Rate[b] 2003-2007	APC[c] 1998-2007
All Sites	538.9	-1.2*
Prostate	156.9	-1.7*
Lung and Bronchus	76.2	-2.4*
Colon and Rectum	55.8	-3.0*
Urinary Bladder	37.2	-0.5*
Melanoma of the Skin	25.6	1.7*
Non-Hodgkin Lymphoma	23.6	0.1
Kidney and Renal Pelvis	19.2	2.0*
Leukemia	15.8	-1.2*
Oral Cavity and Pharynx	15.4	-1.3*
Pancreas	13.3	0.5
Stomach	10.9	-1.9*
Liver & IBD[f]	10.7	2.6*
Esophagus	7.8	-0.9
Brain and ONS[f]	7.6	-0.7*
Myeloma	7.1	-0.4

White

	Rate[b] 2003-2007	APC[c] 1998-2007
All Sites	541.5	-1.1*
Prostate	150.4	-1.8*
Lung and Bronchus	76.3	-2.4*
Colon and Rectum	55.4	-3.2*
Urinary Bladder	40.4	-0.5*
Melanoma of the Skin	29.7	2.0*
Non-Hodgkin Lymphoma	24.6	0.2
Kidney and Renal Pelvis	19.7	2.0*
Leukemia	16.6	-1.0*
Oral Cavity and Pharynx	15.7	-0.9*
Pancreas	13.2	0.6*
Stomach	9.6	-2.0*
Liver & IBD[f]	9.1	2.9*
Brain and ONS[f]	8.4	-0.5
Esophagus	8.0	-0.2
Myeloma	6.7	-0.4

Black

	Rate[b] 2003-2007	APC[c] 1998-2007
All Sites	624.0	-2.4*
Prostate	234.6	-3.1*
Lung and Bronchus	101.2	-3.4*
Colon and Rectum	68.1	-2.3*
Kidney and Renal Pelvis	21.8	1.9
Urinary Bladder	20.7	-0.4
Non-Hodgkin Lymphoma	17.8	0.3
Stomach	16.7	-2.1*
Pancreas	16.7	-0.7
Oral Cavity and Pharynx	16.1	-4.1*
Myeloma	14.3	-0.1
Liver & IBD[f]	14.0	3.6*
Leukemia	12.7	-1.1
Larynx	10.3	-3.2*
Esophagus	8.9	-4.5*
Brain and ONS[f]	4.7	-0.6

Asian/Pacific Islander

	Rate[b] 2003-2007	APC[c] 1998-2007
All Sites	346.5	-1.1*
Prostate	90.0	-1.1
Lung and Bronchus	52.9	-1.6*
Colon and Rectum	45.5	-2.5*
Liver & IBD[f]	21.7	0.4
Stomach	17.5	-2.6*
Urinary Bladder	16.0	0.3
Non-Hodgkin Lymphoma	15.7	-1.0
Oral Cavity and Pharynx	10.5	-1.5
Pancreas	10.2	1.3
Kidney and Renal Pelvis	10.2	3.1*
Leukemia	8.8	-2.3*
Thyroid	4.4	2.9*
Esophagus	4.1	-2.8*
Brain and ONS[f]	4.0	-1.9
Myeloma	4.0	-1.0

American Indian/Alaska Native[d]

	Rate[b] 2003-2007	APC[c] 1998-2007
All Sites	335.8	-1.5
Prostate	77.7	-0.7
Lung and Bronchus	52.7	-1.2
Colon and Rectum	43.4	-1.9
Kidney and Renal Pelvis	21.2	1.6
Stomach	15.5	-2.7
Liver & IBD[f]	14.6	-
Urinary Bladder	13.3	-
Non-Hodgkin Lymphoma	12.5	-
Pancreas	10.6	-
Oral Cavity and Pharynx	9.6	-
Leukemia	7.2	-
Esophagus	5.2	-
Myeloma	4.8	-
Testis	4.3	-
Melanoma of the Skin	4.1	-

Hispanic[e]

	Rate[b] 2003-2007	APC[c] 1998-2007
All Sites	394.8	-1.8*
Prostate	125.8	-2.7*
Colon and Rectum	44.5	-2.3*
Lung and Bronchus	41.4	-2.8*
Urinary Bladder	19.2	-1.1
Non-Hodgkin Lymphoma	18.7	-0.5
Kidney and Renal Pelvis	17.5	1.5*
Liver & IBD[f]	15.6	2.2*
Stomach	14.8	-2.7*
Leukemia	11.2	-0.7
Pancreas	10.9	1.1
Oral Cavity and Pharynx	8.7	-2.2
Myeloma	6.3	-0.5
Brain and ONS[f]	5.9	-0.7
Esophagus	5.1	-2.7
Larynx	4.6	-3.0*

[a] Top 15 cancer sites selected based on 2003-2007 age-adjusted rates for the race/ethnic group.
[b] Incidence data used in calculating the rates are from the 17 SEER areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey).
Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).
[c] The APC is the Annual Percent Change over the time interval. Incidence data used in calculating the trends are from the 13 SEER areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia).
Trends are based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).
[d] Rates for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.
[e] Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives.
Incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.
[f] IBD = Intrahepatic Bile Duct. ONS = Other Nervous System.
* The APC is significantly different from zero (p<.05).
- Statistic not shown. Rate based on less than 16 cases for the time interval. Trend based on less than 10 cases for at least one year within the time interval.

Table 1.25
Age-Adjusted SEER Incidence Rates and Trends for the Top 15 Cancer Sites[a] by Race/Ethnicity

Females

All Races

	Rate[b] 2003-2007	APC[c] 1998-2007
All Sites	408.0	-0.8*
Breast	122.9	-1.7*
Lung and Bronchus	52.4	-0.5*
Colon and Rectum	41.7	-2.4*
Corpus and Uterus, NOS	23.5	-0.5*
Non-Hodgkin Lymphoma	16.5	0.2
Melanoma of the Skin	16.2	1.6*
Thyroid	15.2	6.5*
Ovary[g]	12.9	-1.6*
Pancreas	10.5	0.9*
Kidney and Renal Pelvis	9.9	2.8*
Leukemia	9.6	-0.5
Urinary Bladder	9.2	-0.8*
Cervix Uteri	8.1	-3.2*
Oral Cavity and Pharynx	6.1	-1.1*
Stomach	5.5	-1.7*

White

	Rate[b] 2003-2007	APC[c] 1998-2007
All Sites	419.6	-0.9*
Breast	126.5	-2.0*
Lung and Bronchus	54.7	-0.5*
Colon and Rectum	40.9	-2.6*
Corpus and Uterus, NOS	24.4	-0.8*
Melanoma of the Skin	19.1	2.0*
Non-Hodgkin Lymphoma	17.2	0.3
Thyroid	16.0	6.7*
Ovary[g]	13.5	-1.8*
Pancreas	10.3	0.9*
Kidney and Renal Pelvis	10.2	2.8*
Leukemia	10.0	-0.5
Urinary Bladder	9.8	-0.8*
Cervix Uteri	7.9	-3.0*
Oral Cavity and Pharynx	6.1	-1.2*
Brain and ONS[f]	6.0	-0.7

Black

	Rate[b] 2003-2007	APC[c] 1998-2007
All Sites	399.1	-0.4
Breast	118.3	-0.3
Lung and Bronchus	54.8	-0.5
Colon and Rectum	52.6	-1.5*
Corpus and Uterus, NOS	20.6	1.7
Pancreas	14.4	1.2
Non-Hodgkin Lymphoma	12.3	0.6
Kidney and Renal Pelvis	10.7	2.2*
Ovary[g]	10.2	-0.2
Cervix Uteri	10.1	-5.1*
Myeloma	10.0	-0.6
Thyroid	8.9	7.2*
Stomach	8.6	-3.2*
Leukemia	7.8	-0.7
Urinary Bladder	7.6	0.5
Oral Cavity and Pharynx	5.8	-1.2

Asian/Pacific Islander

	Rate[b] 2003-2007	APC[c] 1998-2007
All Sites	288.9	-0.3
Breast	90.0	-0.4
Colon and Rectum	34.2	-1.8*
Lung and Bronchus	28.1	0.1
Corpus and Uterus, NOS	17.3	1.1
Thyroid	15.2	4.9*
Non-Hodgkin Lymphoma	10.8	-0.9
Stomach	10.0	-3.4*
Ovary[g]	9.8	-0.2
Liver & IBD[f]	8.3	0.8
Pancreas	8.3	-0.2
Cervix Uteri	7.5	-3.8*
Leukemia	6.0	-0.6
Oral Cavity and Pharynx	5.3	-1.1
Kidney and Renal Pelvis	5.1	4.2*
Urinary Bladder	4.0	-1.3

American Indian/Alaska Native[d]

	Rate[b] 2003-2007	APC[c] 1998-2007
All Sites	306.3	0.2
Breast	76.4	0.2
Colon and Rectum	40.4	-1.6
Lung and Bronchus	39.7	3.4
Corpus and Uterus, NOS	16.8	0.5
Kidney and Renal Pelvis	14.1	-
Ovary[g]	10.9	-1.6
Non-Hodgkin Lymphoma	10.6	-
Pancreas	10.1	-
Thyroid	8.5	-2.6
Cervix Uteri	7.7	1.0
Stomach	7.3	-
Liver & IBD[f]	6.9	-
Leukemia	5.9	-
Oral Cavity and Pharynx	5.2	-
Gallbladder	4.7	-

Hispanic[e]

	Rate[b] 2003-2007	APC[c] 1998-2007
All Sites	309.2	-0.9*
Breast	86.0	-1.2*
Colon and Rectum	31.6	-1.1*
Lung and Bronchus	25.4	-1.6*
Corpus and Uterus, NOS	17.6	0.6
Non-Hodgkin Lymphoma	14.5	0.3
Thyroid	13.3	5.8*
Cervix Uteri	12.0	-4.9*
Ovary[g]	11.0	-1.5
Pancreas	10.1	0.0
Kidney and Renal Pelvis	10.0	2.1*
Stomach	9.1	-1.4*
Leukemia	8.0	-0.7
Liver & IBD[f]	6.0	0.1
Urinary Bladder	5.1	-0.1
Melanoma of the Skin	4.7	-1.3

[a] Top 15 cancer sites selected based on 2003-2007 age-adjusted rates for the race/ethnic group.
[b] Incidence data used in calculating the rates are from the 17 SEER areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey).
Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).
[c] The APC is the Annual Percent Change over the time interval. Incidence data used in calculating the trends are from the 13 SEER areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia).
Trends are based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).
[d] Rates for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.
[e] Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives.
Incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.
[f] IBD = Intrahepatic Bile Duct. ONS = Other Nervous System.
[g] Ovary excludes borderline cases or histologies 8442, 8451, 8462, 8472, and 8473.
* The APC is significantly different from zero (p<.05).
- Statistic not shown. Rate based on less than 16 cases for the time interval. Trend based on less than 10 cases for at least one year within the time interval.

Table 1.26
Age-Adjusted U.S. Death Rates and Trends for the Top 15 Cancer Sites[a] by Race/Ethnicity

Both Sexes

All Races

	Rate[b] 2003-2007	APC[c] 1998-2007
All Sites	183.8	-1.4*
Lung and Bronchus	52.5	-1.2*
Colon and Rectum	17.6	-2.9*
Breast	13.5	-2.2*
Pancreas	10.7	0.3*
Prostate[f]	9.5	-3.2*
Leukemia	7.2	-1.0*
Non-Hodgkin Lymphoma	6.9	-3.2*
Liver & IBD[g]	5.2	2.1*
Ovary[f]	4.8	-0.8*
Esophagus	4.4	-0.1
Urinary Bladder	4.3	0.0
Brain and ONS[g]	4.3	-1.2*
Kidney and Renal Pelvis	4.1	-0.6*
Stomach	3.8	-3.2*
Myeloma	3.6	-1.3*

White

	Rate[b] 2003-2007	APC[c] 1998-2007
All Sites	182.4	-1.3*
Lung and Bronchus	52.9	-1.0*
Colon and Rectum	17.1	-2.9*
Breast	13.1	-2.3*
Pancreas	10.5	0.4*
Prostate[f]	8.8	-3.0*
Leukemia	7.4	-0.9*
Non-Hodgkin Lymphoma	7.2	-3.2*
Ovary[f]	5.0	-0.7*
Liver & IBD[g]	4.8	2.2*
Brain and ONS[g]	4.6	-1.1*
Urinary Bladder	4.5	0.2
Esophagus	4.4	0.7*
Kidney and Renal Pelvis	4.2	-0.5
Stomach	3.3	-3.3*
Myeloma	3.3	-1.2*

Black

	Rate[b] 2003-2007	APC[c] 1998-2007
All Sites	224.2	-2.0*
Lung and Bronchus	58.6	-1.8*
Colon and Rectum	24.7	-2.3*
Prostate[f]	19.3	-3.8*
Breast	19.2	-1.5*
Pancreas	13.8	-0.4
Stomach	7.3	-3.7*
Liver & IBD[g]	7.0	2.0*
Myeloma	6.7	-2.0*
Leukemia	6.3	-1.4*
Esophagus	5.1	-4.5*
Non-Hodgkin Lymphoma	4.8	-2.6*
Corpus and Uterus, NOS[f]	4.3	0.6
Ovary[f]	4.3	-0.9
Kidney and Renal Pelvis	4.0	-0.4
Urinary Bladder	3.7	-0.6

Asian/Pacific Islander

	Rate[b] 2003-2007	APC[c] 1998-2007
All Sites	110.8	-1.6*
Lung and Bronchus	26.2	-1.3*
Colon and Rectum	11.3	-2.3*
Liver & IBD[g]	10.1	-1.1
Pancreas	7.4	0.0
Stomach	7.2	-3.7*
Breast	6.8	-0.9
Non-Hodgkin Lymphoma	4.4	-3.2*
Prostate[f]	4.3	-3.4*
Leukemia	3.8	-1.6*
Ovary[f]	2.7	0.8
Oral Cavity and Pharynx	2.1	-2.2*
Brain and ONS[g]	1.9	-0.2
Esophagus	1.9	-1.7
Kidney and Renal Pelvis	1.8	0.1
Myeloma	1.7	-1.0

American Indian/Alaska Native[d]

	Rate[b] 2003-2007	APC[c] 1998-2007
All Sites	156.7	-0.5
Lung and Bronchus	39.7	-0.5
Colon and Rectum	15.5	-2.0*
Breast	9.9	1.1
Pancreas	8.8	2.2
Liver & IBD[g]	8.6	2.0
Prostate[f]	8.0	-1.1
Stomach	6.3	-3.5*
Kidney and Renal Pelvis	6.0	-1.6
Non-Hodgkin Lymphoma	4.9	-2.1
Leukemia	4.8	1.4
Ovary[f]	3.8	0.2
Esophagus	3.8	0.6
Myeloma	3.5	-2.6
Oral Cavity and Pharynx	2.4	-0.4
Brain and ONS[g]	2.1	0.4

Hispanic[e]

	Rate[b] 2003-2007	APC[c] 1998-2007
All Sites	122.1	-1.8*
Lung and Bronchus	22.1	-2.1*
Colon and Rectum	12.7	-2.0*
Breast	8.4	-2.2*
Pancreas	8.3	-0.1
Liver & IBD[g]	8.0	1.0*
Prostate[f]	7.5	-3.1*
Stomach	6.0	-3.3*
Non-Hodgkin Lymphoma	5.3	-3.1*
Leukemia	4.8	-1.6*
Kidney and Renal Pelvis	3.6	-0.3
Ovary[f]	3.3	-0.5
Myeloma	2.9	-1.2
Brain and ONS[g]	2.8	-0.9
Urinary Bladder	2.3	-0.5
Esophagus	2.2	-2.0*

[a] Top 15 cancer sites selected based on 2003-2007 age-adjusted rates for the race/ethnic group.
[b] Mortality data used in calculating the rates are analyzed from US mortality files provided by the National Center for Health Statistics, CDC. Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).
[c] The APC is the Annual Percent Change over the time interval. Mortality data used in calculating the trends are analyzed from US mortality files provided by the National Center for Health Statistics, CDC. Trends are based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).
[d] Rates for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.
[e] Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. The 2003-2007 Hispanic death rates do not include deaths from the District of Columbia, New Hampshire and North Dakota. The 1998-2007 Hispanic mortality trends do not include deaths from the District of Columbia, Maine, Minnesota, New Hampshire and North Dakota.
[f] The rates for sex-specific cancer sites are calculated using the population for both sexes combined.
[g] IBD = Intrahepatic Bile Duct. ONS = Other Nervous System.
[*] The APC is significantly different from zero (p<.05).
[-] Statistic not shown. Rate based on less than 16 cases for the time interval. Trend based on less than 10 cases for at least one year within the time interval.

Table 1.27
Age-Adjusted U.S. Death Rates and Trends for the Top 15 Cancer Sites[a] by Race/Ethnicity

Males

All Races

	Rate[b] 2003-2007	APC[c] 1998-2007
All Sites	225.4	-1.8*
Lung and Bronchus	68.8	-2.1*
Prostate	24.7	-3.9*
Colon and Rectum	21.2	-3.0*
Pancreas	12.3	0.2
Leukemia	9.7	-0.9*
Non-Hodgkin Lymphoma	8.7	-3.0*
Esophagus	7.8	0.2
Liver & IBD[f]	7.7	2.2*
Urinary Bladder	7.5	-0.1
Kidney and Renal Pelvis	5.9	-0.7*
Stomach	5.3	-3.5*
Brain and ONS[f]	5.2	-1.3*
Myeloma	4.4	-1.0*
Melanoma of the Skin	4.0	0.3
Oral Cavity and Pharynx	3.9	-1.5*

White

	Rate[b] 2003-2007	APC[c] 1998-2007
All Sites	222.5	-1.7*
Lung and Bronchus	68.3	-1.9*
Prostate	22.8	-3.8*
Colon and Rectum	20.6	-3.1*
Pancreas	12.2	0.4*
Leukemia	10.0	-0.8*
Non-Hodgkin Lymphoma	9.1	-3.0*
Urinary Bladder	7.9	0.0
Esophagus	7.9	0.9*
Liver & IBD[f]	7.0	2.2*
Kidney and Renal Pelvis	6.0	-0.7*
Brain and ONS[f]	5.6	-1.1*
Stomach	4.6	-3.7*
Melanoma of the Skin	4.5	0.5
Myeloma	4.2	-0.9*
Oral Cavity and Pharynx	3.7	-1.1*

Black

	Rate[b] 2003-2007	APC[c] 1998-2007
All Sites	296.5	-2.6*
Lung and Bronchus	87.5	-2.9*
Prostate	54.2	-4.2*
Colon and Rectum	30.5	-1.9*
Pancreas	15.4	-0.7*
Liver & IBD[f]	11.1	2.6*
Stomach	10.7	-3.5*
Esophagus	8.9	-4.4*
Leukemia	8.4	-1.3*
Myeloma	8.1	-1.7*
Oral Cavity and Pharynx	6.3	-3.1*
Non-Hodgkin Lymphoma	6.0	-2.7*
Kidney and Renal Pelvis	6.0	-0.6
Urinary Bladder	5.4	-0.3
Larynx	4.6	-2.8*
Brain and ONS[f]	3.1	-1.5*

Asian/Pacific Islander

	Rate[b] 2003-2007	APC[c] 1998-2007
All Sites	134.2	-2.0*
Lung and Bronchus	36.7	-1.7*
Liver & IBD[f]	14.7	-1.1*
Colon and Rectum	13.2	-3.1*
Prostate	10.6	-3.1*
Stomach	9.4	-3.6*
Pancreas	8.2	0.0
Non-Hodgkin Lymphoma	5.5	-2.8*
Leukemia	4.9	-1.0
Esophagus	3.2	-2.0
Oral Cavity and Pharynx	3.1	-2.8*
Kidney and Renal Pelvis	2.6	0.2
Urinary Bladder	2.6	-2.8*
Brain and ONS[f]	2.3	-1.2
Myeloma	2.0	-0.1
Soft Tissue including Heart	1.0	-0.6

American Indian/Alaska Native[d]

	Rate[b] 2003-2007	APC[c] 1998-2007
All Sites	183.7	-1.0
Lung and Bronchus	48.1	-2.2*
Prostate	20.0	-1.6
Colon and Rectum	19.2	-1.8
Liver & IBD[f]	10.9	2.2
Pancreas	9.9	3.5
Stomach	9.2	-1.7
Kidney and Renal Pelvis	8.8	-0.7
Esophagus	6.4	0.0
Leukemia	5.8	0.1
Non-Hodgkin Lymphoma	5.3	-3.7
Myeloma	4.2	-0.6
Oral Cavity and Pharynx	3.5	-3.2
Urinary Bladder	3.0	-
Brain and ONS[f]	2.7	3.1
Larynx	1.9	-

Hispanic[e]

	Rate[b] 2003-2007	APC[c] 1998-2007
All Sites	150.5	-2.5*
Lung and Bronchus	32.5	-3.3*
Prostate	18.8	-3.8*
Colon and Rectum	15.6	-2.6*
Liver & IBD[f]	11.3	1.0*
Pancreas	9.1	-0.4
Stomach	8.0	-3.7*
Non-Hodgkin Lymphoma	6.3	-3.4*
Leukemia	6.0	-1.7*
Kidney and Renal Pelvis	5.2	-0.3
Esophagus	4.0	-2.1*
Urinary Bladder	3.9	-0.9
Myeloma	3.3	-1.4
Brain and ONS[f]	3.2	-1.3
Oral Cavity and Pharynx	2.5	-3.8*
Larynx	1.8	-4.6*

[a] Top 15 cancer sites selected based on 2003-2007 age-adjusted rates for the race/ethnic group.
[b] Mortality data used in calculating the rates are analyzed from US mortality files provided by the National Center for Health Statistics, CDC. Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).
[c] The APC is the Annual Percent Change over the time interval. Mortality data used in calculating the trends are analyzed from US mortality files provided by the National Center for Health Statistics, CDC. Trends are based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).
[d] Rates for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.
[e] Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. The 2003-2007 Hispanic death rates do not include deaths from the District of Columbia, New Hampshire and North Dakota. The 1998-2007 Hispanic mortality trends do not include deaths from the District of Columbia, Maine, Minnesota, New Hampshire and North Dakota.
[f] IBD = Intrahepatic Bile Duct. ONS = Other Nervous System.
[*] The APC is significantly different from zero (p<.05).
[-] Statistic not shown. Rate based on less than 16 cases for the time interval. Trend based on less than 10 cases for at least one year within the time interval.

Table 1.28
Age-Adjusted U.S. Death Rates and Trends for the Top 15 Cancer Sites[a] by Race/Ethnicity

Females

All Races

	Rate[b] 2003-2007	APC[c] 1998-2007
All Sites	155.4	-1.2*
Lung and Bronchus	40.6	-0.2
Breast	24.0	-2.0*
Colon and Rectum	14.9	-2.9*
Pancreas	9.4	0.3*
Ovary	8.6	-0.6*
Non-Hodgkin Lymphoma	5.5	-3.5*
Leukemia	5.4	-1.4*
Corpus and Uterus, NOS	4.1	0.2
Brain and ONS[f]	3.5	-1.2*
Liver & IBD[f]	3.2	1.4*
Myeloma	2.9	-1.8*
Stomach	2.7	-3.0*
Kidney and Renal Pelvis	2.7	-0.6*
Cervix Uteri	2.4	-2.4*
Urinary Bladder	2.2	-0.6*

White

	Rate[b] 2003-2007	APC[c] 1998-2007
All Sites	155.0	-1.1*
Lung and Bronchus	41.6	-0.1
Breast	23.4	-2.0*
Colon and Rectum	14.4	-2.9*
Pancreas	9.1	0.4*
Ovary	8.9	-0.5
Non-Hodgkin Lymphoma	5.7	-3.5*
Leukemia	5.6	-1.3*
Corpus and Uterus, NOS	3.9	0.1
Brain and ONS[f]	3.8	-1.1*
Liver & IBD[f]	3.0	1.6*
Kidney and Renal Pelvis	2.7	-0.5*
Myeloma	2.7	-1.6*
Stomach	2.4	-3.1*
Urinary Bladder	2.2	-0.4
Cervix Uteri	2.2	-2.2*

Black

	Rate[b] 2003-2007	APC[c] 1998-2007
All Sites	180.6	-1.4*
Lung and Bronchus	39.6	-0.3
Breast	32.4	-1.4*
Colon and Rectum	21.0	-2.7*
Pancreas	12.4	-0.2
Corpus and Uterus, NOS	7.2	0.8*
Ovary	7.2	-0.9
Myeloma	5.8	-2.3*
Stomach	5.0	-4.0*
Leukemia	5.0	-1.5*
Cervix Uteri	4.4	-3.5*
Non-Hodgkin Lymphoma	3.9	-2.6*
Liver & IBD[f]	3.9	0.4
Urinary Bladder	2.7	-1.1
Kidney and Renal Pelvis	2.7	-0.2
Esophagus	2.5	-4.6*

Asian/Pacific Islander

	Rate[b] 2003-2007	APC[c] 1998-2007
All Sites	94.1	-1.2*
Lung and Bronchus	18.5	-0.6
Breast	12.2	-1.0
Colon and Rectum	9.9	-1.5*
Pancreas	6.9	0.1
Liver & IBD[f]	6.4	-1.2
Stomach	5.6	-3.5*
Ovary	4.9	0.6
Non-Hodgkin Lymphoma	3.5	-3.4*
Leukemia	2.9	-2.1*
Corpus and Uterus, NOS	2.5	1.5
Cervix Uteri	2.1	-4.6*
Brain and ONS[f]	1.6	1.2
Myeloma	1.4	-1.8
Oral Cavity and Pharynx	1.2	-0.9
Kidney and Renal Pelvis	1.2	-0.1

American Indian/Alaska Native[d]

	Rate[b] 2003-2007	APC[c] 1998-2007
All Sites	138.0	-0.2
Lung and Bronchus	33.3	1.2
Breast	17.6	1.1
Colon and Rectum	12.9	-2.3
Pancreas	8.0	1.6
Ovary	6.8	0.2
Liver & IBD[f]	6.6	1.4
Non-Hodgkin Lymphoma	4.6	-0.7
Stomach	4.2	-5.9*
Leukemia	3.9	-
Kidney and Renal Pelvis	3.8	-2.5
Cervix Uteri	3.4	-2.4
Myeloma	3.0	-4.2
Corpus and Uterus, NOS	2.9	-
Gallbladder	2.4	-
Esophagus	1.7	-

Hispanic[e]

	Rate[b] 2003-2007	APC[c] 1998-2007
All Sites	102.3	-1.3*
Breast	15.3	-1.9*
Lung and Bronchus	14.4	-0.4
Colon and Rectum	10.5	-1.5*
Pancreas	7.5	0.2
Ovary	6.0	-0.1
Liver & IBD[f]	5.2	0.5
Stomach	4.6	-3.0*
Non-Hodgkin Lymphoma	4.4	-2.8*
Leukemia	3.9	-1.7*
Cervix Uteri	3.1	-2.3*
Corpus and Uterus, NOS	3.0	-0.9
Myeloma	2.5	-1.0
Brain and ONS[f]	2.4	-0.7
Kidney and Renal Pelvis	2.4	-0.5
Urinary Bladder	1.3	-0.7

[a] Top 15 cancer sites selected based on 2003-2007 age-adjusted rates for the race/ethnic group.
[b] Mortality data used in calculating the rates are analyzed from US mortality files provided by the National Center for Health Statistics, CDC. Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).
[c] The APC is the Annual Percent Change over the time interval. Mortality data used in calculating the trends are analyzed from US mortality files provided by the National Center for Health Statistics, CDC. Trends are based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).
[d] Rates for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.
[e] Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. The 2003-2007 Hispanic death rates do not include deaths from the District of Columbia, New Hampshire and North Dakota. The 1998-2007 Hispanic mortality trends do not include deaths from the District of Columbia, Maine, Minnesota, New Hampshire and North Dakota.
[f] IBD = Intrahepatic Bile Duct. ONS = Other Nervous System.
[*] The APC is significantly different from zero ($p<.05$).
[-] Statistic not shown. Rate based on less than 16 cases for the time interval. Trend based on less than 10 cases for at least one year within the time interval.

Surveillance, Epidemiology, and End Results (SEER) Program: SEER 9, 13, & 17 Geographic Areas National Cancer Institute, USA

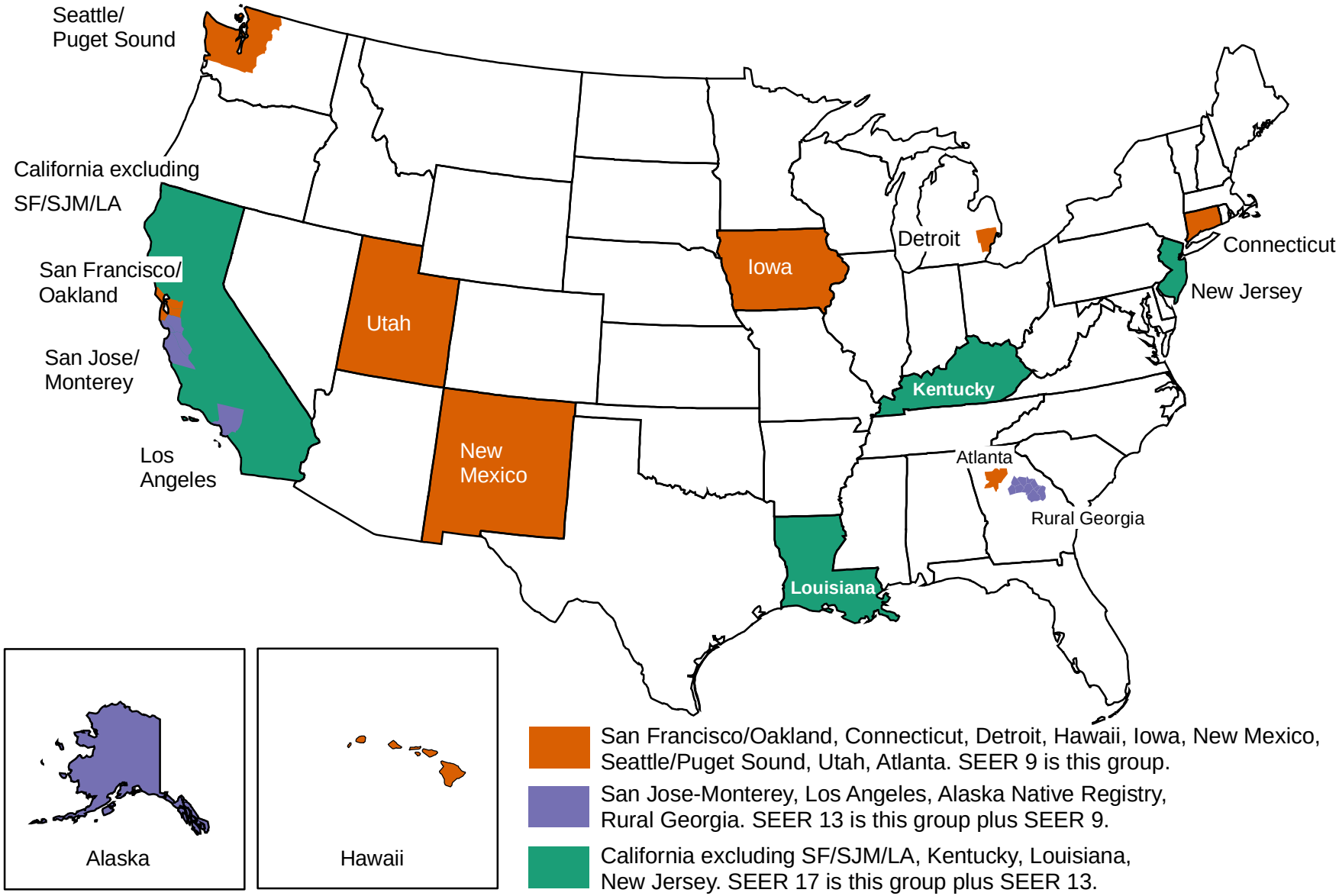
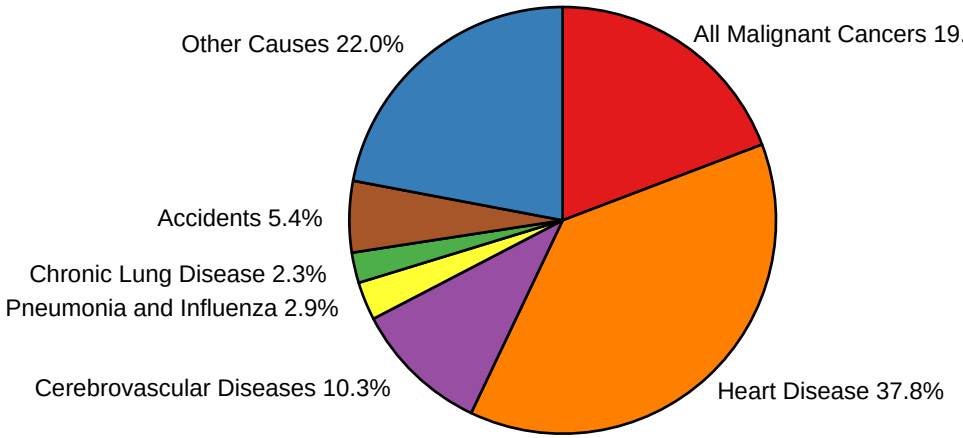
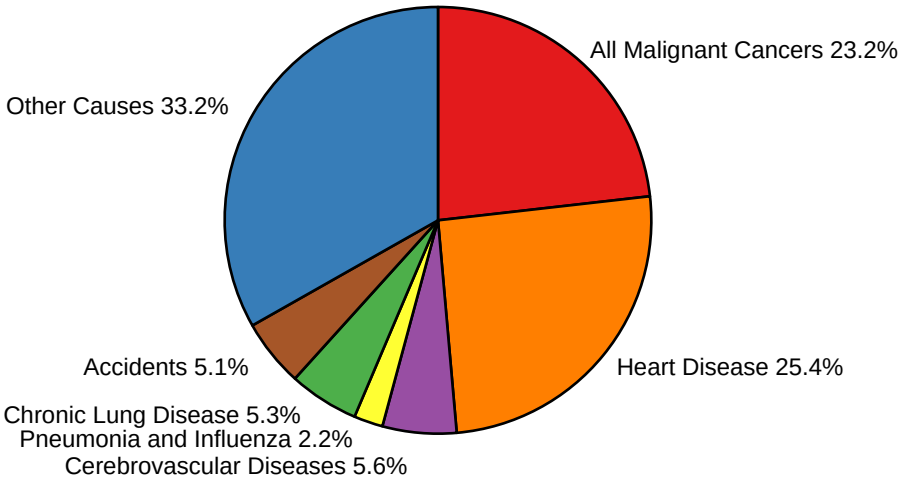


Figure 1.1

Leading Causes of Death in US, 1975 vs 2007
Percent of All Causes of Death



1975

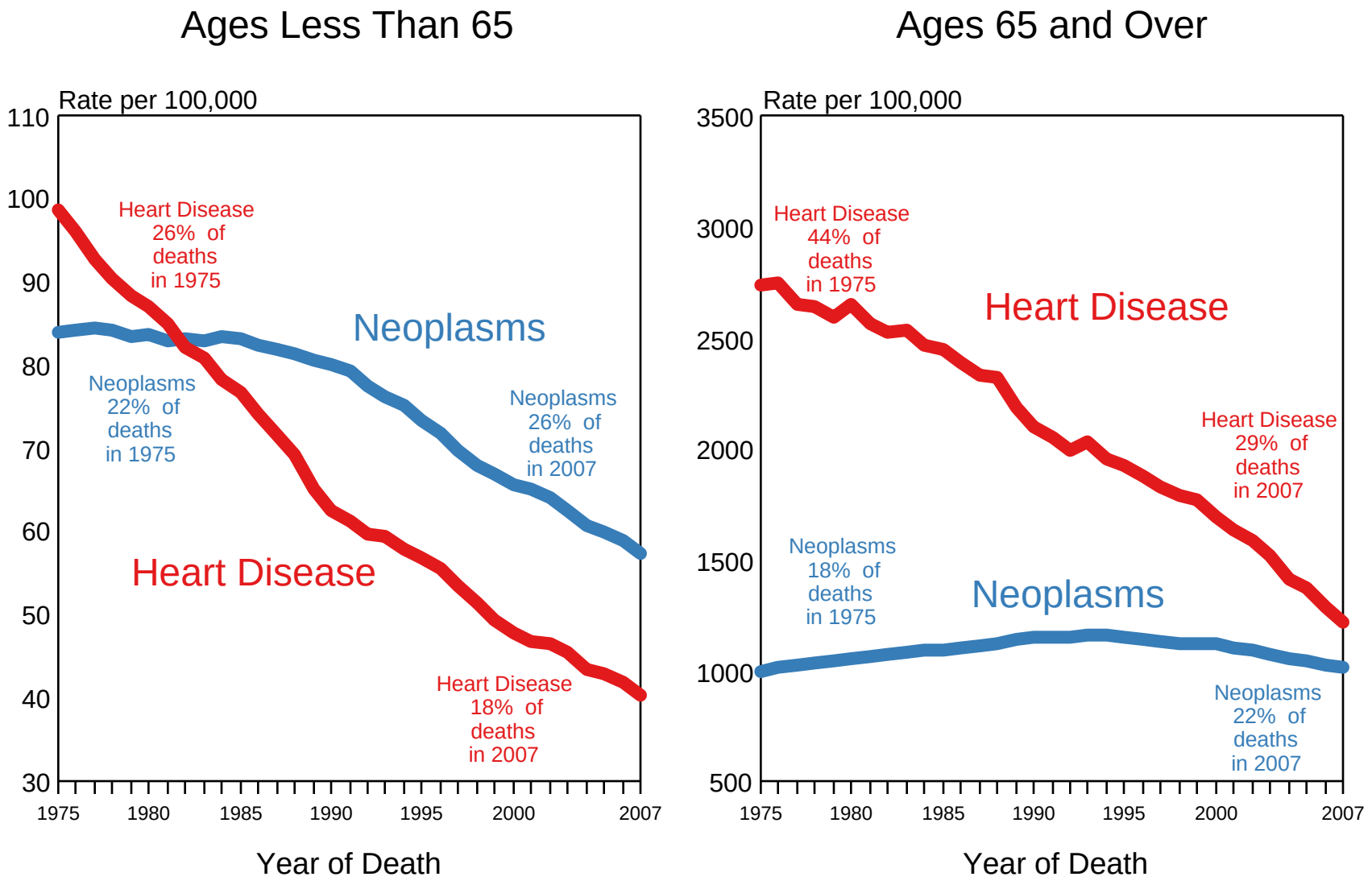


2007

Figure 1.2

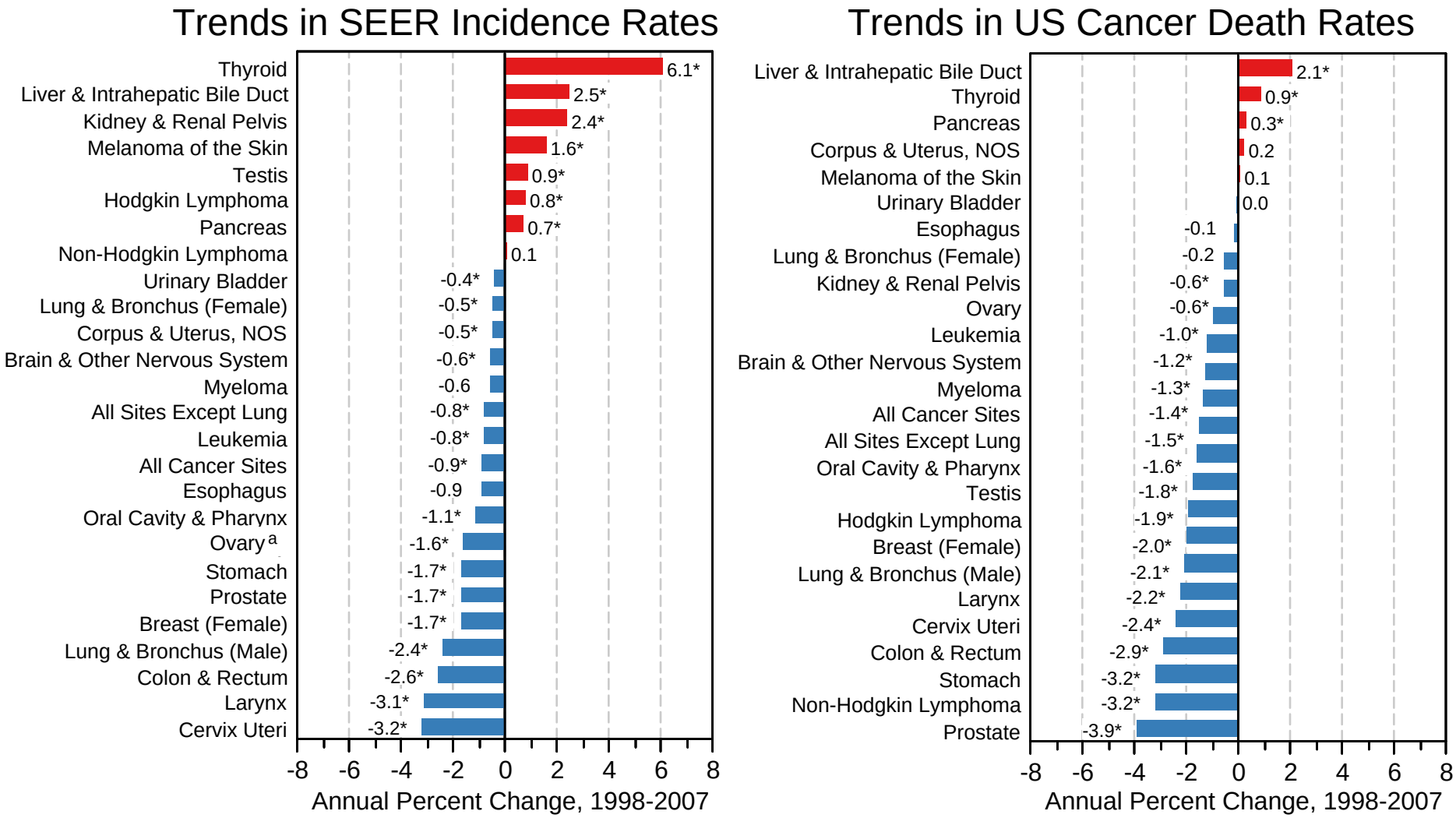
Source: US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.

Us Death Rates, 1975-2007
Heart Disease Compared to Neoplasms, by Age at Death



Source: US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.
Rates are per 100,000 and age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).

Trends in SEER Incidence & US Death Rates by Primary Cancer Site 1998-2007

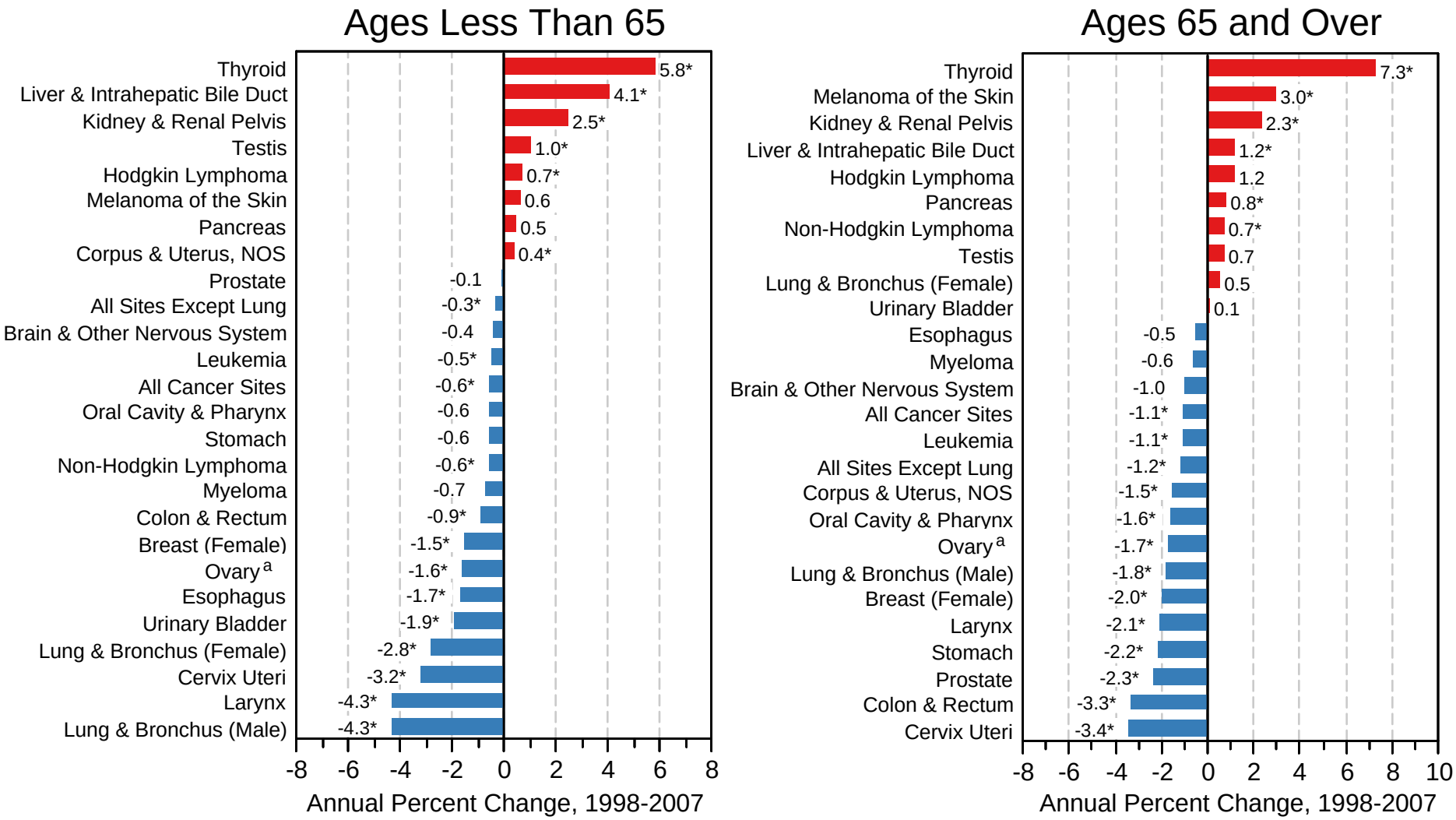


Source: SEER 13 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia) and US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.
For sex-specific cancer sites, the population was limited to the population of the appropriate sex.
Underlying rates are per 100,000 and age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).

* The APC is significantly different from zero (p<.05).

[a] Ovary excludes borderline cases or histologies 8442, 8451, 8462, 8472, and 8473.

Trends in SEER Incidence Rates by Age Group and Primary Cancer Site 1998-2007

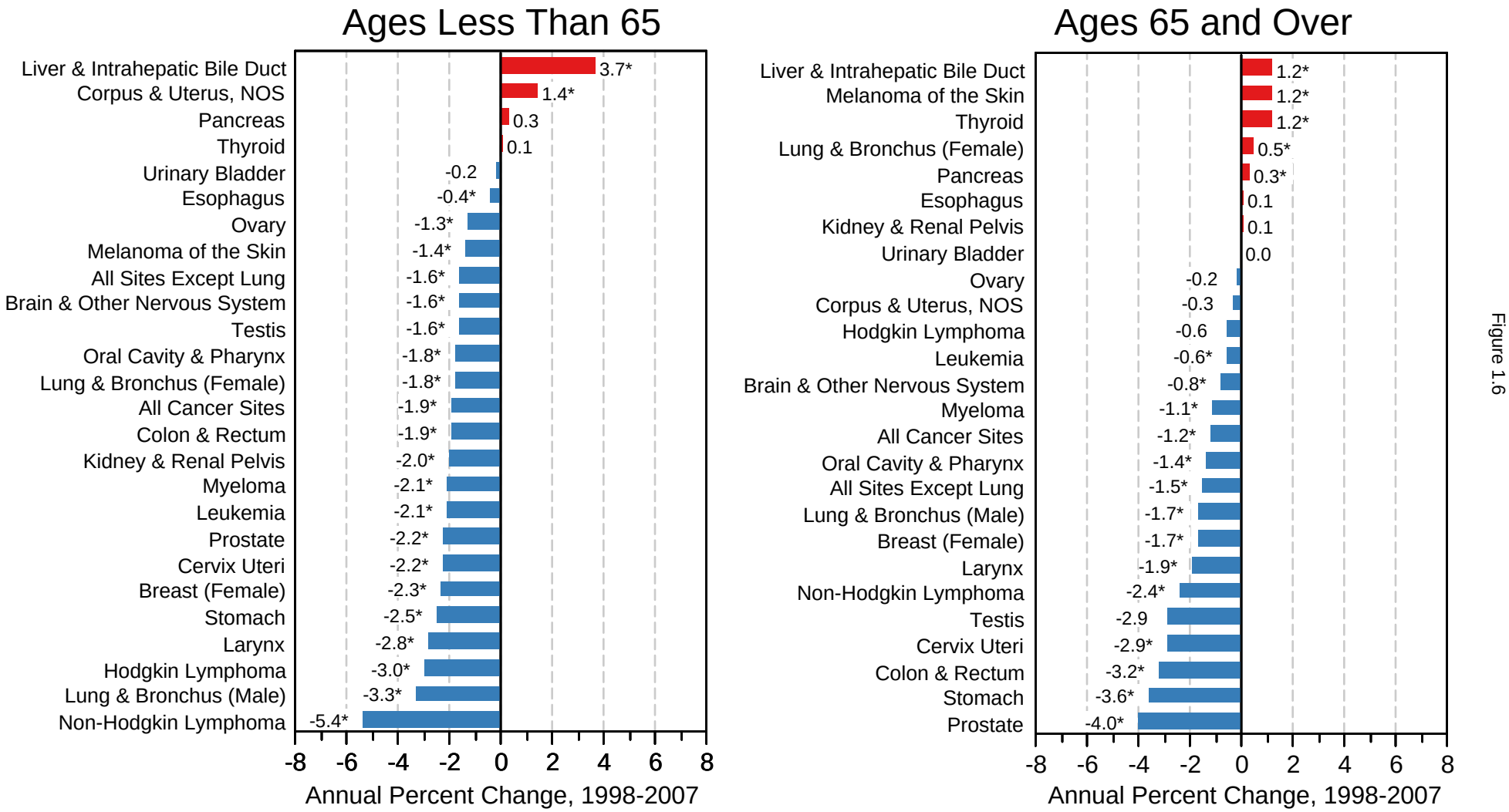


Source: SEER 13 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia).
For sex-specific cancer sites, the population was limited to the population of the appropriate sex.
Underlying rates are per 100,000 and age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).

* The APC is significantly different from zero (p<.05).

[a] Ovary excludes borderline cases or histologies 8442, 8451, 8462, 8472, and 8473.

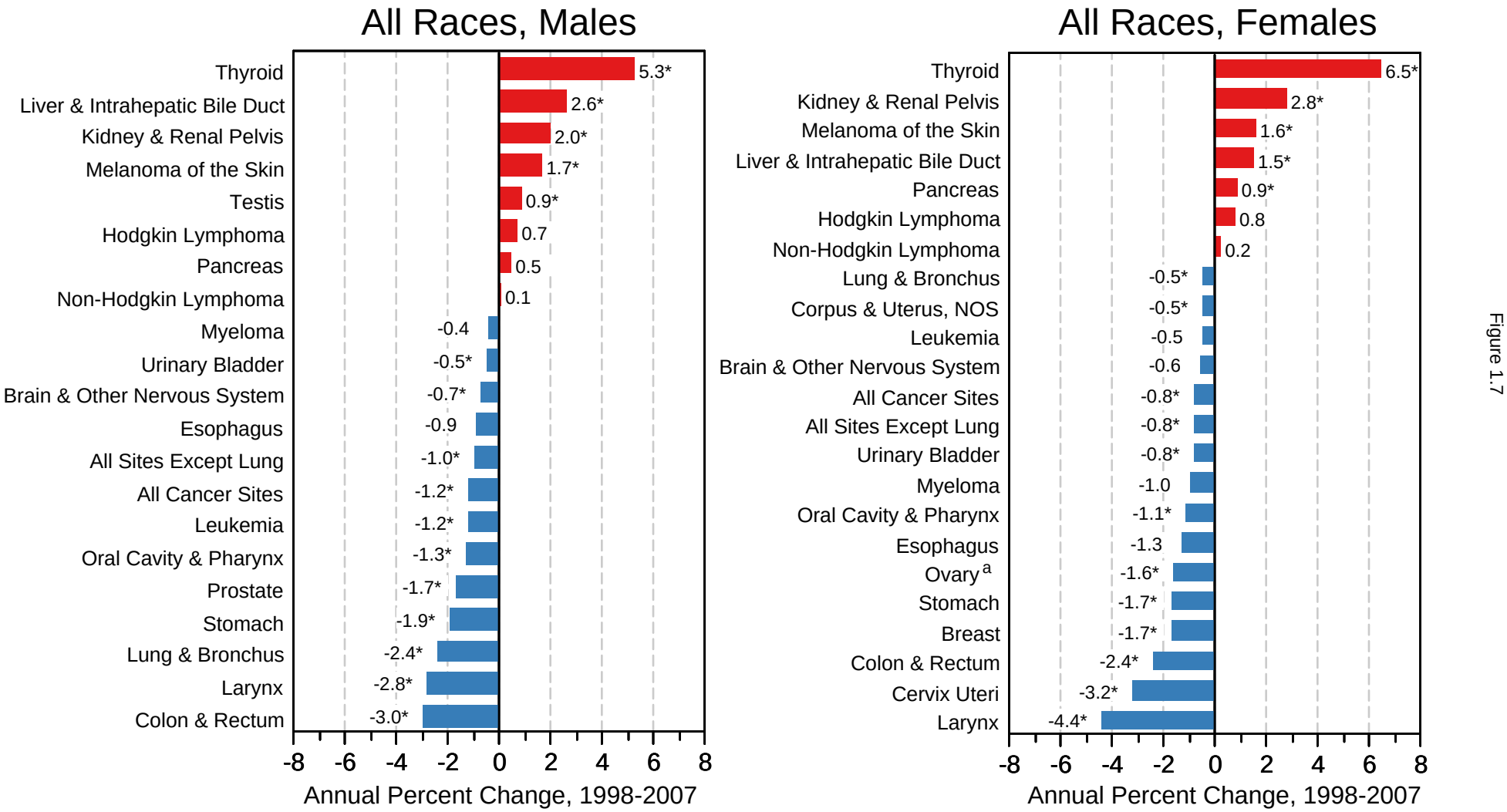
Trends in US Death Rates by Age Group and Primary Cancer Site 1998-2007



Source: US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.
For sex-specific cancer sites, the population was limited to the population of the appropriate sex.
Underlying rates are per 100,000 and age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).
* The APC is significantly different from zero (p<.05).

Figure 1.6

Trends in SEER Incidence Rates by Sex and Primary Cancer Site 1998-2007

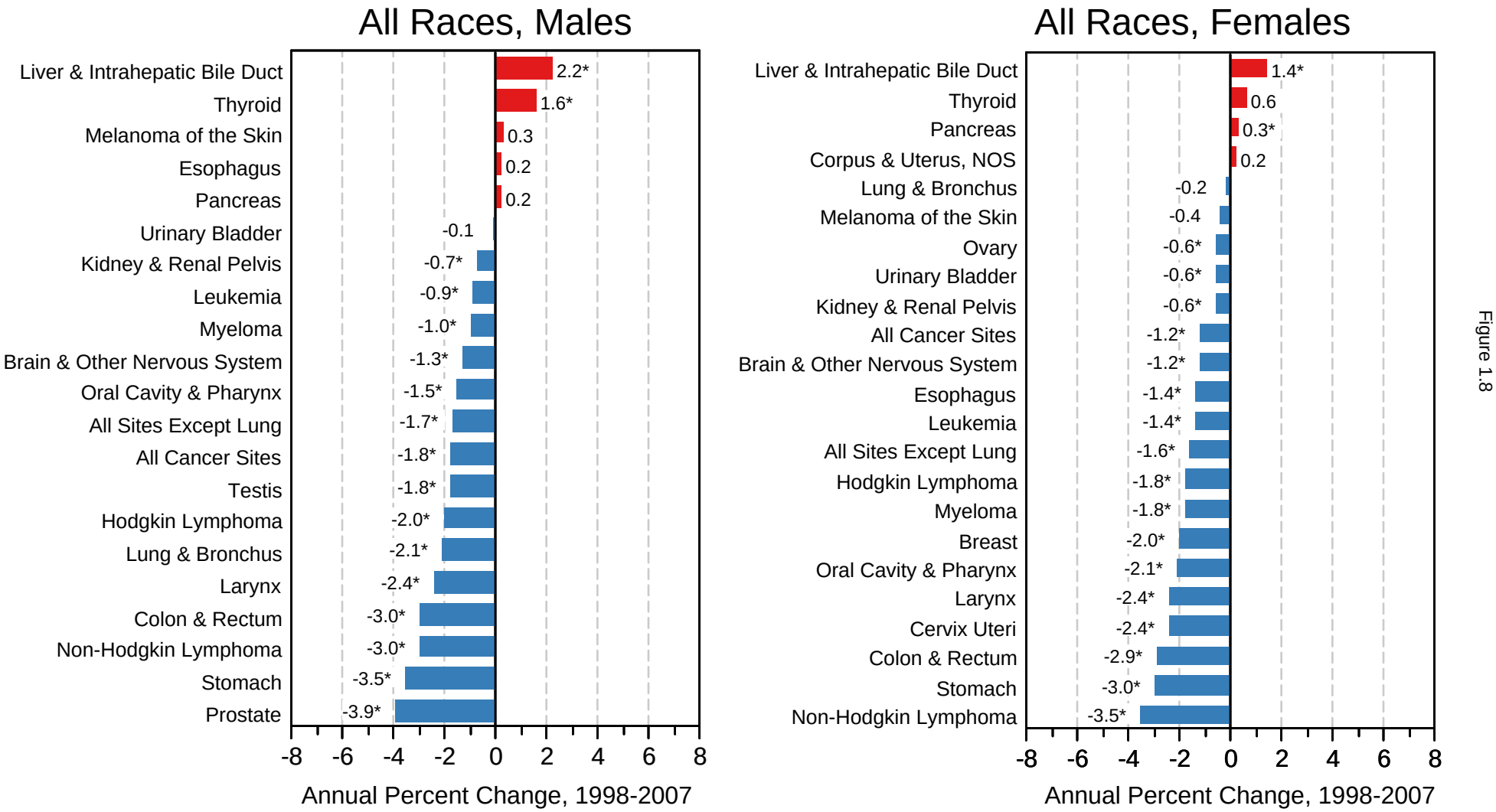


Source: SEER 13 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia).
For sex-specific cancer sites, the population was limited to the population of the appropriate sex.
Underlying rates are per 100,000 and age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).

* The APC is significantly different from zero (p<.05).

[a] Ovary excludes borderline cases or histologies 8442, 8451, 8462, 8472, and 8473.

Trends in US Death Rates by Sex and Primary Cancer Site 1998-2007



Source: US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.
For sex-specific cancer sites, the population was limited to the population of the appropriate sex.
Underlying rates are per 100,000 and age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).
* The APC is significantly different from zero (p<.05).

SEER Incidence[a] and US Death Rates[b], 2003 - 2007
5-Year Relative Survival[c], 1999-2006
All Cancer Combined, by Race and Sex

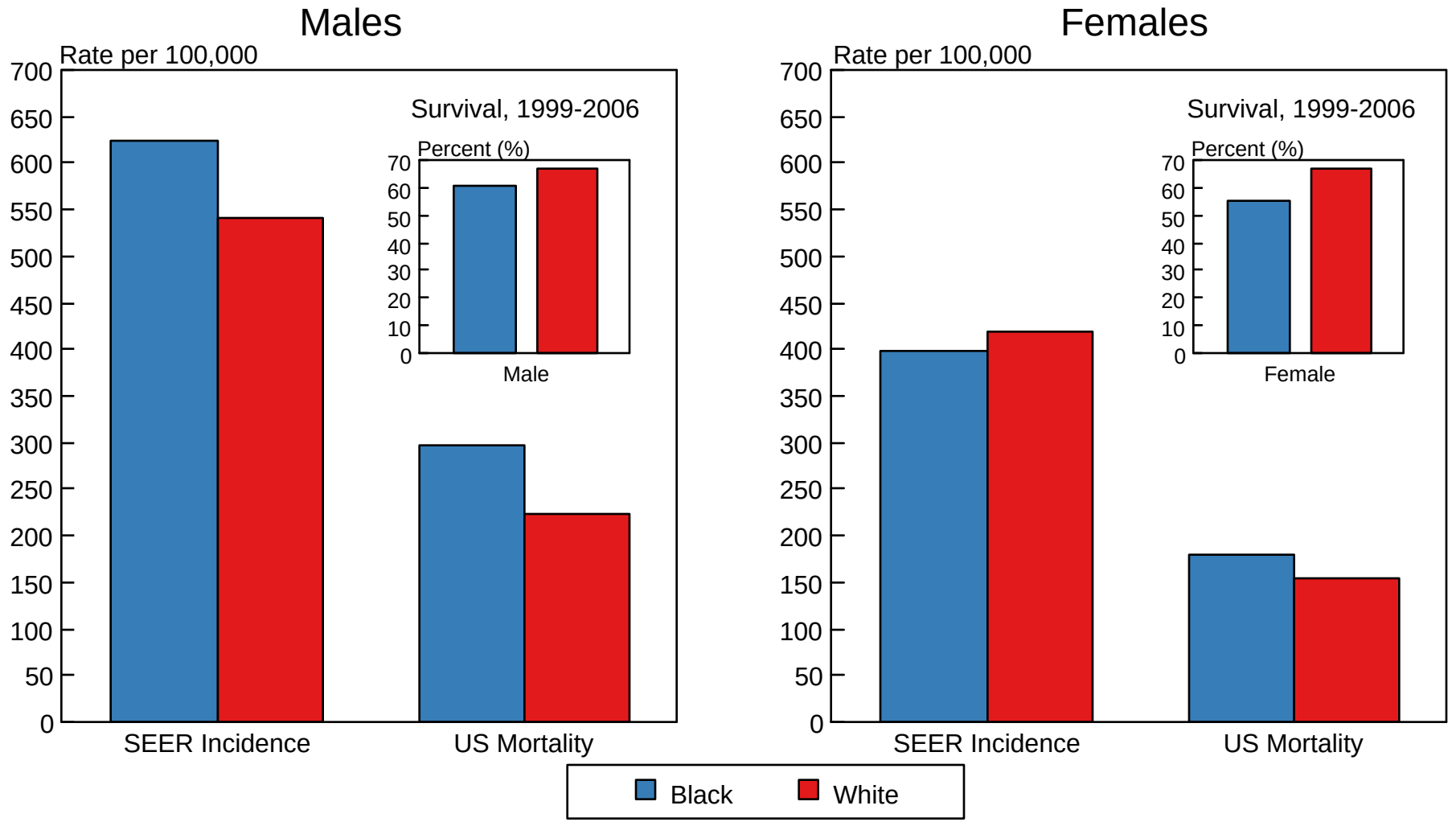


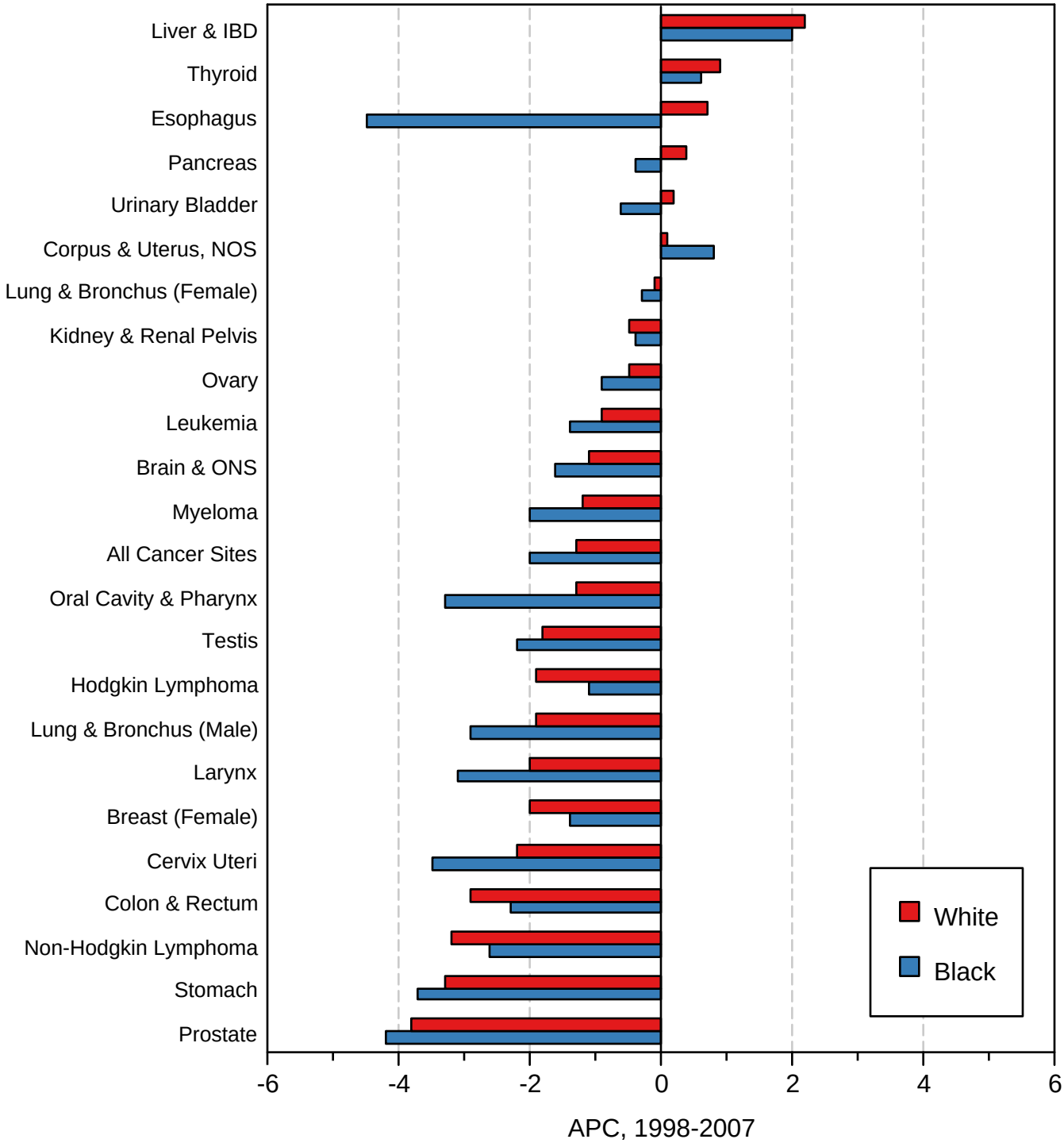
Figure 1.9

[a] Incidence rates are from the SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry,Rural Georgia,California excluding SF/SJM/LA, Kentucky, Louisiana, and New Jersey) and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).

[b] Death rates are from the US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).

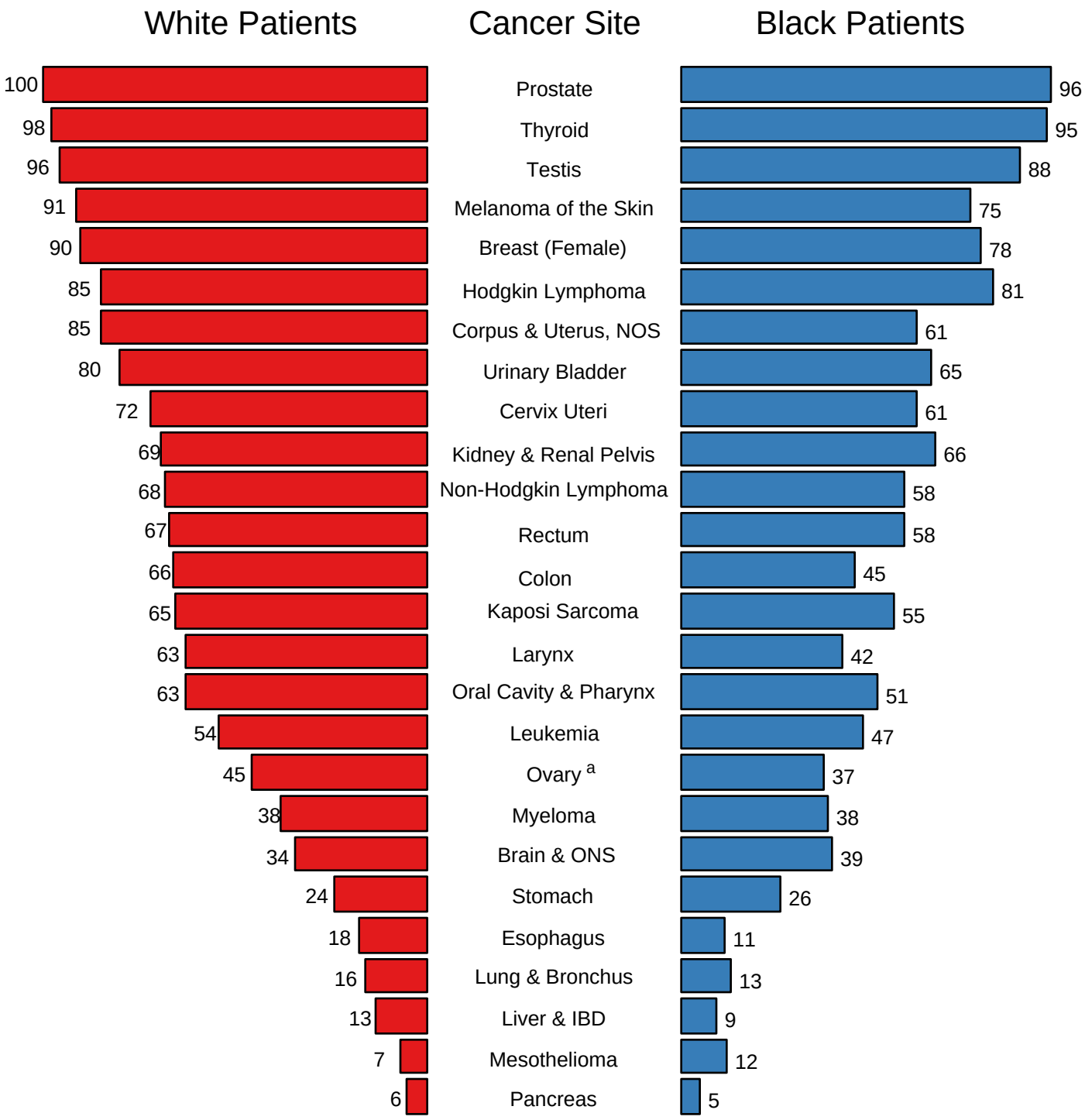
[c] Survival rates are from the SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, and New Jersey). California excluding SF/SJM/LA, Kentucky, Louisiana, and New Jersey contribute cases for diagnosis years 2000-2006. The remaining 13 SEER Areas contribute cases for the entire period 1999-2006.

Trends in US Death Rates, 1998-2007
All Ages, by Race and Primary Cancer Site



Source: US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.
The APC is the Annual Percent Change over the time interval.
Trends are based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

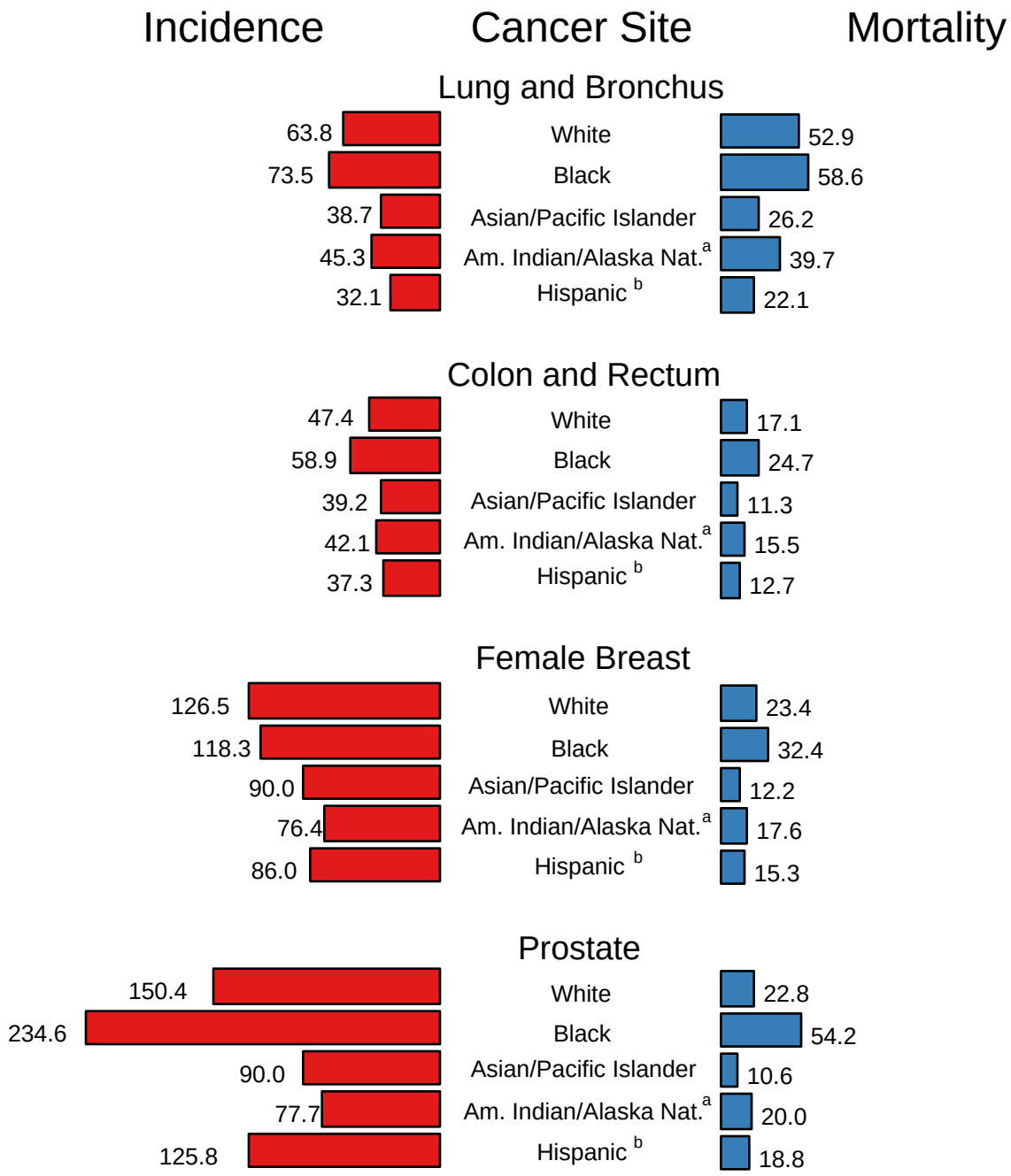
5-Year Relative Survival (%)
SEER Program, 1999-2006
Both Sexes, by Race and Cancer Site



Source: SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, and New Jersey). California excluding SF/SJM/LA, Kentucky, Louisiana, and New Jersey contribute cases for diagnosis years 2000-2006. The remaining 13 SEER Areas contribute cases for the entire period 1999-2006

[a] Ovary excludes borderline cases or histologies 8442, 8451, 8462, 8472, and 8473.

SEER Cancer Incidence and US Death Rates, 2003-2007 By Cancer Site and Race/Ethnicity



Source: SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, and New Jersey) and US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.

[a] Rates for American Indian/Alaska Native are based on the CHSDA (Contract Health Service Delivery Area) counties.

[b] Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry and Kentucky. Mortality data for Hispanics exclude cases from the District of Columbia, New Hampshire, and North Dakota.

SEER Incidence 1998-2007
Males by Race/Ethnicity

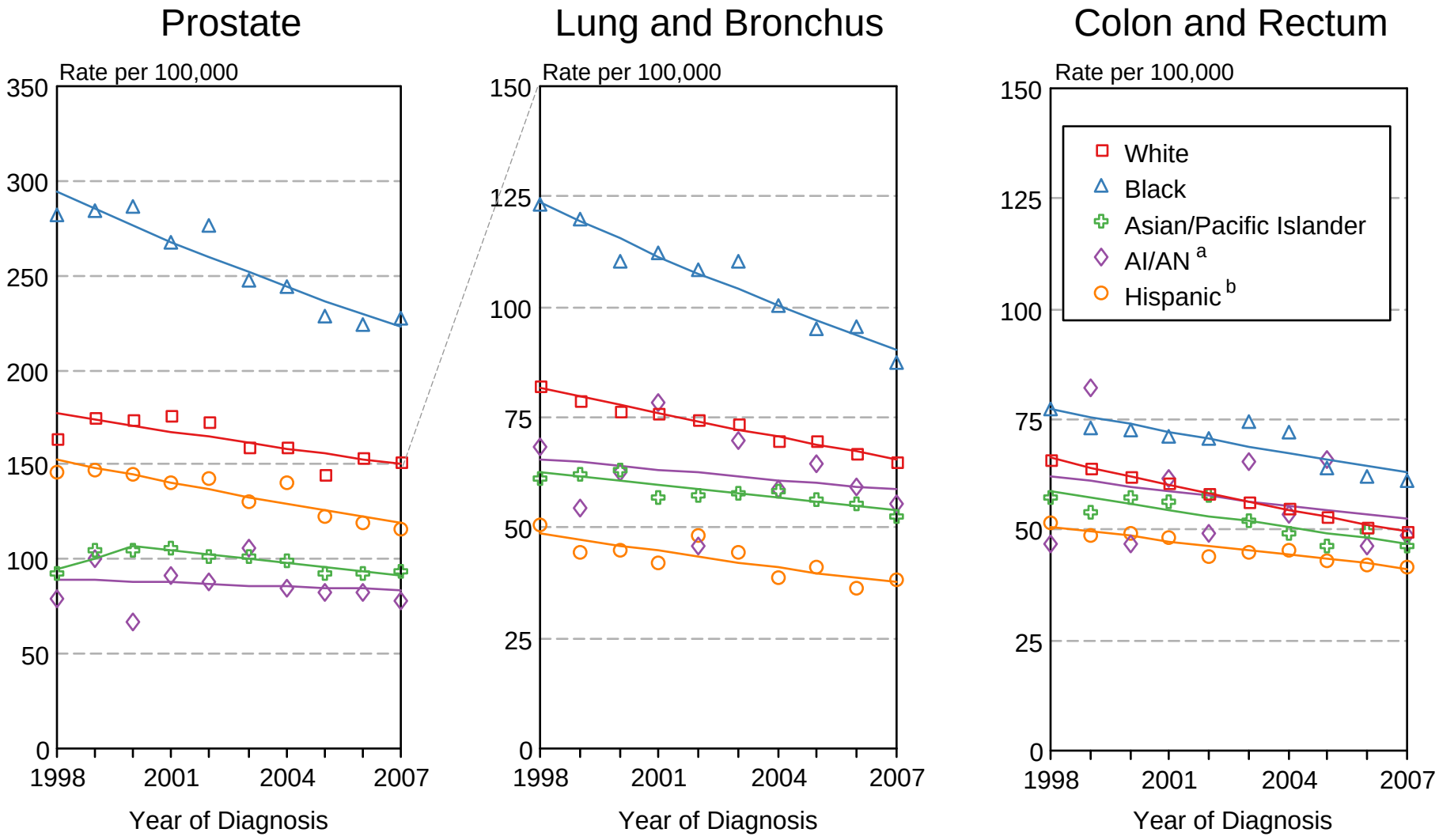


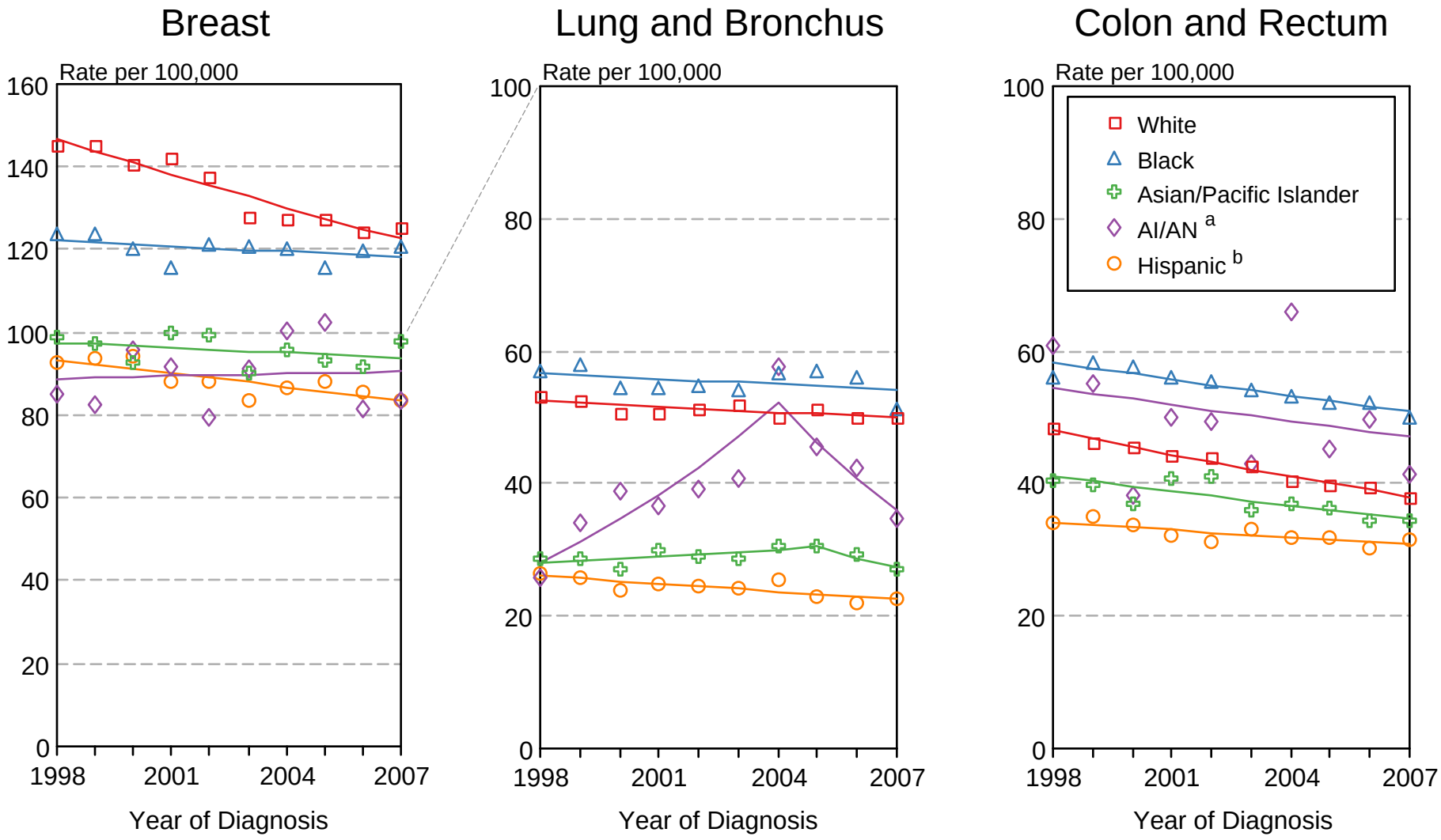
Figure 1.13

Source: SEER 13 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia). Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103). Regression lines are calculated using the Joinpoint Regression Program Version 3.4.3, April 2010, National Cancer Institute.

[a] Incidence rates for American Indian/Alaska Native (AI/AN) are based on the CHSDA(Contract Health Service Delivery Area) counties.

[b] Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.

SEER Incidence 1998-2007
Females by Race/Ethnicity

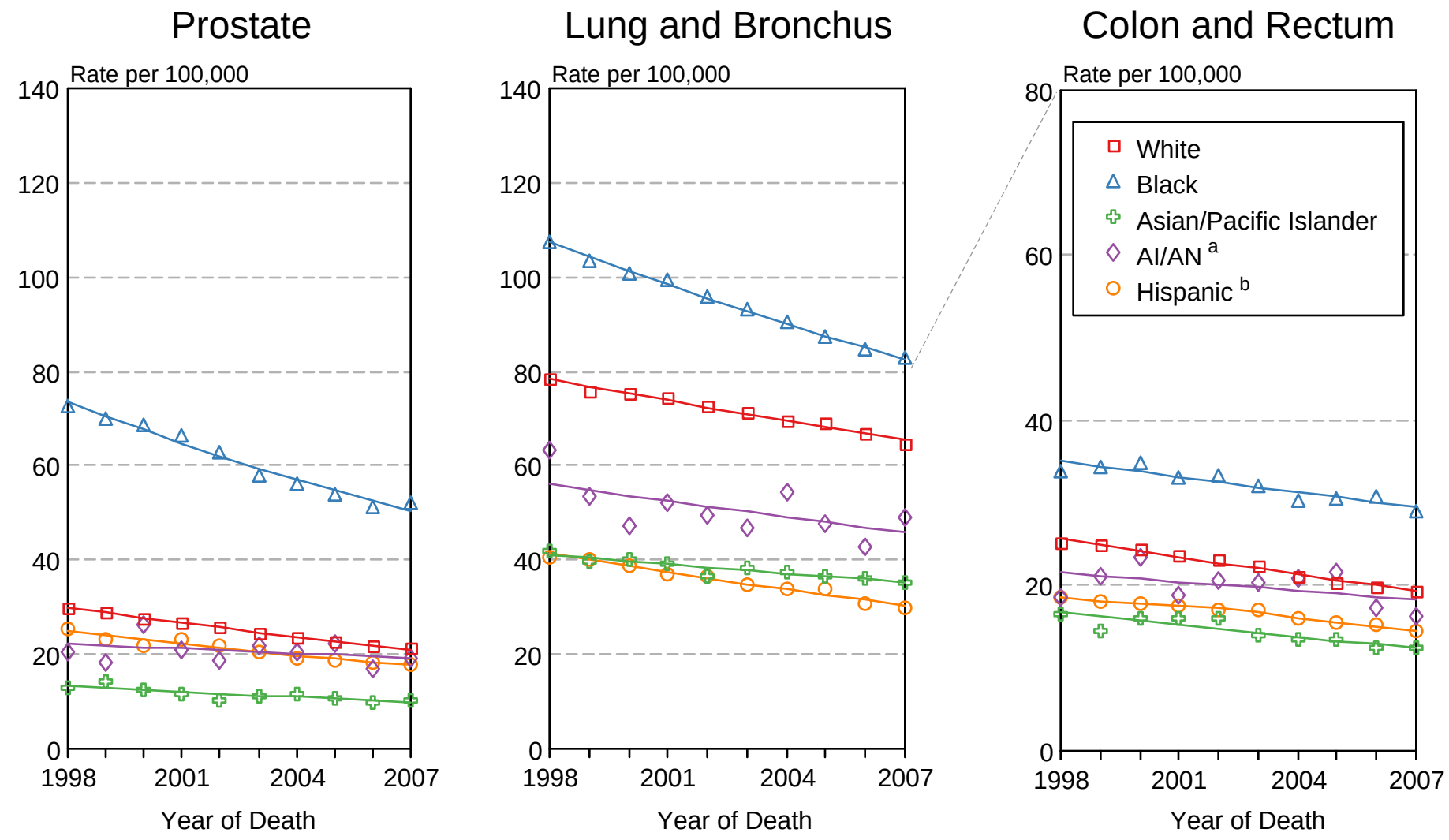


Source: SEER 13 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia). Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103). Regression lines are calculated using the Joinpoint Regression Program Version 3.4.3, April 2010, National Cancer Institute.

[a] Incidence rates for American Indian/Alaska Native (AI/AN) are based on the CHSDA(Contract Health Service Delivery Area) counties.

[b] Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.

US Mortality 1998-2007
Males by Race/Ethnicity

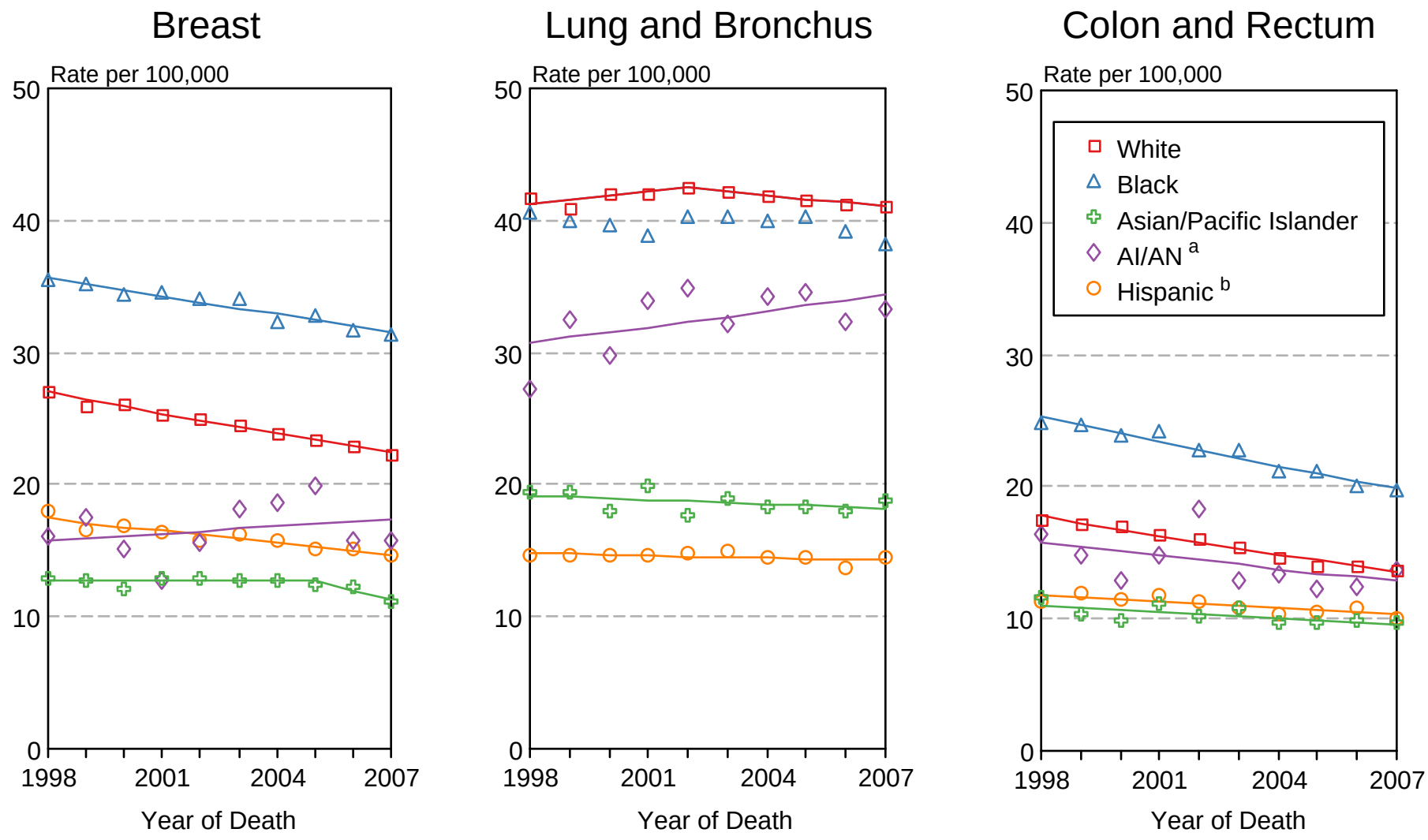


Source: US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention. Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103). Regression lines are calculated using the Joinpoint Regression Program Version 3.4.3, April 2010, National Cancer Institute.

[a] Mortality rates for American Indian/Alaska Native (AI/AN) are based on the CHSDA(Contract Health Service Delivery Area) counties.

[b] Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Mortality data for Hispanics excludes cases from the District of Columbia, Maine, Minnesota, New Hampshire, North Dakota, and Oklahoma.

US Mortality 1998-2007
Females by Race/Ethnicity

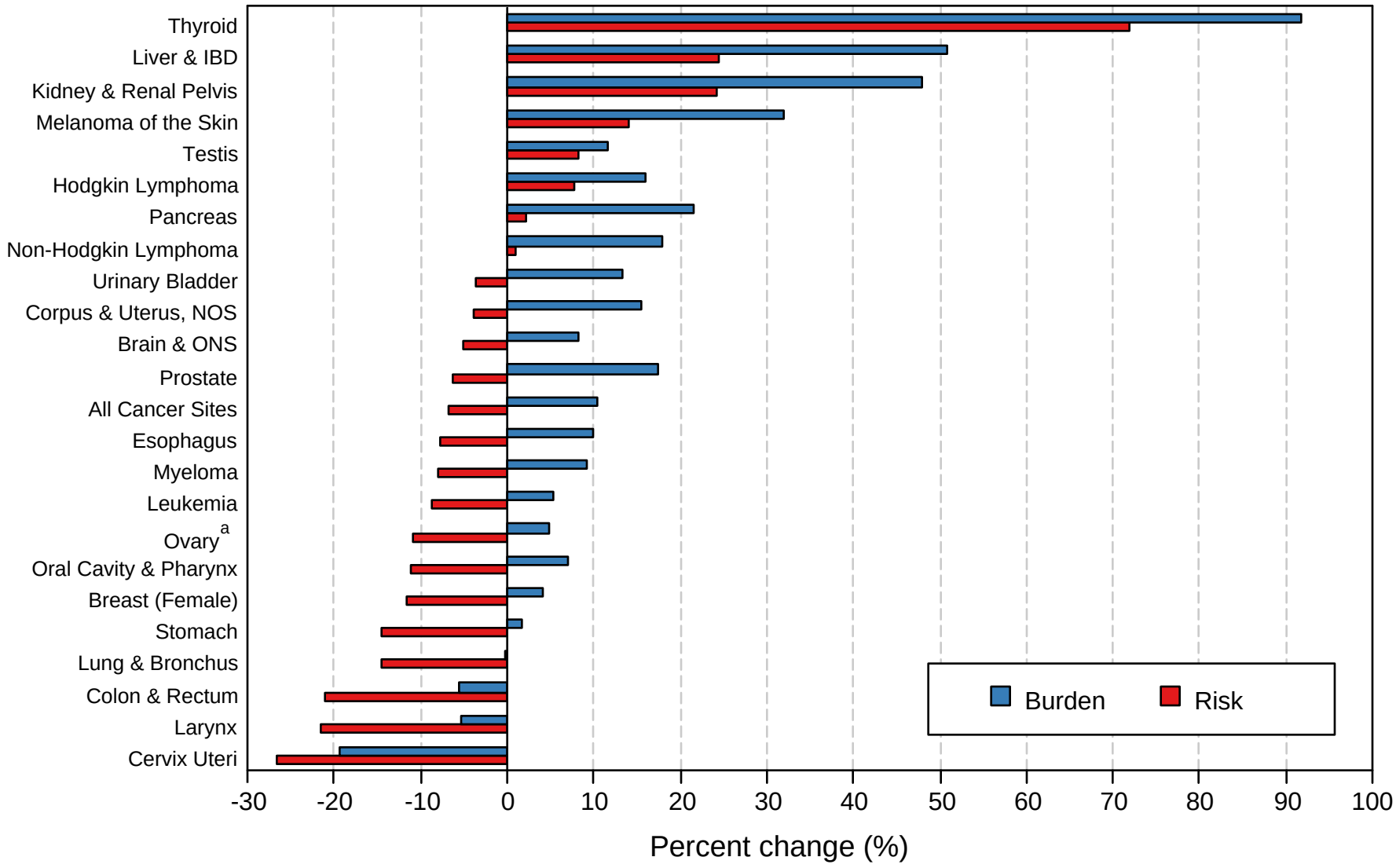


Source: US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention. Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103). Regression lines are calculated using the Joinpoint Regression Program Version 3.4.3, April 2010, National Cancer Institute.

[a] Mortality rates for American Indian/Alaska Native (AI/AN) are based on the CHSDA(Contract Health Service Delivery Area) counties.

[b] Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Mortality data for Hispanics excludes cases from the District of Columbia, Maine, Minnesota, New Hampshire, North Dakota, and Oklahoma.

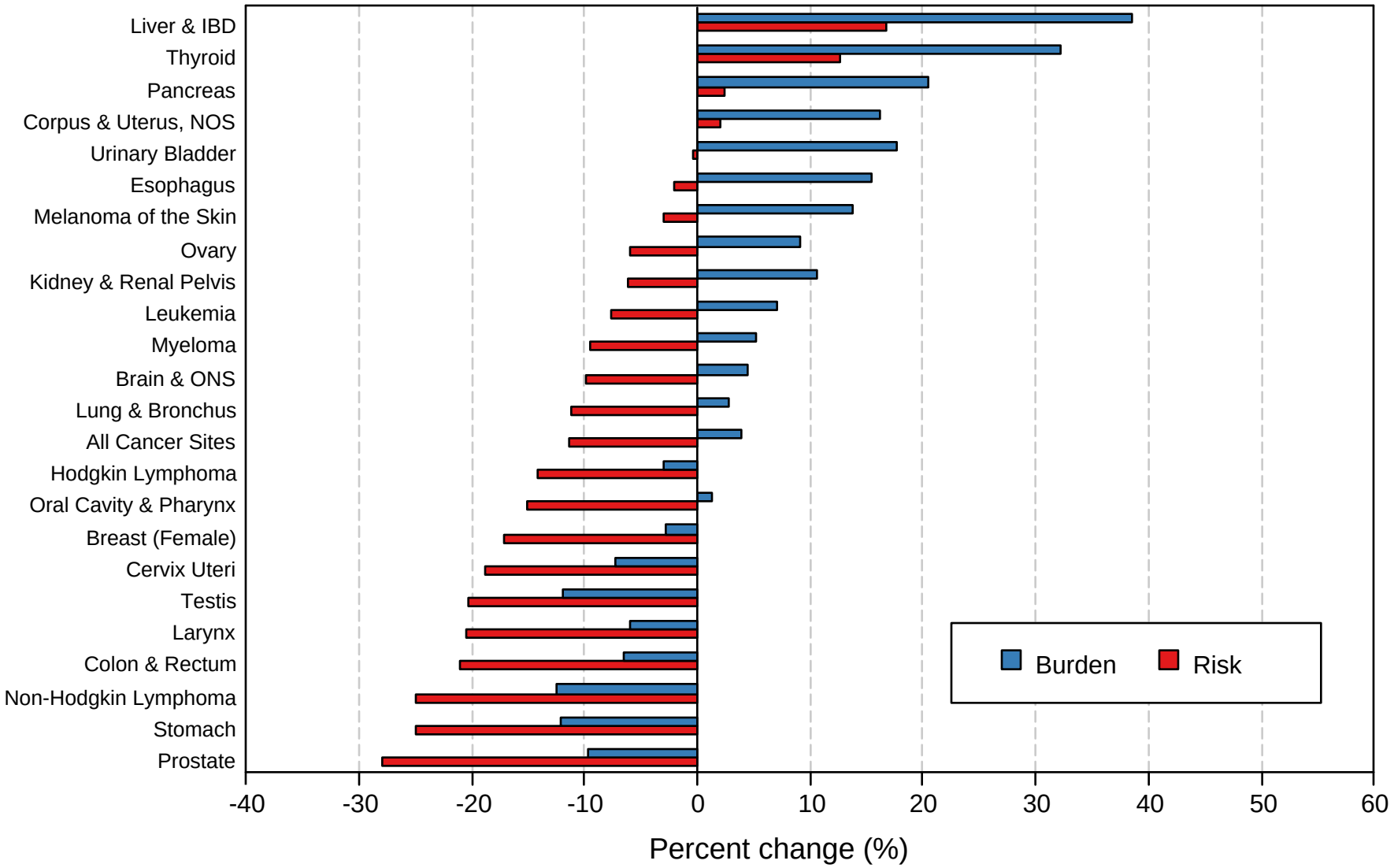
Incidence Percent Change between 1998 and 2007
Numbers (burden) vs Rates (risk)
All Races, All Ages, Both Sexes



US Incidence estimates based on SEER age-specific rates applied to US population.
Burden is the change in the number of incidence cases between 1998 and 2007.
Risk is the change in the cancer incidence rates between 1998 and 2007.
[a] Ovary excludes borderline cases or histologies 8442, 8451, 8462, 8472, and 8473.

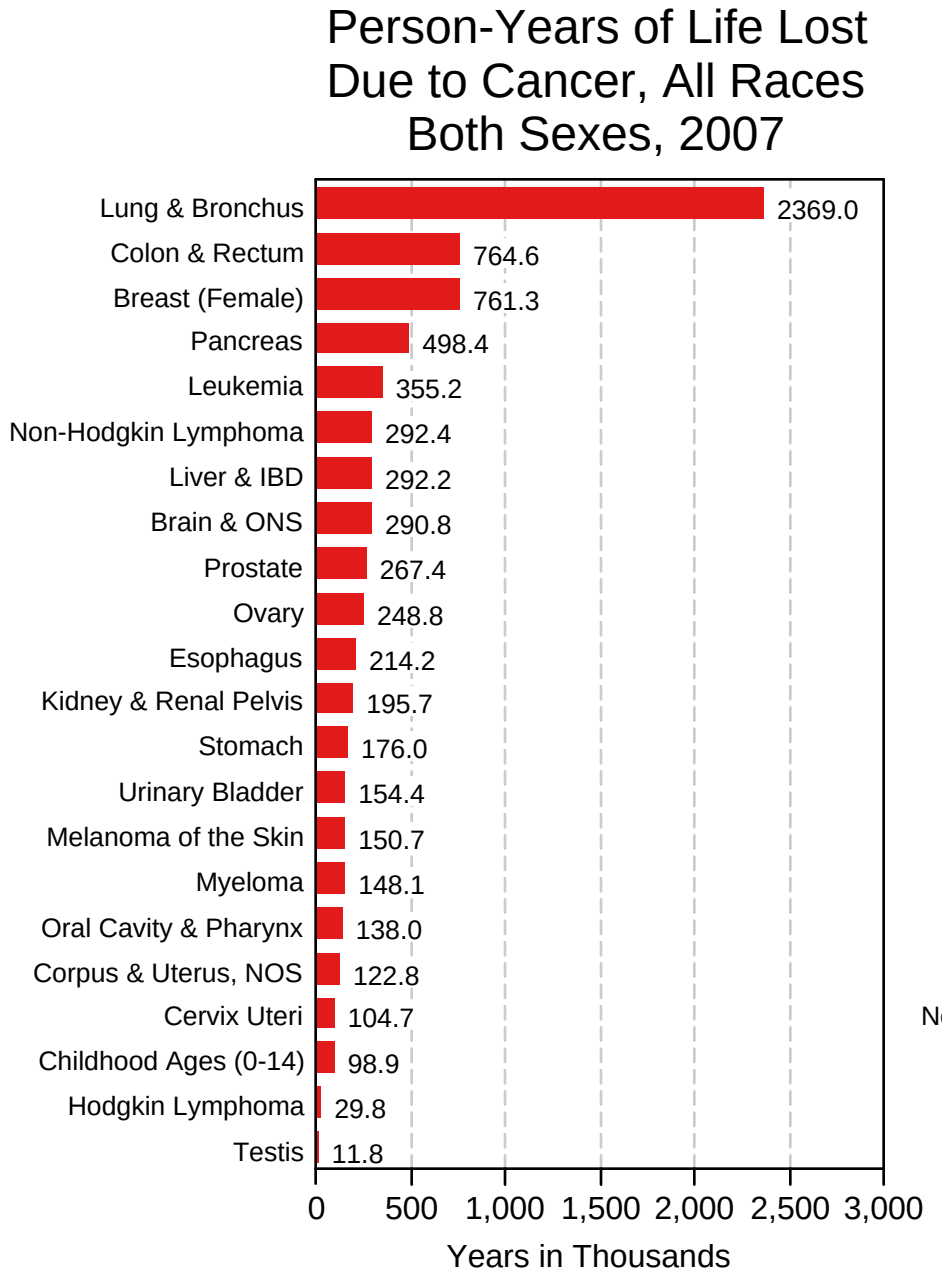
Figure I.17

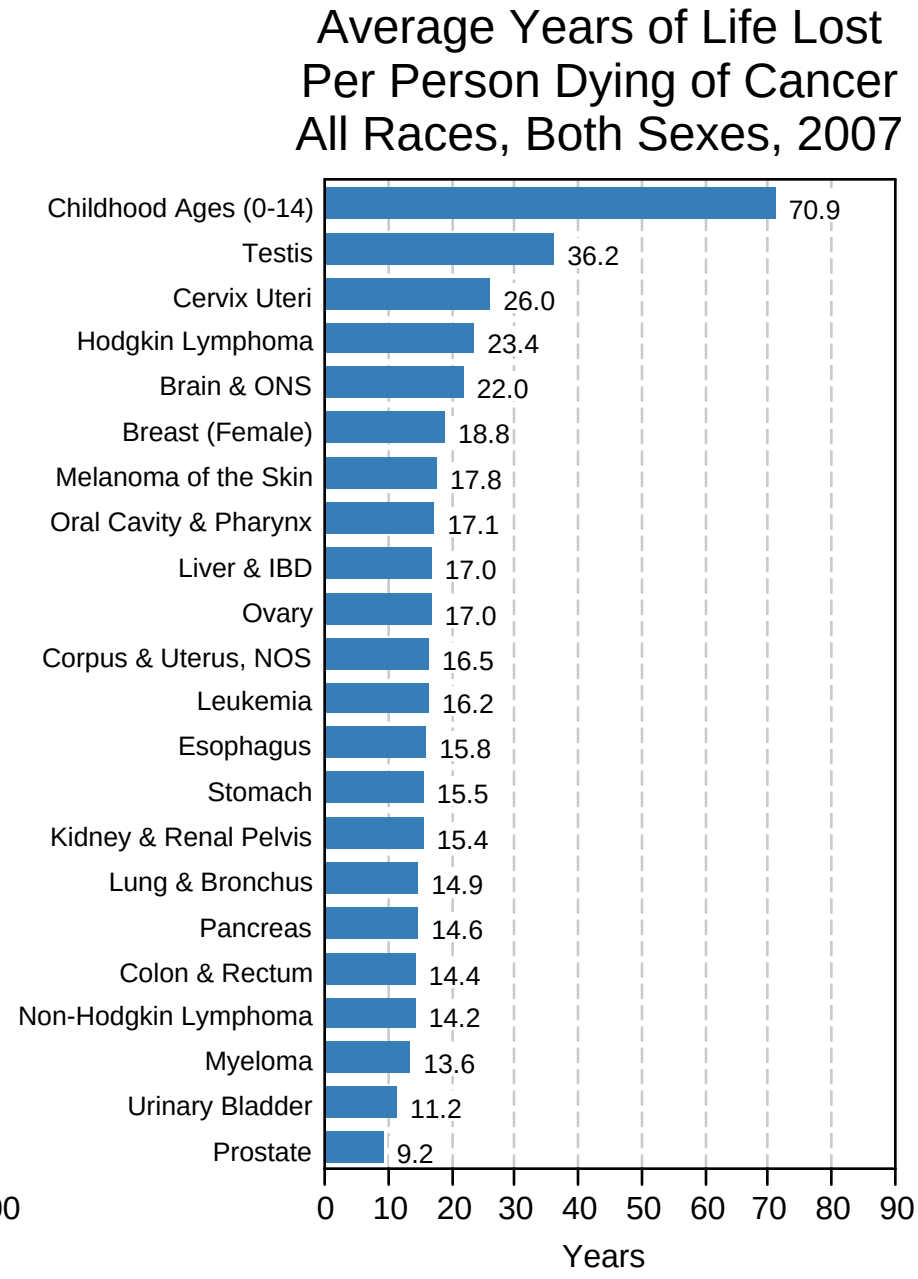
Mortality Percent Change between 1998 and 2007
Numbers (burden) vs Rates (risk)
All Races, All Ages, Both Sexes



US Mortality estimates based on US age-specific rates applied to US population.
Burden is the change in the number of deaths between 1998 and 2007.
Risk is the change in the cancer death rates between 1998 and 2007.

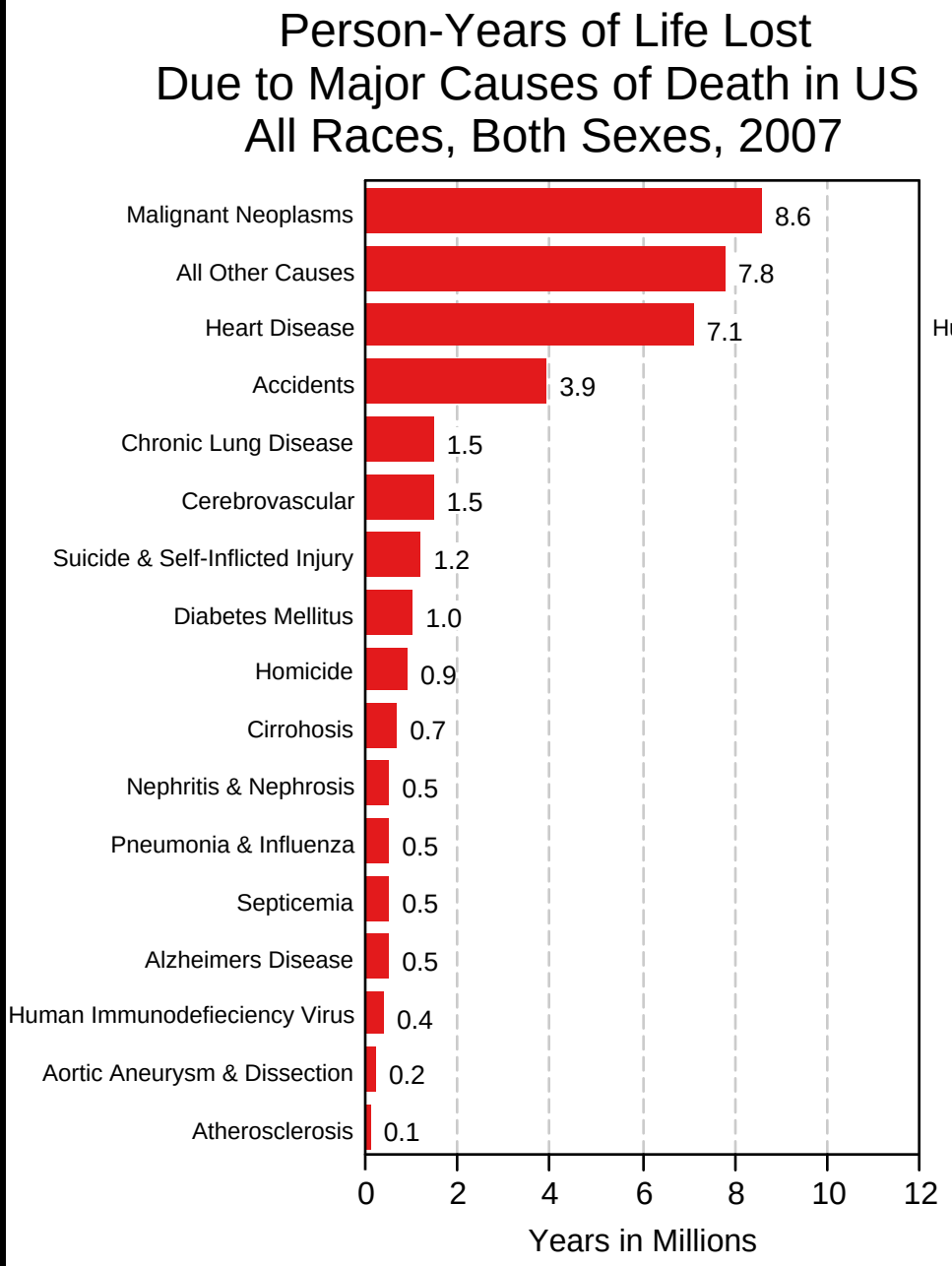
Figure 1.18

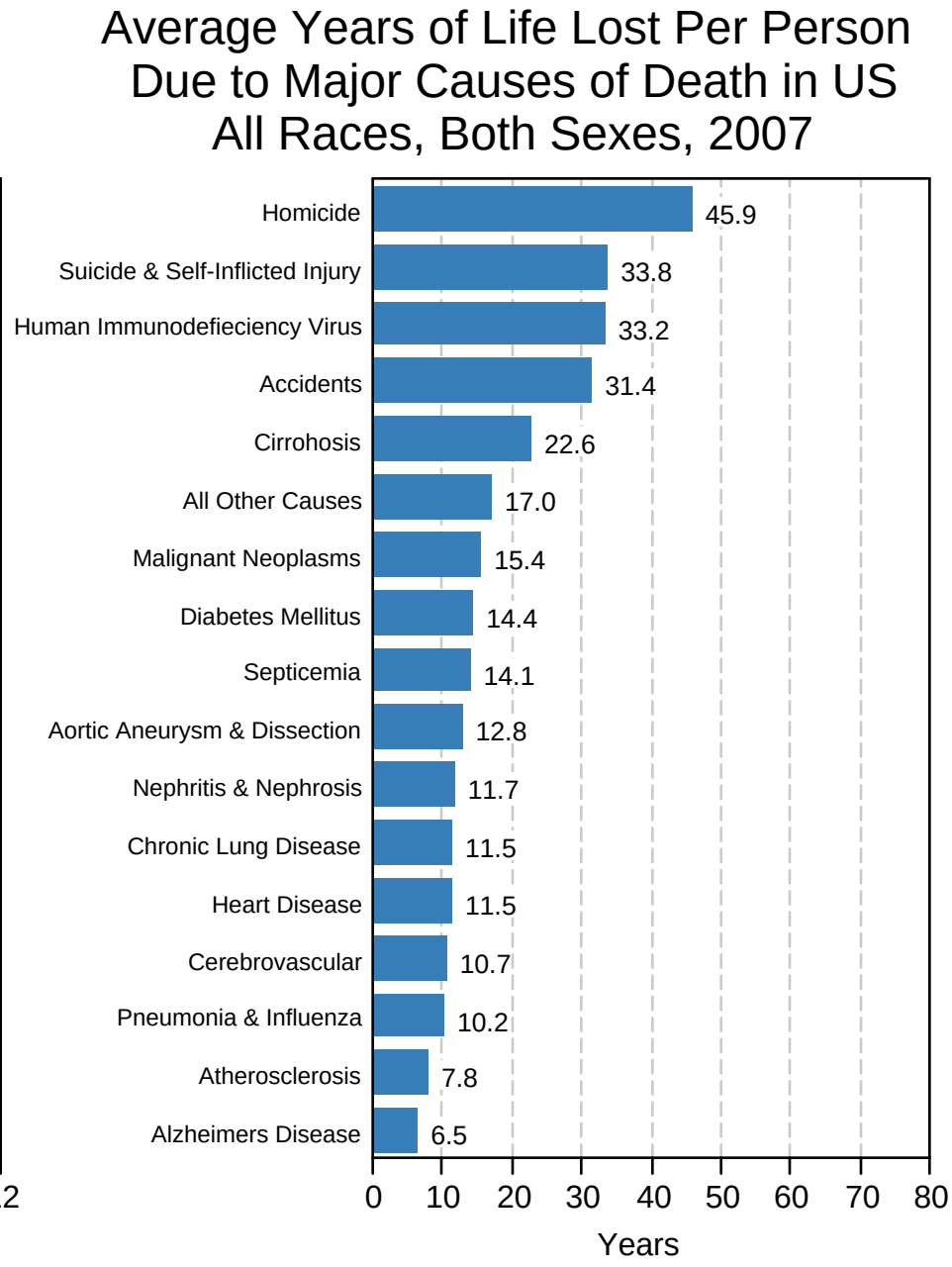




Source: US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention and 2006 Life Tables.

Figure 1.19

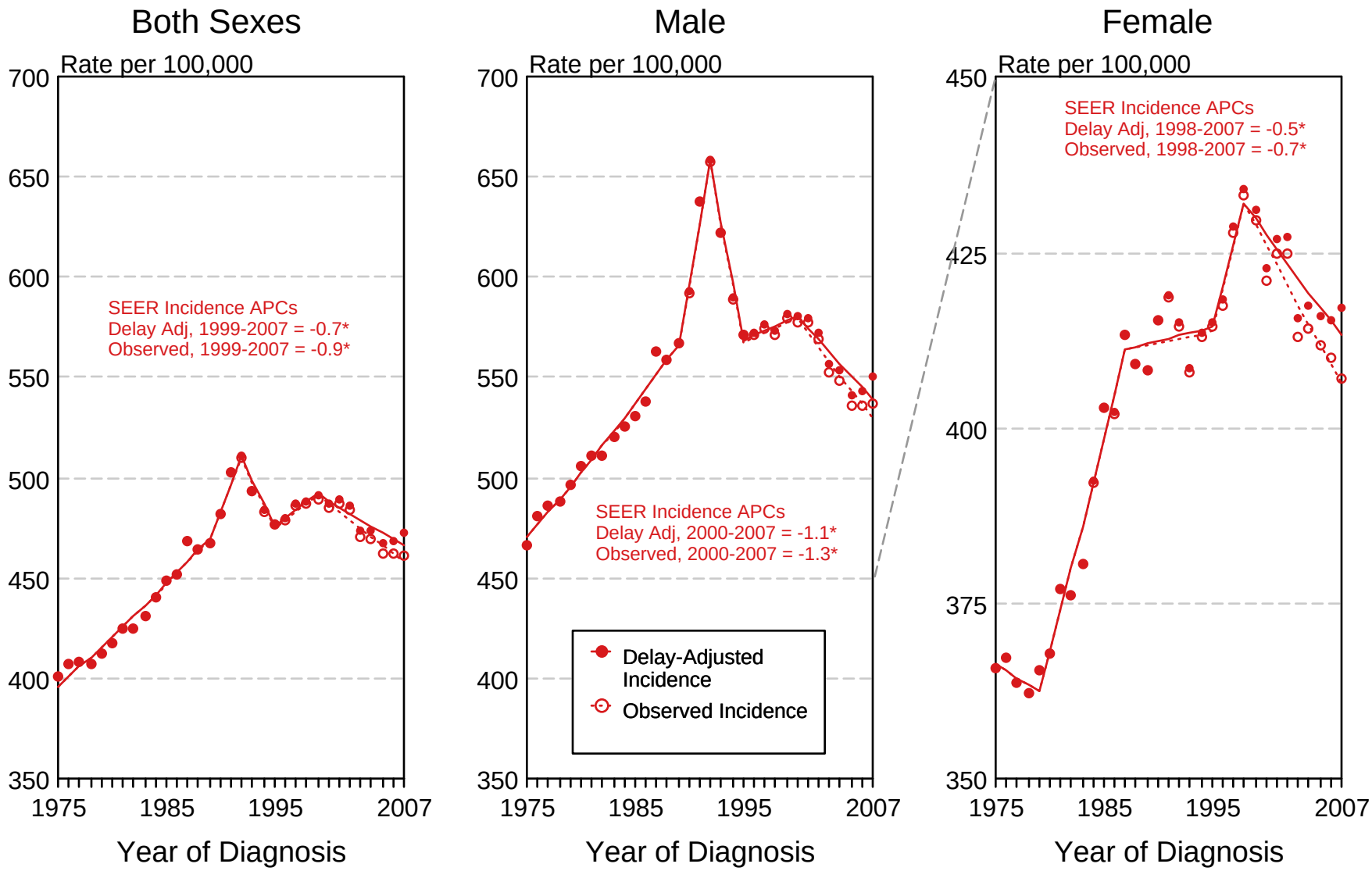




Source: US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention and 2006 Life Tables.

Figure 1.20

SEER Observed Incidence and Delay Adjusted Incidence Rates[a]
All Cancer Sites, By Sex

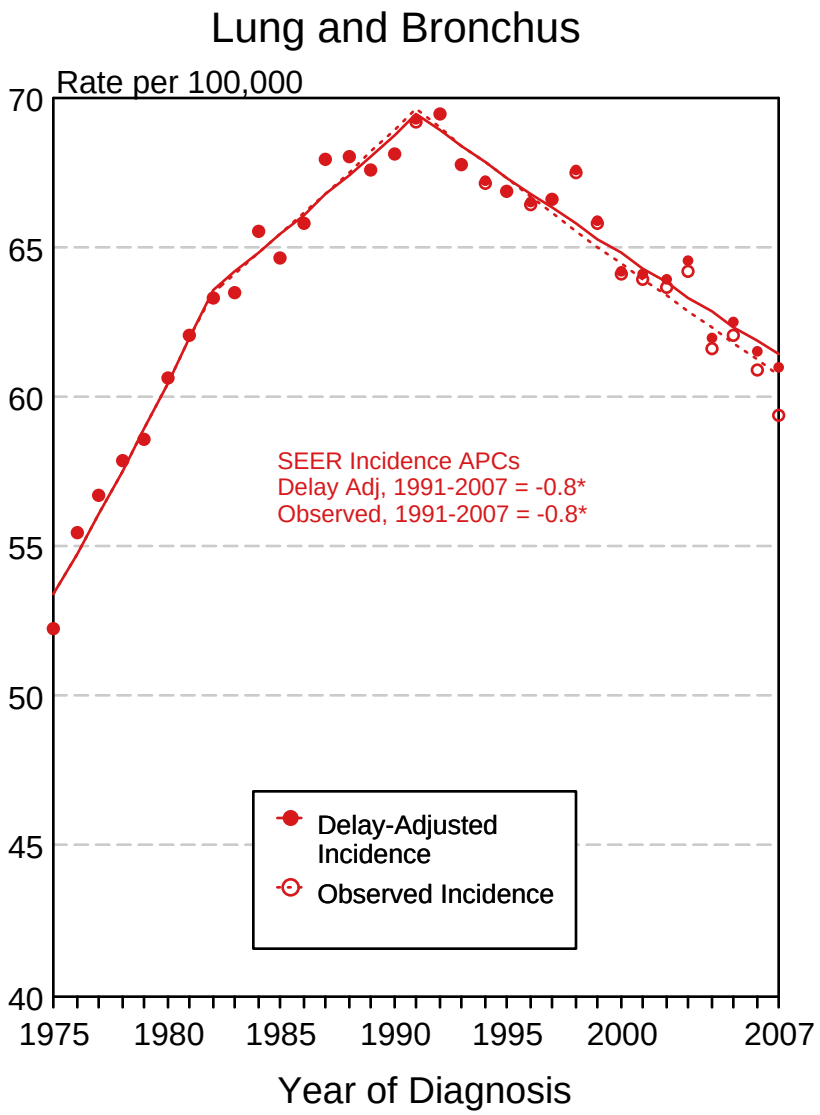


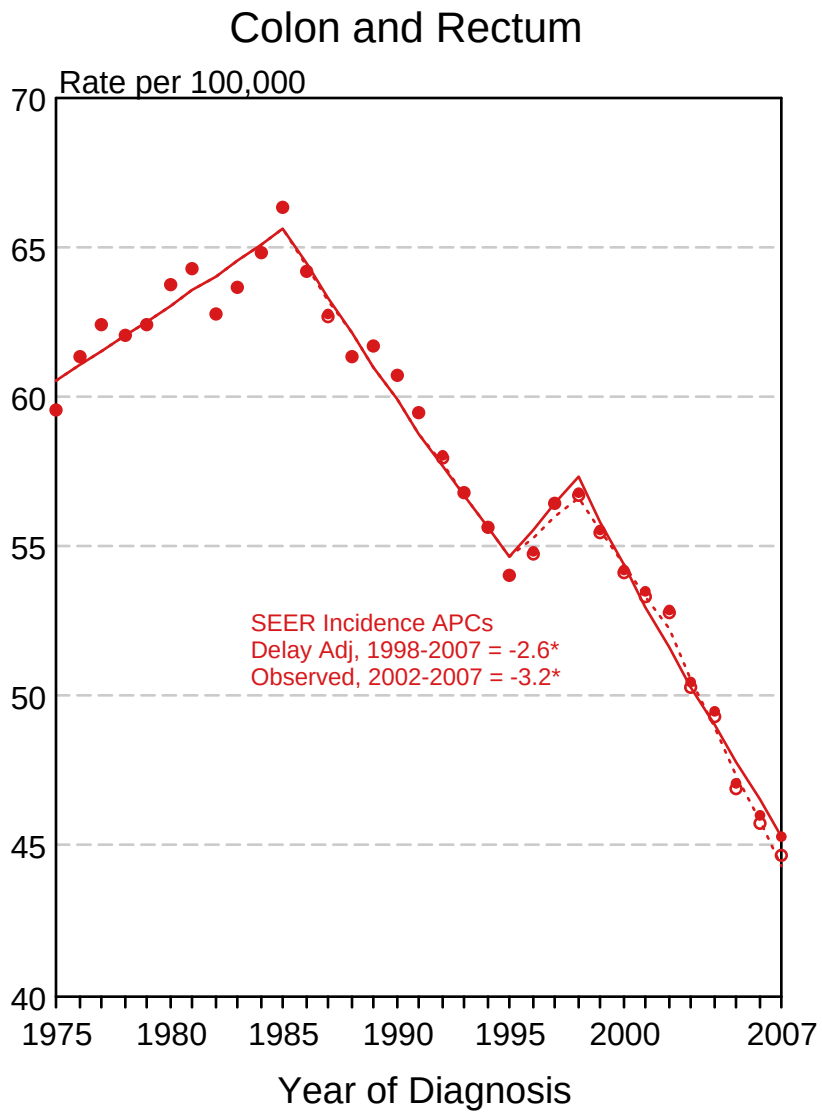
[a] Source: SEER 9 areas. Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).
Regression lines and APCs are calculated using the Joinpoint Regression Program Version 3.4.3, April 2010, National Cancer Institute.
The APC is the Annual Percent Change for the regression line segments. The APC shown on the graph is for the most recent trend.

* The APC is significantly different from zero ($p < 0.05$).

Figure 1.21

SEER Observed Incidence and Delay Adjusted Incidence Rates [a]
Both Sexes



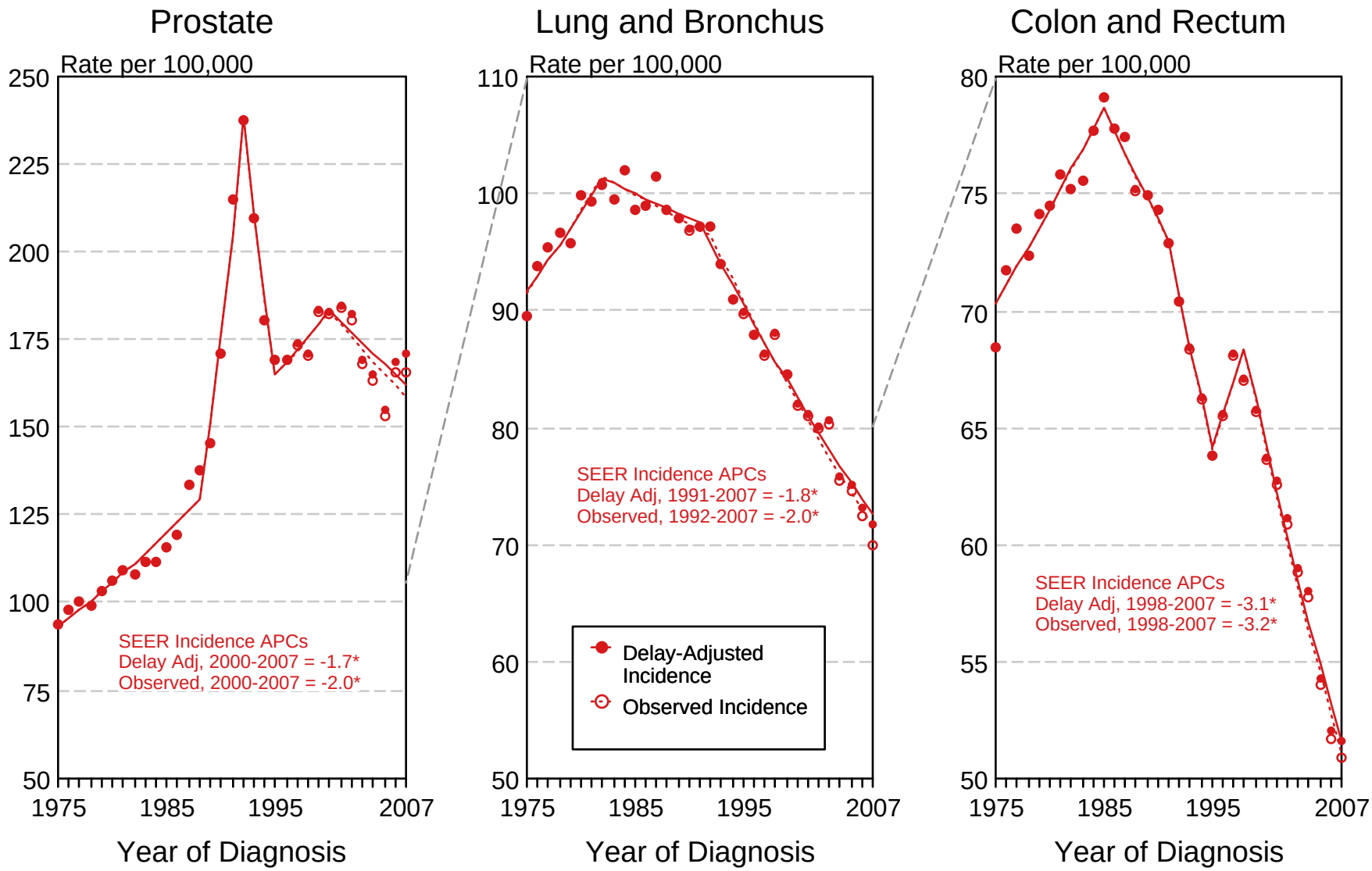


[a] Source: SEER 9 areas. Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).
Regression lines and APCs are calculated using the Joinpoint Regression Program Version 3.4.3, April 2010, National Cancer Institute.
The APC is the Annual Percent Change for the regression line segments. The APC shown on the graph is for the most recent trend.

* The APC is significantly different from zero ($p < 0.05$).

Figure 1.22

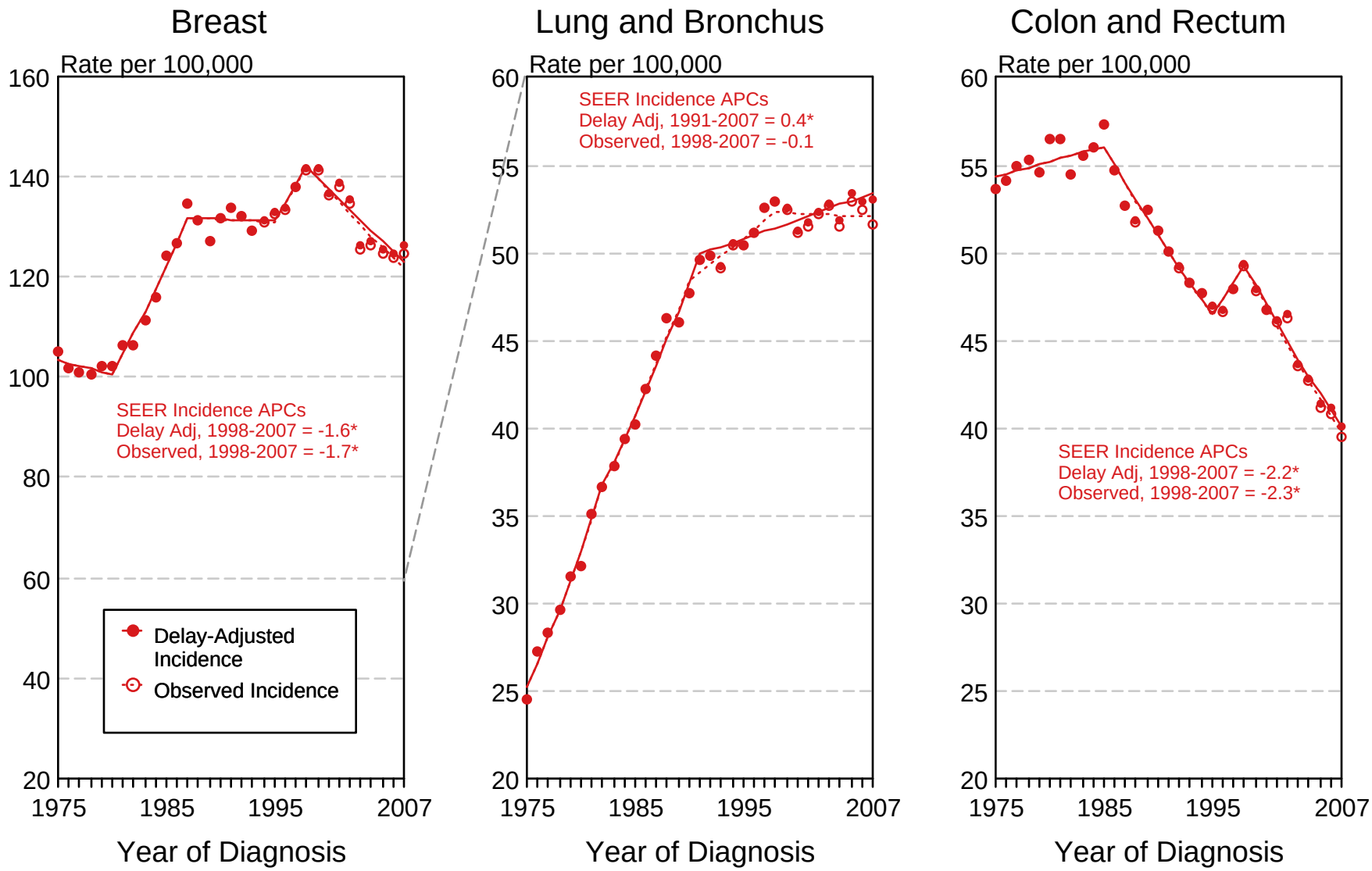
SEER Observed Incidence and Delay Adjusted Incidence Rates[a]
Males



[a] Source: SEER 9 areas. Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).
Regression lines and APCs are calculated using the Joinpoint Regression Program Version 3.4.3, April 2010, National Cancer Institute.
The APC is the Annual Percent Change for the regression line segments. The APC shown on the graph is for the most recent trend.

* The APC is significantly different from zero ($p < 0.05$).

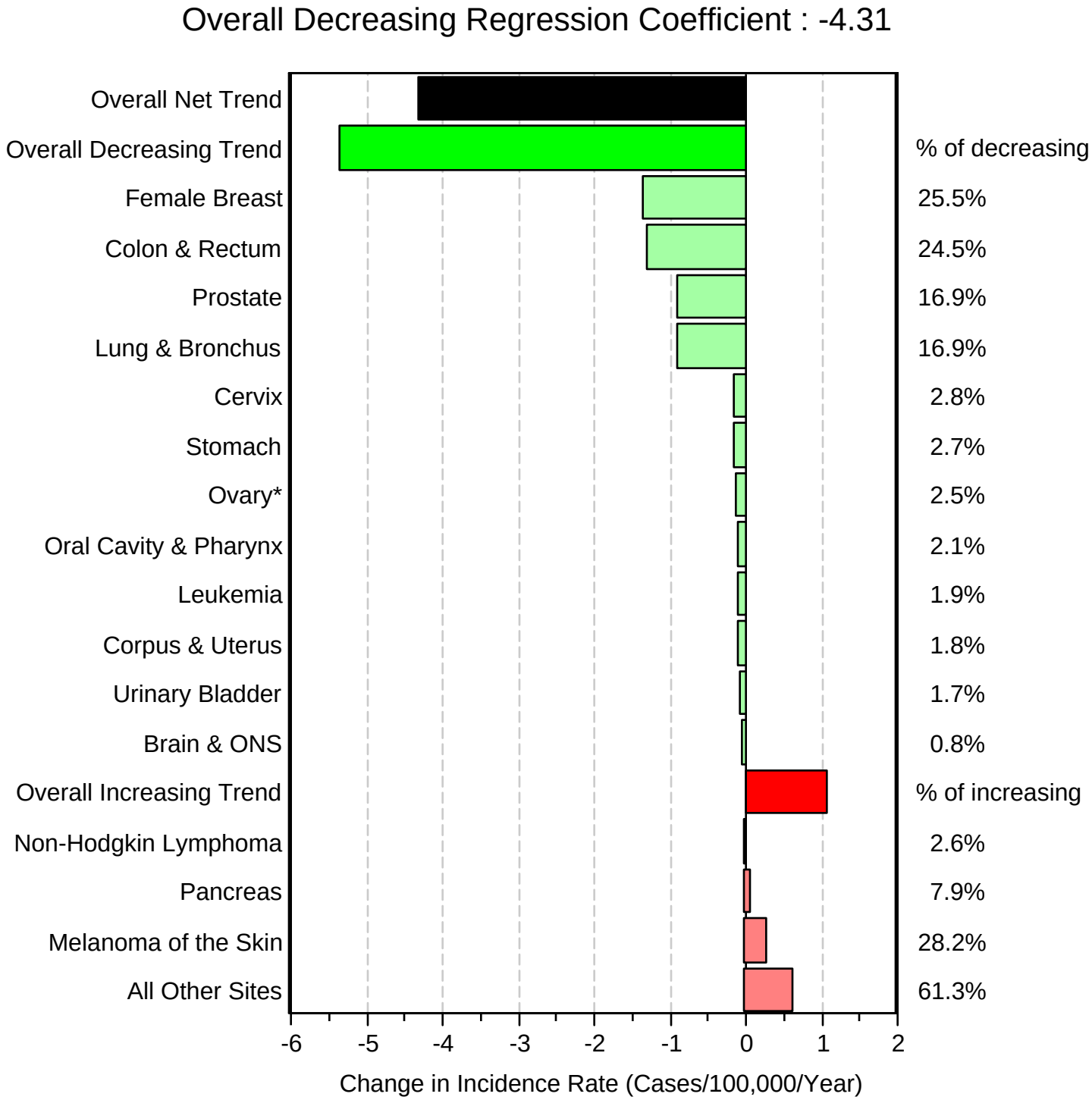
SEER Observed Incidence and Delay Adjusted Incidence Rates[a]
Females



[a] Source: SEER 9 areas. Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).
Regression lines and APCs are calculated using the Joinpoint Regression Program Version 3.4.3, April 2010, National Cancer Institute.
The APC is the Annual Percent Change for the regression line segments. The APC shown on the graph is for the most recent trend.

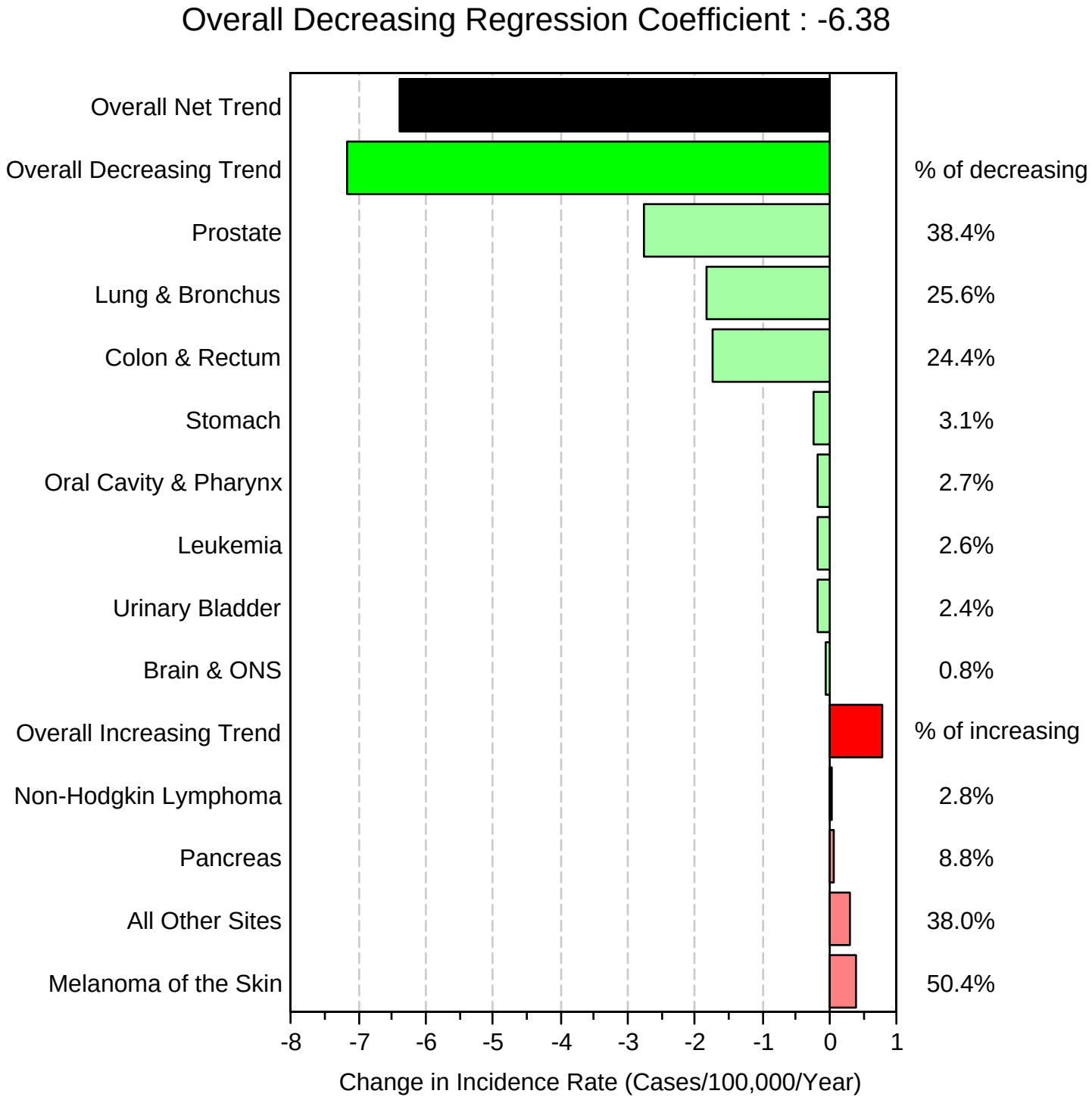
* The APC is significantly different from zero ($p < 0.05$).

Partition of Trends in Incidence Rates For the Time Period 1998-2007 All Races, Both Sexes



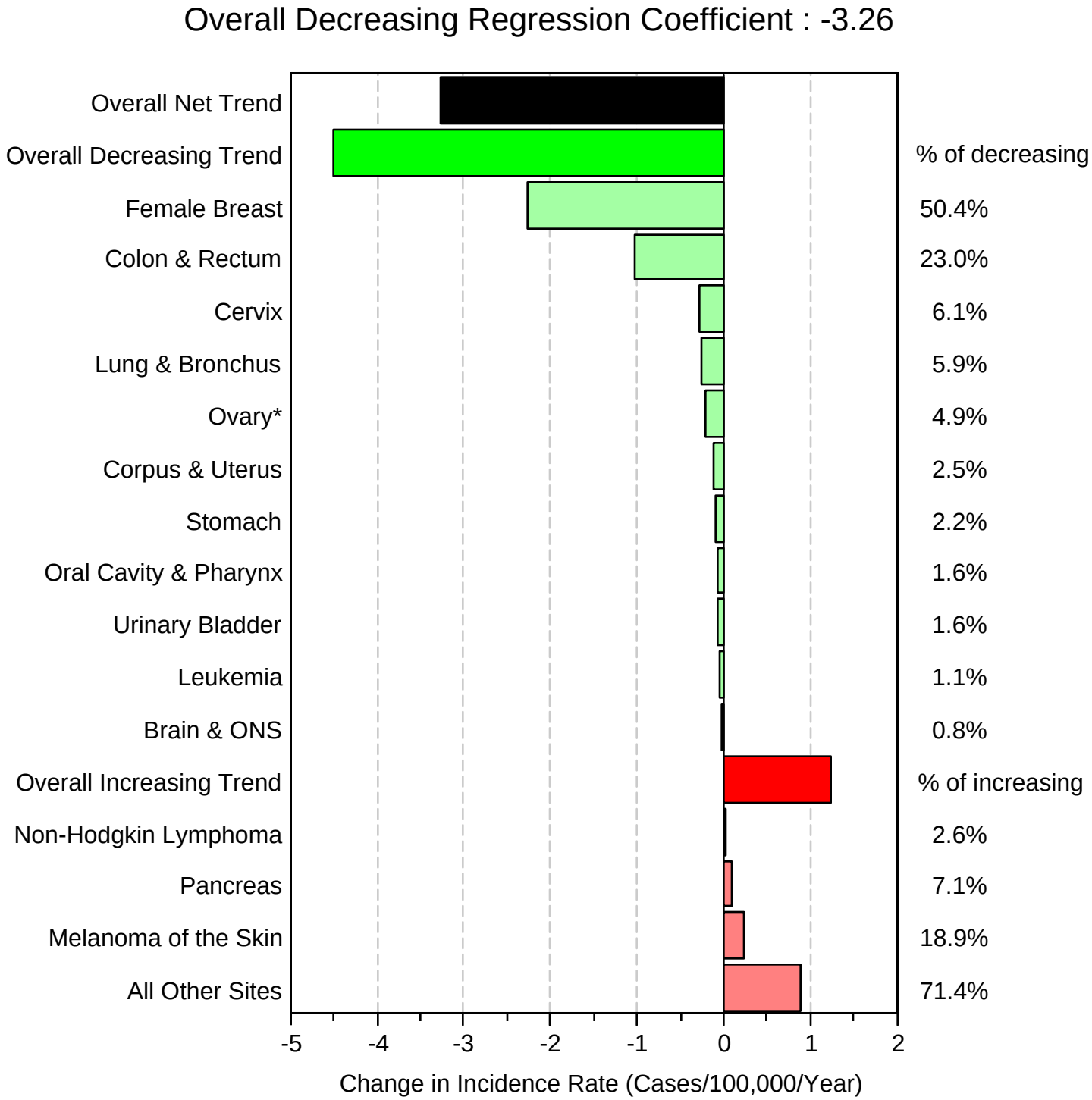
Source: SEER 13 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia).
Percents may not add to 100 due to rounding.
* Ovary excludes borderline cases or histologies 8442, 8451, 8462, 8472, and 8473.

Partition of Trends in Incidence Rates For the Time Period 1998-2007 All Races, Males



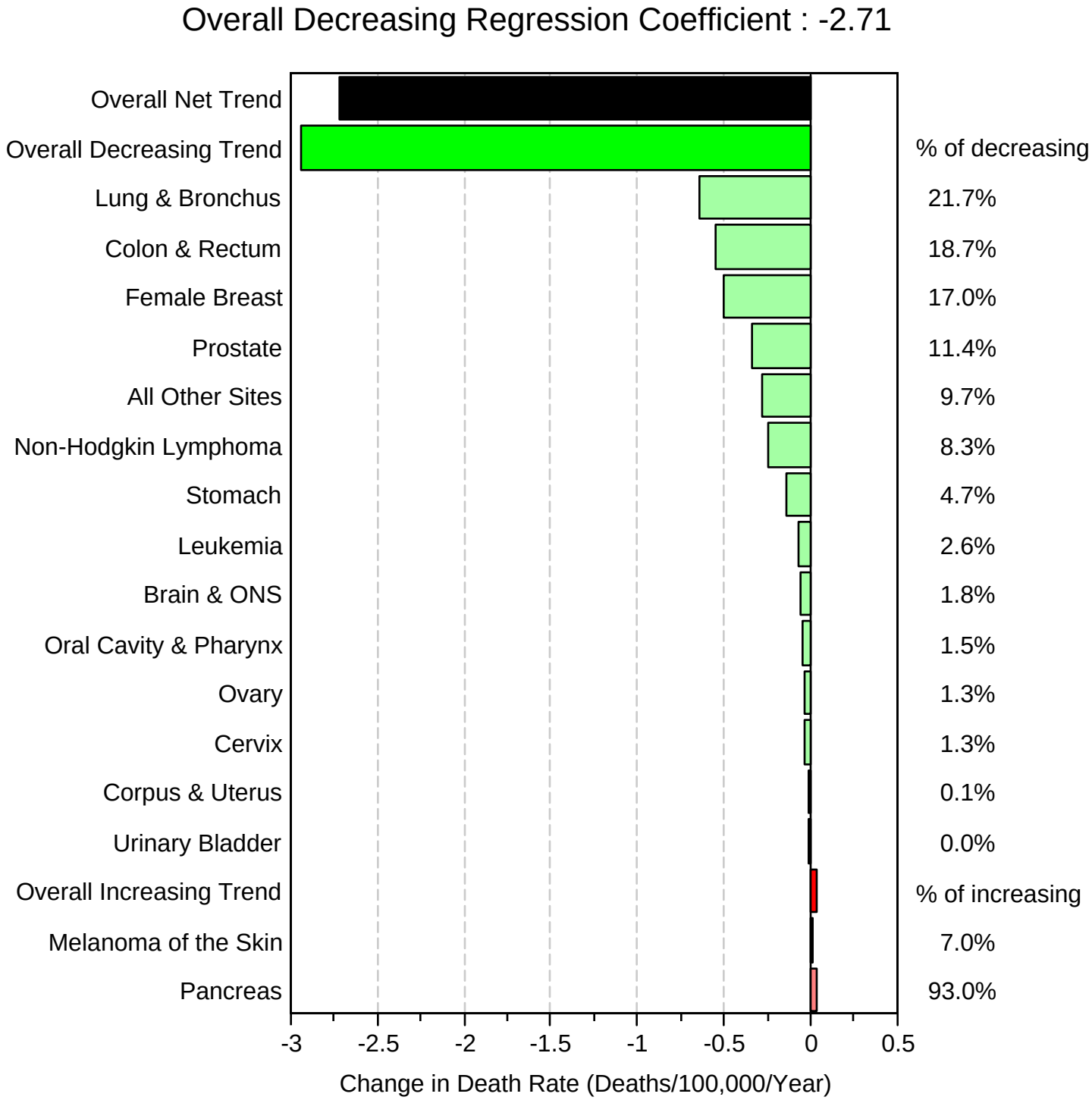
Source: SEER 13 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia).
Percents may not add to 100 due to rounding.

Partition of Trends in Incidence Rates For the Time Period 1998-2007 All Races, Females



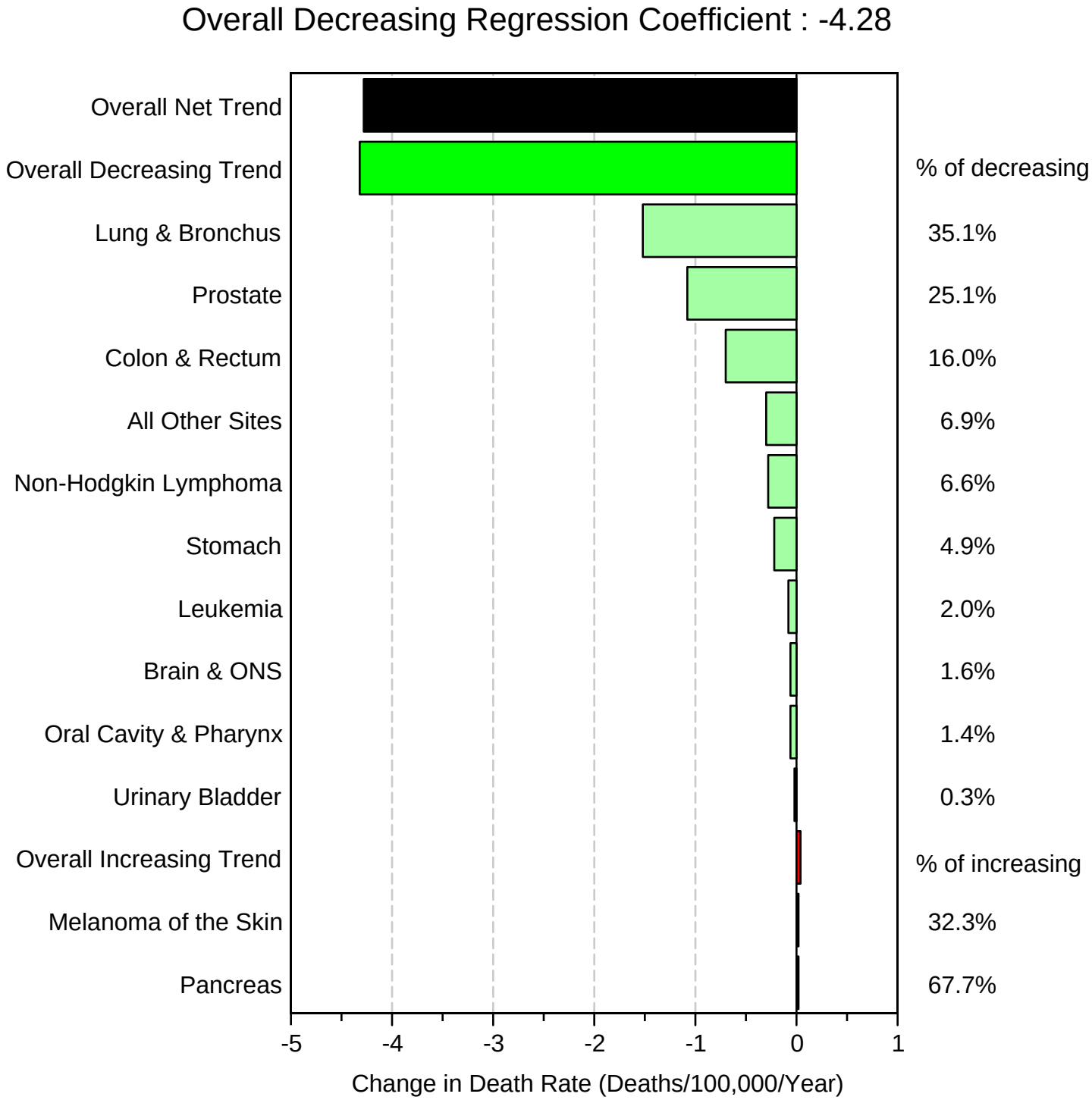
Source: SEER 13 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia).
Percents may not add to 100 due to rounding.
* Ovary excludes borderline cases or histologies 8442, 8451, 8462, 8472, and 8473.

Partition of Trend in Death Rates For the Time Period 1998-2007 All Races, Both Sexes



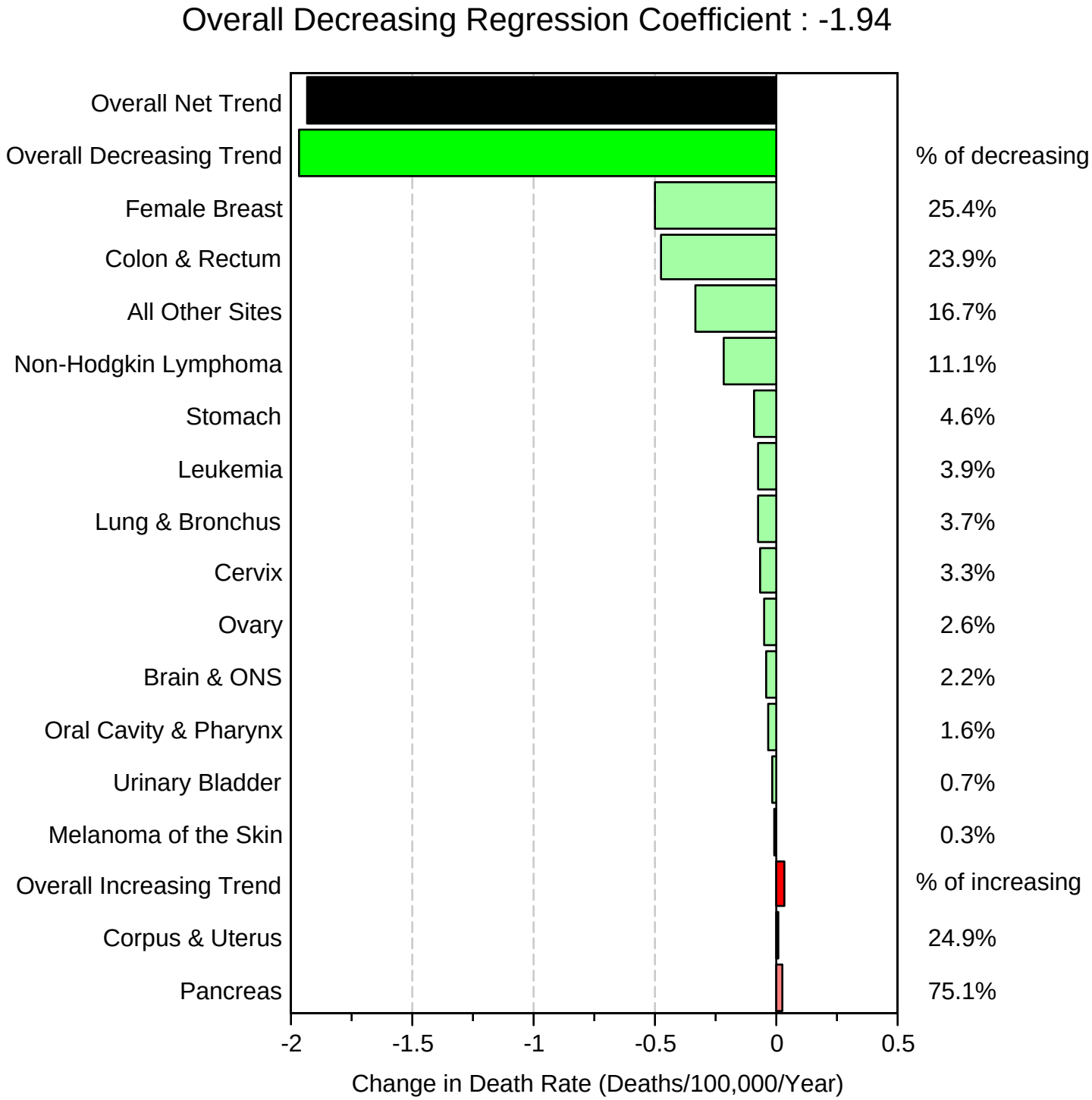
Source: US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.
Percents may not add to 100 due to rounding.

Partition of Trend in Death Rates For the Time Period 1998-2007 All Races, Males



Source: US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.
Percents may not add to 100 due to rounding.

Partition of Trend in Death Rates For the Time Period 1998-2007 All Races, Females



Source: US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.
Percents may not add to 100 due to rounding.