CANCER STATISTICS REVIEW 1975-2009 (Vintage 2009 Populations): 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 28% of the US population. The 18 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 29 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 a chapter on adolescent and young adult cancers and a chapter 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. Starting with patients diagnosed in 2007, the new multiple primary and histology coding rules may impact their incidence data for some cancer sites (e.g., female breast). However, the impact of the new rule on observed incidence is negligible for a majority of the cancer sites. To learn more about the multiple primary rules, visit: http://seer.cancer.gov/tools/mphrules/.

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 standard 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 for specific cancers are not presented; 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; the seventh edition is the most recent (Edge et al., 2010). 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 effects 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 unrealistically high; since relative survival = observed / expected, this will result in relative-survival 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 28 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.cancer-rates.info/naaccr/).

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/*).

REFERENCES

Baquet CR, Horm JW, Gibbs T, Greenwald P. Socioeconomic factors and cancer incidence among blacks and whites. *J Natl Cancer Inst* 1991; 83:551-557.

Breslow L (Chairman, Extramural Committee to Assess Measures of Progress Against Cancer). Measurement of progress against cancer: Final report to the Senate Appropriations Committee. Bethesda: National Cancer Institute; 1988.

Edge SB, Byrd DR, Compton CC, Fritz AG, Greene FL, Trotti A, editors. *AJCC Cancer Staging Manual*, 7th ed. New York (NY): Springer; 2010.

Feinstein AR, Sosin DM, Wells CK. The Will Rogers phenomenon: Stage migration and new diagnostic techniques as a source of misleading statistics for survival of cancer. *New Engl J Med* 1985;312:1604-1608.

Rosenberg HM, Maurer JD, Sorlie PD, Johnson NJ, MacDorman MF, Hoyert DL, Spitler JF, Scott C. Quality of death rates by race and Hispanic origin: A summary of current research. Hyattsville (MD): National Center for Health Statistics; Vital and Health Statistics, Series 2, No. 128, 1999.

Zelen M. Theory of early detection of breast cancer in the general population. In: Heuson J-C, Mattheiem WH, Rozencweig M, editors. *Breast Cancer: Trends in Research and Treatment*. New York (NY): Raven Press; 1976. p. 287-299.

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**. In 2012, **Greater Georgia** (the parts of Georgia not included in Atlanta and Rural Georgia) was added to the SEER Program, with data retroactive to 2000.

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 18** areas; these are the SEER 13 plus Kentucky, Greater California, New Jersey, Louisiana, and Greater Georgia.

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 18 SEER geographic areas are used in this report; the given groups contain, respectively, approximately 9, 14, or 28 percent of the US population. By the end of the 2009 diagnosis year, the database of the 18 SEER 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 448,000.

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 et al., 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 from 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 2009 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 through 2009 based on prior years' information. These VA adjustment factors may be used to correct for underreporting of 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 males age 50+) and cancer sites (e.g., pancreas and liver and intrahepatic bile duct) (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/) 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 US 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 2012

The American Cancer Society (**ACS**) projects the numbers of new cancer cases and cancer deaths in the US in 2012 (American Cancer Society, 2012). The ACS projects incidence in 2012 based on incidence rates for 1995-2008 from 47 states and the District of Columbia, representing about 95% of the US population. These high-quality incidence data were submitted to the North American Association of Central Cancer Registries (NAACCR) by 47 states (and DC) 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, 1950-2009

Trends in cancer mortality from 1950 to 2009 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.

RELATIVE SURVIVAL

Relative survival (Ederer, 1961) was developed to provide an objective measure of the probability of survival of cancer in the absence of other causes of death. It is a measure that is not influenced by changes in mortality from other causes and, therefore, provides a useful measure for both tracking survival across time and comparisons between racial/ethnic groups or between registries. For most cancer registries, cause-of-death information obtained from death certificates is either unavailable or unreliable due to misclassification error. Therefore, instead of calculating the probability of surviving cancer in the usual (cause-specific) way, considering deaths from other causes as censoring events, relative survival compares the observed survival proportion of a group of cancer patients with the survival of a "similar" theoretical cancer-free group. Relative survival is formally defined as the ratio of the observed survival (all causes of death) of a cohort of cancer patients to the expected survival of a comparable set of cancer-free individuals. Since a cohort of cancer-free individuals is difficult to obtain, life tables representing survival of the general population are used instead. The underlying assumption is that the cancer deaths are a negligible proportion of all deaths. To learn more on this topic, visit: http://surveillance.cancer.gov/survival/measures.html.

Expected survival can be calculated using different methods which vary with respect to the definition of the matching group. The three most common methods are: Ederer I (Ederer, et al., 1961), Ederer II (Ederer and Heise, 1959) and Hakulinen (Hakulinen, 1982). In previous versions of SEER*Stat, relative survival has been calculated using Ederer I and Hakulinen

methods, Ederer I being the default for calculations in the Cancer Statistics Review. In the Ederer I and Hakulinen methods, theoretical individuals are matched to each patient and are considered to be at risk for the entire follow-up. Hakulinen adjusts for potential follow-up times. Relative survival using expected rates derived via these two methods are very similar. However, recent research on relative survival has resuscitated the initial method to estimate expected rate: the Ederer II method. Although none of the three methods can be considered a gold standard, the Ederer II method has be shown to be in better alignment with the concept of net cancer survival. For that reason, as of 2011, we have switched to Ederer II as our default choice for calculating expected rate in SEER*Stat and the CSR. For more detail regarding this topic, read (Cho et al., 2011). at: http://surveillance.cancer.gov/reports/.

CAUSE-SPECIFIC SURVIVAL

Cause-specific survival is a net-survival measure representing survival of a specified cause of death in the (theoretical) absence of other causes of death. Estimates are calculated by specifying the cause of death. Individuals who die of causes other than the specified cause are censored. This requires a cause-of-death variable that accurately captures all causes related to the specific cause. Cancer registries use algorithms to process causes of death from death certificates in order to identify a single, disease-specific, underlying cause of death. In some cases, attribution of a single cause of death may be difficult and misattribution may occur. For example, a death may be attributed to the site of metastasis instead of the primary site (Percy et al., 1981).

To capture deaths related to the specific cancer but not coded as such, the SEER cause-specific death classification variable is defined by taking into account causes of deaths in conjunction with tumor sequence (i.e., only one tumor or the first of subsequent tumors), site of the original cancer diagnosis, and comorbidities (e.g., AIDS and/or site-related diseases). To learn more on this topic, please read the recent article published at the Journal of National Cancer Institute (Howlader et al., 2010) or visit: http://seer.cancer.gov/causespecific/.

CANCER PREVALENCE

Methods: In this report prevalence is calculated at 1/1/2009. 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 2008 from the SEER 9 registries; prevalence estimates for Asian Pacific Islanders and Hispanics use cases diagnosed from 1990 through 2008 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 include 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://surveillance.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://surveillance.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 1/1/2009 *were estimated* by multiplying the SEER age-

and race-specific prevalence proportions by the corresponding US population estimates based on the average of 2008 and 2009 population estimates from the US Census Bureau. 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 US diagnosed with cancer as children (ages 0-19), including those surviving for more than 34 years, is calculated 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://surveillance.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 34 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 19 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 2007-2009 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 et al., 2003) and (Fay, 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://surveillance.cancer.gov/devcan/.

US 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:

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

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

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

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) when 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 continuous, piecewise-exponential function. Adjacent segments are connected at a joinpoint. The segments are connected because we assume that rates generally change smoothly, rather than "jump" abruptly. In each segment, the rates are assumed to grow or decay exponentially ($y = e^{mx+b}$), i.e., to change by a constant percentage each year. Thus the "slope" *m* in each segment can be associated with a fixed annual percent change (**APC**) by $APC = 100(e^m - 1)$.

Joinpoint analysis first assumes no joinpoints are needed to describe the data accurately, i.e., the trend over the entire interval 1975-2008 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. 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:

(1) Joinpoints occur only at exact years; the joinpoint is not necessarily the same as the data point for that year;
(2) The minimum time interval between consecutive joinpoints is three years;
(3) The first joinpoint is not earlier than two years after the first year of data;
(4) The last joinpoint is not later than two years before the last year of data;
(5) The maximum number of joinpoints is five for 1975-2009 (SEER 9) data and three for 1992-2009 (SEER 13) data.

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.

A Windows-based program, *Joinpoint*, is freely available at http://surveillance.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 website. Starting with the 2011 edition of CSR, we have generated all our cancer trend statistics using a Linux-based *Joinpoint* program as opposed to the downloadable Windows-based program. As a result of using a different platform, in rare instances the results (e.g., # of join points) may differ.

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://surveillance.cancer.gov/joinpoint/aapc.html.

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 2009 were first reported to the NCI in

November 2011 and released to the public in April 2012. However, in each subsequent release of the SEER data, *records from all prior diagnosis years* (e.g., diagnosis years 2008 and earlier in the 2011 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 combined), 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://surveillance.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 2010

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 2007-2011. Section 33 of this report provides factors to adjust for the lack of reporting of VA cases, available at http://seer.cancer.gov/csr/1975_2009_pops09/results_merged/sect_33_VA_adjustment.pdf.

In addition to the adjustments made in Section 33, some special adjustments to case counts are necessary to fit the delay adjustment model. Beginning with the 2009 submission of SEER data, some SEER registries began accounting for the backlog of VA cases that would have been reported in 2006-2008. This upsurge in cases could cause perturbation in the delay model if fit in the usual manner.

As with the 2009 and 2010 submissions, to take account of the effect of the VA backlog in the 2011 submission on the delay adjustment model, the counts are adjusted by re-distributing VA cases to previous submission years according to the expected counts from the delay distribution conditional on the current submission. Specifically, for each of the diagnosis years 2004-2008, given the total cancer count in submission year 2011, 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 the 2011 submission are re-distributed to each of the prior 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-related delay-adjustment is modest for the November 2011 submission. It was integrated into SEER 9 and SEER 13 delay models presented throughout the CSR. More details can be found at http://surveillance.cancer.gov/delay/vabacklog.html.

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 combined), 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.

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 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 —54% of the total population in 2009 (US Census Bureau, 2010)—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 measure of the reliability of a given rate: the greater the standard error, the more uncertainty associated with the estimated 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 valid survival estimate could not be calculated, as is noted in the table footnotes.

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

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

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 subinterval 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 survival: The relative survival estimate is calculated using a procedure (Ederer et al., 1961; Ederer and Heise, 1959) whereby the observed survival estimate is adjusted for expected mortality. The relative survival estimate approximates the likelihood that a patient 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://surveillance.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; Edge et al., 2010).

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.

REFERENCES

American Cancer Society. *Cancer Facts & Figures 2012*. Atlanta: American Cancer Society; 2012.

Baquet CR, Horm JW, Gibbs T, Greenwald P. Socioeconomic factors and cancer incidence among blacks and whites. *J Natl Cancer Inst* 1991; 83:551-557.

Breslow L (Chairman, Extramural Committee to Assess Measures of Progress Against Cancer). Measurement of progress against cancer: Final report to the Senate Appropriations Committee. Bethesda: National Cancer Institute; 1988.

Brookmeyer R, Damiano A. Statistical methods for short-term projections of AIDS incidence. *Stat Med* 1989;8:23-34.

Byrne J, Kessler LG, Devesa SS. The prevalence of cancer among adults in the United States: 1987. *Cancer* 1992;68:2154-9.

Capocaccia R, De Angelis R. Estimating the completeness of prevalence based on cancer registry data. *Stat Med* 1997;16:425-40.

Cho H, Howlader N, Mariotto AB, Cronin KA. Estimating relative survival for cancer patients from the SEER Program using expected rates based on Ederer I versus Ederer II method. Surveillance Research Program, National Cancer Institute; 2011. Technical Report #2011-01.

Clegg LX, Feuer EJ, Midthune D, Fay MP, Hankey BF. Impact of reporting delay and reporting error on cancer incidence rates and trends. *J Natl Cancer Inst* 2002;94:1537-1545.

Clegg L, Gail M, Feuer EJ. Estimating the variance of disease prevalence estimates from population-based registries. *Biometrics* 2002;58(3):684-8.

Day JC. *Population Projections of the United States by Age, Sex, Race, and Hispanic Origin: 1995 to 2050*, US Census Bureau, Current Population Reports, P25-1130, US Government Printing Office, Washington, DC, 1996. Available from: http://www.census.gov/prod/1/pop/p25-1130/p251130.pdf

Ederer F, Axtell LM, Cutler SJ. The relative survival rate: A statistical methodology. *J Natl Cancer Inst Monogr* 1961;6:101-121.

Ederer F, Heise H. Instructions to IBM 650 Programmers in Processing Survival Computations, Technical, End Results Evaluation Section, National Cancer Institute, 1959.

Edge SB, Byrd DR, Compton CC, Fritz AG, Greene FL, Trotti A III. *AJCC Cancer Staging Manual*, 7th ed. New York (NY): Springer; 2010.

Elandt-Johnson RC, Johnson NL. *Survival Models and Data Analysis*. New York (NY): Wiley; 1980.

Fay MP. Estimating age conditional probability of developing disease from surveillance data. *Popul Health Metr*. 2004 Jul 27;2(1):6. Available from: http://www.pophealthmetrics.com/content/2/1/6

Fay MP, Pfeiffer R, Cronin KA, Le C, Feuer EJ. Age-conditional probabilities of developing cancer. *Stat Med*. 2003;22(11):1837-48.

Feinstein AR, Sosin DM, Wells CK. The Will Rogers phenomenon: Stage migration and new diagnostic techniques as a source of misleading statistics for survival of cancer. *New Engl J Med* 1985;312:1604-1608.

Feldman AR, Kessler L, Myers M, Naughton MD. The prevalence of cancer: Estimates based on the Connecticut Tumor Registry. *New Engl J Med* 1986; 315:1394-1397.

Feuer EJ, Wun L-M, Boring CC. Probability of developing cancer. In: Miller BA, Ries LAG, Hankey BF, Kosary CL, Edwards BK, editors. *Cancer Statistics Review: 1973-1989*. National Cancer Institute, NIH Pub. No. 92-2789, 1992. p. 1-8.

Feuer EJ, Wun L-M, Boring CC, Flanders WD, Timmel MJ, Tong T. The lifetime risk of developing breast cancer. *J Natl Cancer Inst* 1993;85:892-897.

Fritz A, Percy C, Jack A, Shanmugaratnam K, Sobin L, Parkin DM, Whelan S, editors. *International Classification of Diseases for Oncology*, 3rd ed. Geneva: World Health Organization; 2000.

Gail MH, Kessler L, Midthune D, Scoppa S. Two approaches for estimating disease prevalence from population-based registries of incidence and total mortality. *Biometrics* 1999;55:1137-44.

Greene FL, Page DL, Fleming ID, Fritz AG, Balch CM, Haller DG, Morrow M, editors. *AJCC Cancer Staging Manual*, 6th ed. New York (NY): Springer; 2002.

Hahn RA, Mulinare J, Teutsch SM. Inconsistencies in coding of race and ethnicity between birth and death in US infants. *JAMA* 1992;267:259-263.

Hakulinen T. Cancer survival corrected for heterogeneity in patient withdrawal. *Biometrics* 1982;38:933-942.

Harris JE. Reporting delays and the incidence of AIDS. *J Am Stat Assoc* 1990;85:915-924.

Howlader N, Ries LAG, Mariotto AB, Reichman ME, Ruhl J, Cronin KA. Improved estimates of cancer-specific survival rates from population-based data. *J Natl Cancer Inst* 2010;102:1-15.

Howlader N, Ries LAG, Stinchcomb DG, Edwards BK. The impact of underreported Veterans

Affairs data on national cancer statistics: analysis using population-based SEER registries. *J Natl Cancer Inst* 2009;101(7):533-536.

Ingram DD, Parker JD, Schenker N, Weed JA, Hamilton B, Arias E, Madans JH. United States Census 2000 population with bridged race categories. *Vital Health Stat 2*. 2003 Sep;(135):1-55.

Keyfitz N. Sampling variance of standardized mortality rates. *Hum Biol* 1966;38:309-317.

Kim H-J, Fay MP, Feuer EJ, Midthune DN. Permutation tests for joinpoint regression with applications to cancer rates. *Stat Med* 2000;19:335-351.

Kleinbaum DG, Kupper LL, Muller KE. *Applied Regression Analysis and Other Multivariable Methods*, 2nd ed. Boston: PWS-Kent, 1988.

Mariotto A, Gigli A, Capocaccia R, Clegg L, Scoppa S, Ries LA, Tesauro GS, Rowland JS, Feuer EJ. Complete and limited duration prevalence estimates. *SEER Cancer Statistics Review, 1973-1999*. 2002;19.

Merrill RM, Feuer EJ, Capocaccia R, Mariotto A. Cancer prevalence estimates based on tumor registry data in the SEER Program. *Int J Epidemiol* 2000;29:197-207.

Midthune DN, Fay MP, Clegg LX, Feuer EJ. Modeling reporting delays and reporting corrections in cancer registry data. *J Am Stat Assoc* 2005;100(469):61-70.

Pagano M, Tu XM, De Gruttola V, MaWhinney S. Regression analysis of censored and truncated data: estimating reporting-delay distributions and AIDS incidence from surveillance data. *Biometrics* 1994;50:1203-1214.

Percy C, Ries LAG, Van Holten VD. The accuracy of liver cancer as the underlying cause of death on death certificates. *Public Health Rep* 1990;105:361-368.

Percy C, Stanek E, Gloeckler L. Accuracy of cancer death certificates and its effect on cancer mortality statistics. . *Am J Public Health* 1981;71: 3242-3250.

Percy C, Van Holten V, Muir C, editors. *International Classification of Diseases for Oncology*, 2nd ed. Geneva: World Health Organization;1990.

Ries LAG, Eisner MP, Kosary CL, Hankey BF, Miller BA, Clegg LX, Edwards BK (eds). *SEER Cancer Statistics Review, 1973-1997*. National Cancer Institute. NIH Pub. No. 00-2789. Bethesda, MD, 2000.

Robinson JG, West KK, Adlakha A. Coverage of the population in Census 2000: Results from demographic analysis. *Population Res Policy Rev* 2002;21:19-38.

Rosenberg HM, Maurer JD, Sorlie PD, Johnson NJ, MacDorman MF, Hoyert DL, Spitler JF, Scott C. Quality of death rates by race and Hispanic origin: A summary of current research. Hyattsville (MD): National Center for Health Statistics; Vital and Health Statistics, Series 2, No. 128, 1999.

Siegel R, Naishadham D, Jemal A. Cancer statistics, 2012. *CA Cancer J Clin* 2012 Jan-Feb;62(1):10-29.

Simonetti A, Gigli A, Capocaccia R, Mariotto A. Estimating complete prevalence of cancers diagnosed in childhood. *Stat Med* 2008 Mar 30;27(7):990-1007.

Snedecor GW, Cochran WG. *Statistical Methods*, 7th ed. Ames (IA): Iowa State University Press; 1980.

US Cancer Statistics Working Group. *United States Cancer Statistics: 1999-2002 Incidence and Mortality Web-based Report Version*. Atlanta: Department of Health and Human Services, Centers for Disease Control and Prevention, and National Cancer Institute; 2005. Available from: http://www.cdc.gov/cancer/npcr/uscs/index.htm

US Census Bureau. Current Population Reports; Series P-25 No. 985. Washington (DC): US Government Printing Office; 1986.

US Census Bureau: State and County QuickFacts. Data derived from Population Estimates, Census of Population and Housing, Small Area Income and Poverty Estimates, State and County Housing Unit Estimates, County Business Patterns, Nonemployer Statistics, Economic Census, Survey of Business Owners, Building Permits, Consolidated Federal Funds Report. Last Revised: Thursday, 04-Nov-2010 12:46:18 EDT.

Zelen M. Theory of early detection of breast cancer in the general population. In: Heuson J-C, Mattheiem WH, Rozencweig M, editors. *Breast Cancer: Trends in Research and Treatment*. New York (NY): Raven Press; 1976. p. 287-299.

Zou J, Huang L, Midthune D, Horner MJ, Krapcho M, Feuer EJ. Effect of reporting year on delay modeling. Statistical Research and Applications Branch, National Cancer Institute; 2009. Technical Report #2009-01. Available from: http://surveillance.cancer.gov/reports/.

Table 1.1

Estimated New Cancer Cases and Deaths for 2012
All Races, By Sex

Primary Site	Estimated New Cases			Estimated Deaths		
	Total	Males	Females	Total	Males	Females
All Sites	1,638,910	848,170	790,740	577,190	301,820	275,370
Oral Cavity and Pharynx	40,250	28,540	11,710	7,850	5,440	2,410
Tongue	12,770	9,040	3,730	2,050	1,360	690
Mouth	11,620	7,030	4,590	1,790	1,070	720
Pharynx	13,510	10,790	2,720	2,330	1,730	600
Other Oral Cavity	2,350	1,680	670	1,680	1,280	400
Digestive System	284,680	156,760	127,920	142,510	80,560	61,950
Esophagus	17,460	13,950	3,510	15,070	12,040	3,030
Stomach	21,320	13,020	8,300	10,540	6,190	4,350
Small Intestine	8,070	4,380	3,690	1,150	610	540
Colon[a]	103,170	49,920	53,250	51,690	26,470	25,220
Rectum	40,290	23,500	16,790			
Anus, Anal Canal, and Anorectum	6,230	2,250	3,980	780	300	480
Liver and Intrahepatic Bile Duct	28,720	21,370	7,350	20,550	13,980	6,570
Gallbladder and Other Biliary	9,810	4,480	5,330	3,200	1,240	1,960
Pancreas	43,920	22,090	21,830	37,390	18,850	18,540
Other Digestive	5,690	1,800	3,890	2,140	880	1,260
Respiratory System	244,180	130,270	113,910	164,770	91,110	73,660
Larynx	12,360	9,840	2,520	3,650	2,880	770
Lung and Bronchus	226,160	116,470	109,690	160,340	87,750	72,590
Other Respiratory	5,660	3,960	1,700	780	480	300
Bones and Joints	2,890	1,600	1,290	1,410	790	620
Soft Tissue	11,280	6,110	5,170	3,900	2,050	1,850
Skin (excl. basal & squamous)	81,240	46,890	34,350	12,190	8,210	3,980
Melanoma of the Skin[b]	76,250	44,250	32,000	9,180	6,060	3,120
Other non-epithelial skin	4,990	2,640	2,350	3,010	2,150	860
Breast[b]	229,060	2,190	226,870	39,920	410	39,510
Genital Organs	340,650	251,900	88,750	58,360	28,840	29,520
Cervix (uterus)	12,170		12,170	4,220		4,220
Endometrium (uterus)	47,130		47,130	8,010		8,010
Ovary	22,280		22,280	15,500		15,500
Vulva	4,490		4,490	950		950
Vagina and other genital organs, female	2,680		2,680	840		840
Prostate	241,740	241,740		28,170	28,170	
Testis	8,590	8,590		360	360	
Penis and other genital organs, male	1,570	1,570		310	310	
Urinary System	141,140	97,610	43,530	29,330	19,670	9,660
Urinary Bladder	73,510	55,600	17,910	14,880	10,510	4,370
Kidney and Renal Pelvis	64,770	40,250	24,520	13,570	8,650	4,920
Ureter and other urinary organs	2,860	1,760	1,100	880	510	370
Eye and Orbit	2,610	1,310	1,300	270	120	150
Brain and Other Nervous System	22,910	12,630	10,280	13,700	7,720	5,980
Endocrine System	58,980	14,600	44,380	2,700	1,240	1,460
Thyroid	56,460	13,250	43,210	1,780	780	1,000
Other Endocrine	2,520	1,350	1,170	920	460	460
Lymphoma	79,190	43,120	36,070	20,130	10,990	9,140
Hodgkin Lymphoma	9,060	4,960	4,100	1,190	670	520
Non-Hodgkin Lymphoma	70,130	38,160	31,970	18,940	10,320	8,620
Myeloma	21,700	12,190	9,510	10,710	6,020	4,690
Leukemia	47,150	26,830	20,320	23,540	13,500	10,040
Lymphocytic Leukemias	22,110	12,940	9,170	6,020	3,550	2,470
Myeloid Leukemias	19,210	10,560	8,650	10,810	6,160	4,650
Other leukemia	5,830	3,330	2,500	6,710	3,790	2,920
All Other Sites[c]	31,000	15,620	15,380	45,900	25,150	20,750

Cancer Facts & Figures – 2012, American Cancer Society (ACS), Atlanta, Georgia, 2012.
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 1995-2008, representing about 95% of the US population.
Estimated deaths are based on data from US Mortality Data, 1994-2008, National Center for Health Statistics, Centers for Disease Control and Prevention.

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

[b] Carcinoma *in situ* of the breast accounts for about 63,300 new cases annually, and melanoma *in situ* accounts for about 55,560 new cases annually.

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

Table 1.2

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

All Races, Males and Females

All Primary Cancer Sites Combined

Age Group	1950	1980	2009	Annual Percent Change 1950-1980	Annual Percent Change 1980-2009	Total Percent Change 1950-2009
Ages 0-4	11.1	4.2	2.0	-3.2*	-2.7*	-82.1
Ages 5-14	6.7	4.3	2.2	-1.5*	-2.2*	-66.8
Ages 15-24	8.6	6.3	3.8	-1.1*	-1.5*	-56.1
Ages 25-34	20.4	13.9	9.0	-1.4*	-1.7*	-55.9
Ages 35-44	63.6	49.9	30.1	-0.7*	-1.8*	-52.7
Ages 45-54	174.2	175.5	111.9	0.1*	-1.7*	-35.7
Ages 55-64	391.3	431.5	305.7	0.4*	-1.4*	-21.9
Ages 65-74	710.0	823.7	693.3	0.5*	-0.6*	-2.4
Ages 75-84	1,167.2	1,227.9	1,189.1	0.2*	-0.1	1.9
Ages 85+	1,450.7	1,572.9	1,619.8	0.2	0.1	11.7
All Ages	195.4	206.9	173.1	0.2*	-0.7*	-11.4

Lung and Bronchus Cancer[b]

Age Group	1950	1980	2009	Annual Percent Change 1950-1980	Annual Percent Change 1980-2009	Total Percent Change 1950-2009
Ages 0-4	-	-	-	-	-	-
Ages 5-14	-	-	-	-	-	-
Ages 15-24	0.2	0.1	0.1	-2.8*	-0.3	-63.0
Ages 25-34	0.8	0.7	0.4	-0.3	-2.3*	-54.7
Ages 35-44	4.6	9.6	3.6	2.7*	-2.5*	-20.4
Ages 45-54	20.2	52.7	27.6	3.3*	-2.6*	36.2
Ages 55-64	48.9	137.1	88.6	3.3*	-1.7*	81.3
Ages 65-74	59.4	234.5	237.4	4.2*	0.0	299.5
Ages 75-84	55.4	239.4	355.5	4.9*	1.2*	541.9
Ages 85+	42.3	174.7	313.3	5.1*	2.0*	640.8
All Ages	14.9	49.7	48.6	3.9*	-0.2	225.1

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, 1950-2009 and
5-Year Relative Survival (Percent), 1950-2008
Males and Females, By Primary Cancer Site

	All Races		Whites			
			U.S. Mortality Percent Change 1950-2009[b]		5-Year Relative Survival (Percent)[c]	
Primary Site	Estimated Cancer Cases in 2009[a]	Actual Cancer Deaths in 2009[b]	Total	APC	1950-1954	2002-2008
Oral cavity and pharynx	35,720	7,922	-53.7	-1.3*	46	66.5
Esophagus	16,470	13,908	27.5	0.8*	4	20.5
Stomach	21,130	11,184	-87.5	-3.4*	12	26.6
Colon and rectum	146,970	52,393	-53.4	-1.2*	37	67.0
Colon	106,100	42,198	-46.1	-0.9*	41	66.2
Rectum	40,870	10,195	-69.8	-2.4*	40	68.8
Liver and intrahepatic bile duct	22,620	22,784	45.1	0.7*	1	15.6
Pancreas	42,470	35,628	25.1	0.1*	1	6.2
Larynx	12,290	3,630	-37.9	-0.7*	52	64.9
Lung and bronchus	219,440	158,350	223.9	1.5*	6	17.3
Males	116,090	87,884	147.6	0.8*	5	15.2
Females	103,350	70,466	571.7	3.2*	9	19.7
Melanoma of the skin	68,720	9,199	184.1	1.4*	49	93.2
Breast(females)	192,370	40,676	-33.6	-0.6*	60	91.7
Cervix uteri	11,270	3,909	-82.5	-3.3*	59	70.2
Corpus and uterus, NOS	42,160	7,713	-68.5	-1.7*	72	85.4
Ovary	21,550	14,841	-9.3	-0.3*	30	42.8
Prostate	192,280	28,088	-30.6	-0.3*	43	99.9
Testis	8,400	376	-71.0	-2.9*	57	97.0
Urinary bladder	70,980	14,575	-30.5	-0.8*	53	80.7
Kidney and renal pelvis	57,760	13,366	32.4	0.5*	34	72.3
Brain and nervous system	22,070	14,176	53.2	0.5*	21	33.6
Thyroid	37,200	1,707	-39.9	-1.1*	80	97.8
Hodgkin lymphoma	8,510	1,250	-79.0	-3.3*	30	88.3
Non-Hodgkin lymphoma	65,980	20,002	89.6	1.1*	33	71.8
Myeloma	20,580	10,773	207.0	1.3*	6	42.9
Leukemia	44,790	22,605	0.4	-0.3*	10	58.8
Childhood (Ages 0-14)	10,730	1,320	-74.2	-2.7*	20	84.5
All Sites	1,479,350	567,614	-12.1	-0.1*	35	68.9

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, 2009. American Cancer Society, Atlanta, Georgia, 2009.

[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 2002-2008 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 2009.

* 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] (2005-2009)			US Mortality[b] (2005-2009)			Survival[c] (%) (2002-2008)		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
All Sites	465.2	541.8	412.3	178.7	219.4	151.1	65.4	65.9	64.8
Oral Cavity & Pharynx:	10.8	16.1	6.2	2.5	3.8	1.4	61.5	60.5	63.6
Lip	0.7	1.1	0.3	0.0	0.0	0.0	89.5	89.7	89.0
Tongue	3.1	4.6	1.8	0.6	0.9	0.4	60.5	60.6	60.2
Salivary gland	1.3	1.7	1.0	0.2	0.4	0.1	72.6	65.8	81.3
Floor of mouth	0.6	0.9	0.3	0.0	0.0	0.0	50.3	47.9	56.2
Gum & other oral cavity	1.5	1.8	1.3	0.4	0.4	0.3	59.5	57.1	62.5
Nasopharynx	0.7	0.9	0.4	0.2	0.3	0.1	59.1	58.3	60.9
Tonsil	1.7	2.9	0.6	0.2	0.4	0.1	68.9	69.8	64.9
Oropharynx	0.4	0.6	0.2	0.2	0.3	0.1	39.7	40.6	36.1
Hypopharynx	0.7	1.2	0.3	0.1	0.2	0.0	30.8	30.7	31.2
Other oral cavity & pharynx	0.2	0.3	0.1	0.5	0.8	0.2	32.9	36.4	24.6
Digestive System:	86.3	105.9	70.6	43.2	55.6	33.4	44.4	42.7	46.3
Esophagus	4.5	7.8	1.8	4.3	7.7	1.6	16.9	17.1	16.4
Stomach	7.6	10.5	5.3	3.6	5.0	2.6	26.9	24.9	29.9
Small intestine	2.0	2.4	1.7	0.4	0.4	0.3	63.7	64.1	63.3
Colon & Rectum:	46.3	54.0	40.2	16.7	20.2	14.1	64.3	64.6	64.1
Colon	33.2	37.4	29.9	-	-	-	63.6	64.0	63.2
Rectum	13.1	16.5	10.3	-	-	-	66.2	65.8	66.7
Anus, anal canal & anorectum	1.7	1.5	1.9	0.2	0.2	0.2	65.0	59.9	68.4
Liver & intrahep. bile duct:	7.5	11.6	3.9	5.5	8.1	3.3	15.2	15.1	15.6
Liver	6.9	10.9	3.4	4.2	6.7	2.2	16.0	15.6	17.0
Intrahepatic bile duct	0.6	0.7	0.6	1.2	1.4	1.1	6.6	6.0	7.1
Gallbladder	1.2	0.8	1.4	0.6	0.5	0.8	16.6	14.8	17.3
Other biliary	1.8	2.2	1.5	0.4	0.5	0.4	15.7	16.9	14.4
Pancreas	12.1	13.8	10.8	10.8	12.5	9.5	5.8	5.4	6.1
Retroperitoneum	0.4	0.4	0.4	0.1	0.1	0.1	50.6	48.5	52.6
Peritoneum, omentum & mesentery	0.7	0.1	1.1	0.3	0.1	0.4	29.1	41.0	28.3
Other digestive system	0.5	0.6	0.5	0.3	0.4	0.2	10.5	10.0	11.0
Respiratory System:	67.0	83.8	54.6	52.1	68.2	40.3	19.0	18.4	19.8
Nose, nasal cavity & middle ear	0.7	0.9	0.5	0.2	0.2	0.1	55.2	55.0	55.6
Larynx	3.4	6.2	1.3	1.2	2.1	0.5	60.5	61.4	56.7
Lung & bronchus	62.6	76.4	52.7	50.6	65.7	39.6	15.9	13.8	18.4
Pleura[d]	0.0	0.0	0.0	0.1	0.1	0.0	24.7	17.8	37.0
Trachea & other respiratory organs	0.2	0.3	0.1	0.1	0.1	0.0	48.5	52.2	39.6
Bones & joints	0.9	1.1	0.8	0.4	0.5	0.4	66.6	64.4	69.3
Soft tissue (including heart)	3.3	3.9	2.8	1.3	1.5	1.1	66.1	65.2	67.2
Skin (excl. basal & squamous):	23.0	29.9	18.2	3.6	5.6	2.1	90.7	88.6	93.2
Melanoma of the skin	21.0	27.2	16.7	2.7	4.1	1.7	91.2	89.2	93.6
Other non-epithelial skin	2.0	2.7	1.5	0.9	1.5	0.4	85.0	82.0	88.5
Breast	67.2	1.2	124.3	12.9	0.3	23.0	88.9	85.0	89.0
Breast (*in situ*)	16.6	0.2	31.4	-	-	-	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 18 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, New Jersey and Georgia excluding ATL/RG).

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

[c] SEER 18 areas. Based on follow-up of patients into 2009.

[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] (2005-2009) Total	Males	Females	US Mortality[b] (2005-2009) Total	Males	Females	Survival[c] (%) (2002-2008) Total	Males	Females
Female Genital System:	26.1	-	48.7	8.8	-	15.7	67.8	-	67.8
Cervix uteri	4.2	-	8.1	1.3	-	2.4	67.9	-	67.9
Corpus uteri	12.6	-	23.5	1.1	-	1.9	82.7	-	82.7
Uterus, NOS	0.3	-	0.6	1.3	-	2.3	26.2	-	26.2
Ovary[d]	6.9	-	12.7	4.6	-	8.2	43.7	-	43.7
Vagina	0.4	-	0.7	0.1	-	0.2	50.2	-	50.2
Vulva	1.3	-	2.3	0.3	-	0.5	71.5	-	71.5
Other female genital system	0.5	-	0.8	0.1	-	0.2	60.0	-	60.0
Male Genital System:	72.6	161.3	-	9.3	24.0	-	98.9	98.9	-
Prostate	69.4	154.8	-	9.1	23.6	-	99.2	99.2	-
Testis	2.7	5.4	-	0.1	0.2	-	95.2	95.2	-
Penis	0.4	0.8	-	0.1	0.2	-	67.4	67.4	-
Other male genital system	0.1	0.3	-	0.0	0.0	-	89.7	89.7	-
Urinary System:	36.8	59.0	20.0	8.6	13.8	5.0	74.3	75.9	70.8
Urinary bladder	20.8	37.0	8.9	4.4	7.7	2.2	77.7	79.6	72.0
Kidney & renal pelvis	15.1	20.7	10.5	4.0	5.8	2.6	70.6	70.5	70.8
Ureter	0.6	0.8	0.4	0.1	0.2	0.1	49.4	52.5	45.1
Other urinary system	0.3	0.5	0.2	0.1	0.2	0.1	50.7	55.0	44.0
Eye & Orbit	0.8	0.9	0.7	0.1	0.1	0.1	83.1	82.5	83.8
Brain & Nervous System:[e]	6.5	7.7	5.4	4.3	5.2	3.5	33.5	31.7	35.6
Brain	6.1	7.3	5.0	-	-	-	30.2	29.1	31.7
Cranial nerves & other nervous system	0.4	0.4	0.4	-	-	-	78.7	75.0	81.9
Endocrine System:	12.4	6.7	18.0	0.8	0.8	0.8	95.1	89.9	96.8
Thyroid	11.6	5.9	17.3	0.5	0.5	0.5	97.5	94.5	98.3
Other endocrine & thymus	0.7	0.9	0.6	0.3	0.3	0.3	62.3	63.3	61.1
Lymphoma:	22.5	27.0	18.8	7.0	8.9	5.5	70.6	69.1	72.2
Hodgkin lymphoma	2.8	3.2	2.5	0.4	0.5	0.3	84.7	83.7	85.9
Non-Hodgkin lymphoma	19.6	23.8	16.3	6.6	8.4	5.2	68.2	66.6	70.0
Myeloma	5.8	7.4	4.7	3.4	4.4	2.7	41.1	42.1	40.1
Leukemia:	12.5	16.0	9.8	7.1	9.6	5.3	55.0	55.3	54.5
Lymphocytic:	6.2	8.3	4.6	2.0	2.9	1.4	74.9	74.5	75.6
Acute lymphocytic	1.6	1.9	1.4	0.5	0.6	0.4	65.2	64.8	65.7
Chronic lymphocytic	4.2	5.8	3.0	1.4	2.1	0.9	78.8	77.5	80.7
Other lymphocytic	0.4	0.7	0.2	0.1	0.2	0.1	80.8	84.9	69.7
Myeloid & Monocytic:	5.6	6.9	4.6	3.4	4.5	2.6	34.0	33.4	34.8
Acute myeloid	3.6	4.3	3.0	2.8	3.7	2.2	23.4	21.8	25.2
Chronic myeloid	1.6	2.1	1.2	0.3	0.4	0.2	59.1	58.6	59.7
Acute monocytic	0.3	0.3	0.2	0.0	0.0	0.0	24.1	23.9	24.3
Other myeloid & monocytic	0.2	0.2	0.1	0.2	0.3	0.1	31.9	29.9	34.2
Other leukemia:	0.7	0.8	0.6	1.7	2.3	1.3	27.2	27.2	27.2
Other acute leukemia	0.2	0.3	0.2	0.7	0.9	0.5	15.7	16.5	14.7
Aleukemic, subleukemic & NOS	0.4	0.5	0.4	1.0	1.4	0.8	35.6	35.4	35.8
Kaposi Sarcoma[f]	0.6	1.1	0.1	-	-	-	68.5	68.0	72.5
Mesothelioma[f]	1.0	1.9	0.4	-	-	-	7.5	5.7	13.4
Ill-defined & unspecified	9.3	10.8	8.2	13.4	17.0	10.8	16.5	20.4	12.8

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 18 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, New Jersey and Georgia excluding ATL/RG).

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

[c] SEER 18 areas. Based on follow-up of patients into 2009.

[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] (2005-2009)			US Mortality[b] (2005-2009)			Survival[c] (%) (2002-2008)		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
All Sites	471.7	542.7	423.1	177.6	216.7	150.8	66.0	66.5	65.6
Oral Cavity & Pharynx:	11.0	16.5	6.3	2.4	3.6	1.4	63.3	62.9	64.1
Lip	0.8	1.3	0.4	0.0	0.0	0.0	89.7	90.0	88.7
Tongue	3.3	4.9	1.9	0.6	0.9	0.4	62.7	63.2	61.5
Salivary gland	1.3	1.8	1.0	0.2	0.4	0.1	71.6	64.5	81.5
Floor of mouth	0.6	0.9	0.4	0.0	0.0	0.0	52.0	49.9	57.2
Gum & other oral cavity	1.5	1.8	1.3	0.4	0.4	0.3	60.2	58.4	62.4
Nasopharynx	0.4	0.6	0.3	0.2	0.2	0.1	53.3	54.0	51.3
Tonsil	1.8	3.1	0.6	0.2	0.4	0.1	71.6	72.6	67.0
Oropharynx	0.4	0.6	0.2	0.2	0.3	0.1	43.7	45.1	38.6
Hypopharynx	0.6	1.1	0.3	0.1	0.1	0.0	33.5	33.8	32.7
Other oral cavity & pharynx	0.2	0.3	0.1	0.5	0.8	0.2	34.9	39.1	25.0
Digestive System:	83.3	102.2	67.9	41.6	53.7	32.0	45.2	43.7	47.0
Esophagus	4.6	8.0	1.8	4.4	7.9	1.6	17.9	18.1	17.0
Stomach	6.6	9.3	4.4	3.1	4.3	2.2	25.4	23.6	28.4
Small intestine	2.0	2.4	1.6	0.3	0.4	0.3	64.5	65.6	63.3
Colon & Rectum:	45.4	53.1	39.2	16.2	19.5	13.6	65.0	65.4	64.6
Colon	32.6	36.9	29.1	-	-	-	64.4	64.9	64.0
Rectum	12.8	16.2	10.1	-	-	-	66.5	66.4	66.6
Anus, anal canal & anorectum	1.8	1.5	2.1	0.2	0.2	0.2	66.8	62.0	69.7
Liver & Intrahep. bile duct:	6.5	10.0	3.4	5.0	7.4	3.1	14.6	14.6	14.4
Liver	5.9	9.3	2.8	3.8	6.0	2.0	15.4	15.2	15.8
Intrahepatic bile duct	0.6	0.7	0.5	1.2	1.4	1.1	6.4	6.4	6.3
Gallbladder	1.1	0.8	1.4	0.6	0.4	0.7	16.9	14.5	17.8
Other biliary	1.8	2.2	1.5	0.5	0.5	0.4	15.6	17.1	14.0
Pancreas	12.0	13.7	10.6	10.7	12.4	9.3	5.7	5.4	6.0
Retroperitoneum	0.4	0.4	0.4	0.1	0.1	0.1	50.9	48.2	53.6
Peritoneum, omentum & mesentery	0.7	0.1	1.2	0.3	0.1	0.4	28.7	39.9	28.0
Other digestive system	0.5	0.6	0.4	0.3	0.3	0.2	9.9	9.7	10.0
Respiratory System:	68.5	83.8	57.1	52.6	67.7	41.4	19.3	18.6	20.1
Nose, nasal cavity & middle ear	0.7	0.9	0.5	0.2	0.2	0.1	55.6	56.0	55.1
Larynx	3.5	6.1	1.3	1.1	2.0	0.4	61.4	62.3	57.8
Lung & bronchus	64.1	76.4	55.1	51.2	65.3	40.8	16.3	14.1	18.7
Pleura[d]	0.0	0.0	0.0	0.1	0.1	0.0	22.2	15.2	34.8
Trachea & other respiratory organs	0.2	0.3	0.1	0.1	0.1	0.0	48.6	53.3	36.4
Bones & joints	1.0	1.1	0.8	0.5	0.5	0.4	66.8	64.1	70.1
Soft tissue (including heart)	3.3	4.1	2.8	1.3	1.5	1.1	67.0	66.0	68.2
Skin (excl. basal & squamous):	26.7	34.5	21.3	4.0	6.2	2.4	90.4	88.3	93.0
Melanoma of the skin	24.7	31.6	19.9	3.1	4.6	2.0	90.9	88.9	93.4
Other non-epithelial skin	2.0	2.9	1.4	0.9	1.6	0.4	83.4	80.4	87.1
Breast	68.1	1.2	127.3	12.5	0.3	22.4	90.2	86.5	90.3
Breast (*in situ*)	16.6	0.1	31.7	-	-	-	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 18 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, New Jersey and Georgia excluding ATL/RG).

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

[c] SEER 18 areas. Based on follow-up of patients into 2009.

[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] (2005-2009) Total	Males	Females	US Mortality[b] (2005-2009) Total	Males	Females	Survival[c] (%) (2002-2008) Total	Males	Females
Female Genital System:	26.6	-	50.2	8.6	-	15.5	68.9	-	68.9
Cervix uteri	4.0	-	8.0	1.1	-	2.2	69.2	-	69.2
Corpus uteri	12.9	-	24.3	1.0	-	1.8	84.8	-	84.8
Uterus, NOS	0.3	-	0.5	1.2	-	2.1	26.4	-	26.4
Ovary[d]	7.2	-	13.4	4.8	-	8.6	43.5	-	43.5
Vagina	0.4	-	0.7	0.1	-	0.2	50.6	-	50.6
Vulva	1.4	-	2.5	0.3	-	0.5	71.5	-	71.5
Other female genital system	0.5	-	0.9	0.1	-	0.2	60.1	-	60.1
Male Genital System:	70.3	154.4	-	8.6	22.2	-	99.3	99.3	-
Prostate	66.6	146.9	-	8.4	21.7	-	99.6	99.6	-
Testis	3.3	6.4	-	0.1	0.3	-	95.5	95.5	-
Penis	0.4	0.9	-	0.1	0.2	-	65.9	65.9	-
Other male genital system	0.1	0.2	-	0.0	0.0	-	91.8	91.8	-
Urinary System:	38.9	62.6	20.9	8.9	14.3	5.0	74.8	76.3	71.4
Urinary bladder	22.5	40.0	9.6	4.5	8.0	2.2	78.2	79.8	73.1
Kidney & renal pelvis	15.5	21.2	10.7	4.1	5.9	2.7	70.9	70.8	71.0
Ureter	0.6	0.9	0.4	0.1	0.2	0.1	49.2	53.1	43.8
Other urinary system	0.3	0.5	0.1	0.1	0.2	0.1	51.8	54.5	47.2
Eye & Orbit	0.9	1.0	0.8	0.1	0.1	0.1	82.9	82.2	83.4
Brain & Nervous System:[e]	7.1	8.4	5.9	4.6	5.6	3.8	32.3	31.0	34.0
Brain	6.7	8.0	5.5	-	-	-	29.2	28.4	30.2
Cranial nerves & other nervous system	0.4	0.4	0.4	-	-	-	80.4	77.5	83.0
Endocrine System:	12.9	7.0	18.9	0.8	0.8	0.7	95.5	90.6	97.2
Thyroid	12.2	6.2	18.3	0.5	0.5	0.5	97.7	94.7	98.5
Other endocrine & thymus	0.7	0.8	0.6	0.3	0.3	0.3	62.0	63.7	59.9
Lymphoma:	23.5	28.2	19.8	7.2	9.2	5.8	71.1	69.9	72.4
Hodgkin lymphoma	3.0	3.3	2.7	0.4	0.5	0.3	85.2	84.3	86.1
Non-Hodgkin lymphoma	20.5	24.8	17.1	6.8	8.7	5.4	68.8	67.5	70.2
Myeloma	5.3	6.9	4.1	3.2	4.1	2.5	40.9	42.6	38.8
Leukemia:	13.1	16.8	10.2	7.3	9.9	5.5	55.2	55.4	54.9
Lymphocytic:	6.7	8.9	4.9	2.1	3.0	1.5	75.1	74.6	75.9
Acute lymphocytic	1.8	2.0	1.6	0.5	0.6	0.4	64.9	64.4	65.6
Chronic lymphocytic	4.5	6.1	3.2	1.5	2.2	1.0	78.9	77.6	80.9
Other lymphocytic	0.4	0.7	0.2	0.1	0.2	0.1	81.3	85.3	70.7
Myeloid & Monocytic:	5.7	7.1	4.7	3.5	4.6	2.7	33.1	32.4	33.9
Acute myeloid	3.7	4.5	3.1	2.9	3.8	2.3	22.8	21.3	24.6
Chronic myeloid	1.6	2.1	1.2	0.3	0.4	0.2	57.7	57.3	58.2
Acute monocytic	0.3	0.3	0.2	0.0	0.0	0.0	24.3	23.5	25.1
Other myeloid & monocytic	0.2	0.2	0.1	0.2	0.3	0.1	31.3	29.8	32.3
Other leukemia:	0.7	0.8	0.6	1.7	2.3	1.3	25.7	25.3	26.2
Other acute leukemia	0.3	0.3	0.2	0.7	0.9	0.6	14.1	14.2	13.8
Aleukemic, subleukemic & NOS	0.4	0.5	0.4	1.0	1.4	0.8	34.4	34.1	34.7
Kaposi Sarcoma[f]	0.5	1.0	0.1	-	-	-	74.3	73.6	80.0
Mesothelioma[f]	1.2	2.1	0.5	-	-	-	7.2	5.4	13.3
Ill-defined & unspecified	9.5	10.9	8.3	13.4	16.9	10.7	17.0	21.5	12.7

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 18 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, New Jersey and Georgia excluding ATL/RG).

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

[c] SEER 18 areas. Based on follow-up of patients into 2009.

[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] (2005-2009) Total	Males	Females	US Mortality[b] (2005-2009) Total	Males	Females	Survival[c] (%) (2002-2008) Total	Males	Females
All Sites	489.5	627.1	398.3	216.4	288.3	174.6	58.3	61.4	54.8
Oral Cavity & Pharynx:	9.8	15.4	5.6	3.2	5.7	1.4	42.1	37.2	53.0
Lip	0.1	0.1	0.1	-	-	-	83.1	72.0	93.2
Tongue	2.2	3.6	1.2	0.6	1.1	0.3	32.7	29.9	38.7
Salivary gland	1.0	1.1	1.0	0.2	0.2	0.1	73.6	67.1	78.8
Floor of mouth	0.6	1.0	0.3	0.0	0.1	-	36.9	33.3	47.2
Gum & other oral cavity	1.4	1.7	1.2	0.4	0.6	0.2	51.6	41.7	63.9
Nasopharynx	0.7	1.2	0.4	0.3	0.5	0.1	55.9	53.7	59.9
Tonsil	1.7	3.0	0.6	0.3	0.5	0.1	45.9	45.6	46.9
Oropharynx	0.6	1.1	0.3	0.4	0.7	0.1	19.8	19.7	19.8
Hypopharynx	1.1	2.1	0.3	0.2	0.3	0.0	18.3	17.0	23.8
Other oral cavity & pharynx	0.3	0.5	0.2	0.9	1.7	0.3	21.0	21.9	16.7
Digestive System:	108.5	135.5	89.7	59.1	78.4	45.9	38.7	35.5	41.9
Esophagus	5.3	8.9	2.8	4.6	8.2	2.2	11.1	10.4	12.6
Stomach	11.9	17.0	8.7	6.9	10.3	4.8	26.5	22.9	31.1
Small intestine	3.1	3.6	2.8	0.6	0.7	0.5	60.7	57.1	63.9
Colon & Rectum:	57.0	66.9	50.3	23.7	29.8	19.8	56.8	55.9	57.6
Colon	42.9	49.4	38.7	-	-	-	56.1	55.9	56.3
Rectum	14.0	17.5	11.6	-	-	-	58.9	56.1	61.7
Anus, anal canal & anorectum	1.7	1.8	1.6	0.2	0.2	0.2	52.6	46.0	58.8
Liver & Intrahep. bile duct:	9.0	14.9	4.4	7.3	11.9	4.0	10.7	8.5	15.9
Liver	8.5	14.4	4.0	6.2	10.5	3.0	10.9	8.7	16.8
Intrahepatic bile duct	0.5	0.5	0.5	1.1	1.3	1.0	7.9	0.0	9.7
Gallbladder	1.5	1.3	1.7	0.8	0.7	1.0	13.8	15.8	13.0
Other biliary	1.7	2.1	1.5	0.4	0.4	0.3	13.3	14.1	12.7
Pancreas	15.8	17.7	14.4	13.8	15.5	12.6	5.0	4.6	5.4
Retroperitoneum	0.4	0.3	0.4	0.1	0.1	0.1	44.2	40.7	46.3
Peritoneum, omentum & mesentery	0.4	0.1	0.5	0.2	0.1	0.2	31.6	54.9	27.5
Other digestive system	0.7	0.8	0.6	0.4	0.5	0.3	14.3	13.5	14.8
Respiratory System:	77.4	111.0	55.0	57.8	87.2	38.9	16.7	16.9	16.4
Nose, nasal cavity & middle ear	0.7	1.0	0.5	0.2	0.3	0.1	48.8	47.8	50.3
Larynx	5.2	9.9	1.8	2.1	4.2	0.7	54.0	55.3	48.7
Lung & bronchus	71.3	99.9	52.6	55.4	82.6	38.0	13.0	11.8	14.6
Pleura[d]	-	-	-	0.0	0.1	0.0	-	-	-
Trachea & other respiratory organs	0.2	0.2	0.1	0.1	0.1	0.0	50.5	48.0	53.7
Bones & joints	0.8	0.9	0.7	0.4	0.6	0.4	64.0	61.7	66.6
Soft tissue (including heart)	3.2	3.5	3.0	1.4	1.4	1.4	60.2	59.1	61.3
Skin (excl. basal & squamous):	2.1	2.2	2.1	0.9	1.4	0.6	83.5	80.6	85.4
Melanoma of the skin	1.0	1.1	0.9	0.4	0.5	0.4	72.0	62.5	78.5
Other non-epithelial skin	1.1	1.1	1.2	0.5	0.8	0.2	91.3	92.9	90.0
Breast	69.7	1.7	121.2	18.8	0.5	31.6	77.6	71.3	77.7
Breast (*in situ*)	16.7	0.3	29.4	-	-	-	100.0	96.7	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 18 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, New Jersey and Georgia excluding ATL/RG).

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

[c] SEER 18 areas. Based on follow-up of patients into 2009.

[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] (2005-2009) Total	Males	Females	US Mortality[b] (2005-2009) Total	Males	Females	Survival[c] (%) (2002-2008) Total	Males	Females
Female Genital System:	25.7	-	44.9	11.5	-	19.3	53.9	-	53.9
Cervix uteri	5.4	-	9.8	2.5	-	4.3	58.5	-	58.5
Corpus uteri	11.8	-	20.6	1.8	-	3.0	61.3	-	61.3
Uterus, NOS	0.7	-	1.2	2.6	-	4.3	24.8	-	24.8
Ovary[d]	5.7	-	9.8	4.1	-	6.8	36.0	-	36.0
Vagina	0.6	-	1.0	0.2	-	0.3	47.1	-	47.1
Vulva	1.0	-	1.8	0.2	-	0.3	65.5	-	65.5
Other female genital system	0.4	-	0.7	0.1	-	0.2	53.3	-	53.3
Male Genital System:	99.1	238.4	-	18.6	53.6	-	96.0	96.0	-
Prostate	98.0	236.0	-	18.4	53.1	-	96.2	96.2	-
Testis	0.6	1.3	-	0.1	0.1	-	89.1	89.1	-
Penis	0.4	0.9	-	0.1	0.3	-	64.0	64.0	-
Other male genital system	0.1	0.2	-	0.0	0.0	-	75.2	75.2	-
Urinary System:	30.5	46.5	19.6	7.9	11.8	5.5	66.0	68.5	62.2
Urinary bladder	12.6	21.2	7.1	3.7	5.6	2.6	64.2	69.7	54.3
Kidney & renal pelvis	17.2	24.3	12.0	4.0	6.0	2.6	68.1	68.1	68.1
Ureter	0.3	0.4	0.3	0.1	0.1	0.1	44.8	47.9	40.1
Other urinary system	0.4	0.6	0.3	0.1	0.1	0.2	35.6	43.0	29.4
Eye & Orbit	0.2	0.3	0.1	0.0	0.0	0.0	78.9	75.9	82.5
Brain & Nervous System:[e]	4.0	4.7	3.6	2.5	3.1	2.1	39.3	33.2	45.5
Brain	3.7	4.3	3.2	-	-	-	35.4	30.4	40.8
Cranial nerves & other nervous system	0.4	0.3	0.4	-	-	-	71.1	62.7	76.2
Endocrine System:	7.9	4.4	10.9	0.9	0.8	0.9	91.2	82.5	93.6
Thyroid	6.9	3.3	10.1	0.5	0.4	0.6	95.3	90.1	96.4
Other endocrine & thymus	0.9	1.0	0.9	0.4	0.4	0.3	62.6	63.0	62.2
Lymphoma:	17.0	20.6	14.2	5.0	6.6	3.9	65.0	60.9	69.7
Hodgkin lymphoma	2.7	3.1	2.4	0.4	0.5	0.3	80.7	77.5	83.8
Non-Hodgkin lymphoma	14.3	17.5	11.8	4.6	6.1	3.6	61.3	57.0	66.2
Myeloma	11.7	14.3	10.1	6.4	8.0	5.4	41.0	39.5	42.4
Leukemia:	9.7	12.5	7.8	6.2	8.5	4.8	48.0	49.0	46.8
Lymphocytic:	4.0	5.8	2.8	1.8	2.7	1.2	64.9	64.1	66.0
Acute lymphocytic	0.9	1.2	0.7	0.3	0.4	0.2	62.4	62.7	62.1
Chronic lymphocytic	2.9	4.3	2.0	1.3	2.1	0.9	66.1	64.0	69.1
Other lymphocytic	0.2	0.4	0.1	0.1	0.2	0.1	60.9	70.8	37.4
Myeloid & Monocytic:	4.8	5.7	4.3	2.7	3.5	2.3	36.0	36.0	36.0
Acute myeloid	3.0	3.5	2.8	2.2	2.7	1.9	24.0	23.2	24.8
Chronic myeloid	1.5	1.9	1.2	0.4	0.5	0.3	60.5	59.2	61.9
Acute monocytic	0.2	0.2	0.1	0.0	-	-	20.3	21.3	20.1
Other myeloid & monocytic	0.1	0.1	0.1	0.1	0.2	0.1	36.3	36.0	35.3
Other leukemia:	0.8	0.9	0.7	1.7	2.3	1.4	26.9	28.7	24.6
Other acute leukemia	0.2	0.3	0.2	0.5	0.7	0.4	19.4	21.7	17.4
Aleukemic, subleukemic & NOS	0.6	0.6	0.5	1.2	1.6	0.9	31.2	33.0	28.5
Kaposi Sarcoma[f]	1.1	2.1	0.2	-	-	-	49.4	49.3	47.5
Mesothelioma[f]	0.6	1.1	0.3	-	-	-	10.5	10.0	12.4
Ill-defined & unspecified	10.5	12.2	9.3	15.7	20.8	12.5	12.0	12.6	11.5

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 18 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, New Jersey and Georgia excluding ATL/RG).

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

[c] SEER 18 areas. Based on follow-up of patients into 2009.

[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, 2000-2009

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	-0.6*	-1.0*	-0.2	-1.5*	-1.8*	-1.4*
Oral Cavity & Pharynx:	0.1	0.1	-0.2	-1.4*	-1.3*	-1.9*
Lip	-5.0*	-5.5*	-3.6*	-4.3*	-5.4*	-1.0
Tongue	2.2*	2.4*	1.5*	-0.8*	-0.5	-1.2*
Salivary gland	0.9	0.6	1.3*	-0.6	-0.4	-1.3
Floor of mouth	-3.6*	-4.4*	-1.9	-6.4*	-6.8*	-5.4*
Gum & other oral cavity	-1.3*	-1.4*	-0.9	-2.8*	-2.9*	-2.7*
Nasopharynx	-0.5	-0.5	-0.7	-1.3*	-1.3*	-1.6
Tonsil	2.8*	3.2*	0.6	0.8	1.1	-0.6
Oropharynx	2.1	2.4	0.9	0.9*	1.0	0.0
Hypopharynx	-2.6*	-2.5*	-3.4*	-4.3*	-4.3*	-4.4*
Other oral cavity & pharynx	-4.8*	-4.8*	-5.0*	-2.3*	-2.1*	-3.2*
Digestive System:	-1.0*	-1.0*	-1.0*	-1.3*	-1.2*	-1.6*
Esophagus	-0.7*	-0.5	-1.6*	-0.5*	-0.3	-1.9*
Stomach	-1.2*	-1.6*	-0.9*	-3.1*	-3.3*	-3.1*
Small intestine	2.1*	2.0*	2.1*	-0.5	-0.5	-0.7
Colon & Rectum:	-2.4*	-2.7*	-2.3*	-3.0*	-3.1*	-3.1*
Colon	-2.6*	-2.8*	-2.5*	-	-	-
Rectum	-2.0*	-2.3*	-1.7*	-	-	-
Anus, anal canal & anorectum	2.6*	2.4*	2.8*	3.1*	2.9*	3.4*
Liver & intrahep. bile duct:	3.7*	3.9*	2.7*	2.4*	2.6*	1.5*
Liver	4.1*	4.3*	3.0*	2.1*	2.5*	0.6*
Intrahepatic bile duct	-0.4	-1.5	0.6	3.2*	3.0*	3.4*
Gallbladder	-0.2	0.3	-0.5	-1.4*	-0.8*	-1.7*
Other biliary	1.6*	1.7*	1.3	-3.9*	-4.1*	-3.8*
Pancreas	1.0*	1.0*	1.0*	0.4*	0.4*	0.4*
Retroperitoneum	-1.0	-0.8	-1.4	-3.8*	-3.1*	-4.8*
Peritoneum, omentum & mesentery	1.5	0.3	1.6	1.6*	1.3	1.6*
Other digestive system	2.1*	2.9*	1.5	-1.9	-1.0	-2.7
Respiratory System:	-1.3*	-2.1*	-0.3*	-1.6*	-2.3*	-0.8*
Nose, nasal cavity & middle ear	0.5	0.3	0.7	-0.1	-0.4	0.1
Larynx	-2.4*	-2.6*	-2.2*	-2.4*	-2.7*	-2.0*
Lung & bronchus	-1.2*	-2.0*	-0.3	-1.6*	-2.3*	-0.7*
Pleura	-4.3*	-5.5*	-	-6.4*	-6.6*	-6.2*
Trachea & other respiratory organs	-1.2	-1.1	-2.1	-5.3*	-6.1*	-3.9*
Bones & joints	0.1	0.3	-0.3	0.0	-0.2	0.3
Soft tissue (including heart)	1.2*	1.0*	1.3*	0.1	0.5	-0.3
Skin (excl. basal & squamous):	1.9*	2.1*	1.6*	0.5*	0.9*	-0.4
Melanoma of the skin	1.9*	2.1*	1.6*	0.5*	1.0*	-0.4
Other non-epithelial skin	1.8*	2.0*	1.6*	0.4	0.6	-0.5
Breast	-0.9*	0.9	-0.7*	-2.2*	-2.3*	-2.1*
Breast (*in situ*)	1.3*	3.2	1.5*	-	-	-

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).

[a] SEER 18 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, New Jersey and Georgia excluding ATL/RG).

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

* 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, 2000-2009

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*	-	-0.4	-1.3*	-	-1.1*
Cervix uteri	-2.1*	-	-1.9*	-2.0*	-	-1.7*
Corpus uteri	0.4	-	0.7*	-1.0*	-	-0.7*
Uterus, NOS	0.7	-	1.0	0.5*	-	0.9*
Ovary[c]	-1.8*	-	-1.6*	-1.7*	-	-1.6*
Vagina	-0.7	-	-0.5	-1.7*	-	-1.4*
Vulva	0.6	-	0.8*	0.5	-	1.0*
Other female genital system	4.1*	-	4.1*	-1.7	-	-1.5
Male Genital System:	-1.4*	-1.9*	-	-2.9*	-3.5*	-
Prostate	-1.5*	-1.9*	-	-2.9*	-3.5*	-
Testis	0.5*	0.4*	-	-0.7	-0.7	-
Penis	-0.2	-0.5	-	-0.2	-0.5	-
Other male genital system	-1.2	-1.2	-	-0.1	-0.3	-
Urinary System:	0.8*	0.5*	1.1*	-0.4*	-0.3*	-0.9*
Urinary bladder	-0.5	-0.5	-0.8*	0.0	0.1	-0.7*
Kidney & renal pelvis	2.9*	2.7*	3.0*	-0.9*	-0.9*	-1.2*
Ureter	0.3	-0.3	1.4	0.8	0.1	0.9
Other urinary system	0.3	0.0	0.3	1.7	2.8	0.1
Eye & Orbit	-1.1*	-1.9*	-0.1	0.0	-1.1	1.3
Brain & Nervous System:[d]	-0.2	-0.2	-0.3	-0.6*	-0.7*	-0.5*
Brain	-0.1	-0.1	-0.2	-	-	-
Cranial nerves & other nervous system	-1.9*	-2.1	-1.9	-	-	-
Endocrine System:	6.3*	5.3*	6.7*	0.3	0.1	0.5
Thyroid	6.6*	6.0*	6.9*	1.1*	1.3*	1.1*
Other endocrine & thymus	1.4*	1.2	1.6*	-1.1*	-1.6*	-0.6
Lymphoma:	0.2	0.3	0.1	-2.9*	-2.6*	-3.4*
Hodgkin lymphoma	0.6	0.4	0.8	-2.2*	-2.1*	-2.6*
Non-Hodgkin lymphoma	0.2	0.3	0.0	-3.0*	-2.7*	-3.4*
Myeloma	-0.1	0.1	-0.5	-1.8*	-1.2*	-2.6*
Leukemia:	-0.9*	-1.1*	-0.7*	-1.1*	-0.9*	-1.4*
Lymphocytic:	-0.7	-0.8	-0.6	-1.5*	-1.3*	-1.9*
Acute lymphocytic	0.8*	0.9	0.6	-1.2*	-1.2*	-1.2*
Chronic lymphocytic	-1.1	-1.3*	-0.9	-1.6*	-1.3*	-2.1*
Other lymphocytic	-2.0*	-1.3	-3.9*	-1.9*	-2.1*	-2.0*
Myeloid & Monocytic:	-0.7	-1.1*	-0.4	-0.7*	-0.5*	-1.1*
Acute myeloid	-0.7	-1.2*	-0.1	0.5*	0.8*	0.1
Chronic myeloid	-0.7	-0.5	-0.9	-8.4*	-8.0*	-8.9*
Acute monocytic	-1.1	-2.2	0.0	-4.0*	-5.0*	-2.9
Other myeloid & monocytic	-1.2	-0.4	-2.0	-0.4	-0.6	-0.8
Other leukemia:	-3.9*	-4.8*	-3.3*	-1.4*	-1.3*	-1.7*
Other acute leukemia	-7.1*	-6.7*	-7.9*	-3.8*	-3.9*	-3.9*
Aleukemic, subleukemic & NOS	-1.8	-3.4*	-0.2	0.4*	0.6*	-0.1
Kaposi Sarcoma[e]	-3.2*	-3.2*	-3.5*	-	-	-
Mesothelioma[e]	-0.8	-1.2	0.3	-	-	-
Ill-defined & unspecified	-3.0*	-2.8*	-3.1*	-2.1*	-2.0*	-2.4*

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).

[a] SEER 18 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, New Jersey and Georgia excluding ATL/RG).

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

[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, 2000-2009

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	-0.6*	-1.0*	-0.3*	-1.5*	-1.7*	-1.4*
Oral Cavity & Pharynx:	0.4	0.4*	0.0	-1.0*	-0.8*	-1.7*
Lip	-5.2*	-5.7*	-3.8*	-4.4*	-5.6*	-0.6
Tongue	2.6*	2.8*	1.8*	-0.2	0.0	-0.8*
Salivary gland	1.1	0.7	1.7	-0.7	-0.6	-1.6*
Floor of mouth	-3.1*	-3.9*	-1.5	-5.7*	-6.2*	-4.8*
Gum & other oral cavity	-1.3*	-1.3*	-1.2	-2.5*	-2.6*	-2.5*
Nasopharynx	-0.4	-1.1	0.5	-1.3*	-1.2*	-1.7*
Tonsil	3.3*	3.8*	0.8	1.4	1.9*	-0.9
Oropharynx	2.3	2.7	1.1	1.7*	2.1*	0.2
Hypopharynx	-2.4*	-2.1*	-4.0*	-4.0*	-4.0*	-4.3*
Other oral cavity & pharynx	-4.2*	-3.6*	-5.8*	-1.7*	-1.5*	-2.7*
Digestive System:	-1.0*	-1.1*	-1.1*	-1.2*	-1.1*	-1.5*
Esophagus	0.0	0.2	-1.2*	0.1	0.3	-1.2*
Stomach	-1.3*	-1.6*	-1.1*	-3.3*	-3.5*	-3.2*
Small intestine	2.4*	2.5*	2.1*	-0.7	-0.4	-1.1
Colon & Rectum:	-2.6*	-2.9*	-2.4*	-3.1*	-3.2*	-3.1*
Colon	-2.7*	-2.9*	-2.6*	-	-	-
Rectum	-2.3*	-2.8*	-1.9*	-	-	-
Anus, anal canal & anorectum	2.7*	2.3*	3.1*	3.0*	2.6*	3.3*
Liver & intrahep. bile duct:	4.0*	4.3*	2.6*	2.5*	2.6*	1.7*
Liver	4.5*	4.8*	3.1*	2.2*	2.5*	0.8*
Intrahepatic bile duct	-0.5	-1.5	0.3	3.4*	3.1*	3.5*
Gallbladder	-0.5	-0.5	-0.5	-1.8*	-1.5*	-1.9*
Other biliary	1.6*	1.8*	1.3	-4.1*	-4.2*	-4.0*
Pancreas	1.1*	1.0*	1.1*	0.5*	0.5*	0.5*
Retroperitoneum	-0.9	-1.0	-1.1	-3.3*	-2.6	-4.5*
Peritoneum, omentum & mesentery	1.5	1.0	1.6	1.8*	1.6	1.8*
Other digestive system	1.9*	2.2*	1.6	-1.9	-1.1	-2.6
Respiratory System:	-1.2*	-2.0*	-0.3	-1.5*	-2.2*	-0.7*
Nose, nasal cavity & middle ear	0.2	0.0	0.4	-0.3	-0.4	-0.1
Larynx	-2.2*	-2.3*	-2.3*	-2.0*	-2.5*	-1.5*
Lung & bronchus	-1.2*	-2.0*	-0.3	-1.4*	-2.2*	-0.6*
Pleura	-3.9*	-5.4*	-	-6.4*	-6.5*	-6.2*
Trachea & other respiratory organs	-1.6	-1.4	-3.1	-5.4*	-6.3*	-3.8
Bones & joints	-0.1	0.4	-0.8	0.0	-0.4	0.4
Soft tissue (including heart)	1.2*	1.2*	1.2	0.1	0.5	-0.4
Skin (excl. basal & squamous):	1.8*	2.1*	1.5*	0.7*	1.1*	-0.2
Melanoma of the skin	1.8*	2.1*	1.6*	0.6*	1.1*	-0.2
Other non-epithelial skin	1.5*	1.9*	1.0	0.7	0.9*	-0.3
Breast	-1.2*	0.8	-1.0*	-2.3*	-2.1*	-2.1*
Breast (*in situ*)	0.9*	1.9	1.1*	-	-	-

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).

[a] SEER 18 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, New Jersey and Georgia excluding ATL/RG).

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

* 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, 2000-2009

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:	-0.7*	-	-0.5	-1.3*	-	-1.1*
Cervix uteri	-2.0*	-	-1.8*	-1.8*	-	-1.6*
Corpus uteri	0.1	-	0.4	-1.1*	-	-0.7*
Uterus, NOS	-0.5	-	-0.3	0.4*	-	0.8*
Ovary[c]	-1.9*	-	-1.7*	-1.7*	-	-1.5*
Vagina	-0.4	-	-0.1	-1.5*	-	-1.3
Vulva	0.8	-	1.0*	0.7*	-	1.2*
Other female genital system	4.2*	-	4.3*	-1.7	-	-1.5
Male Genital System:	-1.6*	-2.1*	-	-2.7*	-3.4*	-
Prostate	-1.8*	-2.2*	-	-2.8*	-3.4*	-
Testis	0.5*	0.4	-	-0.4	-0.5	-
Penis	-0.1	-0.4	-	-0.7	-1.0	-
Other male genital system	-1.5	-1.6	-	0.0	-0.3	-
Urinary System:	0.7*	0.4	1.0*	-0.3*	-0.2*	-0.8*
Urinary bladder	-0.6*	-0.6*	-0.9*	0.2	0.2	-0.5
Kidney & renal pelvis	2.8*	2.6*	2.9*	-0.9*	-0.9*	-1.2*
Ureter	0.3	0.0	0.9	0.7	0.1	0.7
Other urinary system	1.2	0.5	1.8	2.0	3.1	0.2
Eye & Orbit	-1.3*	-2.0*	-0.3	0.4	-0.9	2.0
Brain & Nervous System:[d]	-0.2	-0.1	-0.4	-0.5*	-0.6*	-0.4
Brain	-0.1	0.0	-0.3	-	-	-
Cranial nerves & other nervous system	-2.4*	-2.3	-2.6	-	-	-
Endocrine System:	6.2*	5.2*	6.7*	0.0	-0.2	0.3
Thyroid	6.6*	6.0*	6.9*	1.0*	1.3*	0.9*
Other endocrine & thymus	0.5	0.3	0.8	-1.6*	-2.5*	-0.8
Lymphoma:	0.1	0.3	0.0	-2.9*	-2.7*	-3.4*
Hodgkin lymphoma	0.4	0.3	0.6	-2.3*	-2.2*	-2.6*
Non-Hodgkin lymphoma	0.1	0.3	-0.1	-3.0*	-2.7*	-3.4*
Myeloma	-0.3	0.0	-0.8*	-1.8*	-1.2*	-2.5*
Leukemia:	-1.0*	-1.2*	-0.8*	-1.0*	-0.9*	-1.4*
Lymphocytic:	-0.7	-1.0*	-0.5	-1.4*	-1.3*	-1.6*
Acute lymphocytic	0.8*	0.6	0.9	-1.0*	-1.1*	-0.8
Chronic lymphocytic	-1.2	-1.5*	-0.9	-1.5*	-1.3*	-2.0*
Other lymphocytic	-2.0*	-1.3	-3.7*	-1.7*	-2.0*	-1.6
Myeloid & Monocytic:	-0.8*	-1.0*	-0.7	-0.6*	-0.4	-1.0*
Acute myeloid	-0.8	-1.2*	-0.6	0.6*	0.8*	0.1
Chronic myeloid	-0.8	-0.6	-1.2	-8.3*	-8.1*	-8.6*
Acute monocytic	-1.0	-1.7	-0.5	-3.9*	-5.1*	-2.5
Other myeloid & monocytic	-0.8	-0.1	-1.4	-0.4	-0.5	-0.7
Other leukemia:	-4.0*	-5.0*	-3.2*	-1.4*	-1.3*	-1.8*
Other acute leukemia	-7.1*	-7.0*	-7.8*	-3.8*	-3.9*	-3.8*
Aleukemic, subleukemic & NOS	-1.8	-3.4*	0.0	0.4	0.7*	-0.2
Kaposi Sarcoma[e]	-3.2*	-3.1*	-5.9*	-	-	-
Mesothelioma[e]	-0.7	-1.1	0.9	-	-	-
Ill-defined & unspecified	-2.8*	-2.6*	-3.0*	-2.0*	-1.8*	-2.3*

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).

[a] SEER 18 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, New Jersey and Georgia excluding ATL/RG).

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

[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, 2000-2009

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	-0.8*	-1.5*	0.0	-2.0*	-2.4*	-1.6*
Oral Cavity & Pharynx:	-2.3*	-3.0*	-0.5	-3.6*	-3.6*	-3.2*
Lip	-	-	-	-	-	-
Tongue	-1.5	-2.0	0.3	-3.8*	-4.0*	-2.4
Salivary gland	0.3	-1.0	1.3	0.3	0.6	0.0
Floor of mouth	-7.5*	-8.8*	-4.6	-11.2*	-	-
Gum & other oral cavity	-4.1*	-6.0*	-1.2	-5.0*	-5.3*	-4.1*
Nasopharynx	-0.5	0.1	-1.8	-1.7	-1.2	-2.9
Tonsil	0.3	0.5	0.5	-1.2	-2.0*	2.2
Oropharynx	-0.2	-0.2	-	-2.1*	-1.9*	-1.6
Hypopharynx	-3.5*	-3.6*	-2.5	-5.6*	-6.1*	-
Other oral cavity & pharynx	-9.1*	-12.3*	-	-4.4*	-4.0*	-5.1*
Digestive System:	-0.8*	-0.7*	-1.0*	-1.6*	-1.4*	-2.0*
Esophagus	-4.4*	-4.6*	-3.7*	-4.8*	-4.5*	-5.3*
Stomach	-1.4*	-1.2*	-1.2	-3.3*	-2.9*	-3.8*
Small intestine	1.0	0.0	2.0	0.8	0.3	1.3
Colon & Rectum:	-1.9*	-1.8*	-2.0*	-2.6*	-2.3*	-3.0*
Colon	-2.3*	-2.5*	-2.3*	-	-	-
Rectum	-0.3	0.2	-0.8*	-	-	-
Anus, anal canal & anorectum	2.8*	3.3	2.1	4.6*	3.9	5.0*
Liver & intrahep. bile duct:	4.6*	4.4*	4.5*	2.7*	3.4*	1.0
Liver	4.9*	4.9*	4.8*	2.6*	3.4*	0.2
Intrahepatic bile duct	-0.7	-5.8	3.5	3.5*	3.4*	3.6*
Gallbladder	2.8*	-	0.7	0.4	4.9*	-1.1
Other biliary	3.5*	2.7	3.8*	-2.7*	-2.3	-3.7*
Pancreas	0.5	1.0*	0.3	0.0	-0.1	0.0
Retroperitoneum	-1.0	-	-2.0	-7.2*	-	-
Peritoneum, omentum & mesentery	2.0	-	2.7	-0.1	-	-0.2
Other digestive system	3.7	-	1.0	-2.6	-2.0	-3.7
Respiratory System:	-1.5*	-2.4*	0.0	-2.2*	-3.0*	-1.0*
Nose, nasal cavity & middle ear	1.3	0.6	2.3	0.8	-0.1	2.5
Larynx	-3.3*	-3.5*	-1.9	-3.7*	-3.4*	-3.9*
Lung & bronchus	-1.3*	-2.3*	0.1	-2.2*	-3.0*	-1.0*
Pleura	-	-	-	-	-	-
Trachea & other respiratory organs	-	-	-	-5.4*	-	-
Bones & joints	1.5	0.0	2.8*	0.2	1.1	-0.8
Soft tissue (including heart)	0.0	-0.1	0.0	0.2	0.1	0.1
Skin (excl. basal & squamous):	0.7	-0.8	2.0	-1.8*	-1.3	-2.2
Melanoma of the skin	-0.3	-1.6	0.8	-1.0	1.0	-2.4
Other non-epithelial skin	1.6	0.0	3.1	-2.5*	-2.6	-1.9
Breast	0.4	-0.8	0.4	-1.5*	-3.0	-1.4*
Breast (*in situ*)	3.0*	-	3.0*	-	-	-

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).

[a] SEER 18 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, New Jersey and Georgia excluding ATL/RG).

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

* 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, 2000-2009

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:	0.0	-	0.1	-1.1*	-	-1.0*
Cervix uteri	-3.3*	-	-3.2*	-2.8*	-	-2.6*
Corpus uteri	2.1*	-	2.3*	-0.8	-	-0.6
Uterus, NOS	3.0	-	3.2	1.0*	-	1.2*
Ovary[c]	-0.8	-	-0.8	-1.5*	-	-1.4*
Vagina	-1.9	-	-1.7	-3.0*	-	-2.7
Vulva	-0.7	-	-0.6	-0.6	-	-0.6
Other female genital system	2.4	-	1.8	-1.8	-	-1.7
Male Genital System:	-1.9*	-2.2*	-	-3.6*	-3.7*	-
Prostate	-1.9*	-2.2*	-	-3.6*	-3.7*	-
Testis	-0.9	-0.9	-	-4.7	-5.3	-
Penis	-2.0	-2.1	-	3.5	3.1	-
Other male genital system	-	-	-	-	-	-
Urinary System:	1.7*	1.7*	1.6*	-0.6	-0.4	-1.1*
Urinary bladder	-0.3	0.4	-1.3	-0.6	-0.1	-1.4
Kidney & renal pelvis	3.4*	3.1*	3.7*	-0.6*	-0.7	-0.8
Ureter	-	-	-	-	-	-
Other urinary system	-2.7	-	-	-2.3	-	-1.8
Eye & Orbit	-2.3	-	-	-	-	-
Brain & Nervous System:[d]	-0.3	-0.5	0.2	-0.8	-0.8	-0.8
Brain	0.0	-0.3	0.6	-	-	-
Cranial nerves & other nervous system	-2.4	-3.4	-2.0	-	-	-
Endocrine System:	5.9*	5.5*	6.2*	1.3	2.7	0.5
Thyroid	5.9*	5.4*	6.2*	1.1	1.2	1.1
Other endocrine & thymus	5.7*	5.6*	5.8*	1.5	4.1*	-0.6
Lymphoma:	0.2	0.0	0.5	-2.2*	-1.7*	-2.8*
Hodgkin lymphoma	1.6*	1.0	2.1	-0.4	-0.7	-0.9
Non-Hodgkin lymphoma	0.0	-0.2	0.1	-2.4*	-1.8*	-2.9*
Myeloma	0.4	0.3	0.3	-2.1*	-1.2*	-2.9*
Leukemia:	-1.7*	-1.6	-1.7*	-1.2*	-0.8	-1.6*
Lymphocytic:	-2.3*	-1.3	-3.5*	-1.5*	-0.7	-2.8*
Acute lymphocytic	1.8	5.2*	-2.0	-1.7	-0.6	-3.5*
Chronic lymphocytic	-3.4*	-2.8	-3.9*	-1.3	-0.6	-2.5*
Other lymphocytic	-1.8	-	-	-2.6	-1.9	-
Myeloid & Monocytic:	-0.9	-1.5	0.0	-1.4*	-1.0	-1.6*
Acute myeloid	-0.5	-1.2	0.6	0.4	0.5	0.6
Chronic myeloid	-1.3	-1.4	-0.5	-9.2*	-6.4*	-11.7*
Acute monocytic	-	-	-	-	-	-
Other myeloid & monocytic	-	-	-	-2.4	-2.5	-2.9
Other leukemia:	-3.5*	-3.5	-3.6	-0.5	-0.5	-0.5
Other acute leukemia	-9.3*	-	-	-2.9*	-2.6*	-3.3
Aleukemic, subleukemic & NOS	0.0	-1.4	1.1	0.7	0.6	0.9
Kaposi Sarcoma[e]	-3.1*	-3.9*	-	-	-	-
Mesothelioma[e]	0.0	0.4	-	-	-	-
Ill-defined & unspecified	-4.1*	-4.1*	-4.0*	-3.0*	-3.0*	-2.9*

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).

[a] SEER 18 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, New Jersey and Georgia excluding ATL/RG).

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

[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 1.10

Age Distribution (%) of Incidence Cases by Site, 2005-2009

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	2.6	5.5	14.2	23.4	24.9	20.6	7.7	100.0%	1,922,239
Oral Cavity & Pharynx:	0.6	2.2	6.1	20.4	28.5	21.1	15.1	6.0	100.0%	45,554
Lip	0.1	1.1	5.6	14.7	18.1	22.5	24.8	12.9	100.0%	2,782
Tongue	0.1	1.9	5.8	20.6	32.1	21.9	13.0	4.6	100.0%	13,173
Salivary gland	2.1	6.6	7.6	14.5	19.2	19.2	20.6	10.2	100.0%	5,356
Floor of mouth	0.1	0.2	4.0	21.5	30.6	24.5	15.2	3.8	100.0%	2,497
Gum & other oral cavity	0.8	2.1	4.6	14.1	23.1	22.8	21.6	10.8	100.0%	6,259
Nasopharynx	3.5	5.7	14.3	25.1	24.1	15.7	8.9	2.7	100.0%	2,762
Tonsil	0.0	0.4	7.2	31.8	36.1	16.3	6.7	1.4	100.0%	7,450
Oropharynx	0.0	0.4	4.4	19.8	33.2	24.4	13.0	4.6	100.0%	1,619
Hypopharynx	0.0	0.1	1.8	16.9	31.1	27.9	18.1	4.1	100.0%	2,794
Other oral cavity & pharynx	0.2	0.7	2.4	15.3	29.6	26.3	18.3	7.1	100.0%	862
Digestive System:	0.2	1.0	3.7	13.3	21.6	24.3	24.6	11.3	100.0%	355,133
Esophagus	0.0	0.3	2.3	12.2	26.1	27.4	23.7	8.0	100.0%	18,572
Stomach	0.1	1.6	4.7	12.4	19.0	24.4	25.7	12.2	100.0%	30,963
Small intestine	0.1	1.4	5.4	15.7	24.0	24.9	20.6	7.9	100.0%	8,300
Colon & Rectum:	0.1	1.1	4.0	13.4	20.4	24.0	25.0	12.0	100.0%	190,152
Colon	0.1	1.0	3.3	11.3	19.0	24.4	27.2	13.7	100.0%	135,590
Rectum	0.0	1.6	5.7	18.7	23.8	23.1	19.4	7.8	100.0%	54,562
Colon & Rectum (Male)	0.1	1.1	4.1	14.3	22.9	25.9	23.1	8.5	100.0%	97,551
Colon & Rectum (Female)	0.1	1.1	4.0	12.4	17.8	22.0	26.9	15.7	100.0%	92,601
Anus, anal canal & anorectum	0.0	1.0	8.7	24.8	26.1	18.5	14.8	6.1	100.0%	7,226
Liver & intrahep. bile duct:	1.0	0.9	2.8	18.7	30.2	22.3	18.2	5.9	100.0%	31,640
Liver	1.1	0.9	2.8	19.4	30.9	22.1	17.6	5.3	100.0%	29,060
Intrahepatic bile duct	0.1	0.9	3.4	11.8	21.4	25.3	25.1	11.9	100.0%	2,580
Gallbladder	0.0	0.6	2.7	8.7	18.8	24.9	29.4	14.9	100.0%	4,758
Other biliary	0.1	0.6	2.6	8.7	18.2	25.2	29.7	15.1	100.0%	7,410
Pancreas	0.1	0.4	2.2	9.7	20.7	25.8	27.8	13.3	100.0%	49,621
Retroperitoneum	9.4	5.0	8.5	14.5	21.2	19.7	16.2	5.4	100.0%	1,610
Peritoneum, omentum & mesentery	0.6	1.3	3.4	10.1	24.4	31.7	22.9	5.7	100.0%	2,704
Other digestive system	0.2	0.9	3.4	10.7	18.5	22.6	28.8	15.0	100.0%	2,177
Respiratory System:	0.1	0.4	1.6	9.3	21.8	31.0	27.6	8.2	100.0%	271,919
Nose, nasal cavity & middle ear	1.8	4.8	7.1	15.7	22.6	21.4	17.8	8.8	100.0%	2,957
Larynx	0.0	0.4	2.7	16.3	29.8	28.6	17.3	4.8	100.0%	14,427
Lung & bronchus	0.0	0.2	1.5	8.8	21.3	31.3	28.3	8.4	100.0%	253,634
Lung & bronchus (Male)	0.0	0.2	1.4	8.6	22.4	31.9	27.9	7.5	100.0%	134,760
Lung & bronchus (Female)	0.0	0.3	1.6	9.0	20.1	30.7	28.8	9.4	100.0%	118,874
Pleura	5.7	0.8	2.5	9.0	18.0	22.1	29.5	12.3	100.0%	122
Trachea & other respiratory organs	17.3	21.8	9.6	11.6	12.2	11.6	10.3	5.6	100.0%	779
Bones & joints	28.9	15.2	10.4	13.1	11.6	8.6	8.7	3.3	100.0%	3,830
Soft tissue (including heart)	9.3	9.2	10.2	14.7	16.9	16.1	16.3	7.3	100.0%	13,599
Skin (excl. basal & squamous):	0.7	6.7	10.4	17.5	21.0	18.7	17.6	7.3	100.0%	95,378
Melanoma of the skin	0.6	6.8	10.7	18.2	21.6	18.8	16.7	6.6	100.0%	87,406
Other non-epithelial skin	1.4	5.7	7.4	10.3	14.5	18.3	27.1	15.3	100.0%	7,972
Breast (Female)	0.0	1.8	9.9	22.5	24.8	20.2	15.1	5.7	100.0%	279,034
Breast (Female -*in situ*)	0.0	0.7	10.9	28.7	26.6	19.2	11.6	2.3	100.0%	70,005

Source: SEER 18 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, New Jersey and Georgia excluding ATL/RG).
Percents may not sum to 100 due to rounding.

Table 1.10 - continued

Age Distribution (%) of Incidence Cases by Site, 2005-2009

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	4.2	9.5	19.4	26.7	19.8	14.1	5.9	100.0%	109,737
Cervix uteri	0.2	14.0	25.9	23.9	16.7	10.7	6.1	2.6	100.0%	17,257
Corpus uteri	0.0	1.5	6.0	19.1	32.9	22.7	13.3	4.4	100.0%	53,468
Uterus, NOS	0.1	1.4	4.7	15.2	22.4	19.3	19.2	17.7	100.0%	1,399
Ovary[a]	1.3	3.6	7.4	18.6	23.4	20.1	17.6	8.1	100.0%	28,761
Vagina	0.9	1.6	5.1	14.4	22.2	20.5	22.7	12.5	100.0%	1,656
Vulva	0.2	2.1	7.0	15.9	18.8	17.8	23.5	14.8	100.0%	5,304
Other female genital system	1.2	7.3	8.0	14.6	23.3	21.8	16.8	7.1	100.0%	1,892
Male Genital System:	0.2	1.8	1.6	9.6	30.5	34.2	18.0	4.0	100.0%	301,265
Prostate	0.0	0.0	0.6	9.5	31.6	35.5	18.6	4.1	100.0%	287,904
Testis	6.2	47.9	25.7	13.9	4.3	1.2	0.6	0.2	100.0%	11,401
Penis	0.0	2.1	6.1	12.2	21.3	24.9	23.2	10.3	100.0%	1,501
Other male genital system	2.8	2.8	6.3	13.3	20.7	20.0	22.4	11.5	100.0%	459
Urinary System:	0.6	0.9	3.5	11.2	21.3	26.3	26.0	10.2	100.0%	150,297
Urinary bladder	0.1	0.4	1.6	7.4	18.4	27.4	31.4	13.3	100.0%	83,931
Kidney & renal pelvis	1.3	1.7	6.0	16.5	25.6	24.7	18.4	5.8	100.0%	62,832
Ureter	0.0	0.0	0.8	4.3	14.0	28.8	36.9	15.1	100.0%	2,314
Other urinary system	0.1	0.6	2.0	8.1	17.2	24.6	30.8	16.6	100.0%	1,220
Eye & Orbit	13.5	3.1	6.3	14.4	19.9	19.8	16.7	6.3	100.0%	3,288
Brain & Nervous System:	13.0	8.8	9.2	14.8	19.0	16.7	13.8	4.7	100.0%	26,898
Brain	12.3	8.6	9.1	14.8	19.3	17.0	14.1	4.8	100.0%	25,252
Cranial nerves & other nervous system	23.3	10.5	11.5	15.2	15.9	10.9	9.2	3.5	100.0%	1,646
Endocrine System:	3.0	15.0	19.7	23.8	19.0	11.9	6.2	1.5	100.0%	51,932
Thyroid	1.8	15.5	20.4	24.3	19.0	11.7	5.9	1.4	100.0%	48,798
Other endocrine & thymus	21.5	7.6	8.9	15.8	17.9	15.3	10.2	2.8	100.0%	3,134
Lymphoma:	3.1	7.3	7.7	13.4	18.9	20.8	20.7	8.2	100.0%	92,428
Hodgkin lymphoma	12.8	31.4	15.3	12.5	10.1	8.8	6.8	2.2	100.0%	11,714
Non-Hodgkin lymphoma	1.7	3.8	6.6	13.5	20.1	22.5	22.7	9.1	100.0%	80,714
Myeloma	0.0	0.5	3.2	11.8	22.3	26.9	25.6	9.6	100.0%	23,885
Leukemia:	10.6	4.9	5.3	10.4	16.3	19.8	21.8	11.0	100.0%	51,124
Lymphocytic:	16.0	3.1	3.4	9.0	17.0	20.3	20.8	10.4	100.0%	25,546
Acute lymphocytic	59.8	10.7	5.8	6.7	6.4	5.1	3.9	1.5	100.0%	6,820
Chronic lymphocytic	0.0	0.2	1.6	9.0	20.9	26.5	27.8	14.0	100.0%	17,066
Other lymphocytic	0.3	2.3	11.6	19.1	20.8	18.9	18.3	8.7	100.0%	1,660
Myeloid & Monocytic:	5.2	6.9	7.5	12.4	16.0	19.5	22.4	10.1	100.0%	22,845
Acute myeloid	6.0	6.6	6.6	11.8	15.5	20.1	23.3	10.2	100.0%	14,620
Chronic myeloid	2.8	7.7	9.5	14.0	17.0	18.5	20.9	9.6	100.0%	6,460
Acute monocytic	10.0	6.0	8.0	13.2	18.4	16.9	18.9	8.7	100.0%	1,103
Other myeloid & monocytic	4.5	6.9	8.8	8.9	13.0	19.9	22.8	15.1	100.0%	662
Other leukemia:	4.1	3.8	4.1	7.5	12.5	17.3	26.3	24.3	100.0%	2,733
Other acute leukemia	7.8	4.5	3.8	6.9	10.9	16.0	26.8	23.4	100.0%	1,019
Aleukemic, subleukemic & NOS	2.0	3.4	4.3	7.9	13.4	18.1	26.1	24.8	100.0%	1,714
Kaposi Sarcoma	0.2	18.6	32.0	20.2	8.3	6.7	8.3	5.8	100.0%	2,337
Mesothelioma	0.1	0.7	2.0	6.6	16.3	26.7	34.1	13.5	100.0%	4,187
Ill-defined & unspecified	0.4	0.9	2.6	9.7	17.9	22.2	28.0	18.3	100.0%	38,199

Source: SEER 18 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, New Jersey and Georgia excluding ATL/RG).
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], 2005-2009
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	66.0	65.0	66.0	67.0	65.0	62.0	63.0	62.0
Oral Cavity & Pharynx:	62.0	61.0	65.0	62.0	61.0	66.0	58.0	58.0	57.0
Lip	69.0	68.0	73.0	70.0	68.0	74.0	57.0	60.0	56.5
Tongue	61.0	60.0	63.0	61.0	61.0	64.0	59.0	60.0	57.0
Salivary gland	64.0	67.0	61.0	66.0	68.0	63.0	54.0	56.5	51.0
Floor of mouth	62.0	61.0	67.0	63.0	61.0	68.0	58.0	58.0	60.0
Gum & other oral cavity	67.0	64.0	70.0	68.0	65.0	72.0	59.0	58.0	59.0
Nasopharynx	55.0	54.0	56.0	58.0	57.0	61.0	51.0	51.0	51.0
Tonsil	57.0	57.0	59.0	57.0	57.0	60.0	57.0	57.0	55.0
Oropharynx	62.0	61.0	65.0	63.0	61.0	67.0	59.0	59.0	58.5
Hypopharynx	65.0	64.0	67.0	65.0	65.0	68.0	61.0	61.0	59.5
Other oral cavity & pharynx	65.0	64.0	69.0	65.0	64.0	70.0	61.0	60.0	67.0
Digestive System:	69.0	67.0	71.0	70.0	68.0	72.0	64.0	63.0	66.0
Esophagus	68.0	66.0	72.0	68.0	67.0	74.0	63.0	63.0	65.0
Stomach	70.0	69.0	72.0	70.0	69.0	73.0	67.0	66.0	69.0
Small intestine	66.0	65.0	67.0	66.0	65.0	68.0	63.0	63.0	63.0
Colon & Rectum:	69.0	67.0	71.0	70.0	68.0	73.0	65.0	64.0	66.0
Colon	71.0	69.0	73.0	72.0	70.0	74.0	66.0	65.0	67.0
Rectum	65.0	64.0	66.0	65.0	65.0	67.0	60.0	60.0	61.0
Anus, anal canal & anorectum	60.0	58.0	61.0	61.0	59.0	61.0	54.0	51.0	58.0
Liver & intrahep. bile duct:	63.0	61.0	69.0	64.0	62.0	70.0	59.0	58.0	62.0
Liver	62.0	61.0	69.0	63.0	61.0	69.0	59.0	58.0	62.0
Intrahepatic bile duct	70.0	68.0	71.0	70.0	68.0	72.0	66.0	63.0	67.0
Gallbladder	72.0	72.0	73.0	73.0	73.0	74.0	68.0	69.0	67.0
Other biliary	73.0	71.0	74.0	73.0	72.0	75.0	67.0	66.0	69.0
Pancreas	71.0	69.0	74.0	72.0	69.0	74.0	67.0	64.0	70.0
Retroperitoneum	60.0	60.0	61.0	61.0	61.0	62.0	56.0	54.0	58.0
Peritoneum, omentum & mesentery	68.0	64.0	68.0	68.0	65.5	68.0	65.0	54.0	66.0
Other digestive system	72.0	70.0	74.0	73.0	70.0	76.0	67.0	66.5	67.0
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	63.0	66.0	65.0	64.0	67.0	58.0	57.0	60.0
Larynx	65.0	65.0	64.0	65.0	65.0	64.0	62.0	62.0	61.0
Lung & bronchus	70.0	70.0	71.0	71.0	71.0	71.0	66.0	66.0	67.0
Pleura	69.5	73.0	67.5	73.0	73.0	71.0	-	-	-
Trachea & other respiratory organs	47.0	38.0	59.0	48.0	36.5	62.0	48.5	45.0	53.0
Bones & joints	41.0	38.0	43.0	42.0	40.0	44.0	33.5	31.0	37.0
Soft tissue (including heart)	58.0	59.0	58.0	60.0	61.0	59.0	50.0	47.0	53.0
Skin (excl. basal & squamous):	61.0	64.0	57.0	62.0	64.0	57.0	55.0	56.0	53.0
Melanoma of the skin	61.0	64.0	56.0	61.0	64.0	56.0	63.0	63.0	62.0
Other non-epithelial skin	71.0	72.0	69.0	73.0	73.0	71.0	48.0	49.0	48.0
Breast	61.0	68.0	61.0	62.0	69.0	62.0	57.0	63.0	57.0
Breast (*in situ*)	58.0	64.0	58.0	58.0	64.0	58.0	58.0	67.0	58.0

[a] SEER 18 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, New Jersey and Georgia excluding ATL/RG).

\- 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], 2005-2009
By Primary Cancer Site, Race and Sex

Site	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
Female Genital System:	61.0	-	61.0	61.0	-	61.0	60.0	-	60.0
Cervix uteri	48.0	-	48.0	48.0	-	48.0	51.0	-	51.0
Corpus uteri	61.0	-	61.0	62.0	-	62.0	63.0	-	63.0
Uterus, NOS	67.0	-	67.0	69.0	-	69.0	64.0	-	64.0
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	56.0	-	56.0
Other female genital system	63.0	-	63.0	64.0	-	64.0	59.0	-	59.0
Male Genital System:	66.0	66.0	-	66.0	66.0	-	64.0	64.0	-
Prostate	67.0	67.0	-	67.0	67.0	-	64.0	64.0	-
Testis	33.0	33.0	-	33.0	33.0	-	35.0	35.0	-
Penis	68.0	68.0	-	68.0	68.0	-	65.0	65.0	-
Other male genital system	66.0	66.0	-	67.0	67.0	-	55.0	55.0	-
Urinary System:	69.0	69.0	70.0	70.0	70.0	70.0	65.0	64.0	67.0
Urinary bladder	73.0	72.0	74.0	73.0	73.0	74.0	70.0	68.0	73.0
Kidney & renal pelvis	64.0	63.0	65.0	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	69.0	69.0	68.0
Other urinary system	74.0	74.0	72.0	75.0	75.0	74.0	68.0	69.0	65.5
Eye & Orbit	61.0	61.0	61.0	62.0	62.0	61.5	3.0	2.5	3.0
Brain & Nervous System:	57.0	56.0	58.0	58.0	57.0	59.0	50.0	51.0	50.0
Brain	57.0	57.0	58.0	58.0	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	50.0	47.0	42.0	48.5
Endocrine System:	50.0	54.0	48.0	50.0	54.0	48.0	51.0	53.0	50.0
Thyroid	50.0	54.0	48.0	50.0	54.0	48.0	51.0	55.0	50.0
Other endocrine & thymus	52.0	51.0	54.0	53.0	52.0	55.0	51.0	50.0	52.0
Lymphoma:	64.0	63.0	66.0	65.0	64.0	67.0	54.0	52.0	56.0
Hodgkin lymphoma	38.0	40.0	36.0	39.0	41.0	37.0	35.0	38.0	34.0
Non-Hodgkin lymphoma	66.0	65.0	68.0	67.0	66.0	70.0	57.0	55.0	60.0
Myeloma	69.0	68.0	70.0	70.0	69.0	71.0	66.0	65.0	67.0
Leukemia:	66.0	65.0	67.0	67.0	66.0	68.0	60.0	59.0	62.0
Lymphocytic:	65.0	64.0	67.0	66.0	65.0	68.0	62.0	60.0	66.0
Acute lymphocytic	14.0	14.0	13.0	14.0	14.0	13.0	13.0	12.0	14.0
Chronic lymphocytic	72.0	70.0	74.0	72.0	71.0	74.0	69.0	68.0	72.0
Other lymphocytic	62.0	61.0	68.0	62.0	61.0	69.0	67.0	65.0	75.0
Myeloid & Monocytic:	66.0	66.0	66.0	67.0	67.0	67.0	57.0	57.0	58.0
Acute myeloid	66.0	67.0	66.0	68.0	68.0	68.0	59.0	58.0	59.0
Chronic myeloid	64.0	63.0	65.0	66.0	65.0	67.0	56.0	55.5	56.0
Acute monocytic	62.0	63.0	60.5	63.0	64.0	62.0	50.0	56.0	50.0
Other myeloid & monocytic	69.0	69.0	69.0	70.0	70.0	70.0	64.0	65.0	61.0
Other leukemia:	75.0	73.0	77.0	77.0	74.0	79.0	66.0	61.5	70.0
Other acute leukemia	75.0	71.0	78.0	76.0	73.0	79.5	65.0	58.5	70.0
Aleukemic, subleukemic & NOS	75.0	73.0	77.0	77.0	75.0	79.0	67.0	62.0	70.0
Kaposi Sarcoma	44.0	43.0	75.0	46.0	45.0	80.0	39.5	39.0	44.0
Mesothelioma	74.0	74.0	71.0	74.0	74.0	72.0	70.0	71.0	64.0
Ill-defined & unspecified	73.0	70.0	76.0	74.0	71.0	77.0	67.0	64.0	69.0

[a] SEER 18 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, New Jersey and Georgia excluding ATL/RG).

[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, 2005-2009

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	2.4	8.9	18.3	24.8	28.9	15.5	100.0%	2,815,124
Oral Cavity & Pharynx:	0.1	0.8	3.1	14.1	24.8	23.9	21.5	11.7	100.0%	39,501
Lip	0.0	0.7	2.0	9.9	11.3	15.9	27.8	32.5	100.0%	302
Tongue	0.1	1.0	3.7	15.0	25.5	23.6	20.5	10.7	100.0%	9,842
Salivary gland	0.1	0.7	3.0	9.6	16.8	21.2	28.5	20.2	100.0%	3,655
Floor of mouth	0.0	0.5	2.9	15.6	29.2	27.0	18.6	6.3	100.0%	559
Gum & other oral cavity	0.1	0.5	2.1	9.1	18.6	22.3	26.2	21.2	100.0%	5,586
Nasopharynx	0.6	3.5	7.1	18.5	24.9	21.5	16.6	7.1	100.0%	3,232
Tonsil	0.0	0.2	3.4	22.7	31.3	23.2	15.0	4.2	100.0%	3,449
Oropharynx	0.1	0.3	2.5	14.5	28.7	24.4	19.6	10.0	100.0%	3,480
Hypopharynx	0.0	0.3	1.4	12.6	31.0	27.5	21.0	6.2	100.0%	1,479
Other oral cavity & pharynx	0.0	0.1	2.0	13.3	26.6	27.2	21.9	8.9	100.0%	7,917
Digestive System:	0.1	0.5	2.2	9.6	19.0	23.7	28.3	16.6	100.0%	683,252
Esophagus	0.0	0.3	1.9	10.8	24.2	27.4	25.3	10.1	100.0%	68,398
Stomach	0.0	1.2	3.9	10.2	16.6	22.4	28.5	17.2	100.0%	56,783
Small intestine	0.0	0.7	3.3	9.9	19.1	23.1	28.5	15.3	100.0%	5,678
Colon & Rectum:	0.0	0.6	2.5	8.6	16.5	22.0	29.0	20.8	100.0%	264,125
Colon & Rectum (Male)	0.0	0.7	2.6	9.5	19.2	24.9	28.3	14.8	100.0%	134,325
Colon & Rectum (Female)	0.0	0.6	2.3	7.7	13.7	19.0	29.7	27.0	100.0%	129,800
Anus, anal canal & anorectum	0.0	0.6	5.8	19.9	24.2	19.4	18.8	11.2	100.0%	3,386
Liver & intrahep. bile duct:	0.3	0.6	2.0	14.3	24.6	22.9	24.7	10.4	100.0%	87,311
Liver	0.4	0.6	1.9	15.8	26.1	22.3	23.5	9.5	100.0%	67,806
Intrahepatic bile duct	0.0	0.6	2.5	9.4	19.5	25.3	29.1	13.5	100.0%	19,505
Gallbladder	0.0	0.2	1.6	7.1	17.1	25.3	31.1	17.6	100.0%	9,922
Other biliary	0.0	0.3	1.4	6.3	14.3	21.8	33.4	22.5	100.0%	7,088
Pancreas	0.0	0.2	1.5	8.2	19.1	25.6	30.0	15.5	100.0%	171,192
Retroperitoneum	0.5	1.9	2.8	11.6	19.0	23.9	27.5	12.8	100.0%	1,044
Peritoneum, omentum & mesentery	0.1	0.6	2.1	7.4	18.7	29.1	30.6	11.4	100.0%	3,927
Other digestive system	0.1	0.4	2.1	7.3	15.8	21.5	30.4	22.5	100.0%	4,398
Respiratory System:	0.0	0.1	1.2	8.0	19.7	30.3	30.2	10.4	100.0%	816,383
Nose, nasal cavity & middle ear	0.2	1.6	6.1	13.2	19.7	20.4	23.9	14.8	100.0%	2,431
Larynx	0.0	0.1	1.5	11.7	25.4	28.6	23.8	9.0	100.0%	18,641
Lung & bronchus	0.0	0.1	1.2	7.9	19.6	30.4	30.4	10.4	100.0%	793,172
Lung & bronchus (Male)	0.0	0.1	1.1	8.0	20.8	31.2	29.8	9.1	100.0%	443,946
Lung & bronchus (Female)	0.0	0.1	1.3	7.8	18.2	29.4	31.1	12.2	100.0%	349,226
Pleura	0.0	0.3	1.1	4.0	14.9	26.6	38.0	15.3	100.0%	1,088
Trachea & other respiratory organs	0.8	4.2	4.1	12.4	16.9	21.7	27.0	12.9	100.0%	1,051
Bones & joints	13.4	14.9	6.3	10.7	12.0	14.1	17.0	11.6	100.0%	6,834
Soft tissue (including heart)	3.8	6.2	6.8	13.6	18.7	18.9	21.2	10.7	100.0%	20,162
Skin (excl. basal & squamous):	0.1	2.1	4.6	12.1	19.0	20.6	25.1	16.3	100.0%	56,790
Melanoma of the skin	0.1	2.6	5.6	13.5	19.9	21.2	24.1	12.9	100.0%	43,069
Other non-epithelial skin	0.0	0.3	1.7	7.6	15.9	18.9	28.3	27.1	100.0%	13,721
Breast (Female)	0.0	0.9	5.6	14.8	21.4	19.9	22.0	15.5	100.0%	203,799

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, 2005-2009

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	1.2	4.3	11.9	20.7	23.5	24.6	13.9	100.0%	138,476
Cervix uteri	0.0	4.7	15.3	24.2	21.6	15.3	12.3	6.5	100.0%	19,838
Corpus uteri	0.0	0.3	1.9	7.3	22.0	27.8	26.2	14.3	100.0%	16,854
Uterus, NOS	0.0	0.5	2.2	8.7	20.9	25.3	26.1	16.4	100.0%	20,470
Ovary	0.1	0.7	2.6	10.9	20.8	24.6	26.6	13.8	100.0%	73,063
Vagina	0.0	0.8	3.1	7.5	15.6	18.2	29.7	25.1	100.0%	1,969
Vulva	0.0	0.6	2.4	7.4	12.0	17.0	30.8	29.8	100.0%	4,403
Other female genital system	0.1	1.5	3.4	11.2	18.5	25.7	24.2	15.3	100.0%	1,879
Male Genital System:	0.0	0.4	0.4	1.8	8.2	19.7	38.0	31.5	100.0%	146,103
Prostate	0.0	0.0	0.1	1.5	8.0	19.8	38.6	32.0	100.0%	142,929
Testis	2.4	33.8	22.3	17.6	11.1	5.3	4.3	3.2	100.0%	1,777
Penis	0.0	0.8	4.8	11.0	20.5	23.2	24.5	15.2	100.0%	1,188
Other male genital system	1.0	1.9	2.4	10.0	12.4	24.4	24.4	23.4	100.0%	209
Urinary System:	0.2	0.3	1.3	6.8	15.7	22.8	31.8	21.2	100.0%	135,995
Urinary bladder	0.0	0.1	0.7	4.0	11.4	20.8	35.7	27.3	100.0%	68,807
Kidney & renal pelvis	0.4	0.5	2.0	9.9	20.6	25.0	27.2	14.4	100.0%	63,489
Ureter	0.0	0.2	0.5	3.2	9.9	22.7	38.7	24.8	100.0%	1,773
Other urinary system	0.0	0.2	1.2	7.0	12.8	20.8	35.6	22.4	100.0%	1,926
Eye & Orbit	2.5	2.0	5.0	11.3	18.3	22.2	24.6	14.2	100.0%	1,260
Brain & Nervous System:	3.9	3.7	6.5	14.6	22.5	22.5	19.4	6.9	100.0%	67,172
Endocrine System:	6.9	2.5	4.2	9.9	17.2	21.8	24.4	13.2	100.0%	12,435
Thyroid	0.1	0.8	2.2	8.3	16.9	24.7	29.8	17.3	100.0%	7,898
Other endocrine & thymus	18.8	5.3	7.6	12.8	17.7	16.8	14.9	6.0	100.0%	4,537
Lymphoma:	0.5	2.1	2.9	6.9	14.2	21.6	32.8	18.9	100.0%	109,042
Hodgkin lymphoma	1.6	12.9	10.5	11.8	14.5	16.4	22.3	10.0	100.0%	6,291
Non-Hodgkin lymphoma	0.4	1.5	2.4	6.6	14.2	21.9	33.4	19.5	100.0%	102,751
Myeloma	0.0	0.1	1.2	6.3	16.3	26.3	33.7	16.2	100.0%	53,638
Leukemia:	2.8	3.1	3.1	6.4	12.9	21.6	31.0	19.2	100.0%	110,779
Lymphocytic:	4.3	3.9	2.4	5.0	11.3	19.0	29.9	24.4	100.0%	31,362
Acute lymphocytic	18.5	16.2	8.6	11.2	12.9	13.5	12.7	6.4	100.0%	7,118
Chronic lymphocytic	0.0	0.1	0.4	2.9	10.7	20.8	35.1	29.9	100.0%	22,312
Other lymphocytic	1.4	1.6	1.6	5.8	12.1	18.4	32.0	27.1	100.0%	1,932
Myeloid & Monocytic:	2.1	3.1	3.8	8.0	15.1	23.8	30.2	13.9	100.0%	52,543
Acute myeloid	2.2	3.2	3.8	8.1	15.7	24.6	29.9	12.4	100.0%	43,559
Chronic myeloid	0.8	3.2	5.0	9.1	12.8	18.3	28.5	22.3	100.0%	5,131
Acute monocytic	2.3	2.5	2.3	5.9	10.9	21.7	32.2	22.3	100.0%	488
Other myeloid & monocytic	2.0	1.2	1.8	5.1	12.4	21.8	36.4	19.3	100.0%	3,365
Other leukemia:	2.3	2.4	2.4	5.0	10.5	20.3	33.7	23.3	100.0%	26,874
Other acute leukemia	1.3	2.7	2.5	5.2	10.6	21.2	34.7	21.8	100.0%	10,579
Aleukemic, subleukemic & NOS	3.0	2.1	2.3	4.9	10.5	19.7	33.1	24.3	100.0%	16,295
Ill-defined & unspecified	0.2	0.7	2.1	8.2	17.3	23.3	29.8	18.4	100.0%	211,531

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], 2005-2009
By Primary Cancer Site, Race and Sex

Site	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
All Sites	72.0	72.0	73.0	73.0	73.0	74.0	68.0	67.0	68.0
Oral Cavity & Pharynx:	67.0	65.0	73.0	69.0	66.0	75.0	61.0	61.0	63.0
Lip	79.0	75.0	85.0	79.0	76.0	85.0	-	-	-
Tongue	66.0	64.0	72.0	67.0	65.0	73.0	61.0	61.0	60.0
Salivary gland	74.0	73.0	76.0	75.0	74.0	77.0	64.0	62.0	65.5
Floor of mouth	66.0	63.0	71.0	67.0	64.0	71.0	59.0	57.0	-
Gum & other oral cavity	73.0	68.0	80.0	75.0	69.0	81.0	64.0	62.0	68.0
Nasopharynx	62.0	60.0	67.0	65.0	63.0	71.0	57.0	56.0	60.0
Tonsil	62.0	61.0	66.0	62.0	61.0	67.0	60.0	60.0	61.0
Oropharynx	66.0	64.0	74.0	67.0	65.0	75.0	62.0	62.0	60.0
Hypopharynx	66.0	65.0	70.0	67.0	66.0	70.0	61.0	60.0	66.0
Other oral cavity & pharynx	67.0	66.0	71.0	68.0	67.0	71.0	63.0	62.0	66.0
Digestive System:	73.0	70.0	76.0	73.0	71.0	77.0	68.0	65.0	71.0
Esophagus	69.0	68.0	74.0	70.0	68.0	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	73.0
Small intestine	72.0	70.0	74.0	73.0	71.0	76.0	66.0	64.0	67.0
Colon & Rectum	74.0	72.0	77.0	75.0	73.0	78.0	69.0	67.0	71.0
Anus, anal canal & anorectum	64.0	62.0	66.0	65.0	64.0	66.0	57.0	52.0	60.5
Liver & intrahep. bile duct:	68.0	65.0	74.0	70.0	67.0	75.0	61.0	59.0	68.0
Liver	67.0	64.0	74.0	69.0	65.0	76.0	60.0	59.0	68.0
Intrahepatic bile duct	72.0	70.0	73.0	72.0	71.0	74.0	68.0	66.0	69.0
Gallbladder	74.0	73.0	74.0	75.0	74.0	75.0	70.0	71.0	69.0
Other biliary	76.0	75.0	78.0	77.0	75.0	79.0	72.0	69.5	75.0
Pancreas	73.0	70.0	75.0	73.0	71.0	76.0	69.0	66.0	72.0
Retroperitoneum	70.0	68.0	73.0	71.0	68.0	73.0	62.0	58.5	64.0
Peritoneum, omentum & mesentery	72.0	68.0	73.0	72.0	68.5	73.0	68.0	66.0	69.0
Other digestive system	76.0	73.0	79.0	77.0	74.0	80.0	68.0	65.0	73.0
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	69.0	66.0	75.0	70.0	67.0	75.0	62.0	61.0	65.5
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	68.0	67.0	69.0
Pleura	75.0	75.0	75.0	75.0	75.0	75.0	69.0	68.5	71.0
Trachea & other respiratory organs	70.0	67.0	74.0	71.0	67.0	75.0	64.0	64.0	65.0
Bones & joints	58.0	56.0	63.0	60.0	57.0	65.0	51.0	49.0	53.0
Soft tissue (including heart)	65.0	65.0	65.0	66.0	66.0	67.0	56.0	54.0	58.0
Skin (excl. basal & squamous):	70.0	70.0	72.0	71.0	70.0	72.0	63.0	61.0	70.0
Melanoma of the skin	68.0	68.0	69.0	69.0	68.0	69.0	68.0	64.0	72.0
Other non-epithelial skin	77.0	75.0	81.0	78.0	76.0	82.0	61.0	59.0	69.5
Breast	68.0	71.0	68.0	70.0	72.0	70.0	61.0	65.0	61.0

[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 1.13 - continued
Median Age of Cancer Patients at Death[a], 2005-2009
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	70.0	-	70.0	66.0	-	66.0
Cervix uteri	57.0	-	57.0	57.0	-	57.0	56.0	-	56.0
Corpus uteri	71.0	-	71.0	72.0	-	72.0	69.0	-	69.0
Uterus, NOS	71.0	-	71.0	73.0	-	73.0	68.0	-	68.0
Ovary	71.0	-	71.0	71.0	-	71.0	68.0	-	68.0
Vagina	77.0	-	77.0	78.0	-	78.0	71.0	-	71.0
Vulva	79.0	-	79.0	79.0	-	79.0	68.5	-	68.5
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	41.0	41.0	-	41.0	41.0	-	38.5	38.5	-
Penis	71.0	71.0	-	71.0	71.0	-	65.0	65.0	-
Other male genital system	73.0	73.0	-	74.5	74.5	-	69.0	69.0	-
Urinary System:	76.0	75.0	78.0	76.0	75.0	78.0	70.0	68.0	74.0
Urinary bladder	79.0	78.0	80.0	79.0	78.0	81.0	75.0	73.0	77.0
Kidney & renal pelvis	71.0	69.0	75.0	72.0	70.0	75.0	66.0	64.0	71.0
Ureter	78.0	77.0	80.0	78.0	77.0	80.0	74.0	75.0	73.0
Other urinary system	77.0	77.0	78.0	78.0	77.0	79.0	67.0	68.0	66.0
Eye & Orbit	70.0	69.0	71.0	70.0	70.0	71.0	54.5	54.0	58.0
Brain & Nervous System	64.0	62.0	66.0	64.0	63.0	67.0	59.0	58.0	60.0
Endocrine System:	69.0	66.0	71.0	70.0	67.0	73.0	63.0	57.0	66.0
Thyroid	73.0	71.0	76.0	74.0	71.0	76.0	70.0	66.0	72.0
Other endocrine & thymus	57.0	56.0	59.0	59.0	57.0	61.0	50.0	48.0	54.0
Lymphoma:	75.0	73.0	77.0	76.0	74.0	78.0	63.0	60.0	67.0
Hodgkin lymphoma	64.0	61.0	68.0	66.0	63.0	70.0	49.0	48.0	51.0
Non-Hodgkin lymphoma	75.0	73.0	78.0	76.0	74.0	78.0	64.0	62.0	68.0
Myeloma	74.0	73.0	76.0	75.0	74.0	77.0	70.0	69.0	72.0
Leukemia:	75.0	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	51.0	46.0	55.0	52.0	49.0	56.0	41.0	34.0	49.0
Chronic lymphocytic	79.0	77.0	82.0	80.0	78.0	83.0	73.0	71.0	76.0
Other lymphocytic	78.0	76.0	81.0	78.0	76.0	81.0	72.0	67.0	77.0
Myeloid & Monocytic:	72.0	72.0	73.0	73.0	73.0	74.0	65.0	64.0	66.0
Acute myeloid	72.0	72.0	72.0	72.0	72.0	73.0	65.0	65.0	66.0
Chronic myeloid	75.0	72.0	78.0	77.0	74.0	79.0	62.0	60.0	62.0
Acute monocytic	76.0	76.0	76.0	76.0	77.0	76.0	68.0	-	-
Other myeloid & monocytic	76.0	75.0	78.0	77.0	76.0	78.0	68.0	65.5	72.5
Other leukemia:	77.0	76.0	79.0	78.0	76.0	79.0	71.0	69.0	73.0
Other acute leukemia	77.0	76.0	78.0	77.0	76.0	79.0	72.0	69.5	73.0
Aleukemic, subleukemic & NOS	77.0	76.0	79.0	78.0	76.0	80.0	70.5	69.0	72.0
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, 18 SEER Areas, 2007-2009

Site	All Races	Whites	Blacks
	Percent (95% C.I.)	Percent (95% C.I.)	Percent (95% C.I.)
All Sites	41.24 (41.15, 41.33)	41.48 (41.38, 41.58)	37.91 (37.65, 38.18)
Invasive and In Situ	43.60 (43.50, 43.69)	43.86 (43.76, 43.97)	39.30 (39.03, 39.57)
Oral Cavity and Pharynx	1.08 (1.06, 1.09)	1.12 (1.10, 1.13)	0.82 (0.78, 0.85)
Esophagus	0.51 (0.50, 0.52)	0.53 (0.52, 0.54)	0.49 (0.46, 0.52)
Stomach	0.86 (0.85, 0.88)	0.75 (0.73, 0.76)	1.14 (1.10, 1.19)
Colon and Rectum	4.96 (4.93, 5.00)	4.89 (4.86, 4.93)	5.05 (4.95, 5.15)
Invasive and In Situ	5.18 (5.14, 5.21)	5.09 (5.05, 5.12)	5.32 (5.22, 5.42)
Liver and Intrahepatic Bile Duct	0.83 (0.82, 0.84)	0.72 (0.71, 0.74)	0.86 (0.82, 0.89)
Pancreas	1.47 (1.45, 1.48)	1.45 (1.43, 1.47)	1.53 (1.48, 1.59)
Larynx	0.36 (0.35, 0.37)	0.37 (0.36, 0.37)	0.46 (0.43, 0.49)
Invasive and In Situ	0.39 (0.38, 0.40)	0.39 (0.39, 0.40)	0.49 (0.46, 0.52)
Lung and Bronchus	6.99 (6.96, 7.03)	7.19 (7.15, 7.23)	6.57 (6.46, 6.68)
Melanoma of the Skin	1.99 (1.98, 2.01)	2.32 (2.30, 2.34)	0.09 (0.07, 0.10)
Invasive and In Situ	3.25 (3.23, 3.28)	3.71 (3.68, 3.74)	0.11 (0.10, 0.13)
Breast	6.41 (6.38, 6.45)	6.53 (6.49, 6.57)	5.81 (5.72, 5.91)
Invasive and In Situ	7.70 (7.66, 7.73)	7.81 (7.77, 7.85)	7.00 (6.89, 7.10)
Urinary Bladder (Invasive and In Situ)	2.39 (2.37, 2.41)	2.59 (2.56, 2.62)	1.19 (1.15, 1.24)
Kidney and Renal Pelvis	1.60 (1.59, 1.62)	1.65 (1.63, 1.67)	1.55 (1.50, 1.60)
Brain and Other Nervous System	0.62 (0.61, 0.63)	0.68 (0.67, 0.69)	0.35 (0.32, 0.37)
Thyroid	1.03 (1.01, 1.04)	1.07 (1.06, 1.09)	0.57 (0.54, 0.59)
Hodgkin Lymphoma	0.23 (0.22, 0.23)	0.25 (0.24, 0.25)	0.20 (0.19, 0.22)
Non-Hodgkin Lymphoma	2.12 (2.10, 2.14)	2.23 (2.21, 2.25)	1.22 (1.17, 1.26)
Myeloma	0.67 (0.66, 0.68)	0.61 (0.60, 0.63)	1.12 (1.07, 1.17)
Leukemia	1.35 (1.33, 1.36)	1.41 (1.39, 1.43)	0.89 (0.85, 0.93)
Acute Lymphocytic Leukemia	0.13 (0.12, 0.13)	0.14 (0.13, 0.14)	0.07 (0.06, 0.08)
Chronic Lymphocytic Leukemia	0.49 (0.48, 0.50)	0.53 (0.51, 0.54)	0.27 (0.25, 0.30)
Acute Myeloid Leukemia	0.39 (0.38, 0.40)	0.40 (0.39, 0.41)	0.29 (0.27, 0.31)
Chronic Myeloid Leukemia	0.17 (0.16, 0.17)	0.17 (0.16, 0.18)	0.13 (0.12, 0.15)
Kaposi Sarcoma	0.05 (0.04, 0.05)	0.04 (0.04, 0.05)	0.07 (0.06, 0.08)
Mesothelioma	0.13 (0.12, 0.13)	0.14 (0.14, 0.15)	0.05 (0.04, 0.06)

Source: Devcan Version 6.6.1, April 2012, National Cancer Institute (http://surveillance.cancer.gov/devcan/).
SEER 18 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, New Jersey, and Georgia excluding ATL/RG).

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, 18 SEER Areas, 2007-2009

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	35.78 (35.41, 36.16)	28.48 (27.35, 29.73)	37.35 (37.02, 37.69)
Invasive and In Situ	37.27 (36.90, 37.66)	29.16 (28.02, 30.42)	38.68 (38.34, 39.03)
Oral Cavity and Pharynx	0.88 (0.83, 0.94)	0.81 (0.58, 1.20)	0.75 (0.70, 0.80)
Esophagus	0.33 (0.29, 0.37)	0.37 (0.26, 0.66)	0.36 (0.33, 0.40)
Stomach	1.90 (1.81, 2.00)	0.97 (0.79, 1.31)	1.48 (1.41, 1.56)
Colon and Rectum	5.16 (5.01, 5.31)	4.01 (3.61, 4.53)	4.68 (4.55, 4.81)
Invasive and In Situ	5.35 (5.21, 5.51)	4.13 (3.73, 4.66)	4.88 (4.76, 5.02)
Liver and Intrahepatic Bile Duct	1.92 (1.84, 2.01)	1.41 (1.19, 1.76)	1.45 (1.39, 1.52)
Pancreas	1.57 (1.48, 1.67)	1.19 (0.96, 1.55)	1.58 (1.51, 1.67)
Larynx	0.16 (0.14, 0.20)	0.26 (0.17, 0.54)	0.29 (0.27, 0.33)
Invasive and In Situ	0.17 (0.15, 0.21)	0.27 (0.18, 0.55)	0.31 (0.29, 0.35)
Lung and Bronchus	5.69 (5.53, 5.85)	4.44 (4.00, 5.00)	4.34 (4.22, 4.46)
Melanoma of the Skin	0.17 (0.15, 0.21)	0.35 (0.25, 0.62)	0.51 (0.47, 0.56)
Invasive and In Situ	0.22 (0.19, 0.26)	0.51 (0.38, 0.80)	0.76 (0.72, 0.82)
Breast	5.43 (5.31, 5.56)	3.75 (3.42, 4.21)	5.10 (4.99, 5.22)
Invasive and In Situ	6.83 (6.70, 6.97)	4.23 (3.88, 4.70)	6.00 (5.89, 6.13)
Urinary Bladder (Invasive and In Situ)	1.39 (1.31, 1.48)	0.91 (0.71, 1.26)	1.57 (1.49, 1.66)
Kidney and Renal Pelvis	1.06 (1.00, 1.13)	2.05 (1.74, 2.49)	1.75 (1.68, 1.82)
Brain and Other Nervous System	0.39 (0.36, 0.44)	0.37 (0.22, 0.70)	0.56 (0.52, 0.60)
Thyroid	1.17 (1.12, 1.23)	0.64 (0.47, 0.97)	0.95 (0.91, 1.00)
Hodgkin Lymphoma	0.11 (0.10, 0.14)	0.09 (0.03, 0.36)	0.22 (0.21, 0.25)
Non-Hodgkin Lymphoma	1.84 (1.75, 1.93)	1.26 (1.01, 1.65)	2.13 (2.05, 2.21)
Myeloma	0.48 (0.44, 0.53)	0.47 (0.30, 0.82)	0.67 (0.63, 0.72)
Leukemia	0.92 (0.86, 0.98)	0.81 (0.63, 1.14)	1.11 (1.06, 1.17)
Acute Lymphocytic Leukemia	0.11 (0.09, 0.14)	0.11 (0.07, 0.37)	0.19 (0.18, 0.21)
Chronic Lymphocytic Leukemia	0.14 (0.12, 0.17)	0.16 (0.08, 0.44)	0.26 (0.23, 0.30)
Acute Myeloid Leukemia	0.40 (0.36, 0.45)	0.29 (0.20, 0.57)	0.35 (0.32, 0.39)
Chronic Myeloid Leukemia	0.13 (0.11, 0.16)	0.12 (0.05, 0.39)	0.15 (0.13, 0.18)
Kaposi Sarcoma	0.02 (0.01, 0.04)	0.02 (0.00, 0.29)	0.08 (0.06, 0.10)
Mesothelioma	0.05 (0.04, 0.07)	0.10 (0.04, 0.37)	0.12 (0.10, 0.14)

Devcan Version 6.6.1, April 2012, National Cancer Institute (http://surveillance.cancer.gov/devcan/).

Source: SEER 18 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, New Jersey, and Georgia excluding ATL/RG).

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, 18 SEER Areas, 2007-2009

Site	All Races	Whites	Blacks
	Percent (95% C.I.)	Percent (95% C.I.)	Percent (95% C.I.)
All Sites	44.81 (44.67, 44.95)	44.55 (44.40, 44.70)	42.77 (42.35, 43.19)
Invasive and In Situ	46.19 (46.05, 46.33)	45.96 (45.81, 46.12)	43.11 (42.69, 43.53)
Oral Cavity and Pharynx	1.50 (1.48, 1.53)	1.55 (1.53, 1.58)	1.18 (1.12, 1.24)
Esophagus	0.81 (0.79, 0.83)	0.85 (0.83, 0.87)	0.71 (0.66, 0.76)
Stomach	1.09 (1.07, 1.11)	0.96 (0.94, 0.98)	1.39 (1.31, 1.47)
Colon and Rectum	5.17 (5.13, 5.22)	5.11 (5.06, 5.16)	5.07 (4.93, 5.21)
Invasive and In Situ	5.40 (5.36, 5.45)	5.33 (5.28, 5.38)	5.34 (5.20, 5.49)
Liver and Intrahepatic Bile Duct	1.18 (1.16, 1.20)	1.03 (1.01, 1.05)	1.28 (1.22, 1.35)
Pancreas	1.48 (1.46, 1.51)	1.48 (1.46, 1.51)	1.48 (1.40, 1.56)
Larynx	0.60 (0.59, 0.62)	0.61 (0.59, 0.62)	0.79 (0.73, 0.84)
Invasive and In Situ	0.65 (0.64, 0.67)	0.66 (0.64, 0.67)	0.84 (0.79, 0.90)
Lung and Bronchus	7.77 (7.71, 7.82)	7.82 (7.76, 7.89)	7.95 (7.77, 8.13)
Melanoma of the Skin	2.49 (2.45, 2.52)	2.87 (2.84, 2.91)	0.08 (0.06, 0.10)
Invasive and In Situ	4.02 (3.98, 4.06)	4.56 (4.51, 4.61)	0.10 (0.08, 0.12)
Breast	0.13 (0.12, 0.14)	0.13 (0.12, 0.14)	0.14 (0.12, 0.17)
Invasive and In Situ	0.14 (0.14, 0.15)	0.14 (0.13, 0.15)	0.16 (0.14, 0.19)
Prostate	16.15 (16.07, 16.23)	15.39 (15.30, 15.48)	19.74 (19.47, 20.02)
Testis	0.37 (0.36, 0.38)	0.44 (0.43, 0.45)	0.09 (0.08, 0.11)
Urinary Bladder (Invasive and In Situ)	3.81 (3.77, 3.85)	4.13 (4.09, 4.18)	1.71 (1.62, 1.80)
Kidney and Renal Pelvis	2.04 (2.01, 2.06)	2.10 (2.06, 2.13)	1.90 (1.82, 1.99)
Brain and Other Nervous System	0.70 (0.68, 0.71)	0.77 (0.75, 0.79)	0.36 (0.33, 0.40)
Thyroid	0.52 (0.51, 0.54)	0.56 (0.54, 0.57)	0.25 (0.22, 0.28)
Hodgkin Lymphoma	0.25 (0.24, 0.26)	0.27 (0.26, 0.28)	0.22 (0.20, 0.24)
Non-Hodgkin Lymphoma	2.34 (2.31, 2.37)	2.46 (2.42, 2.49)	1.30 (1.24, 1.37)
Myeloma	0.77 (0.76, 0.79)	0.73 (0.71, 0.75)	1.19 (1.12, 1.26)
Leukemia	1.59 (1.56, 1.61)	1.67 (1.64, 1.69)	1.00 (0.94, 1.06)
Acute Lymphocytic Leukemia	0.14 (0.13, 0.14)	0.15 (0.14, 0.16)	0.08 (0.07, 0.10)
Chronic Lymphocytic Leukemia	0.61 (0.60, 0.63)	0.65 (0.63, 0.67)	0.34 (0.30, 0.39)
Acute Myeloid Leukemia	0.44 (0.42, 0.45)	0.46 (0.44, 0.47)	0.28 (0.25, 0.32)
Chronic Myeloid Leukemia	0.20 (0.19, 0.21)	0.21 (0.20, 0.22)	0.15 (0.13, 0.18)
Kaposi Sarcoma	0.08 (0.08, 0.09)	0.07 (0.07, 0.08)	0.13 (0.11, 0.15)
Mesothelioma	0.21 (0.20, 0.22)	0.24 (0.23, 0.25)	0.08 (0.06, 0.11)

Devcan Version 6.6.1, April 2012, National Cancer Institute (http://surveillance.cancer.gov/devcan/).
Source: SEER 18 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, New Jersey, and Georgia excluding ATL/RG).
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, 18 SEER Areas, 2007-2009

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	37.88 (37.32, 38.45)	29.30 (27.62, 31.29)	40.63 (40.09, 41.19)
Invasive and In Situ	38.22 (37.66, 38.80)	29.61 (27.91, 31.61)	41.13 (40.58, 41.69)
Oral Cavity and Pharynx	1.21 (1.12, 1.31)	1.14 (0.73, 1.99)	0.98 (0.91, 1.08)
Esophagus	0.45 (0.40, 0.52)	0.51 (0.30, 1.21)	0.59 (0.54, 0.67)
Stomach	2.19 (2.05, 2.34)	1.21 (0.91, 1.96)	1.82 (1.70, 1.97)
Colon and Rectum	5.36 (5.16, 5.58)	4.08 (3.50, 5.01)	5.13 (4.93, 5.34)
Invasive and In Situ	5.58 (5.37, 5.80)	4.22 (3.63, 5.16)	5.34 (5.14, 5.56)
Liver and Intrahepatic Bile Duct	2.64 (2.51, 2.79)	1.99 (1.61, 2.76)	1.88 (1.79, 1.99)
Pancreas	1.52 (1.40, 1.66)	1.18 (0.86, 1.94)	1.43 (1.34, 1.55)
Larynx	0.30 (0.25, 0.36)	0.47 (0.30, 1.16)	0.56 (0.50, 0.63)
Invasive and In Situ	0.32 (0.27, 0.38)	0.49 (0.31, 1.18)	0.59 (0.54, 0.67)
Lung and Bronchus	7.13 (6.87, 7.40)	4.83 (4.16, 5.85)	5.02 (4.83, 5.24)
Melanoma of the Skin	0.20 (0.16, 0.26)	0.38 (0.24, 1.06)	0.52 (0.46, 0.61)
Invasive and In Situ	0.24 (0.20, 0.31)	0.63 (0.40, 1.34)	0.80 (0.71, 0.91)
Breast	0.09 (0.07, 0.14)	0.11 (0.04, 0.80)	0.08 (0.06, 0.13)
Invasive and In Situ	0.11 (0.08, 0.16)	0.11 (0.04, 0.80)	0.09 (0.07, 0.14)
Prostate	11.14 (10.85, 11.44)	7.59 (6.78, 8.73)	15.02 (14.71, 15.35)
Testis	0.14 (0.12, 0.19)	0.30 (0.21, 0.95)	0.33 (0.31, 0.38)
Urinary Bladder (Invasive and In Situ)	2.23 (2.09, 2.40)	1.49 (1.13, 2.26)	2.56 (2.39, 2.74)
Kidney and Renal Pelvis	1.38 (1.28, 1.50)	2.51 (1.97, 3.44)	2.15 (2.05, 2.27)
Brain and Other Nervous System	0.42 (0.38, 0.49)	0.29 (0.19, 0.96)	0.57 (0.51, 0.65)
Thyroid	0.55 (0.50, 0.62)	0.23 (0.14, 0.90)	0.42 (0.37, 0.49)
Hodgkin Lymphoma	0.13 (0.11, 0.17)	0.06 (0.03, 0.76)	0.24 (0.22, 0.30)
Non-Hodgkin Lymphoma	2.06 (1.94, 2.20)	1.32 (1.02, 2.05)	2.20 (2.08, 2.34)
Myeloma	0.55 (0.49, 0.63)	0.55 (0.22, 1.41)	0.75 (0.68, 0.84)
Leukemia	1.05 (0.96, 1.15)	0.98 (0.66, 1.75)	1.30 (1.20, 1.43)
Acute Lymphocytic Leukemia	0.12 (0.09, 0.17)	0.12 (0.06, 0.80)	0.19 (0.17, 0.24)
Chronic Lymphocytic Leukemia	0.19 (0.15, 0.25)	0.28 (0.11, 0.99)	0.33 (0.28, 0.42)
Acute Myeloid Leukemia	0.43 (0.37, 0.50)	0.24 (0.13, 0.92)	0.41 (0.34, 0.50)
Chronic Myeloid Leukemia	0.18 (0.15, 0.23)	0.16 (0.04, 0.87)	0.18 (0.15, 0.24)
Kaposi Sarcoma	0.03 (0.02, 0.07)	0.02 (0.00, 0.73)	0.12 (0.09, 0.18)
Mesothelioma	0.08 (0.05, 0.13)	0.12 (0.04, 0.81)	0.20 (0.16, 0.26)

Devcan Version 6.6.1, April 2012, National Cancer Institute (http://surveillance.cancer.gov/devcan/).

Source: SEER 18 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, New Jersey, and Georgia excluding ATL/RG).

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, 18 SEER Areas, 2007-2009

Site	All Races	Whites	Blacks
	Percent (95% C.I.)	Percent (95% C.I.)	Percent (95% C.I.)
All Sites	38.17 (38.05, 38.29)	38.87 (38.74, 39.00)	33.72 (33.38, 34.07)
Invasive and In Situ	41.51 (41.38, 41.63)	42.24 (42.11, 42.38)	36.05 (35.70, 36.41)
Oral Cavity and Pharynx	0.68 (0.66, 0.69)	0.70 (0.68, 0.71)	0.49 (0.46, 0.54)
Esophagus	0.23 (0.22, 0.24)	0.23 (0.22, 0.24)	0.29 (0.26, 0.32)
Stomach	0.66 (0.65, 0.68)	0.55 (0.53, 0.56)	0.94 (0.88, 1.00)
Colon and Rectum	4.78 (4.74, 4.82)	4.69 (4.64, 4.73)	5.04 (4.91, 5.18)
Invasive and In Situ	4.97 (4.93, 5.01)	4.86 (4.82, 4.91)	5.30 (5.17, 5.44)
Liver and Intrahepatic Bile Duct	0.49 (0.48, 0.51)	0.43 (0.41, 0.44)	0.48 (0.44, 0.52)
Pancreas	1.45 (1.43, 1.47)	1.42 (1.40, 1.45)	1.59 (1.51, 1.67)
Larynx	0.14 (0.13, 0.14)	0.14 (0.13, 0.15)	0.17 (0.15, 0.20)
Invasive and In Situ	0.15 (0.14, 0.15)	0.15 (0.14, 0.16)	0.18 (0.16, 0.21)
Lung and Bronchus	6.35 (6.30, 6.40)	6.67 (6.61, 6.72)	5.40 (5.26, 5.54)
Melanoma of the Skin	1.58 (1.55, 1.60)	1.85 (1.82, 1.87)	0.09 (0.08, 0.12)
Invasive and In Situ	2.60 (2.57, 2.63)	2.99 (2.95, 3.02)	0.12 (0.10, 0.14)
Breast	12.38 (12.31, 12.44)	12.73 (12.65, 12.80)	10.87 (10.69, 11.05)
Invasive and In Situ	14.90 (14.83, 14.97)	15.25 (15.17, 15.33)	13.09 (12.90, 13.29)
Cervix Uteri	0.68 (0.67, 0.69)	0.65 (0.64, 0.67)	0.84 (0.80, 0.89)
Corpus and Uterus, NOS	2.64 (2.61, 2.67)	2.72 (2.69, 2.75)	2.30 (2.21, 2.38)
Invasive and In Situ	2.67 (2.64, 2.70)	2.74 (2.71, 2.78)	2.32 (2.24, 2.41)
Ovary[a]	1.38 (1.36, 1.41)	1.46 (1.43, 1.48)	1.00 (0.94, 1.06)
Urinary Bladder (Invasive and In Situ)	1.15 (1.13, 1.17)	1.22 (1.20, 1.25)	0.76 (0.71, 0.82)
Kidney and Renal Pelvis	1.20 (1.18, 1.22)	1.23 (1.21, 1.25)	1.24 (1.18, 1.31)
Brain and Other Nervous System	0.55 (0.54, 0.57)	0.60 (0.59, 0.62)	0.33 (0.30, 0.37)
Thyroid	1.53 (1.51, 1.56)	1.61 (1.59, 1.64)	0.86 (0.81, 0.90)
Hodgkin Lymphoma	0.21 (0.20, 0.22)	0.23 (0.22, 0.24)	0.18 (0.17, 0.21)
Non-Hodgkin Lymphoma	1.93 (1.90, 1.95)	2.03 (2.00, 2.06)	1.14 (1.08, 1.20)
Myeloma	0.57 (0.56, 0.59)	0.51 (0.50, 0.53)	1.06 (1.00, 1.12)
Leukemia	1.14 (1.12, 1.16)	1.18 (1.16, 1.20)	0.80 (0.75, 0.86)
Acute Lymphocytic Leukemia	0.11 (0.11, 0.12)	0.12 (0.12, 0.13)	0.06 (0.05, 0.07)
Chronic Lymphocytic Leukemia	0.39 (0.38, 0.40)	0.42 (0.40, 0.43)	0.21 (0.18, 0.24)
Acute Myeloid Leukemia	0.36 (0.35, 0.37)	0.36 (0.35, 0.37)	0.30 (0.27, 0.33)
Chronic Myeloid Leukemia	0.13 (0.13, 0.14)	0.14 (0.13, 0.14)	0.12 (0.10, 0.14)
Kaposi Sarcoma	0.01 (0.01, 0.01)	0.01 (0.01, 0.01)	0.01 (0.01, 0.02)
Mesothelioma	0.05 (0.05, 0.06)	0.06 (0.06, 0.07)	0.02 (0.02, 0.04)

Devcan Version 6.6.1, April 2012, National Cancer Institute (http://surveillance.cancer.gov/devcan/).

Source: SEER 18 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, New Jersey, and Georgia excluding ATL/RG).

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, 18 SEER Areas, 2007-2009

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	34.20 (33.70, 34.71)	27.91 (26.37, 29.66)	35.03 (34.59, 35.48)
Invasive and In Situ	36.70 (36.20, 37.23)	28.99 (27.43, 30.74)	37.19 (36.74, 37.64)
Oral Cavity and Pharynx	0.60 (0.53, 0.68)	0.52 (0.26, 1.10)	0.54 (0.48, 0.61)
Esophagus	0.22 (0.17, 0.29)	0.25 (0.14, 0.72)	0.15 (0.12, 0.20)
Stomach	1.66 (1.54, 1.80)	0.76 (0.54, 1.27)	1.20 (1.11, 1.30)
Colon and Rectum	4.98 (4.78, 5.20)	3.96 (3.42, 4.73)	4.31 (4.14, 4.49)
Invasive and In Situ	5.15 (4.95, 5.37)	4.08 (3.53, 4.85)	4.50 (4.33, 4.69)
Liver and Intrahepatic Bile Duct	1.30 (1.20, 1.41)	0.86 (0.64, 1.38)	1.02 (0.94, 1.12)
Pancreas	1.61 (1.49, 1.76)	1.20 (0.89, 1.77)	1.69 (1.58, 1.82)
Larynx	0.05 (0.03, 0.10)	0.07 (0.02, 0.53)	0.07 (0.05, 0.10)
Invasive and In Situ	0.05 (0.03, 0.10)	0.08 (0.03, 0.54)	0.07 (0.06, 0.10)
Lung and Bronchus	4.49 (4.30, 4.70)	4.11 (3.54, 4.91)	3.80 (3.65, 3.96)
Melanoma of the Skin	0.16 (0.12, 0.21)	0.32 (0.20, 0.77)	0.51 (0.46, 0.58)
Invasive and In Situ	0.20 (0.16, 0.26)	0.42 (0.28, 0.88)	0.77 (0.70, 0.84)
Breast	10.11 (9.88, 10.35)	7.28 (6.63, 8.13)	9.83 (9.62, 10.04)
Invasive and In Situ	12.74 (12.49, 13.00)	8.23 (7.55, 9.11)	11.60 (11.39, 11.83)
Cervix Uteri	0.69 (0.64, 0.76)	0.65 (0.49, 1.11)	1.05 (0.99, 1.12)
Corpus and Uterus, NOS	2.10 (2.01, 2.21)	1.90 (1.59, 2.46)	2.20 (2.11, 2.30)
Invasive and In Situ	2.11 (2.02, 2.22)	1.90 (1.59, 2.46)	2.22 (2.13, 2.33)
Ovary[c]	1.12 (1.04, 1.23)	1.16 (0.87, 1.73)	1.34 (1.26, 1.43)
Urinary Bladder (Invasive and In Situ)	0.68 (0.60, 0.78)	0.37 (0.19, 0.88)	0.78 (0.71, 0.87)
Kidney and Renal Pelvis	0.78 (0.71, 0.87)	1.65 (1.29, 2.26)	1.39 (1.31, 1.48)
Brain and Other Nervous System	0.36 (0.32, 0.43)	0.43 (0.19, 1.00)	0.55 (0.50, 0.61)
Thyroid	1.74 (1.66, 1.83)	1.02 (0.73, 1.60)	1.51 (1.44, 1.59)
Hodgkin Lymphoma	0.10 (0.08, 0.14)	0.11 (0.03, 0.59)	0.21 (0.18, 0.25)
Non-Hodgkin Lymphoma	1.65 (1.53, 1.78)	1.18 (0.83, 1.81)	2.07 (1.97, 2.19)
Myeloma	0.42 (0.37, 0.48)	0.44 (0.28, 0.92)	0.61 (0.56, 0.68)
Leukemia	0.80 (0.73, 0.90)	0.68 (0.48, 1.17)	0.97 (0.91, 1.05)
Acute Lymphocytic Leukemia	0.10 (0.08, 0.14)	0.10 (0.05, 0.56)	0.19 (0.17, 0.22)
Chronic Lymphocytic Leukemia	0.10 (0.08, 0.14)	0.06 (0.01, 0.52)	0.21 (0.18, 0.25)
Acute Myeloid Leukemia	0.38 (0.33, 0.45)	0.34 (0.20, 0.82)	0.32 (0.28, 0.37)
Chronic Myeloid Leukemia	0.09 (0.07, 0.13)	0.09 (0.04, 0.54)	0.12 (0.10, 0.16)
Kaposi Sarcoma	0.00 (0.00, 0.04)	0.02 (0.00, 0.49)	0.03 (0.02, 0.07)
Mesothelioma	0.02 (0.01, 0.06)	0.08 (0.01, 0.55)	0.05 (0.04, 0.09)

Devcan Version 6.6.1, April 2012, National Cancer Institute (http://surveillance.cancer.gov/devcan/).

Source: SEER 18 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, New Jersey, and Georgia excluding ATL/RG).

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., 2007-2009

Site	All Races	Whites	Blacks
	Percent (95% C.I.)	Percent (95% C.I.)	Percent (95% C.I.)
All Sites	21.00 (20.97, 21.03)	21.15 (21.12, 21.18)	21.14 (21.04, 21.23)
Oral Cavity and Pharynx	0.28 (0.27, 0.28)	0.28 (0.27, 0.28)	0.29 (0.28, 0.30)
Esophagus	0.48 (0.48, 0.49)	0.50 (0.50, 0.51)	0.43 (0.41, 0.44)
Stomach	0.42 (0.41, 0.42)	0.37 (0.36, 0.37)	0.69 (0.67, 0.71)
Colon and Rectum	2.02 (2.01, 2.03)	1.99 (1.97, 2.00)	2.33 (2.29, 2.36)
Liver and Intrahepatic Bile Duct	0.63 (0.62, 0.63)	0.59 (0.58, 0.59)	0.71 (0.69, 0.73)
Pancreas	1.31 (1.30, 1.32)	1.30 (1.30, 1.31)	1.40 (1.38, 1.43)
Larynx	0.13 (0.13, 0.13)	0.12 (0.12, 0.12)	0.20 (0.19, 0.20)
Lung and Bronchus	5.82 (5.80, 5.83)	5.96 (5.94, 5.98)	5.29 (5.24, 5.34)
Melanoma of the Skin	0.31 (0.30, 0.31)	0.35 (0.35, 0.35)	0.04 (0.04, 0.05)
Breast	1.46 (1.45, 1.47)	1.44 (1.43, 1.44)	1.77 (1.74, 1.79)
Urinary Bladder	0.58 (0.58, 0.59)	0.61 (0.60, 0.62)	0.39 (0.38, 0.41)
Kidney and Renal Pelvis	0.47 (0.46, 0.47)	0.48 (0.48, 0.49)	0.40 (0.38, 0.41)
Brain and Other Nervous System	0.44 (0.44, 0.45)	0.48 (0.48, 0.49)	0.23 (0.22, 0.24)
Thyroid	0.06 (0.06, 0.06)	0.06 (0.06, 0.06)	0.05 (0.05, 0.06)
Hodgkin Lymphoma	0.04 (0.04, 0.04)	0.04 (0.04, 0.04)	0.03 (0.03, 0.03)
Non-Hodgkin Lymphoma	0.79 (0.78, 0.79)	0.83 (0.82, 0.84)	0.43 (0.41, 0.44)
Myeloma	0.41 (0.41, 0.41)	0.39 (0.38, 0.39)	0.64 (0.62, 0.66)
Leukemia	0.85 (0.85, 0.86)	0.89 (0.88, 0.90)	0.62 (0.60, 0.63)
Acute Lymphocytic Leukemia	0.04 (0.04, 0.04)	0.05 (0.04, 0.05)	0.02 (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	0.32 (0.32, 0.33)	0.34 (0.33, 0.34)	0.21 (0.20, 0.22)
Chronic Myeloid Leukemia	0.04 (0.04, 0.04)	0.04 (0.04, 0.04)	0.03 (0.03, 0.04)

Devcan Version 6.6.1, April 2012, National Cancer Institute (http://surveillance.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., 2007-2009

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	18.57 (18.32, 18.84)	16.73 (16.24, 17.26)	17.20 (17.05, 17.35)
Oral Cavity and Pharynx	0.29 (0.26, 0.33)	0.21 (0.16, 0.30)	0.20 (0.19, 0.22)
Esophagus	0.29 (0.26, 0.33)	0.37 (0.29, 0.49)	0.31 (0.29, 0.33)
Stomach	1.20 (1.13, 1.28)	0.54 (0.45, 0.66)	0.81 (0.77, 0.84)
Colon and Rectum	2.07 (1.97, 2.18)	1.81 (1.64, 2.01)	1.89 (1.83, 1.95)
Liver and Intrahepatic Bile Duct	1.48 (1.41, 1.55)	0.89 (0.78, 1.04)	1.12 (1.08, 1.16)
Pancreas	1.38 (1.30, 1.46)	0.93 (0.80, 1.10)	1.24 (1.20, 1.29)
Larynx	0.06 (0.05, 0.09)	0.11 (0.06, 0.21)	0.11 (0.10, 0.13)
Lung and Bronchus	4.33 (4.21, 4.46)	4.23 (3.99, 4.50)	3.00 (2.94, 3.06)
Melanoma of the Skin	0.06 (0.04, 0.08)	0.10 (0.07, 0.18)	0.11 (0.10, 0.13)
Breast	0.92 (0.87, 0.99)	0.98 (0.84, 1.15)	1.09 (1.05, 1.14)
Urinary Bladder	0.37 (0.33, 0.42)	0.29 (0.21, 0.41)	0.39 (0.36, 0.41)
Kidney and Renal Pelvis	0.36 (0.32, 0.41)	0.66 (0.57, 0.79)	0.48 (0.45, 0.50)
Brain and Other Nervous System	0.24 (0.22, 0.28)	0.26 (0.20, 0.36)	0.32 (0.31, 0.34)
Thyroid	0.13 (0.11, 0.16)	0.08 (0.04, 0.18)	0.09 (0.08, 0.11)
Hodgkin Lymphoma	0.02 (0.01, 0.04)	0.01 (0.00, 0.09)	0.05 (0.04, 0.06)
Non-Hodgkin Lymphoma	0.73 (0.68, 0.79)	0.49 (0.41, 0.61)	0.75 (0.72, 0.78)
Myeloma	0.28 (0.25, 0.31)	0.30 (0.24, 0.40)	0.37 (0.35, 0.39)
Leukemia	0.61 (0.56, 0.66)	0.51 (0.41, 0.66)	0.65 (0.62, 0.68)
Acute Lymphocytic Leukemia	0.03 (0.02, 0.04)	0.03 (0.02, 0.11)	0.07 (0.06, 0.08)
Chronic Lymphocytic Leukemia	0.05 (0.04, 0.07)	0.12 (0.06, 0.25)	0.08 (0.07, 0.10)
Acute Myeloid Leukemia	0.30 (0.27, 0.33)	0.19 (0.14, 0.28)	0.23 (0.22, 0.25)
Chronic Myeloid Leukemia	0.03 (0.02, 0.05)	0.03 (0.01, 0.11)	0.03 (0.03, 0.04)

Devcan Version 6.6.1, April 2012, National Cancer Institute (http://surveillance.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, North Dakota and South Carolina.
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., 2007-2009

Site	All Races	Whites	Blacks
	Percent (95% C.I.)	Percent (95% C.I.)	Percent (95% C.I.)
All Sites	23.08 (23.03, 23.12)	23.16 (23.11, 23.21)	23.67 (23.53, 23.82)
Oral Cavity and Pharynx	0.38 (0.37, 0.39)	0.37 (0.37, 0.38)	0.44 (0.42, 0.46)
Esophagus	0.78 (0.78, 0.79)	0.82 (0.81, 0.83)	0.66 (0.63, 0.68)
Stomach	0.51 (0.51, 0.52)	0.45 (0.44, 0.46)	0.84 (0.81, 0.87)
Colon and Rectum	2.11 (2.09, 2.12)	2.08 (2.06, 2.09)	2.41 (2.36, 2.46)
Liver and Intrahepatic Bile Duct	0.83 (0.82, 0.84)	0.78 (0.77, 0.79)	1.00 (0.97, 1.03)
Pancreas	1.32 (1.31, 1.33)	1.33 (1.32, 1.34)	1.30 (1.26, 1.33)
Larynx	0.21 (0.21, 0.22)	0.20 (0.19, 0.20)	0.34 (0.32, 0.36)
Lung and Bronchus	6.74 (6.71, 6.76)	6.81 (6.78, 6.84)	6.70 (6.62, 6.78)
Melanoma of the Skin	0.42 (0.41, 0.43)	0.48 (0.47, 0.49)	0.04 (0.04, 0.05)
Breast	0.03 (0.03, 0.03)	0.03 (0.03, 0.03)	0.04 (0.04, 0.05)
Prostate	2.75 (2.73, 2.77)	2.58 (2.56, 2.60)	4.52 (4.44, 4.60)
Testis	0.02 (0.02, 0.02)	0.02 (0.02, 0.02)	0.01 (0.01, 0.01)
Urinary Bladder	0.88 (0.87, 0.89)	0.94 (0.93, 0.95)	0.46 (0.44, 0.49)
Kidney and Renal Pelvis	0.61 (0.60, 0.62)	0.63 (0.62, 0.64)	0.49 (0.47, 0.52)
Brain and Other Nervous System	0.50 (0.49, 0.50)	0.54 (0.53, 0.55)	0.24 (0.23, 0.26)
Thyroid	0.05 (0.05, 0.06)	0.06 (0.05, 0.06)	0.04 (0.03, 0.04)
Hodgkin Lymphoma	0.04 (0.04, 0.05)	0.05 (0.04, 0.05)	0.03 (0.03, 0.04)
Non-Hodgkin Lymphoma	0.88 (0.87, 0.89)	0.93 (0.92, 0.94)	0.48 (0.46, 0.50)
Myeloma	0.46 (0.46, 0.47)	0.45 (0.44, 0.45)	0.66 (0.63, 0.69)
Leukemia	1.02 (1.01, 1.03)	1.07 (1.05, 1.08)	0.70 (0.67, 0.73)
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, 0.25)	0.18 (0.17, 0.20)
Acute Myeloid Leukemia	0.38 (0.38, 0.39)	0.40 (0.40, 0.41)	0.22 (0.21, 0.24)
Chronic Myeloid Leukemia	0.04 (0.04, 0.05)	0.05 (0.04, 0.05)	0.04 (0.03, 0.05)

Source: Devcan Version 6.6.1, April 2012, National Cancer Institute (http://surveillance.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., 2007-2009

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	21.09 (20.70, 21.49)	17.55 (16.81, 18.38)	19.71 (19.45, 19.97)
Oral Cavity and Pharynx	0.39 (0.34, 0.45)	0.27 (0.20, 0.50)	0.28 (0.26, 0.31)
Esophagus	0.44 (0.39, 0.50)	0.56 (0.44, 0.81)	0.53 (0.49, 0.58)
Stomach	1.41 (1.30, 1.53)	0.62 (0.51, 0.87)	0.97 (0.91, 1.03)
Colon and Rectum	2.19 (2.04, 2.34)	1.67 (1.44, 2.02)	2.08 (1.99, 2.17)
Liver and Intrahepatic Bile Duct	1.92 (1.82, 2.04)	1.10 (0.94, 1.38)	1.39 (1.34, 1.46)
Pancreas	1.35 (1.25, 1.47)	0.90 (0.74, 1.18)	1.20 (1.13, 1.26)
Larynx	0.12 (0.09, 0.16)	0.22 (0.10, 0.49)	0.21 (0.18, 0.24)
Lung and Bronchus	5.57 (5.37, 5.79)	4.64 (4.28, 5.09)	3.95 (3.84, 4.06)
Melanoma of the Skin	0.06 (0.04, 0.11)	0.12 (0.07, 0.34)	0.14 (0.11, 0.17)
Breast	0.02 (0.01, 0.06)	0.04 (0.01, 0.27)	0.03 (0.01, 0.05)
Prostate	2.22 (2.05, 2.41)	2.20 (1.84, 2.67)	3.19 (3.05, 3.34)
Testis	0.01 (0.00, 0.04)	0.03 (0.01, 0.25)	0.02 (0.02, 0.04)
Urinary Bladder	0.58 (0.50, 0.68)	0.46 (0.30, 0.75)	0.59 (0.54, 0.65)
Kidney and Renal Pelvis	0.49 (0.42, 0.57)	0.81 (0.66, 1.07)	0.62 (0.58, 0.67)
Brain and Other Nervous System	0.28 (0.24, 0.33)	0.25 (0.18, 0.47)	0.35 (0.32, 0.38)
Thyroid	0.08 (0.06, 0.11)	0.06 (0.02, 0.28)	0.06 (0.05, 0.09)
Hodgkin Lymphoma	0.03 (0.01, 0.07)	0.02 (0.01, 0.24)	0.06 (0.05, 0.08)
Non-Hodgkin Lymphoma	0.82 (0.75, 0.91)	0.43 (0.33, 0.66)	0.83 (0.78, 0.89)
Myeloma	0.34 (0.29, 0.40)	0.33 (0.24, 0.56)	0.42 (0.39, 0.46)
Leukemia	0.70 (0.63, 0.78)	0.61 (0.45, 0.90)	0.76 (0.71, 0.82)
Acute Lymphocytic Leukemia	0.03 (0.02, 0.07)	0.02 (0.01, 0.24)	0.07 (0.06, 0.09)
Chronic Lymphocytic Leukemia	0.07 (0.05, 0.12)	0.16 (0.06, 0.43)	0.10 (0.08, 0.13)
Acute Myeloid Leukemia	0.35 (0.30, 0.41)	0.25 (0.18, 0.48)	0.28 (0.25, 0.32)
Chronic Myeloid Leukemia	0.03 (0.01, 0.08)	0.03 (0.01, 0.25)	0.04 (0.03, 0.07)

Devcan Version 6.6.1, April 2012, National Cancer Institute (http://surveillance.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, North Dakota and South Carolina.
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., 2007-2009

Site	All Races	Whites	Blacks
	Percent (95% C.I.)	Percent (95% C.I.)	Percent (95% C.I.)
All Sites	19.39 (19.35, 19.43)	19.58 (19.54, 19.63)	19.23 (19.11, 19.35)
Oral Cavity and Pharynx	0.18 (0.18, 0.19)	0.18 (0.18, 0.19)	0.16 (0.14, 0.17)
Esophagus	0.21 (0.20, 0.21)	0.21 (0.20, 0.21)	0.23 (0.22, 0.25)
Stomach	0.34 (0.33, 0.34)	0.29 (0.29, 0.30)	0.56 (0.54, 0.58)
Colon and Rectum	1.94 (1.93, 1.96)	1.90 (1.89, 1.92)	2.27 (2.22, 2.32)
Liver and Intrahepatic Bile Duct	0.43 (0.43, 0.44)	0.41 (0.40, 0.42)	0.46 (0.44, 0.48)
Pancreas	1.30 (1.29, 1.31)	1.28 (1.27, 1.29)	1.50 (1.46, 1.53)
Larynx	0.05 (0.05, 0.06)	0.05 (0.05, 0.06)	0.07 (0.06, 0.08)
Lung and Bronchus	5.02 (5.00, 5.04)	5.23 (5.20, 5.25)	4.11 (4.05, 4.17)
Melanoma of the Skin	0.21 (0.20, 0.21)	0.23 (0.23, 0.24)	0.05 (0.04, 0.05)
Breast	2.76 (2.74, 2.77)	2.73 (2.71, 2.75)	3.25 (3.20, 3.31)
Cervix Uteri	0.23 (0.23, 0.24)	0.21 (0.20, 0.21)	0.40 (0.38, 0.42)
Corpus and Uterus, NOS	0.54 (0.53, 0.55)	0.51 (0.50, 0.52)	0.83 (0.80, 0.86)
Ovary	1.00 (1.00, 1.01)	1.05 (1.04, 1.06)	0.74 (0.71, 0.76)
Urinary Bladder	0.34 (0.33, 0.34)	0.34 (0.34, 0.35)	0.34 (0.32, 0.36)
Kidney and Renal Pelvis	0.34 (0.34, 0.35)	0.35 (0.34, 0.36)	0.32 (0.30, 0.33)
Brain and Other Nervous System	0.40 (0.39, 0.40)	0.43 (0.42, 0.44)	0.21 (0.20, 0.23)
Thyroid	0.07 (0.07, 0.07)	0.07 (0.06, 0.07)	0.07 (0.06, 0.08)
Hodgkin Lymphoma	0.04 (0.03, 0.04)	0.04 (0.04, 0.04)	0.03 (0.02, 0.03)
Non-Hodgkin Lymphoma	0.71 (0.70, 0.72)	0.75 (0.74, 0.76)	0.39 (0.37, 0.40)
Myeloma	0.37 (0.36, 0.37)	0.34 (0.33, 0.34)	0.63 (0.60, 0.65)
Leukemia	0.71 (0.71, 0.72)	0.74 (0.73, 0.75)	0.55 (0.53, 0.58)
Acute Lymphocytic Leukemia	0.04 (0.03, 0.04)	0.04 (0.04, 0.04)	0.02 (0.02, 0.02)
Chronic Lymphocytic Leukemia	0.15 (0.15, 0.16)	0.16 (0.15, 0.16)	0.11 (0.10, 0.12)
Acute Myeloid Leukemia	0.27 (0.27, 0.28)	0.28 (0.28, 0.29)	0.21 (0.19, 0.22)
Chronic Myeloid Leukemia	0.03 (0.03, 0.03)	0.03 (0.03, 0.04)	0.02 (0.02, 0.03)

Devcan Version 6.6.1, April 2012, National Cancer Institute (http://surveillance.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., 2007-2009

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	16.59 (16.26, 16.94)	16.15 (15.48, 16.88)	15.44 (15.25, 15.63)
Oral Cavity and Pharynx	0.21 (0.17, 0.27)	0.14 (0.09, 0.29)	0.13 (0.11, 0.16)
Esophagus	0.18 (0.14, 0.23)	0.19 (0.10, 0.36)	0.13 (0.11, 0.15)
Stomach	1.04 (0.94, 1.15)	0.44 (0.33, 0.63)	0.68 (0.64, 0.73)
Colon and Rectum	1.98 (1.84, 2.13)	1.93 (1.69, 2.24)	1.74 (1.66, 1.81)
Liver and Intrahepatic Bile Duct	1.10 (1.01, 1.20)	0.69 (0.55, 0.90)	0.86 (0.81, 0.91)
Pancreas	1.40 (1.29, 1.52)	0.95 (0.77, 1.21)	1.28 (1.22, 1.34)
Larynx	0.02 (0.01, 0.05)	0.03 (0.01, 0.16)	0.03 (0.02, 0.05)
Lung and Bronchus	3.34 (3.19, 3.50)	3.87 (3.55, 4.25)	2.22 (2.15, 2.29)
Melanoma of the Skin	0.05 (0.03, 0.09)	0.08 (0.04, 0.21)	0.09 (0.07, 0.11)
Breast	1.68 (1.58, 1.80)	1.84 (1.60, 2.15)	2.04 (1.97, 2.11)
Cervix Uteri	0.24 (0.21, 0.28)	0.38 (0.29, 0.54)	0.33 (0.31, 0.36)
Corpus and Uterus, NOS	0.44 (0.38, 0.51)	0.31 (0.23, 0.47)	0.46 (0.43, 0.50)
Ovary	0.76 (0.69, 0.84)	0.83 (0.67, 1.06)	0.82 (0.78, 0.86)
Urinary Bladder	0.20 (0.16, 0.26)	0.15 (0.09, 0.31)	0.23 (0.20, 0.26)
Kidney and Renal Pelvis	0.26 (0.21, 0.32)	0.52 (0.41, 0.71)	0.35 (0.32, 0.39)
Brain and Other Nervous System	0.22 (0.18, 0.26)	0.26 (0.19, 0.42)	0.30 (0.28, 0.33)
Thyroid	0.17 (0.13, 0.23)	0.09 (0.03, 0.26)	0.11 (0.09, 0.14)
Hodgkin Lymphoma	0.02 (0.01, 0.05)	0.00 (0.00, 0.14)	0.04 (0.03, 0.06)
Non-Hodgkin Lymphoma	0.66 (0.59, 0.74)	0.54 (0.42, 0.74)	0.69 (0.65, 0.73)
Myeloma	0.23 (0.20, 0.28)	0.26 (0.18, 0.43)	0.33 (0.31, 0.36)
Leukemia	0.54 (0.48, 0.62)	0.43 (0.30, 0.64)	0.57 (0.53, 0.61)
Acute Lymphocytic Leukemia	0.02 (0.02, 0.05)	0.04 (0.02, 0.17)	0.07 (0.06, 0.08)
Chronic Lymphocytic Leukemia	0.03 (0.02, 0.06)	0.10 (0.02, 0.29)	0.08 (0.06, 0.10)
Acute Myeloid Leukemia	0.26 (0.22, 0.31)	0.13 (0.08, 0.27)	0.19 (0.18, 0.22)
Chronic Myeloid Leukemia	0.03 (0.02, 0.06)	0.03 (0.01, 0.16)	0.03 (0.02, 0.04)

Devcan Version 6.6.1, April 2012, National Cancer Institute (http://surveillance.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, North Dakota and South Carolina.
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, 2005-2009

		Total United States[a]							SEER 18 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	178.7	177.6	216.4	156.2	109.5	119.3	182.0	173.5	174.6	216.2	138.3	117.7	121.0	181.1
	Male	219.4	216.7	288.3	184.9	132.6	146.3	221.9	210.9	211.0	284.9	158.2	143.4	146.2	218.6
	Female	151.1	150.8	174.6	135.9	93.2	100.5	154.7	148.6	150.4	176.3	123.5	99.5	103.7	156.0
Oral Cavity & Pharynx	Both Sexes	2.5	2.4	3.2	2.2	2.0	1.5	2.5	2.5	2.4	3.1	2.0	2.2	1.5	2.6
	Male	3.8	3.6	5.7	3.5	3.0	2.4	3.7	3.8	3.7	5.5	3.1	3.2	2.3	3.9
	Female	1.4	1.4	1.4	1.3	1.3	0.7	1.4	1.4	1.4	1.4	-	1.5	0.8	1.5
Esophagus	Both Sexes	4.3	4.4	4.6	3.6	1.8	2.3	4.6	4.0	4.1	4.4	3.1	1.9	2.2	4.4
	Male	7.7	7.9	8.2	6.4	3.0	4.1	8.2	7.0	7.3	7.7	4.9	3.2	4.1	7.7
	Female	1.6	1.6	2.2	1.5	0.9	0.8	1.6	1.6	1.6	2.2	1.7	1.0	0.7	1.7
Stomach	Both Sexes	3.6	3.1	6.9	5.7	6.8	5.6	2.9	4.2	3.5	7.2	6.3	7.2	6.2	3.1
	Male	5.0	4.3	10.3	8.3	9.0	7.3	4.0	5.7	4.9	10.2	9.0	9.4	8.0	4.4
	Female	2.6	2.2	4.8	3.8	5.3	4.3	2.0	3.0	2.5	5.2	4.2	5.6	4.8	2.1
Colon & Rectum	Both Sexes	16.7	16.2	23.7	16.4	11.1	12.4	16.4	16.3	15.9	23.9	16.0	11.8	12.1	16.3
	Male	20.2	19.5	29.8	18.8	13.1	15.3	19.8	19.6	19.2	29.6	17.9	14.1	15.3	19.6
	Female	14.1	13.6	19.8	14.6	9.6	10.2	13.8	13.8	13.4	20.3	14.3	10.0	9.7	13.9
Liver & Intrahepatic Bile Duct	Both Sexes	5.5	5.0	7.3	8.6	9.9	8.3	4.7	5.9	5.3	7.4	8.8	10.2	8.3	4.9
	Male	8.1	7.4	11.9	11.9	14.5	11.8	7.0	8.7	7.7	11.8	11.5	14.9	11.5	7.1
	Female	3.3	3.1	4.0	5.9	6.1	5.3	2.9	3.7	3.3	4.2	6.3	6.3	5.5	3.0
Pancreas	Both Sexes	10.8	10.7	13.8	8.8	7.5	8.3	10.9	10.8	10.8	13.8	9.8	8.3	9.0	11.0
	Male	12.5	12.4	15.5	10.1	8.4	9.2	12.7	12.4	12.5	15.6	10.9	9.3	9.9	12.7
	Female	9.5	9.3	12.6	7.9	6.9	7.5	9.4	9.5	9.4	12.4	9.0	7.5	8.3	9.6
Larynx	Both Sexes	1.2	1.1	2.1	1.0	0.4	0.8	1.1	1.1	1.0	1.8	-	0.5	0.7	1.1
	Male	2.1	2.0	4.2	2.0	0.8	1.6	2.0	1.9	1.8	3.6	-	0.9	1.4	1.9
	Female	0.5	0.4	0.7	-	0.1	0.2	0.5	0.4	0.4	0.7	-	0.1	0.2	0.5
Lung & Bronchus	Both Sexes	50.6	51.2	55.4	39.6	25.8	21.2	53.7	46.5	47.6	55.1	30.5	27.6	20.1	51.3
	Male	65.7	65.3	82.6	48.3	35.9	30.8	68.0	59.4	59.4	80.7	37.1	39.0	28.2	63.5
	Female	39.6	40.8	38.0	33.2	18.5	14.0	43.1	37.2	39.0	38.5	25.6	19.3	14.1	42.4
Melanoma of the Skin	Both Sexes	2.7	3.1	0.4	1.1	0.4	0.8	3.4	2.6	3.1	0.4	-	0.4	0.8	3.5
	Male	4.1	4.6	0.5	1.7	0.5	1.0	5.0	3.9	4.6	0.6	-	0.6	1.0	5.2
	Female	1.7	2.0	0.4	0.8	0.3	0.6	2.1	1.6	2.0	0.3	-	0.3	0.6	2.2
Breast	Female	23.0	22.4	31.6	16.6	11.9	14.9	23.0	23.2	23.1	31.8	15.4	13.4	15.0	24.1

[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 18 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, New Jersey and Georgia excluding ATL/RG.

[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, North Dakota, and South Carolina.

- 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, 2005-2009

		Total United States[a]							SEER 18 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	4.3	3.5	2.0	3.0	2.1	2.4	2.2	4.0	2.6	1.9	3.1	2.0
Corpus & Uterus, NOS	Female	4.2	3.9	7.3	3.0	2.6	3.3	3.9	4.2	3.9	7.1	2.7	2.9	3.3	4.0
Ovary	Female	8.2	8.6	6.8	6.8	5.0	5.9	8.8	8.3	8.8	7.0	7.3	5.1	6.3	9.1
Prostate	Male	23.6	21.7	53.1	19.7	10.0	17.8	21.9	23.8	22.7	52.7	17.4	11.2	18.5	23.1
Testis	Male	0.2	0.3	0.1	-	0.1	0.3	0.3	0.2	0.3	0.1	-	0.1	0.3	0.2
Urinary	Both Sexes	4.4	4.5	3.7	2.1	1.7	2.3	4.7	4.3	4.6	3.9	1.7	1.8	2.3	4.8
Bladder	Male	7.7	8.0	5.6	3.6	2.7	3.8	8.4	7.5	8.1	5.8	2.6	2.9	3.8	8.6
	Female	2.2	2.2	2.6	1.0	0.9	1.2	2.3	2.2	2.2	2.8	-	1.0	1.3	2.3
Kidney &	Both Sexes	4.0	4.1	4.0	6.2	2.0	3.5	4.1	3.8	3.9	4.0	5.6	2.2	3.6	4.0
Renal	Male	5.8	5.9	6.0	8.8	2.9	5.0	6.0	5.5	5.7	5.9	7.4	3.2	5.1	5.8
Pelvis	Female	2.6	2.7	2.6	4.1	1.3	2.3	2.7	2.5	2.6	2.6	4.3	1.4	2.5	2.6
Brain &	Both Sexes	4.3	4.6	2.5	2.4	1.9	2.8	4.8	4.3	4.7	2.5	1.3	2.1	3.0	5.0
Nervous	Male	5.2	5.6	3.1	2.9	2.3	3.3	5.9	5.3	5.8	3.2	1.4	2.5	3.5	6.2
System	Female	3.5	3.8	2.1	2.0	1.5	2.4	3.9	3.4	3.8	2.0	1.3	1.7	2.6	4.0
Thyroid	Both Sexes	0.5	0.5	0.5	0.5	0.7	0.6	0.5	0.5	0.5	0.4	-	0.8	0.6	0.5
	Male	0.5	0.5	0.4	-	0.5	0.5	0.5	0.5	0.5	0.3	-	0.6	0.5	0.5
	Female	0.5	0.5	0.6	-	0.8	0.6	0.5	0.5	0.5	0.5	-	0.9	0.7	0.5
Hodgkin	Both Sexes	0.4	0.4	0.4	-	0.2	0.4	0.4	0.4	0.4	0.4	-	0.2	0.4	0.4
Lymphoma	Male	0.5	0.5	0.5	-	0.2	0.5	0.5	0.5	0.5	0.5	-	0.2	0.5	0.5
	Female	0.3	0.3	0.3	-	0.1	0.3	0.3	0.3	0.4	0.3	-	0.1	0.3	0.4
Non-Hodgkin	Both Sexes	6.6	6.8	4.6	4.7	4.2	5.2	6.9	6.4	6.8	4.6	3.2	4.5	5.4	6.9
Lymphoma	Male	8.4	8.7	6.1	5.0	5.2	6.3	8.9	8.2	8.7	6.1	3.3	5.7	6.6	8.9
	Female	5.2	5.4	3.6	4.5	3.4	4.3	5.5	5.1	5.4	3.6	3.0	3.7	4.5	5.5
Myeloma	Both Sexes	3.4	3.2	6.4	3.0	1.7	2.7	3.2	3.3	3.1	6.6	2.1	1.9	2.9	3.1
	Male	4.4	4.1	8.0	3.8	2.1	3.3	4.2	4.3	4.1	8.1	2.6	2.4	3.4	4.2
	Female	2.7	2.5	5.4	2.5	1.4	2.3	2.5	2.7	2.4	5.6	1.7	1.6	2.5	2.4
Leukemia	Both Sexes	7.1	7.3	6.2	4.6	3.9	4.8	7.5	6.9	7.2	6.3	4.2	4.1	4.9	7.4
	Male	9.6	9.9	8.5	6.3	4.9	5.9	10.1	9.2	9.7	8.5	5.2	5.2	6.1	10.0
	Female	5.3	5.5	4.8	3.3	3.1	3.9	5.5	5.2	5.5	4.9	3.3	3.3	4.0	5.5

[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 18 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, New Jersey and Georgia excluding ATL/RG.

[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, North Dakota, and South Carolina.

- 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, 2009[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 34 Years[d]	5-Year Limited Duration: 1st Per Site in Previous 5 Years[e]	34-year Limited Duration: 1st Invasive Tumor Ever[c]	34-year Limited Duration: 1st Per Site in Previous 34 Years[d]
All Sites	Both Sexes	4,357,341	4,442,261	4,864,827	12,096,978	12,304,118
	Male	2,246,570	2,279,828	2,484,619	5,717,465	5,784,750
	Female	2,110,771	2,162,433	2,380,208	6,379,513	6,519,368
Oral Cavity & Pharynx	Both Sexes	97,542	111,817	115,695	252,887	278,231
	Male	67,675	76,701	79,161	166,069	180,884
	Female	29,867	35,116	36,534	86,818	97,347
Esophagus	Both Sexes	20,356	24,677	24,737	31,710	37,085
	Male	15,922	19,308	19,356	24,602	28,647
	Female	4,434	5,369	5,381	7,108	8,438
Stomach	Both Sexes	34,419	40,930	41,143	68,386	78,221
	Male	20,553	24,756	24,854	38,804	44,783
	Female	13,866	16,174	16,289	29,582	33,438
Colon & Rectum	Both Sexes	405,797	469,194	478,203	1,111,907	1,239,920
	Male	205,558	237,798	242,129	548,761	608,653
	Female	200,239	231,396	236,074	563,146	631,267
Liver & Intrahepatic Bile Duct	Both Sexes	26,017	29,875	29,931	35,119	39,545
	Male	18,881	21,432	21,488	24,549	27,385
	Female	7,136	8,443	8,443	10,570	12,160
Pancreas	Both Sexes	28,875	35,140	35,140	37,971	45,129
	Male	14,376	17,768	17,768	18,446	22,163
	Female	14,499	17,372	17,372	19,525	22,966
Larynx	Both Sexes	30,294	36,780	37,134	86,894	97,654
	Male	24,153	29,235	29,544	69,765	77,999
	Female	6,141	7,545	7,590	17,129	19,655
Lung & Bronchus	Both Sexes	224,508	284,065	291,615	379,223	462,713
	Male	104,519	133,787	136,648	173,619	212,377
	Female	119,989	150,278	154,967	205,604	250,336
Melanoma of the Skin	Both Sexes	263,883	297,561	309,968	837,215	901,518
	Male	140,746	162,207	170,141	415,003	452,508
	Female	123,137	135,354	139,827	422,212	449,010
Breast	Female	818,223	883,935	937,301	2,681,040	2,841,885
Cervix	Female	37,983	39,767	39,882	202,962	208,595
Corpus & Uterus, NOS	Female	160,329	180,638	180,713	553,870	603,503
Ovary[f]	Female	55,497	64,242	64,294	164,877	185,160

[a] U.S. 2009 cancer prevalence counts are based on 2009 cancer prevalence proportions from the SEER 9 registries and 1/1/2009 U.S. population estimates based on the average of 2008 and 2009 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 34 years (1975-2008)

[e] (e) First invasive tumor for each cancer site diagnosed during the previous 5 years (2004-2008)

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 2004; Melanoma in 2005.
In method (c) the melanoma is the woman's first cancer, and is counted for the melanoma and all sites 34-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 1/1/2009.
In method (d) the 1981 melanoma is counted for the melanoma and all sites 34-year limited duration prevalence. The 2004 breast cancer is counted for the breast 5-year and 34-year limited duration prevalence.
In method (e) the 2004 breast cancer is counted for the breast cancer and all sites 5-year limited duration prevalence. The 2005 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, 2009[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 34 Years[d]	5-Year Limited Duration: 1st Per Site in Previous 5 Years[e]	34-year Limited Duration: 1st Invasive Tumor Ever[c]	34-year Limited Duration: 1st Per Site in Previous 34 Years[d]
Prostate	Male	991,610	1,069,850	1,069,879	2,494,988	2,659,051
Testis	Male	41,292	42,052	42,698	194,935	197,533
Urinary Bladder	Both Sexes	196,403	243,253	248,175	540,518	626,417
	Male	148,936	185,112	189,064	402,281	466,103
	Female	47,467	58,141	59,111	138,237	160,314
Kidney & Renal Pelvis	Both Sexes	137,327	166,272	168,023	309,168	359,955
	Male	82,513	101,559	102,846	182,285	214,227
	Female	54,814	64,713	65,177	126,883	145,728
Brain & Nervous System	Both Sexes	42,492	44,665	45,128	121,848	125,138
	Male	23,270	24,518	24,750	64,666	66,457
	Female	19,222	20,147	20,378	57,182	58,681
Thyroid	Both Sexes	150,696	166,265	166,781	456,180	484,996
	Male	33,895	39,037	39,179	99,597	108,060
	Female	116,801	127,228	127,602	356,583	376,936
Hodgkin Lymphoma	Both Sexes	37,947	40,392	40,402	161,071	165,355
	Male	20,359	21,735	21,735	83,458	85,731
	Female	17,588	18,657	18,667	77,613	79,624
Non-Hodgkin Lymphoma	Both Sexes	193,568	226,608	228,204	474,455	529,222
	Male	101,809	120,766	121,658	246,926	276,020
	Female	91,759	105,842	106,546	227,529	253,202
Myeloma	Both Sexes	45,747	53,626	53,674	70,950	81,089
	Male	24,230	28,956	28,992	38,319	44,359
	Female	21,517	24,670	24,682	32,631	36,730
Leukemia	Both Sexes	108,472	124,139	124,315	266,026	291,521
	Male	62,188	71,959	72,042	150,062	165,245
	Female	46,284	52,180	52,273	115,964	126,276
Acute Lymphocytic Leukemia	Both Sexes	15,984	16,396	16,396	62,732	63,353
	Male	9,278	9,448	9,448	34,732	34,950
	Female	6,706	6,948	6,948	28,000	28,403
Childhood (Ages 0-19)	Both Sexes	61,498	61,622	62,135	288,648	289,141
	Male	32,966	33,016	33,253	148,843	149,048
	Female	28,532	28,606	28,882	139,805	140,093
Kaposi Sarcoma	Both Sexes	7,129	7,546	7,546	23,623	24,764
	Male	6,715	7,047	7,047	22,336	23,276
	Female	414	499	499	1,287	1,488
Mesothelioma	Both Sexes	3,040	3,957	3,957	4,570	5,673
	Male	2,095	2,759	2,759	2,694	3,484
	Female	945	1,198	1,198	1,876	2,189

[a] U.S. 2009 cancer prevalence counts are based on 2009 cancer prevalence proportions from the SEER 9 registries and 1/1/2009 U.S. population estimates based on the average of 2008 and 2009 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 34 years (1975-2008)

[e] (e) First invasive tumor for each cancer site diagnosed during the previous 5 years (2004-2008)

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 2004; Melanoma in 2005.
In method (c) the melanoma is the woman's first cancer, and is counted for the melanoma and all sites 34-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 1/1/2009.
In method (d) the 1981 melanoma is counted for the melanoma and all sites 34-year limited duration prevalence. The 2004 breast cancer is counted for the breast 5-year and 34-year limited duration prevalence.
In method (e) the 2004 breast cancer is counted for the breast cancer and all sites 5-year limited duration prevalence. The 2005 melanoma is counted for 5-year limited duration prevalence for melanoma.

Table 1.22
U.S. Complete Prevalence Counts, Invasive Cancers Only, January 1, 2009[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	5,809,017	18,156	41,323	80,500	150,710	346,280	815,636	1,465,844	2,890,567
Females	6,740,016	15,649	35,203	83,134	219,550	622,449	1,226,028	1,600,054	2,937,950
Oral Cavity & Pharynx									
Males	172,502	67	418	1,505	3,416	14,153	41,881	49,752	61,309
Females	91,610	101	493	1,453	3,530	8,334	17,445	21,205	39,049
Esophagus									
Males	24,657	0	0	38	186	1,059	4,426	8,360	10,588
Females	7,170	0	0	0	39	314	1,070	1,656	4,091
Stomach									
Males	39,694	0	17	78	688	2,436	6,519	9,680	20,275
Females	30,232	4	11	165	643	2,169	4,233	5,764	17,243
Colon & Rectum									
Males	558,408	11	69	1,116	5,277	24,270	77,071	129,789	320,804
Females	581,302	0	86	1,202	5,090	22,495	64,292	107,339	380,797
Liver & Intrahep									
Males	24,615	438	554	494	438	1,581	8,481	7,111	5,516
Females	10,913	466	435	332	473	786	2,384	2,609	3,430
Pancreas									
Males	18,537	0	23	68	321	1,356	4,100	5,731	6,939
Females	19,649	0	47	135	418	1,377	3,454	5,181	9,036
Larynx									
Males	71,550	0	0	66	221	2,095	10,475	20,267	38,425
Females	17,521	0	0	48	143	1,051	3,163	4,474	8,642
Lung & Bronchus									
Males	178,447	45	80	454	1,086	5,587	24,209	52,348	94,640
Females	209,203	34	47	363	1,291	7,893	27,437	57,808	114,331
Melanoma of the Skin									
Males	427,519	72	764	5,002	17,503	47,272	91,489	111,843	153,573
Females	448,192	95	950	10,770	33,163	72,253	104,576	99,252	127,133

[a] U.S. 2009 cancer prevalence counts are based on 2009 cancer prevalence proportions from the SEER 9 registries (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta) and 1/1/2009 U.S. population estimates based on the average of 2008 and 2009 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 34 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, 2009[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+
Breast									
Males	14,303	0	0	22	103	498	2,093	3,896	7,691
Females	2,747,209	0	86	2,487	35,584	212,685	522,225	733,979	1,240,161
Cervix									
Females	247,556	0	68	2,050	16,434	42,782	59,350	52,979	73,893
Corpus & Uterus, NOS									
Females	589,789	0	56	412	5,572	24,294	82,675	148,774	328,006
Ovary[d]									
Females	182,710	66	932	3,503	6,560	19,171	39,536	45,524	67,418
Prostate									
Males	2,496,420	34	69	89	247	19,652	216,595	687,644	1,572,090
Urinary Bladder									
Males	411,161	56	110	595	2,405	11,643	42,320	94,909	259,122
Females	143,089	34	56	162	1,087	4,412	13,373	29,661	94,303
Kidney & Renal Pelvis									
Males	188,341	1,507	2,373	2,601	4,936	16,313	37,165	53,360	70,087
Females	131,799	1,408	2,607	2,769	4,642	11,613	22,637	30,925	55,198
Hodgkin Lymphoma									
Males	90,420	168	2,316	9,264	16,301	23,466	20,120	12,217	6,567
Females	84,475	146	1,642	9,767	16,451	22,548	18,024	9,302	6,597
Non-Hodgkin Lymphoma									
Males	252,012	810	3,472	7,162	12,801	28,228	49,236	62,729	87,574
Females	232,051	387	1,793	4,203	8,302	19,927	39,219	53,951	104,268
Myeloma									
Males	38,403	0	6	50	485	2,628	7,535	12,343	15,356
Females	32,754	0	0	22	276	2,112	5,612	9,822	14,911
Leukemia									
Males	152,597	6,389	12,636	11,647	10,425	12,678	20,796	29,694	48,332
Females	119,096	5,232	10,502	10,167	9,042	9,418	13,463	19,494	41,777
Acute Lymphocytic Leuk									
Males	36,576	5,244	10,969	9,000	5,888	3,114	1,140	773	448
Females	29,614	4,381	8,829	7,398	4,995	2,241	767	687	315

[a] U.S. 2009 cancer prevalence counts are based on 2009 cancer prevalence proportions from the SEER 9 registries (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta) and 1/1/2009 U.S. population estimates based on the average of 2008 and 2009 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 34 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] 2005-2009	APC[c] 2000-2009
All Sites	465.2	-0.6*
Prostate[f]	69.4	-1.5*
Breast	67.2	-0.9*
Lung and Bronchus	62.6	-1.2*
Colon and Rectum	46.3	-2.4*
Melanoma of the Skin	21.0	1.9*
Urinary Bladder	20.8	-0.5
Non-Hodgkin Lymphoma	19.6	0.2
Kidney and Renal Pelvis	15.1	2.9*
Corpus and Uterus, NOS[f]	12.9	0.4
Leukemia	12.5	-0.9*
Pancreas	12.1	1.0*
Thyroid	11.6	6.6*
Oral Cavity and Pharynx	10.8	0.1
Stomach	7.6	-1.2*
Liver & IBD[g]	7.5	3.7*

White

	Rate[b] 2005-2009	APC[c] 2000-2009
All Sites	471.7	-0.6*
Breast	68.1	-1.2*
Prostate[f]	66.6	-1.8*
Lung and Bronchus	64.1	-1.2*
Colon and Rectum	45.4	-2.6*
Melanoma of the Skin	24.7	1.8*
Urinary Bladder	22.5	-0.6*
Non-Hodgkin Lymphoma	20.5	0.1
Kidney and Renal Pelvis	15.5	2.8*
Corpus and Uterus, NOS[f]	13.2	0.1
Leukemia	13.1	-1.0*
Thyroid	12.2	6.6*
Pancreas	12.0	1.1*
Oral Cavity and Pharynx	11.0	0.4
Ovary[fh]	7.2	-1.9*
Brain and ONS[g]	7.1	-0.2

Black

	Rate[b] 2005-2009	APC[c] 2000-2009
All Sites	489.5	-0.8*
Prostate[f]	98.0	-1.9*
Lung and Bronchus	71.3	-1.3*
Breast	69.7	0.4
Colon and Rectum	57.0	-1.9*
Kidney and Renal Pelvis	17.2	3.4*
Pancreas	15.8	0.5
Non-Hodgkin Lymphoma	14.3	0.0
Urinary Bladder	12.6	-0.3
Corpus and Uterus, NOS[f]	12.6	2.1*
Stomach	11.9	-1.4*
Myeloma	11.7	0.4
Oral Cavity and Pharynx	9.8	-2.3*
Leukemia	9.7	-1.7*
Liver & IBD[g]	9.0	4.6*
Thyroid	6.9	5.9*

Asian/Pacific Islander

	Rate[b] 2005-2009	APC[c] 2000-2009
All Sites	315.0	-0.6*
Breast	51.7	0.7
Colon and Rectum	38.9	-1.9*
Lung and Bronchus	38.7	-0.9*
Prostate[f]	37.2	-2.8*
Liver & IBD[g]	14.6	0.0
Non-Hodgkin Lymphoma	13.2	-0.2
Stomach	12.6	-2.9*
Thyroid	11.8	6.0*
Corpus and Uterus, NOS[f]	10.1	2.7*
Pancreas	9.5	0.5
Urinary Bladder	9.2	-0.8
Kidney and Renal Pelvis	8.0	3.6*
Oral Cavity and Pharynx	7.8	-1.1
Leukemia	7.4	-0.4
Ovary[fh]	5.3	-0.8

American Indian/Alaska Native[d]

	Rate[b] 2005-2009	APC[c] 2000-2009
All Sites	328.9	0.0
Breast	43.7	0.2
Lung and Bronchus	43.6	-1.5
Colon and Rectum	41.4	-1.0
Prostate[f]	34.5	-0.8
Kidney and Renal Pelvis	19.7	4.9*
Liver & IBD[g]	12.8	5.7*
Non-Hodgkin Lymphoma	12.5	-0.1
Pancreas	10.8	0.8
Corpus and Uterus, NOS[f]	10.3	2.3
Stomach	10.0	-3.5
Urinary Bladder	8.4	0.5
Leukemia	7.9	1.9
Oral Cavity and Pharynx	7.4	-0.4
Thyroid	7.1	5.3*
Ovary[fh]	6.2	-2.4

Hispanic[e]

	Rate[b] 2005-2009	APC[c] 2000-2009
All Sites	353.7	-0.9*
Prostate[f]	55.9	-2.2*
Breast	49.1	-0.6*
Colon and Rectum	37.6	-1.7*
Lung and Bronchus	31.9	-1.6*
Non-Hodgkin Lymphoma	17.3	0.3
Kidney and Renal Pelvis	14.8	2.9*
Liver & IBD[g]	11.6	2.5*
Urinary Bladder	11.4	-1.7*
Stomach	11.0	-2.2*
Pancreas	10.9	0.0
Corpus and Uterus, NOS[f]	10.2	1.0*
Thyroid	10.0	5.5*
Leukemia	9.9	-0.6
Oral Cavity and Pharynx	6.3	0.0
Ovary[fh]	6.0	-1.7

Source: SEER 18 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, New Jersey and Georgia excluding ATL/RG).

[a] Top 15 cancer sites selected based on 2005-2009 age-adjusted rates for the race/ethnic group.

[b] Rates are per 100,000 and 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. 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] 2005-2009	APC[c] 2000-2009
All Sites	541.8	-1.0*
Prostate	154.8	-1.9*
Lung and Bronchus	76.4	-2.0*
Colon and Rectum	54.0	-2.7*
Urinary Bladder	37.0	-0.5
Melanoma of the Skin	27.2	2.1*
Non-Hodgkin Lymphoma	23.8	0.3
Kidney and Renal Pelvis	20.7	2.7*
Oral Cavity and Pharynx	16.1	0.1
Leukemia	16.0	-1.1*
Pancreas	13.8	1.0*
Liver & IBD[f]	11.6	3.9*
Stomach	10.5	-1.6*
Esophagus	7.8	-0.5
Brain and ONS[f]	7.7	-0.2
Myeloma	7.4	0.1

White

	Rate[b] 2005-2009	APC[c] 2000-2009
All Sites	542.7	-1.0*
Prostate	146.9	-2.2*
Lung and Bronchus	76.4	-2.0*
Colon and Rectum	53.1	-2.9*
Urinary Bladder	40.0	-0.6*
Melanoma of the Skin	31.6	2.1*
Non-Hodgkin Lymphoma	24.8	0.3
Kidney and Renal Pelvis	21.2	2.6*
Leukemia	16.8	-1.2*
Oral Cavity and Pharynx	16.5	0.4*
Pancreas	13.7	1.0*
Liver & IBD[f]	10.0	4.3*
Stomach	9.3	-1.6*
Brain and ONS[f]	8.4	-0.1
Esophagus	8.0	0.2
Myeloma	6.9	0.0

Black

	Rate[b] 2005-2009	APC[c] 2000-2009
All Sites	627.1	-1.5*
Prostate	236.0	-2.2*
Lung and Bronchus	99.9	-2.3*
Colon and Rectum	66.9	-1.8*
Kidney and Renal Pelvis	24.3	3.1*
Urinary Bladder	21.2	0.4
Pancreas	17.7	1.0*
Non-Hodgkin Lymphoma	17.5	-0.2
Stomach	17.0	-1.2*
Oral Cavity and Pharynx	15.4	-3.0*
Liver & IBD[f]	14.9	4.4*
Myeloma	14.3	0.3
Leukemia	12.5	-1.6
Larynx	9.9	-3.5*
Esophagus	8.9	-4.6*
Brain and ONS[f]	4.7	-0.5

Asian/Pacific Islander

	Rate[b] 2005-2009	APC[c] 2000-2009
All Sites	342.6	-1.6*
Prostate	85.4	-3.0*
Lung and Bronchus	52.2	-1.6*
Colon and Rectum	44.9	-2.5*
Liver & IBD[f]	22.1	0.2
Stomach	16.4	-3.3*
Non-Hodgkin Lymphoma	16.3	0.1
Urinary Bladder	16.2	-0.8
Oral Cavity and Pharynx	11.1	-0.3
Kidney and Renal Pelvis	10.9	3.3*
Pancreas	10.5	0.2
Leukemia	8.8	-1.2
Thyroid	5.3	6.2*
Myeloma	4.2	0.4
Brain and ONS[f]	4.1	0.1
Esophagus	3.7	-2.5

American Indian/Alaska Native[d]

	Rate[b] 2005-2009	APC[c] 2000-2009
All Sites	352.7	-0.2
Prostate	78.4	-1.0
Lung and Bronchus	51.9	-2.3*
Colon and Rectum	45.2	-0.5
Kidney and Renal Pelvis	24.7	5.0*
Liver & IBD[f]	18.3	6.0
Urinary Bladder	14.8	-
Non-Hodgkin Lymphoma	14.6	-0.2
Stomach	13.6	-4.5*
Pancreas	11.5	-
Oral Cavity and Pharynx	10.1	-0.8
Leukemia	9.7	-
Esophagus	5.8	-
Myeloma	4.9	-
Testis	4.5	-
Melanoma of the Skin	4.3	-

Hispanic[e]

	Rate[b] 2005-2009	APC[c] 2000-2009
All Sites	402.0	-1.5*
Prostate	125.9	-2.7*
Colon and Rectum	45.2	-1.6*
Lung and Bronchus	40.5	-2.7*
Urinary Bladder	19.6	-1.9*
Kidney and Renal Pelvis	19.5	2.7*
Non-Hodgkin Lymphoma	19.5	-0.3
Liver & IBD[f]	17.3	2.5*
Stomach	14.4	-1.9*
Leukemia	11.7	-1.4*
Pancreas	11.6	0.4
Oral Cavity and Pharynx	9.1	-0.6
Myeloma	6.3	-2.7*
Brain and ONS[f]	5.9	-1.0
Esophagus	5.0	-1.5
Melanoma of the Skin	4.7	-0.2

Source: SEER 18 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, New Jersey and Georgia excluding ATL/RG).

[a] Top 15 cancer sites selected based on 2005-2009 age-adjusted rates for the race/ethnic group.

[b] Rates are per 100,000 and 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. 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] 2005-2009	APC[c] 2000-2009
All Sites	412.3	-0.2
Breast	124.3	-0.7*
Lung and Bronchus	52.7	-0.3
Colon and Rectum	40.2	-2.3*
Corpus and Uterus, NOS	24.1	0.7*
Thyroid	17.3	6.9*
Melanoma of the Skin	16.7	1.6*
Non-Hodgkin Lymphoma	16.3	0.0
Ovary[g]	12.7	-1.6*
Pancreas	10.8	1.0*
Kidney and Renal Pelvis	10.5	3.0*
Leukemia	9.8	-0.7*
Urinary Bladder	8.9	-0.8*
Cervix Uteri	8.1	-1.9*
Oral Cavity and Pharynx	6.2	-0.2
Brain and ONS[f]	5.4	-0.3

White

	Rate[b] 2005-2009	APC[c] 2000-2009
All Sites	423.1	-0.3*
Breast	127.3	-1.0*
Lung and Bronchus	55.1	-0.3
Colon and Rectum	39.2	-2.4*
Corpus and Uterus, NOS	24.8	0.4
Melanoma of the Skin	19.9	1.6*
Thyroid	18.3	6.9*
Non-Hodgkin Lymphoma	17.1	-0.1
Ovary[g]	13.4	-1.7*
Kidney and Renal Pelvis	10.7	2.9*
Pancreas	10.6	1.1*
Leukemia	10.2	-0.8*
Urinary Bladder	9.6	-0.9*
Cervix Uteri	8.0	-1.8*
Oral Cavity and Pharynx	6.3	0.0
Brain and ONS[f]	5.9	-0.4

Black

	Rate[b] 2005-2009	APC[c] 2000-2009
All Sites	398.3	0.0
Breast	121.2	0.4
Lung and Bronchus	52.6	0.1
Colon and Rectum	50.3	-2.0*
Corpus and Uterus, NOS	21.8	2.3*
Pancreas	14.4	0.3
Kidney and Renal Pelvis	12.0	3.7*
Non-Hodgkin Lymphoma	11.8	0.1
Thyroid	10.1	6.2*
Myeloma	10.1	0.3
Ovary[g]	9.8	-0.8
Cervix Uteri	9.8	-3.2*
Stomach	8.7	-1.2
Leukemia	7.8	-1.7*
Urinary Bladder	7.1	-1.3
Oral Cavity and Pharynx	5.6	-0.5

Asian/Pacific Islander

	Rate[b] 2005-2009	APC[c] 2000-2009
All Sites	299.4	0.3
Breast	94.5	0.7
Colon and Rectum	34.2	-1.3*
Lung and Bronchus	28.8	0.4
Corpus and Uterus, NOS	18.7	2.8*
Thyroid	17.7	6.0*
Non-Hodgkin Lymphoma	10.9	-0.5
Stomach	9.9	-2.3*
Ovary[g]	9.8	-0.7
Pancreas	8.8	0.6
Liver & IBD[f]	8.5	-0.3
Cervix Uteri	7.2	-3.0*
Leukemia	6.3	0.6
Kidney and Renal Pelvis	5.7	4.1*
Oral Cavity and Pharynx	5.2	-2.3*
Urinary Bladder	4.0	-0.6

American Indian/Alaska Native[d]

	Rate[b] 2005-2009	APC[c] 2000-2009
All Sites	313.8	0.1
Breast	80.6	0.2
Colon and Rectum	38.0	-1.3
Lung and Bronchus	37.4	-0.6
Corpus and Uterus, NOS	19.2	2.4
Kidney and Renal Pelvis	15.4	4.5*
Ovary[g]	11.2	-2.4
Thyroid	10.9	5.3*
Non-Hodgkin Lymphoma	10.7	-0.5
Pancreas	10.3	-0.7
Cervix Uteri	8.1	2.3
Liver & IBD[f]	8.1	-
Stomach	7.3	-2.5
Leukemia	6.5	0.6
Oral Cavity and Pharynx	5.0	-
Myeloma	4.2	-

Hispanic[e]

	Rate[b] 2005-2009	APC[c] 2000-2009
All Sites	324.1	-0.2
Breast	92.7	-0.2
Colon and Rectum	31.5	-1.9*
Lung and Bronchus	25.8	-0.3
Corpus and Uterus, NOS	19.3	1.4*
Thyroid	16.0	6.1*
Non-Hodgkin Lymphoma	15.4	0.8
Cervix Uteri	11.8	-4.1*
Ovary[g]	11.3	-1.3
Kidney and Renal Pelvis	10.9	3.0*
Pancreas	10.3	-0.4
Leukemia	8.5	0.1
Stomach	8.5	-2.8*
Liver & IBD[f]	6.7	1.7
Urinary Bladder	5.3	-1.9*
Myeloma	4.7	-1.4

Source: SEER 18 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, New Jersey and Georgia excluding ATL/RG).

[a] Top 15 cancer sites selected based on 2005-2009 age-adjusted rates for the race/ethnic group.

[b] Rates are per 100,000 and 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. 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] 2005-2009	APC[c] 2000-2009
All Sites	178.7	-1.5*
Lung and Bronchus	50.6	-1.6*
Colon and Rectum	16.7	-3.0*
Breast	12.9	-2.2*
Pancreas	10.8	0.4*
Prostate[f]	9.1	-2.9*
Leukemia	7.1	-1.1*
Non-Hodgkin Lymphoma	6.6	-3.0*
Liver & IBD[g]	5.5	2.4*
Ovary[f]	4.6	-1.7*
Urinary Bladder	4.4	0.0
Esophagus	4.3	-0.5*
Brain and ONS[g]	4.3	-0.6*
Kidney and Renal Pelvis	4.0	-0.9*
Stomach	3.6	-3.1*
Myeloma	3.4	-1.8*

White

	Rate[b] 2005-2009	APC[c] 2000-2009
All Sites	177.6	-1.5*
Lung and Bronchus	51.2	-1.4*
Colon and Rectum	16.2	-3.1*
Breast	12.5	-2.3*
Pancreas	10.7	0.5*
Prostate[f]	8.4	-2.8*
Leukemia	7.3	-1.0*
Non-Hodgkin Lymphoma	6.8	-3.0*
Liver & IBD[g]	5.0	2.5*
Ovary[f]	4.8	-1.7*
Brain and ONS[g]	4.6	-0.5*
Urinary Bladder	4.5	0.2
Esophagus	4.4	0.1
Kidney and Renal Pelvis	4.1	-0.9*
Myeloma	3.2	-1.8*
Stomach	3.1	-3.3*

Black

	Rate[b] 2005-2009	APC[c] 2000-2009
All Sites	216.4	-2.0*
Lung and Bronchus	55.4	-2.2*
Colon and Rectum	23.7	-2.6*
Breast	18.8	-1.5*
Prostate[f]	18.4	-3.6*
Pancreas	13.8	0.0
Liver & IBD[g]	7.3	2.7*
Stomach	6.9	-3.3*
Myeloma	6.4	-2.1*
Leukemia	6.2	-1.2*
Esophagus	4.6	-4.8*
Non-Hodgkin Lymphoma	4.6	-2.4*
Corpus and Uterus, NOS[f]	4.4	0.3
Ovary[f]	4.1	-1.5*
Kidney and Renal Pelvis	4.0	-0.6*
Urinary Bladder	3.7	-0.6

Asian/Pacific Islander

	Rate[b] 2005-2009	APC[c] 2000-2009
All Sites	109.5	-1.3*
Lung and Bronchus	25.8	-1.1*
Colon and Rectum	11.1	-2.2*
Liver & IBD[g]	9.9	-1.4*
Pancreas	7.5	0.4
Stomach	6.8	-3.7*
Breast	6.6	-1.3*
Non-Hodgkin Lymphoma	4.2	-2.5*
Prostate[f]	4.0	-3.1*
Leukemia	3.9	-0.3
Ovary[f]	2.8	-0.1
Oral Cavity and Pharynx	2.0	-2.8*
Kidney and Renal Pelvis	2.0	1.8
Brain and ONS[g]	1.9	-0.8
Esophagus	1.8	0.0
Myeloma	1.7	0.1

American Indian/Alaska Native[d]

	Rate[b] 2005-2009	APC[c] 2000-2009
All Sites	156.2	-0.7
Lung and Bronchus	39.6	-0.2
Colon and Rectum	16.4	-0.4
Breast	9.3	0.4
Pancreas	8.8	1.8
Liver & IBD[g]	8.6	0.7
Prostate[f]	7.8	-2.5
Kidney and Renal Pelvis	6.2	-0.7
Stomach	5.7	-4.6*
Non-Hodgkin Lymphoma	4.7	-3.7
Leukemia	4.6	-1.0
Ovary[f]	3.8	-1.6
Esophagus	3.6	-1.1
Myeloma	3.0	-3.9
Brain and ONS[g]	2.4	2.6
Oral Cavity and Pharynx	2.2	-2.9*

Hispanic[e]

	Rate[b] 2005-2009	APC[c] 2000-2009
All Sites	119.3	-1.8*
Lung and Bronchus	21.2	-2.3*
Colon and Rectum	12.4	-1.9*
Pancreas	8.3	-0.1
Liver & IBD[g]	8.3	1.5*
Breast	8.2	-1.9*
Prostate[f]	7.1	-3.1*
Stomach	5.6	-3.4*
Non-Hodgkin Lymphoma	5.2	-2.2*
Leukemia	4.8	-1.4*
Kidney and Renal Pelvis	3.5	-1.0
Ovary[f]	3.3	-1.5*
Brain and ONS[g]	2.8	-0.5
Myeloma	2.7	-2.6*
Esophagus	2.3	-1.1*
Urinary Bladder	2.3	-1.3*

Source: US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.
[a] Top 15 cancer sites selected based on 2005-2009 age-adjusted rates for the race/ethnic group.
[b] Rates are per 100,000 and 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.
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 2005-2009 Hispanic death rates do not include deaths from the District of Columbia, North Dakota and South Carolina.
The 2000-2009 Hispanic mortality trends do not include deaths from the District of Columbia, Minnesota, New Hampshire, North Dakota and South Carolina.
[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] 2005-2009	APC[c] 2000-2009
All Sites	219.4	-1.8*
Lung and Bronchus	65.7	-2.3*
Prostate	23.6	-3.5*
Colon and Rectum	20.2	-3.1*
Pancreas	12.5	0.4*
Leukemia	9.6	-0.9*
Non-Hodgkin Lymphoma	8.4	-2.7*
Liver & IBD[f]	8.1	2.6*
Esophagus	7.7	-0.3
Urinary Bladder	7.7	0.1
Kidney and Renal Pelvis	5.8	-0.9*
Brain and ONS[f]	5.2	-0.7*
Stomach	5.0	-3.3*
Myeloma	4.4	-1.2*
Melanoma of the Skin	4.1	1.0*
Oral Cavity and Pharynx	3.8	-1.3*

White

	Rate[b] 2005-2009	APC[c] 2000-2009
All Sites	216.7	-1.7*
Lung and Bronchus	65.3	-2.2*
Prostate	21.7	-3.4*
Colon and Rectum	19.5	-3.2*
Pancreas	12.4	0.5*
Leukemia	9.9	-0.9*
Non-Hodgkin Lymphoma	8.7	-2.7*
Urinary Bladder	8.0	0.2
Esophagus	7.9	0.3
Liver & IBD[f]	7.4	2.6*
Kidney and Renal Pelvis	5.9	-0.9*
Brain and ONS[f]	5.6	-0.6*
Melanoma of the Skin	4.6	1.1*
Stomach	4.3	-3.5*
Myeloma	4.1	-1.2*
Oral Cavity and Pharynx	3.6	-0.8*

Black

	Rate[b] 2005-2009	APC[c] 2000-2009
All Sites	288.3	-2.4*
Lung and Bronchus	82.6	-3.0*
Prostate	53.1	-3.7*
Colon and Rectum	29.8	-2.3*
Pancreas	15.5	-0.1
Liver & IBD[f]	11.9	3.4*
Stomach	10.3	-2.9*
Leukemia	8.5	-0.8
Esophagus	8.2	-4.5*
Myeloma	8.0	-1.2*
Non-Hodgkin Lymphoma	6.1	-1.8*
Kidney and Renal Pelvis	6.0	-0.7
Oral Cavity and Pharynx	5.7	-3.6*
Urinary Bladder	5.6	-0.1
Larynx	4.2	-3.4*
Brain and ONS[f]	3.1	-0.8

Asian/Pacific Islander

	Rate[b] 2005-2009	APC[c] 2000-2009
All Sites	132.6	-1.5*
Lung and Bronchus	35.9	-1.5*
Liver & IBD[f]	14.5	-1.2*
Colon and Rectum	13.1	-2.8*
Prostate	10.0	-2.8*
Stomach	9.0	-3.6*
Pancreas	8.4	1.0*
Non-Hodgkin Lymphoma	5.2	-2.2*
Leukemia	4.9	-0.9
Esophagus	3.0	-0.2
Oral Cavity and Pharynx	3.0	-2.8*
Kidney and Renal Pelvis	2.9	2.7
Urinary Bladder	2.7	-0.7
Brain and ONS[f]	2.3	-1.4
Myeloma	2.1	2.5*
Soft Tissue including Heart	1.0	1.5

American Indian/Alaska Native[d]

	Rate[b] 2005-2009	APC[c] 2000-2009
All Sites	184.9	-0.8
Lung and Bronchus	48.3	-0.4
Prostate	19.7	-2.9*
Colon and Rectum	18.8	-2.3
Liver & IBD[f]	11.9	1.6
Pancreas	10.1	3.8
Kidney and Renal Pelvis	8.8	-1.1
Stomach	8.3	-3.7
Esophagus	6.4	-1.0
Leukemia	6.3	1.9
Non-Hodgkin Lymphoma	5.0	-4.0
Myeloma	3.8	-1.7
Urinary Bladder	3.6	-
Oral Cavity and Pharynx	3.5	-3.1
Brain and ONS[f]	2.9	2.7
Larynx	2.0	-

Hispanic[e]

	Rate[b] 2005-2009	APC[c] 2000-2009
All Sites	146.3	-2.3*
Lung and Bronchus	30.8	-3.3*
Prostate	17.8	-3.8*
Colon and Rectum	15.3	-2.1*
Liver & IBD[f]	11.8	1.5*
Pancreas	9.2	0.2
Stomach	7.3	-4.0*
Non-Hodgkin Lymphoma	6.3	-2.3*
Leukemia	5.9	-2.0*
Kidney and Renal Pelvis	5.0	-1.5
Esophagus	4.1	-0.7
Urinary Bladder	3.8	-1.5
Myeloma	3.3	-2.5*
Brain and ONS[f]	3.3	-1.0
Oral Cavity and Pharynx	2.4	-2.9*
Larynx	1.6	-3.2*

Source: US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.
[a] Top 15 cancer sites selected based on 2005-2009 age-adjusted rates for the race/ethnic group.
[b] Rates are per 100,000 and 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.
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 2005-2009 Hispanic death rates do not include deaths from the District of Columbia, North Dakota and South Carolina.
The 2000-2009 Hispanic mortality trends do not include deaths from the District of Columbia, Minnesota, New Hampshire, North Dakota and South Carolina.
[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] 2005-2009	APC[c] 2000-2009
All Sites	151.1	-1.4*
Lung and Bronchus	39.6	-0.7*
Breast	23.0	-2.1*
Colon and Rectum	14.1	-3.1*
Pancreas	9.5	0.4*
Ovary	8.2	-1.6*
Leukemia	5.3	-1.4*
Non-Hodgkin Lymphoma	5.2	-3.4*
Corpus and Uterus, NOS	4.2	0.2
Brain and ONS[f]	3.5	-0.5*
Liver & IBD[f]	3.3	1.5*
Myeloma	2.7	-2.6*
Kidney and Renal Pelvis	2.6	-1.2*
Stomach	2.6	-3.1*
Cervix Uteri	2.4	-1.7*
Urinary Bladder	2.2	-0.7*

White

	Rate[b] 2005-2009	APC[c] 2000-2009
All Sites	150.8	-1.4*
Lung and Bronchus	40.8	-0.6*
Breast	22.4	-2.1*
Colon and Rectum	13.6	-3.1*
Pancreas	9.3	0.5*
Ovary	8.6	-1.5*
Leukemia	5.5	-1.4*
Non-Hodgkin Lymphoma	5.4	-3.4*
Corpus and Uterus, NOS	3.9	0.1
Brain and ONS[f]	3.8	-0.4
Liver & IBD[f]	3.1	1.7*
Kidney and Renal Pelvis	2.7	-1.2*
Myeloma	2.5	-2.5*
Stomach	2.2	-3.2*
Urinary Bladder	2.2	-0.5
Cervix Uteri	2.2	-1.6*

Black

	Rate[b] 2005-2009	APC[c] 2000-2009
All Sites	174.6	-1.6*
Lung and Bronchus	38.0	-1.0*
Breast	31.6	-1.4*
Colon and Rectum	19.8	-3.0*
Pancreas	12.6	0.0
Corpus and Uterus, NOS	7.3	0.5
Ovary	6.8	-1.4*
Myeloma	5.4	-2.9*
Leukemia	4.8	-1.6*
Stomach	4.8	-3.8*
Cervix Uteri	4.3	-2.6*
Liver & IBD[f]	4.0	1.0
Non-Hodgkin Lymphoma	3.6	-2.9*
Kidney and Renal Pelvis	2.6	-0.8
Urinary Bladder	2.6	-1.4
Esophagus	2.2	-5.3*

Asian/Pacific Islander

	Rate[b] 2005-2009	APC[c] 2000-2009
All Sites	93.2	-1.1*
Lung and Bronchus	18.5	-0.3
Breast	11.9	-1.3*
Colon and Rectum	9.6	-1.6*
Pancreas	6.9	-0.2
Liver & IBD[f]	6.1	-2.1*
Stomach	5.3	-3.9*
Ovary	5.0	-0.1
Non-Hodgkin Lymphoma	3.4	-2.7*
Leukemia	3.1	0.5
Corpus and Uterus, NOS	2.6	1.5*
Cervix Uteri	2.0	-4.4*
Brain and ONS[f]	1.5	-0.2
Myeloma	1.4	-2.3
Kidney and Renal Pelvis	1.3	0.4
Oral Cavity and Pharynx	1.3	-2.8

American Indian/Alaska Native[d]

	Rate[b] 2005-2009	APC[c] 2000-2009
All Sites	135.9	-0.8
Lung and Bronchus	33.2	0.0
Breast	16.6	0.4
Colon and Rectum	14.6	1.1
Pancreas	7.9	0.1
Ovary	6.8	-1.5
Liver & IBD[f]	5.9	-0.5
Non-Hodgkin Lymphoma	4.5	-3.3
Kidney and Renal Pelvis	4.1	0.1
Stomach	3.8	-6.4*
Cervix Uteri	3.5	-0.6
Leukemia	3.3	-3.8
Corpus and Uterus, NOS	3.0	-
Myeloma	2.5	-5.1
Gallbladder	2.1	-3.1
Brain and ONS[f]	2.0	-

Hispanic[e]

	Rate[b] 2005-2009	APC[c] 2000-2009
All Sites	100.5	-1.4*
Breast	14.9	-1.6*
Lung and Bronchus	14.0	-1.0*
Colon and Rectum	10.2	-2.0*
Pancreas	7.5	-0.3
Ovary	5.9	-1.1*
Liver & IBD[f]	5.3	1.0*
Non-Hodgkin Lymphoma	4.3	-2.3*
Stomach	4.3	-3.0*
Leukemia	3.9	-0.8
Corpus and Uterus, NOS	3.3	0.6
Cervix Uteri	3.0	-2.6*
Brain and ONS[f]	2.4	-0.1
Myeloma	2.3	-2.9*
Kidney and Renal Pelvis	2.3	-0.7
Gallbladder	1.3	-2.1

Source: US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.
[a] Top 15 cancer sites selected based on 2005-2009 age-adjusted rates for the race/ethnic group.
[b] Rates are per 100,000 and 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.
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 2005-2009 Hispanic death rates do not include deaths from the District of Columbia, North Dakota and South Carolina.
The 2000-2009 Hispanic mortality trends do not include deaths from the District of Columbia, Minnesota, New Hampshire, North Dakota and South Carolina.
[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, & 18 Geographic Areas National Cancer Institute, USA

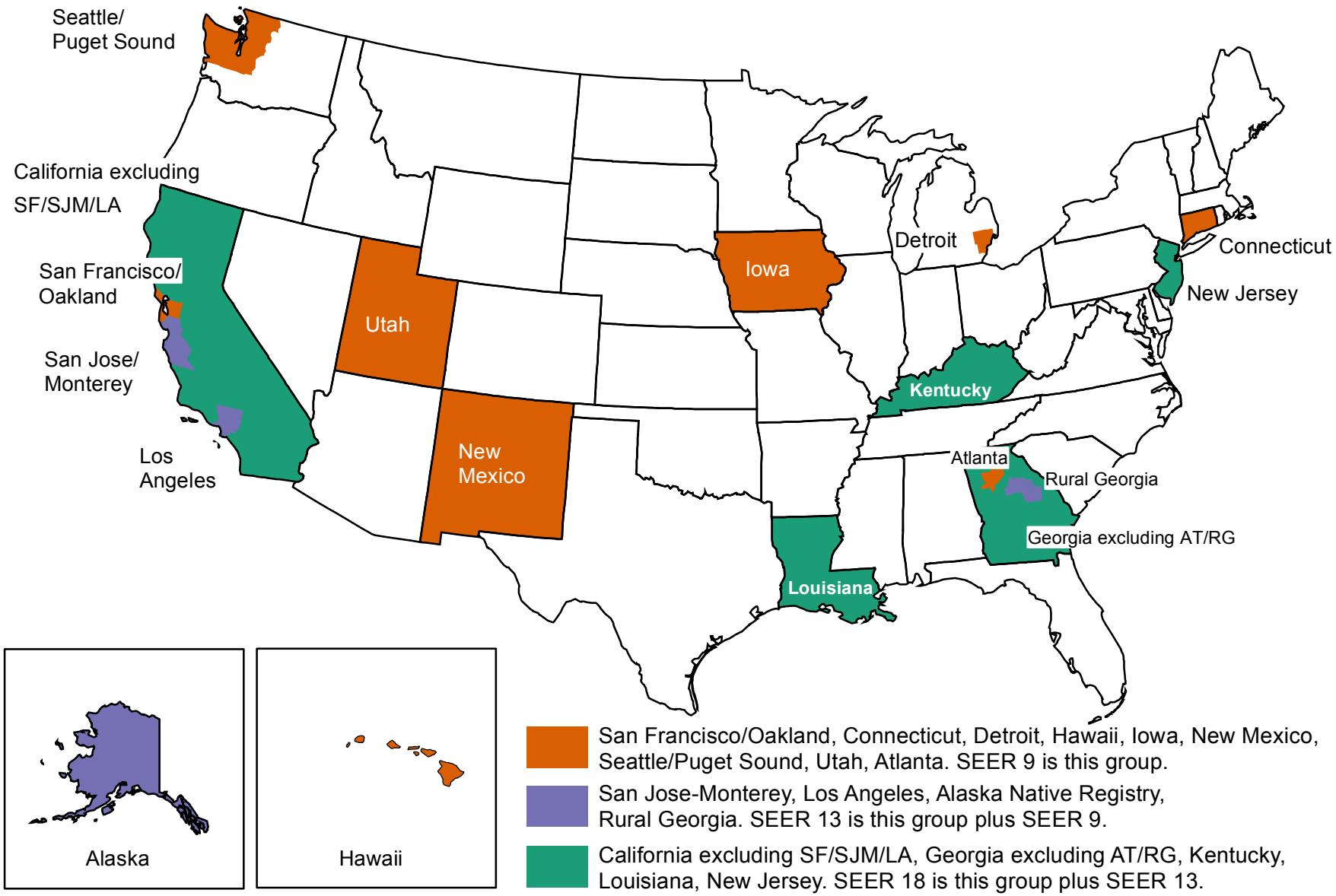
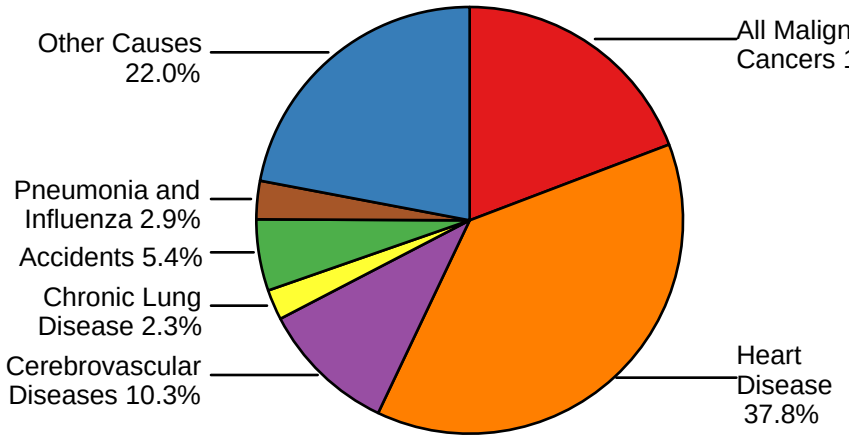


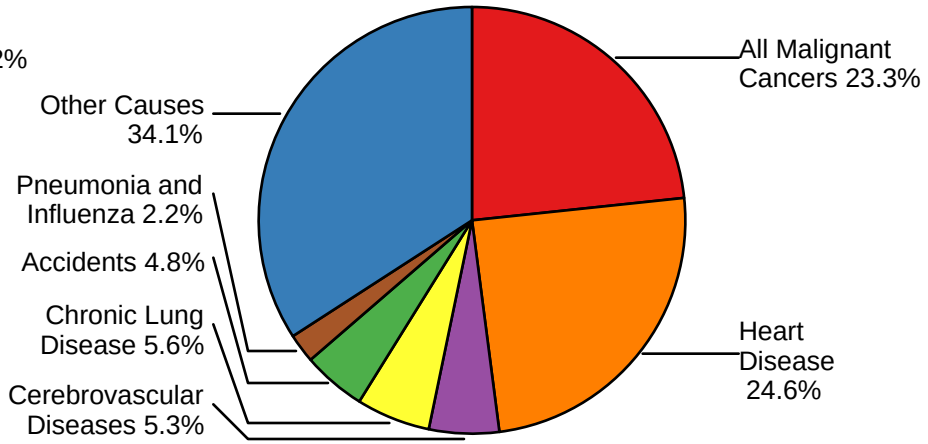
Figure 1.1

http://seer.cancer.gov

Leading Causes of Death in US, 1975 vs 2009
Percent of All Causes of Death



1975

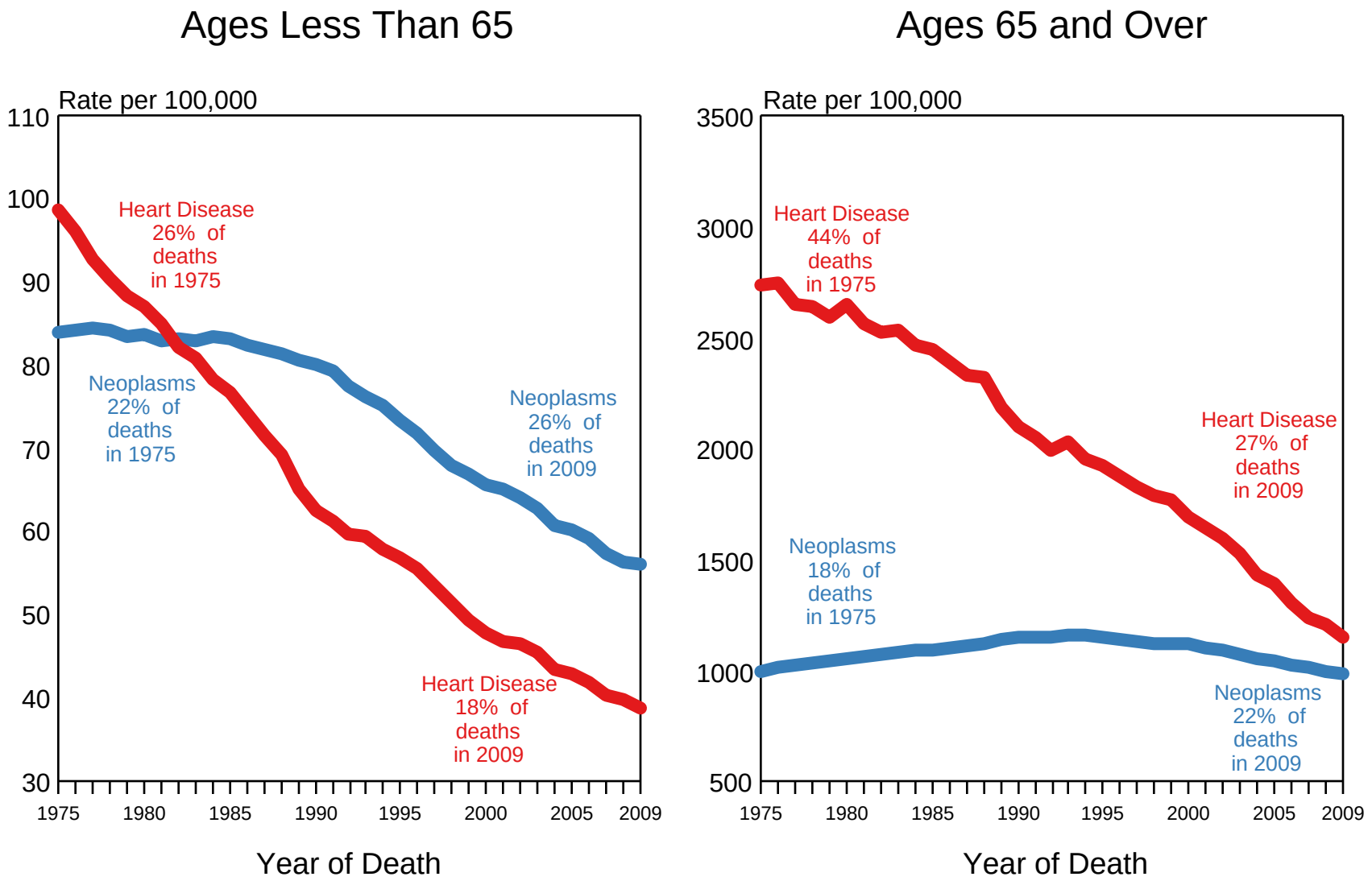


2009

Figure 1.2

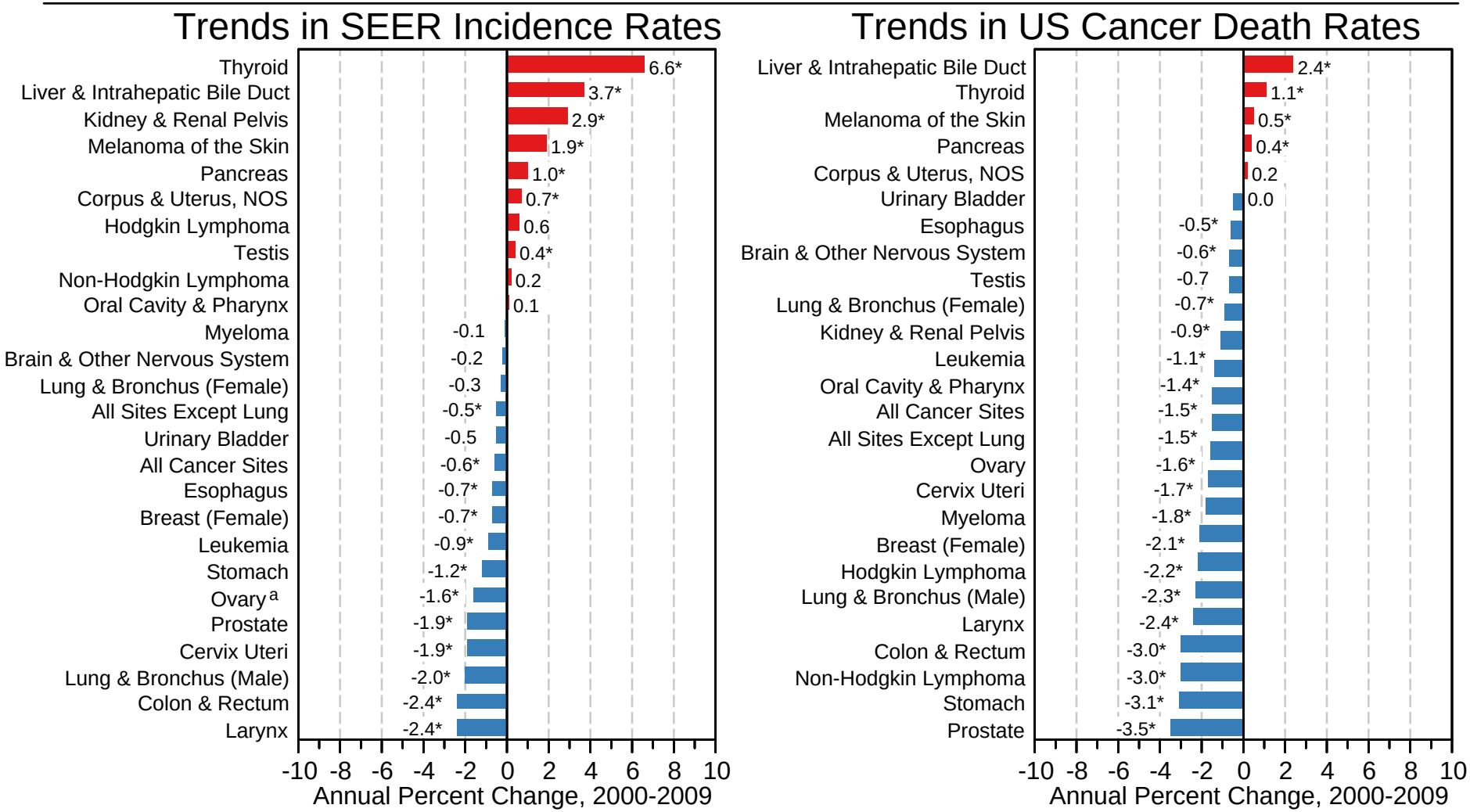
Source: US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.

Us Death Rates, 1975-2009
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 2000-2009

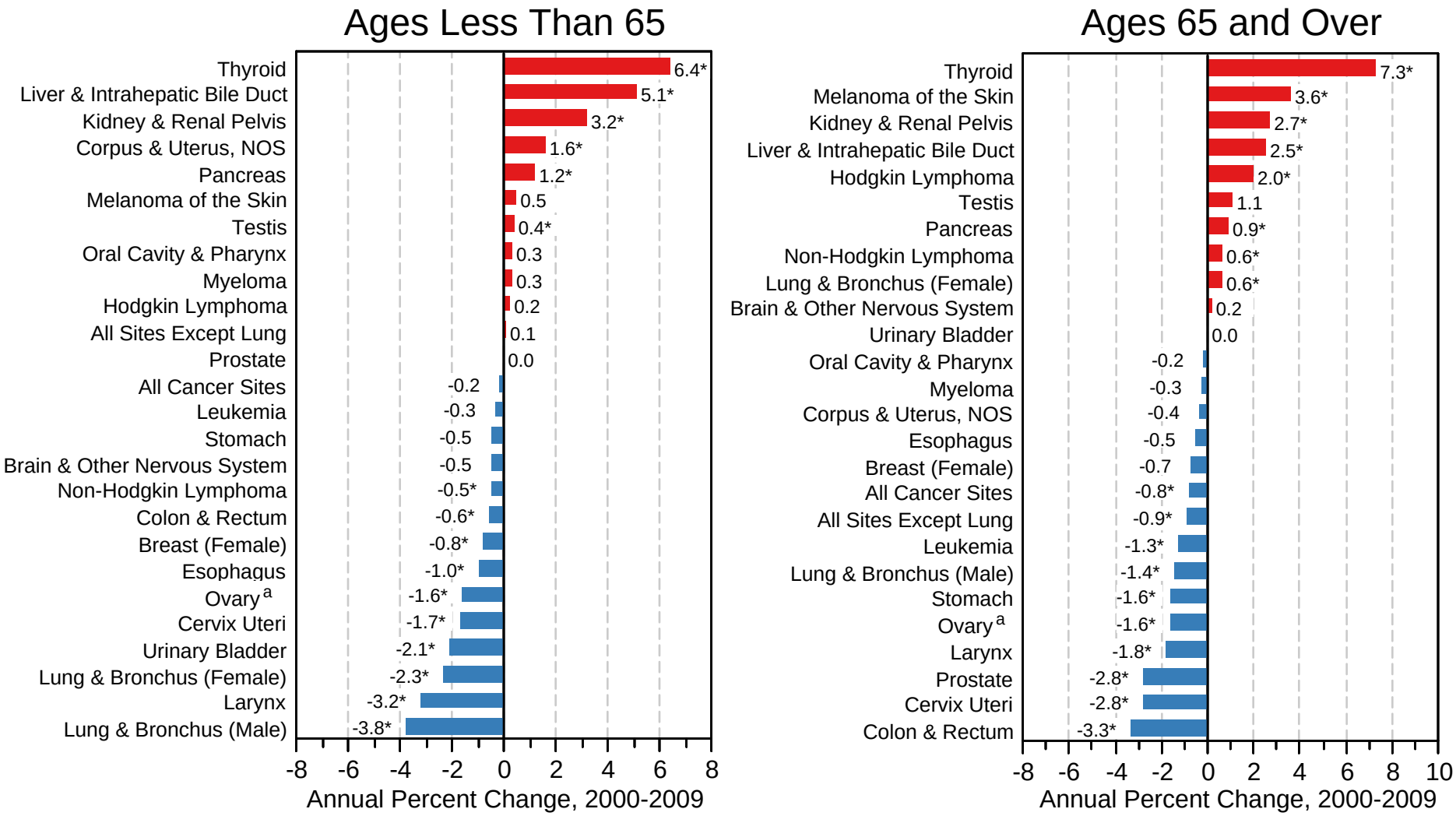


Source: SEER 18 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey and Georgia excluding ATL/RG) and US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.
Underlying rates are per 100,000 and age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).
For sex-specific cancer sites, the population was limited to the population of the appropriate sex.

* 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 2000-2009

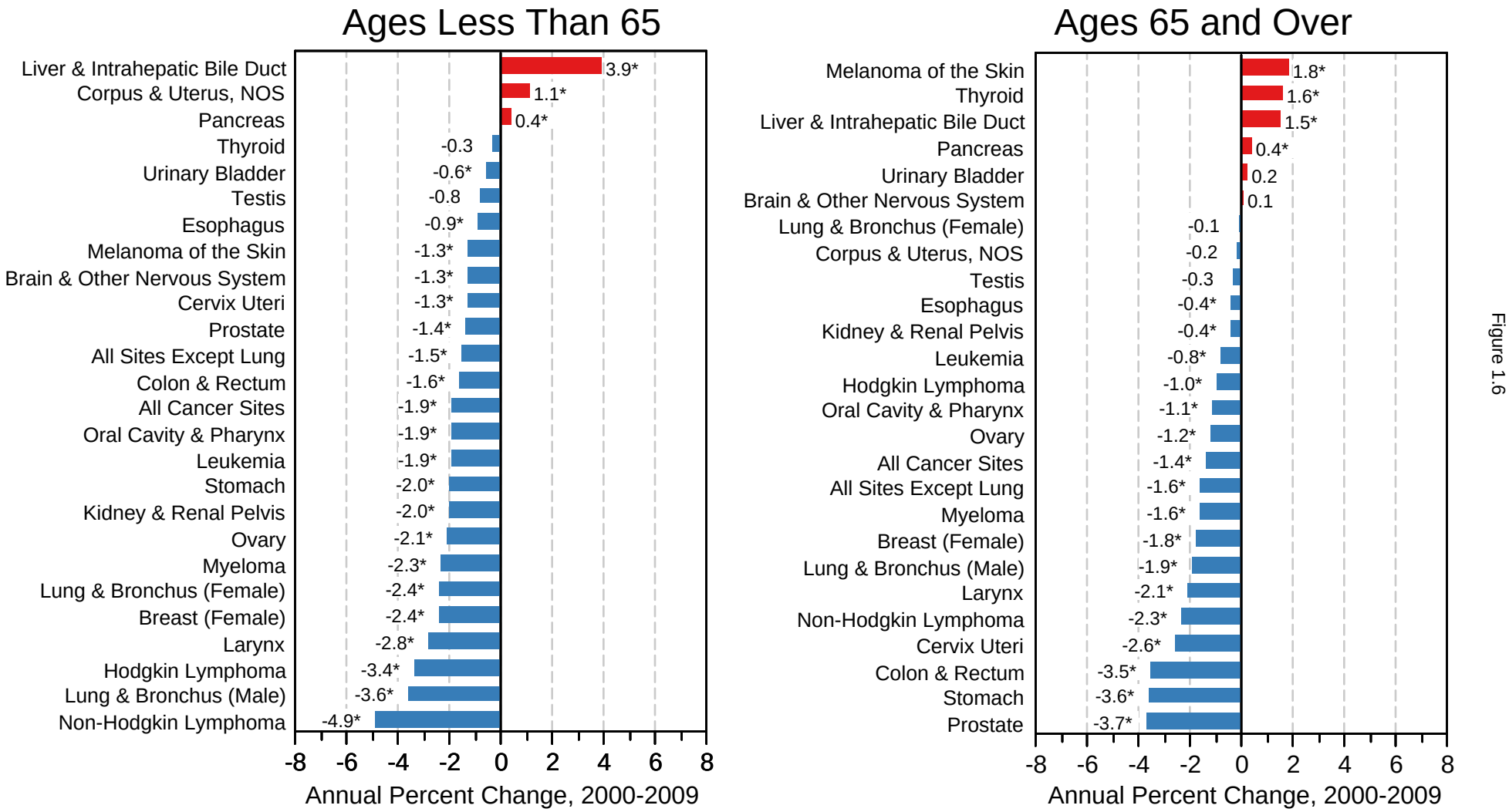


Source: SEER 18 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey and Georgia excluding ATL/RG).
Underlying rates are per 100,000 and age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).
For sex-specific cancer sites, the population was limited to the population of the appropriate sex.

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

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

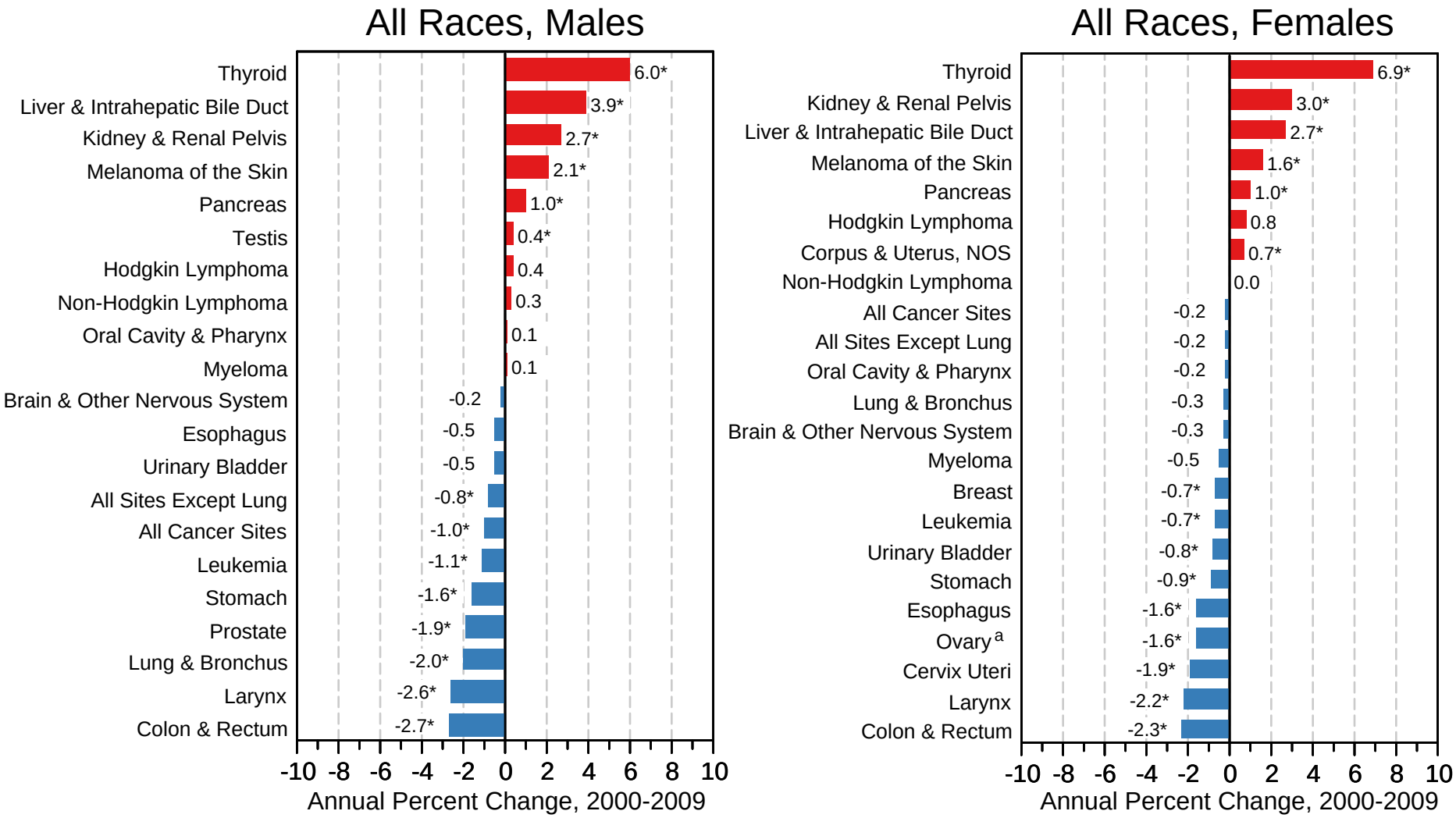
Trends in US Death Rates by Age Group and Primary Cancer Site 2000-2009



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

Figure 1.6

Trends in SEER Incidence Rates by Sex and Primary Cancer Site 2000-2009

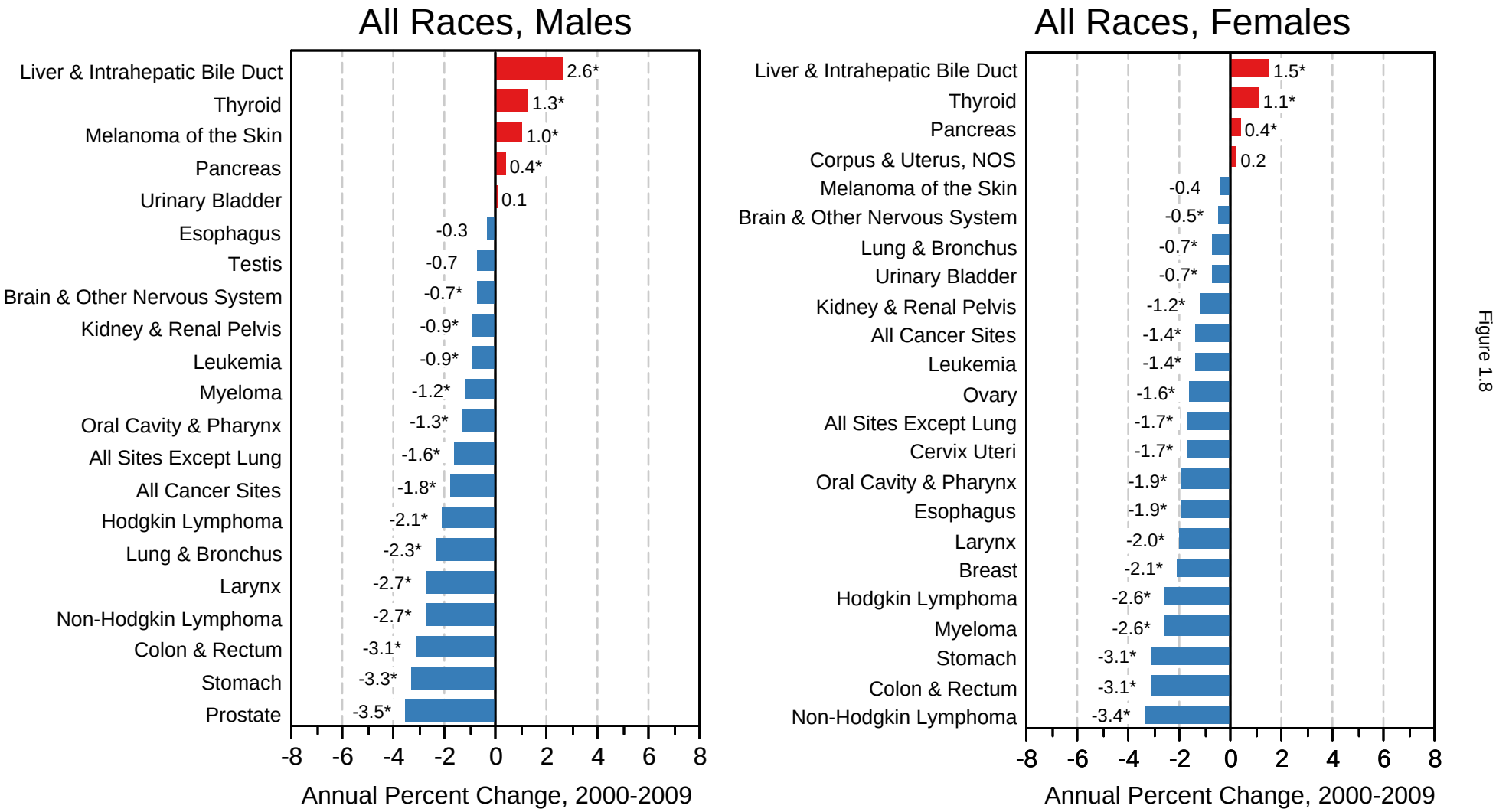


Source: SEER 18 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey and Georgia excluding ATL/RG).
Underlying rates are per 100,000 and age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).
For sex-specific cancer sites, the population was limited to the population of the appropriate sex.

* 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 2000-2009



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

Figure 1.8

SEER Incidence[a] and US Death Rates[b], 2005-2009
5-Year Relative Survival[c], 2002-2008
All Cancer Combined, by Race and Sex

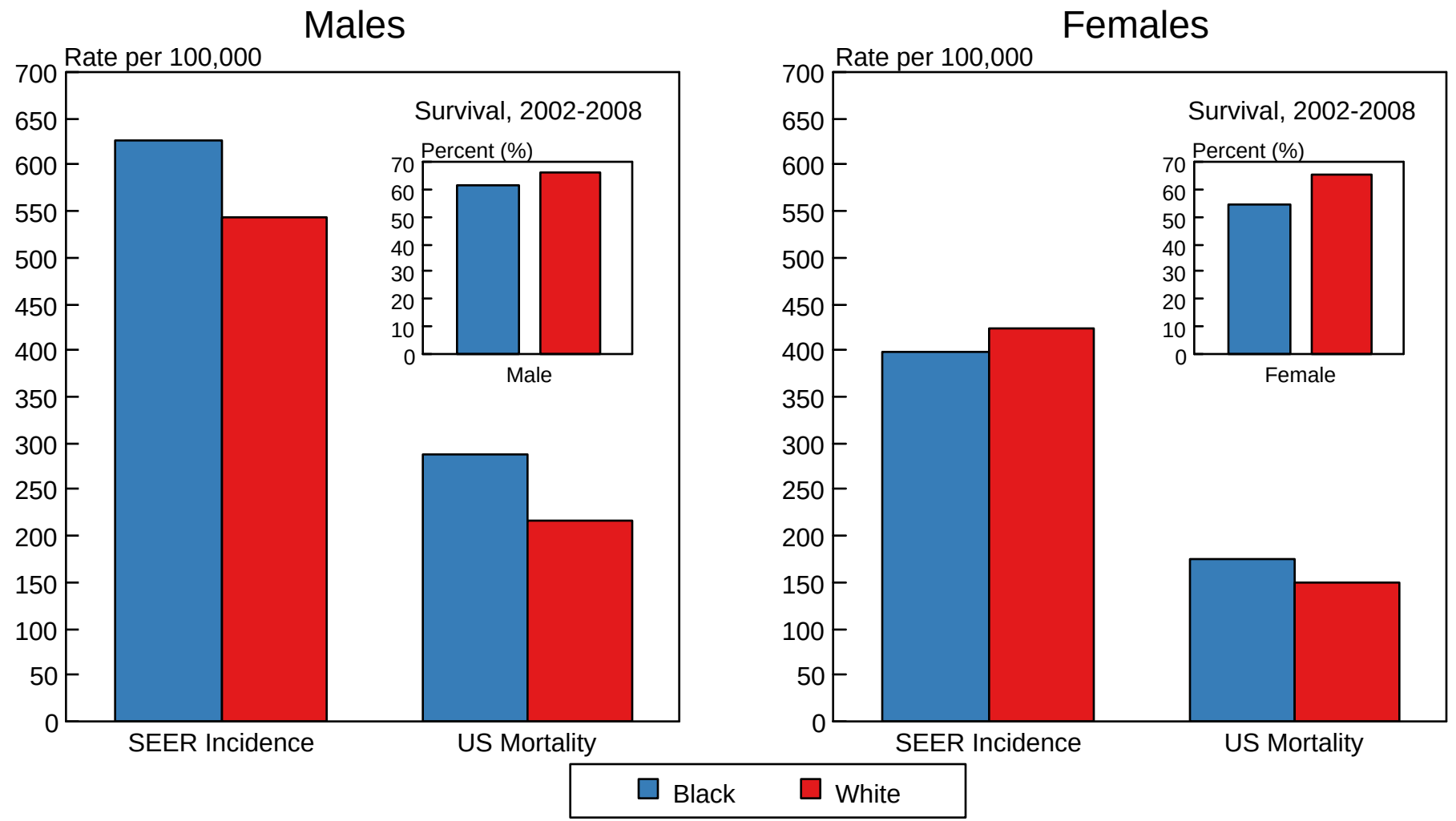


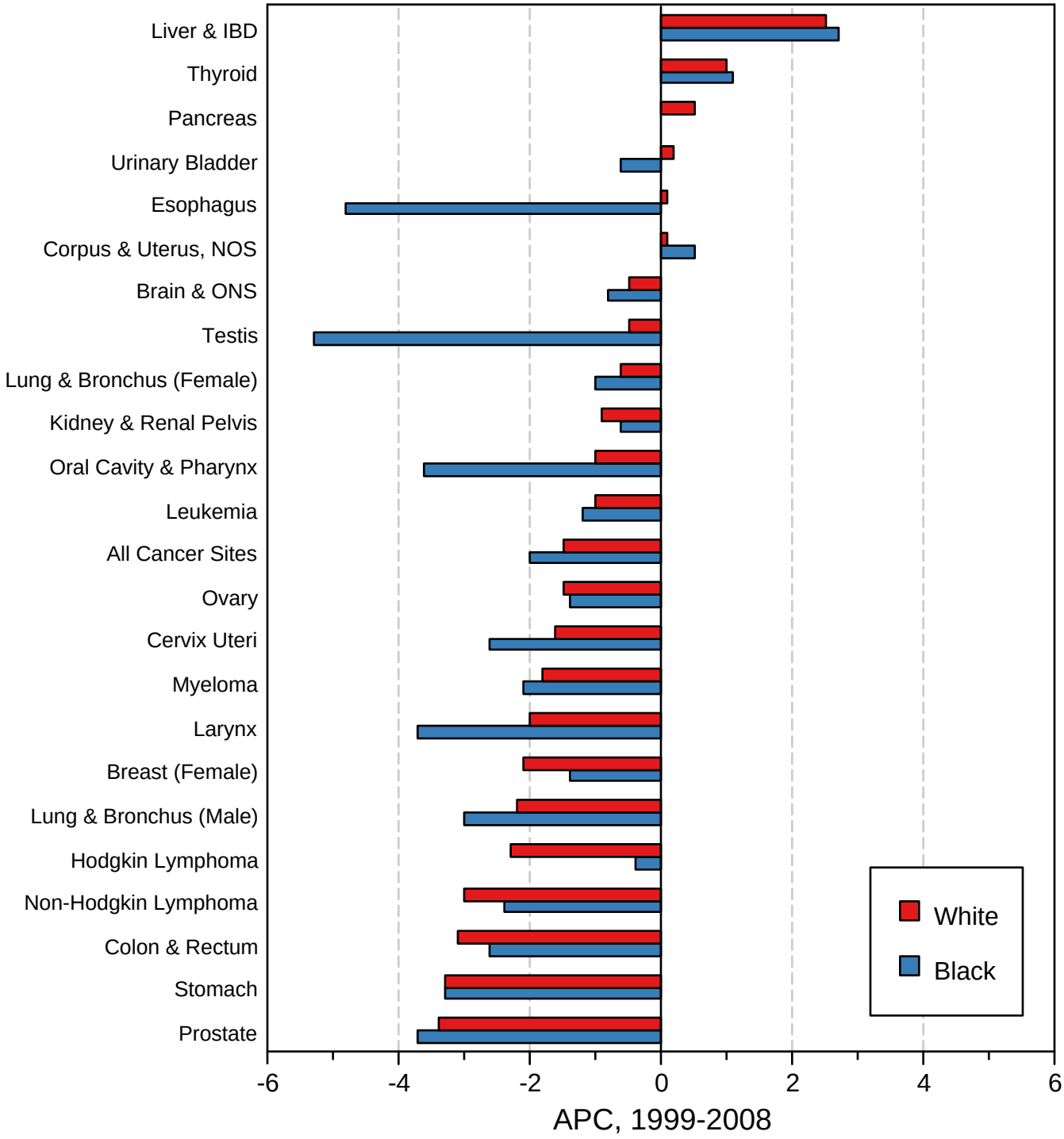
Figure 1.9

[a] Incidence rates are from the SEER 18 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, New Jersey and Georgia excluding ATL/RG) 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).

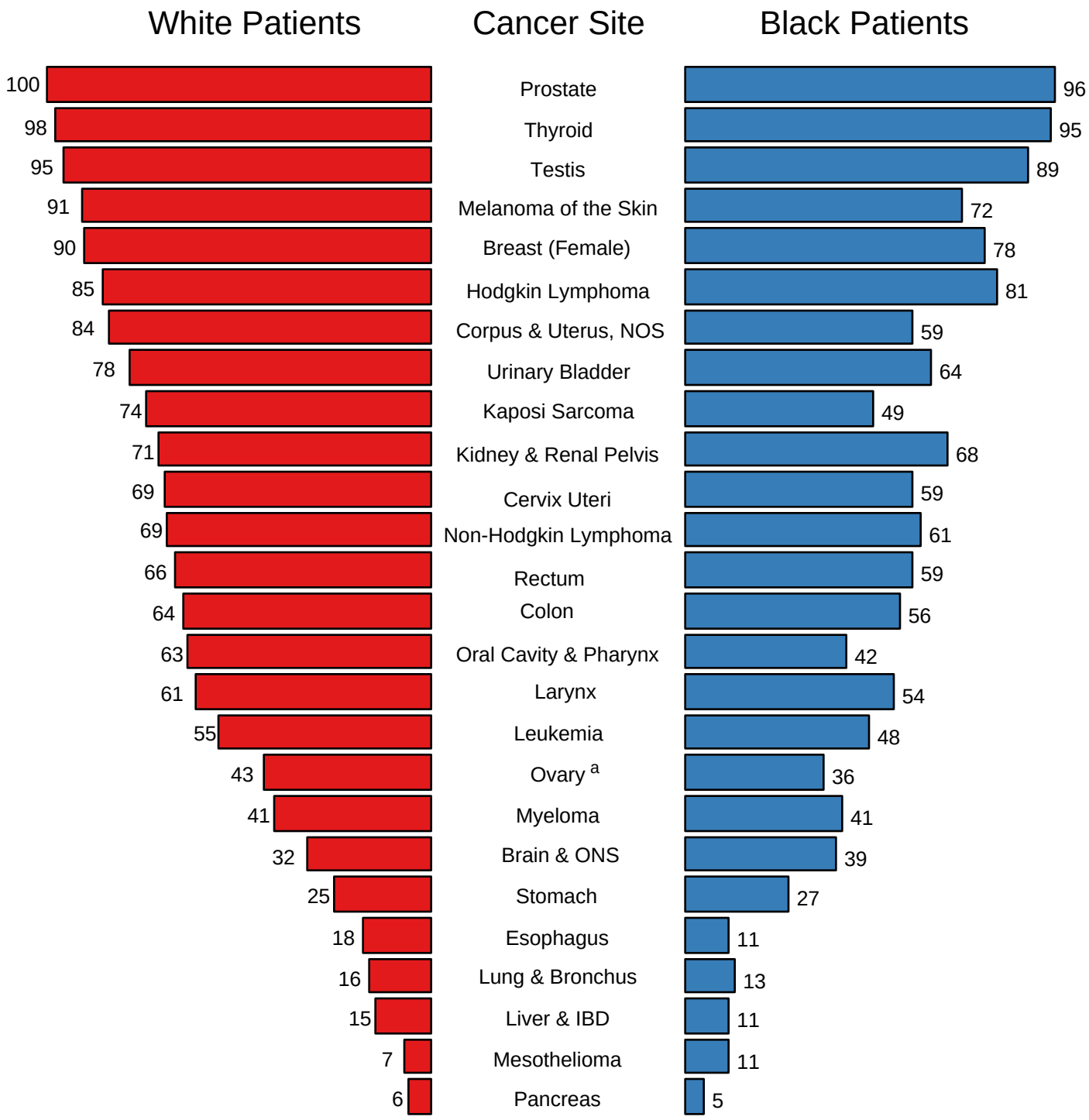
[c] Survival rates are from the SEER 18 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey and Greater Georgia).

Trends in US Death Rates, 2000-2009
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).

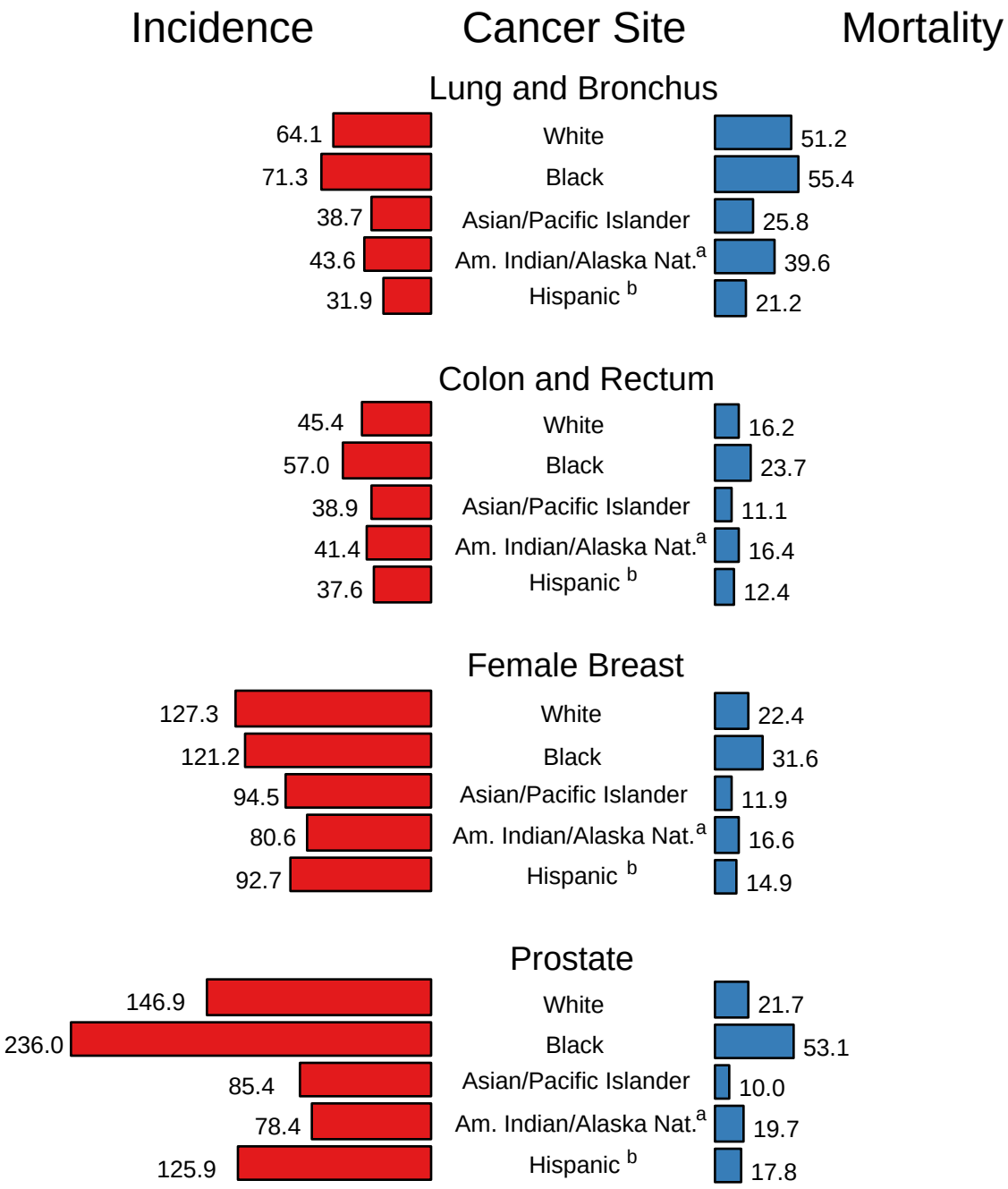
5-Year Relative Survival (%)
SEER Program, 2002-2008
Both Sexes, by Race and Cancer Site



Source: SEER 18 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, New Jersey and Georgia excluding ATL/RG).

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

SEER Cancer Incidence and US Death Rates, 2005-2009 By Cancer Site and Race/Ethnicity



Source: SEER 18 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, New Jersey and Georgia excluding ATL/RG) 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.
Mortality data for Hispanics exclude cases from the District of Columbia, North Dakota and South Carolina.

SEER Incidence 2000-2009
Males by Race/Ethnicity

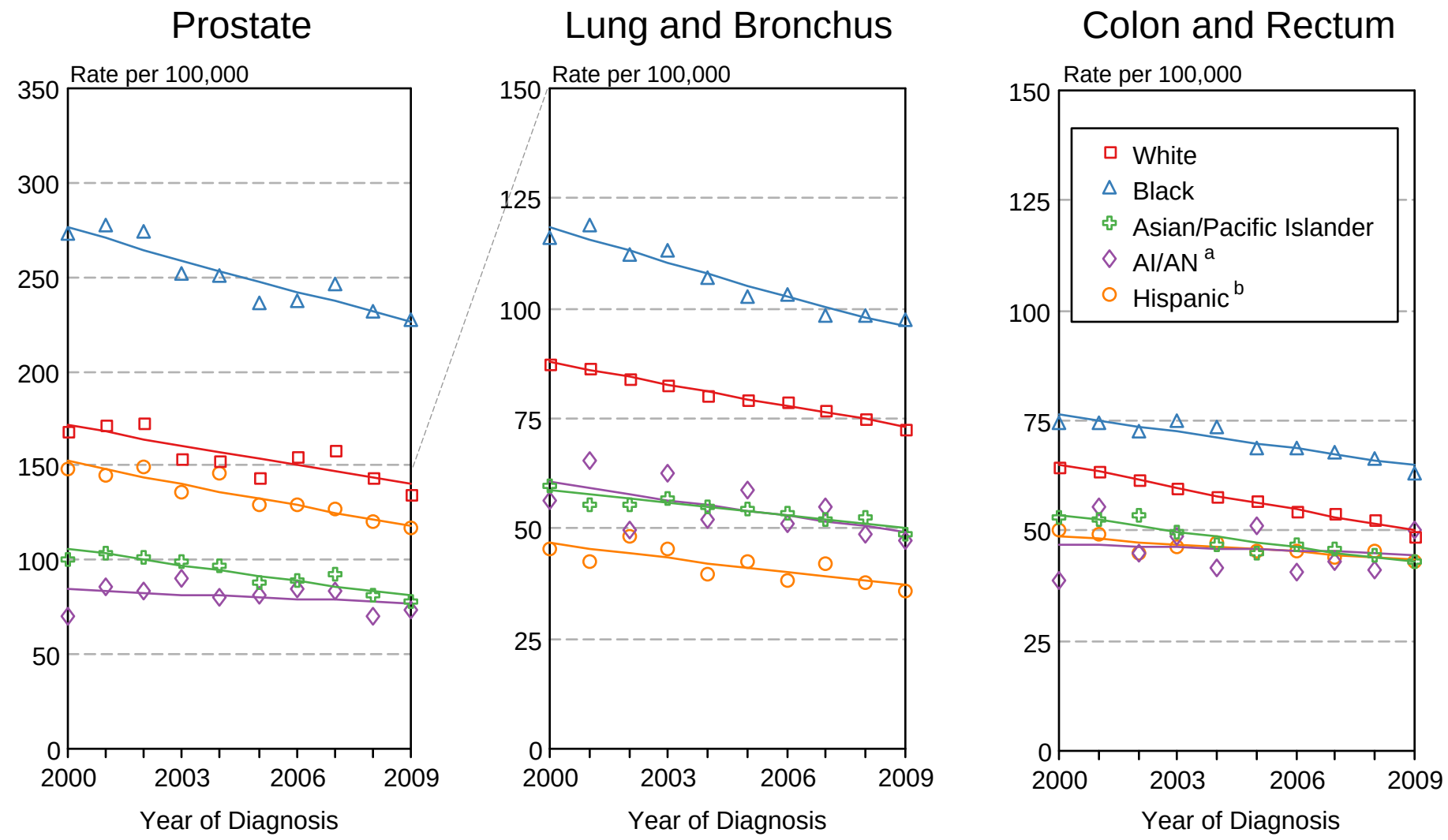


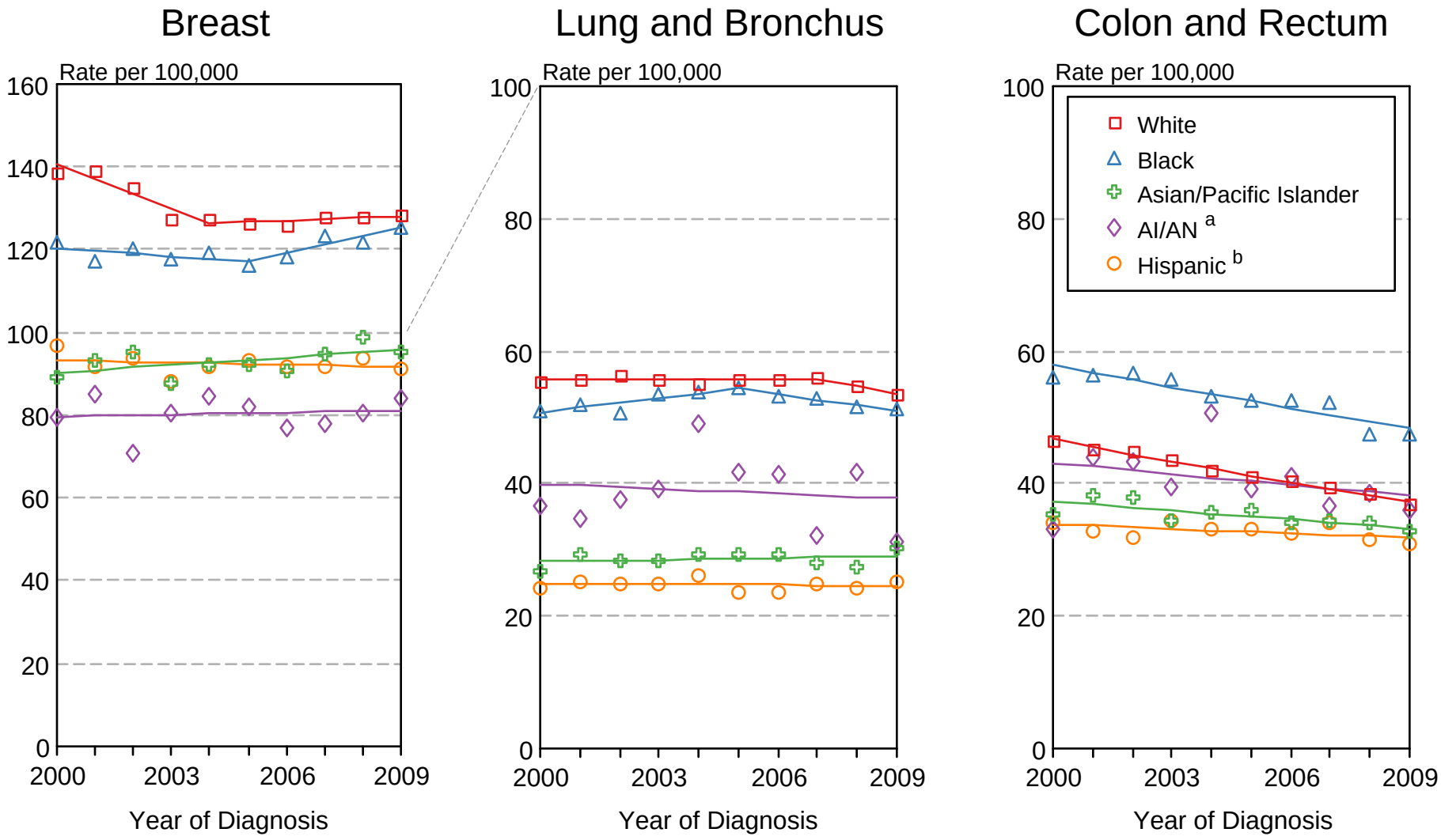
Figure 1.13

Source: SEER 18 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, New Jersey and Georgia excluding ATL/RG).
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 3.5, April 2011, 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 2000-2009
Females by Race/Ethnicity

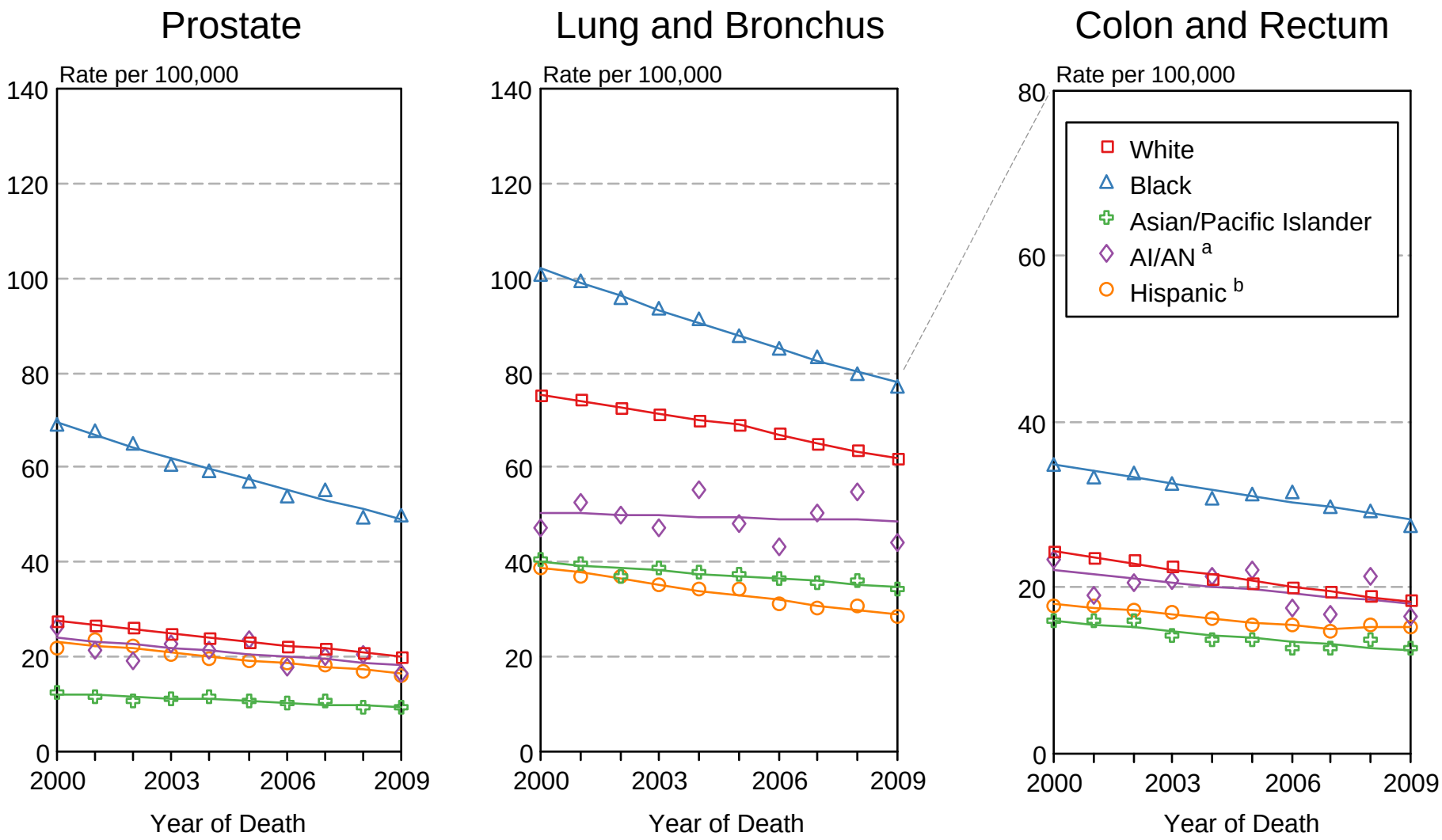


Source: SEER 18 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey and Georgia excluding ATL/RG).
Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).
Regression lines are calculated using the Joinpoint Regression Program Version 3.5, April 2011, 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 2000-2009
Males by Race/Ethnicity

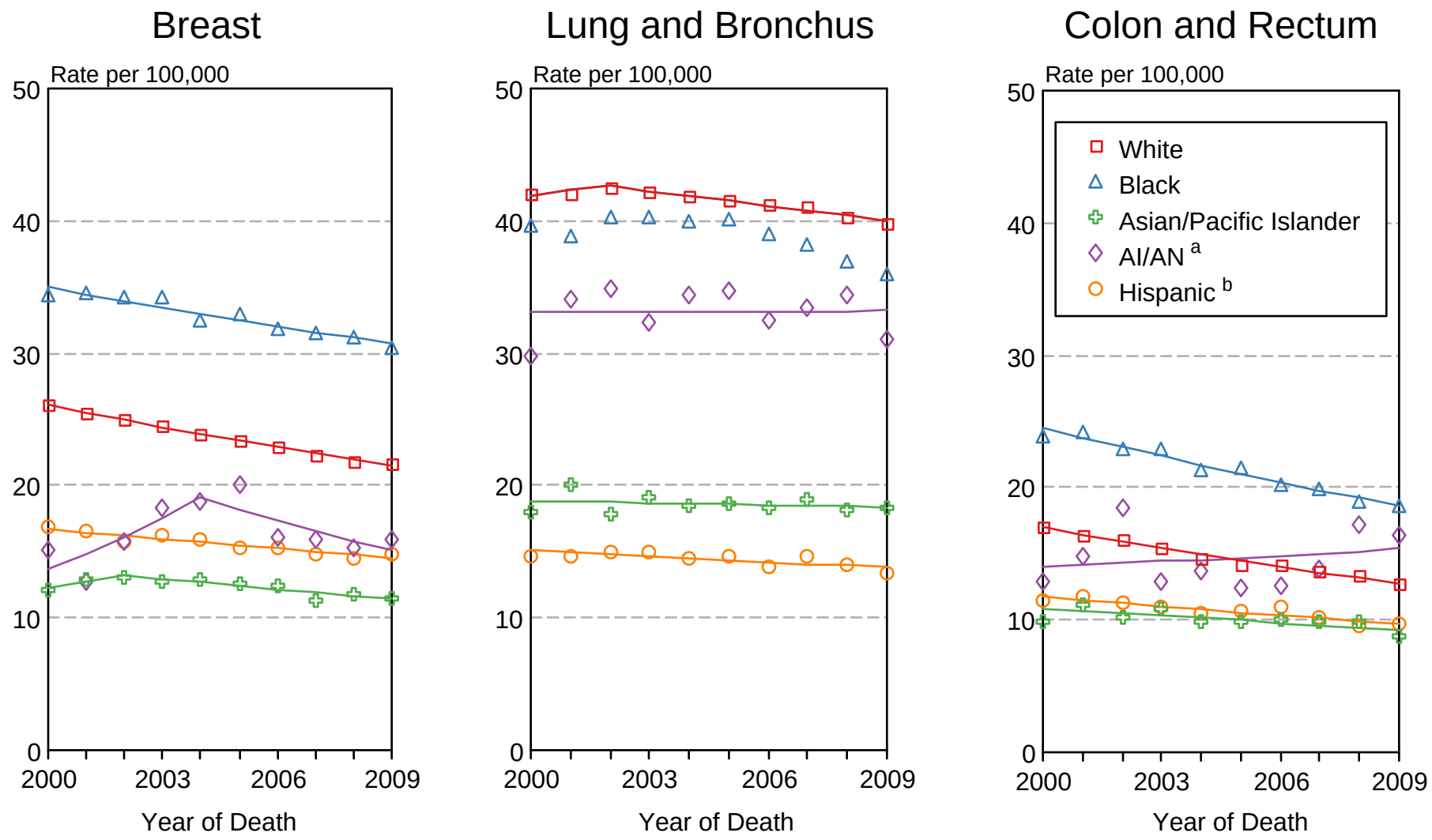


Source: US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.
Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).
Regression lines are calculated using the Joinpoint Regression Program Version 3.5, April 2011, National 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 2000-2009
Females by Race/Ethnicity

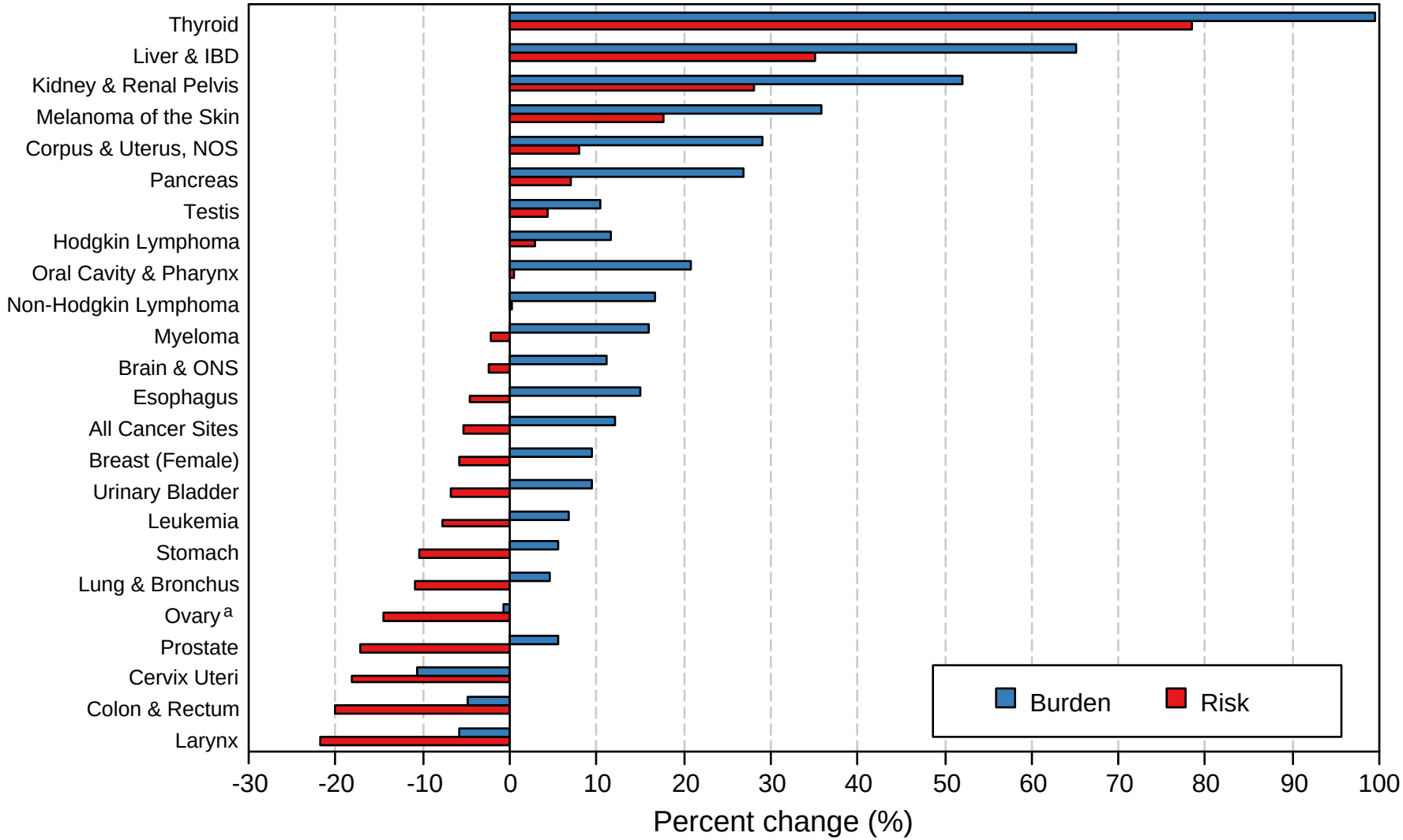


Source: US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.
Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).
Regression lines are calculated using the Joinpoint Regression Program Version 3.5, April 2011, National 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 2000 and 2009
Numbers (burden) vs Rates (risk)
All Races, All Ages, Both Sexes

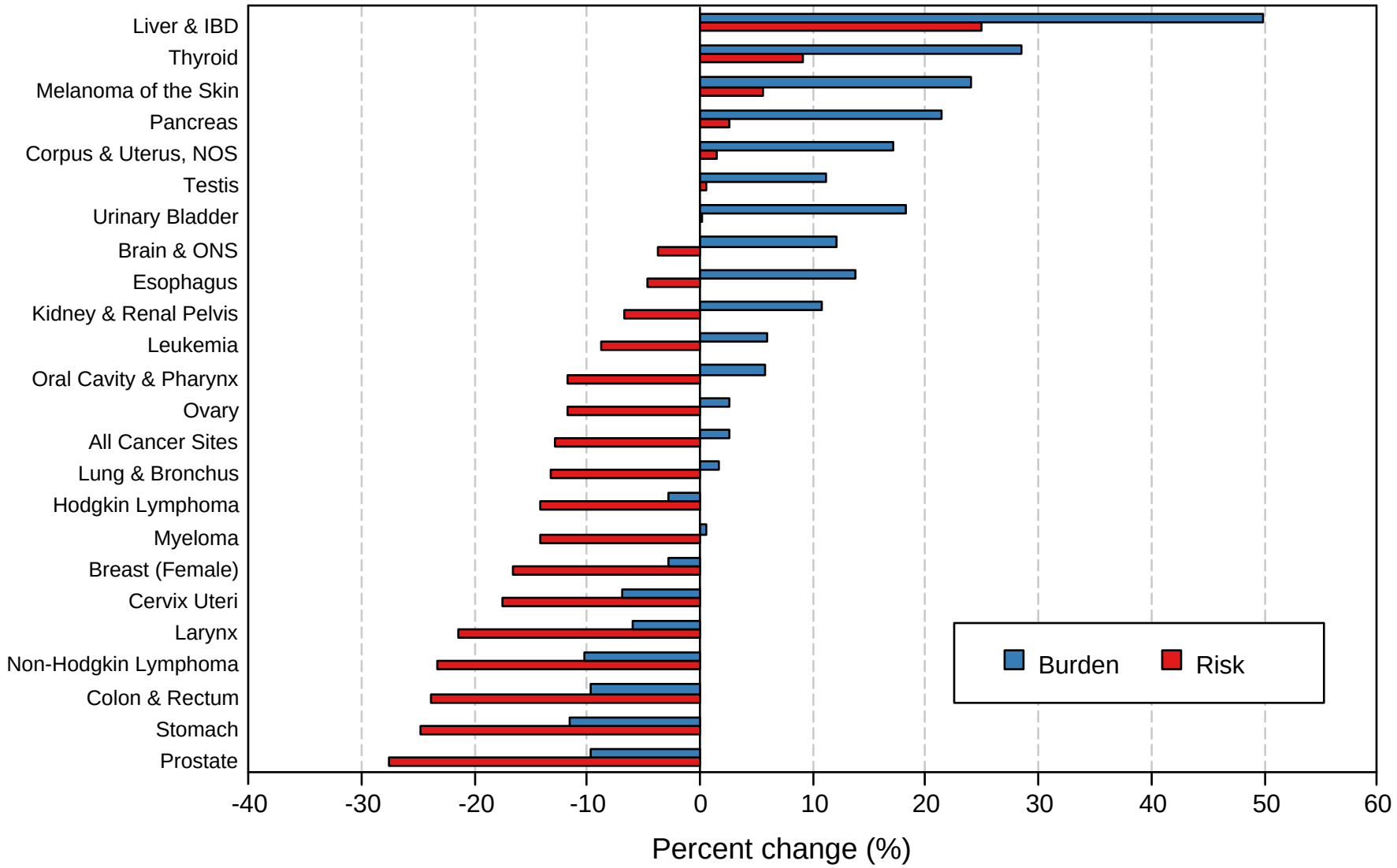


Source: SEER 18 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey and Georgia excluding ATL/RG).
Burden is the change in the number of incidence cases between 2000 and 2009.
Risk is the change in the cancer incidence rates between 2000 and 2009.

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

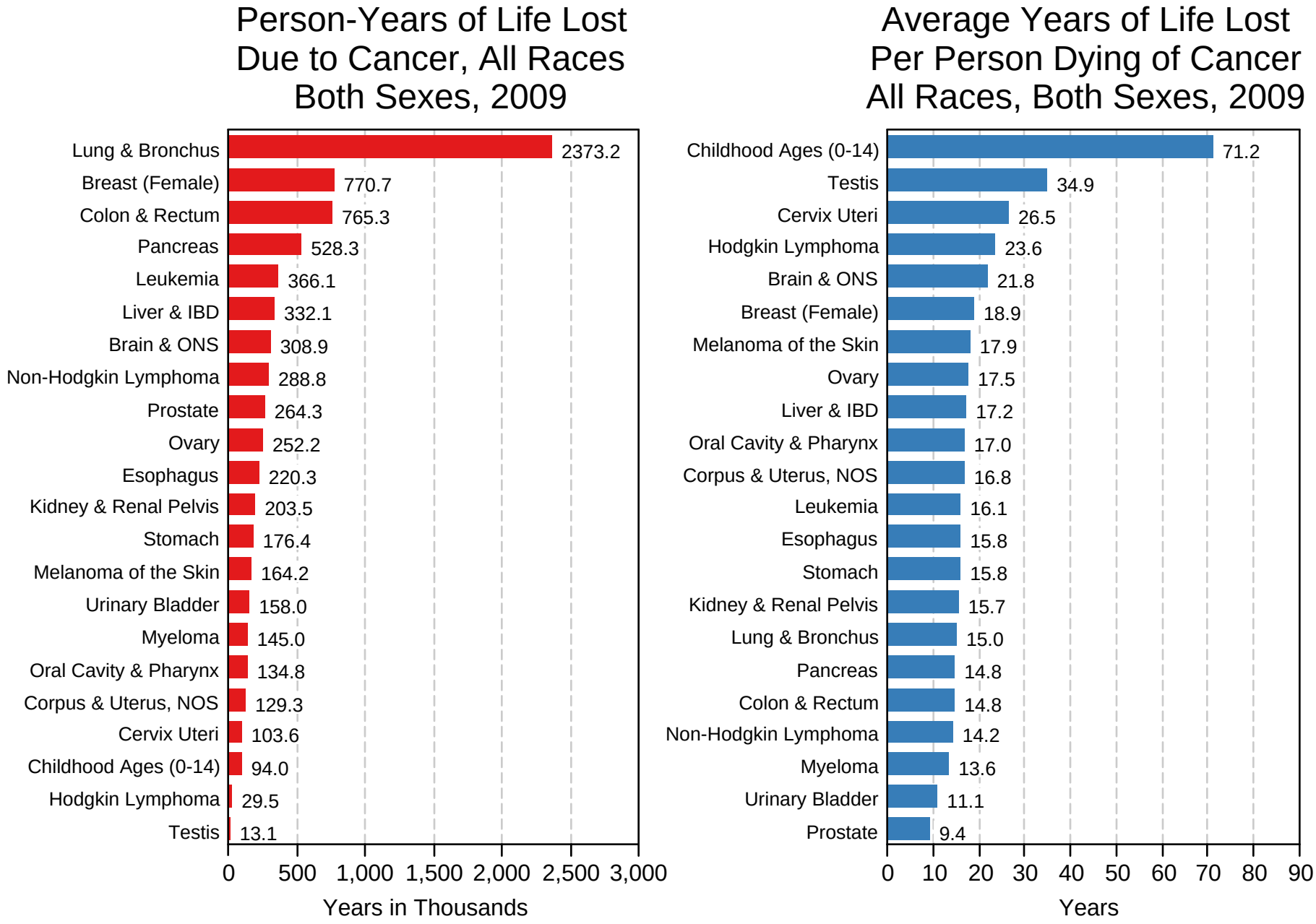
Figure 1.17

Mortality Percent Change between 2000 and 2009
Numbers (burden) vs Rates (risk)
All Races, All Ages, Both Sexes



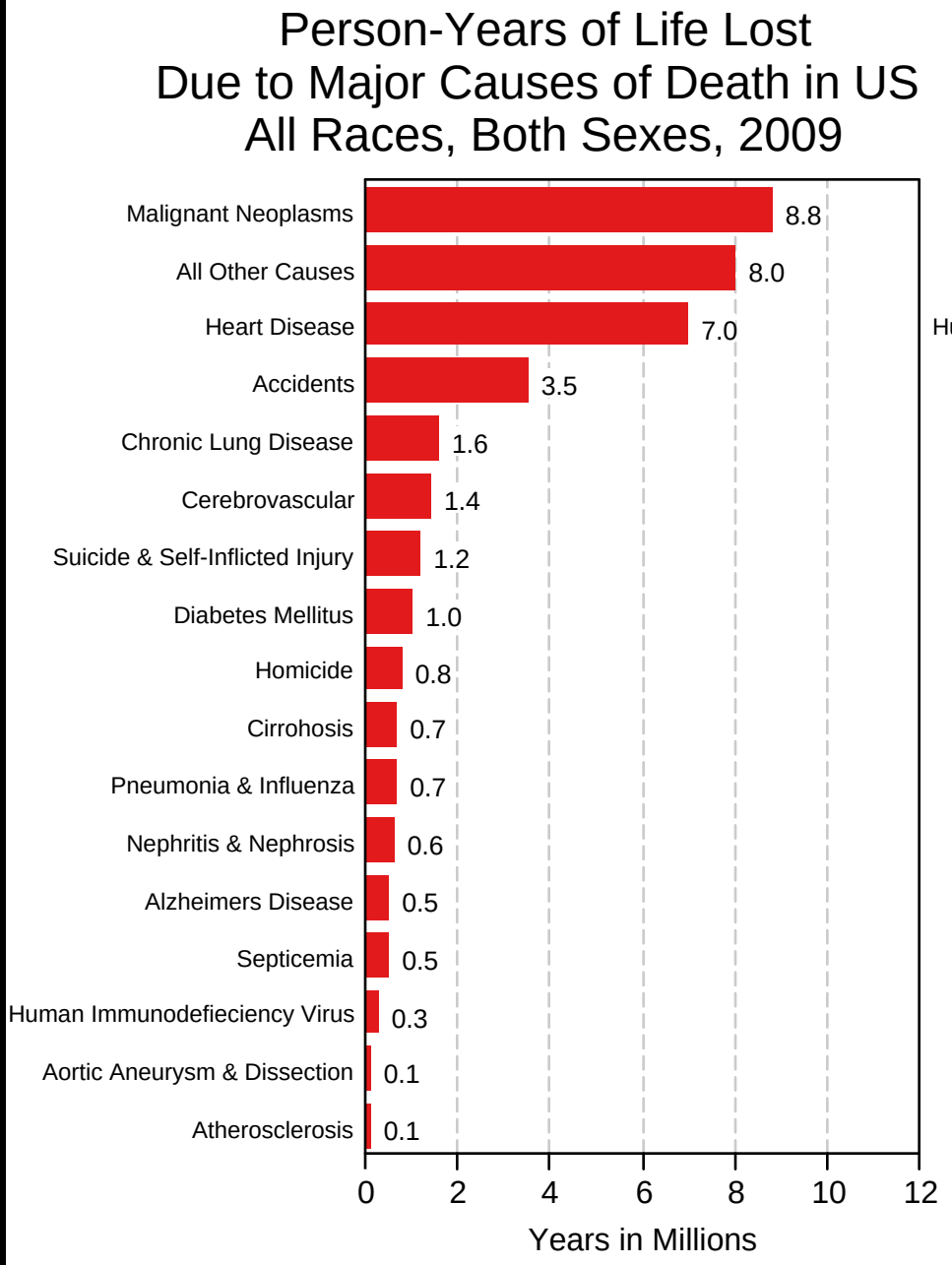
US Mortality estimates based on US age-specific rates applied to US population.
Burden is the change in the number of deaths between 2000 and 2009.
Risk is the change in the cancer death rates between 2000 and 2009.

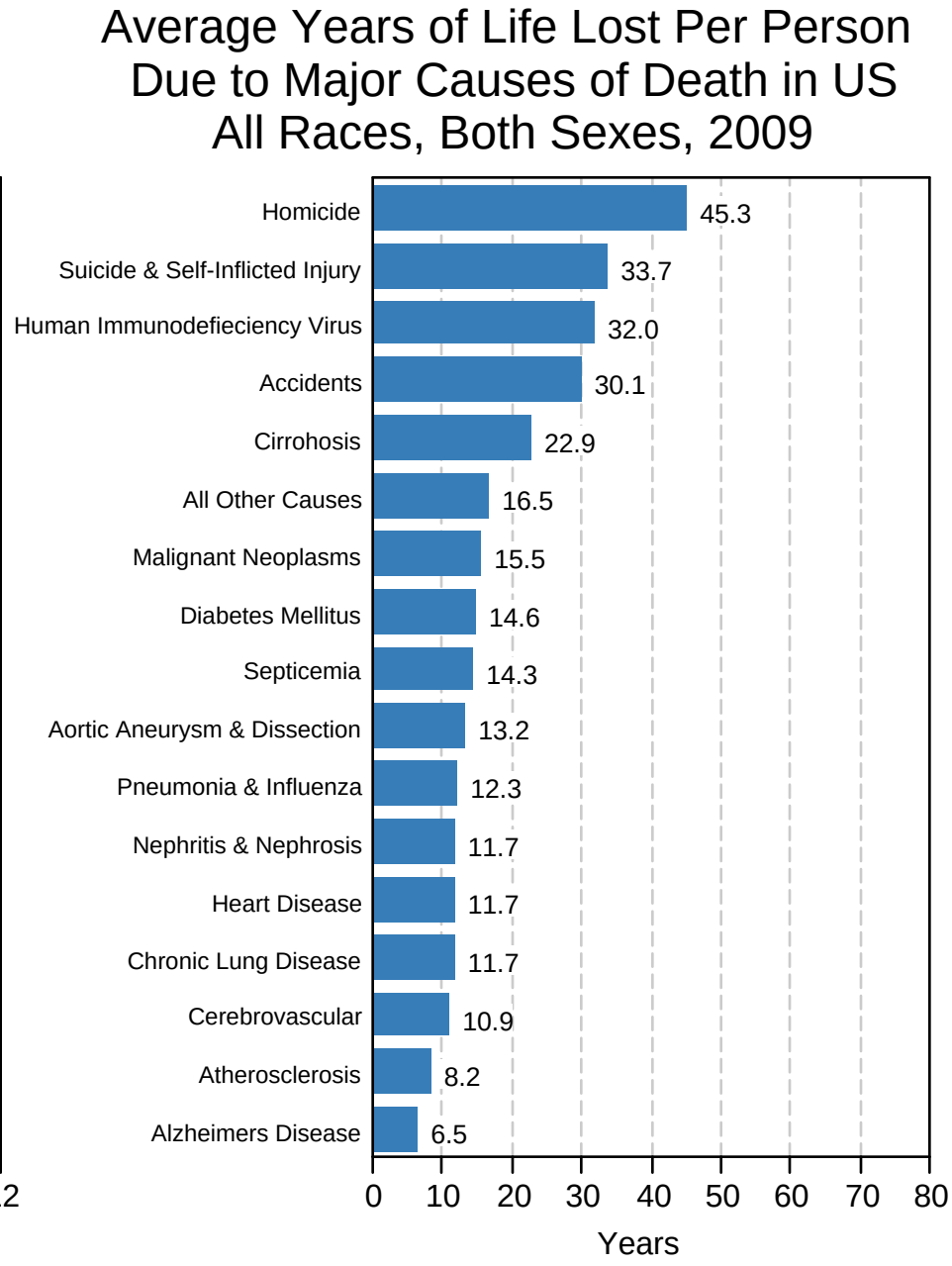
Figure 1.18



Source: US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention and 2007 Life Tables.

Figure 1.19

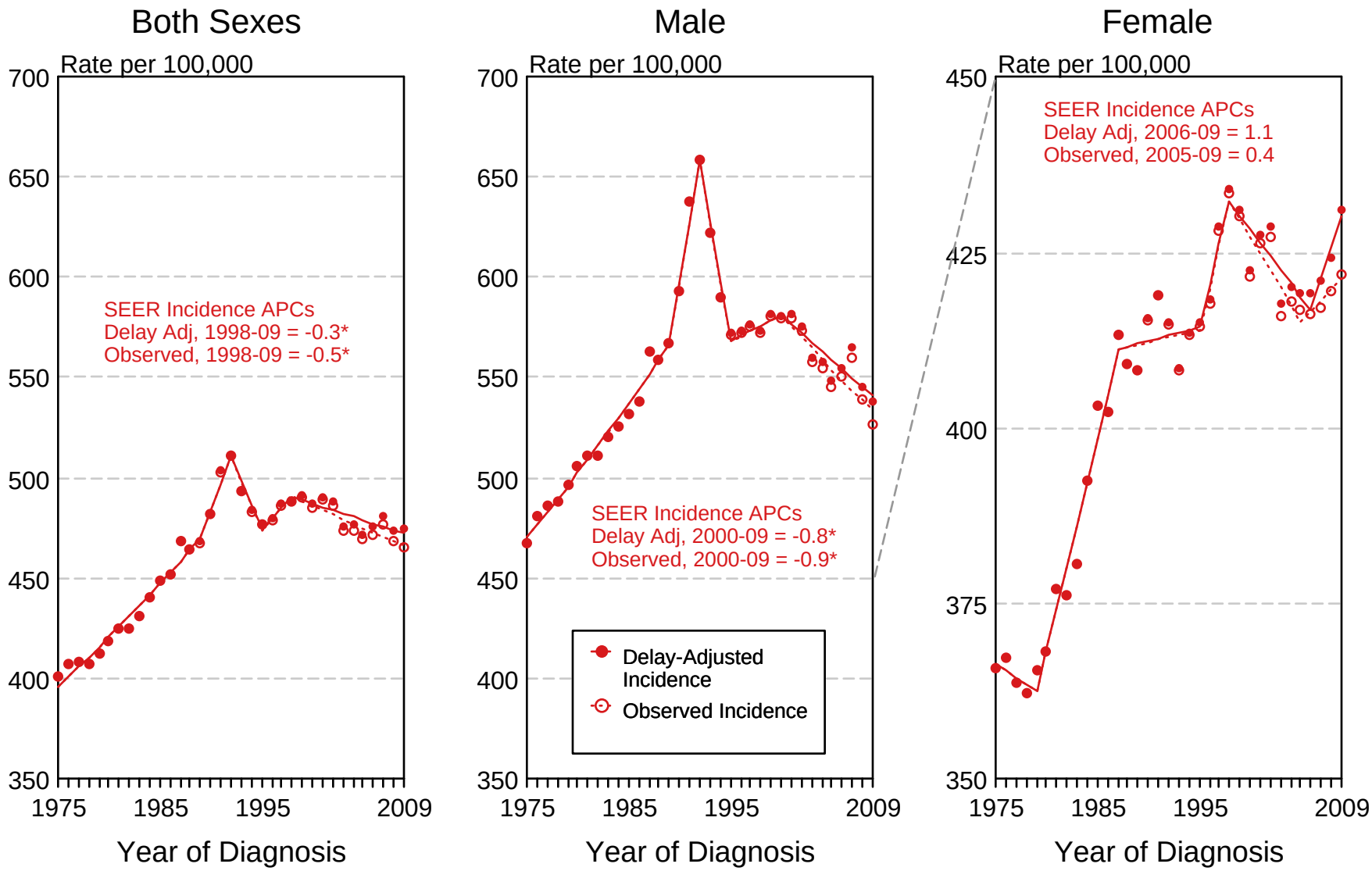




Source: US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention and 2007 Life Tables.

Figure 1.20

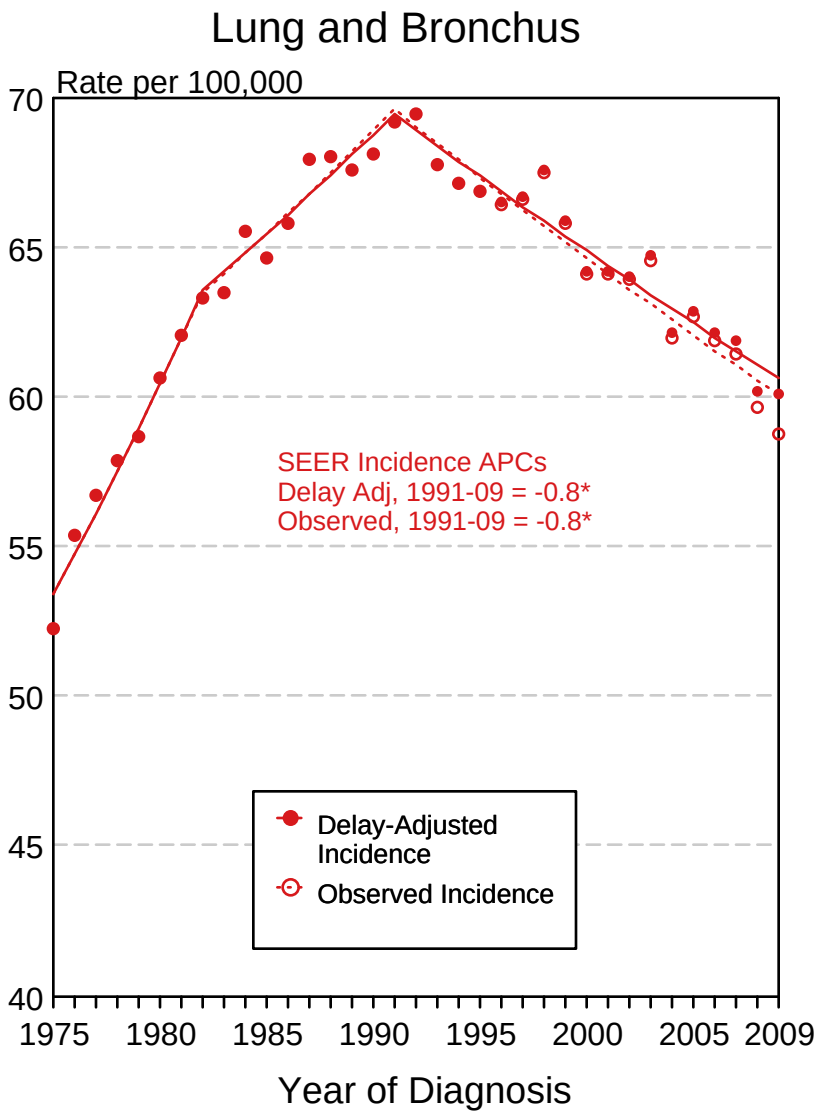
SEER Observed Incidence and Delay Adjusted Incidence Rates[a]
All Cancer Sites, By Sex

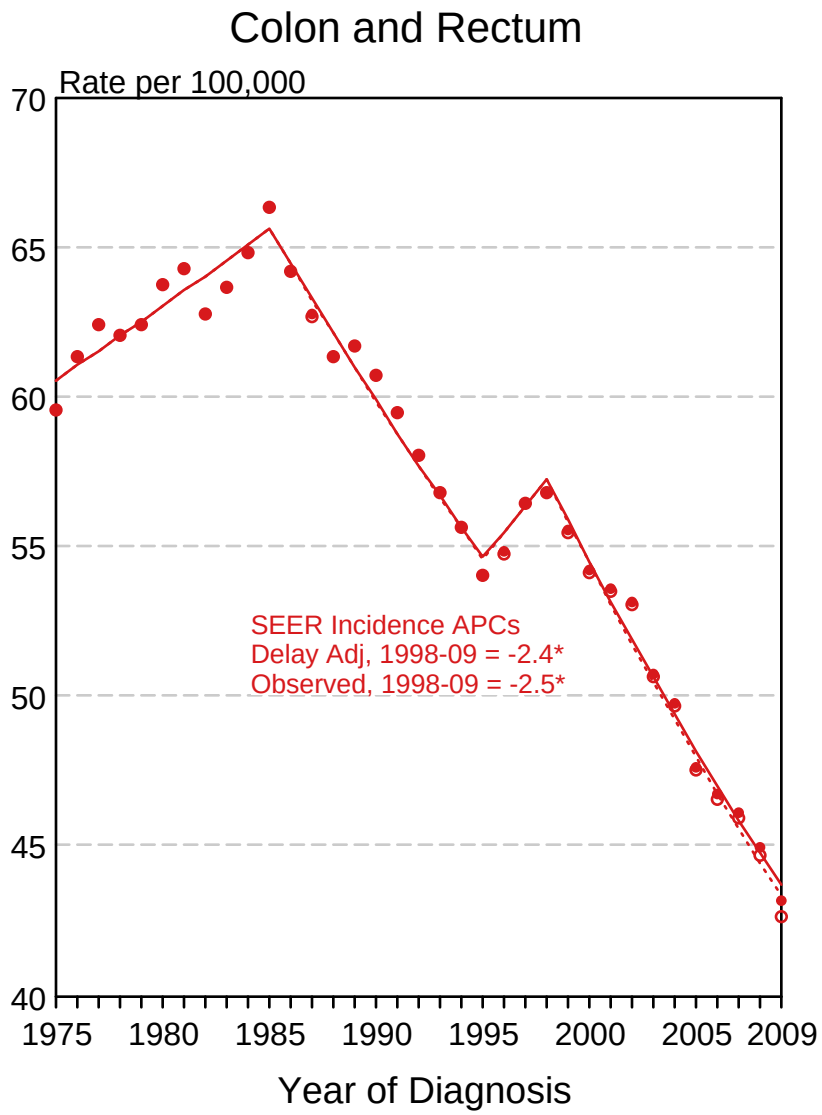


[a] Source: SEER 9 areas. Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).
Regression lines and APCs are calculated using the Joinpoint Regression Program Version 3.5, April 2011, National Cancer Institute.
The APC is the Annual Percent Change for the regression 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]
Both Sexes

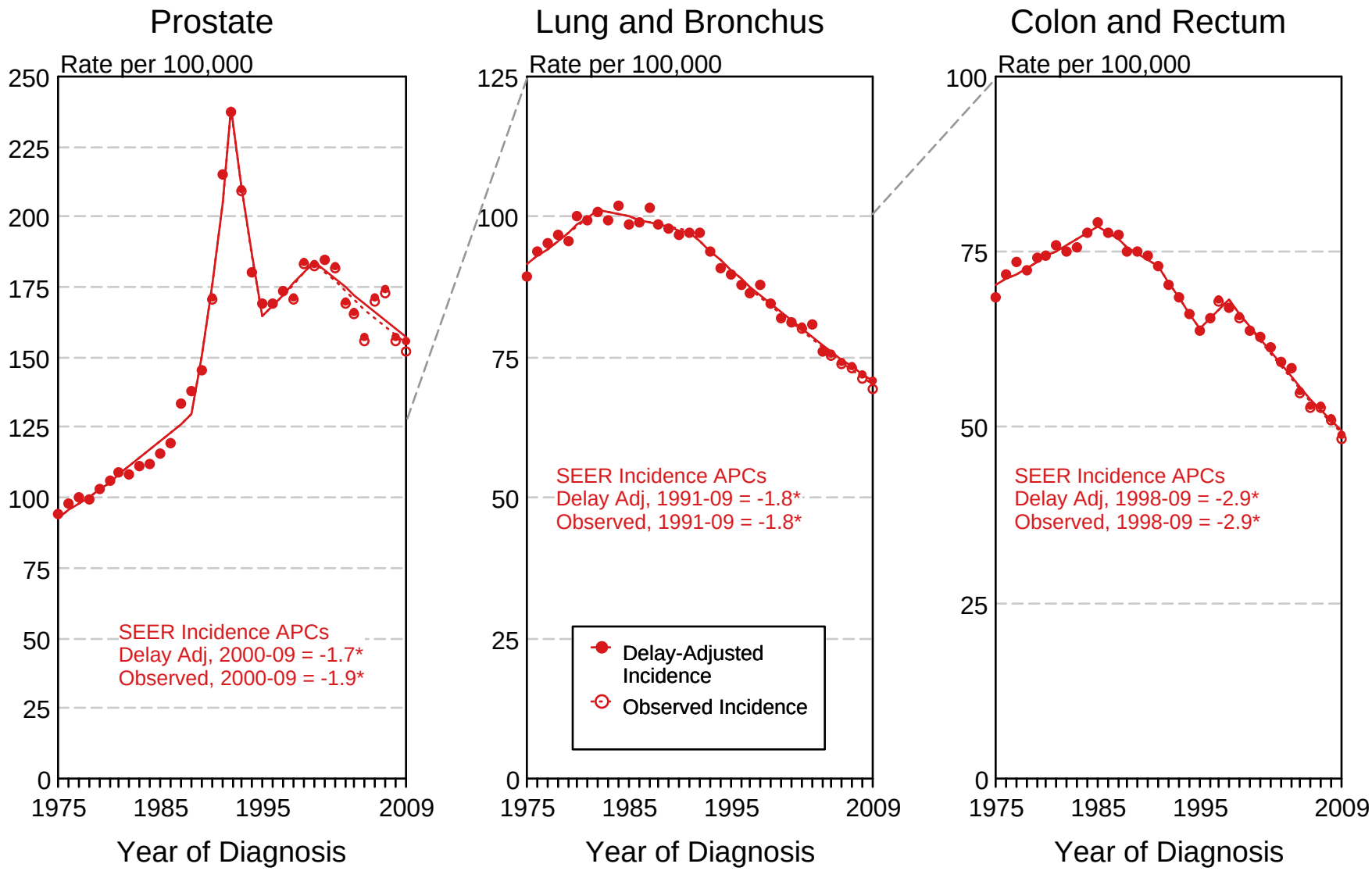




[a] Source: SEER 9 areas. Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).
Regression lines and APCs are calculated using the Joinpoint Regression Program Version 3.5, April 2011, National Cancer Institute.
The APC is the Annual Percent Change for the regression line segments. The APC shown on the graph is for the most recent trend.

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

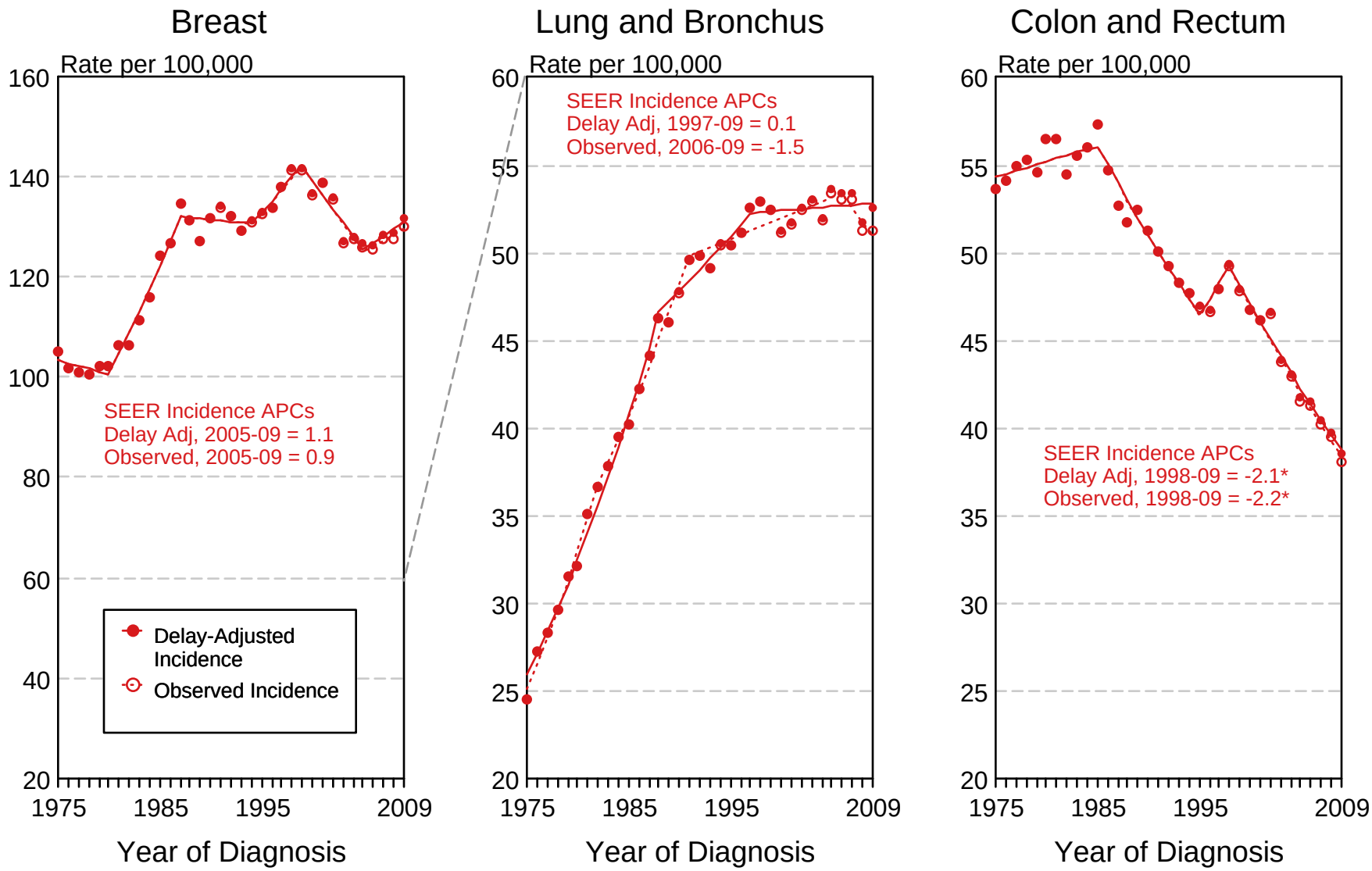
SEER Observed Incidence and Delay Adjusted Incidence Rates[a]
Males



[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 3.5, April 2011, 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 ($p < 0.05$).

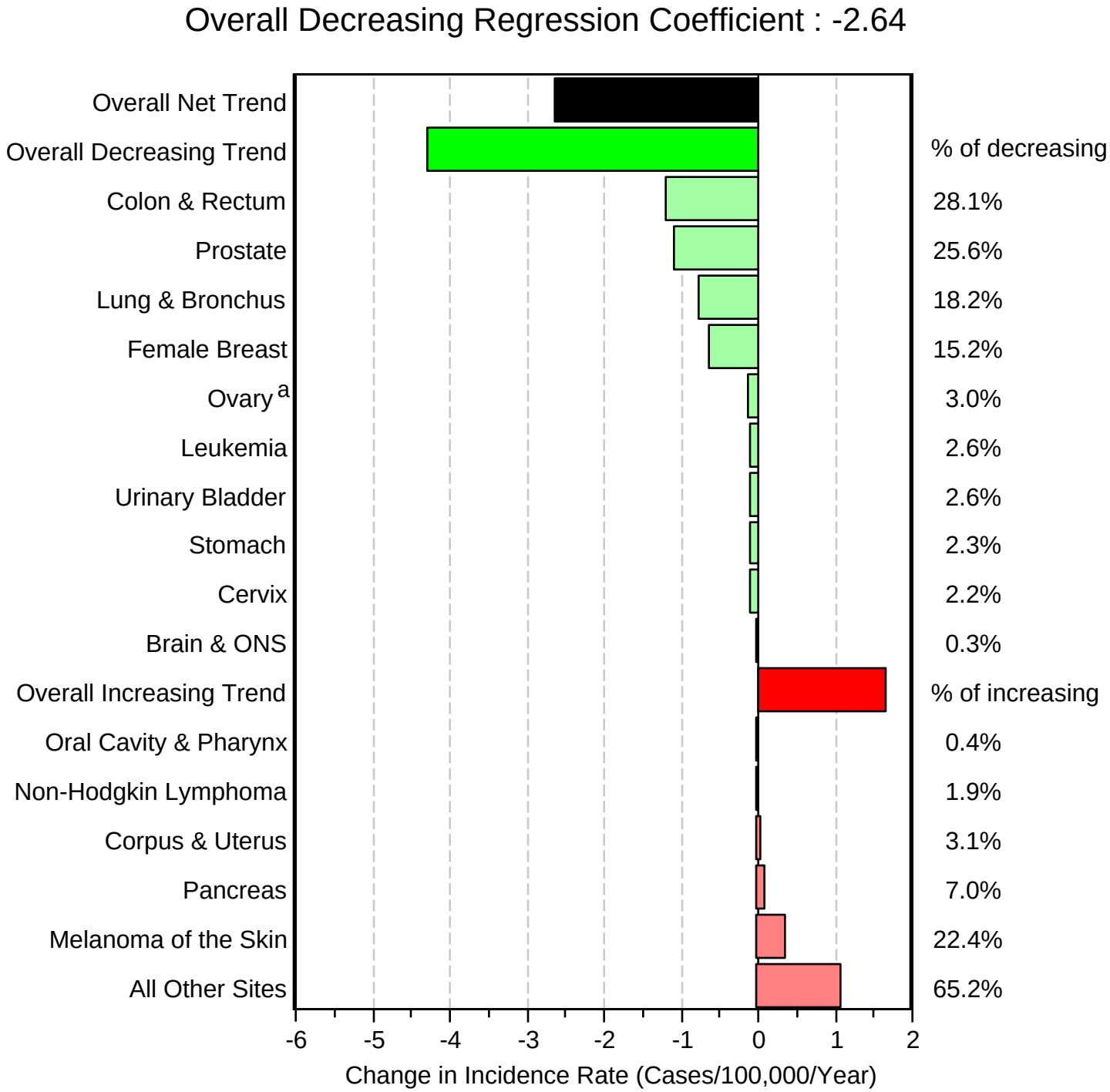
SEER Observed Incidence and Delay Adjusted Incidence Rates[a]
Females



[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 3.5, April 2011, 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 2000-2009 All Races, Both Sexes

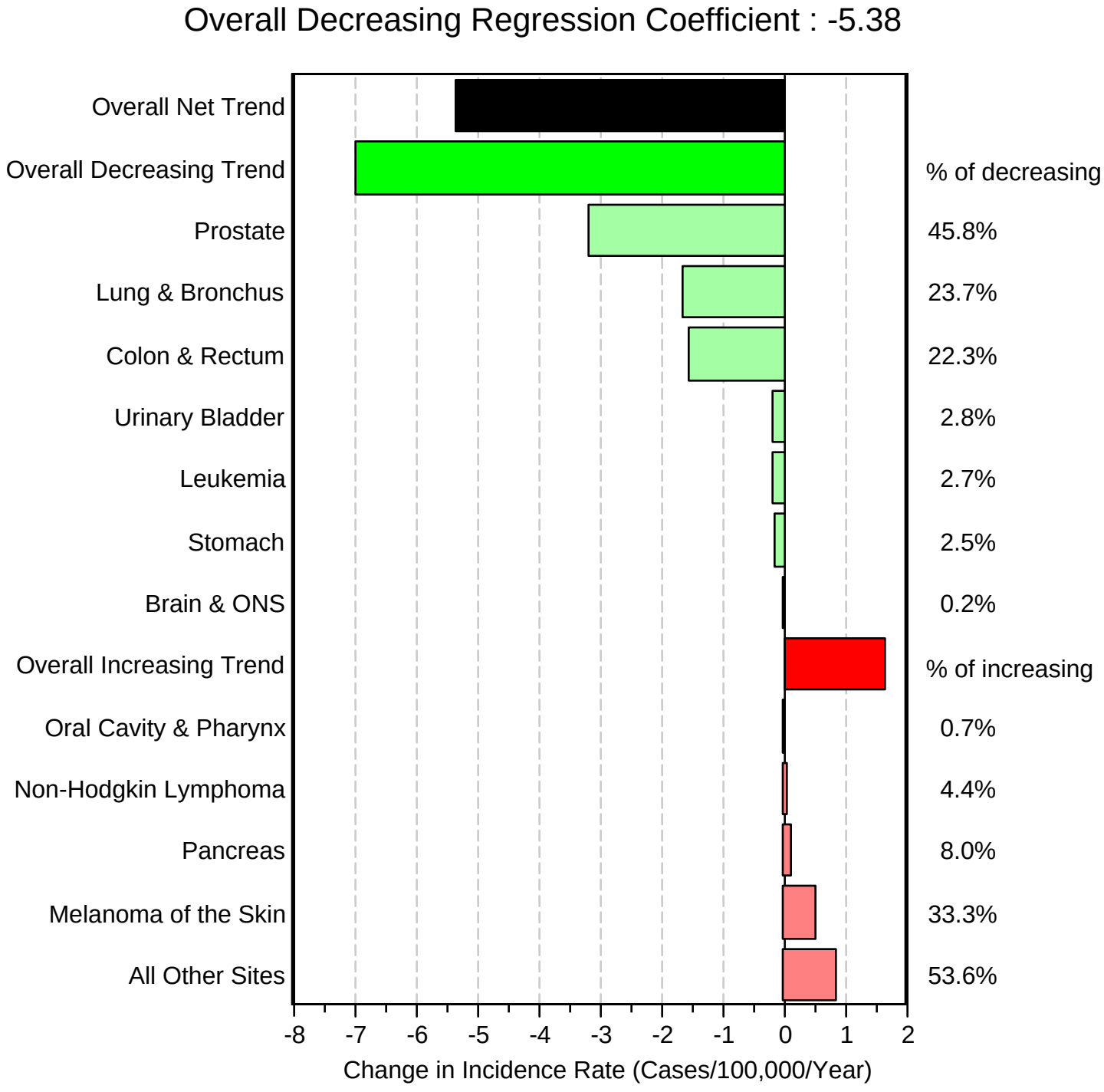


Source: SEER 18 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey and Georgia excluding ATL/RG).

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

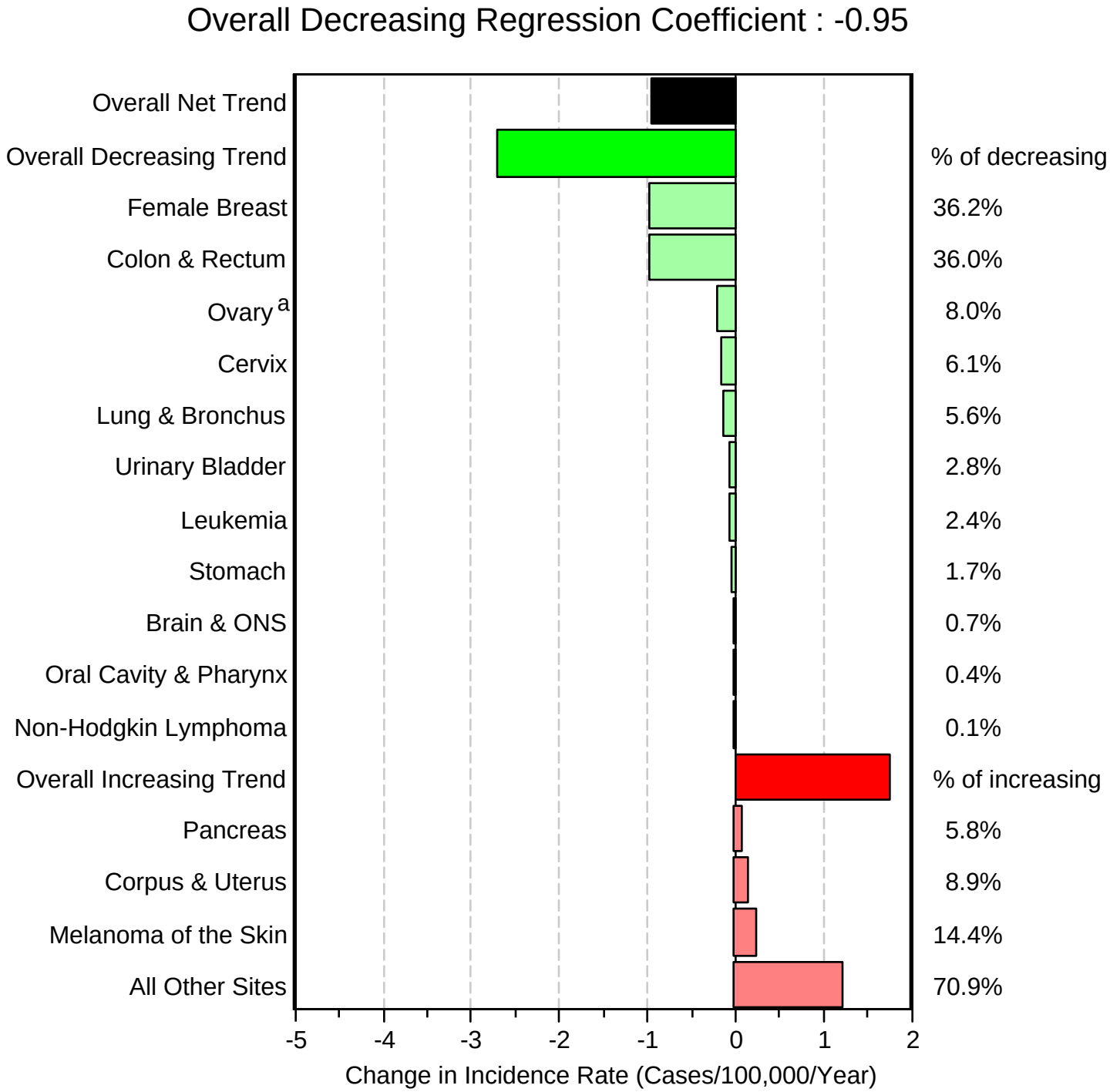
Percents may not add to 100 due to rounding.

Partition of Trends in Incidence Rates For the Time Period 2000-2009 All Races, Males



Source: SEER 18 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, New Jersey and Georgia excluding ATL/RG).
Percents may not add to 100 due to rounding.

Partition of Trends in Incidence Rates For the Time Period 2000-2009 All Races, Females

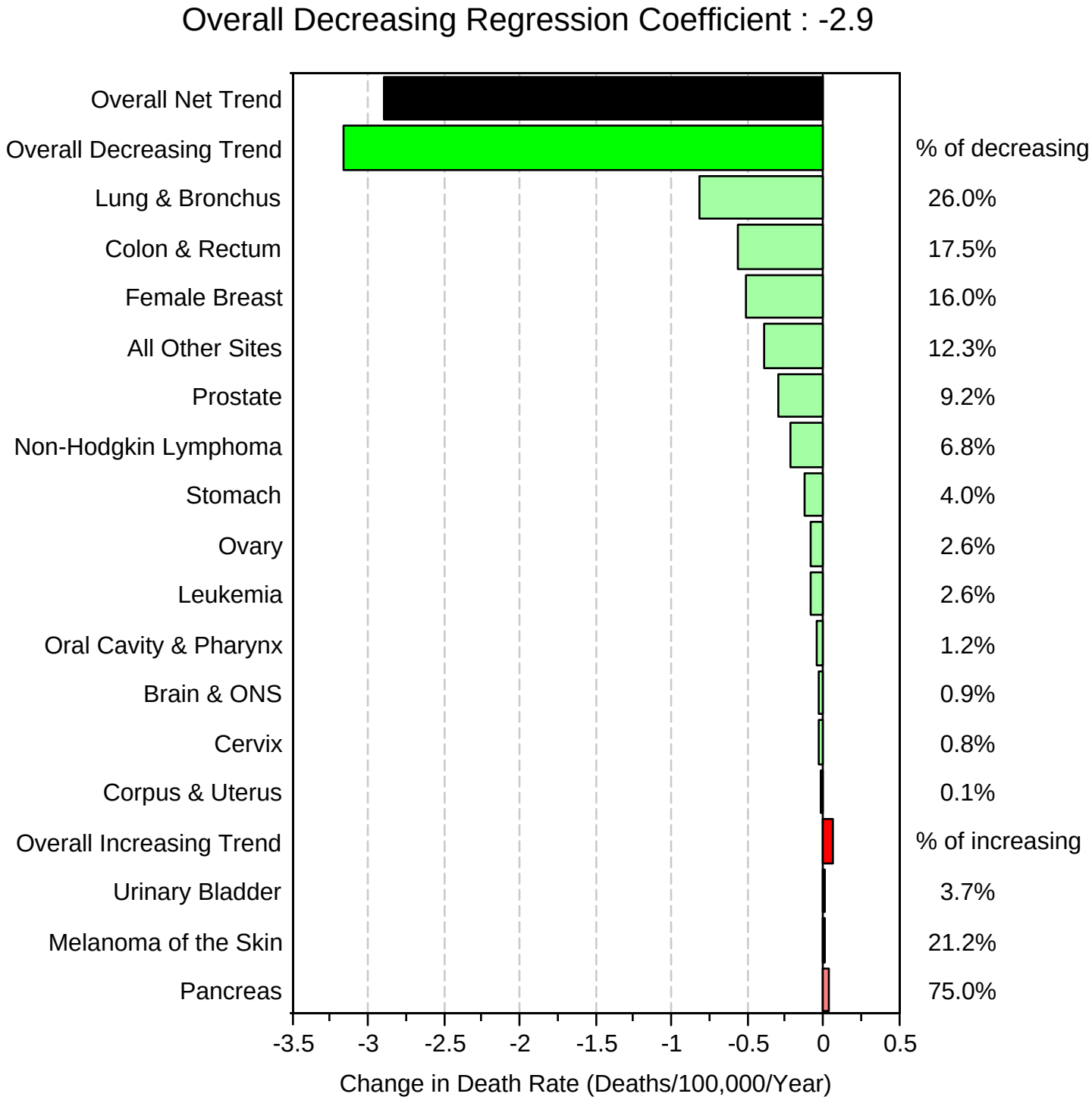


Source: SEER 18 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey and Georgia excluding ATL/RG).

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

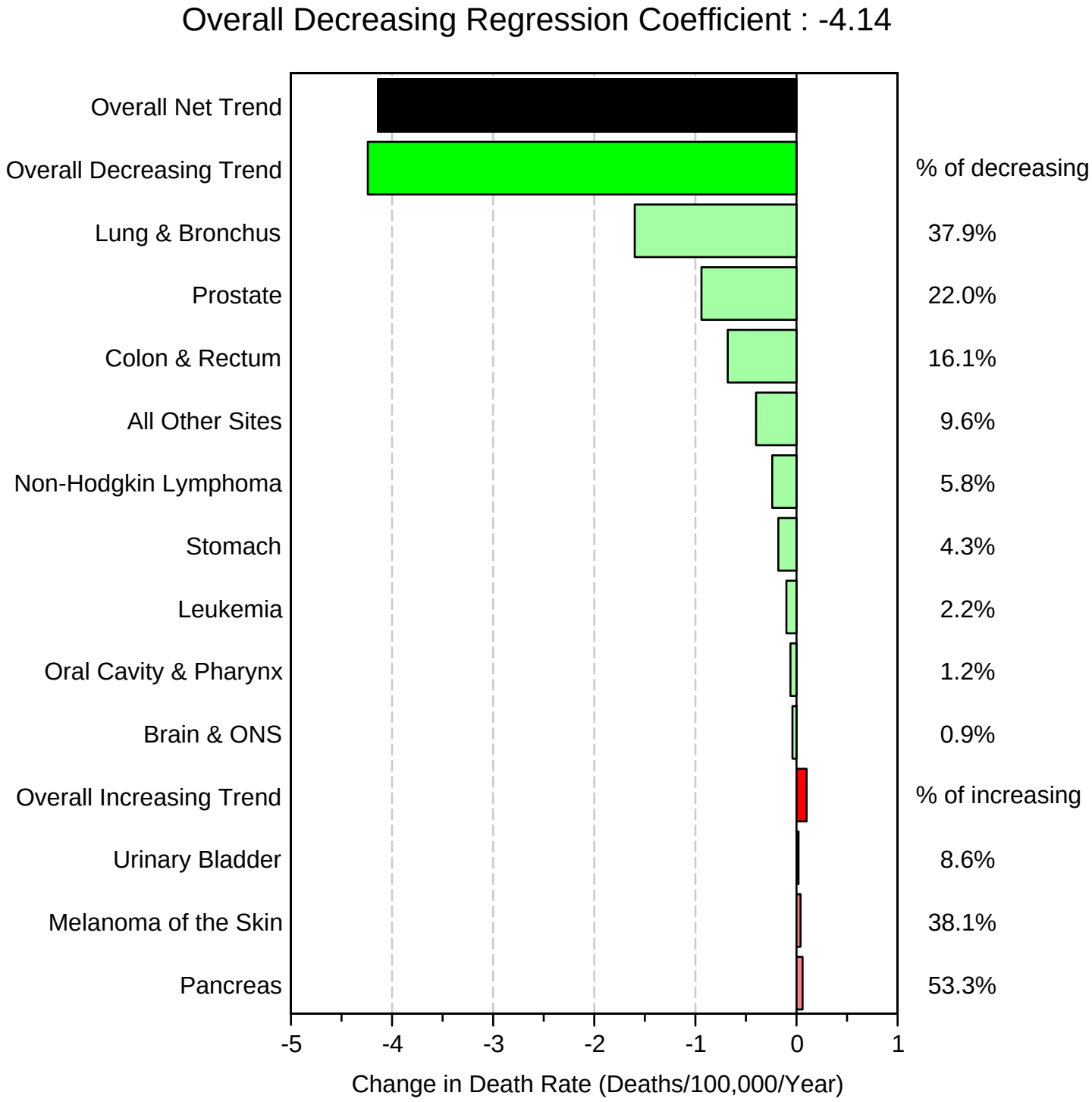
Percents may not add to 100 due to rounding.

Partition of Trend in Death Rates For the Time Period 2000-2009 All Races, Both Sexes



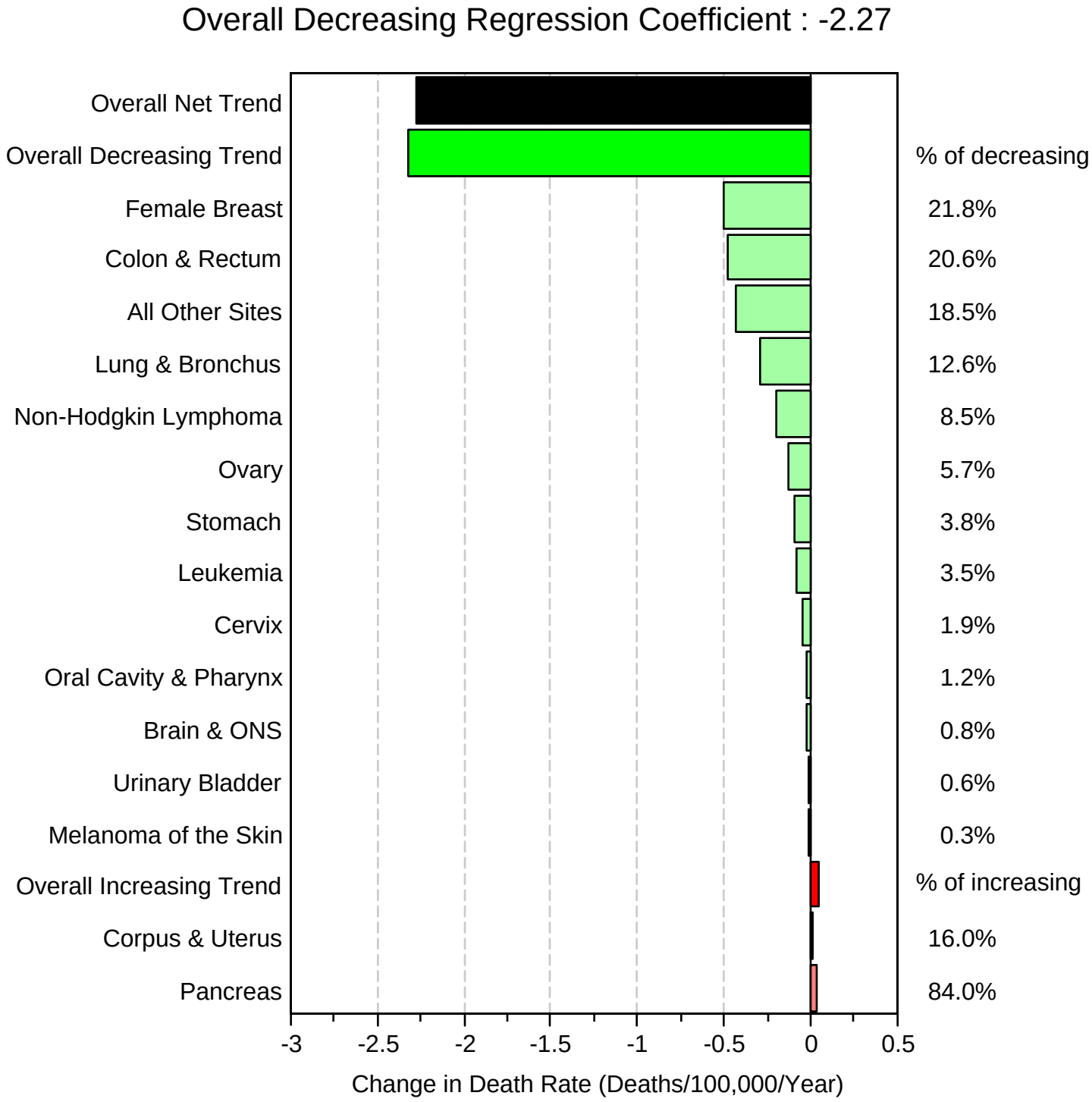
Source: US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.
Percents may not add to 100 due to rounding.

Partition of Trend in Death Rates For the Time Period 2000-2009 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 2000-2009 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.