OVERVIEW

BACKGROUND AND DATA SOURCES

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 rate** 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. Data are presented for a wide spectrum of cancers.

The annual *SEER Cancer Statistics Review* (***CSR***), containing the most recent incidence, mortality, prevalence, and survival statistics, is published by the Cancer Statistics Branch of the NCI. 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. This *CSR* includes incidence, mortality, prevalence, and survival data from 1975 through 2003, the most recent year for which data are available. (Incidence data for 2003 may not be complete. Therefore, *exercise caution when comparing rates for 2003 with those for previous years.*).

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 new federal policy for reporting disease rates and it allows for the age-adjusted rate to more accurately reflect the current age distribution and burden of cancer.

Since 1996, the *CSR* has been available (in .pdf format) at *http://seer.cancer.gov*. This edition can be found at *http://seer.cancer.gov/Publications/CSR1975_2003*. The website allows timelier distribution of the *CSR*. Additional SEER data can be obtained via ***FastStats*** (*http://seer.cancer.gov*) or ***Cancer Query Systems***, an interactive system at *http://seer.cancer.gov/query*, which allows the user to access over 10,000,000 cancer statistics. The SEER public-use file with ***SEER*Stat*** software can be used over the internet, or the user can order a CD-ROM version at *http://seer.cancer.gov/publicdata*. *SEER*Stat* provides a user-friendly PC desktop system for the production of a myriad of cancer statistics such as incidence rates and survival rates, for various demographic and medical input variables.

Excluded cancers: Some cancers were excluded from the analysis. Myelodysplastic syndrome, 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. These cancers were excluded from the analysis. Pilocytic astrocytoma, although reclassified in ICD-O-3, was not excluded.

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. A continuing project of the NCI, the population-based cancer registries participating in the 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.

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 black counties in **rural Georgia** were added. **American Indian residents of Arizona** were added in 1980. In 1983, four counties in New Jersey were added with coverage retrospective to 1979. New Jersey and Puerto Rico participated in the program until the end of the 1989 reporting year. The National Cancer Institute also began funding a cancer registry that, with technical assistance from SEER, collects information on cancer cases among **Alaska Native** populations residing in Alaska. In 1992, the SEER Program was expanded to increase coverage of minority populations, especially Hispanics, by adding **Los Angeles County** and four counties in the **San Jose-Monterey** area south of San Francisco. In 2001, the SEER Program expanded coverage to include **Kentucky, Greater California** (the counties of California that were not already covered by SEER), **New Jersey,** and **Louisiana**.

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

The participating regions were selected principally for their ability to operate and maintain a population-based cancer reporting system and for their epidemiologically significant population subgroups. With respect to selected demographic and epidemiologic factors, they are when combined a reasonably representative subset of the US population. Data from the 9, 13, or 17 SEER geographic areas are used in this report; the given areas contain, respectively, approximately 9, 14, or 26 percent of the US population. The analyses for this CSR were based on the following numbers of cases: 2,861,758 cases were used for long-term trends based on SEER 9 for 1975-2003; 1,629,082 cases were used for 10 year trends based on SEER 13 for 1994-2003; 1,327,804 cases were used for incidence rates based on SEER 17 for 2000-2003. In addition, in situ breast cancer cases numbered 63,149 in the SEER 9 for 1975-2003; 53,145 for 10 year trends in the SEER 13 for 1994-2003; and 45,120 in the SEER 17 for 2000-2003.

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.

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) semiannually submits electronically to NCI data on all reportable diagnoses of cancer made in residents of the coverage area.

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

Mortality data: The SEER Program annually obtains from the NCHS a public-use 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 mortality rates. Cause of death before 1999 was coded according to ICD-9; 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.

Numbers of estimated cancers and deaths in 2006: The SEER Program has obtained from the American Cancer Society (**ACS**) projections of the numbers of cancer cases and cancer deaths in the US in 2006. The ACS projects incidence in 2006 based on incidence rates from SEER for 1979-2002 to the 2006 estimated US population (Jemal et al., 2006).

Population data: The population estimates used in the SEER*Stat software to calculate cancer incidence and mortality rates for this report are a modified version of the annual time series of July 1 county population estimates by age, sex, race, and Hispanic origin that are produced by the Population Estimates Program of the US Census Bureau (*http://www.census.gov/popest/estimates.php*) with support from the NCI through an interagency agreement. Descriptions of the methodologies employed by the Census Bureau for various sets of estimates may be found on their website (*http://www.census.gov/popest/estimates.php*). 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 pertain to the grouping of specific counties which is 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 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.

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+.

SUMMARY TABLES

While there are detailed tables in separate sections for each of the major cancer sites, 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 mortality rates for the most recent 5-year period, trends (percent change (PC) and annual percent change (APC)) from 1975 to the most recent year, median age at diagnosis, median age at death, and survival rates. The information is provided by race (all races, whites, blacks) and by sex.

LONG-TERM TRENDS, 1950-2003

Trends in cancer mortality from 1950 to 2003 are summarized by age both for all cancers combined

and for lung cancer (Table I-2). These mortality data are based on experience in the entire US.

Summaries of long-term trends back to 1950 in cancer incidence and survival are currently not shown. *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 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 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.

CANCER PREVALENCE

Methods: In this report prevalence is calculated at 1/1/2003. *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). This 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/AK 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/AK Native separated from Asian/Pacific Islander. Prevalence calculations for Hispanics use race stratified into: white, non-white, and unknown.

Because SEER has available information for the various racial/ethnic groups for different numbers of years, different years and registries were used to estimate prevalence. Prevalence estimates for all races combined, for whites, and for blacks use cases from 1975 from the SEER 9 registries; prevalence estimates for Asian Pacific Islander use cases diagnosed from 1990 from the SEER 11 areas and rural Georgia and prevalence estimates for Hispanics use cases diagnosed from 1990 from the SEER 11 areas and rural Georgia excluding Hawaii and Seattle-Puget Sound.

Different methods can be used to determine which tumors are to be included for people diagnosed with multiple tumors. Unless otherwise specified, prevalence calculations included only the *first malignant tumor per person*; that is, in situ primary cancers were not included and second-or-later primary cancers were not included unless it is known that all prior tumors were in situ. Thus, if a woman had a melanoma prior to a breast cancer diagnosis, her melanoma would contribute to the prevalence of melanoma and to the prevalence of all sites, but the breast cancer would not contribute to the prevalence of breast cancer. Counting only one cancer per individual avoids some ambiguity in

prevalence counts, and allows the counts for individual sites to sum to the all sites total. Prevalence using different selection criteria is compared in a table in the overview chapter. For more information on tumor selection criteria refer to *http://srab.cancer.gov/prevalence/methods*.

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 (*http://srab.cancer.gov/comprev/*). Validation of the completeness index for all races and for whites was made by using data from the Connecticut Tumor Registry (CTR) beginning with 1940; for blacks, SEER 9 data beginning with 1975 were used. Identification of blacks is not possible in the CTR data prior to 1970. To validate the completeness index for blacks, we have compared the performance of the method to obtain 24-year prevalence from 10-year limited-duration prevalence. For all races combined and for whites, in cases where the validation indicated some lack of fit of the model, an approximation to the completeness index was derived from the CTR data. If there was a lack of fit for blacks, no estimate of complete prevalence was reported. Complete prevalence for Asian/Pacific Islanders and Hispanics is not available at this time. Complete prevalence by age for all races combined was validated by comparing estimated 10-year complete prevalence with observed prevalence from the CTR data. Prevalence by age is reported for the sites that validated well.

The US cancer prevalence counts at 1/1/2003 *were estimated* by multiplying the SEER age- and race-specific prevalence proportions by the corresponding US population estimates based on the average of 2002 and 2003 population estimates from the US Bureau of the Census. US cancer prevalence counts for all races were estimated by summing the US estimated counts for whites/unknown, blacks, and other races. For Hispanics, the estimates for Hispanics of white or unknown race and for Hispanics of other races were summed.

Limited-duration prevalence proportions by age at prevalence are not shown for childhood cancers (diagnosis before age 20) 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.) While it is of interest to estimate the total number of Americans currently alive who were diagnosed with a childhood cancer, the limitations of the duration of the SEER cancer registries requires that this be estimated using statistical modeling. (This work is in progress.)

For more details on available prevalence estimates, see *http://srab.cancer.gov/prevalence/index.html*.

Results and Table Description: The total number of persons alive on January 1, 2003, in the US who had had a diagnosis of invasive cancer is now estimated to be **10,496,000**. Compared with last year's 2002 prevalence estimate of 10,146,324 persons, this year's 2003 estimate represents an increase of **349,676** cases. This increase is due to increases in incidence, improvements in survival, and the increase and aging of the US population. The overview chapter contains two prevalence tables. The first table reports US complete prevalence counts by age at prevalence and sex for some cancer sites. The second table reports US prevalence counts for people diagnosed in the 5 years and 28 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 table displays the percent of the population in the SEER 11 areas diagnosed in the previous 10 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

Each site-specific section of the book contains a table showing the probability (expressed as a percent) of a person of a specified race, sex, and age (0, 10, 20, 30, 40, 50, or 60) being diagnosed with the specified invasive cancer within the next 10, 20, or 30 years, or within their remaining lifetime. Lifetime risks of being diagnosed with invasive cancer and lifetime risks of dying from cancer also appear (as percents) in each table. There are summary tables of lifetime risk in the overview.

Lifetime and interval risks of being diagnosed with cancer: The probability of being diagnosed with cancer is computed by applying cross-sectional age-specific 2001-2003 incidence rates from the SEER 17 areas and death rates from the entire US 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 (Feuer et al., 1992; Feuer et al., 1993). To improve the precision of the calculations, rates were calculated for the age groups 85-89, 90-94, and 95+. The BOC provided populations for these age groups for 1990 to 1999; for 2000-2003, the populations of these age groups were estimated by multiplying the corresponding proportions for 1999 by the given year's total population.

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.

U.S. CANCER MORTALITY RATES BY STATE

Each cancer-site-specific section of the book presents the mortality 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 US 2000 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 the rates in those editions.*)

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

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

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

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

$$SE_d = \sqrt{SE_s^2 + SE_U^2}$$

where SE_s and SE_u are the standard errors of a state rate and of the total US rate, respectively. The variance of each rate (i.e., the square of the standard error) is 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:

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

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

MEASUREMENT ERRORS

Errors in the estimation of death rates can occur in either the numerator (the number of reported deaths) or the denominator (the size of the population). One possible source of numerator error is underregistration of deaths. Although investigation by the National Center for Health Statistics indicates that over 99% of all deaths in the US are registered, little is known about the possible existence of any differences in death registration by geographic area, age, sex, or race.

Numerator error also can occur due to misclassifications, especially of race, ethnicity, or cause of death. Research indicates that, for infant mortality, misclassification is highest for races other than white or black (Hahn et al., 1992). The true extent of racial or ethnic misclassifications in death certificate coding remains unknown.

In coding overall cancer mortality, misclassifications of cause of death would occur when either the true cause of death was cancer while a cause other than cancer was coded, or vice versa. Even if a death is correctly attributed to cancer, the primary cancer may be incorrectly identified. It is already known, for example, that this is a problem with primary liver cancer (Percy, Ries, & Van Holten, 1990).

Denominator errors arise through under- and overenumeration in the decennial census, which is the basis of intercensal population estimates and population projections. To the extent that any over- or undercount is substantial and variable among subgroups or geographic areas, it may have important consequences on calculated death rate statistics. The effect of an *undercount* of population is that it decreases the denominator, leading to an *overestimate* of the rate. Conversely, an *overcount* of population would result in an *underestimate* of the rate.

In 1980, underenumeration varied by age group, with the greatest difference found for those 80 and older, who were undercounted by about 5% (US Bureau of the Census, 1986). All other age groups

were either over- or undercounted by less than 3%. For race-sex-age groups, the coverage was lowest for black males aged 40-49, who were undercounted by 19%. It is thought that no improvement was achieved with the 1990 census; in some instances, underenumeration may have been worse than in 1980.

As described above, a revised set of intercensal (between 1990 and 2000) county populations was recently obtained by NCI from the Census Bureau through an interagency agreement. Thus, intercensal statistics published here may differ from those published in previous editions of the *CSR*.

Any of these errors alters the count in either the numerator or the denominator, which in turn affects the calculated rate. Since the types of error encountered may differ by type of cancer, age group, race, sex, or even state, their impact is difficult to ascertain. *Use caution when dealing with those areas where potential problems may be present.*

JOINPOINT REGRESSION ANALYSIS OF CANCER TRENDS

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

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

Joinpoint analysis first assumes no joinpoints are needed to describe the data accurately, i.e., the trend over the entire interval 1975-2003 does not change. Joinpoints are added in turn if they are statistically significant. Thus, in the final model, each joinpoint represents a significant change in trend. Computational considerations currently limit the maximum possible number of segments to be no larger than four, with three joinpoints. Smoother polynomial models may provide a good fit overall, but are less sensitive to what is occurring at the ends of the data .

In running the Joinpoint program, we set the program parameters as follows: maximum number of joinpoints 3, minimum interval between joinpoints 2 years, minimum interval between a joinpoint and an endpoint 2 years, joinpoints occurring only at exact years. These restrictions provide some added stability to the resultant models. Different values for these parameters may yield a different joinpoint model. Since the test statistic to determine if additional joinpoints are necessary cannot be compared against any known standard distribution to determine significance, (e.g., the normal, t, or f) a permutation test is used which simulates the distribution of the test statistic under the null hypothesis. Thus an element of randomness is introduced by the random number stream used. However, for greater consistency in the p-values obtained if one were to change the random seed for each run, we run the program for 4499 permutations.

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

REPORTING DELAY

Timely and accurate calculation of cancer incidence rates is hampered by **reporting delay**, the time lapse before a diagnosed cancer case is reported to the NCI. Currently, the NCI allows a standard delay of 22 months between the end of the diagnosis year and the time the cancers are first 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 2003 were first reported to the NCI in November 2005 and released to the public in May 2006. However, in each subsequent release of the SEER data, *records from all prior diagnosis years* (e.g., diagnosis years 2002 and earlier in the 2005 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 current case count to account for anticipated future corrections (both additions and deletions) to the data*. These adjusted counts 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 graphically show SEER age-adjusted incidence rates and trends, along with their calculated delay adjustments, for all cancers combined (malignant only except for urinary bladder), for female breast in situ, for urinary bladder (in situ and malignant), and for 22 malignant cancer sites: melanoma (for all races combined and whites only), lung/bronchus, colon/rectum, prostate, female breast, liver and intrahepatic bile duct, pancreas, cervix uteri, corpus and uterus, ovary, testis, kidney and renal pelvis, brain and other nervous system, Hodgkin lymphoma, non-Hodgkin lymphoma, all leukemias, esophagus, larynx, myeloma, oral cavity and pharynx, thyroid, and stomach.

A delay distribution models the probability of a cancer being reported after a delay of d years (d = 2, 3, ... , 23). The number of cancers reported at each delay year is assumed to follow a Poisson distribution. Cases are removed as corrections to the data are made, and the probability of removing cases is modeled as a binomial distribution. To reduce the number of parameters that have to be estimated and to achieve stability in the tails of the delay distributions, an assumption is made that all cancer cases will be reported within 24 years of diagnosis.

The delay distributions were modeled as a function of covariates using a discrete-time proportional hazards model. For the models presented here the following potential covariates are included: age at diagnosis, sex, diagnosis year, delay time, and race/ethnicity. Age at diagnosis was modeled as a 3-category variable with levels 0–49, 50–64, 65+. Diagnosis year was modeled either as a continuous covariate or as categorized variables: 1981–1985, 1986–1990, or 1991–2003. Delay time d was modeled as a categorical variable in one of three ways: (1) $d > 2$ or $d > 3$, (2) $d > 2$, $d > 3$, $d > 4$, or $d > 5$, and (3) $d > 2$, $d > 3$, ... , or $d > 10$. Only blacks and whites were analyzed.

Maximum likelihood estimates of delay probabilities were obtained using the Newton-Raphson algorithm. For each of the cancer sites, models of many combinations of covariates were considered. We evaluated the models by fitting the models using data from each of the annual data submissions

between 1983 and 2004 and then predicting the counts for the 2005 submission. For each cancer site, the model that minimized the sum of squared prediction errors was chosen as the default model. An algorithm was then used to compare the default model with competing models in order to determine a model that best balanced prediction and simplicity. The chosen model was then refitted using all data (1983–2005 submissions, 1981–2003 diagnosis years) to estimate delay distributions and calculate delay-adjusted estimates of the cancer counts.

Age-adjusted (using the 2000 US standard population) cancer incidence rates were then calculated with and without adjusting for reporting delay. Joinpoint linear regression (Harris, 1990) was used to obtain the annual percentage changes for the 1975–2003 incidence rates for the data series with and without delay adjustment. Because the delay distribution was assumed complete after 24 years, incidence rates for diagnosis years prior to 1982 were not reporting-adjusted. In these joinpoint regression analyses, up to three joinpoints (i.e, four trend-line segments) were allowed, and these were modeled to fall at either whole years or midway between diagnosis years. Joinpoints were constrained to be at least two years away from both the beginning and the end of the data series and at least two years apart. Models were fitted using the weighted-least-squares (weighted by appropriate variances of age-adjusted incidence rates) option in the *Joinpoint* regression software.

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

STATISTICAL SIGNIFICANCE

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

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

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

When a null hypothesis is rejected, there remains a small chance that a wrong decision has been made. If many statistical comparisons are done, even with $\alpha = 0.01$, 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* (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 (about two-thirds) than any state; their higher mortality rates for several types of cancer elevate the overall rate for the District.

INTERPRETATION OF CANCER STATISTICS

When reviewing the various cancer incidence, mortality, and survival statistics provided in this report, be aware that a number of factors may affect the interpretation of many of these statistics.

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. Thus, in calculating the survival rate for all cancers combined, the proportions corresponding to the specific cancers will also change over time. Therefore, 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 frequency of each specific cancer in some specified reference period, 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 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, this 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 progress to invasive 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 and survival rates with little or no change in mortality rates. Breast, colon, prostate, cervix uteri, bladder, and skin (melanoma) are the cancer sites most likely to be affected.

Technological advances in diagnostic procedures: In this report, trends in survival by stage at diagnosis are not presented for specific cancers; trends in stage distributions are presented rarely. However, it is possible to compare survival rates by stage and stage distributions given here with those for earlier time periods (as provided in previous reports or available from the SEER public-use data file). Thus, it is necessary to comment on the effect of technological advances on the diagnosis and staging of cancer.

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 rates 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 (Beahrs, 1988). The evolution of such classifications reflects the identification of new prognostic factors that may influence choice of treatment. The SEER Program collects 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.

For those cancers for which new prognostic variables are introduced into staging, so that previously collected EOD data cannot determine new stage categories, there can be problems in assessing trends in stage of disease. Only by reviewing the evolution of staging for a given cancer is it possible to determine what effect changes in stage definitions have had on stage-specific survival and on stage-at-diagnosis distributions. Stage migration (mentioned above) and EOD migration need also be taken into account. One reason for using the historical categories of *localized*, *regional*, and *distant* is that these categories have been fairly consistent over time.

Interpreting relative survival rates: The relative survival rate is the ratio of the observed survival rate to the expected survival rate for a given patient cohort. The expected survival rate 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 rate approximates the probability that a patient will *not* die of the diagnosed cancer within the given time interval.

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. Expected survival rates for lung cancer patients based on the general population will be unduly optimistic for this reason; they will result in relative rates that are *lower* than they should be. The problem cannot be easily corrected because separate life tables for smokers and nonsmokers are not available. Amount of smoking (usually measured in pack-years) is clearly an important variable. The possibility that expected rates may not be appropriate for a given patient cohort should also be considered when examining relative survival rates 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 rate 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, and 1990 only for white, black, and other; these life tables were used to produce the relative survival rates in this book. There may be small variations among survival rates calculated in this *CSR* and those in *CSR*s prior to 1973–1996.

Comparison with other databases: The SEER data are obtained from population-based cancer registries covering about 26 percent of the US population. It is sometimes of interest to compare cancer statistics for SEER areas with those from other registries both in the US and worldwide. In making such comparisons, one must carefully consider the factors considered above for both data sources. In addition, one should assess all of the following: (1) completeness of case ascertainment, (2) rules used to determine multiple primaries, (3) follow-up, (4) rules used in assigning and coding cause of death, and (5) the sources and procedures used in obtaining population estimates. Depending on the rates being compared, there could be other confounding factors which should be considered. The same standard or standard million population should be used for the age-adjustment of each group being compared. Examples of other databases are USCS (US Cancer Statistics Working Group, 2005) and CINA+ Online (*http://www.naaccr.org/cinap/index.htm*).

It is sometimes interesting to compare survival data 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 rates 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 includes 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: It is important to note that most rates in this CSR were age-adjusted to the 2000 standard US population; in some previous SEER reports, the 1970 standard million population was used. Therefore, *rates in this report can not be compared to rates and trends in those 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.* Additional cancer cases that were previously overlooked for a given diagnosis year 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 rates. 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 updated by the Bureau of the Census; for example, previous population estimates for years beginning with 1990 were replaced with new estimates from the BOC. Such changes may result in some differences between incidence and mortality rates for a given calendar period as published in different reports.

STANDARD ERRORS OF RATES

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

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

$$SE(CR_t) = CR_t \cdot \sqrt{\frac{q_1}{e_1 - d_1} + \frac{q_2}{e_2 - d_2} + \ldots + \frac{q_t}{e_t - d_t}}$$

where CR_t is the t-year relative survival rate, and for i = 1, ... , 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 following formula for the SE of a crude incidence or mortality rate (Keyfitz, 1966):

$$SE(\text{rate}) \approx \text{rate} / \sqrt{\text{number of cancer cases or deaths}}$$

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 million 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 million population. The potential confounding effect of age is reduced when comparing age-adjusted rates based on the same standard million 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.

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

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

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

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

Prevalence: Prevalence is defined as the number or percent of people alive on a certain date in a population who previously had a diagnosis of the disease. It includes new (incident) and pre-existing cases and is a function of past incidence, past survival, and the size and age structure of the population**.** *Limited-Duration Prevalence* represents the proportion of people alive on a certain day who had a diagnosis of the disease within the past *x* years (e.g. *x* = 5, 10 or 20 years). *Complete*

prevalence is an estimate of the number of persons (or the proportion of the population) alive on a specified date who had been diagnosed with the given disease, no matter how long ago that diagnosis was. For more details on cancer prevalence definitions and methods, refer to *http://srab.cancer.gov/prevalence/*.

Stage of disease at diagnosis: Extent-of-disease information determines stage of disease at diagnosis. The historical 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 (Beahrs et al., 1988).

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Table I-1

ESTIMATED NEW CANCER CASES AND DEATHS FOR 2006

All Races, By Sex

Primary Site	Estimated New Cases			Estimated Deaths		
	Total	Males	Females	Total	Males	Females
All Sites	1,399,790	720,280	679,510	564,830	291,270	273,560
Oral Cavity and Pharynx	30,990	20,180	10,810	7,430	5,050	2,380
Tongue	9,040	5,870	3,170	1,780	1,150	630
Mouth	10,230	5,440	4,790	1,870	1,100	770
Pharynx	8,950	6,820	2,130	2,110	1,540	570
Other Oral Cavity	2,770	2,050	720	1,670	1,260	410
Digestive System	263,060	137,630	125,430	136,180	75,210	60,970
Esophagus	14,550	11,260	3,290	13,770	10,730	3,040
Stomach	22,280	13,400	8,880	11,430	6,690	4,740
Small Intestine	6,170	3,160	3,010	1,070	560	510
Colon[a]	106,680	49,220	57,460	55,170[a]	27,870[a]	27,300[a]
Rectum	41,930	23,580	18,350			
Anus, Anal Canal, and Anorectum	4,660	1,910	2,750	660	220	440
Liver and Intrahepatic Bile Duct	18,510	12,600	5,910	16,200	10,840	5,360
Gallbladder and Other Biliary	8,570	3,720	4,850	3,260	1,280	1,980
Pancreas	33,730	17,150	16,580	32,300	16,090	16,210
Other Digestive	5,980	1,630	4,350	2,320	930	1,390
Respiratory System	186,370	101,900	84,470	167,050	93,820	73,230
Larynx	9,510	7,700	1,810	3,740	2,950	790
Lung and Bronchus	174,470	92,700	81,770	162,460	90,330	72,130
Other Respiratory	2,390	1,500	890	850	540	310
Bones and Joints	2,760	1,500	1,260	1,260	730	530
Soft Tissue	9,530	5,720	3,810	3,500	1,830	1,670
Skin (excl. basal & squamous)	68,780	38,360	30,420	10,710	6,990	3,720
Melanoma of the Skin[b]	62,190	34,260	27,930	7,910	5,020	2,890
Other non-epithelial skin	6,590	4,100	2,490	2,800	1,970	830
Breast[b]	214,640	1,720	212,920	41,430	460	40,970
Genital Organs	321,490	244,240	77,250	56,060	28,000	28,060
Cervix (uterus)	9,710		9,710	3,700		3,700
Endometrium (uterus)	41,200		41,200	7,350		7,350
Ovary	20,180		20,180	15,310		15,310
Vulva	3,740		3,740	880		880
Vagina and other genital organs, female	2,420		2,420	820		820
Prostate	234,460	234,460		27,350	27,350	
Testis	8,250	8,250		370	370	
Penis and other genital organs, male	1,530	1,530		280	280	
Urinary System	102,740	70,940	31,800	26,670	17,530	9,140
Urinary Bladder	61,420	44,690	16,730	13,060	8,990	4,070
Kidney and Renal Pelvis	38,890	24,650	14,240	12,840	8,130	4,710
Ureter and other urinary organs	2,430	1,600	830	770	410	360
Eye and Orbit	2,360	1,230	1,130	230	110	120
Brain and Other Nervous System	18,820	10,730	8,090	12,820	7,260	5,560
Endocrine System	32,260	8,690	23,570	2,290	1,020	1,270
Thyroid	30,180	7,590	22,590	1,500	630	870
Other Endocrine	2,080	1,100	980	790	390	400
Lymphoma	66,670	34,870	31,800	20,330	10,770	9,560
Hodgkin Lymphoma	7,800	4,190	3,610	1,490	770	720
Non-Hodgkin Lymphoma	58,870	30,680	28,190	18,840	10,000	8,840
Myeloma	16,570	9,250	7,320	11,310	5,680	5,630
Leukemia	35,070	20,000	15,070	22,280	12,470	9,810
Lymphocytic Leukemias	13,950	8,430	5,520	6,150	3,490	2,660
Myeloid Leukemias	16,430	8,900	7,530	9,640	5,390	4,250
Other leukemia	4,690	2,670	2,020	6,490	3,590	2,900
All Other Sites[c]	27,680	13,320	14,360	45,280	24,340	20,940

Cancer Facts & Figures – 2006, American Cancer Society (ACS), Atlanta, Georgia, 2006.
Excludes basal and squamous cell skin and *in situ* carcinomas except urinary bladder.
Incidence projections are based on rates from the NCI SEER Program 1979-2002.

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

[b] Carcinoma *in situ* of the breast accounts for about 61,980 new cases annually, and melanoma *in situ* accounts for about 49,710 new cases annually.

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

Table I-2

54-YEAR TRENDS IN U.S. CANCER DEATH RATES[a]

All Races, Males and Females

All Primary Cancer Sites Combined

Age Group	1950	1976	2003	Annual Percent Change 1950-1976	Annual Percent Change 1976-2003	Total Percent Change 1950-2003
0-4	11.1	4.8	2.4	-2.9	-2.8	-78.8
5-14	6.7	4.9	2.6	-1.1	-2.6	-60.5
15-24	8.6	6.4	4.0	-0.8	-1.7	-53.6
25-34	20.4	14.8	9.4	-1.3	-1.5	-54.0
35-44	63.6	52.0	34.6	-0.5	-1.5	-45.6
45-54	174.2	177.8	122.1	0.1	-1.5	-29.9
55-64	391.3	426.8	345.5	0.3	-0.8	-11.7
65-74	710.0	785.1	773.2	0.4	0.0	8.9
75-84	1,167.2	1,192.7	1,295.5	0.1	0.4	11.0
85+	1,450.7	1,506.7	1,696.5	-0.1	0.6	16.9
All Ages	195.4	202.3	190.1	0.1	-0.2	-2.7

Lung and Bronchus Cancer[b]

Age Group	1950	1976	2003	Annual Percent Change 1950-1976	Annual Percent Change 1976-2003	Total Percent Change 1950-2003
0-4	-	-	-	-	-	-
5-14	-	-	-	-	-	-
15-24	0.2	0.1	0.1	-2.4	-1.0	-61.5
25-34	0.8	0.8	0.4	0.3	-2.0	-51.8
35-44	4.6	10.3	5.5	3.5	-2.3	20.1
45-54	20.2	49.9	30.3	3.6	-2.3	49.8
55-64	48.9	126.0	112.0	3.5	-0.5	129.2
65-74	59.4	202.2	270.6	4.4	1.0	355.4
75-84	55.4	206.5	378.1	5.2	2.1	582.7
85+	42.3	147.7	299.3	5.2	2.7	607.7
All Ages	14.9	44.4	54.3	4.2	0.6	263.3

Source: NCHS public use data file for the total US.

- 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.

[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.

Table I-3

SUMMARY OF CHANGES IN CANCER INCIDENCE AND MORTALITY, 1950-2002 AND 5-YEAR RELATIVE SURVIVAL RATES, 1950-2001

Males and Females, By Primary Cancer Site

Table is temporarily unavailable and will be added soon.

Table I-4
AGE-ADJUSTED SEER INCIDENCE AND U.S. DEATH RATES AND 5-YEAR RELATIVE SURVIVAL RATES
By Primary Cancer Site, Sex and Time Period

All Races

Site	Incidence[a] (2000-2003)			US Mortality[b] (2000-2003)			Survival[c] (1996-2002)		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
All Sites	471.3	558.1	412.0	194.5	241.5	163.5	65.0	65.3	64.8
Oral Cavity & Pharynx:	10.5	15.6	6.1	2.7	4.1	1.5	58.8	57.6	61.3
Lip	0.9	1.5	0.4	0.0	0.0	0.0	90.2	91.3	85.7
Tongue	2.7	4.0	1.6	0.6	0.9	0.4	56.1	55.9	56.4
Salivary gland	1.2	1.6	0.9	0.2	0.4	0.2	74.0	69.3	79.7
Floor of mouth	0.7	1.1	0.4	0.1	0.1	0.0	51.9	49.4	57.1
Gum & other oral cavity	1.6	1.9	1.3	0.4	0.5	0.3	58.7	54.7	63.4
Nasopharynx	0.7	1.0	0.4	0.2	0.3	0.1	59.2	57.9	62.3
Tonsil	1.4	2.4	0.6	0.2	0.3	0.1	59.6	60.4	56.4
Oropharynx	0.3	0.5	0.2	0.2	0.3	0.1	36.1	35.3	38.4
Hypopharynx	0.7	1.3	0.3	0.1	0.2	0.0	30.8	31.4	28.3
Other oral cavity & pharynx	0.3	0.4	0.1	0.6	0.9	0.3	30.8	30.4	31.8
Digestive System:	89.9	110.4	73.9	46.3	59.3	36.4	44.7	43.3	46.2
Esophagus	4.5	7.8	2.0	4.4	7.8	1.8	15.6	15.4	16.0
Stomach	8.1	11.5	5.6	4.3	6.0	3.1	23.9	22.7	25.6
Small intestine	1.8	2.1	1.5	0.4	0.4	0.3	56.2	55.6	56.8
Colon & Rectum:	52.4	61.7	45.3	19.8	24.0	16.8	64.1	65.0	63.2
Colon	37.9	43.1	34.0	-	-	-	63.7	65.2	62.4
Rectum	14.5	18.6	11.2	-	-	-	65.1	64.7	65.6
Anus, anal canal & anorectum	1.5	1.3	1.6	0.2	0.2	0.2	66.7	60.3	71.4
Liver & Intrahep:	6.0	9.3	3.3	4.8	7.1	3.0	10.5	10.1	11.4
Liver	5.4	8.5	2.8	3.8	5.8	2.1	11.1	10.4	12.6
Intrahep bile duct	0.6	0.8	0.5	1.0	1.2	0.9	6.2	6.6	5.6
Gallbladder	1.2	0.8	1.5	0.7	0.5	0.8	15.0	15.1	14.9
Other biliary	1.7	2.0	1.4	0.6	0.7	0.5	20.0	21.7	18.1
Pancreas	11.3	12.8	10.0	10.5	12.1	9.2	5.0	5.1	4.9
Retroperitoneum	0.4	0.4	0.4	0.1	0.1	0.1	52.0	49.9	53.8
Peritoneum, omentum & mesentery	0.6	0.1	1.0	0.2	0.1	0.3	30.4	40.0	29.8
Other digestive system	0.5	0.5	0.4	0.3	0.4	0.3	7.4	5.1	9.3
Respiratory System:	69.4	90.0	54.3	56.7	77.2	41.9	18.6	18.3	18.9
Nose, nasal cavity & middle ear	0.7	0.9	0.5	0.2	0.2	0.1	53.9	51.1	57.8
Larynx	3.8	6.7	1.4	1.3	2.4	0.5	64.1	65.9	57.6
Lung & bronchus	64.8	82.1	52.3	55.1	74.2	41.2	15.0	13.1	17.2
Pleura[d]	0.0	0.1	0.0	0.1	0.2	0.0	19.9	31.8	9.5
Trachea & other respiratory organs	0.2	0.3	0.1	0.1	0.1	0.1	46.2	44.7	48.6
Bones & joints	0.9	1.1	0.8	0.4	0.5	0.3	67.9	64.7	72.0
Soft tissue (incl heart)	3.0	3.6	2.6	1.3	1.4	1.2	66.4	66.8	66.0
Skin (ex basal & squam):	20.0	25.6	16.1	3.5	5.3	2.2	91.2	89.8	92.9
Melanoma of the skin	18.2	23.2	14.7	2.6	3.8	1.8	91.5	90.1	93.1
Other non-epithelial skin	1.8	2.4	1.3	0.8	1.4	0.4	88.1	86.4	90.1
Breast	70.4	1.3	129.1	14.6	0.3	25.8	88.5	86.2	88.5
Breast (*in situ*)	15.7	0.2	29.4	-	-	-	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 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey).

[b] NCHS public use data file for the total US.

[c] SEER 17 areas. California excluding SF/SJM/LA, Kentucky, Louisiana, and New Jersey contribute cases for diagnosis years 2000-2002. The remaining 13 SEER Areas contribute cases for the entire period 1996-2002.

[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 I-4 - continued
AGE-ADJUSTED SEER INCIDENCE AND U.S. DEATH RATES AND 5-YEAR RELATIVE SURVIVAL RATES
By Primary Cancer Site, Sex and Time Period

All Races

Site	Incidence[a] (2000-2003) Total	Males	Females	US Mortality[b] (2000-2003) Total	Males	Females	Survival[c] (1996-2002) Total	Males	Females
Female Genital System:	26.7	-	49.3	9.4	-	16.6	69.8	-	69.8
Cervix uteri	4.6	-	8.8	1.4	-	2.6	71.6	-	71.6
Corpus uteri	12.3	-	22.7	1.1	-	2.0	84.1	-	84.1
Uterus, NOS	0.3	-	0.6	1.3	-	2.2	30.3	-	30.3
Ovary[d]	7.4	-	13.7	5.1	-	8.9	44.7	-	44.7
Vagina	0.4	-	0.7	0.1	-	0.2	48.8	-	48.8
Vulva	1.2	-	2.2	0.3	-	0.4	78.1	-	78.1
Other female genital system	0.4	-	0.7	0.1	-	0.2	62.7	-	62.7
Male Genital System:	77.9	176.7	-	10.9	29.0	-	99.8	99.8	-
Prostate	74.8	170.3	-	10.7	28.5	-	99.9	99.9	-
Testis	2.7	5.3	-	0.1	0.3	-	95.7	95.7	-
Penis	0.4	0.9	-	0.1	0.2	-	67.9	67.9	-
Other male genital system	0.1	0.3	-	0.0	0.0	-	83.7	83.7	-
Urinary System:	34.4	55.8	18.5	8.8	13.9	5.2	74.3	76.4	69.8
Urinary bladder	20.9	37.0	9.3	4.3	7.5	2.3	80.8	82.8	75.4
Kidney & renal pelvis	12.6	17.5	8.7	4.2	6.1	2.8	65.6	65.7	65.4
Ureter	0.6	0.8	0.4	0.1	0.1	0.1	50.2	53.3	45.6
Other urinary system	0.3	0.5	0.1	0.1	0.2	0.1	58.1	65.6	45.7
Eye & Orbit	0.8	1.0	0.6	0.1	0.1	0.1	84.3	86.1	82.2
Brain & Nervous System:[e]	6.4	7.6	5.4	4.5	5.5	3.6	33.5	32.0	35.3
Brain	6.0	7.2	4.9	-	-	-	30.5	29.3	31.9
Cranial nerves & other nervous system	0.4	0.4	0.4	-	-	-	75.7	74.7	76.3
Endocrine System:	8.9	5.0	12.6	0.8	0.8	0.8	93.8	88.6	95.6
Thyroid	8.2	4.2	12.1	0.5	0.5	0.5	96.7	94.5	97.3
Other endocrine & thymus	0.7	0.8	0.6	0.3	0.3	0.3	60.8	61.2	60.1
Lymphoma:	21.8	26.0	18.4	8.2	10.3	6.7	66.1	64.1	68.4
Hodgkin lymphoma	2.7	3.0	2.3	0.5	0.6	0.4	84.9	83.5	86.6
Non-Hodgkin lymphoma	19.1	23.0	16.1	7.7	9.8	6.3	62.5	60.4	64.9
Myeloma	5.5	6.9	4.5	3.8	4.7	3.2	32.9	35.4	30.1
Leukemia:	12.2	15.9	9.4	7.5	10.1	5.8	48.2	48.6	47.8
Lymphocytic:	5.7	7.7	4.2	2.2	3.1	1.5	70.5	70.0	71.1
Acute lymphocytic	1.5	1.7	1.4	0.5	0.6	0.4	63.7	62.6	65.2
Chronic lymphocytic	3.8	5.3	2.6	1.5	2.2	1.1	73.7	72.6	75.2
Other lymphocytic	0.4	0.7	0.2	0.1	0.2	0.1	80.0	82.3	72.4
Myeloid & Monocytic:	5.7	7.2	4.6	3.5	4.6	2.8	27.7	27.0	28.4
Acute myeloid	3.7	4.6	3.0	2.7	3.5	2.2	20.9	19.7	22.2
Chronic myeloid	1.5	2.0	1.2	0.5	0.7	0.4	43.8	43.3	44.6
Acute monocytic	0.3	0.4	0.2	0.0	0.1	0.0	20.4	20.3	19.9
Other myeloid & monocytic	0.2	0.2	0.1	0.2	0.3	0.2	26.6	27.1	24.4
Other:	0.8	1.0	0.7	1.8	2.4	1.4	19.1	18.1	19.6
Other acute	0.4	0.5	0.3	0.8	1.1	0.7	10.6	7.7	12.5
Aleukemic, subleuk & NOS	0.4	0.6	0.3	1.0	1.3	0.8	28.9	29.3	27.5
Kaposi Sarcoma[f]	0.7	1.3	0.1	-	-	-	55.0	54.3	66.3
Mesothelioma[f]	1.1	2.0	0.4	-	-	-	9.2	7.6	14.5
Ill-defined & unspecified	10.9	12.5	9.8	15.1	19.0	12.3	15.3	18.4	12.5

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

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

[b] NCHS public use data file for the total US.

[c] SEER 17 areas. California excluding SF/SJM/LA, Kentucky, Louisiana, and New Jersey contribute cases for diagnosis years 2000-2002. The remaining 13 SEER Areas contribute cases for the entire period 1996-2002.

[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 I-5
AGE-ADJUSTED SEER INCIDENCE AND U.S. DEATH RATES AND 5-YEAR RELATIVE SURVIVAL RATES
By Primary Cancer Site, Sex and Time Period

Whites

Site	Incidence[a] (2000-2003)			US Mortality[b] (2000-2003)			Survival[c] (1996-2002)		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
All Sites	478.4	558.3	424.6	192.4	237.3	162.8	66.3	66.8	65.9
Oral Cavity & Pharynx:	10.5	15.7	6.1	2.5	3.8	1.5	60.9	60.6	61.6
Lip	1.0	1.7	0.4	0.0	0.1	0.0	90.4	91.3	85.9
Tongue	2.8	4.2	1.6	0.6	0.9	0.4	58.2	58.4	57.6
Salivary gland	1.2	1.7	0.9	0.3	0.4	0.2	73.9	69.4	79.6
Floor of mouth	0.7	1.1	0.4	0.0	0.1	0.0	53.8	52.3	56.6
Gum & other oral cavity	1.6	1.9	1.3	0.4	0.5	0.3	59.8	56.7	63.2
Nasopharynx	0.4	0.6	0.2	0.2	0.2	0.1	54.8	55.4	52.9
Tonsil	1.5	2.5	0.6	0.2	0.3	0.1	63.2	64.4	58.0
Oropharynx	0.3	0.5	0.2	0.2	0.3	0.1	38.4	37.5	40.8
Hypopharynx	0.7	1.2	0.3	0.1	0.2	0.0	33.1	33.9	29.5
Other oral cavity & pharynx	0.3	0.4	0.1	0.5	0.8	0.2	34.3	34.6	33.7
Digestive System:	87.4	107.1	71.8	44.5	57.1	34.8	46.1	44.8	47.5
Esophagus	4.5	7.8	1.9	4.3	7.7	1.7	16.3	16.2	16.8
Stomach	7.1	10.2	4.7	3.8	5.3	2.7	22.0	20.9	23.9
Small intestine	1.7	2.0	1.4	0.4	0.4	0.3	57.9	57.3	58.6
Colon & Rectum:	52.0	61.4	44.7	19.3	23.4	16.2	65.1	66.0	64.2
Colon	37.6	42.7	33.6	-	-	-	64.9	66.3	63.6
Rectum	14.5	18.6	11.1	-	-	-	65.7	65.5	65.9
Anus, anal canal & anorectum	1.5	1.3	1.7	0.2	0.2	0.2	68.0	61.6	72.6
Liver & Intrahep:	5.1	7.8	2.8	4.4	6.4	2.8	10.2	9.5	11.6
Liver	4.5	7.0	2.4	3.4	5.2	1.9	11.0	9.9	13.3
Intrahep bile duct	0.6	0.7	0.5	1.0	1.2	0.9	6.1	6.2	5.8
Gallbladder	1.1	0.8	1.4	0.7	0.5	0.8	14.5	14.6	14.3
Other biliary	1.6	2.0	1.3	0.6	0.7	0.5	20.0	22.3	17.7
Pancreas	11.1	12.7	9.8	10.3	12.0	9.0	4.9	5.3	4.6
Retroperitoneum	0.4	0.5	0.4	0.1	0.1	0.1	55.2	52.3	57.8
Peritoneum, omentum & mesentery	0.7	0.1	1.1	0.2	0.1	0.4	30.5	37.4	30.0
Other digestive system	0.5	0.5	0.4	0.3	0.4	0.3	7.5	4.9	9.6
Respiratory System:	70.6	89.5	56.7	56.9	76.1	42.9	18.9	18.7	19.1
Nose, nasal cavity & middle ear	0.7	0.9	0.5	0.2	0.2	0.1	56.0	53.5	59.0
Larynx	3.7	6.6	1.4	1.2	2.2	0.5	65.8	67.3	60.3
Lung & bronchus	66.0	81.7	54.7	55.3	73.4	42.2	15.3	13.4	17.4
Pleura[d]	0.0	0.1	0.0	0.1	0.2	0.0	20.9	32.6	10.1
Trachea & other respiratory organs	0.2	0.3	0.1	0.1	0.1	0.1	48.0	49.0	46.2
Bones & joints	0.9	1.1	0.8	0.4	0.6	0.4	67.8	64.4	72.1
Soft tissue (incl heart)	3.1	3.7	2.6	1.3	1.5	1.1	67.2	68.0	66.2
Skin (ex basal & squam):	22.9	29.0	18.6	3.9	5.8	2.5	91.3	89.9	93.1
Melanoma of the skin	21.1	26.5	17.3	3.0	4.3	2.0	91.7	90.3	93.4
Other non-epithelial skin	1.8	2.5	1.4	0.9	1.5	0.5	87.0	85.2	89.0
Breast	72.4	1.2	134.0	14.3	0.3	25.3	89.7	88.4	89.7
Breast (*in situ*)	16.0	0.2	30.1	-	-	-	100.0	100.0	100.0

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

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

[b] NCHS public use data file for the total US.

[c] SEER 17 areas. California excluding SF/SJM/LA, Kentucky, Louisiana, and New Jersey contribute cases for diagnosis years 2000-2002. The remaining 13 SEER Areas contribute cases for the entire period 1996-2002.

[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 I-5 - continued
AGE-ADJUSTED SEER INCIDENCE AND U.S. DEATH RATES AND 5-YEAR RELATIVE SURVIVAL RATES
By Primary Cancer Site, Sex and Time Period

Whites

Site	Incidence[a] (2000-2003) Total	Males	Females	US Mortality[b] (2000-2003) Total	Males	Females	Survival[c] (1996-2002) Total	Males	Females
Female Genital System:	27.3	-	51.0	9.2	-	16.4	70.8	-	70.8
Cervix uteri	4.4	-	8.5	1.3	-	2.4	72.8	-	72.8
Corpus uteri	12.8	-	23.8	1.1	-	1.9	85.9	-	85.9
Uterus, NOS	0.3	-	0.5	1.2	-	2.0	32.6	-	32.6
Ovary[d]	7.8	-	14.5	5.2	-	9.3	44.2	-	44.2
Vagina	0.4	-	0.7	0.1	-	0.2	51.3	-	51.3
Vulva	1.3	-	2.3	0.3	-	0.5	78.1	-	78.1
Other female genital system	0.4	-	0.7	0.1	-	0.2	61.7	-	61.7
Male Genital System:	76.0	170.8	-	10.0	26.6	-	99.9	99.9	-
Prostate	72.4	163.4	-	9.8	26.2	-	99.9	99.9	-
Testis	3.2	6.2	-	0.1	0.3	-	95.9	95.9	-
Penis	0.4	0.9	-	0.1	0.2	-	67.6	67.6	-
Other male genital system	0.1	0.3	-	0.0	0.0	-	88.1	88.1	-
Urinary System:	36.6	59.5	19.4	9.0	14.4	5.2	75.3	77.4	70.7
Urinary bladder	22.8	40.2	10.0	4.5	7.8	2.3	81.8	83.6	76.8
Kidney & renal pelvis	13.0	18.0	9.0	4.3	6.2	2.8	65.7	66.1	65.1
Ureter	0.6	0.8	0.4	0.1	0.2	0.1	52.5	55.4	47.7
Other urinary system	0.3	0.5	0.1	0.1	0.2	0.1	60.4	67.0	46.5
Eye & Orbit	0.9	1.1	0.7	0.1	0.1	0.1	84.1	86.1	81.8
Brain & Nervous System:[e]	7.0	8.3	5.9	4.8	5.8	3.9	32.7	31.5	34.3
Brain	6.6	7.9	5.4	-	-	-	29.8	28.8	31.1
Cranial nerves & other nervous system	0.4	0.4	0.5	-	-	-	77.1	77.1	76.7
Endocrine System:	9.2	5.2	13.2	0.8	0.8	0.7	94.2	89.2	95.9
Thyroid	8.6	4.5	12.7	0.5	0.5	0.5	97.0	94.8	97.6
Other endocrine & thymus	0.7	0.8	0.6	0.3	0.4	0.3	59.9	60.7	58.8
Lymphoma:	22.8	27.1	19.3	8.6	10.7	6.9	67.1	65.3	69.2
Hodgkin lymphoma	2.9	3.2	2.6	0.5	0.6	0.4	85.3	84.0	86.7
Non-Hodgkin lymphoma	19.9	23.8	16.8	8.1	10.1	6.5	63.6	61.6	65.8
Myeloma	5.1	6.5	4.1	3.5	4.4	2.9	32.9	35.4	30.0
Leukemia:	12.7	16.5	9.8	7.8	10.4	5.9	49.4	49.7	49.0
Lymphocytic:	6.1	8.2	4.5	2.3	3.2	1.6	71.7	71.5	72.1
Acute lymphocytic	1.7	1.9	1.5	0.5	0.6	0.4	64.5	63.2	65.9
Chronic lymphocytic	4.0	5.6	2.8	1.6	2.3	1.1	74.9	74.3	75.8
Other lymphocytic	0.5	0.7	0.2	0.1	0.2	0.1	81.2	83.2	74.6
Myeloid & Monocytic:	5.8	7.3	4.7	3.6	4.7	2.8	27.2	26.2	28.4
Acute myeloid	3.8	4.7	3.1	2.8	3.7	2.2	20.3	19.1	21.7
Chronic myeloid	1.5	2.0	1.2	0.5	0.7	0.4	43.6	42.2	45.6
Acute monocytic	0.3	0.4	0.3	0.0	0.1	0.0	21.2	20.4	21.1
Other myeloid & monocytic	0.2	0.2	0.1	0.2	0.3	0.2	27.2	25.9	26.6
Other:	0.8	1.0	0.6	1.9	2.5	1.5	19.2	18.2	19.1
Other acute	0.4	0.5	0.3	0.9	1.1	0.7	9.8	5.3	12.8
Aleukemic, subleuk & NOS	0.4	0.5	0.3	1.0	1.3	0.8	30.1	32.3	25.5
Kaposi Sarcoma[f]	0.6	1.1	0.1	-	-	-	58.8	57.6	79.0
Mesothelioma[f]	1.2	2.3	0.5	-	-	-	9.0	7.2	14.7
Ill-defined & unspecified	11.0	12.6	9.8	14.9	18.7	12.2	16.1	19.7	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 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey).

[b] NCHS public use data file for the total US.

[c] SEER 17 areas. California excluding SF/SJM/LA, Kentucky, Louisiana, and New Jersey contribute cases for diagnosis years 2000-2002. The remaining 13 SEER Areas contribute cases for the entire period 1996-2002.

[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 I-6
AGE-ADJUSTED SEER INCIDENCE AND U.S. DEATH RATES AND 5-YEAR RELATIVE SURVIVAL RATES
By Primary Cancer Site, Sex and Time Period

Blacks

Site	Incidence[a] (2000-2003)			US Mortality[b] (2000-2003)			Survival[c] (1996-2002)		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
All Sites	504.4	666.4	395.4	241.7	326.8	191.1	56.7	59.7	53.4
Oral Cavity & Pharynx:	11.1	18.0	5.8	3.9	6.8	1.7	39.7	35.6	49.1
Lip	0.1	0.2	-	-	-	-	94.3	100.0	82.1
Tongue	2.4	4.0	1.2	0.7	1.3	0.3	38.1	37.1	40.7
Salivary gland	1.0	1.2	0.9	0.2	0.2	0.1	66.9	63.9	69.1
Floor of mouth	0.9	1.6	0.4	0.1	0.1	0.0	39.0	32.0	57.0
Gum & other oral cavity	1.9	2.6	1.3	0.5	0.8	0.3	51.8	45.9	60.2
Nasopharynx	0.7	1.2	0.4	0.3	0.5	0.2	47.2	45.6	50.8
Tonsil	1.7	2.9	0.6	0.3	0.6	0.1	33.6	31.2	40.7
Oropharynx	0.6	1.1	0.3	0.4	0.8	0.2	24.6	24.8	20.9
Hypopharynx	1.2	2.3	0.4	0.2	0.4	0.1	16.5	16.8	15.8
Other oral cavity & pharynx	0.5	0.9	0.2	1.1	2.1	0.4	17.0	16.8	15.6
Digestive System:	112.7	138.6	94.2	64.6	83.9	51.4	37.1	35.1	39.1
Esophagus	6.4	10.8	3.3	6.1	10.5	3.0	11.1	10.8	11.8
Stomach	12.8	17.7	9.3	8.4	12.1	6.0	23.1	20.5	26.4
Small intestine	3.1	3.9	2.6	0.6	0.7	0.5	51.6	48.3	52.3
Colon & Rectum:	62.8	72.9	56.1	27.3	33.4	23.4	54.7	55.6	53.9
Colon	48.5	55.3	44.0	-	-	-	53.8	55.7	52.4
Rectum	14.3	17.5	12.1	-	-	-	57.0	55.6	58.4
Anus, anal canal & anorectum	1.5	1.6	1.4	0.2	0.2	0.2	59.4	52.9	65.8
Liver & Intrahep:	7.2	12.1	3.5	6.3	9.8	3.8	6.7	7.3	5.4
Liver	6.8	11.5	3.2	5.4	8.7	3.0	6.7	7.4	5.0
Intrahep bile duct	0.5	0.7	0.4	0.9	1.1	0.8	6.3	0.0	8.2
Gallbladder	1.3	0.8	1.6	0.8	0.5	1.0	13.6	16.0	12.7
Other biliary	1.4	1.8	1.2	0.4	0.5	0.4	14.4	14.0	14.5
Pancreas	14.9	16.2	13.7	13.8	15.4	12.5	4.6	3.4	5.5
Retroperitoneum	0.4	0.3	0.5	0.1	0.1	0.1	36.1	51.1	23.1
Peritoneum, omentum & mesentery	0.3	-	0.4	0.2	0.1	0.2	25.0	-	25.1
Other digestive system	0.6	0.5	0.6	0.5	0.6	0.4	0.0	0.0	0.0
Respiratory System:	83.9	125.0	55.7	65.4	102.9	40.8	16.0	15.6	16.5
Nose, nasal cavity & middle ear	0.6	0.9	0.4	0.2	0.3	0.1	44.5	34.4	57.7
Larynx	6.1	11.7	2.0	2.6	5.1	0.9	53.4	56.4	44.4
Lung & bronchus	76.9	112.2	53.1	62.5	97.2	39.8	12.2	10.5	14.5
Pleura[d]	-	-	-	0.0	0.1	-	-	-	-
Trachea & other respiratory organs	0.2	0.2	0.1	0.1	0.2	0.1	28.0	18.2	43.3
Bones & joints	0.7	0.9	0.6	0.4	0.5	0.4	66.5	65.5	67.5
Soft tissue (incl heart)	3.2	3.6	3.0	1.4	1.5	1.4	60.1	59.4	60.6
Skin (ex basal & squam):	2.0	2.2	1.8	1.0	1.4	0.7	86.8	84.5	88.2
Melanoma of the skin	1.0	1.1	0.9	0.4	0.5	0.4	72.0	67.4	74.5
Other non-epithelial skin	1.0	1.1	0.9	0.6	1.0	0.3	96.3	95.7	96.6
Breast	67.9	2.0	118.0	20.4	0.6	34.3	77.2	74.5	77.3
Breast (*in situ*)	14.2	0.2	25.0	-	-	-	100.0	100.0	100.0

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

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

[b] NCHS public use data file for the total US.

[c] SEER 17 areas. California excluding SF/SJM/LA, Kentucky, Louisiana, and New Jersey contribute cases for diagnosis years 2000-2002. The remaining 13 SEER Areas contribute cases for the entire period 1996-2002.

[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 I-6 - continued
AGE-ADJUSTED SEER INCIDENCE AND U.S. DEATH RATES AND 5-YEAR RELATIVE SURVIVAL RATES
By Primary Cancer Site, Sex and Time Period

Blacks

Site	Incidence[a] (2000-2003) Total	Males	Females	US Mortality[b] (2000-2003) Total	Males	Females	Survival[c] (1996-2002) Total	Males	Females
Female Genital System:	25.6	-	44.6	12.2	-	20.5	57.0	-	57.0
Cervix uteri	6.4	-	11.5	2.9	-	5.0	62.6	-	62.6
Corpus uteri	10.7	-	18.5	1.9	-	3.2	61.6	-	61.6
Uterus, NOS	0.6	-	1.0	2.4	-	4.0	27.7	-	27.7
Ovary[d]	5.8	-	10.1	4.4	-	7.4	39.5	-	39.5
Vagina	0.6	-	1.0	0.2	-	0.4	38.0	-	38.0
Vulva	1.1	-	1.9	0.2	-	0.3	76.3	-	76.3
Other female genital system	0.4	-	0.7	0.2	-	0.3	68.5	-	68.5
Male Genital System:	107.8	260.9	-	22.6	64.4	-	97.4	97.4	-
Prostate	106.6	258.3	-	22.4	64.0	-	97.6	97.6	-
Testis	0.7	1.5	-	0.1	0.2	-	90.0	90.0	-
Penis	0.4	1.0	-	0.1	0.3	-	68.8	68.8	-
Other male genital system	0.1	0.2	-	0.0	0.0	-	70.8	70.8	-
Urinary System:	27.1	40.8	17.6	8.1	11.8	5.8	63.4	64.9	60.8
Urinary bladder	12.4	19.8	7.4	3.8	5.4	2.8	63.7	68.9	53.9
Kidney & renal pelvis	14.1	20.1	9.7	4.1	6.2	2.8	64.4	62.4	66.3
Ureter	0.3	0.4	0.2	0.0	-	0.0	24.0	31.5	0.0
Other urinary system	0.4	0.5	0.4	0.2	0.2	0.2	48.3	57.9	37.0
Eye & Orbit	0.2	0.3	0.2	0.0	0.0	0.0	84.3	79.3	87.7
Brain & Nervous System:[e]	4.1	4.9	3.5	2.6	3.3	2.2	35.4	32.8	38.1
Brain	3.7	4.5	3.1	-	-	-	32.3	30.7	34.0
Cranial nerves & other nervous system	0.4	0.4	0.4	-	-	-	61.8	58.4	63.4
Endocrine System:	5.6	3.2	7.7	0.8	0.7	0.9	89.6	79.2	92.4
Thyroid	5.0	2.4	7.1	0.5	0.4	0.5	94.2	89.1	95.3
Other endocrine & thymus	0.7	0.8	0.6	0.3	0.3	0.3	57.2	56.0	57.7
Lymphoma:	16.6	20.3	13.7	5.7	7.1	4.6	59.5	56.0	64.0
Hodgkin lymphoma	2.4	2.8	2.0	0.4	0.5	0.3	82.5	78.5	87.1
Non-Hodgkin lymphoma	14.3	17.6	11.7	5.3	6.6	4.3	53.9	50.6	58.0
Myeloma	10.9	13.7	9.1	7.2	8.5	6.3	33.2	35.1	31.5
Leukemia:	10.1	12.9	8.0	6.7	8.7	5.3	40.2	40.6	39.6
Lymphocytic:	4.0	5.4	3.0	1.9	2.7	1.4	57.8	54.0	62.4
Acute lymphocytic	0.8	0.9	0.8	0.4	0.4	0.3	54.3	52.7	56.1
Chronic lymphocytic	2.9	4.2	2.1	1.4	2.1	1.0	59.5	52.7	67.7
Other lymphocytic	0.3	0.4	0.2	0.1	0.2	0.1	61.2	70.8	49.4
Myeloid & Monocytic:	5.1	6.3	4.1	3.0	3.7	2.5	28.5	31.6	24.8
Acute myeloid	3.2	4.0	2.7	2.2	2.7	1.8	22.3	24.6	19.5
Chronic myeloid	1.5	1.9	1.1	0.6	0.8	0.5	41.5	43.3	39.1
Acute monocytic	0.2	0.2	0.2	0.0	-	0.0	12.6	12.8	0.0
Other myeloid & monocytic	0.2	0.2	0.2	0.2	0.2	0.1	32.7	46.7	21.1
Other:	1.0	1.1	0.9	1.8	2.3	1.5	18.4	13.9	21.9
Other acute	0.4	0.5	0.4	0.6	0.9	0.5	14.7	14.6	0.0
Aleukemic, subleuk & NOS	0.5	0.6	0.5	1.1	1.4	0.9	22.3	11.5	28.5
Kaposi Sarcoma[f]	1.3	2.7	0.1	-	-	-	42.7	43.1	36.5
Mesothelioma[f]	0.5	1.0	0.2	-	-	-	16.3	12.1	22.1
Ill-defined & unspecified	13.1	15.3	11.4	18.6	24.5	14.8	10.1	10.9	9.2

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

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

[b] NCHS public use data file for the total US.

[c] SEER 17 areas. California excluding SF/SJM/LA, Kentucky, Louisiana, and New Jersey contribute cases for diagnosis years 2000-2002. The remaining 13 SEER Areas contribute cases for the entire period 1996-2002.

[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 I-7
SEER INCIDENCE AND U.S. MORTALITY TRENDS BY PRIMARY CANCER SITE AND SEX
All Races, 1994-2003

	Incidence[a]			US Mortality[b]		
Site	Total APC	Males APC	Females APC	Total APC	Males APC	Females APC
All Sites	-0.4	-0.7*	-0.2	-1.1*	-1.6*	-0.9*
Oral Cavity & Pharynx:	-1.5*	-1.7*	-1.6*	-2.2*	-2.3*	-2.5*
Lip	-4.8*	-5.5*	-2.8*	-4.6*	-6.1*	-3.4
Tongue	0.7	0.7	0.3	-1.2*	-1.6*	-0.9*
Salivary gland	-0.4	-0.1	-0.7	-0.7	-0.9	-1.0
Floor of mouth	-4.4*	-3.9*	-5.3*	-9.0*	-9.0*	-9.3*
Gum & other oral cavity	-2.8*	-3.6*	-2.2*	-4.2*	-4.7*	-3.8*
Nasopharynx	-1.3	-1.0	-2.1*	-3.1*	-3.4*	-2.6*
Tonsil	1.7*	2.2*	-0.6	-1.1	-0.8	-2.6*
Oropharynx	-1.9	-2.5	0.1	-0.6	-0.1	-2.1*
Hypopharynx	-4.0*	-4.1*	-4.3*	-4.8*	-5.0*	-4.8*
Other oral cavity & pharynx	-5.9*	-6.1*	-5.9*	-1.5*	-1.2*	-2.6*
Digestive System:	-0.4	-0.7*	-0.2	-1.0*	-1.1*	-1.1*
Esophagus	0.0	0.3	-1.3*	0.4*	0.4*	-0.2
Stomach	-1.5*	-2.3*	-0.7	-3.1*	-3.6*	-2.6*
Small intestine	2.7*	3.0*	2.1*	-1.7*	-2.5*	-0.9
Colon & Rectum:	-1.0*	-1.3*	-0.8*	-1.9*	-2.1*	-1.9*
Colon	-1.0*	-1.4*	-0.8*	-	-	-
Rectum	-0.9	-1.3*	-0.7	-	-	-
Anus, anal canal & anorectum	2.6*	2.9*	2.5*	1.4*	0.6	2.1*
Liver & Intrahep:	2.6*	2.6*	2.0*	1.8*	1.9*	0.9*
Liver	3.7*	3.5*	3.5*	1.3*	1.7*	-0.1
Intrahep bile duct	-3.9	-4.1	-4.0*	3.5*	3.3*	3.6*
Gallbladder	-1.0*	-1.6	-0.5	-2.6*	-1.6*	-2.8*
Other biliary	2.2*	1.8	2.4*	-3.0*	-3.3*	-3.0*
Pancreas	-0.2	-0.5*	-0.1	0.0	-0.1	0.0
Retroperitoneum	0.5	0.9	0.5	-5.0*	-4.3*	-5.5*
Peritoneum, omentum & mesentery	6.5*	-2.1	7.2*	7.4*	1.5	8.9*
Other digestive system	5.8*	3.9*	6.8*	8.7*	8.9*	8.3*
Respiratory System:	-1.4*	-2.1*	-0.5	-0.9*	-2.0*	0.3*
Nose, nasal cavity & middle ear	-1.9*	-3.0*	-0.6	-2.2*	-2.0*	-2.9*
Larynx	-3.7*	-3.5*	-4.5*	-2.1*	-2.4*	-1.8*
Lung & bronchus	-1.2*	-2.0*	-0.3	-0.9*	-1.9*	0.4*
Pleura	-	-	-	-7.3*	-7.4*	-7.4*
Trachea & other respiratory organs	-3.5*	-3.4*	-4.1	-2.8*	-2.5*	-3.5*
Bones & joints	-0.6	-0.8	-0.2	-1.1*	-1.4*	-1.0*
Soft tissue (incl heart)	0.8*	1.6*	0.0	-2.6*	-2.2*	-3.1*
Skin (ex basal & squam):	1.6*	1.6*	1.6*	-0.2	-0.1	-0.6*
Melanoma of the skin	1.6*	1.6*	1.7*	-0.4	-0.3	-0.7*
Other non-epithelial skin	0.9	1.3*	0.4	0.4	0.3	0.2
Breast	-0.5	1.5	-0.3	-2.5*	-0.9	-2.4*
Breast (*in situ*)	3.9*	0.8	4.0*	-	-	-

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

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

[b] NCHS public use data file for the total US. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

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

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

Table I-7 - continued
SEER INCIDENCE AND U.S. MORTALITY TRENDS BY PRIMARY CANCER SITE AND SEX
All Races, 1994-2003

	Incidence[a]			US Mortality[b]		
	Total	Males	Females	Total	Males	Females
Site	APC	APC	APC	APC	APC	APC
Female Genital System:	-1.3*	-	-1.1*	-0.9*	-	-0.7*
Cervix uteri	-3.2*	-	-3.1*	-3.6*	-	-3.4*
Corpus uteri	-0.9*	-	-0.6*	-1.5*	-	-1.2*
Uterus, NOS	0.9	-	1.2	0.8*	-	1.3*
Ovary[c]	-1.0*	-	-0.9*	-0.5*	-	-0.3
Vagina	-0.8	-	-0.6	-2.0*	-	-1.7*
Vulva	-0.4	-	0.0	-0.4	-	0.1
Other female genital system	0.2	-	0.4	4.4*	-	4.5*
Male Genital System:	0.5	0.0	-	-3.5*	-4.0*	-
Prostate	0.5	0.0	-	-3.5*	-4.0*	-
Testis	0.9	0.8	-	0.1	0.1	-
Penis	0.4	-0.2	-	-0.2	-0.7	-
Other male genital system	-1.5	-1.7	-	-0.3	-0.3	-
Urinary System:	0.7*	0.5*	0.7*	-0.2*	-0.3*	-0.6*
Urinary bladder	0.0	0.0	-0.3	-0.3*	-0.6*	-0.6
Kidney & renal pelvis	1.9*	1.7*	1.9*	-0.3	-0.2	-0.8*
Ureter	0.2	-0.5	1.3	-2.1*	-3.1*	-0.4
Other urinary system	-3.2*	-1.8	-6.8*	8.3*	11.9*	5.1*
Eye & Orbit	-1.7*	-2.4*	-1.3	-4.3*	-4.2*	-4.7*
Brain & Nervous System:[d]	-0.3	-0.3	-0.2	-1.0*	-0.8*	-1.2*
Brain	-0.3	-0.2	-0.4	-	-	-
Cranial nerves & other nervous system	-0.1	-2.9	2.8	-	-	-
Endocrine System:	4.6*	3.7*	5.0*	0.1	0.4	0.0
Thyroid	5.0*	4.2*	5.3*	0.8	1.4	0.6
Other endocrine & thymus	0.4	1.3	-0.4	-0.9	-0.7	-0.9
Lymphoma:	-0.1	-0.7*	0.6*	-2.0*	-1.8*	-2.1*
Hodgkin lymphoma	-0.1	0.2	-0.4	-2.3*	-2.2*	-2.3*
Non-Hodgkin lymphoma	-0.1	-0.8*	0.8*	-1.9*	-1.7*	-2.1*
Myeloma	-0.5	-0.2	-1.2*	-0.7*	-0.9*	-0.6*
Leukemia:	-0.9*	-1.0*	-1.0*	-0.6*	-0.8*	-0.7*
Lymphocytic:	-1.0*	-1.1*	-1.1	-1.1*	-1.5*	-1.0*
Acute lymphocytic	0.4	-0.3	1.3	-0.9*	-0.9*	-1.0
Chronic lymphocytic	-1.4*	-1.1*	-2.0*	-0.9*	-1.4*	-0.7
Other lymphocytic	-2.6*	-2.6*	-3.3	-3.9*	-3.8*	-4.5*
Myeloid & Monocytic:	-0.5	-0.5	-0.7	0.3	0.5	0.0
Acute myeloid	0.4	0.6	-0.1	2.3*	2.5*	1.9*
Chronic myeloid	-2.9*	-3.3*	-2.7*	-7.9*	-8.3*	-7.8*
Acute monocytic	4.1*	5.4*	2.2	-6.9*	-5.1*	-8.7*
Other myeloid & monocytic	-1.7	-2.9	-0.6	9.5*	10.2*	8.1*
Other:	-3.2*	-4.2*	-2.4*	-1.7*	-2.0*	-1.6*
Other acute	-6.6*	-7.5*	-5.5*	-4.2*	-4.0*	-4.4*
Aleukemic, subleuk & NOS	0.6	-0.7	1.1	0.7*	0.0	1.3*
Kaposi Sarcoma[e]	-20.7*	-21.1*	-7.3*	-	-	-
Mesothelioma[e]	-1.6*	-1.7*	-1.3*	-	-	-
Ill-defined & unspecified	-3.4*	-3.8*	-3.2*	0.5	0.8	0.1

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

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

[b] NCHS public use data file for the total US. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

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

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

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

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

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

Table I-8
SEER INCIDENCE AND U.S. MORTALITY TRENDS BY PRIMARY CANCER SITE AND SEX
Whites, 1994-2003

	Incidence[a]			US Mortality[b]		
	Total	Males	Females	Total	Males	Females
Site	APC	APC	APC	APC	APC	APC
All Sites	-0.3	-0.6*	-0.1	-1.0*	-1.4*	-0.8*
Oral Cavity & Pharynx:	-1.3*	-1.3*	-1.7*	-1.9*	-1.9*	-2.3*
Lip	-4.6*	-5.3*	-2.9*	-4.4*	-5.8*	-3.2
Tongue	1.3*	1.5*	0.4	-0.6*	-0.9	-0.4
Salivary gland	-0.7	-0.2	-1.5*	-0.6	-0.6	-1.2
Floor of mouth	-4.2*	-3.6*	-5.5*	-8.5*	-8.6*	-8.7*
Gum & other oral cavity	-2.4*	-3.2*	-2.0*	-3.7*	-4.3*	-3.4*
Nasopharynx	-2.3*	-1.4	-4.3*	-4.1*	-4.2*	-4.1*
Tonsil	2.8*	3.3*	0.1	0.1	0.4	-1.7
Oropharynx	-2.2	-2.9	-0.5	-0.4	0.0	-1.6
Hypopharynx	-3.7*	-3.6*	-4.2	-4.6*	-5.0*	-4.2*
Other oral cavity & pharynx	-5.6*	-6.0*	-5.3*	-1.2*	-0.9	-2.5*
Digestive System:	-0.4	-0.7*	-0.2	-0.9*	-1.0*	-1.1*
Esophagus	1.1	1.4*	-0.6	1.4*	1.4*	0.5
Stomach	-1.5*	-2.3*	-0.6	-3.2*	-3.8*	-2.8*
Small intestine	2.5*	3.0*	1.8*	-1.9*	-2.9*	-0.9
Colon & Rectum:	-1.1*	-1.5*	-0.8*	-2.0*	-2.2*	-2.0*
Colon	-1.1*	-1.6*	-0.8*	-	-	-
Rectum	-1.0	-1.3*	-0.9	-	-	-
Anus, anal canal & anorectum	3.0*	3.2*	3.0*	1.8*	0.9	2.6*
Liver & Intrahep:	2.6*	2.5*	2.0	1.8*	2.1*	0.8*
Liver	4.1*	3.6*	4.0*	1.3*	1.8*	-0.4
Intrahep bile duct	-4.3	-4.5	-4.3	3.5*	3.4*	3.4*
Gallbladder	-0.8	-0.9	-0.5	-2.6*	-1.6*	-3.0*
Other biliary	1.8*	1.6	2.0*	-2.9*	-3.3*	-2.8*
Pancreas	0.1	0.1	0.0	0.2	0.1	0.1
Retroperitoneum	1.0*	1.6	0.7	-4.5*	-3.8*	-5.0*
Peritoneum, omentum & mesentery	6.4*	-	7.3*	7.7*	1.6	9.2*
Other digestive system	5.6*	3.6*	6.5*	8.7*	8.9*	8.1*
Respiratory System:	-1.3*	-2.1*	-0.4	-0.8*	-1.8*	0.4*
Nose, nasal cavity & middle ear	-1.6	-2.7	-0.2	-1.5*	-1.2	-2.4*
Larynx	-3.6*	-3.6*	-4.1*	-1.8*	-2.2*	-1.5*
Lung & bronchus	-1.1*	-2.0*	-0.2	-0.7*	-1.8*	0.5*
Pleura	-	-	-	-7.1*	-7.2*	-7.2*
Trachea & other respiratory organs	-3.2	-2.4	-5.4	-2.2*	-2.1	-2.7
Bones & joints	-0.6	-0.9	-0.1	-0.7*	-1.0*	-0.5
Soft tissue (incl heart)	1.1*	1.7*	0.5	-2.3*	-2.1*	-2.6*
Skin (ex basal & squam):	2.0*	1.9*	2.1*	0.0	0.1	-0.3
Melanoma of the skin	2.1*	1.9*	2.3*	-0.2	-0.2	-0.5
Other non-epithelial skin	1.1	1.6*	0.1	0.9	0.7	0.8
Breast	-0.4	1.9	-0.2	-2.6*	-0.7	-2.5*
Breast (*in situ*)	3.8*	1.4	4.0*	-	-	-

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

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

[b] NCHS public use data file for the total US. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

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

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

Table I-8 - continued
SEER INCIDENCE AND U.S. MORTALITY TRENDS BY PRIMARY CANCER SITE AND SEX
Whites, 1994-2003

	Incidence[a]			US Mortality[b]		
	Total	Males	Females	Total	Males	Females
Site	APC	APC	APC	APC	APC	APC
Female Genital System:	-1.1*	-	-0.9*	-0.8*	-	-0.6*
Cervix uteri	-2.5*	-	-2.4*	-3.4*	-	-3.2*
Corpus uteri	-1.0*	-	-0.7*	-1.6*	-	-1.3*
Uterus, NOS	0.6	-	1.0	0.7*	-	1.2*
Ovary[c]	-1.0*	-	-0.8*	-0.5	-	-0.3
Vagina	0.1	-	0.2	-1.9*	-	-1.6*
Vulva	0.3	-	0.8	-0.2	-	0.3
Other female genital system	0.5	-	0.7	5.1*	-	5.1*
Male Genital System:	0.7	0.1	-	-3.5*	-4.0*	-
Prostate	0.7	0.1	-	-3.5*	-4.1*	-
Testis	1.3*	1.2*	-	0.1	0.1	-
Penis	1.0	0.3	-	-0.1	-0.7	-
Other male genital system	-1.3	-1.6	-	-0.6	-0.8	-
Urinary System:	0.8*	0.6*	0.9*	-0.1	-0.2*	-0.5*
Urinary bladder	0.2	0.1	-0.1	-0.1	-0.5*	-0.4
Kidney & renal pelvis	2.2*	1.9*	2.2*	-0.2	-0.1	-0.7*
Ureter	0.0	-1.0	1.8	-1.9*	-2.9*	-0.2
Other urinary system	-2.3	-1.1	-6.3*	9.5*	12.5*	6.4*
Eye & Orbit	-1.4*	-2.4	-0.6	-4.2*	-4.1*	-4.6*
Brain & Nervous System:[d]	0.0	0.0	0.0	-0.9*	-0.8*	-1.0*
Brain	-0.1	0.1	-0.3	-	-	-
Cranial nerves & other nervous system	0.5	-2.8	4.1*	-	-	-
Endocrine System:	5.0*	4.2*	5.4*	0.1	0.5	-0.1
Thyroid	5.4*	4.7*	5.7*	0.9*	1.5	0.6*
Other endocrine & thymus	0.7	1.5	-0.1	-1.0	-0.7	-1.2
Lymphoma:	-0.1	-0.6*	0.6	-1.9*	-1.7*	-2.2*
Hodgkin lymphoma	-0.3	0.0	-0.7	-2.0*	-1.9*	-2.1*
Non-Hodgkin lymphoma	-0.1	-0.7*	0.8*	-1.9*	-1.7*	-2.2*
Myeloma	-0.3	0.0	-0.9	-0.6*	-0.7*	-0.7*
Leukemia:	-0.9*	-1.0*	-1.0	-0.5*	-0.6*	-0.6*
Lymphocytic:	-1.0*	-1.0	-1.2	-0.9*	-1.3*	-0.9*
Acute lymphocytic	0.5	-0.1	1.2	-0.8*	-0.9*	-0.8
Chronic lymphocytic	-1.4*	-1.0	-2.2*	-0.7*	-1.2*	-0.6
Other lymphocytic	-2.8*	-2.9*	-2.8	-3.9*	-3.8*	-4.6*
Myeloid & Monocytic:	-0.4	-0.5	-0.5	0.4*	0.6*	0.1
Acute myeloid	0.4	0.5	0.1	2.4*	2.6*	2.0*
Chronic myeloid	-2.8*	-3.2*	-2.6*	-8.1*	-8.5*	-7.8*
Acute monocytic	4.3*	4.8*	3.7	-6.2*	-4.0*	-8.6*
Other myeloid & monocytic	-1.6	-2.8	-0.8	9.7*	10.3*	8.4*
Other:	-3.4*	-4.6*	-2.4*	-1.6*	-1.8*	-1.6*
Other acute	-6.2*	-7.4*	-4.8*	-4.1*	-3.9*	-4.4*
Aleukemic, subleuk & NOS	-0.3	-1.6	0.3	0.9*	0.2	1.4*
Kaposi Sarcoma[e]	-22.7*	-23.2*	-6.5*	-	-	-
Mesothelioma[e]	-1.0	-1.3	-0.5	-	-	-
Ill-defined & unspecified	-3.2*	-3.6*	-2.8*	0.7	1.0	0.3

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

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

[b] NCHS public use data file for the total US. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

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

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

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

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

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

Table I-9
SEER INCIDENCE AND U.S. MORTALITY TRENDS BY PRIMARY CANCER SITE AND SEX
Blacks, 1994-2003

	Incidence[a]			US Mortality[b]		
	Total	Males	Females	Total	Males	Females
Site	APC	APC	APC	APC	APC	APC
All Sites	-0.9*	-1.5*	-0.4	-1.6*	-2.3*	-1.0*
Oral Cavity & Pharynx:	-2.9*	-3.5*	-1.3	-4.2*	-4.1*	-4.4*
Lip	-	-	-	-	-	-
Tongue	-1.6	-2.6	0.5	-5.3*	-5.2*	-5.6*
Salivary gland	-0.3	-1.5	0.6	-1.1	-3.6	2.1
Floor of mouth	-4.7	-3.3	-	-10.7*	-10.3*	-
Gum & other oral cavity	-3.2*	-3.9*	-1.8	-6.7*	-6.5*	-7.2*
Nasopharynx	-2.1	-	-	-1.4	-2.5	1.3
Tonsil	-3.4	-4.0*	-	-5.7*	-5.3*	-7.0*
Oropharynx	0.6	-1.2	-	-2.4*	-1.3	-4.8*
Hypopharynx	-4.9*	-5.3*	-	-6.1*	-5.8*	-
Other oral cavity & pharynx	-	-	-	-2.5*	-2.3*	-2.9
Digestive System:	-0.6*	-0.8*	-0.4	-1.4*	-1.7*	-1.2*
Esophagus	-4.3*	-4.5*	-3.6*	-4.3*	-4.7*	-3.2*
Stomach	-2.3*	-3.3*	-1.1	-3.0*	-3.4*	-2.6*
Small intestine	3.8*	4.3*	3.4*	-0.9	-0.8	-0.7
Colon & Rectum:	-0.3	-0.1	-0.4	-1.0*	-1.0*	-1.1*
Colon	-0.2	0.1	-0.5	-	-	-
Rectum	-0.5	-1.0	0.1	-	-	-
Anus, anal canal & anorectum	2.4	1.2	3.4	-1.0	-1.0	-1.2
Liver & Intrahep:	3.5*	4.5*	1.2	1.1*	1.2	0.3
Liver	4.0*	5.2*	1.4	0.6	1.0	-0.6
Intrahep bile duct	-1.5	-	-	4.1*	3.5*	4.4*
Gallbladder	-3.4	-	-1.9	-1.8	-2.5	-1.6
Other biliary	2.5	1.0	4.2*	-2.2*	-1.0	-2.7*
Pancreas	-2.0*	-2.7*	-1.4	-0.8*	-1.2*	-0.7*
Retroperitoneum	-	-	-	-10.5*	-	-
Peritoneum, omentum & mesentery	-	-	-	3.6*	-	5.0*
Other digestive system	-	-	-	9.5*	10.6*	8.8*
Respiratory System:	-1.6*	-2.5*	0.0	-1.7*	-2.7*	0.2
Nose, nasal cavity & middle ear	-5.8*	-	-	-7.2*	-6.5*	-8.8*
Larynx	-3.8*	-3.6*	-4.4	-2.9*	-3.0*	-2.8*
Lung & bronchus	-1.3*	-2.4*	0.3	-1.6*	-2.7*	0.3
Pleura	-	-	-	-10.2*	-	-
Trachea & other respiratory organs	-	-	-	-7.6*	-5.5*	-
Bones & joints	0.9	0.2	2.3	-3.8*	-4.9*	-3.5
Soft tissue (incl heart)	0.3	1.6	-0.7	-3.9*	-1.1	-5.5*
Skin (ex basal & squam):	-1.8	-3.7	-0.6	-3.0*	-2.9*	-3.0
Melanoma of the skin	-4.6*	-5.7*	-	-1.1	-0.8	-1.2
Other non-epithelial skin	0.8	-1.7	2.5	-4.3*	-3.8*	-5.7*
Breast	-0.4	-	-0.4	-1.4*	-2.6	-1.4*
Breast (*in situ*)	3.6*	-	3.7*	-	-	-

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

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

[b] NCHS public use data file for the total US. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

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

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

Table I-9 - continued
SEER INCIDENCE AND U.S. MORTALITY TRENDS BY PRIMARY CANCER SITE AND SEX
Blacks, 1994-2003

	Incidence[a]			US Mortality[b]		
	Total	Males	Females	Total	Males	Females
Site	APC	APC	APC	APC	APC	APC
Female Genital System:	-1.2*	-	-1.1*	-1.2*	-	-1.2*
Cervix uteri	-4.5*	-	-4.4*	-4.5*	-	-4.5*
Corpus uteri	1.1	-	1.2	-0.4	-	-0.3
Uterus, NOS	-	-	-	1.1	-	1.3*
Ovary[c]	-0.6	-	-0.7	-0.4	-	-0.3
Vagina	-5.4	-	-4.7	-2.3	-	-2.2
Vulva	-4.2*	-	-3.8*	-0.9	-	-0.7
Other female genital system	-1.4	-	-1.0	1.7	-	1.5
Male Genital System:	-0.9	-1.3*	-	-3.2*	-3.2*	-
Prostate	-0.9	-1.3*	-	-3.2*	-3.3*	-
Testis	0.4	0.3	-	3.8	4.5	-
Penis	-	-	-	-0.8	-0.7	-
Other male genital system	-	-	-	-	-	-
Urinary System:	0.7	0.9	0.6	-0.9*	-0.9*	-1.0*
Urinary bladder	0.7	0.7	0.8	-1.4*	-1.5*	-1.4*
Kidney & renal pelvis	1.1	1.4	0.8	-0.5	-0.4	-0.7
Ureter	-	-	-	-	-	-
Other urinary system	-	-	-	1.4	-	0.1
Eye & Orbit	-	-	-	-	-	-
Brain & Nervous System:[d]	-0.2	-0.8	0.2	-0.5	-0.1	-0.9
Brain	0.0	-0.1	-0.3	-	-	-
Cranial nerves & other nervous system	-	-	-	-	-	-
Endocrine System:	4.1*	3.7*	4.2*	0.3	-0.1	0.7
Thyroid	5.3*	4.4*	5.4*	1.5	2.3	1.5
Other endocrine & thymus	-2.5	-	-	-1.3	-2.0*	-0.5
Lymphoma:	0.1	-1.5	2.4*	-1.9*	-2.4*	-1.2
Hodgkin lymphoma	1.4	1.7	1.4	-4.5*	-4.6*	-4.0*
Non-Hodgkin lymphoma	-0.1	-1.9*	2.5*	-1.7*	-2.2	-1.0
Myeloma	-1.5*	0.1	-3.1*	-1.2*	-1.8*	-0.8
Leukemia:	-0.5	-0.8	-0.4	-1.2*	-1.7*	-0.7
Lymphocytic:	-1.8*	-1.6	-1.6	-2.1*	-2.7*	-1.2
Acute lymphocytic	-2.3	-5.4*	1.5	-2.2	-1.3	-3.5
Chronic lymphocytic	-2.3*	-1.9	-2.5*	-1.9*	-3.0*	-0.5
Other lymphocytic	-	-	-	-3.3	-3.0	-
Myeloid & Monocytic:	0.7	0.5	0.4	-0.3	-0.2	-0.4
Acute myeloid	2.9	3.2	1.8	2.0*	2.0*	1.9*
Chronic myeloid	-3.9*	-4.8	-4.0	-6.7*	-6.2*	-7.1*
Acute monocytic	-	-	-	-	-	-
Other myeloid & monocytic	-	-	-	8.0*	-	-
Other:	-1.9	-	-	-1.7*	-2.6*	-0.9
Other acute	-	-	-	-4.5*	-4.7*	-4.1*
Aleukemic, subleuk & NOS	-	-	-	0.3	-1.2	1.6*
Kaposi Sarcoma[e]	-14.3*	-14.3*	-	-	-	-
Mesothelioma[e]	-7.7*	-	-	-	-	-
Ill-defined & unspecified	-3.9*	-3.8*	-4.2*	-0.7	-0.6	-0.8

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

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

[b] NCHS public use data file for the total US. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

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

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

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

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

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

Table I-10

AGE DISTRIBUTION (%) OF INCIDENCE CASES BY SITE, 2000-2003

All Races, Both Sexes

Site	Age <20	20-34	35-44	45-54	55-64	65-74	75-84	85+	All Ages	Cases
All Sites	1.1	2.7	6.0	13.5	20.8	26.0	22.6	7.3	100.0%	1,327,804
Oral Cavity & Pharynx:	0.5	2.4	7.3	20.5	24.3	22.2	17.0	5.7	100.0%	29,790
Lip	0.1	1.8	8.2	12.2	17.9	23.2	25.4	11.2	100.0%	2,494
Tongue	0.1	2.2	7.2	23.2	25.9	21.8	15.3	4.4	100.0%	7,715
Salivary gland	1.8	6.9	9.0	15.1	17.9	20.1	20.3	8.9	100.0%	3,351
Floor of mouth	0.1	0.4	4.1	20.9	29.4	25.5	14.8	4.7	100.0%	2,014
Gum & other oral cavity	0.6	2.0	5.8	14.6	21.3	23.0	23.5	9.2	100.0%	4,449
Nasopharynx	2.8	6.8	14.3	23.8	22.7	18.1	9.0	2.4	100.0%	1,939
Tonsil	0.0	0.9	8.8	32.2	29.8	18.1	8.8	1.4	100.0%	4,126
Oropharynx	0.1	0.5	3.4	20.2	30.9	24.9	15.0	5.1	100.0%	881
Hypopharynx	0.0	0.1	3.3	17.0	25.2	30.7	19.8	3.9	100.0%	2,091
Other oral cavity & pharynx	0.5	0.5	3.4	16.7	26.2	27.3	18.8	6.6	100.0%	730
Digestive System:	0.2	1.0	3.7	11.6	18.2	26.2	27.8	11.4	100.0%	251,329
Esophagus	0.0	0.5	2.6	12.5	22.9	29.5	24.2	7.9	100.0%	12,687
Stomach	0.1	1.6	4.6	10.8	17.1	25.6	28.2	12.0	100.0%	22,626
Small intestine	0.2	1.8	6.5	14.8	21.5	25.5	22.6	7.1	100.0%	4,945
Colon & Rectum:	0.0	0.9	3.5	10.9	17.6	25.9	28.8	12.3	100.0%	146,401
Colon	0.0	0.8	3.0	9.4	16.1	26.1	30.9	13.7	100.0%	105,607
Rectum	0.0	1.2	5.0	14.8	21.3	25.6	23.5	8.6	100.0%	40,794
Colon & Rectum (Male)	0.0	1.0	3.7	11.8	20.0	28.2	26.7	8.6	100.0%	74,111
Colon & Rectum (Female)	0.0	0.9	3.4	9.9	15.0	23.7	30.9	16.1	100.0%	72,290
Anus, anal canal & anorectum	0.0	1.7	12.0	22.3	20.8	20.5	16.3	6.4	100.0%	4,175
Liver & Intrahep:	1.2	1.1	4.0	19.3	21.5	25.5	20.9	6.5	100.0%	17,051
Liver	1.3	1.1	4.2	20.4	22.0	25.4	20.0	5.7	100.0%	15,340
Intrahep bile duct	0.0	1.1	3.0	10.2	16.7	26.4	28.8	13.9	100.0%	1,711
Gallbladder	0.0	0.5	2.8	8.4	16.5	26.3	32.6	12.9	100.0%	3,290
Other biliary	0.1	0.7	2.8	8.6	16.1	26.1	30.9	14.8	100.0%	4,623
Pancreas	0.1	0.4	2.5	9.6	17.7	27.7	29.8	12.2	100.0%	31,318
Retroperitoneum	8.9	5.6	8.2	15.9	17.5	21.6	18.0	4.5	100.0%	1,186
Peritoneum, omentum & mesentery	0.5	0.9	4.9	10.9	23.3	31.5	23.8	4.3	100.0%	1,688
Other digestive system	0.1	1.5	2.7	10.8	15.5	25.4	28.1	15.9	100.0%	1,339
Respiratory System:	0.1	0.4	2.3	9.3	21.5	32.3	27.5	6.7	100.0%	192,800
Nose, nasal cavity & middle ear	2.9	3.8	8.1	17.0	19.8	20.8	21.2	6.5	100.0%	1,875
Larynx	0.0	0.5	4.0	15.9	28.5	29.7	17.6	3.9	100.0%	10,607
Lung & bronchus	0.0	0.3	2.1	8.8	21.1	32.6	28.2	6.9	100.0%	179,660
Lung & bronchus (Male)	0.0	0.2	1.9	8.9	21.7	33.4	27.7	6.2	100.0%	98,380
Lung & bronchus (Female)	0.0	0.3	2.3	8.8	20.3	31.8	28.7	7.8	100.0%	81,280
Pleura	3.9	5.9	4.9	8.8	20.6	26.5	18.6	10.8	100.0%	102
Trachea & other respiratory organs	17.8	18.5	10.4	11.3	11.7	12.4	13.5	4.3	100.0%	556
Bones & joints	28.4	16.4	11.9	13.2	10.0	8.9	7.7	3.5	100.0%	2,691
Soft tissue (incl heart)	10.7	10.7	11.8	14.9	14.9	15.4	15.8	5.8	100.0%	8,755
Skin (ex basal & squam):	1.0	8.3	13.3	18.4	18.0	18.4	16.7	5.9	100.0%	57,447
Melanoma of the skin	0.9	8.5	13.8	19.1	18.5	18.2	15.8	5.3	100.0%	52,445
Other non-epithelial skin	1.5	6.9	8.1	11.9	13.5	20.1	25.7	12.3	100.0%	5,002
Breast (Female)	0.0	1.9	10.6	22.1	22.8	20.4	16.8	5.4	100.0%	199,479
Breast (Female -*in situ*)	0.0	0.8	11.5	27.6	25.0	20.3	12.5	2.2	100.0%	44,913

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

Table I-10 - continued

AGE DISTRIBUTION (%) OF INCIDENCE CASES BY SITE, 2000-2003

All Races, Both Sexes

Site	<20	20-34	35-44	45-54	55-64	65-74	75-84	85+	All Ages	Cases
Female Genital System:	0.4	4.6	10.6	19.1	22.7	20.2	16.6	5.7	100.0%	76,273
Cervix uteri	0.1	15.4	26.4	23.3	14.9	10.4	6.9	2.6	100.0%	13,435
Corpus uteri	0.0	1.4	6.5	18.5	27.5	23.7	17.4	4.9	100.0%	35,045
Uterus, NOS	0.4	2.6	6.2	15.9	19.4	18.1	20.9	16.5	100.0%	908
Ovary[a]	1.2	3.5	8.1	18.6	21.4	20.8	19.4	7.0	100.0%	21,223
Vagina	1.5	1.1	5.9	15.3	18.6	21.2	23.0	13.5	100.0%	1,124
Vulva	0.2	2.7	9.0	15.0	15.6	18.7	25.2	13.7	100.0%	3,470
Other female genital system	1.7	10.5	8.7	17.4	20.7	19.9	16.6	4.5	100.0%	1,068
Male Genital System:	0.2	1.7	1.7	8.5	25.9	35.6	21.8	4.6	100.0%	216,884
Prostate	0.0	0.0	0.5	8.3	26.9	37.0	22.6	4.7	100.0%	207,370
Testis	5.4	45.8	30.9	13.1	2.9	1.1	0.6	0.2	100.0%	8,136
Penis	0.0	2.0	7.2	12.3	19.7	25.7	23.7	9.4	100.0%	1,051
Other male genital system	4.3	2.4	4.3	12.5	16.5	25.7	25.4	8.9	100.0%	327
Urinary System:	0.6	0.9	3.7	11.0	19.4	27.4	27.6	9.3	100.0%	96,064
Urinary bladder	0.1	0.6	2.2	7.9	17.2	28.7	31.9	11.6	100.0%	58,103
Kidney & renal pelvis	1.5	1.5	6.4	16.4	23.3	25.3	20.3	5.3	100.0%	35,652
Ureter	0.0	0.1	0.7	4.8	14.7	31.3	37.6	10.8	100.0%	1,519
Other urinary system	0.3	0.9	3.4	9.6	16.8	24.4	30.4	14.2	100.0%	790
Eye & Orbit	14.0	3.4	7.0	14.5	18.1	19.5	17.6	5.8	100.0%	2,296
Brain & Nervous System:	13.8	9.5	10.8	15.1	16.1	16.7	14.1	3.8	100.0%	18,542
Brain	13.3	9.3	10.6	15.0	16.3	17.1	14.4	3.9	100.0%	17,329
Cranial nerves & other nervous system	21.2	11.4	12.8	16.8	13.3	12.0	9.8	2.8	100.0%	1,213
Endocrine System:	3.8	17.5	22.4	22.3	15.2	11.1	6.3	1.4	100.0%	26,171
Thyroid	2.1	18.2	23.3	22.9	15.2	10.7	6.1	1.3	100.0%	24,215
Other endocrine & thymus	24.1	8.7	10.6	14.7	15.5	15.1	8.8	2.4	100.0%	1,956
Lymphoma:	3.1	8.0	9.1	13.8	16.7	20.9	21.0	7.3	100.0%	62,126
Hodgkin lymphoma	12.3	32.9	18.2	12.1	8.6	8.5	5.8	1.6	100.0%	7,997
Non-Hodgkin lymphoma	1.8	4.3	7.8	14.1	17.9	22.7	23.3	8.1	100.0%	54,129
Myeloma	0.0	0.6	3.4	11.5	19.5	27.5	28.1	9.3	100.0%	15,356
Leukemia:	10.9	4.8	5.8	9.9	14.5	20.4	23.8	10.0	100.0%	34,625
Lymphocytic:	17.4	3.3	3.9	9.0	15.2	20.0	21.9	9.3	100.0%	16,326
Acute lymphocytic	61.1	10.1	6.3	6.2	5.5	5.3	3.8	1.8	100.0%	4,636
Chronic lymphocytic	0.0	0.3	2.1	8.9	19.1	26.7	30.2	12.7	100.0%	10,483
Other lymphocytic	0.7	3.1	11.0	20.6	18.8	18.2	19.6	8.0	100.0%	1,207
Myeloid & Monocytic:	5.1	6.6	7.9	11.3	14.3	21.0	24.7	9.1	100.0%	16,069
Acute myeloid	5.9	6.4	7.1	10.7	14.6	21.8	24.7	8.9	100.0%	10,464
Chronic myeloid	2.7	7.4	10.0	12.7	13.8	19.3	24.4	9.7	100.0%	4,299
Acute monocytic	9.5	6.7	8.4	13.4	14.6	19.4	20.5	7.5	100.0%	830
Other myeloid & monocytic	2.9	4.4	4.8	8.4	12.8	21.8	33.2	11.6	100.0%	476
Other:	4.6	3.5	3.9	5.9	9.9	18.9	30.8	22.5	100.0%	2,230
Other acute	6.6	4.7	3.4	6.2	8.3	19.9	29.9	21.0	100.0%	1,030
Aleukemic, subleuk & NOS	2.8	2.5	4.4	5.6	11.3	18.1	31.6	23.8	100.0%	1,200
Kaposi Sarcoma	0.1	19.8	36.7	16.7	6.0	6.5	8.4	5.8	100.0%	2,029
Mesothelioma	0.1	0.7	2.0	7.1	15.7	28.3	37.5	8.7	100.0%	3,026
Ill-defined & unspecified	0.5	1.0	3.1	10.1	16.1	23.6	29.8	15.9	100.0%	30,580

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

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

Table I-11
MEDIAN AGE OF CANCER PATIENTS AT DIAGNOSIS[a], 2000-2003
By Primary Cancer Site, Race and Sex

Site	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
All Sites	67.0	68.0	66.0	68.0	68.0	67.0	63.0	64.0	62.0
Oral Cavity & Pharynx:	62.0	61.0	66.0	63.0	62.0	68.0	57.5	58.0	57.0
Lip	69.0	68.0	75.0	70.0	68.0	75.0	56.5	64.0	-
Tongue	61.0	60.0	65.0	62.0	60.0	66.0	57.0	58.0	55.0
Salivary gland	64.0	66.0	61.0	66.0	68.0	63.0	54.0	55.0	53.0
Floor of mouth	63.0	61.0	68.0	64.0	62.0	69.0	58.0	58.0	61.0
Gum & other oral cavity	67.0	64.0	72.0	69.0	65.0	73.0	59.0	59.0	60.5
Nasopharynx	55.0	55.0	56.0	59.0	58.0	63.0	51.0	51.0	47.0
Tonsil	57.0	56.0	61.0	57.0	56.0	62.0	56.0	55.0	57.0
Oropharynx	63.0	61.0	68.0	64.0	62.0	68.0	59.5	59.0	64.0
Hypopharynx	66.0	65.0	67.0	67.0	67.0	68.0	61.0	61.0	58.0
Other oral cavity & pharynx	66.0	64.0	69.0	66.0	64.0	70.0	62.0	61.5	64.5
Digestive System:	71.0	69.0	73.0	72.0	70.0	74.0	66.0	65.0	69.0
Esophagus	69.0	67.0	72.0	69.0	68.0	74.0	64.0	63.0	65.0
Stomach	71.0	70.0	74.0	72.0	70.0	74.0	69.0	67.0	72.0
Small intestine	67.0	65.0	68.0	67.0	66.0	69.0	63.0	63.0	63.0
Colon & Rectum:	71.0	70.0	73.0	72.0	70.0	74.0	67.0	65.0	68.0
Colon	73.0	71.0	75.0	74.0	72.0	75.0	68.0	67.0	69.0
Rectum	68.0	66.0	70.0	68.0	67.0	71.0	63.0	62.0	65.0
Anus, anal canal & anorectum	61.0	58.0	63.0	62.0	59.0	63.0	53.5	49.0	58.0
Liver & Intrahep:	66.0	63.0	71.0	67.0	65.0	72.0	59.0	57.0	66.0
Liver	65.0	63.0	70.0	66.0	64.0	71.0	59.0	57.0	65.0
Intrahep bile duct	72.0	71.0	74.0	73.0	71.0	75.0	66.5	65.0	67.5
Gallbladder	73.0	73.0	73.0	74.0	74.0	74.0	70.0	69.5	70.0
Other biliary	73.0	71.0	75.0	74.0	72.0	75.0	69.0	67.5	70.0
Pancreas	72.0	70.0	74.0	73.0	70.0	75.0	68.0	66.0	71.0
Retroperitoneum	61.0	61.0	61.0	62.0	62.0	62.0	56.0	56.0	57.0
Peritoneum, omentum & mesentery	68.0	60.5	68.0	68.0	62.0	68.0	63.0	-	64.5
Other digestive system	73.0	71.0	74.0	73.0	71.0	75.0	70.0	67.0	72.0
Respiratory System:	70.0	70.0	70.0	70.0	70.0	71.0	66.0	65.0	66.0
Nose, nasal cavity & middle ear	64.0	62.0	66.0	65.0	63.0	67.0	55.0	54.0	59.0
Larynx	65.0	65.0	65.0	65.0	65.0	65.0	61.0	62.0	59.0
Lung & bronchus	70.0	70.0	71.0	71.0	71.0	71.0	66.0	66.0	67.0
Pleura	66.0	67.0	65.5	66.5	67.0	65.5	-	-	-
Trachea & other respiratory organs	47.5	40.0	61.0	47.0	41.0	63.0	52.5	43.0	60.0
Bones & joints	39.0	37.0	42.0	39.0	37.0	43.0	34.0	34.0	34.5
Soft tissue (incl heart)	56.0	56.0	56.0	57.0	58.0	57.0	48.0	45.0	50.0
Skin (ex basal & squam):	59.0	62.0	55.0	60.0	63.0	55.0	53.0	53.0	53.5
Melanoma of the skin	58.0	61.0	54.0	59.0	62.0	54.0	61.0	61.0	62.0
Other non-epithelial skin	69.0	70.0	68.0	71.0	71.0	69.0	47.0	46.0	48.0
Breast	61.0	67.0	61.0	62.0	67.0	62.0	57.0	62.0	57.0
Breast (*in situ*)	58.0	58.0	58.0	58.0	59.0	58.0	57.0	56.0	57.0

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

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

Table I-11 - continued
MEDIAN AGE OF CANCER PATIENTS AT DIAGNOSIS[a], 2000-2003
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	62.0	-	62.0	60.0	-	60.0
Cervix uteri	48.0	-	48.0	47.0	-	47.0	49.0	-	49.0
Corpus uteri	63.0	-	63.0	63.0	-	63.0	64.0	-	64.0
Uterus, NOS	68.0	-	68.0	69.0	-	69.0	62.0	-	62.0
Ovary[b]	63.0	-	63.0	64.0	-	64.0	61.5	-	61.5
Vagina	68.0	-	68.0	69.0	-	69.0	62.0	-	62.0
Vulva	69.0	-	69.0	70.0	-	70.0	56.0	-	56.0
Other female genital system	60.0	-	60.0	62.0	-	62.0	47.0	-	47.0
Male Genital System:	68.0	68.0	-	68.0	68.0	-	65.0	65.0	-
Prostate	68.0	68.0	-	69.0	69.0	-	65.0	65.0	-
Testis	34.0	34.0	-	34.0	34.0	-	33.0	33.0	-
Penis	68.0	68.0	-	69.0	69.0	-	64.0	64.0	-
Other male genital system	69.0	69.0	-	70.0	70.0	-	55.0	55.0	-
Urinary System:	70.0	70.0	71.0	71.0	70.0	71.0	65.0	64.0	67.0
Urinary bladder	73.0	72.0	74.0	73.0	72.0	74.0	70.0	69.0	73.0
Kidney & renal pelvis	65.0	64.0	66.0	65.0	65.0	67.0	61.0	60.0	62.0
Ureter	74.0	73.0	75.0	74.0	74.0	76.0	71.0	69.0	73.0
Other urinary system	73.0	73.0	70.0	74.0	74.0	74.0	63.0	67.5	61.5
Eye & Orbit	60.0	59.0	62.0	61.0	60.0	62.0	3.0	3.0	3.0
Brain & Nervous System:	55.0	54.0	56.0	56.0	55.0	57.0	48.0	48.0	50.0
Brain	56.0	55.0	56.0	56.0	56.0	58.0	49.0	48.0	51.0
Cranial nerves & other nervous system	47.0	46.0	49.0	48.0	46.0	49.0	45.0	47.0	44.0
Endocrine System:	47.0	52.0	46.0	47.0	52.0	46.0	49.0	51.0	48.0
Thyroid	47.0	52.0	46.0	47.0	52.0	46.0	49.0	52.0	48.0
Other endocrine & thymus	49.0	47.0	51.0	51.0	48.0	53.0	44.0	44.0	43.5
Lymphomas:	64.0	62.0	67.0	65.0	63.0	68.0	52.0	51.0	54.0
Hodgkin lymphoma	37.0	39.0	35.0	38.0	39.0	36.0	37.0	38.0	34.0
Non-Hodgkin lymphoma	67.0	64.0	69.0	68.0	65.0	70.0	55.0	52.0	58.0
Myeloma	70.0	69.0	72.0	71.0	70.0	73.0	67.0	66.0	68.0
Leukemia:	67.0	66.0	68.0	68.0	67.0	69.0	61.0	59.0	63.0
Lymphocytic:	65.0	64.0	67.0	66.0	65.0	68.0	61.0	61.0	65.0
Acute lymphocytic	13.0	13.0	12.0	13.0	14.0	12.0	13.0	14.0	13.0
Chronic lymphocytic	72.0	71.0	74.0	73.0	71.0	75.0	68.0	67.5	71.0
Other lymphocytic	62.0	59.0	71.0	62.5	60.0	71.0	63.5	59.0	73.0
Myeloid & Monocytic:	67.0	67.0	68.0	69.0	68.0	69.0	59.0	57.0	62.0
Acute myeloid	67.0	67.0	67.0	69.0	69.0	69.0	59.0	57.5	61.0
Chronic myeloid	67.0	66.0	68.0	69.0	68.0	70.0	59.0	55.0	64.0
Acute monocytic	63.0	64.0	61.0	65.0	65.0	63.0	46.0	37.5	49.0
Other myeloid & monocytic	72.0	72.0	73.5	73.0	72.0	76.0	65.5	65.0	66.0
Other:	76.0	74.0	77.0	77.0	75.0	79.0	66.5	62.0	71.0
Other acute	75.0	74.0	76.0	76.0	75.0	78.0	68.0	68.0	71.5
Aleukemic, subleuk & NOS	76.0	74.0	79.0	78.0	75.0	80.0	65.0	58.0	71.0
Kaposi Sarcoma	42.0	41.0	79.0	44.0	42.0	80.0	38.0	37.0	41.0
Mesothelioma	74.0	74.0	72.0	74.0	74.0	73.0	70.0	71.0	64.5
Ill-defined & unspecified	73.0	71.0	75.0	74.0	71.0	76.0	67.0	64.0	70.0

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

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

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

Table I-12

AGE DISTRIBUTION (%) OF DEATHS BY SITE, 2000-2003

All Races, Both Sexes

Site	Age <20	20-34	35-44	45-54	55-64	65-74	75-84	85+	All Ages	Cases
All Sites	0.4	0.9	2.9	8.9	16.6	26.3	30.0	14.1	100.0%	2,220,994
Oral Cavity & Pharynx:	0.2	0.9	3.6	14.3	22.9	24.9	22.2	11.0	100.0%	30,707
Lip	0.3	1.0	4.5	7.2	13.8	17.9	31.0	24.1	100.0%	290
Tongue	0.1	1.5	4.4	15.4	23.7	23.8	21.6	9.5	100.0%	7,347
Salivary gland	0.1	0.9	3.6	9.9	16.4	22.0	28.3	18.7	100.0%	2,766
Floor of mouth	0.0	0.0	3.3	15.9	25.7	28.4	18.8	7.9	100.0%	584
Gum & other oral cavity	0.6	0.6	2.2	10.3	17.5	23.6	26.1	19.2	100.0%	4,720
Nasopharynx	1.2	3.6	8.2	19.0	23.3	21.3	16.9	6.4	100.0%	2,497
Tonsil	0.0	0.4	4.6	21.6	27.8	24.9	16.2	4.5	100.0%	2,376
Oropharynx	0.0	0.2	2.4	16.3	26.2	26.4	20.3	8.3	100.0%	2,371
Hypopharynx	0.0	0.2	2.3	13.1	28.1	31.1	19.4	5.8	100.0%	1,348
Other oral cavity & pharynx	0.0	0.2	2.3	12.9	24.4	27.9	23.0	9.3	100.0%	6,408
Digestive System:	0.1	0.5	2.5	9.0	16.0	25.3	30.3	16.3	100.0%	529,051
Esophagus	0.0	0.3	2.4	11.0	21.6	29.3	26.3	9.0	100.0%	50,321
Stomach	0.0	1.2	3.8	9.2	14.8	23.7	30.1	17.2	100.0%	49,272
Small intestine	0.0	0.9	4.1	10.9	17.9	24.5	29.0	12.7	100.0%	4,226
Colon & Rectum:	0.0	0.6	2.4	7.7	14.3	23.9	31.1	20.0	100.0%	226,628
Colon & Rectum (Male)	0.0	0.6	2.6	8.7	16.8	27.1	30.3	13.8	100.0%	113,174
Colon & Rectum (Female)	0.0	0.5	2.1	6.8	11.8	20.7	31.9	26.2	100.0%	113,454
Anus, anal canal & anorectum	0.0	1.1	8.2	18.0	20.1	20.2	21.3	11.1	100.0%	2,097
Liver & Intrahep:	0.4	0.8	3.0	14.1	18.0	25.6	27.1	11.0	100.0%	55,020
Liver	0.5	0.8	3.1	15.5	18.4	25.7	26.1	10.1	100.0%	43,152
Intrahep bile duct	0.0	0.7	2.7	9.1	16.9	25.4	30.5	14.6	100.0%	11,868
Gallbladder	0.0	0.2	1.8	7.7	14.6	25.9	33.2	16.5	100.0%	7,742
Other biliary	0.0	0.3	1.5	5.8	11.4	23.1	35.3	22.6	100.0%	6,339
Pancreas	0.0	0.2	1.9	8.1	16.6	27.1	31.7	14.4	100.0%	120,173
Retroperitoneum	0.7	1.8	4.8	9.3	18.2	24.8	30.3	10.2	100.0%	892
Peritoneum, omentum & mesentery	0.2	0.7	2.7	7.3	20.5	32.0	29.2	7.4	100.0%	2,583
Other digestive system	0.1	0.7	1.9	5.8	12.7	22.5	32.1	24.3	100.0%	3,758
Respiratory System:	0.0	0.1	1.7	7.8	19.4	32.3	30.0	8.6	100.0%	646,226
Nose, nasal cavity & middle ear	0.4	1.3	6.6	13.2	18.3	22.0	25.1	13.0	100.0%	1,805
Larynx	0.0	0.1	2.0	11.1	24.0	30.4	24.8	7.5	100.0%	15,171
Lung & bronchus	0.0	0.1	1.7	7.7	19.3	32.4	30.2	8.6	100.0%	627,015
Lung & bronchus (Male)	0.0	0.1	1.6	8.0	20.1	33.4	29.4	7.4	100.0%	360,800
Lung & bronchus (Female)	0.0	0.1	1.9	7.4	18.2	31.0	31.2	10.2	100.0%	266,215
Pleura	0.1	0.1	1.0	4.5	14.8	28.8	38.3	12.4	100.0%	1,145
Trachea & other respiratory organs	1.5	5.7	6.1	12.0	15.8	24.3	25.1	9.5	100.0%	1,090
Bones & joints	14.8	14.1	7.3	8.9	11.2	13.7	18.6	11.3	100.0%	4,966
Soft tissue (incl heart)	4.1	6.8	7.9	13.5	16.7	19.8	21.6	9.7	100.0%	14,556
Skin (ex basal & squam):	0.1	2.4	6.6	13.8	17.4	21.5	24.1	14.0	100.0%	39,993
Melanoma of the skin	0.1	2.9	8.0	15.6	18.3	21.6	22.9	10.7	100.0%	30,293
Other non-epithelial skin	0.1	0.7	2.2	8.3	14.8	21.3	28.1	24.5	100.0%	9,700
Breast (Female)	0.0	1.1	6.6	15.4	18.6	20.5	23.1	14.7	100.0%	166,399

Source: NCHS public use data file for the total US.

Table I-12 - continued

AGE DISTRIBUTION (%) OF DEATHS BY SITE, 2000-2003

All Races, Both Sexes

Site	Age <20	20-34	35-44	45-54	55-64	65-74	75-84	85+	All Ages	Cases
Female Genital System:	0.0	1.4	5.0	12.0	17.8	23.7	26.9	13.2	100.0%	107,351
Cervix uteri	0.0	5.6	16.7	22.6	18.5	15.3	14.0	7.3	100.0%	16,163
Corpus uteri	0.0	0.3	1.7	6.9	17.8	29.2	29.5	14.7	100.0%	12,772
Uterus, NOS	0.0	0.5	2.6	9.0	17.1	24.6	29.0	17.2	100.0%	14,348
Ovary	0.1	0.8	3.2	11.3	18.5	25.0	28.9	12.2	100.0%	57,813
Vagina	0.0	0.6	3.9	9.6	12.3	20.4	27.2	26.0	100.0%	1,556
Vulva	0.0	0.6	2.5	5.8	8.8	17.4	34.7	30.2	100.0%	3,086
Other female genital system	0.0	2.0	3.7	10.2	17.5	24.7	28.3	13.6	100.0%	1,613
Male Genital System:	0.0	0.4	0.4	1.6	6.6	20.9	41.4	28.6	100.0%	124,235
Prostate	0.0	0.0	0.1	1.3	6.5	21.1	41.9	29.1	100.0%	121,797
Testis	2.6	32.8	27.3	17.2	7.2	5.9	4.7	2.3	100.0%	1,410
Penis	0.0	1.0	5.8	12.1	19.4	24.4	24.9	12.4	100.0%	881
Other male genital system	0.0	2.7	4.8	8.8	11.6	16.3	41.5	14.3	100.0%	147
Urinary System:	0.2	0.3	1.8	7.1	14.8	24.6	32.6	18.5	100.0%	100,119
Urinary bladder	0.0	0.1	0.9	3.9	10.5	22.9	37.1	24.5	100.0%	49,337
Kidney & renal pelvis	0.5	0.5	2.7	10.5	19.4	26.3	27.8	12.3	100.0%	48,265
Ureter	0.0	0.2	0.5	4.4	10.3	28.7	35.9	20.1	100.0%	1,216
Other urinary system	0.0	0.2	1.6	6.6	10.7	22.1	37.7	21.2	100.0%	1,301
Eye & Orbit	5.1	1.6	4.2	11.4	18.8	20.3	25.2	13.5	100.0%	933
Brain & Nervous System:	4.3	4.1	8.3	15.5	19.7	22.8	19.6	5.7	100.0%	50,995
Endocrine System:	8.3	2.6	4.9	10.7	15.9	21.7	24.5	11.4	100.0%	8,895
Thyroid	0.1	0.8	3.0	8.8	16.7	24.0	30.9	15.6	100.0%	5,361
Other endocrine & thymus	20.7	5.4	7.8	13.6	14.6	18.2	14.8	4.9	100.0%	3,534
Lymphoma:	0.6	2.5	3.7	7.8	13.9	23.5	32.5	15.6	100.0%	93,728
Hodgkin lymphoma	2.1	15.9	11.8	12.7	12.6	16.8	19.9	8.3	100.0%	5,309
Non-Hodgkin lymphoma	0.5	1.7	3.2	7.5	13.9	23.9	33.3	16.0	100.0%	88,419
Myeloma	0.0	0.1	1.3	6.3	14.7	28.2	35.0	14.4	100.0%	43,075
Leukemia:	3.3	3.3	3.7	6.7	11.9	22.6	31.6	17.0	100.0%	86,118
Lymphocytic:	5.3	3.6	2.7	5.1	10.0	20.2	30.9	22.1	100.0%	24,848
Acute lymphocytic	22.8	15.5	9.7	11.1	11.4	12.5	11.4	5.7	100.0%	5,689
Chronic lymphocytic	0.0	0.1	0.5	3.1	9.6	22.8	36.7	27.3	100.0%	17,628
Other lymphocytic	1.1	0.6	1.8	5.4	10.3	19.9	36.9	24.1	100.0%	1,531
Myeloid & Monocytic:	2.4	3.5	4.8	8.4	14.0	24.8	30.5	11.7	100.0%	40,222
Acute myeloid	2.8	3.5	4.6	8.3	14.2	25.6	30.4	10.6	100.0%	31,202
Chronic myeloid	1.1	4.6	7.0	11.1	14.5	20.6	27.0	14.1	100.0%	6,051
Acute monocytic	2.8	2.3	4.5	4.9	13.0	21.0	32.7	18.9	100.0%	471
Other myeloid & monocytic	1.2	0.9	1.4	3.8	9.6	25.3	39.3	18.6	100.0%	2,498
Other:	2.5	2.5	2.7	5.3	10.0	21.5	34.5	21.0	100.0%	21,048
Other acute	1.5	2.6	3.0	5.7	10.7	23.3	35.6	17.6	100.0%	9,527
Aleukemic, subleuk & NOS	3.4	2.3	2.4	5.1	9.5	19.9	33.6	23.8	100.0%	11,521
Ill-defined & unspecified	0.3	0.7	2.6	8.3	15.4	24.7	31.1	16.9	100.0%	172,056

Source: NCHS public use data file for the total US.

Table I-13
MEDIAN AGE OF CANCER PATIENTS AT DEATH[a], 2000-2003
By Primary Cancer Site, Race and Sex

Site	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
All Sites	73.0	72.0	73.0	73.0	73.0	74.0	68.0	68.0	69.0
Oral Cavity & Pharynx:	68.0	65.0	74.0	70.0	67.0	75.0	61.0	60.0	65.0
Lip	76.0	74.0	82.0	76.0	74.5	83.0	-	-	-
Tongue	67.0	64.0	73.0	68.0	64.0	74.0	60.0	60.0	62.0
Salivary gland	73.0	72.0	75.0	74.0	73.0	76.0	65.0	64.0	66.0
Floor of mouth	66.0	63.0	73.5	67.0	64.0	74.0	61.0	59.5	68.0
Gum & other oral cavity	73.0	67.0	79.0	74.0	69.0	80.0	64.0	61.0	71.0
Nasopharynx	62.0	61.0	66.0	66.0	64.0	70.0	57.0	55.0	60.0
Tonsil	63.0	60.0	70.0	63.0	61.0	71.5	60.0	59.0	65.0
Oropharynx	66.0	64.0	72.0	68.0	66.0	73.0	60.5	60.0	65.0
Hypopharynx	66.0	66.0	71.0	68.0	67.0	71.0	61.0	60.0	62.0
Other oral cavity & pharynx	68.0	67.0	72.0	70.0	68.0	73.0	63.0	62.0	67.0
Digestive System:	73.0	71.0	76.0	74.0	72.0	77.0	69.0	66.0	72.0
Esophagus	70.0	68.0	74.0	71.0	69.0	75.0	65.0	64.0	68.0
Stomach	74.0	72.0	76.0	74.0	72.0	77.0	71.0	68.0	75.0
Small intestine	72.0	70.0	74.0	73.0	71.0	75.0	64.0	63.0	65.0
Colon & Rectum	75.0	73.0	77.0	76.0	73.0	78.0	70.0	68.0	73.0
Anus, anal canal & anorectum	66.0	62.0	69.0	66.0	63.0	69.0	60.0	53.5	65.0
Liver & Intrahep:	70.0	68.0	74.0	72.0	69.0	75.0	63.0	59.0	70.0
Liver	70.0	67.0	75.0	71.0	69.0	76.0	62.0	59.0	70.0
Intrahep bile duct	73.0	72.0	74.0	73.5	72.0	75.0	68.0	67.0	69.5
Gallbladder	74.0	74.0	75.0	75.0	74.0	75.0	70.0	70.0	70.0
Other biliary	77.0	75.0	78.0	77.0	76.0	79.0	73.0	72.0	73.0
Pancreas	73.0	71.0	76.0	74.0	71.0	76.0	70.0	67.0	73.0
Retroperitoneum	71.0	70.0	72.0	72.0	71.0	73.0	61.5	64.0	58.0
Peritoneum, omentum & mesentery	71.0	68.0	71.0	71.0	69.0	71.0	66.0	51.0	68.0
Other digestive system	76.0	74.0	80.0	77.0	74.0	80.0	72.0	71.0	75.0
Respiratory System:	71.0	71.0	72.0	72.0	71.0	72.0	67.0	67.0	68.0
Nose, nasal cavity & middle ear	70.0	66.0	75.0	71.0	67.0	75.0	63.0	63.0	63.5
Larynx	69.0	69.0	70.0	70.0	70.0	71.0	64.0	64.0	66.0
Lung & bronchus	71.0	71.0	72.0	72.0	71.0	72.0	68.0	67.0	68.0
Pleura	75.0	74.0	75.0	75.0	75.0	76.0	69.5	68.5	-
Trachea & other respiratory organs	68.0	66.0	73.0	69.0	66.0	73.0	59.0	60.5	56.0
Bones & joints	59.0	54.0	66.0	60.0	56.0	68.0	51.0	45.0	58.0
Soft tissue (incl heart)	65.0	64.0	66.0	66.0	66.0	68.0	56.0	53.0	59.0
Skin (ex basal & squam):	70.0	69.0	72.0	70.0	69.0	72.0	65.0	61.0	71.0
Melanoma of the skin	67.0	67.0	68.0	67.0	67.0	68.0	69.0	66.0	72.0
Other non-epithelial skin	75.0	73.0	80.0	76.0	74.0	81.0	62.0	60.0	67.5
Breast	69.0	71.0	69.0	70.0	72.0	70.0	61.0	65.0	61.0

[a] NCHS public use data file for the total US.
- Statistic could not be calculated. Less than 16 deaths occurred during the time interval.

Table I-13 - continued
MEDIAN AGE OF CANCER PATIENTS AT DEATH[a], 2000-2003
By Primary Cancer Site, Race and Sex

Site	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
Female Genital System:	71.0	-	71.0	71.0	-	71.0	67.0	-	67.0
Cervix uteri	57.0	-	57.0	57.0	-	57.0	57.0	-	57.0
Corpus uteri	73.0	-	73.0	73.0	-	73.0	71.0	-	71.0
Uterus, NOS	73.0	-	73.0	74.0	-	74.0	70.0	-	70.0
Ovary	71.0	-	71.0	72.0	-	72.0	68.0	-	68.0
Vagina	76.0	-	76.0	76.0	-	76.0	72.0	-	72.0
Vulva	79.0	-	79.0	79.0	-	79.0	72.0	-	72.0
Other female genital system	72.0	-	72.0	73.0	-	73.0	66.0	-	66.0
Male Genital System:	80.0	80.0	-	80.0	80.0	-	77.0	77.0	-
Prostate	80.0	80.0	-	80.0	80.0	-	77.0	77.0	-
Testis	40.0	40.0	-	40.0	40.0	-	41.0	41.0	-
Penis	69.0	69.0	-	70.0	70.0	-	68.0	68.0	-
Other male genital system	76.0	76.0	-	77.0	77.0	-	69.5	69.5	-
Urinary System:	75.0	74.0	77.0	75.0	74.0	77.0	71.0	69.0	74.0
Urinary bladder	78.0	77.0	80.0	78.0	77.0	80.0	76.0	75.0	77.0
Kidney & renal pelvis	71.0	69.0	74.0	72.0	70.0	74.0	67.0	65.0	70.0
Ureter	76.0	75.0	77.0	76.0	75.0	78.0	74.0	-	71.5
Other urinary system	77.0	76.0	78.0	78.0	77.0	79.0	67.5	71.0	65.5
Eye & Orbit	69.0	67.0	72.0	70.0	68.0	72.0	45.0	49.5	38.5
Brain & Nervous System:	64.0	62.0	66.0	64.0	62.0	66.0	57.0	56.0	60.0
Endocrine System:	69.0	65.0	72.0	69.0	66.0	72.0	61.0	55.0	66.0
Thyroid	73.0	70.0	76.0	74.0	71.0	76.0	71.0	65.0	74.0
Other endocrine & thymus	56.0	55.0	57.0	58.0	57.0	60.0	46.0	40.0	49.0
Lymphoma:	74.0	72.0	76.0	74.0	72.0	77.0	64.0	61.0	67.0
Hodgkin lymphoma	61.0	59.0	63.0	63.0	60.0	65.0	44.0	46.5	40.0
Non-Hodgkin lymphoma	74.0	72.0	76.0	75.0	73.0	77.0	65.0	62.0	68.0
Myeloma	74.0	73.0	76.0	75.0	74.0	76.0	71.0	69.0	73.0
Leukemia:	74.0	73.0	76.0	75.0	73.0	76.0	67.0	66.0	70.0
Lymphocytic:	76.0	73.0	79.0	76.0	74.0	79.0	70.0	67.0	72.0
Acute lymphocytic	46.0	42.0	52.0	48.0	44.0	53.0	35.0	31.0	41.0
Chronic lymphocytic	78.0	76.0	81.0	79.0	77.0	82.0	74.0	72.0	76.0
Other lymphocytic	78.0	76.0	80.0	78.0	76.0	81.0	74.0	72.0	75.0
Myeloid & Monocytic:	72.0	71.0	73.0	73.0	72.0	73.0	64.0	62.0	65.0
Acute myeloid	72.0	71.0	72.0	72.0	72.0	73.0	64.0	64.0	65.0
Chronic myeloid	71.0	69.0	73.0	72.0	71.0	75.0	60.0	57.0	64.0
Acute monocytic	75.0	74.5	76.0	76.0	75.0	77.0	53.0	-	58.5
Other myeloid & monocytic	76.0	76.0	77.0	77.0	76.0	78.0	72.0	72.0	74.0
Other:	76.0	75.0	78.0	77.0	75.0	79.0	71.0	69.0	74.0
Other acute	75.0	74.0	77.0	76.0	75.0	77.0	70.0	69.0	71.0
Aleukemic, subleuk & NOS	77.0	75.0	79.0	78.0	76.0	80.0	71.0	69.0	74.5
Ill-defined & unspecified	74.0	72.0	76.0	75.0	73.0	76.0	69.0	67.0	71.0

[a] NCHS public use data file for the total US.
- Statistic could not be calculated. Less than 16 deaths occurred during the time interval.

Table I-14

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

17 SEER Areas, 2001-2003

Site	All Races		Whites		Blacks		Asian/Pacific Islanders		Hispanics[a]	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
All Sites	45.31	37.86	45.28	38.88	42.67	32.25	39.99	32.65	40.95	33.30
Invasive and In Situ	47.21	41.69	47.28	42.84	43.36	34.84	40.92	35.65	42.01	35.80
Oral Cavity and Pharynx	1.39	0.66	1.41	0.66	1.26	0.53	1.11	0.66	0.96	0.47
Esophagus	0.76	0.25	0.78	0.24	0.82	0.30	0.51	0.16	0.62	0.22
Stomach	1.12	0.68	1.01	0.57	1.31	0.99	2.44	1.72	1.80	1.36
Colon and Rectum	5.79	5.37	5.79	5.34	5.17	5.41	6.16	5.50	5.03	4.48
Invasive and In Situ	6.14	5.64	6.14	5.61	5.51	5.73	6.50	5.74	5.30	4.71
Liver and Intrahepatic Bile Duct	0.88	0.40	0.74	0.34	0.92	0.36	2.46	1.19	1.46	0.76
Pancreas	1.27	1.27	1.29	1.25	1.18	1.46	1.28	1.31	1.18	1.54
Larynx	0.63	0.15	0.62	0.15	0.86	0.18	0.43	0.04	0.60	0.09
Invasive and In Situ	0.68	0.16	0.67	0.17	0.90	0.19	0.43	0.04	0.62	0.09
Lung and Bronchus	8.02	6.15	8.09	6.47	8.26	5.21	7.07	4.18	5.21	3.36
Melanoma of the Skin	2.04	1.38	2.33	1.60	0.08	0.09	0.19	0.14	0.45	0.49
Invasive and In Situ	3.26	2.25	3.69	2.59	0.09	0.11	0.25	0.20	0.66	0.71
Breast	0.12	12.67	0.12	13.25	0.14	9.98	0.08	9.34	0.06	9.23
Invasive and In Situ	0.13	15.16	0.13	15.80	0.16	11.91	0.08	11.69	0.07	10.82
Cervix Uteri	-	0.73	-	0.69	-	0.94	-	0.82	-	1.22
Corpus and Uterus, NOS	-	2.49	-	2.61	-	1.93	-	1.72	-	1.89
Invasive and In Situ	-	2.52	-	2.64	-	1.96	-	1.74	-	1.91
Ovary[b]	-	1.44	-	1.53	-	0.95	-	1.12	-	1.35
Prostate	17.12	-	16.58	-	19.76	-	12.62	-	16.29	-
Testis	0.36	-	0.42	-	0.10	-	0.11	-	0.26	-
Urinary Bladder(Invasive and In Situ)	3.61	1.14	3.95	1.22	1.40	0.78	2.22	0.67	2.34	0.84
Kidney and Renal Pelvis	1.65	0.97	1.72	1.01	1.46	0.91	1.01	0.58	1.68	1.09
Brain and Other Nervous System	0.65	0.52	0.71	0.57	0.34	0.31	0.41	0.30	0.55	0.51
Thyroid	0.36	1.02	0.38	1.06	0.17	0.59	0.40	1.12	0.30	1.02
Hodgkin Lymphoma	0.24	0.20	0.26	0.21	0.19	0.15	0.13	0.10	0.27	0.15
Non-Hodgkin Lymphoma	2.14	1.83	2.24	1.92	1.25	1.07	1.91	1.60	1.96	1.77
Myeloma	0.67	0.53	0.63	0.49	1.06	0.89	0.45	0.43	0.77	0.63
Leukemia	1.49	1.05	1.56	1.10	0.94	0.76	1.01	0.72	1.19	0.93
Acute Lymphocytic Leukemia	0.13	0.11	0.14	0.11	0.06	0.05	0.12	0.13	0.18	0.16
Chronic Lymphocytic Leukemia	0.53	0.34	0.57	0.36	0.31	0.22	0.13	0.09	0.30	0.17
Acute Myeloid Leukemia	0.44	0.33	0.45	0.34	0.29	0.24	0.43	0.31	0.39	0.35
Chronic Myeloid Leukemia	0.18	0.13	0.18	0.13	0.14	0.11	0.15	0.09	0.15	0.11
Kaposi Sarcoma	0.10	0.02	0.08	0.01	0.16	0.01	0.06	0.00	0.14	0.04
Mesothelioma	0.20	0.05	0.23	0.06	0.08	0.02	0.09	0.02	0.20	0.07

Devcan Version 6.1.0, April 2006, National Cancer Institute (http://srab.cancer.gov/devcan/).

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

[a] 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 Hawaii, Seattle, Alaska Native Registry and Kentucky.

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

Note: Invasive cancer only unless specified otherwise.

Table I-15

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

Total U.S., 2001-2003

Site	All Races		Whites		Blacks		Asian/Pacific Islanders		Hispanics[a]	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
All Sites	23.42	19.82	23.50	20.04	23.89	19.46	20.68	16.42	19.96	15.67
Oral Cavity and Pharynx	0.39	0.19	0.37	0.19	0.50	0.17	0.45	0.24	0.32	0.14
Esophagus	0.75	0.22	0.75	0.21	0.79	0.30	0.42	0.13	0.48	0.16
Stomach	0.57	0.38	0.52	0.34	0.87	0.64	1.56	1.20	1.06	0.76
Colon and Rectum	2.33	2.18	2.32	2.15	2.43	2.50	2.37	2.16	2.14	1.82
Liver and Intrahepatic Bile Duct	0.67	0.38	0.63	0.36	0.72	0.41	1.97	1.13	1.18	0.76
Pancreas	1.18	1.18	1.19	1.17	1.14	1.33	1.08	1.19	1.03	1.18
Larynx	0.23	0.06	0.22	0.06	0.38	0.08	0.13	0.02	0.22	0.03
Lung and Bronchus	7.18	4.96	7.26	5.16	7.18	4.03	5.41	3.21	4.31	2.20
Melanoma of the Skin	0.36	0.20	0.41	0.22	0.03	0.04	0.07	0.06	0.11	0.10
Breast	0.03	2.92	0.03	2.91	0.04	3.27	0.01	1.69	0.02	2.06
Cervix Uteri	-	0.25	-	0.22	-	0.44	-	0.32	-	0.36
Corpus and Uterus, NOS	-	0.51	-	0.49	-	0.75	-	0.33	-	0.47
Ovary	-	1.05	-	1.11	-	0.76	-	0.69	-	0.81
Prostate	2.91	-	2.73	-	4.59	-	2.18	-	3.24	-
Testis	0.02	-	0.02	-	0.01	-	0.01	-	0.02	-
Urinary Bladder	0.76	0.32	0.81	0.32	0.39	0.33	0.52	0.25	0.59	0.26
Kidney and Renal Pelvis	0.59	0.34	0.61	0.35	0.45	0.29	0.35	0.20	0.60	0.35
Brain and Other Nervous System	0.48	0.38	0.52	0.42	0.24	0.20	0.31	0.17	0.35	0.29
Thyroid	0.04	0.06	0.04	0.06	0.03	0.05	0.05	0.12	0.06	0.09
Hodgkin Lymphoma	0.05	0.04	0.05	0.04	0.04	0.02	0.04	0.03	0.06	0.04
Non-Hodgkin Lymphoma	0.93	0.79	0.99	0.83	0.49	0.44	0.87	0.70	0.79	0.72
Myeloma	0.46	0.40	0.45	0.37	0.62	0.66	0.25	0.26	0.45	0.39
Leukemia	0.97	0.71	1.02	0.74	0.63	0.55	0.63	0.49	0.72	0.57
Acute Lymphocytic Leukemia	0.05	0.04	0.05	0.04	0.03	0.03	0.04	0.03	0.06	0.06
Chronic Lymphocytic Leukemia	0.23	0.15	0.24	0.16	0.15	0.12	0.06	0.03	0.11	0.06
Acute Myeloid Leukemia	0.34	0.25	0.36	0.27	0.20	0.18	0.26	0.24	0.25	0.19
Chronic Myeloid Leukemia	0.06	0.05	0.06	0.05	0.06	0.04	0.04	0.05	0.05	0.04

Devcan Version 6.1.0, April 2006, National Cancer Institute (http://srab.cancer.gov/devcan/).

Source: NCHS public use data file for the total US.

[a] Hispanic is not mutually exclusive from Whites, Blacks, Asian Pacific Islanders, and American Indians/Alaska Natives. Underlying mortality data for Hispanics exclude deaths from Minnesota, New Hampshire and North Dakota.

Table I-16
US AND SEER DEATH RATES BY PRIMARY CANCER SITE AND RACE/ETHNICITY, 2000-2003

		Total United States[a]							SEER 17 Areas[ab]						
Site		Total	White	Black	AI/AN[c]	API[d]	Hisp[e]	W-NHisp[e]	Total	White	Black	AI/AN[c]	API[d]	Hisp[e]	W-NHisp[e]
All Sites	Both Sexes	194.5	192.4	241.7	127.0	117.0	131.0	196.3	188.3	189.1	243.1	119.6	124.5	130.0	195.3
	Male	241.5	237.3	326.8	150.0	143.3	165.1	241.7	229.8	229.2	320.3	142.3	153.6	160.1	236.1
	Female	163.5	162.8	191.1	111.1	98.0	108.1	166.3	161.0	162.8	196.1	103.6	103.3	109.8	168.5
Oral Cavity & Pharynx	Both Sexes	2.7	2.5	3.9	2.2	2.4	1.7	2.6	2.7	2.6	3.9	2.6	2.6	1.6	2.7
	Male	4.1	3.8	6.8	3.2	3.6	2.8	3.9	4.1	3.8	6.6	3.4	3.9	2.6	4.0
	Female	1.5	1.5	1.7	1.4	1.4	0.8	1.5	1.6	1.6	1.9	2.0	1.5	0.9	1.7
Esophagus	Both Sexes	4.4	4.3	6.1	2.9	1.8	2.4	4.4	4.1	4.2	5.3	3.3	2.0	2.3	4.4
	Male	7.8	7.7	10.5	5.0	3.0	4.2	7.9	7.3	7.5	9.2	5.9	3.3	4.2	7.8
	Female	1.8	1.7	3.0	1.2	0.8	1.0	1.7	1.7	1.7	2.6	-	0.9	0.9	1.7
Stomach	Both Sexes	4.3	3.8	8.4	5.1	8.3	6.8	3.5	4.8	4.2	8.7	6.0	8.7	7.3	3.7
	Male	6.0	5.3	12.1	6.8	10.8	9.1	5.0	6.7	5.8	12.5	8.9	11.4	9.9	5.3
	Female	3.1	2.7	6.0	3.9	6.5	5.1	2.4	3.5	3.0	6.2	4.2	6.6	5.5	2.6
Colon & Rectum	Both Sexes	19.8	19.3	27.3	13.0	12.6	13.8	19.6	19.1	18.8	27.6	12.5	13.5	13.0	19.3
	Male	24.0	23.4	33.4	15.6	15.4	17.3	23.8	22.9	22.6	32.8	15.8	16.8	16.4	23.1
	Female	16.8	16.2	23.4	11.0	10.5	11.3	16.5	16.3	15.9	24.1	10.3	11.0	10.5	16.4
Liver & Intrahepatic Bile Duct	Both Sexes	4.8	4.4	6.3	5.9	10.7	7.6	4.2	5.4	4.7	6.7	6.6	10.8	7.6	4.3
	Male	7.1	6.4	9.8	8.1	15.6	10.7	6.1	7.8	6.8	10.6	8.6	15.7	10.6	6.3
	Female	3.0	2.8	3.8	3.9	6.8	5.0	2.6	3.4	3.0	3.8	4.9	6.8	5.2	2.8
Pancreas	Both Sexes	10.5	10.3	13.8	6.0	7.2	8.3	10.4	10.5	10.4	14.0	6.0	7.7	8.3	10.7
	Male	12.1	12.0	15.4	6.1	7.7	9.0	12.2	11.9	12.0	15.1	6.1	8.3	8.5	12.3
	Female	9.2	9.0	12.5	5.8	6.9	7.6	9.1	9.4	9.2	13.0	5.9	7.2	8.0	9.3
Larynx	Both Sexes	1.3	1.2	2.6	1.0	0.4	0.9	1.3	1.2	1.1	2.7	1.0	0.4	0.8	1.2
	Male	2.4	2.2	5.1	1.7	0.8	1.9	2.3	2.2	2.1	5.5	1.7	0.9	1.7	2.1
	Female	0.5	0.5	0.9	0.5	0.1	0.2	0.5	0.5	0.5	0.8	-	-	0.2	0.5
Lung & Bronchus	Both Sexes	55.1	55.3	62.5	33.1	27.2	23.9	57.7	51.0	51.9	63.6	27.4	29.1	22.5	55.4
	Male	74.2	73.4	97.2	41.4	38.6	36.6	76.2	66.9	66.8	95.2	34.9	41.9	33.2	70.5
	Female	41.2	42.2	39.8	26.8	18.6	14.7	44.3	39.6	41.3	42.7	21.8	19.4	14.9	44.5
Melanoma of the Skin	Both Sexes	2.6	3.0	0.4	0.8	0.4	0.8	3.2	2.5	3.0	0.4	-	0.4	0.8	3.3
	Male	3.8	4.3	0.5	0.9	0.5	1.0	4.6	3.7	4.3	0.5	-	0.5	0.9	4.8
	Female	1.8	2.0	0.4	0.6	0.3	0.6	2.1	1.6	1.9	0.4	-	0.3	0.6	2.1
Breast	Female	25.8	25.3	34.3	13.4	12.6	16.2	25.8	25.7	25.7	35.1	12.2	13.9	15.8	26.8

[a] NCHS public use data file for the total US. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

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

[c] American Indian/Alaska Native.

[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 Minnesota, New Hampshire, and North Dakota.

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

Table I-16 - continued
US AND SEER DEATH RATES BY PRIMARY CANCER SITE AND RACE/ETHNICITY, 2000-2003

		Total United States[a]							SEER 17 Areas[ab]						
Site		Total	White	Black	AI/AN[c]	API[d]	Hisp[e]	W-NHisp[e]	Total	White	Black	AI/AN[c]	API[d]	Hisp[e]	W-NHisp[e]
Cervix	Female	2.6	2.4	5.0	2.8	2.5	3.4	2.3	2.5	2.3	4.4	2.0	2.6	3.4	2.1
Corpus & Uterus, NOS	Female	4.1	3.9	7.1	2.3	2.4	3.2	3.9	4.1	4.0	7.0	2.2	2.7	3.1	4.0
Ovary	Female	8.9	9.3	7.4	5.5	4.9	6.1	9.5	9.1	9.7	7.6	6.2	5.3	6.7	10.0
Prostate	Male	28.5	26.2	64.0	18.1	11.3	21.8	26.2	27.4	26.3	59.1	15.3	12.2	21.6	26.7
Testis	Male	0.3	0.3	0.2	-	0.1	0.2	0.3	0.2	0.3	0.2	-	-	0.2	0.3
Urinary	Both Sexes	4.3	4.5	3.8	1.8	1.8	2.4	4.6	4.1	4.4	3.9	1.7	1.9	2.4	4.6
Bladder	Male	7.5	7.8	5.4	2.6	2.9	4.1	8.0	7.1	7.6	5.7	2.3	3.1	3.9	8.0
	Female	2.3	2.3	2.8	1.2	1.0	1.4	2.3	2.2	2.3	2.9	-	1.0	1.5	2.3
Kidney &	Both Sexes	4.2	4.3	4.1	4.7	1.8	3.6	4.3	4.1	4.2	4.1	3.8	2.0	3.6	4.3
Renal	Male	6.1	6.2	6.2	6.4	2.6	5.3	6.3	5.9	6.2	6.3	5.5	3.0	5.0	6.3
Pelvis	Female	2.8	2.8	2.8	3.2	1.2	2.4	2.8	2.6	2.7	2.7	2.4	1.2	2.5	2.8
Brain &	Both Sexes	4.5	4.8	2.6	2.0	1.9	2.9	4.9	4.4	4.8	2.6	1.8	2.1	2.9	5.1
Nervous	Male	5.5	5.8	3.3	2.5	2.5	3.5	6.0	5.4	5.9	3.1	2.5	2.6	3.4	6.3
System	Female	3.6	3.9	2.2	1.6	1.5	2.4	4.0	3.5	3.9	2.3	1.3	1.6	2.6	4.1
Thyroid	Both Sexes	0.5	0.5	0.5	0.3	0.6	0.6	0.5	0.5	0.5	0.5	-	0.6	0.7	0.5
	Male	0.5	0.5	0.4	-	0.4	0.5	0.5	0.5	0.5	0.4	-	0.4	0.6	0.5
	Female	0.5	0.5	0.5	-	0.7	0.6	0.4	0.5	0.5	0.6	-	0.8	0.7	0.5
Hodgkin	Both Sexes	0.5	0.5	0.4	0.3	0.2	0.4	0.5	0.5	0.5	0.4	-	0.2	0.4	0.5
Lymphoma	Male	0.6	0.6	0.5	-	0.3	0.6	0.6	0.6	0.6	0.5	-	0.3	0.5	0.6
	Female	0.4	0.4	0.3	-	0.2	0.3	0.4	0.4	0.4	0.3	-	0.2	0.3	0.4
Non-Hodgkin	Both Sexes	7.7	8.1	5.3	4.4	4.8	5.9	8.2	7.6	8.0	5.4	4.6	5.3	5.8	8.2
Lymphoma	Male	9.8	10.1	6.6	4.8	5.9	7.1	10.3	9.7	10.2	6.9	5.0	6.5	7.2	10.4
	Female	6.3	6.5	4.3	4.0	4.0	4.9	6.6	6.1	6.4	4.2	4.1	4.4	4.7	6.5
Myeloma	Both Sexes	3.8	3.5	7.2	2.9	1.6	3.2	3.5	3.7	3.6	7.3	2.9	1.7	3.4	3.6
	Male	4.7	4.4	8.5	3.0	1.8	3.8	4.4	4.6	4.5	8.9	2.7	2.0	4.0	4.5
	Female	3.2	2.9	6.3	3.0	1.5	2.7	2.9	3.1	2.9	6.3	3.2	1.5	3.0	2.9
Leukemia	Both Sexes	7.5	7.8	6.7	3.9	3.9	5.2	7.8	7.4	7.7	7.0	3.0	4.1	5.1	7.8
	Male	10.1	10.4	8.7	4.4	4.9	6.5	10.5	9.8	10.3	9.3	3.8	5.1	6.5	10.5
	Female	5.8	5.9	5.3	3.5	3.1	4.2	5.9	5.6	5.9	5.6	2.3	3.3	4.1	5.9

[a] NCHS public use data file for the total US. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

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

[c] American Indian/Alaska Native.

[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 Minnesota, New Hampshire, and North Dakota.

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

Table I-17
US PREVALENCE COUNTS, INVASIVE CANCERS ONLY, JANUARY 1, 2003[a]
USING DIFFERENT TUMOR INCLUSION CRITERIA[b]

	5-Year Limited Duration			28-year Limited Duration	
Site/Sex	1st Invasive Tumor Ever[c]	1st Per Site in Previous 28 Years[d]	1st Per Site in Previous 5 Years[e]	1st Invasive Tumor Ever[c]	1st Per Site in Previous 28 Years[d]
All Sites	3,962,252	4,035,862	4,346,625	9,822,273	9,999,566
Male	2,012,274	2,038,895	2,188,678	4,554,140	4,605,294
Female	1,949,978	1,996,967	2,157,947	5,268,133	5,394,272
Oral Cavity & Pharynx	83,955	95,507	98,496	215,563	235,425
Male	55,821	62,933	64,786	138,069	149,462
Female	28,134	32,574	33,710	77,494	85,963
Esophagus	16,590	19,648	19,648	23,825	27,849
Male	12,747	14,965	14,965	17,985	20,779
Female	3,843	4,683	4,683	5,840	7,070
Stomach	29,257	34,386	34,531	57,098	64,641
Male	17,694	20,964	21,014	32,717	37,242
Female	11,563	13,422	13,517	24,381	27,399
Colon & Rectum	416,089	476,844	484,622	1,012,722	1,122,054
Male	207,662	239,032	242,507	494,463	544,591
Female	208,427	237,812	242,115	518,259	577,463
Liver & Intrahep	12,879	14,747	14,747	16,970	19,172
Male	8,577	9,821	9,821	10,783	12,211
Female	4,302	4,926	4,926	6,187	6,961
Pancreas	20,647	24,183	24,183	27,201	31,313
Male	10,136	11,859	11,859	13,101	15,030
Female	10,511	12,324	12,324	14,100	16,283
Larynx	33,012	37,952	38,189	91,949	100,525
Male	26,366	30,377	30,556	73,689	80,335
Female	6,646	7,575	7,633	18,260	20,190
Lung & Bronchus	204,290	249,735	253,884	340,934	404,089
Male	99,565	122,836	124,721	165,339	195,671
Female	104,725	126,899	129,163	175,595	208,418
Melanoma of the Skin	210,287	231,918	238,857	612,953	652,573
Male	111,633	124,847	129,353	303,073	325,161
Female	98,654	107,071	109,504	309,880	327,412
Breast					
Female	822,609	880,184	918,327	2,236,730	2,370,054
Cervix					
Female	43,374	45,413	45,468	183,935	189,267
Corpus & Uterus					
Female	144,051	161,434	161,482	493,698	532,684
Ovary[f]					
Female	54,837	62,770	62,781	145,849	162,935

[a] US 2003 cancer prevalence counts are based on 2003 cancer prevalence proportions from the SEER 9 registries and 1/1/2003 US population estimates based on the average of 2002 and 2003 population estimates from the US Bureau of the Census.

[bcde] (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) First invasive tumor ever; (d) First invasive tumor for each cancer site diagnosed during the previous 28 years (1975-2002); (e) First invasive tumor for each cancer site diagnosed during the previous 5 years (1998-2002).
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 1998; Melanoma in 1999.

In method (c) the melanoma is the woman's first cancer, and is counted for the melanoma and all sites 28-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 1/1/2003.
In method (d) the 1981 melanoma is counted for the melanoma and all sites 28-year limited duration prevalence. The 1998 breast cancer is counted for the breast 5-year and 28-year limited duration prevalence.
In method (e) the 1998 breast cancer is counted for the breast cancer and all sites 5-year limited duration prevalence. The 1999 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 I-17 - continued
US PREVALENCE COUNTS, INVASIVE CANCERS ONLY, JANUARY 1, 2003[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 28 Years[d]	5-Year Limited Duration: 1st Per Site in Previous 5 Years[e]	28-year Limited Duration: 1st Invasive Tumor Ever[c]	28-year Limited Duration: 1st Per Site in Previous 28 Years[d]
Prostate					
Male	925,708	996,736	996,805	1,932,939	2,062,326
Testis					
Male	38,559	39,095	39,651	151,951	153,792
Urinary Bladder	184,975	224,084	226,601	480,880	548,618
Male	138,238	167,628	169,644	356,081	405,065
Female	46,737	56,456	56,957	124,799	143,553
Kidney & Renal Pelvis	94,596	113,883	114,668	218,509	250,873
Male	56,984	69,698	70,246	129,547	149,743
Female	37,612	44,185	44,422	88,962	101,130
Brain & Nervous System	37,131	38,985	39,154	96,508	99,298
Male	19,885	20,784	20,884	51,982	53,322
Female	17,246	18,201	18,270	44,526	45,976
Thyroid	96,001	103,049	103,251	300,771	315,293
Male	22,362	24,688	24,716	68,236	72,272
Female	73,639	78,361	78,535	232,535	243,021
Hodgkin Lymphoma	33,724	35,148	35,183	131,045	133,819
Male	17,816	18,650	18,661	68,125	69,654
Female	15,908	16,498	16,522	62,920	64,165
Non-Hodgkin Lymphoma	159,781	181,551	182,318	350,868	385,654
Male	83,817	95,629	96,015	182,423	199,759
Female	75,964	85,922	86,303	168,445	185,895
Myeloma	35,577	41,051	41,074	51,578	58,336
Male	19,965	23,210	23,233	28,677	32,603
Female	15,612	17,841	17,841	22,901	25,733
Leukemia	82,812	92,941	93,009	192,632	208,020
Male	48,279	54,323	54,357	109,292	118,067
Female	34,533	38,618	38,652	83,340	89,953
Acute Lymphocytic Leuk	13,967	14,109	14,109	47,535	47,775
Male	7,952	8,004	8,004	26,215	26,299
Female	6,015	6,105	6,105	21,320	21,476
Childhood (0-19)	57,723	57,832	58,156	227,872	228,339
Male	30,378	30,418	30,580	117,016	117,217
Female	27,345	27,414	27,576	110,856	111,122
Kaposi Sarcoma	6,714	7,243	7,267	20,047	20,990
Male	6,074	6,548	6,572	18,586	19,429
Female	640	695	695	1,461	1,561
Mesothelioma	2,802	3,396	3,396	4,182	4,870
Male	1,903	2,363	2,363	2,438	2,958
Female	899	1,033	1,033	1,744	1,912

[a] US 2003 cancer prevalence counts are based on 2003 cancer prevalence proportions from the SEER 9 registries and 1/1/2003 US population estimates based on the average of 2002 and 2003 population estimates from the US Bureau of the Census.

[bcde] (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) First invasive tumor ever; (d) First invasive tumor for each cancer site diagnosed during the previous 28 years (1975-2002); (e) First invasive tumor for each cancer site diagnosed during the previous 5 years (1998-2002).
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 1998; Melanoma in 1999.

In method (c) the melanoma is the woman's first cancer, and is counted for the melanoma and all sites 28-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 1/1/2003.
In method (d) the 1981 melanoma is counted for the melanoma and all sites 28-year limited duration prevalence. The 1998 breast cancer is counted for the breast 5-year and 28-year limited duration prevalence.
In method (e) the 1998 breast cancer is counted for the breast cancer and all sites 5-year limited duration prevalence. The 1999 melanoma is counted for 5-year limited duration prevalence for melanoma.

Table I-18

US COMPLETE PREVALENCE COUNTS, INVASIVE CANCERS ONLY, JANUARY 1, 2003[a]

BY AGE AT PREVALENCE

		Age Specific							
Age at Prevalence	All Ages[c]	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70+
Site/Sex									
All Sites									
Males	4,692,382	16,647	37,774	65,287	145,909	311,209	617,614	1,063,685	2,434,257
Females	5,803,603	14,602	31,271	70,291	210,983	572,039	1,012,808	1,208,754	2,682,855
Oral Cavity & Pharynx									
Males	150,051	57	455	1,232	3,429	14,435	31,522	36,748	62,173
Females	85,582	97	431	1,580	3,259	8,175	14,170	18,342	39,528
Esophagus									
Males	18,104	0	0	46	184	1,124	3,858	5,475	7,418
Females	5,961	0	12	11	44	264	807	1,363	3,459
Stomach									
Males	34,299	5	12	94	520	2,064	4,793	8,224	18,587
Females	25,554	11	35	86	493	1,731	2,949	4,431	15,818
Colon & Rectum									
Males	514,789	11	46	768	4,757	19,996	59,515	114,125	315,571
Females	553,409	11	58	823	4,550	18,576	50,643	93,617	385,131
Liver & Intrahep									
Males	10,850	264	363	253	245	1,279	3,041	2,380	3,026
Females	6,495	337	304	242	342	684	993	1,368	2,224
Pancreas									
Males	13,302	0	47	34	361	1,237	2,846	3,532	5,245
Females	14,386	0	64	114	291	1,325	2,347	3,407	6,839
Larynx									
Males	78,071	0	12	33	262	2,949	11,097	21,300	42,418
Females	19,242	0	0	55	189	1,322	2,564	5,483	9,630
Lung & Bronchus									
Males	173,431	34	64	264	1,096	6,579	23,655	50,459	91,279
Females	181,558	0	22	388	1,445	7,503	25,227	49,299	97,674
Melanoma of the Skin									
Males	320,178	55	537	4,417	16,136	46,262	72,977	70,992	108,800
Females	342,255	68	886	8,787	30,219	65,632	79,188	60,803	96,672

[a] US 2003 cancer prevalence counts are based on 2003 cancer prevalence proportions from the SEER 9 registries (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta) and 1/1/2003 US population estimates based on the average of 2002 and 2003 population estimates from the US Bureau of the Census. Prevalence was calculated using the First Malignant Primary Only for a person.

[b] Cases diagnosed more than 28 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 I-18 - continued

US COMPLETE PREVALENCE COUNTS, INVASIVE CANCERS ONLY, JANUARY 1, 2003[a]

BY AGE AT PREVALENCE

		Age Specific							
Age at Prevalence	All Ages[c]	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70+
Site/Sex									
Breast									
Males	12,241	0	12	0	138	501	2,018	3,220	6,352
Females	2,356,795	0	58	1,897	35,796	202,103	463,141	551,858	1,101,941
Cervix									
Females	253,781	0	12	2,238	19,634	45,855	54,849	48,649	82,544
Corpus & Uterus, NOS									
Females	570,806	0	68	451	4,374	22,425	69,334	115,436	358,717
Ovary[d]									
Females	171,840	57	1,036	2,924	7,728	21,508	35,022	38,235	65,331
Prostate									
Males	1,937,798	34	69	102	287	14,311	158,820	480,773	1,283,404
Urinary Bladder									
Males	372,313	28	168	630	2,626	13,116	40,053	82,767	232,925
Females	133,452	11	34	312	1,451	4,424	12,280	25,854	89,087
Kidney & Renal Pelvis									
Males	136,080	1,562	2,410	1,944	3,920	12,023	25,151	34,383	54,686
Females	94,068	1,692	2,445	2,393	3,237	8,407	14,562	20,318	41,015
Hodgkin Lymphoma									
Males	76,517	175	1,937	8,639	17,052	20,887	15,363	7,794	4,669
Females	70,870	78	1,774	8,645	17,642	19,549	13,169	5,097	4,917
Non-Hodgkin Lymphoma									
Males	189,637	628	3,276	5,999	11,545	24,272	37,160	41,448	65,309
Females	174,848	318	1,345	3,202	7,858	16,562	29,315	36,241	80,005
Myeloma									
Males	28,818	0	5	17	532	1,989	6,003	7,918	12,354
Females	23,112	0	0	33	229	1,199	4,167	5,911	11,573
Leukemia									
Males	112,324	5,971	10,583	8,752	7,749	9,840	14,402	19,623	35,403
Females	86,689	4,951	8,862	8,196	5,790	6,752	9,025	12,414	30,700
Acute Lymphocytic Leuk									
Males	28,078	5,125	9,066	6,824	4,440	1,343	635	402	243
Females	22,861	4,345	7,539	5,903	2,846	1,161	567	236	263

[a] US 2003 cancer prevalence counts are based on 2003 cancer prevalence proportions from the SEER 9 registries (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta) and 1/1/2003 US population estimates based on the average of 2002 and 2003 population estimates from the US Bureau of the Census. Prevalence was calculated using the First Malignant Primary Only for a person.

[b] Cases diagnosed more than 28 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.

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

Table I-19
AGE-ADJUSTED SEER INCIDENCE RATES AND TRENDS FOR THE TOP 15 CANCER SITES[a] BY RACE/ETHNICITY

Both Sexes

All Races

	Rate[b] 2000-2003	APC[c] 1994-2003
All Sites	471.3	-0.4
Prostate[f]	74.8	0.5
Breast	70.4	-0.5
Lung and Bronchus	64.8	-1.2*
Colon and Rectum	52.4	-1.0*
Urinary Bladder	20.9	0.0
Non-Hodgkin Lymphoma	19.1	-0.1
Melanoma of the Skin	18.2	1.6*
Corpus and Uterus, NOS[f]	12.6	-0.9*
Kidney and Renal Pelvis	12.6	1.9*
Leukemia	12.2	-0.9*
Pancreas	11.3	-0.2
Oral Cavity and Pharynx	10.5	-1.5*
Thyroid	8.2	5.0*
Stomach	8.1	-1.5*
Ovary[fh]	7.4	-1.0*

White

	Rate[b] 2000-2003	APC[c] 1994-2003
All Sites	478.4	-0.3
Breast	72.4	-0.4
Prostate[f]	72.4	0.7
Lung and Bronchus	66.0	-1.1*
Colon and Rectum	52.0	-1.1*
Urinary Bladder	22.8	0.2
Melanoma of the Skin	21.1	2.1*
Non-Hodgkin Lymphoma	19.9	-0.1
Corpus and Uterus, NOS[f]	13.1	-1.0*
Kidney and Renal Pelvis	13.0	2.2*
Leukemia	12.7	-0.9*
Pancreas	11.1	0.1
Oral Cavity and Pharynx	10.5	-1.3*
Thyroid	8.6	5.4*
Ovary[fh]	7.8	-1.0*
Stomach	7.1	-1.5*

Black

	Rate[b] 2000-2003	APC[c] 1994-2003
All Sites	504.4	-0.9*
Prostate[f]	106.6	-0.9
Lung and Bronchus	76.9	-1.3*
Breast	67.9	-0.4
Colon and Rectum	62.8	-0.3
Pancreas	14.9	-2.0*
Non-Hodgkin Lymphoma	14.3	-0.1
Kidney and Renal Pelvis	14.1	1.1
Stomach	12.8	-2.3*
Urinary Bladder	12.4	0.7
Corpus and Uterus, NOS[f]	11.3	1.2
Oral Cavity and Pharynx	11.1	-2.9*
Myeloma	10.9	-1.5*
Leukemia	10.1	-0.5
Liver & IBD[g]	7.2	3.5*
Cervix Uteri[f]	6.4	-4.5*

Asian/Pacific Islander

	Rate[b] 2000-2003	APC[c] 1994-2003
All Sites	315.6	-0.6*
Breast	48.5	0.9
Colon and Rectum	42.4	-0.7
Prostate[f]	41.8	-0.7
Lung and Bronchus	39.6	-0.8*
Stomach	14.4	-3.2*
Liver & IBD[g]	13.8	0.1
Non-Hodgkin Lymphoma	13.2	-0.1
Urinary Bladder	9.3	0.6
Pancreas	8.9	-0.9
Corpus and Uterus, NOS[f]	8.6	0.4
Thyroid	8.4	2.3*
Oral Cavity and Pharynx	7.9	-1.7
Leukemia	7.3	-1.4*
Kidney and Renal Pelvis	6.3	1.4
Ovary[fh]	5.3	0.2

American Indian/Alaska Native

	Rate[d] 1999-2002	APC[d] 1994-2002
All Sites	325.8	-1.4
Colon and Rectum	46.5	-1.4
Lung and Bronchus	43.1	-3.9*
Breast	40.0	-3.0
Prostate[f]	30.7	-3.4
Stomach	16.2	4.7
Kidney and Renal Pelvis	14.9	-2.0
Non-Hodgkin Lymphoma	12.4	3.3
Pancreas	10.8	1.5
Liver & IBD[g]	9.9	-0.8
Corpus and Uterus, NOS[f]	8.4	-
Oral Cavity and Pharynx	8.2	-8.4*
Urinary Bladder	7.2	-
Ovary[fh]	7.1	-0.2
Leukemia	7.1	2.0
Thyroid	6.4	1.3

Hispanic[e]

	Rate[b] 2000-2003	APC[c] 1994-2003
All Sites	353.1	-0.7
Prostate[f]	60.9	-0.2
Breast	48.1	-0.5
Colon and Rectum	39.0	-0.7
Lung and Bronchus	32.6	-1.9*
Non-Hodgkin Lymphoma	16.1	-0.8*
Stomach	12.3	-1.9*
Kidney and Renal Pelvis	12.1	2.7*
Urinary Bladder	11.5	-0.2
Pancreas	10.3	-1.1
Leukemia	9.5	-2.2*
Liver & IBD[g]	9.5	1.3
Corpus and Uterus, NOS[f]	9.2	-0.5
Cervix Uteri[f]	7.3	-3.7*
Thyroid	7.2	4.1*
Ovary[fh]	6.2	-0.2

- 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.

a Top 15 cancer sites selected based on 2000-2003 age-adjusted rates for the race/ethnic group.

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

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

d Incidence data for American Indians/Alaska Natives include cases from Connecticut, Detroit, Iowa, New Mexico, Seattle, Utah, Atlanta, and the Alaska Native Registry for the time period 1994-2002.

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 Hawaii, Seattle, Alaska Native Registry and Kentucky.

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).

Table I-20
AGE-ADJUSTED SEER INCIDENCE RATES AND TRENDS FOR THE TOP 15 CANCER SITES[a] BY RACE/ETHNICITY

Males

All Races

	Rate[b] 2000-2003	APC[c] 1994-2003
All Sites	558.1	-0.7*
Prostate	170.3	0.0
Lung and Bronchus	82.1	-2.0*
Colon and Rectum	61.7	-1.3*
Urinary Bladder	37.0	0.0
Melanoma of the Skin	23.2	1.6*
Non-Hodgkin Lymphoma	23.0	-0.8*
Kidney and Renal Pelvis	17.5	1.7*
Leukemia	15.9	-1.0*
Oral Cavity and Pharynx	15.6	-1.7*
Pancreas	12.8	-0.5*
Stomach	11.5	-2.3*
Liver & IBD[f]	9.3	2.6*
Esophagus	7.8	0.3
Brain and ONS[f]	7.6	-0.3
Myeloma	6.9	-0.2

White

	Rate[b] 2000-2003	APC[c] 1994-2003
All Sites	558.3	-0.6*
Prostate	163.4	0.1
Lung and Bronchus	81.7	-2.0*
Colon and Rectum	61.4	-1.5*
Urinary Bladder	40.2	0.1
Melanoma of the Skin	26.5	1.9*
Non-Hodgkin Lymphoma	23.8	-0.7*
Kidney and Renal Pelvis	18.0	1.9*
Leukemia	16.5	-1.0*
Oral Cavity and Pharynx	15.7	-1.3*
Pancreas	12.7	0.1
Stomach	10.2	-2.3*
Brain and ONS[f]	8.3	0.0
Esophagus	7.8	1.4*
Liver & IBD[f]	7.8	2.5*
Larynx	6.6	-3.6*

Black

	Rate[b] 2000-2003	APC[c] 1994-2003
All Sites	666.4	-1.5*
Prostate	258.3	-1.3*
Lung and Bronchus	112.2	-2.4*
Colon and Rectum	72.9	-0.1
Kidney and Renal Pelvis	20.1	1.4
Urinary Bladder	19.8	0.7
Oral Cavity and Pharynx	18.0	-3.5*
Stomach	17.7	-3.3*
Non-Hodgkin Lymphoma	17.6	-1.9*
Pancreas	16.2	-2.7*
Myeloma	13.7	0.1
Leukemia	12.9	-0.8
Liver & IBD[f]	12.1	4.5*
Larynx	11.7	-3.6*
Esophagus	10.8	-4.5*
Brain and ONS[f]	4.9	-0.8

Asian/Pacific Islander

	Rate[b] 2000-2003	APC[c] 1994-2003
All Sites	361.8	-0.9*
Prostate	96.8	-0.4
Lung and Bronchus	55.7	-1.0*
Colon and Rectum	51.2	-0.9*
Liver & IBD[f]	20.9	0.4
Stomach	18.9	-3.2*
Urinary Bladder	16.4	1.5*
Non-Hodgkin Lymphoma	15.7	-0.8
Oral Cavity and Pharynx	11.0	-2.2
Pancreas	9.9	-3.0*
Leukemia	9.2	-1.0
Kidney and Renal Pelvis	8.8	1.3
Esophagus	4.0	-3.1*
Brain and ONS[f]	4.0	-0.6
Thyroid	3.8	1.6
Myeloma	3.7	-2.5

American Indian/Alaska Native

	Rate[d] 1999-2002	APC[d] 1994-2002
All Sites	359.9	-1.9
Prostate	70.7	-3.5
Lung and Bronchus	55.5	-5.2*
Colon and Rectum	52.7	-2.4
Stomach	21.6	-
Kidney and Renal Pelvis	20.9	0.5
Non-Hodgkin Lymphoma	15.0	-
Liver & IBD[f]	14.5	-
Urinary Bladder	12.5	-
Oral Cavity and Pharynx	11.4	-
Pancreas	10.8	-
Esophagus	9.5	-
Leukemia	8.6	-
Myeloma	6.2	-
Brain and ONS[f]	4.7	-
Testis	3.7	-

Hispanic[e]

	Rate[b] 2000-2003	APC[c] 1994-2003
All Sites	419.1	-1.1*
Prostate	141.1	-0.7
Colon and Rectum	47.3	-0.8
Lung and Bronchus	44.7	-2.2*
Urinary Bladder	19.9	0.0
Non-Hodgkin Lymphoma	18.9	-1.1
Kidney and Renal Pelvis	16.0	3.2*
Stomach	15.9	-3.4*
Liver & IBD[f]	14.1	0.7
Leukemia	11.7	-1.8
Pancreas	10.8	-1.9
Oral Cavity and Pharynx	9.2	-3.9*
Myeloma	6.8	-0.5
Brain and ONS[f]	5.9	1.2
Larynx	5.3	-1.8
Esophagus	5.2	-1.6

- 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.

[a] Top 15 cancer sites selected based on 2000-2003 age-adjusted rates for the race/ethnic group.

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

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

[d] Incidence data for American Indians/Alaska Natives include cases from Connecticut, Detroit, Iowa, New Mexico, Seattle, Utah, Atlanta, and the Alaska Native Registry for the time period 1994-2002.

[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 Hawaii, Seattle, Alaska Native Registry and Kentucky.

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

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

Table I-21
AGE-ADJUSTED SEER INCIDENCE RATES AND TRENDS FOR THE TOP 15 CANCER SITES[a] BY RACE/ETHNICITY

Females

All Races

	Rate[b] 2000-2003	APC[c] 1994-2003
All Sites	412.0	-0.2
Breast	129.1	-0.3
Lung and Bronchus	52.3	-0.3
Colon and Rectum	45.3	-0.8*
Corpus and Uterus, NOS	23.3	-0.6*
Non-Hodgkin Lymphoma	16.1	0.8*
Melanoma of the Skin	14.7	1.7*
Ovary[g]	13.7	-0.9*
Thyroid	12.1	5.3*
Pancreas	10.0	-0.1
Leukemia	9.4	-1.0*
Urinary Bladder	9.3	-0.3
Cervix Uteri	8.8	-3.1*
Kidney and Renal Pelvis	8.7	1.9*
Oral Cavity and Pharynx	6.1	-1.6*
Stomach	5.6	-0.7

White

	Rate[b] 2000-2003	APC[c] 1994-2003
All Sites	424.6	-0.1
Breast	134.0	-0.2
Lung and Bronchus	54.7	-0.2
Colon and Rectum	44.7	-0.8*
Corpus and Uterus, NOS	24.3	-0.7*
Melanoma of the Skin	17.3	2.3*
Non-Hodgkin Lymphoma	16.8	0.8*
Ovary[g]	14.5	-0.8*
Thyroid	12.7	5.7*
Urinary Bladder	10.0	-0.1
Pancreas	9.8	0.0
Leukemia	9.8	-1.0
Kidney and Renal Pelvis	9.0	2.2*
Cervix Uteri	8.5	-2.4*
Oral Cavity and Pharynx	6.1	-1.7*
Brain and ONS[f]	5.9	0.0

Black

	Rate[b] 2000-2003	APC[c] 1994-2003
All Sites	395.4	-0.4
Breast	118.0	-0.4
Colon and Rectum	56.1	-0.4
Lung and Bronchus	53.1	0.3
Corpus and Uterus, NOS	19.5	1.4
Pancreas	13.7	-1.4
Non-Hodgkin Lymphoma	11.7	2.5*
Cervix Uteri	11.5	-4.4*
Ovary[g]	10.1	-0.7
Kidney and Renal Pelvis	9.7	0.8
Stomach	9.3	-1.1
Myeloma	9.1	-3.1*
Leukemia	8.0	-0.4
Urinary Bladder	7.4	0.8
Thyroid	7.1	5.4*
Oral Cavity and Pharynx	5.8	-1.3

Asian/Pacific Islander

	Rate[b] 2000-2003	APC[c] 1994-2003
All Sites	285.4	-0.1
Breast	88.6	0.8
Colon and Rectum	35.7	-0.3
Lung and Bronchus	27.3	-0.2
Corpus and Uterus, NOS	15.8	0.4
Thyroid	12.5	2.5*
Non-Hodgkin Lymphoma	11.3	0.9
Stomach	11.0	-3.0*
Ovary[g]	9.7	0.1
Cervix Uteri	8.2	-6.3*
Pancreas	8.1	1.1
Liver & IBD[f]	8.0	-0.1
Leukemia	5.9	-1.7
Oral Cavity and Pharynx	5.4	-0.6
Kidney and Renal Pelvis	4.4	1.8*
Urinary Bladder	3.9	-0.5

American Indian/Alaska Native

	Rate[d] 1999-2002	APC[d] 1994-2002
All Sites	305.0	-0.8
Breast	74.4	-2.9
Colon and Rectum	41.9	-0.4
Lung and Bronchus	33.8	-1.6
Corpus and Uterus, NOS	15.6	-
Ovary[g]	13.1	-0.1
Stomach	12.3	-
Pancreas	10.8	-
Non-Hodgkin Lymphoma	10.1	-
Thyroid	10.0	4.8
Kidney and Renal Pelvis	10.0	-
Cervix Uteri	7.2	-
Liver & IBD[f]	6.5	-
Gallbladder	6.3	-
Myeloma	6.2	-
Leukemia	5.7	-

Hispanic[e]

	Rate[b] 2000-2003	APC[c] 1994-2003
All Sites	310.9	-0.4
Breast	89.1	-0.4
Colon and Rectum	32.7	-0.8
Lung and Bronchus	24.0	-1.5*
Corpus and Uterus, NOS	17.0	-0.2
Cervix Uteri	14.2	-3.5*
Non-Hodgkin Lymphoma	13.9	-0.2
Ovary[g]	11.4	0.0
Thyroid	11.2	4.0*
Pancreas	9.9	-0.8
Stomach	9.6	-0.2
Kidney and Renal Pelvis	9.0	1.6
Leukemia	7.8	-2.4
Liver & IBD[f]	5.6	1.8
Urinary Bladder	5.5	-0.9
Brain and ONS[f]	4.8	0.1

\- 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.

[a] Top 15 cancer sites selected based on 2000-2003 age-adjusted rates for the race/ethnic group.

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

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

[d] Incidence data for American Indians/Alaska Natives include cases from Connecticut, Detroit, Iowa, New Mexico, Seattle, Utah, Atlanta, and the Alaska Native Registry for the time period 1994-2002.

[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 Hawaii, Seattle, Alaska Native Registry and Kentucky.

[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).

Table I-22
AGE-ADJUSTED U.S. DEATH RATES AND TRENDS FOR THE TOP 15 CANCER SITES[a] BY RACE/ETHNICITY

Both Sexes

All Races

	Rate[b] 2000-2003	APC[c] 1994-2003
All Sites	194.5	-1.1*
Lung and Bronchus	55.1	-0.9*
Colon and Rectum	19.8	-1.9*
Breast	14.6	-2.5*
Prostate[e]	10.7	-3.5*
Pancreas	10.5	0.0
Non-Hodgkin Lymphoma	7.7	-1.9*
Leukemia	7.5	-0.6*
Ovary[e]	5.1	-0.5*
Liver & IBD[f]	4.8	1.8*
Brain and ONS[f]	4.5	-1.0*
Esophagus	4.4	0.4*
Urinary Bladder	4.3	-0.3*
Stomach	4.3	-3.1*
Kidney and Renal Pelvis	4.2	-0.3
Myeloma	3.8	-0.7*

White

	Rate[b] 2000-2003	APC[c] 1994-2003
All Sites	192.4	-1.0*
Lung and Bronchus	55.3	-0.7*
Colon and Rectum	19.3	-2.0*
Breast	14.3	-2.6*
Pancreas	10.3	0.2
Prostate[e]	9.8	-3.5*
Non-Hodgkin Lymphoma	8.1	-1.9*
Leukemia	7.8	-0.5*
Ovary[e]	5.2	-0.5
Brain and ONS[f]	4.8	-0.9*
Urinary Bladder	4.5	-0.1
Liver & IBD[f]	4.4	1.8*
Esophagus	4.3	1.4*
Kidney and Renal Pelvis	4.3	-0.2
Stomach	3.8	-3.2*
Myeloma	3.5	-0.6*

Black

	Rate[b] 2000-2003	APC[c] 1994-2003
All Sites	241.7	-1.6*
Lung and Bronchus	62.5	-1.6*
Colon and Rectum	27.3	-1.0*
Prostate[e]	22.4	-3.2*
Breast	20.4	-1.4*
Pancreas	13.8	-0.8*
Stomach	8.4	-3.0*
Myeloma	7.2	-1.2*
Leukemia	6.7	-1.2*
Liver & IBD[f]	6.3	1.1*
Esophagus	6.1	-4.3*
Non-Hodgkin Lymphoma	5.3	-1.7*
Ovary[e]	4.4	-0.4
Corpus and Uterus, NOS[e]	4.3	0.4
Kidney and Renal Pelvis	4.1	-0.5
Oral Cavity and Pharynx	3.9	-4.2*

Asian/Pacific Islander

	Rate[b] 2000-2003	APC[c] 1994-2003
All Sites	117.0	-1.8*
Lung and Bronchus	27.2	-1.3*
Colon and Rectum	12.6	-1.7*
Liver & IBD[f]	10.7	-0.5
Stomach	8.3	-4.2*
Pancreas	7.2	-1.1*
Breast	7.0	-0.8
Non-Hodgkin Lymphoma	4.8	-1.9*
Prostate[e]	4.6	-6.1*
Leukemia	3.9	-2.3*
Ovary[e]	2.8	0.8
Oral Cavity and Pharynx	2.4	-1.6*
Brain and ONS[f]	1.9	-0.2
Urinary Bladder	1.8	0.5
Kidney and Renal Pelvis	1.8	-1.9
Esophagus	1.8	-3.7*

American Indian/Alaska Native

	Rate[b] 2000-2003	APC[c] 1994-2003
All Sites	127.0	-1.4*
Lung and Bronchus	33.1	-2.0*
Colon and Rectum	13.0	-1.9
Breast	7.5	-2.0
Prostate[e]	7.1	-3.9*
Pancreas	6.0	-0.7
Liver & IBD[f]	5.9	1.0
Stomach	5.1	-1.6
Kidney and Renal Pelvis	4.7	0.1
Non-Hodgkin Lymphoma	4.4	-1.9
Leukemia	3.9	0.0
Ovary[e]	3.1	1.8
Myeloma	2.9	0.0
Esophagus	2.9	1.1
Oral Cavity and Pharynx	2.2	-1.1
Brain and ONS[f]	2.0	-0.3

Hispanic[d]

	Rate[b] 2000-2003	APC[c] 1994-2003
All Sites	131.0	-0.9*
Lung and Bronchus	23.9	-1.3*
Colon and Rectum	13.8	-0.5*
Breast	9.0	-2.3*
Prostate[e]	8.5	-2.9*
Pancreas	8.3	0.1
Liver & IBD[f]	7.6	2.0*
Stomach	6.8	-1.8*
Non-Hodgkin Lymphoma	5.9	-2.1*
Leukemia	5.2	-0.6
Kidney and Renal Pelvis	3.6	0.3
Ovary[e]	3.5	0.0
Myeloma	3.2	0.1
Brain and ONS[f]	2.9	0.5
Urinary Bladder	2.4	0.3
Esophagus	2.4	-1.5*

\- 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.

[a] Top 15 cancer sites selected based on 1992-2002 age-adjusted rates for the race/ethnic group.

[b] Mortality data used in calculating the rates are analyzed from a public use file provided by the National Center for Health Statistics (NCHS). Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130). The rates shown for sex-specific cancer sites are calculated using the population for both sexes combined.

[c] The APC is the Annual Percent Change over the time interval. Mortality data used in calculating the trends are analyzed from a public use file provided by the National Center for Health Statistics (NCHS). Trends are based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

[d] Hispanic is not mutually exclusive from Whites, Blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. The 2000-2003 Hispanic death rates do not include deaths from Minnesota, New Hampshire and North Dakota. The 1994-2003 Hispanic mortality trends do not include deaths from Maine, Minnesota, New Hampshire, North Dakota, and Oklahoma.

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

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

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

Table I-23
AGE-ADJUSTED U.S. DEATH RATES AND TRENDS FOR THE TOP 15 CANCER SITES[a] BY RACE/ETHNICITY

Males

All Races

	Rate[b] 2000-2003	APC[c] 1994-2003
All Sites	241.5	-1.6*
Lung and Bronchus	74.2	-1.9*
Prostate	28.5	-4.0*
Colon and Rectum	24.0	-2.1*
Pancreas	12.1	-0.1
Leukemia	10.1	-0.8*
Non-Hodgkin Lymphoma	9.8	-1.7*
Esophagus	7.8	0.4*
Urinary Bladder	7.5	-0.6*
Liver & IBD[e]	7.1	1.9*
Kidney and Renal Pelvis	6.1	-0.2
Stomach	6.0	-3.6*
Brain and ONS[e]	5.5	-0.8*
Myeloma	4.7	-0.9*
Oral Cavity and Pharynx	4.1	-2.3*
Melanoma of the Skin	3.8	-0.3

White

	Rate[b] 2000-2003	APC[c] 1994-2003
All Sites	237.3	-1.4*
Lung and Bronchus	73.4	-1.8*
Prostate	26.2	-4.1*
Colon and Rectum	23.4	-2.2*
Pancreas	12.0	0.1
Leukemia	10.4	-0.6*
Non-Hodgkin Lymphoma	10.1	-1.7*
Urinary Bladder	7.8	-0.5*
Esophagus	7.7	1.4*
Liver & IBD[e]	6.4	2.1*
Kidney and Renal Pelvis	6.2	-0.1
Brain and ONS[e]	5.8	-0.8*
Stomach	5.3	-3.8*
Myeloma	4.4	-0.7*
Melanoma of the Skin	4.3	-0.2
Oral Cavity and Pharynx	3.8	-1.9*

Black

	Rate[b] 2000-2003	APC[c] 1994-2003
All Sites	326.8	-2.3*
Lung and Bronchus	97.2	-2.7*
Prostate	64.0	-3.3*
Colon and Rectum	33.4	-1.0*
Pancreas	15.4	-1.2*
Stomach	12.1	-3.4*
Esophagus	10.5	-4.7*
Liver & IBD[e]	9.8	1.2
Leukemia	8.7	-1.7*
Myeloma	8.5	-1.8*
Oral Cavity and Pharynx	6.8	-4.1*
Non-Hodgkin Lymphoma	6.6	-2.2
Kidney and Renal Pelvis	6.2	-0.4
Urinary Bladder	5.4	-1.5*
Larynx	5.1	-3.0*
Brain and ONS[e]	3.3	-0.1

Asian/Pacific Islander

	Rate[b] 2000-2003	APC[c] 1994-2003
All Sites	143.3	-2.1*
Lung and Bronchus	38.6	-1.6*
Liver & IBD[e]	15.6	-1.1*
Colon and Rectum	15.4	-1.5*
Prostate	11.3	-5.4*
Stomach	10.8	-4.1*
Pancreas	7.7	-2.5*
Non-Hodgkin Lymphoma	5.9	-2.2*
Leukemia	4.9	-2.3*
Oral Cavity and Pharynx	3.6	-1.4
Esophagus	3.0	-3.8*
Urinary Bladder	2.9	1.8
Kidney and Renal Pelvis	2.6	-2.2
Brain and ONS[e]	2.5	1.8
Myeloma	1.8	-4.4*
Larynx	0.8	-3.1

American Indian/Alaska Native

	Rate[b] 2000-2003	APC[c] 1994-2003
All Sites	150.0	-2.2*
Lung and Bronchus	41.4	-3.8*
Prostate	18.1	-4.2*
Colon and Rectum	15.6	-1.5
Liver & IBD[e]	8.1	1.7
Stomach	6.8	-2.0
Kidney and Renal Pelvis	6.4	0.0
Pancreas	6.1	-1.0
Esophagus	5.0	0.1
Non-Hodgkin Lymphoma	4.8	-3.9
Leukemia	4.4	-1.2
Oral Cavity and Pharynx	3.2	-2.4
Myeloma	3.0	-
Urinary Bladder	2.6	-
Brain and ONS[e]	2.5	-1.1
Larynx	1.7	-

Hispanic[d]

	Rate[b] 2000-2003	APC[c] 1994-2003
All Sites	165.1	-1.5*
Lung and Bronchus	36.6	-2.2*
Prostate	21.8	-3.2*
Colon and Rectum	17.3	-1.0*
Liver & IBD[e]	10.7	1.5*
Stomach	9.1	-2.3*
Pancreas	9.0	-0.8
Non-Hodgkin Lymphoma	7.1	-3.0*
Leukemia	6.5	-0.8
Kidney and Renal Pelvis	5.3	0.2
Esophagus	4.2	-2.0*
Urinary Bladder	4.1	-0.3
Myeloma	3.8	-0.3
Brain and ONS[e]	3.5	0.1
Oral Cavity and Pharynx	2.8	-3.9*
Larynx	1.9	-4.3*

\- 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.

[a] Top 15 cancer sites selected based on 1992-2002 age-adjusted rates for the race/ethnic group.

[b] Mortality data used in calculating the rates are analyzed from a public use file provided by the National Center for Health Statistics (NCHS). Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

[c] The APC is the Annual Percent Change over the time interval. Mortality data used in calculating the trends are analyzed from a public use file provided by the National Center for Health Statistics (NCHS). Trends are based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

[d] Hispanic is not mutually exclusive from Whites, Blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. The 2000-2003 Hispanic death rates do not include deaths from Minnesota, New Hampshire and North Dakota. The 1994-2003 Hispanic mortality trends do not include deaths from Maine, Minnesota, New Hampshire, North Dakota, and Oklahoma.

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

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

Table I-24
AGE-ADJUSTED U.S. DEATH RATES AND TRENDS FOR THE TOP 15 CANCER SITES[a] BY RACE/ETHNICITY

Females

All Races

	Rate[b] 2000-2003	APC[c] 1994-2003
All Sites	163.5	-0.9*
Lung and Bronchus	41.2	0.4*
Breast	25.8	-2.4*
Colon and Rectum	16.8	-1.9*
Pancreas	9.2	0.0
Ovary	8.9	-0.3
Non-Hodgkin Lymphoma	6.3	-2.1*
Leukemia	5.8	-0.7*
Corpus and Uterus, NOS	4.1	0.1
Brain and ONS[e]	3.6	-1.2*
Myeloma	3.2	-0.6*
Stomach	3.1	-2.6*
Liver & IBD[e]	3.0	0.9*
Kidney and Renal Pelvis	2.8	-0.8*
Cervix Uteri	2.6	-3.4*
Urinary Bladder	2.3	-0.6

White

	Rate[b] 2000-2003	APC[c] 1994-2003
All Sites	162.8	-0.8*
Lung and Bronchus	42.2	0.5*
Breast	25.3	-2.5*
Colon and Rectum	16.2	-2.0*
Ovary	9.3	-0.3
Pancreas	9.0	0.1
Non-Hodgkin Lymphoma	6.5	-2.2*
Leukemia	5.9	-0.6*
Brain and ONS[e]	3.9	-1.0*
Corpus and Uterus, NOS	3.9	-0.1
Myeloma	2.9	-0.7*
Kidney and Renal Pelvis	2.8	-0.7*
Liver & IBD[e]	2.8	0.8*
Stomach	2.7	-2.8*
Cervix Uteri	2.4	-3.2*
Urinary Bladder	2.3	-0.4

Black

	Rate[b] 2000-2003	APC[c] 1994-2003
All Sites	191.1	-1.0*
Lung and Bronchus	39.8	0.3
Breast	34.3	-1.4*
Colon and Rectum	23.4	-1.1*
Pancreas	12.5	-0.7*
Ovary	7.4	-0.3
Corpus and Uterus, NOS	7.1	0.5
Myeloma	6.3	-0.8
Stomach	6.0	-2.6*
Leukemia	5.3	-0.7
Cervix Uteri	5.0	-4.5*
Non-Hodgkin Lymphoma	4.3	-1.0
Liver & IBD[e]	3.8	0.3
Esophagus	3.0	-3.2*
Urinary Bladder	2.8	-1.4*
Kidney and Renal Pelvis	2.8	-0.7

Asian/Pacific Islander

	Rate[b] 2000-2003	APC[c] 1994-2003
All Sites	98.0	-1.2*
Lung and Bronchus	18.6	-0.7
Breast	12.6	-0.9
Colon and Rectum	10.5	-1.9*
Pancreas	6.9	0.2
Liver & IBD[e]	6.8	0.8
Stomach	6.5	-4.1*
Ovary	4.9	0.6
Non-Hodgkin Lymphoma	4.0	-1.3
Leukemia	3.1	-2.2*
Cervix Uteri	2.5	-4.0*
Corpus and Uterus, NOS	2.4	1.9
Myeloma	1.5	1.2
Brain and ONS[e]	1.5	-2.5
Oral Cavity and Pharynx	1.4	-1.6
Kidney and Renal Pelvis	1.2	-1.3

American Indian/Alaska Native

	Rate[b] 2000-2003	APC[c] 1994-2003
All Sites	111.1	-0.8
Lung and Bronchus	26.8	0.3
Breast	13.4	-1.9
Colon and Rectum	11.0	-2.3
Pancreas	5.8	-0.3
Ovary	5.5	2.1
Non-Hodgkin Lymphoma	4.0	-0.7
Stomach	3.9	-0.8
Liver & IBD[e]	3.9	-1.2
Leukemia	3.5	-0.4
Kidney and Renal Pelvis	3.2	-1.1
Myeloma	3.0	-
Cervix Uteri	2.8	-4.0
Corpus and Uterus, NOS	2.3	-2.1
Brain and ONS[e]	1.6	-
Gallbladder	1.5	-

Hispanic[d]

	Rate[b] 2000-2003	APC[c] 1994-2003
All Sites	108.1	-0.5*
Breast	16.2	-2.2*
Lung and Bronchus	14.7	0.1
Colon and Rectum	11.3	-0.3
Pancreas	7.6	0.6
Ovary	6.1	0.2
Stomach	5.1	-1.4
Liver & IBD[e]	5.0	2.1*
Non-Hodgkin Lymphoma	4.9	-1.0
Leukemia	4.2	-0.6
Cervix Uteri	3.4	-3.9*
Corpus and Uterus, NOS	3.2	-0.2
Myeloma	2.7	0.3
Brain and ONS[e]	2.4	1.0
Kidney and Renal Pelvis	2.4	0.1
Gallbladder	1.4	-3.7*

- 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.

[a] Top 15 cancer sites selected based on 1992-2002 age-adjusted rates for the race/ethnic group.

[b] Mortality data used in calculating the rates are analyzed from a public use file provided by the National Center for Health Statistics (NCHS). Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

[c] The APC is the Annual Percent Change over the time interval. Mortality data used in calculating the trends are analyzed from a public use file provided by the National Center for Health Statistics (NCHS). Trends are based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

[d] Hispanic is not mutually exclusive from Whites, Blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. The 2000-2003 Hispanic death rates do not include deaths from Minnesota, New Hampshire and North Dakota. The 1994-2003 Hispanic mortality trends do not include deaths from Maine, Minnesota, New Hampshire, North Dakota, and Oklahoma.

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

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

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

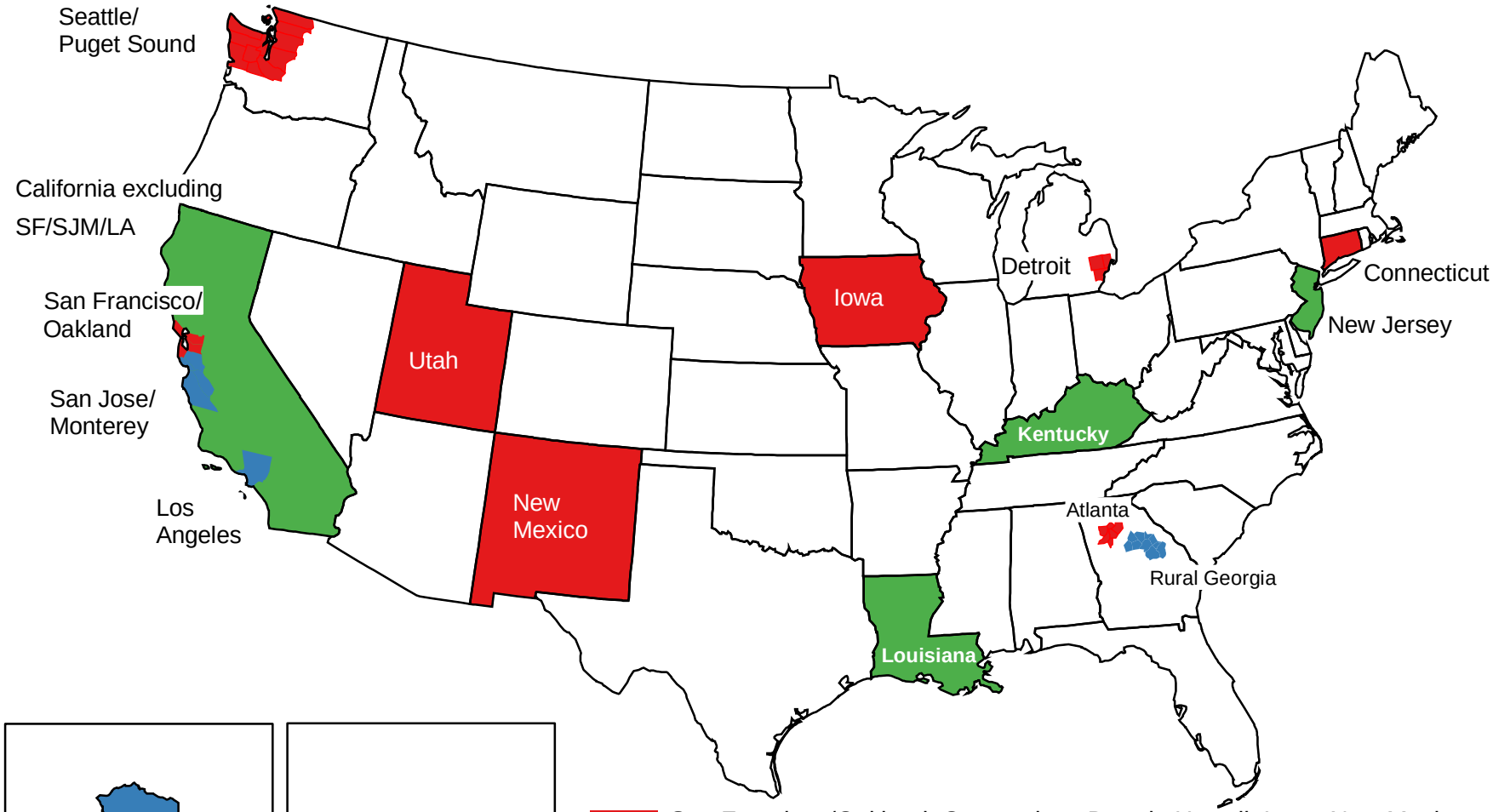
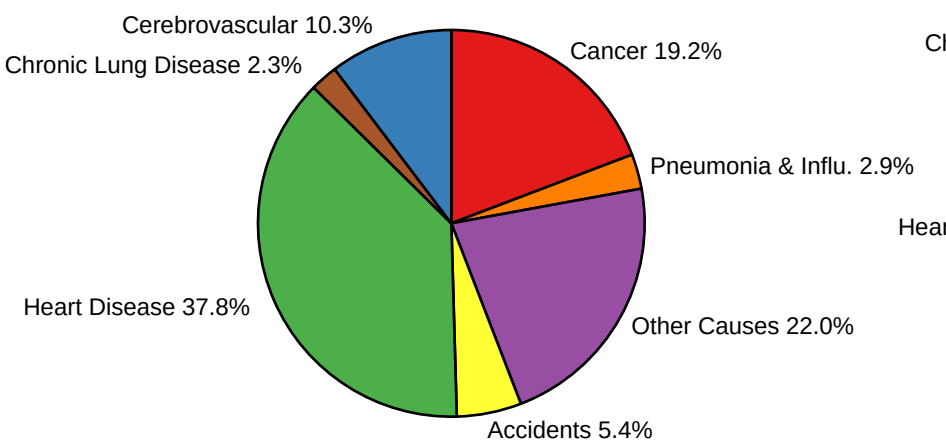
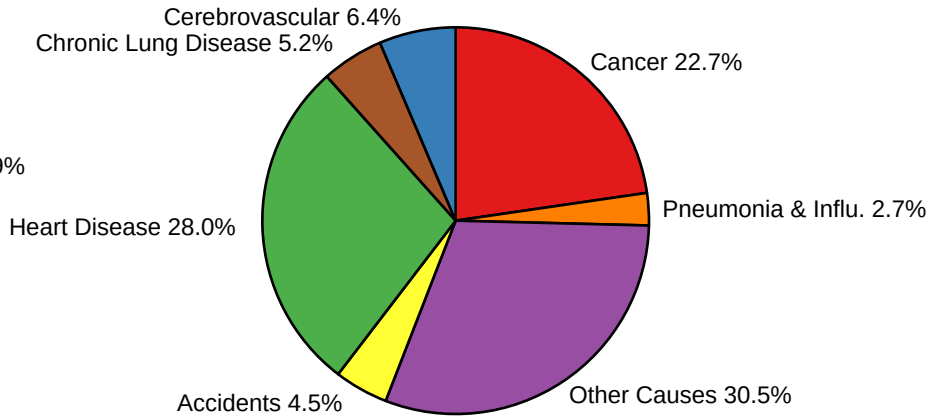


Figure I-1

Leading Causes of Death in US
Percent of All Causes of Death
1975 vs 2003



1975

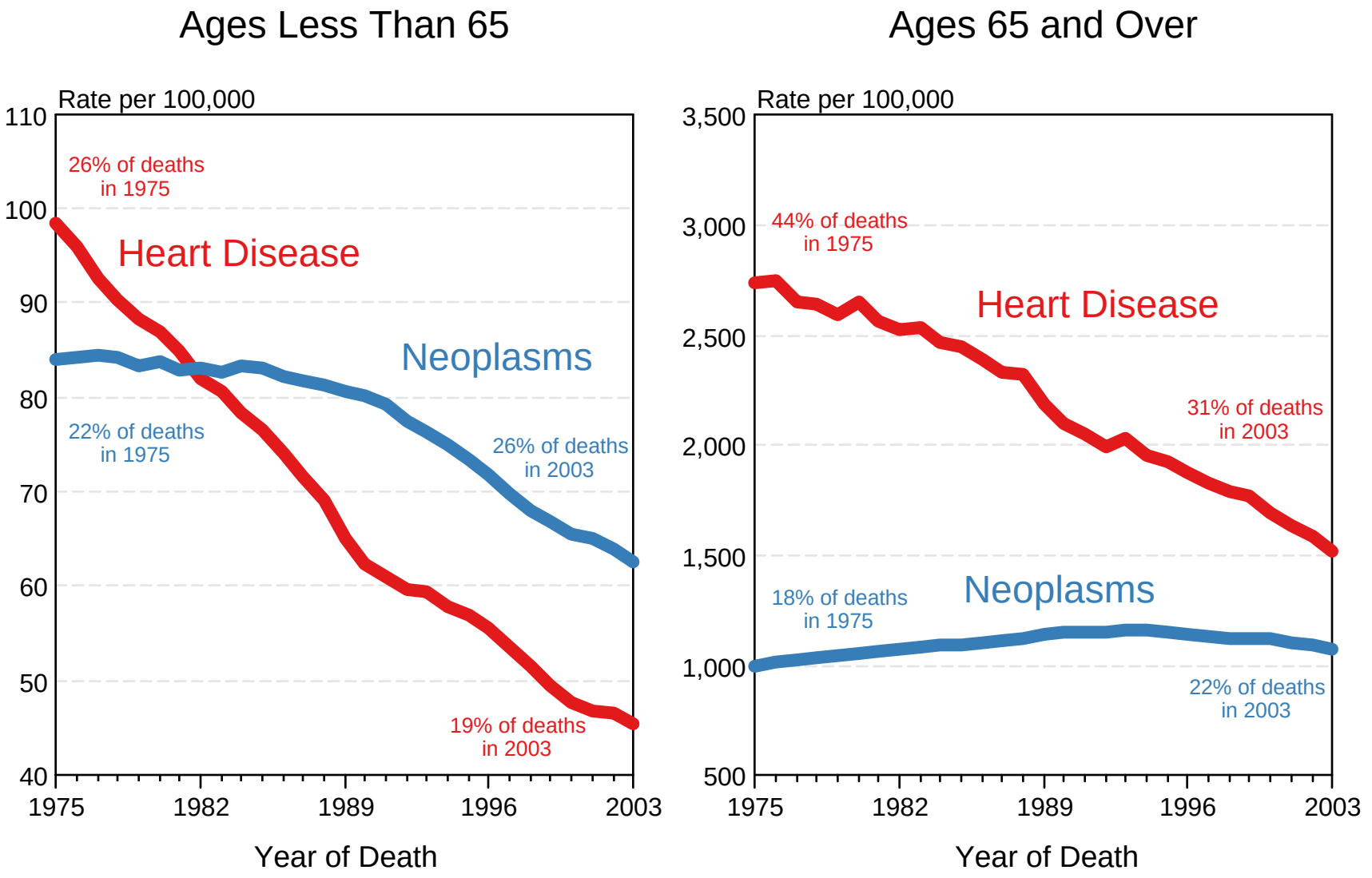


2003

Source: NCHS public use data file for the total US.

Figure I-2

US Death Rates
1975-2003

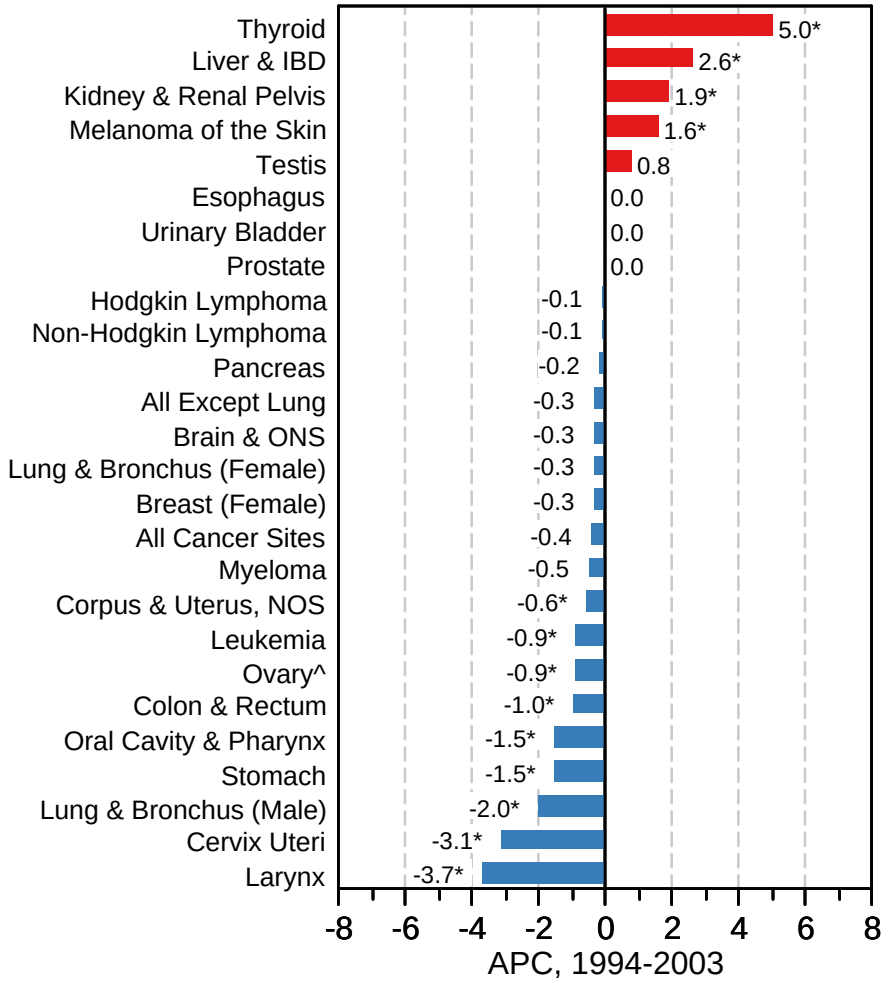


Source: NCHS public use data file for the total US. Rates are per 100,000 and age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).

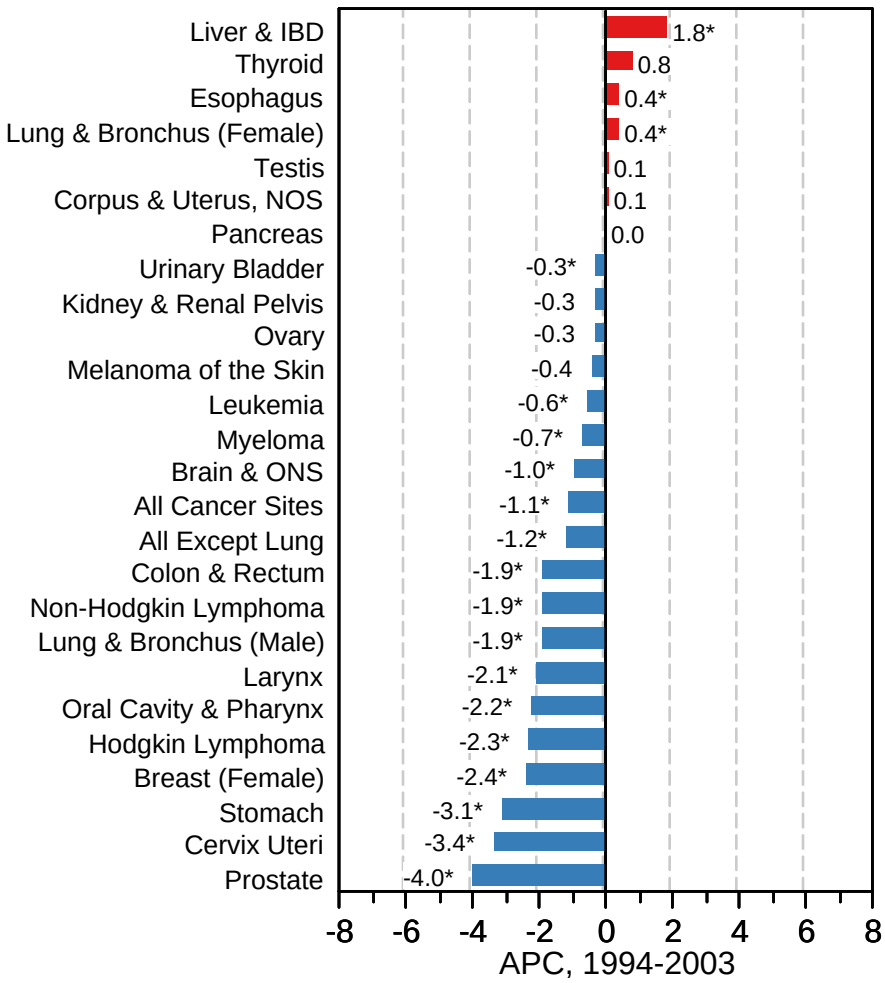
Figure I-3

Trends in SEER Incidence & US Death Rates by Primary Cancer Site 1994-2003

Trends in SEER Incidence Rates

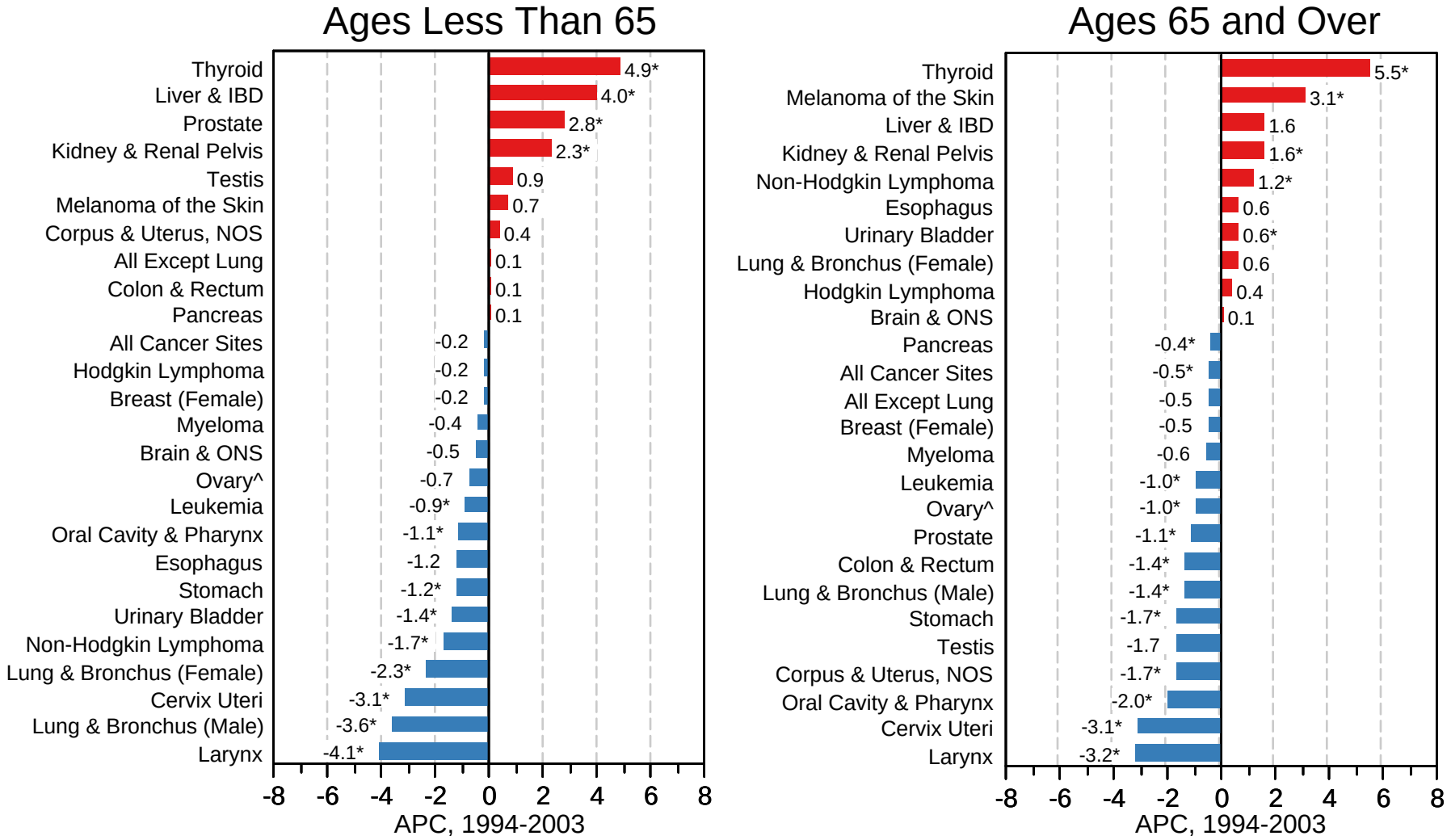


Trends in US Cancer Death Rates



Source: SEER 13 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia) and NCHS public use file for the total US. For sex-specific cancer sites, the population was limited to the population of the appropriate sex. Underlying rates are per 100,000 and age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).
The APC is the Annual Percent Change over the time interval.
* The APC is significantly different from zero (p<.05).
^ Ovary excludes borderline cases or histologies 8442, 8451, 8462, 8472, and 8473.

Trends in SEER Incidence Rates by Primary Cancer Site 1994-2003

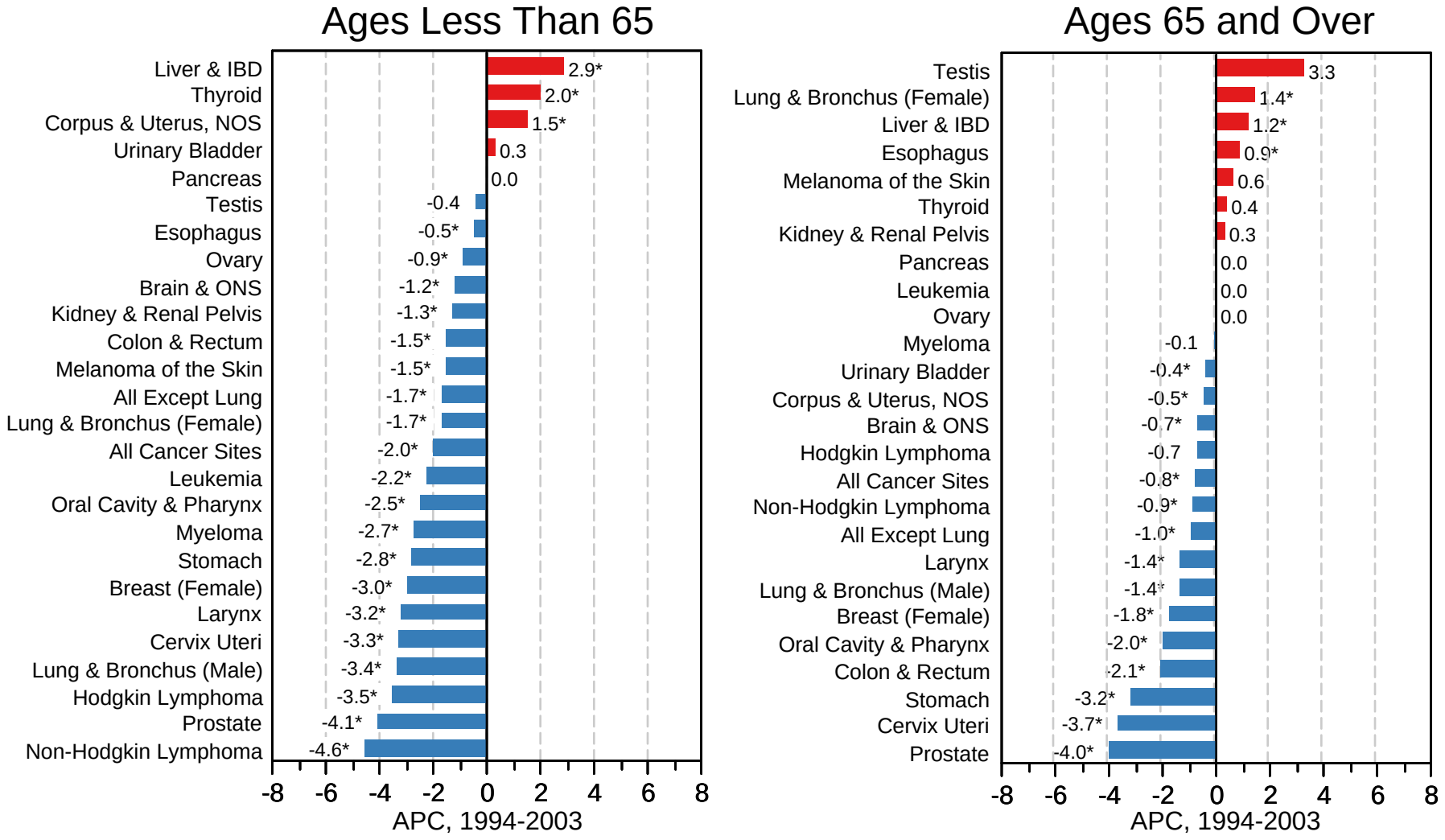


Source: SEER 13 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia). For sex-specific cancer sites, the population was limited to the population of the appropriate sex.
Underlying rates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

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

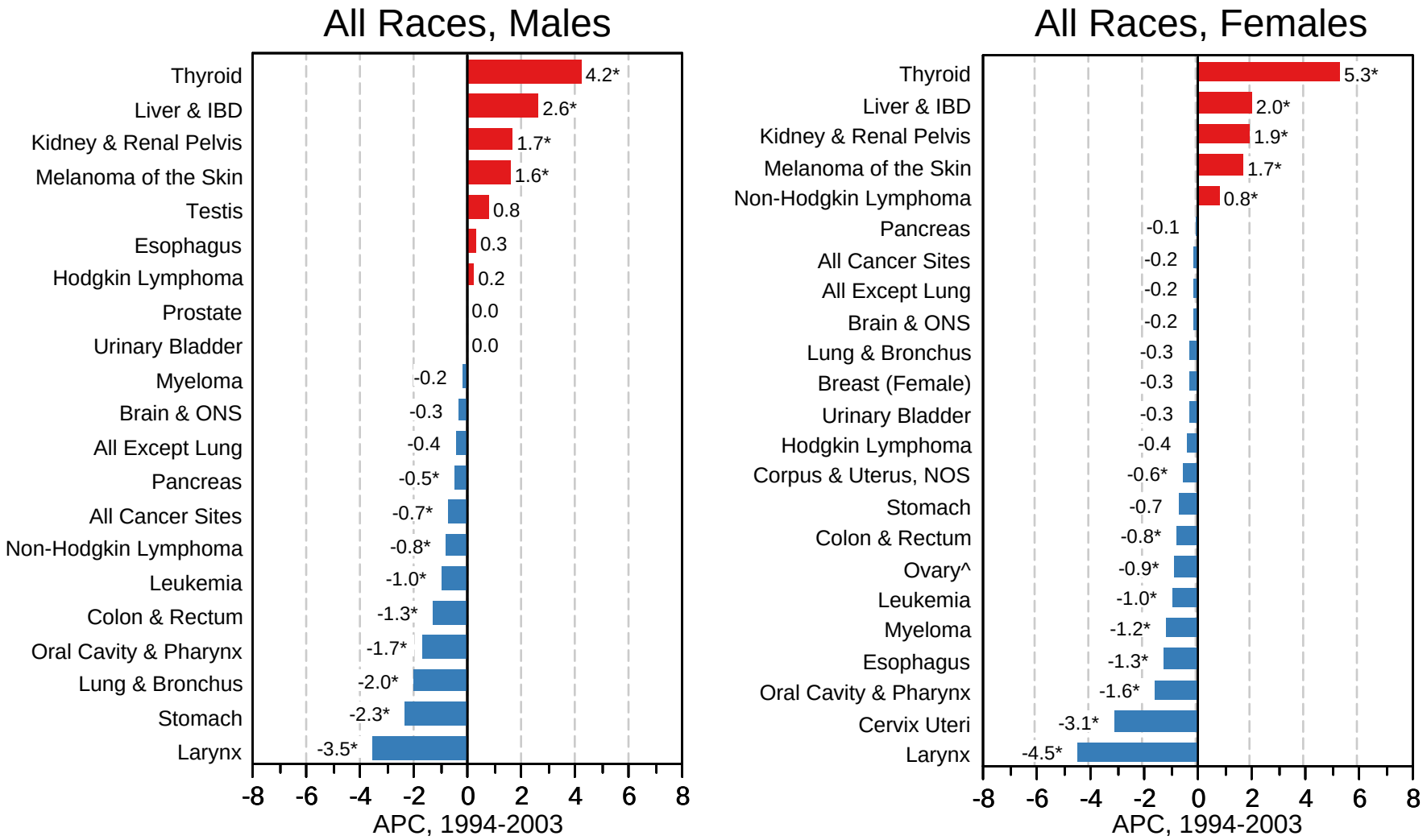
^ Ovary excludes borderline cases or histologies 8442, 8451, 8462, 8472, and 8473.

Trends in US Death Rates by Primary Cancer Site 1994-2003



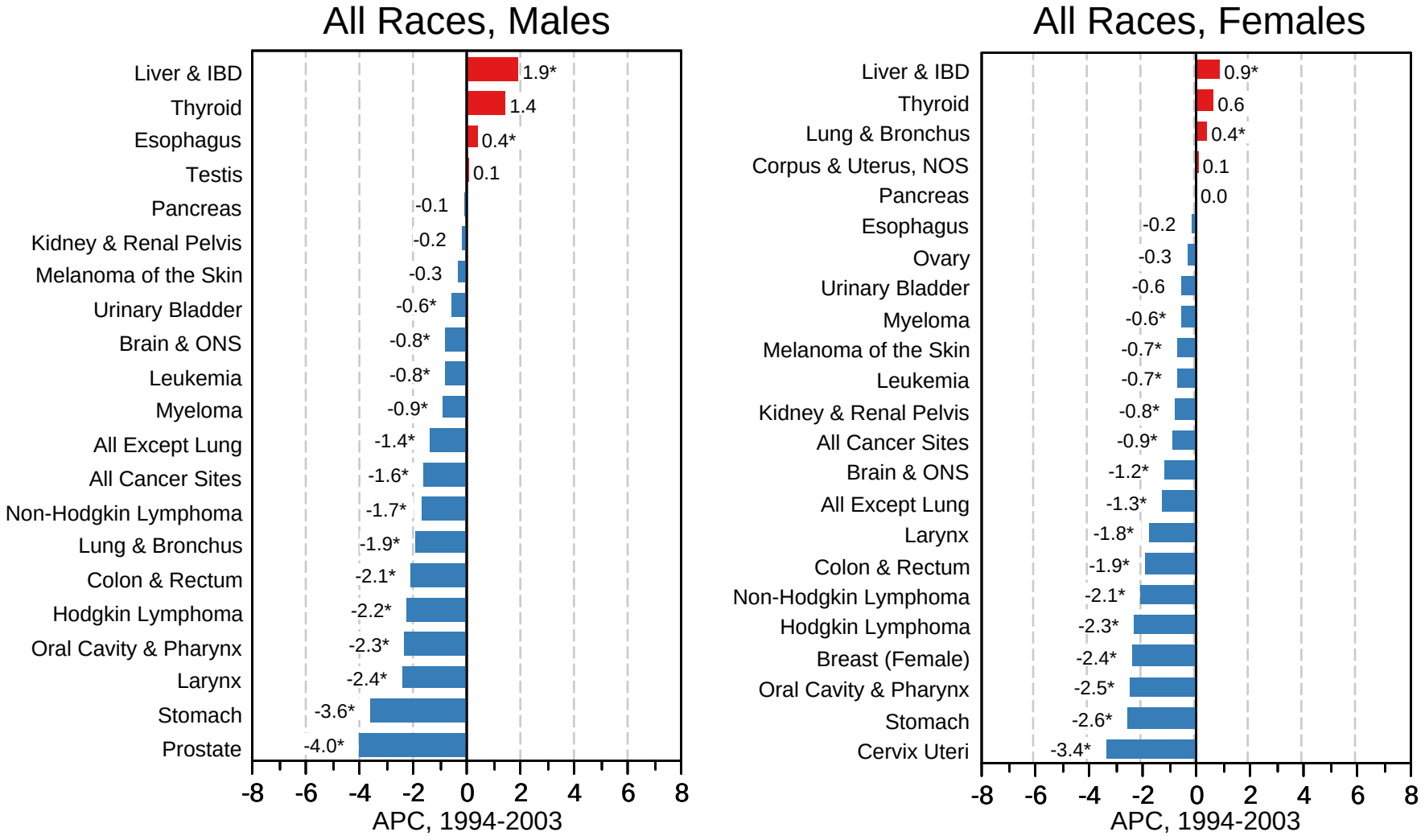
Source: NCHS public use data file for the total US. For sex-specific cancer sites, the population was limited to the population of the appropriate sex.
Underlying rates are per 100,000 and age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).
The APC is the Annual Percent Change over the time interval.
* The APC is significantly different from zero (p<.05).

Trends in SEER Incidence Rates by Primary Cancer Site 1994-2003



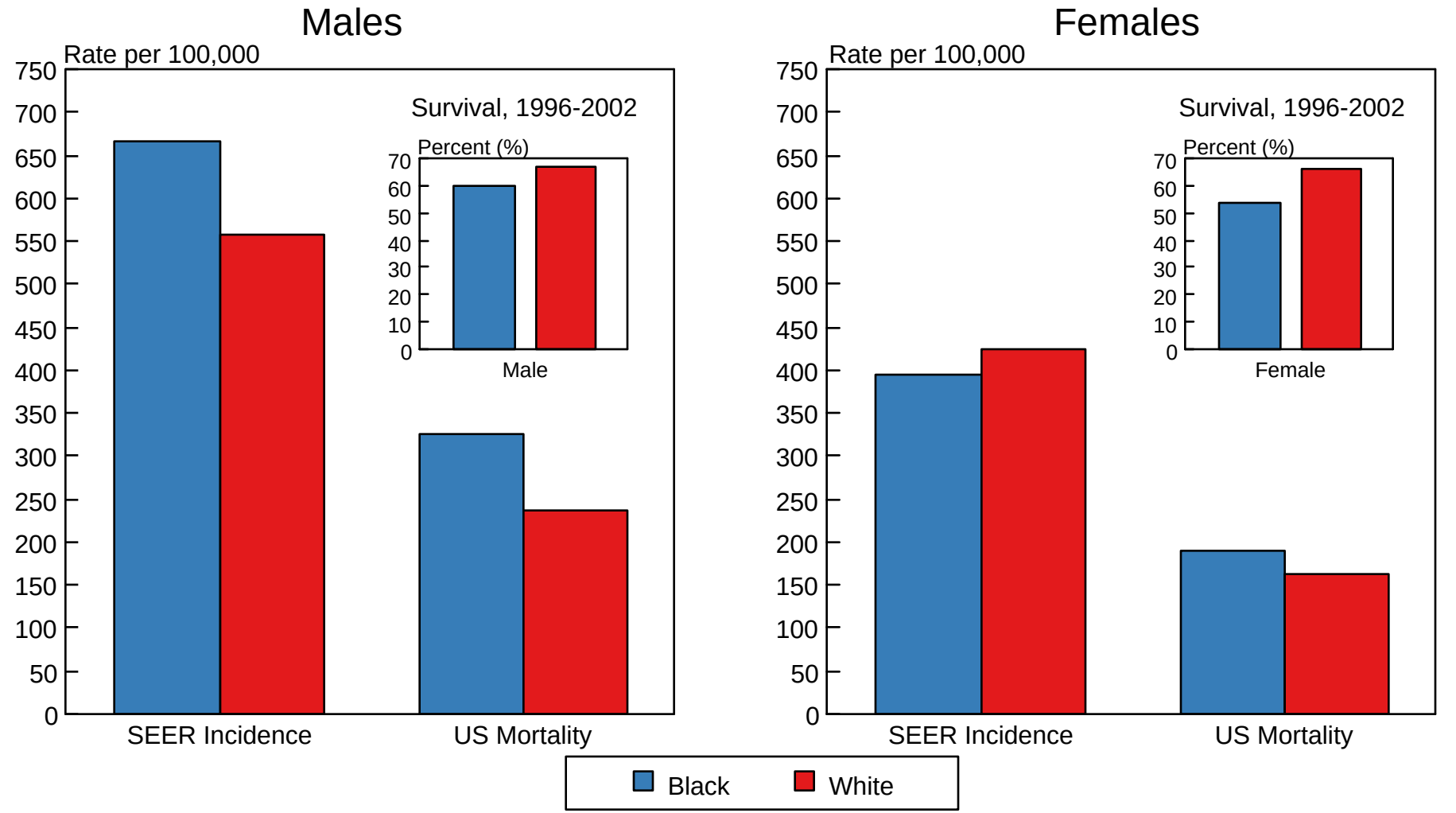
Source: SEER 13 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia).
Underlying rates are per 100,000 and age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).
The APC is the Annual Percent Change over the time interval.
* The APC is significantly different from zero (p<.05).
^ Ovary excludes borderline cases or histologies 8442, 8451, 8462, 8472, and 8473.

Trends in US Death Rates by Primary Cancer Site 1994-2003



Source: NCHS public use data file for the total US.
Underlying rates are per 100,000 and age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).
The APC is the Annual Percent Change over the time interval.
* The APC is significantly different from zero (p<.05).

SEER Incidence* and US Death Rates,# 2000-2003
5-Year Relative Survival Rates,^ 1996-2002
All Cancer Combined, by Race and Sex

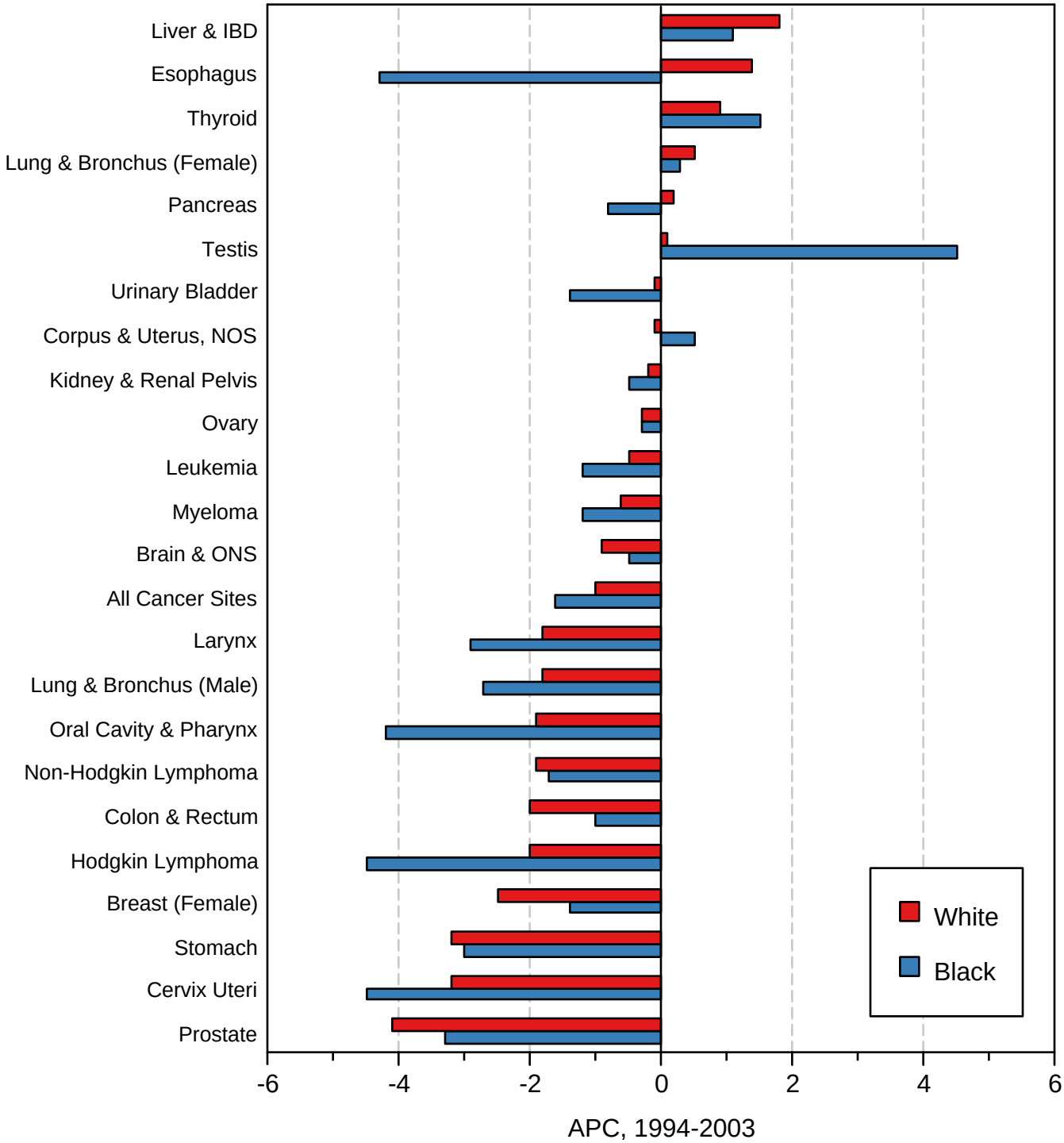


* Incidence rates are from the SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, and New Jersey) and are age-adjusted to the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

\# Death rates are from the NCHS public use data file for the total US and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).

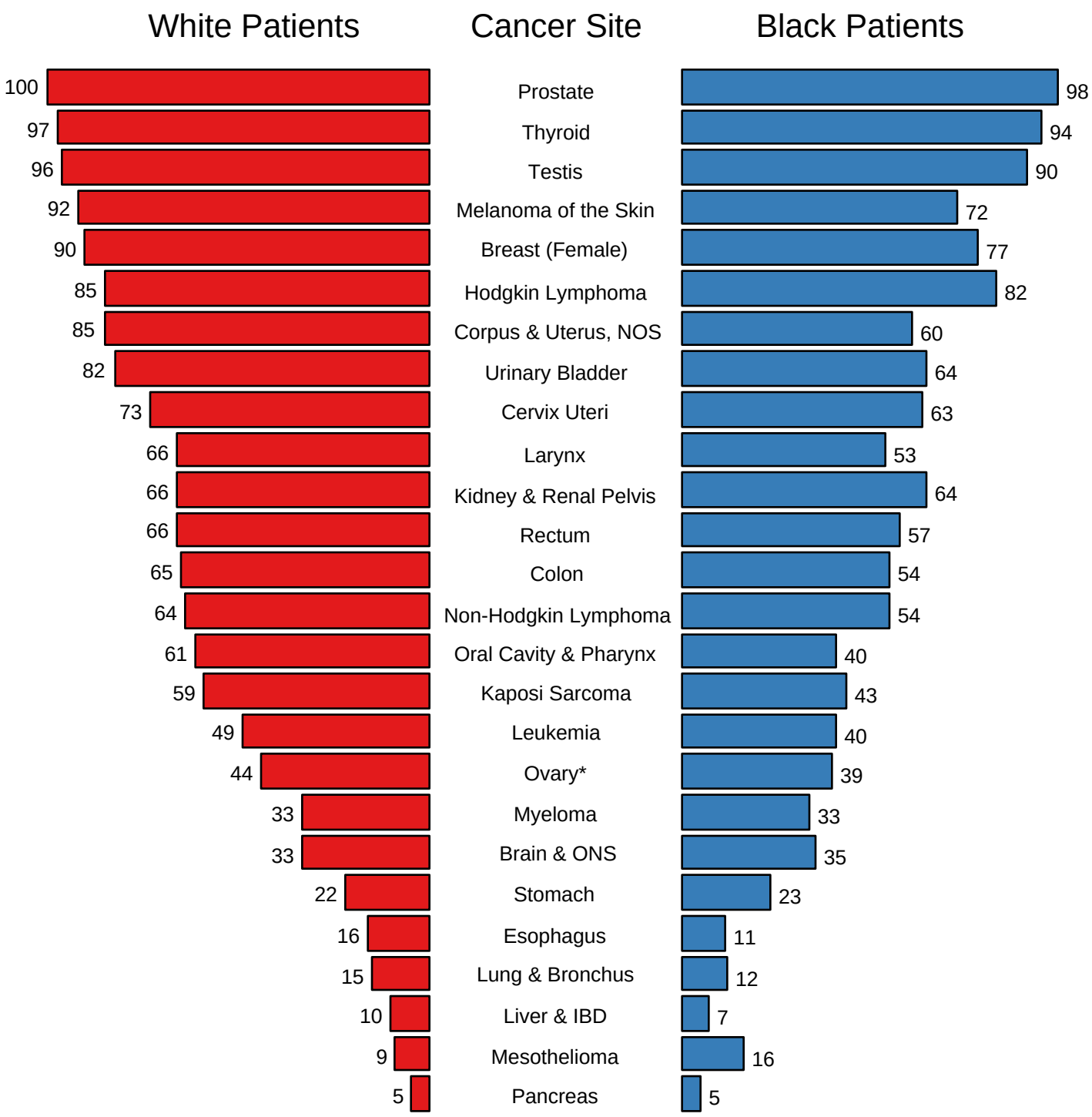
^ Survival rates are from the SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, and New Jersey). California excluding SF/SJM/LA, Kentucky, Louisiana, and New Jersey contribute cases for diagnosis years 2000-2002. The remaining 13 SEER Areas contribute cases for the entire period 1996-2002.. Relative survival rates are expressed as percents.

Trends in US Death Rates, 1994-2003 by Primary Cancer Site All Ages, by Race



Source: NCHS public use data file for the total US.
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).

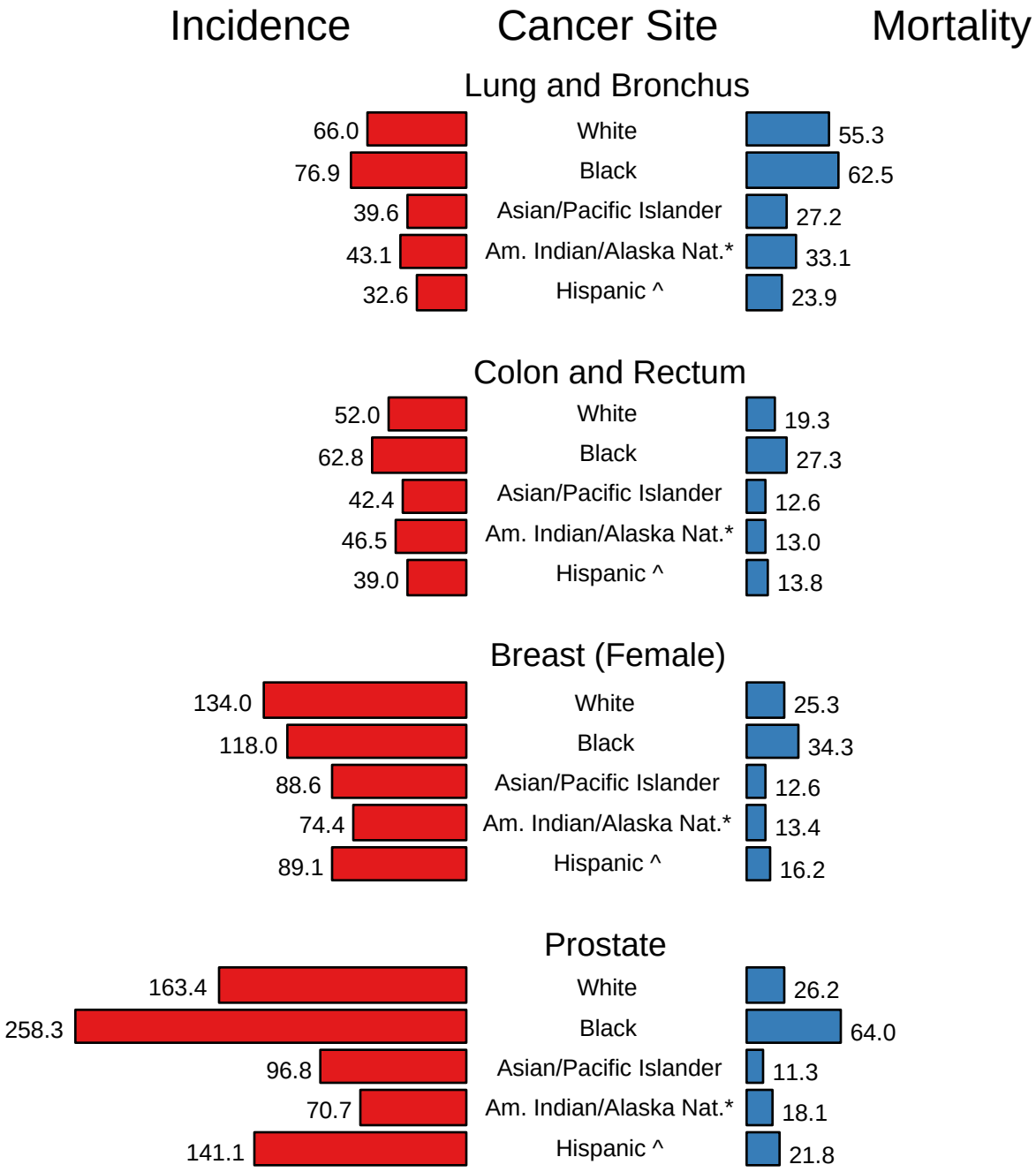
5-Year Relative Survival Rates
SEER Program, 1996-2002
Both Sexes, by Race



Source: SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, and New Jersey). California excluding SF/SJM/LA, Kentucky, Louisiana, and New Jersey contribute cases for diagnosis years 2000-2002. The remaining 13 SEER Areas contribute cases for the entire period 1996-2002.

* Ovary excludes borderline cases or histologies 8442, 8451, 8462, 8472, and 8473.

SEER Cancer Incidence and US Death Rates, 2000-2003 By Cancer Site and Race

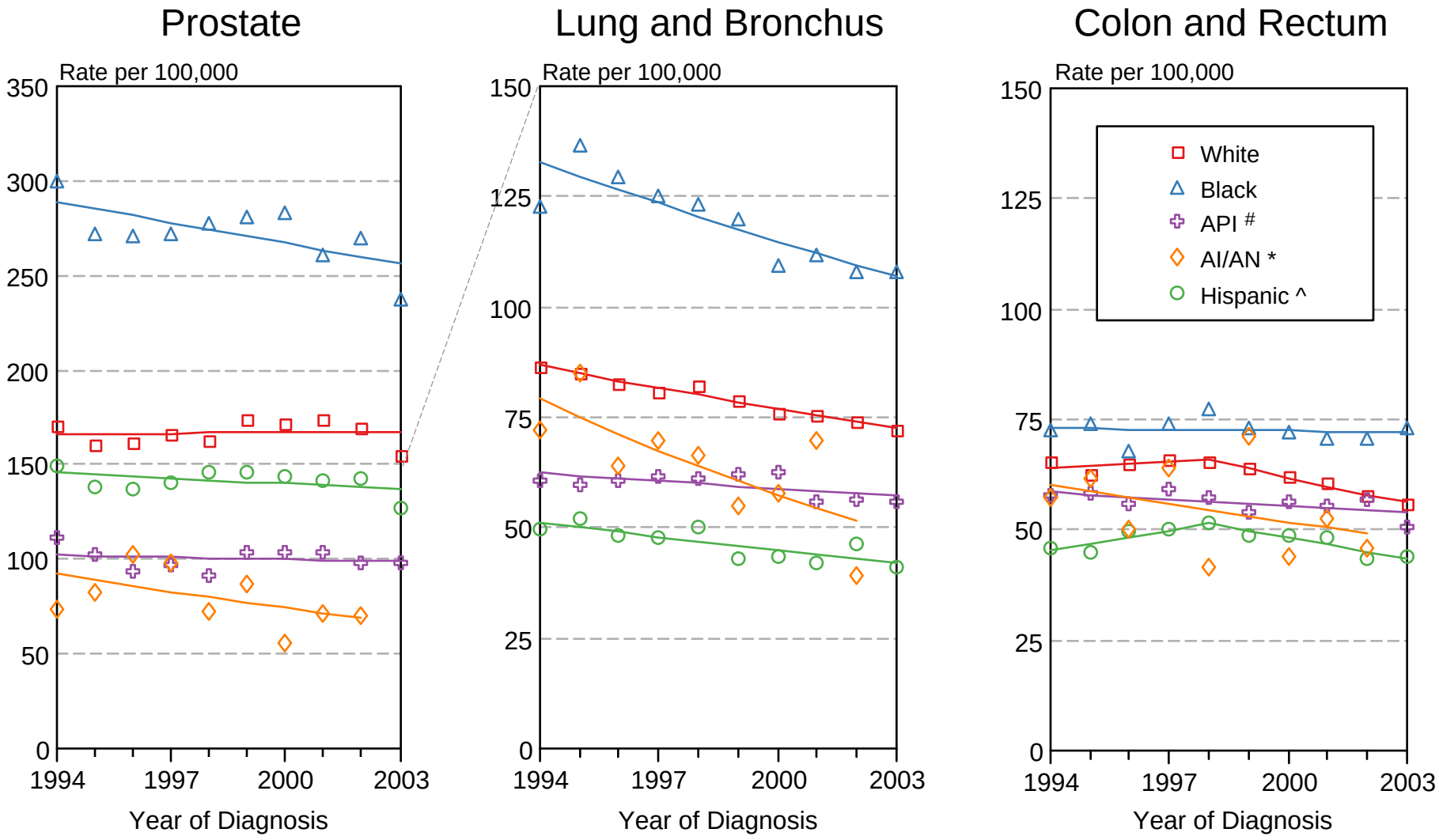


Source: SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, and New Jersey) and NCHS public use data file for the total US.
Rates are per 100,000 and age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).

* Incidence data for American Indians/Alaska Natives include cases from Connecticut, Detroit, Iowa, New Mexico, Seattle, Utah, Atlanta, and the Alaska Native Registry for the time period 1999-2002. Mortality data for American Indians/Alaska Natives include the total US for the time period 2000-2003.

^ 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 Hawaii, Seattle, Alaska Native Registry and Kentucky. Mortality data for Hispanics exclude cases from Minnesota, New Hampshire, and North Dakota.

SEER Incidence 1994-2003
Males by Race/Ethnicity



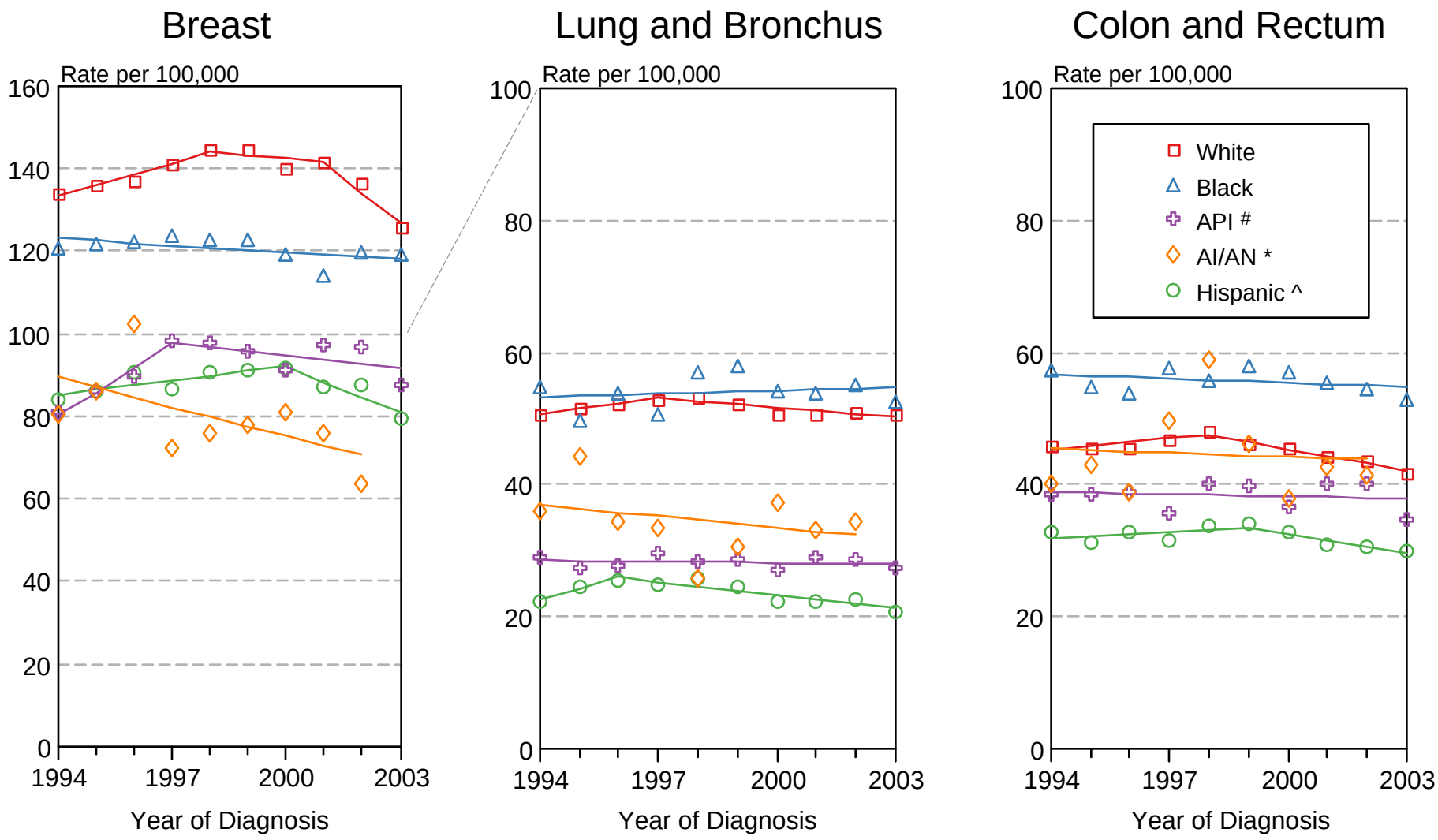
Source: SEER 13 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia). Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103). Regression lines are calculated using the Joinpoint Regression Program Version 3.1, April 2006, National Cancer Institute.

API = Asian/Pacific Islander.

* AI/AN = American Indian/Alaska Native. Incidence data for American Indians/Alaska Natives include cases from Connecticut, Detroit, Iowa, New Mexico, Seattle, Utah, Atlanta, and the Alaska Native Registry for the time period 1994-2002.

^ 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 Hawaii, Seattle, and Alaska Native Registry.

SEER Incidence 1994-2003
Females by Race/Ethnicity



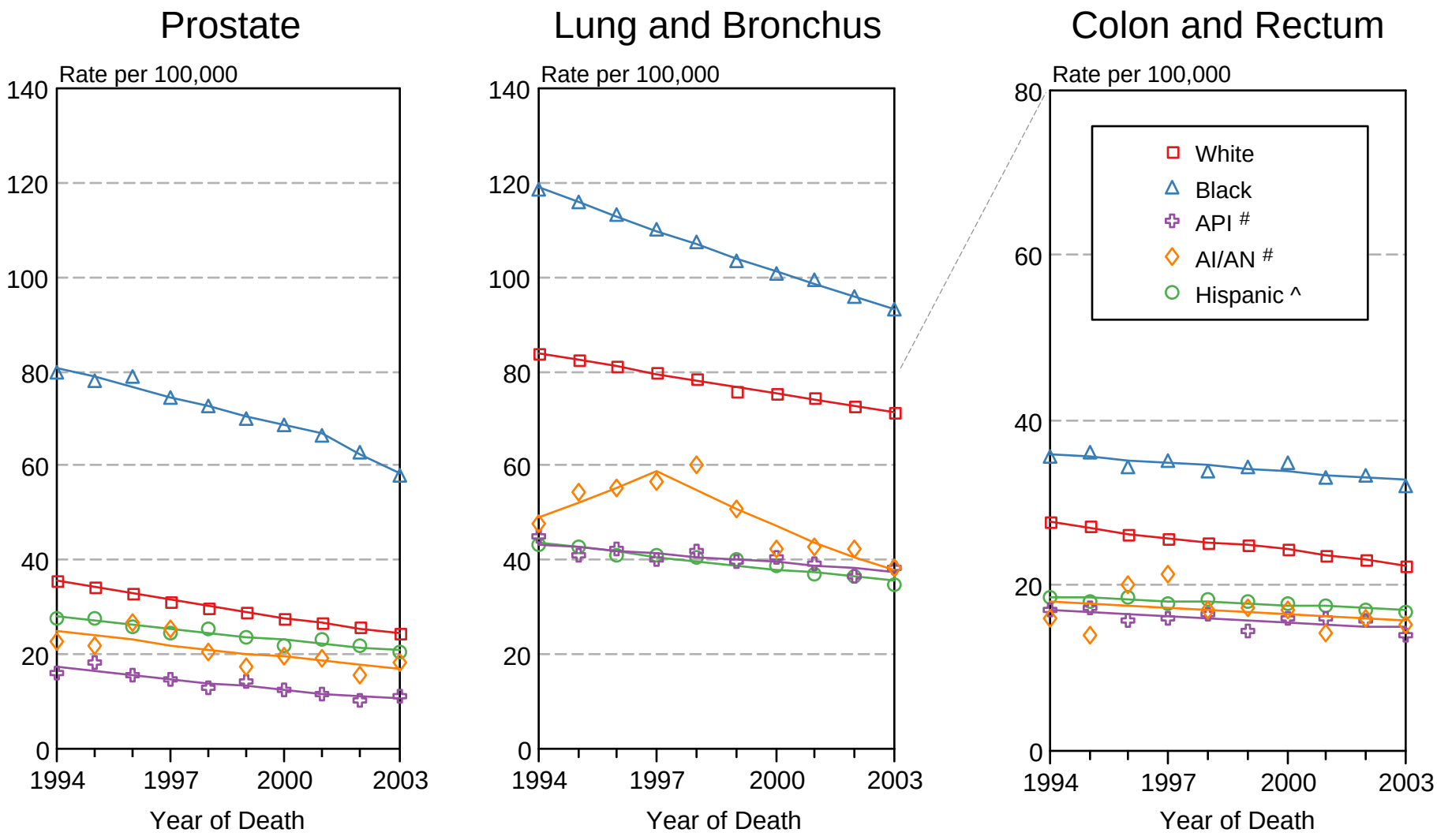
Source: SEER 13 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia). Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103). Regression lines are calculated using the Joinpoint Regression Program Version 3.1, April 2006, National Cancer Institute.

API = Asian/Pacific Islander.

* AI/AN = American Indian/Alaska Native. Incidence data for American Indians/Alaska Natives include cases from Connecticut, Detroit, Iowa, New Mexico, Seattle, Utah, Atlanta, and the Alaska Native Registry for the time period 1994-2002.

^ 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 Hawaii, Seattle, and Alaska Native Registry.

US Mortality 1994-2003
Males by Race/Ethnicity

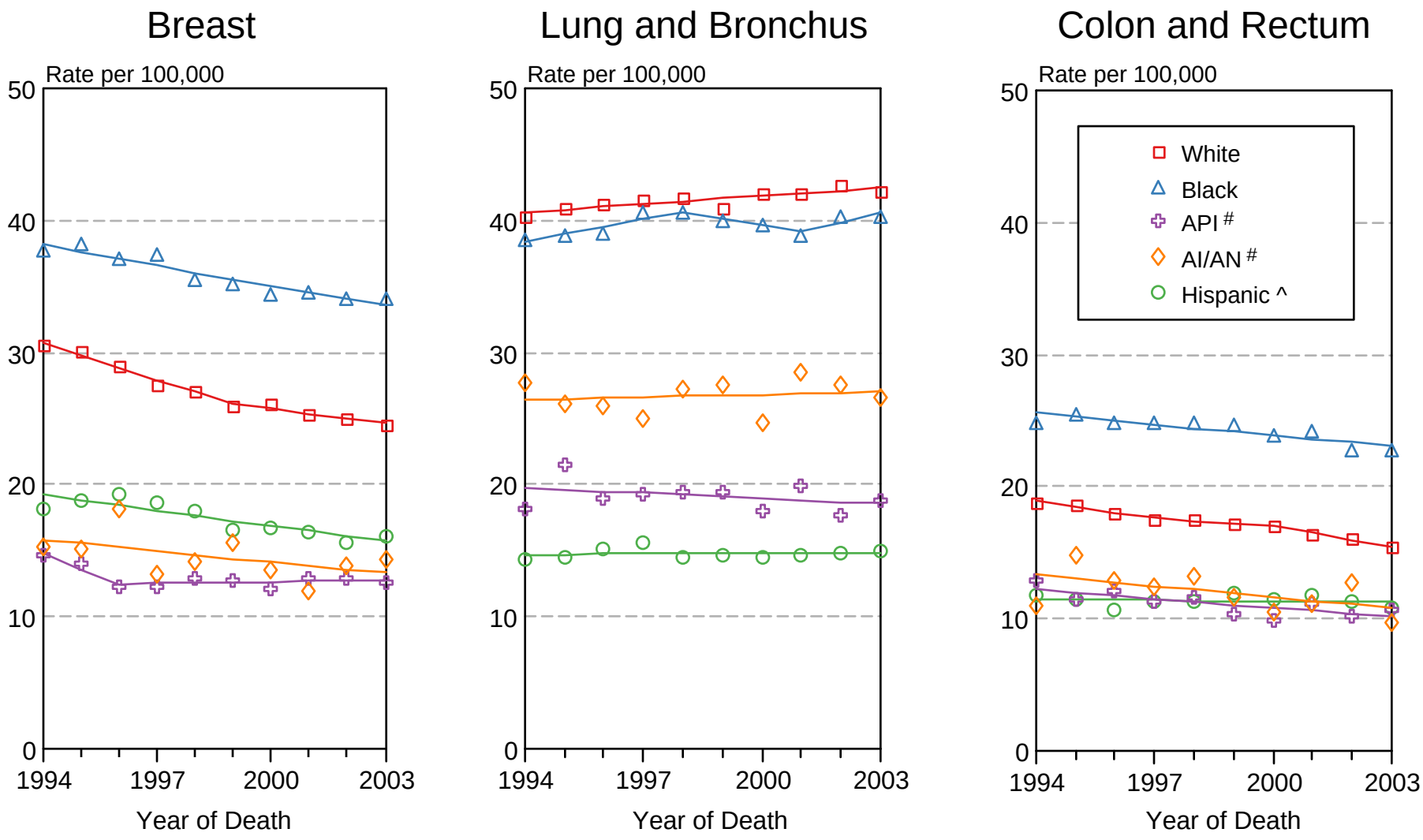


Source: NCHS public use data file for the total US. Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103). Regression lines are calculated using the Joinpoint Regression Program Version 3.1, April 2006, National Cancer Institute.

API = Asian/Pacific Islander. AI/AN = American Indian/Alaska Native.

^ Hispanic is not mutually exclusive from Whites, Blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Mortality data for Hispanics excludes cases from Maine, Minnesota, New Hampshire, North Dakota, and Oklahoma.

US Mortality 1994-2003
Females by Race/Ethnicity

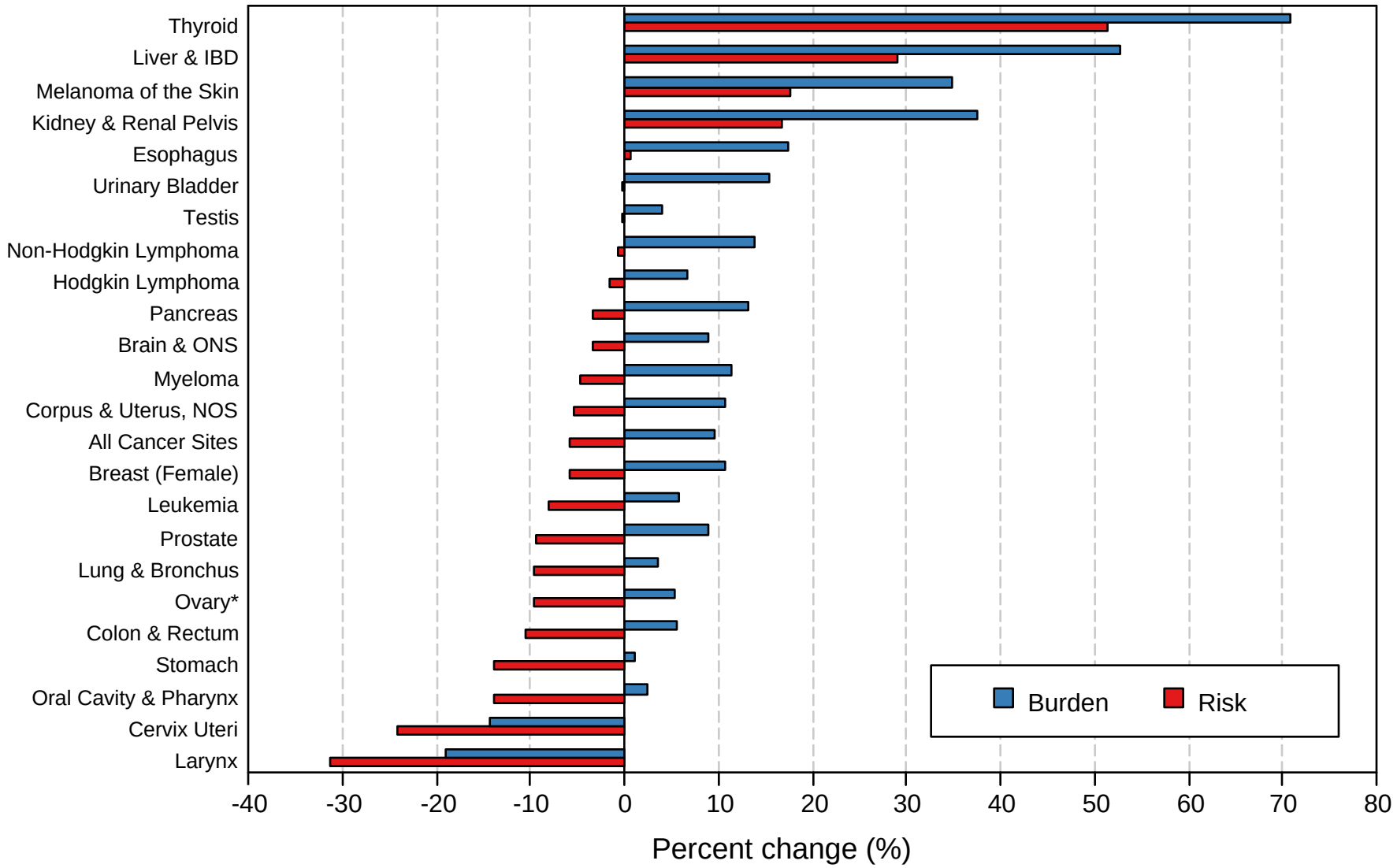


Source: NCHS public use data file for the total US. Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103). Regression lines are calculated using the Joinpoint Regression Program Version 3.1, April 2006, National Cancer Institute.

API = Asian/Pacific Islander. AI/AN = American Indian/Alaska Native.

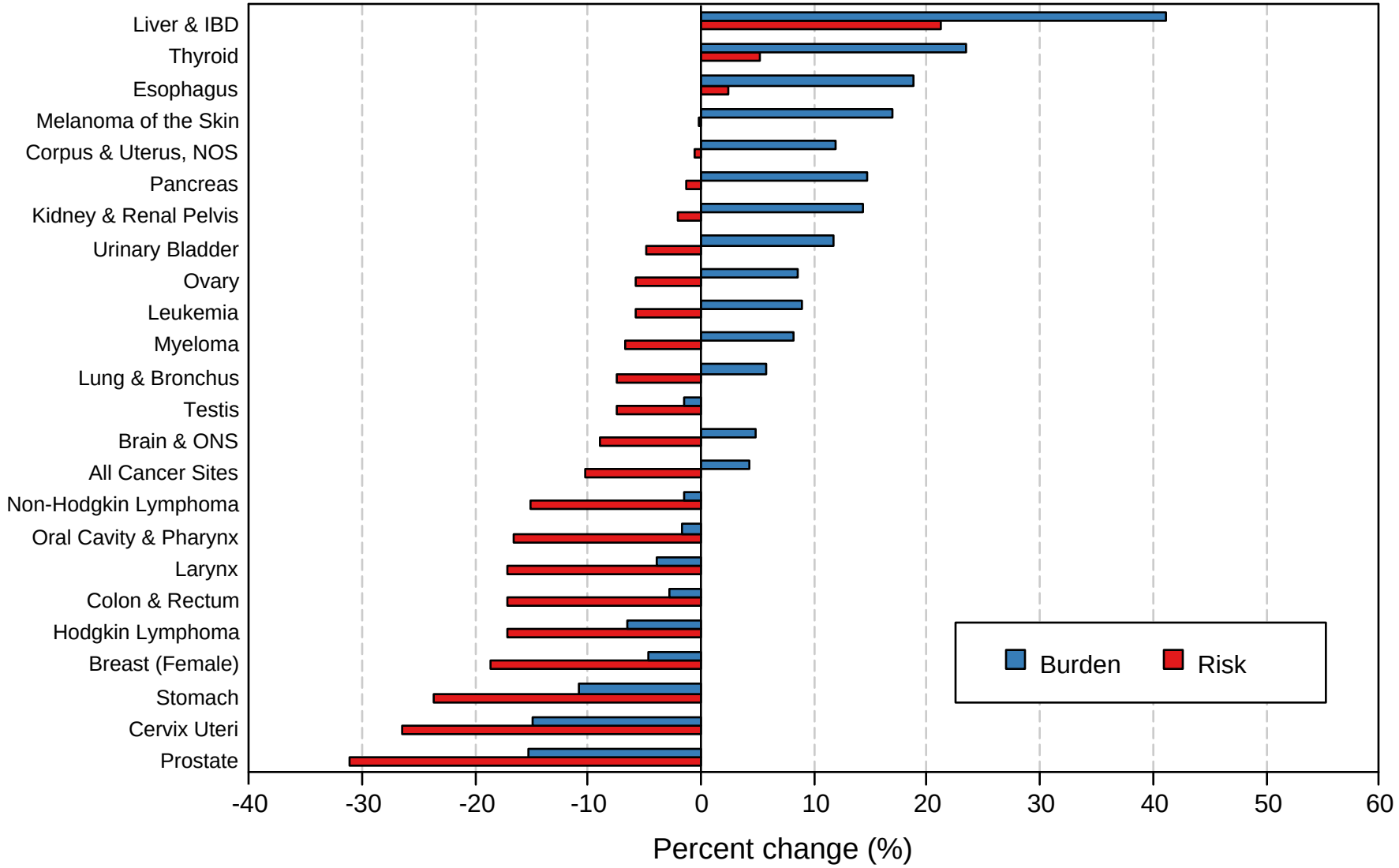
^ Hispanic is not mutually exclusive from Whites, Blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Mortality data for Hispanics excludes cases from Maine, Minnesota, New Hampshire, North Dakota, and Oklahoma.

Incidence Percent Change between 1994 and 2003
Numbers (burden) vs Rates (risk)
All Ages

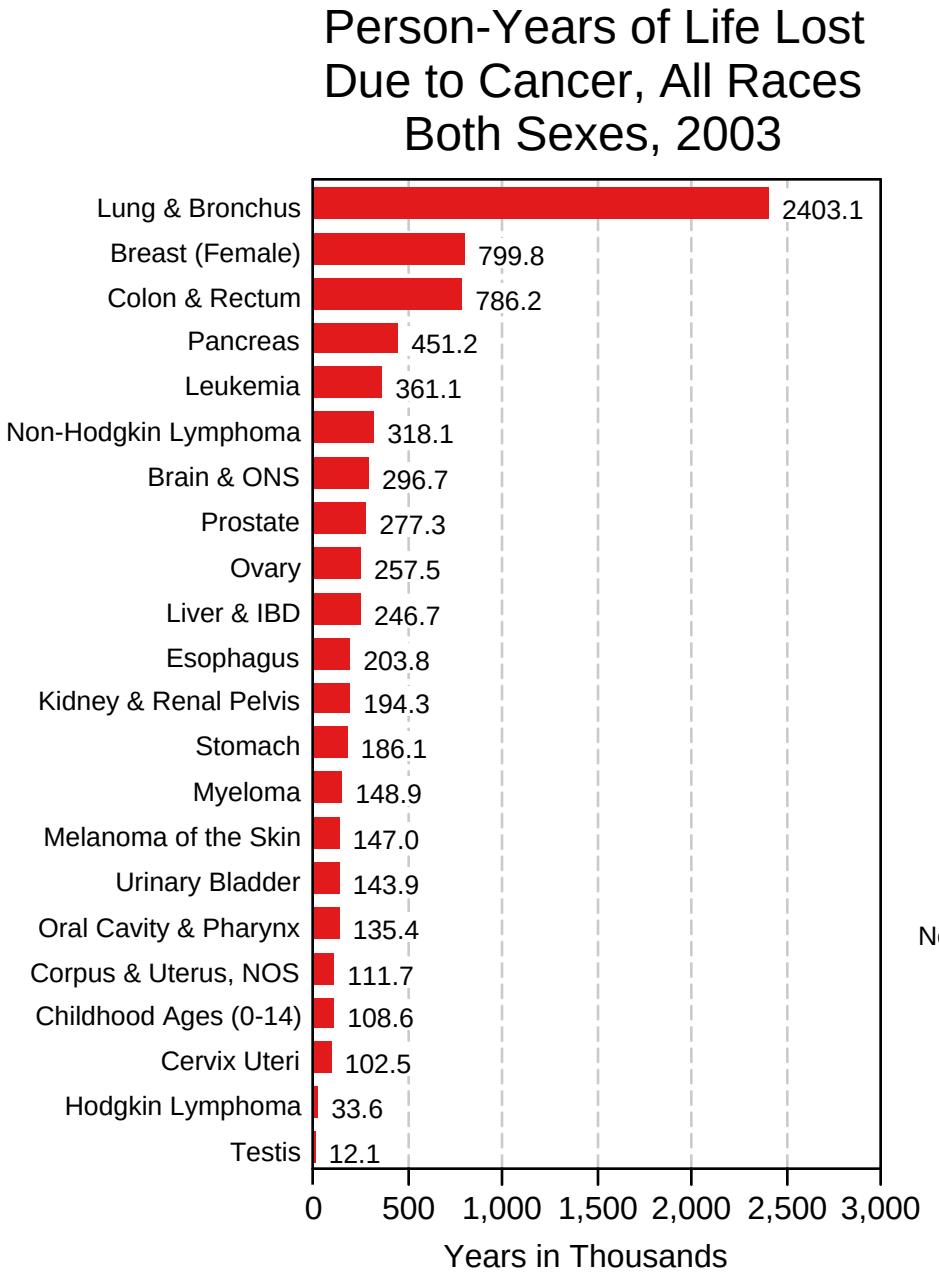


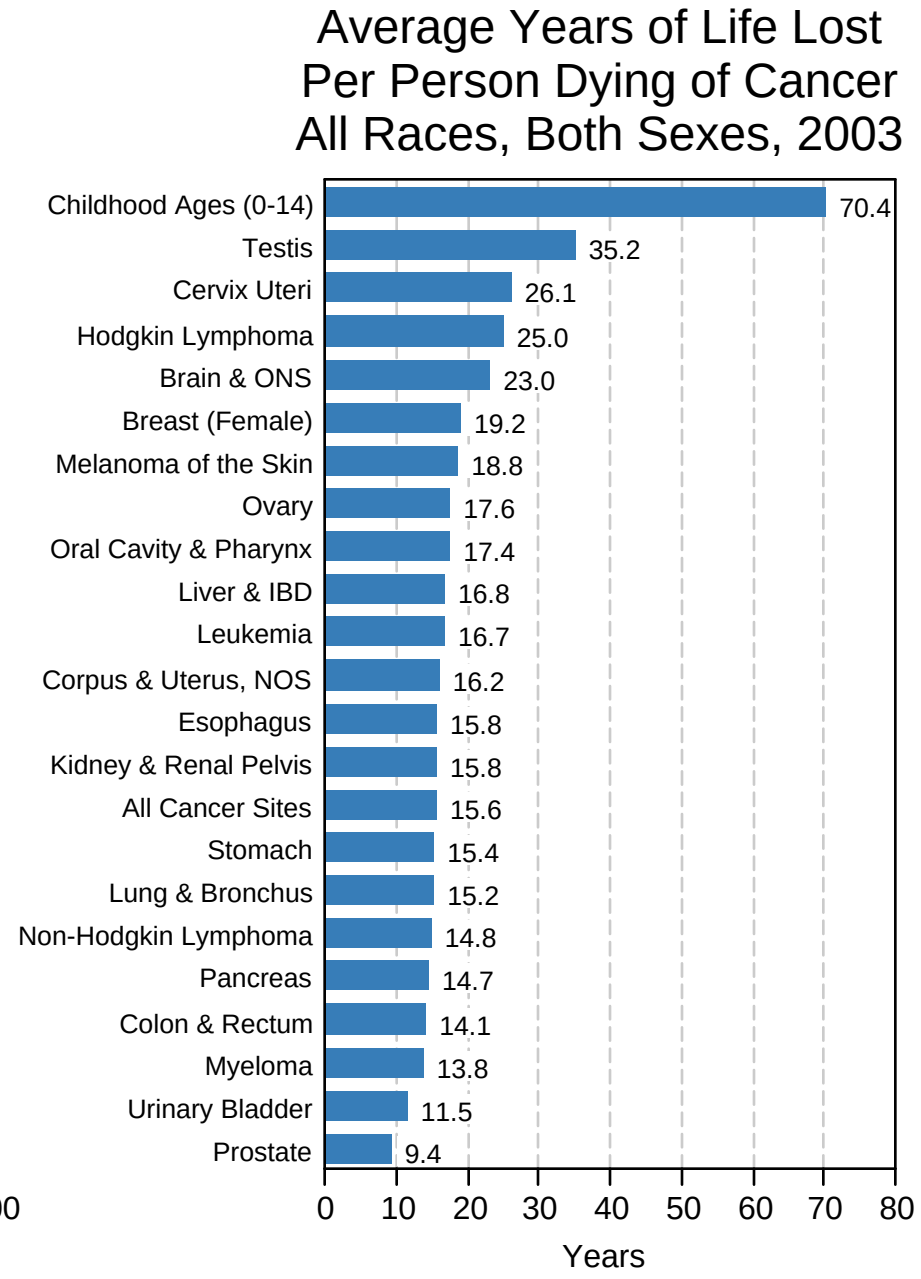
US Incidence estimates based on SEER age-specific rates applied to US population.
Burden is the change in the number of incidence cases between 1994 and 2003.
Risk is the change in the cancer incidence rates between 1994 and 2003.
* Ovary excludes borderline cases or histologies 8442, 8451, 8462, 8472, and 8473.

Mortality Percent Change between 1994 and 2003
Numbers (burden) vs Rates (risk)
All Ages

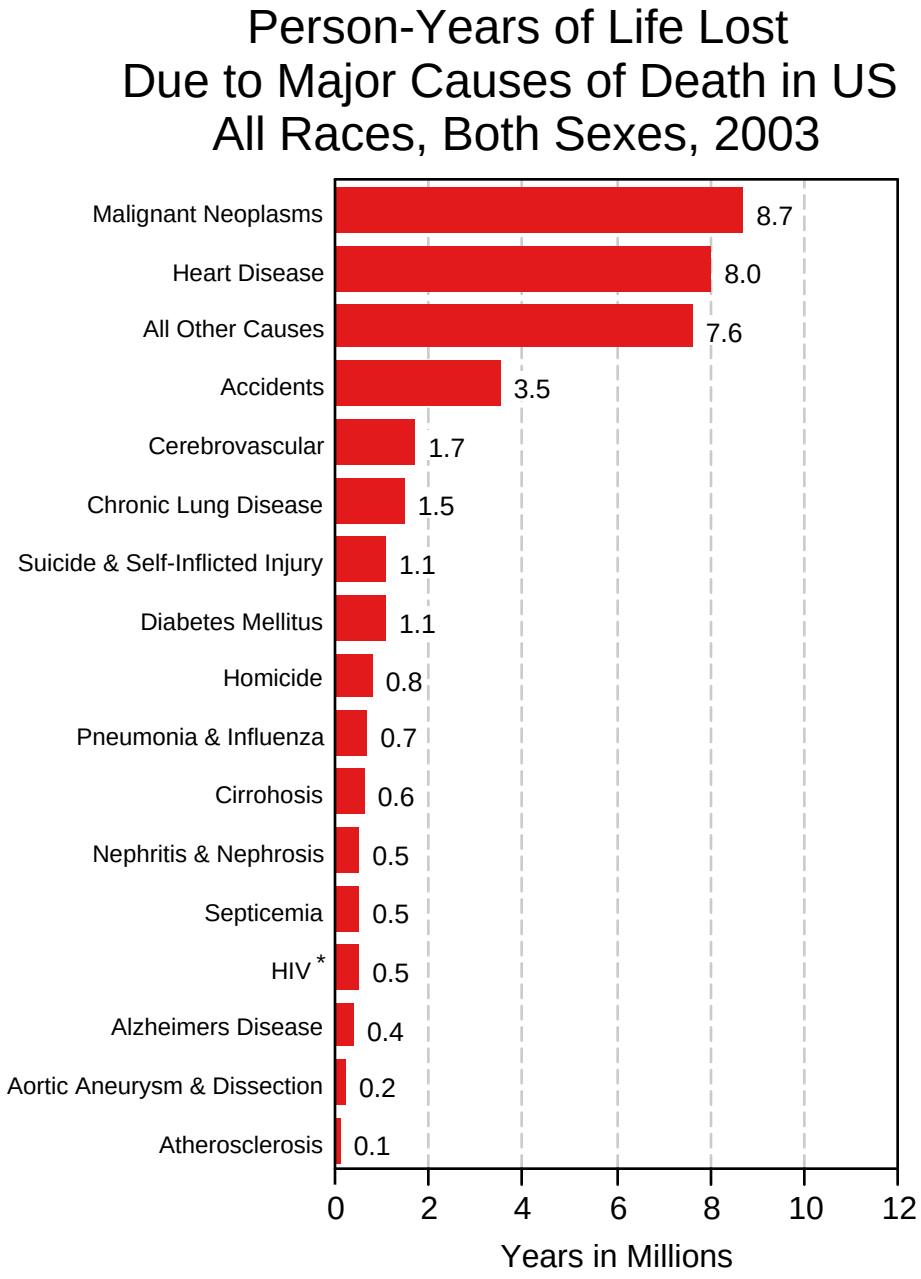


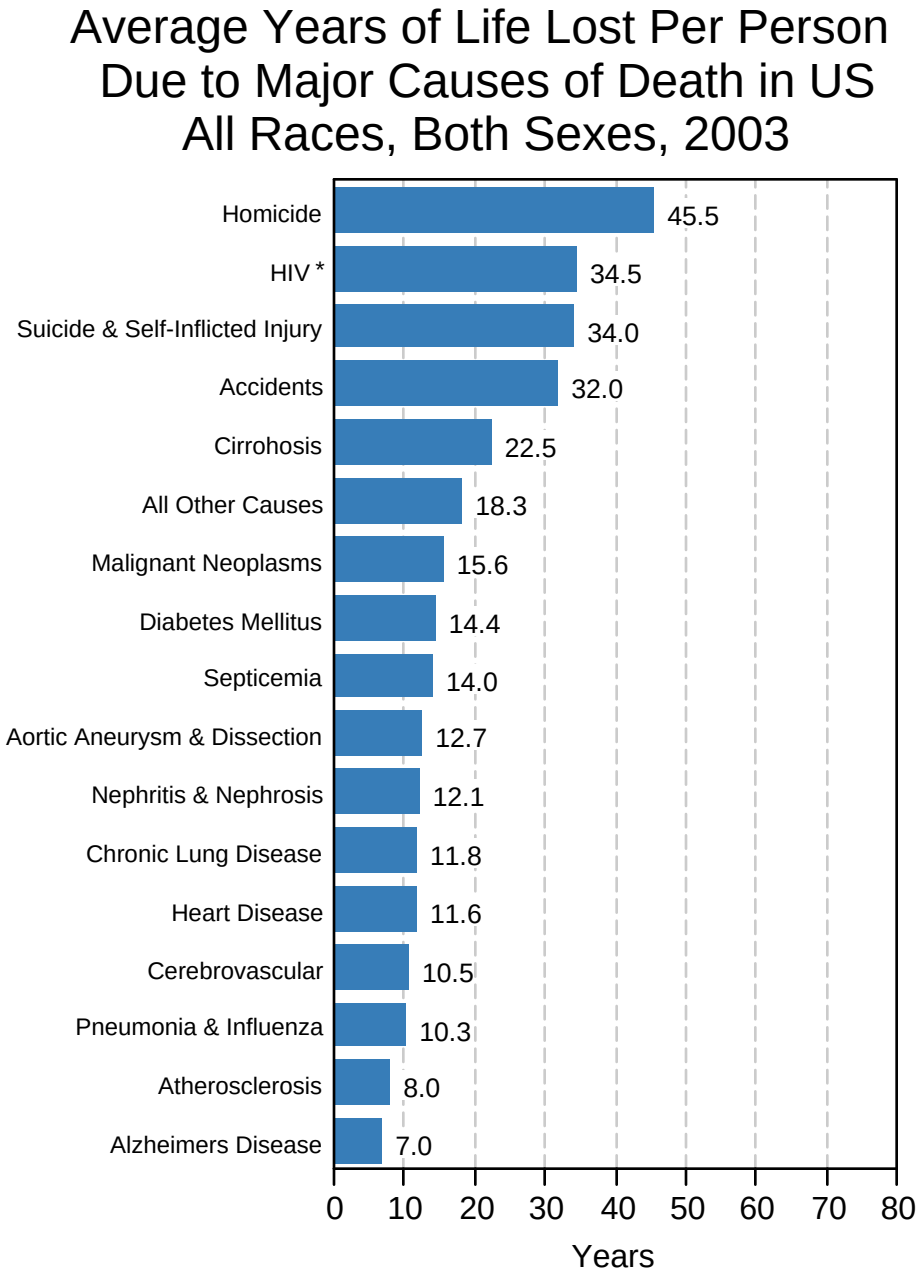
US Mortality estimates based on US age-specific rates applied to US population.
Burden is the change in the number of deaths between 1994 and 2003.
Risk is the change in the cancer death rates between 1994 and 2003.





Source: NCHS public use data file for the total US and 2003 Life Tables.

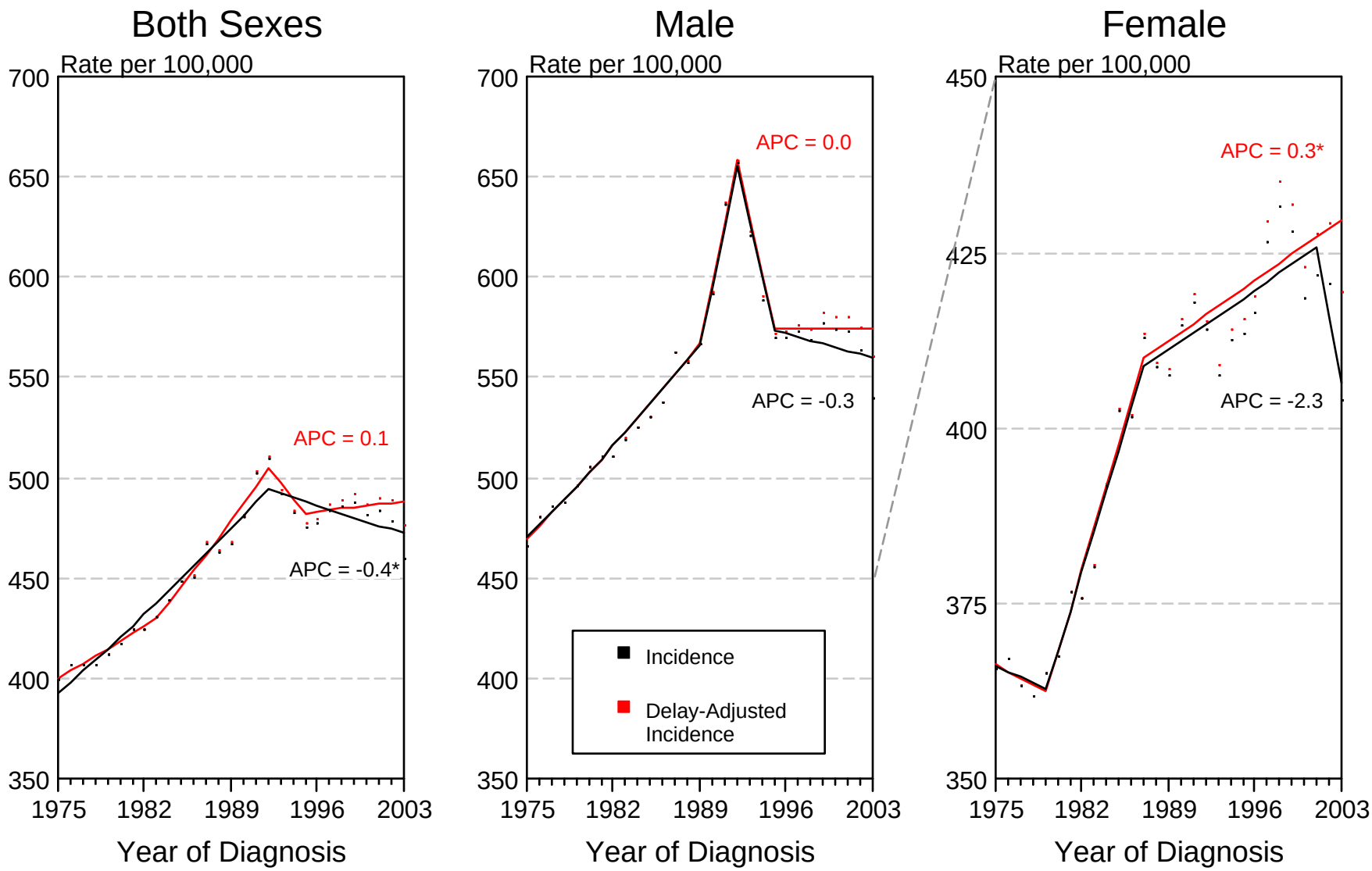




Source: NCHS public use data file for the total US and 2003 Life Tables.
* Human Immunodeficiency Virus

Figure I-20

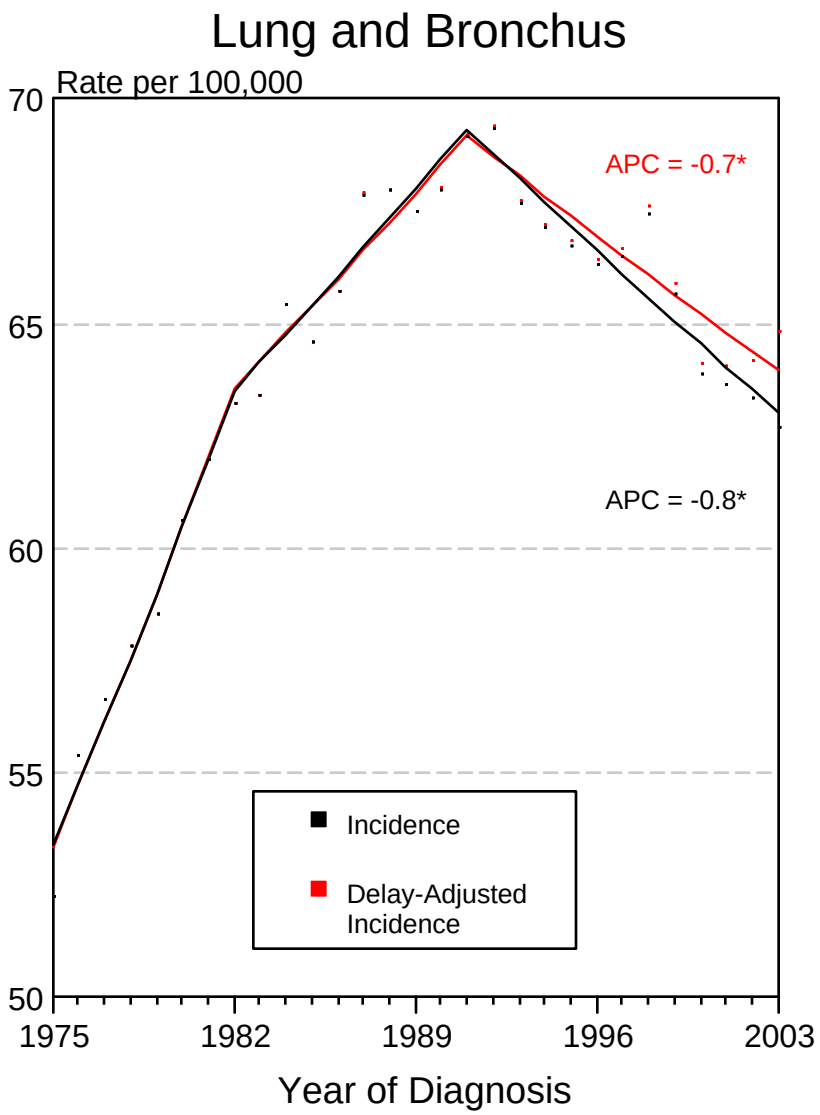
SEER Incidence and Delay Adjusted Incidence Rates+
All Cancer Sites, By Sex

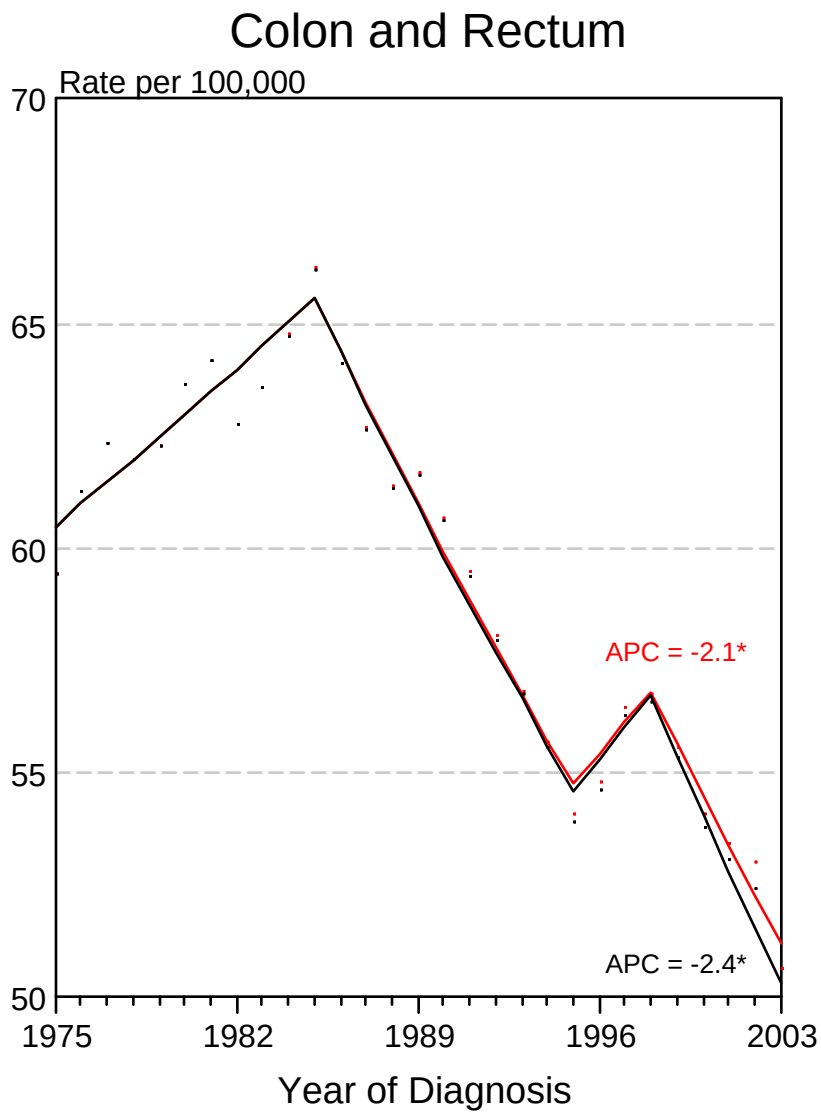


+ Source: SEER 9 areas. Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).
Regression lines and the APCs are calculated using the Joinpoint Regression Program Version 3.1, April 2006, National Cancer Institute.
The APC is the Annual Percent Change for the regression 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 Incidence and Delay Adjusted Incidence Rates+
Both Sexes

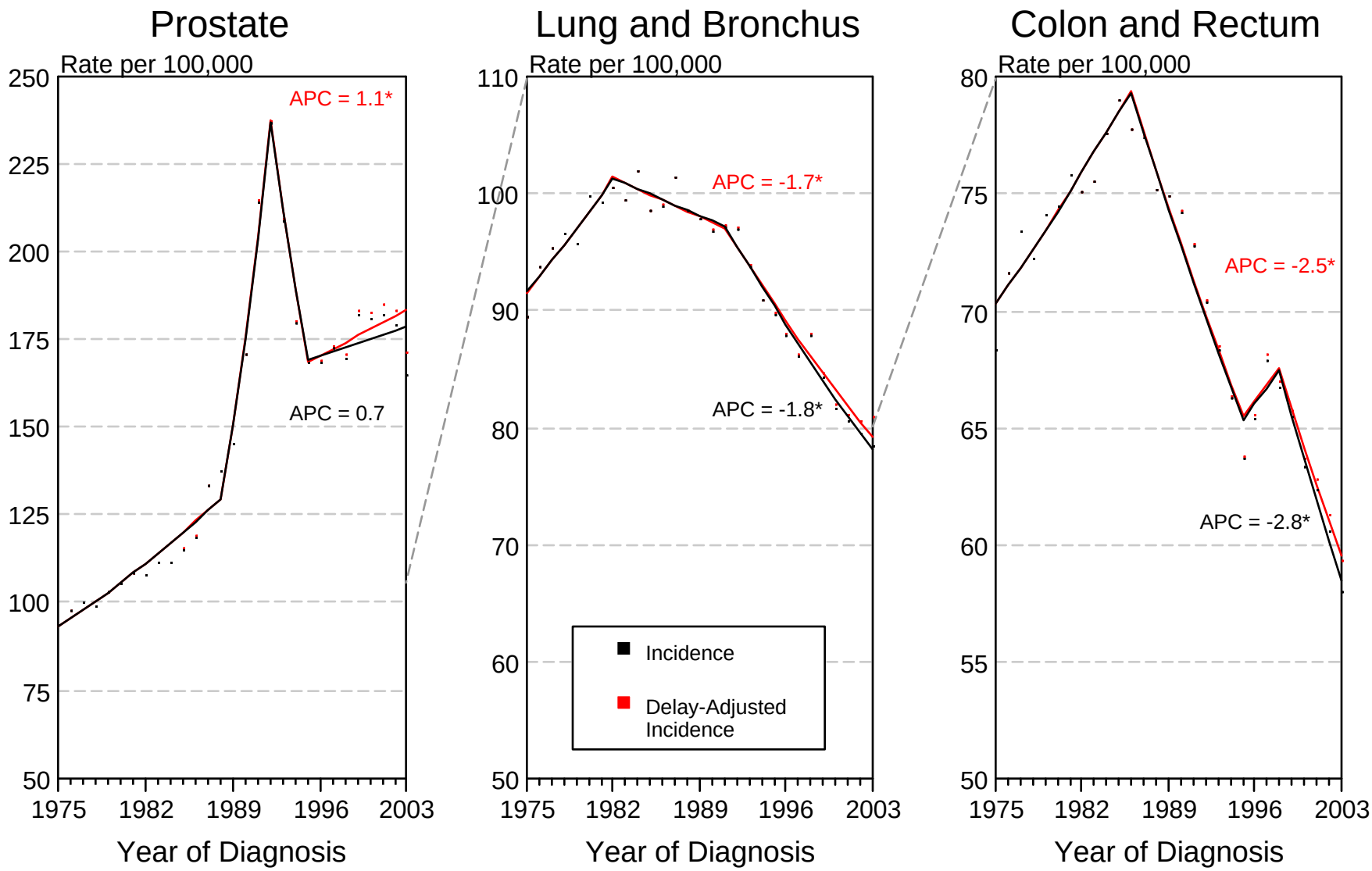




+ Source: SEER 9 areas. Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).
Regression lines and the APCs are calculated using the Joinpoint Regression Program Version 3.1, April 2006, National Cancer Institute.
The APC is the Annual Percent Change for the regression line segments. The APC shown on the graph is for the most recent trend.

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

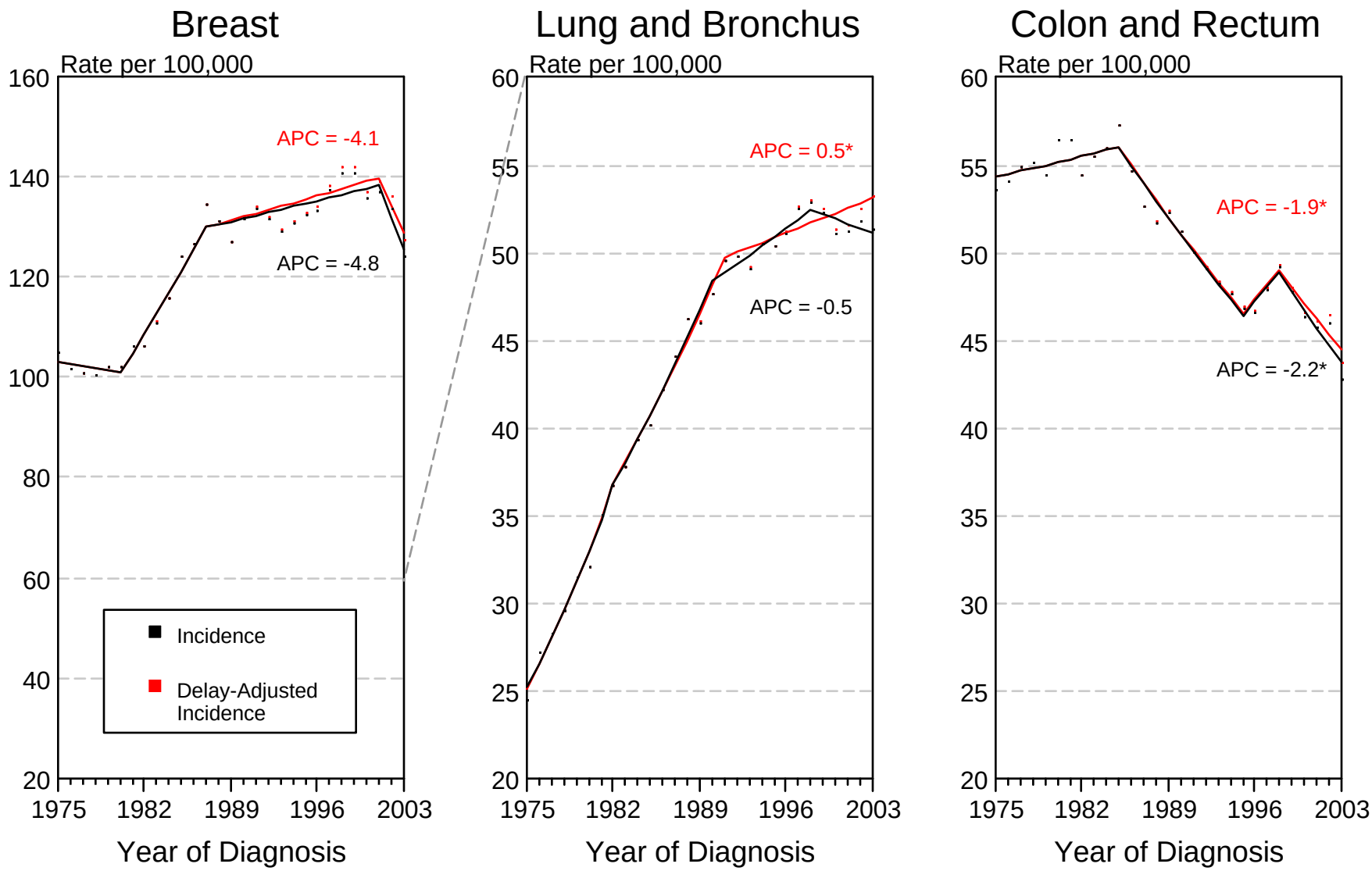
SEER Incidence and Delay Adjusted Incidence Rates+
Males



+ Source: SEER 9 areas. Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).
Regression lines and the APCs are calculated using the Joinpoint Regression Program Version 3.1, April 2006, 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 ($p < 0.05$).

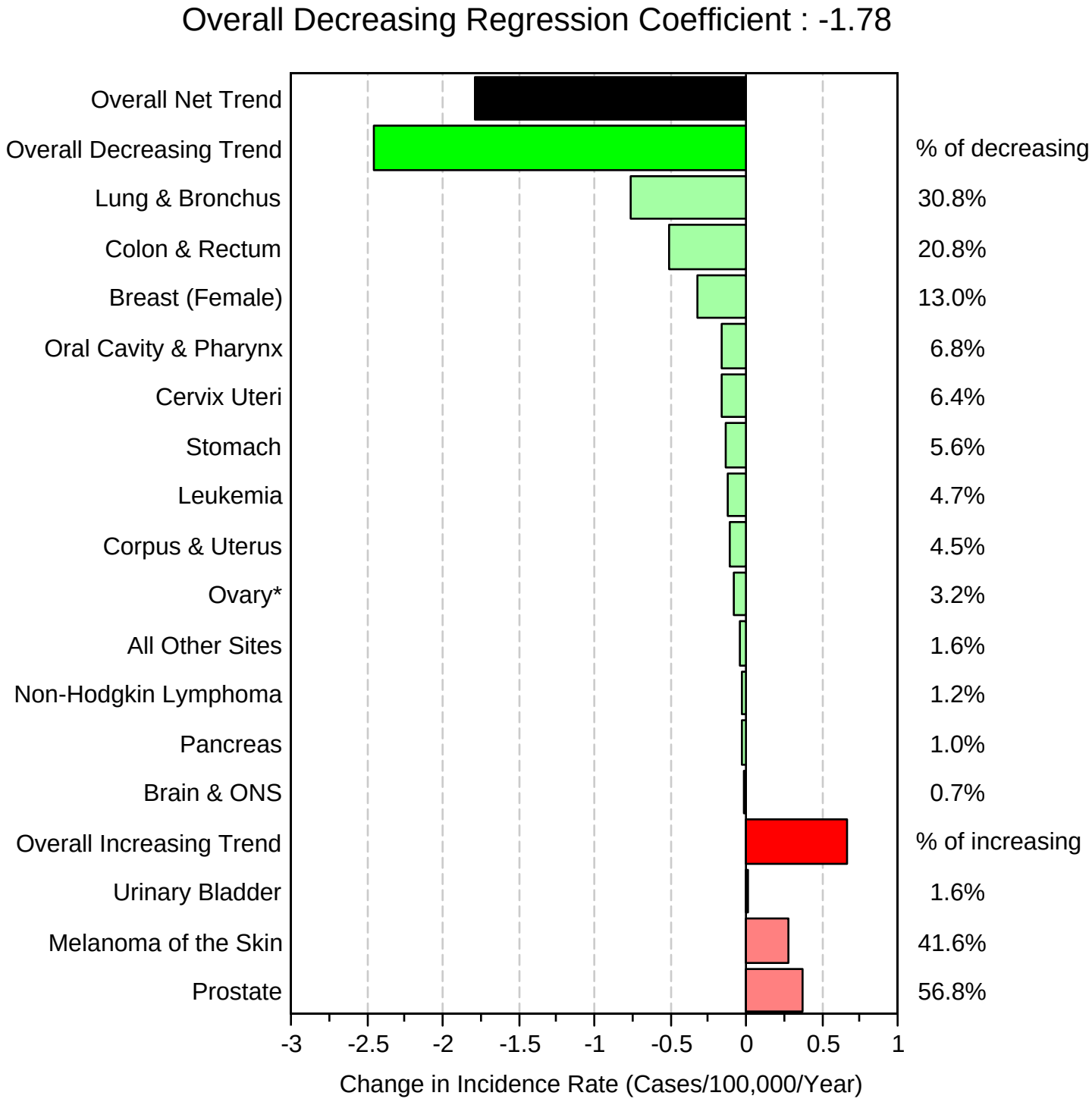
SEER Incidence and Delay Adjusted Incidence Rates+
Females



+ Source: SEER 9 areas. Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).
Regression lines and the APCs are calculated using the Joinpoint Regression Program Version 3.1, April 2006, 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.

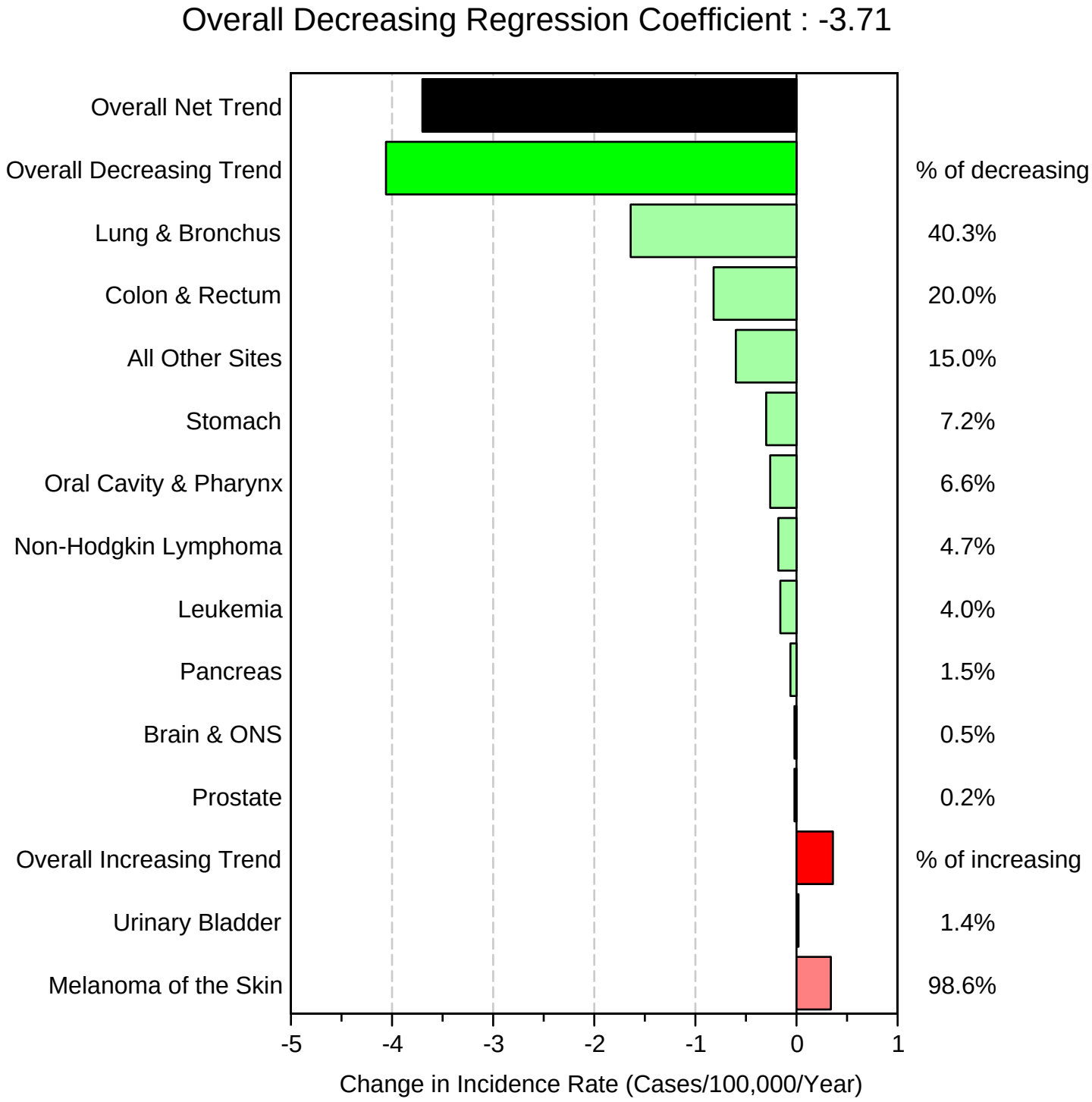
* The APC is significantly different from zero ($p < 0.05$).

Partition of Trend in Incidence Rates for the Time Period 1994-2003 All Races, Both Sexes



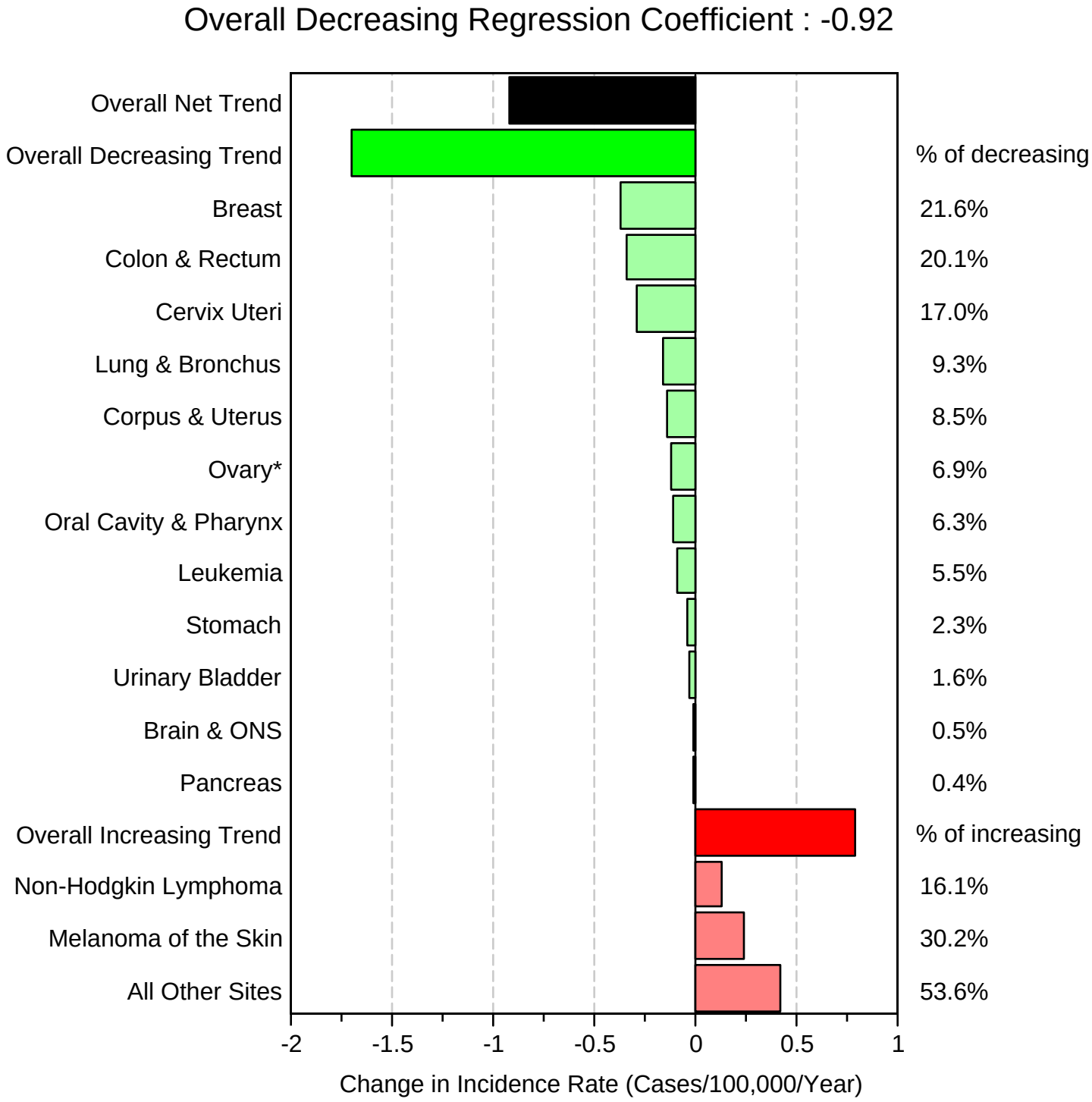
Source: SEER 13 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia).
Percents may not add to 100 due to rounding.
* Ovary excludes borderline cases or histologies 8442, 8451, 8462, 8472,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

Partition of Trend in Incidence Rates for the Time Period 1994-2003 All Races, Males



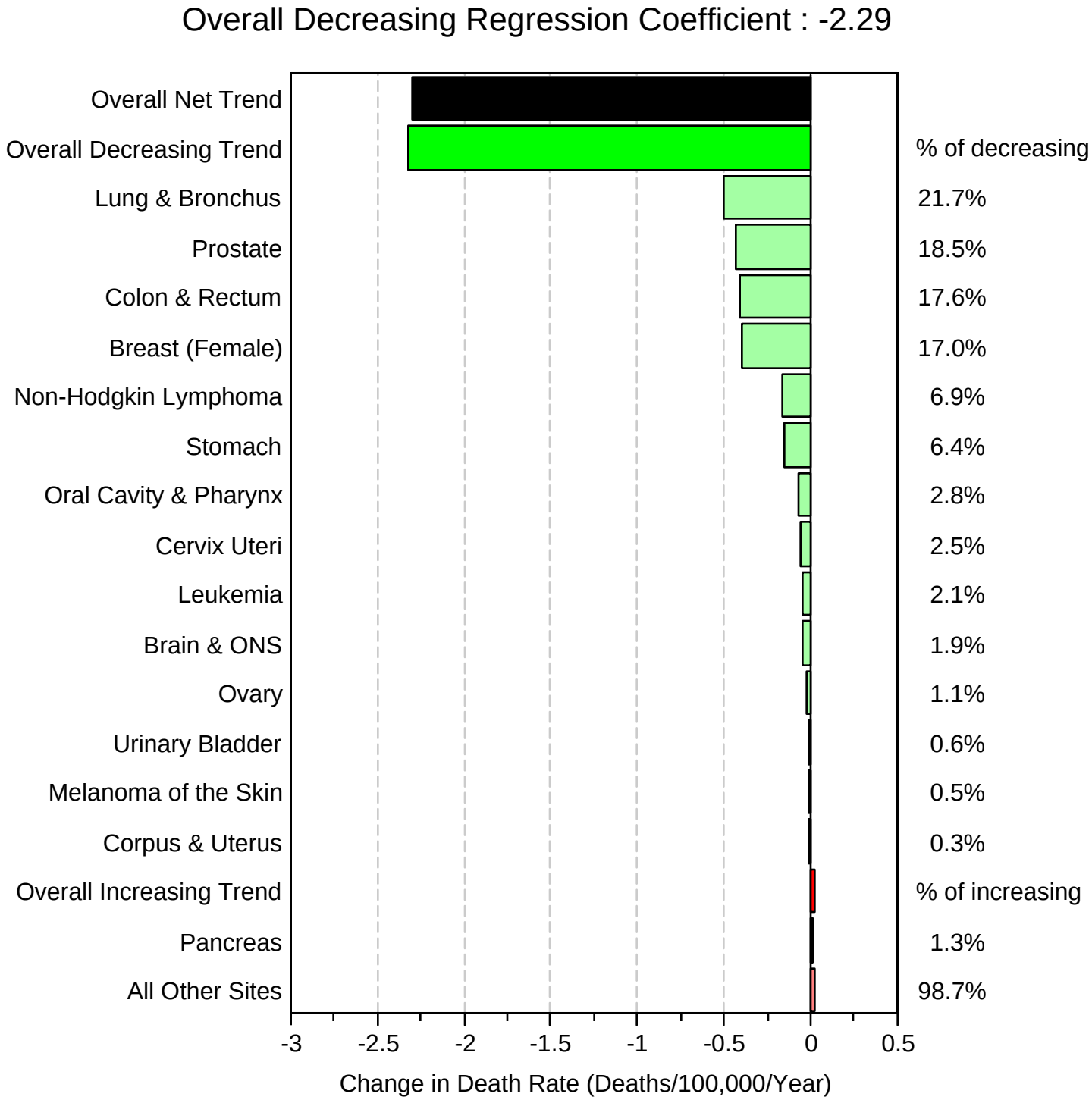
Source: SEER 13 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia).
Percents may not add to 100 due to rounding.

Partition of Trend in Incidence Rates for the Time Period 1994-2003 All Races, Females



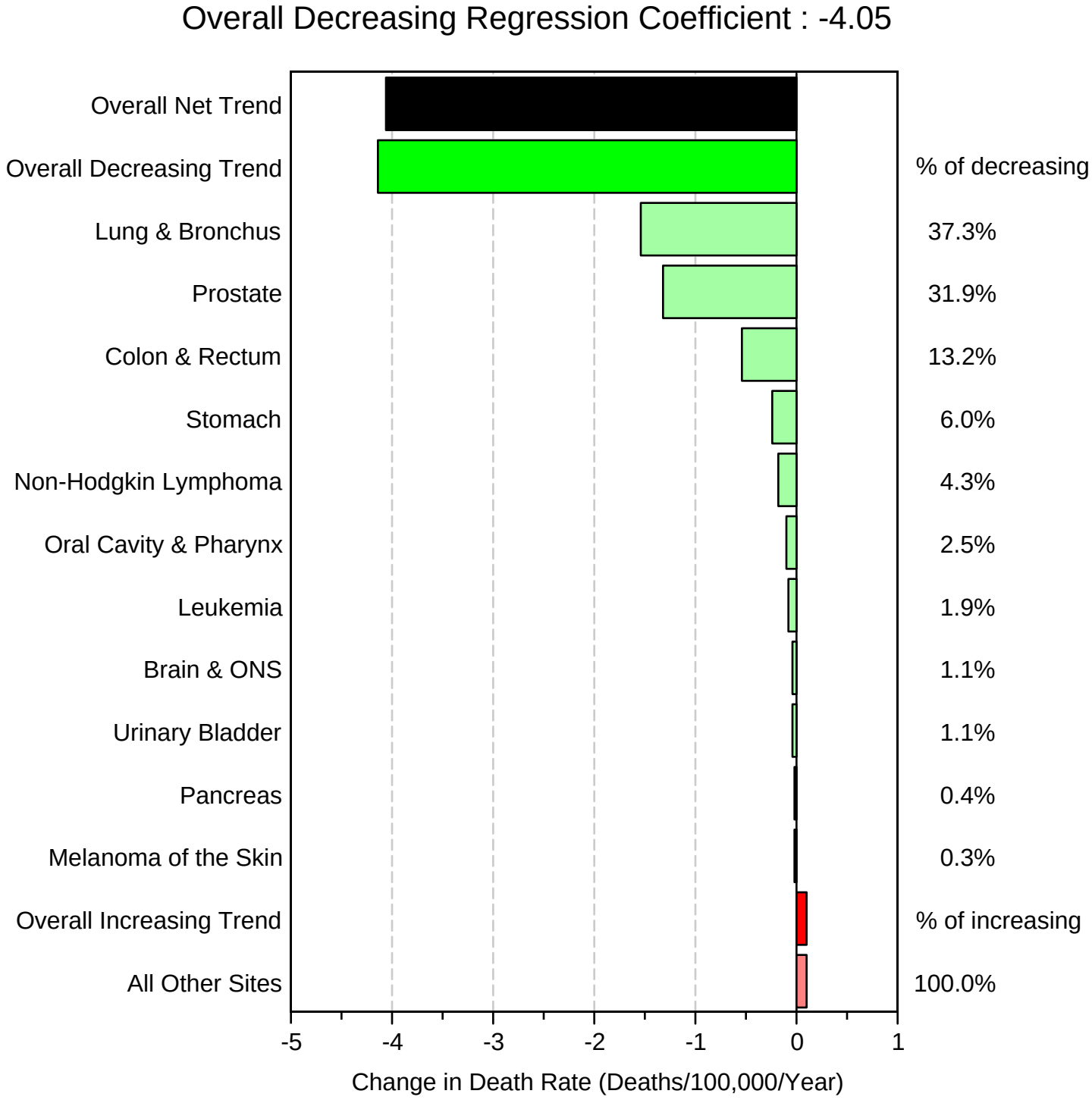
Source: SEER 13 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia).
Percents may not add to 100 due to rounding.
* Ovary excludes borderline cases or histologies 8442, 8451, 8462, 8472,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

Partition of Trend in Death Rates for the Time Period 1994-2003 All Races, Both Sexes



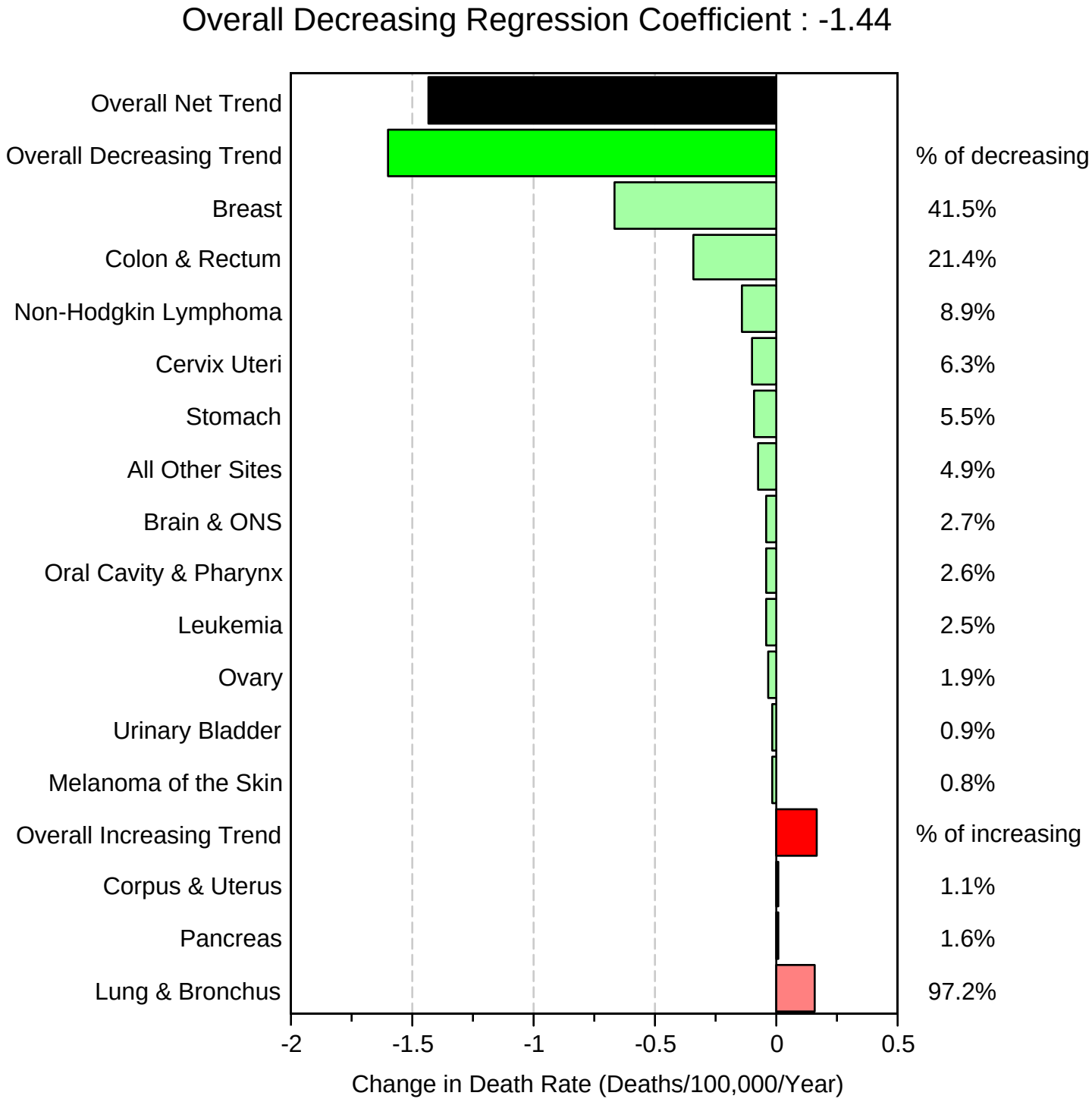
Source: NCHS public-use file for the total US.
Percents may not add to 100 due to rounding.

Partition of Trend in Death Rates for the Time Period 1994-2003 All Races, Males



Source: NCHS public-use file for the total US.
Percents may not add to 100 due to rounding.

Partition of Trend in Death Rates for the Time Period 1994-2003 All Races, Females



Source: NCHS public-use file for the total US.
Percents may not add to 100 due to rounding.