

Cancer Incidence and Mortality in New Jersey 2001 - 2005

Prepared by:

Xiaoling Niu, MS
Stasia S. Burger, MS, CTR
Karen Pawlish, MPH, ScD
Susan Van Loon, RN, CTR
Betsy A. Kohler, MPH, CTR

Cancer Epidemiology Services
Public Health Services Branch
New Jersey Department of Health and Senior Services

Eddy A. Bresnitz, MD, MS
Deputy Commissioner/State Epidemiologist
New Jersey Department of Health and Senior Services

Heather Howard
Commissioner
New Jersey Department of Health and Senior Services

Jon S. Corzine
Governor

Cancer Epidemiology Services
New Jersey Department of Health and Senior Services
PO Box 369
Trenton, NJ 08625-0369
(609) 588-3500
<http://nj.gov/health/ces/index.shtml>

February 2008

ACKNOWLEDGMENTS

The following staff of the New Jersey State Cancer Registry and the Cancer Surveillance Program of the Cancer Epidemiology Services were involved in the collection, quality assurance and preparation of the data on incident cases of cancer in New Jersey:

Pamela Agovino, MPH	Joan Kay, CTR
Pamela Beasley	Mireille Lemieux
Tara Blando, MPH	Thuy Lam, MPH
Donna Brown-Horn, CTR	Henry Lewis, MPH
Emiliano Cornago, CTR	Helen Martin, CTR
Kathleen Diszler, RN, CTR	Ilsia Martin, MS
Thomas English, CTR	Kevin Masterson, CTR
Lorraine Fernbach, CTR	Carl C. Monetti
Ruthann Filipowicz	John Murphy, CTR
Raj Gona, MPH, MA	Lisa Paddock, MPH
Maria Halama, MD, CTR	Maithili Patnaik, CTR
Essam Hanani, MD, CTR	Theresa Pavlovcak, CTR
Denise Hansen	Barbara Pingitor
Marilyn Hansen, CTR	Gladys Pyatt-Dickson, CTR
Kevin Henry, PhD	Karen Robinson-Fraser, CTR
Joan Hess, RN, CTR	Marcelina Rosario
Margaret Hodnicki, RN, CTR	Antonio Savillo, MD, CTR
Yvette Humphries	Suzanne Schwartz, MS, CTR
Nicole Jackson	Felicia Stewart
Jamal Johnson, CTR	Celia Troisi, CTR
Linda Johnson, CTR	Helen Weiss, RN, CTR
Catherine Karnicky, CTR	Michael Wellins
Harrine Katz, CTR	Homer Wilcox III, MS

We also acknowledge New Jersey hospitals, laboratories, physicians, dentists, and the states of Delaware, Florida, Maryland, New York, North Carolina, and Pennsylvania who reported cancer cases to the New Jersey State Cancer Registry.

Cancer Epidemiology Services, including the New Jersey State Cancer Registry, receives support from the Surveillance, Epidemiology, and End Results Program of the National Cancer Institute under contract HHSN261200544005C ADB No. N01-PC-54405, the National Program of Cancer Registries, Centers for Disease Control and Prevention under cooperative agreement 1 U58/DP000808, and the State of New Jersey.

TABLE OF CONTENTS

Introduction.....	1
Summary.....	2
Technical Notes.....	4
New Jersey State Cancer Registry.....	4
Data Sources and Specifications.....	6
Data Presentation.....	9
References.....	11

TABLES

Table 1.	Age-adjusted Incidence Rates, Males (all races combined).....	14
Table 2.	Age-adjusted Incidence Rates, Females (all races combined).....	16
Table 3.	Age-adjusted Incidence Rates, White Males.....	18
Table 4.	Age-adjusted Incidence Rates, White Females.....	20
Table 5.	Age-adjusted Incidence Rates, Black Males.....	22
Table 6.	Age-adjusted Incidence Rates, Black Females.....	24
Table 7.	Age-adjusted Incidence Rates, Hispanic Males and Females (combined years)...	26
Table 8.	Comparative Incidence Rates, New Jersey and U.S., 2000-2004: Males.....	28
Table 9.	Comparative Incidence Rates, New Jersey and U.S., 2000-2004: Females.....	28
Table 10.	Age-adjusted Mortality Rates, Males (all races combined).....	30
Table 11.	Age-adjusted Mortality Rates, Females (all races combined).....	32
Table 12.	Age-adjusted Mortality Rates, White Males.....	34
Table 13.	Age-adjusted Mortality Rates, White Females.....	36
Table 14.	Age-adjusted Mortality Rates, Black Males.....	38
Table 15.	Age-adjusted Mortality Rates, Black Females.....	40
Table 16.	Age-adjusted Mortality Rates, Hispanic Males and Females(combined years)...	42
Table 17.	Comparative Mortality Rates, New Jersey and U.S., 2000-2004: Males.....	44
Table 18.	Comparative Mortality Rates, New Jersey and U.S., 2000-2004: Females.....	44
Table 19.	Population Denominators.....	45
Table 20.	Age Distribution of Cancer Incidence.....	47
Table 21.	Median Age at Cancer Diagnosis.....	48

INTRODUCTION

This report presents statewide, age-adjusted incidence rates and counts for all cancers diagnosed among New Jersey residents during the period 2001-2005, age-adjusted mortality rates and counts for the period 2001-2004 and comparisons of state and national rates for 2000-2004. The New Jersey cancer incidence data for 2005 are considered preliminary. U.S. cancer incidence data and cancer mortality data for 2005 are not yet available.

The primary goal of this report is to provide 2001-2005 cancer data to health planners, researchers and the public. Data are provided statewide for six population subgroups: white men, white women, black men, black women, Hispanic men and Hispanic women. Data are also provided by gender for all races combined.

For each year, the age-adjusted incidence and mortality rates per 100,000 population are shown for 69 categories of cancer and for all sites combined. For the incidence counts and rates, *in situ* cancers are not included except for bladder cancer *in situ* cases, which are included with invasive urinary bladder, urinary system and all sites. Breast cancer *in situ* cases for women are shown but not included in the totals for all sites combined. Basal and squamous cell skin cancers are not collected and therefore not included in the data tables. These conventions are standard practice for publication of cancer rates in the United States.

Additional New Jersey cancer incidence, mortality, survival, and prevalence data are available from the Cancer Epidemiology Services office or on our website, <http://nj.gov/health/ces/index.shtml>, including:

- *Area Socioeconomic Variations in Cancer Incidence and Stage at Diagnosis in New Jersey, 1996-2002;*
- *Cancer Survival in New Jersey 1979-1999;*
- *Cancer Prevalence in New Jersey on January 1, 2003;*
- *Cancer Incidence Rates in New Jersey's Ten Most Populated Municipalities 1998-2002; and*
- *Trends in Cancer Incidence and Mortality in New Jersey 1979-2002;*

Our interactive cancer data mapping application provides incidence and mortality counts and rates statewide and at the county level by year, age, sex, race, and ethnicity for the years 2001-2005 at <http://www.cancer-rates.info/nj/>. Other New Jersey and U.S. cancer data can be found on the following websites:

- Cancer Control Planet <http://cancercontrolplanet.cancer.gov/>
- North American Association of Central Cancer Registries' *Cancer in North America 2000--2004* <http://www.naaccr.org/cancerinnorthamerica>
- Surveillance, Epidemiology and End Results Program (SEER) Cancer Statistics <http://surveillance.cancer.gov/statistics/>

SUMMARY

NEW JERSEY CANCER INCIDENCE AND MORTALITY DATA, 2001-2005

A total of 45,052 cases of invasive cancer diagnosed in 2005 among New Jersey residents were reported to the New Jersey State Cancer Registry (NJSCR), compared to 44,985 reported cases diagnosed in 2004. During the period 2001-2005, a total of 230,814 cases of invasive cancer were diagnosed among New Jersey residents, 51 percent among men and 49 percent among women.

The top primary cancers with the highest age-adjusted incidence rates in 2001-2005 in New Jersey were prostate, lung, colon and rectum, urinary bladder, non-Hodgkin lymphoma, and melanoma of the skin for men and breast, lung, colon and rectum, uterine (corpus and uterus, NOS), non-Hodgkin lymphoma, thyroid, and melanoma of the skin for women.

In New Jersey, overall age-adjusted total cancer incidence rates declined from 2001 to 2005. New Jersey black men continued to have the highest cancer incidence rates, and black women continued to have the lowest cancer incidence rates for all sites combined. Lower New Jersey prostate cancer incidence rates since 2003 continued for reasons currently unknown. Incidence rates for thyroid cancer continued to increase statewide between 2001 and 2004 and stabilized in 2005, especially for white women. New Jersey breast cancer incidence rates among women declined slightly during this period, similar to U.S. trends. New Jersey Hispanics continued to have lower incidence rates for all cancers combined and for many of the most common types of cancer in the general population including lung, colorectal, breast, bladder, and melanoma of the skin. Hispanics also continued to have higher incidence rates for cervical, stomach and liver cancers compared with the general population.

Comparing New Jersey and U.S. age-adjusted incidence rates using data published in *Cancer in North America* by the North American Association of Central Cancer Registries (NAACCR) for 2000-2004, New Jersey incidence rates for all cancers combined continued to be higher than U.S. rates. New Jersey had higher incidence rates compared to U.S. for the most common cancers with some exceptions. New Jersey lung cancer incidence rates were lower than U.S. rates among white, black and all men combined.

Among New Jersey residents, a total of 17,206 deaths occurred in 2004 for which cancer was designated on the death certificate as the underlying cause, compared to 17,957 reported cancer deaths in 2003. During the period 2001-2004, a total of 71,154 cancer deaths occurred among New Jersey residents, 49 percent among men and 51 percent among women. The top cancers with the highest age-adjusted mortality rates for 2001-2004 in New Jersey were lung, prostate, and colon and rectum for men; and lung, breast, and colon and rectum for women. Overall age-adjusted cancer mortality rates in New Jersey continued to decline, reflecting the recent trends seen in U. S. mortality data.

New Jersey cancer mortality rates for men continued to be higher than for women. Cancer mortality rates for black men continued to be higher than for white men. Among black women, cancer mortality rates continued to be slightly higher compared to white women. Overall cancer

mortality rates for New Jersey Hispanic men and women were lower than for all men and women except slightly higher mortality rates for stomach and liver cancer. Mortality rates were generally higher for Hispanic men compared with Hispanic women, which is consistent with the pattern seen among all races/ethnicities combined.

For the period 2000-2004, the cancer mortality rates for all cancer sites combined for New Jersey men were lower than the corresponding rates for U.S. men. Also, lung cancer and prostate cancer mortality rates among men for all races combined, whites, and blacks, were lower for New Jersey than the U.S. Among women, the cancer mortality rates for all sites combined, breast and colorectal cancers were higher for New Jersey than the U.S. during this period. Lung cancer mortality rates for New Jersey women were similar to the corresponding rates for the U.S.

TECHNICAL NOTES

New Jersey State Cancer Registry (NJSCR)

NJSCR Overview

The objectives of the New Jersey State Cancer Registry (NJSCR) are to:

- * monitor cancer trends in New Jersey;
- * promote scientific research;
- * respond to New Jersey residents about cancer concerns;
- * educate the public;
- * provide information for planning and evaluating cancer prevention and control activities; and
- * share and compare cancer data with other states and the nation.

The New Jersey State Cancer Registry is a population-based cancer incidence registry that serves the entire state of New Jersey, which has a current estimated population of over 8.7 million people. The NJSCR was established by legislation (NJSA 26:2-104 et. seq.) and includes all cases of cancer diagnosed in New Jersey residents since October 1, 1978. New Jersey regulations (NJAC 8:57A) require the reporting of all newly diagnosed cancer cases to the NJSCR within three months of hospital discharge or six months of diagnosis, whichever is sooner. Reports are filed by hospitals, diagnosing physicians, dentists, and independent clinical laboratories. Every hospital in New Jersey reports cancer cases electronically. In addition, reporting agreements are maintained with New York, Pennsylvania, Delaware, Florida, Maryland, and North Carolina so that New Jersey residents diagnosed with cancer outside the state can be identified. Legislation passed in 1996 strengthened the Registry by: requiring electronic reporting; requiring abstracting by certified tumor registrars; and establishing penalties for late or incomplete reporting.

All primary invasive and *in situ* neoplasms are reportable to the NJSCR, except cervical cancer *in situ* diagnosed after 1994 and certain carcinomas of the skin. In October 2002, President Bush signed Public Law 107-260, the Benign Brain Tumor Cancer Registries Act which requires the reporting of nonmalignant brain tumors beginning with cases diagnosed on or after January 1, 2004. The information collected by the NJSCR includes basic patient identifiers, demographic characteristics of the patient, medical information on each cancer diagnosis (such as the anatomic site, histologic type and stage of disease), first course of treatment and vital status (alive or deceased) determined annually. For deceased cases, the underlying cause of death is also included. The primary site, behavior, grade, and histology of each cancer are coded according to the *International Classification of Diseases for Oncology (ICD-O)*, 3rd edition for cancers diagnosed after 2000. The NJSCR follows the data standards promulgated by the North American Association of Central Cancer Registries (NAACCR), including the use of the Surveillance, Epidemiology, and End Results (SEER) multiple primary rules. An individual may develop more than one cancer. Following the SEER multiple primary rules, patients could therefore be counted more than once if they were diagnosed with two or more primary cancers.

The NJSCR is a member of the North American Association of Central Cancer Registries (NAACCR), an organization that sets standards for cancer registries, facilitates data exchange, and publishes cancer data. The NJSCR has been a participant of the National Program of Cancer Registries (NPCR) sponsored by the Centers for Disease Control and Prevention (CDC) since it began in 1994 and is a National Cancer Institute (NCI) SEER Registry.

NJSCR Data Quality

NAACCR has awarded the Gold Standard, the highest standard possible, to the NJSCR for the quality of the data for each year 1995 through 2004. The NJSCR has consistently achieved the highest level of certification for its data since the inception of this award. The criteria used to judge the quality of the data are completeness of cancer case ascertainment, completeness of certain information on the cancer cases, percent of death certificate only cases, percent of duplicate cases, passing an editing program, and timeliness.

Completeness of reporting to the NJSCR was estimated by comparing New Jersey and U.S. incidence to mortality ratios for whites and blacks, standardized for age, gender, and cancer site. The data used to generate these ratios were the cancer incidence rates for all SEER registries combined. Using these standard formulas, it is possible for the estimation of completeness to be greater than 100 percent. For 2005 data, the completeness of case reporting was estimated as 107.4 percent at the time this report was prepared.

While our estimates of completeness are very high, some cases of cancer among New Jersey residents who were diagnosed and/or treated in out-of-state facilities may not yet have been reported to the NJSCR by other state registries. This should be considered in interpreting the data for the more recent years. However, these relatively few cases will not significantly affect the cancer rates, or alter the overall trends presented in this report.

Other 2005 cancer incidence data quality indicators measured as follows:

- percent death-certificate-only cases - 1.4 percent;
- percent of unresolved duplicates - < 0.1 percent;
- percent of cases with unknown race - 1.7 percent;
- percent of cases with unknown county - 0.02 percent;
- number of cases with unknown age - 14 and
- number of cases with unknown gender - 1.

It should also be noted that there may be minor differences in the New Jersey incidence and mortality rates in this report compared to previous reports, due to delayed reporting, ongoing editing and reviewing of the data. The 2004 incidence rates for total cancer in this report increased by 1 percent for both men and women. The 2005 incidence rates are considered preliminary since case counts are expected to change by the time all data are complete.

The NJSCR continues to work toward improving the quality and number of its reporting sources. Over the past few years, significant improvements have been realized in this regard. For example, some of these improvements have resulted in better reporting of skin cancers such as

melanoma. One of the most significant improvements has been the implementation of electronic pathology laboratory reporting (E-path) from a national pathology laboratory and several hospital-based laboratories. The ultimate goal is to enable E-path laboratory reporting from every laboratory that serves New Jersey. E-path reporting has improved the timeliness and completeness of cancer reporting, especially for non-hospitalized cases.

Data Sources and Specifications

Incidence Data

New Jersey cancer incidence data were taken from the December 2007 analytic file of the New Jersey State Cancer Registry. All the counts and rates were tabulated using SEER*Stat Version 6.3 (<http://www.seer.cancer.gov/seerstat/>), a statistical software package distributed by the National Cancer Institute. U.S. cancer incidence data were obtained from NAACCR's publication, *Cancer in North America 2000-2004* (<http://www.naaccr.org/cancerinnorthamerica>).

This report also presents incidence rates and counts for two rare cancers, Kaposi sarcoma (KS) and mesothelioma. KS is a cancer of connective tissue such as cartilage, bone, fat, muscle, and blood vessels. Since the vast majority of KS cases have developed in association with human immunodeficiency virus (HIV) infection and acquired immunodeficiency syndrome (AIDS), HIV/AIDS is listed as the underlying cause of death. Therefore, KS mortality rates were not included in this report. Mesothelioma is a cancer that generally occurs in the chest, abdominal region, and areas surrounding the heart. It is typically associated with exposure to asbestos.

Beginning with the year 2001, the coding scheme for incident cancer cases changed from the *International Classification of Diseases for Oncology, 2nd edition (ICD-O-2)* to the *3rd edition (ICD-O-3)*. When cases in 1979-2000 are converted from ICD-O-2 to ICD-O-3, some cancers (mainly ovarian cancer) yield an ICD-O-3 borderline behavior. Also, when 2001+ cases are converted from ICD-O-3 to ICD-O-2, some cancers yield an ICD-O-2 borderline behavior. We used SEER behavior recode for analysis to select invasive cancers. For the definition, visit SEER Behavior Recode for Analysis on SEER web site: <http://www.seer.cancer.gov/behavrecode/>. By this definition, invasive cancer means the case had a behavior of malignant in both ICD-O-2 and ICD-O-3.

Exclusions

For this report, cases where the county of residence is unknown were excluded from the New Jersey rates and counts, in accordance with the standard procedures used by SEER, and has been determined to have little effect on the incidence rates. For example, the total number of cases with unknown county for 2001-2005 is 138, representing 0.06% of the total case population. The small numbers of cases with unknown age, gender or race were also excluded from the analyses. Since the number of records so affected was very small, the rates were virtually unaffected by the non-inclusion of these records. Race-specific information is not shown separately for persons who are races other than white or black (including unknown race), but these persons are included in the "all races" data. Only invasive cancers were included in the incidence data, except *in situ* bladder cancers were included. Invasive means that a case had

malignant behavior in both ICD-O-2 and ICD-O-3. Some cancers were excluded from the analysis by this definition. 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. Starting with diagnosis year 2001, pilocytic astrocytoma was reclassified as malignant and was not excluded.

Mortality Data

New Jersey cancer mortality data in 2001-2004 were obtained through the NCI's Surveillance, Epidemiology, and End Results (SEER) Program from the National Center for Health Statistics (NCHS) and tabulated using SEER*Stat. At the time of this report, year 2005 mortality data were not yet available.

Cancer sites in mortality data were grouped according to the revised SEER Cause of Death Recode 1969+ (9/17/2004). The detailed information can be found on SEER web site (<http://seer.cancer.gov/codrecode/>). U.S. cancer mortality data were obtained from NAACCR's publication, *Cancer in North America 2000-2004* (<http://www.naaccr.org/cancerinnorthamerica>).

Population Data

The 2000-2005 New Jersey population estimates for this report were Bridged-race Vintage 2006 postcensal population estimates for July 1, 2000 - July 1, 2006, by county, single-year of age, Hispanic origin, and sex from the National Center for Health Statistics website (<http://www.cdc.gov/nchs/about/major/dvs/popbridge/popbridge.htm>).

In the 2000 Census, individuals were given the opportunity to categorize themselves as more than one race, as specified in the 1997 Office of Management and Budget (OMB) standards (http://www.whitehouse.gov/omb/fedreg/directive_15.html) for the collection of data on race and ethnicity. For the first time, individuals could "mark [X] one or more races to indicate what this person considers himself/herself to be." The population estimates incorporate new bridged single-race estimates for July 1, 2000 to July 1, 2005 that are derived from the original multiple race categories in the 2000 Census. These estimates result from bridging the 31 race categories used in Census 2000 to the four single race categories specified under the 1977 OMB standards. Race bridging is a method used to make multiple-race and single-race data collection systems sufficiently comparable to permit estimation and analysis of race-specific statistics. The bridged single-race estimates and a description of the methodology used to develop them appear on the National Center for Health Statistics website (<http://www.cdc.gov/nchs/about/major/dvs/popbridge/popbridge.htm>).

Description of Algorithm for Designating Hispanic Ethnicity

In 2003, the NJSCR adopted the NAACCR Hispanic Identification Algorithm (NHIA) to assign Hispanic ethnicity to cases. This method uses data on birthplace, marital status, gender, race and surname match to the 1990 Hispanic surname list to augment the number of cases and decedents reported as Hispanic in the registry during the years 1994-2005.

In 2005, NAACCR made several revisions to NHIA, now NHIA version 2. The most significant change in NHIA version 2 was the addition of an option for registries to not apply the algorithm to counties in which the Hispanic population is less than five percent. The New Jersey State Cancer Registry determined that this option did not enhance the accuracy of the NHIA and therefore opted not to apply this option. Thus, using NHIA version 2 will not affect the New Jersey cancer rates among Hispanics.

Prior to the development of the NHIA, the NJSCR used a method to assign Hispanic ethnicity to cases that was adapted from algorithms developed by the Illinois State Cancer Registry (ISCR) and by the NJSCR. NHIA is closely related to these former algorithms, so there is high agreement between the cases previously determined to be Hispanic and those currently determined to be Hispanic.

As a result of using the NHIA, the NJSCR was able to increase the number of Hispanic cases by 23 percent for this time period, thereby correcting an under-identification of Hispanics. For a more complete description of the NHIA version 2 and a copy of the NHIA SAS program visit the following link at the NAACCR website: <http://www.naacr.org/datastandards>.

Caution should be used when comparing rates among Hispanics with the rates in the different race groups (e.g. black, white) because ethnicity and race are not mutually exclusive. In New Jersey, the majority (89 percent) of Hispanics identify themselves as white. The Hispanics who identify themselves as white or black are included in the white or black race category as well as the all races category.

Caution should also be used when comparing Hispanic mortality data to Hispanic incidence data in this report. Hispanic mortality data for this report were obtained from NCI's SEER Program and did not have the NHIA algorithm applied to them. In our detailed report, *Cancer Among Hispanics in New Jersey, 1990-1996*, our previous Hispanic algorithm was applied to mortality data from the New Jersey Center for Health Statistics, resulting in an increased mortality rate of 13 percent for men and 23 percent for women.

Data Presentation

Suppression of Rates and Counts under Five

It should also be noted that the annual rates for relatively uncommon cancers tend to fluctuate substantially from year to year because of small numbers of cases, particularly in minority populations. Rates generated from small numbers should be interpreted with caution. For this report, rates were suppressed where counts were less than 5 as a way to ensure statistical reliability and patient confidentiality.

Calculation of Rates

All the counts and rates were tabulated using SEER*Stat Version 6.3 (<http://www.seer.cancer.gov/seerstat/>), a statistical software package distributed by the National Cancer Institute. U.S. cancer incidence and mortality data were obtained from NAACCR's publication, *Cancer in North America 2000-2004* (<http://www.naaccr.org/cancerinnorthamerica>).

Age-adjusted Rates and the Year 2000 Standard

The U.S. Department of Health and Human Services requires that health data be age-adjusted using the U.S. Year 2000 population as a standard, beginning with the 1999 reporting year. Age-adjustment to the year 2000 population as the standard has been used in our last five annual reports. Prior to the release of 1999 data, various federal and state agencies calculated disease rates using different U.S. population standards, including the 1940 and 1970 standard populations. Our report *Cancer Incidence and Mortality in New Jersey, 1995-1999*, issued in September 2001, used the former 1970 population standard for all five years and also illustrated the effect on 1999 incidence rates of changing the population standard from 1970 to 2000.

Calculations using the 2000 standard population do not indicate a change in cancer incidence or occurrence—only a different representation of the rates of reported cancer. Using the 2000 population as the standard produces standardized cancer rates that appear to be about 20 percent higher than previously reported.

In this report, the 2000 U.S. Std. Population (19 age groups-Census P25-1130) was used for age-adjustment instead of the 2000 U.S. Std. Million (19 age groups). This has been standard practice for all NCI SEER reports with incidence or mortality data for 2002 or later. This new population standard was created for use with single year of age population data. Differences in the age-adjusted rates using the 2000 Std. Million and the new 2000 U.S. Std. Population are minimal. For further details, see SEER's website located at the following link http://seer.cancer.gov/stdpopulations/single_age.html.

Rate Calculation Formulas

A cancer incidence rate is defined as the number of new cases of cancer detected during a specified time period in a specified population. Cancer rates are most commonly expressed as cases per 100,000 population. Cancer occurs at different rates in different age groups, and population subgroups defined by gender and race have different age distributions. Therefore, before a valid comparison can be made between rates, it is necessary to standardize the rates to the age distribution of a standard population.

The first step in the age-standardization procedure is to determine the age-specific rates. For each age group for a given time interval (within each race-gender group, for the entire state), the following formula is applied:

$$r_a = \frac{n_a}{t \times P_a}$$

where

r_a = the age-specific rate for age group a,

n_a = the number of events (cancer diagnoses) in the age group during the time interval,

t = the length of the time interval (in years), and

P_a = average size of the population in the age group during the time interval (mid-year population or average of mid-year population sizes).

In order to determine the age-adjusted rate, a weighted average of the age-specific rates is calculated, using the age distribution of the standard population to derive the age-specific weighting factors (Rothman, 1986). This is the technique of direct standardization, which uses the following formula:

$$R = \frac{\sum_{a=1}^n r_a \times Std. P_a}{\sum_{a=1}^n Std. P_a}$$

where

R = the age-adjusted rate,

r_a = the age-specific rate for age group a, and

$Std.P_a$ = the size of the standard population in each age group a.

While age standardization facilitates the comparison of rates among different populations, there can be important age-specific differences in disease occurrence, which are not apparent in comparisons of the age-adjusted rates (Breslow and Day, 1987).

Analogous definitions and calculations apply for cancer mortality rates.

REFERENCES

Breslow NE and Day NE. Statistical Methods in Cancer Research. Volume II – The Design and Analysis of Cohort Studies. New York: Oxford University Press.1987.

Chiang CL. "Standard error of the age-adjusted death rate". In Vital Statistics Special Reports, Volume 47, Number 9. USDHEW, PHS, Washington, D.C. U.S. Government Printing Office, 1961.

Espey DK, Wu X, Swan J, et al. Annual Report to the Nation on the Status of Cancer, 1975-2004, Featuring Cancer in American Indians and Alaska Natives. Cancer 2007; 110:2119-52.

Fritz A., Percy C. Implementing ICD-O-3: Impact of the New Edition. SEER Program, National Cancer Institute. [URL. http://training.seer.cancer.gov/module_icdo3/downloadables/ICDO3%20abstract%20n%20article%20NEW%20PDF.pdf], accessed October 26, 2005]

Ingram DD, Parker JD, Schenker N et al. United States Census 2000 population with bridged race categories. National Center for Health Statistics. Vital Health Stat 2(135). 2003. [URL. http://www.cdc.gov/nchs/data/series/sr_02/sr02_135.pdf, accessed October 26, 2005]

Martin, RM. "Age standardization of death rates in New Jersey: Implications of a change in the standard population". Topics in Health Statistics. Center for Health Statistics. 2000;01-02.

National Center for Health Statistics. U.S. census population with bridged race categories, August 2007. [URL. <http://www.cdc.gov/nchs/about/major/dvs/popbridge/popbridge.htm>, accessed December 20, 2007]

North American Association of Central Cancer Registries. Registry Operation Guidelines-Hispanic Identification. Springfield, Illinois: U.S. [URL. <http://www.naaccr.org/datastandards>, accessed October 26, 2006]

Rothman K. *Modern Epidemiology*. U.S. Little, Brown, and Company. 1986.

Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov). Population estimates used in NCI's SEER*Stat software, January 3, 2007. [URL <http://seer.cancer.gov/popdata/methods.html>, accessed December 20, 2007]

Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov) SEER*Stat Database: Mortality - All COD, Public-Use With State, Total U.S. (1969-2004), National Cancer Institute, DCCPS, Surveillance Research Program, Cancer Statistics Branch, released April 2007. Underlying mortality data provided by NCHS (www.cdc.gov/nchs). [URL. <http://seer.cancer.gov/mortality/>, accessed December 10, 2007]

Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov)
SEER*Stat Database: Populations - Total U.S. (1969-2004), National Cancer Institute, DCCPS,
Surveillance Research Program, Cancer Statistics Branch, released January 2007. [URL.
<http://seer.cancer.gov/popdata/>, accessed January 16, 2007]

Surveillance Research Program, National Cancer Institute Seer*Stat software Version 6.3.6
[URL. <http://seer.cancer.gov/seerstat/>, accessed December 3, 2006]

The United States Census Bureau. "Major differences in subject-matter content between 1990
and 2000 Census questionnaires-race", October 2003. [URL.
<http://www.census.gov/population/www/cen2000/90vs00.html>, accessed October 26, 2005]

Weinstein R, Lee YS and Klotz J. *Cancer Among Hispanics in New Jersey 1990-1996*. New
Jersey Department of Health and Senior Services, June 2000. [URL.
<http://www.state.nj.us/health/cancer/hispanic/>, accessed October 26, 2005]

Wu XC, McLaughlin C, Lake A et al (eds). *Cancer in North America, 2000-2004 Volumes 1-4*.
North American Association of Central Cancer Registries, May 2007. [URL.
<http://www.naaccr.org/cancerinnorthamerica>, accessed December 10, 2007]

TABLES

Table 1. Age-adjusted Incidence Rates, Males All Races Combined

Cancer Site	Total Cases	Rates				
		2001	2002	2003	2004	2005 Prelim.
All Sites	117,730	652.5	642.2	590.6	571.9	564.3
Oral Cavity and Pharynx	2,941	14.7	14.8	14.2	14.3	13.9
Lip	111	0.8	1.0	0.4	0.4	0.4
Tongue	902	4.4	4.3	4.4	4.6	4.1
Salivary Gland	319	1.8	1.6	1.6	1.5	1.7
Floor of Mouth	188	1.0	1.0	0.9	0.7	0.8
Gum and Other Mouth	363	1.8	1.9	1.9	1.9	1.7
Nasopharynx	175	0.8	0.9	1.0	0.5	1.0
Tonsil	435	1.8	1.9	2.1	2.2	2.1
Oropharynx	122	0.3	0.6	0.4	0.9	0.7
Hypopharynx	264	1.6	1.1	1.2	1.5	1.1
Digestive System	23,357	127.7	124.3	119.5	118.0	116.2
Esophagus	1,676	8.5	8.0	8.5	9.4	8.2
Stomach	2,541	14.0	14.3	12.7	12.8	12.6
Small Intestine	488	2.3	2.3	2.3	2.7	2.6
Colon and Rectum	13,065	73.9	72.0	67.5	64.2	64.1
Colon excluding Rectum	9,015	51.6	50.2	47.2	44.1	45.1
Rectum and Rectosigmoid Junction	4,050	22.3	21.8	20.2	20.1	19.0
Anus, Anal Canal and Anorectum	221	1.0	1.3	1.2	0.9	1.1
Liver and Intrahepatic Bile Duct	1,913	9.9	8.9	9.4	9.6	10.0
Liver	1,779	9.0	8.3	8.7	9.1	9.2
Intrahepatic Bile Duct	134	0.9	0.6	0.7	0.5	0.8
Gallbladder	192	1.1	0.9	1.4	0.9	0.7
Pancreas	2,675	14.3	13.5	13.6	14.2	13.9
Respiratory System	17,206	95.2	93.4	90.0	82.7	85.7
Larynx	1,454	8.3	7.4	7.2	6.7	6.7
Lung and Bronchus	15,512	85.6	84.6	81.5	75.0	77.9
Bones and Joints	254	1.5	1.3	1.2	1.1	1.0
Soft Tissue (Including Heart)	768	4.1	3.8	3.9	3.7	3.9
Skin (Excluding Basal and Squamous)	5,441	25.8	29.1	26.4	29.4	26.7
Melanoma of the Skin	5,054	23.6	26.9	24.8	27.4	24.6

Rates are per 100,000 population and age-adjusted to the 2000 U.S. population standard.

Table 1 (continued). Age-adjusted Incidence Rates, Males All Races Combined

Cancer Site	Total Cases	Rates				
		2001	2002	2003	2004	2005 Prelim.
Breast	312	1.5	1.3	1.5	1.8	2.0
Male Genital System	37,464	221.7	223.1	180.8	164.7	164.2
Prostate	36,024	214.6	215.7	173.8	157.6	158.6
Testis	1,228	6.0	6.2	5.7	6.3	4.7
Penis	166	0.9	1.1	1.1	0.7	0.6
Urinary System	12,936	69.1	65.3	65.5	70.1	67.5
Urinary Bladder (Including in situ)	8,640	47.4	44.1	44.6	48.3	45.4
Kidney and Renal Pelvis	4,058	20.3	19.9	19.7	20.7	20.6
Ureter	169	1.1	0.8	0.7	0.8	1.1
Eye and Orbit	201	1.0	1.1	1.0	1.2	0.7
Brain and Other Nervous System	1,695	8.3	7.9	8.9	7.9	8.7
Brain	1,579	7.7	7.4	8.2	7.4	8.1
Endocrine System	1,426	5.9	6.8	6.7	7.1	7.4
Thyroid	1,230	4.7	5.9	5.9	6.4	6.4
Lymphomas	5,862	31.8	28.9	29.9	28.8	28.6
Hodgkin Lymphoma	769	3.9	3.3	4.1	3.4	3.7
Non-Hodgkin Lymphoma	5,093	27.9	25.5	25.8	25.3	25.0
Myelomas	1,438	7.7	8.0	6.6	7.8	7.2
Leukemias	3,348	18.8	17.1	17.3	17.6	15.4
Lymphocytic Leukemia	1,702	9.6	8.3	8.5	9.5	7.5
Acute Lymphocytic Leukemia	371	1.7	2.1	1.3	2.1	1.8
Chronic Lymphocytic Leukemia	1,196	7.1	5.7	6.8	6.7	5.0
Myeloid and Monocytic Leukemia	1,479	8.3	7.6	8.0	7.3	6.9
Acute Myeloid Leukemia	980	5.7	5.2	4.9	4.9	4.7
Acute Monocytic Leukemia	51	0.1	0.2	0.5	0.2	0.3
Chronic Myeloid Leukemia	400	2.1	2.1	2.4	1.8	1.8
Other Leukemia	167	0.9	1.1	0.8	0.8	0.9
Mesothelioma	575	3.5	3.0	3.0	3.1	3.1
Kaposi Sarcoma	225	1.1	1.2	1.2	1.1	1.1
Ill-Defined & Unspecified Sites	2,281	12.9	11.8	13.1	11.6	11.0

Rates are per 100,000 population and age-adjusted to the 2000 U.S. population standard.

Table 2. Age-adjusted Incidence Rates, Females All Races Combined

Cancer Site	Total Cases	Rates				
		2001	2002	2003	2004	2005 Prelim.
All Sites	113,084	463.2	449.5	437.4	444.8	435.7
Oral Cavity and Pharynx	1,496	6.0	5.9	5.9	6.3	5.5
Lip	70	0.3	0.2	0.4	0.3	0.1
Tongue	416	1.7	1.6	1.7	1.6	1.6
Salivary Gland	255	1.1	1.1	0.8	1.2	1.0
Floor of Mouth	102	0.3	0.5	0.4	0.5	0.3
Gum and Other Mouth	304	1.2	1.0	1.2	1.2	1.2
Nasopharynx	87	0.4	0.5	0.4	0.3	0.3
Tonsil	119	0.5	0.4	0.5	0.6	0.4
Oropharynx	51	0.2	0.2	0.2	0.3	0.1
Hypopharynx	67	0.3	0.3	0.2	0.3	0.2
Digestive System	21,361	84.3	82.6	81.1	77.9	76.7
Esophagus	592	2.5	2.4	2.5	2.0	1.8
Stomach	1,622	5.9	5.6	6.7	6.6	5.7
Small Intestine	460	1.6	1.8	1.9	1.8	2.0
Colon and Rectum	13,284	54.5	52.7	49.2	46.3	46.9
Colon excluding Rectum	10,060	41.6	39.4	37.2	34.5	35.1
Rectum and Rectosigmoid Junction	3,224	12.9	13.3	12.0	11.9	11.9
Anus, Anal Canal and Anorectum	399	1.6	1.5	1.5	1.7	1.7
Liver and Intrahepatic Bile Duct	804	3.2	2.9	3.1	3.3	2.9
Liver	659	2.5	2.3	2.7	2.7	2.4
Intrahepatic Bile Duct	145	0.7	0.5	0.4	0.6	0.5
Gallbladder	449	1.7	1.4	1.8	1.9	1.5
Pancreas	2,895	10.5	11.0	10.9	11.4	10.4
Respiratory System	14,959	59.2	59.0	57.6	56.9	57.8
Larynx	358	1.6	1.6	1.3	1.4	1.2
Lung and Bronchus	14,426	56.9	56.7	55.7	54.7	55.9
Bones and Joints	210	1.0	0.7	1.1	1.1	0.8
Soft Tissue (Including Heart)	725	3.0	3.1	2.8	3.2	3.0
Skin (Excluding Basal and Squamous)	4,225	16.2	17.9	15.7	17.3	19.3
Melanoma of the Skin	3,927	15.1	16.5	14.7	16.1	18.2
Breast (Invasive)	32,353	137.2	130.5	125.8	130.0	125.3
In situ (not included in All Sites)	8,660	34.8	35.3	36.7	36.0	34.7

Rates are per 100,000 population and age-adjusted to the 2000 U.S. population standard.

Table 2 (continued). Age-adjusted Incidence Rates, Females All Races Combined

Cancer Site	Total Cases	Rates				
		2001	2002	2003	2004	2005 Prelim.
Female Genital System	14,013	61.5	56.9	55.0	53.6	54.4
Cervix Uteri	2,194	10.1	9.1	9.5	9.3	8.3
Corpus and Uterus, NOS	7,132	29.9	28.4	27.3	27.4	29.1
Corpus Uteri	6,903	28.9	27.6	26.3	26.5	28.4
Uterus, NOS	229	1.0	0.8	1.0	0.9	0.8
Ovary	3,731	17.2	15.5	14.5	13.5	13.6
Vagina	176	0.8	0.5	0.8	0.6	0.7
Vulva	606	2.6	2.7	2.3	2.0	2.1
Urinary System	6,004	23.1	23.4	21.1	24.9	23.1
Urinary Bladder (Including in situ)	3,243	12.6	12.1	11.2	13.5	11.7
Kidney and Renal Pelvis	2,603	9.9	10.6	9.4	10.8	10.8
Ureter	119	0.5	0.5	0.4	0.5	0.4
Eye and Orbit	158	0.9	0.5	0.6	0.5	0.7
Brain and Other Nervous System	1,415	6.0	5.3	5.9	6.6	5.5
Brain	1,275	5.5	4.8	5.1	6.1	5.0
Endocrine System	4,224	15.9	16.9	18.5	19.7	19.8
Thyroid	4,035	15.0	16.3	17.5	19.0	19.0
Lymphomas	5,236	21.6	21.1	21.1	20.7	20.1
Hodgkin Lymphoma	706	3.2	3.2	3.1	3.0	3.4
Non-Hodgkin Lymphoma	4,530	18.4	17.9	18.0	17.8	16.7
Myelomas	1,338	5.9	5.1	4.7	4.7	5.3
Leukemias	2,499	10.3	10.2	10.0	10.2	8.8
Lymphocytic Leukemia	1,215	4.7	5.2	4.8	5.0	4.5
Acute Lymphocytic Leukemia	291	1.1	1.4	1.6	1.4	1.2
Chronic Lymphocytic Leukemia	847	3.3	3.5	2.9	3.3	2.9
Myeloid and Monocytic Leukemia	1,130	5.0	4.4	4.7	4.7	3.6
Acute Myeloid Leukemia	789	3.5	3.0	3.1	3.4	2.6
Acute Monocytic Leukemia	37	0.1	0.2	0.2	0.1	0.1
Chronic Myeloid Leukemia	276	1.2	1.1	1.3	1.1	0.8
Other Leukemia	154	0.6	0.6	0.6	0.5	0.7
Mesothelioma	158	0.6	0.6	0.7	0.5	0.6
Kaposi Sarcoma	36	0.2	0.1	0.1	0.1	0.1
Ill-Defined & Unspecified Sites	2,674	10.4	9.7	9.8	10.5	9.0

Rates are per 100,000 population and age-adjusted to the 2000 U.S. population standard.

- Counts and rates are suppressed when fewer than 5 cases to ensure confidentiality and statistical reliability.

Table 3. Age-adjusted Incidence Rates, White Males

Cancer Site	Total Cases	Rates				
		2001	2002	2003	2004	2005 Prelim.
All Sites	99,493	649.4	638.9	585.1	565.6	563.2
Oral Cavity and Pharynx	2,423	14.1	14.4	14.4	13.8	14.0
Lip	106	0.9	1.0	0.5	0.5	0.5
Tongue	762	4.4	4.3	4.4	4.7	4.3
Salivary Gland	275	1.8	1.7	1.7	1.4	1.8
Floor of Mouth	151	0.8	1.0	0.9	0.7	0.9
Gum and Other Mouth	298	1.8	1.9	1.9	1.8	1.5
Nasopharynx	113	0.7	0.7	0.8	0.4	0.7
Tonsil	362	1.7	1.7	2.3	2.1	2.4
Oropharynx	104	0.3	0.6	0.5	0.9	0.7
Hypopharynx	209	1.5	1.1	1.1	1.3	1.1
Digestive System	19,607	125.3	121.3	117.3	115.9	115.3
Esophagus	1,392	7.9	8.0	8.2	9.4	8.1
Stomach	2,011	12.8	13.2	11.9	11.7	11.7
Small Intestine	393	2.2	2.2	2.3	2.6	2.4
Colon and Rectum	11,183	73.8	71.6	66.7	64.5	64.4
Colon excluding Rectum	7,726	51.3	49.8	46.3	44.5	45.3
Rectum and Rectosigmoid Junction	3,457	22.5	21.9	20.4	20.0	19.1
Anus, Anal Canal and Anorectum	175	1.0	1.1	1.2	0.9	1.1
Liver and Intrahepatic Bile Duct	1,458	8.8	7.8	8.6	8.3	9.7
Liver	1,340	7.9	7.1	7.8	7.8	9.0
Intrahepatic Bile Duct	118	0.9	0.7	0.8	0.5	0.7
Gallbladder	166	1.2	0.8	1.4	0.9	0.7
Pancreas	2,326	14.7	13.6	13.9	14.2	14.0
Respiratory System	14,683	94.5	92.2	89.7	82.8	85.6
Larynx	1,193	7.9	7.1	7.2	6.4	6.6
Lung and Bronchus	13,287	85.3	83.7	81.1	75.4	77.9
Bones and Joints	207	1.7	1.2	1.1	1.2	1.1
Soft Tissue (Including Heart)	643	4.3	4.0	3.7	3.5	4.0
Skin (Excluding Basal and Squamous)	5,263	29.7	33.4	30.1	33.2	31.0
Melanoma of the Skin	4,917	27.5	31.0	28.4	31.1	28.8

Rates are per 100,000 population and age-adjusted to the 2000 U.S. population standard.

Table 3 (continued). Age-adjusted Incidence Rates, White Males

Cancer Site	Total Cases	Rates				
		2001	2002	2003	2004	2005 Prelim.
Breast	258	1.3	1.3	1.5	1.8	1.9
Male Genital System	30,038	212.8	214.1	167.3	152.0	153.5
Prostate	28,718	204.5	205.2	159.1	143.6	146.9
Testis	1,135	7.2	7.5	6.9	7.5	5.8
Penis	145	0.9	1.1	1.1	0.7	0.6
Urinary System	11,767	73.8	69.3	69.5	73.7	71.4
Urinary Bladder (Including in situ)	8,030	51.1	47.6	48.5	51.0	48.5
Kidney and Renal Pelvis	3,523	21.3	20.3	19.8	21.6	21.4
Ureter	156	1.2	0.9	0.8	0.8	1.1
Eye and Orbit	183	1.1	1.1	1.2	1.2	0.8
Brain and Other Nervous System	1,503	8.7	8.5	9.8	8.8	9.3
Brain	1,410	8.1	8.2	8.9	8.4	8.8
Endocrine System	1,219	6.0	7.5	7.3	7.6	7.5
Thyroid	1,057	4.7	6.4	6.4	6.8	6.6
Lymphomas	5,036	32.4	30.0	31.1	29.5	29.3
Hodgkin Lymphoma	653	4.2	3.7	4.7	3.4	3.9
Non-Hodgkin Lymphoma	4,383	28.2	26.2	26.4	26.1	25.5
Myelomas	1,140	7.0	7.5	6.1	7.2	6.8
Leukemias	2,896	19.7	17.2	17.8	17.8	16.3
Lymphocytic Leukemia	1,486	10.4	8.3	8.9	9.7	8.0
Acute Lymphocytic Leukemia	306	1.9	2.1	1.4	2.3	2.0
Chronic Lymphocytic Leukemia	1,060	7.5	5.6	7.1	6.7	5.2
Myeloid and Monocytic Leukemia	1,267	8.3	7.7	8.1	7.3	7.4
Acute Myeloid Leukemia	857	5.9	5.1	5.0	5.2	5.1
Acute Monocytic Leukemia	44	0.1	0.2	0.5	0.3	0.3
Chronic Myeloid Leukemia	324	1.9	2.1	2.3	1.6	1.9
Other Leukemia	143	1.0	1.2	0.7	0.8	0.9
Mesothelioma	541	3.6	3.3	3.3	3.3	3.3
Kaposi Sarcoma	143	0.9	0.9	0.9	0.8	0.8
Ill-Defined & Unspecified Sites	1,943	12.6	11.8	13.1	11.5	11.0

Rates are per 100,000 population and age-adjusted to the 2000 U.S. population standard.

- Counts and rates are suppressed when fewer than 5 cases to ensure confidentiality and statistical reliability.

Table 4. Age-adjusted Incidence Rates, White Females

Cancer Site	Total Cases	Rates				
		2001	2002	2003	2004	2005 Prelim.
All Sites	97,344	478.9	462.2	449.4	459.7	451.2
Oral Cavity and Pharynx	1,230	6.0	5.7	5.4	6.6	5.4
Lip	68	0.3	0.3	0.4	0.3	0.2
Tongue	354	1.7	1.6	1.7	1.7	1.8
Salivary Gland	198	1.0	1.0	0.8	1.2	0.9
Floor of Mouth	91	0.4	0.5	0.4	0.5	0.3
Gum and Other Mouth	253	1.2	1.1	1.0	1.3	1.2
Nasopharynx	53	0.2	0.4	0.2	0.2	0.3
Tonsil	97	0.5	0.4	0.5	0.7	0.3
Oropharynx	40	0.2	0.1	0.2	0.3	-
Hypopharynx	56	0.3	0.3	0.1	0.3	0.2
Digestive System	18,013	83.1	80.6	79.1	76.6	75.5
Esophagus	476	2.4	2.3	2.4	1.9	1.6
Stomach	1,267	5.0	5.1	6.5	6.1	5.0
Small Intestine	366	1.4	1.6	1.7	1.8	2.0
Colon and Rectum	11,338	54.6	52.0	47.8	46.3	46.8
Colon excluding Rectum	8,580	41.4	38.9	36.0	34.1	34.8
Rectum and Rectosigmoid Junction	2,758	13.2	13.1	11.8	12.2	12.0
Anus, Anal Canal and Anorectum	344	1.7	1.5	1.4	1.9	1.8
Liver and Intrahepatic Bile Duct	648	3.1	2.7	2.9	2.9	2.8
Liver	520	2.4	2.1	2.5	2.3	2.2
Intrahepatic Bile Duct	128	0.7	0.6	0.3	0.6	0.6
Gallbladder	372	1.7	1.4	1.7	1.7	1.4
Pancreas	2,467	10.3	10.5	11.0	11.3	10.3
Respiratory System	13,155	61.5	61.4	59.7	58.0	60.6
Larynx	303	1.9	1.5	1.2	1.5	1.2
Lung and Bronchus	12,706	59.1	59.2	57.8	55.8	58.5
Bones and Joints	182	1.2	0.8	1.2	1.2	0.9
Soft Tissue (Including Heart)	588	3.0	3.0	2.6	3.2	3.2
Skin (Excluding Basal and Squamous)	4,052	19.4	21.0	18.4	20.3	23.3
Melanoma of the Skin	3,796	18.2	19.7	17.3	19.1	22.2
Breast (Invasive)	27,724	142.5	134.9	130.5	136.4	129.5
In situ (not included in All Sites)	7,423	36.5	38.2	38.4	38.1	35.7

Rates are per 100,000 population and age-adjusted to the 2000 U.S. population standard.

Table 4 (continued). Age-adjusted Incidence Rates, White Females

Cancer Site	Total Cases	Rates				
		2001	2002	2003	2004	2005 Prelim.
Female Genital System	11,959	64.0	58.6	56.5	55.5	56.7
Cervix Uteri	1,660	9.8	8.5	9.2	8.9	7.9
Corpus and Uterus, NOS	6,227	31.7	29.9	28.3	29.1	30.6
Corpus Uteri	6,042	30.8	29.2	27.2	28.2	30.0
Uterus, NOS	185	0.9	0.7	1.1	0.9	0.7
Ovary	3,267	18.1	16.3	15.3	14.2	14.7
Vagina	132	0.8	0.5	0.6	0.6	0.6
Vulva	538	2.7	2.8	2.4	2.1	2.2
Urinary System	5,315	23.9	24.4	21.9	26.4	24.3
Urinary Bladder (including in situ)	2,931	13.4	12.6	11.9	14.3	12.6
Kidney and Renal Pelvis	2,252	9.9	11.1	9.5	11.5	11.1
Ureter	110	0.5	0.6	0.4	0.5	0.5
Eye and Orbit	150	0.9	0.5	0.7	0.6	0.8
Brain and Other Nervous System	1,241	6.5	5.6	6.8	7.0	6.0
Brain	1,127	5.8	5.0	5.9	6.6	5.4
Endocrine System	3,565	17.2	18.2	19.7	21.6	21.1
Thyroid	3,418	16.2	17.6	18.9	20.8	20.2
Lymphomas	4,575	22.8	22.7	21.9	21.5	20.9
Hodgkin Lymphoma	601	3.6	3.9	3.2	3.2	3.7
Non-Hodgkin Lymphoma	3,974	19.2	18.8	18.7	18.3	17.2
Myelomas	1,000	5.3	4.4	4.2	3.9	4.5
Leukemias	2,135	10.7	10.2	10.3	10.2	8.9
Lymphocytic Leukemia	1,057	5.1	5.3	5.1	5.0	4.8
Acute Lymphocytic Leukemia	241	1.3	1.4	1.8	1.4	1.3
Chronic Lymphocytic Leukemia	749	3.5	3.5	3.0	3.2	3.1
Myeloid and Monocytic Leukemia	956	5.1	4.4	4.7	4.7	3.6
Acute Myeloid Leukemia	675	3.7	3.1	3.1	3.4	2.7
Acute Monocytic Leukemia	34	-	0.2	0.2	0.2	0.1
Chronic Myeloid Leukemia	223	1.1	0.9	1.4	1.1	0.6
Other Leukemia	122	0.5	0.6	0.5	0.5	0.5
Mesothelioma	148	0.7	0.7	0.7	0.5	0.7
Kaposi Sarcoma	28	0.1	0.1	0.1	0.1	0.1
Ill-Defined & Unspecified Sites	2,284	10.2	9.4	9.8	10.3	9.0

Rates are per 100,000 population and age-adjusted to the 2000 U.S. population standard.

- Counts and rates are suppressed when fewer than 5 cases to ensure confidentiality and statistical reliability.

Table 5. Age-adjusted Incidence Rates, Black Males

Cancer Site	Total Cases	Rates				
		2001	2002	2003	2004	2005 Prelim.
All Sites	13,217	746.4	695.6	668.9	633.9	593.1
Oral Cavity and Pharynx	385	19.6	18.8	14.4	22.0	12.8
Lip	-	-	-	-	-	-
Tongue	102	4.6	5.2	4.4	6.4	3.0
Salivary Gland	35	1.8	1.5	-	2.4	0.8
Floor of Mouth	32	2.9	1.4	-	-	-
Gum and Other Mouth	39	1.9	2.3	1.7	1.3	1.9
Nasopharynx	31	1.0	2.0	1.1	1.3	1.7
Tonsil	62	2.7	2.8	2.3	3.9	1.5
Oropharynx	17	-	1.1	-	1.3	-
Hypopharynx	49	2.8	1.4	1.9	3.8	1.6
Digestive System	2,670	149.7	149.0	146.5	130.3	123.8
Esophagus	245	14.9	10.0	13.2	10.7	11.3
Stomach	336	21.0	21.5	16.9	17.3	16.6
Small Intestine	71	3.0	4.2	2.4	3.5	3.6
Colon and Rectum	1,380	78.4	79.1	82.4	66.5	66.2
Colon excluding Rectum	1,009	58.4	61.2	64.4	46.6	49.5
Rectum and Rectosigmoid Junction	371	20.0	17.9	17.9	19.8	16.7
Anus, Anal Canal and Anorectum	42	1.9	2.3	1.5	1.4	1.5
Liver and Intrahepatic Bile Duct	262	16.1	11.5	12.0	14.0	7.4
Liver	251	15.5	11.3	11.3	13.9	6.7
Intrahepatic Bile Duct	11	-	-	-	-	-
Gallbladder	17	-	1.4	-	-	-
Pancreas	262	11.4	15.1	15.0	13.6	13.8
Respiratory System	2,089	121.5	117.8	108.8	99.3	98.4
Larynx	225	12.9	11.4	9.1	11.4	8.7
Lung and Bronchus	1,841	106.9	105.6	99.4	86.9	88.5
Bones and Joints	29	-	1.2	1.3	0.9	1.2
Soft Tissue (Including Heart)	96	3.5	2.5	5.3	5.3	4.0
Skin (Excluding Basal and Squamous)	47	2.8	2.0	-	1.6	3.6
Melanoma of the Skin	20	1.2	-	-	-	1.9

Rates are per 100,000 population and age-adjusted to the 2000 U.S. population standard.

- Counts and rates are suppressed when fewer than 5 cases to ensure confidentiality and statistical reliability.

Table 5 (continued). Age-adjusted Incidence Rates, Black Males

Cancer Site	Total Cases	Rates				
		2001	2002	2003	2004	2005 Prelim.
Breast	44	3.0	1.7	1.4	2.2	2.3
Male Genital System	5,382	318.3	290.6	278.3	249.7	229.2
Prostate	5,316	314.8	288.7	275.1	247.6	227.6
Testis	51	2.0	1.7	2.1	1.6	0.9
Penis	12	1.3	-	-	-	-
Urinary System	765	39.7	36.0	36.7	42.0	43.3
Urinary Bladder (Including in situ)	348	22.9	16.1	14.3	23.9	21.5
Kidney and Renal Pelvis	402	16.4	19.2	21.6	17.2	20.7
Ureter	6	-	-	-	-	-
Eye and Orbit	8	-	-	-	-	-
Brain and Other Nervous System	115	5.8	3.4	4.7	3.5	5.6
Brain	101	4.7	2.6	4.4	3.2	5.4
Endocrine System	100	3.6	2.8	4.0	2.9	6.4
Thyroid	79	2.7	2.7	3.4	2.6	4.4
Lymphomas	567	25.1	23.5	21.2	24.7	22.8
Hodgkin Lymphoma	83	2.8	2.3	2.0	4.5	2.5
Non-Hodgkin Lymphoma	484	22.3	21.2	19.2	20.2	20.3
Myelomas	257	16.0	14.3	13.0	15.5	10.4
Leukemias	278	14.4	14.2	14.0	14.1	10.7
Lymphocytic Leukemia	123	5.7	8.6	4.2	6.9	4.8
Acute Lymphocytic Leukemia	42	0.7	2.5	1.4	1.1	1.3
Chronic Lymphocytic Leukemia	70	4.8	6.0	2.8	3.8	2.5
Myeloid and Monocytic Leukemia	139	8.3	5.4	8.3	6.7	5.0
Acute Myeloid Leukemia	81	4.9	4.6	4.0	3.5	2.8
Acute Monocytic Leukemia	-	-	-	-	-	-
Chronic Myeloid Leukemia	50	3.0	-	3.9	2.3	2.1
Other Leukemia	16	-	-	1.4	-	-
Mesothelioma	28	2.9	-	-	1.4	2.1
Kaposi Sarcoma	72	1.8	2.9	2.3	2.7	2.7
Ill-Defined & Unspecified Sites	285	17.9	13.6	14.8	15.3	13.7

Rates are per 100,000 population and age-adjusted to the 2000 U.S. population standard.

- Counts and rates are suppressed when fewer than 5 cases to ensure confidentiality and statistical reliability.

Table 6. Age-adjusted Incidence Rates, Black Females

Cancer Site	Total Cases	Rates				
		2001	2002	2003	2004	2005 Prelim.
All Sites	11,597	406.7	415.8	398.6	392.5	381.6
Oral Cavity and Pharynx	169	4.2	6.5	8.3	4.8	4.5
Lip	-	-	-	-	-	-
Tongue	33	1.3	1.1	1.5	0.9	-
Salivary Gland	37	1.0	1.4	1.1	1.0	1.5
Floor of Mouth	10	-	-	-	-	-
Gum and Other Mouth	35	0.9	1.2	2.5	-	1.0
Nasopharynx	13	-	-	-	-	-
Tonsil	18	-	-	0.9	-	-
Oropharynx	10	-	-	-	-	-
Hypopharynx	8	-	-	-	-	-
Digestive System	2,586	97.4	98.6	95.1	87.2	86.5
Esophagus	97	3.2	3.6	3.6	2.9	3.4
Stomach	247	10.8	8.3	8.1	8.8	9.7
Small Intestine	80	3.1	2.5	3.9	1.6	2.4
Colon and Rectum	1,519	59.0	59.0	56.4	48.8	49.1
Colon excluding Rectum	1,192	47.4	45.1	45.5	39.0	38.1
Rectum and Rectosigmoid Junction	327	11.7	13.9	10.8	9.8	11.1
Anus, Anal Canal and Anorectum	50	1.1	1.2	2.2	1.6	2.2
Liver and Intrahepatic Bile Duct	101	3.4	2.9	4.2	4.7	2.7
Liver	89	3.2	2.8	3.4	3.9	2.3
Intrahepatic Bile Duct	12	-	-	-	-	-
Gallbladder	55	1.9	1.0	2.8	2.2	2.0
Pancreas	353	12.3	16.3	12.0	13.6	11.6
Respiratory System	1,550	53.3	55.3	54.3	60.0	51.5
Larynx	50	-	3.0	2.3	1.8	1.0
Lung and Bronchus	1,482	52.0	51.7	51.7	57.5	50.1
Bones and Joints	22	-	-	0.9	1.1	0.7
Soft Tissue (Including Heart)	104	3.7	3.4	4.2	3.2	2.1
Skin (Excluding Basal and Squamous)	64	1.2	2.2	2.9	2.2	2.4
Melanoma of the Skin	28	-	0.9	1.5	1.3	0.8
Breast (Invasive)	3,303	116.1	116.3	106.2	103.1	108.2
In situ (not included in All Sites)	783	26.1	23.3	27.2	26.0	26.5

Rates are per 100,000 population and age-adjusted to the 2000 U.S. population standard.

- Counts and rates are suppressed when fewer than 5 cases to ensure confidentiality and statistical reliability.

Table 6 (continued). Age-adjusted Incidence Rates, Black Females

Cancer Site	Total Cases	Rates				
		2001	2002	2003	2004	2005 Prelim.
Female Genital System	1,511	53.0	53.2	52.3	47.2	48.6
Cervix Uteri	411	13.5	13.6	12.8	14.3	12.0
Corpus and Uterus, NOS	666	24.5	23.6	23.9	19.4	23.4
Corpus Uteri	626	22.9	22.0	23.4	17.8	21.4
Uterus, NOS	40	1.6	1.6	-	1.5	2.0
Ovary	309	11.1	11.1	11.2	10.1	9.5
Vagina	33	1.5	-	1.6	0.8	1.2
Vulva	57	1.8	2.8	2.1	1.4	1.4
Urinary System	524	18.7	20.8	16.9	20.4	17.7
Urinary Bladder (Including in situ)	232	8.3	11.5	7.5	10.5	6.1
Kidney and Renal Pelvis	273	9.7	8.7	8.7	9.4	10.7
Ureter	-	-	-	-	-	-
Eye and Orbit	-	-	-	-	-	-
Brain and Other Nervous System	104	3.8	4.3	2.6	3.9	2.3
Brain	85	3.6	3.9	2.2	2.5	1.9
Endocrine System	329	9.6	9.1	12.0	10.4	10.5
Thyroid	301	9.0	8.2	10.8	9.5	9.8
Lymphomas	474	14.0	13.7	15.5	17.3	16.7
Hodgkin Lymphoma	80	2.2	1.3	2.9	2.7	2.9
Non-Hodgkin Lymphoma	394	11.7	12.4	12.6	14.6	13.8
Myelomas	295	9.3	12.3	8.7	11.2	11.4
Leukemias	223	8.0	7.5	7.2	8.1	7.0
Lymphocytic Leukemia	82	2.7	3.6	2.2	3.3	2.2
Acute Lymphocytic Leukemia	29	-	0.9	-	1.2	1.1
Chronic Lymphocytic Leukemia	50	1.9	2.7	1.6	1.9	0.9
Myeloid and Monocytic Leukemia	115	4.0	3.3	4.2	4.5	3.3
Acute Myeloid Leukemia	72	1.8	1.7	2.9	3.6	2.0
Acute Monocytic Leukemia	-	-	-	-	-	-
Chronic Myeloid Leukemia	38	2.0	1.3	1.0	0.8	1.3
Other Leukemia	26	1.3	-	0.9	-	1.6
Mesothelioma	7	-	-	-	-	-
Kaposi Sarcoma	7	-	-	-	-	-
Ill-Defined & Unspecified Sites	321	13.1	12.4	10.9	11.5	10.7

Rates are per 100,000 population and age-adjusted to the 2000 U.S. population standard.

- Counts and rates are suppressed when fewer than 5 cases to ensure confidentiality and statistical reliability.

**Table 7. Age-adjusted Incidence Rates, Hispanic Males and Females
2001-2005 Combined**

Cancer Site	Male Rate	Male Cases	Female Rate	Female Cases
All Sites	523.6	8,076	358.1	7,722
Oral Cavity and Pharynx	12.6	223	4.4	88
Lip	0.5	7	0.4	6
Tongue	4.0	68	1.1	24
Salivary Gland	0.4	9	0.7	15
Floor of Mouth	0.5	11	0.3	6
Gum and Other Mouth	1.6	28	0.7	12
Nasopharynx	1.0	16	0.4	8
Tonsil	1.9	42	0.3	7
Oropharynx	1.1	17	-	-
Hypopharynx	1.4	21	0.3	6
Digestive System	119.7	1,820	82.4	1,545
Esophagus	6.6	104	2.8	44
Stomach	19.5	303	10.3	195
Small Intestine	2.7	40	1.9	37
Colon and Rectum	61.3	908	43.5	828
Colon excluding Rectum	41.8	596	31.8	593
Rectum and Rectosigmoid Junction	19.5	312	11.7	235
Anus, Anal Canal and Anorectum	0.7	15	2.0	42
Liver and Intrahepatic Bile Duct	13.0	214	4.8	87
Liver	12.4	205	4.0	71
Intrahepatic Bile Duct	0.7	9	0.9	16
Gallbladder	1.1	19	3.0	52
Pancreas	11.9	173	10.9	198
Respiratory System	67.0	939	30.7	572
Larynx	7.2	117	0.9	17
Lung and Bronchus	58.1	792	29.3	542
Bones and Joints	1.1	35	1.4	40
Soft Tissue (Including Heart)	2.6	61	2.9	78
Skin (Excluding Basal and Squamous)	6.3	116	5.2	121
Melanoma of the Skin	5.1	92	4.6	107
Breast (Invasive)	1.2	18	97.8	2,231
In situ (not included in All Sites)	-	-	23.1	543

Rates are per 100,000 and age-adjusted to the 2000 U.S. population standard.

- Counts and rates are suppressed when fewer than 5 cases to ensure confidentiality and statistical reliability.

**Table 7 (continued). Age-adjusted Incidence Rates, Hispanic Males and Females
2001-2005 Combined**

Cancer Site	Male Rate	Male Cases	Female Rate	Female Cases
Female Genital System	*	*	50.9	1,184
Cervix Uteri	*	*	15.6	416
Corpus and Uterus, NOS	*	*	20.9	448
Corpus Uteri	*	*	20.0	428
Uterus, NOS	*	*	1.0	20
Ovary	*	*	11.4	261
Vagina	*	*	0.7	13
Vulva	*	*	2.0	35
Male Genital System	185.4	2,762	*	*
Prostate	179.6	2,572	*	*
Testis	4.0	156	*	*
Penis	1.5	30	*	*
Urinary System	49.9	691	16.6	332
Urinary Bladder (Including in situ)	32.0	392	7.9	147
Kidney and Renal Pelvis	16.0	278	8.4	177
Ureter	1.0	11	0.3	6
Eye and Orbit	0.9	18	0.5	11
Brain and Other Nervous System	7.6	170	5.0	128
Brain	7.4	164	4.4	113
Endocrine System	4.6	110	16.4	458
Thyroid	3.9	94	15.7	442
Lymphomas	27.6	514	19.4	440
Hodgkin Lymphoma	3.8	100	2.6	83
Non-Hodgkin Lymphoma	23.8	414	16.7	357
Myelomas	8.6	123	5.7	106
Leukemias	13.8	264	8.5	199
Lymphocytic Leukemia	6.0	127	4.1	97
Acute Lymphocytic Leukemia	2.1	73	1.9	56
Chronic Lymphocytic Leukemia	3.4	43	2.0	37
Myeloid and Monocytic Leukemia	6.8	119	4.0	90
Acute Myeloid Leukemia	4.9	82	2.8	64
Acute Monocytic Leukemia	-	-	0.2	5
Chronic Myeloid Leukemia	1.7	32	0.8	19
Other Leukemia	1.0	18	0.5	12
Mesothelioma	1.3	16	0.6	11
Kaposi Sarcoma	1.6	34	0.4	7
Ill-Defined & Unspecified Sites	12.0	162	9.3	171

Rates are per 100,000 population and age-adjusted to the 2000 U.S. population standard.

* Non-applicable gender.

- Counts and rates are suppressed when fewer than 5 cases to ensure confidentiality and statistical reliability.

**Table 8. Comparative Incidence Rates, New Jersey and U.S., 2000-2004
Males**

Cancer Site	New Jersey 2000-2004			United States 2000-2004		
Population:	All Races Combined	White	Black	All Races Combined	White	Black
All Sites	613.9	610.1	677.7	557.8	549.7	635.1
Colorectal	70.1	70.1	76.0	62.9	62.2	70.2
Lung	82.4	82.1	99.0	89.0	88.3	109.2
Prostate	192.8	181.3	278.9	160.8	151.1	239.3
Melanoma	24.4	28.0	0.7	21.1	23.0	1.0
Thyroid	5.6	6.0	3.0	4.3	4.5	2.4
Non-Hodgkin Lymphoma	25.6	26.4	19.4	22.8	23.3	16.7

Source: NAACCR Age-adjusted rates per 100,000 (2000 U.S. population standard)

**Table 9. Comparative Incidence Rates, New Jersey and U.S., 2000-2004
Females**

Cancer Site	New Jersey 2000-2004			United States 2000-2004		
Population:	All Races Combined	White	Black	All Races Combined	White	Black
All Sites	446.4	460.6	397.9	413.1	418.1	384.1
Colorectal	50.8	50.4	54.8	45.8	44.9	52.9
Lung	55.3	57.4	51.3	55.2	56.6	51.0
Breast (invasive)	131.7	136.7	111.7	125.3	127.3	111.4
Endometrial (Corpus Uteri)	27.3	28.9	20.9	23.0	23.7	18.7
Melanoma	15.0	17.8	1.1	13.6	15.1	0.9
Thyroid	16.4	17.6	9.2	12.4	13.0	7.5
Non-Hodgkin Lymphoma	17.9	18.6	12.6	16.2	16.6	11.3

Source: NAACCR Age-adjusted rates per 100,000 (2000 U.S. population standard)

Page intentionally blank

Table 10. Age-adjusted Mortality Rates, Males All Races Combined

Cancer Site	Total Cases	Rates			
		2001	2002	2003	2004
All Sites	34,823	246.4	236.1	234.5	219.4
Oral Cavity and Pharynx	607	4.3	3.6	4.0	3.5
Lip	-	-	-	-	-
Tongue	171	1.0	0.9	1.2	1.2
Salivary Gland	58	0.4	0.6	0.4	0.2
Floor of Mouth	11	-	-	-	-
Gum and Other Mouth	69	0.4	0.4	0.5	0.4
Nasopharynx	54	0.5	-	0.4	0.3
Tonsil	46	0.5	0.2	0.2	0.2
Oropharynx	56	0.4	0.2	0.4	0.3
Hypopharynx	21	0.2	-	0.1	-
Digestive System	9,307	64.1	62.4	63.5	58.3
Esophagus	1,147	7.9	7.4	7.4	7.0
Stomach	1,073	7.4	7.5	7.2	6.8
Small Intestine	74	0.5	0.5	0.6	0.3
Colon and Rectum	3,736	26.4	26.4	25.7	22.7
Colon excluding Rectum	3,128	22.3	21.9	21.8	19.1
Rectum and Rectosigmoid Junction	608	4.1	4.5	3.9	3.7
Anus, Anal Canal and Anorectum	20	-	0.1	0.1	0.1
Liver and Intrahepatic Bile Duct	1,111	7.4	6.5	7.8	7.2
Liver	931	6.2	5.5	6.4	6.0
Intrahepatic Bile Duct	180	1.2	1.0	1.4	1.2
Gallbladder	93	0.7	0.5	0.7	0.6
Pancreas	1,890	12.5	12.3	12.7	12.7
Respiratory System	10,356	73.6	67.9	68.8	64.1
Larynx	383	2.6	2.4	2.5	2.5
Lung and Bronchus	9,884	70.5	64.9	65.7	61.1
Bones and Joints	58	0.5	0.2	0.3	0.5
Soft Tissue (Including Heart)	197	1.3	1.3	1.4	1.1
Skin (Excluding Basal and Squamous)	772	5.2	5.2	4.7	5.2
Melanoma of the Skin	600	4.1	4.0	3.7	3.8

Rates are per 100,000 and age-adjusted to the 2000 U.S. population standard.

- Counts and rates are suppressed when fewer than 5 cases to ensure confidentiality and statistical reliability.

Table 10 (continued). Age-adjusted Mortality Rates, Males All Races Combined

Cancer Site	Total Cases	Rates			
		2001	2002	2003	2004
Breast	77	0.4	0.6	0.4	0.7
Male Genital System	3,702	30.4	26.2	26.9	24.0
Prostate	3,633	30.1	25.9	26.4	23.6
Testis	39	0.2	0.2	0.3	0.2
Penis	26	0.1	-	0.2	0.2
Urinary System	2,077	14.4	15.6	13.6	13.6
Urinary Bladder	1,132	8.1	8.2	7.3	8.3
Kidney and Renal Pelvis	898	5.9	7.0	5.9	5.1
Ureter	21	0.2	0.2	-	0.2
Eye	9	-	-	-	-
Brain and Other Nervous System	733	4.6	4.5	4.6	4.6
Endocrine System	143	1.0	0.9	0.8	1.0
Thyroid	86	0.7	0.4	0.4	0.7
Lymphomas	1,594	10.5	11.1	10.6	10.0
Hodgkin Lymphoma	95	0.5	0.6	0.5	0.7
Non-Hodgkin Lymphoma	1,499	10.0	10.5	10.1	9.3
Multiple Myeloma	673	5.1	4.6	4.8	3.7
Leukemias	1,437	8.6	10.5	10.0	9.5
Lymphocytic Leukemia	411	2.3	3.2	3.2	2.5
Acute Lymphocytic Leukemia	93	0.5	0.7	0.6	0.5
Chronic Lymphocytic Leukemia	291	1.6	2.3	2.3	1.9
Myeloid and Monocytic Leukemia	650	3.6	4.8	4.3	4.4
Acute Myeloid Leukemia	522	2.6	3.7	3.7	3.7
Acute Monocytic Leukemia	7	-	-	-	-
Chronic Myeloid Leukemia	89	0.7	0.8	0.5	0.4
Other Leukemia	376	2.7	2.5	2.5	2.6
Ill-Defined & Unspecified Sites	3,081	22.3	21.5	20.0	19.3

Rates are per 100,000 and age-adjusted to the 2000 U.S. population standard.

- Counts and rates are suppressed when fewer than 5 cases to ensure confidentiality and statistical reliability.

Table 11. Age-adjusted Mortality Rates, Females All Races Combined

Cancer Site	Total Cases	Rates			
		2001	2002	2003	2004
All Sites	36,331	176.7	172.0	170.2	163.0
Oral Cavity and Pharynx	314	1.6	1.5	1.4	1.4
Lip	-	-	-	-	-
Tongue	93	0.6	0.4	0.4	0.4
Salivary Gland	26	0.1	0.1	0.1	0.1
Floor of Mouth	-	-	-	-	-
Gum and Other Mouth	60	0.3	0.3	0.3	0.2
Nasopharynx	30	0.1	0.2	0.1	0.1
Tonsil	14	-	-	-	-
Oropharynx	23	0.1	0.1	0.1	0.1
Hypopharynx	9	-	-	-	-
Digestive System	8,588	40.7	38.7	39.3	37.6
Esophagus	392	1.8	2.0	1.8	1.9
Stomach	740	3.5	3.5	3.3	3.3
Small Intestine	63	0.3	0.3	0.3	0.2
Colon and Rectum	4,046	19.6	17.9	19.0	16.2
Colon excluding Rectum	3,517	17.1	15.3	16.5	14.0
Rectum and Rectosigmoid Junction	529	2.5	2.5	2.5	2.2
Anus, Anal Canal and Anorectum	40	0.1	0.1	0.3	0.3
Liver and Intrahepatic Bile Duct	649	3.1	2.5	3.0	3.4
Liver	438	2.2	1.6	1.9	2.3
Intrahepatic Bile Duct	211	0.9	0.9	1.1	1.1
Gallbladder	212	0.9	0.9	1.0	1.1
Pancreas	2,199	10.3	10.3	9.6	10.1
Respiratory System	8,643	41.6	41.5	41.3	40.7
Larynx	100	0.6	0.5	0.4	0.4
Lung and Bronchus	8,507	40.7	40.8	40.9	40.1
Bones and Joints	60	0.3	0.2	0.3	0.4
Soft Tissue (Including Heart)	245	1.3	1.3	1.1	1.1
Skin (Excluding Basal and Squamous)	446	2.1	2.0	2.0	2.2
Melanoma of the Skin	365	1.8	1.7	1.7	1.8
Breast	5,825	28.7	28.4	28.5	25.9

Rates are per 100,000 and age-adjusted to the 2000 U.S. population standard.

- Counts and rates are suppressed when fewer than 5 cases to ensure confidentiality and statistical reliability.

Table 11 (continued). Age-adjusted Mortality Rates, Females All Races Combined

Cancer Site	Total Cases	Rates			
		2001	2002	2003	2004
Female Genital System	3,825	19.5	18.7	18.4	16.8
Cervix Uteri	533	3.1	2.4	2.7	2.6
Corpus and Uterus, NOS	1,098	5.5	5.3	5.0	4.9
Corpus Uteri	474	2.1	2.5	2.1	2.3
Uterus, NOS	624	3.5	2.7	2.9	2.7
Ovary	2,005	10.0	10.1	9.7	8.6
Vagina	42	0.2	0.1	0.2	0.2
Vulva	102	0.5	0.5	0.4	0.4
Urinary System	1,234	5.8	5.9	5.6	5.1
Urinary Bladder	619	2.9	2.8	2.6	2.6
Kidney and Renal Pelvis	572	2.8	2.8	2.7	2.2
Ureter	27	-	0.2	0.2	0.1
Eye	15	-	0.1	0.1	-
Brain and Other Nervous System	585	3.0	2.9	2.5	3.3
Endocrine System	171	0.8	0.6	0.8	1.1
Thyroid	117	0.5	0.4	0.5	0.7
Lymphomas	1,433	7.3	6.8	6.2	6.2
Hodgkin Lymphoma	93	0.5	0.5	0.5	0.4
Non-Hodgkin Lymphoma	1,340	6.8	6.3	5.7	5.8
Multiple Myeloma	692	3.5	3.1	3.3	2.9
Leukemias	1,251	5.8	6.0	5.7	5.7
Lymphocytic Leukemia	328	1.5	1.6	1.6	1.2
Acute Lymphocytic Leukemia	71	0.3	0.4	0.4	0.4
Chronic Lymphocytic Leukemia	238	1.1	1.1	1.1	0.8
Myeloid and Monocytic Leukemia	557	2.6	2.6	2.7	2.8
Acute Myeloid Leukemia	460	1.9	2.2	2.3	2.4
Acute Monocytic Leukemia	7	-	-	-	-
Chronic Myeloid Leukemia	66	0.5	0.3	0.2	0.2
Other Leukemia	366	1.6	1.8	1.4	1.7
Ill-Defined & Unspecified Sites	3,004	14.7	14.3	13.6	12.6

Rates are per 100,000 and age-adjusted to the 2000 U.S. population standard.

- Counts and rates are suppressed when fewer than 5 cases to ensure confidentiality and statistical reliability.

Table 12. Age-adjusted Mortality Rates, White Males

Cancer Site	Total Cases	Rates			
		2001	2002	2003	2004
All Sites	29,872	242.7	233.8	232.9	217.8
Oral Cavity and Pharynx	483	4.0	3.2	3.9	3.3
Lip	-	-	-	-	-
Tongue	150	1.1	0.8	1.3	1.2
Salivary Gland	54	0.3	0.6	0.4	0.2
Floor of Mouth	6	-	-	-	-
Gum and Other Mouth	52	0.4	0.4	0.4	0.4
Nasopharynx	37	0.4	-	0.4	0.3
Tonsil	35	0.4	0.2	0.3	0.2
Oropharynx	43	0.4	0.2	0.4	0.3
Hypopharynx	15	0.2	-	-	-
Digestive System	7,878	62.8	61.1	62.5	56.9
Esophagus	976	7.5	7.6	7.3	7.1
Stomach	848	6.7	6.8	6.7	6.2
Small Intestine	59	0.5	0.5	0.5	0.3
Colon and Rectum	3,237	26.4	26.3	25.8	22.5
Colon excluding Rectum	2,706	22.2	21.6	21.9	19.0
Rectum and Rectosigmoid Junction	531	4.1	4.7	3.9	3.5
Anus, Anal Canal and Anorectum	17	-	0.2	-	-
Liver and Intrahepatic Bile Duct	871	6.8	6.0	7.2	6.5
Liver	707	5.7	4.9	5.7	5.2
Intrahepatic Bile Duct	164	1.2	1.1	1.4	1.3
Gallbladder	80	0.7	0.4	0.7	0.7
Pancreas	1,646	12.7	12.4	12.9	12.7
Respiratory System	8,860	72.1	67.3	68.3	63.8
Larynx	289	2.1	2.1	2.2	2.4
Lung and Bronchus	8,489	69.4	64.6	65.5	60.8
Bones and Joints	50	0.5	0.2	0.4	0.5
Soft Tissue (Including Heart)	166	1.3	1.2	1.5	1.1
Skin (Excluding Basal and Squamous)	755	5.9	6.0	5.3	5.9
Melanoma of the Skin	594	4.8	4.6	4.2	4.4

Rates are per 100,000 and age-adjusted to the 2000 U.S. population standard.

- Counts and rates are suppressed when fewer than 5 cases to ensure confidentiality and statistical reliability.

Table 12 (continued). Age-adjusted Mortality Rates, White Males

Cancer Site	Total Cases	Rates			
		2001	2002	2003	2004
Breast	67	0.5	0.5	0.4	0.6
Male Genital System	2,993	27.5	24.1	24.8	21.6
Prostate	2,930	27.1	23.7	24.2	21.1
Testis	38	0.2	0.3	0.3	0.3
Penis	23	0.1	-	0.2	0.2
Urinary System	1,906	14.9	16.4	14.2	14.5
Urinary Bladder	1,064	8.6	8.8	7.9	8.7
Kidney and Renal Pelvis	799	6.0	7.2	5.9	5.5
Ureter	20	-	0.2	-	0.2
Eye	9	-	-	-	-
Brain and Other Nervous System	675	5.1	4.8	5.1	5.2
Endocrine System	122	1.1	0.7	0.8	1.1
Thyroid	77	0.7	0.4	0.5	0.7
Lymphomas	1,420	11.0	11.3	11.2	10.4
Hodgkin Lymphoma	80	0.6	0.7	0.6	0.7
Non-Hodgkin Lymphoma	1,340	10.4	10.7	10.6	9.7
Multiple Myeloma	544	4.8	4.5	4.2	3.5
Leukemias	1,279	8.9	10.7	10.4	9.9
Lymphocytic Leukemia	369	2.4	3.3	3.4	2.6
Acute Lymphocytic Leukemia	78	0.5	0.8	0.6	0.5
Chronic Lymphocytic Leukemia	266	1.6	2.3	2.5	2
Myeloid and Monocytic Leukemia	575	3.8	4.9	4.4	4.6
Acute Myeloid Leukemia	469	2.7	4.0	3.7	3.9
Acute Monocytic Leukemia	5	-	-	-	-
Chronic Myeloid Leukemia	71	0.8	0.6	0.5	0.4
Other Leukemia	335	2.7	2.5	2.7	2.7
Ill-Defined and Unspecified Sites	2,665	22.2	21.7	19.8	19.3

Rates are per 100,000 and age-adjusted to the 2000 U.S. population standard.

- Counts and rates are suppressed when fewer than 5 cases to ensure confidentiality and statistical reliability.

Table 13. Age-adjusted Mortality Rates, White Females

Cancer Site	Total Cases	Rates			
		2001	2002	2003	2004
All Sites	31,526	178.2	173.1	171.2	164.7
Oral Cavity and Pharynx	255	1.6	1.4	1.2	1.3
Lip	-	0.0	-	-	-
Tongue	76	0.6	0.4	0.3	0.4
Salivary Gland	24	0.2	0.1	-	0.2
Floor of Mouth	-	-	-	-	-
Gum and Other Mouth	55	0.3	0.3	0.3	0.2
Nasopharynx	16	-	0.1	-	-
Tonsil	13	-	-	-	0.1
Oropharynx	20	0.1	0.1	0.1	-
Hypopharynx	7	-	-	-	-
Digestive System	7,351	39.1	38.2	38.6	37.2
Esophagus	329	1.5	2.0	1.7	1.9
Stomach	587	2.9	3.3	3.1	3.0
Small Intestine	57	0.3	0.3	0.3	0.3
Colon and Rectum	3,516	19.5	17.8	18.5	16.2
Colon excluding Rectum	3,046	17.0	15.1	16.0	14.0
Rectum and Rectosigmoid Junction	470	2.5	2.6	2.5	2.2
Anus, Anal Canal and Anorectum	34	0.1	0.1	0.3	0.2
Liver and Intrahepatic Bile Duct	544	2.7	2.5	3.0	3.3
Liver	361	1.9	1.6	1.9	2.2
Intrahepatic Bile Duct	183	0.8	0.9	1.1	1.1
Gallbladder	176	0.9	0.9	1.0	1.0
Pancreas	1,892	10.1	10.2	9.6	10.0
Respiratory System	7,610	43.0	42.7	42.2	41.7
Larynx	81	0.7	0.5	0.3	0.4
Lung and Bronchus	7,497	42.0	42.0	41.8	41.1
Bones and Joints	50	0.3	0.3	0.3	0.3
Soft Tissue (Including Heart)	207	1.2	1.1	1.2	1.3
Skin (Excluding Basal and Squamous)	428	2.4	2.2	2.3	2.5
Melanoma of the Skin	354	2.1	1.9	2.0	2.0
Breast	4,936	28.7	28.1	28.5	25.6

Rates are per 100,000 and age-adjusted to the 2000 U.S. population standard.

- Counts and rates are suppressed when fewer than 5 cases to ensure confidentiality and statistical reliability.

Table 13 (continued). Age-adjusted Mortality Rates, White Females

Cancer Site	Total Cases	Rates			
		2001	2002	2003	2004
Female Genital System	3,268	20.0	18.4	18.2	17.0
Cervix Uteri	395	3.1	2.0	2.3	2.4
Corpus and Uterus, NOS	924	5.7	5.0	4.8	4.9
Corpus Uteri	409	2.3	2.5	2.1	2.3
Uterus, NOS	515	3.4	2.5	2.7	2.6
Ovary	1,785	10.3	10.4	10.3	9.1
Vagina	33	0.2	0.1	0.2	0.2
Vulva	94	0.5	0.6	0.4	0.4
Urinary System	1,108	6.0	6.0	5.8	5.2
Urinary Bladder	545	2.8	2.8	2.6	2.7
Kidney and Renal Pelvis	526	3.0	3.0	3.0	2.3
Ureter	24	-	0.2	0.2	0.1
Eye	14	-	0.1	0.1	-
Brain and Other Nervous System	539	3.3	3.2	2.7	3.6
Endocrine System	151	0.8	0.7	0.8	1.1
Thyroid	104	0.6	0.4	0.5	0.7
Lymphomas	1,309	7.7	7.2	6.4	6.7
Hodgkin Lymphoma	87	0.6	0.6	0.5	0.5
Non-Hodgkin Lymphoma	1,222	7.1	6.6	5.9	6.2
Multiple Myeloma	543	3.2	2.8	3.0	2.5
Leukemias	1,128	6.1	6.4	6.0	5.9
Lymphocytic Leukemia	307	1.7	1.7	1.7	1.4
Acute Lymphocytic Leukemia	67	0.4	0.4	0.5	0.5
Chronic Lymphocytic Leukemia	223	1.1	1.2	1.1	0.9
Myeloid and Monocytic Leukemia	505	2.8	2.7	2.9	2.9
Acute Myeloid Leukemia	420	2.1	2.3	2.5	2.5
Acute Monocytic Leukemia	7	-	-	-	-
Chronic Myeloid Leukemia	59	0.5	0.3	0.2	0.2
Other Leukemia	316	1.7	1.9	1.4	1.6
Ill-Defined & Unspecified Sites	2,629	14.7	14.3	13.8	12.8

Rates are per 100,000 and age-adjusted to the 2000 U.S. population standard.

- Counts and rates are suppressed when fewer than 5 cases to ensure confidentiality and statistical reliability.

Table 14. Age-adjusted Mortality Rates, Black Males

Cancer Site	Total Cases	Rates			
		2001	2002	2003	2004
All Sites	4,262	329.5	298.2	311.5	281.1
Oral Cavity and Pharynx	103	7.3	6.9	5.2	5.3
Lip	-	-	-	-	-
Tongue	19	-	1.9	-	1.5
Salivary Gland	-	-	-	-	-
Floor of Mouth	-	-	-	-	-
Gum and Other Mouth	16	-	-	1.7	-
Nasopharynx	9	-	-	-	-
Tonsil	11	1.3	-	-	-
Oropharynx	12	-	-	-	-
Hypopharynx	5	-	-	-	-
Digestive System	1,168	84.4	77.9	83.8	76.5
Esophagus	155	12.8	8.8	10.7	8.1
Stomach	171	13.3	15.0	11.3	11.0
Small Intestine	14	-	-	1.2	-
Colon and Rectum	428	31.9	28.7	32.6	28.3
Colon excluding Rectum	366	29.0	26.1	27.3	23.3
Rectum and Rectosigmoid Junction	62	2.9	2.6	5.3	5.0
Anus, Anal Canal and Anorectum	-	-	-	-	-
Liver and Intrahepatic Bile Duct	175	12.4	8.3	12.4	11.6
Liver	162	11.3	7.9	11.6	11.1
Intrahepatic Bile Duct	13	1.1	-	-	-
Gallbladder	5	-	-	-	-
Pancreas	203	12.2	13.2	14.8	15.8
Respiratory System	1,323	102.0	86.4	94.0	83.3
Larynx	86	7.0	5.5	5.9	5.0
Lung and Bronchus	1,231	95.0	80.3	86.9	78.3
Bones and Joints	7	-	-	-	-
Soft Tissue (Including Heart)	26	1.6	1.7	1.2	1.6
Skin (Excluding Basal and Squamous)	15	-	-	-	1.1
Melanoma of the Skin	-	-	-	-	-

Rates are per 100,000 and age-adjusted to the 2000 U.S. population standard.

- Counts and rates are suppressed when fewer than 5 cases to ensure confidentiality and statistical reliability.

Table 14 (continued). Age-adjusted Mortality Rates, Black Males

Cancer Site	Total Cases	Rates			
		2001	2002	2003	2004
Breast	8	-	-	-	-
Male Genital System	670	69.1	57.9	60.4	53.7
Prostate	667	69.1	57.9	59.6	53.7
Testis	-	-	-	-	-
Penis	-	-	-	-	-
Urinary System	144	10.9	11.5	10.0	8.9
Urinary Bladder	57	4.8	4.3	2.6	6.0
Kidney and Renal Pelvis	83	5.9	6.7	7.0	2.9
Ureter	-	-	-	-	-
Eye	-	-	-	-	-
Brain and Other Nervous System	41	1.5	2.4	2.9	2.0
Endocrine System	16	-	1.5	-	-
Thyroid	8	-	-	-	-
Lymphomas	139	6.8	10.3	6.9	8.3
Hodgkin Lymphoma	8	-	-	-	0.9
Non-Hodgkin Lymphoma	131	6.7	10.3	6.5	7.4
Multiple Myeloma	116	8.9	6.2	10.6	7.5
Leukemias	126	7.0	10.6	8.5	7.6
Lymphocytic Leukemia	36	2.0	3.5	2.7	2.1
Acute Lymphocytic Leukemia	10	-	-	-	-
Chronic Lymphocytic Leukemia	24	1.4	2.7	1.6	1.9
Myeloid and Monocytic Leukemia	55	2.7	4.7	3.4	3.2
Acute Myeloid Leukemia	37	2.4	2.0	2.9	2.0
Acute Monocytic Leukemia	-	-	-	-	-
Chronic Myeloid Leukemia	15	-	2.3	-	-
Other Leukemia	35	2.4	2.5	2.4	2.4
Ill-Defined & Unspecified Sites	360	28.3	23.2	26.3	22.8

Rates are per 100,000 and age-adjusted to the 2000 U.S. population standard.

- Counts and rates are suppressed when fewer than 5 cases to ensure confidentiality and statistical reliability.

Table 15. Age-adjusted Mortality Rates, Black Females

Cancer Site	Total Cases	Rates			
		2001	2002	2003	2004
All Sites	4,204	191.0	196.9	192.5	179.7
Oral Cavity and Pharynx	49	1.7	1.8	2.8	2.4
Lip	-	-	-	-	-
Tongue	12	-	-	-	-
Salivary Gland	-	-	-	-	-
Floor of Mouth	-	-	-	-	-
Gum and Other Mouth	-	-	-	-	-
Nasopharynx	10	-	-	-	-
Tonsil	-	-	-	-	-
Oropharynx	-	-	-	-	-
Hypopharynx	-	-	-	-	-
Digestive System	1,059	54.4	49.6	50.1	43.9
Esophagus	54	3.6	2.2	2.3	1.6
Stomach	119	6.1	6.0	5.1	5.2
Small Intestine	6	-	-	-	-
Colon and Rectum	484	22.8	23.0	25.9	18.6
Colon excluding Rectum	435	20.2	20.8	23.7	16.4
Rectum and Rectosigmoid Junction	49	2.6	2.2	2.3	2.2
Anus, Anal Canal and Anorectum	6	-	-	-	-
Liver and Intrahepatic Bile Duct	69	4.9	2.3	2.3	3.1
Liver	53	3.7	1.5	1.8	2.7
Intrahepatic Bile Duct	16	1.2	-	-	-
Gallbladder	32	1.3	1.8	1.1	1.6
Pancreas	268	13.5	12.6	12.2	12.7
Respiratory System	937	39.8	42.4	42.5	44.3
Larynx	19	-	1.1	1.1	0.9
Lung and Bronchus	916	39.7	41.3	41.1	43.2
Bones and Joints	10	-	-	-	0.7
Soft Tissue (Including Heart)	36	1.6	2.5	1.3	-
Skin (Excluding Basal and Squamous)	13	-	-	-	-
Melanoma of the Skin	8	-	-	-	-
Breast	781	31.6	36.2	34.3	33.1

Rates are per 100,000 and age-adjusted to the 2000 U.S. population standard.

- Counts and rates are suppressed when fewer than 5 cases to ensure confidentiality and statistical reliability.

Table 15 (continued). Age-adjusted Mortality Rates, Black Females

Cancer Site	Total Cases	Rates			
		2001	2002	2003	2004
Female Genital System	490	19.5	24.5	23.2	19.9
Cervix Uteri	125	4.4	5.2	6.5	5.2
Corpus and Uterus, NOS	158	6.0	9.1	8.0	6.5
Corpus Uteri	60	1.1	4.1	3.2	2.9
Uterus, NOS	98	4.9	5.1	4.8	3.6
Ovary	184	8.5	9.4	7.6	7.1
Vagina	8	-	-	-	-
Vulva	7	-	-	-	-
Urinary System	116	5.2	6.9	4.6	5.2
Urinary Bladder	69	3.3	3.8	3.2	3.0
Kidney and Renal Pelvis	43	2.0	2.9	1.0	2.1
Ureter	-	-	-	-	-
Eye	-	-	-	-	-
Brain and Other Nervous System	34	1.5	1.3	1.4	1.8
Endocrine System	10	-	-	-	-
Thyroid	6	-	-	-	-
Lymphomas	92	4.5	3.9	4.0	3.6
Hodgkin Lymphoma	6	-	-	-	-
Non-Hodgkin Lymphoma	86	4.4	3.8	3.7	3.2
Multiple Myeloma	141	7.0	6.1	7.5	5.9
Leukemias	98	4.5	4.0	4.4	4.9
Lymphocytic Leukemia	18	-	1.1	1.2	-
Acute Lymphocytic Leukemia	-	-	-	-	-
Chronic Lymphocytic Leukemia	14	-	-	1.2	-
Myeloid and Monocytic Leukemia	36	1.6	1.3	1.8	1.7
Acute Myeloid Leukemia	27	-	1.0	1.6	1.4
Acute Monocytic Leukemia	-	-	-	-	-
Chronic Myeloid Leukemia	-	-	-	-	-
Other Leukemia	44	2.1	1.7	1.4	2.9
Ill-Defined & Unspecified Sites	337	18.1	16.4	14.9	12.6

Rates are per 100,000 and age-adjusted to the 2000 U.S. population standard.

- Counts and rates are suppressed when fewer than 5 cases to ensure confidentiality and statistical reliability.

**Table 16. Age-adjusted Mortality Rates, Hispanic Males and Females
2001-2004 Combined**

Cancer Site	Male Rate	Male Cases	Female Rate	Female Cases
All Sites	140.0	1,519	90.5	1,360
Oral Cavity and Pharynx	3.1	43	1.3	19
Lip	-	-	-	-
Tongue	0.8	14	-	-
Salivary Gland	-	-	-	-
Floor of Mouth	-	-	-	-
Gum and Other Mouth	-	-	-	-
Nasopharynx	-	-	0.3	5
Tonsil	0.4	6	-	-
Oropharynx	0.4	6	-	-
Hypopharynx	-	-	-	-
Digestive System	45.2	512	28.2	396
Esophagus	3.9	47	1.5	19
Stomach	8.8	100	3.8	59
Small Intestine	0.5	6	-	-
Colon and Rectum	16.5	177	10.8	150
Colon excluding Rectum	14.5	152	9.6	132
Rectum and Rectosigmoid Junction	2.1	25	1.2	18
Anus, Anal Canal and Anorectum	-	-	-	-
Liver and Intrahepatic Bile Duct	7.2	87	3.6	49
Liver	6.3	76	2.7	36
Intrahepatic Bile Duct	0.9	11	0.9	13
Gallbladder	0.7	7	1.7	25
Pancreas	7.1	82	6.5	88
Respiratory System	32.1	348	12.0	165
Larynx	2.2	25	-	-
Lung and Bronchus	29.6	319	12.0	165
Bones and Joints	-	-	0.3	5
Soft Tissue (Including Heart)	0.6	10	0.4	9
Skin (Excluding Basal and Squamous)	0.5	9	0.6	10
Melanoma of the Skin	0.3	5	0.5	8
Breast	-	-	13.9	238

Rates are per 100,000 and age-adjusted to the 2000 U.S. population standard.

- Counts and rates are suppressed when fewer than 5 cases to ensure confidentiality and statistical reliability.

**Table 16 (continued). Age-adjusted Mortality Rates, Hispanic Males and Females
2001-2004 Combined**

Cancer Site	Male Rate	Male Cases	Female Rate	Female Cases
Female Genital System	*	*	10.8	173
Cervix Uteri	*	*	2.7	52
Corpus and Uterus, NOS	*	*	3.4	48
Corpus Uteri	*	*	1.4	20
Uterus, NOS	*	*	1.9	28
Ovary	*	*	3.9	62
Vagina	*	*	-	-
Vulva	*	*	0.4	5
Male Genital System	19.6	159	*	*
Prostate	18.9	148	*	*
Testis	-	-	*	*
Penis	0.6	9	*	*
Urinary System	8.0	70	2.7	37
Urinary Bladder	4.6	36	1.5	20
Kidney and Renal Pelvis	3.2	32	1.0	15
Ureter	-	-	-	-
Eye	-	-	-	-
Brain and Other Nervous System	2.6	33	1.3	25
Endocrine System	0.3	7	0.5	8
Thyroid	-	-	-	-
Lymphomas	7.7	85	4.4	67
Hodgkin Lymphoma	-	-	0.3	6
Non-Hodgkin Lymphoma	7.4	81	4.1	61
Multiple Myeloma	3.5	34	2.8	37
Leukemias	4.1	66	4.1	68
Lymphocytic Leukemia	1.0	18	0.9	16
Acute Lymphocytic Leukemia	0.5	13	0.7	13
Chronic Lymphocytic Leukemia	-	-	-	-
Myeloid and Monocytic Leukemia	2.1	31	1.8	32
Acute Myeloid Leukemia	1.6	23	1.4	26
Acute Monocytic Leukemia	0.0	0	-	-
Chronic Myeloid Leukemia	0.5	8	-	-
Other Leukemia	1.0	17	1.4	20
Ill-Defined & Unspecified Sites	12.2	138	7.3	103

Rates are per 100,000 and age-adjusted to the 2000 U.S. population standard.

* Non-applicable gender

- Counts and rates are suppressed when fewer than 5 cases to ensure confidentiality and statistical reliability.

Table 17. Comparative Mortality Rates, New Jersey and U.S., 2000-2004
Males

Cancer Site	New Jersey 2000-2004			United States 2000-2004		
Population:	All Races Combined	White	Black	All Races Combined	White	Black
All Sites	236.7	234.0	312.5	238.7	234.7	321.8
Lung	66.5	65.9	87.3	73.4	72.6	95.8
Prostate	27.0	24.5	61.7	27.9	25.6	62.3
Colorectal	25.9	25.7	31.7	23.5	22.9	32.7

Source-NAACCR Age-adjusted rates per 100,000 (2000 U.S. population standard)

Table 18. Comparative Mortality Rates, New Jersey and U.S., 2000-2004
Females

Cancer Site	New Jersey 2000-2004			United States 2000-2004		
Population:	All Races Combined	White	Black	All Races Combined	White	Black
All Sites	171.9	173.1	191.0	162.2	161.4	189.3
Lung	40.7	41.9	40.9	41.1	42.1	39.8
Breast	28.5	28.3	34.6	25.5	25.0	33.8
Colorectal	18.3	18.2	22.4	16.4	15.9	22.9

Source-NAACCR Age-adjusted rates per 100,000 (2000 U.S. population standard)

Cancer Incidence and Mortality in New Jersey, 2001-2005

Table 19. Population Denominators

	2000						2001					
	All Races	All Races	White	White	Black	Black	All Races	All Races	White	White	Black	Black
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
<1	56,989	54,688	42,446	40,673	10,114	9,828	57,218	54,225	41,750	39,451	10,937	10,628
01-04	231,042	221,018	172,633	164,354	41,065	39,569	229,078	219,327	170,874	162,802	40,390	39,221
05-09	308,291	293,776	230,122	218,899	56,980	54,801	305,404	291,573	227,384	216,820	55,924	53,529
10-14	303,905	289,098	228,962	217,277	54,957	53,316	310,603	295,722	233,487	221,570	56,259	54,674
15-19	271,519	254,460	203,692	189,421	49,178	47,727	280,570	262,178	211,567	196,441	49,835	48,094
20-24	246,760	237,078	184,392	172,812	44,204	45,745	249,181	238,253	184,524	172,768	46,299	46,783
25-29	272,046	270,968	202,622	196,677	43,733	48,136	265,607	262,307	196,585	188,410	42,247	46,534
30-34	319,588	325,522	244,402	243,755	47,941	54,022	318,631	323,737	240,912	239,584	48,057	53,930
35-39	359,574	366,830	282,322	283,407	50,515	56,598	356,676	363,691	277,860	278,535	50,408	56,896
40-44	349,212	360,397	280,186	283,804	44,631	51,385	356,384	367,122	284,766	287,981	46,026	52,692
45-49	299,692	315,412	244,897	252,202	35,219	42,801	309,001	323,683	251,431	257,980	36,529	43,787
50-54	266,205	287,320	220,151	232,328	29,801	37,791	276,235	297,590	227,880	239,828	31,044	39,542
55-59	203,933	222,144	169,412	181,184	22,998	29,248	209,694	228,801	174,031	186,615	23,192	29,367
60-64	156,782	175,220	129,341	142,589	18,740	24,183	159,045	178,670	130,919	144,819	18,849	24,624
65-69	132,278	160,178	112,801	134,547	14,202	19,323	132,059	158,244	111,361	131,376	14,611	20,007
70-74	121,600	159,406	107,535	139,422	10,736	15,371	120,426	157,299	106,136	136,819	10,669	15,482
75-79	95,796	144,701	86,642	129,830	7,016	11,723	95,497	142,800	85,867	127,338	7,281	11,998
80-84	58,873	104,590	54,131	95,392	3,636	7,437	61,283	107,550	56,170	97,886	3,856	7,712
85+	39,297	98,028	36,130	89,714	2,492	7,121	41,071	100,081	37,686	91,509	2,591	7,205
Total	4,093,382	4,340,834	3,232,819	3,408,287	588,158	656,125	4,133,663	4,372,853	3,251,190	3,418,532	595,004	662,705

	2002						2003					
	All Races	All Races	White	White	Black	Black	All Races	All Races	White	White	Black	Black
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
<1	57,309	54,887	42,102	40,054	10,746	10,452	59,198	55,970	43,277	40,734	10,990	10,546
01-04	228,633	218,484	169,362	161,235	41,058	39,750	228,714	218,415	168,760	160,354	41,529	40,298
05-09	302,331	288,583	224,900	214,111	54,511	52,228	298,112	285,050	221,565	211,250	53,139	50,890
10-14	315,591	300,291	236,379	224,148	57,301	55,636	316,962	302,079	236,678	224,669	57,569	56,106
15-19	285,332	267,896	215,318	201,091	50,497	48,978	289,393	272,199	218,224	204,424	51,199	49,539
20-24	253,966	239,692	187,251	174,073	47,707	46,879	260,980	243,956	192,165	177,248	49,297	47,897
25-29	263,835	259,707	194,711	185,317	42,015	46,164	263,458	256,937	194,516	183,534	42,280	45,396
30-34	317,340	319,505	236,775	232,907	48,067	53,709	312,254	313,873	230,428	225,509	47,276	53,496
35-39	350,722	359,522	270,991	273,247	49,954	56,507	343,922	352,426	263,698	265,839	49,279	55,380
40-44	361,091	370,451	287,238	288,986	47,073	53,769	362,772	372,430	286,852	288,843	47,711	54,583
45-49	320,118	334,210	259,228	265,480	38,232	45,139	330,050	343,601	266,196	271,718	39,731	46,774
50-54	273,549	293,747	223,927	234,922	31,318	39,844	275,940	296,785	225,193	236,627	31,522	40,252
55-59	226,100	246,532	188,493	201,649	24,183	30,834	232,117	253,039	192,513	205,846	24,977	31,775
60-64	164,502	185,064	135,280	149,701	19,097	25,226	174,484	195,563	144,310	158,751	19,439	25,886
65-69	132,347	157,589	110,917	129,918	14,625	20,208	134,290	159,086	111,774	130,350	14,944	20,695
70-74	118,775	154,498	103,737	133,175	10,966	15,849	116,972	150,920	101,376	128,930	11,075	16,127
75-79	95,780	141,779	85,888	125,816	7,354	12,205	95,638	140,569	85,347	124,081	7,533	12,378
80-84	63,143	109,297	57,610	99,123	4,106	7,960	63,949	110,221	58,104	99,483	4,246	8,292
85+	42,796	102,520	39,179	93,599	2,685	7,354	44,988	105,241	41,090	96,035	2,838	7,424
Total	4,173,260	4,404,254	3,269,286	3,428,552	601,495	668,691	4,204,193	4,428,360	3,282,066	3,434,225	606,574	673,734

	2004						2005					
	All Races	All Races	White	White	Black	Black	All Races	All Races	White	White	Black	Black
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
<1	58,946	56,564	43,069	41,481	10,862	10,385	56,634	54,406	41,010	39,454	10,650	10,240
01-04	230,734	219,980	169,400	160,826	42,254	40,882	231,848	221,012	169,474	161,065	42,772	41,238
05-09	293,819	281,125	218,442	207,904	51,673	49,730	289,501	277,592	215,261	205,101	50,095	48,589
10-14	315,185	300,565	234,466	223,005	57,355	55,564	310,478	295,915	230,494	219,021	56,207	54,186
15-19	295,341	278,126	222,479	208,521	52,310	50,867	301,548	284,024	226,409	212,342	53,854	52,354
20-24	267,873	251,503	198,050	184,358	50,169	47,926	273,863	256,085	203,251	189,035	50,693	47,751
25-29	262,018	250,943	192,437	178,053	43,333	45,695	262,104	250,409	191,129	177,211	44,645	46,199
30-34	305,897	306,693	223,297	217,946	46,412	52,299	296,926	295,729	215,119	207,771	45,064	50,369
35-39	336,238	343,770	255,782	256,722	48,158	54,381	332,270	338,020	250,270	249,908	47,693	53,876
40-44	364,792	373,826	286,429	287,726	48,525	55,692	363,109	371,548	283,410	284,408	48,813	55,544
45-49	337,564	352,012	271,203	277,356	40,846	48,069	344,264	358,683	274,527	281,037	42,746	49,925
50-54	283,227	301,938	230,612	240,463	32,527	40,658	290,823	307,898	237,063	245,293	32,886	40,714
55-59	240,091	262,470	198,563	212,606	25,797	33,180	249,941	273,505	205,742	220,267	27,132	35,122
60-64	179,360	202,144	148,504	164,130	19,508	26,271	183,750	206,101	152,266	167,430	19,656	26,121
65-69	137,357	160,633	113,752	131,027	15,324	21,016	139,163	162,119	114,674	131,467	15,451	21,541
70-74	114,394	147,543	98,265	124,656	11,183	16,537	112,429	144,558	95,805	120,889	11,266	16,826
75-79	95,028	137,582	84,431	120,705	7,571	12,406	94,680	135,075	83,534	117,765	7,834	12,562
80-84	65,311	112,254	59,172	100,949	4,379	8,675	65,518	111,766	59,031	100,037	4,546	8,814
85+	46,303	106,730	42,052	97,120	3,044	7,594	48,935	110,921	44,248	100,560	3,277	8,067
Total	4,229,478	4,446,401	3,290,405	3,435,554	611,230	677,827	4,247,784	4,455,366	3,292,717	3,430,061	615,280	680,038

Source: National Center for Health Statistics. URL: <http://www.cdc.gov/nchs/about/major/dvs/popbridge/popbridge.htm>.

Cancer Incidence and Mortality in New Jersey, 2001-2005

**Table 19. Population Denominators
Hispanic Population, 2001-2005**

	Male Total	Male 2001	Male 2002	Male 2003	Male 2004	Male 2005	Female Total	Female 2001	Female 2002	Female 2003	Female 2004	Female 2005
<1	63,177	11,365	11,821	13,033	13,488	13,470	60,466	10,776	11,172	12,181	13,184	13,153
00-04	226,837	41,380	43,011	44,866	47,702	49,878	215,342	39,454	40,927	42,561	44,997	47,403
05-09	259,334	50,738	51,343	51,979	52,211	53,063	248,316	48,718	49,077	49,621	50,080	50,820
10-14	254,827	48,234	50,134	51,426	52,416	52,617	244,227	46,535	48,253	49,291	50,053	50,095
15-19	242,854	48,037	47,760	47,938	48,664	50,455	226,912	43,301	44,038	45,200	46,254	48,119
20-24	301,861	58,931	60,739	61,391	61,004	59,796	252,101	49,104	50,131	50,634	51,117	51,115
25-29	318,804	59,264	61,659	64,208	65,973	67,700	264,852	51,117	52,269	53,456	53,596	54,414
30-34	308,866	58,114	60,111	61,933	63,760	64,948	278,880	53,483	54,765	55,881	57,244	57,507
35-39	291,183	55,257	57,098	58,569	59,416	60,843	274,026	52,587	54,292	55,249	55,526	56,372
40-44	252,816	44,747	47,875	50,851	53,636	55,707	245,213	44,616	46,767	49,519	51,488	52,823
45-49	192,231	33,760	36,207	38,492	40,557	43,215	197,908	34,999	37,556	39,576	41,777	44,000
50-54	144,155	26,199	27,366	28,545	30,211	31,834	154,523	28,559	29,480	30,667	32,190	33,627
55-59	108,992	18,975	20,529	21,762	23,137	24,589	122,524	21,573	23,099	24,471	25,808	27,573
60-64	78,527	14,502	15,073	15,795	16,194	16,963	91,812	16,661	17,446	18,411	19,325	19,969
65-69	57,863	10,142	10,778	11,540	12,409	12,994	70,720	12,717	13,549	14,195	14,795	15,464
70-74	39,798	7,166	7,556	7,921	8,318	8,837	53,316	9,598	10,161	10,650	11,152	11,755
75-79	25,175	4,232	4,642	5,028	5,453	5,820	37,214	6,482	6,944	7,440	7,982	8,366
80-84	13,701	2,175	2,465	2,744	3,014	3,303	23,580	4,027	4,371	4,734	5,032	5,416
85+	9,815	1,606	1,761	1,930	2,132	2,386	21,332	3,530	3,863	4,240	4,615	5,084
Total	3,190,816	594,824	617,928	639,951	659,695	678,418	3,083,264	577,837	598,160	617,977	636,215	653,075

Source: National Center for Health Statistics. URL: <http://www.cdc.gov/nchs/about/major/dvs/popbridge/popbridge.htm>.

**Table 20. Age Distribution (%) of Incidence Cases in New Jersey, 2001-2005
All Races, Both Sexes**

Cancer Site	0-19	20-34	35-44	45-54	55-64	65-74	75-84	85+	All Ages	Cases
All Sites	0.9%	2.3%	5.7%	13.0%	20.9%	25.5%	23.8%	7.8%	100%	230,814
Male	1.0%	1.9%	3.9%	11.0%	22.6%	29.2%	24.4%	6.1%	100%	117,730
Female	0.9%	2.8%	7.7%	15.2%	19.3%	21.6%	23.2%	9.4%	100%	113,084
Oral Cavity and Pharynx	0.4%	2.1%	7.3%	20.8%	24.2%	22.2%	17.2%	5.9%	100%	4,437
Esophagus	0.0%	0.4%	2.3%	12.2%	24.1%	28.6%	24.7%	7.7%	100%	2,268
Stomach	0.1%	1.4%	4.6%	9.6%	17.3%	25.2%	29.6%	12.2%	100%	4,163
Colon and Rectum	0.0%	0.9%	3.3%	9.9%	17.1%	24.8%	30.9%	13.1%	100%	26,349
Male	0.0%	0.9%	3.5%	10.5%	19.9%	27.6%	28.9%	8.7%	100%	13,065
Female	0.0%	1.0%	3.2%	9.2%	14.3%	22.0%	32.9%	17.4%	100%	13,284
Colon	0.0%	0.9%	2.8%	8.6%	15.6%	24.7%	32.9%	14.5%	100%	19,075
Rectum	0.0%	1.0%	4.7%	13.0%	21.0%	25.1%	25.8%	9.4%	100%	7,274
Liver and Intrahepatic Bile Duct	0.9%	1.1%	3.4%	16.9%	22.1%	24.1%	23.8%	7.8%	100%	2,717
Pancreas	0.0%	0.4%	2.2%	8.1%	18.5%	26.1%	31.8%	12.9%	100%	5,570
Lung and Bronchus	0.0%	0.2%	2.1%	8.4%	21.0%	30.7%	30.0%	7.6%	100%	29,938
Male	0.0%	0.2%	1.8%	8.2%	21.8%	31.8%	29.9%	6.3%	100%	15,512
Female	0.0%	0.2%	2.4%	8.6%	20.2%	29.4%	30.2%	8.9%	100%	14,426
Melanoma of the Skin	0.9%	6.2%	12.0%	17.2%	18.7%	20.3%	18.6%	6.3%	100%	8,981
Breast (female)	0.0%	1.9%	10.9%	22.0%	22.3%	19.8%	17.3%	5.9%	100%	32,353
Cervix Uteri	0.1%	11.9%	23.8%	25.9%	16.7%	11.2%	7.7%	2.6%	100%	2,194
Corpus and Uterus, NOS	0.0%	0.9%	4.9%	17.0%	30.1%	24.8%	17.4%	4.9%	100%	7,132
Ovary	1.0%	2.8%	8.3%	19.6%	21.9%	19.3%	19.0%	8.2%	100%	3,731
Prostate	0.0%	0.0%	0.6%	8.6%	27.7%	36.3%	22.7%	4.1%	100%	36,024
Testis	5.5%	43.7%	31.3%	13.9%	3.6%	1.1%	0.8%	0.2%	100%	1,228
Urinary Bladder	0.1%	0.4%	2.2%	7.3%	17.9%	28.1%	32.2%	11.9%	100%	11,883
Kidney and Renal Pelvis	1.3%	1.5%	6.1%	15.2%	22.8%	25.5%	21.8%	5.7%	100%	6,661
Brain and Other Nervous System	12.0%	7.2%	9.8%	16.4%	16.6%	18.3%	14.9%	4.8%	100%	3,110
Thyroid	1.7%	15.7%	22.0%	23.6%	17.4%	11.2%	7.0%	1.4%	100%	5,262
Hodgkin Lymphoma	10.4%	29.6%	19.1%	13.9%	9.7%	8.8%	6.9%	1.6%	100%	1,475
Non-Hodgkin Lymphoma	1.7%	3.8%	7.5%	13.4%	17.7%	22.3%	25.2%	8.5%	100%	9,623
Myeloma	0.0%	0.7%	3.4%	12.0%	18.3%	27.5%	28.1%	10.0%	100%	2,776
Leukemia	9.2%	3.9%	5.1%	10.0%	15.5%	21.0%	25.5%	9.9%	100%	5,847
Acute Lymphocytic Leukemia	58.6%	8.9%	4.5%	5.3%	6.5%	7.7%	6.3%	2.1%	100%	662
Chronic Lymphocytic Leukemia	0.0%	0.4%	1.8%	9.4%	19.4%	26.1%	31.5%	11.5%	100%	2,043
Acute Myeloid Leukemia	5.4%	5.6%	6.4%	10.9%	14.9%	21.4%	26.0%	9.5%	100%	1,769
Chronic Myeloid Leukemia	1.9%	5.0%	10.1%	13.6%	15.5%	19.8%	24.9%	9.2%	100%	676
Other Leukemia	6.9%	3.7%	3.7%	6.2%	9.4%	21.2%	29.3%	19.6%	100%	321
Mesothelioma	0.0%	0.3%	1.2%	4.1%	13.1%	27.3%	43.5%	10.5%	100%	733
Kaposi Sarcoma	0.0%	13.8%	25.3%	15.3%	7.7%	9.6%	16.5%	11.9%	100%	261

**Table 21. Median Age of Cancer Patients at Diagnosis, New Jersey 2001-2005
By Primary Cancer Site, Race and Sex**

Cancer Site	All Races			Whites			Blacks		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
All Sites	67	68	67	68	69	68	64	64	62
Oral Cavity and Pharynx	62	61	66	64	61	68	58	59	57
Esophagus	69	67	72	69	68	73	63	63	63
Stomach	72	70	75	73	71	76	69	67	71
Colon and Rectum	73	71	75	73	71	76	67	66	68
Colon excluding Rectum	74	72	75	75	73	76	68	67	68
Rectum	68	67	71	70	68	72	64	63	64
Liver and Intrahepatic Bile Duct	67	64	74	69	67	75	60	58	67
Pancreas	73	70	75	73	71	76	69	66	72
Lung and Bronchus	71	71	71	71	71	72	66	66	67
Melanoma of the Skin	62	64	58	62	65	58	70	65	70
Breast	61	68	61	62	69	62	58	63	58
Cervix Uteri	*	*	50	*	*	50	*	*	50
Corpus and Uterus, NOS	*	*	63	*	*	64	*	*	64
Ovary	*	*	63	*	*	63	*	*	62
Prostate	*	68	*	*	69	*	*	66	*
Testis	*	35	*	*	35	*	*	34	*
Urinary Bladder	73	72	74	73	73	74	70	69	72
Kidney and Renal Pelvis	66	64	68	67	65	69	62	61	64
Brain and Other Nervous System	57	56	59	59	57	60	50	50	51
Thyroid	49	53	47	49	54	47	50	55	49
Hodgkin Lymphoma	40	41	39	40	41	39	40	39	42
Non-Hodgkin Lymphoma	67	65	70	69	67	71	54	52	58
Myeloma	70	69	72	72	70	74	67	67	68
Leukemia	68	67	70	69	68	71	60	60	61
Acute Lymphocytic Leukemia	14	14	14	15	16	14	13	12	17
Chronic Lymphocytic Leukemia	72	71	75	73	71	75	68	67	69
Acute Myeloid Leukemia	68	68	69	70	70	70	58	59	57
Chronic Myeloid Leukemia	67	66	69	70	68	71	59	59	59
Other Leukemia	74	73	76	75	74	79	63	50	70
Mesothelioma	76	75	76	76	76	76	71	71	72
Kaposi Sarcoma	51	48	81	70	61	82	41	41	42

* Non-applicable gender.