Chapter 31
Race and Ethnicity

Limin X. Clegg and Lynn A. Gloeckler Ries

INTRODUCTION

Cancer is the second leading cause of death in the U.S., and accounts for approximately one-fourth of all deaths. In 2006, an estimated 1.4 million Americans will be diagnosed with cancer (other than carcinomas of the skin) and 564,830 people will die of cancer (1). The most common cancers among men are carcinomas of the prostate, lung (including bronchus), and colon/rectum, whereas women are most likely to develop carcinomas of the breast, lung, and colon/rectum (1). Published SEER data show that for most cancers, including the four major ones (colon/rectum, lung and bronchus, female breast, and prostate), relative survival rates among African-American patients were poorer than for white patients, although survival improved in recent years for both groups (2). Published information on patient survival among other racial/ethnic minorities is limited.

This chapter describes and compares cancer-specific survival rates by racial/ethnic group among adult patients (aged 20 or older at disease diagnosis) diagnosed with a first malignant neoplasm during the period between 1988 and 2001 in 12 SEER geographic areas. The cancer-specific survival measure used in this study quantifies the likelihood that a cancer patient will not die of the neoplasm within a specified time after diagnosis. The cancers included in this chapter are all cancers combined and individual cancers by body system for 6 race/ethnicity groups (white, black, Asian/Pacific Islander (API), American Indian/Alaska Native (AI/AN), Hispanic and non-Hispanic). Note that these groupings are not mutually exclusive in that Hispanic or non-Hispanic can be of any race. For the four major cancers: female breast, colorectal, lung (including bronchus), and prostate, the API group is broken into Asian and Pacific Islanders with specific Asian and Pacific Islander groups shown separately and whites are subdivided by Hispanic and non-Hispanic.

MATERIALS AND METHODS

Study Populations and Data Sources

The NCI SEER Program currently collects cancer incidence and survival information from 18 geographic areas that encompass nearly 26% of the total U.S. population. This study utilizes the data from 12 geographic areas that include the States of Connecticut, Hawaii, Iowa, New Mexico, and Utah; the metropolitan areas of Atlanta, Detroit, Seattle-Puget Sound, San Francisco-Oakland, Los Angeles, San Jose-Monterey, and Rural Georgia. Data are included for adults who resided in these areas and were diagnosed with their first invasive cancer between 1988 and 2001, except for Los Angeles for which data are only included from 1992-2001. These patients were followed for vital status through December 31, 2002.

The first part of this chapter focuses on anatomic systems and the major sites within them by race/ethnicity (white, black, American Indian/Alaska Native (AI/AN), Asian/Pacific Islander (API), Hispanic, and non-Hispanic).

The second part focuses on detailed race/ethnicity for cancers of the breast (females), lung (including bronchus), prostate, and colon/rectum. These four cancers accounted for more than 50% of all incident cancers diagnosed in the SEER areas during these years. Since this part of the analyses separates Asians from Pacific Islanders, the cases used were limited to 1991-2001 years of diagnosis when this detail was collected. The race/ethnicity codes used were: white; white non-Hispanic, white Hispanic, black, AI/AN, Asian, and Pacific Islanders. The Asian group was further classified by Asian Indian/Pakistani, Chinese, Filipino, Korean, Japanese, Vietnamese, and other Asian. The Pacific Islanders were further classified by Hawaiian and other Pacific Islander.

Excluded from the study were cancer patients whose initial diagnosis was found on the death certificate or at autopsy, patients who were not under active follow-up or alive with no survival time, patients who were diagnosed under age 20, in situ cancers, and no microscopic confirmation or unknown. Unlike other chapters, sarcomas were included and cases with unknown or missing cause of death were also excluded because it would not be possible to classify the case as a death due to the cancer vs. not due to the cancer. Cancer site and morphology were coded according to the International Classification of Diseases for Oncology, Second edition (ICD-O-2) up to 2001 or Third edition (ICD-O-3) for 2001.

Cancer Staging

Cancer stage was determined by extent of cancer spread from the site of origin at initial diagnosis. The SEER historic staging scheme classified invasive cancers into four stages: localized to the primary tumor site, tumor with regional spread or metastases to regional lymph node, tumor with distant metastases, or unknown stage (when relevant data were unavailable, or stage was assigned more than four months after initial diagnosis). Data on cancer stage were included for breast, colorectal, lung, and prostate cancers. For prostate cancer, local and regional stages were combined because these two stages were not consistent over time.

Statistical Analysis

This analysis utilized cancer-specific survival rates rather than relative survival rates (2). The relative survival rate was used in the other chapters of this monograph and it is defined as the ratio of observed all-cause survival to expected survival (3). For this analysis, cause-specific (c-s) survival rates were calculated based on the underlying cause of death as coded based on the death certificate. Any cancer listed as the underlying cause of death was considered a death due to the cancer. In addition, some AIDS deaths and benign/borderline/in situ and unspecified cancers were included as a death due to cancer. Kaposi sarcoma was excluded from all sites and the specific diagnoses because many times the death certificate is signed out to HIV/AIDS or some other cause and rarely is Kaposi sarcoma listed as the underlying cause of death.

The cause-specific (c-s) survival rate uses the actuarial or lifetable method with deaths not associated with the cancer censored at time of death. Deaths which were considered to be attributed to the cancer were treated as deaths and other deaths were considered losses to follow-up at the date of death. Survival times were measured in months and were censored at the date of a patient being lost to follow-up, the date of death from causes not considered as deaths due to the cancer, or on December 31, 2002, whichever occurred first. While c-s rates were calculated monthly, only the 5-year c-s rates are shown due to lack of space. Survival rates are not shown for less than 25 cases and frequencies are not shown for under 5 cases.

RESULTS

A total of 1,595,392 adult men and women were included who were diagnosed with an incident malignant cancer in the 12 SEER areas during the period 1988-2001. Table 31.1 shows the 5-year cause-specific survival rates by anatomic system and major sites within those systems for males and females combined by race/ethnicity. Survival rates for males are shown in table 31.2 and for females in table 31.3. For all sites combined, the 5-year c-s survival was highest for white patients (65%) and lowest for AI/AN (54%). The overall rates for Hispanics and non-Hispanics were similar. While the c-s rate for all sites is interesting by race/ethnicity, emphasis should be on evaluating c-s rates for individual primary sites among the racial/ethnic groups since there is a different distribution of sites for each race/ethnicity. Therefore, c-s rates are shown for a very detailed list of primary sites. The following four cancers represented over half of the cancer diagnoses included for study in 1991-2001: lung/bronchus (162,121 cases) (Tables 31.4, 31.5, and 31.6), female breast (215,368) (Table 31.7), prostate (237,138) (Table 31.8), and colon/rectum (147,323) (Table 31.9).

Table 31.4 shows the distributions of cancer stage at diagnosis and 5-year c-s survival by more detailed race/ethnicity for males and females diagnosed with lung cancer. Tables 31.5 and 31.6 show lung cancer for males and females, respectively. For males and females combined, the 5-year c-s rates ranged from a low of 11.9% for Other Pacific Islanders to a high of 23.0% among Asian Indian/Pakistanis. Most of the rates were in the 12-17% range. The overall low survival rates were associated with a high proportion of regional and distant disease. Asian Indians/Pakistanis had the lowest percentage of distant disease, 35%, and the highest regional disease, 44%, contributing to their higher overall survival rate. While the survival rates were much higher for localized disease (41-69%), less than 20% were diagnosed while the tumor was confined to the lung for each of the race/ethnicities. For most groups, females (Table 31.6) had a higher percentage of localized disease compared to males (Table 31.5). Even within stage females had higher survival rates than males for lung cancer. For females, 5-year c-s survival rates for localized disease ranged from 44% for Pacific Islander to 84% for Other Asians (based on few cases).

Table 31.7 shows the distributions of cancer stage at diagnosis and 5-year c-s survival by race/ethnicity for female breast cancer. Unlike lung cancer, a high proportion of breast cancer cases were localized at diagnosis and a very small percentage were distant (under 10% for each group). Five-year c-s survival rates were high for localized disease, over 90% for all except blacks and AI/AN.

Table 31.8 shows the distributions of cancer stage at diagnosis and 5-year c-s survival by race/ethnicity for prostate cancer. Over 80% of the prostate cases were localized/regional at diagnosis. Survival rates were very high for localized/regional disease and ranged from 88% for Other Pacific Islander to 97% for Other Asian. Only a small percentage of cases were distant and even distant survival rates were higher than distant for most other sites.

Table 31.9 shows the distributions of cancer stage at diagnosis and 5-year c-s survival by race/ethnicity for males and females for cancer of the colon and rectum. Since survival rates were similar by sex, survival rates are not shown separately by sex. There was a fairly even split between localized and regional disease for each of the race/ethnicity groups. Only a small proportion were unstaged.

DISCUSSION

This chapter describes racial/ethnic patterns in cancer-specific survival rates by primary site and gender. It expands on the findings from an earlier report of population-based data on cancer-specific survival for the six major racial/ethnic groups in the U.S. (4). Many report have focused largely on whites and African-Americans (5-8). This study was facilitated by the intentional coverage by the SEER Program of certain geographic areas with relatively large racial/ethnic population subgroups so that information on the cancer burden would be available for these groups (9). Although geographic areas included in the SEER Program were not selected randomly, they include various levels of urbanization and socioeconomic status. Thus, descriptive studies based on SEER data, which covers large percentages of the populations being studied, provide insights into patterns at the national level.

In many of SEER publications, expected survival data were calculated using 1970, 1980, and 1990 US decennial life tables matched on age, race, and sex. However for these years, reliable expected life tables are not available for Hispanic whites, Native-Hawaiians, American Indians/Alaska Natives, and Asian Americans and these would be needed to generate valid relative survival estimates. Estimation of expected life tables depends on US mortality rates from all causes. Based on its current research on the quality and reliability of US mortality rates (from all causes) by race and Hispanic origin, however, the National Center for Health Statistics estimates that the published mortality rates for the white and African American population are overstated in official publications by an estimated 1.0% and 5.0%, respectively, resulting principally from undercounts of these population groups in the census. Mortality rates for other minority groups are understated in official publications, approximately by 21% for American Indians and 11% for Asian and Pacific Islanders (10). For these reasons, c-s rates were chosen to compare survival patterns among racial/ethnic groups, since they do not require race/ethnicity specific life tables.

To obtain reliable estimates of cancer-specific survival, it is essential that classification of the underlying cause of death on death certificates is accurate. For colorectal, lung, breast, and prostate cancers, levels of accuracy exceed 90% for the underlying cause of death (11). There is no definitive answer on what causes of death should be included to indicate that an individual died of their cancer based on the death certificate. In some instances, the cause of death may reflect the site to which the cancer metastasized rather than the primary site. There are other primary site/histology groups where the cause of death may be less specific than the original diagnosis such as leukemia on the death certificate instead of the more specific diagnosis of acute lymphoblastic leukemia. In ICD-10, a cause of death ascribed to multiple cancers would go to C97 and therefore, for persons with more than one cancer, C97 was considered a death due to the cancer. An example of a site-specific decision would be a diagnosis of primary invasive brain tumor but for which the cause of death is brain tumor which would place it in the benign or not specified benign or malignant category which is generally not considered as cancer for mortality data. For brain, one would want to include these but for other cancers, one might not want to include all in situ and benign cancers as death attributed to the invasive cancer. For this analyses, all were included no matter what the original cancer site was.

Since expected rate tables are not readily available for races other than white or black, other methodology was needed to evaluate survival differences by specific race/ethnicity groups. Therefore, cause-specific rates were used in this chapter. Since there isn't a standard set of causes of death to use as deaths due to the disease under study, a study is underway to evaluate which causes would be optimal for each individual primary site. For this chapter, a more generic set of causes of death were used, namely, any cancer cause of death plus AIDS and benign/borderline/in situ cancer deaths. Therefore, the survival rates presented here will be slightly lower than if a more site-specific approach were used because for persons with multiple primaries, the cancer death due to the second primary would be considered

Table 31.1: Number of Cases and 5-Year (5-Yr) Cause-Specific (C-S) Survival Rates (%) Using the Actuarial Method by Selected Primary Site and Race/Ethnicity, Males & Females, Ages 20+, 12 SEER Areas, 1988-2001.

	All races		White		Black		AI/AN	
Primary Site	Cases	5-Yr C-S Rate (%)	Cases	5-Yr C-S Rate (%)	Cases	5-Yr C-S Rate (%)	Cases	5-Yr C-S Rate (%)
All Sites excluding KS	1,595,392	61.7	1,336,148	62.7	147,982	53.1	5,128	52.4
Oral Cavity and Pharynx	38,367	58.3	30,926	60.5	4,137	39.1	145	46.6
Lip	3,953	91.0	3,864	91.3	39	74.9	13	~
Tongue	8,560	53.9	7,062	56.1	903	34.9	24	~
Nasopharynx	2,857	57.0	1,250	49.0	247	48.9	27	48.8
Digestive System	289,603	44.1	231,220	45.1	29,563	36.7	1,127	31.9
Esophagus	14,749	13.8	11,438	14.5	2,367	10.5	43	12.0
Stomach	31,117	22.3	21,851	20.2	3,690	22.3	192	13.8
Small Intestine	4,817	52.2	3,807	52.8	695	52.0	20	~
Colon and Rectum	179,453	59.9	147,992	60.3	16,545	52.3	519	52.7
Colon excluding Rectum	127,087	60.1	104,792	60.6	12,487	52.3	350	54.0
Rectum/Rectosigmoid	52,366	59.4	43,200	59.6	4,058	52.2	169	50.2
Liver/Intrahepatic Bile Duct	13,347	10.2	8,668	9.8	1,491	6.0	103	10.1
Gallbladder & Other Biliary	8,720	17.4	6,950	17.1	610	16.4	113	13.6
Pancreas	29,180	4.4	23,565	4.3	3,383	3.8	106	5.1
Respiratory System	215,839	19.7	177,767	20.1	24,289	16.8	533	14.6
Larynx	14,788	65.7	12,058	67.3	2,129	55.3	31	42.0
Lung and Bronchus	197,654	15.6	162,978	16.0	21,823	12.6	482	12.7
Bones and Joints	3,457	66.5	2,881	66.3	305	68.9	23	~
Soft Tissue including Heart	10,070	64.1	8,164	65.0	1,076	58.5	62	62.4
Skin except Basal/Squamous	60,765	86.1	59,126	86.2	765	84.2	82	77.1
Melanoma of the Skin	55,137	86.0	54,284	86.2	308	68.6	65	72.6
Other Non-Epithelial Skin	5,628	87.2	4,842	86.0	457	94.7	17	~
Breast	257,436	83.9	217,297	84.9	21,690	72.2	793	74.6
Female Genital System	103,856	67.7	87,441	68.3	8,250	56.9	466	63.6
Cervix Uteri	21,240	72.0	16,058	73.1	2,789	63.2	139	69.6
Corpus and Uterus, NOS	48,820	80.9	42,302	82.2	3,138	60.1	161	77.4
Ovary	27,275	41.4	23,477	40.7	1,752	38.4	137	40.5
Male Genital System	286,438	87.2	237,885	87.7	33,108	82.8	676	81.6
Prostate	272,580	86.9	225,162	87.4	32,681	82.8	600	80.9
Testis	12,241	95.5	11,379	95.8	293	87.4	65	90.0
Urinary System	102,313	72.5	90,831	73.2	6,498	64.1	337	66.4
Urinary Bladder	66,937	77.1	61,113	77.8	3,023	63.0	96	69.1
Kidney and Renal Pelvis	33,224	64.3	27,961	64.1	3,260	66.0	234	66.1
Eye and Orbit	2,375	76.4	2,175	75.9	96	79.2	18	~
Brain and Other Nervous	23,018	32.7	20,330	31.6	1,415	40.1	90	44.3
Endocrine System	28,327	91.0	23,107	91.2	1,602	87.7	146	91.9
Thyroid	25,919	93.9	21,274	94.0	1,352	92.1	132	94.0
Myeloma	18,044	31.7	13,985	30.7	2,960	34.9	85	21.4
Leukemia	42,994	47.4	37,011	48.5	3,103	39.7	187	37.0
Acute Lymphocytic	6,640	63.1	5,549	63.9	442	53.5	59	46.7
Chronic Lymphocytic	12,903	71.6	11,787	72.5	825	58.5	29	58.7
Acute Myeloid	12,056	18.5	10,039	18.0	890	19.0	52	19.1
Chronic Myeloid	6,013	41.1	4,967	41.1	564	39.8	30	28.4
Mesothelioma	3,488	7.2	3,175	7.0	179	12.1	16	~
Miscellaneous	31,032	15.8	25,559	16.4	3,303	11.4	129	10.0
Hodgkin Lymphoma	12,172	85.1	10,551	85.4	1,170	82.7	21	~
Non-Hodgkin Lymphoma	65,798	58.2	56,717	58.4	4,473	57.1	192	46.2

~ Statistic not displayed due to less than 25 cases.

AI/AN: American Indian/Alaska Native; API: Asian/Pacific Islander; NOS: Not otherwise specified.

Table 31.1 (continued): Number of Cases and 5-Year (5-Yr) Cause-Specific (C-S) Survival Rates (%) by Selected Site and Race/Ethnicity, Males & Females, Ages 20+, 12 SEER Areas, 1988-2001.

	API		Hispanic		Non-Hispanic	
Primary Site	Cases	5-Yr C-S Rate (%)	Cases	5-Yr C-S Rate (%)	Cases	5-Yr C-S Rate (%)
All Sites excluding KS	106,134	60.5	109,356	61.7	1,486,036	61.7
Oral Cavity and Pharynx	3,159	61.6	2,203	57.2	36,164	58.3
Lip	37	85.3	195	90.7	3,758	91.1
Tongue	571	56.9	475	50.6	8,085	54.1
Nasopharynx	1,333	66.1	157	45.0	2,700	57.7
Digestive System	27,693	44.3	21,249	39.3	268,354	44.5
Esophagus	901	13.8	824	13.7	13,925	13.8
Stomach	5,384	30.8	3,787	23.0	27,330	22.2
Small Intestine	295	46.0	309	51.4	4,508	52.3
Colon and Rectum	14,397	64.4	10,684	58.4	168,769	60.0
Colon excluding Rectum	9,458	64.6	7,054	59.0	120,033	60.2
Rectum/Rectosigmoid	4,939	63.9	3,630	57.2	48,736	59.5
Liver/Intrahepatic Bile Duct	3,085	12.9	1,713	12.8	11,634	9.8
Gallbladder & Other Biliary	1,047	20.3	1,253	18.7	7,467	17.2
Pancreas	2,126	6.0	2,050	6.8	27,130	4.2
Respiratory System	13,250	19.7	9,622	20.4	206,217	19.7
Larynx	570	71.6	883	62.9	13,905	65.9
Lung and Bronchus	12,371	16.3	8,368	14.1	189,286	15.7
Bones and Joints	248	68.3	511	66.4	2,946	66.5
Soft Tissue including Heart	768	62.7	1,160	65.5	8,910	63.9
Skin except Basal/Squamous	792	83.2	1,937	83.3	58,828	86.2
Melanoma of the Skin	480	76.4	1,581	81.1	53,556	86.2
Other Non-Epithelial Skin	312	93.2	356	92.8	5,272	86.8
Breast	17,656	86.9	17,178	81.4	240,258	84.1
Female Genital System	7,699	72.8	9,985	70.8	93,871	67.4
Cervix Uteri	2,254	75.4	4,190	76.0	17,050	71.1
Corpus and Uterus, NOS	3,219	82.8	3,154	79.6	45,666	80.9
Ovary	1,909	52.9	2,120	48.8	25,155	40.8
Male Genital System	14,769	87.9	18,288	87.5	268,150	87.2
Prostate	14,137	87.7	16,538	87.2	256,042	86.9
Testis	504	94.2	1,537	93.0	10,704	95.8
Urinary System	4,647	71.3	6,067	69.6	96,246	72.7
Urinary Bladder	2,705	77.0	2,843	75.0	64,094	77.2
Kidney and Renal Pelvis	1,769	64.4	3,111	65.4	30,113	64.2
Eye and Orbit	86	87.4	232	86.3	2,143	75.5
Brain and Other Nervous	1,183	42.0	2,225	42.9	20,793	31.7
Endocrine System	3,472	91.4	3,402	91.1	24,925	91.0
Thyroid	3,161	93.9	3,132	93.7	22,787	93.9
Myeloma	1,014	39.3	1,408	33.5	16,636	31.6
Leukemia	2,693	41.6	4,277	51.0	38,717	47.0
Acute Lymphocytic	590	64.2	1,713	64.6	4,927	62.5
Chronic Lymphocytic	262	74.0	475	66.6	12,428	71.8
Acute Myeloid	1,075	23.2	1,141	29.6	10,915	17.3
Chronic Myeloid	452	43.5	609	46.4	5,404	40.5
Mesothelioma	118	7.9	309	6.7	3,179	7.3
Miscellaneous	2,041	15.6	2,427	15.8	28,605	15.8
Hodgkin Lymphoma	430	81.8	1,362	81.5	10,810	85.5
Non-Hodgkin Lymphoma	4,416	57.9	5,514	57.6	60,284	58.3

Table 31.2: Number of Cases and 5-Year (5-Yr) Cause-Specific (C-S) Survival Rates (%) Using the Actuarial Method by Selected Primary Site and Race/Ethnicity, Males, Ages 20+, 12 SEER Areas, 1988-2001.

Primary Site	All races		White		Black		AI/AN	
	Cases	5-Yr C-S Rate (%)	Cases	5-Yr C-S Rate (%)	Cases	5-Yr C-S Rate (%)	Cases	5-Yr C-S Rate (%)
All Sites excluding KS	828,041	60.4	690,875	61.6	81,571	53.7	2,435	49.7
Oral Cavity and Pharynx	25,899	56.4	20,770	59.3	2,964	34.8	105	45.5
Lip	3,210	91.1	3,162	91.1	17	~	12	~
Tongue	5,700	51.9	4,690	54.5	670	32.5	15	~
Nasopharynx	1,980	56.5	848	50.0	176	48.5	19	~
Digestive System	154,650	42.1	122,891	43.2	15,234	33.7	605	32.0
Esophagus	11,028	13.6	8,587	14.4	1,670	9.4	37	14.2
Stomach	19,281	20.3	13,779	18.3	2,204	19.8	113	14.7
Small Intestine	2,520	51.5	1,986	51.6	357	52.7	13	~
Colon and Rectum	91,330	59.4	75,434	59.8	7,726	51.3	275	53.2
Colon excluding Rectum	61,761	59.9	51,066	60.4	5,604	51.9	179	55.4
Rectum/Rectosigmoid	29,569	58.3	24,368	58.7	2,122	49.6	96	49.1
Liver/Intrahepatic Bile Duct	9,085	9.6	5,765	9.0	1,062	5.5	70	8.6
Gallbladder & Other Biliary	3,459	18.6	2,709	18.8	234	17.2	35	14.5
Pancreas	14,719	4.2	11,967	4.2	1,625	3.2	45	5.7
Respiratory System	129,278	19.3	104,595	19.8	15,715	16.0	330	14.4
Larynx	11,848	65.9	9,657	67.6	1,673	54.3	26	46.3
Lung and Bronchus	115,384	13.8	93,290	14.1	13,852	11.0	294	11.3
Bones and Joints	1,970	65.2	1,650	65.0	162	66.0	10	~
Soft Tissue including Heart	5,532	63.8	4,503	64.9	570	57.5	33	56.3
Skin except Basal/Squamous	33,199	83.1	32,407	83.1	365	82.3	36	75.4
Melanoma of the Skin	30,143	82.9	29,726	83.1	155	65.8	31	74.6
Other Non-Epithelial Skin	3,056	84.5	2,681	83.3	210	94.3	5	~
Breast	1,680	79.5	1,383	81.6	211	63.6	<5	~
Male Genital System	286,438	87.2	237,885	87.7	33,108	82.8	676	81.6
Prostate	272,580	86.9	225,162	87.4	32,681	82.8	600	80.9
Testis	12,241	95.5	11,379	95.8	293	87.4	65	90.0
Urinary System	71,903	73.8	64,453	74.4	3,968	65.7	222	67.6
Urinary Bladder	49,973	78.4	45,934	78.9	1,943	67.0	81	71.9
Kidney and Renal Pelvis	20,601	63.4	17,406	63.4	1,912	64.7	138	65.7
Eye and Orbit	1,307	77.2	1,208	77.1	48	74.8	11	~
Brain and Other Nervous	13,066	31.6	11,610	30.6	742	40.7	46	43.8
Endocrine System	7,632	84.9	6,383	85.4	401	78.1	36	85.9
Thyroid	6,291	90.2	5,361	90.5	284	83.6	27	88.6
Myeloma	9,653	32.9	7,634	31.8	1,418	36.0	46	22.7
Leukemia	24,772	47.6	21,420	48.9	1,676	39.6	102	35.5
Acute Lymphocytic	3,803	61.8	3,183	62.6	241	55.0	34	45.4
Chronic Lymphocytic	7,677	70.5	7,014	71.6	477	54.6	14	~
Acute Myeloid	6,518	17.2	5,469	16.9	432	19.4	28	21.8
Chronic Myeloid	3,492	39.7	2,875	39.7	326	36.9	16	~
Mesothelioma	2,741	4.8	2,505	4.5	131	10.3	12	~
Miscellaneous	15,365	18.0	12,612	19.2	1,646	10.2	53	14.9
Hodgkin Lymphoma	6,667	83.8	5,799	84.3	630	80.2	10	~
Non-Hodgkin Lymphoma	36,289	57.4	31,167	57.7	2,582	56.0	99	40.5

~ Statistic not displayed due to less than 25 cases.

AI/AN: American Indian/Alaska Native; API: Asian/Pacific Islander; NOS: Not otherwise specified.

Table 31.2 (continued): Number of Cases and 5-Year (5-Yr) Cause-Specific (C-S) Survival Rates (%) by Selected Site and Race/Ethnicity, Males, Ages 20+, 12 SEER Areas, 1988-2001.

	API		Hispanic		Non-Hispanic	
Primary Site	Cases	5-Yr C-S Rate (%)	Cases	5-Yr C-S Rate (%)	Cases	5-Yr C-S Rate (%)
All Sites excluding KS	53,160	55.2	53,674	59.6	774,367	60.4
Oral Cavity and Pharynx	2,060	58.6	1,494	53.2	24,405	56.6
Lip	19	~	159	89.8	3,051	91.2
Tongue	325	54.0	302	45.2	5,398	52.3
Nasopharynx	937	63.7	103	43.7	1,877	57.2
Digestive System	15,920	42.2	11,487	38.2	143,163	42.4
Esophagus	734	13.3	653	13.4	10,375	13.6
Stomach	3,185	29.8	2,187	21.1	17,094	20.3
Small Intestine	164	50.6	158	51.4	2,362	51.6
Colon and Rectum	7,895	63.4	5,728	57.9	85,602	59.5
Colon excluding Rectum	4,912	64.4	3,568	59.1	58,193	60.0
Rectum/Rectosigmoid	2,983	61.8	2,160	56.1	27,409	58.5
Liver/Intrahepatic Bile Duct	2,188	13.2	1,143	12.0	7,942	9.3
Gallbladder & Other Biliary	481	18.5	405	18.7	3,054	18.6
Pancreas	1,082	5.0	965	5.7	13,754	4.1
Respiratory System	8,638	19.4	5,930	20.7	123,348	19.3
Larynx	492	72.0	740	63.4	11,108	66.1
Lung and Bronchus	7,948	15.2	4,933	12.2	110,451	13.9
Bones and Joints	148	69.5	295	66.3	1,675	65.1
Soft Tissue including Heart	426	60.7	626	64.4	4,906	63.8
Skin except Basal/Squamous	391	79.6	814	77.5	32,385	83.2
Melanoma of the Skin	231	71.5	643	73.8	29,500	83.1
Other Non-Epithelial Skin	160	91.1	171	91.5	2,885	84.1
Breast	83	83.2	71	70.0	1,609	79.9
Male Genital System	14,769	87.9	18,288	87.5	268,150	87.2
Prostate	14,137	87.7	16,538	87.2	256,042	86.9
Testis	504	94.2	1,537	93.0	10,704	95.8
Urinary System	3,260	72.1	3,986	69.7	67,917	74.0
Urinary Bladder	2,015	78.5	2,079	77.0	47,894	78.5
Kidney and Renal Pelvis	1,145	62.6	1,839	62.1	18,762	63.6
Eye and Orbit	40	87.0	136	89.8	1,171	75.9
Brain and Other Nervous	668	39.6	1,215	41.8	11,851	30.6
Endocrine System	812	84.7	749	83.2	6,883	85.1
Thyroid	619	90.4	589	90.4	5,702	90.1
Myeloma	555	40.8	764	35.0	8,889	32.7
Leukemia	1,574	40.2	2,435	51.0	22,337	47.3
Acute Lymphocytic	345	60.6	992	63.2	2,811	61.2
Chronic Lymphocytic	172	71.1	283	66.6	7,394	70.6
Acute Myeloid	589	18.7	599	28.3	5,919	16.1
Chronic Myeloid	275	43.9	361	43.6	3,131	39.2
Mesothelioma	93	6.1	237	5.5	2,504	4.7
Miscellaneous	1,054	16.3	1,170	16.7	14,195	18.1
Hodgkin Lymphoma	228	79.0	803	78.9	5,864	84.4
Non-Hodgkin Lymphoma	2,441	55.7	3,174	55.9	33,115	57.5

Table 31.3: Number of Cases and 5-Year (5-Yr) Cause-Specific (C-S) Survival Rates (%) Using the Actuarial Method by Selected Primary Site and Race/Ethnicity, Females, Ages 20+, 12 SEER Areas, 1988-2001.

	All races		White		Black		AI/AN	
Primary Site	Cases	5-Yr C-S Rate (%)	Cases	5-Yr C-S Rate (%)	Cases	5-Yr C-S Rate (%)	Cases	5-Yr C-S Rate (%)
All Sites excluding KS	767,351	63.1	645,273	64.0	66,411	52.5	2,693	54.8
Oral Cavity and Pharynx	12,468	62.0	10,156	62.8	1,173	49.9	40	50.2
Lip	743	90.7	702	92.0	22	~	1	~
Tongue	2,860	57.7	2,372	59.0	233	41.5	9	~
Nasopharynx	877	58.2	402	46.8	71	49.9	8	~
Digestive System	134,953	46.4	108,329	47.2	14,329	39.9	522	31.9
Esophagus	3,721	14.6	2,851	14.9	697	13.2	6	~
Stomach	11,836	25.5	8,072	23.6	1,486	26.0	79	12.8
Small Intestine	2,297	52.9	1,821	54.1	338	51.1	7	~
Colon and Rectum	88,123	60.4	72,558	60.8	8,819	53.1	244	52.1
Colon excluding Rectum	65,326	60.2	53,726	60.8	6,883	52.6	171	52.5
Rectum/Rectosigmoid	22,797	60.8	18,832	60.7	1,936	55.0	73	51.8
Liver/Intrahepatic Bile Duct	4,262	11.2	2,903	11.5	429	6.6	33	13.7
Gallbladder & Other Biliary	5,261	16.6	4,241	16.1	376	15.9	78	13.2
Pancreas	14,461	4.6	11,598	4.4	1,758	4.4	61	4.8
Respiratory System	86,561	20.3	73,172	20.5	8,574	18.3	203	14.9
Larynx	2,940	64.8	2,401	65.8	456	58.9	5	~
Lung and Bronchus	82,270	18.1	69,688	18.5	7,971	15.4	188	14.4
Bones and Joints	1,487	68.2	1,231	68.0	143	72.0	13	~
Soft Tissue including Heart	4,538	64.4	3,661	65.0	506	59.5	29	69.4
Skin except Basal/Squamous	27,566	89.8	26,719	89.9	400	85.9	46	78.3
Melanoma of the Skin	24,994	89.7	24,558	90.0	153	71.4	34	70.7
Other Non-Epithelial Skin	2,572	90.3	2,161	89.3	247	94.9	12	~
Breast	255,756	84.0	215,914	84.9	21,479	72.3	790	74.5
Female Genital System	103,856	67.7	87,441	68.3	8,250	56.9	466	63.6
Cervix Uteri	21,240	72.0	16,058	73.1	2,789	63.2	139	69.6
Corpus and Uterus, NOS	48,820	80.9	42,302	82.2	3,138	60.1	161	77.4
Ovary	27,275	41.4	23,477	40.7	1,752	38.4	137	40.5
Urinary System	30,410	69.4	26,378	70.2	2,530	61.7	115	64.1
Urinary Bladder	16,964	73.0	15,179	74.2	1,080	55.8	15	~
Kidney and Renal Pelvis	12,623	65.8	10,555	65.5	1,348	67.8	96	66.5
Eye and Orbit	1,068	75.5	967	74.4	48	83.4	7	~
Brain and Other Nervous	9,952	34.2	8,720	33.1	673	39.4	44	43.6
Endocrine System	20,695	93.3	16,724	93.4	1,201	91.0	110	93.8
Thyroid	19,628	95.1	15,913	95.2	1,068	94.4	105	95.4
Myeloma	8,391	30.5	6,351	29.3	1,542	33.8	39	20.4
Leukemia	18,222	47.0	15,591	48.0	1,427	39.9	85	38.9
Acute Lymphocytic	2,837	64.9	2,366	65.7	201	51.7	25	47.8
Chronic Lymphocytic	5,226	73.3	4,773	73.9	348	63.7	15	~
Acute Myeloid	5,538	20.0	4,570	19.2	458	18.6	24	~
Chronic Myeloid	2,521	43.1	2,092	43.1	238	44.0	14	~
Mesothelioma	747	15.8	670	15.9	48	16.6	4	~
Miscellaneous	15,667	13.7	12,947	13.8	1,657	12.5	76	7.1
Hodgkin Lymphoma	5,505	86.6	4,752	86.8	540	85.4	11	~
Non-Hodgkin Lymphoma	29,509	59.2	25,550	59.2	1,891	58.4	93	51.9

~ Statistic not displayed due to less than 25 cases.

AI/AN: American Indian/Alaska Native; API: Asian/Pacific Islander; NOS: Not otherwise specified.

Table 31.3 (continued): Number of Cases and 5-Year (5-Yr) Cause-Specific (C-S) Survival Rates (%) by Selected Site and Race/Ethnicity, Females, Ages 20+, 12 SEER Areas, 1988-2001.

	API		Hispanic		Non-Hispanic	
Primary Site	Cases	5-Yr C-S Rate (%)	Cases	5-Yr C-S Rate (%)	Cases	5-Yr C-S Rate (%)
All Sites excluding KS	52,974	65.7	55,682	63.7	711,669	63.0
Oral Cavity and Pharynx	1,099	67.3	709	65.5	11,759	61.8
Lip	18	~	36	93.5	707	90.5
Tongue	246	60.3	173	59.8	2,687	57.6
Nasopharynx	396	72.3	54	47.0	823	58.9
Digestive System	11,773	47.0	9,762	40.6	125,191	46.8
Esophagus	167	15.8	171	14.9	3,550	14.6
Stomach	2,199	32.4	1,600	25.7	10,236	25.5
Small Intestine	131	40.3	151	51.4	2,146	53.0
Colon and Rectum	6,502	65.5	4,956	58.9	83,167	60.4
Colon excluding Rectum	4,546	64.9	3,486	58.9	61,840	60.3
Rectum/Rectosigmoid	1,956	66.9	1,470	58.9	21,327	60.9
Liver/Intrahepatic Bile Duct	897	12.4	570	14.1	3,692	10.8
Gallbladder & Other Biliary	566	21.9	848	18.5	4,413	16.3
Pancreas	1,044	7.1	1,085	7.7	13,376	4.4
Respiratory System	4,612	20.1	3,692	20.0	82,869	20.3
Larynx	78	69.4	143	60.3	2,797	65.0
Lung and Bronchus	4,423	18.2	3,435	16.8	78,835	18.2
Bones and Joints	100	66.7	216	66.6	1,271	68.5
Soft Tissue including Heart	342	64.8	534	66.5	4,004	64.1
Skin except Basal/Squamous	401	86.8	1,123	87.4	26,443	89.9
Melanoma of the Skin	249	81.2	938	86.0	24,056	89.9
Other Non-Epithelial Skin	152	95.5	185	93.8	2,387	90.0
Breast	17,573	86.9	17,107	81.5	238,649	84.1
Female Genital System	7,699	72.8	9,985	70.8	93,871	67.4
Cervix Uteri	2,254	75.4	4,190	76.0	17,050	71.1
Corpus and Uterus, NOS	3,219	82.8	3,154	79.6	45,666	80.9
Ovary	1,909	52.9	2,120	48.8	25,155	40.8
Urinary System	1,387	69.5	2,081	69.5	28,329	69.4
Urinary Bladder	690	72.5	764	69.6	16,200	73.2
Kidney and Renal Pelvis	624	67.6	1,272	70.3	11,351	65.3
Eye and Orbit	46	88.6	96	82.0	972	75.0
Brain and Other Nervous	515	45.4	1,010	44.3	8,942	33.0
Endocrine System	2,660	93.3	2,653	93.3	18,042	93.3
Thyroid	2,542	94.7	2,543	94.5	17,085	95.2
Myeloma	459	37.6	644	31.8	7,747	30.3
Leukemia	1,119	43.5	1,842	51.1	16,380	46.6
Acute Lymphocytic	245	69.2	721	66.5	2,116	64.3
Chronic Lymphocytic	90	79.8	192	66.5	5,034	73.6
Acute Myeloid	486	28.5	542	31.1	4,996	18.7
Chronic Myeloid	177	43.1	248	50.5	2,273	42.3
Mesothelioma	25	16.2	72	10.5	675	16.4
Miscellaneous	987	15.0	1,257	15.0	14,410	13.6
Hodgkin Lymphoma	202	85.2	559	85.1	4,946	86.8
Non-Hodgkin Lymphoma	1,975	60.6	2,340	59.7	27,169	59.2

Table 31.4: Cancer of the Lung - Males & Females: 5-Year Cause-Specific Survival Rates (%) by Race/Ethnicity and Historic Stage, Ages 20+, 12 SEER Areas, 1991-2001.

		Stage Distribution				5-Year Cause-Specific Survival Rate (%)				
		Loc	Reg	Dist	Uns	All	Loc	Reg	Dist	Uns
Race/Ethnicity	Cases	Percent	Percent	Percent	Percent	Rate (%)	Rate (%)	Rate (%)	Rate (%)	Rate (%)
All Races	162,121	16.4	38.0	39.2	6.4	15.6	49.9	15.7	1.9	11.2
White	132,779	16.9	37.8	38.9	6.5	16.0	50.5	16.0	1.8	11.1
White non-Hispanic	125,570	17.0	37.7	38.8	6.4	16.1	50.7	16.2	1.8	10.9
White Hispanic	7,209	14.2	38.0	40.6	7.2	13.6	47.0	13.1	2.0	14.6
Black	18,202	14.2	38.5	40.8	6.5	12.6	43.4	12.9	1.6	11.0
AI/AN	399	16.8	37.1	40.6	5.5	13.4	41.7	13.5	1.6	~
Asian	9,490	14.4	40.7	39.1	5.8	17.0	52.8	17.5	3.4	11.6
Asian Indian/Pakistani	151	16.6	44.4	35.1	4.0	23.0	54.8	18.2	9.7	~
Chinese	2,864	13.2	40.1	39.6	7.2	15.5	50.0	16.8	2.7	10.8
Filipino	2,470	14.6	41.1	38.5	5.8	18.8	53.6	19.1	5.3	11.5
Korean	753	11.7	43.4	38.5	6.4	13.9	50.0	13.6	3.4	11.7
Japanese	2,157	16.6	40.4	39.2	3.9	17.5	55.9	17.8	2.0	4.9
Vietnamese	659	15.2	37.6	42.3	4.9	16.3	43.0	18.2	4.9	22.9
Other Asian	436	13.8	41.5	37.6	7.1	18.1	68.7	17.0	1.8	14.1
Pacific Islander	1,251	13.2	38.1	43.3	5.4	12.6	43.8	14.0	2.3	8.3
Hawaiian	1,010	13.8	37.9	42.6	5.7	12.8	44.4	13.7	2.3	9.5
Other Pacific Islander	241	10.8	39.0	46.5	3.7	11.9	41.0	15.8	!	~

! Not enough intervals to produce rate.
~ Less than 25 cases.
AI/AN: American Indian/Alaska Native; Loc: Localized; Reg: Regional; Dis: Distant; Uns: Unstaged.

a cancer death for the first. Using only the specific cancer as the cause of death, however, overestimates the c-s survival rates. The main point is that if the same definitions for what is considered a 'cancer' death are used across all of the racial groups, then the survival rates can be compared for the racial/ethnic groups. An assumption is that the assignment of the cause of death does not vary across racial/ethnic groups. Another assumption is that there is access to the underlying cause of death for all of the racial/ethnic groups. Several years ago, it was difficult to obtain the underlying cause of death if the person moved out of the state where they were diagnosed and died. However, the National Death Index is now being used to obtain these, A concern, however, would be if there are subgroups who would be more likely than others to return to their original or ancestral country to die. Research is on-going to try to evaluate differences in follow-up rates and non-access to causes of death by race/ethnicity to evaluate the impact on survival differences.

Differences in access to and utilization of effective cancer screening and treatment services by race/ethnicity might explain some of our findings. Other possible explanations for the observed racial/ethnic differences in survival include differences in access to optimal treatments that reduce cancer mortality. In addition, unmeasured biological determinants might partly explain our findings.

Limitations of our study include the relatively small number of cancers diagnosed in some minorities, particularly Native-Americans and Native-Hawaiians. In addition, our analyses only considered tumor stage at diagnosis and not other potential prognostic factors such as tumor size, grade, lymph node status, other patient characteristics such as age, socioeconomic status, co-morbid diseases, and health insurance status. Additional research is needed to clarify the role of socioeconomic, medical, biological, cultural and other determinants of racial/ethnic differences in cancer patient survival described in this report.

Table 31.5: Cancer of the Lung - Males: 5-Year Cause-Specific Survival Rates (%) by Race/Ethnicity and Historic Stage, Ages 20+, 12 SEER Areas, 1991-2001.

Race/Ethnicity	Cases	Stage Distribution				5-Year Cause-Specific Survival Rate (%)				
		Loc	Reg	Dist	Uns	All	Loc	Reg	Dist	Uns
		Percent	Percent	Percent	Percent	Rate (%)	Rate (%)	Rate (%)	Rate (%)	Rate (%)
All Races	93,248	15.0	38.6	40.1	6.4	13.8	45.6	14.6	1.7	9.6
White	74,732	15.4	38.4	39.8	6.4	14.1	46.3	15.0	1.6	9.5
White non-Hispanic	70,499	15.5	38.4	39.7	6.4	14.2	46.6	15.1	1.5	9.1
White Hispanic	4,233	12.9	38.1	41.7	7.3	11.9	41.2	12.1	1.9	14.8
Black	11,420	13.1	38.3	42.2	6.3	10.9	39.1	11.7	1.3	9.2
AI/AN	245	16.7	38.4	40.8	4.1	12.5	39.3	13.1	1.2	~
Asian	6,080	14.1	41.3	38.7	6.0	15.8	47.3	16.4	3.5	12.6
Asian Indian/Pakistani	97	17.5	49.5	30.9	2.1	25.7	~	17.1	!	~
Chinese	1,724	14.0	40.6	37.9	7.4	14.9	43.7	15.6	2.8	12.3
Filipino	1,719	13.7	41.1	39.2	6.0	17.4	49.5	18.3	5.2	14.3
Korean	485	11.1	46.0	36.3	6.6	11.7	40.0	11.5	2.9	11.6
Japanese	1,337	14.8	41.1	39.4	4.6	15.4	53.9	16.0	1.4	4.5
Vietnamese	460	17.2	38.3	40.9	3.7	16.7	35.3	19.8	5.9	~
Other Asian	258	12.0	40.3	40.7	7.0	15.2	54.0	14.2	3.2	~
Pacific Islander	771	12.1	38.7	42.9	6.4	11.4	43.8	11.4	2.8	5.4
Hawaiian	620	13.1	38.2	41.9	6.8	12.0	44.2	11.5	3.3	6.1
Other Pacific Islander	151	7.9	40.4	47.0	4.6	8.8	~	12.0	0.0	~

!Not enough intervals to produce rate.
~Less than 25 cases.
AI/AN: American Indian/Alaska Native; Loc: Localized; Reg: Regional; Dis: Distant; Uns: Unstaged.

Table 31.6: Cancer of the Lung - Females: 5-Year Cause-Specific Survival Rates (%) by Race/Ethnicity and Historic Stage, Ages 20+, 12 SEER Areas, 1991-2001.

Race/Ethnicity	Cases	Stage Distribution				5-Year Cause-Specific Survival Rate (%)				
		Loc	Reg	Dist	Uns	All	Loc	Reg	Dist	Uns
		Percent	Percent	Percent	Percent	Rate (%)	Rate (%)	Rate (%)	Rate (%)	Rate (%)
All Races	68,873	18.3	37.3	37.9	6.5	18.1	54.6	17.2	2.2	13.2
White	58,047	18.8	36.9	37.7	6.5	18.4	54.9	17.4	2.2	13.2
White non-Hispanic	55,071	19.0	36.9	37.6	6.5	18.5	54.9	17.5	2.2	13.1
White Hispanic	2,976	16.1	37.9	39.0	7.0	16.0	53.8	14.7	2.2	14.0
Black	6,782	15.9	38.9	38.5	6.8	15.5	49.5	14.8	2.1	13.9
AI/AN	154	16.9	35.1	40.3	7.8	14.5	44.5	13.6	!	~
Asian	3,410	15.0	39.6	39.9	5.5	19.1	61.9	19.5	3.3	10.5
Asian Indian/Pakistani	54	14.8	35.2	42.6	7.4	21.2	~	~	~	~
Chinese	1,140	11.8	39.4	42.0	6.8	16.3	62.0	18.5	2.6	8.5
Filipino	751	16.8	41.0	36.9	5.3	21.8	60.8	20.8	5.3	8.0
Korean	268	12.7	38.8	42.5	6.0	18.1	66.0	17.4	4.4	~
Japanese	820	19.4	39.1	38.8	2.7	20.8	58.4	20.9	2.9	~
Vietnamese	199	10.6	36.2	45.7	7.5	15.6	~	14.0	2.5	~
Other Asian	178	16.3	43.3	33.1	7.3	22.5	84.1	20.6	0.0	~
Pacific Islander	480	15.0	37.3	44.0	3.8	14.6	44.1	18.3	!	~
Hawaiian	390	14.9	37.4	43.6	4.1	14.2	45.0	17.5	!	~
Other Pacific Islander	90	15.6	36.7	45.6	2.2	17.4	~	22.5	!	~

! Not enough intervals to produce rate.
~ Less than 25 cases.
AI/AN: American Indian/Alaska Native; Loc: Localized; Reg: Regional; Dis: Distant; Uns: Unstaged.

Table 31.7: Cancer of the Female Breast: 5-Year Cause-Specific Survival Rates (%) by Race/Ethnicity and Historic Stage, Ages 20+, 12 SEER Areas, 1991-2001.

Race/Ethnicity	Cases	Stage Distribution				5-Year Cause-Specific Survival Rate (%)				
		Loc	Reg	Dist	Uns	All	Loc	Reg	Dist	Uns
		Percent	Percent	Percent	Percent	Rate (%)	Rate (%)	Rate (%)	Rate (%)	Rate (%)
All Races	215,368	62.7	30.0	5.5	1.8	84.2	93.2	77.4	22.9	63.1
White	180,640	63.7	29.4	5.2	1.7	85.1	93.5	78.8	24.1	64.8
White non-Hispanic	165,465	64.4	28.8	5.1	1.7	85.5	93.6	79.2	24.0	64.9
White Hispanic	15,175	55.7	35.7	6.5	2.1	81.6	92.3	75.7	25.5	64.2
Black	18,539	52.9	35.3	8.7	3.1	72.5	88.3	64.4	15.0	53.4
AI/AN	692	54.0	34.7	8.8	2.5	73.2	89.6	61.8	22.1	~
Asian	14,027	64.2	30.2	4.3	1.3	87.8	95.2	81.0	28.0	68.6
Asian Indian/Pakistani	571	53.4	37.8	7.0	1.8	82.3	94.7	75.4	29.9	~
Chinese	3,244	63.2	31.2	4.3	1.3	87.9	94.8	83.2	26.3	68.4
Filipino	3,714	60.4	33.5	4.7	1.3	86.5	95.3	78.7	28.5	74.1
Korean	781	61.6	32.5	3.7	2.2	86.9	93.7	82.4	19.5	~
Japanese	4,004	71.8	23.8	3.5	0.9	90.6	95.9	84.6	29.1	63.1
Vietnamese	642	57.3	37.1	4.5	1.1	81.7	94.2	68.7	34.7	~
Other Asian	1,071	64.1	30.3	4.2	1.3	87.9	94.4	83.7	29.1	~
Pacific Islander	1,470	59.5	33.1	6.1	1.3	81.9	93.7	76.9	8.4	~
Hawaiian	1,209	61.6	32.2	5.4	0.8	83.4	93.7	78.1	9.9	~
Other Pacific Islander	261	49.4	37.5	9.6	3.4	74.6	93.8	71.9	4.6	~

~ Less than 25 cases.

AI/AN: American Indian/Alaska Native; Loc: Localized; Reg: Regional; Dis: Distant; Uns: Unstaged.

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Table 31.8: Cancer of the Prostate: 5-Year Cause-Specific Survival Rates (%) by Race/Ethnicity and Historic Stage, Ages 20+, 12 SEER Areas, 1991-2001.

Race/Ethnicity	Cases	Stage Distribution			5-Year Cause-Specific Survival Rate (%)			
		Loc/Reg	Dist	Uns	All stages	Loc/Reg	Dis	Uns
		Percent	Percent	Percent	Rate (%)	Rate (%)	Rate (%)	Rate (%)
All Races	237,138	87.6	5.4	7.0	88.1	91.9	34.1	83.0
White	194,529	88.3	4.9	6.8	88.6	92.1	33.5	83.7
White non-Hispanic	179,510	88.4	4.8	6.8	88.7	92.0	33.3	84.1
White Hispanic	15,019	87.0	6.5	6.5	87.8	92.5	34.8	78.1
Black	29,487	83.5	7.7	8.8	84.5	90.1	31.5	78.9
AI/AN	496	87.5	9.3	3.2	82.9	89.0	20.6	~
Asian	11,768	86.9	7.5	5.6	89.3	93.2	49.2	83.6
Asian Indian/Pakistani	485	88.0	6.6	5.4	90.3	93.5	43.2	100.0
Chinese	2,848	87.3	7.8	5.0	90.6	94.2	47.0	91.9
Filipino	3,490	84.6	9.1	6.3	87.4	92.5	48.7	77.8
Korean	371	87.6	6.2	6.2	86.0	91.3	~	~
Japanese	3,741	88.1	6.3	5.6	90.3	93.1	54.6	87.4
Vietnamese	318	88.7	8.2	3.1	82.2	86.8	35.7	~
Other Asian	515	89.9	5.0	5.0	92.1	96.7	47.2	67.6
Pacific Islander	858	85.7	11.3	3.0	81.0	88.5	30.8	69.7
Hawaiian	639	87.5	10.2	2.3	83.1	88.7	36.1	~
Other Pacific Islander	219	80.4	14.6	5.0	74.4	87.7	21.1	~

~ Less than 25 cases.

AI/AN: American Indian/Alaska Native; Loc: Localized; Reg: Regional; Dis: Distant; Uns: Unstaged.

Table 31.9: Cancer of the Colon/rectum - Males & Females: 5-Year Cause-Specific Survival Rates (%) by Race/Ethnicity and Historic Stage, Ages 20+, 12 SEER Areas, 1991-2001.

Race/Ethnicity	Cases	Stage Distribution				5-Year Cause-Specific Survival Rate (%)				
		Loc	Reg	Dist	Uns	All	Loc	Reg	Dist	Uns
		Percent	Percent	Percent	Percent	Rate (%)	Rate (%)	Rate (%)	Rate (%)	Rate (%)
All Races	147,323	38.7	38.5	18.8	3.9	60.0	85.4	61.6	8.4	41.8
White	120,411	39.0	38.7	18.5	3.8	60.4	85.5	62.1	8.5	41.6
White non-Hispanic	111,058	39.3	38.6	18.3	3.8	60.6	85.5	62.2	8.3	41.7
White Hispanic	9,353	35.9	39.7	20.6	3.8	58.5	84.8	61.1	10.9	41.4
Black	14,052	35.3	35.8	23.2	5.7	52.4	81.2	55.0	6.7	42.3
AI/AN	440	32.3	40.0	25.9	1.8	51.3	84.7	52.8	6.7	~
Asian	11,641	39.6	40.6	16.3	3.5	64.8	88.8	64.6	10.1	42.6
Asian Indian/Pakistani	235	39.1	40.4	15.3	5.1	73.4	98.1	74.9	10.5	~
Chinese	3,385	38.3	41.2	16.4	4.1	63.7	89.3	63.0	8.8	44.6
Filipino	2,168	37.6	39.7	18.2	4.5	62.5	88.3	62.9	12.9	39.8
Korean	838	36.5	43.9	15.4	4.2	62.9	82.7	67.7	10.1	31.2
Japanese	3,881	42.5	39.9	15.3	2.2	65.9	88.9	64.2	8.0	40.4
Vietnamese	515	38.6	41.6	17.3	2.5	66.9	91.7	66.0	14.8	~
Other Asian	619	39.9	40.5	15.3	4.2	69.5	90.3	72.1	12.8	44.0
Pacific Islander	779	37.4	37.1	22.0	3.6	56.0	87.1	56.7	7.0	30.4
Hawaiian	650	37.5	37.1	21.5	3.8	57.1	87.5	58.7	7.1	33.8
Other Pacific Islander	129	36.4	37.2	24.0	2.3	50.0	85.1	45.5	6.8	~

~ Less than 25 cases.

AI/AN: American Indian/Alaska Native; Loc: Localized; Reg: Regional; Dis: Distant; Uns: Unstaged.