CANCER IN ARIZONA

CANCER INCIDENCE AND MORTALITY
2002-2004

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Cancer Incidence and Mortality
2002-2004

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Cancer Incidence and Mortality in Arizona

The 2000-2004 Annual Report for The Arizona Cancer Registry

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Table of Contents

Table of Figures

List of Tables

List of Maps

Executive Summary

The Arizona Cancer Registry (ACR) is a population-based surveillance system funded by the state of Arizona with assistance from the Centers for Disease Control and Prevention (CDC) Cooperative Agreement U55/CCU921934. The registry is designed to collect, manage and analyze information on incidence and survival for Arizona residents having been diagnosed with cancer.

It is important to note that the data for 2004 is not complete. Counts for that year are estimated to be approximately 88% complete. One large hospital has not yet submitted cases for as many as 1,100 cases. This will result in lower rates and counts for that year. As data is received updates will be made available through our website at www.azdhs.gov/phs/phstats/acr .

Highlights of the findings for Arizona in 2002-2004 include:

Cancer Incidence in Arizona, 2002-2004

- An average of 22,755 cases of cancer (all invasive and *in situ* bladder) were diagnosed and reported per year in the state with an average annual age-adjusted rate of 406.4 per 100,000.
- Lung cancer was the most common type of cancer diagnosed among both sexes with an average annual age-adjusted rate of 58.2 per 100,000. Prostate cancer was the most common type of cancer diagnosed in males (115.1 per 100,000 males) and breast cancer was the most common type of cancer diagnosed in females (109.9 per 100,000 females).
- Trends of cancer incidence rates in Arizona have shown very little change over the last six years. Arizona rates have consistently been slightly lower than national rates.
- Half of female breast cancer cases were diagnosed in the local stage of disease while only 3 percent were diagnosed in the distant stage. This indicates that breast cancer is being diagnosed in earlier stages which may contribute to better prognoses.

Cancer Mortality in Arizona, 2002-2004

- An average of 9,447 cancer deaths was reported per year in the state giving an average annual age-adjusted rate of 169.0 per 100,000.
- Lung cancer caused the greatest number of cancer deaths between both sexes. Prostate cancer in males and breast cancer in female caused the second highest number of cancer deaths, followed by colorectal cancer in both sexes (excluding the ill-defined site category).
- African Americans have the highest age-adjusted rate of cancer deaths (200.6 per 100,000) among all racial/ethnic groups.
- Lung cancer continues to be the deadliest cancer with almost as many deaths as new cases are diagnosed per year.

Arizona Cancer Registry (ACR) Overview

Historical Perspective: The ACR began operating in 1980 and started collecting information in 1981. Initially, the registry was a voluntary hospital-based reporting system. Mandatory reporting of all Arizona cases became effective in January 1, 1992. The rules require hospitals, clinics and physicians to report cases.

Funding: The ACR receives its funding from state legislature appropriations to the Arizona Department of Health Services. An enhancement fund to support and improve the registry is provided through the National Program of Cancer Registries (NPCR) from a CDC Cooperative Agreement (U55/CCU921934).

Goals of the ACR:

- To collect complete and accurate incidence information and monitor incidence patterns
- To improve and maintain high standards in the quality of information collected
- To promote and assist hospital cancer registries
- To identify population subgroups at high risk for cancer
- To assist in the identification of geographic regions of this state that need intervention programs or epidemiological research, detection and prevention
- To perform studies
- To provide biostatistic and epidemiologic information to the medical community

The services provided to reporting facilities include: exchange of follow-up information, consultation and assistance, statistical support, response to data requests, response to coding and abstracting questions (technical support), training workshops, support of cancer registry software, and provision of all forms and manuals.

The quality assurance program is a comprehensive program that includes: reviewing data to ensure completeness and accuracy, visual editing, immediate and batch edits utilizing the Rocky Mountain Cancer Data System (RMCDS) software program and the CDC/North American Association of Central Cancer Registries (NAACCR) EDITS, additional RMCDS reports reviewed for accuracy, duplicate report checking, on-site case ascertainment reviews to determine the completeness of reporting at hospitals, on-site reabstracting studies to ascertain the validity of the data submitted, internal review, and a timeliness and completeness monitoring program.

Annual Report: This annual report represents persons diagnosed with cancer in 2002-2004 who reside in Arizona. 2004 marks the tenth complete year of population-based incidence reporting for Arizona. The registry collects information on all invasive and *in situ* cancers with the exception of cervix *in situ*. The registry also collects cases of benign brain tumors.

We hope that this document can provide useful information to assist with cancer control activities and provide information for intervention and prevention programs.

Acknowledgments: We would like to acknowledge all participating hospitals, clinics, physicians, and pathology laboratories (freestanding and hospital-based). The hospitals account for most of the reportable cases, providing complete identification and registration of each person with a diagnosis of cancer. Without their cooperation this report would not be possible.

We would like to recognize the New Mexico Tumor Registry (NMTR), which travels into Arizona to collect information in the Indian Health Services (IHS) facilities. Through our agreement with NMTR and IHS, we are able to have complete reporting from Native Americans in the state.

Accomplishments and Activities

Case Reporting:

- A total of 71 hospitals report to the ACR. This report includes data from all non-federal hospitals and five of six federal facilities (VA and military). In addition, the ACR receives cases from outpatient freestanding clinics and physician offices.
- Of the 71, the ACR travels to 12 hospitals (less than 50 beds) to perform data collection of cancer cases. The remaining hospitals submit their reports to the ACR electronically.
- Counts for the year 2004 are estimated to be approximately 90% complete. One large hospital (University Medical Center) has not yet submitted cases for as many as 1,100 cases.
- The ACR also performs casefinding at 34 freestanding and hospital pathology laboratories in order to capture unreported cases. Most cases that were only identified at pathology laboratories were prostate and melanoma.
- To collect the cases of Arizona residents traveling to other states for diagnosis and/or treatment, the ACR has several interstate data exchange agreements. Data is exchanged with all neighboring states. ACR receives Arizona resident cases from 21 states across the U.S. This includes an agreement with New Mexico that allows Arizona to capture American Indian cases through their agreement with USPHS Indian Hospitals.
- All information collected, abstracted and coded is done so in a format consistent with national standards. The Arizona Coding Handbook includes the standards of the American College of Surgeons Commission on Cancer.

Data Submission To National/Government Organizations:

- The ACR is a member of the North American Association of Central Cancer Registries (NAACCR), an organization for cancer registries, governmental agencies, professional associations, and private groups in North America interested in enhancing the quality and use of cancer registry data. ACR participates in a Call for

Data every year. This organization publishes *Cancer in North America (CINA)*, which addresses both incidence and mortality.

- The ACR submits data to Central Brain Tumor Registry of the United States (CBTRUS). This is the largest population-based database of primary brain tumors.
- The ACR submits data to the CDC, NPCR-CSS (National Program of Cancer Registries -Cancer Surveillance System). The CDC and National Cancer Institute (NCI) publish the *United States Cancer Statistics*. This is the official federal statistics on cancer incidence from registries with high quality data.

Data Submission To State Organizations:

- The ACR provides cancer staging information on female breast cancer to the Well Woman HealthCheck Program. The Well Woman HealthCheck Program is part of the National Breast and Cervical Cancer Early Detection Program administered by the CDC. The program began screening women for breast and cervical cancer in 1995. As of March 2007, the program has provided over 44,000 mammograms and close to 37,000 pap tests to approximately 25,932 Arizona women.
- The ACR contributes statistical information to the Arizona Comprehensive Cancer Control (CCC) Program, which is currently in the implementation phase of its 5-year comprehensive state cancer plan. The Arizona CCC Program is part of the National Comprehensive Cancer Control program administered by the CDC. The Arizona CCC program provides leadership for and coordination of statewide cancer control efforts.

Data Quality, Timeliness and Completeness:

- NAACCR established a certification process for central cancer registries. Data for 2002 through 2004 was submitted for evaluation and feedback regarding our achievement in the areas of case ascertainment, completeness of information on critical variables, data accuracy and timeliness.
- All case reports were rigorously reviewed for errors. These errors were corrected before inclusion into the data set used in this report. These error checks included:
  - The standard NAACCR edits include single field, inter-field, and inter-record edits.
  - A manual visual editing of all cases seen at multiple facilities
  - A validity check of codes in all fields used in the report analysis
  - Random and targeted visual editing on unduplicated cases
  - Duplicate error checking of all cases
- The ACR was recognized for achieving the Silver Standard, the second highest standard possible for 2002 data. The ACR did not receive certification for 2003 and 2004 data because at the time of submission the 2003 data was approximately 87% complete and the 2004 data was approximately 88% complete.

- Individual elements measured for certification were as follows:

1) ACR achievement for the % of cases that were "Death Certificate Only":	2002	2003	2004	NAACCR Silver Standard	NAACCR Gold Standard
	2.2%	2.4%	3.5%	< 5%	< 3%

2) Completeness of case ascertainment of the expected number of cases as estimated by the SEER U.S. incidence to mortality ratio:	2002	2003	2004	NAACCR Silver Standard	NAACCR Gold Standard
	91.8%	86.5%	87.7%	90%	95%

3) The completeness of information recorded as achieved the "Gold" standard for the rated fields of:	Percent Missing		
	2002	2003	2004
Age at Diagnosis	0.0%	0.0%	0.0%
Sex	0.0%	0.0%	0.0%
Race	1.5%	2.1%	2.0%
State/Country	0.0%	0.2%	0.0%

Analysis and Special Studies:

The ACR completed an average of 42 requests per year for data and special analysis between 2005 and 2006. The Arizona Cancer Registry is involved with research studies in Arizona. The ADHS Human Subjects Review Committee has approved the studies.

Arizona Family Registry for Colorectal Cancer Studies, Arizona Cancer Center

- The Arizona Cancer Center is a National Cancer Institute (NCI)-designated comprehensive cancer center at the University of Arizona Health Sciences Center in Tucson, AZ. This center conducted a study that is part of a larger international effort to develop a Colorectal Cancer Family Registry (CCFR) for future genetic and epidemiologic studies. The primary purpose of the registry is to facilitate large, informative studies about what causes colorectal cancer and how this cancer might be prevented. The ACR supported this research by screening and recruiting patients (younger than 50 years of age) to participate in this study. The Arizona CCFR was able to successfully recruit the number of colon cancer patients needed, with assistance from the ACR.

Research Triangle Institute (RTI) Study of Osteosarcoma Surveillance

- RTI is conducting an Osteosarcoma surveillance study. The primary purpose of this study is to monitor Forteo™ exposure in Osteosarcoma patients to contribute to the scientific knowledge regarding possible prevalence of demographic characteristics and medical factors in adults with this rare cancer. The ACR provides RTI with a confidential data file for cases that meet eligibility requirements for the study.

Arizona Community Health Analysis Areas (CHAA)

- A CHAA is a geographic unit in Arizona created by the Bureau of Public Health Statistics for use by various disease monitoring programs. The Bureau developed the CHAAs to present cancer data at a geographic scale smaller than the county level. CHAAs provide data for 13 cancer sites including the more common cancers (e.g. breast, lung, colorectal, and prostate) and uncommon cancers (e.g. leukemia, mesothelioma, and myeloma). For detailed reports visit http://www.azdhs.gov/phs/azchaa/.

Arizona Cancer Data Query System

- The Arizona Cancer Data Query System allows the public to query cancer rates, mortality rates, and population estimates for Arizona. To query the system visit http://healthdata.az.gov/query/module_selection/azcr/AzCRSelection.html.

Education and Training:

- Newsletters are published three times per year. The newsletters include information on cancer data, educational opportunities, coding problems and solutions, upcoming changes, and data submission procedures for facilities.
- The ACR has held annual workshops for reporting facilities with the goal of improving the quality of data submitted. These workshops serve as important conduits for information on new reporting requirements and clarification of existing requirements.
- The ACR also hosts an Introductory Workshop for beginning registrars on an ad-hoc basis. The goal of these workshops is to provide an overview of reporting requirements and coding/abstracting, with a particular emphasis on hands-on exercises.
- A module covering reportability and case eligibility was also developed. This module was designed to be viewed at the hospital registrar's convenience, and carried continuing education credits for Certified Tumor Registrars (CTR's).

Confidentiality Definition and Procedures

Confidentiality: As per A.R.S. §36-133 E. Information collected on individuals by the surveillance system that can identify an individual is confidential.

In addition, the ACR had established policies and procedures for the management and disclosure of confidential information to further protect privacy. All patient information is maintained in a confidential manner, consistent with the law, between the ACR and the reporting source. Policies do allow releasing aggregate data to anyone on request.

Copies and information: Additional information can be obtained by contacting the Arizona Cancer Registry at (602) 542-7320 or at www.azdhs.gov/phs/phstats/acr. Copies of this report are available on the website.

Introduction to the Annual Report

The 2002-2004 Cancer Incidence and Mortality in Arizona Annual Report contains three chapters that report information on the status of cancer incidence and mortality in Arizona for the years 2002-2004. The first chapter contains information on cancer incidence in Arizona by demographics and primary site. The second chapter contains information on cancer mortality. This chapter presents cancer data that has been averaged over the three-year period covered in this report. For year-specific data on cancer mortality refer to the Arizona Health Status and Vital Statistics Report which is available online at http://www.azdhs.gov/plan/report/ahs/index.htm. The third and final chapter contains in depth statistics on select cancers including female breast, colorectal, lung, melanoma, and prostate.

The format of the chapters of this report was chosen so that information about cancer in Arizona would be easy to understand and meaningful in its presentation. Tables with incidence rates that were calculated based on small numerators (case counts less than 10) are denoted by a '^'.

The user of this report should take care to review the methods of collecting and presenting the data, and all footnotes attached to the tables, and graphs before interpreting the information.

Methods and Technical Notes

This annual report includes cases diagnosed in 2002, 2003 and 2004, and trend data dating back to 1995. This report focuses on invasive cancer cases with the exception of basal and squamous cell skin cancer cases, which were not reportable to the ACR. *In situ* cases were included in Table 1, Cancer Cases by Primary Site and Behavior, Average Annual Count, 2002-2004. *In situ* urinary bladder cases were also combined with invasive urinary bladder cases in many of the tables and graphs depicting invasive cancer cases. This approach was used to create data comparable to the Surveillance, Epidemiology, and End Results (SEER) program reports. This report used the SEER definitions of the cases by cancer type, and this is presented in the tables in the Appendix.

Analysis Criteria

Cases were classified by primary site and/or histologic type, behavior, race and ethnicity, age at diagnosis, sex and county of residence at diagnosis.

Primary Site and Histologic Type
Primary site and histologic type were classified according to the International Classification of Diseases for Oncology, Third Edition (a.k.a. ICD-O-3).

Behavior
Behavior code: The 5th digit of the morphology code that indicates the growth pattern of a tumor, and whether or not it is invasive.

- Invasive: A malignant tumor that has invaded the basement membrane of the tissue of origin
- *In situ*: Non-infiltrating, non-invasive intraepithelial tumor cells that have not penetrated the basement membrane or extended beyond the epithelial tissue

Race/Ethnicity
A hospital registrar upon reviewing the physician's notations and the medical record admission information generally obtains information concerning a person's race and ethnicity. Race/Ethnicity definitions used in this report are; White non-Hispanic, White Hispanic, Black, American Indian, and Asian/Pacific Islander. Cases having an unknown race diagnosed with a primary site of melanoma of the skin were coded as White non-Hispanic.

Incidence rates were divided into two ethnicity categories: Hispanic and non-Hispanic. For this report, all cases with an unknown ethnicity were considered non-Hispanic.

Age at Diagnosis
Age groups were divided into eight 10-year age groups for incidence counts for ages 0-79 and for all cases age 80 and above. Mortality counts were divided into eight 10-year age groups from ages 5-84, a 0-4 year age group, and an 85+ age group.

Residence at Diagnosis
The residency of cases at the time of diagnosis was grouped by county and by Arizona versus non-Arizona resident. Non-Arizona residents were excluded in the analysis.

Incidence Counts

Incidence counts were the number of cases diagnosed with a reportable cancer in 2002-2004 by diagnosis year. A cancer case can either be a tumor originating in one primary site or may be a systemic cancer of a specific histologic type. More than one cancer case may be reported for an individual. This results in a higher number of cancer cases than individual persons recorded in the registry.

Certain demographic variables may be unknown for some cases. Therefore comparing total numbers between different figures and tables may not yield equal numbers. Additionally, the totals for all categories within a figure or table may not equal the state total.

Additionally, 2004 data is considered to be approximately 88% complete. The effect of this may be lower than expected rates and counts for that year.

Age-Adjusted Incidence and Mortality Rates

Age-adjustment is a process used to compare incidence and mortality rates over time or among geographic areas or populations that have different age distributions. Because most disease rates increase with increasing age, age-adjustment eliminates the confounding effect of age when comparing rates.

Beginning with the 1999 data year, federal agencies and the Arizona Cancer Registry have adopted the year 2000 projected U.S. population as the new standard for age-adjusting incidence and mortality rates. Prior to 1999, epidemiologists used a projection of the standard populations from 1970 or even the 1940's to standardize the numbers. All incidence and mortality rates were adjusted using the 2000 U.S. standard population by the direct method, and were presented as number of cancers per 100,000 persons.

Cancer mortality rates were calculated on counts of cancer deaths that meet all of the following criteria:

- The cancer death occurs to an Arizona resident
- The primary cause of death is coded C00 to C96 using ICD-l0*
- The case is reported to the Arizona Office of Vital Records

*The primary cause of death is classified according to the International Classification of Diseases, Injuries and Causes of Death, Tenth Revision, 1992.

Average Counts and Rates

This report contains several figures and tables that average three years of data to produce an average annual count. When doing so, each averaged number is calculated separately, and rounded to a whole number. Due to rounding the *total* rounded value may not equal the total of two individually calculated numbers in that category.

Population Denominators

The population numbers used for analysis in this report were taken from United States Census Bureau and modified by SEER. The SEER program applied a race/ethnicity bridge to the population numbers previous to the year 2000 to more accurately estimate the number of minorities in years previous to the 2000 census. The ACR chose to use these population numbers for calculating age-adjusted rates in order to be comparable with other state and national cancer data.

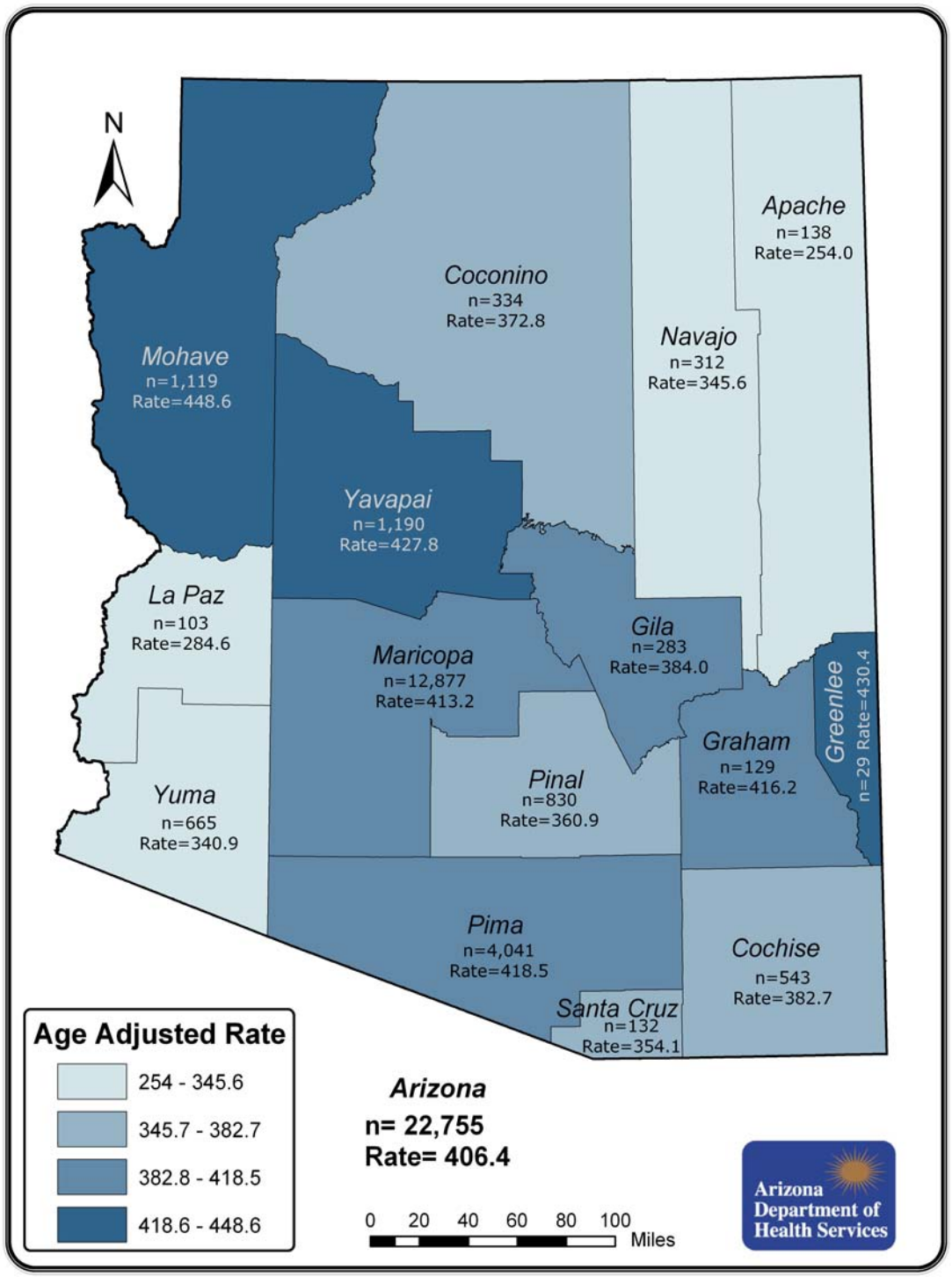
Caution in Using Small Numbers

The intent of these data is to provide the reader with useful information on cancer in Arizona. However, it is important not to mislead the data users on the meaning of this data. Rates or other analysis based on fewer than 10 cases are not considered statistically reliable and are denoted by a ' ^ ' in the rate tables. However, zero cases are denoted by 0.0 in the tables.

CHAPTER 1

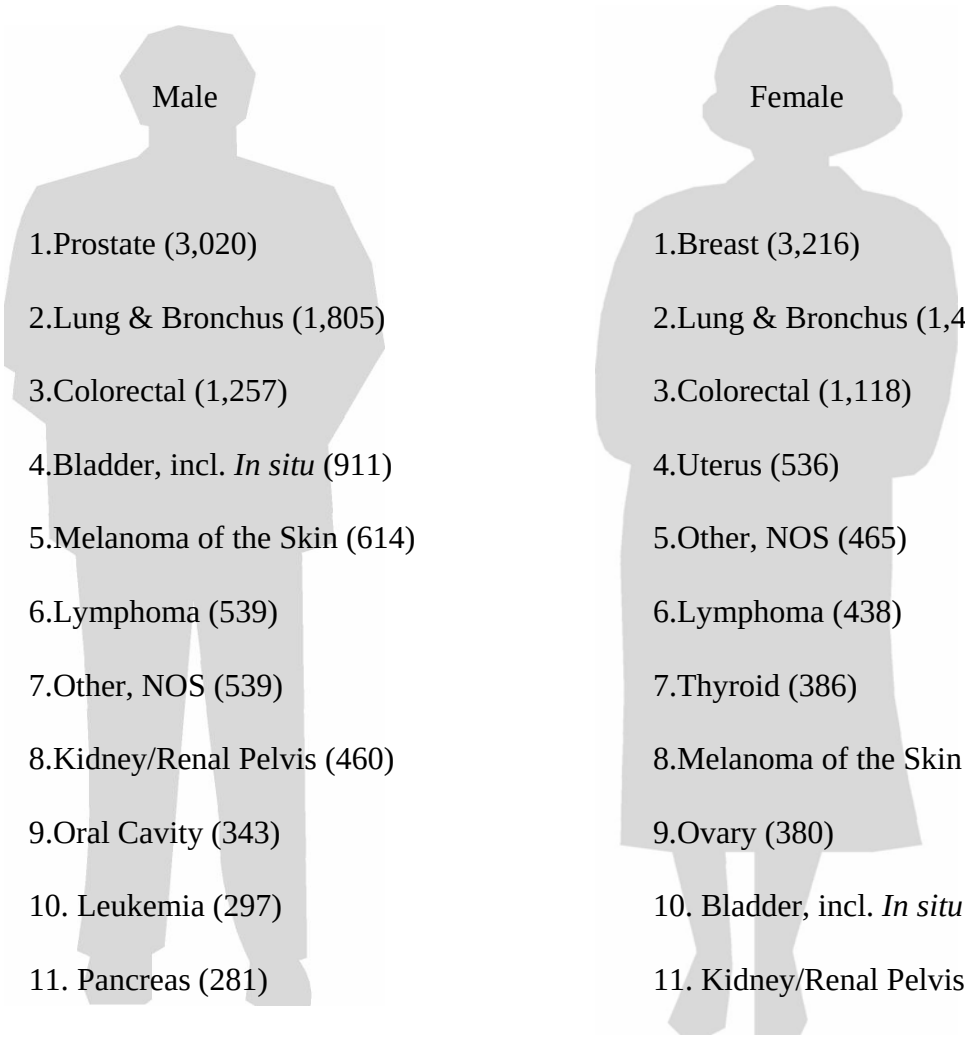
Cancer Incidence
2002-2004

Incidence of Invasive Cancer in Arizona
Average Annual Counts and Age-Adjusted Rates by County
2002-2004



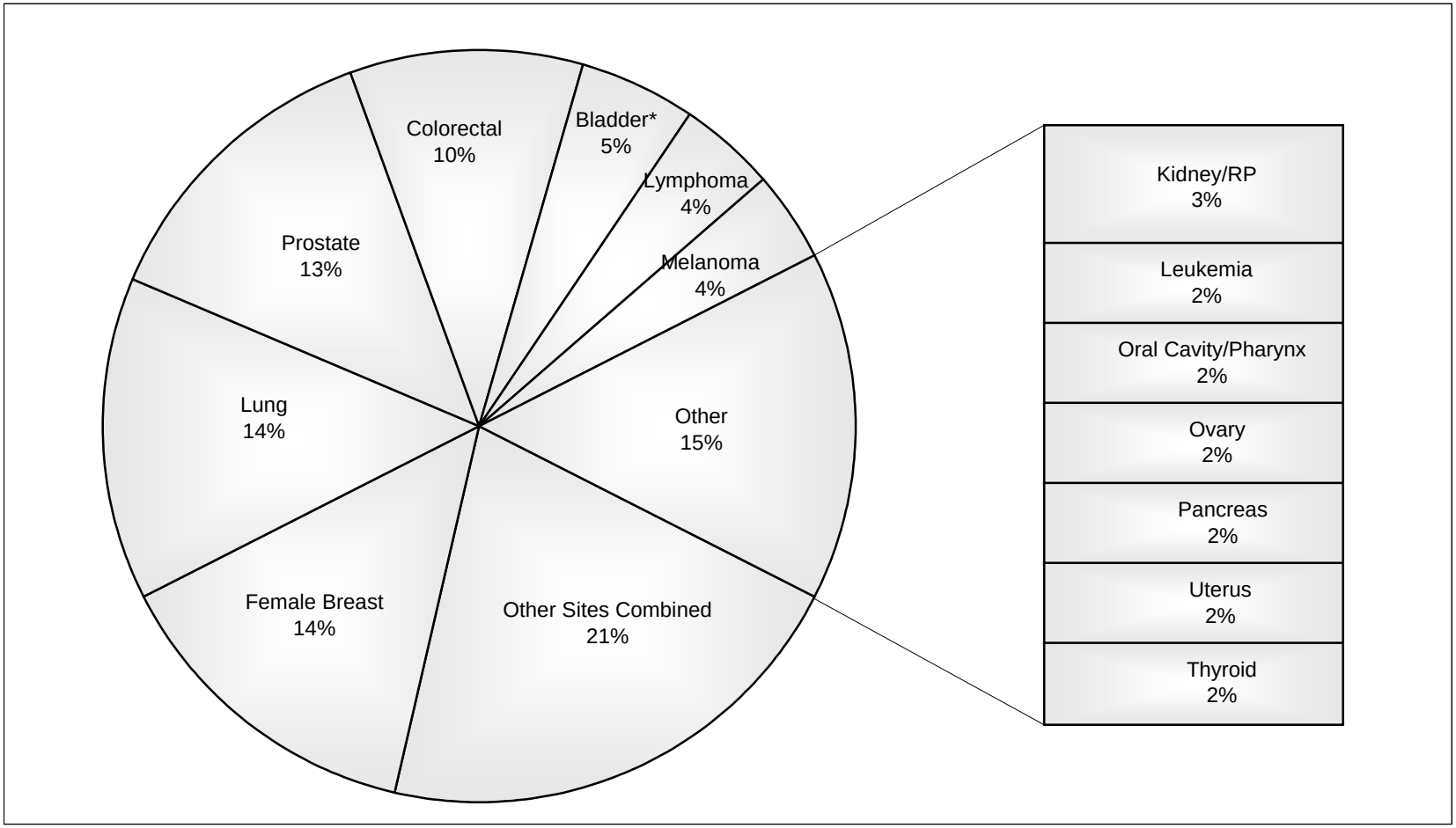
Note: County of residence for some cases is unknown. The sum of the cases per county does not equal the state total listed in this map.

Figure 1: Ten Leading Sites* of Invasive Cancer Cases by Site and Gender, Average Annual Count, 2002-2004



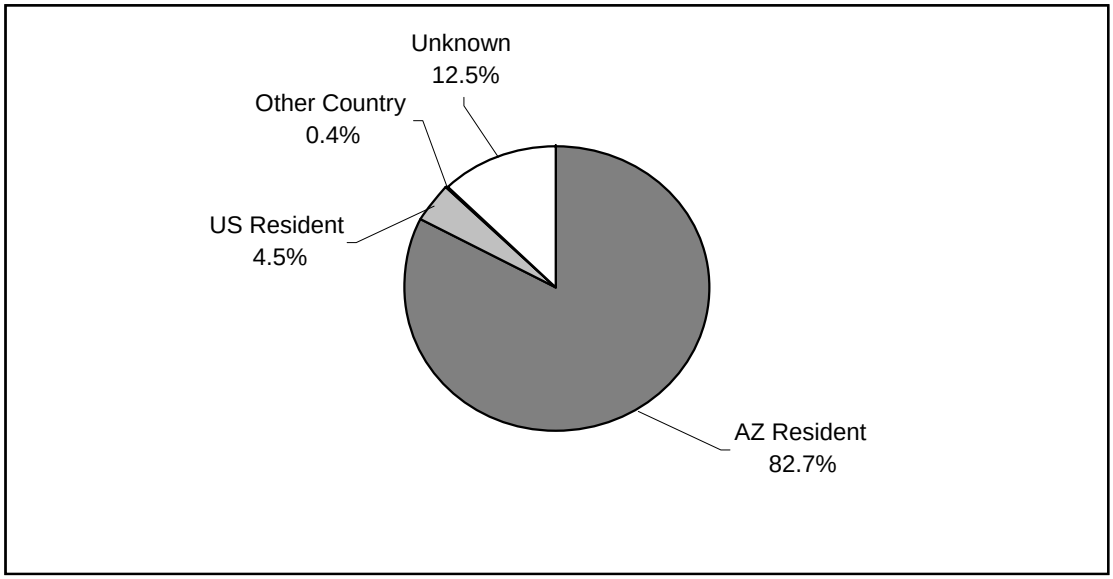
*Note: Ten Leading Sites in addition to 'Other, NOS';
Other, NOS=Ill-defined site or site not otherwise specified

Figure 2: Invasive Case Distribution By Site Based on Average Annual Count, Arizona, 2002-2004



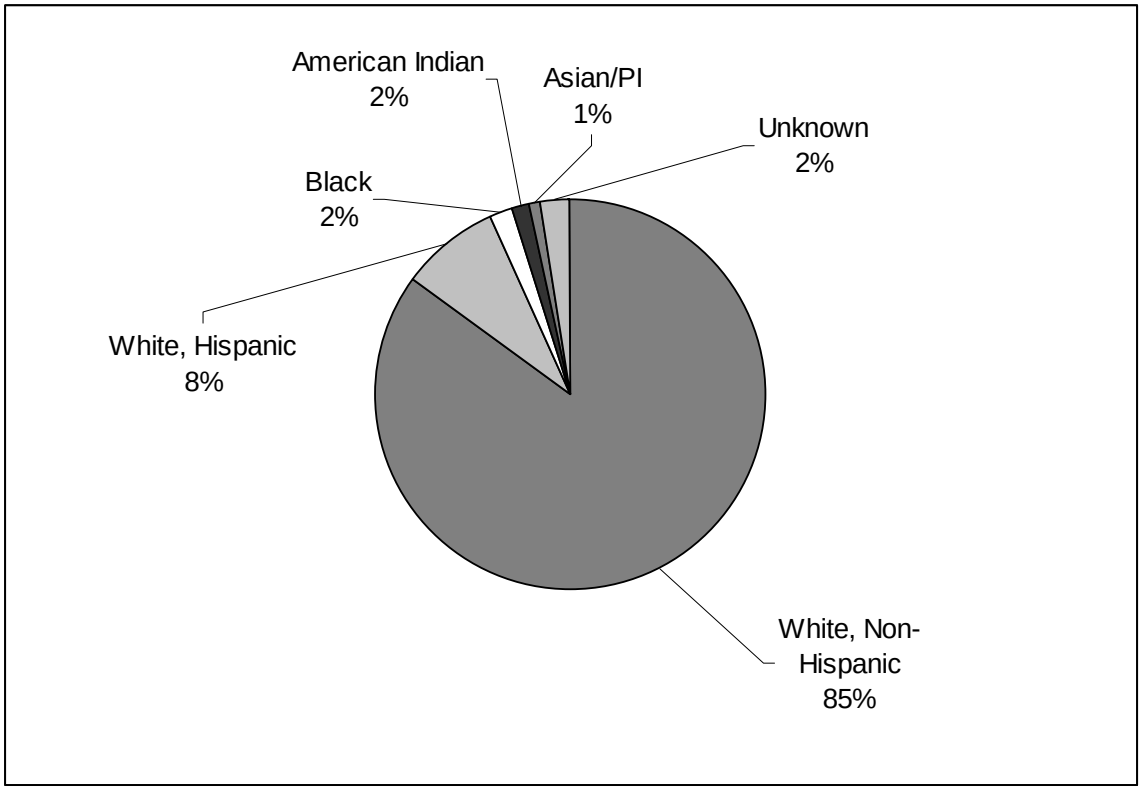
Note: Percentage of bladder cases includes invasive and *in situ* cases. Bladder cases include an average of 578 *in situ* cases.

Figure 3: Residency of Invasive Cancer Cases in Arizona, 2002-2004



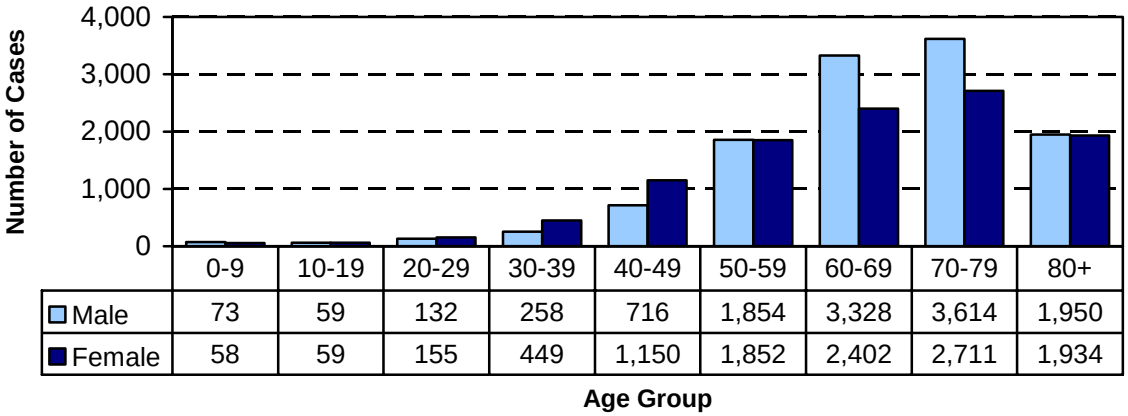
US Resident=All U.S. States, Territories, and Possessions except Arizona
Unknown=All unknowns including US, NOS and Canada, NOS.

Figure 4: Invasive Cancer Cases By Race/Ethnicity in Arizona, Average Annual Count, 2002-2004



*Unknown category includes 'other'.

Figure 5: Invasive Cancer Cases By Age and Gender in Arizona, Average Annual Count, 2002-2004



	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80+
Male	73	59	132	258	716	1,854	3,328	3,614	1,950
Female	58	59	155	449	1,150	1,852	2,402	2,711	1,934

Note: Distribution by age and gender at diagnosis excludes an average of 9 cases per diagnosis year with unknown age and an average of 4 cases with unknown sex per diagnosis year.

Table 1: Cancer Cases by Primary Site and Behavior, Average Annual Count, 2002-2004

	Behavior		
Primary Site	***In Situ***	**Invasive**	**Total**
Total, All Sites	2216	22202	24418
Oral Cavity and Pharynx	18	549	567
Lip	7	27	33
Tongue	5	140	145
Salivary Gland	0	64	64
Floor of Mouth	3	38	41
Gum and Other Mouth	3	63	66
Nasopharynx	0	16	16
Tonsil	0	65	65
Oropharynx	0	21	21
Hypopharynx	0	34	34
Other Oral Cavity and Pharynx	0	81	16
Digestive System	143	4515	4288
Esophagus	5	246	250
Stomach	4	318	322
Small Intestine	2	86	87
Colorectal	120	2376	2496
Colon excluding Rectum	84	1732	1817
Rectum Rectosigmoid	36	643	679
Anus	9	70	80
Liver and Intrahepatic Bile Duct	0	297	297
Liver	0	279	279
Intrahepatic Bile Duct	0	19	19
Gallbladder	1	65	66
Other Biliary	0	86	87
Pancreas	2	535	537
Retroperitoneum, Peritoneum, Omentum, Mesentery	0	50	50
Other Digestive Organs	0	16	16
Respiratory System	19	3542	3561
Nose, Nasal Cavity, Middle Ear	0	30	30
Larynx	14	163	177
Lung and Bronchus	4	3291	3296
Pleura	0	48	48
Trachea, Mediastinum and Other Respiratory Organs	0	10	10
Bones and Joints	0	52	52
Soft Tissue Including Heart	0	160	160
Skin Excluding Basal and Squamous	651	1076	1728
Melanoma	651	996	1647
Other Skin	0	80	80
Breast	652	3262	3913

Table 1: Cancer Cases by Primary Site and Behavior, Average Annual Count, 2002-2004

	Behavior		
Primary Site	***In Situ***	**Invasive**	**Total**
Female Genital System	86	1198	1284
Cervix	1	193	194
Corpus Uteri	9	512	521
Uterus NOS	0	24	24
Ovary	2	380	382
Vagina	8	15	24
Vulva	66	55	121
Other Female Genital Organs	0	18	19
Male Genital System	19	3184	3203
Prostate	9	3020	3029
Testis	0	138	138
Penis	9	22	31
Other Male Genital Organs	0	5	6
Urinary System	620	1394	2014
Urinary Bladder	578	610	1187
Kidney and Renal Pelvis	17	734	751
Ureter	17	36	54
Other Urinary Organs	8	14	22
Eye and Orbit	6	44	50
Brain and Other Nervous System	0	355	355
Brain	0	332	332
Cranial Nerves and Other Nervous System	0	23	23
Endocrine System	1	553	553
Thyroid	1	523	524
Other Endocrine including Thymus	0	30	30
Lymphoma	0	977	977
Hodgkin's Lymphoma	0	107	107
Non-Hodgkin's Lymphoma	0	870	870
Multiple Myeloma	0	221	221
Leukemia	0	531	531
Lymphocytic Leukemia	0	239	239
Myeloid and Monocytic Leukemia	0	253	253
Other Leukemia	0	39	39
Ill Defined and Unspecified	0	1004	1004

Note: Counts were a three-year average for diagnosis years 2002-2004.
Due to rounding the *total* rounded value may not equal the total of two individually calculated numbers in that category.

Table 2: Invasive Cancer Cases by Primary Site and Gender, 2002-2004

	Gender								
	2002			2003			2004		
Primary Site	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Total, All Sites	12024	10986	23010	12327	10720	23047	11600	10607	22207
Oral Cavity and Pharynx	331	136	467	353	133	486	346	154	500
Lip	25	5	30	26	6	32	17	1	18
Tongue	88	39	127	97	35	132	111	50	161
Salivary Gland	32	22	54	47	16	63	45	31	76
Floor of Mouth	23	8	31	36	15	51	22	10	32
Gum and Other Mouth	44	28	72	30	22	52	38	28	66
Nasopharynx	13	4	17	12	6	18	10	4	14
Tonsil	57	7	64	50	17	67	49	13	62
Oropharynx	15	6	21	12	6	18	18	7	25
Hypopharynx	23	9	32	36	6	42	22	5	27
Other Oral Cavity and Pharynx	11	8	19	7	4	11	14	5	19
Digestive System	2332	1842	4174	2441	1791	4232	2272	1752	4024
Esophagus	176	48	224	221	39	260	205	48	253
Stomach	221	109	330	214	108	322	193	106	299
Small Intestine	59	34	93	56	36	92	39	33	72
Colorectal	1240	1162	2402	1325	1123	2448	1207	1069	2276
Colon excluding Rectum	868	893	1761	921	850	1771	837	827	1664
Rectum and Rectosigmoid Junction	372	269	641	404	273	677	370	242	612
Anus	22	35	57	39	53	92	19	43	62
Liver and Intrahepatic Bile Duct	215	70	285	208	67	275	237	94	331
Liver	205	62	267	200	60	260	223	85	308
Intrahepatic Bile Duct	10	8	18	8	7	15	14	9	23
Gallbladder	34	43	77	16	45	61	22	36	58
Other Biliary	57	32	89	45	34	79	55	36	91

Table 2: Invasive Cancer Cases by Primary Site and Gender, 2002-2004

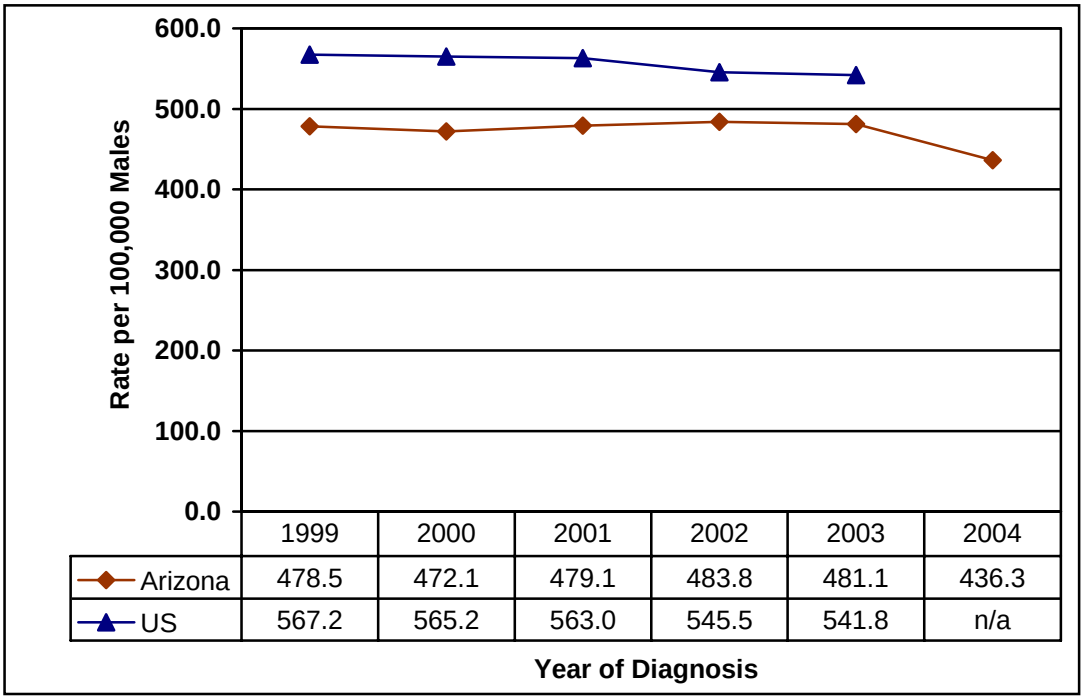
	Gender								
	2002			2003			2004		
Primary Site	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Pancreas	280	264	544	290	255	545	272	244	516
Retroperitoneum, Peritoneum, Omentum and Mesentery	17	38	55	15	21	36	20	39	59
Other Digestive Organs	11	7	18	12	10	22	3	4	7
Respiratory System	1987	1517	3504	2084	1570	3654	1943	1524	3467
Nose, Nasal Cavity and Middle Ear	18	18	36	19	10	29	19	6	25
Larynx	141	27	168	144	29	173	118	30	148
Lung and Bronchus	1779	1461	3240	1874	1521	3395	1762	1477	3239
Pleura	38	8	46	45	6	51	38	8	46
Trachea, Mediastinum and Other Respiratory Organs	11	3	14	2	4	6	6	3	9
Bones and Joints	21	29	50	29	22	51	26	30	56
Soft Tissue including Heart	104	80	184	74	80	154	81	60	141
Skin excluding Basal and Squamous	674	422	1096	755	483	1238	567	328	895
Melanoma	637	399	1036	684	448	1132	521	299	820
Other Skin	37	23	60	71	35	106	46	29	75
Breast	51	3391	3442	45	3153	3198	40	3103	3143
Female Genital System	NA	1237	1237	NA	1164	1164	NA	1192	1192
Cervix	NA	201	201	NA	195	195	NA	183	183
Corpus Uteri	NA	549	549	NA	442	442	NA	545	545
Uterus NOS	NA	24	24	NA	24	24	NA	24	24
Ovary	NA	373	373	NA	396	396	NA	371	371
Vagina	NA	17	17	NA	15	15	NA	14	14
Vulva	NA	57	57	NA	67	67	NA	41	41
Other Female Genital Organs	NA	16	16	NA	25	25	NA	14	14
Male Genital System	3171	NA	3171	3214	NA	3214	3167	NA	3167
Prostate	3006	NA	3006	3048	NA	3048	3004	NA	3004

Table 2: Invasive Cancer Cases by Primary Site and Gender, 2002-2004

	Gender								
	2002			2003			2004		
Primary Site	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Testis	135	NA	135	141	NA	141	137	NA	137
Penis	24	NA	24	22	NA	22	19	NA	19
Other Male Genital Organs	6	NA	6	3	NA	3	7	NA	7
Urinary System	1441	582	2023	1433	552	1985	1341	565	1906
Urinary Bladder (includes *in situ*)	917	277	1194	932	269	1201	884	283	1167
Kidney and Renal Pelvis	490	284	774	458	271	729	433	266	699
Ureter	23	18	41	31	9	40	17	11	28
Other Urinary	11	3	14	12	3	15	7	5	12
Eye and Orbit	22	17	39	23	13	36	22	34	56
Brain and Other Nervous System	201	145	346	185	143	328	205	186	391
Brain	191	131	322	174	132	306	195	173	368
Cranial Nerves and Other Nervous System	10	14	24	11	11	22	10	13	23
Endocrine System	144	348	492	154	384	538	158	470	628
Thyroid	126	334	460	139	366	505	145	459	604
Other Endocrine including Thymus	18	14	32	15	18	33	13	11	24
Lymphoma	547	463	1010	530	434	964	540	416	956
Hodgkin's Lymphoma	65	53	118	56	53	109	53	40	93
Non-Hodgkin's Lymphoma	482	410	892	474	381	855	487	376	863
Multiple Myeloma	134	87	221	133	79	212	124	107	231
Leukemia	320	231	551	302	256	558	268	214	482
Lymphocytic Leukemia	163	101	264	144	101	245	110	99	209
Myeloid and Monocytic Leukemia	143	114	257	133	136	269	137	94	231
Other Leukemia	14	16	30	25	19	44	21	21	42
Ill Defined and Unspecified	544	459	1003	572	463	1035	500	472	972

Note: NA = Not applicable.

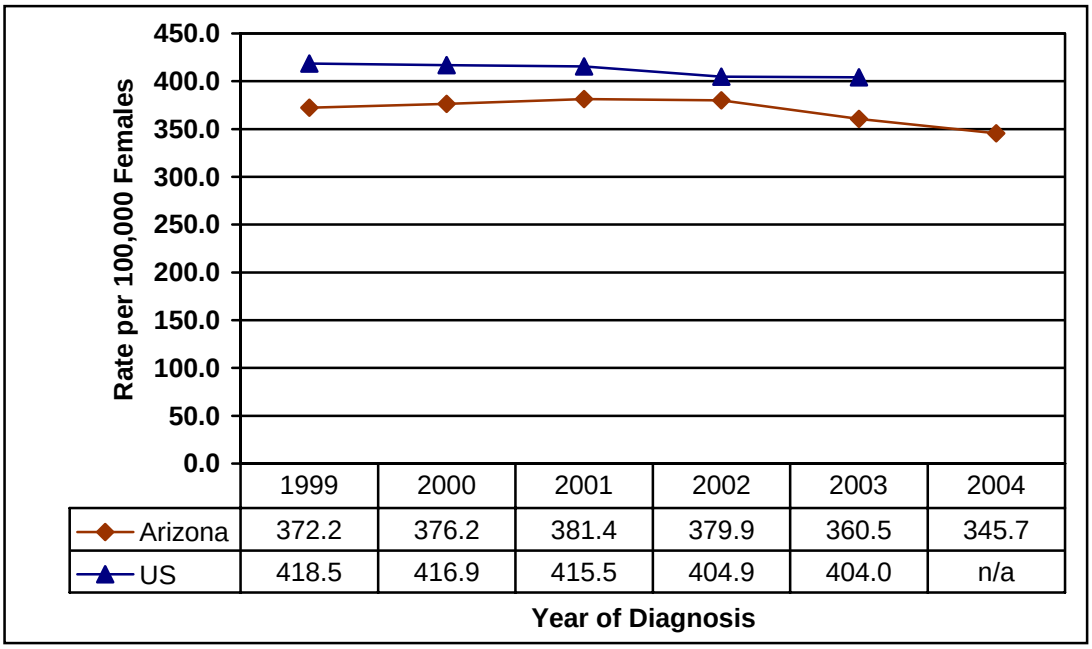
Figure 6: Age-Adjusted Incidence Rates Among Arizona Males All Sites, 1999-2004



	1999	2000	2001	2002	2003	2004
Arizona	478.5	472.1	479.1	483.8	481.1	436.3
US	567.2	565.2	563.0	545.5	541.8	n/a

Sources for U.S. Rates: Cancer Registry Public Information Data: 1999 - 2002, WONDER On-line Database. USDHHS, NPCR, CDC. November 2005.
U.S. Cancer Statistics Working Group. United States Cancer Statistics: 2003 Incidence and Mortality. Atlanta:USDHHS,CDC and NCI;2006.

Figure 7: Age-Adjusted Incidence Rates Among Arizona Females All Sites, 1999-2004



	1999	2000	2001	2002	2003	2004
Arizona	372.2	376.2	381.4	379.9	360.5	345.7
US	418.5	416.9	415.5	404.9	404.0	n/a

Sources for U.S. Rates: Cancer Registry Public Information Data: 1999 - 2002, WONDER On-line Database. USDHHS, NPCR, CDC. November 2005.
U.S. Cancer Statistics Working Group. United States Cancer Statistics: 2003 Incidence and Mortality. Atlanta:USDHHS,CDC and NCI;2006.

Table 3: Age-Adjusted Incidence Rates of Invasive Cancer Cases by Primary Site and Gender, 2002-2004

	Gender								
	2002			2003			2004		
Primary Site	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Total, All Sites	483.8	379.9	424.1	481.1	360.5	412.3	436.3	345.7	384.1
Oral Cavity and Pharynx	13.1	4.6	8.7	13.6	4.4	8.7	12.7	5.0	8.6
Lip	1.0	.16^	.55	1.0	.20^	.56	.64	.03^	.31
Tongue	3.4	1.3	2.4	3.7	1.2	2.4	4.0	1.7	2.8
Salivary Gland	1.3	.78	1.0	1.9	.55	1.1	1.7	1.0	1.3
Floor of Mouth	.90	.28^	.56	1.4	.51	.91	.80	.32	.55
Gum and Other Mouth	1.7	.94	1.3	1.1	.71	.92	1.4	.90	1.1
Nasopharynx	.50	.14^	.32	.48	.21^	.33	.35	.13	.24
Tonsil	2.2	.25^	1.2	1.9	.60	1.2	1.8	.42	1.1
Oropharynx	.61	.20^	.39	.44	.20^	.32	.64	.23^	.43
Hypopharynx	.94	.31^	.60	1.4	.21^	.75	.80	.15^	.46
Other Oral Cavity and Pharynx	.44	.26^	.35	.29^	.13^	.20	.54	.16^	.32
Digestive System	95.6	61.7	76.9	96.3	58.4	75.8	86.9	55.4	69.7
Esophagus	7.1	1.6	4.1	8.6	1.3	4.6	7.6	1.5	4.3
Stomach	9.0	3.7	6.1	8.4	3.6	5.8	7.4	3.4	5.2
Small Intestine	2.4	1.2	1.7	2.1	1.2	1.7	1.5	1.1	1.3
Colorectal	51.1	38.9	44.3	52.5	36.5	43.8	46.6	33.7	39.5
Colon excluding Rectum	36.1	29.7	32.5	36.8	27.5	31.7	32.7	25.9	28.9
Rectum and Rectosigmoid Junction	15.0	9.2	11.9	15.7	9.0	12.1	13.9	7.8	10.6
Anus	.90	1.2	1.1	1.5	1.8	1.7	.70	1.4	1.1
Liver and Intrahepatic Bile Duct	8.7	2.4	5.3	8.0	2.2	4.9	8.9	3.0	5.7
Liver	8.3	2.1	4.9	7.7	2.0	4.7	8.4	2.7	5.3
Intrahepatic Bile Duct	.41	.26^	.34	.31^	.22^	.27	.55	.29^	.40
Gallbladder	1.4	1.5	1.4	.64	1.5	1.1	.84	1.1	1.0
Other Biliary	2.4	1.0	1.6	1.9	1.1	1.4	2.1	1.1	1.6
Pancreas	11.5	8.7	10.0	11.6	8.2	9.7	10.4	7.7	8.9

Table 3: Age-Adjusted Incidence Rates of Invasive Cancer Cases by Primary Site and Gender, 2002-2004									
	Gender								
	2002			2003			2004		
Primary Site	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Retroperitoneum	.45	.14^	.30	.46	.32^	.40	.54	.61	.59
Peritoneum, Omentum and Mesentery	.19^	1.1	.71	.12^	.40	.27	.18^	.66	.44
Other Digestive Organs	.47	.23^	.33	.48	.33	.40	.12^	.13^	.12^
Respiratory System	80.0	50.8	63.9	81.7	51.2	64.7	73.8	48.1	59.4
Nose, Nasal Cavity and Middle Ear	.70	.63	.66	.71	.36	.52	.70	.19^	.43
Larynx	5.7	.94	3.1	5.5	.96	3.0	4.4	.95	2.5
Lung and Bronchus	71.7	48.9	59.0	73.7	49.5	60.2	67.0	46.6	55.5
Pleura	1.5	.26^	.84	1.8	.21^	.90	1.5	.26^	.80
Trachea, Mediastinum and Other Respiratory Organs	.42	.10^	.25	.08^	.13^	.10^	.19^	.10^	.15^
Bones and Joints	.80	1.0	.91	1.1	.78	.92	.93	1.1	1.0
Soft Tissue including Heart	4.1	2.8	3.4	2.9	2.7	2.8	3.0	2.0	2.5
Skin excluding Basal and Squamous	27.3	15.3	20.6	29.8	16.7	22.4	21.4	11.0	15.6
Melanoma	25.7	14.5	19.4	26.9	15.5	20.5	19.6	10.1	14.3
Other Skin	1.5	.81	1.1	2.9	1.2	1.9	1.8	.93	1.3
Breast	2.2	119.2	64.2	1.7	108.1	58.0	1.5	102.9	55.1
Female Genital System	NA	43.9	NA	NA	40.0	NA	NA	39.6	NA
Cervix	NA	7.6	NA	NA	7.2	NA	NA	6.6	NA
Corpus Uteri	NA	19.3	NA	NA	14.9	NA	NA	17.9	NA
Uterus NOS	NA	.84	NA	NA	.83	NA	NA	.79	NA
Ovary	NA	13.0	NA	NA	13.4	NA	NA	12.1	NA
Vagina	NA	.59	NA	NA	.50	NA	NA	.48	NA
Vulva	NA	2.0	NA	NA	2.3	NA	NA	1.3	NA
Other Female Genital Organs	NA	.57	NA	NA	.86	NA	NA	.45	NA
Male Genital System	124.9	NA	NA	122.6	NA	NA	116.1	NA	NA
Prostate	118.6	NA	NA	116.6	NA	NA	110.0	NA	NA

Table 3: Age-Adjusted Incidence Rates of Invasive Cancer Cases by Primary Site and Gender, 2002-2004

	Gender								
	2002			2003			2004		
Primary Site	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Testis	5.0	NA	NA	5.1	NA	NA	4.8	NA	NA
Penis	1.0	NA	NA	.88	NA	NA	.71	NA	NA
Other Male Genital Organs	.26^	NA	NA	.12^	NA	NA	.26^	NA	NA
Urinary System	58.9	19.7	37.2	56.6	18.1	35.3	51.3	18.1	32.9
Urinary Bladder (includes *in situ*)	37.6	9.2	21.9	37.2	8.6	21.3	34.2	8.8	20.1
Kidney and Renal Pelvis	19.8	9.8	14.3	17.7	9.1	13.0	16.1	8.7	12.1
Ureter	.92	.58	.75	1.2	.30^	.72	.66	.34	.49
Other Urinary	.47	.10^	.25	.46	.11^	.27	.30^	.17^	.21
Eye and Orbit	.84	.58	.71	.90	.43	.64	.79	1.1	.94
Brain and Other Nervous System	7.8	5.2	6.4	6.9	5.0	5.6	7.4	6.2	6.8
Brain	7.4	4.7	5.9	6.5	4.6	5.5	7.1	5.8	6.4
Cranial Nerves and Other Nervous System	.36	.50	.44	.43	.40	.40	.34	.46	.41
Endocrine System	5.5	13.1	9.3	5.8	14.0	9.9	5.8	16.7	11.2
Thyroid	4.9	12.6	8.7	5.2	13.4	9.3	5.3	16.3	10.8
Other Endocrine including Thymus	.62	.50	.56	.59	.63	.60	.47	.36	.41
Lymphoma	21.8	15.9	18.6	20.7	14.6	17.4	20.7	13.5	16.7
Hodgkin's Lymphoma	2.4	1.9	2.2	2.1	1.9	2.0	1.9	1.4	1.7
Non-Hodgkin's Lymphoma	19.4	14.0	16.5	18.7	12.7	15.4	18.7	12.0	15.0
Multiple Myeloma	5.6	2.9	4.1	5.4	2.6	3.8	4.7	3.4	4.0
Leukemia	12.7	7.9	10.1	11.9	8.4	10.0	9.9	6.9	8.3
Lymphocytic Leukemia	6.3	3.4	4.8	5.6	3.3	4.3	4.0	3.2	3.6
Myeloid and Monocytic Leukemia	5.8	3.9	4.8	5.2	4.5	4.8	5.0	3.0	4.0
Other Leukemia	.58	.54	.56	1.1	.61	.79	.85	.67	.75
Ill Defined and Unspecified	22.8	15.3	18.6	23.2	14.9	18.5	19.5	14.7	16.9

^ = Fewer than 10 cases reported. The rate is considered unstable.

Table 4: Age-Adjusted Incidence Rates of Invasive Cancer Cases by County and Gender, All Races, in Arizona, 2002-2004

	2002			2003			2004		
County	Male	Female	Total	Male	Female	Total	Male	Female	Total
Apache	312.4	203.6	254.1	353.0	229.7	282.1	243.6	215.5	226.2
Cochise	479.3	356.7	411.5	474.1	353.0	407.7	367.0	303.8	331.4
Coconino	418.2	327.5	367.2	422.4	373.7	391.4	388.9	340.8	359.8
Gila	470.4	444.2	454.5	461.2	328.1	390.0	334.3	291.1	307.7
Graham	570.8	379.6	457.0	411.6	409.6	406.9	493.5	304.6	387.1
Greenlee	412.9	266.1	330.0	555.3	274.3	406.8	721.2	378.8	545.2
La Paz	342.8	297.8	321.6	401.8	155.4	278.9	343.7	164.1	255.2
Maricopa	505.2	392.1	439.0	479.9	362.7	411.4	446.6	352.6	390.9
Mohave	531.8	441.5	482.9	533.2	356.4	439.3	490.6	372.2	426.7
Navajo	361.6	303.4	330.6	408.5	333.1	366.4	345.2	333.0	340.4
Pima	469.4	377.6	417.3	512.9	392.8	443.5	446.5	356.9	395.2
Pinal	470.4	344.9	399.3	426.8	317.6	367.3	370.7	280.0	319.9
Santa Cruz	373.6	369.0	368.8	554.1	279.3	400.2	305.7	287.1	294.7
Yavapai	498.5	395.4	440.4	506.4	367.3	430.9	456.3	375.2	413.1
Yuma	354.3	262.8	305.7	419.7	275.3	343.7	441.3	310.8	371.4
ARIZONA	483.8	379.9	424.1	481.1	360.5	412.3	436.3	345.7	384.1

Table 5: Age-Adjusted Incidence Rates of Invasive Cancer Cases by County and Gender for White, Non-Hispanics in Arizona, 2002-2004

	2002			2003			2004		
County	Male	Female	Total	Male	Female	Total	Male	Female	Total
Apache	372.4	409.2	391.3	579.4	280.0	431.1	330.6	434.0	374.6
Cochise	490.0	371.8	424.3	474.6	366.6	417.4	396.8	324.1	358.5
Coconino	489.5	398.7	441.6	515.9	449.2	472.8	472.2	434.4	453.3
Gila	471.1	507.7	489.8	519.4	376.5	444.2	389.4	321.4	350.2
Graham	687.8	460.0	549.2	468.9	451.7	454.1	524.1	347.9	426.7
Greenlee	449.1^	442.3^	434.2	664.3	463.4	562.2	792.0	693.2^	721.5
La Paz	330.3	281.4	306.3	452.6	134.3	293.8	359.0	187.7	272.0
Maricopa	531.4	422.9	467.9	498.0	384.2	431.8	463.4	374.0	410.6
Mohave	548.5	464.6	503.3	526.0	365.8	441.5	494.8	384.5	435.4
Navajo	446.1	375.2	410.2	521.1	450.2	484.8	455.5	484.9	473.2
Pima	486.0	404.6	440.1	510.8	415.5	455.3	452.2	374.3	407.8
Pinal	502.3	390.6	438.0	440.4	348.3	389.5	399.7	292.9	341.5
Santa Cruz	403.5	596.3	496.8	696.2	452.0	573.7	357.4	455.3	402.9
Yavapai	482.2	399.1	434.7	480.4	363.2	416.5	447.8	380.4	411.9
Yuma	396.1	311.0	349.3	458.4	317.2	385.0	523.0	372.7	441.6
ARIZONA	510.5	413.4	454.7	496.5	385.0	433.1	457.0	371.1	407.8

^ = Fewer than 10 cases reported. The rate is considered unstable.

Table 6: Age-Adjusted Incidence Rates of Invasive Cancer Cases by County and Gender for White, Hispanics in Arizona, 2002-2004

	2002			2003			2004		
County	Male	Female	Total	Male	Female	Total	Male	Female	Total
Apache	493.1^	134.4^	307.7^	47.9^	144.4^	107.4^	151.3^	0.0	77.5^
Cochise	396.6	230.8	304.8	373.2	232.8	291.0	227.2	193.9	204.0
Coconino	530.6	220.1	352.7	273.0	166.2^	217.1	379.6	247.0	295.9
Gila	501.7	204.0^	327.5	247.4^	112.8^	172.4	84.7^	103.9	85.1^
Graham	356.2	229.3^	299.9	194.6^	276.1	239.1	325.2	180.6^	230.5
Greenlee	277.7^	69.0^	165.3^	336.9^	55.1^	195.6^	561.6^	221.9^	371.0
La Paz	269.5^	220.9^	249.7^	135.0^	59.6^	107.9^	162.8^	0.0	83.2^
Maricopa	323.2	231.2	267.3	295.1	234.9	260.9	303.7	236.7	260.4
Mohave	236.8	164.7	192.5	161.1	186.8	177.6	398.8	206.6	300.4
Navajo	151.6^	317.0^	228.1	146.7^	308.1^	223.4	255.3^	63.4^	163.3^
Pima	378.4	278.4	317.4	388.6	275.0	321.9	308.5	239.2	267.0
Pinal	309.0	186.2	242.5	368.4	197.5	283.2	184.6	175.7	175.6
Santa Cruz	324.9	312.2	312.2	389.7	217.4	288.9	275.8	256.9	265.4
Yavapai	310.4	222.1	256.1	375.4	356.2	356.9	267.8	132.1	193.5
Yuma	313.6	240.2	273.0	370.4	209.0	281.7	375.6	227.8	295.8
ARIZONA	339.5	243.5	282.2	328.2	239.3	277.2	295.5	224.5	251.6

^ = Fewer than 10 cases reported. The rate is considered unstable.

Table 7: Age-Adjusted Incidence Rates of Invasive Cancer Cases by County and Gender for Blacks in Arizona, 2002-2004

	2002			2003			2004		
County	Male	Female	Total	Male	Female	Total	Male	Female	Total
Apache	0.0	0.0	0.0	0.0	2004.7^	1948.0^	0.0	0.0	0.0
Cochise	250.2^	413.8^	368.6	1211.9^	240.7^	535.2	429.7^	455.6^	431.2
Coconino	105.9^	1084.3^	518.7^	411.0^	488.3^	525.2^	573.1^	0.0	242.9^
Gila	1293.1^	0.0	646.6^	0.0	0.0	0.0	0.0	0.0	1142.1^
Graham	0.0	570.1^	165.0^	241.3^	0.0	224.4^	1310.4^	0.0	703.4^
Greenlee	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
La Paz	0.0	2403.9^	601.0^	0.0	0.0	0.0	0.0	0.0	0.0
Maricopa	504.3	271.0	375.2	399.6	284.3	328.2	443.2	311.4	367.9
Mohave	902.0^	0.0	74.6^	225.0^	593.8^	461.6^	242.1^	122.2^	198.6^
Navajo	0.0	657.1^	711.2^	1119.5^	1067.3^	1067.7^	65.8^	356.8^	225.9^
Pima	372.7	187.8	271.5	439.3	347.0	389.3	496.7	326.0	397.2
Pinal	462.2	212.3^	362.9	364.8^	91.0^	253.3	373.5^	283.4^	314.8
Santa Cruz	1290.6^	0.0	717.0^	969.8^	0.0	484.9^	0.0	0.0	0.0
Yavapai	742.4^	587.7^	662.3^	0.0	911.9^	488.0^	288.6^	0.0	165.6^
Yuma	183.6^	333.5^	272.2^	467.0^	64.6^	274.6^	465.3^	169.9^	306.5
ARIZONA	459.4	268.3	356.6	420.5	304.8	351.7	446.3	307.4	367.5

^ = Fewer than 10 cases reported. The rate is considered unstable.

Table 8: Age-Adjusted Incidence Rates of Invasive Cancer Cases by County and Gender for American Indians in Arizona, 2002-2004

	2002			2003			2004		
County	Male	Female	Total	Male	Female	Total	Male	Female	Total
Apache	257.8	126.9	184.9	266.1	202.8	225.3	198.7	155.9	174.0
Cochise	535.6^	0.0	267.8^	0.0	112.7^	57.7^	122.4^	261.4^	176.1^
Coconino	172.2	127.6	141.5	135.9	197.2	170.6	89.4^	140.2	114.2
Gila	267.2^	206.6^	243.4	39.2^	106.3^	75.2^	36.6^	268.0^	170.9^
Graham	248.5^	212.1^	264.5^	255.1^	411.7^	338.4	174.4^	177.7^	175.9^
Greenlee	0.0	0.0	0.0	0.0	0.0	0.0	1142.1^	0.0	571.1^
La Paz	221.7^	305.9^	251.9^	87.9^	452.8^	280.5^	138.1^	79.4^	106.9^
Maricopa	167.9	173.1	167.7	251.1	229.1	233.3	216.5	142.8	165.4
Mohave	127.7^	134.8^	134.3^	381.0^	395.2^	470.2	0.0	41.2^	24.0^
Navajo	209.2	210.8	207.8	223.3	145.6	176.6	176.7	153.8	164.2
Pima	289.1	189.3	220.0	206.8	174.4	191.8	162.6	227.7	204.8
Pinal	154.5^	157.6^	157.0	176.8^	222.4	204.4	403.5^	285.3	274.4
Santa Cruz	538.4^	0.0	323.0^	0.0	0.0	0.0	0.0	0.0	0.0
Yavapai	170.4^	330.2^	253.8^	392.8^	369.7^	394.1	128.6^	268.3^	219.8^
Yuma	72.9^	296.7^	192.5^	74.7^	68.7^	72.6^	0.0	210.8^	109.4^
ARIZONA	213.3	173.3	188.7	229.8	200.7	210.2	166.6	171.6	167.5

^ = Fewer than 10 cases reported. The rate is considered unstable.

Table 9: Age-Adjusted Incidence Rates of Invasive Cancer Cases by County and Gender for Asians/Pacific Islanders in Arizona, 2002-2004

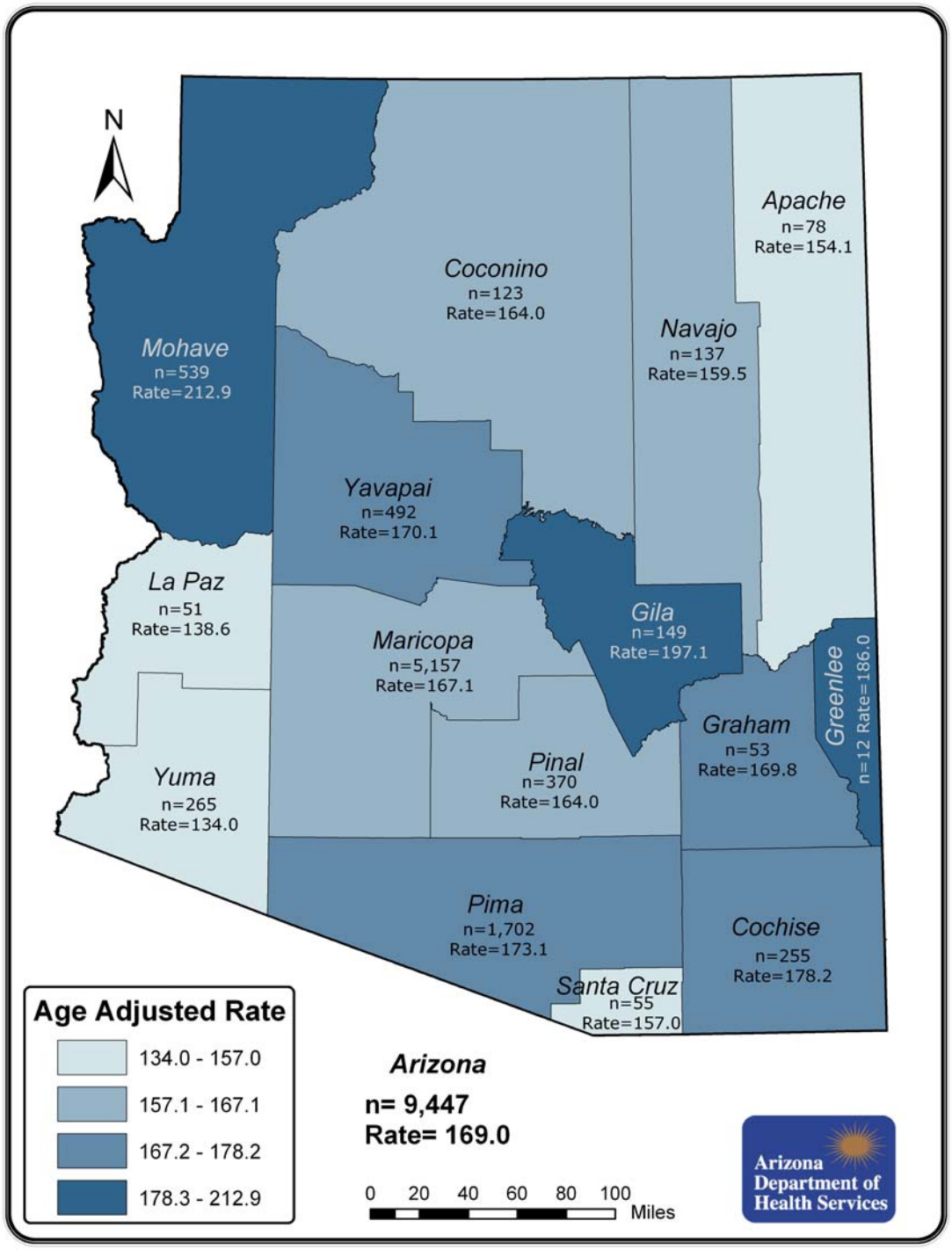
	2002			2003			2004		
County	Male	Female	Total	Male	Female	Total	Male	Female	Total
Apache	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cochise	326.3^	366.9^	348.0^	233.6^	229.0^	237.6^	118.2^	264.3^	227.8^
Coconino	0.0	0.0	0.0	2699.9^	310.2^	850.8^	540.9^	296.4^	365.1^
Gila	0.0	0.0	0.0	1992.4^	0.0	519.8^	372.7^	0.0	230.7^
Graham	0.0	0.0	0.0	0.0	0.0	0.0	900.0^	1872.6^	1428.4^
Greenlee	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
La Paz	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maricopa	248.6	211.8	227.5	294.6	279.7	283.3	193.3	165.2	175.0
Mohave	613.1^	96.4^	205.1^	387.6^	62.3^	171.4^	114.2^	425.1^	288.8^
Navajo	0.0	0.0	0.0	0.0	0.0	0.0	0.0	428.3^	263.6^
Pima	220.0	246.0	237.1	156.2	222.4	191.4	224.5	224.3	219.8
Pinal	470.4^	121.1^	340.8^	138.1^	214.5^	182.4^	167.2^	78.4^	113.3^
Santa Cruz	0.0	0.0	0.0	0.0	0.0	0.0	0.0	379.6^	194.9^
Yavapai	258.6^	527.9^	429.7^	0.0	277.1^	176.3^	730.0^	112.7^	363.9^
Yuma	0.0	0.0	0.0	106.3^	149.3^	139.8^	242.6^	62.3^	130.0^
ARIZONA	241.2	218.3	227.7	264.7	257.7	257.8	205.6	189.9	194.2

^ = Fewer than 10 cases reported. The rate is considered unstable.

CHAPTER 2

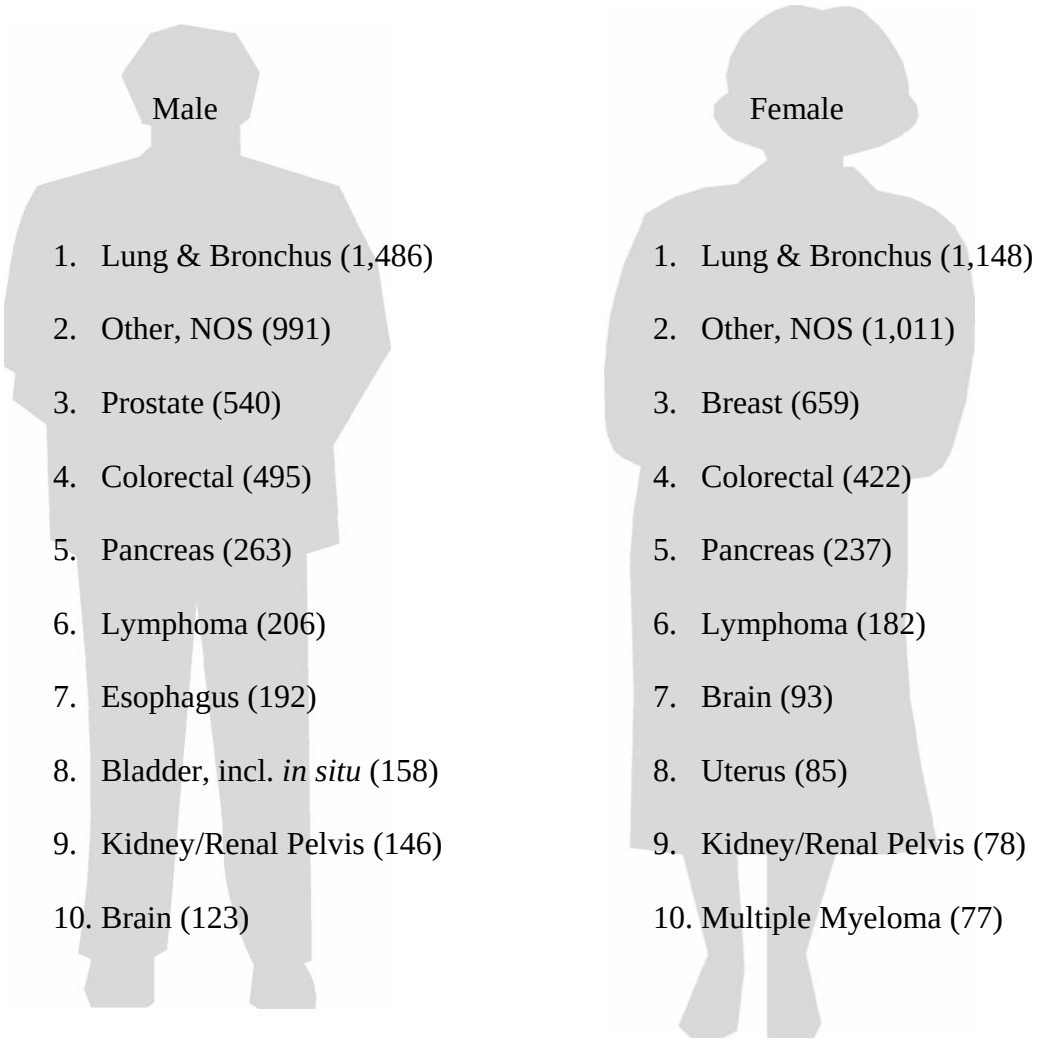
Cancer Mortality

Cancer Mortality in Arizona
Average Annual Counts and Age-Adjusted Rates by County
2002-2004



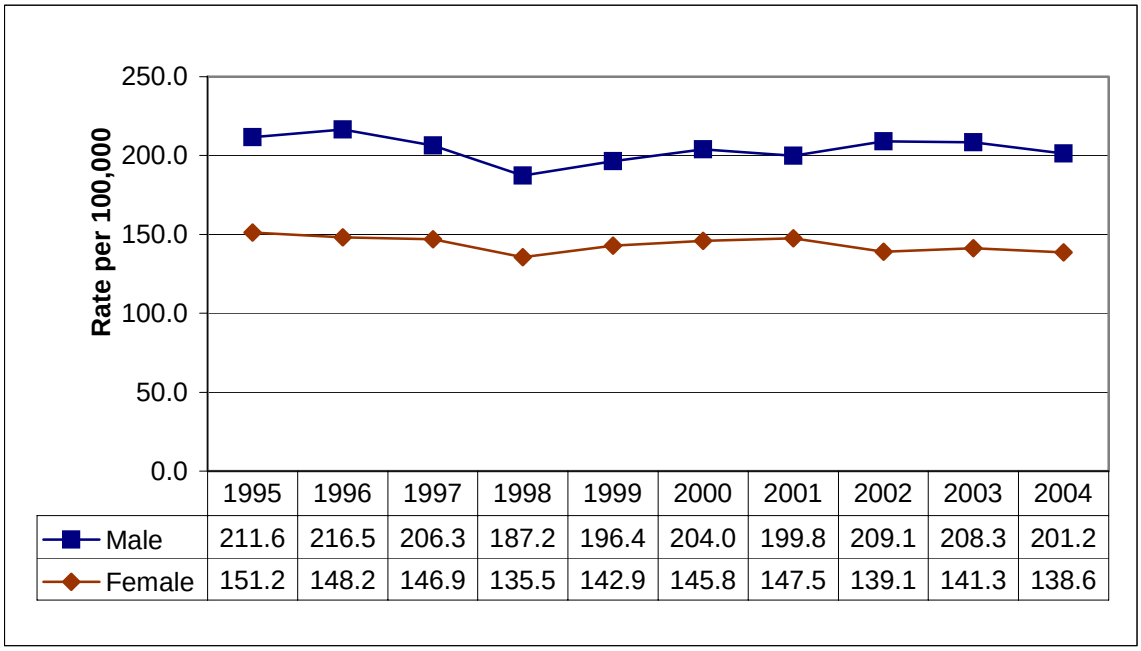
Note: County of residence for some cases is unknown. The sum of the cases per county does not equal the state total listed in this map.

Figure 8: Ten Leading Sites of Cancer Deaths by Site and Gender, Average Annual Count, 2002-2004



*Other, NOS=Ill-defined or site not otherwise specified.

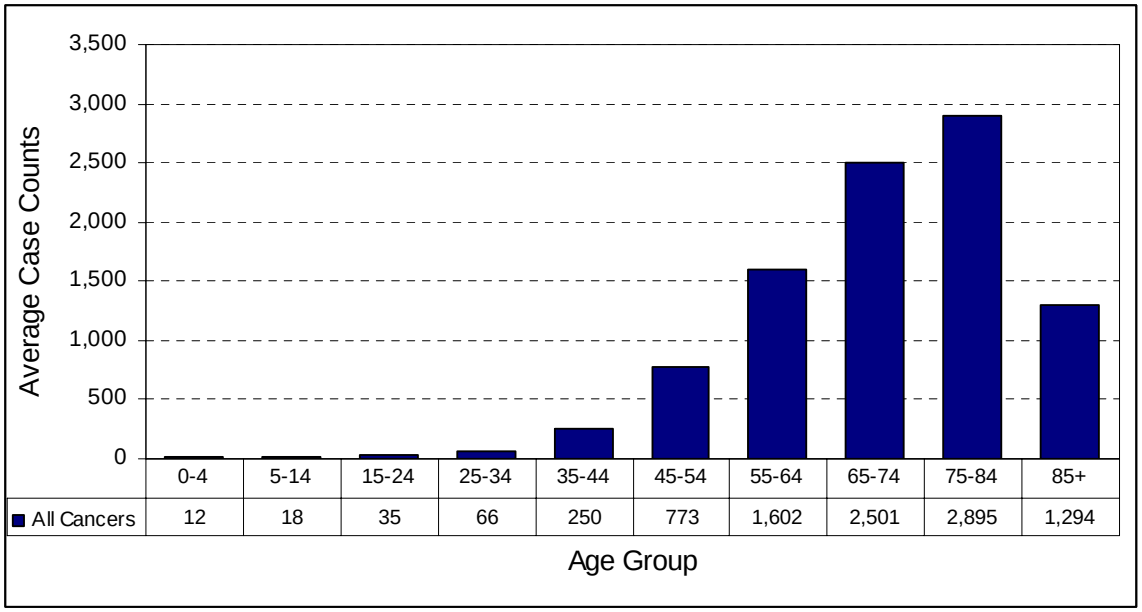
Figure 9: Age-Adjusted Cancer Mortality Rates for All Cancers by Gender and Year, Arizona, 1995-2004



	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Male	211.6	216.5	206.3	187.2	196.4	204.0	199.8	209.1	208.3	201.2
Female	151.2	148.2	146.9	135.5	142.9	145.8	147.5	139.1	141.3	138.6

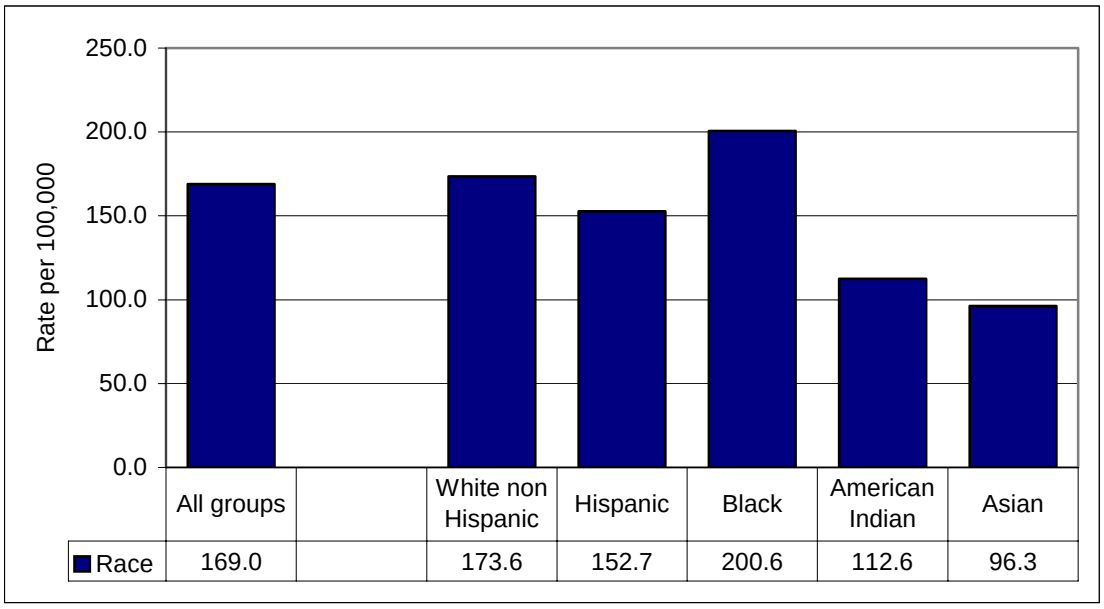
Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard

Figure 10: Cancer Mortality by Age in Arizona, Average Annual Count, 2002-2004



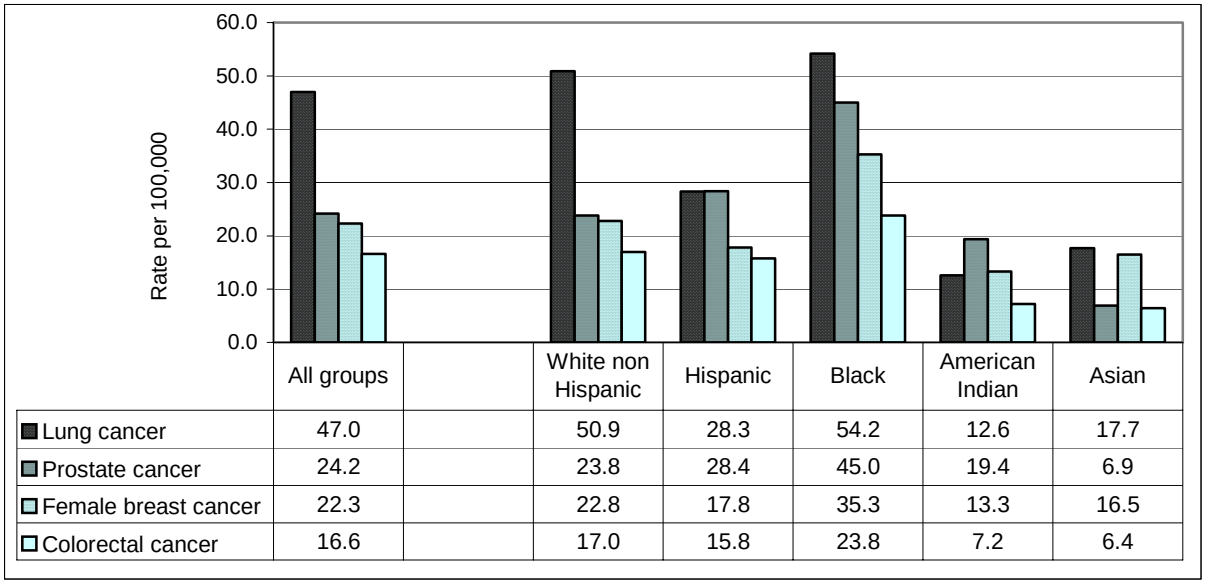
	0-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
All Cancers	12	18	35	66	250	773	1,602	2,501	2,895	1,294

Figure 11: Average Annual Age-Adjusted Mortality Rates of Invasive Cancer Cases by Race/Ethnicity, 2002-2004



	All groups		White non Hispanic	Hispanic	Black	American Indian	Asian
Race	169.0		173.6	152.7	200.6	112.6	96.3

Figure 12: Average Annual Age-Adjusted Mortality Rates For Select Cancers by Race/Ethnicity, Arizona, 2002-2004



	All groups		White non Hispanic	Hispanic	Black	American Indian	Asian
Lung cancer	47.0		50.9	28.3	54.2	12.6	17.7
Prostate cancer	24.2		23.8	28.4	45.0	19.4	6.9
Female breast cancer	22.3		22.8	17.8	35.3	13.3	16.5
Colorectal cancer	16.6		17.0	15.8	23.8	7.2	6.4

Adjusted to the 2000 standard U.S. population. The rates were per 100,000 persons in specified group per year. The rates for prostate cancer were per 100,000 males. The rates for breast cancer were per 100,000 females.

CHAPTER 3

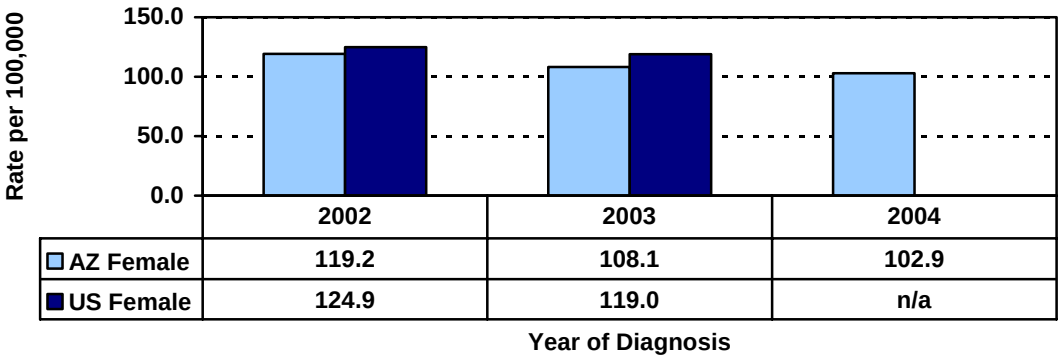
Incidence and Mortality of Select Cancers

Female Breast Cancer
Colorectal Cancer
Lung and Bronchus Cancer
Melanoma
Prostate Cancer

Female Breast Cancer in Arizona

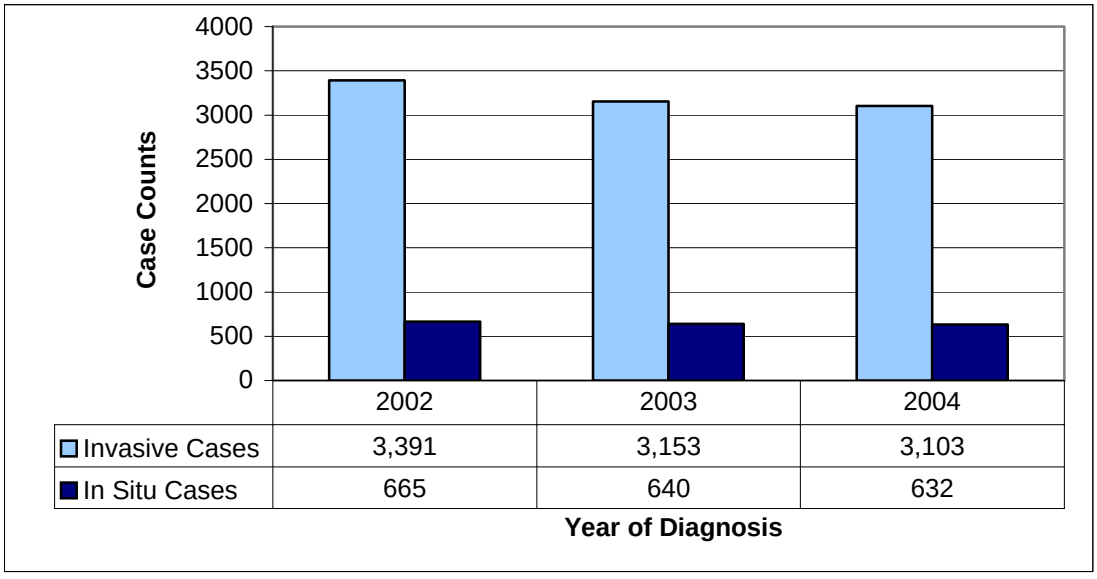
Breast cancer is the most frequently diagnosed cancer and the third most common cancer death identified among women in Arizona during 2002-2004. This cancer also continues to be the most common type diagnosed among women in the US. In 2002-2004, an average of 3,262 new invasive and 652 *in situ* cases of female breast cancer was diagnosed per year in Arizona.

Figure 13: U.S.* and Arizona Female Breast Cancer Age-Adjusted Incidence Rates, 2002-2004



*CDC National Program of Cancer Registries. US rates for diagnosis year 2004 not yet available.

Figure 14: Counts of Invasive and In Situ Female Breast Cancer in Arizona, 2002-2004



About half of female breast cancer cases were diagnosed with local stage of disease, and one quarter was diagnosed with regional stage. While just 17% of cases were diagnosed *in situ* stage, only 3% of female breast cancer cases were diagnosed with distant stage. This indicates that breast cancer is being diagnosed in earlier stages, which will contribute to successful treatments, and better prognoses.

Figure 15: Percentage of Female Breast Cancer Cases by SEER Summary Stage, 2002-2004

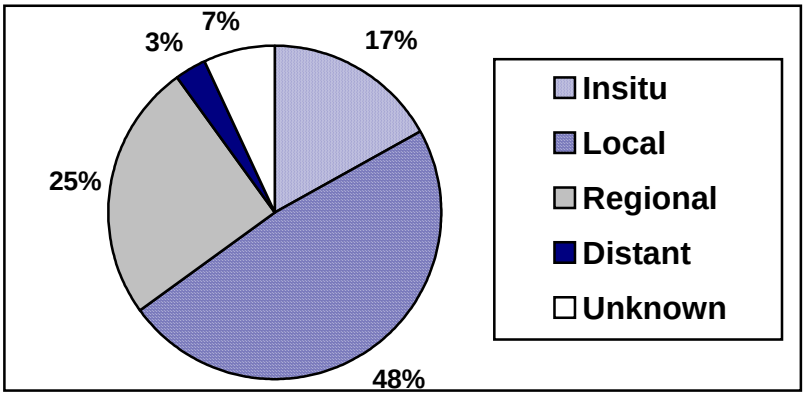
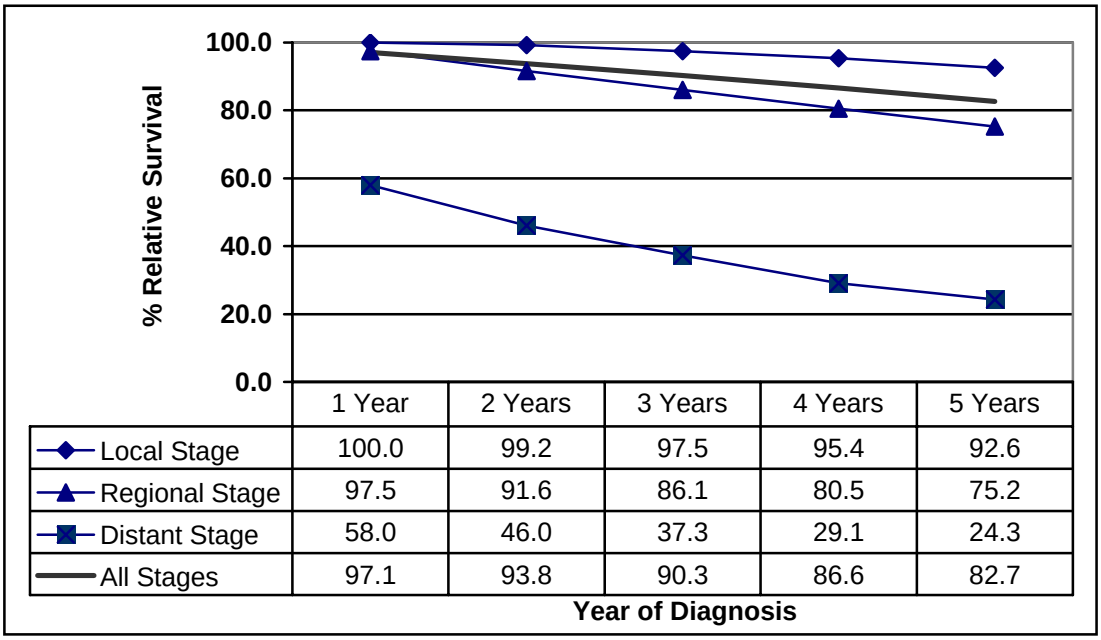
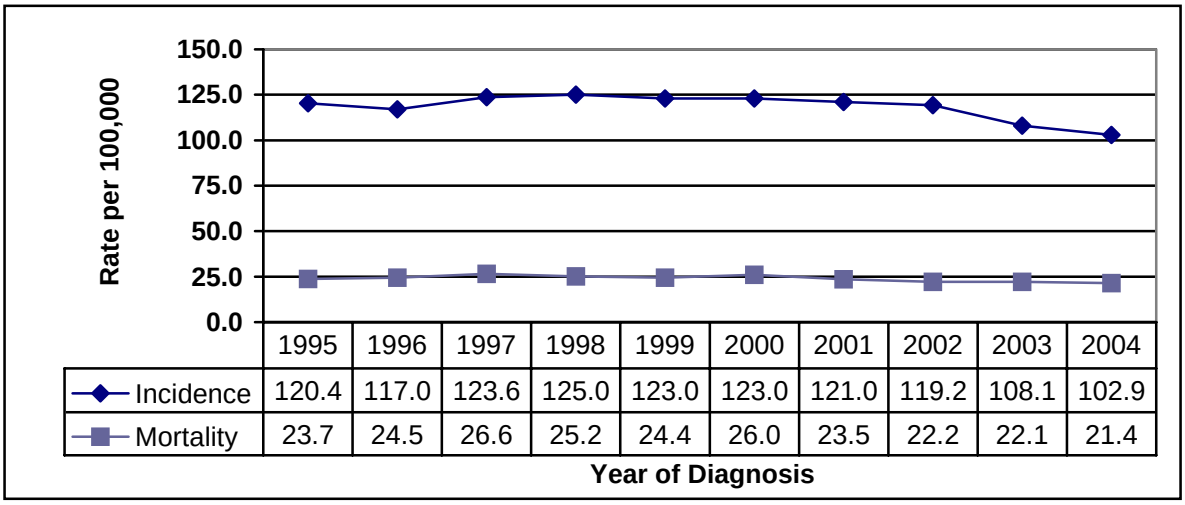


Figure 16: Five-Year Percent Relative Female Breast Cancer Survival, 1995-2000



During this time period, the age-adjusted incidence rate for breast cancer had slightly decreased. The age-adjusted mortality rate for female breast cancer had remained constant. Female breast cancer diagnoses occur over four times more frequently than do deaths caused by the same cancer.

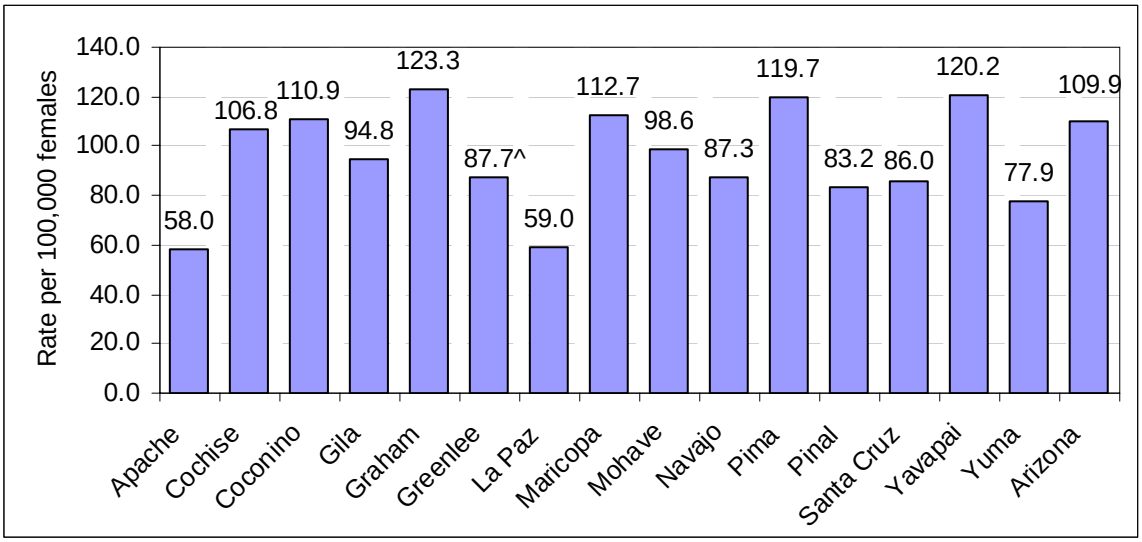
Figure 17: Age-Adjusted Incidence and Mortality Rates for Female Breast Cancer in Arizona, 2002-2004



	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Incidence	120.4	117.0	123.6	125.0	123.0	123.0	121.0	119.2	108.1	102.9
Mortality	23.7	24.5	26.6	25.2	24.4	26.0	23.5	22.2	22.1	21.4

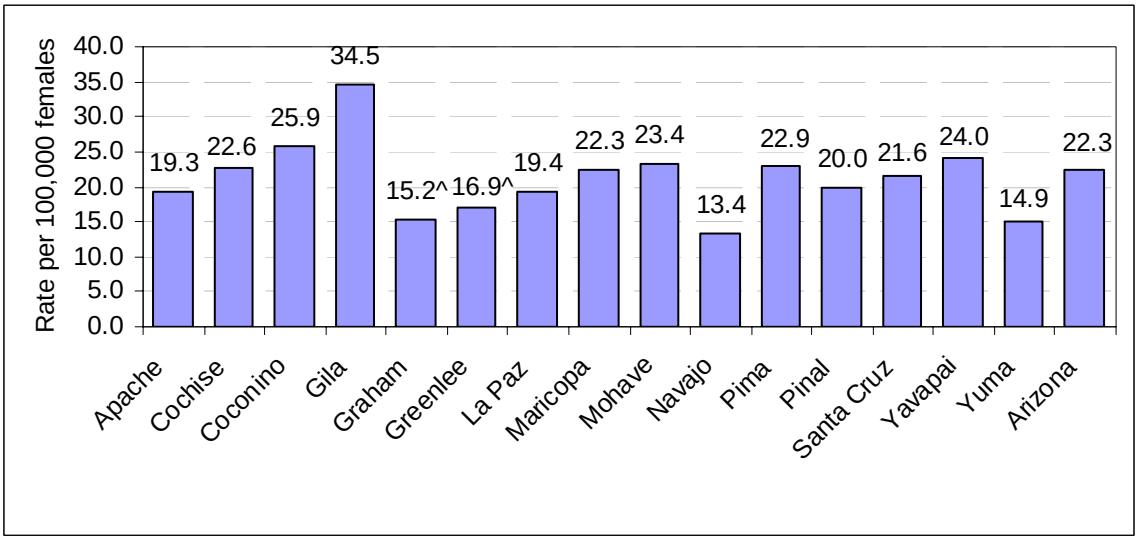
In 2002-2004, Graham County had the highest incidence rate, and Gila County had the highest mortality rates for female breast cancer (123.3 and 34.5 per 100,000, respectively). When compared to the state rate in 2002-2004, 10 counties have lower average incidence rates, and five counties had higher average incidence rates than the state.

Figure 18: Average Annual Age-Adjusted Incidence Rates for Female Breast Cancer By County, 2002-2004



^ = Fewer than 10 cases reported. The rate is considered unstable.

Figure 19: Average Annual Age-Adjusted Mortality Rates for Female Breast Cancer By County, 2002-2004



^ = Fewer than 10 cases reported. The rate is considered unstable.

When analyzed by race and ethnicity, the female breast cancer incidence rates were highest among White, non-Hispanics (120.4 per 100,000) in Arizona, and the mortality rate was highest among Blacks (34.8 per 100,000). American Indians have both the lowest female breast cancer incidence and mortality rates among all the races (43.2 and 13.3 per 100,000, respectively).

Figure 20: Average Annual Age-Adjusted Incidence Rates for Female Breast Cancer by Race/Ethnicity, 2002-2004

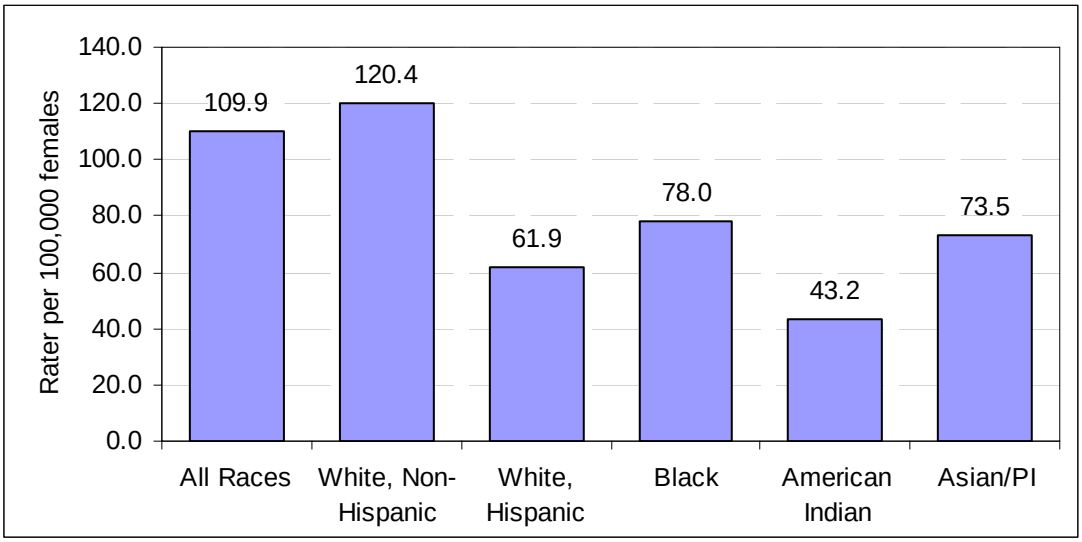
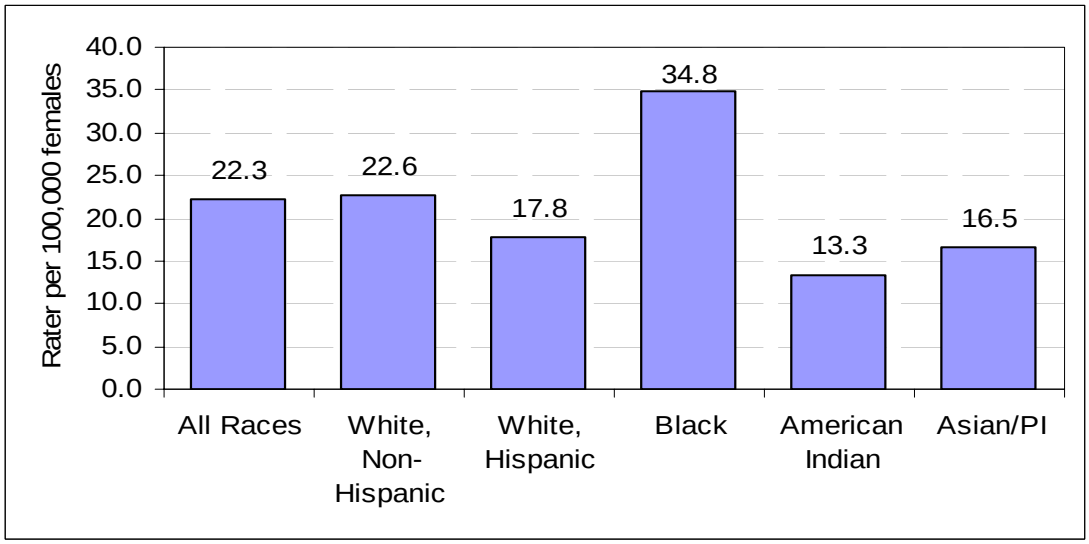


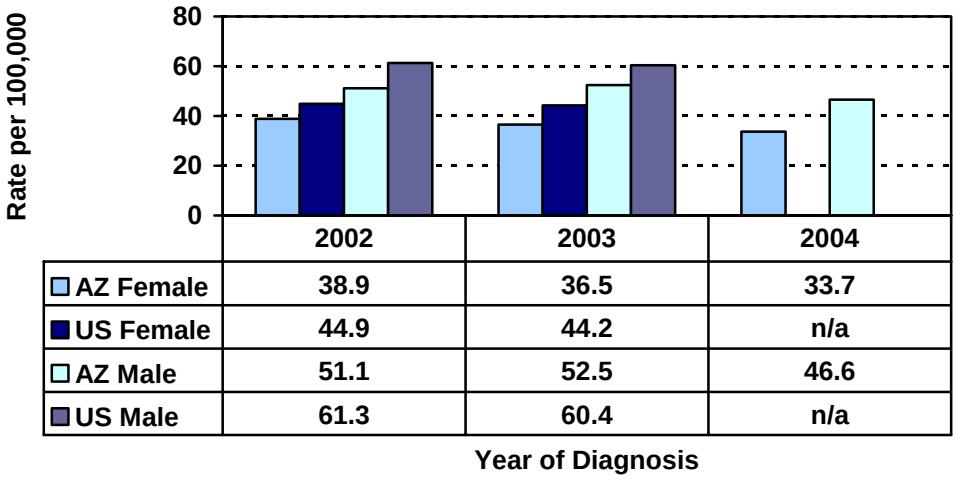
Figure 21: Average Annual Age-Adjusted Mortality Rates for Female Breast Cancer by Race/Ethnicity, 2002-2004



Colorectal Cancer in Arizona

Colorectal cancer was the third most frequently diagnosed cancer among Arizonans in 2002-2004 (see Figure 1). A total of 1,257 and 1,118 cases of invasive colorectal cancer were reported in men and women, respectively, on average during this time period.

Figure 22: U.S.* and Arizona Age-Adjusted Incidence Rates of Colorectal Cancer by Gender, 2002-2004



	2002	2003	2004
AZ Female	38.9	36.5	33.7
US Female	44.9	44.2	n/a
AZ Male	51.1	52.5	46.6
US Male	61.3	60.4	n/a

*CDC National Program of Cancer Registries. US rates for diagnosis year 2004 not yet available.

When analyzed by stage, colorectal cancer cases had approximately equal portion of cases diagnosed in local stage as in regional stage, and those stages combined accounted for nearly two-thirds of all diagnosed cases. Approximately 32% of cases were diagnosed in regional stage and 16% were diagnosed in distant stage. Information about the importance of colorectal screenings will help educate the public about the benefits of early detection of colorectal cancer. The goal is to increase the number of screenings performed, thereby decreasing the number of colorectal cases diagnosed in later stages and increasing treatment options and chances of survival.

Figure 23: Percentage of Colorectal Cancer Cases by SEER Summary Stage, 2002-2004

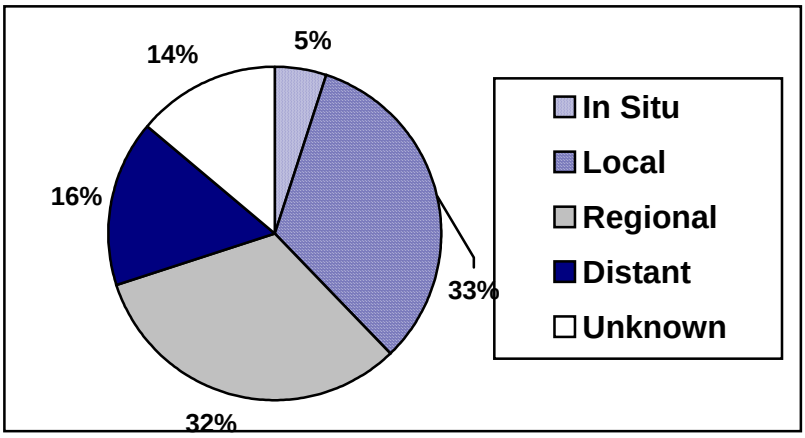
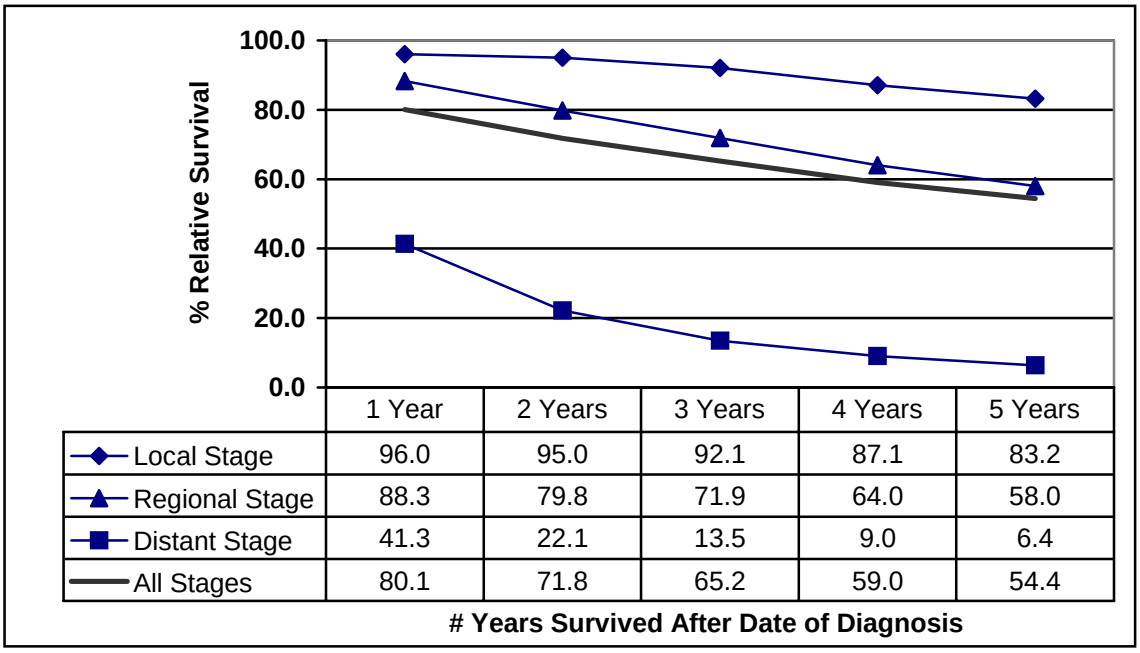


Figure 24: Five-Year Percent Relative Colorectal Cancer Survival, 1995-2005

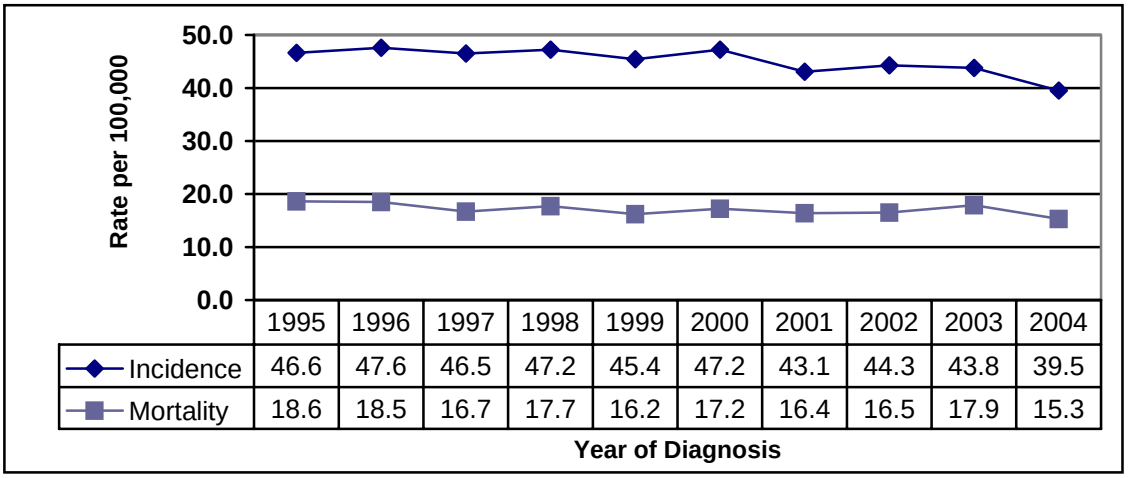


	1 Year	2 Years	3 Years	4 Years	5 Years
Local Stage	96.0	95.0	92.1	87.1	83.2
Regional Stage	88.3	79.8	71.9	64.0	58.0
Distant Stage	41.3	22.1	13.5	9.0	6.4
All Stages	80.1	71.8	65.2	59.0	54.4

Years Survived After Date of Diagnosis

During this time period, the age-adjusted incidence rate and mortality rate in Arizona for colorectal cancer had remained constant, with a slight decrease in incidence beginning in 2001.

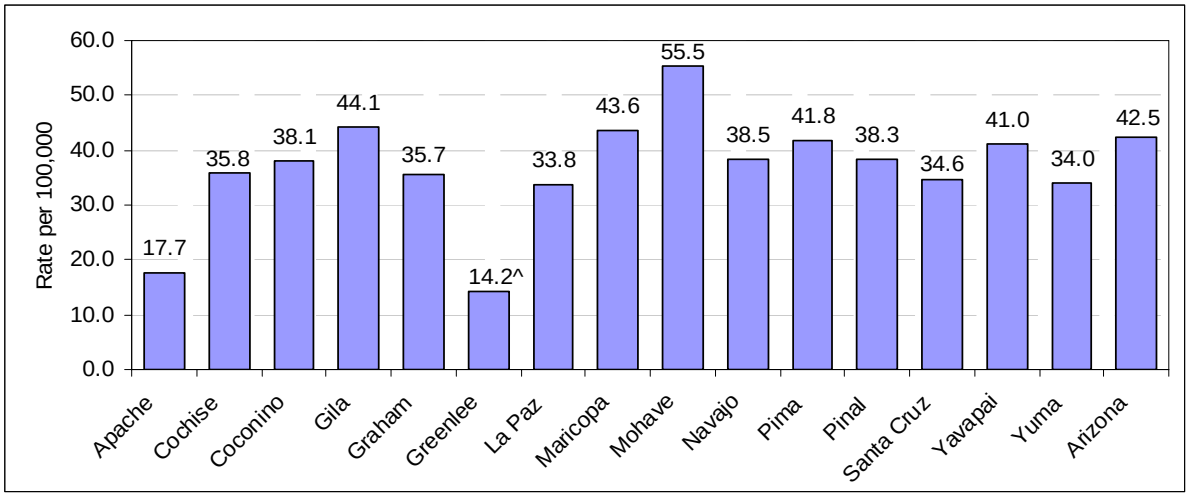
Figure 25: Age-Adjusted Incidence and Mortality Rates of Colorectal Cancer in Arizona, 1995-2004



	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Incidence	46.6	47.6	46.5	47.2	45.4	47.2	43.1	44.3	43.8	39.5
Mortality	18.6	18.5	16.7	17.7	16.2	17.2	16.4	16.5	17.9	15.3

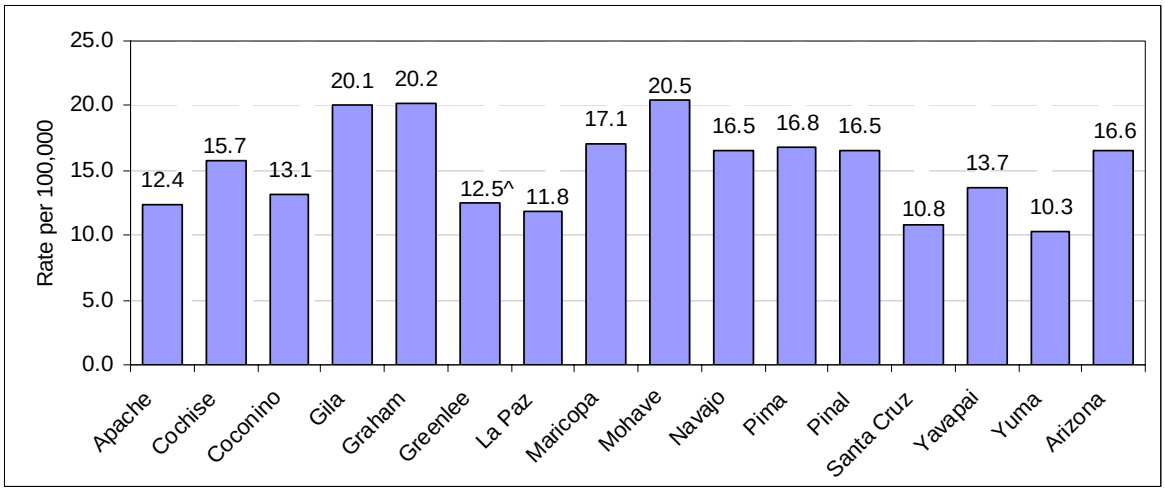
When analyzed by county in 2002-2004, Mohave County had the highest colorectal cancer incidence rate and the highest mortality rate (55.5 and 20.5 per 100,000, respectively). When compared to the state rate in 2002-2004, 12 counties have lower incidence rates, and three counties have higher incidence rates than the state.

Figure 26: Average Annual Age-Adjusted Incidence Rates of Colorectal Cancer By County, 2002-2004



^ = Fewer than 10 cases reported. The rate is considered unstable.

Figure 27: Average Annual Age-Adjusted Mortality Rates of Colorectal Cancer By County, 2002-2004



^ = Fewer than 10 cases reported. The rate is considered unstable.

When analyzed by race and ethnicity, White Non-Hispanics have the highest rates in colorectal cancer incidence and Blacks have the highest mortality rates in Arizona (44.6 and 23.8 per 100,000, respectively). American Indians have the lowest colorectal cancer incidence rate and Asian/PI have the lowest mortality rates for colorectal cancer (12.0 and 6.4 per 100,000, respectively).

Figure 28: Average Annual Age-Adjusted Incidence Rates of Colorectal Cancer by Race/Ethnicity, 2002-2004

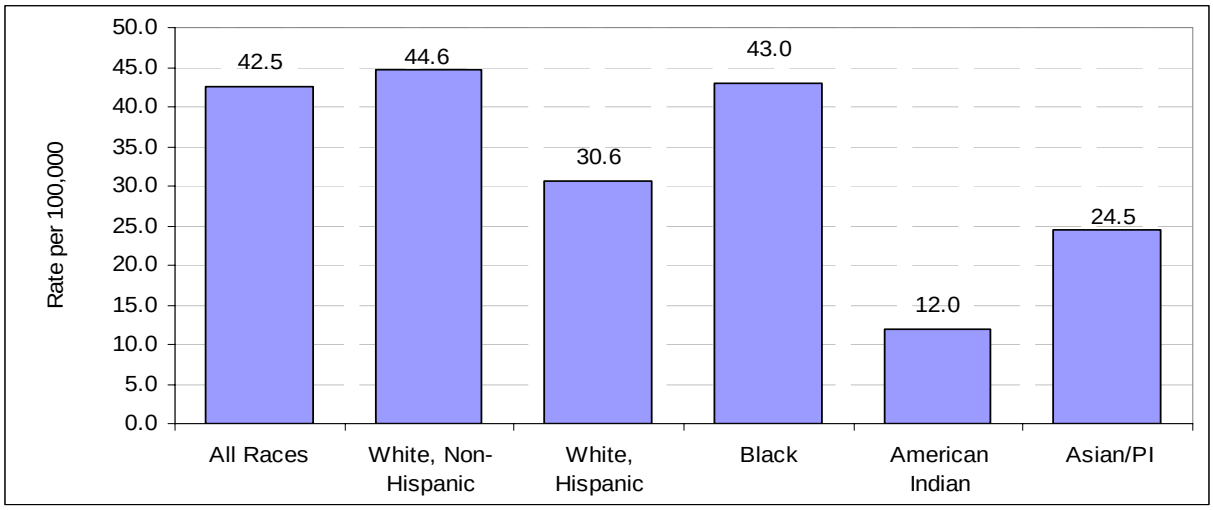
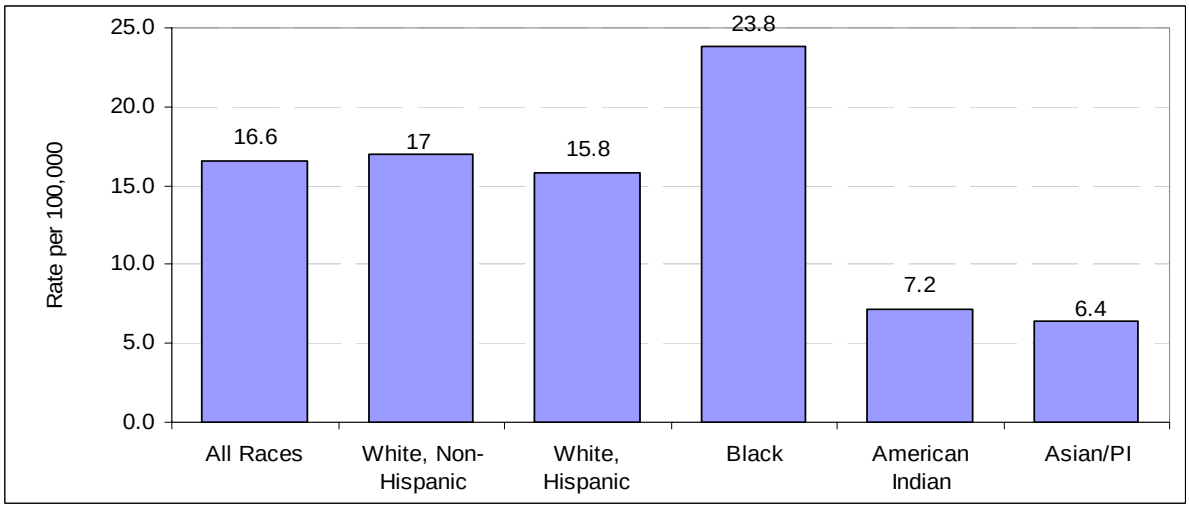


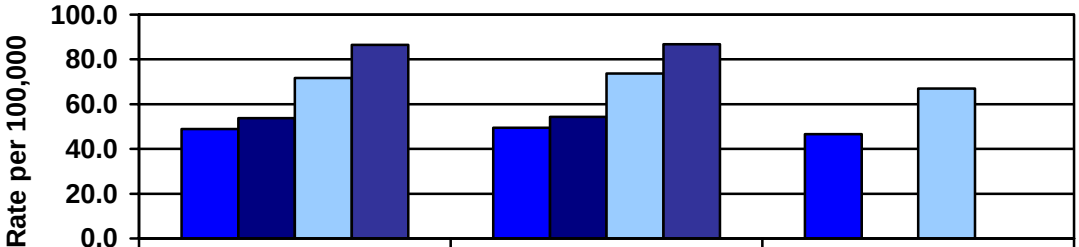
Figure 29: Average Annual Age-Adjusted Mortality Rates of Colorectal Cancer by Race/Ethnicity, 2002-2004



Lung Cancer in Arizona

Lung Cancer was the second most common cancer diagnosed among Arizonans in 2002-2004 (see Figure 1). An average of 1,805 and 1,486 cases occurred per year among males and females, respectively, during this time period.

Figure 30: U.S.* and Arizona Age-Adjusted Incidence Rates of Lung Cancer by Gender, 2002-2004



	2002	2003	2004
AZ Female	48.9	49.5	46.6
US Female	53.7	54.3	n/a
AZ Male	71.7	73.7	67.0
US Male	86.4	86.8	n/a

Year of Diagnosis

*CDC National Program of Cancer Registries. US rates for diagnosis year 2004 not yet available.

When analyzed by stage, more lung cancer cases were diagnosed in distant stage (41%) than any other stage. This was largely because there is no effective screening method for this cancer, and consequently this cancer is often found once it has progressed to a later stage. The percentage of cases diagnosed in local and regional stage *combined* was only 33%. Because there is no effective screening method, and since it is known that smoking causes lung cancer, reducing the number of smokers will lower the total number of lung cancers diagnosed at any stage, and will ultimately diminish the number of deaths due to lung cancer.

Figure 31: Percentage of Lung Cancer Cases by SEER Summary Stage, 2002-2004

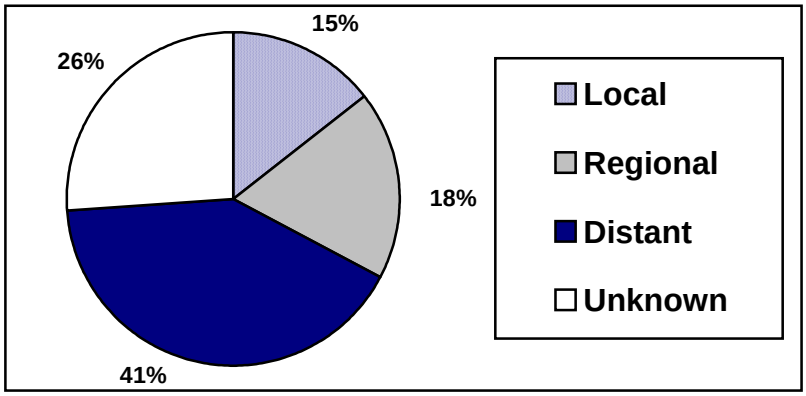
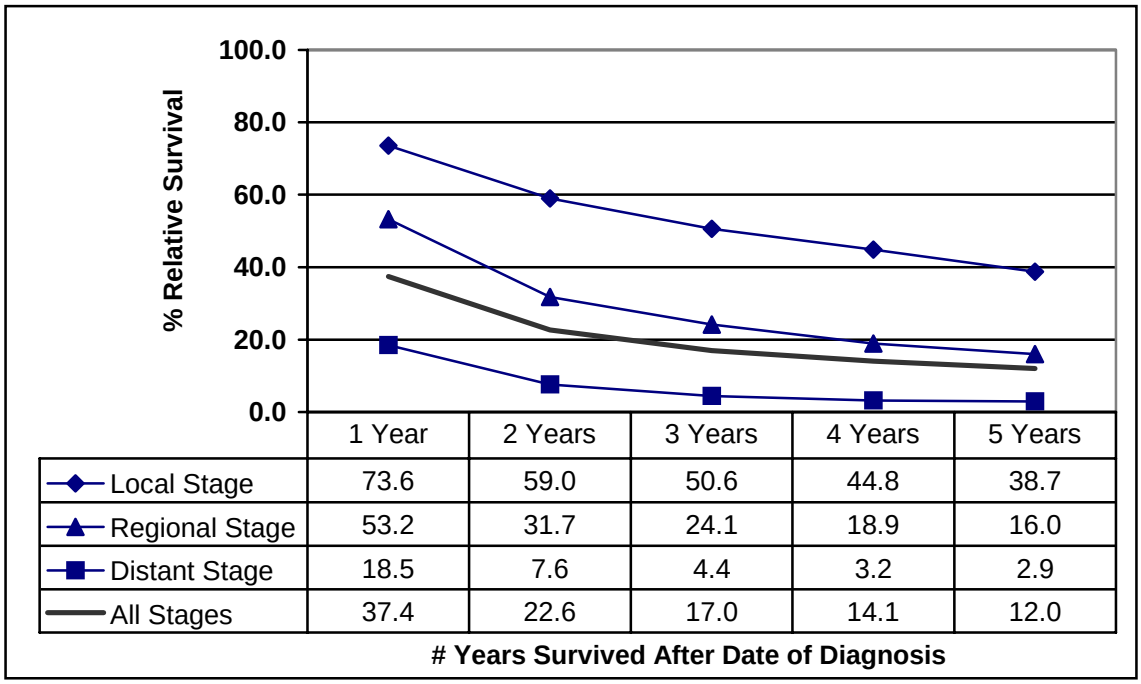


Figure 32: Five-Year Percent Relative Lung Cancer Survival, 1995-2000

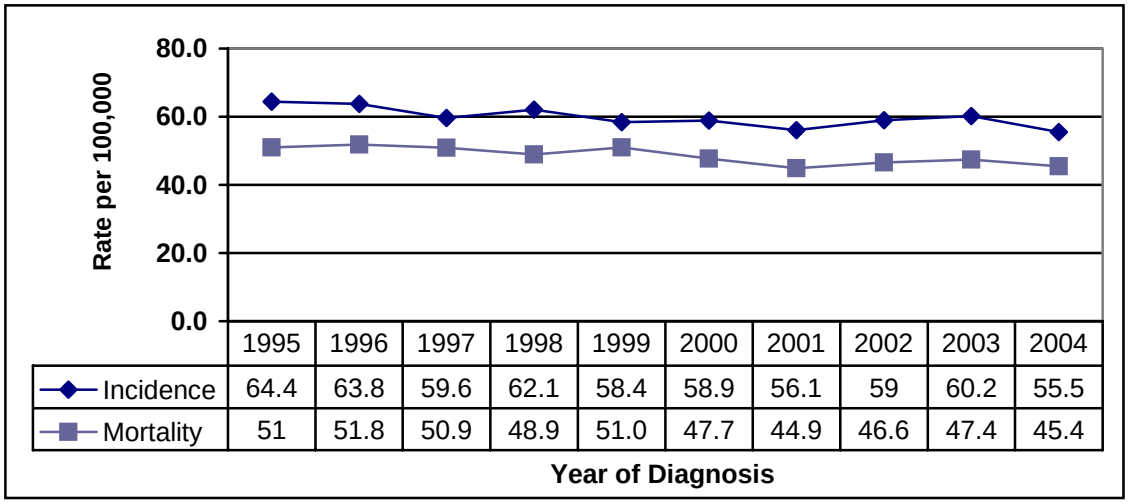


	1 Year	2 Years	3 Years	4 Years	5 Years
Local Stage	73.6	59.0	50.6	44.8	38.7
Regional Stage	53.2	31.7	24.1	18.9	16.0
Distant Stage	18.5	7.6	4.4	3.2	2.9
All Stages	37.4	22.6	17.0	14.1	12.0

 # Years Survived After Date of Diagnosis

Lung cancer continues to be a deadly cancer, with almost as many deaths per year as were cases diagnosed in Arizona. For Arizona men and women, lung cancer was the most common type of cancer death in 2002-2004 despite the very slight decrease in both incidence and mortality rates during this time period.

Figure 33: Age-Adjusted Incidence and Mortality Rates for Lung Cancer in Arizona, 1995-2004



	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Incidence	64.4	63.8	59.6	62.1	58.4	58.9	56.1	59	60.2	55.5
Mortality	51	51.8	50.9	48.9	51.0	47.7	44.9	46.6	47.4	45.4

In 2002-2004, Mohave County had both the highest lung cancer incidence and mortality rates in the State of Arizona (91.2 and 75.1 per 100,000, respectively).

Figure 34: Average Annual Age-Adjusted Incidence Rates for Lung Cancer By County, 2002-2004

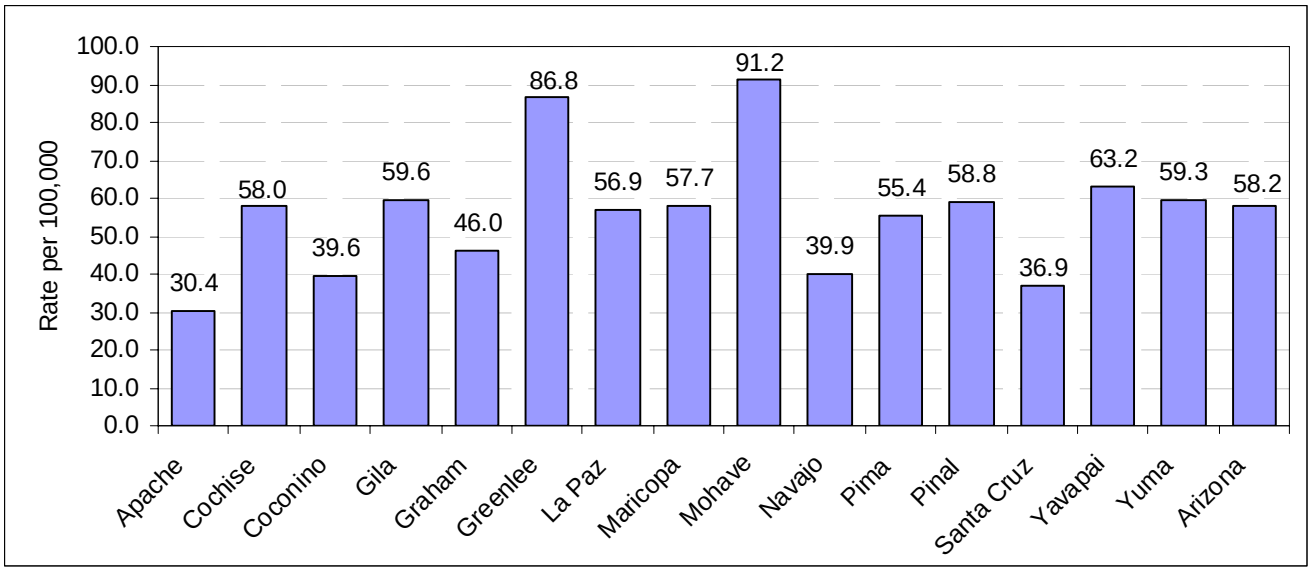
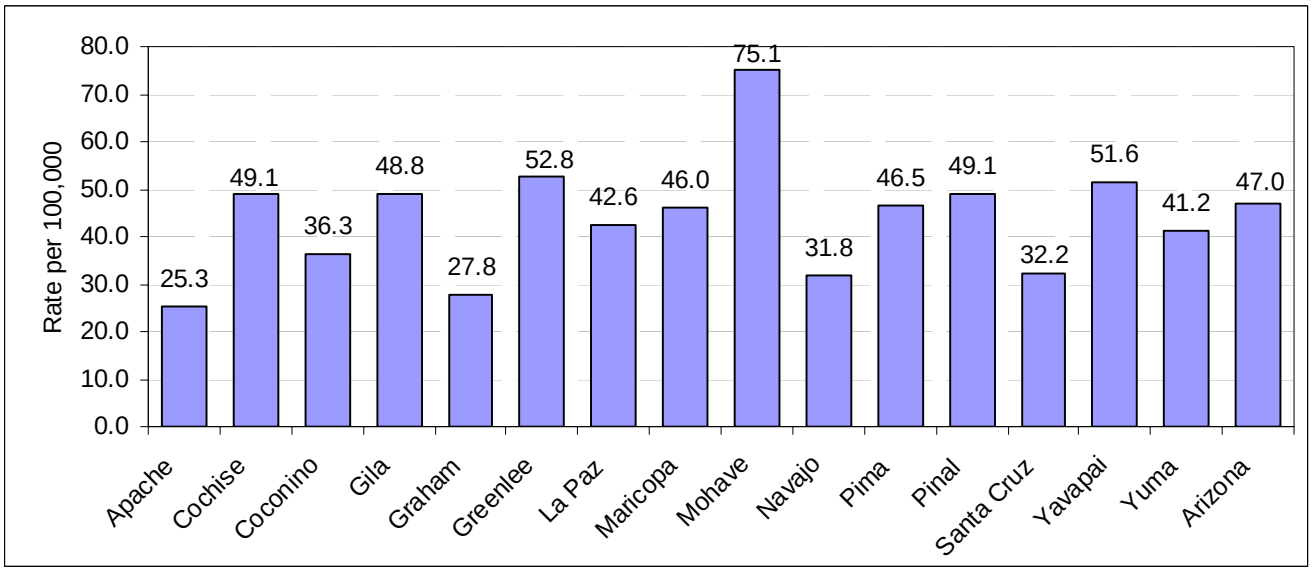


Figure 35: Average Annual Age-Adjusted Mortality Rates for Lung Cancer By County, 2002-2004



When analyzed by race and ethnicity, the lung cancer incidence rates were highest among White Non-Hispanics (63.6 per 100,000) in Arizona, and the mortality rate was highest among Blacks (54.2 per 100,000). American Indians had the lowest rates for both lung cancer incidence and mortality (9.6 per 100,000 and 12.6 per 100,000, respectively).

Figure 36: Average Annual Age-Adjusted Incidence Rates for Lung Cancer by Race/Ethnicity, 2002-2004

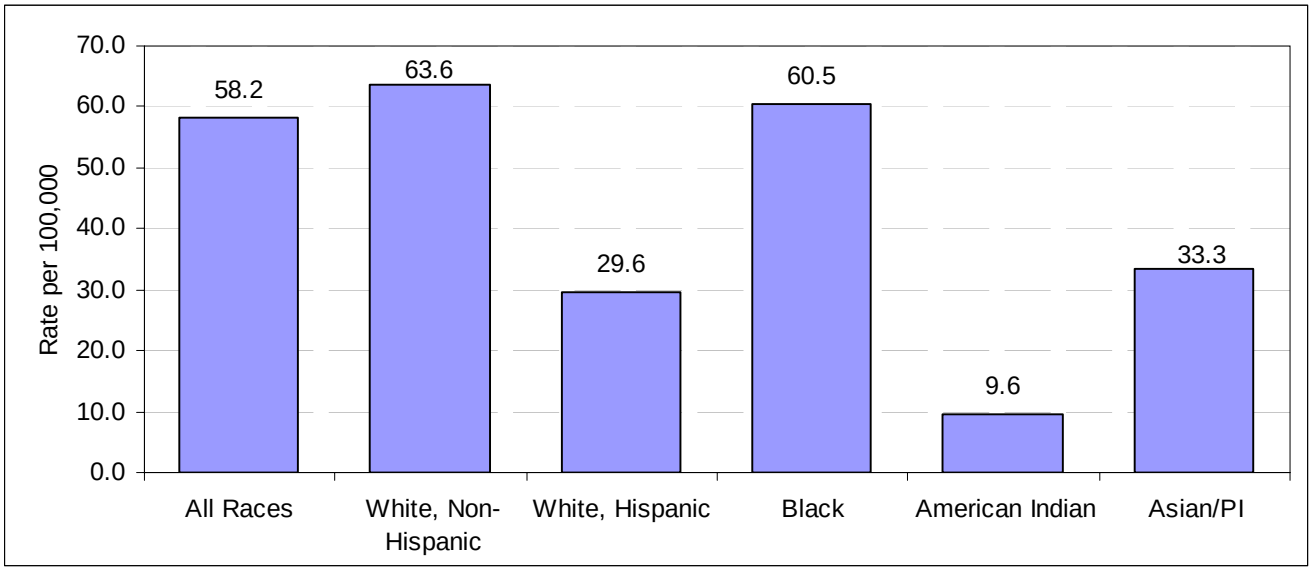
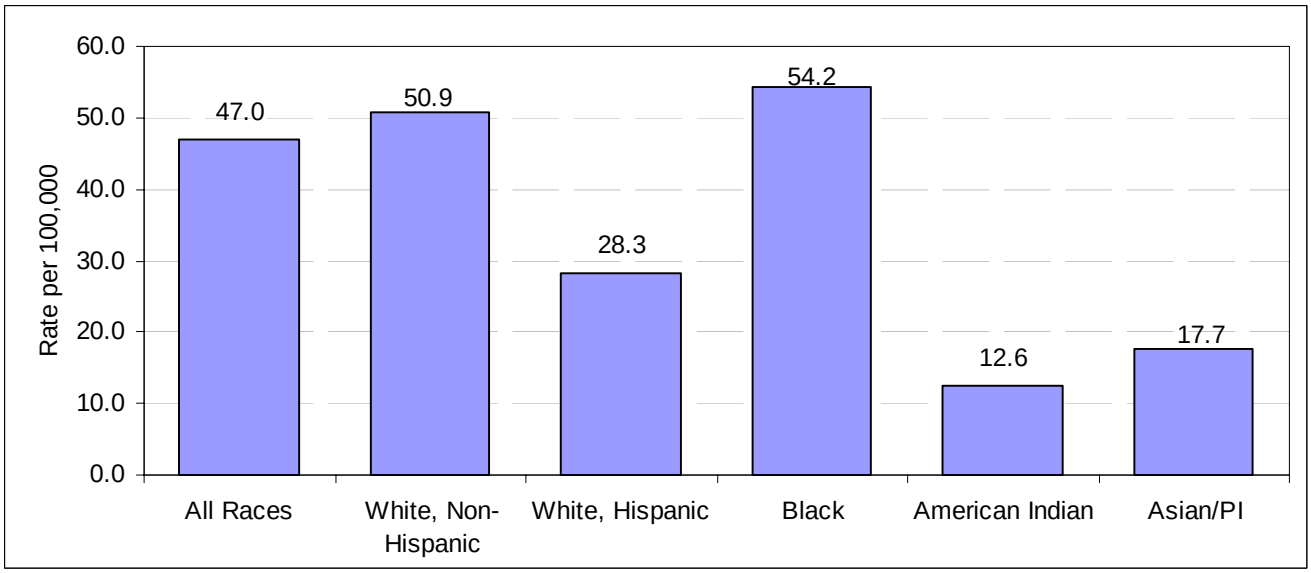


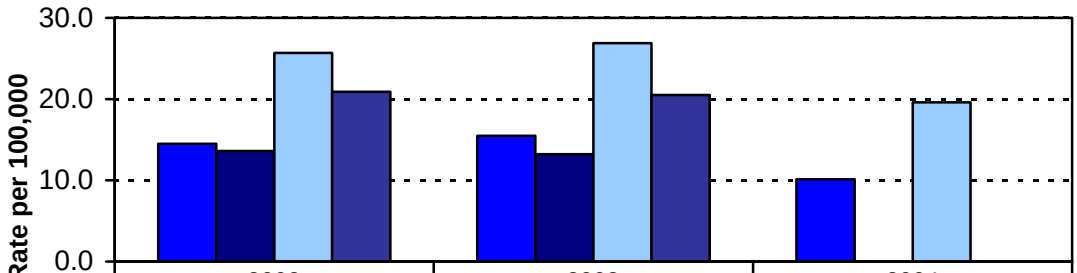
Figure 37: Average Annual Age-Adjusted Mortality Rates for Lung Cancer by Race/Ethnicity, 2002-2004



Melanoma in Arizona

Historically, melanoma has typically been among the five most common types of cancer diagnosed among men, and among the ten most common types of cancer diagnosed among women in Arizona. Compared to U.S. rates, the incidence of melanoma cancer in Arizona was somewhat higher than the national rate. The Arizona Cancer Registry does not collect data on basal and squamous cell carcinomas, which is the most common type of skin cancer.

Figure 38: U.S.* and Arizona Age-Adjusted Incidence Rates of Melanoma Cancer by Gender, 2002-2004



	2002	2003	2004
AZ Female	14.5	15.5	10.1
US Female	13.6	13.2	n/a
AZ Male	25.7	26.9	19.6
US Male	20.9	20.5	n/a

Year of Diagnosis

*CDC National Program of Cancer Registries. US rates for diagnosis year 2004 not yet available.

When analyzed by stage, melanoma cancer cases were most often diagnosed in local stage (77%), followed by regional stage (7%) and least often in distant stage (4%). Sun protection practices and health education about sun shade for children and adults can help reduce the number of melanoma cases diagnosed and the number of melanoma deaths.

Figure 39: Percentage of Melanoma Cases by SEER Summary Stage, 2002-2004

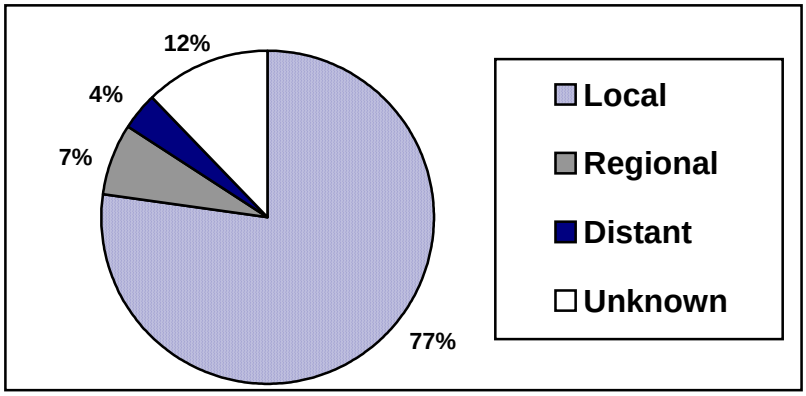
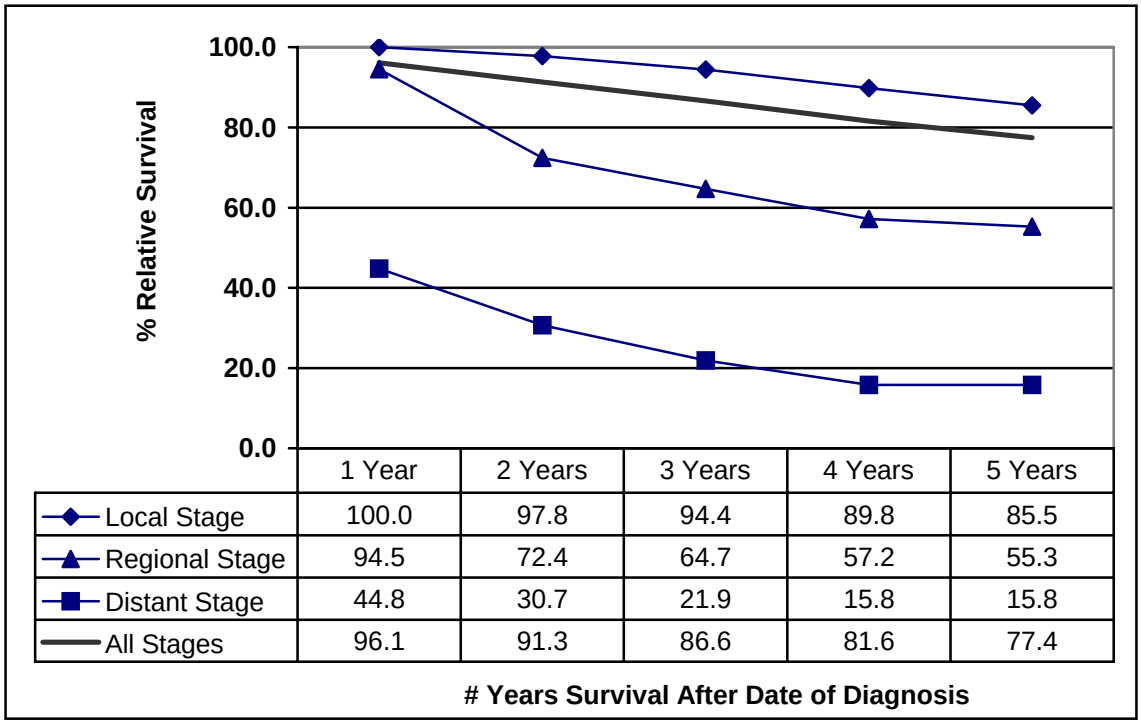


Figure 40: Five-Year Percent Relative Melanoma Survival, 1995-2000

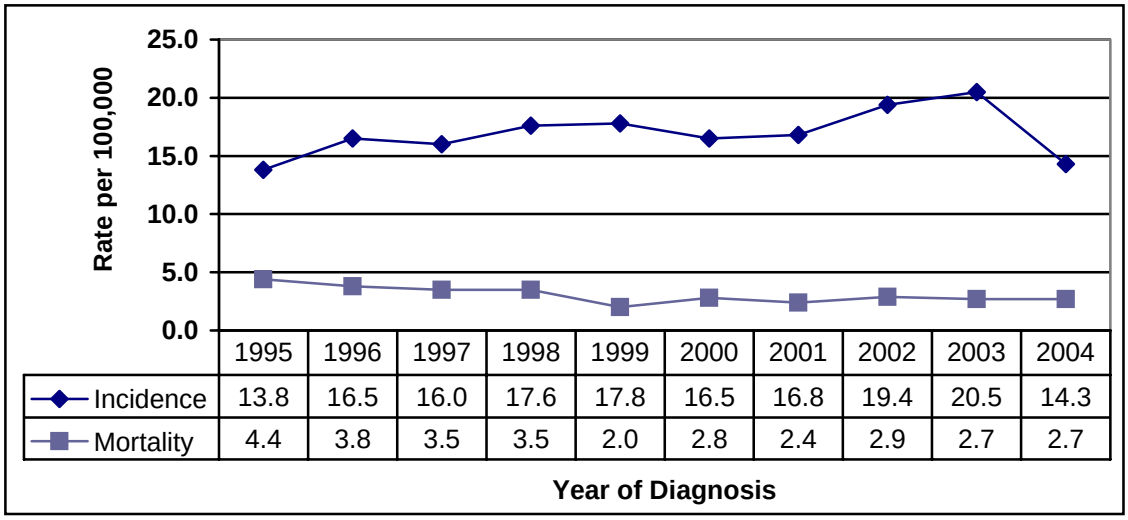


	1 Year	2 Years	3 Years	4 Years	5 Years
Local Stage	100.0	97.8	94.4	89.8	85.5
Regional Stage	94.5	72.4	64.7	57.2	55.3
Distant Stage	44.8	30.7	21.9	15.8	15.8
All Stages	96.1	91.3	86.6	81.6	77.4

 # Years Survival After Date of Diagnosis

During 2002-2004 time period, the age-adjusted incidence rate for melanoma decreased from 19.4 per 100,000 to 14.3 per 100,000 and the age-adjusted mortality rate for melanoma remained constant. The sharp decline in 2004 for melanoma incidence may be due to the lack of completeness of statewide data for that year (approximately 88% complete).

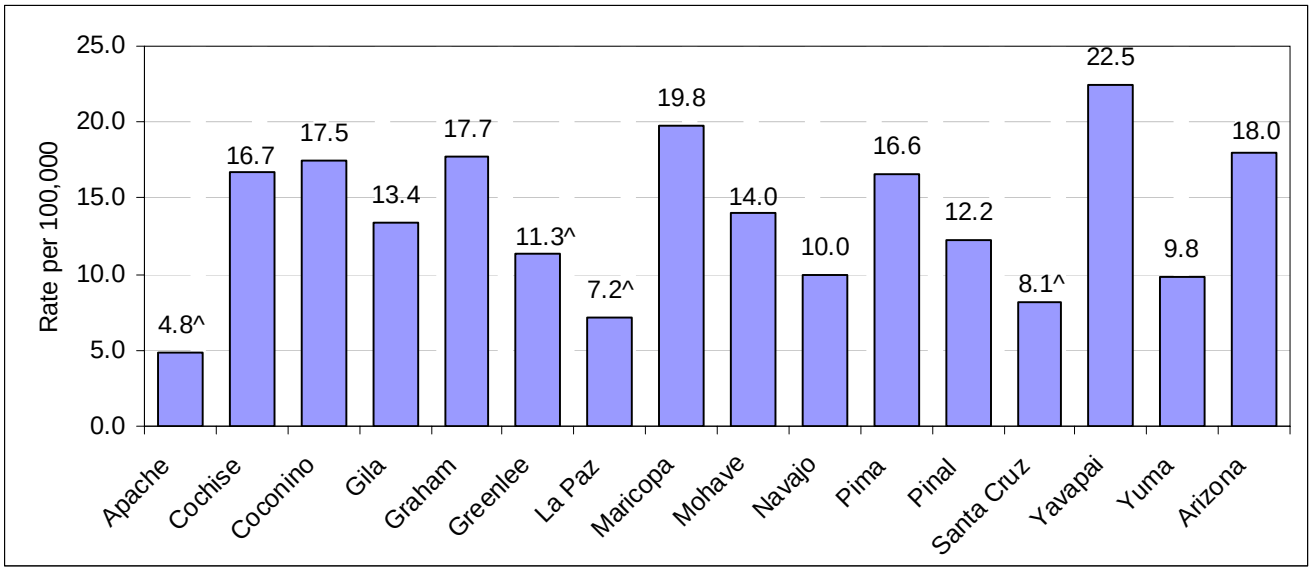
Figure 41: Age-Adjusted Incidence and Mortality Rates for Melanoma in Arizona, 1995-2004



	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Incidence	13.8	16.5	16.0	17.6	17.8	16.5	16.8	19.4	20.5	14.3
Mortality	4.4	3.8	3.5	3.5	2.0	2.8	2.4	2.9	2.7	2.7

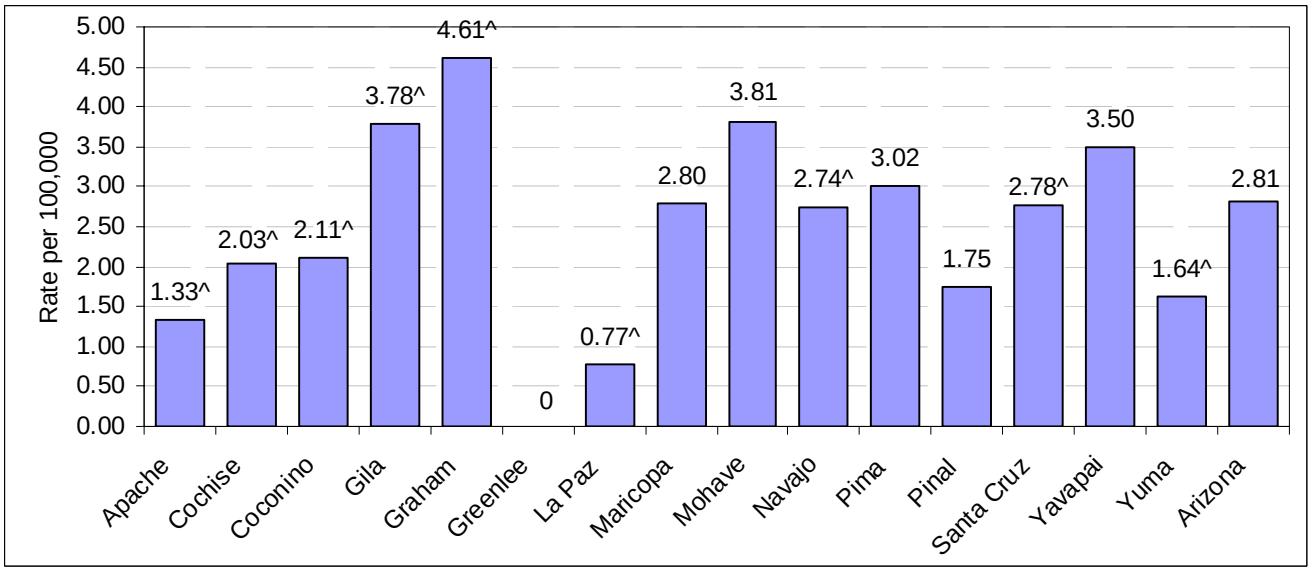
In 2002-2004, Yavapai County had the highest melanoma incidence rate (22.5 per 100,000). Mohave County had the highest melanoma mortality rate of 3.81 per 100,000 (not considering the unstable rates). When compared to the state rate, nine counties have lower incidence rates, and two counties have higher incidence rates than the state.

Figure 42: Average Annual Age-Adjusted Incidence Rates for Melanoma by County, 2002-2004



^ = Fewer than 10 cases reported. The rate is considered unstable.

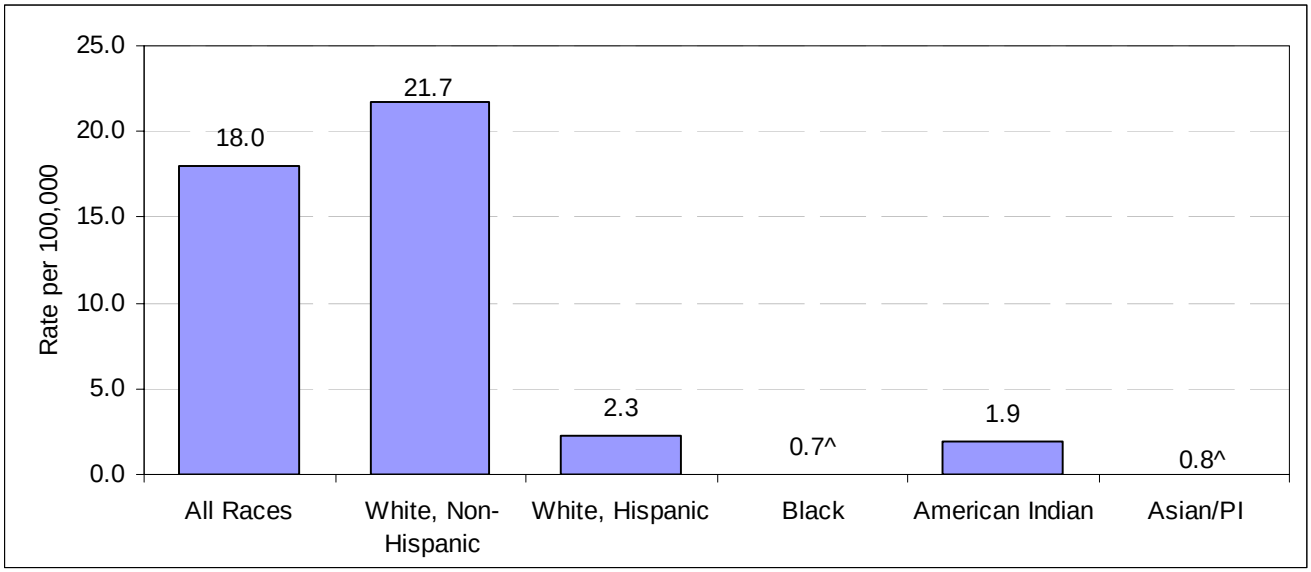
Figure 43: Average Annual Age-Adjusted Mortality Rates for Melanoma by County, 2002-2004



^ = Fewer than 10 cases reported. The rate is considered unstable.

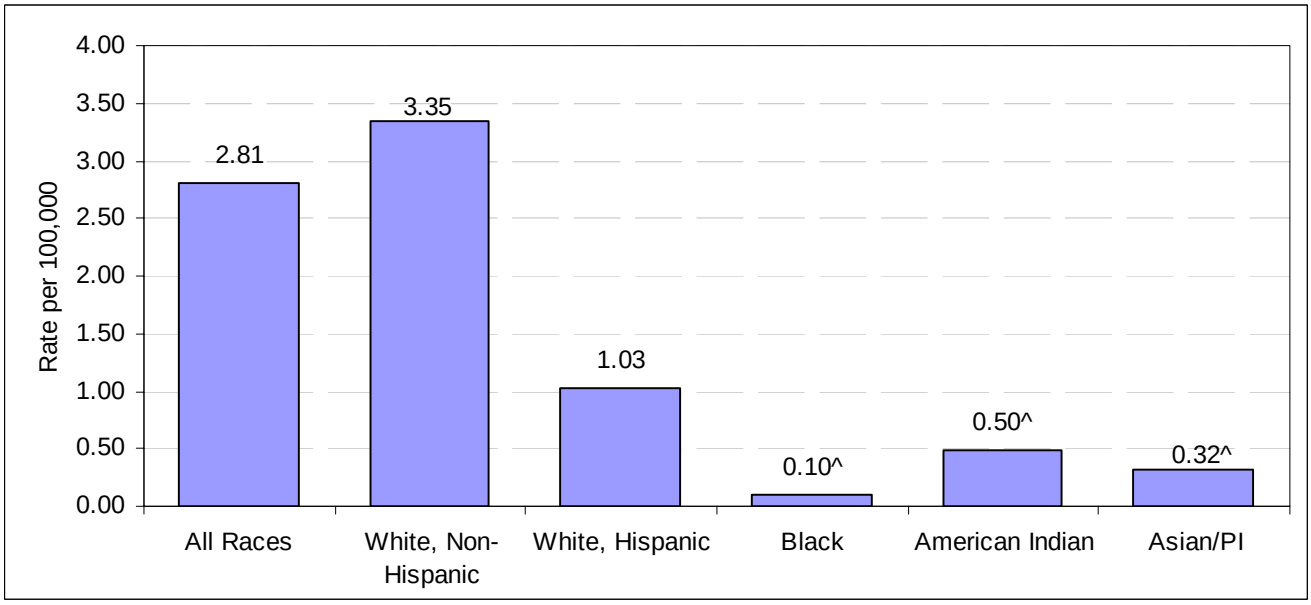
When analyzed by race and ethnicity, melanoma cases were typically compared between White, non-Hispanics and White, Hispanics in Arizona. The overall melanoma rates largely reflect the rates among White, non-Hispanics since approximately 92% of melanoma cases were diagnosed among this racial group.

Figure 44: Average Annual Age-Adjusted Incidence Rates for Melanoma by Race/Ethnicity, 2002-2004



^ = Fewer than 10 cases reported. The rate is considered unstable.

Figure 45: Average Annual Age-Adjusted Mortality Rates for Melanoma by Race/Ethnicity, 2002-2004

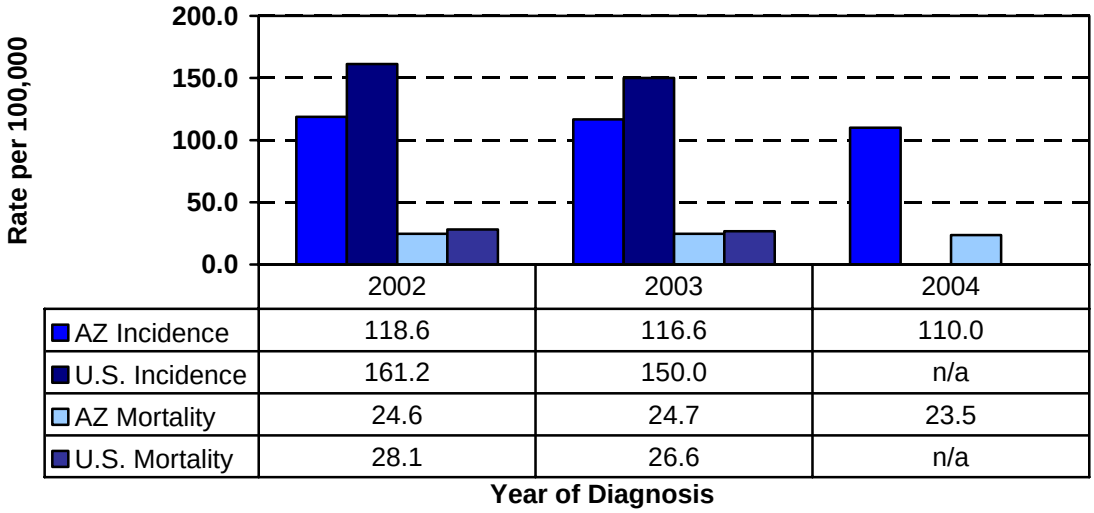


^ = Fewer than 10 cases reported. The rate is considered unstable.

Prostate Cancer in Arizona

Prostate cancer was the most frequently diagnosed cancer among Arizona men in 2002-2004 (see Figure 1). This cancer continues to be the most common type of cancer diagnosed among men in the US, as well. Prostate cancer was the second most common cancer death among men in Arizona during 2002-2004, with an average of 540 deaths per year. Arizona state rates were consistently lower than national rates during this time period.

Figure 46: U.S. and Arizona Prostate Cancer Age-Adjusted Incidence and Mortality Rates, 2002-2004



	2002	2003	2004
AZ Incidence	118.6	116.6	110.0
U.S. Incidence	161.2	150.0	n/a
AZ Mortality	24.6	24.7	23.5
U.S. Mortality	28.1	26.6	n/a

U.S. Data: CDC National Program of Cancer Registries. US rates for diagnosis year 2004 not yet available.

When analyzed by stage, prostate cancer cases in Arizona were most commonly diagnosed in local stage (66%), followed by regional stage (11%) then distant stage (3%). In Arizona, nearly one fifth of prostate cases were reported to the ACR with an unknown stage, which makes it difficult to accurately report the number of cases by stage.

Figure 47: Percentage of Prostate Cancer Cases by SEER Summary Stage, 2002-2004

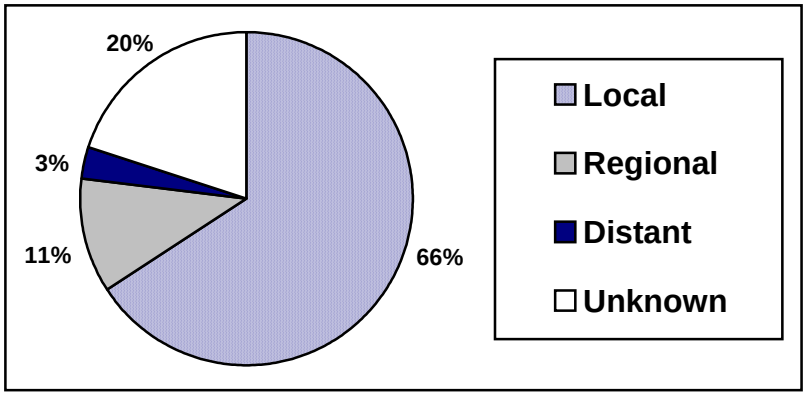
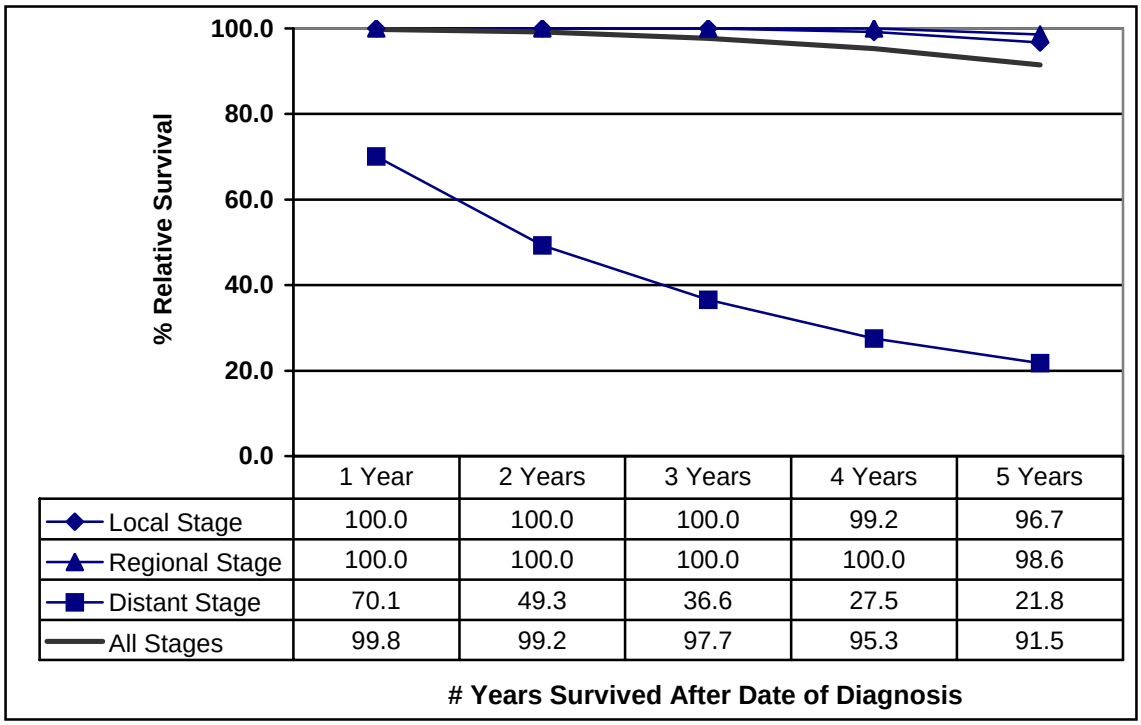


Figure 48: Five-Year Percent Relative Prostate Cancer Survival, 1995-2000

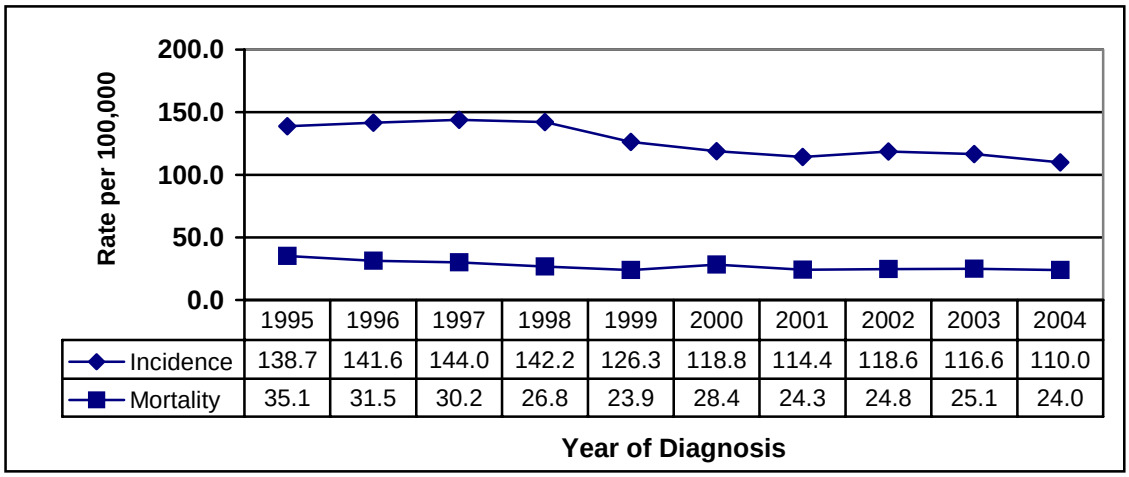


	1 Year	2 Years	3 Years	4 Years	5 Years
Local Stage	100.0	100.0	100.0	99.2	96.7
Regional Stage	100.0	100.0	100.0	100.0	98.6
Distant Stage	70.1	49.3	36.6	27.5	21.8
All Stages	99.8	99.2	97.7	95.3	91.5

Years Survived After Date of Diagnosis

During 2002-2004, the age-adjusted incidence rates had slightly decreased, and the mortality rates for prostate cancer had remained constant.

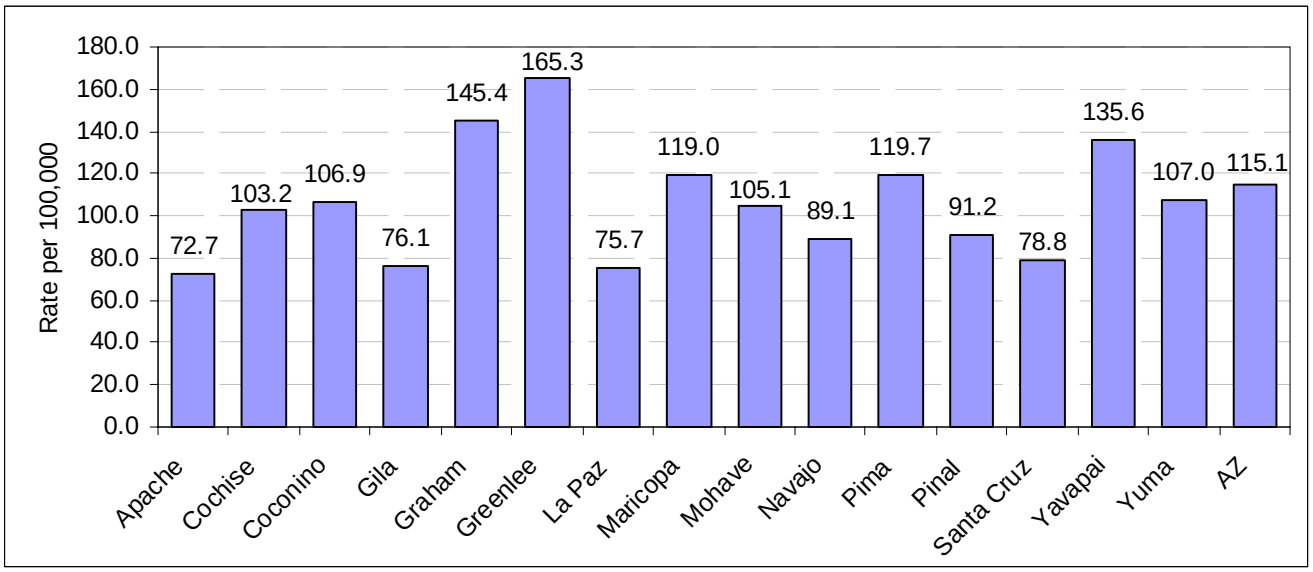
Figure 49: Age-Adjusted Incidence and Mortality Rates for Prostate Cancer in Arizona, 1995-2004



	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Incidence	138.7	141.6	144.0	142.2	126.3	118.8	114.4	118.6	116.6	110.0
Mortality	35.1	31.5	30.2	26.8	23.9	28.4	24.3	24.8	25.1	24.0

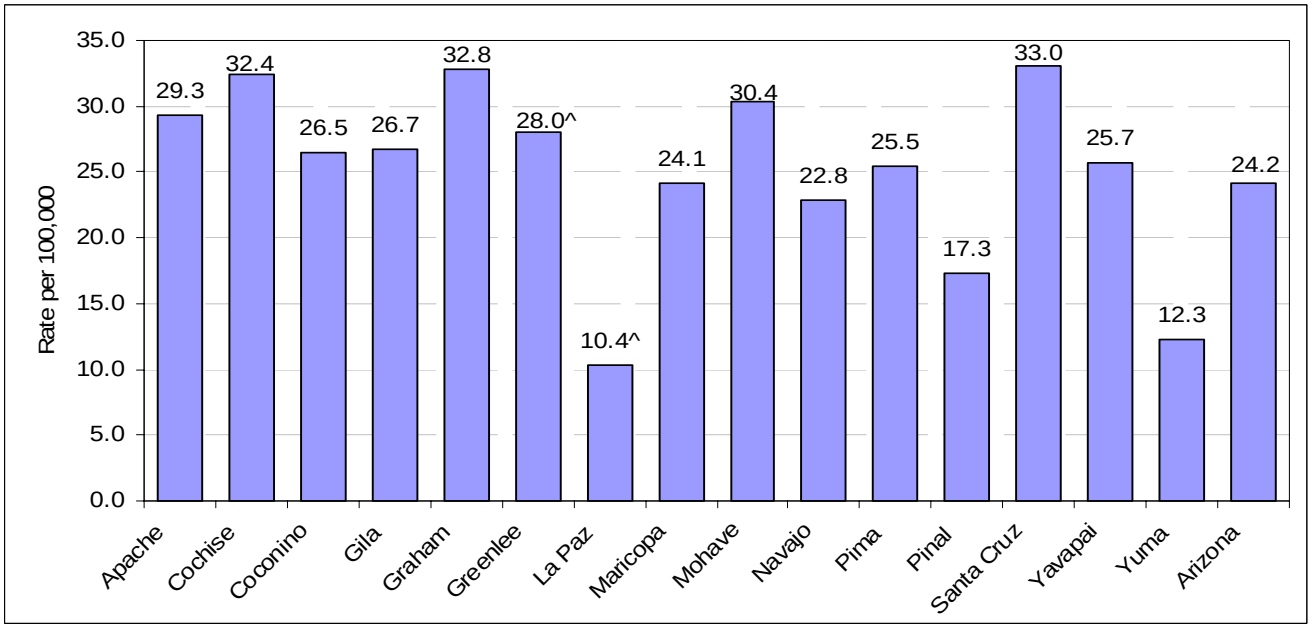
In 2002-2004, Greenlee County had the highest incidence rate (165.3 per 100,000), and Santa Cruz County had the highest mortality rate (33.0 per 100,000) for prostate cancer. When compared to the state rate, ten counties had lower prostate cancer incidence rates, and five counties have higher prostate cancer incidence rates than the state.

Figure 50: Average Annual Age-Adjusted Incidence Rates for Prostate Cancer by County, 2002-2004



^ = Fewer than 10 cases reported. The rate is considered unstable.

Figure 51: Average Annual Age-Adjusted Mortality Rates for Prostate Cancer by County, 2002-2004



^ = Fewer than 10 cases reported. The rate is considered unstable.

When analyzed by race and ethnicity, prostate cancer incidence was highest among White, Non-Hispanics (114.5 per 100,000). Prostate cancer mortality was highest among Blacks (45.0 per 100,000).

Figure 52: Average Annual Age-Adjusted Incidence Rates for Prostate Cancer by Race/Ethnicity, 2002-2004

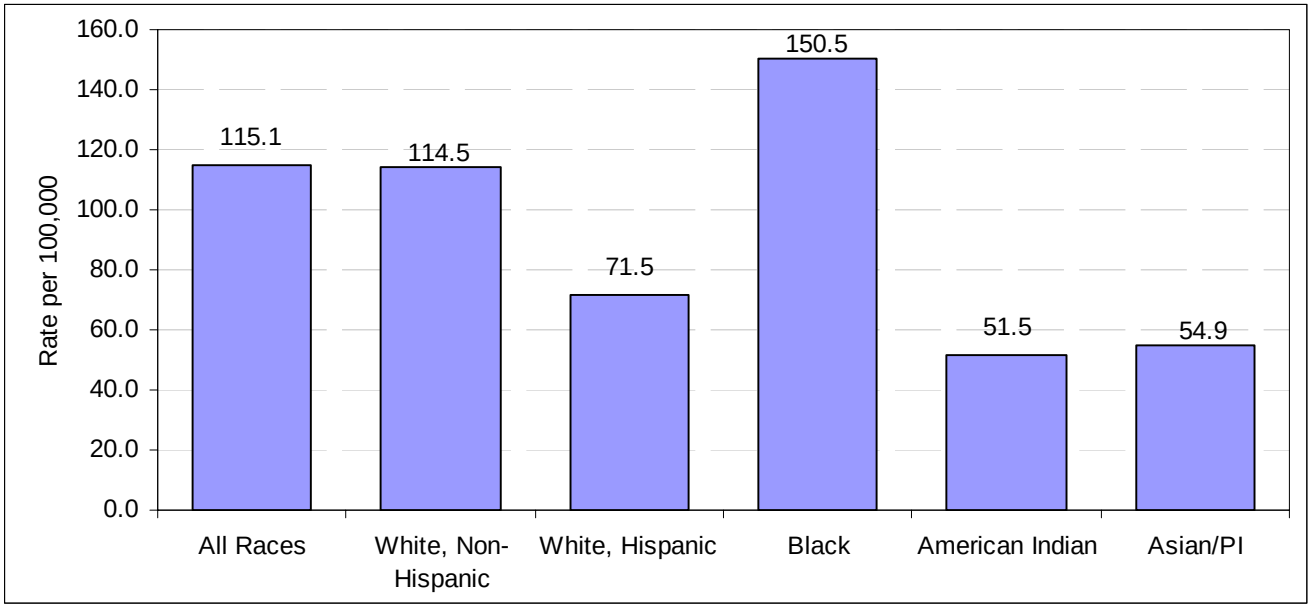
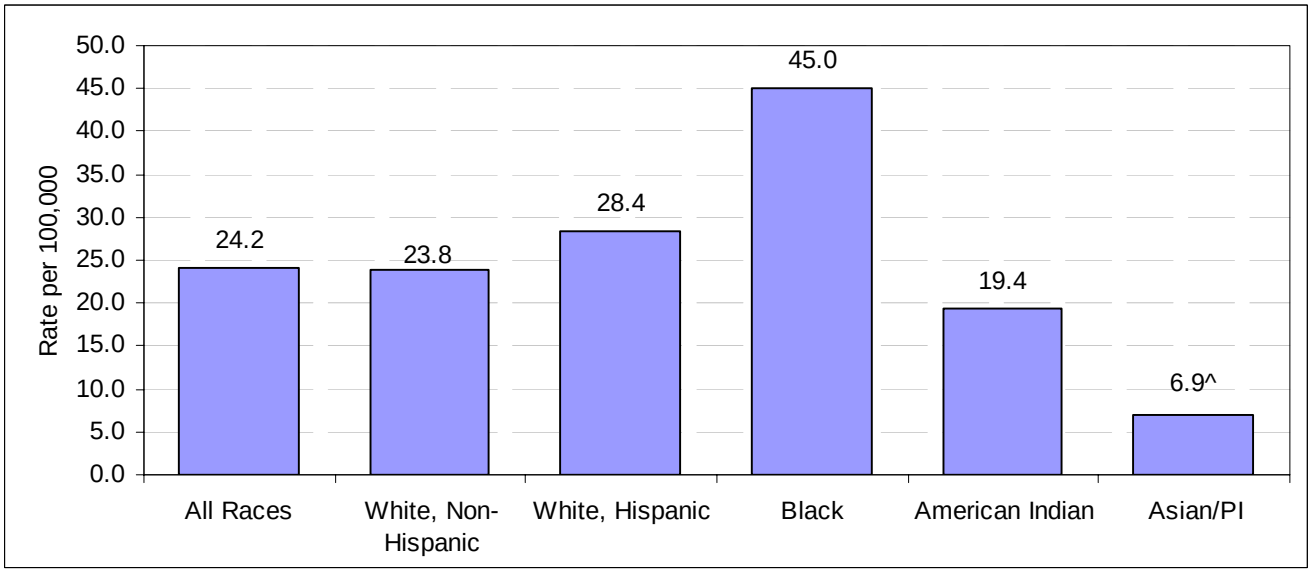


Figure 53: Average Annual Age-Adjusted Mortality Rates for Prostate Cancer by Race/Ethnicity, 2002-2004



^ = Fewer than 10 cases reported. The rate is considered unstable.

APPENDIX

Site Group	ICD-O-3 Site	ICD-O-3 Histology (Type)
Oral Cavity and Pharynx		
Lip	C000-C009	
Tongue	C019-C029	
Salivary Gland	C079-C089	
Floor of Mouth	C040-C049	
Gum and Other Mouth	C030-C039, C050-C059, C060-C069	
Nasopharynx	C110-C119	
Tonsil	C090-C099	
Oropharynx	C100-C109	
Hypopharynx	C129, C130-C139	
Other Oral Cavity and Pharynx	C140, C142-C148	excluding 9590-9989, and sometimes 9050-9055, 9140+
Digestive System		
Esophagus	C150-C159	
Stomach	C160-C169	excluding 9590-9989, and sometimes 9050-9055, 9140+
Small Intestine	C170-C179	
Colon and Rectum		
Colon excluding Rectum		
Cecum	C180	
Appendix	C181	
Ascending Colon	C182	
Hepatic Flexure	C183	
Transverse Colon	C184	
Splenic Flexure	C185	
Descending Colon	C186	
Sigmoid Colon	C187	excluding 9590-9989, and sometimes 9050-9055, 9140+
Large Intestine, NOS	C188-C189, C260	
Rectum and Rectosigmoid Junction		
Rectosigmoid Junction	C199	
Rectum	C209	
Anus, Anal Canal and Anorectum	C210-C212, C218	excluding 9590-9989, and sometimes 9050-9055, 9140+
Liver and Intrahepatic Bile Duct		
Liver	C220	excluding 9590-9989, and sometimes 9050-9055, 9140+
Intrahepatic Bile Duct	C221	
Gallbladder	C239	
Other Biliary	C240-C249	

Pancreas	C250-C259	
Retroperitoneum	C480	
Peritoneum, Omentum and Mesentery	C481-C482	
Other Digestive Organs	C268-C269, C488	
Respiratory System		
Nose, Nasal Cavity and Middle Ear	C300-C301, C310-C319	
Larynx	C320-C329	
Lung and Bronchus	C340-C349	
Pleura	C384	
Trachea, Mediastinum and Other Respiratory Organs	C339, C381-C383, C388, C390, C398, C399	excluding 9590-9989, and sometimes 9050-9055, 9140+
Bones and Joints	C400-C419	excluding 9590-9989, and sometimes 9050-9055, 9140+
Soft Tissue including Heart	C380, C470-C479, C490-C499	excluding 9590-9989, and sometimes 9050-9055, 9140+
Skin excluding Basal and Squamous		
Melanoma of the Skin	C440-C449	8720-8790
Other Non-Epithelial Skin	C440-C449	excluding 8000-8005, 8010-8045, 8050-8084, 8090-8110, 8720-8790, 9590-9989, and sometimes 9050-9055, 9140+
Breast	C500-C509	excluding 9590-9989, and sometimes 9050-9055, 9140+
Female Genital System		
Cervix Uteri	C530-C539	excluding 9590-9989, and sometimes 9050-9055, 9140+
Corpus and Uterus, NOS		
Corpus Uteri	C540-C549	
Uterus, NOS	C559	
Ovary	C569	
Vagina	C529	
Vulva	C510-C519	
Other Female Genital Organs	C570-C589	excluding 9590-9989, and sometimes 9050-9055, 9140+
Male Genital System		
Prostate	C619	excluding 9590-9989, and sometimes 9050-9055, 9140+
Testis	C620-C629	

Penis	C600-C609	
Other Male Genital Organs	C630-C639	
Urinary System		
Urinary Bladder	C670-C679	
Kidney and Renal Pelvis	C649, C659	
Ureter	C669	excluding 9590-9989, and sometimes 9050-9055, 9140+
Other Urinary Organs	C680-C689	
Eye and Orbit	C690-C699	excluding 9590-9989, and sometimes 9050-9055, 9140+
Brain and Other Nervous System		
Brain	C710-C719	excluding 9530-9539, 9590-9989, and sometimes 9050-9055, 9140+
Cranial Nerves Other Nervous System	C710-C719	9530-9539
	C700-C709, C720-C729	excluding 9590-9989, and sometimes 9050-9055, 9140+
Endocrine System		
Thyroid	C739	
Other Endocrine including Thymus	C379, C740-C749, C750-C759	excluding 9590-9989, and sometimes 9050-9055, 9140+
Lymphoma		
Hodgkin Lymphoma		
Hodgkin - Nodal	C024, C098-C099, C111, C142, C379, C422, C770-C779	
Hodgkin - Extranodal	All other sites	9650-9667
Non-Hodgkin Lymphoma		
NHL - Nodal	C024, C098,C099, C111,C142, C379,C422, C770-C779	9590-9596, 9670-9671, 9673, 9675, 9678-9680, 9684, 9687, 9689-9691, 9695, 9698-9702, 9705, 9708-9709, 9714-9719, 9727-9729, 9823, 9827
NHL - Extranodal	All sites except C024, C098-C099, C111, C142, C379, C422, C770-C779	9590-9596, 9670-9671, 9673, 9675, 9678-9680, 9684, 9687, 9689-9691, 9695, 9698-9702, 9705, 9708-9709, 9714-9719, 9727-9729
	All sites except C024, C098-C099, C111, C142, C379, C420-C422, C424, C770-C779	9823, 9827

Myeloma		9731-9732, 9734
Leukemia		
Lymphocytic Leukemia		
Acute Lymphocytic Leukemia		9826,9835-9837
Chronic Lymphocytic Leukemia	C420, C421, C424	9823
Other Lymphocytic Leukemia		9820, 9832-9834, 9940
Myeloid and Monocytic Leukemia		
Acute Myeloid Leukemia		9840, 9861, 9866, 9867, 9871-9874, 9895-9897, 9910, 9920
Acute Monocytic Leukemia		9891
Chronic Myeloid Leukemia		9863, 9875, 9876, 9945, 9946
Other Myeloid/Monocytic Leukemia		9860, 9930
Other Leukemia		
Other Acute Leukemia		9801, 9805, 9931
Aleukemic, subleukemic and NOS		9733, 9742, 9800, 9831, 9870, 9948, 9963, 9964
	C420, C421, C424	9827
Mesothelioma +		9050-9055
Kaposi Sarcoma +		9140
Miscellaneous		9740-9741, 9750-9758, 9760-9769, 9950, 9960-9962, 9970, 9975, 9980, 9982-9987, 9989
	C760-C768, C809	excluding 9590-9989, and sometimes 9050-9055, 9140+
	C420-C424	
	C770-C779	
Invalid	Site or histology code not within valid range or site code not found in this table.	

+ The Site Recode variable can be created with or without Mesothelioma (9050-9055) and Kaposi Sarcoma (9140) as separate groupings. The table above documents both possibilities.
*Available from http://seer.cancer.gov/siterecode/icdo3_d01272003/ [Accessed May 2, 2005].

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NOTES

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