



**CANCER IN ARIZONA
CANCER INCIDENCE
AND MORTALITY
IN 1997**

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**CANCER IN ARIZONA
CANCER INCIDENCE AND MORTALITY**

**THE 1997 ANNUAL REPORT
FOR
THE ARIZONA CANCER REGISTRY**

**ARIZONA DEPARTMENT OF HEALTH SERVICES
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ARIZONA CANCER REGISTRY

The Arizona Cancer Registry (ACR) is a population-based surveillance system for the collection, management, and analysis of information on incidence and survival for persons having been diagnosed with and/or treated for cancer.

Historical Perspective: The ACR began operating in 1980 and started collecting information in 1981. Initially, the registry was a voluntary hospital-based reporting system. In 1988, Arizona Revised Statute §36-133 was amended mandating the reporting of cancer cases. Rules to ensure reporting of all cases became effective January 1, 1992. These rules require hospitals, clinics, and physicians to report cases.

Funding: The ACR receives its funding from state legislature appropriations to Arizona Department of Health Services. Enhancement funding to support and improve the registry is provided through the National Program of Cancer Registries (NPCR) from the Centers for Disease Control and Prevention (CDC) cooperative agreement (U75/CCU910679).

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), numerous training workshops and in-house training, 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 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 1997 who reside in Arizona. This is the third 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 insitu. The registry also collects cases of benign brain tumors and only regional and distant staged skin cancers (basal and squamous cell carcinomas).

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

Accomplishments and Activities:

- A total of 75 hospitals are reporting to the ACR, either directly or indirectly. This report includes data from all USPHS Indian Hospitals reporting through the New Mexico Tumor Registry, all non-federal hospitals and four out of six federal facilities (VA and military). In addition, the ACR receives cases from outpatient freestanding clinics and physician offices.
 - Performed identification and collection of cancer cases at 12 hospitals with less than 50 beds.
 - The collection of cancer cases from 35 freestanding and hospital pathology laboratories in order to capture 1997 cases not referred to a hospital. Many of the cases found through this method were prostate and melanoma types.
 - A BBS (Bulletin Board System) electronic reporting system has been developed. Five hospitals are currently reporting through this method.
 - The ACR is a member of NAACCR. NAACCR is 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*, both incidence and mortality.
 - The ACR submits data to CBTRUS (Central Brain Tumor Registry of the United States). This is the largest population-based database of primary brain tumors. ACR participated in the CBTRUS quality control reabstracting study. Data obtained from this study will enable CBTRUS and ACR to continue to improve the quality of the data.
 - Newsletters are published on a quarterly basis. The newsletter includes information on cancer data, educational opportunities, quality assurance and procedural information.
 - To collect the cases of Arizona residents traveling to other states for diagnosis and/or treatment, the ACR has increased and maintained the number of interstate data exchange agreements. Data is exchanged with all neighboring states. ACR receives Arizona resident cases from 17 states.
 - 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, Volume I and II and the Arizona Cancer Registry Supplement.
 - A monitoring program tracks the timeliness and completeness of hospital reporting. Of the 1997 cases reported by hospitals, 83% of the cases were reported within six months from the close of the year.
 - From December 1998 through December 1999 the ACR completed 96 requests for data.
 - NAACCR established a certification process for central cancer registries. Data for 1997 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. The ACR was recognized for achieving the Gold Standard. In the certification process the NAACCR “gold standard” is <3%. The ACR met both national standards. The percentage of death certificate only cases after clearance was 1.4%. The SEER standard states that these cases “should not exceed 1.5 percent of all cancers registered in a given year after follow-back.”
-
- The ACR has held numerous workshops for reporting facilities in the goal of collecting quality information. Types of workshops conducted were: Introductory Abstracting Workshop, Secondary Abstracting Workshop, Certified Tumor Registrar Preparatory Seminar, Intermediate Abstracting

Workshop and Physician/Clinic Reporting Seminar and many satellite teleconferences.

- The ACR is a Phoenix College Health Information Technology intern training site.

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) who 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 of Native Americans for the state.

Confidentiality: All information identifying a specific individual is considered “medical information” as defined in the Arizona Administrative Code, A.A.C., Title 9, Chapter 1, Article 3, R9-1-311 through R9-1-315: Disclosure of Information and Records. Case reports are treated as confidential medical data.

In addition, the ACR has 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 copies or information can be obtained by contacting the Arizona Cancer Registry at (602)542-7320.

METHODS

This annual report includes cases diagnosed in 1997. These cases were reported to the Arizona Cancer Registry (ACR) prior to December 17, 1999. This report focused on invasive cancer cases with the exception of localized basal and squamous cell skin cancer. In situ cases are included in a table of cancer type by behavior code. This table excludes: 1) cervix in situ and 2) in situ and localized basal and squamous skin cancer. In situ urinary bladder cases are also combined with invasive urinary bladder cases in many of the invasive cancer tables and graphs. This approach was used to create charts comparable to the Surveillance, Epidemiology, and End Results program (SEER) reports. For a listing of the cancer and histologic site types used in this report, see the appendix.

Data Quality Standards

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:

- 1) 1997 North American Association of Central Cancer Registries (NAACCR) EDITS
- 2) Rocky Mountain Cancer Data System (RMCDs) error checks
- 3) A manual visual editing on all cases seen at multiple facilities
- 4) A validity check of codes in all fields used in the report analysis
- 5) Random and targeted visual editing on unduplicated cases
- 6) Duplicate error checking of all cases

The data used in this report met the existing “Data Quality Indicator Gold Standard”, set by NAACCR for:

- 1) The percent of cases that are microscopically confirmed. The ACR rate was 93.7% . The accepted NAACCR standard may fall between 92 percent and 95 percent.
- 2) The NAACCR standard for the percent of cases that are “Death Certificate Only”. The ACR percentage was 1.2 percent and the NAACCR standard is 3.0 percent.
- 3) The completeness of information recorded was greater than 98 percent for the rated fields of:

Completeness of Data

Field Name	Pct. Missing
Age at Diagnosis	< 0.1
Sex	< 0.1
Race	1.6
State/County	0.1

- 4) The completeness of cases ascertainment was over 100 percent of the expected number of cases as estimated by the SEER incidence to US mortality ratio.
- 5) 100 percent of the cases passed the “EDITS” data quality program.
- 6) Duplicates for Primary cases were at less than 1 per 1000 cases.
- 7) The data was timely. All data was received within 23 months of the close of the diagnosis year.

Categories Used in Analysis

Cases were classified by primary site or histologic type; race, ethnicity, age at diagnosis, and residence at diagnosis.

Primary Site & Histologic Type

Primary site and histologic type were classified according to International *Classification of Diseases for Oncology, 2nd Edition*. (a.k.a.: ICDO2) See Appendix. The definition of behavior code, invasive, and in situ is as follows:

Behavior code: The 5th digit of the Morphology Code that indicates: 1) the growth pattern of a tumor and 2) 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, intra epithelial tumor cells that have not penetrated the basement membrane or extended beyond the epithelial tissue.

Counts

The counts are the number of cases diagnosed with a reportable cancer in 1997. 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 a person. This results in more cancer cases than persons recorded in the ACR.

Rates

Rates were calculated by dividing the number of cases diagnosed in 1997 with a specific cancer type by the population. Each rate was multiplied by 100,000 persons. These crude rates were used in the figures showing the ten most common invasive cancer types for males and females. Age adjusted morbidity rates were subsequently multiplied by the proportion of the US 1970 population for each age group to standardize the rate. The rates from each age group are then added together to create the age adjusted rate. Mortality rates were age adjusted and standardized, using the US 1940 population, in the same manner as the morbidity rates.

Population Denominators

Population denominators were taken from the February 1997 DES projections of the expected 1997 Arizona population. These county and state projections have been approved for use in analysis by the Arizona Department of Health Services. However, these projections were not divided by race and ethnicity. To derive race and ethnicity of Arizona populations by sex, the percentage of the July 1st, 1997 US Bureau of Census Estimates for these population subgroups were calculated and applied to the DES projections.

Mortality Rates

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

- 1) The cancer death occurs to an Arizona resident
- 2) The "Primary Cause of Death" is coded to ICD9 codes 140.0 through 208.9
- 3) 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, (Ninth Revision, 1975)*.

Age adjusted cancer mortality rates are standardized to the 1940 US population. This standardization method is used to create rates that are comparable over time and geographic region.

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 equally important not to mislead the data users on the meaning of this data. Rates or other analysis based on fewer than 10 cases were not considered statistically reliable and are excluded from this report. When a rate is excluded for this reason it is denoted by a dash in the rate tables.

Data Completeness

It is estimated that the ACR has collected at least 95 percent of all reportable cancer cases in Arizona. However, cases diagnosed or treated at the VA Medical Centers in Tucson and Prescott were not reported and subsequently not included in this report. The lack of inclusion of these cases may affect the results in this report.

Race

Information concerning a person's race is generally obtained by a hospital tumor registrar upon reviewing the physicians notations and the medical record admission information. Race was grouped by categories of White, Black, and Other in the incidence rate tables. The other category included Asians, Native Americans, and cases classified as "other race". These categories were used to compare them to SEER racial categories. However, charts of case counts further divide the "other" category by separating Asian, Native American, and "other race" into their own groups. Cases having an unknown race diagnosed with a primary site of skin melanoma were coded as white. One hundred four melanoma skin cases with an unknown race code were changed to a race of white.

Ethnicity

Information concerning a person's ethnicity is generally obtained by a hospital tumor registrar upon reviewing the physician's notations and the medical record admission information. Ethnicity can be derived from self identification, surname, or place of birth. Ethnicity incidence rates were divided into two groups: Hispanic and Non-Hispanic. Counts further divided the Hispanic group into classifications of Mexican, Puerto Rican, Cuban, South or Central American, Other Spanish, Spanish NOS (Not Otherwise Specified), and Spanish Surname Only.

Hispanic ethnicity may be assigned to cases with an unknown ethnicity that have a Spanish last name. These cases have been placed in the "Spanish Surname Only" category. Their Hispanic designation is based on the New Mexico Tumor Registry's "Hispanic Surname Checking Program". An additional 61 invasive cases were categorized as Hispanic with this method. For the purpose of this report all remaining cases (1484) with an unknown ethnicity are considered Non-Hispanic.

Age at Diagnosis

Age groups were divided into: 1) eight 10 year age groupings for ages 0 through 79 years; and 2) one grouping for all cases with an age 80 years or above.

Residence at Diagnosis

The residence of a case was grouped at a county or higher level. The charts of residence counts divided cases by: 1) Arizona Resident (county or state); 2) Other US states; and 3) Other Countries. Incidence rates focused on Arizona residence and divided cases into three geographic regions: 1) Maricopa County; 2) Pima County; and 3) the thirteen remaining "Rural" counties. The rural counties were grouped together to create larger counts sufficient in size to generate reliable rate tables. Of Arizona residents, there were 16 cases with no known county.

Executive Summary

This is a five-part report summarizing data about the morbidity and mortality of cancer in Arizona in 1997. Cases diagnosed with cancer in Arizona and reported to the ACR are presented in Parts I - IV. "Arizona Rural Counties" Part IV includes: Apache County, Cochise County, Coconino County, Gila County, Graham County, Greenlee County, Mohave County, Navajo County, Pinal County, Santa Cruz County, Yavapai County, Yuma County, and La Paz County. These counties were combined so that a sufficient number of cases could be generated for an analysis. Deaths due to cancer in Arizona residents are presented in Part V. Data for the analysis of deaths were provided by the ADHS Office of Vital Records.

The format for the five parts of this report was chosen so that information about cancer in Arizona would be easy to understand and meaningful in its presentation. Tables with a large number of missing incidence rates were not included. The user of this report should take care to review all footnotes attached to the tables, graphs, and maps in this publication before interpreting this information.

Part I: Cancer Incidence in Arizona

In 1997, 19,384 invasive cancer cases were diagnosed and recorded among Arizona residents. The demographic distribution of Arizona cancer cases indicated the greatest percentage are among Whites (94.2%) and non-Hispanics (92.9%). Of the most common cancer types, prostate, breast, and lung & bronchus collectively account for 45.4% of all cancers diagnosed in Arizona residents in 1997.

The "all sites" age-adjusted cancer rate of 349 per 100,000 persons among Arizona residents was lower than the national age-adjusted cancer incidence rate of 389 per 100,000 persons¹ and lower than the 1996 Arizona rate of 352 per 100,000 persons.² In addition, age-adjusted cancer rates were lowest among females (318 per 100,000 persons) and Hispanics (217 per 100,000 persons). Analysis of the "all sites" by county showed, for both sexes combined, a range of age-adjusted cancer rates from 232 to 408 per 100,000. In the age-adjusted cancer rates by race, Table I-I, Whites had a higher rate than Blacks. This is inconsistent with the national age-adjusted cancer rate for Blacks which is typically higher than that of Whites.¹

"All sites" age-specific incidence rates indicated that invasive cancer is highest among individuals 80 years of age or older with an overall rate of 1959 per 100,000 persons. When analyzed by sex and ethnicity, the highest cancer rate for males was in the 70 to 79 age group. Females, Hispanics and non-Hispanics had the highest age-specific cancer rate in the 80 years and older age group.

Part II: Cancer Incidence in Maricopa County

Among residents of Maricopa County there were 10,821 invasive cancer cases. As with Arizona, the demographic distribution of Maricopa County showed 94.8% of cancer cases were among Whites and 94.8% were among non-Hispanic. Prostate, breast, and lung & bronchus accounted for 47.3% of all cancers diagnosed in Maricopa County residents.

The "all sites" age-adjusted rate of 348 per 100,000 persons among Maricopa County residents was approximately the same as the Arizona rate of 349 but lower than the national age-adjusted cancer rate of 388 per 100,000 persons¹ as well as the 1996 Maricopa County rate of 352 per 100,000 persons.² As with Arizona in general, Maricopa County age-adjusted rates were lowest among females (315 per

100,000 persons) and Hispanics (210 per 100,000 persons). Age-adjusted cancer rates by race indicated a higher rate of cancer for Whites than for Blacks or Other races. However, the age-adjusted cancer rate among Whites decreased from 357 per 100,000 persons in 1996 to 346 per 100,000 persons in 1997, while among Blacks, the age-adjusted cancer rates increased from 305 per 100,000 persons in 1996 to 326 per 100,000 persons in 1997.

Age-specific incidence rates for “all sites” differed slightly from Arizona, indicating most cancer occurrence among persons 70 to 79 years of age with a rate of 1986 per 100,000 persons. However, when analyzed by sex and ethnicity, all four categories (i.e. males, females, Hispanics and non-Hispanics) in Maricopa County showed highest age-specific incidence rates among persons 80 years of age or older.

Part III: Cancer Incidence in Pima County

Among Pima County residents, there were 3610 cancer cases in 1997. Most cancer was diagnosed in Whites (93.7%) and non-Hispanics (90.1%). Prostate, breast, and lung & bronchus accounted for 44.5% of invasive cancer cases diagnosed in Pima County residents.

The Pima County “all sites” age-adjusted cancer rate of 353 per 100,000 persons was even higher than that of Maricopa County’s rate of 348 per 100,000 persons but, still well below the national age-adjusted incidence rate¹ and below the 1996 Pima County rate of 375 per 100,000 persons.² As with Arizona and Maricopa County, age-adjusted cancer rates were lowest among females (321 per 100,000 persons) and Hispanics (220 per 100,000 persons). As with Maricopa County, age-adjusted cancer rates by race showed a higher rate of cancer for Whites. Among males, the age-adjusted cancer rate for Blacks decreased considerably from 475 per 100,000 persons in 1996 to 347 per 100,000 persons in 1997. For White males, the age-adjusted cancer rate also decreased from 432 per 100,000 persons in 1996 to 392 per 100,000 persons in 1997. However the age-adjusted cancer rate for Black females increased considerably from 188 per 100,000 persons in 1996 to 258 per 100,000 persons in 1997.

As with Arizona, “all sites” age-specific incidence rates indicated that invasive cancer is most common among individuals 80 years of age or older with an overall rate of 2009 per 100,000 persons. This only varied among Males which showed their highest age-specific rate of cancer in the 70 to 79 age group.

Part IV: Cancer Incidence in Arizona Rural Counties

As stated above “Arizona Rural Counties” is a combination of Apache County, Cochise County, Coconino County, Gila County, Graham County, Greenlee County, Mohave County, Navajo County, Pinal County, Santa Cruz County, Yavapai County, Yuma County, and La Paz County.

Among these counties there were 4953 cancer cases. As above, cases were generally White (93.0%) and non-Hispanic (91.1%). Most Native American cases were residents of the rural

counties (71% of all Native Americans that were reported). Prostate, breast, and lung & bronchus accounted for 45.2% of invasive cancer diagnosed in these counties.

The rural counties “all sites” age-adjusted cancer rate of 350 per 100,000 persons was approximately equal to Arizona’s rate of 349 per 100,000 persons. However the rate is steadily increasing for the past three years, from 320 per 100,000 persons in 1995, and 331 per 100,000 persons in 1996 to 350 per

100,000 persons in 1997.^{2,3} As with Arizona, Maricopa and Pima County, age-adjusted cancer rates were lowest among females (323 per 100,000 persons) and Hispanics (228 per 100,000 persons). Like Arizona, age-adjusted cancer rates by race showed a highest rate of invasive cancer for Whites but only for white females. Black males had a slightly higher incidence rate of 395 per 100,000 persons than white males (391 per 100,000 persons).

“All sites” age-specific incidence rates for rural counties indicated that invasive cancer is most common among individuals 70 to 79 years of age with an overall rate of 1913 per 100,000 persons. This varied among females and non-Hispanics which showed their highest age-specific rate of cancer in the 80 years and older age group.

Part V: Cancer Mortality in Arizona

The 1997 cancer death rate of 116 per 100,000 persons was the lowest of the 11-year period from 1987 to 1997.⁴ There were 8429 deaths due to cancer recorded in Arizona residents in 1997. Cancer deaths were more common among males than females with age-adjusted mortality rates of 135 and 102 per 100,000 persons, respectively. Age-adjusted mortality rates by race showed cancer deaths were most common among Blacks in Maricopa county. Whites, however, had higher cancer death rates in Pima and other rural counties.

As with cancer morbidity, there was a higher rate of cancer deaths among non-Hispanics. This did not vary by county. Age-adjusted mortality rates for the most common types of cancer were lung cancer at 32 per 100,000 persons, female breast cancer at 19 per 100,000 persons and prostate cancer at 14 per 100,000 persons.

Age-specific mortality rates indicated deaths due to cancer were highest among persons 80 years of age or older. This did not vary by sex.

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PART I

CANCER INCIDENCE IN
ARIZONA
1997

CANCER IN ARIZONA: 1997

Figure I-A: Residency of All Invasive Cancer Cases Reported

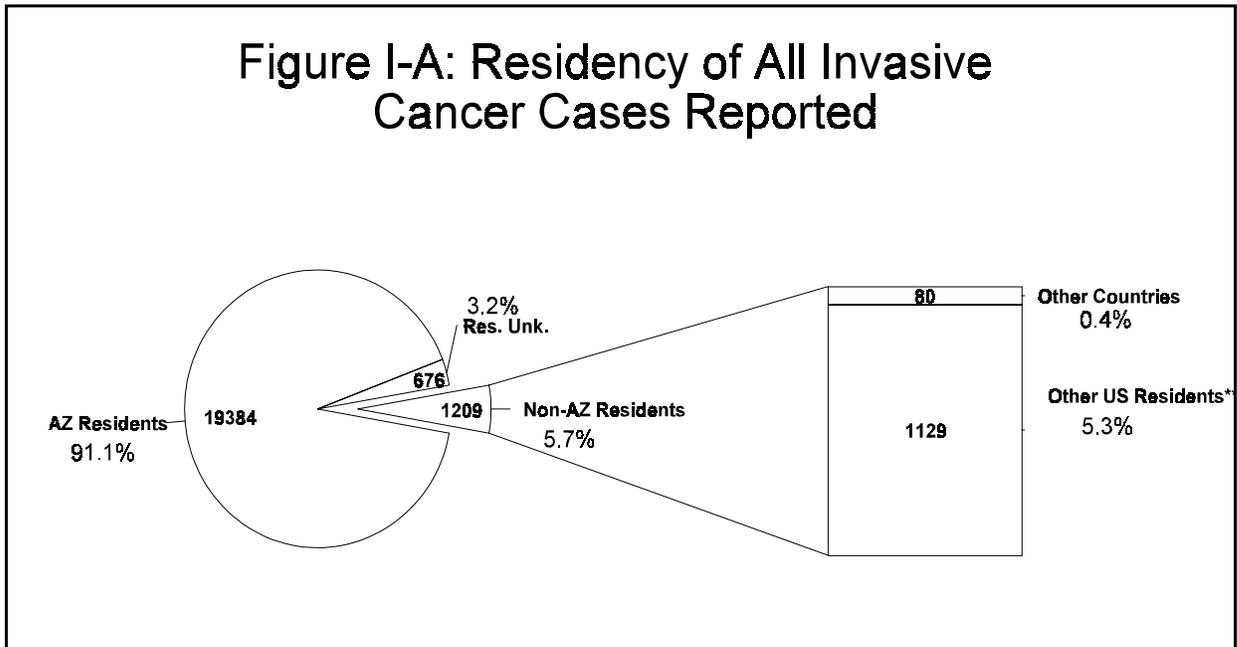
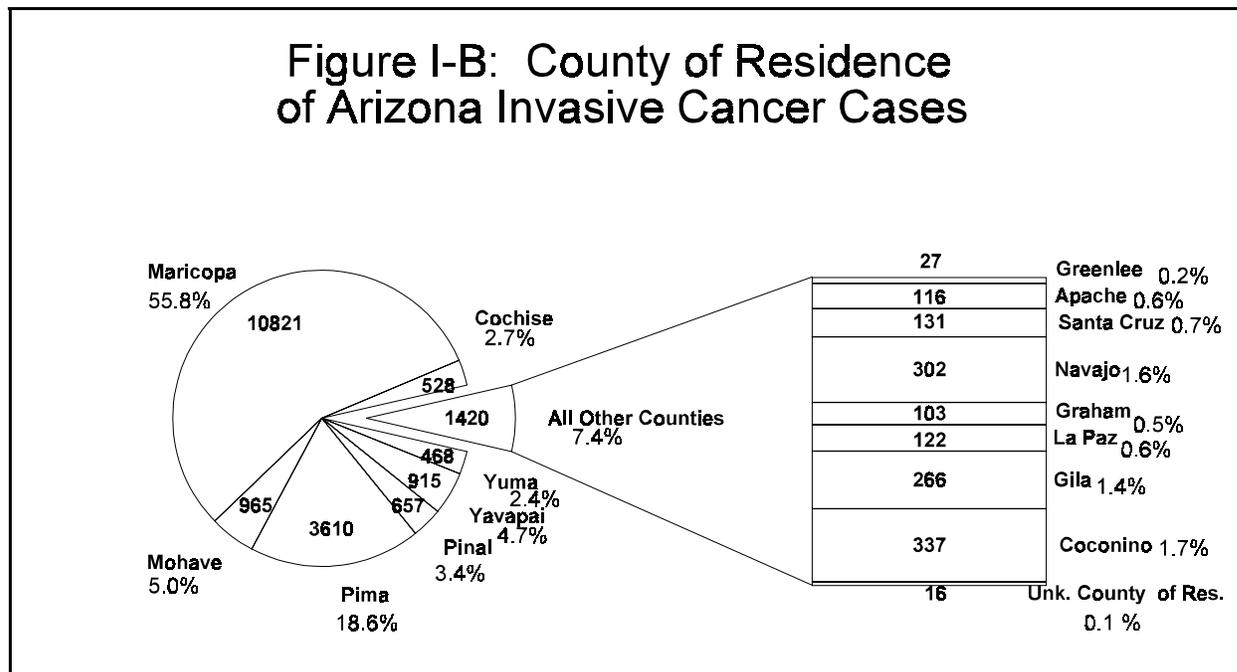


Figure I-B: County of Residence of Arizona Invasive Cancer Cases



*All U.S. states, Territories, and Possessions except Arizona.

CANCER IN ARIZONA: 1997

Figure I-C: Invasive Cancer Case Percent Distribution By Age* (All Sites)

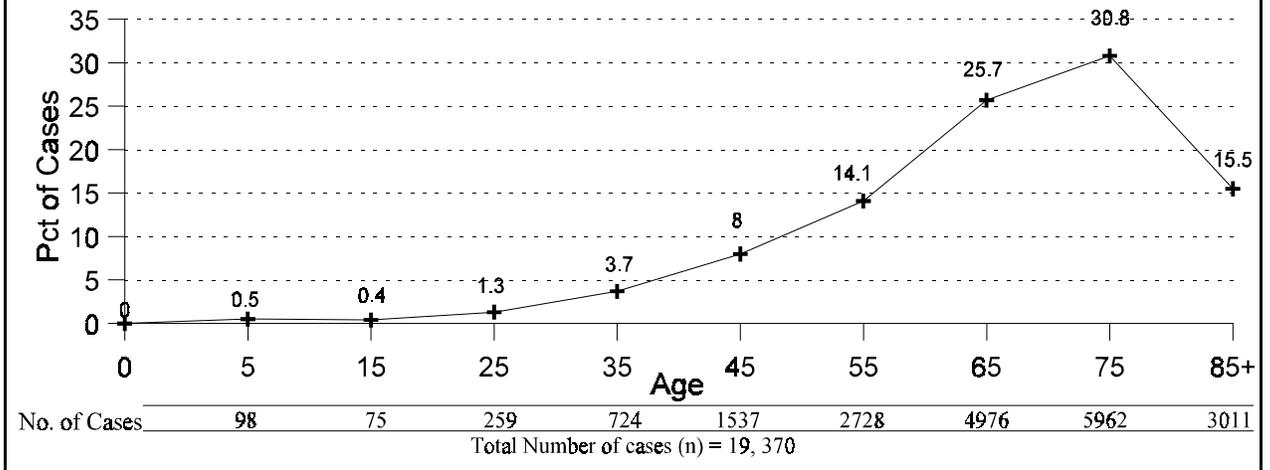
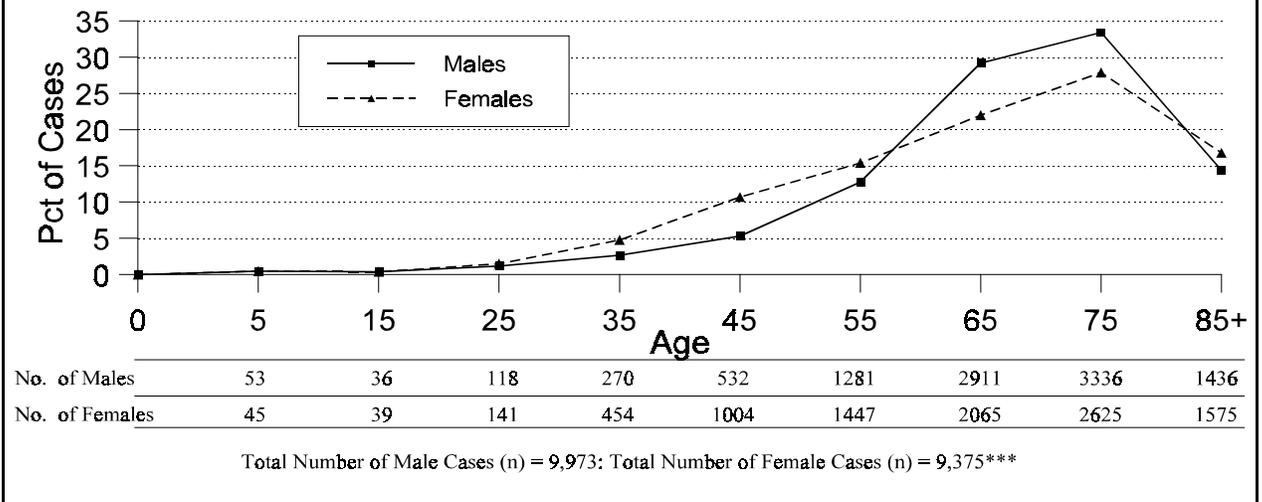


Figure I-D: Invasive Cancer Case Percent Distribution By Age and Sex** (All Sites)



* Distribution by age at diagnosis excludes 14 cases with an unknown age at diagnosis.

** Distribution by age at diagnosis and sex excludes 14 cases with an unknown age and 2 cases with other sex.

*** Male percentages are the percent of all male cases, and female percentages are the percent of all female cases.

CANCER IN ARIZONA: 1997

Figure I-E: Race Distribution of Invasive Cancer Cases (All Sites)

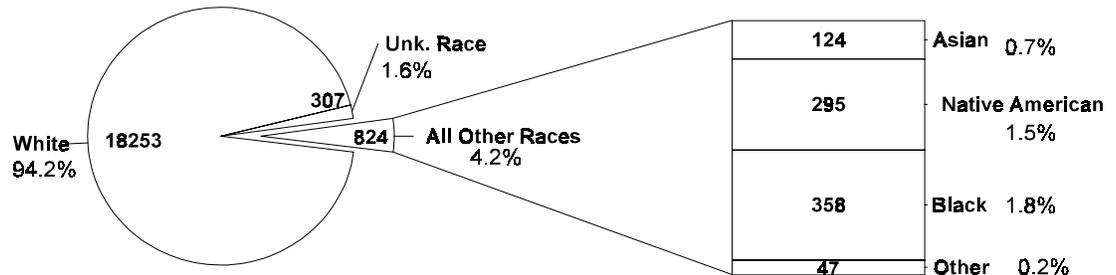
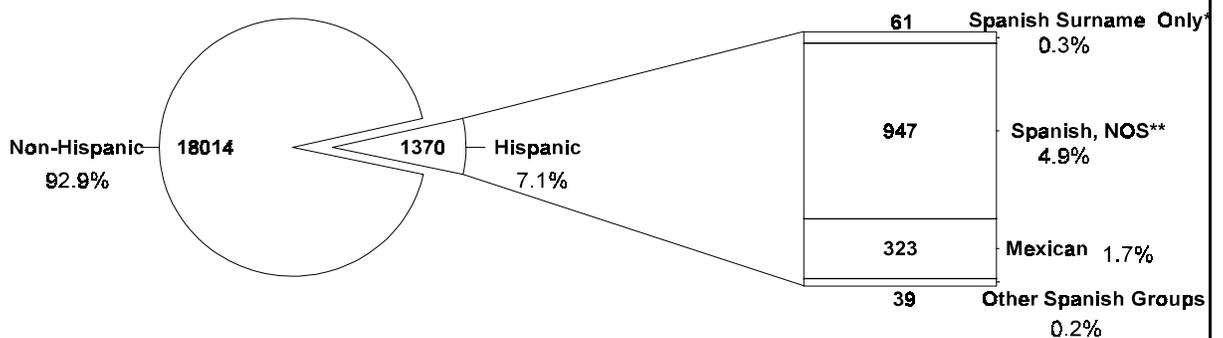


Figure I-F: Ethnic Distribution of Invasive Cancer Cases (All Sites)



* Spanish Surname Only: Ethnicity derived from Spanish last name with the use of a computer program.

**Spanish NOS: Spanish, not otherwise specified.

Arizona
Table I-A. 1997 Frequency of Cancer Cases
Primary Site by Behavior

PRIMARY SITE	BEHAVIOR		
	IN SITU	INVASIVE	TOTAL
All Sites	1631	19384	21015
Oral Cavity & Pharynx:	7	406	413
Lip	3	29	32
Tongue	2	109	111
Salivary gland	0	45	45
Floor of Mouth	2	29	31
Gum & other oral cavity	0	58	58
Nasopharynx	0	20	20
Tonsil	0	34	34
Oropharynx	0	28	28
Hypopharynx	0	33	33
Other oral cavity & pharynx	0	21	21
Digestive System:	153	3572	3725
Esophagus	2	191	193
Stomach	4	322	326
Small Intestine	0	50	50
Colon & Rectum	137	2183	2320
Colon	93	1558	1651
Rectum	44	625	669
Anus, anal canal & anorectum	7	52	59
Liver & Intrahepatic bile duct	0	162	162
Liver	0	136	136
Intrahepatic bile duct	0	26	26
Gallbladder	1	57	58
Other biliary	2	74	76
Pancreas	0	433	433
Retroperitoneum & peritoneum	0	33	33
Other digestive system	0	15	15

67 "Other primary site" cases are listed only in the "All Sites" category of this table.

Arizona
Table I-A. 1997 Frequency of Cancer Cases (continued)
Primary Site by Behavior

PRIMARY SITE	BEHAVIOR		
	IN SITU	INVASIVE	TOTAL
Respiratory System:	14	3088	3102
Nose, nasal cavity & middle ear	0	15	15
Larynx	11	170	181
Lung & bronchus	3	2859	2862
Pleura	0	35	35
Trachea & other respiratory organs	0	9	9
Bone & joints	0	35	35
Soft tissue (including heart)	0	137	137
Skin (excluding basal & squamous):	435	795	1230
Melanomas of the skin	435	720	1155
Other non-epithelial skin	0	75	75
Breast	543	3083	3626
Female Genital System:	85	1130	1215
Cervix uteri	0	184	184
Corpus uteri	14	469	483
Uterus, NOS	1	10	11
Ovary	0	383	383
Vagina	9	16	25
Vulva	61	50	111
Other female genital system	0	18	18
Male Genital System:	9	3187	3196
Prostate	4	3024	3028
Testis	0	139	139
Penis	4	23	27
Other male genital system	1	1	2

Arizona
Table I-A. 1997 Frequency of Cancer Cases (continued)
Primary Site by Behavior

PRIMARY SITE	BEHAVIOR		
	IN SITU	INVASIVE	TOTAL
Urinary System:	380	1193	1573
Urinary bladder	358	663	1021
Kidney & renal pelvis	8	493	501
Ureter	9	32	41
Other urinary system	5	5	10
Eye & Orbit	5	39	44
Brain & Nervous System:	0	262	262
Brain	0	237	237
Cranial nerves & other nervous system	0	25	25
Endocrine System:	0	300	300
Thyroid	0	286	286
Other endocrine & thymus	0	14	14
Lymphomas:	0	857	857
Hodgkin's disease	0	109	109
Non-Hodgkin's lymphomas	0	748	748
Multiple Myeloma	0	201	201
Leukemias:	0	398	398
Lymphocytic	0	162	162
Myeloid	0	170	170
Monocytic	0	2	2
Other	0	64	64
Ill-defined & unspecified	0	634	634

Arizona
Table I-B. 1997 Frequency of Invasive Cancer Cases
Primary Site by Sex

PRIMARY SITE	SEX		TOTAL
	MALE	FEMALE	
All Sites	9985	9397	19384
Oral Cavity & Pharynx:	280	126	406
Lip	22	7	29
Tongue	76	33	109
Salivary gland	32	13	45
Floor of Mouth	19	10	29
Gum & other oral cavity	33	25	58
Nasopharynx	17	3	20
Tonsil	25	9	34
Oropharynx	20	8	28
Hypopharynx	23	10	33
Other oral cavity & pharynx	13	8	21
Digestive System:	1920	1652	3572
Esophagus	152	39	191
Stomach	202	120	322
Small Intestine	30	20	50
Colon & Rectum	1121	1062	2183
Colon	779	779	1558
Rectum	342	283	625
Anus, anal canal & anorectum	19	33	52
Liver & Intrahepatic bile duct	111	51	162
Liver	93	43	136
Intrahepatic bile duct	18	8	26
Gallbladder	20	37	57
Other biliary	39	35	74
Pancreas	211	222	433
Retroperitoneum & peritoneum	8	25	33
Other digestive system	7	8	15

67 "Other primary site" cases are listed only in the "All Sites" category of this table. "All Sites" does not include bladder in situ cases. Included only in the "Total" category are two "other sex" cases.

Arizona
Table I-B. 1997 Frequency of Invasive Cancer Cases (continued)
Primary Site by Sex

PRIMARY SITE	SEX		TOTAL
	MALE	FEMALE	
Respiratory System:	1760	1328	3088
Nose, nasal cavity & middle ear	7	8	15
Larynx	147	23	170
Lung & bronchus	1573	1286	2859
Pleura	27	8	35
Trachea & other respiratory organs	6	3	9
Bone & joints	21	14	35
Soft tissue (including heart)	75	62	137
Skin (excluding basal & squamous):	491	304	795
Melanomas of the skin	439	281	720
Other non-epithelial skin	52	23	75
Breast	37	3046	3083
Female Genital System:	NA	1129	1129
Cervix uteri	NA	183	183
Corpus uteri	NA	469	469
Uterus, NOS	NA	10	10
Ovary	NA	383	383
Vagina	NA	16	16
Vulva	NA	50	50
Other female genital system	NA	18	18
Male Genital System:	3187	NA	3187
Prostate	3024	NA	3024
Testis	139	NA	139
Penis	23	NA	23
Other male genital system	1	NA	1

NA = not applicable.

Arizona
Table I-B . 1997 Frequency of Invasive Cancer Cases (continued)
Primary Site by Sex

PRIMARY SITE	SEX		
	MALE	FEMALE	TOTAL
Urinary System*:	1109	441	1550
Urinary bladder*	772	249	1021
Kidney & renal pelvis	312	180	492
Ureter	22	10	32
Other urinary system	3	2	5
Eye & Orbit	19	20	39
Brain & Nervous System:	134	128	262
Brain	119	118	237
Cranial nerves & other nervous system	15	10	25
Endocrine System:	78	222	300
Thyroid	70	216	286
Other endocrine & thymus	8	6	14
Lymphomas:	461	396	857
Hodgkin's disease	60	49	109
Non-Hodgkin's lymphomas	401	347	748
Multiple Myeloma	117	84	201
Leukemias:	223	175	398
Lymphocytic	95	67	162
Myeloid	91	79	170
Monocytic	1	1	2
Other	36	28	64
Ill-defined & unspecified	330	304	634

* = Includes invasive and in situ bladder cases.

CANCER IN ARIZONA: 1997

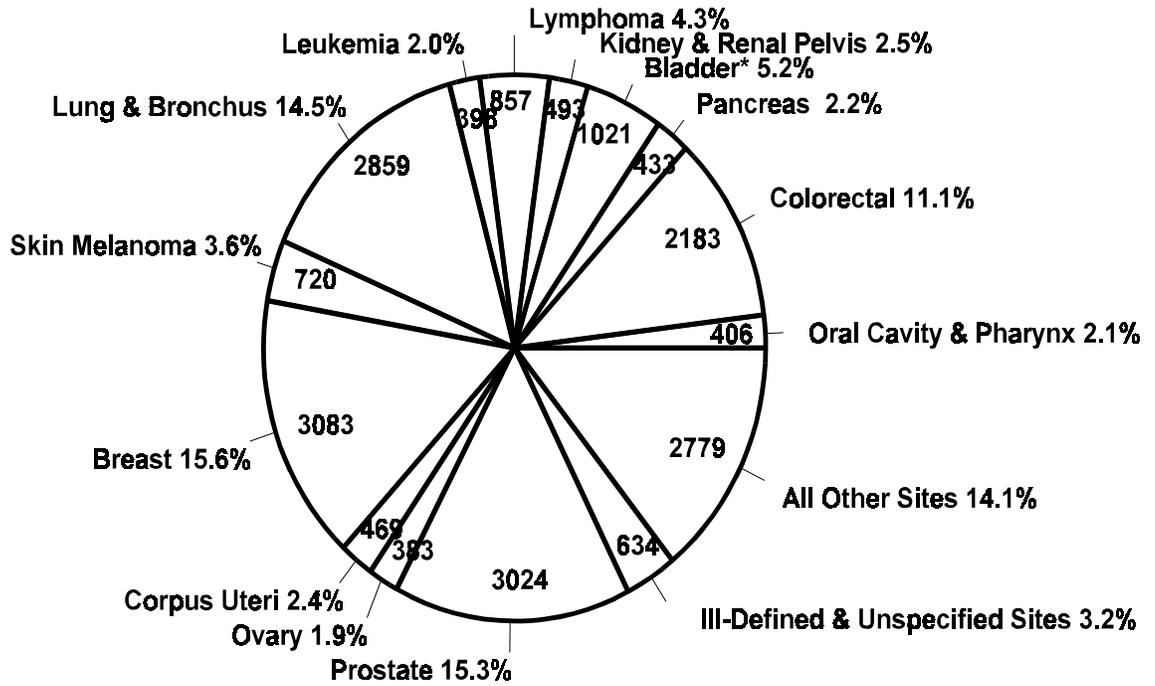
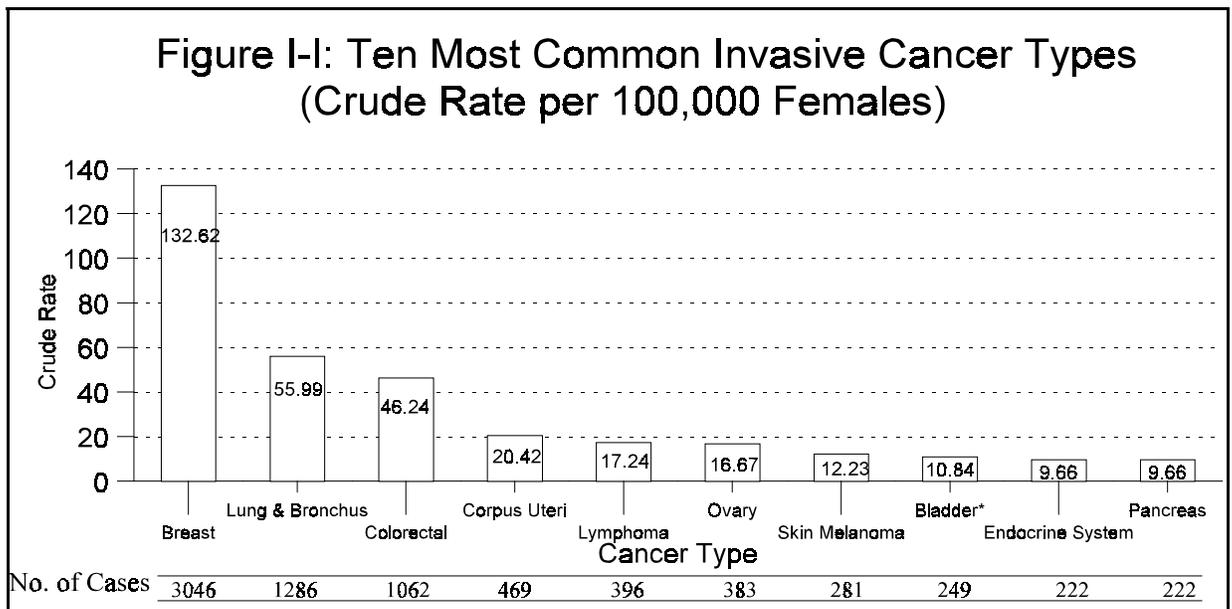
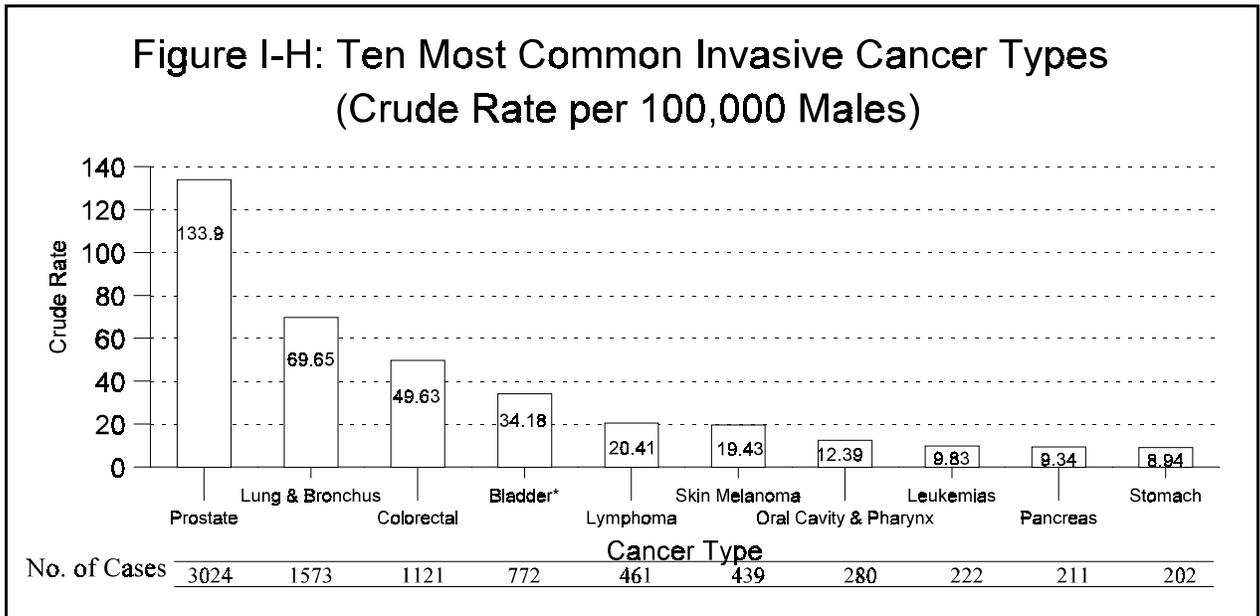


Figure I-G: Case Distribution by Invasive Cancer Type

* Bladder cases include 358 in situ cases.

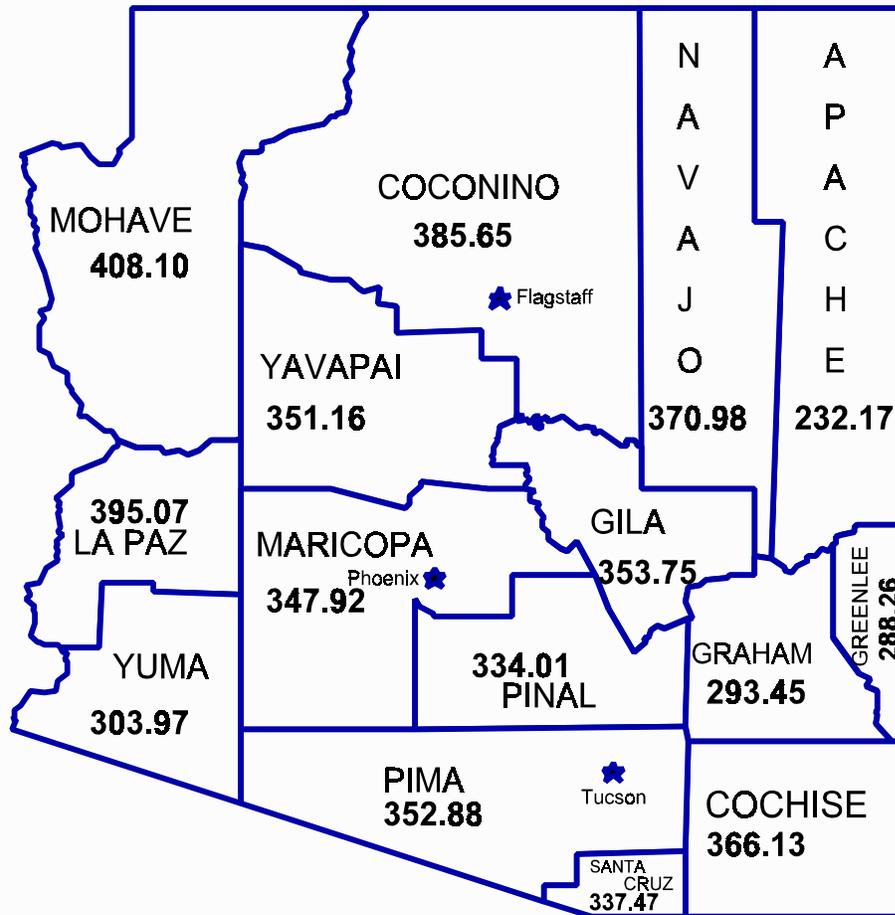
CANCER IN ARIZONA: 1997



* Bladder cases include 288 male in situ cases and 70 female in situ cases.

CANCER INCIDENCE IN ARIZONA

Figure I-J: Age Adjusted Rates by County
1997



Arizona Age-Adjusted Incidence Rate=348.96

Rates are per 100,000 and are adjusted to the 1970 US population

Arizona
Table I-C. 1997 Age-Adjusted Incidence Rates, All Sites
County of Residence by Sex

COUNTY	SEX		
	MALE	FEMALE	TOTAL
Apache	289.48	184.73	232.17
Cochise	409.48	331.00	366.13
Coconino	416.71	363.30	385.65
Gila	414.27	298.48	353.75
Graham	295.94	302.51	293.45
Greenlee	244.01	371.25	288.26
La Paz	414.65	386.91	395.07
Maricopa	392.21	314.60	347.92
Mohave	444.41	374.18	408.10
Navajo	471.15	287.34	370.98
Pima	397.29	320.92	352.88
Pinal	354.40	318.72	334.01
Santa Cruz	411.42	275.34	337.47
Yavapai	356.79	348.60	351.16
Yuma	320.23	288.20	303.97
Arizona	389.56	317.56	348.96

Rates are per 100,000 persons and are adjusted to the 1970 U.S. population. Invasive cancer cases only. Two "other sex" cases are included only in "Total" category.

Arizona
Table I-D. 1997 Age-Adjusted Incidence Rates, All Sites
County of Residence by Ethnicity

COUNTY	ETHNICITY		TOTAL
	NON-HISPANIC	HISPANIC	
Apache	221.10	--	232.17
Cochise	469.48	212.16	366.13
Coconino	438.33	275.57	385.65
Gila	377.88	173.48	353.75
Graham	319.01	207.62	293.45
Greenlee	316.26	--	288.26
La Paz	615.41	--	395.07
Maricopa	367.11	209.99	347.92
Mohave	437.40	393.33	408.10
Navajo	378.07	203.31	370.98
Pima	414.19	220.46	352.88
Pinal	425.94	182.17	334.01
Santa Cruz	424.93	304.40	337.47
Yavapai	359.18	122.78	351.16
Yuma	328.03	234.88	303.97
Arizona	379.99	217.28	348.96

Rates are per 100,000 persons and are adjusted to the 1970 U.S. population. - = Insufficient cases for an adjusted rate calculation. Invasive cancer cases only.

Arizona
Table I-E. 1997 Age-Adjusted Incidence Rates
Primary Site by Sex

PRIMARY SITE	SEX		TOTAL
	MALE	FEMALE	
All Sites	389.56	317.56	348.96
Oral Cavity & Pharynx:	11.75	4.38	7.87
Lip	0.84	--	0.51
Tongue	3.29	1.13	2.17
Salivary gland	1.30	0.43	0.84
Floor of Mouth	0.83	0.37	0.59
Gum & other oral cavity	1.34	0.84	1.08
Nasopharynx	0.74	--	0.42
Tonsil	1.15	--	0.72
Oropharynx	0.87	--	0.57
Hypopharynx	0.89	0.37	0.61
Other oral cavity & pharynx	0.50	--	0.37
Digestive System:	73.62	50.77	61.32
Esophagus	5.95	1.16	3.36
Stomach	7.61	3.71	5.48
Small Intestine	1.16	0.65	0.88
Colon & Rectum	42.85	32.47	37.28
Colon	29.23	23.51	26.14
Rectum	13.62	8.96	11.14
Anus, anal canal & anorectum	0.70	1.12	0.92
Liver & Intrahepatic bile duct	4.36	1.59	2.86
Liver	3.66	1.36	2.42
Intrahepatic bile duct	0.70	--	0.45
Gallbladder	0.71	1.11	0.92
Other biliary	1.55	1.08	1.30
Pancreas	8.14	6.82	7.45
Retroperitoneum & peritoneum	--	0.84	0.61
Other digestive system	--	--	0.25

Rates are per 100,000 persons and are adjusted to the 1970 U.S. population. 67 "Other primary site" cases are listed only in the "All Sites" category of this table. Two "other sex" cases are included only in the "Total" category. "All sites" does not include bladder in situ cases. Invasive cancer cases only. -- = Insufficient cases for an adjusted rate calculation.

Arizona
Table I-E. 1997 Age-Adjusted Incidence Rates (continued)
Primary Site by Sex

PRIMARY SITE	SEX		
	MALE	FEMALE	TOTAL
Respiratory System:	68.58	43.41	54.86
Nose, nasal cavity & middle ear	--	--	0.29
Larynx	5.87	0.85	3.16
Lung & bronchus	61.09	41.93	50.61
Pleura	1.03	--	0.62
Trachea & other respiratory organs	--	--	--
Bone & joints	0.83	0.53	0.66
Soft tissue (including heart)	2.83	2.24	2.50
Skin (excluding basal & squamous):	19.28	10.72	14.67
Melanomas of the skin	17.35	9.94	13.32
Other non-epithelial skin	1.93	0.78	1.35
Breast	1.47	107.32	57.61
Female Genital System:	NA	39.72	NA
Cervix uteri	NA	6.79	NA
Corpus uteri	NA	16.27	NA
Uterus, NOS	NA	0.33	NA
Ovary	NA	13.54	NA
Vagina	NA	0.56	NA
Vulva	NA	1.54	NA
Other female genital system	NA	0.69	NA
Male Genital System:	125.48	NA	NA
Prostate	119.34	NA	NA
Testis	5.22	NA	NA
Penis	0.88	NA	NA
Other male genital system	--	NA	NA

Rates are per 100,000 persons and are adjusted to the 1970 U.S. population. -- = Insufficient cases for an adjusted rate calculation. Invasive cancer cases only.

Arizona
Table I-E. 1997 Age-Adjusted Incidence Rates (continued)
Primary Site by Sex

PRIMARY SITE	SEX		
	MALE	FEMALE	TOTAL
Urinary System*:	41.92	14.37	26.86
Urinary bladder *	28.68	7.82	17.23
Kidney & renal pelvis	12.34	6.18	9.03
Ureter	0.79	0.30	0.52
Other urinary system	--	--	--
Eye & Orbit	0.86	0.73	0.80
Brain & Nervous System:	5.40	4.93	5.11
Brain	4.93	4.53	4.69
Cranial nerves & other nervous system	0.48	0.40	0.43
Endocrine System:	3.21	8.08	5.65
Thyroid	2.83	7.88	5.36
Other endocrine & thymus	--	--	0.30
Lymphomas:	17.85	13.45	15.50
Hodgkin's disease	2.34	2.16	2.21
Non-Hodgkin's lymphomas	15.51	11.30	13.29
Multiple Myeloma	4.41	2.73	3.49
Leukemias:	8.89	5.91	7.32
Lymphocytic	3.89	2.39	3.12
Myeloid	3.60	2.65	3.10
Monocytic	--	--	--
Other	1.36	0.83	1.07
Ill-defined & unspecified	12.70	9.28	10.89

Rates are per 100,000 persons and are adjusted to the 1970 U.S. population. -- = Insufficient cases for an adjusted rate calculation. Invasive cancer cases only. * = Includes invasive and in situ bladder cases.

Arizona
Table I-F. 1997 Age-Adjusted Incidence Rates
Primary Site by Ethnicity

PRIMARY SITE	ETHNICITY		
	NON-HISPANIC	HISPANIC	TOTAL
All Sites	379.99	217.28	348.96
Oral Cavity & Pharynx:	8.46	5.04	7.87
Lip	0.59	--	0.51
Tongue	2.39	--	2.17
Salivary gland	0.92	--	0.84
Floor of Mouth	0.62	--	0.59
Gum & other oral cavity	1.14	--	1.08
Nasopharynx	0.41	--	0.42
Tonsil	0.76	--	0.72
Oropharynx	0.58	--	0.57
Hypopharynx	0.66	--	0.61
Other oral cavity & pharynx	0.39	--	0.37
Digestive System:	65.56	47.96	61.32
Esophagus	3.56	3.06	3.36
Stomach	5.42	8.11	5.48
Small Intestine	0.90	--	0.88
Colon & Rectum	40.69	21.85	37.28
Colon	28.59	14.98	26.14
Rectum	12.10	6.87	11.14
Anus, anal canal & anorectum	1.06	--	0.92
Liver & Intrahepatic bile duct	2.86	3.92	2.86
Liver	2.36	3.74	2.42
Intrahepatic bile duct	0.50	--	0.45
Gallbladder	0.87	--	0.92
Other biliary	1.34	--	1.30
Pancreas	7.97	6.09	7.45
Retroperitoneum & peritoneum	0.64	--	0.61
Other digestive system	0.26	--	0.25

Rates are per 100,000 persons and are adjusted to the 1970 U.S. population. 67 "Other primary site" cases are listed only in the "All Sites" category of this table. "All Sites" does not include bladder in situ cases. -- = Insufficient cases for an adjusted rate calculation. Invasive cancer cases only.

Arizona
Table I-F. 1997 Age-Adjusted Incidence Rates (continued)
Primary Site by Ethnicity

PRIMARY SITE	ETHNICITY		
	NON-HISPANIC	HISPANIC	TOTAL
Respiratory System:	60.50	29.14	54.86
Nose, nasal cavity & middle ear	0.24	--	0.29
Larynx	3.49	--	3.16
Lung & bronchus	55.93	26.24	50.61
Pleura	0.65	--	0.62
Trachea & other respiratory organs	--	--	--
Bone & joints	0.74	--	0.66
Soft tissue (including heart)	2.56	2.92	2.50
Skin (excluding basal & squamous):	17.06	3.98	14.67
Melanomas of the skin	15.68	2.56	13.32
Other non-epithelial skin	1.38	1.43	1.35
Breast	63.17	29.17	57.61
Breast (female)	117.31	55.11	107.32
Female Genital System:	41.72	31.20	39.72
Cervix uteri	5.96	12.92	6.79
Corpus uteri	17.84	7.57	16.27
Uterus, NOS	--	--	0.33
Ovary	14.63	7.74	13.54
Vagina	0.57	--	0.56
Vulva	1.69	--	1.54
Other female genital system	0.70	--	0.69
Male Genital System:	138.65	73.18	125.48
Prostate	131.11	70.90	119.34
Testis	6.55	1.50	5.22
Penis	0.96	--	0.88
Other male genital system	--	--	--

Rates are per 100,000 persons and are adjusted to the 1970 U.S. population. --- = Insufficient cases for an adjusted rate calculation. Invasive cancer cases only.

Arizona
Table I-F. 1997 Age-Adjusted Incidence Rates (continued)
Primary Site by Ethnicity

PRIMARY SITE	ETHNICITY		
	NON-HISPANIC	HISPANIC	TOTAL
Urinary System*:	29.49	15.03	26.86
Urinary bladder *	19.27	7.09	17.23
Kidney & renal pelvis	9.53	7.78	9.03
Ureter	0.59	--	0.52
Other urinary system	--	--	--
Eye & Orbit	0.78	--	0.80
Brain & Nervous System:	5.65	2.55	5.11
Brain	5.19	2.21	4.69
Cranial nerves & other nervous system	0.46	--	0.43
Endocrine System:	6.27	3.95	5.65
Thyroid	5.96	3.65	5.36
Other endocrine & thymus	0.31	--	0.30
Lymphomas:	17.05	1.72	15.50
Hodgkin's disease	2.60	0.31	2.21
Non-Hodgkin's lymphomas	14.45	1.41	13.29
Multiple Myeloma	3.59	0.48	3.49
Leukemias:	7.71	1.21	7.29
Lymphocytic	3.17	0.71	3.12
Myeloid	3.25	0.47	3.08
Monocytic	--	--	--
Other	1.23	--	1.06
Ill-defined & unspecified	11.67	1.04	10.89

Rates are per 100,000 persons and are adjusted to the 1970 U.S. population. -- = Insufficient cases for an adjusted rate calculation. Invasive cancer cases only. * = Includes invasive and in situ bladder cases.

Arizona
Table I-G. 1997 Age-Specific Incidence Rates, All Sites
Age Group by Sex

AGE GROUP	SEX		
	MALE	FEMALE	TOTAL
0 - 9 Years	14.43	13.41	13.94
10 - 19 Years	10.47	12.72	11.53
20 - 29 Years	34.27	44.64	39.23
30 - 39 Years	75.53	128.05	101.68
40 - 49 Years	171.75	313.66	244.03
50 - 59 Years	619.85	652.97	636.99
60 - 69 Years	1760.09	1106.90	1413.85
70 - 79 Years	2413.77	1564.30	1948.28
80+ Years	2350.32	1700.90	1959.06
Total	434.74	408.24	421.51

Rates are per 100,000 persons. Invasive cancer cases only. Not included are 14 cases with unknown age group. Two "other sex" cases are included only in the "Total" category.

Arizona
Table I-H. 1997 Age-Specific Incidence Rates, All Sites
Age Group by Ethnicity

AGE GROUP	ETHNICITY		
	NON-HISPANIC	HISPANIC	TOTAL
0 - 9 Years	13.58	12.75	13.94
10 - 19 Years	12.23	8.59	11.53
20 - 29 Years	51.38	20.09	39.23
30 - 39 Years	114.75	66.09	101.68
40 - 49 Years	260.03	159.58	244.03
50 - 59 Years	675.92	353.50	636.99
60 - 69 Years	1515.26	811.54	1413.85
70 - 79 Years	2152.38	1294.78	1948.28
80+ Years	2248.49	1341.58	1959.06
Total	506.33	137.00	421.51

Rates are per 100,000 persons. Invasive cancer cases only. Not included are 14 cases with unknown age group.

Arizona
Table I-I. 1997 Age-Adjusted Incidence Rates, All Sites
Sex by Race

SEX	RACE			TOTAL
	WHITE	BLACK	*OTHER	
Male	388.38	372.69	211.91	389.56
Female	321.90	268.36	193.27	317.56
Total	350.81	310.80	201.07	348.96

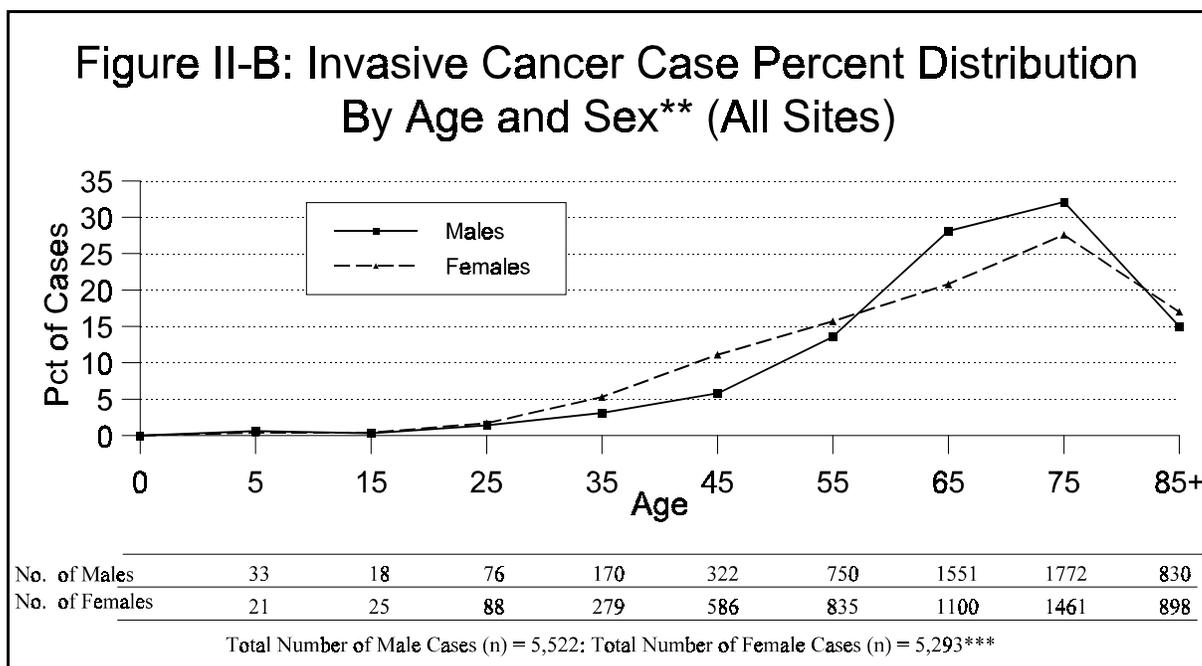
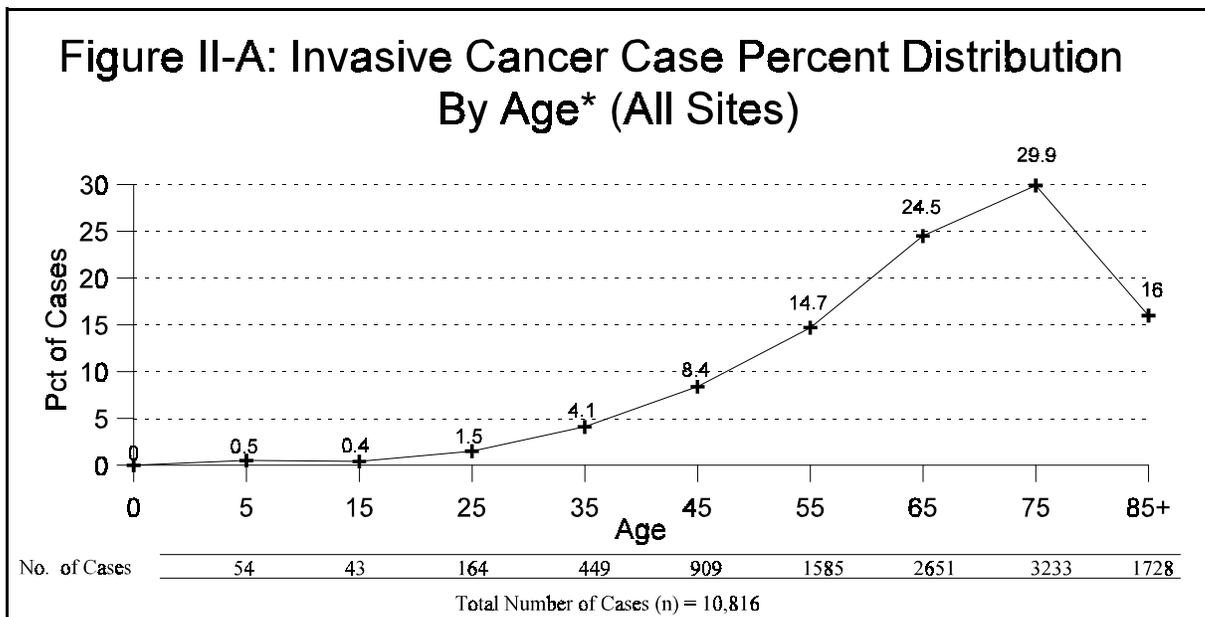
Rates are per 100,000 persons and are adjusted to the 1970 U.S. population. Invasive cancer cases only. 307
 unknown race cases are included in the "TOTAL" category only. Two "other sex" cases are included in the
 "Total" category only. * Other race includes Native American, Chinese, Japanese, Filipino, Hawaiian, Korean, Asian Indian,
 Vietnamese, Cambodian, Thai, Micronesian, Guamanian, Polynesian, Tahitian, Tongan, New Guinean, Other Asian, Pacific
 Islander and Other.

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PART II

CANCER INCIDENCE IN MARICOPA COUNTY 1997

CANCER IN MARICOPA COUNTY: 1997



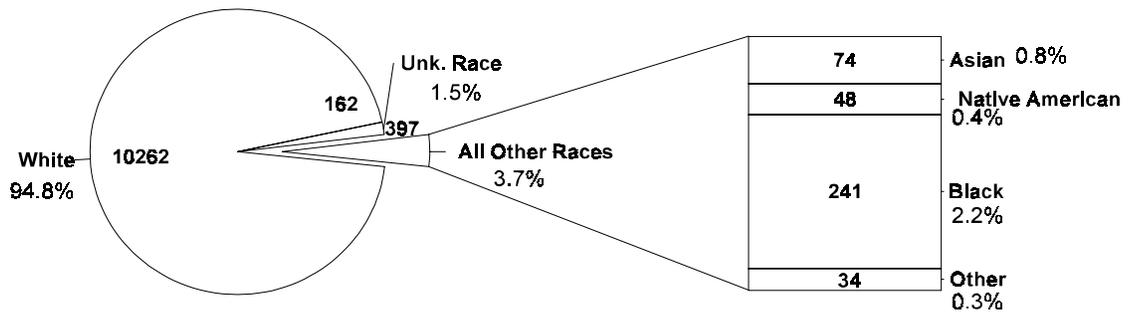
* Distribution by age at diagnosis excludes 5 cases with an unknown age at diagnosis.

** Distribution by age at diagnosis and sex excludes 1 other sex case and 5 cases with an unknown age at diagnosis.

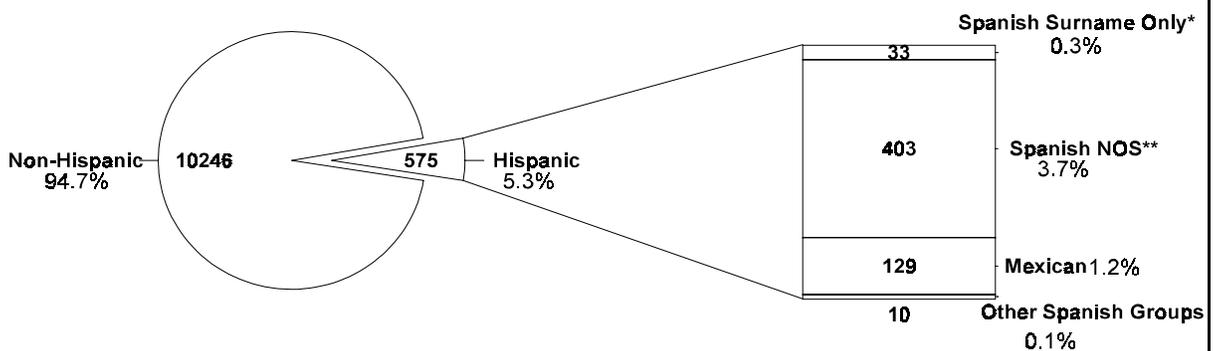
***Male percentages are the percent of all male cases, and female percentages are the percent of all female cases.

CANCER IN MARICOPA COUNTY: 1997

**Figure II-C: Race Distribution of Invasive Cancer Cases
(All Sites)**



**Figure II-D: Ethnic Distribution of Invasive Cancer Cases
(All Sites)**



* Spanish Surname Only: Ethnicity derived from Spanish last name with the use of a computer program.

** Spanish NOS: Spanish, not otherwise specified.

Maricopa County
Table II-A. 1997 Frequency of Invasive Cancer Cases
Primary Site by Sex

PRIMARY SITE	SEX		
	MALE	FEMALE	TOTAL
All Sites	5526	5294	10821
Oral Cavity & Pharynx:	142	68	210
Lip	8	4	12
Tongue	38	20	58
Salivary gland	17	6	23
Floor of Mouth	12	4	16
Gum & other oral cavity	18	12	30
Nasopharynx	10	3	13
Tonsil	15	4	19
Oropharynx	9	5	14
Hypopharynx	8	5	13
Other oral cavity & pharynx	7	5	12
Digestive System:	1038	899	1937
Esophagus	73	17	90
Stomach	103	67	170
Small Intestine	15	12	27
Colon & Rectum	629	577	1206
Colon	438	423	861
Rectum	191	154	345
Anus, anal canal & anorectum	10	25	35
Liver & Intrahepatic bile duct	55	24	79
Liver	45	22	67
Intrahepatic bile duct	10	2	12
Gallbladder	10	19	29
Other biliary	24	16	40
Pancreas	112	124	236
Retroperitoneum & peritoneum	3	15	18
Other digestive system	4	3	7

36 "Other primary site" cases are listed only in the "All Sites" category of this table. "All Sites" does not include bladder in situ cases. One "other sex" case is included in the "Total" category only.

Maricopa County
Table II-A. 1997 Frequency of Invasive Cancer Cases(continued)
Primary Site by Sex

PRIMARY SITE	SEX		
	MALE	FEMALE	TOTAL
Respiratory System:	965	748	1713
Nose, nasal cavity & middle ear	3	4	7
Larynx	94	10	104
Lung & bronchus	854	728	1582
Pleura	11	5	16
Trachea & other respiratory organs	3	1	4
Bone & joints	11	6	17
Soft tissue (including heart)	46	42	88
Skin (excluding basal & squamous):	317	195	512
Melanomas of the skin	280	180	460
Other non-epithelial skin	37	15	52
Breast	21	1811	1832
Female Genital System:	NA	580	580
Cervix uteri	NA	96	96
Corpus uteri	NA	228	228
Uterus, NOS	NA	5	5
Ovary	NA	207	207
Vagina	NA	11	11
Vulva	NA	24	24
Other female genital system	NA	9	9
Male Genital System:	1804	NA	1804
Prostate	1708	NA	1708
Testis	82	NA	82
Penis	13	NA	13
Other male genital system	1	NA	1

NA = not applicable.

Maricopa County
Table II-A. 1997 Frequency of Invasive Cancer Cases(continued)
Primary Site by Sex

PRIMARY SITE	SEX		
	MALE	FEMALE	TOTAL
Urinary System*:	626	237	863
Urinary bladder *	439	130	569
Kidney & renal pelvis	173	101	274
Ureter	13	5	18
Other urinary system	1	1	2
Eye & Orbit	8	9	17
Brain & Nervous System:	73	62	135
Brain	63	58	121
Cranial nerves & other nervous system	10	4	14
Endocrine System:	45	116	161
Thyroid	40	115	155
Other endocrine & thymus	5	1	6
Lymphomas:	271	236	507
Hodgkin's disease	40	33	73
Non-Hodgkin's lymphomas	231	203	434
Multiple Myeloma	56	34	90
Leukemias:	127	98	225
Lymphocytic	57	36	93
Myeloid	51	46	97
Monocytic	1	1	2
Other	18	15	33
Ill-defined & unspecified	162	185	347

* = Includes invasive and in situ bladder cases.

CANCER IN MARICOPA COUNTY: 1997

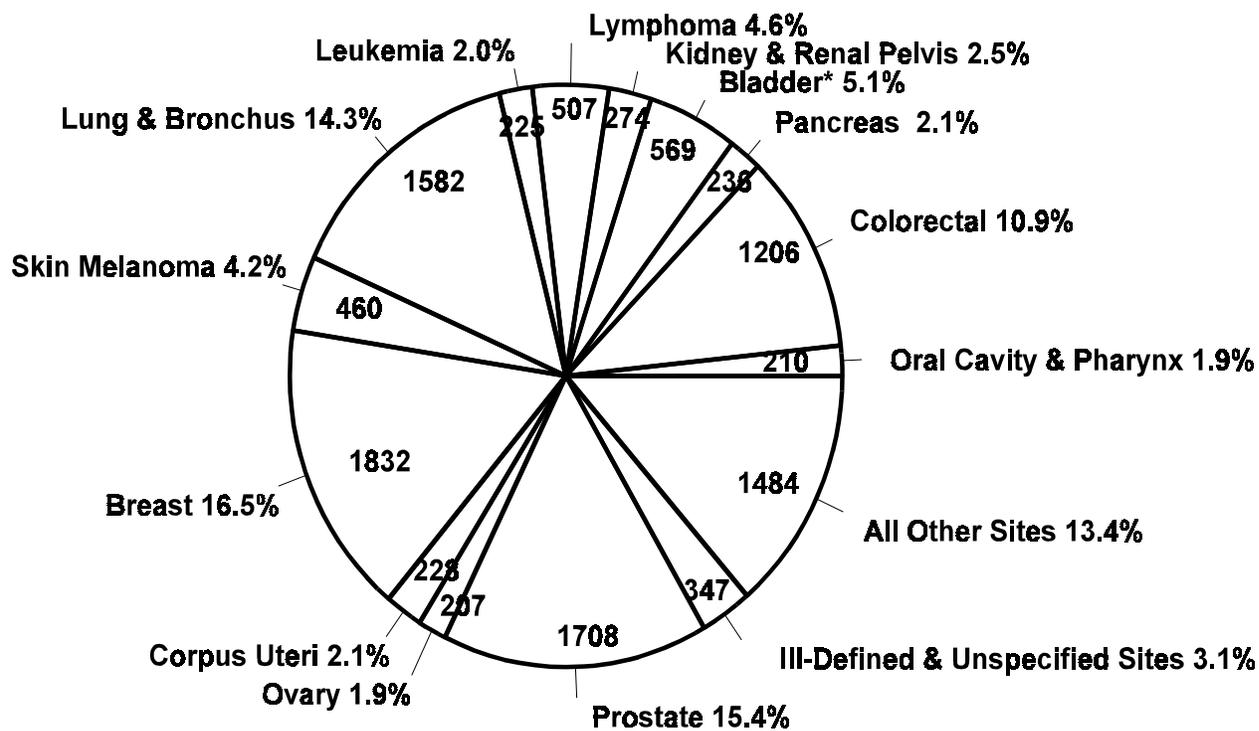
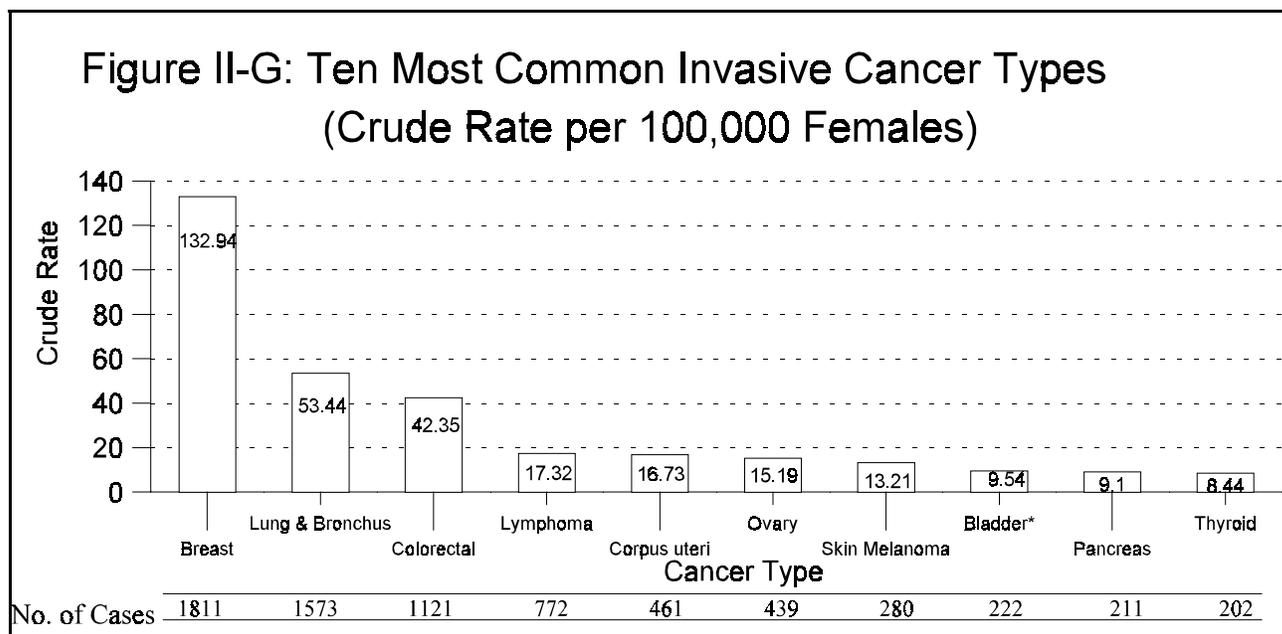
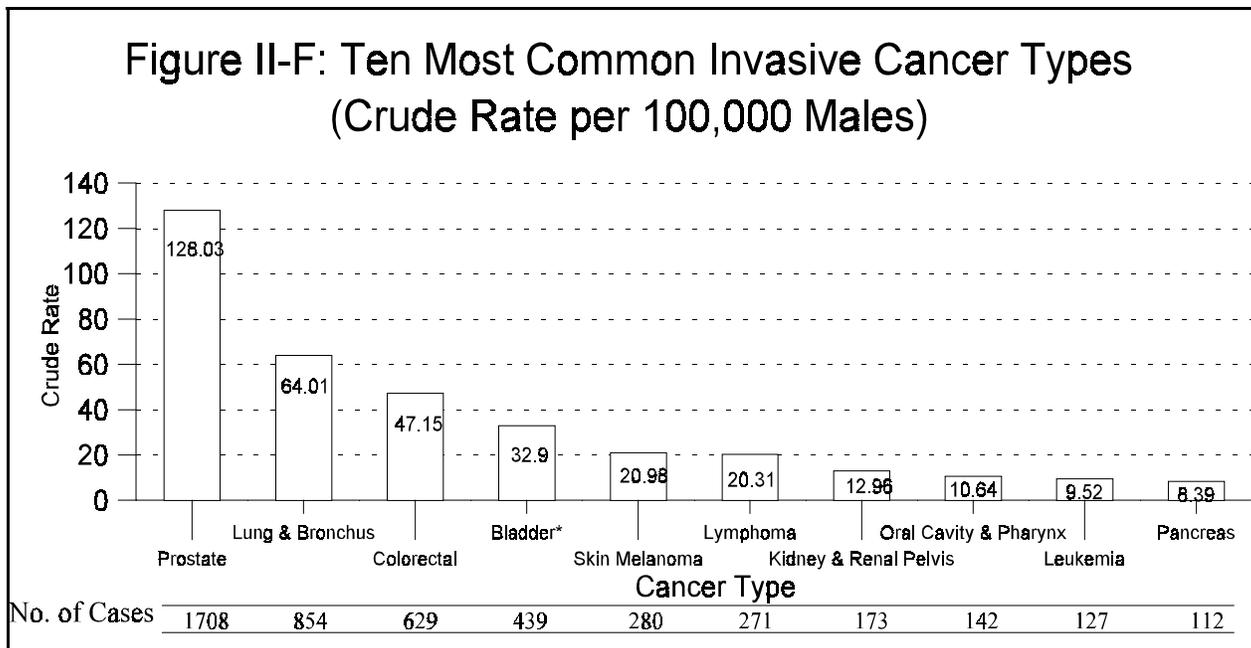


Figure II-E: Case Distribution by Invasive Cancer Type

*Bladder cases include 254 in situ cases.

CANCER IN MARICOPA COUNTY: 1997



* Bladder cases include 209 males in situ cases and 45 female in situ cases.

Maricopa County
Table II-B. 1997 Age-Adjusted Incidence Rates
Primary Site by Sex

PRIMARY SITE	SEX		
	MALE	FEMALE	TOTAL
All Sites	392.21	314.60	347.92
Oral Cavity & Pharynx:	10.56	4.19	7.20
Lip	-	-	0.34
Tongue	2.81	1.24	2.01
Salivary gland	1.28	-	0.82
Floor of Mouth	0.97	-	0.59
Gum & other oral cavity	1.27	0.72	0.97
Nasopharynx	0.76	-	0.47
Tonsil	1.21	-	0.71
Oropharynx	-	-	0.50
Hypopharynx	-	-	0.40
Other oral cavity & pharynx	-	-	0.38
Digestive System:	72.73	48.72	59.70
Esophagus	5.30	0.92	2.92
Stomach	7.10	3.56	5.15
Small Intestine	1.08	0.69	0.87
Colon & Rectum	44.01	30.99	36.97
Colon	30.19	22.47	26.00
Rectum	13.82	8.51	10.97
Anus, anal canal & anorectum	0.66	1.49	1.11
Liver & Intrahepatic bile duct	3.85	1.35	2.48
Liver	3.12	1.26	2.09
Intrahepatic bile duct	0.73	-	0.39
Gallbladder	0.68	1.06	0.88
Other biliary	1.82	0.89	1.33
Pancreas	7.77	6.72	7.21
Retroperitoneum & peritoneum	-	0.90	0.56
Other digestive system	--	--	--

Rates are per 100,000 persons and are adjusted to the 1970 U.S. population. 36 "Other primary site" cases are listed only in the "All Sites" category of this table. "All Sites" does not include bladder in situ cases. - = Insufficient cases for an adjusted rate calculation. Invasive cancer cases only. One "other sex" case is included only in the "Total" category.

Maricopa County
Table II-B. 1997 Age-Adjusted Incidence Rates (continued)
Primary Site by Sex

PRIMARY SITE	SEX		
	MALE	FEMALE	TOTAL
Respiratory System:	69.34	43.79	55.32
Nose, nasal cavity & middle ear	-	-	-
Larynx	6.79	0.60	3.41
Lung & bronchus	61.37	42.61	51.05
Pleura	0.74	-	0.50
Trachea & other respiratory organs	-	-	-
Bone & joints	0.71	-	0.52
Soft tissue (including heart)	3.13	2.58	2.82
Skin (excluding basal & squamous):	21.65	11.73	16.26
Melanomas of the skin	19.27	10.84	14.64
Other non-epithelial skin	2.38	0.90	1.62
Breast	1.52	111.86	60.32
Female Genital System:	NA	35.92	NA
Cervix uteri	NA	6.07	NA
Corpus uteri	NA	14.15	NA
Uterus, NOS	NA	-	NA
Ovary	NA	12.83	NA
Vagina	NA	0.69	NA
Vulva	NA	1.29	NA
Other female genital system	NA	-	NA
Male Genital System:	130.47	NA	NA
Prostate	124.48	NA	NA
Testis	5.07	NA	NA
Penis	0.87	NA	NA
Other male genital system	-	NA	NA

Rates are per 100,000 persons and are adjusted to the 1970 U.S. population. --= Insufficient cases for an adjusted rate calculation. Invasive cancer cases only. NA = not applicable.

Maricopa County
Table II-B. 1997 Age-Adjusted Incidence Rates (continued)
Primary Site by Sex

PRIMARY SITE	SEX		
	MALE	FEMALE	TOTAL
Urinary System*:	43.03	13.71	26.73
Urinary bladder *	29.68	7.22	17.13
Kidney & renal pelvis	12.42	6.17	9.01
Ureter	0.85	-	0.53
Other urinary system	-	-	-
Eye & Orbit	-	-	0.59
Brain & Nervous System:	5.16	4.13	4.55
Brain	4.69	3.98	4.25
Cranial nerves & other nervous system	-	-	0.29
Endocrine System:	3.22	7.23	5.22
Thyroid	2.80	7.18	4.97
Other endocrine & thymus	-	-	-
Lymphomas:	18.49	13.97	16.05
Hodgkin's disease	2.63	2.35	2.45
Non-Hodgkin's lymphomas	15.86	11.62	13.60
Multiple Myeloma	3.81	2.01	2.79
Leukemias:	9.10	5.63	7.30
Lymphocytic	4.17	2.19	3.16
Myeloid	3.67	2.64	3.14
Monocytic	-	-	-
Other	1.20	0.74	0.95
Ill-defined & unspecified	11.32	9.95	10.61

Rates are per 100,000 persons and are adjusted to the 1970 U.S. population. -- = Insufficient cases for an adjusted rate calculation. Invasive cancer cases only. * = Includes invasive and in situ bladder cases.

Maricopa County
Table II-C. 1997 Age-Adjusted Incidence Rates
Primary Site by Ethnicity

PRIMARY SITE	ETHNICITY		
	NON-HISPANIC	HISPANIC	TOTAL
All Sites	367.11	209.99	347.92
Oral Cavity & Pharynx:	7.56	4.70	7.20
Lip	0.36	-	0.34
Tongue	2.24	-	2.01
Salivary gland	0.84	-	0.82
Floor of Mouth	0.58	-	0.59
Gum & other oral cavity	0.95	-	0.97
Nasopharynx	0.43	-	0.47
Tonsil	0.77	-	0.71
Oropharynx	0.50	-	0.50
Hypopharynx	0.44	-	0.40
Other oral cavity & pharynx	0.43	-	0.38
Digestive System:	61.57	45.80	59.70
Esophagus	3.06	-	2.92
Stomach	4.83	9.10	5.15
Small Intestine	0.80	-	0.87
Colon & Rectum	38.87	19.08	36.97
Colon	27.39	11.82	26.00
Rectum	11.49	7.26	10.97
Anus, anal canal & anorectum	1.21	-	1.11
Liver & Intrahepatic bile duct	2.38	-	2.48
Liver	1.96	-	2.09
Intrahepatic bile duct	0.43	-	0.39
Gallbladder	0.64	-	0.88
Other biliary	1.31	-	1.33
Pancreas	7.62	4.72	7.21
Retroperitoneum & peritoneum	0.63	-	0.56
Other digestive system	-	-	--

Rates are per 100,000 persons and are adjusted to the 1970 U.S. population. 36 "Other primary site" cases are listed only in the "All Sites" category of this table. "All Sites" does not include bladder in situ cases. - = Insufficient cases for an adjusted rate calculation. Invasive cancer cases only.

Maricopa County
Table II-C. 1997 Age-Adjusted Incidence Rates (continued)
Primary Site by Ethnicity

PRIMARY SITE	ETHNICITY		
	NON-HISPANIC	HISPANIC	TOTAL
Respiratory System:	58.48	30.44	55.32
Nose, nasal cavity & middle ear	-	-	-
Larynx	3.53	-	3.41
Lung & bronchus	54.07	27.06	51.05
Pleura	0.51	-	0.50
Trachea & other respiratory organs	-	-	-
Bone & joints	0.48	-	0.52
Soft tissue (including heart)	2.66	4.62	2.82
Skin (excluding basal & squamous):	18.31	4.17	16.26
Melanomas of the skin	16.72	-	14.64
Other non-epithelial skin	1.59	-	1.62
Breast	64.50	26.58	60.32
Breast (female)	118.88	50.56	111.86
Female Genital System:	36.48	30.72	35.92
Cervix uteri	5.51	12.03	6.07
Corpus uteri	14.90	6.21	14.15
Uterus, NOS	-	-	-
Ovary	13.22	9.26	12.83
Vagina	0.69	-	0.69
Vulva	1.43	-	1.29
Other female genital system	-	-	-
Male Genital System:	141.09	62.56	130.47
Prostate	133.80	59.95	124.48
Testis	6.40	-	5.07
Penis	0.84	-	0.87
Other male genital system	-	-	-

Rates are per 100,000 persons and are adjusted to the 1970 U.S. --- = Insufficient cases for an adjusted rate calculation.
Invasive cancer cases only.

Maricopa County
Table II-C. 1997 Age-Adjusted Incidence Rates (continued)
Primary Site by Ethnicity

PRIMARY SITE	ETHNICITY		
	NON-HISPANIC	HISPANIC	TOTAL
Urinary System*:	28.11	16.23	26.73
Urinary bladder *	18.16	8.33	17.13
Kidney & renal pelvis	9.30	7.90	9.01
Ureter	0.59	-	0.53
Other urinary system	-	-	-
Eye & Orbit	0.60	-	0.59
Brain & Nervous System:	5.06	-	4.55
Brain	4.71	-	4.25
Cranial nerves & other nervous system	0.35	-	0.29
Endocrine System:	5.66	3.89	5.22
Thyroid	5.42	3.69	4.97
Other endocrine & thymus	-	-	-
Lymphomas:	16.94	1.58	16.05
Hodgkin's disease	2.80	-	2.45
Non-Hodgkin's lymphomas	14.14	1.22	13.60
Multiple Myeloma	2.84	-	2.79
Leukemias:	7.59	0.92	7.30
Lymphocytic	3.24	0.56	3.16
Myeloid	3.24	-	3.14
Monocytic	-	-	-
Other	1.04	-	0.95
Ill-defined & unspecified	10.82	0.88	10.61

Rates are per 100,000 persons and are adjusted to the 1970 U.S. -- = Insufficient cases for an adjusted rate calculation.
Invasive cancer cases only. * = Includes invasive and in situ bladder cases.

Maricopa County
Table II-D. 1997 Age-Specific Incidence Rates, All Sites
Age Group by Sex

AGE GROUP	SEX		
	MALE	FEMALE	TOTAL
0 - 9 Years	14.99	10.71	12.98
10 - 19 Years	8.84	14.32	11.37
20 - 29 Years	36.05	45.67	40.64
30 - 39 Years	75.66	123.75	99.75
40 - 49 Years	173.47	301.36	239.17
50 - 59 Years	609.26	643.29	626.72
60 - 69 Years	1734.61	1086.89	1390.72
70 - 79 Years	2465.05	1606.66	1985.64
80+ Years	2473.85	1671.57	1979.99
Total	405.14	389.54	397.39

Rates are per 100,000 persons. Invasive cancer cases only. Not included are 5 cases with unknown age group. One "other sex" case is included only in the "Total" category.

Maricopa County
Table II-E. 1997 Age-Specific Incidence Rates, All Sites
Age Group by Ethnicity

AGE GROUP	ETHNICITY		
	NON-HISPANIC	HISPANIC	TOTAL
0 - 9 Years	13.29	10.28	12.98
10 - 19 Years	10.94	12.16	11.37
20 - 29 Years	51.44	19.78	40.64
30 - 39 Years	118.22	55.27	99.75
40 - 49 Years	251.61	141.34	239.17
50 - 59 Years	669.38	342.31	626.72
60 - 69 Years	1463.24	778.53	1390.72
70 - 79 Years	2030.04	1291.40	1985.64
80+ Years	2123.53	1302.40	1979.99
Total	472.62	108.63	397.39

Rates are per 100,000 persons. Invasive cancer cases only. Not included are 5 cases with unknown age group.

Maricopa County
Table II-F. 1997 Age-Adjusted Incidence Rates, All Sites
Sex by Race

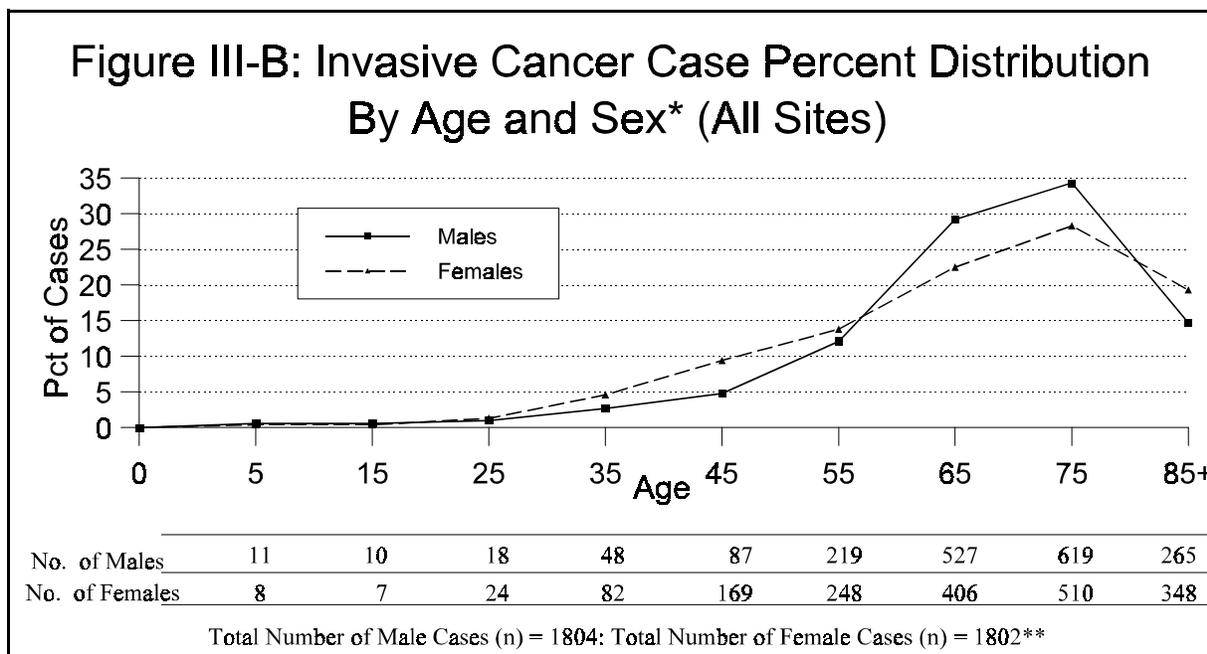
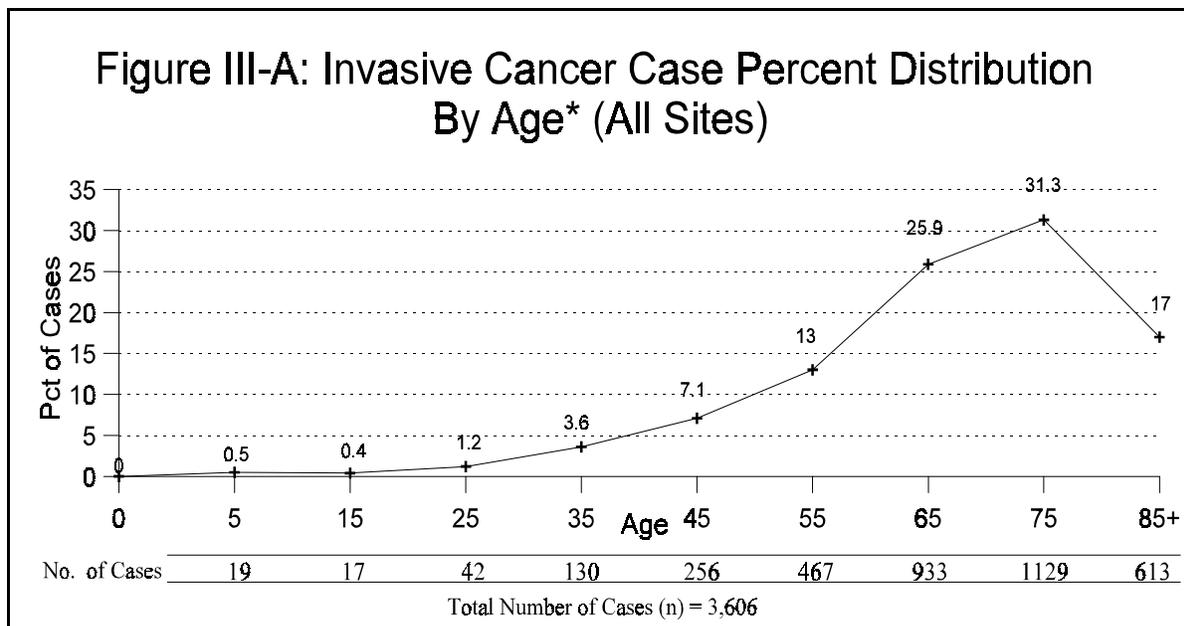
SEX	RACE			TOTAL
	WHITE	BLACK	*OTHER	
Male	386.80	392.11	259.55	392.21
Female	316.29	288.28	210.67	314.60
Total	346.49	326.42	231.42	347.92

Rates are per 100,000 persons and are adjusted to the 1970 U.S. population. One "other sex" case is included only in the "Total" category. Invasive cancer cases only. Included in the "TOTAL" category only are 162 cases with and unknown race.
 * Other race includes Native American, Chinese, Japanese, Filipino, Hawaiian, Korean, Asian Indian, Vietnamese, Cambodian, Thai, Tongan, Other Asian, Pacific Islander, and Other.

PART III

CANCER INCIDENCE IN
PIMA COUNTY
1997

CANCER IN PIMA COUNTY:1997



* Distribution by age and by age and sex at diagnosis excludes 4 cases with an unknown age at diagnosis.

** Male percentages are the percent of all male cases, and female percentages are the percent of all female cases.

CANCER IN PIMA COUNTY: 1997

Figure III-C: Race Distribution of Invasive Cancer Cases (All Sites)

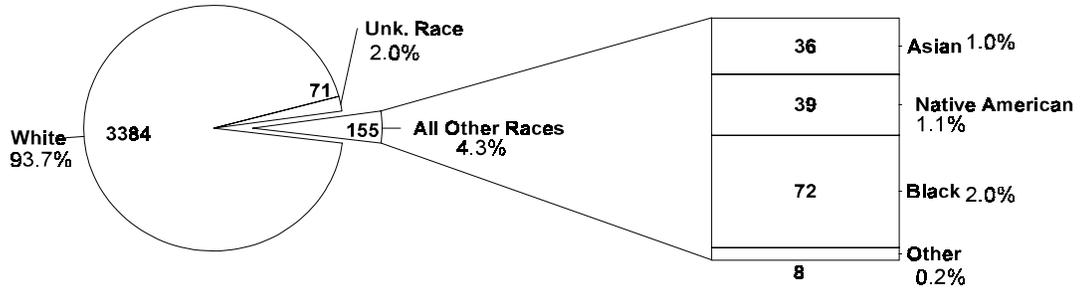
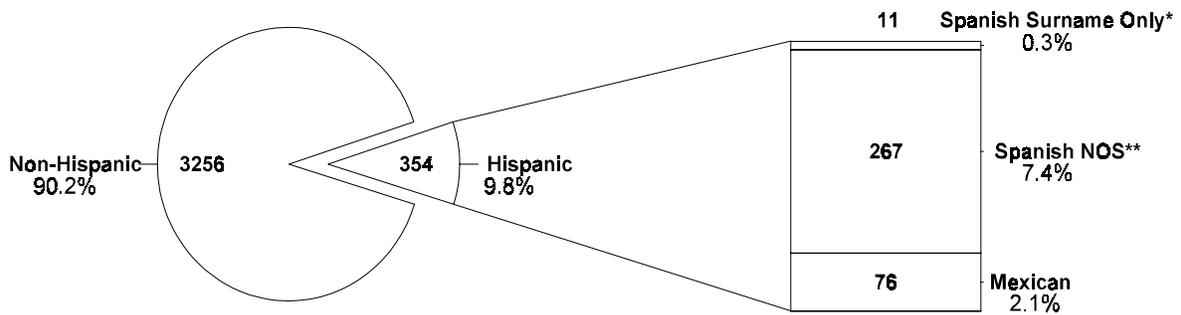


Figure III-D: Ethnic Distribution of Invasive Cancer Cases (All Sites)



* Spanish Surname Only: Ethnicity derived from Spanish last name with the use of a computer program.

** Spanish NOS: Spanish, not otherwise specified.

Pima County
Table III-A. 1997 Frequency of Invasive Cancer Cases
Primary Site by Sex

PRIMARY SITE	SEX		
	MALE	FEMALE	TOTAL
All Sites	1807	1803	3610
Oral Cavity & Pharynx:	52	34	86
Lip	4	2	6
Tongue	20	7	27
Salivary gland	5	6	11
Floor of Mouth	1	2	3
Gum & other oral cavity	6	9	15
Nasopharynx	2	0	2
Tonsil	6	2	8
Oropharynx	1	2	3
Hypopharynx	6	2	8
Other oral cavity & pharynx	1	2	3
Digestive System:	375	319	694
Esophagus	34	7	41
Stomach	40	28	68
Small Intestine	8	1	9
Colon & Rectum	214	212	426
Colon	158	158	316
Rectum	56	54	110
Anus, anal canal & anorectum	2	3	5
Liver & Intrahepatic bile duct	19	5	24
Liver	16	3	19
Intrahepatic bile duct	3	2	5
Gallbladder	4	6	10
Other biliary	5	11	16
Pancreas	42	43	85
Retroperitoneum & peritoneum	4	2	6
Other digestive system	3	1	4

12 "Other primary site" cases included only in the "All Sites" category in this table. "All Sites" does not include Bladder in situ cases.

Pima County
Table III-A. 1997 Frequency of Invasive Cancer Cases(continued)
Primary Site by Sex

PRIMARY SITE	SEX		
	MALE	FEMALE	TOTAL
Respiratory System:	296	245	541
Nose, nasal cavity & middle ear	2	1	3
Larynx	18	3	21
Lung & bronchus	268	237	505
Pleura	7	2	9
Trachea & other respiratory organs	1	2	3
Bone & joints	3	6	9
Soft tissue (including heart)	10	4	14
Skin (excluding basal & squamous):	69	52	121
Melanomas of the skin	62	49	111
Other non-epithelial skin	7	3	10
Breast	9	542	551
Female Genital System:	NA	259	259
Cervix uteri	NA	36	36
Corpus uteri	NA	129	129
Uterus, NOS	NA	2	2
Ovary	NA	72	72
Vagina	NA	3	3
Vulva	NA	11	11
Other female genital system	NA	6	6
Male Genital System:	579	NA	579
Prostate	550	NA	550
Testis	27	NA	27
Penis	2	NA	2
Other male genital system	0	NA	0

NA = not applicable.

Pima County
Table III-A. 1997 Frequency of Invasive Cancer Cases(continued)
Primary Site by Sex

PRIMARY SITE	SEX		
	MALE	FEMALE	TOTAL
Urinary System*:	188	90	278
Urinary bladder *	116	55	171
Kidney & renal pelvis	69	32	101
Ureter	2	3	5
Other urinary system	1	0	1
Eye & Orbit	8	3	11
Brain & Nervous System:	27	23	50
Brain	26	18	44
Cranial nerves & other nervous system	1	5	6
Endocrine System:	12	55	67
Thyroid	12	51	63
Other endocrine & thymus	0	4	4
Lymphomas:	77	69	146
Hodgkin's disease	9	8	17
Non-Hodgkin's lymphomas	68	61	129
Multiple Myeloma	22	23	45
Leukemias:	37	30	67
Lymphocytic	11	11	22
Myeloid	17	15	32
Monocytic	0	0	0
Other	9	4	13
Ill-defined & unspecified	69	54	123

* = Includes invasive and in situ Bladder cases.

CANCER IN PIMA COUNTY: 1997

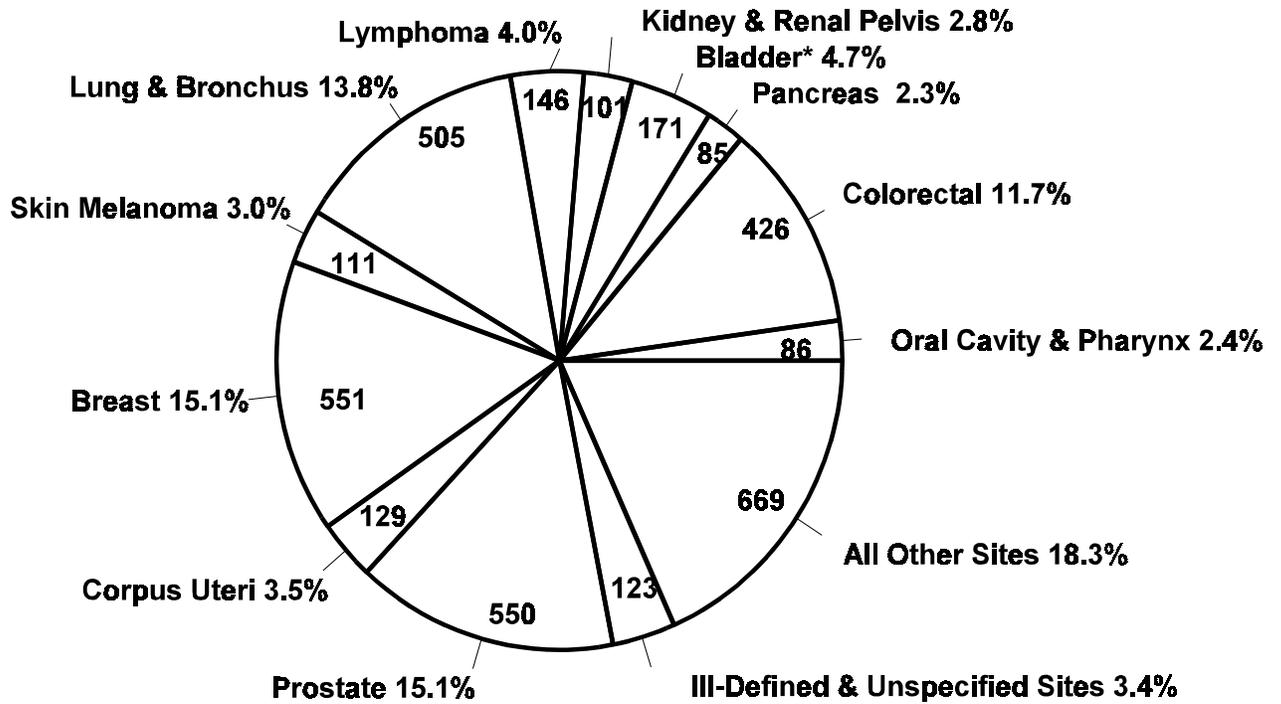
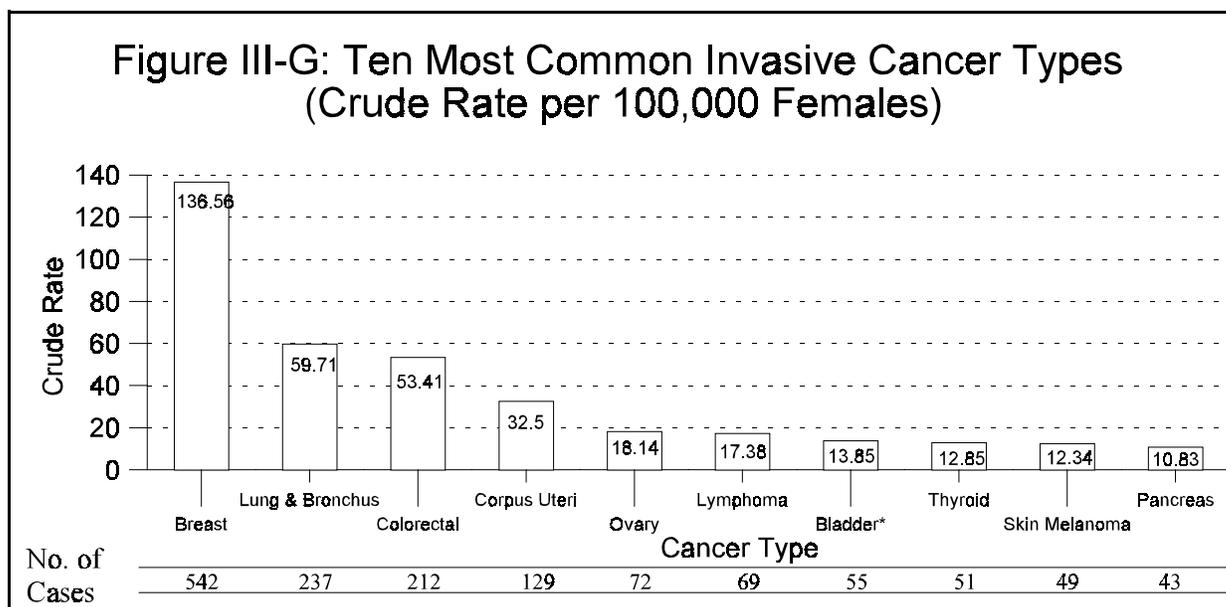
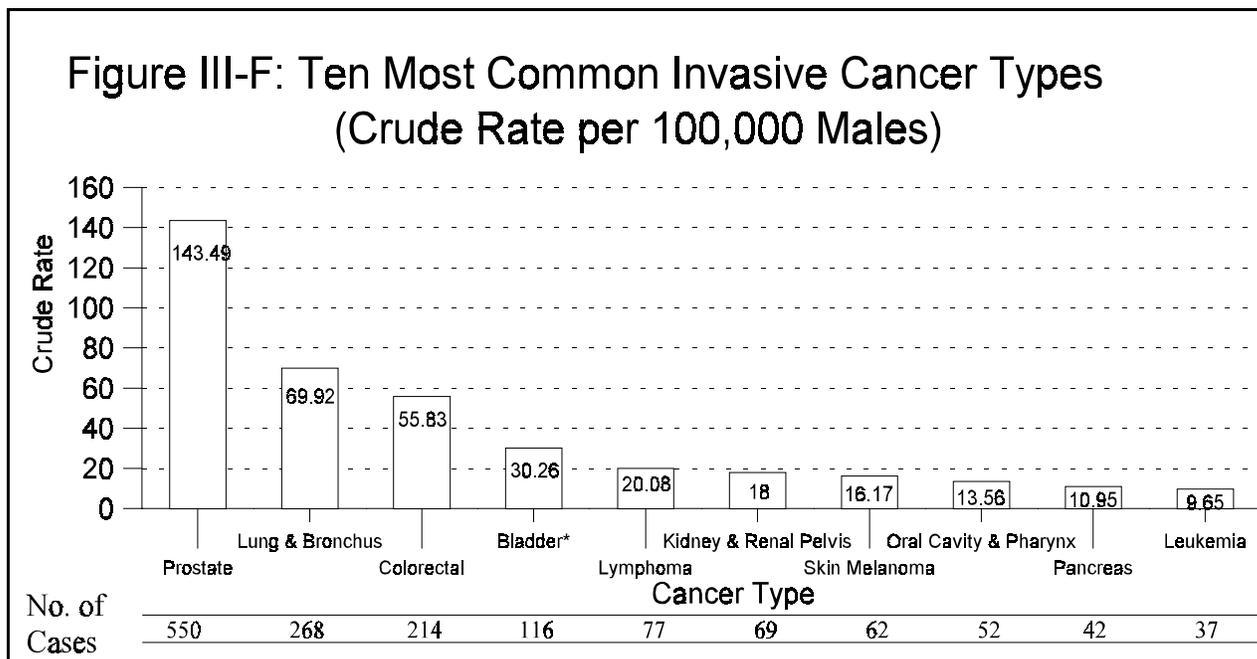


Figure III-E: Case Distribution by Invasive Cancer Type

* Bladder cases include 43 in situ cases.

CANCER IN PIMA COUNTY: 1997



* Bladder cases include 29 male in situ cases and 14 female in situ cases.

Pima County
Table III-B. 1997 Age-Adjusted Incidence Rates
Primary Site by Sex

PRIMARY SITE	SEX		
	MALE	FEMALE	TOTAL
All Sites	397.29	320.92	352.88
Oral Cavity & Pharynx:	12.38	5.65	8.79
Lip	-	-	-
Tongue	4.73	-	2.86
Salivary gland	-	-	0.95
Floor of Mouth	-	-	-
Gum & other oral cavity	-	-	1.51
Nasopharynx	-	-	-
Tonsil	-	-	-
Oropharynx	-	-	-
Hypopharynx	-	-	-
Other oral cavity & pharynx	-	-	-
Digestive System:	78.60	51.64	63.68
Esophagus	7.37	-	3.83
Stomach	8.14	4.51	6.15
Small Intestine	-	-	-
Colon & Rectum	44.86	34.69	39.23
Colon	32.74	25.36	28.64
Rectum	12.13	9.33	10.59
Anus, anal canal & anorectum	-	-	-
Liver & Intrahepatic bile duct	4.36	-	2.38
Liver	3.71	-	1.92
Intrahepatic bile duct	-	-	-
Gallbladder	-	-	0.78
Other biliary	-	1.58	1.36
Pancreas	8.89	7.11	7.92
Retroperitoneum & peritoneum	-	-	-
Other digestive system	-	-	-

Rates are per 100,000 persons and are adjusted to the 1970 U.S. population. 12 "Other primary site" cases included only in the "All Sites" category in this table. "All Sites" does not include Bladder in situ cases.

- = Insufficient cases for an adjusted rate calculation. Invasive cancer cases only.

Pima County
Table III-B. 1997 Age-Adjusted Incidence Rates (continued)
Primary Site by Sex

PRIMARY SITE	SEX		
	MALE	FEMALE	TOTAL
Respiratory System:	64.17	40.82	50.98
Nose, nasal cavity & middle ear	-	-	-
Larynx	4.22	-	2.24
Lung & bronchus	57.68	39.49	47.34
Pleura	-	-	-
Trachea & other respiratory organs	-	-	-
Bone & joints	-	-	-
Soft tissue (including heart)	2.13	-	1.45
Skin (excluding basal & squamous):	14.77	10.34	12.15
Melanomas of the skin	13.51	9.93	11.33
Other non-epithelial skin	-	-	0.82
Breast	-	102.19	56.44
Female Genital System:	NA	46.97	NA
Cervix uteri	NA	6.98	NA
Corpus uteri	NA	23.29	NA
Uterus, NOS	NA	-	NA
Ovary	NA	12.92	NA
Vagina	NA	-	NA
Vulva	NA	1.65	NA
Other female genital system	NA	-	NA
Male Genital System:	130.58	NA	NA
Prostate	124.39	NA	NA
Testis	5.79	NA	NA
Penis	-	NA	NA
Other male genital system	-	NA	NA

Rates are per 100,000 persons and are adjusted to the 1970 U.S. population.. - = Insufficient cases for an adjusted rate calculation. Invasive cancer cases only. NA = not applicable.

Pima County
Table III-B. 1997 Age-Adjusted Incidence Rates (continued)
Primary Site by Sex

PRIMARY SITE	SEX		
	MALE	FEMALE	TOTAL
Urinary System*:	40.17	15.25	26.19
Urinary bladder *	24.67	8.91	15.78
Kidney & renal pelvis	14.99	5.93	9.95
Ureter	-	-	-
Other urinary system	-	-	-
Eye & Orbit	-	-	1.41
Brain & Nervous System:	6.52	4.96	5.65
Brain	6.33	3.61	4.88
Cranial nerves & other nervous system	-	-	-
Endocrine System:	2.88	10.69	6.89
Thyroid	2.88	10.02	6.53
Other endocrine & thymus	-	-	-
Lymphomas:	17.21	12.91	14.87
Hodgkin's disease	-	-	2.18
Non-Hodgkin's lymphomas	15.27	10.36	12.69
Multiple Myeloma	4.74	4.09	4.36
Leukemias:	8.41	5.02	6.53
Lymphocytic	2.61	1.87	2.25
Myeloid	3.51	2.48	2.87
Monocytic	-	-	-
Other	2.29	-	1.41
Ill-defined & unspecified	15.02	8.05	11.24

Rates are per 100,000 persons and are adjusted to the 1970 U.S. population. -- = Insufficient cases for an adjusted rate calculation. Invasive cancer cases only. NA = not applicable. * = Includes invasive and in situ Bladder cases.

Pima County
Table III-C. 1997 Age-Adjusted Incidence Rates
Primary Site by Ethnicity

PRIMARY SITE	ETHNICITY		
	NON-HISPANIC	HISPANIC	TOTAL
All Sites	414.19	220.46	352.88
Oral Cavity & Pharynx:	10.25	-	8.79
Lip	-	-	-
Tongue	3.01	-	2.86
Salivary gland	1.28	-	0.95
Floor of Mouth	-	-	-
Gum & other oral cavity	1.79	-	1.51
Nasopharynx	-	-	-
Tonsil	-	-	-
Oropharynx	-	-	-
Hypopharynx	-	-	-
Other oral cavity & pharynx	-	-	-
Digestive System:	72.98	50.29	63.68
Esophagus	4.39	-	3.83
Stomach	6.80	7.08	6.15
Small Intestine	-	-	-
Colon & Rectum	45.66	25.94	39.23
Colon	33.60	18.40	28.64
Rectum	12.05	7.54	10.59
Anus, anal canal & anorectum	-	-	-
Liver & Intrahepatic bile duct	2.36	-	2.38
Liver	1.88	-	1.92
Intrahepatic bile duct	-	-	-
Gallbladder	1.02	-	0.78
Other biliary	1.51	-	1.36
Pancreas	8.78	8.36	7.92
Retroperitoneum & peritoneum	-	-	-
Other digestive system	-	-	-

Rates are per 100,000 persons and are adjusted to the 1970 U.S. population. 12 "Other primary site" cases included only in the "All Sites" category in this table. "All Sites" does not include Bladder in situ cases. -- = Insufficient cases for an adjusted rate calculation. Invasive cancer cases only.

Pima County
Table III-C. 1997 Age-Adjusted Incidence Rates (continued)
Primary Site by Ethnicity

PRIMARY SITE	ETHNICITY		
	NON-HISPANIC	HISPANIC	TOTAL
Respiratory System:	61.11	27.27	50.98
Nose, nasal cavity & middle ear	-	-	-
Larynx	2.89	-	2.24
Lung & bronchus	56.40	27.27	47.34
Pleura	-	-	-
Trachea & other respiratory organs	-	-	-
Bone & joints	-	-	-
Soft tissue (including heart)	1.79	-	1.45
Skin (excluding basal & squamous):	15.23	-	12.15
Melanomas of the skin	14.46	-	11.33
Other non-epithelial skin	-	-	0.82
Breast	66.23	31.81	56.44
Breast (female)	121.11	57.45	102.19
Female Genital System:	53.94	33.26	46.97
Cervix uteri	6.70	10.87	6.98
Corpus uteri	27.35	14.77	23.29
Uterus, NOS	-	-	-
Ovary	15.47	-	12.92
Vagina	-	-	-
Vulva	-	-	1.65
Other female genital system	-	-	-
Male Genital System:	149.55	84.42	130.58
Prostate	141.22	82.67	124.39
Testis	7.83	-	5.79
Penis	-	-	-
Other male genital system	-	-	-

Rates are per 100,000 persons and are adjusted to the 1970 U.S. population. -- = Insufficient cases for an adjusted rate calculation. Invasive cancer cases only.

Pima County
Table III-C. 1997 Age-Adjusted Incidence Rates (continued)
Primary Site by Ethnicity

PRIMARY SITE	ETHNICITY		
	NON-HISPANIC	HISPANIC	TOTAL
Urinary System*:	31.11	13.73	26.19
Urinary bladder *	19.43	-	15.78
Kidney & renal pelvis	11.09	9.04	9.95
Ureter	-	-	-
Other urinary system	-	-	-
Eye & Orbit	1.83	-	1.41
Brain & Nervous System:	7.22	-	5.65
Brain	6.22	-	4.88
Cranial nerves & other nervous system	-	-	-
Endocrine System:	8.52	-	6.89
Thyroid	7.99	-	6.53
Other endocrine & thymus	-	-	-
Lymphomas:	17.89	2.42	14.87
Hodgkin's disease	2.93	-	2.18
Non-Hodgkin's lymphomas	14.96	2.11	12.69
Multiple Myeloma	4.83	-	4.36
Leukemias:	7.33	1.44	6.53
Lymphocytic	2.61	-	2.25
Myeloid	3.07	-	2.87
Monocytic	-	-	-
Other	1.64	-	1.41
Ill-defined & unspecified	12.68	1.91	11.24

Rates are per 100,000 persons and are adjusted to the 1970 U.S. population. -- = Insufficient cases for an adjusted rate calculation. Invasive cancer cases only. * = Includes invasive and in situ Bladder cases.

Pima County
Table III-D. 1997 Age-Specific Incidence Rates, All Sites
Age Group by Sex

AGE GROUP	SEX		TOTAL
	MALE	FEMALE	
0 - 9 Years	19.00	14.30	16.69
10 - 19 Years	18.43	13.40	15.96
20 - 29 Years	28.67	40.25	34.31
30 - 39 Years	78.92	140.18	108.96
40 - 49 Years	159.54	294.90	228.90
50 - 59 Years	644.42	650.61	647.69
60 - 69 Years	1844.40	1169.76	1474.38
70 - 79 Years	2388.30	1516.23	1895.76
80+ Years	2294.97	1834.28	2008.58
Total	462.21	440.51	451.10

Rates are per 100,000 persons. Invasive cancer cases only. Not included are 4 cases with an unknown age group.

Pima County
Table III-E. 1997 Age-Specific Incidence Rates, All Sites
Age Group by Ethnicity

AGE GROUP	ETHNICITY		TOTAL
	NON-HISPANIC	HISPANIC	
0 - 9 Years	21.02	8.39	16.69
10 - 19 Years	22.56	2.49	15.96
20 - 29 Years	48.40	21.97	34.31
30 - 39 Years	121.34	68.54	108.96
40 - 49 Years	266.15	152.79	228.90
50 - 59 Years	692.84	403.80	647.69
60 - 69 Years	1676.20	794.32	1474.38
70 - 79 Years	2404.76	1209.96	1895.76
80+ Years	2484.93	1566.30	2008.58
Total	586.55	156.83	451.10

Rates are per 100,000 persons. Invasive cancer cases only. Not included are 4 cases with an unknown age group.

Pima County
Table III-F. 1997 Age-Adjusted Incidence Rates, All Sites
Sex by Race

SEX	RACE			TOTAL
	WHITE	BLACK	*OTHER	
Male	392.15	346.64	295.95	397.29
Female	320.05	258.00	252.82	320.92
Total	350.15	291.83	269.53	352.88

Rates are per 100,000 persons and are adjusted to the 1970 U.S. population. Invasive cancer cases only.

Included in the "TOTAL" category only are 71 cases with an unknown race. * Other race includes Native American, Chinese, Japanese, Filipino, Korean, Asian Indian, Vietnamese, Thai, Micronesian, Guamanian, Polynesian, Tahitian, New Guinean, Other Asian, and Other.

PART IV

CANCER INCIDENCE IN
ARIZONA RURAL
COUNTIES
1997

CANCER IN RURAL COUNTIES: 1997

Figure IV-A: Invasive Cancer Case Percent Distribution By Age* (All Sites)

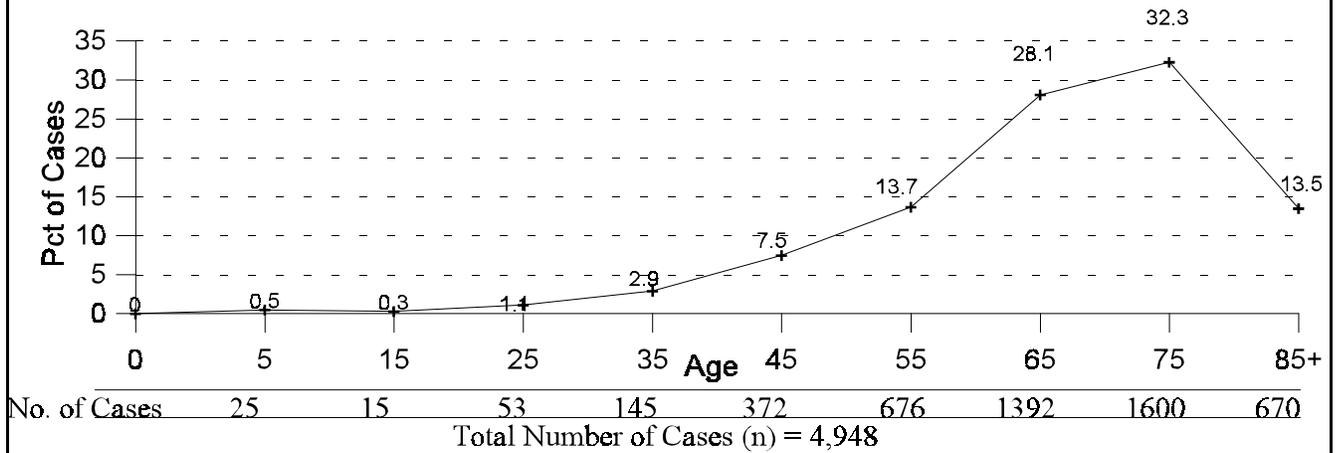
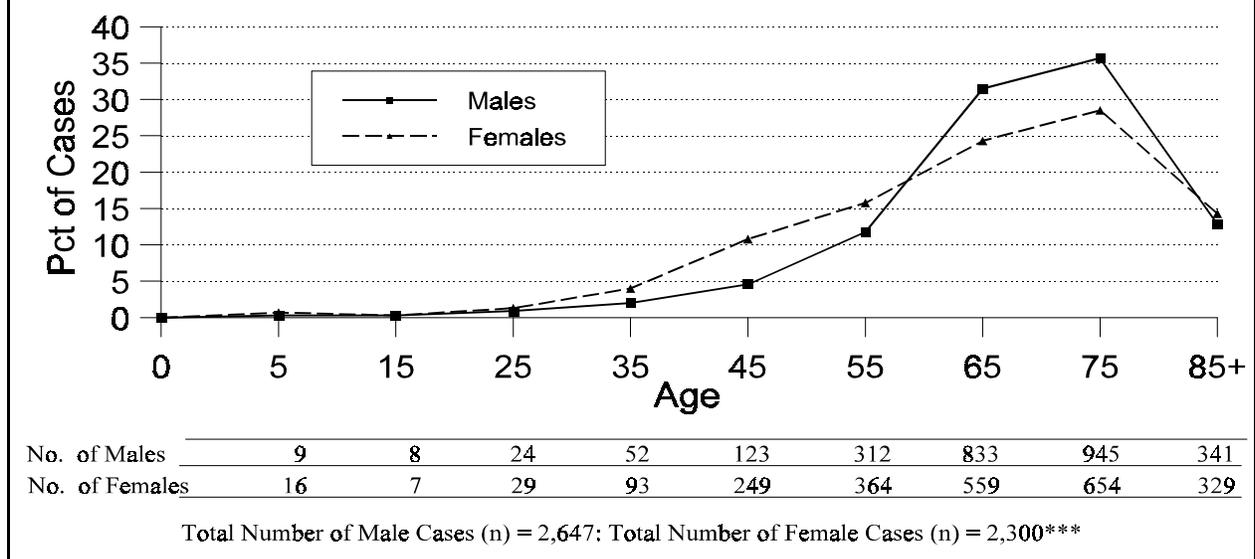


Figure IV-B: Invasive Cancer Case Percent Distribution By Age and Sex (All Sites)**



Rural counties includes: Apache, Cochise, Coconino, Gila, Graham, Greenlee, Mohave, Navajo, Pinal, Santa Cruz, Yavapai, Yuma, and La Paz

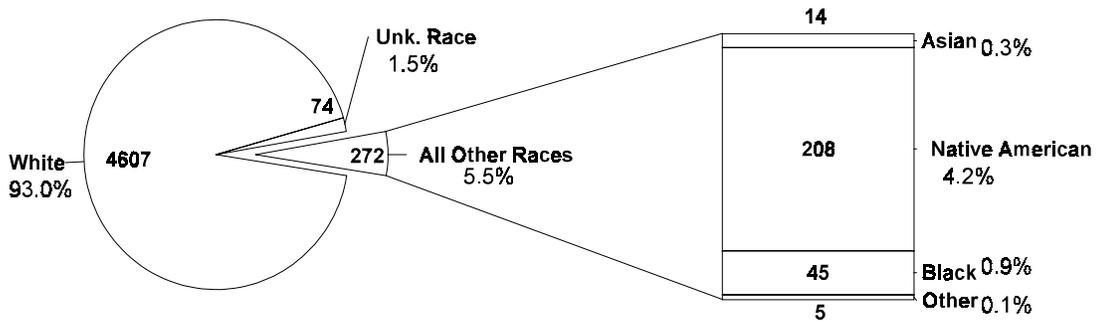
* Distribution by age at diagnosis excludes 5 cases with an unknown age at diagnosis.

** Distribution by age and sex at diagnosis excludes 5 cases with an unknown age and one case of unknown sex at diagnosis.

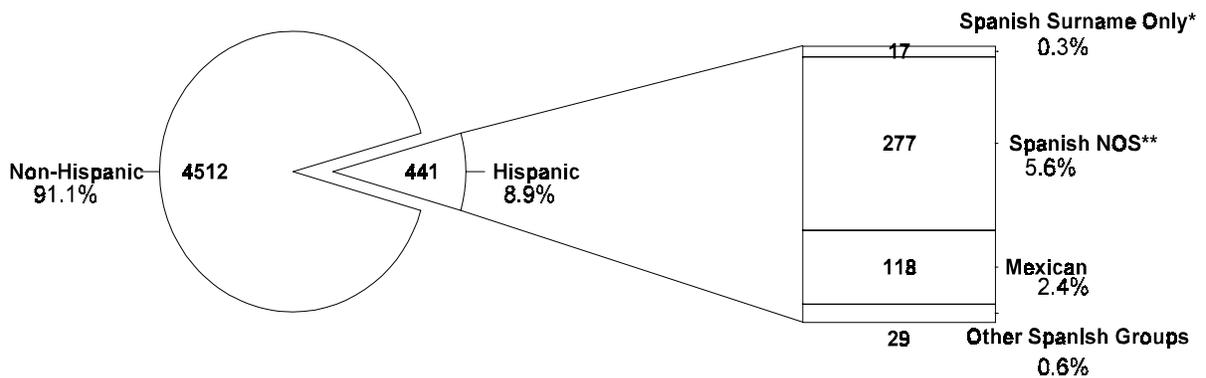
*** Male percentages are the percent of all male cases, and female percentages are the percent of all female cases.

CANCER IN RURAL COUNTIES: 1997

**Figure IV-C: Race Distribution of Invasive Cancer Cases
(All Sites)**



**Figure IV-D: Ethnic Distribution of Invasive Cancer Cases
(All Sites)**



Rural counties includes: Apache, Cochise, Coconino, Gila, Graham, Greenlee, Mohave, Navajo, Pinal, Santa Cruz, Yavapai, Yuma, and La Paz. *

Spanish Surname Only: Ethnicity derived from Spanish last name with the use of a computer program.

** Spanish NOS: Spanish, not otherwise specified.

Arizona Rural Counties
Table IV-A. 1997 Frequency of Invasive Cancer Cases
Primary Site by Sex

PRIMARY SITE	SEX		
	MALE	FEMALE	TOTAL
All Sites	2652	2300	4953
Oral Cavity & Pharynx:	86	24	110
Lip	10	1	11
Tongue	18	6	24
Salivary gland	10	1	11
Floor of Mouth	6	4	10
Gum & other oral cavity	9	4	13
Nasopharynx	5	0	5
Tonsil	4	3	7
Oropharynx	10	1	11
Hypopharynx	9	3	12
Other oral cavity & pharynx	5	1	6
Digestive System:	509	434	943
Esophagus	45	15	60
Stomach	59	25	84
Small Intestine	7	7	14
Colon & Rectum	278	273	551
Colon	183	198	381
Rectum	95	75	170
Anus, anal canal & anorectum	7	5	12
Liver & Intrahepatic bile duct	37	22	59
Liver	32	18	50
Intrahepatic bile duct	5	4	9
Gallbladder	6	12	18
Other biliary	10	8	18
Pancreas	57	55	112
Retroperitoneum & peritoneum	3	8	11
Other digestive system	0	4	4

Rural counties includes: Apache, Cochise, Coconino, Gila, Graham, Greenlee, Mohave, Navajo, Pinal, Santa Cruz, Yavapai, Yuma, and La Paz. Included only in the "All Sites" category are 19 "Other primary site" cases. "All Sites" does not include Bladder in situ cases. One "other sex" case is included in the "Total" category.

Arizona Rural Counties
Table IV-A. 1997 Frequency of Invasive Cancer Cases (continued)
Primary Site by Sex

PRIMARY SITE	SEX		
	MALE	FEMALE	TOTAL
Respiratory System:	499	336	835
Nose, nasal cavity & middle ear	2	3	5
Larynx	35	10	45
Lung & bronchus	451	321	772
Pleura	9	1	10
Trachea & other respiratory organs	2	1	3
Bone & joints	7	2	9
Soft tissue (including heart)	19	16	35
Skin (excluding basal & squamous):	105	57	162
Melanomas of the skin	97	52	149
Other non-epithelial skin	8	5	13
Breast	7	693	700
Female Genital System:	NA	290	290
Cervix uteri	NA	51	51
Corpus uteri	NA	112	112
Uterus, NOS	NA	3	3
Ovary	NA	104	104
Vagina	NA	2	2
Vulva	NA	15	15
Other female genital system	NA	3	3
Male Genital System:	804	NA	804
Prostate	766	NA	766
Testis	30	NA	30
Penis	8	NA	8
Other male genital system	0	NA	0

Rural counties includes: Apache, Cochise, Coconino, Gila, Graham, Greenlee, Mohave, Navajo, Pinal, Santa Cruz, Yavapai, Yuma, and La Paz.

Arizona Rural Counties
Table IV-A. 1997 Frequency of Invasive Cancer Cases (continued)
Primary Site by Sex

PRIMARY SITE	SEX		
	MALE	FEMALE	TOTAL
Urinary System*:	295	114	409
Urinary bladder *	217	64	281
Kidney & renal pelvis	70	47	117
Ureter	7	2	9
Other urinary system	1	1	2
Eye & Orbit	3	8	11
Brain & Nervous System:	34	43	77
Brain	30	41	71
Cranial nerves & other nervous system	4	2	6
Endocrine System:	21	51	72
Thyroid	18	50	68
Other endocrine & thymus	3	1	4
Lymphomas:	113	91	204
Hodgkin's disease	11	8	19
Non-Hodgkin's lymphomas	102	83	185
Multiple Myeloma	39	27	66
Leukemias:	59	48	107
Lymphocytic	27	20	47
Myeloid	23	19	42
Monocytic	0	0	0
Other	9	9	18
Ill-defined & unspecified	96	64	160

Rural counties includes: Apache, Cochise, Coconino, Gila, Graham, Greenlee, Mohave, Navajo, Pinal, Santa Cruz, Yavapai, Yuma, and La Paz. * = Includes invasive and in situ Bladder cases.

CANCER IN RURAL COUNTIES: 1997

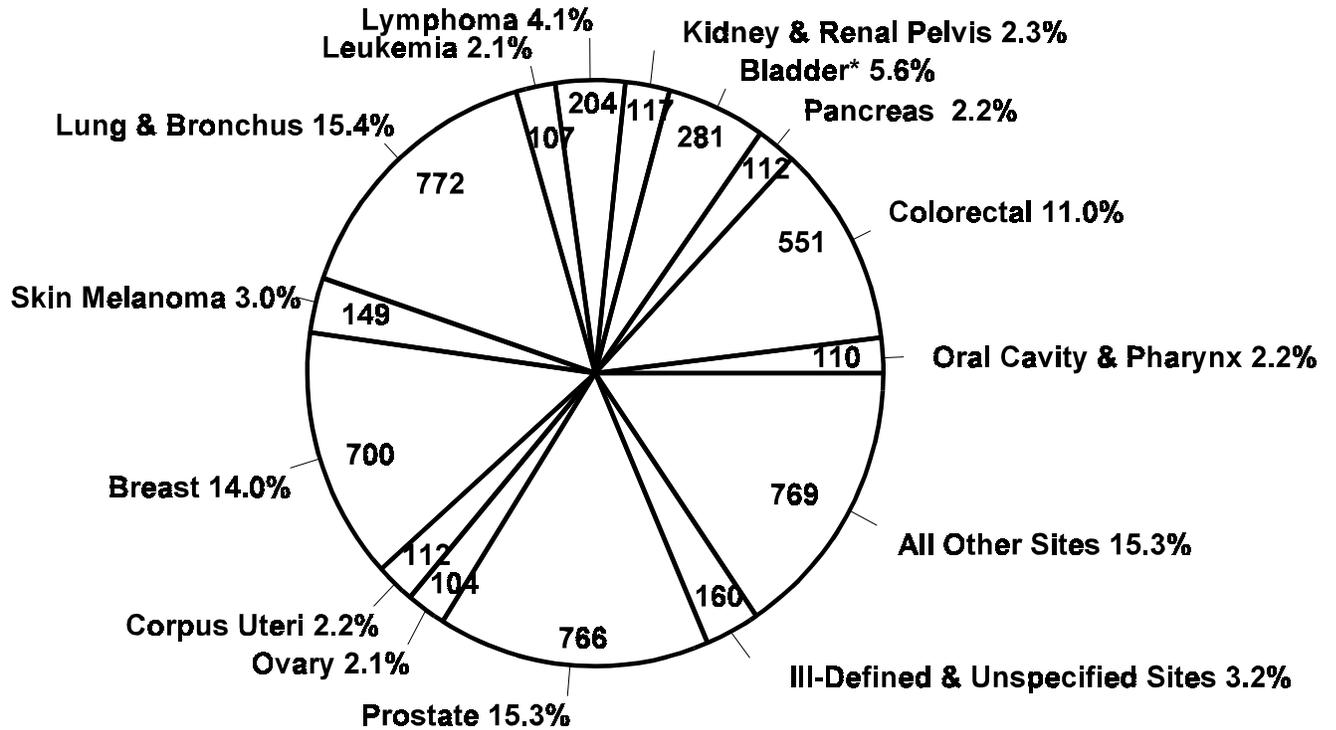
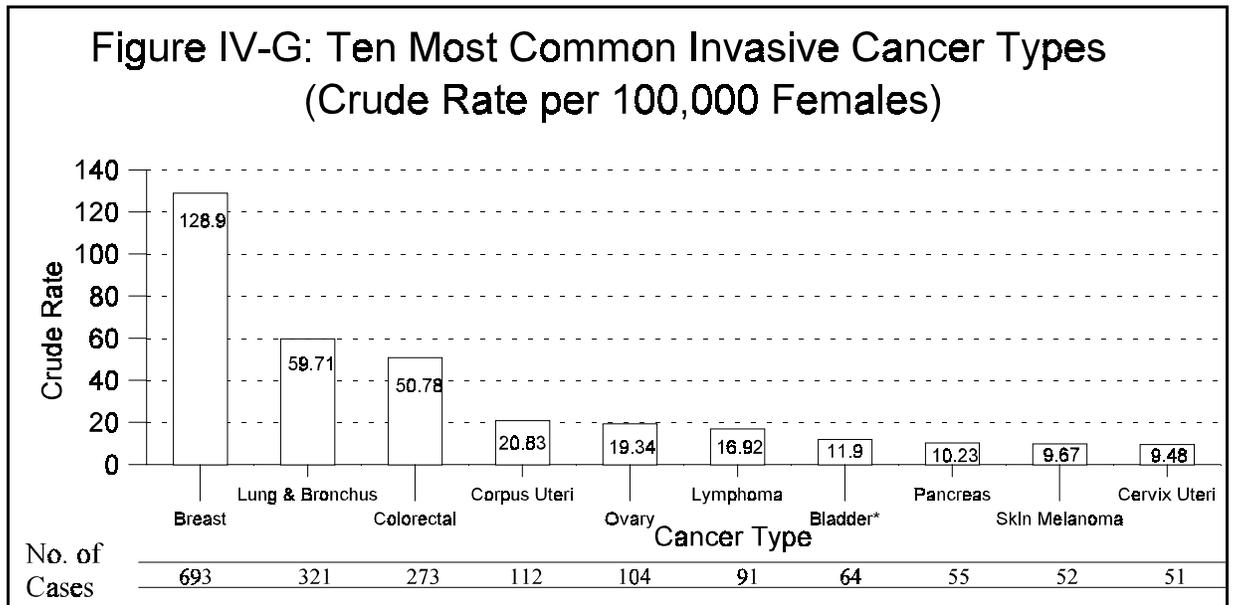
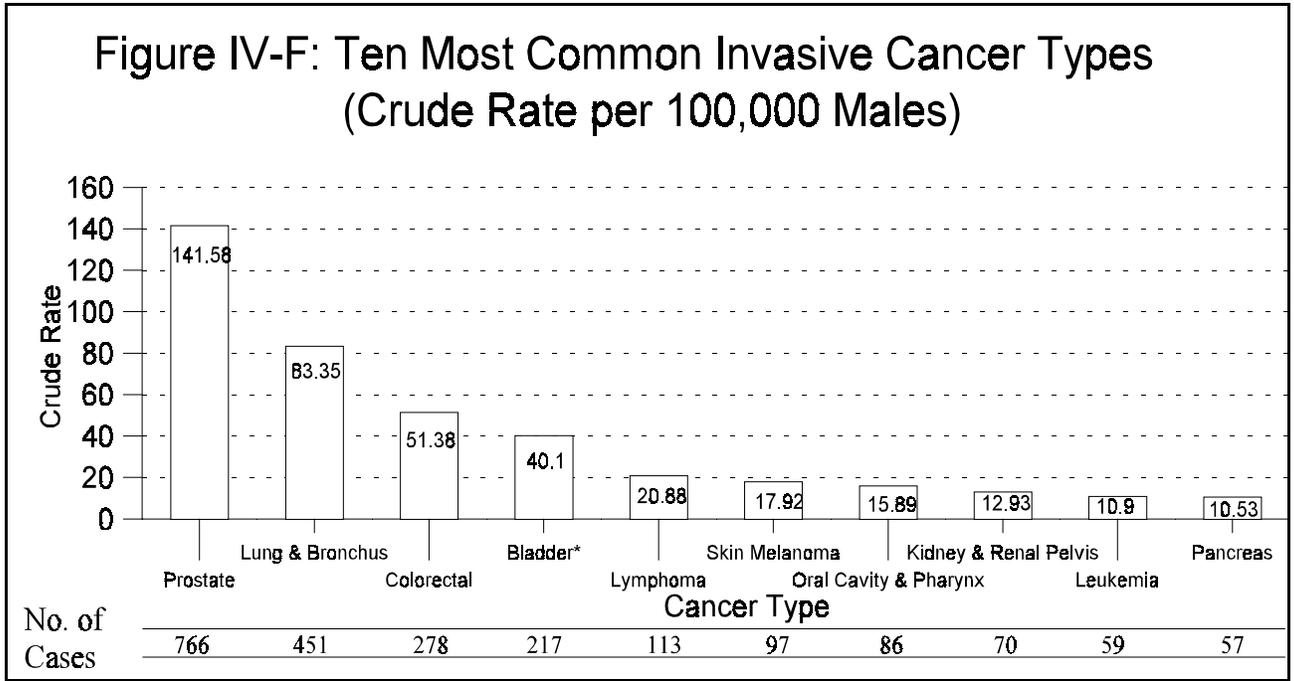


Figure IV-E: Case Distribution by Invasive Cancer Type

Rural counties includes: Apache, Cochise, Coconino, Gila, Graham, Greenlee, Mohave, Navajo, Pinal, Santa Cruz, Yavapai, Yuma, and La Paz.

* Bladder cases include 61 total in situ cases

CANCER IN RURAL COUNTIES: 1997



Rural counties includes: Apache, Cochise, Coconino, Gila, Graham, Greenlee, Mohave, Navajo, Pinal, Santa Cruz, Yavapai, Yuma, and La Paz.

* Bladder cases include 50 male in situ cases and 11 female in situ cases.

Arizona Rural Counties
Table IV-B. 1997 Age-Adjusted Incidence Rates
Primary Site by Sex

PRIMARY SITE	SEX		
	MALE	FEMALE	TOTAL
All Sites	381.17	323.34	350.13
Oral Cavity & Pharynx:	13.85	3.85	8.70
Lip	1.62	-	0.89
Tongue	3.31	-	2.05
Salivary gland	1.49	-	0.78
Floor of Mouth	-	-	0.76
Gum & other oral cavity	-	-	1.05
Nasopharynx	-	-	-
Tonsil	-	-	-
Oropharynx	1.71	-	0.90
Hypopharynx	-	-	0.88
Other oral cavity & pharynx	-	-	-
Digestive System:	72.36	54.97	63.26
Esophagus	6.49	1.77	4.02
Stomach	8.39	3.31	5.73
Small Intestine	-	-	0.99
Colon & Rectum	39.14	34.42	36.67
Colon	24.77	24.57	24.65
Rectum	14.38	9.86	12.03
Anus, anal canal & anorectum	-	-	0.81
Liver & Intrahepatic bile duct	5.49	2.81	4.08
Liver	4.82	2.32	3.51
Intrahepatic bile duct	-	-	-
Gallbladder	-	1.38	1.08
Other biliary	1.23	-	1.14
Pancreas	8.35	7.01	7.67
Retroperitoneum & peritoneum	-	-	0.85
Other digestive system	-	-	-

Rates are per 100,000 persons and are adjusted to the 1970 U.S. population. Included only in the "All Sites" category are 19 "Other primary site" cases. "All Sites" does not include Bladder in situ cases. - = Insufficient cases for an adjusted rate calculation. Invasive cancer cases only. One "other sex" case is included only in the "Total" category. Rural counties includes: Apache, Cochise, Coconino, Gila, Graham, Greenlee, Mohave, Navajo, Pinal, Santa Cruz, Yavapai, Yuma, and La Paz.

Arizona Rural Counties
Table IV-B. 1997 Age-Adjusted Incidence Rates (continued)
Primary Site by Sex

PRIMARY SITE	SEX		
	MALE	FEMALE	TOTAL
Respiratory System:	69.91	44.79	56.78
Nose, nasal cavity & middle ear	-	-	-
Larynx	5.15	1.59	3.30
Lung & bronchus	62.60	42.48	52.07
Pleura	-	-	0.68
Trachea & other respiratory organs	-	-	-
Bone & joints	-	-	-
Soft tissue (including heart)	2.73	2.57	2.62
Skin (excluding basal & squamous):	16.81	8.52	12.50
Melanomas of the skin	15.49	7.82	11.48
Other non-epithelial skin	-	-	1.02
Breast	-	100.49	52.39
Female Genital System:	NA	43.92	NA
Cervix uteri	NA	8.41	NA
Corpus uteri	NA	16.04	NA
Uterus, NOS	NA	-	NA
Ovary	NA	16.08	NA
Vagina	NA	-	NA
Vulva	NA	2.17	NA
Other female genital system	NA	-	NA
Male Genital System:	113.29	NA	NA
Prostate	106.85	NA	NA
Testis	5.21	NA	NA
Penis	-	NA	NA
Other male genital system	-	NA	NA

Rates are per 100,000 persons and are adjusted to the 1970 U.S. population. -- = Insufficient cases for an adjusted rate calculation. Invasive cancer cases only. Rural counties includes: Apache, Cochise, Coconino, Gila, Graham, Greenlee, Mohave, Navajo, Pinal, Santa Cruz, Yavapai, Yuma, and La Paz. NA = not applicable.

Arizona Rural Counties
Table IV-B. 1997 Age-Adjusted Incidence Rates (continued)
Primary Site by Sex

PRIMARY SITE	SEX		
	MALE	FEMALE	TOTAL
Urinary System*:	41.68	15.38	28.02
Urinary bladder *	29.94	8.38	18.68
Kidney & renal pelvis	10.66	6.60	8.60
Ureter	-	-	-
Other urinary system	-	-	-
Eye & Orbit	-	-	0.86
Brain & Nervous System:	5.41	5.77	5.60
Brain	4.64	5.43	5.05
Cranial nerves & other nervous system	-	-	-
Endocrine System:	3.36	8.41	5.84
Thyroid	2.86	8.21	5.49
Other endocrine & thymus	-	-	-
Lymphomas:	16.92	12.76	14.80
Hodgkin's disease	1.84	-	1.64
Non-Hodgkin's lymphomas	15.08	11.27	13.15
Multiple Myeloma	5.61	3.47	4.51
Leukemias:	8.41	7.06	7.70
Lymphocytic	3.92	3.17	3.52
Myeloid	3.46	2.76	3.10
Monocytic	-	-	-
Other	-	-	1.08
Ill-defined & unspecified	14.01	8.62	11.21

Rates are per 100,000 persons and are adjusted to the 1970 U.S. population. -- = Insufficient cases for an adjusted rate calculation. Invasive cancer cases only. Rural counties includes: Apache, Cochise, Coconino, Gila, Graham, Greenlee, Mohave, Navajo, Pinal, Santa Cruz, Yavapai, Yuma, and La Paz.

* = Includes invasive and in situ Bladder cases.

Arizona Rural Counties
Table IV-C. 1997 Age-Adjusted Incidence Rates
Primary Site by Ethnicity

PRIMARY SITE	ETHNICITY		
	NON-HISPANIC	HISPANIC	TOTAL
All Sites	390.00	227.69	350.13
Oral Cavity & Pharynx:	9.40	6.27	8.70
Lip	1.07	-	0.89
Tongue	2.30	-	2.05
Salivary gland	0.87	-	0.78
Floor of Mouth	-	-	0.76
Gum & other oral cavity	1.20	-	1.05
Nasopharynx	-	-	-
Tonsil	-	-	-
Oropharynx	-	-	0.90
Hypopharynx	0.88	-	0.88
Other oral cavity & pharynx	-	-	-
Digestive System:	69.94	49.80	63.26
Esophagus	4.29	-	4.02
Stomach	5.87	7.69	5.73
Small Intestine	1.22	-	0.99
Colon & Rectum	41.60	22.59	36.67
Colon	27.96	16.40	24.65
Rectum	13.64	6.20	12.03
Anus, anal canal & anorectum	1.00	-	0.81
Liver & Intrahepatic bile duct	4.30	-	4.08
Liver	3.58	-	3.51
Intrahepatic bile duct	-	-	-
Gallbladder	1.28	-	1.08
Other biliary	1.26	-	1.14
Pancreas	8.21	6.68	7.67
Retroperitoneum & peritoneum	-	-	0.85
Other digestive system	-	-	-

Rates are per 100,000 persons and are adjusted to the 1970 U.S. population. Included only in the "All Sites" category are 19 "Other primary site" cases. "All Sites" does not include Bladder in situ cases.-- = Insufficient cases for an adjusted rate calculation. Invasive cancer cases only. Rural counties includes: Apache, Cochise, Coconino, Gila, Graham, Greenlee, Mohave, Navajo, Pinal, Santa Cruz, Yavapai, Yuma, and La Paz.

Arizona Rural Counties
Table IV-C. 1997 Age-Adjusted Incidence Rates (continued)
Primary Site by Ethnicity

PRIMARY SITE	ETHNICITY		
	NON-HISPANIC	HISPANIC	TOTAL
Respiratory System:	64.99	29.36	56.78
Nose, nasal cavity & middle ear	-	-	-
Larynx	3.75	-	3.30
Lung & bronchus	60.20	24.48	52.07
Pleura	-	-	0.68
Trachea & other respiratory organs	-	-	-
Bone & joints	-	-	-
Soft tissue (including heart)	2.87	-	2.62
Skin (excluding basal & squamous):	14.71	-	12.50
Melanomas of the skin	13.52	-	11.48
Other non-epithelial skin	1.19	-	1.02
Breast	57.83	30.64	52.39
Breast (female)	110.73	59.52	100.49
Female Genital System:	47.38	30.00	43.92
Cervix uteri	6.69	16.05	8.41
Corpus uteri	18.89	-	16.04
Uterus, NOS	-	-	-
Ovary	17.93	-	16.08
Vagina	-	-	-
Vulva	2.45	-	2.17
Other female genital system	-	-	-
Male Genital System:	127.35	78.11	113.29
Prostate	119.76	75.01	106.85
Testis	6.10	-	5.21
Penis	-	-	-
Other male genital system	-	-	-

Rates are per 100,000 persons and are adjusted to the 1970 U.S. population. -- = Insufficient cases for an adjusted rate calculation. Invasive cancer cases only. Rural counties includes: Apache, Cochise, Coconino, Gila, Graham, Greenlee, Mohave, Navajo, Pinal, Santa Cruz, Yavapai, Yuma, and La Paz.

Arizona Rural Counties
Table IV-C. 1997 Age-Adjusted Incidence Rates (continued)
Primary Site by Ethnicity

PRIMARY SITE	ETHNICITY		
	NON-HISPANIC	HISPANIC	TOTAL
Urinary System*:	31.84	15.34	28.02
Urinary bladder *	21.82	8.00	18.68
Kidney & renal pelvis	9.18	6.83	8.60
Ureter	-	-	-
Other urinary system	-	-	-
Eye & Orbit	-	-	0.86
Brain & Nervous System:	6.03	-	5.60
Brain	5.60	-	5.05
Cranial nerves & other nervous system	-	-	-
Endocrine System:	6.43	-	5.84
Thyroid	6.10	-	5.49
Other endocrine & thymus	-	-	-
Lymphomas:	16.64	1.70	14.80
Hodgkin's disease	1.88	-	1.64
Non-Hodgkin's lymphomas	14.77	1.51	13.15
Multiple Myeloma	4.69	0.85	4.51
Leukemias:	8.02	1.77	7.70
Lymphocytic	3.30	1.22	3.52
Myeloid	3.37	-	3.10
Monocytic	-	-	-
Other	1.35	-	1.08
Ill-defined & unspecified	12.84	0.87	11.21

Rates are per 100,000 persons and are adjusted to the 1970 U.S. population. -- = Insufficient cases for an adjusted rate calculation. Invasive cancer cases only. Rural counties includes: Apache, Cochise, Coconino, Gila, Graham, Greenlee, Mohave, Navajo, Pinal, Santa Cruz, Yavapai, Yuma, and La Paz. * = Includes invasive and in situ Bladder cases.

Arizona Rural Counties
Table IV-D. 1997 Age-Specific Incidence Rates, All Sites
Age Group by Sex

AGE GROUP	SEX		
	MALE	FEMALE	TOTAL
0 - 9 Years	10.10	19.12	14.46
10 - 19 Years	9.31	8.77	9.05
20 - 29 Years	33.94	45.66	39.48
30 - 39 Years	72.26	131.69	101.70
40 - 49 Years	176.71	364.37	269.67
50 - 59 Years	629.31	678.04	654.65
60 - 69 Years	1757.35	1103.81	1419.77
70 - 79 Years	2338.88	1512.59	1912.94
80+ Years	2131.25	1652.93	1866.09
Total	489.50	393.75	460.60

Rates are per 100,000 persons. Invasive cancer cases only. Rural counties includes: Apache, Cochise, Coconino, Gila, Graham, Greenlee, Mohave, Navajo, Pinal, Santa Cruz, Yavapai, Yuma, and LaPaz. Not included are 5 cases with an unknown age group. One "other sex" case is included only in the "Total" category.

Arizona Rural Counties
Table IV-E. 1997 Age-Specific Incidence Rates, All Sites
Age Group by Ethnicity

AGE GROUP	ETHNICITY		
	NON-HISPANIC	HISPANIC	TOTAL
0 - 9 Years	10.13	22.47	14.46
10 - 19 Years	9.37	6.33	9.05
20 - 29 Years	53.56	18.84	39.48
30 - 39 Years	99.24	89.88	101.70
40 - 49 Years	280.28	203.20	269.67
50 - 59 Years	680.94	330.40	654.65
60 - 69 Years	1524.80	867.14	1419.77
70 - 79 Years	2271.98	1369.30	1912.94
80+ Years	2420.73	1187.01	1866.09
Total	540.62	180.04	460.63

Rates are per 100,000 persons. Invasive cancer cases only. Rural counties includes: Apache, Cochise, Coconino, Gila, Graham, Greenlee, Mohave, Navajo, Pinal, Santa Cruz, Yavapai, Yuma, and La Paz. Not included are 5 cases with an unknown age group.

Arizona Rural Counties
Table IV-F. 1997 Age-Adjusted Incidence Rates, All Sites
Sex by Race

SEX	RACE			TOTAL
	WHITE	BLACK	*OTHER	
Male	390.91	395.02	172.15	381.17
Female	339.43	209.64	172.09	323.34
Total	363.15	301.68	171.88	350.13

Rates are per 100,000 persons and are adjusted to the 1970 U.S. population. Invasive cancer cases only. Included only in the "TOTAL" category are 74 cases with an unknown race. One "other sex" case is included only in the "Total" category. * Other race includes Native American, Chinese, Japanese, Filipino, Korean, Asian Indian, Vietnamese, Other Asian and Other. Rural counties includes: Apache, Cochise, Coconino, Gila, Graham, Greenlee, Mohave, Navajo, Pinal, Santa Cruz, Yavapai, Yuma, and La Paz.

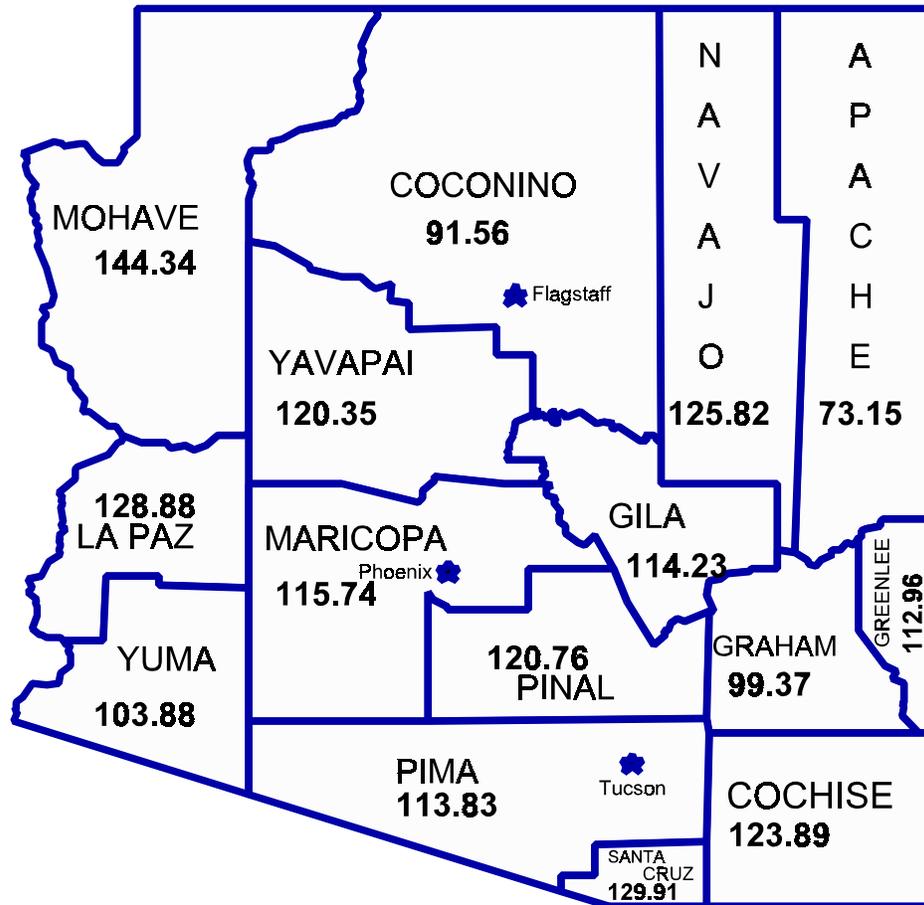
PART V

CANCER MORTALITY IN
ARIZONA
1997

CANCER MORTALITY IN ARIZONA

Figure V-A: Age Adjusted Rates by County

1997



Arizona Age-Adjusted Incidence Rate=116.5

Rates are per 100,000 and are adjusted to the 1940 US population

Arizona
Table V-A. 1997 Age-Adjusted Malignant Neoplasm Mortality Rates, All Causes
County of Residence by Sex

COUNTY	SEX		
	MALE	FEMALE	TOTAL
Apache	86.4	62.4	73.2
Cochise	137.0	112.6	123.9
Coconino	86.6	96.3	91.6
Gila	151.0	81.5	114.2
Graham	125.3	76.1	99.3
Greenlee	-	-	113.0
La Paz	102.1	161.2	128.9
Maricopa	132.0	103.0	115.7
Mohave	169.6	120.6	144.3
Navajo	160.0	95.9	125.8
Pima	138.1	95.2	113.8
Pinal	142.5	99.9	120.8
Santa Cruz	179.3	90.4	129.9
Yavapai	130.2	112.5	120.3
Yuma	116.5	92.1	103.9
Arizona	134.7	101.6	116.5

Rates are per 100,000 persons and are adjusted to the 1940 U.S. population. - = Insufficient cases for an adjusted rate calculation. Source: ADHS Office of Vital Records.

Arizona
Table V-B. 1997 Age-Adjusted Malignant Neoplasm Mortality Rates, All Causes
County of Residence by Race

COUNTY	RACE			TOTAL
	WHITE	BLACK	OTHER	
Maricopa	116.0	147.7	65.8	116.9
Pima	115.6	103.1	84.9	123.1
*All Other	122.0	114.4	76.5	124.5
Arizona	117.8	135.5	74.0	116.5

Rates are per 100,000 persons and are adjusted to the 1940 U.S. population. * Includes: Apache, Cochise, Coconino, Gila, Graham, Greenlee, La Paz, Mohave, Navajo, Pinal, Santa Cruz, Yavapai, and Yuma.
Source: ADHS Office of Vital Records.

Arizona
Table V-C. 1997 Age-Adjusted Malignant Neoplasm Mortality Rates, All Causes
County of Residence by Ethnicity

COUNTY	ETHNICITY		TOTAL
	NON-HISPANIC	HISPANIC	
Maricopa	119.6	84.1	116.9
Pima	130.9	84.1	123.1
*All Other	130.7	86.1	124.5
Arizona	124.7	85.5	116.5

Rates are per 100,000 persons and are adjusted to the 1940 U.S. population. * Includes: Apache, Cochise, Coconino, Gila, Graham, Greenlee, La Paz, Mohave, Navajo, Pinal, Santa Cruz, Yavapai, and Yuma. Unknown Included only in the "TOTAL" category are 21 cases with an unknown ethnicity.
Source: ADHS Office of Vital Records.

Arizona
Table V-D. 1997 Age-Specific Malignant Neoplasm Mortality Rates, All Causes
Age Group by Sex

AGE GROUP	SEX		
	MALE	FEMALE	TOTAL
0 - 19 Years	6.1	7.2	6.6
20 - 29 Years	8.7	5.4	7.1
30 - 39 Years	17.1	22.0	20.0
40 - 49 Years	60.4	69.4	64.9
50 - 59 Years	234.2	191.8	212.3
60 - 69 Years	612.5	456.2	529.6
70 - 79 Years	1183.0	737.8	939.2
80+ Years	1764.4	1149.1	1393.7
Total	196.6	170.2	183.4

Rates are per 100,000 persons. Source: ADHS Office of Vital Records.

Arizona
Table V-E. 1997 Age-Adjusted Malignant Neoplasm Mortality Rates
Cause of Death by Sex

CAUSE OF DEATH	SEX		
	MALE	FEMALE	TOTAL
Lung	43.2	25.2	32.2
Female Breast	NA	19.3	19.3
Prostate	14.2	NA	14.2
Colorectal	12.7	9.2	10.7
Pancreas	7.4	4.8	6.0
Lymphomas	6.9	4.5	5.7
Ovarian	NA	5.4	5.4
Leukemias	4.6	3.4	4.0
Brain	3.3	2.6	3.0
Stomach	3.9	2.1	3.0

Rates are per 100,000 persons and are adjusted to the 1940 U.S. population. NA= Not applicable.
Source: ADHS Office of Vital Records.

NOTES

APPENDIX

Appendix		
Primary Site based on ICD-O-2		
Primary site	Site/Type	Excluding Type
Buccal cavity and pharynx		
Lip	C000 : C009	M-9590 : 9989
Tongue	C019 : C029	M-9590 : 9989
Salivary glands	C079 : C089	M-9590 : 9989
Floor of Mouth	C040 : C049	M-9590 : 9989
Gum and other mouth	C030 : C039, C050 : C059, C060 : C069	M-9590 : 9989
Nasopharynx	C110 : C119	M-9590 : 9989
Tonsil	C090 : C099	M-9590 : 9989
Oropharynx	C100 : C109	M-9590 : 9989
Hypopharynx	C129, C130 : C139, C141	M-9590 : 9989
Other oral cavity and pharynx	C140, C142 : C148	M-9590 : 9989
Digestive System		
Esophagus	C150 : C159	M-9590 : 9989
Stomach	C160 : C169	M-9590 : 9989
Small Intestine	C170 : C179	M-9590 : 9989
Colon excluding rectum	C180 : C189, C260	M-9590 : 9989
Rectum and recto sigmoid	C199 : C209	M-9590 : 9989
Anus, anal canal and anorectum	C210 : C212, C218	M-9590 : 9989
Liver	C220	M-9590 : 9989
Intra hepatic bile duct	C221	M-9590 : 9989
Gall bladder	C239	M-9590 : 9989
Other biliary	C240 : C249	M-9590 : 9989
Pancreas	C250 : C259	M-9590 : 9989
Retro peritoneum	C480	M-9590 : 9989
Peritoneum, momentum and mesentery	C481 : C482	M-9590 : 9989
Other digestive organs	C268 : C269, C488	M-9590 : 9989
Respiratory system		
Nasal Cavity, middle ear and accessory sinuses	C300 : C301, C310 : C319	M-9590 : 9989

Appendix		
Primary Site based on ICD-O-2		
Primary site	Site/Type	Excluding Type
Larynx	C320 : C329	M-9590 : 9989
Lung and bronchus	C340 : C349	M-9590 : 9989
Pleura	C384	M-9590 : 9989
Trachea, mediastinum and other respiratory organs	C339, C381 : C383, C388, C390, C398, C399	M-9590 : 9989
Bones and joints	C400 : C419	M-9590 : 9989
Soft tissue (including heart)	C380, C470 : C479, C490 : C499	M-9590 : 9989
Skin (excluding basal and squamous)		
Melanomas - - - skin	C440 : C449 (types 872 : 879)	
Other non-epithelial skin	C440 : C449	M-8000 : 8004, M-8010 : 8012, M-8070 : 8076, M-8090 : 8096, M-8720 : 8790, M-9590 : 9989,
Breast	C500 : C509	M-9590 : 9989
Female genital system		
Cervix	C530 : C539	M-9590 : 9989
Corpus	C540 : C549	M-9590 : 9989
Uterus, NOS	C559	M-9590 : 9989
Ovary	C569	M-9590 : 9989
Vagina	C529	M-9590 : 9989
Vulva	C510 : C519	M-9590 : 9989
Other female genital organs	C570 : C589	M-9590 : 9989
Male genital system		
Prostate	C619	M-9590 : 9989
Testis	C620 : C629	M-9590 : 9989
Penis	C600 : C609	M-9590 : 9989
Other male urinary organs	C630 : C639	M-9590 : 9989
Urinary system		
Urinary bladder	C670 : C679	M-9590 : 9989

Appendix		
Primary Site based on ICD-O-2		
Primary site	Site/Type	Excluding Type
Kidney and renal pelvis	C649, C659	M-9590 : 9989
Ureter	C669	M-9590 : 9989
Other urinary organs	C680 : C689	M-9590 : 9989
Eye and Orbit	C690 : C699	M-9590 : 9989
Brain and other nervous system		
Brain	C710 : C719	M-9530 : 9939, M-9590 : 9989
Other nervous system	C710 : C719 (type 953) C700 : C709, C720 : C729	M-9590 : 9989
Endocrine system		
Thyroid	C739	M-9590 : 9989
Other endocrine (including thymus)	C379, C740 : C749, C750 : C759	M-9590 : 9989
Lymphomas		
Hodgkin's disease	types 9650 : 9667	
Non-Hodgkin's lymphoma	types 9590 : 9595, 9670 : 9714	
Multiple Myeloma	types 9731 : 9732	
Leukemias		
Lymphocytic	types 9820, 9821, 9822, 9823, 9825, 9826	
Granulocytic (myeloid)	types 9860, 9861, 9862, 9863, 9864, 9866, 9867, 9868	
Monocytic	types 9890, 9891, 9892, 9893, 9894	
Other	types 9800, 9801, 9802, 9803, 9804, 9827, 9830, 9840, 9841, 9842, 9850, 9870, 9880, 9900, 9910, 9931, 9930 : 9941	
Ill-defined and unspecified sites	types 9720 : 9723, 9740, 9741, 9760 : 9764, 9950 : 9989, C760 : C768, C809 (types 8000: 9589) C420 : C424 (types 8000 : 9589) C770 : C779 (types 8000 : 9589)	
Invalid site	Site or histology code not within valid range or site code not found in this table	

