Data for Addressing Cancer Disparities in Arizona's Hispanic Community

-- A Matrix for the Community to Prioritize Interventions and Research --

November 14, 2008

Arizona Cancer Control Program
Working Together to Reduce Cancer

Arizona Cancer Coalition
- Disparities Committee
- Arizona Cancer Registry

Programs are supported, in part, by cooperative agreement 1U58DP000796 with the Centers for Disease Control and Prevention (CDC)

Addressing the cancer disparities of the Hispanic community

Introduction
The Arizona Cancer Coalition brings together many agencies and individuals to reduce the burden of cancer among our state residents. Through discussions among its members, the Coalition is concerned that there may be disparities in cancer occurrence, diagnosis, treatment, and survival. To address these concerns, the Coalition established a Disparities Committee tasked with identifying opportunities to reduce disparities across race and ethnic groups. Through the work of this committee the Coalition is reaching out to various communities to promote cancer-related interventions, especially those that will eliminate avoidable cancers and detect cancer at a curable stage.

Aim:
The Disparities Committee aims to reduce cancer disparities by closing the gap between the community's needs and the benefits of cancer prevention and cure. We will achieve this aim through participatory education, training, and research programs. This project will support that aim by producing community-specific information about cancer rates and the real opportunities for cancer control.

Role of the Disparities Committee and Data Analysts:
Three key roles of the Committee are to

- Encourage community leaders to use relevant data so that they can confidently select topics on which to focus the community's concerns and resources
- Encourage movement toward interventions for controllable cancers
- Where knowledge of successful intervention is lacking, promote community-based participatory research that will advance the health of the community.

Community perspectives and concerns about cancer
The Disparities Committee suggests that a community leader ask these crucial questions:

1) Primary Prevention ("avoiding cancer in the first place")
   What can I do to reduce my community's risk for developing cancer?

2) Secondary Prevention ("early detection and screening")
   How do I improve my community's likelihood of being diagnosed in the earliest, curable stage of cancer?

3) Tertiary Prevention ("care once diagnosed")
   Once diagnosed with cancer, what can be done to maintain a high quality of life for persons in my community?

Background
A cancer disparity can also be called an unequal burden of disease. In cancer control the term refers especially to differences in cancer rates due to both biological and non biological factors. These factors include exposure to carcinogens, e.g., cigarette smoke, and also may include socio-

economic status, educational level, culture, race-based discrimination, access to care, and utilization of health care services. A disparity is important, and even vital, to consider when there is an intervention that can correct the disparity and result in a benefit to the community. If we are to correct cancer disparities, we must ask the following practical questions:

A) Which measures of cancer disparity are important?
B) For which cancer sites are they important?
C) What are the possible interventions to address these important disparities?
D) How wide might be the impact of the intervention?
E) What is the relative cost of the intervention?

Comparing the list of choices
To generate a narrowed list of recommended actions that effectively control cancer the participants on the Disparities Committee propose the use of a comparison matrix (shown later on page 10). The list presents scientifically sound actions, their costs, and benefits *to a population at average cancer risk*, but it is not necessarily specific to the Arizona's Hispanic population.

How to use this document
Decision makers and leaders from the community are expected to review, interpret, and customize these matrices for their particular community. We recommend that community leaders enlist the help of health professionals from their community as they review the document. The health professionals can help interpret the applicability of the data. Together, the community can prioritize the actions that are likely to reduce their community's burden of cancer.

The kinds of conclusions you might make
Based on the information presented here, you might make one of the following conclusions about the status of your community's cancer control program.

1. **Affirmation**: We're comfortable with the emphasis of our current cancer control efforts. Later on we can revisit the issue to see if we can add other activities.
2. **Initiation**: We don't have a cancer control program, but it would make sense to start one by addressing (*choose the topic*).
3. **Prioritization**: We will focus on a particular cancer for the next year.
4. **Research**: We can't make an informed decision because we don't have enough information to a crucial question. We need to know more about (specific issue) and cancer.

YOUR CALL

Upon reviewing this document, the measure of disparity that our community is most interested in addressing now is the (choose one: elevated incidence rate, elevated mortality rate, late stage at diagnosis; poor survival rate) for (specify) _____ cancer.

DATA SECTION

Data Sources
Data concerning cancer incidence and mortality are obtained mostly from the state cancer registry and reports from Arizona's vital statistics (death certificates). Counts of cancer cases in Arizona are obtained from the Arizona Cancer Registry (which records cases seen at non-IHS facilities) and the New Mexico Tumor Registry (which records cases seen at IHS facilities in Arizona and New Mexico). Cases seen at Arizona's V.A. hospitals are included in the data also.

It is important to note that classifying the Arizona (and U.S.) population according to race and ethnic groups is becoming increasingly difficult because of the mixture of the races. Misclassification errors affect the rates. For uncommon cancers, imprecise race classification of patients, or the population at risk, can significantly affect the rates. Nevertheless, the pages that follow provide graphs and tables for various race and ethnic groups. Data for specific cancer sites are presented:

Overview
1) Demographic and overall cancer data (Tables A, B, C & Figures 1-5)

Matrices
2) Cancer interventions (Matrix A)
3) Lesser opportunity cancers (Matrix B)

Appendices of supportive cancer data
4) Leading cancers (Figures 6, 7)
5) Cervical Cancer (Figures 8, 9)
6) Colorectal Cancer (Figures 10-15; Table D)
7) Breast Cancer (Figures 16, 17)
8) Lung and Bronchus (Figures 18, 19)
9) Kidney (Figures 20, 21)
10) Bladder (Figure 22)
11) 5-Year Survivorship: colorectal, breast (Figures 23-28)
12) Comparative rankings of other clinical services

Arizona Demographics Relative to Cancer
The race/ethnic distribution of Arizona's 6 million residents is shown in the following pie chart. We can compare that distribution to the count of the approximately 24,000 new cancer cases reported. This report considers as Hispanic those persons whose race is given as "White" and whose ethnic category is given as Hispanic. Persons who are Hispanic and of a nonWhite race are classified to the respective race. Hispanics comprise 25% of Arizona's population, but are diagnosed with 8.7% of the cancers. Adjusting the incidence rate for the age of cases, we see that Arizona's Hispanic community has an overall cancer incidence rate that is intermediate compared to other groups. Native Americans and Asians have lower overall (i.e., all sites combined) cancer rates.

Demographic & Cancer Distribution in Arizona, 2001-2004:

Figure 1

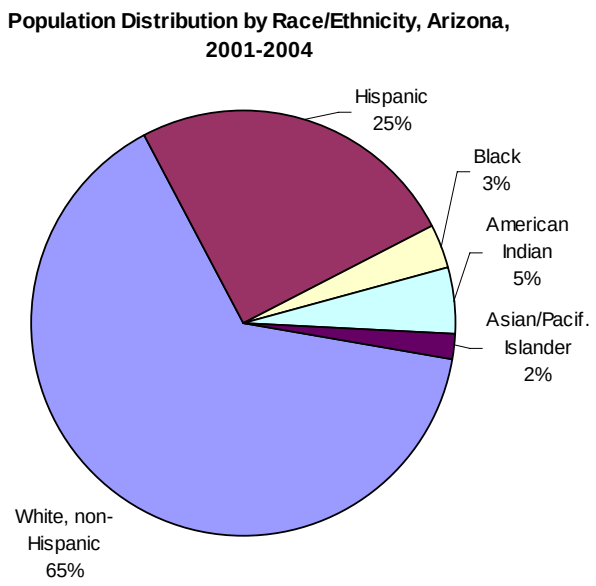


Figure 2

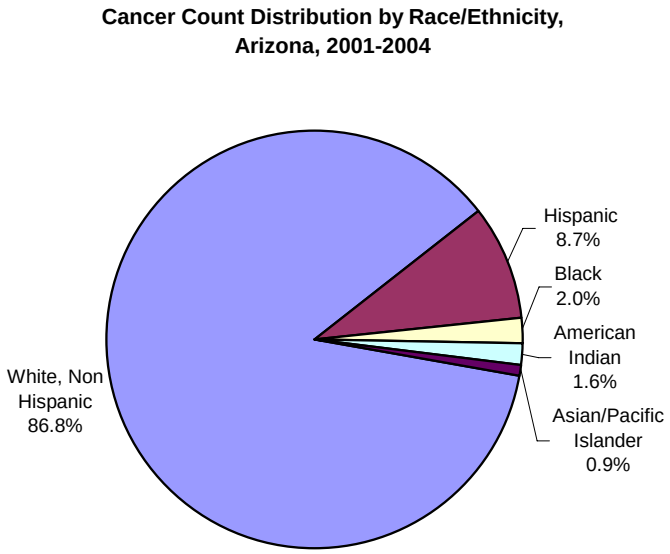
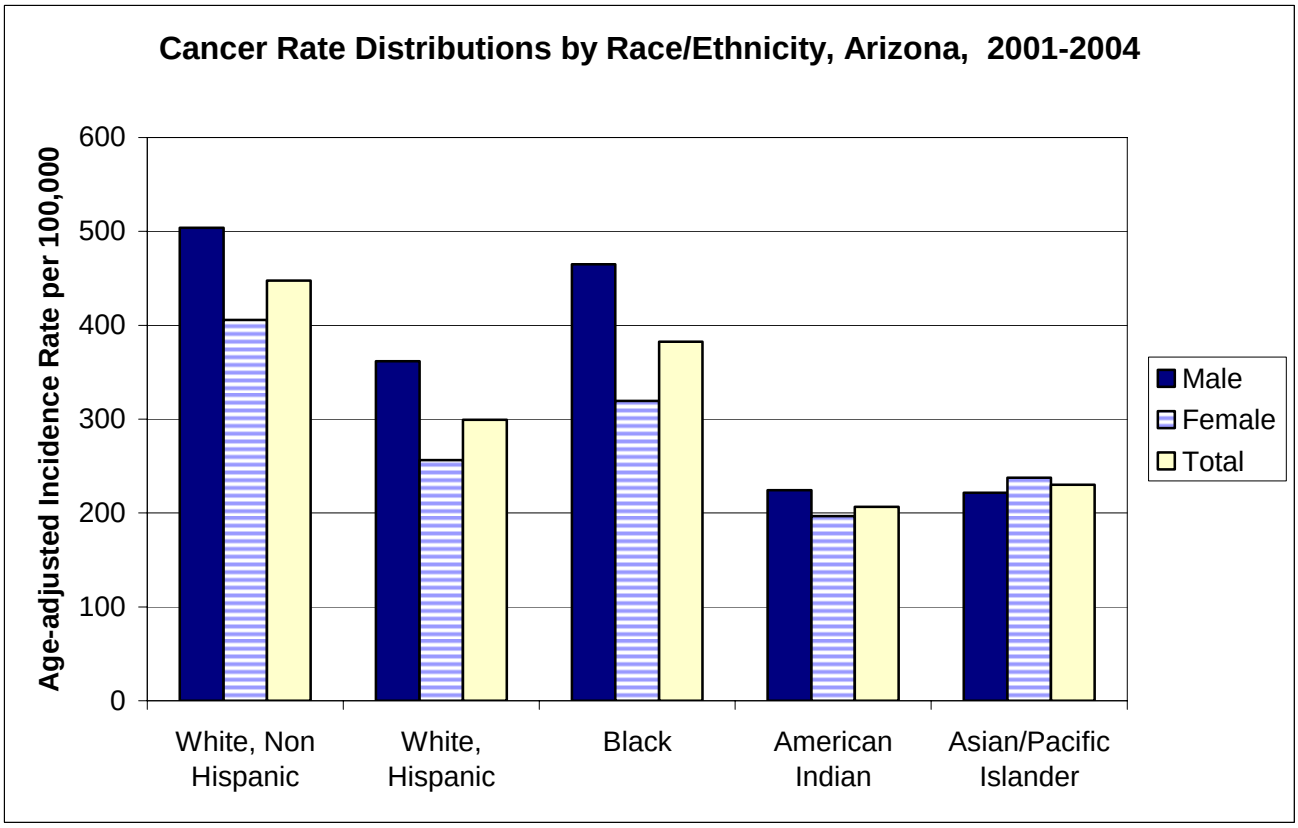


Figure 3



Overall Cancer Burden in Hispanics

First, we present general information about the burden of cancer in Arizona's Hispanics in *Table A*, showing the count of newly diagnosed cases by year. The distribution by age-group and gender for these cases is shown in the next figure.

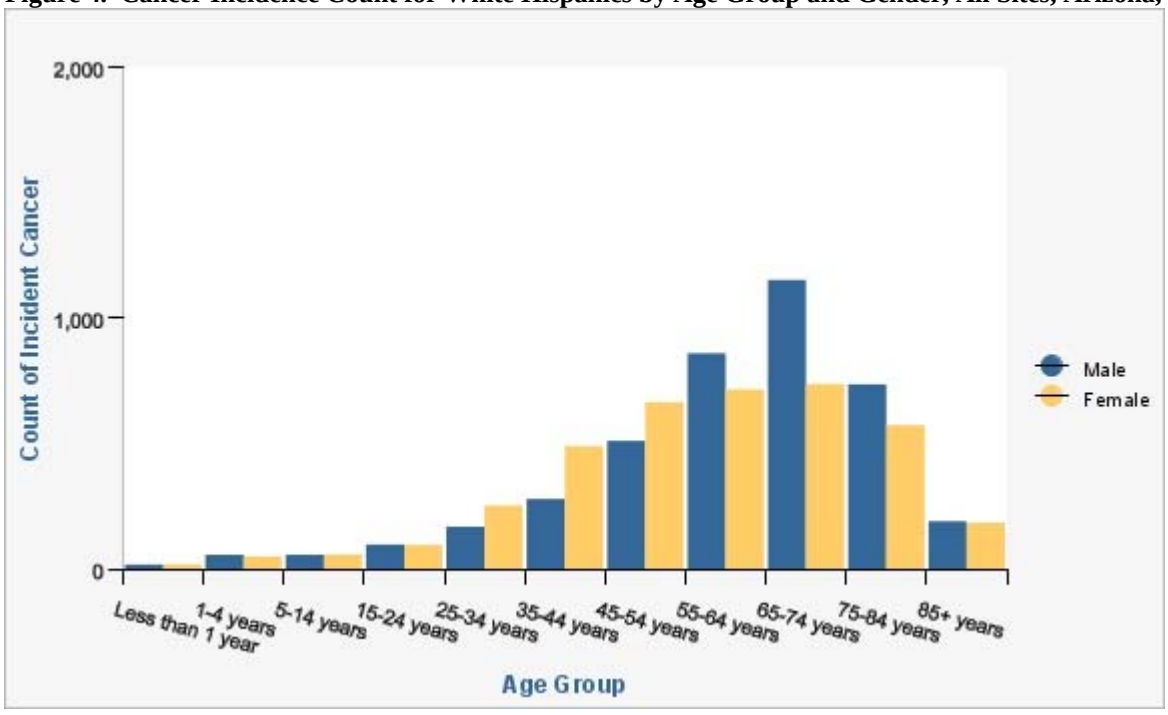
Because cancer is not a single disease, it is more instructive to consider its distribution across the various body sites, as shown in the pie chart (Figure 5). The four leading cancer sites in the Hispanic population are breast, prostate, colorectal, and lung. Together, cancers of those four sites account for 44% of all cases. Then, in *Table B & C* we show the count of diagnosis and mortality for specific cancer sites.[1]

Table A.

Count of Incident Cancer by Sex and Year; Arizona, Sum of the reported cases diagnosed during 2001-2004; White Hispanics; All cancer sites [Source: AZ Cancer Registry, IBIS, run date 1/15/2008]

	Male	Female	Both
2001	964	872	1,836
2002	1,013	955	1,968
2003	1,079	966	2,045
2004	1,063	1,040	2,103
Total	4,119	3,833	7,952

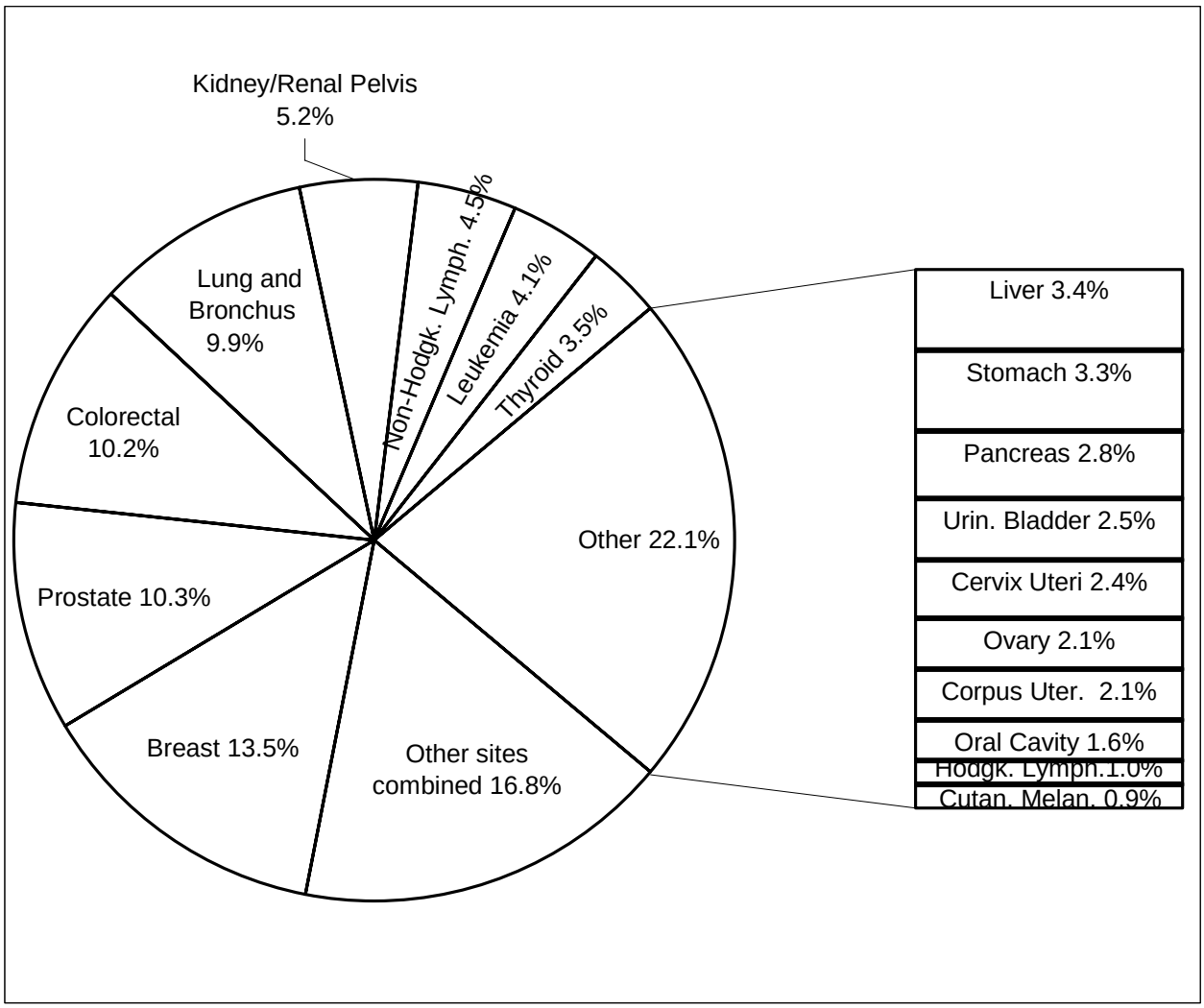
Figure 4. Cancer Incidence Count for White Hispanics by Age Group and Gender, All Sites, Arizona, 2001-2004.



Source: Arizona Cancer Registry, IBIS. Nov 28, 2007

[1] To generate your own queries see the ACR website **http://www.azdhs.gov/phs/phstats/acr/index.htm**

Figure 5. Distribution of Incident Cancer Case for White Hispanics, Arizona, 2001-2004



Source: Arizona Cancer Registry, IBIS. April 24, 2008

Table B.

Count of Incident Cancer by Gender; Arizona, Sum of reported cases diagnosed during 2001-2004 (**4-year totals and average**); White Hispanics [Source: AZ Cancer Registry, IBIS, run date 1/15/2008]

Cancer Sites	4-yr Male	4-yr Female	4-yr Total	Yearly Average
Breast	16	1054	1070	268
Prostate	817	0	817	204
Colorectal	465	346	811	203
Lung and Bronchus	534	250	784	196
Kidney/Renal Pelvis	254	158	412	103
Non-Hodgkins Lymphoma	196	158	354	89
Leukemia	193	131	324	81
Thyroid	69	212	281	70
Liver	199	69	268	67
Stomach	165	98	263	66
Pancreas	106	115	221	55
Urinary Bladder	141	58	199	50
Cervix Uteri	0	191	191	48
Ovary	0	168	168	42
Corpus Uteri and Uterus, NOS	1	165	166	42
Oral Cavity	104	27	131	33
Hodgkins Lymphoma	45	34	79	20
Cutaneous Melanoma	46	28	74	19
Other sites combined	768	571	1339	335
Total, All Sites	**4119**	**3833**	**7952**	**1988**

Table C.

Count of Cancer Mortality by Gender; Arizona. Persons dying of cancer during 2001-2006 (**6-year totals and average**); Hispanics [Source: AZ Health Status and Vital Statistics]

Cancer Sites	6-yr Male	6-yr Female	Yearly Average
Trachea, Bronchus And Lung	606	295	150
Colon, Rectum And Anus	283	257	90
Breast	2	390	65
Prostate	317		53
Liver	212	103	53
Pancreas	157	151	51
Stomach	153	113	44
Non-Hodgkin's Lymphoma	134	94	38
Leukemia	137	87	37
Kidney	133	83	36
Ovary		163	27
Meninges, Brain And Cns	69	77	24
Cervix		94	16
Esophagus	73	129	15
Bladder	46	21	11
Lip, Oral Cavity And Pharynx	47	12	10
Corpus Uteri		58	10
Uterus		58	10
Skin	26	13	7
Larynx	33	5	6
Hodgkin'S Disease	16	10	4
Other	446	364	135
Total, All Sites	**2890**	**2577**	**892**

Cancer Interventions

Information about the effectiveness of cancer interventions, especially cancer prevention and early detection, is obtained from the recommendations of the **US Preventative Services Task Force**.[2] Please visit this website **http://www.ahrq.gov/clinic/uspstfix.htm** for further general information, and the links below for information about specific cancer topics.

Links to USPSTF

Cancer

Bladder Cancer: **Screening** (2004)
BRCA Mutation Testing for Breast and Ovarian Cancer: **Screening** (2005)
Breast Cancer: **Screening** / **Preventive Medication** (2002)
Cervical Cancer: **Screening** (2003)
Colorectal Cancer: **Screening** (2002)
Lung Cancer: **Screening** (2004)
Oral Cancer: **Screening** (2004)
Ovarian Cancer: **Screening** (2004)
Pancreatic Cancer: **Screening** (2004)
Prostate Cancer: **Screening** (2002)
Skin Cancer: **Screening** (2001) / **Counseling** (2003)
Testicular Cancer: **Screening** (2004)
Thyroid Cancer: **Screening** (1996)
Tobacco Use: **Counseling** (2003)
Vitamin Supplementation to Prevent Cancer and Coronary Heart Disease: **Counseling** (2003)

Obesity in Adults: **Screening and Counseling** (2003)
Physical Activity: **Counseling** (2002)

Matrix to compare interventions

The matrices on the following pages can be useful in answering the key questions.

[2] **Guide to Clinical Preventive Services. [Click here to link to Guide on web]**

Matrix A: List of possible interventions to address White Hispanic cancer disparities. (The list is in no particular order.)

Disparity Measure	Scale of Problem in Hispanics 4-yr avg.)^	Risk Factors & Potential Interventions	Intervention Metric [%; baseline*; *Target if known*]	How well does intervention work? [1] [USPSTF A, B, C, D, I] Addt'l benefit?	Important cultural aspects to consider (pos or neg)	For an Average-risk Population ... Cost and Health Benefit of Intervention	For an Average-risk Population ... Number to Screen to Save One Life	Research Question to Ask[#] Ease of implementation in this pop'n	Priority[#] for Intervention / Priority[#] for Research
Elevated Hispanic incidence rate of: 1) Cervical Cancer	Invasive cervical cancer cases, 2001-2004: 48	• Increase utilization of Pap smear; • Provide HPV Vaccination; • Encourage abstinence	% women aged 21-64 w/ Pap recorded w/in the past 3 years = 87.1% (2004-6); 6.3% never had a Pap Test. *HP2010 goal* = 3% who have never had a pap test for those 18 and older	"A" for women who have been sexually active and have a cervix		$14,000 per year of life saved from cervical screening at age 20-74 once every 3 years[2]	1,254 (range 1,140 - 1,367) All ages	What interventions work?	
Intermediate Hispanic incidence rates of cancer: 2) Tobacco-linked cancers	Tobacco-related cancer cases, 2001-2004: Oral: 33 Lung: 196 Bladder: 50	• Adult smoking cessation programs • Youth smoking prevention programs	% of people 18 and older who are current smokers = 13.2% (2004-6); *HP2010 goal* = at most 12% of adults aged 18 and older who smoke	**"A" for adult programs; "A" for pregnant women; "I" for youth interventions. Reduces heart and lung diseases too.**		$1,100/QALY saved for adult counseling by clinician[3]		Has the attitude about smoking changed among Hispanic youth?	
Late stage in Hispanics of: 3) Breast Cancer	Invasive breast cancer cases, 2001-2004: 268	• Promote mammography	% women aged 40 and over who had a mammogram in the past 2 yrs = 66% (2004-6); *HP2010 goal*=70% of women 40 and over having a mammogram	"B" for mammo-graphy every 1-2 years starting at age 40		$22,000/QALY saved for biennial MMG of women age 50-69[4]	691 (range 543 - 838) Age 50+		
Late stage in Hispanics of: 4) Colorectal Cancer	Invasive colorectal cancer cases, 2001-2004: 203	• Promote colonoscopy	% of people aged 50 and over who had a CRC screening=34.4% (2004-6) *HP2010 goal*=50% screening for those 50 years and older (FOBT w/in the preceding 2 years)	"A" for colorectal screening of adults age 50+. Removal of benign polyps reduces cancer risk		$11,900 (range $7300 to $22,000) per life-year saved using colonoscopy[5]	See note.[6] 237 (range 42-431) Age 70+; Unknown for Age 45-74	How is colorectal screening perceived?	
Utilization of: 5) end-of-life service [this is difficult to measure or document]	Deaths from all malignant neoplasms: 2004 = 913 2005 = 945 2006 = 883	• At-home or institutional hospice services • ?? Patient navigator	unknown	Hard to document a benefit; however, services are well received by families and patients	Impending death is a difficult topic to discuss in many cultures.	Not available	Not applicable	-Hospice survey for cultural services. -What works?	
High rate in Hispanics of : (other risk factors) 6) [BRFS; special surveys?]		• Obesity is linked to cancer of gall bladder, breast, urinary bladder, uterus, kidney, ovary, colon, prostate	% of adults 18 and over who are overweight or obese=61.1% (2004-6); *HP2010 goal* =<15 percent of obese adults 20 years and older	"B" for adults. Obesity has proven difficult to control. Modest weight loss lowers risk for diabetes and other diseases.		$10,000/QALY saved for physician counseling about physical activity[7]	unknown		

* Data Source: Behavioral Risk Factor Surveillance System (BRFSS), 2002-2004 ^ ACR = Arizona Cancer Registry [#] Community leaders will complete these columns.

Matrix B: Lesser opportunity cancers (The list is in no particular order.)

Disparity Measure	**Scale of Problem in Hispanics** (4-year avg.)^	**Risk Factors; Potential Interventions**	Intervention Metric for Hispanics [%; baseline; target]	Relative Effectiveness of Intervention [high-med-low]	Relative Cost and Benefit of the Intervention	Research Question to Ask[#]	Priority[#] for Intervention Priority[#] for Research
High incidence rate of: 7) Liver Cancer	Invasive liver cancer cases, 2001-2004: 67	• Alcohol avoidance; CAGE questionnaire • Hepatitis B immunization • Screen for Hepatitis C	Not applicable	unknown	unknown		
incidence rate of: 8) Melanoma of skin	Invasive cutaneous melanoma cancer cases, 2001-2004: 19	• Reduce sun exposure, especially in childhood	Not applicable	unknown	Not applicable		
High incidence rate of: 9) Kidney and renal pelvis Cancer	Invasive kidney & renal pelvis cancer cases, 2001-2004: 103	• No proven intervention; needs research	Not applicable	Not applicable	Not applicable		
Incidence rate of: 10) Pancreas Cancer	Invasive pancreas cancer cases, 2001-2004: 55	• No proven intervention; needs research	Not applicable	Not applicable	Not applicable		
Incidence rate of: 11) Prostate Cancer	Invasive prostate cancer cases, 2001-2004: 204	• Early detection has not been shown to prolong life	unknown	unknown See the separate write-up on this topic.			
Incidence rate of: 12) Stomach Cancer	Invasive stomach cancer cases, 2001-2004: 66	• Avoid alcohol, tobacco, and pickled or salty foods • Screen for Helicobacter pylori	Not applicable	Not applicable	Not applicable		
Incidence rate of: 13) Gallbladder Cancer	Gallbladder and other biliary cancer cases, 2001-2004: 29	• Risk factor: gallstones and obesity	Not applicable	unknown	Not applicable		

^ ACR = Arizona Cancer Registry

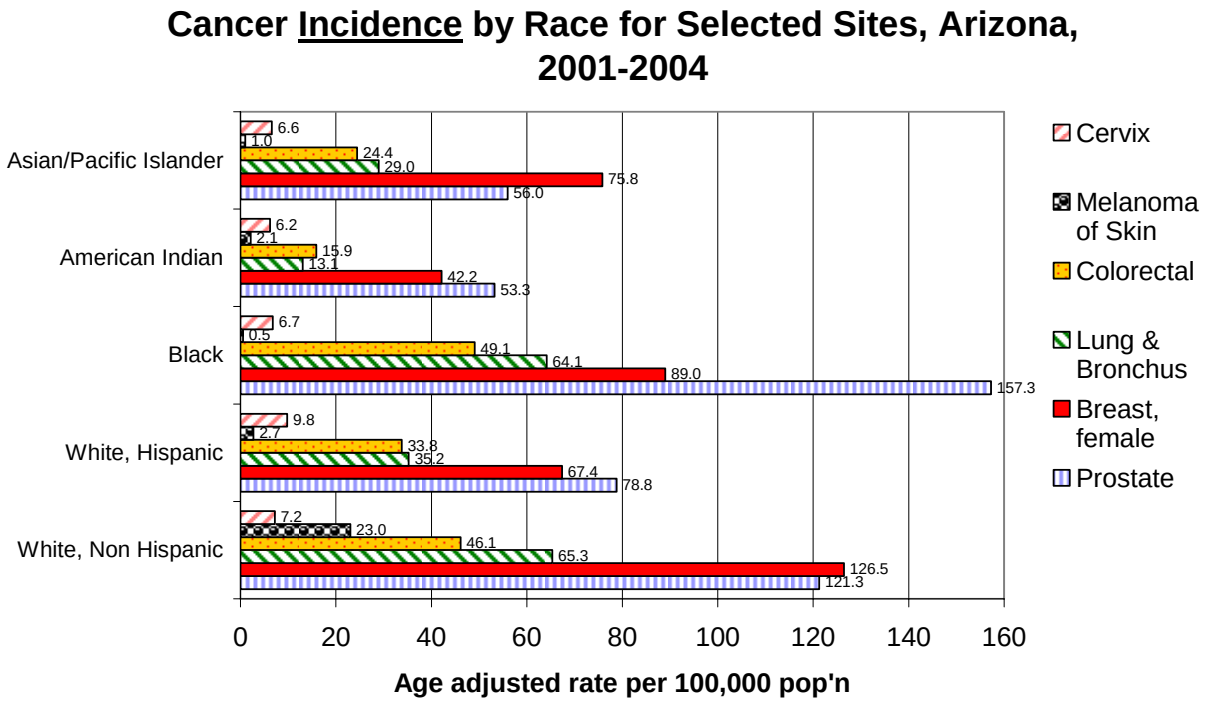
[#] Community leaders may complete these cells.

APPENDICES

SUPPORTIVE CANCER DATA

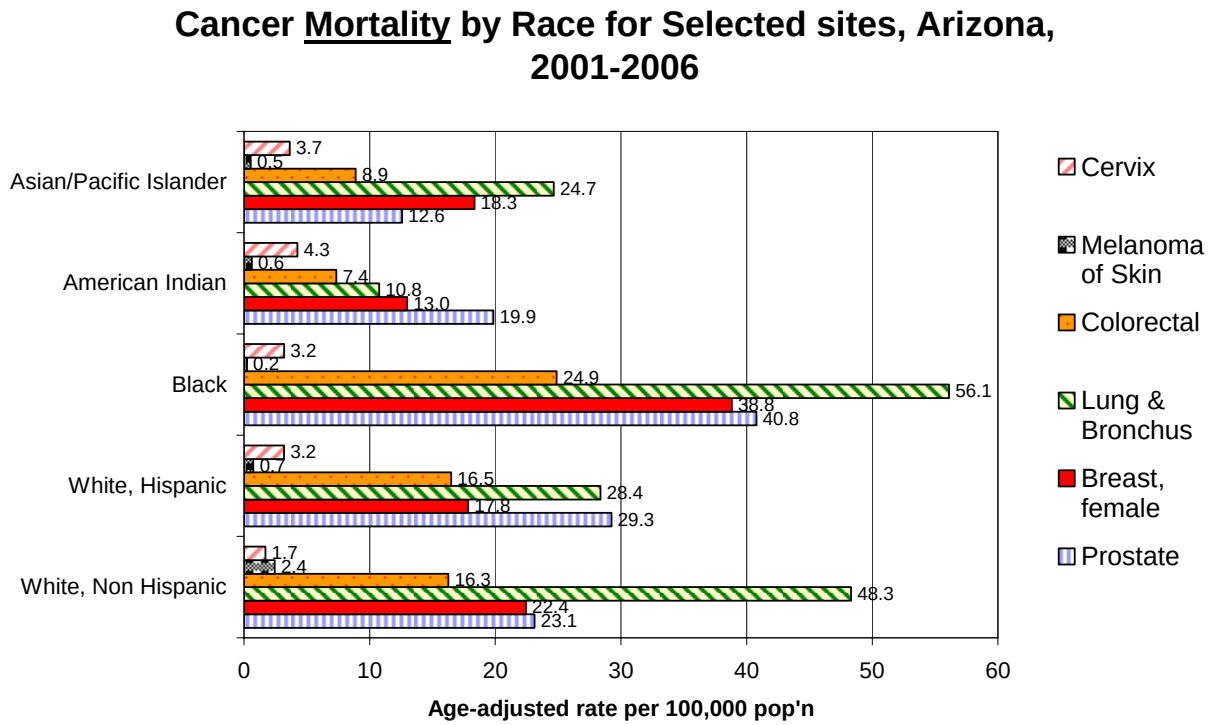
APPENDIX A:
LEADING CANCERS BY RACE/ETHNIC GROUPS FOR SELECTED SITES

Figure 6.



Source: Arizona Cancer Registry, IBIS. Nov 28, 2007

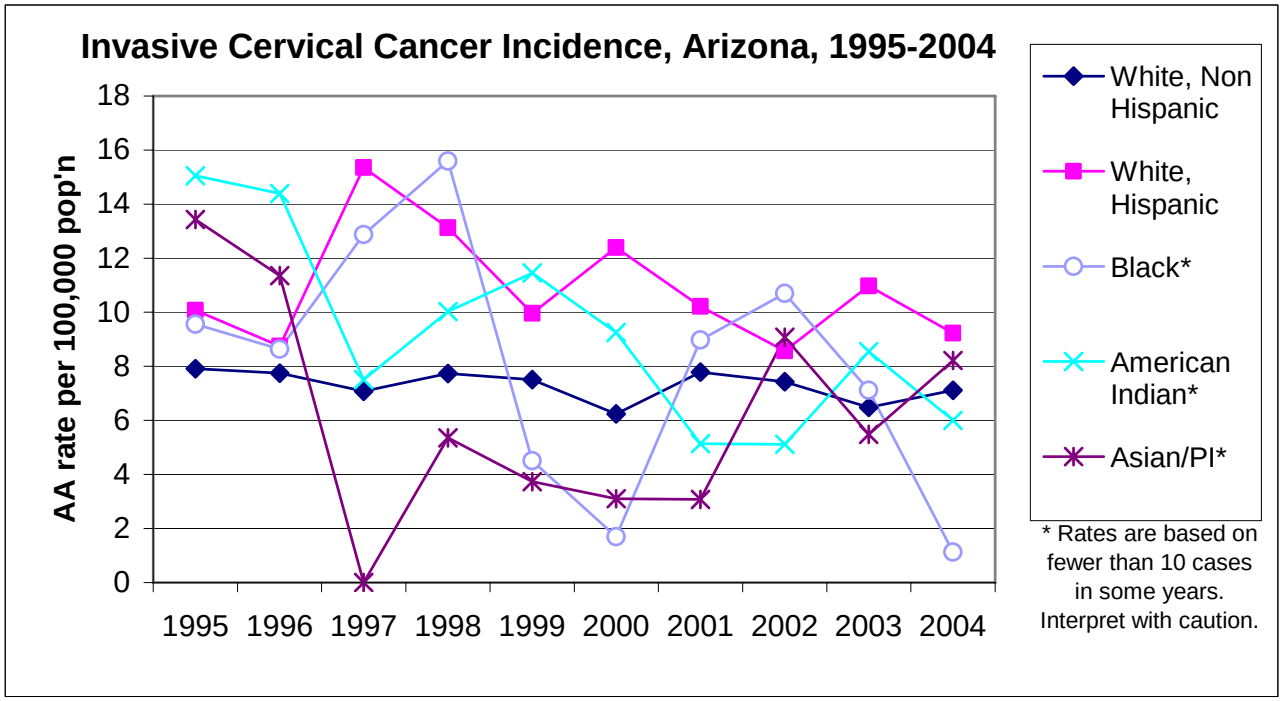
Figure 7.



Source: Arizona Vital Statistics, Feb. 5, 2008

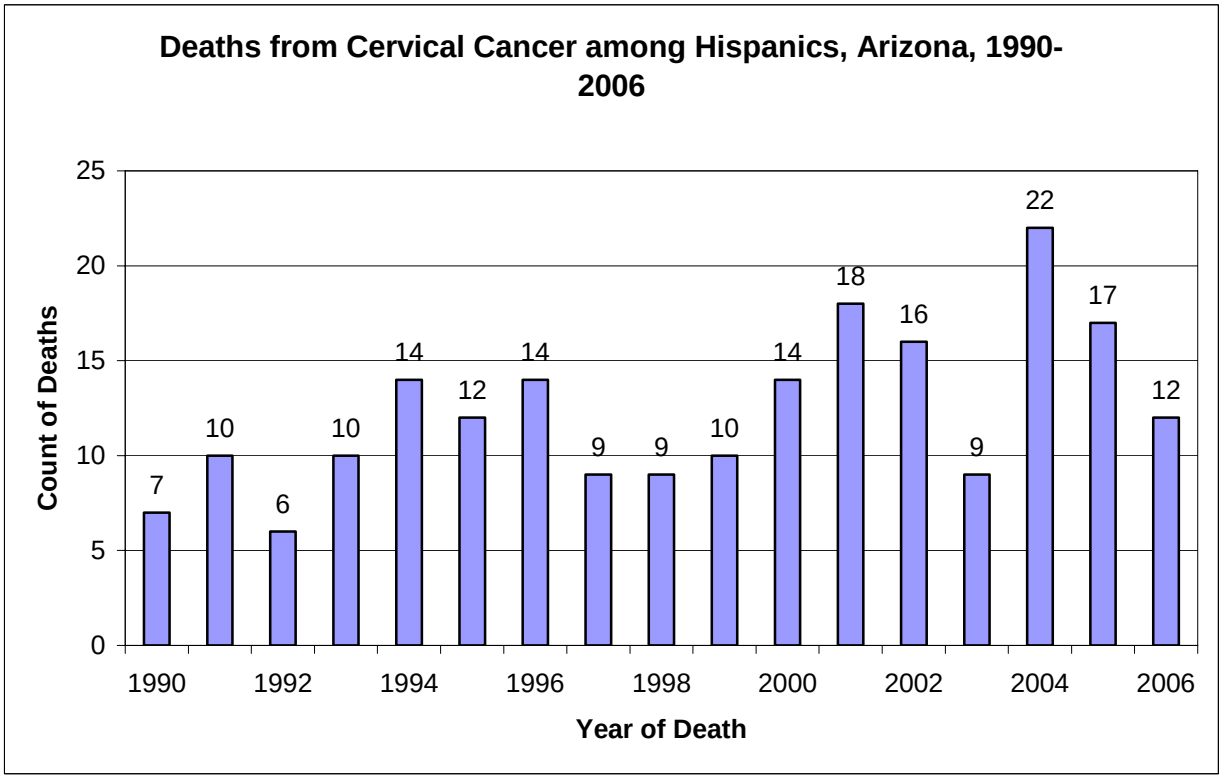
APPENDIX B: CERVICAL CANCER

Figure 8. Cervical Cancer Incidence Rate per 100,000 Population, Arizona residents, 1995-2004



Source: Arizona Cancer Registry, IBIS. Nov 28, 2007

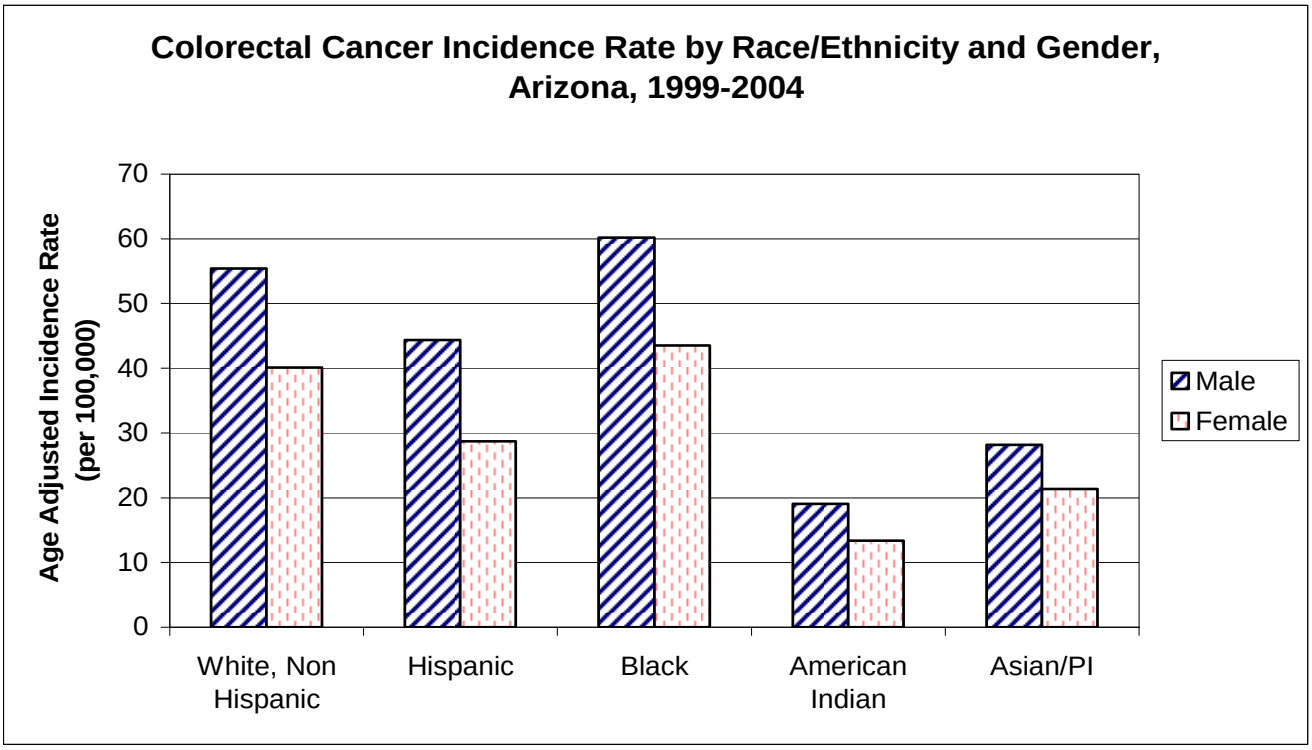
Figure 9. Deaths from Cervical Cancer among Hispanics, Arizona, 1990-2006



Source: Underlying cause of death listed on death certificates, Arizona Vital Statistics

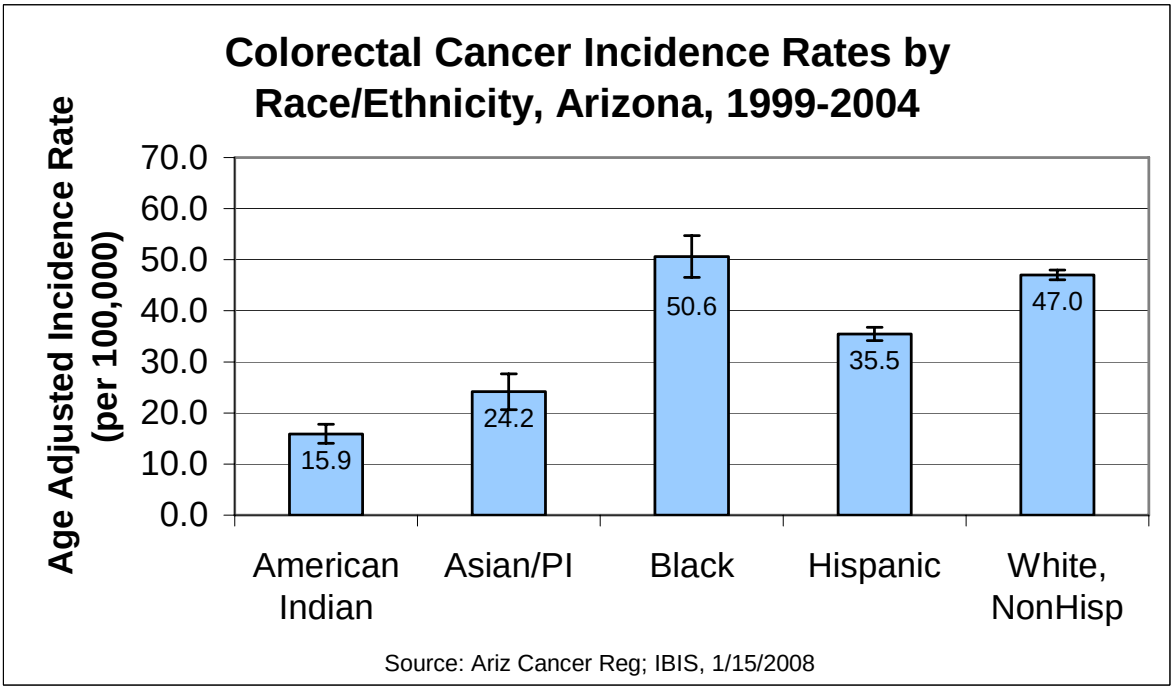
APPENDIX C: COLORECTAL CANCER

Figure 10. Colorectal Cancer Incidence Rate by Race/Ethnicity and Gender, Arizona, 1999-2004



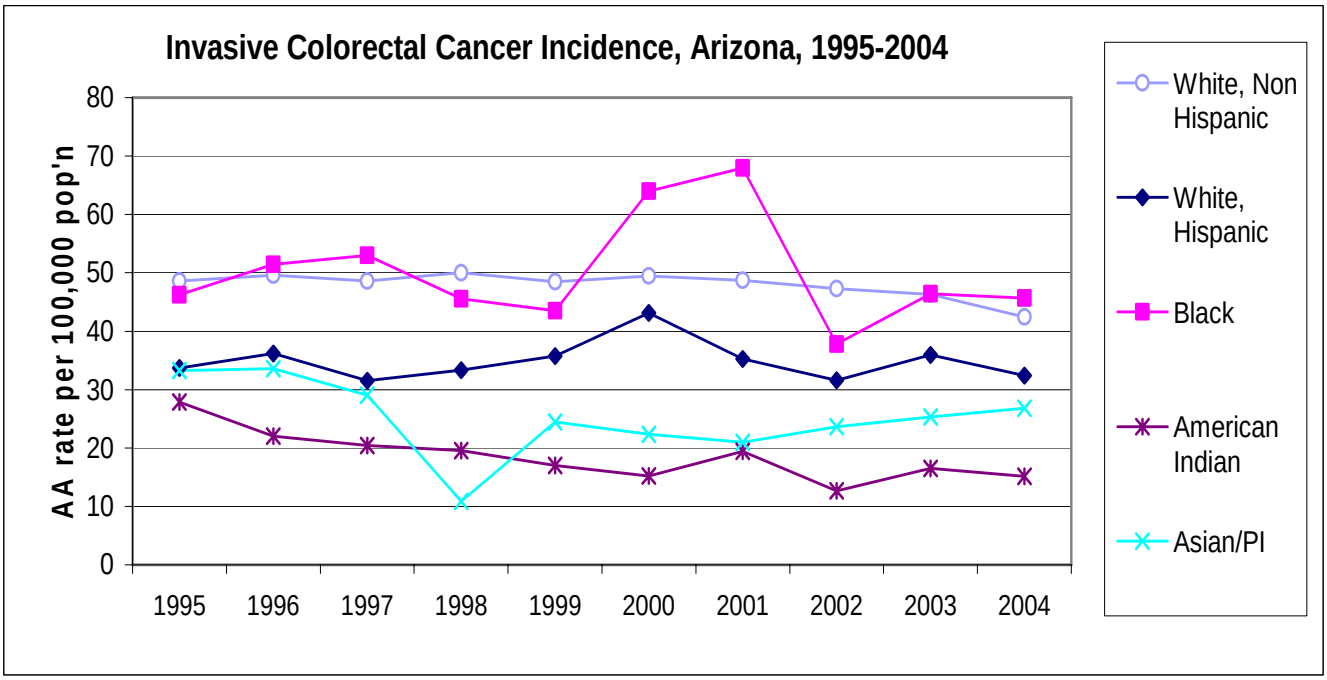
Source: Arizona Cancer Registry, IBIS. Nov 29, 2007

Figure 11. Colorectal Cancer Incidence Rates by Race/Ethnicity, Arizona, 1999-2004



APPENDIX C: COLORECTAL CANCER

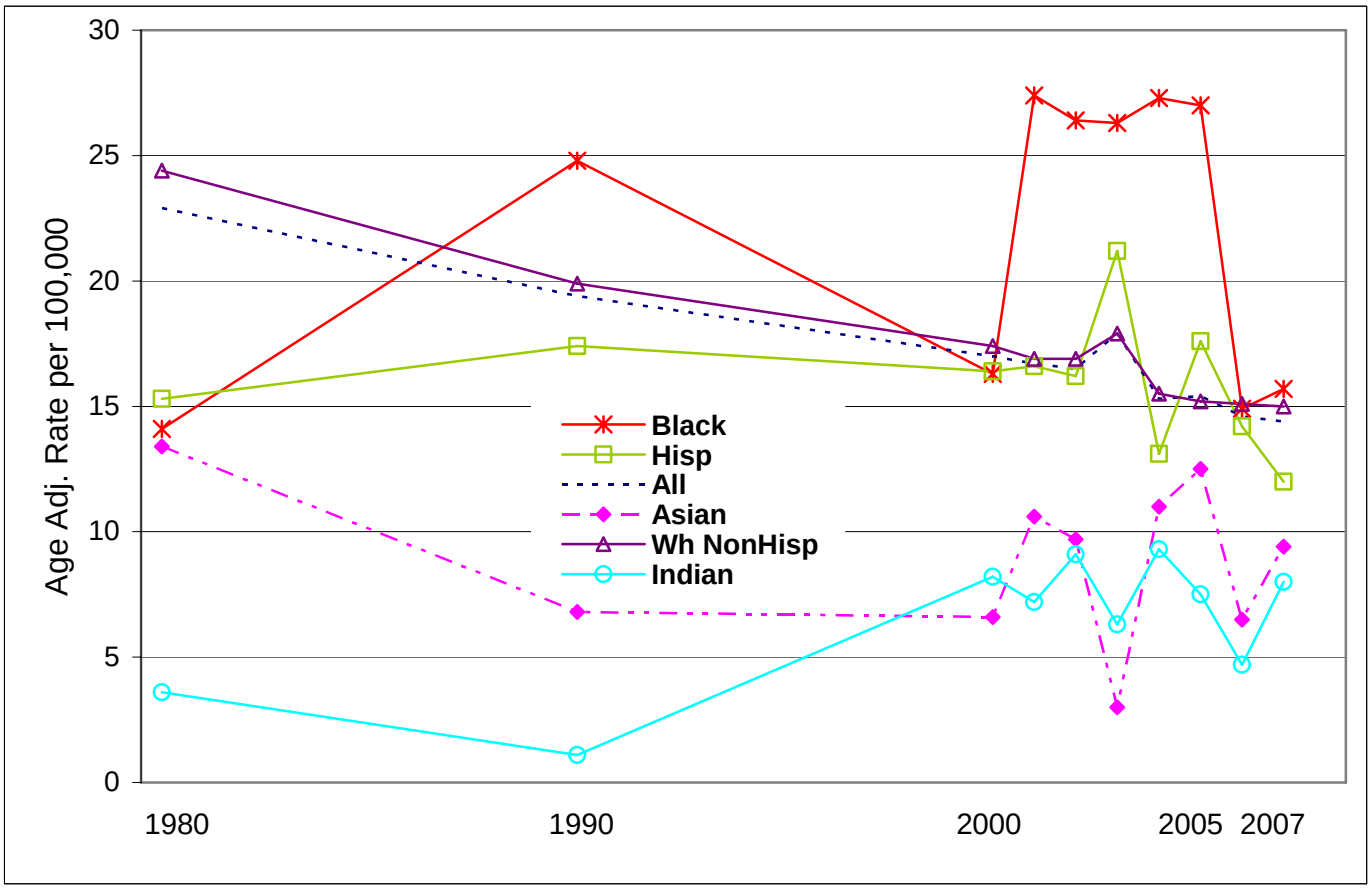
Figure 12. Invasive Colorectal Cancer Incidence, Arizona, 1995-2004



Source: Arizona Cancer Registry, IBIS. Nov 29, 2007

APPENDIX C: COLORECTAL CANCER

Figure 13. Mortality Rate from Colo-Rectal-Anal Cancer, Arizona, 1980, 1990, 2000-2007



Source: Arizona Vital Statistics. Age Adjusted to Year 2000 Standard US population.

Table D. Colorectal Screening rate, BRFS, 2004-2006. For this table, the term "Meeting Guidelines" is measured as an adult respondent age 50+ who had a FOBT within the past year, or sigmoid/colonoscopy with past 5 years, or both.

Race group	CR Screening rate, meeting guidelines, in 2004-2006
White non Hispanic	53.6%
Black	51.3%
Asian Pacific Islander	45.1%
White Hispanic	34.4%
American Indian	34.1%

APPENDIX C: COLORECTAL CANCER

Following figures are information about the stage at diagnosis of colorectal cancer ("CR"), Arizona.

Figure 14.

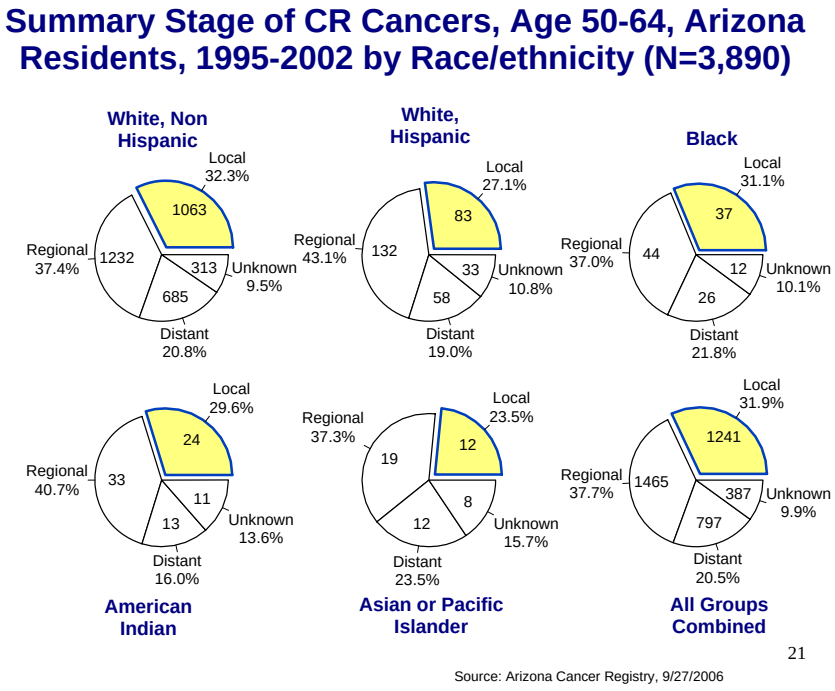
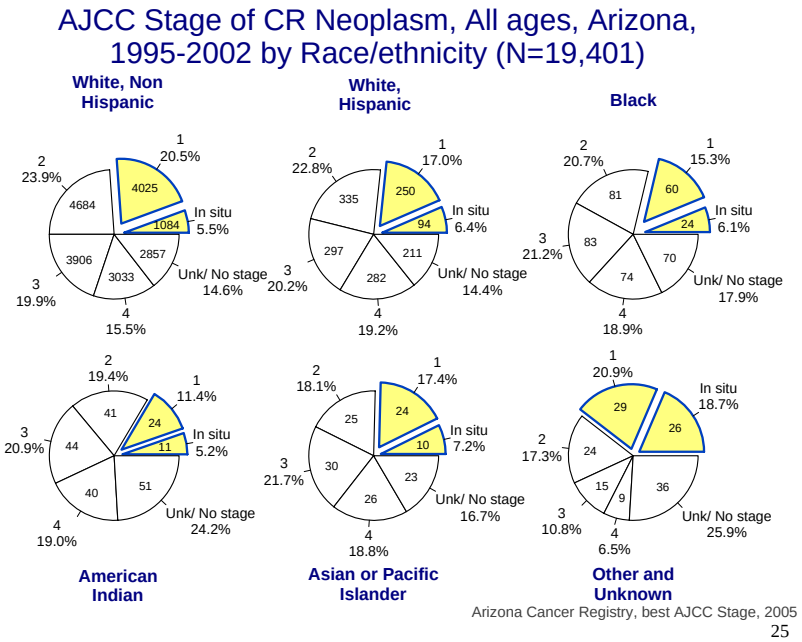


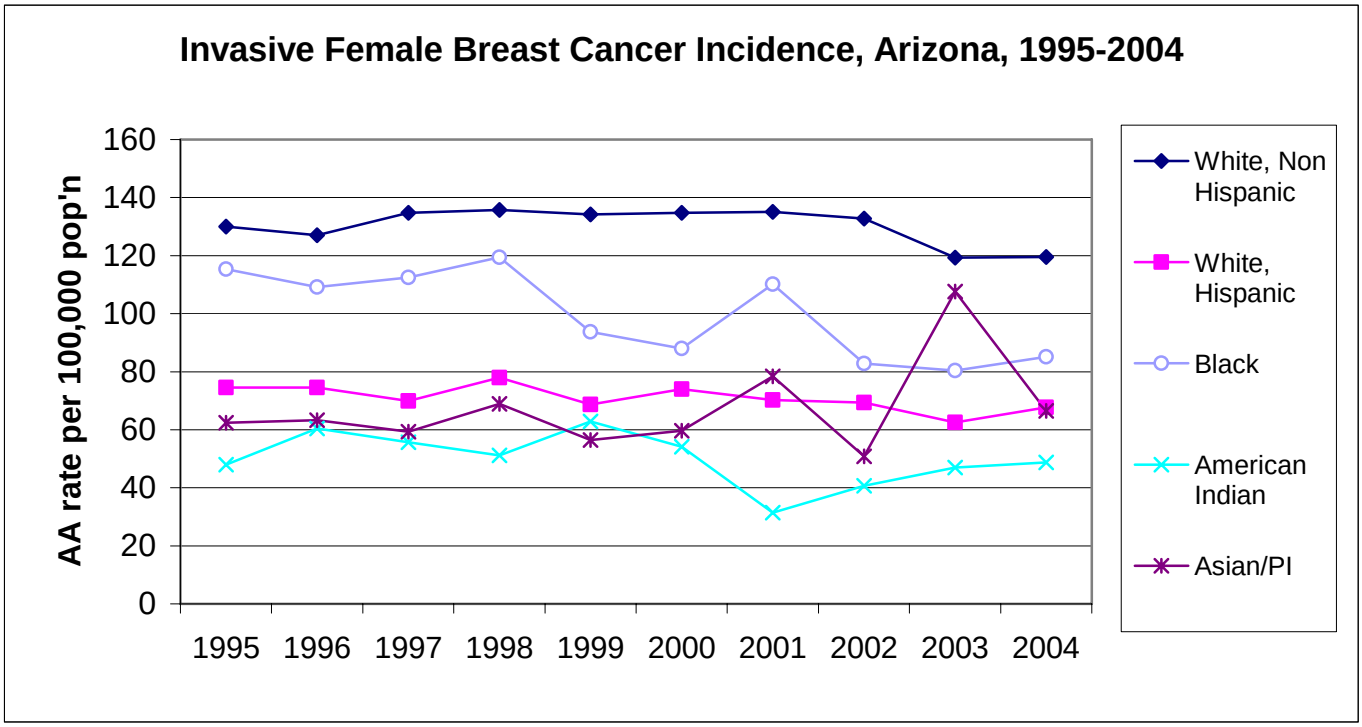
Figure 15.



Source: ACR, TJF unpublished report

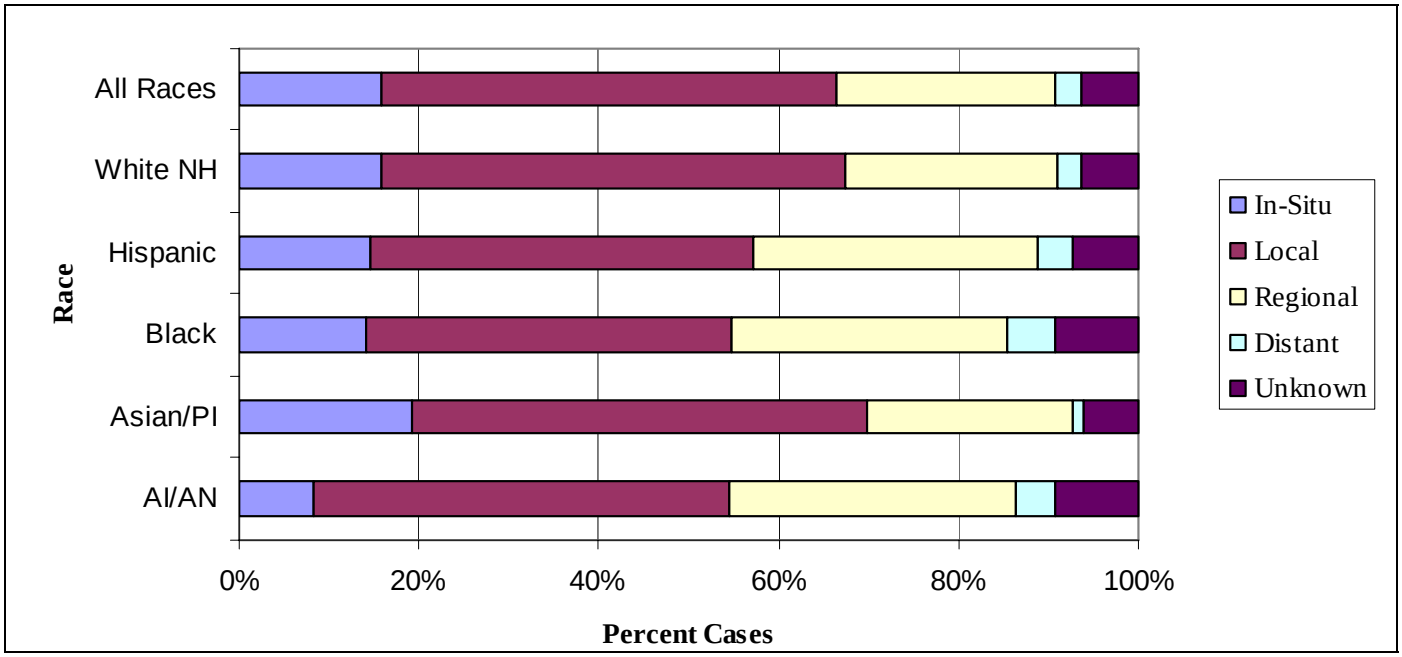
APPENDIX D: BREAST CANCER

Figure 16. Incidence Rate of Breast Cancer, Arizona, 1995-2004



Source: Arizona Cancer Registry, IBIS. Nov 29 2007

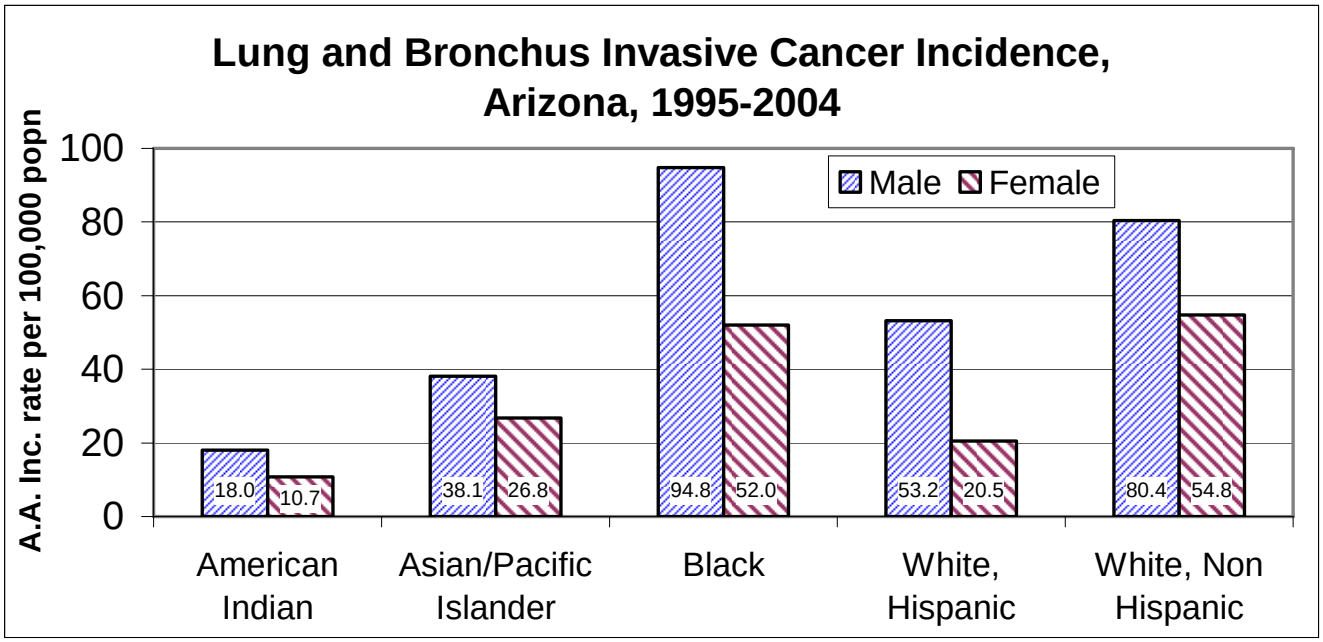
Figure 17. Breast Cancer, Stage at Diagnosis by Race, 1995-2002



Source: Archana Minnal, MPH, 2005, unpublished analysis of ACR data.

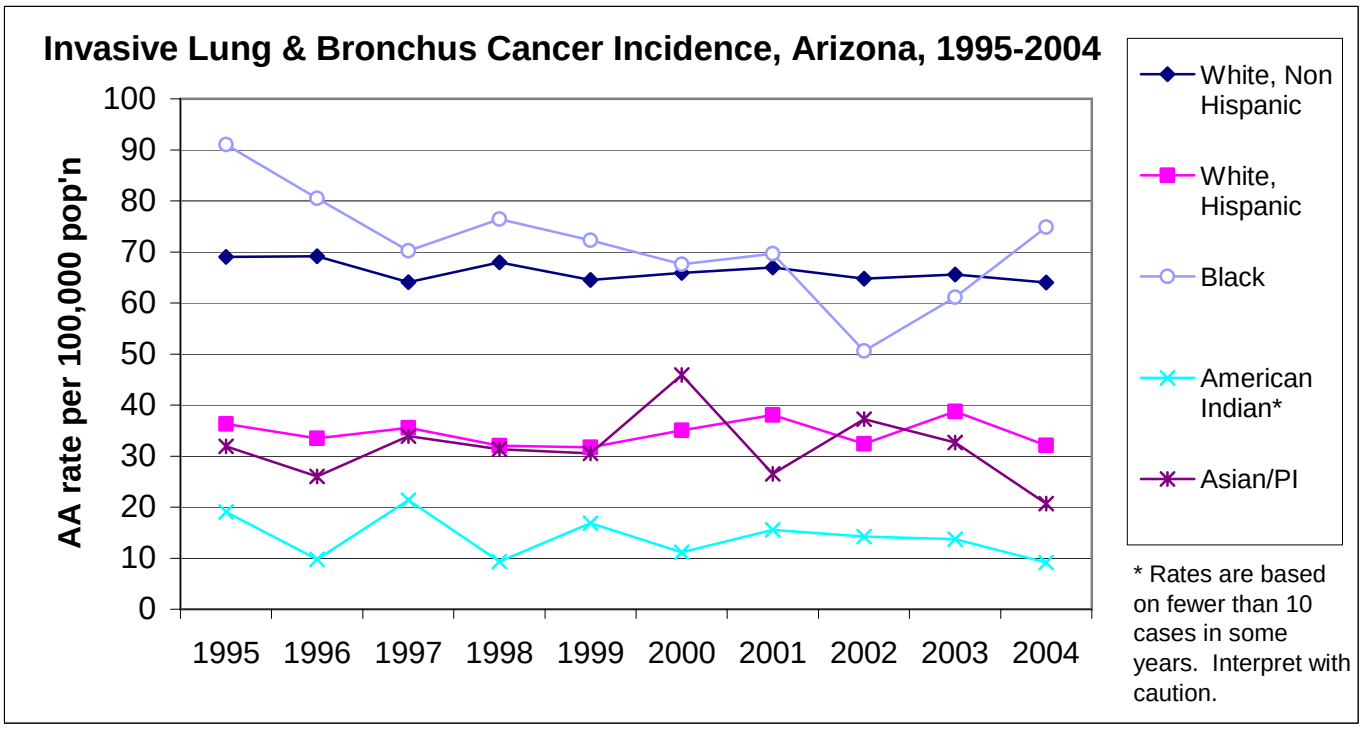
APPENDIX E: LUNG AND BRONCHUS CANCER

Figure 18. Comparison of Rate of Lung & Bronchus Invasive Neoplasm by Racial/Ethnic Group, Arizona, 1995-2004



Source: ACR IBIS, 1/15/2008

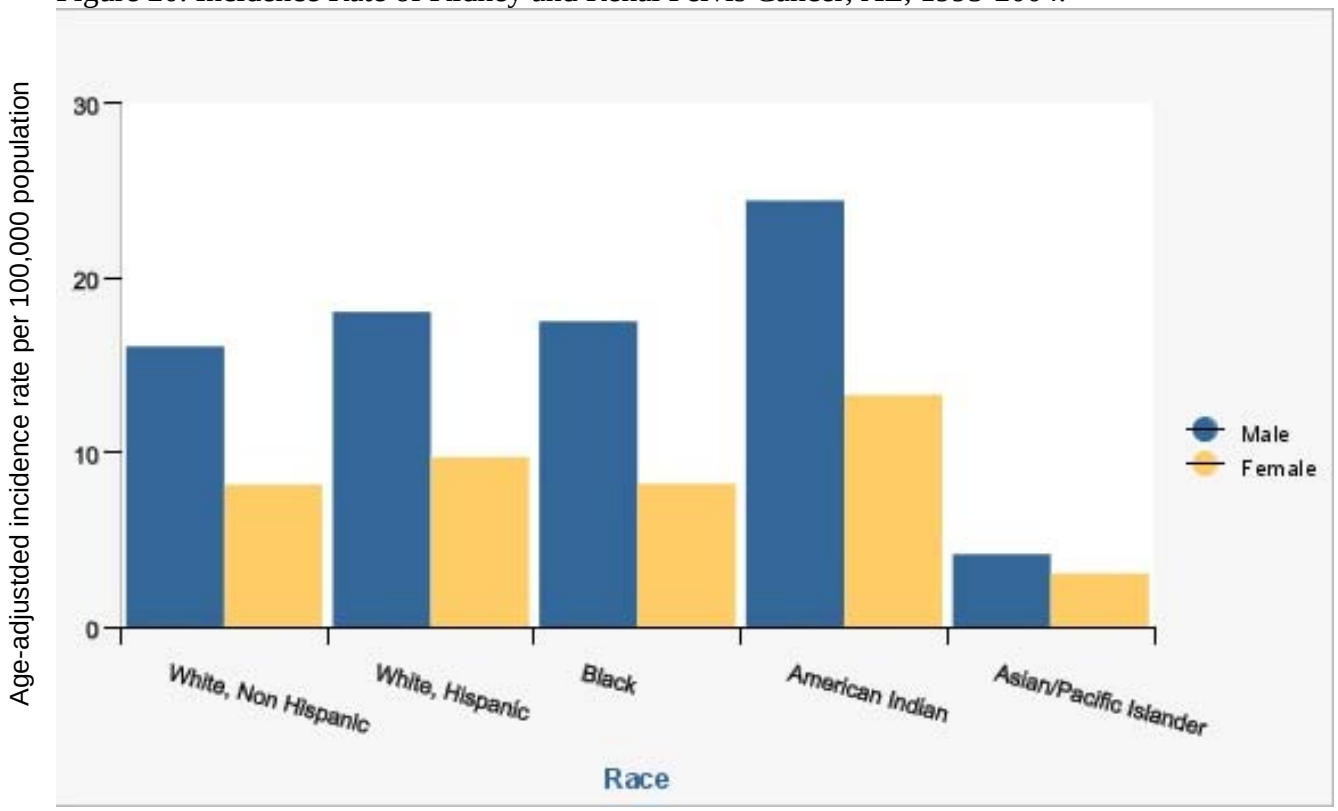
Figure 19. Invasive Lung & Bronchus Cancer Incidence, Arizona, 1995-2004



Source: Arizona Cancer Registry, IBIS. Nov 30, 2007

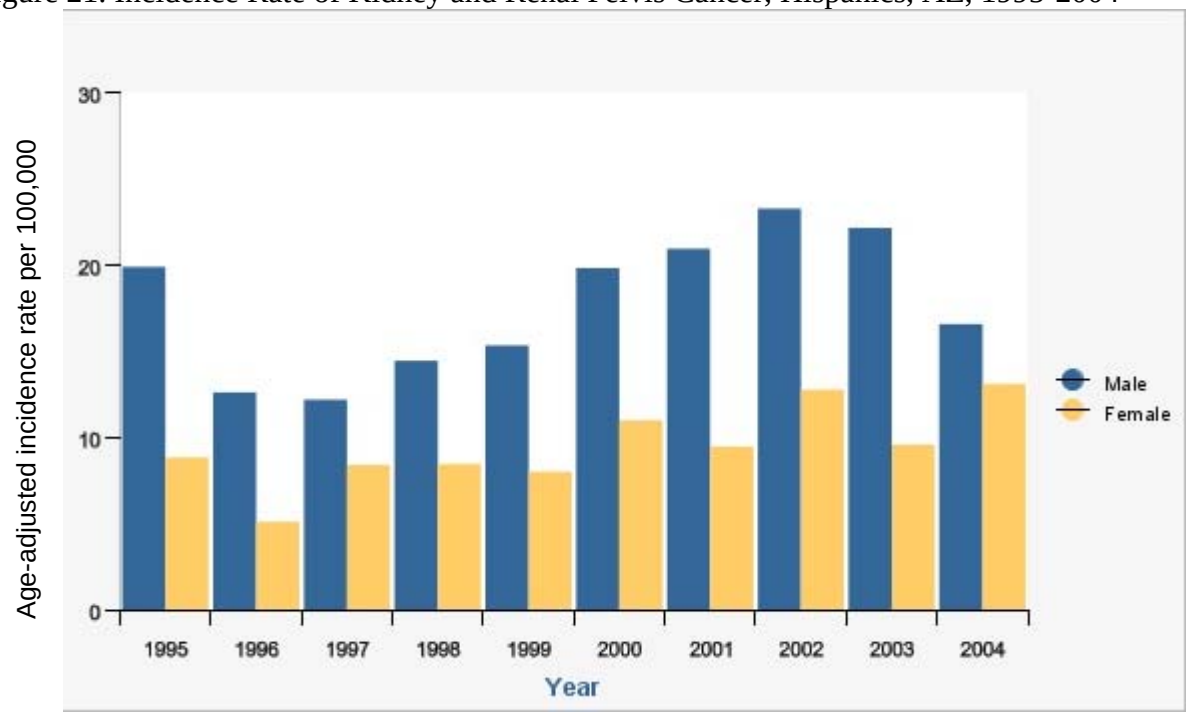
APPENDIX F: KIDNEY CANCER

Figure 20. Incidence Rate of Kidney and Renal Pelvis Cancer, AZ, 1995-2004.



Source: Arizona Cancer Registry, IBIS. Nov 30, 2007

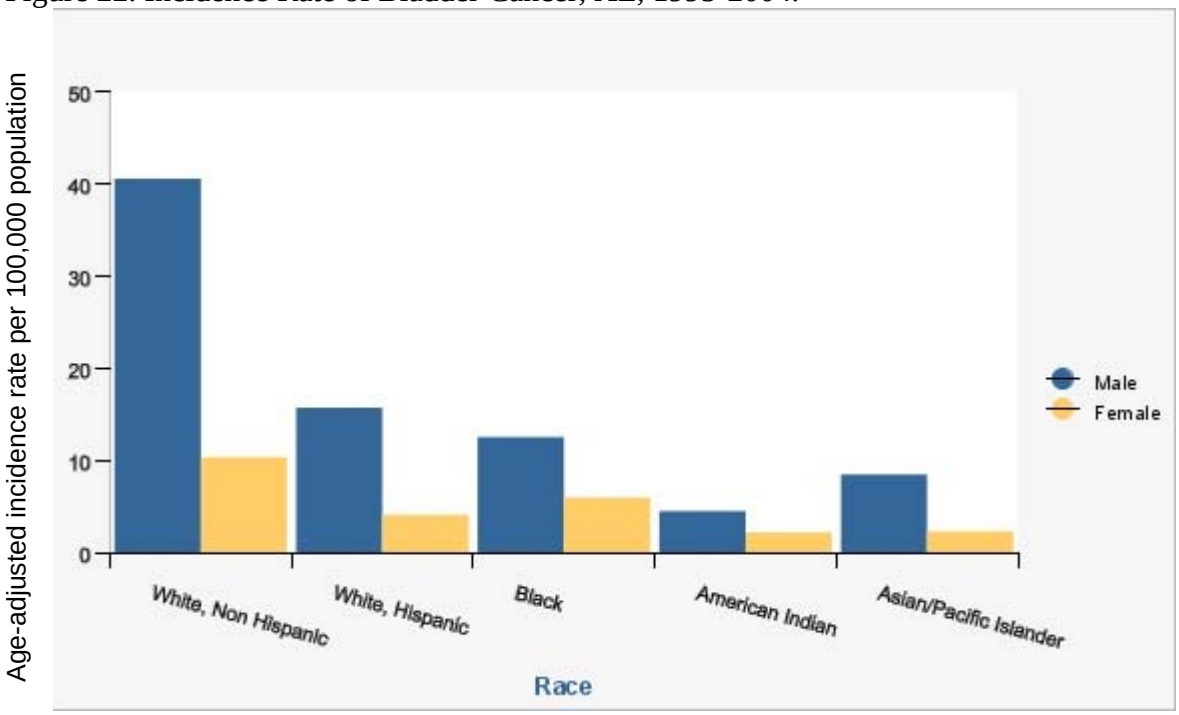
Figure 21. Incidence Rate of Kidney and Renal Pelvis Cancer, Hispanics, AZ, 1995-2004



Source: Arizona Cancer Registry, IBIS. Nov 30, 2007

APPENDIX G: BLADDER CANCER

Figure 22. Incidence Rate of Bladder Cancer, AZ, 1995-2004.



Source: Arizona Cancer Registry, IBIS. Nov 30, 2007

APPENDIX H: SURVIVORSHIP

Figure 23. Colorectal and Breast Cancer 5-year Survivorship

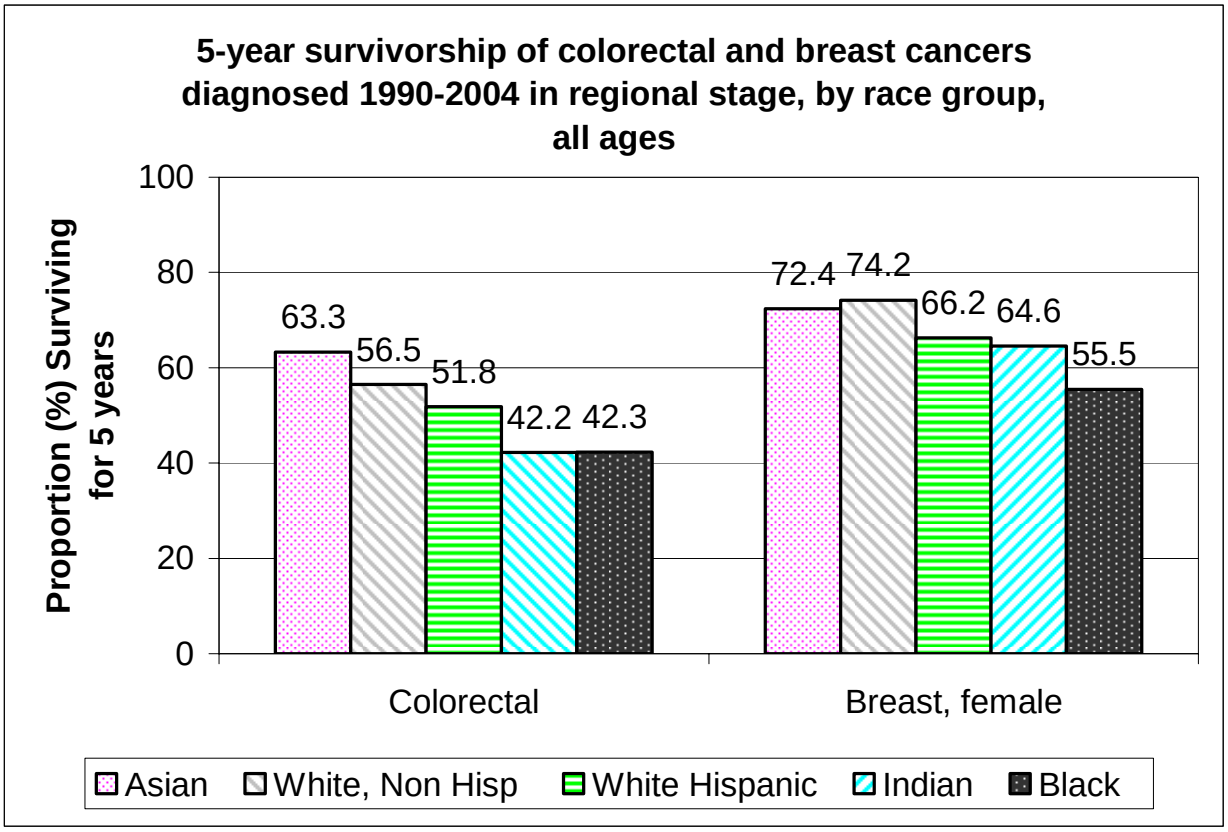
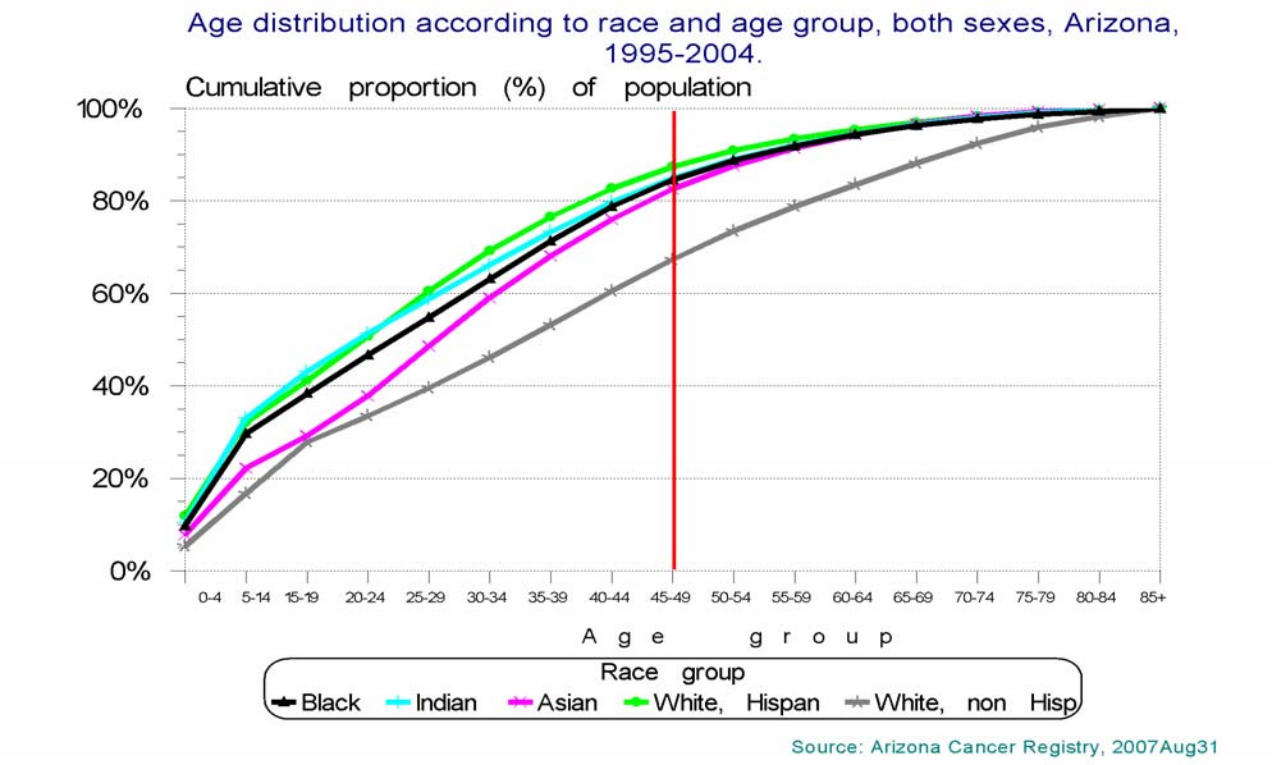


Figure 24. Age Distribution According to Race and Age Group, Both Sexes, Arizona, 1995-2004



APPENDIX H: SURVIVORSHIP

Figure 25. Incidence of Invasive Colorectal Cancer, by Race and Age Group, Arizona, 1995-2004

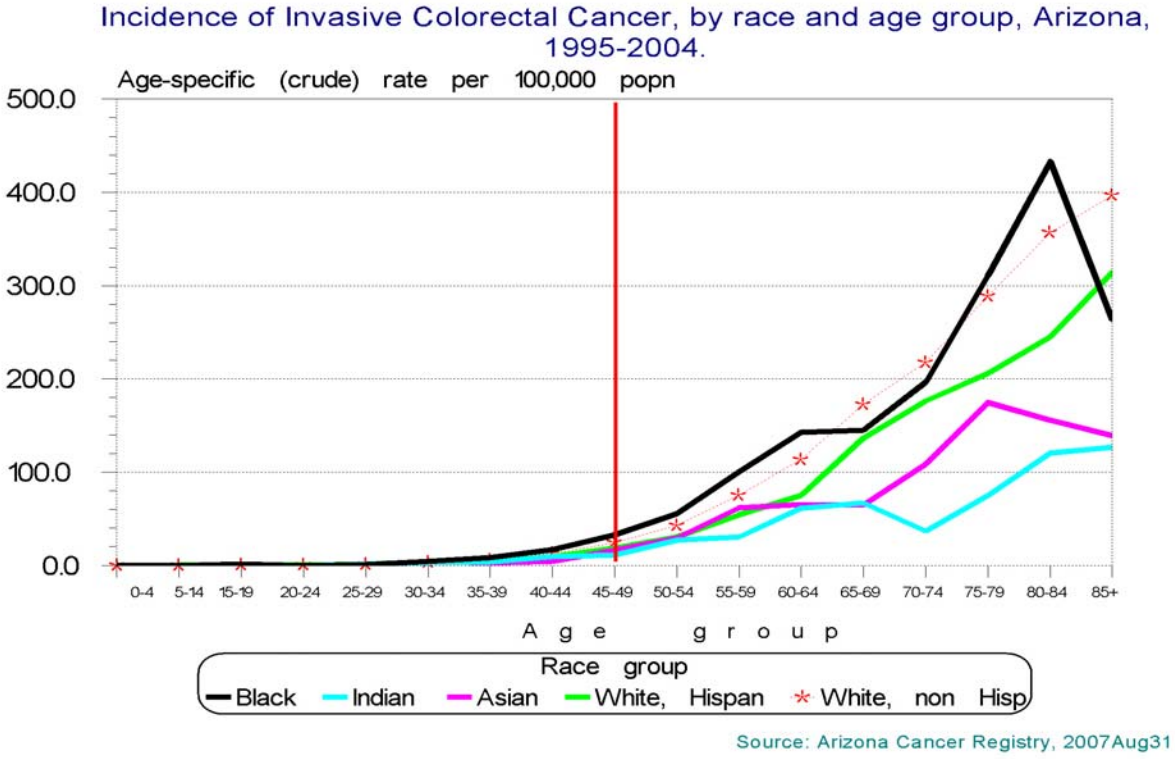
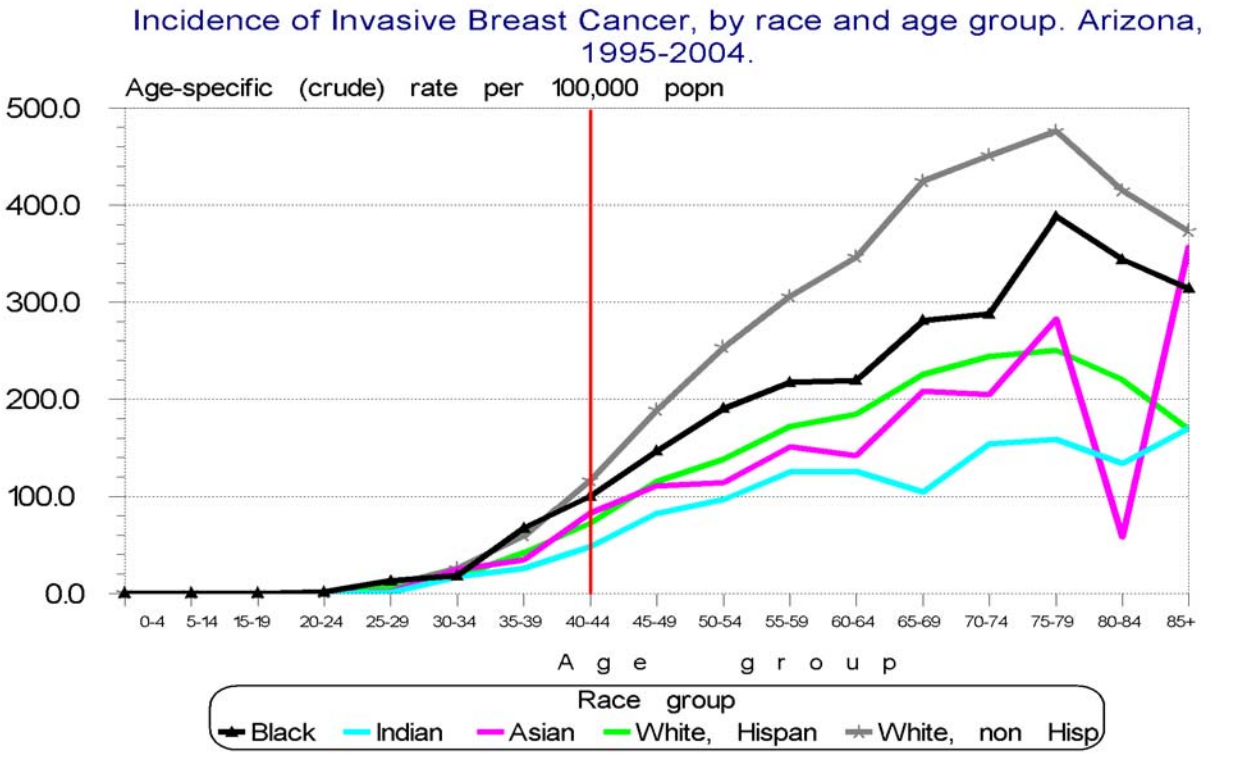
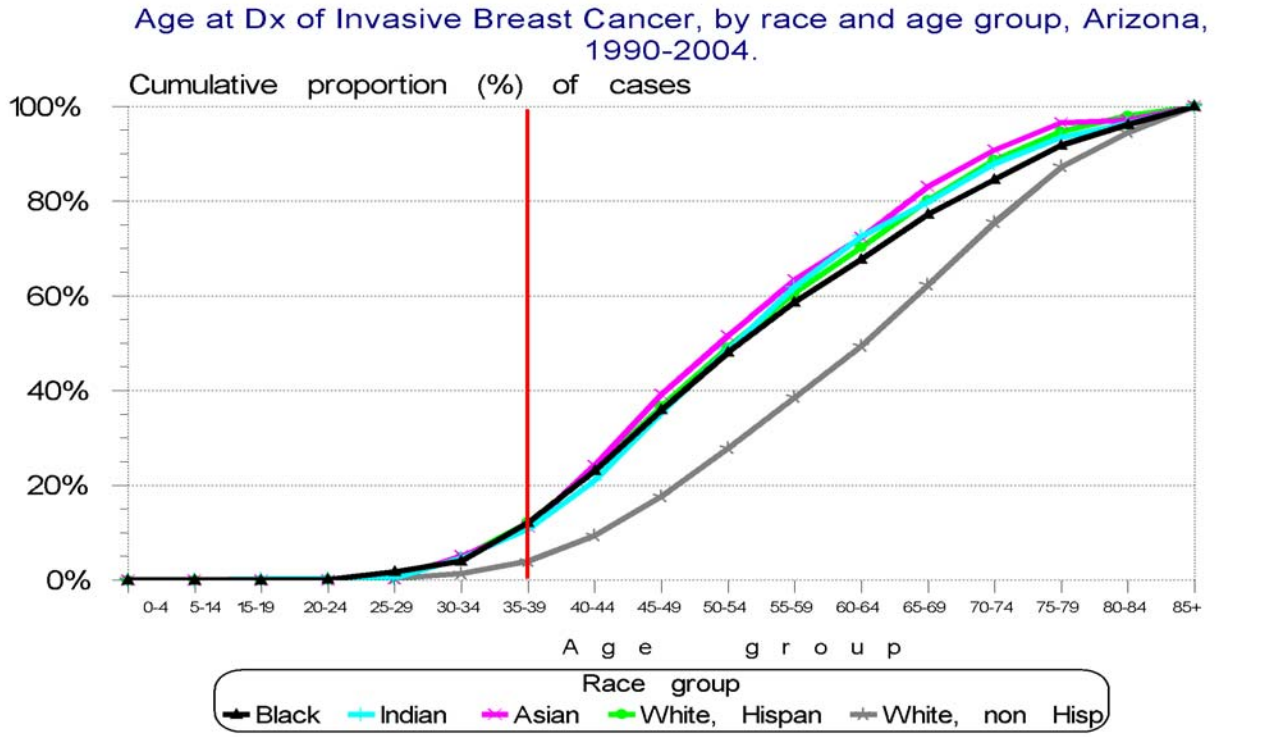


Figure 26. Incidence of Invasive Breast Cancer, by Race and Age Group, Arizona, 1995-2004



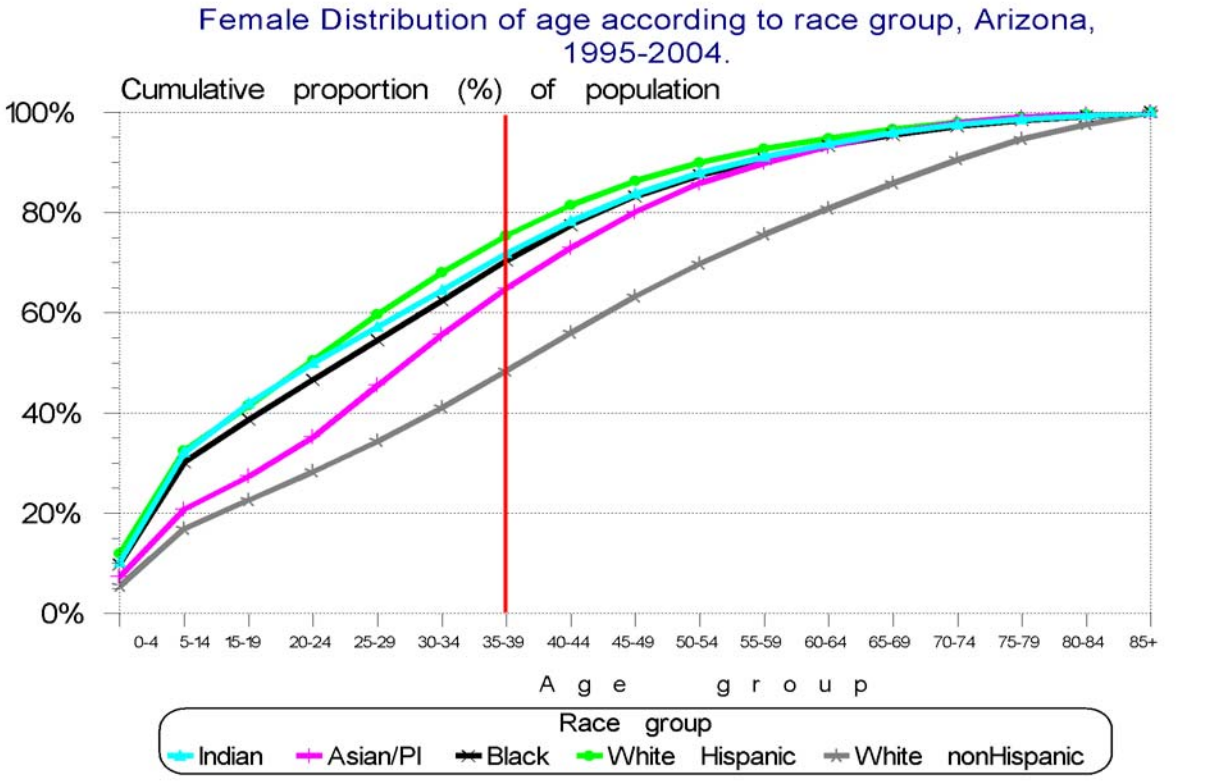
APPENDIX H: SURVIVORSHIP

Figure 27. Age at Diagnosis of Invasive Breast Cancer, by Race and Age Group, Arizona, 1995-2004



Source: Arizona Cancer Registry, 2007Sep25

Figure 28. Female Distribution of Age According to Race Group, Arizona, 1995-2004



Source: Arizona Cancer Registry, 2007-Sep-25

APPENDIX I: COMMENTS AS THE MATRIX WAS DEVELOPED

Comment or Issue	Response
Are we diagnosing cancer early enough? (i.e. age at diagnosis, stage)	We created Figures 24-28, which show that cancers are diagnosed in a high proportion of the younger age groups of non Whites. However, this finding is attributable to the relatively high proportion of younger persons in the non White populations. In general, the age-specific rates are highest in the White population, at least for colorectal and breast cancer.
Is the proportion of "unknown" survivorship or follow-up status the same across all the racial/ethnic groups?	These items also would be good measures of how well cancer patients remain "in the cancer care system." The ACR will generate these data in a future analysis.
Address controversy around Prostate Cancer Screening	Please see the separate document we prepared that describes some of the issues.

APPENDIX J: COMPARATIVE RANKING OF CLINICAL SERVICES

Partnership for Prevention: Rankings of Clinical Preventive Services in the General Population (2006)

Services (short name)	Clinical Preventive Benefit (CPB)	Cost Effective-ness (CE)	Total Score
Aspirin Chemoprophylaxis	5	5	10
Childhood Immunization Series	5	5	10
Tobacco Use Screening and Brief Intervention	5	5	10
Colorectal Cancer Screening	4	4	8
Hypertension Screening	5	3	8
Influenza Immunization	4	4	8
Pneumococcal Immunization	3	5	8
Problem Drinking Screening and Brief Counseling	4	4	8
Vision Screening-Adults	3	5	8
Cervical Cancer Screening	4	3	7
Cholesterol Screening	5	2	7
Breast Cancer Screening	4	2	6
Chlamydia Screening	2	4	6
Calcium Chemoprophylaxis	3	3	6
Vision Screening-Children	2	4	6
Folic Acid Chemoprophylaxis	2	3	5
Obesity Screening	3	2	5
Depression Screening	3	1	4
Hearing Screening	2	2	4
Injury Prevention Counseling	1	3	4
Osteoporosis Screening	2	2	4
Cholesterol Screening-High Risk	1	1	2
Diabetes Screening	1	1	2
Diet Counseling	1	1	2
Tetanus-diphtheria Booster	1	1	2

Maciosek MV et al. **Priorities among effective clinical preventive services: results of a systematic review and analysis.** **Am J Prev Med 2006; 31(1):52-61.** **www.prevent.org**

APPENDIX K: ENDNOTES

Endnotes

[1] **http://www.prevent.org/content/view/51/104/**
[2] Partnership for Prevention, 2001, citing Eddy, Ann Int Med 1990;133(3);214-226.
[3] Solberg, Am J Prev Med 2006;31(1):62–71
[4] op cit 2, citing Salzman, Ann Intern Med 1997;127(11):955-65.
[5] Maciosek, Am J Prev Med 2006;31(1):80-89
[6] See Taylor WC. A 71-year-old woman contemplating a screening colonoscopy. JAMA March 8, 2006. V.295(10):1161-1167.
[7] op cit 2, citing Coffield, Am J Prev Med 2001;21(1):1-9