

Cancer-related Behavioral Risk Factors

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Background

Individual cancer screening practices and lifestyle choices are relevant to the incidence, morbidity, and mortality of breast, cervical, colorectal, lung, and prostate cancers. Data relevant to such behaviors are presented in this section of the report.

Behavior data for Michigan residents were obtained from the Michigan Department of Community Health's Behavioral Risk Factor Surveillance System (BRFSS),¹ the Michigan State Board of Education's Michigan Youth Risk Behavior Survey (YRBS),² and the Michigan Public Health Institute's Special Cancer Behavioral Risk Factor Survey (SCBRFS).³

The Michigan Behavioral Risk Factor Surveillance System (BRFSS) is an ongoing state-level telephone survey that the Michigan Department of Community Health regularly conducts in cooperation with the Centers for Disease Control and Prevention (CDC). Each month a random sample of approximately 200 Michigan adults 18 years or older is interviewed. Survey instruments are designed so that a core set of questions dealing with some of the main risk indicators are asked each year while additional questions about specific topic areas are rotated in and out of the protocol. This design allows for more precise estimates of major risk or health promotion behaviors as well as allowing for a broad range of questions to be included. Michigan BRFSS data used in this report were collected from the years of 1996 through 2010 to illustrate trends in prevalence rates over time for various behaviors relevant to cancer prevention and control.¹

Tables and figures of prevalence rates for risk behaviors among Michigan youth included in this section are based on data from the Youth Risk Behavior Surveillance System (YRBSS).² The YRBSS was developed by the CDC to track the prevalence of health-risk behaviors among the nation's youth. The YRBSS has been conducted every other year by state and local education agencies across the United States since the spring of 1990 to assess the prevalence of six categories of health risk behaviors among youth grades nine through twelve. Michigan has administered this survey to students at randomly selected public schools across the state. Questions include many areas of risk behaviors from seatbelt use to illicit drug, alcohol and cigarette use, as well as questions about sexual behavior and other topics. Tobacco use and sexual activity data from the 2009 Michigan YRBS are included in this report.²

Additional data on current prevalence rates of cancer-related risk behaviors presented in this report were obtained from the 2008 Special Cancer Behavioral Risk Factor Survey (SCBRFS).³ The purpose of the SCBRFS is to evaluate cancer screening and prevention in Michigan. Data from this survey are used to assess progress toward improving health-related behaviors and cancer screening in Michigan. The 2008 SCBRFS was focused on men and women in Michigan

¹ Michigan Department of Community Health. (2011). *Behavioral Risk Factor Survey: Preliminary Estimates for Risk Factors and Health Indicators 2010*. Retrieved June 27, 2011 at: http://www.michigan.gov/documents/mdch/2010_MiBRFS_Standard_Tables_FINAL_350512_7.pdf

² Michigan Department of Education. (2011). *Michigan Youth Risk Behavior Survey: Detailed Results by Item 2009*. Retrieved at: www.michigan.gov/yrbs.

³ Michigan Public Health Institute and Michigan Department of Community Health. (2010). *Special Cancer Behavioral Risk Factor Survey 2008*. Retrieved at: <http://www.michigancancer.org/Resources/SpecialMCCReports.cfm>.

40 years of age or older. Using telephone surveillance methodology similar to the Michigan BRFSS, interviews were conducted with a sample of 5,631 Michigan residents from the entire state. To survey special population groups, the SCBRFS sampling design over-sampled African Americans, American Indians, Hispanics, and Arab Americans.

This section also presents a comparison of the Health Plan Employer Data and Information Set (HEDIS) measures for the U.S. and Michigan related to breast, cervical, and colorectal cancer screening, and smoking cessation.⁴ HEDIS measures are a set of performance standards used to measure quality of managed health care plans. The data are used to set standard measures for the National Committee for Quality Assurance's (NCQA) accreditation program and to calculate national performance statistics and benchmarks. NCQA collects the data from managed care organizations and preferred provider organizations. This report includes breast, cervical, and colorectal cancer screening measures, as well as smoking cessation measures such as advising patients to quit, discussing medications, and discussing strategies for quitting. Average measures include all lines of business (HMO, POS, PPO, HMO/POS combined, and HMO/POS/PPO combined).

⁴ National Committee for Quality Assurance (NCQA). (2010). Quality Compass; HEDIS 2010. Retrieved at: www.qualitycompass.org.

Summary

Breast Cancer Screening

The Michigan Cancer Consortium (MCC) and the American Cancer Society (ACS) recommend that all women over the age of 40 years have a mammogram and clinical breast exam (CBE) every year.⁵

Figure 1 shows mammogram utilization among Michigan women aged 40 years or older in 2008. Roughly fifty-nine percent of all age-eligible women had a mammogram and clinical breast exam in the past year. Among the special populations surveyed, Hispanic women reported the lowest rate of mammogram utilization within the past year (37.6%). The reported rates among African American women (64.1%) were higher than that of the general population.

The percentage of women aged 40 years or older who were appropriately screened for breast cancer (by a combination of yearly mammogram and CBE) has increased only slightly in the past 15 years from 52.9% in 1996 to 53.0% in 2010 (Figure 2). However, a slight decline in reported screening rates was observed in more recent years, from 58.4% in 2000 to 53.0% in 2010.

Table 1 presents the HEDIS measure for breast cancer screening in Michigan and the United States. The percentage of women who had a mammogram to screen for breast cancer during the previous two years as measured by HEDIS in 2010 was greater in Michigan (73.4%) than that in the U.S. (69.5%).

Cervical Cancer Screening and Sexual Behaviors

The MCC and the ACS recommend that all women should begin Pap tests starting at age 21 or three years after the onset of sexual activity, whichever comes first.⁶ The onset of sexual activity is of primary interest, as having unprotected sex at a young age increases risk of contracting human papilloma virus (HPV), which is an important risk factor for cervical cancer.⁷

In 2010, 77.7% of women aged 18 years or older had a pap test within the past three years (Figure 3). The percentage of women having a Pap test within the past three years peaks among women aged 30 to 39 years and steadily declines after age 40.

Figure 4 presents the percentage of women age 18 years and older who had a Pap test within the past three years from 1996 to 2010. Overall, the percentage of women having a Pap test within the past three years has slightly declined, from 84.1% of women in 1996 to 77.7% of women in 2010.

⁵ Michigan Cancer Consortium. (2009). *Michigan Cancer Consortium Guidelines for the Early Detection of Breast Cancer*. Retrieved at: <http://www.michigancancer.org/PDFs/EarlyDetectionRecs/MCCBreastCaGuidelines-Dec2009.pdf>

⁶ Michigan Cancer Consortium. (2007). *Michigan Cancer Consortium Guidelines for the Early Detection of Cervical Cancer*. Retrieved at: <http://www.michigancancer.org/PDFs/EarlyDetectionRecs/MCCCervCAGuidelines-Dec2007.pdf>.

⁷ American Cancer Society. (2011). *Cancer Reference Information: What Causes Cancer of the Cervix?* Retrieved June, 27, 2011 at: http://www.cancer.org/docroot/CRI/CRI_0.asp.

Table 2 presents the HEDIS measures for cervical cancer screening in Michigan and the United States. In 2010, the percentage of women age 21 to 64 years who had a Pap test to screen for cervical cancer during the previous three years was greater in Michigan (81.0%) compared to the U.S. (76.1%).

Table 3 presents indicators of sexual behavior among Michigan youth. Over 45% of ninth to twelfth grade students reported having ever had sexual intercourse in 2009. Of these students, only 61.4% used a condom during their last sexual intercourse, and 13.6% had sexual intercourse with four or more people during their lives. When compared to youth nationwide (46.0%), fewer Michigan youth (45.6%) reported ever having sexual intercourse (Figure 5).

Colorectal Cancer Screening

In 2009, the recommendations by the MCC and the ACS for colorectal cancer screening include five screening schedule options for a person at average risk for colorectal cancer. According to these guidelines, all persons at average risk should be screened for colorectal cancer starting at age 50. Appropriate screening may consist of an annual fecal occult blood test (FOBT), a sigmoidoscopy exam once every five years, a sigmoidoscopy exam once every five years with an annual FOBT, a double contrast barium enema (DCBE) once every five years, or a colonoscopy once every ten years.⁸

In 2008, 60.8% of adults aged 50 years or older had one of the recommended colorectal cancer screening tests within the appropriate time-frame (Figure 6). Among the special population groups surveyed, the percentage of American Indian men and women who received an appropriately-timed colorectal cancer screening test was similar (59.2%) to that of the general population. African American (57.4%), Hispanic (46.5%), and Arab American (45.6%) men and women had lower colorectal cancer screening rates than the general population, while Asian American men and women (63.7%) had higher colorectal cancer screening rates than the general population.

Figure 7 presents the percentage of men and women age 50 years and older who had any appropriately-timed colorectal cancer screening exam from 2001 to 2008. Since 2001, the percentage of men and women within the general population who received an appropriately-timed colorectal screening exam has increased from 49.5% in 2001 to 60.8% in 2008. A similar increase in screening was seen in the African American population, increasing from 51.8% in 2001 to 57.4% in 2008.

The percentage of men and women age 50 years and older who ever had a FOBT decreased from 51.2% in 2001 to 44.5% in 2010 (Figure 8). However, the percentage of men and women age 50 years and older who ever had a lower gastrointestinal endoscopic exam increased from 55.2% in 2001 to 70.9% in 2010 (Figure 9).

⁸ In 2009, the Michigan Cancer Consortium revised the guidelines for early detection of colorectal cancer to include additional tests. Michigan Cancer Consortium. (2009). MCC Guidelines for the Early Detection of Colorectal Cancer. Retrieved at: <http://www.michigancancer.org/PDFs/EarlyDetectionRecs/MCCColoCaGuidelines-02.19.09.pdf>.

Table 4 presents the HEDIS measures for colorectal cancer screening in Michigan and the United States. In 2010, the percentage of men and women age 50 to 80 years who had an appropriate colorectal cancer screening exam during the appropriate timeframe was greater in Michigan (58.6%) than in the U.S. (54.5%).

Lung Cancer Prevention

Although cigarette smoking is a risk factor for other types of cancer, it is the single most important risk factor in the development of lung cancer. According to the ACS, about 87% of lung cancers deaths are attributed to smoking, and additional cases are attributed to environmental exposure to tobacco smoke.⁹

Figure 10 presents the percentage of Michigan adults, age 18 years or older who were current smokers from 1996 to 2010. Overall, the prevalence of current smokers has declined from 25.6% of adults age 18 years and older in 1996 to 18.9% of adults in 2010.

In 2008, 20.6% of adults aged 40 years or older were current smokers (Figure 11). Of the special populations surveyed, the African American (25.4%), American Indian (21.2%), and Hispanic (24.2%) populations had current smoking rates greater than that of the general population, while Arab American population aged 40 years or older had rates (19.3%) similar to the general population of Michigan. The Asian American population of adults aged 40 years or older had a current smoking rate significantly lower than the general population (6.7%).

In 2010, 62.3% of current smokers of all ages attempted to quit smoking one day or more in the past year (Figure 12). Rates for attempting to quit were highest among adults age 18 to 24 years (78.7%) and lowest among smokers aged 75 years and older (56.1%).

In 2008, 53.8% of current smokers aged 40 years or older attempted to quit in the past year (Figure 13). The rates for attempting to quit were highest among Asian Americans (82.4%) and lowest among the Hispanic population (37.6%).

In 2008, 91.4% of those surveyed within the general population reported having been advised by a doctor of smoking cessation programs and resources (Figure 14). The percentage of adults 40 years and older who were advised by a doctor of smoking cessation programs or resources was lower among the African American (88.6%), Hispanic (88.8%) and Arab American (88.2%) populations, and higher among the American Indian (95.4%) and Asian American (92.6%) populations. The Arab American population was the least likely to report being advised of cessation resources or programs by a doctor (88.2%).

Table 5 shows HEDIS measures for current smokers aged 18 years or older, who were advised by a physician to quit tobacco usage. In 2009, the percentage of current smokers who were advised to quit by their physician was greater in Michigan (79.9%) than the U.S. (75.2%). Table 6 presents the HEDIS measures for current smokers aged 18 years and older, who discussed medications for smoking cessation with a physician. In 2009, 57.6% of current smokers in

⁹American Cancer Society. (2010). Lung Cancer (Non-Small Cell). Retrieved June 28, 2011 at: <http://www.cancer.org/Cancer/LungCancer-Non-SmallCell/DetailedGuide/non-small-cell-lung-cancer-risk-factors>

Michigan were advised of cessation medications, compared to 53.4% of current smokers in the U.S. Table 7 presents the HEDIS measures of current smokers aged 18 years and older whose physician recommended or discussed smoking cessation strategies or methods. In 2009, 55.5% of current smokers in Michigan had received recommendations or discussed smoking cessation strategies or methods, compared to 47.9% of current smokers in the U.S.

In 2009, approximately 18.8% of Michigan youth had smoked cigarettes on one or more day in the past 30 days (Table 8). The percent of youth who smoked cigarettes on one or more of the past thirty days increases with grade level, with highest percentage reported among 12th graders (23.4%). The percent of youth who smoked cigarettes on one or more day in the past 30 days was higher among White youth (19.9%) compared with Black youth (11.0%).

The percent of current smokers among Michigan youth has decreased from 38.2% in 1997 to 18.8% in 2009 (Figure 15). Figure 16 shows tobacco use indicators among Michigan and the United States. More Michigan students (53.6%) tried to quit smoking than students in the U.S. (50.8%).

Prostate Cancer

Currently the effectiveness of prostate cancer screening is a topic of investigation.¹⁰ Even though prostate cancer mortality has steadily decreased since the 1990s, it is unclear whether the decrease in mortality is due to early detection or to better treatment. Due to the uncertainty of rate of growth of certain prostate cancers, finding and treating prostate cancer early may help some men live longer, but may have no impact on the life span of other men. In addition, prostate cancer treatments may cause short-term or long-term side effects that affect a man's quality of life. Currently, the MCC and the ACS do not recommend routine testing for prostate cancer. The current recommendation is for men to discuss screening with their health care provider and understand the advantages and disadvantages of having a prostate specific antigen test (PSA) and digital rectal exam (DRE) on a routine basis for early detection of prostate cancer.

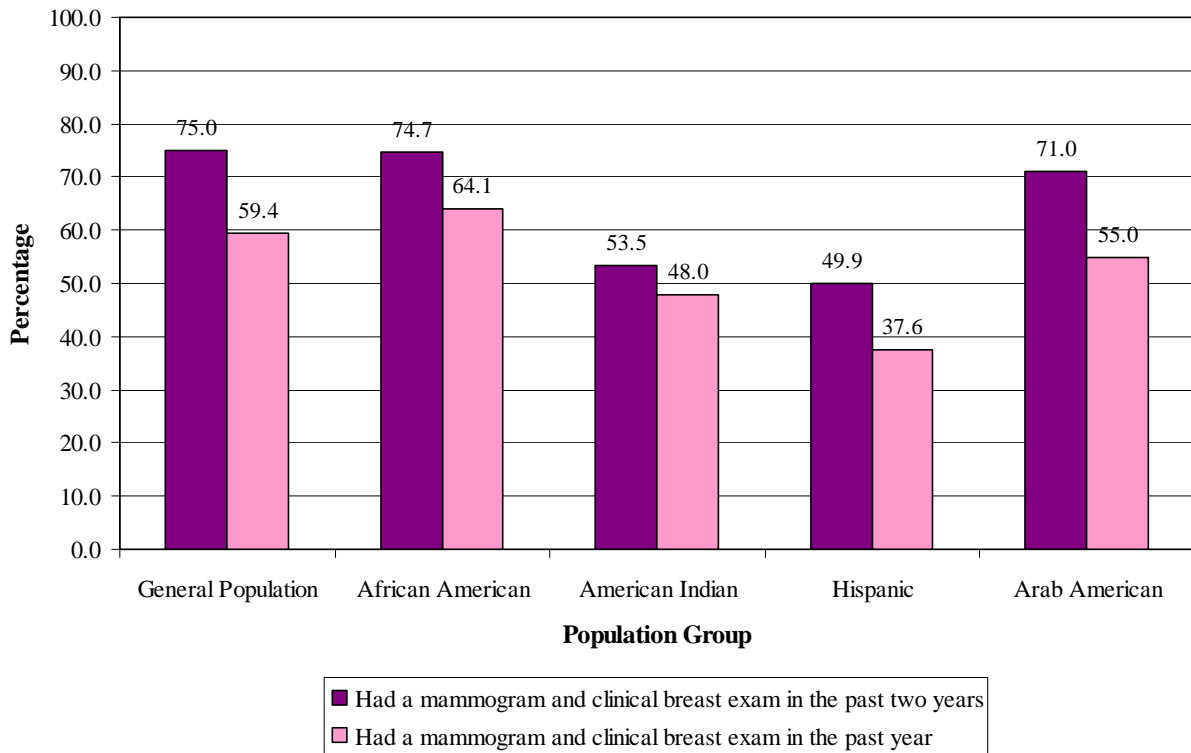
During 2008, 56.8% of men aged 40 years or older had ever had a PSA test (Figure 17). The percentage of men within the African American population (68.9%) that ever had a PSA test was significantly higher to that in the general population. A smaller percentage of men within the American Indian population (35.7%), Hispanic population (41.4%), Arab American (53.5%) and Asian American population (39.0%) reported ever having a PSA test compared to the general population.

Figure 18 presents the percentage of Michigan men who have ever discussed PSA testing with a doctor. Among the general population, 57.3% of men had discussed PSA testing with a doctor. The percentage of men within the African American population (61.1%) and Arab American population (65.3%) had discussed PSA testing with a physician greater to that in the general population, while a smaller percentage of men within the American Indian population (44.5%), Hispanic population (44.5%) and Asian American population (42.4%) discussed PSA testing with a doctor compared to the general population.

¹⁰ American Cancer Society. (2010). Prostate Cancer Overview. Retrieved June 29, 2011 at: <http://www.cancer.org/Cancer/ProstateCancer/OverviewGuide/prostate-cancer-overview-diagnosed>

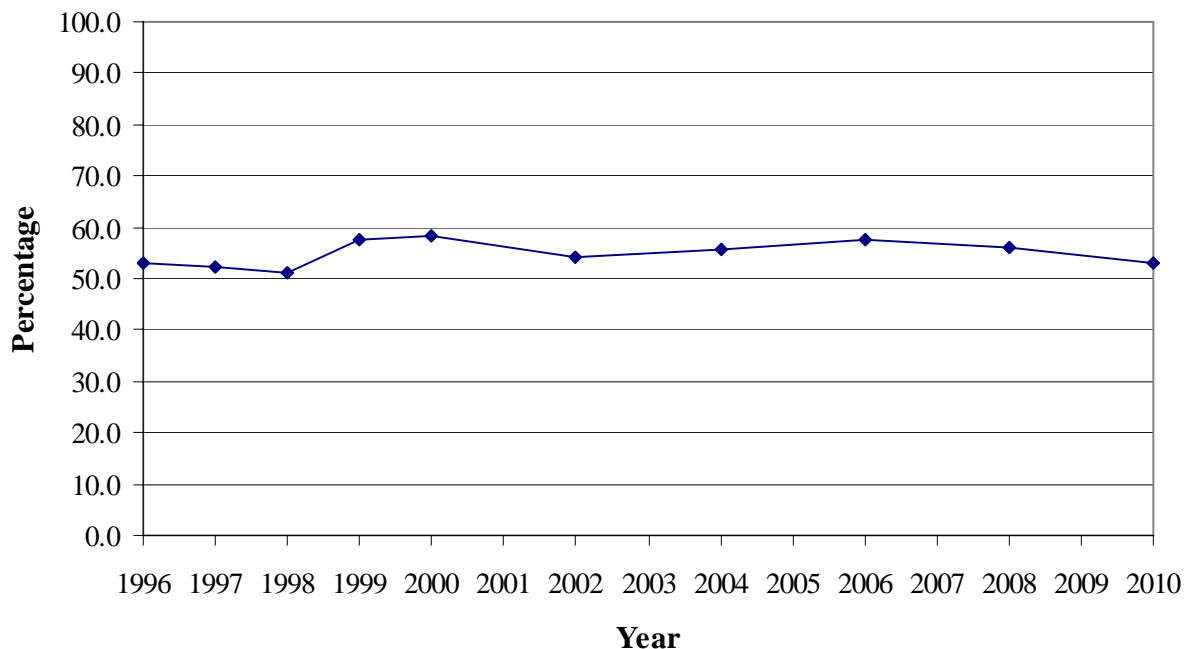
Breast Cancer

Figure 1: Mammogram Utilization among Michigan Women Aged 40 Years or Older by Population Group, 2008*



*Respondents whose last breast exam was done because of a problem were not included in analysis of appropriate screening.

Figure 2: Percentage of Michigan Women Aged 40 Years or Older Who Had Annual Mammography and Clinical Breast Exam, 1996-2010



Year	Had Appropriately Timed Breast Cancer Screening ^{1,2} (%)
1996	52.9
1997 ¹	55.4, 52.4
1998	51.2
1999	57.6
2000	58.4
2001	(Not asked)
2002	54.2
2003	(Not asked)
2004	55.7
2005	(Not asked)
2006	57.2
2007	(Not asked)
2008	56.0
2009	(Not asked)
2010*	53.0

¹ The ACS recommended time frame for appropriate mammography screening changed in 1997 to annually for all women 40 years of age or older. For all previous years, the recommendation was biannual screening for women aged 40 to 49 and annual screening for women aged 50+ years. As appropriate breast screening is a combination of appropriate CBE and appropriate mammography (each within the past year), this indicator changed as well.

² Data include diagnostic tests.

* 2010 Michigan Behavioral Risk Factor Survey.

Table 1: HEDIS Measures* for Breast Cancer Screening, MI vs. US 2003-2010

	Michigan	National
2003	76.4	74.9
2004	77.0	75.3
2005	77.2	73.4
2006^	75.2	72.0
2007**	73.7	68.9
2008	72.6	67.3
2009	70.5	68.4
2010	73.4	69.5

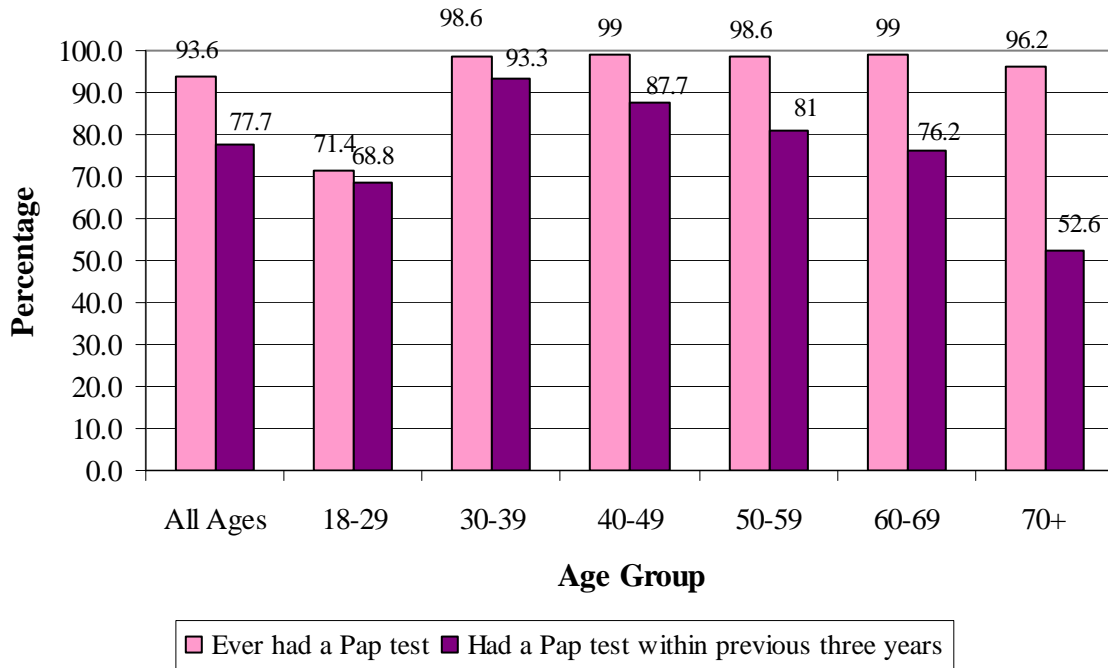
*The HEDIS measure is the percentage of women who had a mammogram to screen for breast cancer during the previous two years. Measures include all lines of business HMO, POS, PPO, HMO/POS combined, and HMO/POS/PPO combined.

^ In 2006, the hybrid methodology was retired for this measure. Trending 2006 performance with prior years' data should be considered with caution.

**In years prior to 2007, the HEDIS measure included women age 52 to 69 years only. In 2007, the HEDIS measure was changed to encompass women age 42 to 69 years.

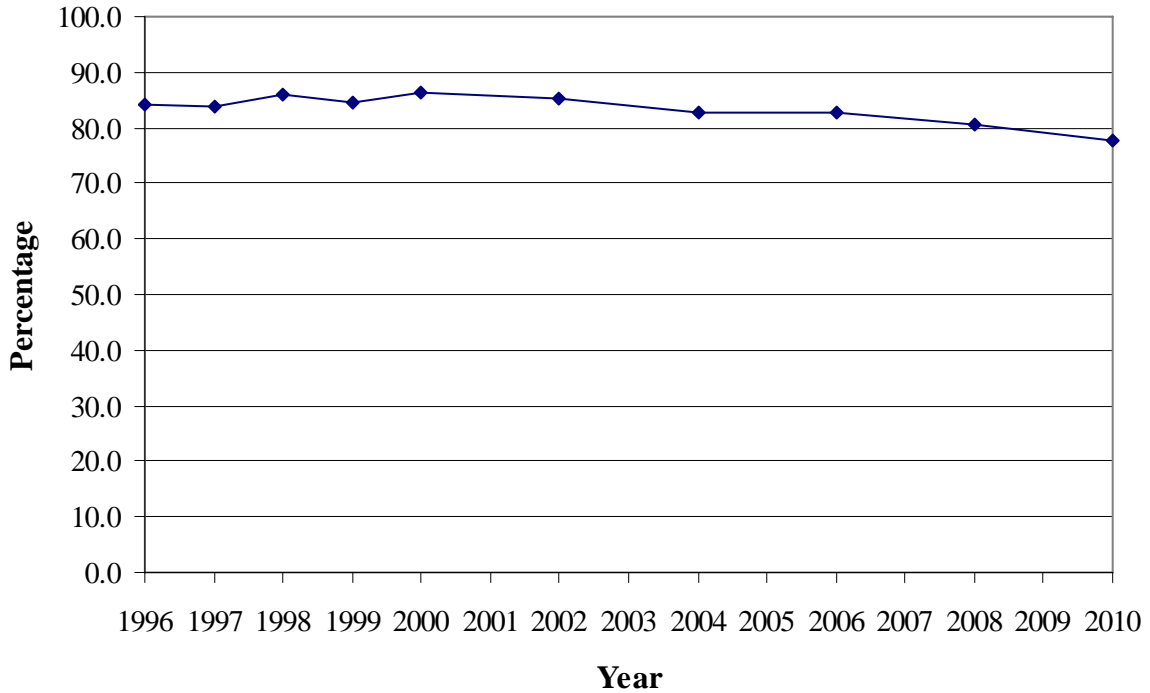
Cervical Cancer

Figure 3: Cervical Cancer Screening Among Michigan Women Aged 18 Years or Older by Age Group, 2010*



* Data include diagnostic tests; 2010 Michigan Behavioral Risk Factor Survey.

Figure 4: Appropriately-Timed Cervical Cancer Screening Among Michigan Women Aged 18 Years or Older, 1996-2010



Year	Had Appropriately Timed Cervical Cancer Screening (Within Past 3 Years) ^{1,2} (%)
1996	84.1
1997	83.8
1998	85.8
1999	84.4
2000	86.2
2001	(Not asked)
2002	85.2
2003	(Not asked)
2004	82.6
2005	(Not asked)
2006	82.6
2007	(Not asked)
2008	80.5
2009	(Not asked)
2010*	77.7

¹ Percentage of women ages 18 or older reported to have had a pap smear in the past 3 years.

² Data include diagnostic tests.

*2010 Michigan Behavioral Risk Factor Survey.

Table 2: HEDIS Measures* for Cervical Cancer Screening, MI vs. US 2003-2010

	Michigan	National
2003	80.0	80.5
2004	81.8	81.8
2005	83.7	80.9
2006	85.8	81.8
2007^	85.5	81.0
2008	83.8	78.4
2009	80.5	78.0
2010	81.0	76.1

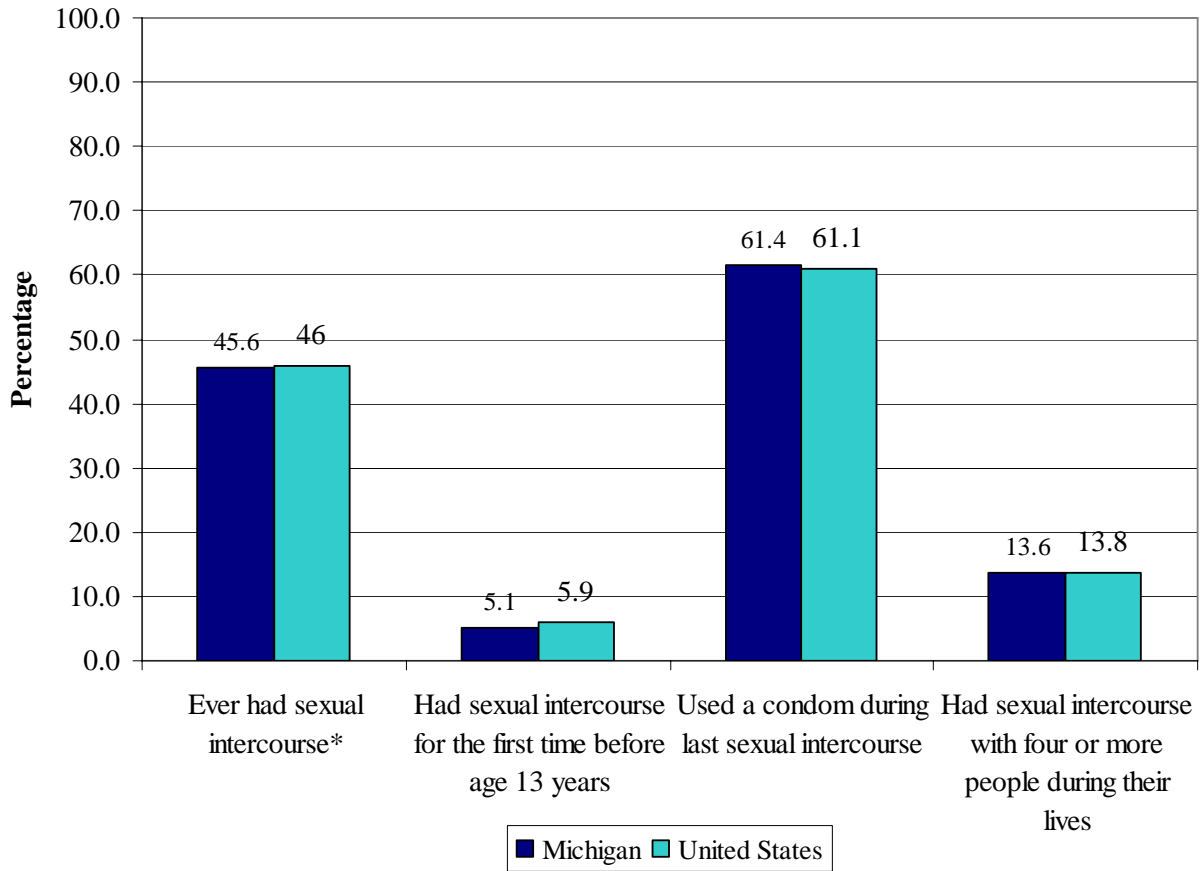
*The HEDIS measure is the percentage of women 21 to 64 years of age who received one or more Pap tests to screen for cervical cancer in the past 3 years. Measures include all lines of business HMO, POS, PPO, HMO/POS combined, and HMO/POS/PPO combined.

^In 2007, the lower age limit was raised to 21 years of age. Trending 2007 performance with prior years' data should be considered with caution.

Table 3: Sexual Intercourse Behaviors As Reported by Michigan Youth
Grades 9-12, 2009

Behavior	Total (%)	Gender		Grades				Race	
		Male (%)	Female (%)	9 (%)	10 (%)	11 (%)	12 (%)	White (%)	Black (%)
Percentage of students who had sexual intercourse	45.6	46.9	44.3	27.1	39.8	53.8	65.0	41.2	65.9
Percentage of students who had sexual intercourse for the first time before age 13	5.1	7.2	3.0	5.3	4.8	6.1	3.8	3.3	12.4
Of students who had sexual intercourse during the past three months, % who used a condom during last sexual intercourse	61.4	68.2	55.2	63.0	62.7	61.8	59.9	59.0	68.5
Percentage of students who had sexual intercourse with four or more people during their lives	13.6	15.7	11.5	6.4	10.1	16.9	22.2	10.2	27.6

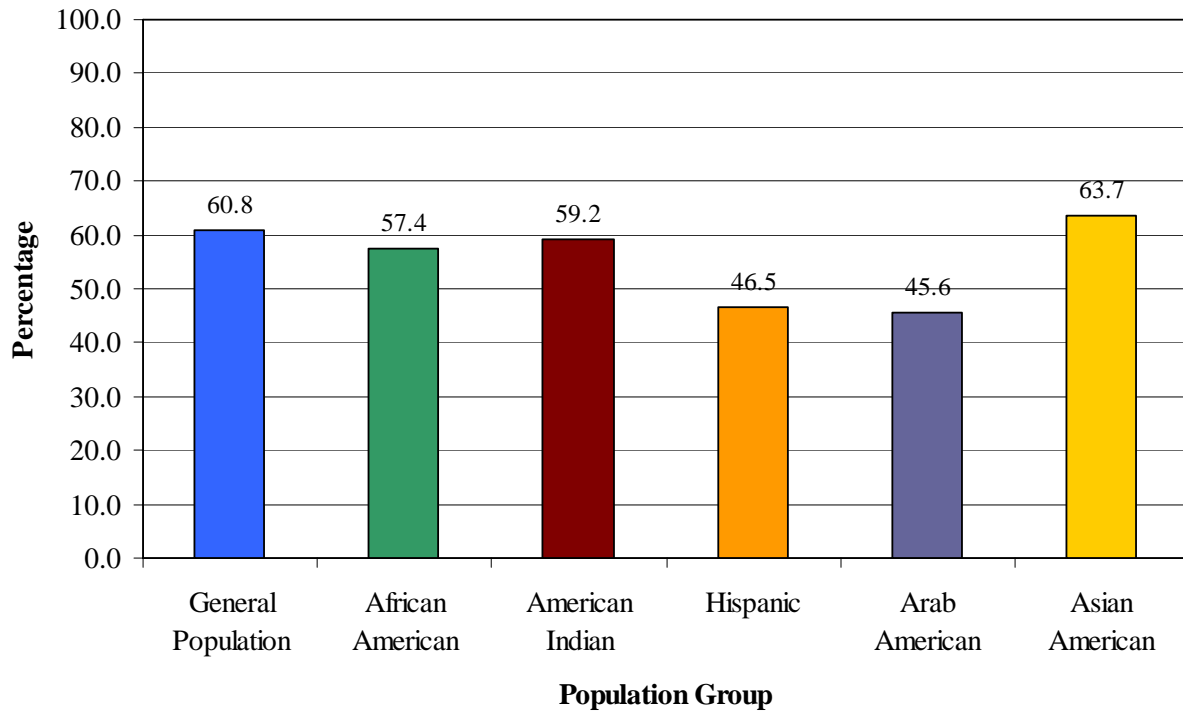
Figure 5: Sexual Intercourse Behaviors As Reported by Youth Grades 9-12: Michigan vs. US, 2009



*Difference is statistically significant at $p < 0.05$.

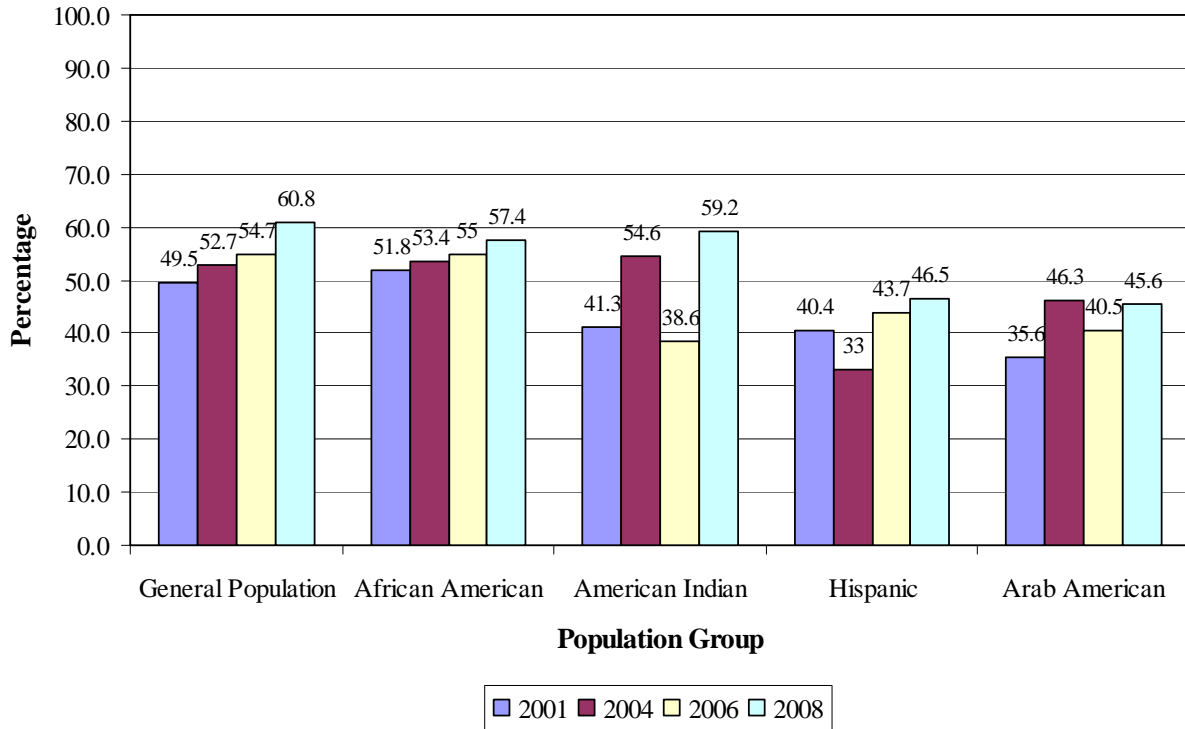
Colorectal Cancer

Figure 6: Michigan Adults Aged 50 Years or Older Who Had Any Appropriately-Timed* Colorectal Cancer Screening Test by Population Group, 2008



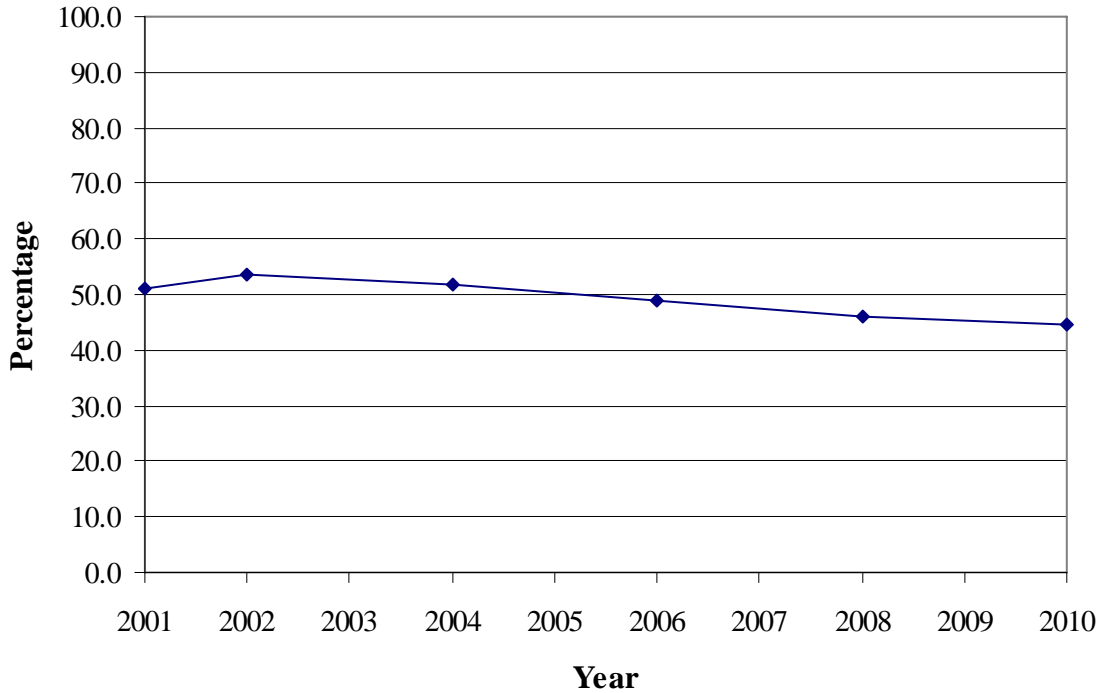
*In 2010, the MCC's recommendation for colorectal cancer screening was to have either a yearly fecal occult blood test (FOBT), a sigmoidoscopy every five years, a yearly FOBT with a sigmoidoscopy every five years, a colonoscopy every ten years, or a double contrast barium enema (DCBE) every five years.

Figure 7: Comparison of Survey Years among Michigan Adults Aged 50 Years or Older Who Had Any Appropriately Timed* Colorectal Cancer Screening Test, 2001-2008



*In 2010, the MCC’s recommendation for colorectal cancer screening was to have either a yearly fecal occult blood test (FOBT), a sigmoidoscopy every five years, a yearly FOBT with a sigmoidoscopy every five years, a colonoscopy every ten years, or a double contrast barium enema (DCBE) every five years.

Figure 8: Percentage of Michigan Adults Aged 50 Years or Older Who Ever Had a Fecal Occult Blood Test (FOBT), 2001-2010

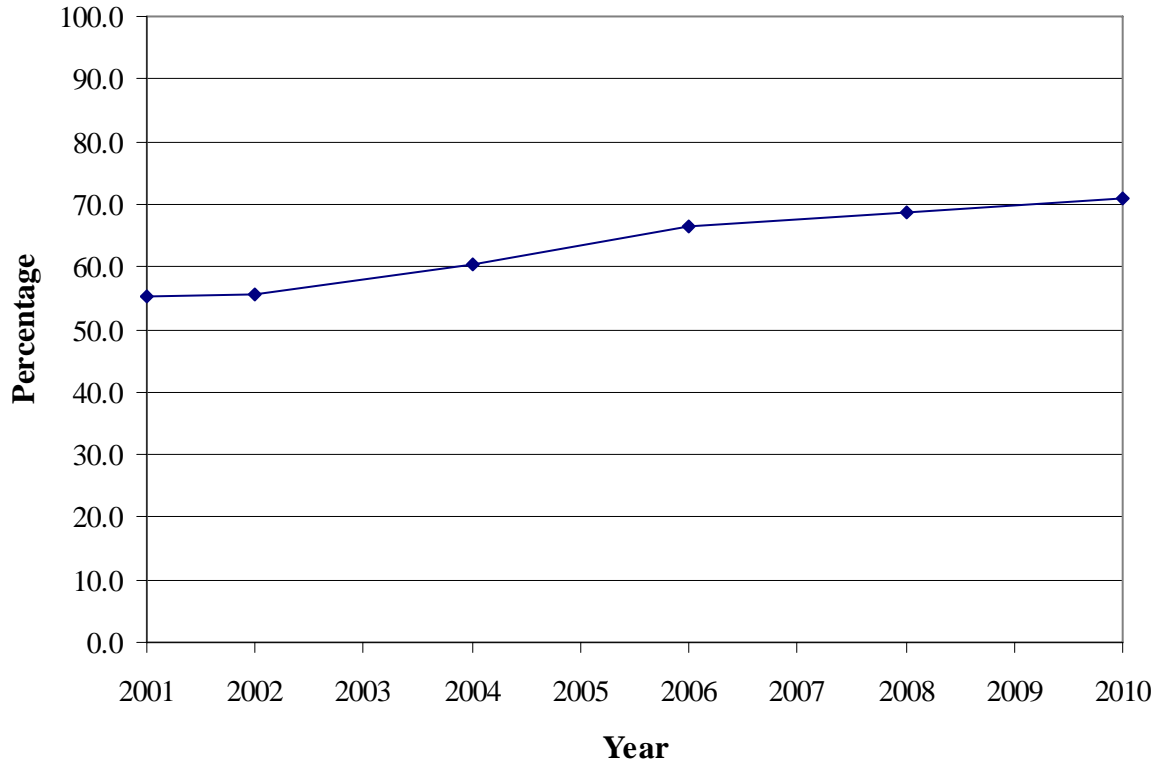


Year	Ever Had an FOBT ¹ (%)
2001	51.2
2002	53.6
2003	(Not asked)
2004	51.9
2005	(Not asked)
2006	49.1
2007	(Not asked)
2008	45.9
2009	(Not asked)
2010*	44.5

¹ Data include diagnostic tests.

*2010 Michigan Behavioral Risk Factor Survey.

Figure 9: Percentage of Michigan Adults Aged 50 Years or Older Who Ever Had a Lower Gastrointestinal Endoscopic Exam, 2001-2010



Year	Ever Had a Lower Gastrointestinal Endoscopic Exam (%) ^{1,2}
2001	55.2
2002	55.6
2003	(Not asked)
2004	60.3
2005	(Not asked)
2006	66.3
2007	(Not asked)
2008	68.6
2009	(Not asked)
2010*	70.9

¹ Question asked: Ever had a sigmoidoscopy or colonoscopy?

² Data include diagnostic tests.

*2010 Michigan Behavioral Risk Factor Survey.

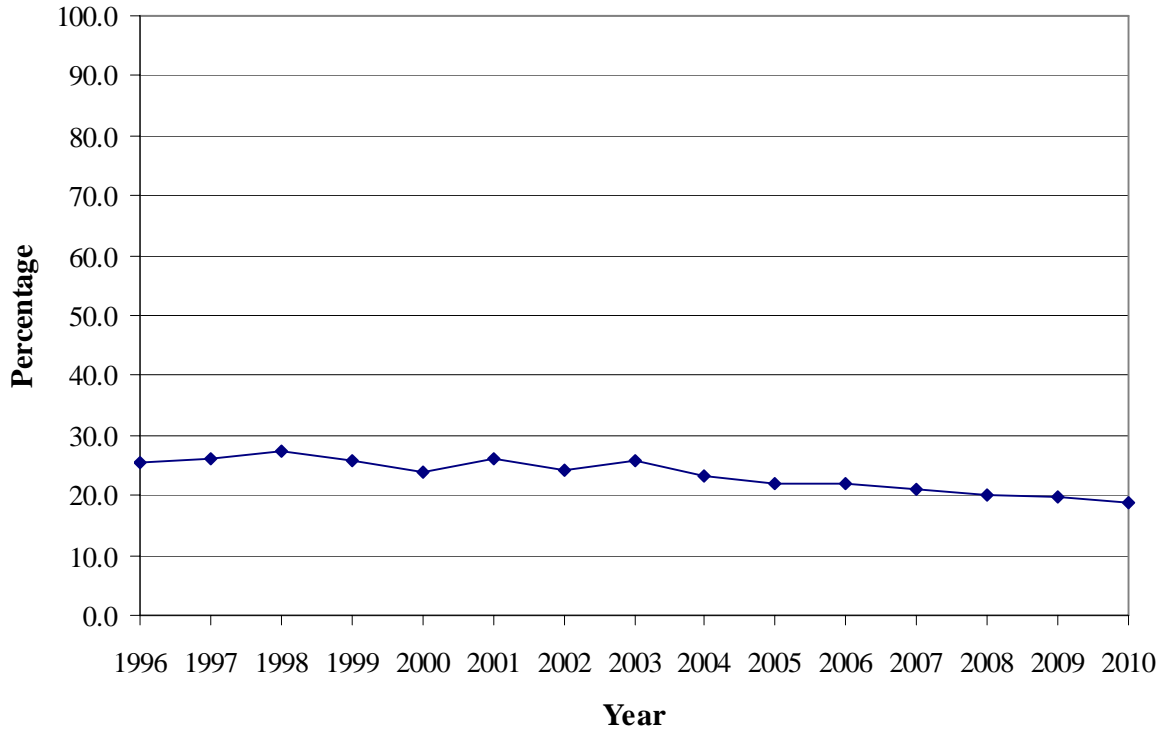
Table 4: HEDIS Measures* for Colorectal Cancer Screening,
 MI vs. US 2005-2010

	Michigan	National
2005	51.3	49.0
2006	55.1	52.3
2007	56.6	54.5
2008	56.2	51.3
2009	53.1	52.6
2010	58.6	54.5

* The HEDIS measure is the percentage of adults 50 to 80 years of age who had an appropriate screening for colorectal cancer, which includes having a fecal occult blood test within the past year, a flexible sigmoidoscopy in the past 5 years, a double contrast barium enema in the past 5 years, or a colonoscopy in the past 10 years. Measures include all lines of business HMO, POS, PPO, HMO/POS combined, and HMO/POS/PPO combined.

Lung Cancer

Figure 10: Percentage of Michigan Residents Aged 18 or Older Who Are Current Smokers*, 1996-2010

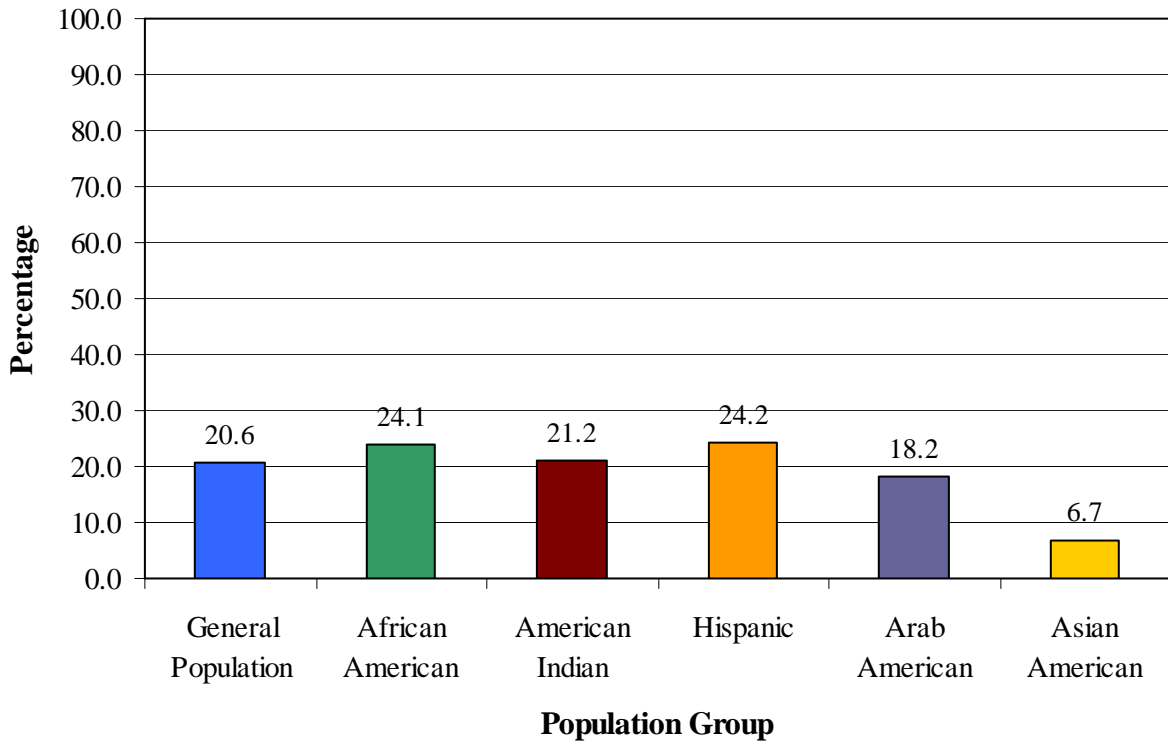


Year	Current Smokers ¹ (%)
1996	25.6
1997	26.2
1998	27.5
1999	25.7
2000	24.0
2001	26.1
2002	24.1
2003	25.8
2004	23.4
2005	21.9
2006	22.1
2007	21.1
2008	20.2
2009	19.8
2010*	18.9

¹Current smoking defined as having smoked 100 or more cigarettes in lifetime and smoke cigarettes now, either every day or some days.

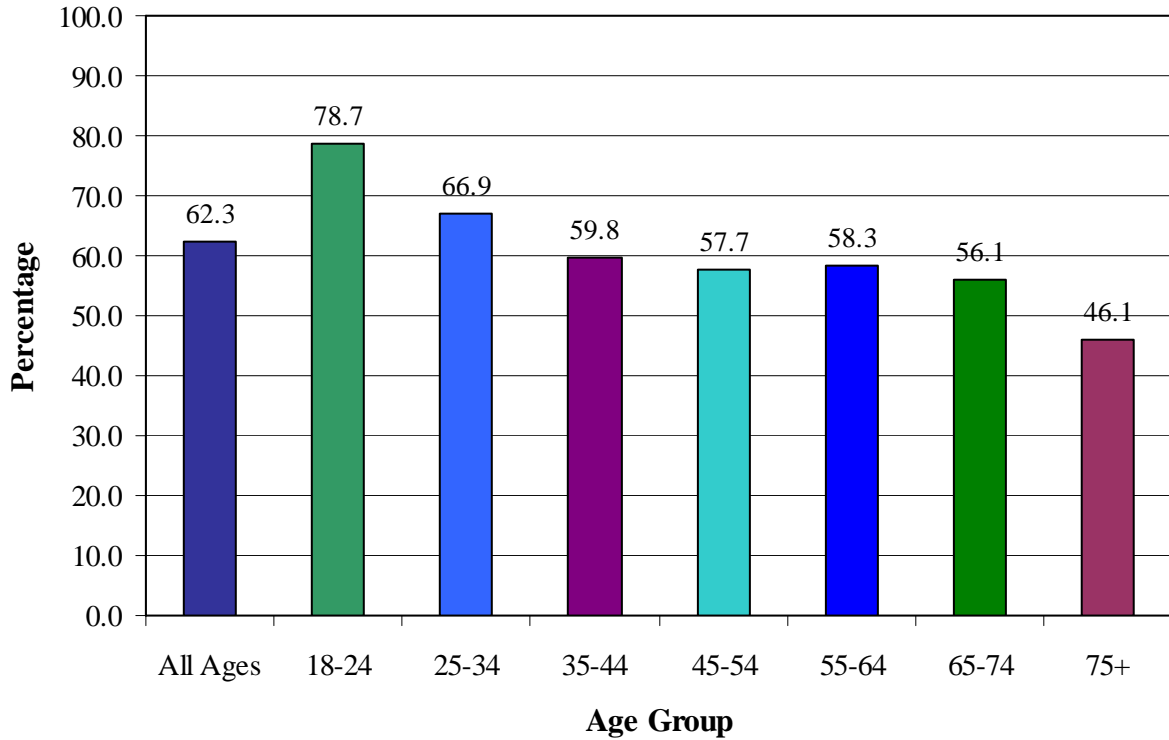
*2010 Michigan Behavioral Risk Factor Survey.

Figure 11: Percentage of Michigan Adults Aged 40 Years or Older Who Are Current Smokers* by Population Group, 2008



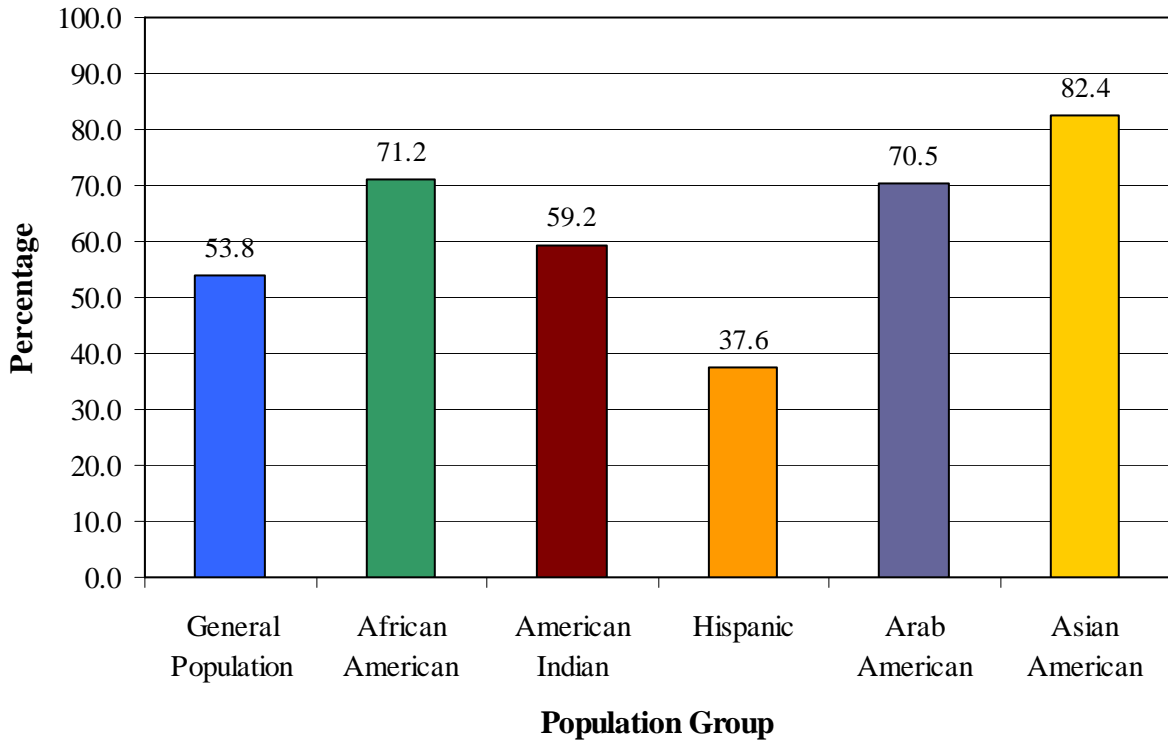
*Current smoking defined as having smoked 100 or more cigarettes in lifetime and smoke cigarettes now, either every day or some days.

Figure 12: Percentage of Current Smokers Who Attempted to Quit Smoking 1 Day or Longer in the Past Year among Michigan Residents by Age Group, 2010*



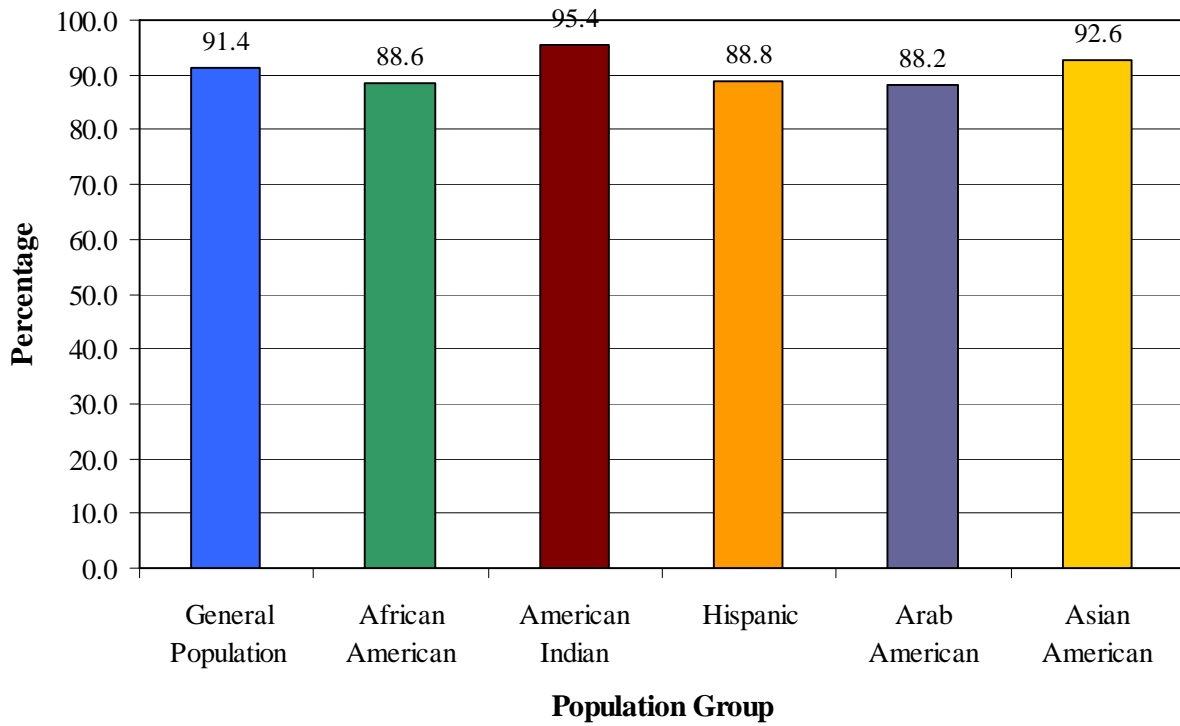
*Current smoking defined as having smoked 100 or more cigarettes in lifetime and smoke on some days now; stopped smoking for at least one day in attempt to quit; 2010 Michigan Behavioral Risk Factor Survey.

Figure 13: Percentage of Current Smokers Who Attempted to Quit Smoking in the Past Year among Michigan Residents Aged 40 Years or Older by Population Group, 2008*



*Current smoking defined as having smoked 100 or more cigarettes in lifetime and smoke on some days now; stopped smoking for at least one day in attempt to quit.

Figure 14: Current Smokers* Aged 40 Years or Older Whose Doctor Advised of Smoking Cessation Programs and Resources by Population Group, 2008



*Current smoking defined as having smoked 100 or more cigarettes in lifetime and smoke on some days now.

Table 5: HEDIS Measures* for Advising Smokers to Quit Tobacco Usage, MI vs. US 2003-2009

	Michigan	National
2003	72.6	67.7
2004	73.4	68.7
2005	74.0	69.6
2006	76.0	71.2
2007	78.9	73.8
2008	80.2	75.3
2009	79.9	75.2

* The HEDIS measure is the percentage of members 18 years of age and older who were current smokers, who were seen by a practitioner during the year and who received advice to quit smoking. Measures include all lines of business HMO, POS, PPO, HMO/POS combined, and HMO/POS/PPO combined. In 2006, recent quitters were removed from the denominator for this measure. Trending performance with prior years' data should be considered with caution.

Table 6: HEDIS Measures* for Discussing Medications for Smoking Cessation, MI vs. US 2005-2009

	Michigan	National
2005	41.2	37.8
2006	42.9	39.4
2007	50.1	43.9
2008	55.5	50.8
2009	57.6	53.4

* The HEDIS measure is the percentage of members 18 years of age and older who were current smokers and whose practitioner recommended or discussed smoking cessation medications. In 2006, recent quitters were removed from the denominator for this measure. Trending performance with prior years' data should be considered with caution. Measures include all lines of business HMO, POS, PPO, HMO/POS combined, and HMO/POS/PPO combined.

Table 7: HEDIS Measures* for Discussing Strategies for Smoking Cessation, MI vs. US 2005-2009

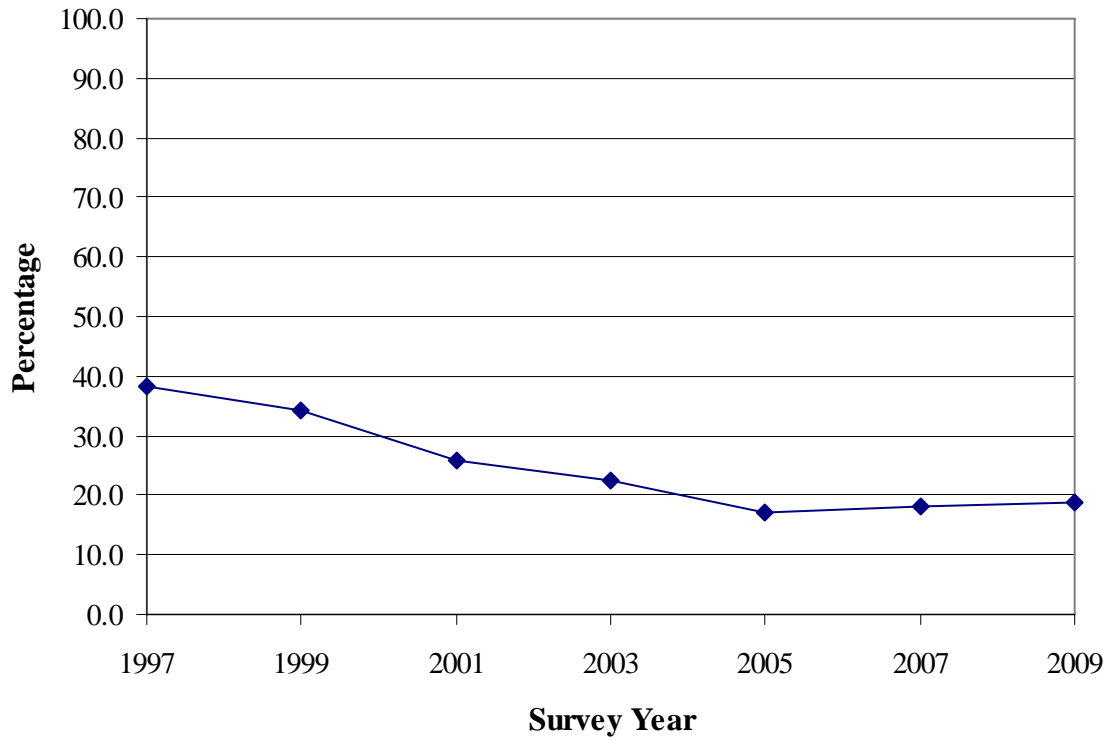
	Michigan	National
2005	39.8	36.9
2006	42.6	39.0
2007	47.6	43.2
2008	51.9	47.5
2009	55.5	47.9

*The HEDIS measure is the percentage of members 18 years of age and older who were current smokers and whose practitioner recommended or discussed smoking cessation methods or strategies. In 2006, recent quitters were removed from the denominator for this measure. Trending performance with prior years' data should be considered with caution. Measures include all lines of business HMO, POS, PPO, HMO/POS combined, and HMO/POS/PPO combined.

Table 8: Tobacco Use Indicators among Michigan Youth, 2009

	Total	Gender		Grades				Race	
		Male	Female	9	10	11	12	White	Black
Behavior	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Percentage of students who ever tried cigarettes, even 1 or 2 puffs	46.0	45.2	46.8	37.0	44.4	51.9	52.4	45.4	45.4
Percentage of students who smoked a whole cigarette before age 13	11.1	11.6	10.3	11.9	10.8	12.3	8.7	9.7	14.5
Percentage of students who smoked cigarettes on 1 or more of past 30 days	18.8	18.4	19.1	14.8	16.5	21.4	23.4	19.9	11.0
Percentage of students who smoked cigarettes on 20 or more of past 30 days	7.8	7.1	8.5	5.5	6.1	9.2	11.1	8.3	4.1
Of students who were <u>current smokers</u> , percentage tried to quit smoking in the past 12 months	53.6	51.5	55.7	65.1	52.8	51.4	48.0	52.8	-
Percentage of students who smoked cigars, cigarillos, or little cigars on 1 or more of past 30 days	14.7	19.9	9.0	10.2	13.1	15.6	19.9	14.0	14.1
<u>Current smokers</u> 18 years and less who purchased cigarettes at a store or gas station during the past 30 days	15.2	21.2	9.7	6.8	8.0	21.3	-	14.5	-

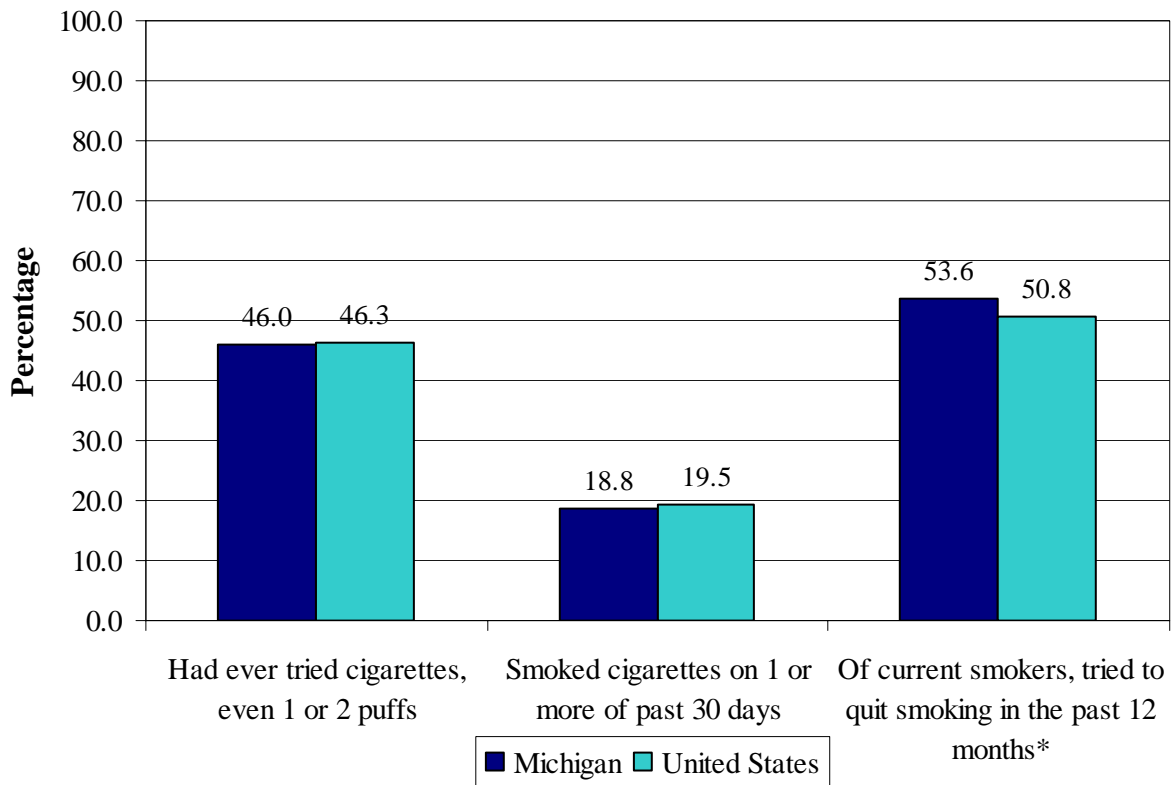
Figure 15: Percentage of Michigan Youth Grades 9-12 Who Are Current Smokers, 1997-2009



Year	Current Smokers ¹ (%)
1997	38.2
1999	34.1
2001	25.7
2003	22.6
2005	17.0
2007	18.0
2009	18.8

¹Current smoking defined as having smoked cigarettes on one or more days in the past 30 days.

Figure 16: Tobacco Use Indicators among Youth Grades 9-12, MI vs. US, 2009



*Difference is statistically significant at $p < 0.05$.

Prostate Cancer

Figure 17: Percentage of Men Aged 40 Years or Older Who Ever Had a Prostate Specific Antigen (PSA) Test by Population Group, 2008

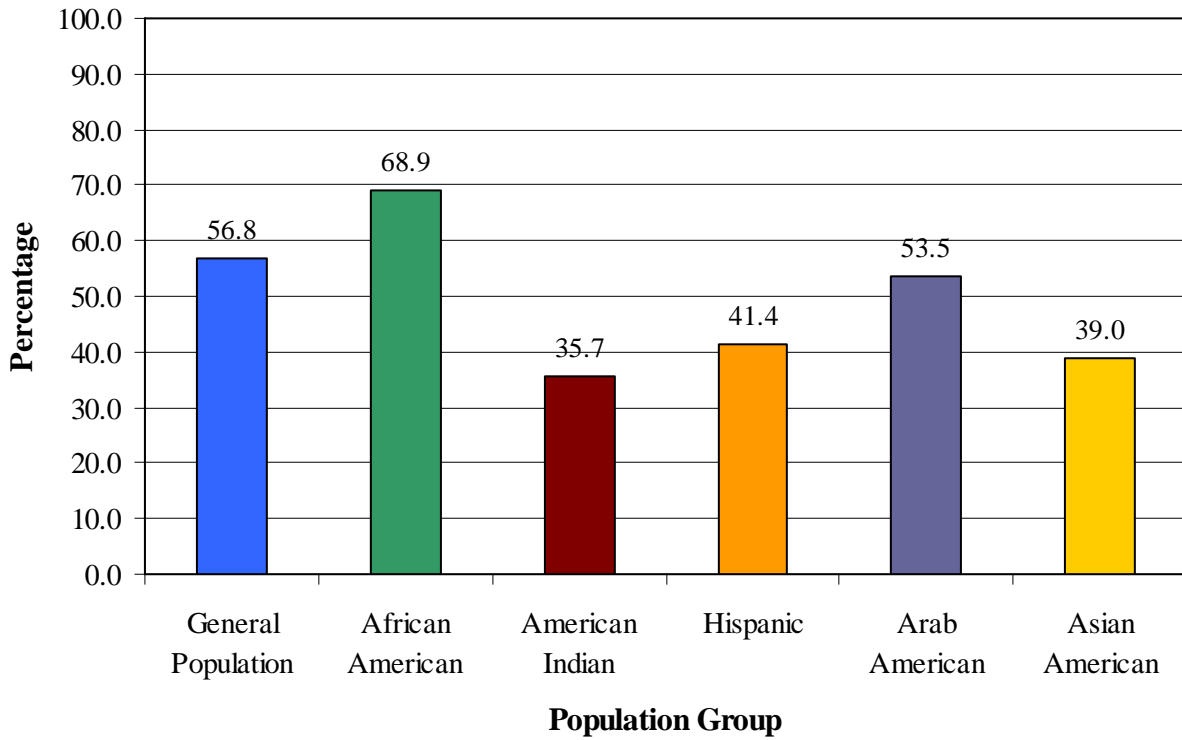


Figure 18: Percentage of Men Aged 40 Years or Older Who Ever Discussed Prostate Specific Antigen (PSA) Testing with Their Doctor by Population Group, 2008

