



Special Cancer Behavioral Risk Factor Survey, 2008

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Introduction

The Special Cancer Behavioral Risk Factor Survey (SCBRFS) is an ongoing surveillance designed to measure progress towards achieving several priorities of the Michigan Cancer Consortium (MCC). The first baseline SCBRFS was conducted in 2001-2002. The SCBRFS was repeated in 2004, 2006, and 2008. Results from subsequent surveys can be compared against baseline data in order to evaluate the progress in cancer-related behaviors and knowledge within the Michigan adult population.

The Michigan Department of Community Health (MDCH), Cancer Prevention and Control Section, provides the funding for conducting the SCBRFS. The survey was designed and coordinated by evaluation staff at the Michigan Public Health Institute (MPHI) and data collection was performed by the Office of Survey Research (OSR) of the Institute for Public Policy and Social Research (IPPSR) at Michigan State University in East Lansing, Michigan.

Methodology

The survey population consisted of Michigan men and women aged 40 years and older. This age group experiences the highest incidence and mortality rates for the most common cancer sites that the MCC focuses on. Participation in regular cancer screening is also mostly recommended for this age group.

The 2008 SCBRFS was conducted in a representative sample of the general population which included an over-sampling of African American, American Indian, Hispanic, Arab American and Asian American residents. Only the 2004 and 2008 surveys over-sampled Asian American residents of the state. The 2004, 2006 and 2008 surveys targeted individuals 40 years of age or older while the 2001-02 survey included only those 50 years of age or older. For the 2008 survey, a total of 5,631 interviews were completed.

The data were collected using telephone surveillance methodology. This methodology closely followed protocols used in the Michigan Behavioral Risk Factor Surveillance System (BRFSS) and all data collection was performed by the Office for Survey Research.

The Survey Instrument

The survey instrument was modeled closely after the Centers for Disease Control (CDC) Behavioral Risk Factor Surveillance System, an ongoing telephone survey to monitor the health and health risk behaviors of the nation's adults with respect to national health objectives.

The survey examines respondent's family history and screening behaviors for breast, cervical, colorectal and prostate cancer, as well as respondent's experience with follow-up care for abnormal screening results that they had received in the past. Knowledge of screening tests and risk factors for selected cancers are also assessed. Also included in the survey are questions examining knowledge of hospice and palliative care as well as experiences with caring for terminally ill patients at the end of life. Additionally, the survey included questions to assess current tobacco use and cessation attempts.

To ensure the cultural sensitivity of the 2008 SCBRFS, consultants from within the American Indian, the Hispanic and the Arab American communities reviewed the interview instruments and introductions for wording or interpretations. The best strategies for identifying eligibility and for addressing the questions were used. In the cases of the Arab and Hispanic surveys, the survey tool and its introduction were translated so that interviews could be conducted by bilingual interviewers in Spanish or Arabic when needed.

Interview Protocols

The Office for Survey Research within IPPSR conducted the telephone interviews using its computer-assisted telephone interviewing (CATI) facilities located in East Lansing, Michigan. The majority of the roughly 221 interviewers assigned to work on the SCBRFS had telephone interviewing experience ranging from 1 to greater than 5 years. Each of the interviewers was trained by SCBRFS and IPSSR project managers on the survey objectives, uses of the data and calling protocols and were assigned to conduct several practice interviews prior to beginning actual data collection.

Prior to conducting the 2008 SCBRFS, advance letters were sent to households with directory listed phone numbers to inform them about the survey. This was believed to enhance response rates and encourage participation.

Response Rates

The response and refusal rates for the 2008 survey were calculated based on the American Association of Public Opinion Research (AAPOR) Standard Definitions RR4 and REF2.1 These rates were adjusted one step further to take into account the very low eligibility rate of households based on the combined race/ethnic and age criteria. With the adjustment for eligibility taken into account, the response rate for the statewide sample was 51.1% and the refusal rate was 16.6%. It was also indicated that the contact rate was equal to 94.4%, with a cooperation rate of 75.5%.

¹ The American Association of Public Opinion Research, 1998. Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for RDD Telephone Surveys and In-Person Household Surveys. Ann Arbor, Michigan: AAPOR.

The Sample

The overall sampling design for this survey was a disproportionate stratified, list-assisted random-digit dial sample that included both listed and non-listed telephone numbers. Data were weighted to adjust for the unequal probabilities of selection. This weighting accounted for probabilities of telephone number selection, the number of telephone lines within a household, the number of eligible adults within a household, and was also adjusted for racial distributions in Michigan based on data from the 2000 U.S. Census.

The final 2008 SCBRFS sample consisted of 3,414 White Americans, 1,036 African Americans, 575 American Indians, 613 Hispanics, 582 Arab Americans, and 609 Asian Americans.

Analysis

Data analyses and reporting was conducted by MPHI. Prevalence estimates and confidence interval limits were calculated using SPSS Complex Samples 15.0 that enables us to make more statistically valid inferences for a population by incorporating the sample design into the survey analysis.² Case weights were calculated and applied to the final data set during data analysis to correct for unequal probabilities of selection and ensure the results were representative of the Michigan population 40 years of age and older. Unless otherwise noted, respondents who answered “don’t know” or refused to answer were not included in the calculation of estimates that are reported.

Table 1. Demographic Characteristics of the Special Cancer Behavioral Risk Factor Survey (SCBRFS) Sample, 2008

	Weighted Sample (%)	Michigan 2008 US Census Estimates (%)
AGE		
40-49 Years	32.8	31.6
50-64 Years	40.2	40.8
65-74 Years	15.2	14.4
75+ Years	11.8	13.2
GENDER		
Male	47.4	47.4
Female	52.6	52.6

² SPSS Inc, 233 S Wacker Dr, 11th Fl, Chicago, IL 60606.

Table 2. Sample Composition for the Special Cancer Behavioral Risk Factor Survey (SCBRFS) Sample, 2008

	General Population	African American	American Indian	Hispanic	Arab American	Asian American
Total	5,631	1,036	575	613	582	609
African American	1,036	1,019	1	10	5	1
American Indian	575	1	539	22	3	10
Hispanic	613	10	22	561	17	3
Arab American	582	5	3	17	517	40
Asian American	609	1	10	3	40	555

Breast Cancer

MCC Priority Objective:

By 2010, 80% of Michigan women will receive age- and risk-appropriate breast cancer screening with clinical breast examination and mammography, as well as receive information/education on age- and risk-appropriate screening and preventive services for breast cancer.

Background

Breast cancer is the most frequently diagnosed cancer and the second leading cause of cancer death among women. About 1,350 women are estimated to have died of breast cancer, and about 6,480 women are estimated to have been newly diagnosed with breast cancer in 2009 in Michigan.¹ Since the 1980s, there has been a dramatic trend toward earlier stage at diagnosis of cancer. Breast cancer among Michigan women is increasingly being diagnosed at the local stage, before it has spread to other organs. From 2002 through 2006, 45.6% of all newly diagnosed cases of breast cancer were localized compared to the years from 1985 through 1989, when only 44.1% of cases were diagnosed at the localized stage.² When breast cancer is detected at an early stage, the five year survival rate is greatly increased. The five year survival rate for individuals diagnosed with breast cancer at the local stage is 98.3% compared to 23.3% when diagnosed at a distant stage.²

The Michigan Cancer Consortium's (MCC) breast cancer screening recommendation for average risk women consists of an annual mammogram and CBE beginning at 40 years of age. By 2010, the MCC seeks to increase the proportion to 80% of women aged 40 years and over who have had a mammogram and clinical breast exam (CBE) in the past year.

Summary of Results

Results from the 2008 SCBRFS found that Michigan women 40 years of age and older had an appropriate breast cancer screening, which includes a mammogram and clinical breast exam (CBE), within the past year at a rate of 59.4% (\pm 4.5%). This one year breast cancer screening rate was well below the MCC target rate of 80%. However, the 2008 one year screening rate was higher than the rates found for 2006 (54.2%) and 2004 (55.3%) (Figure 1). Although the 2008 rate was below the 2001 rate of 64.1%, only

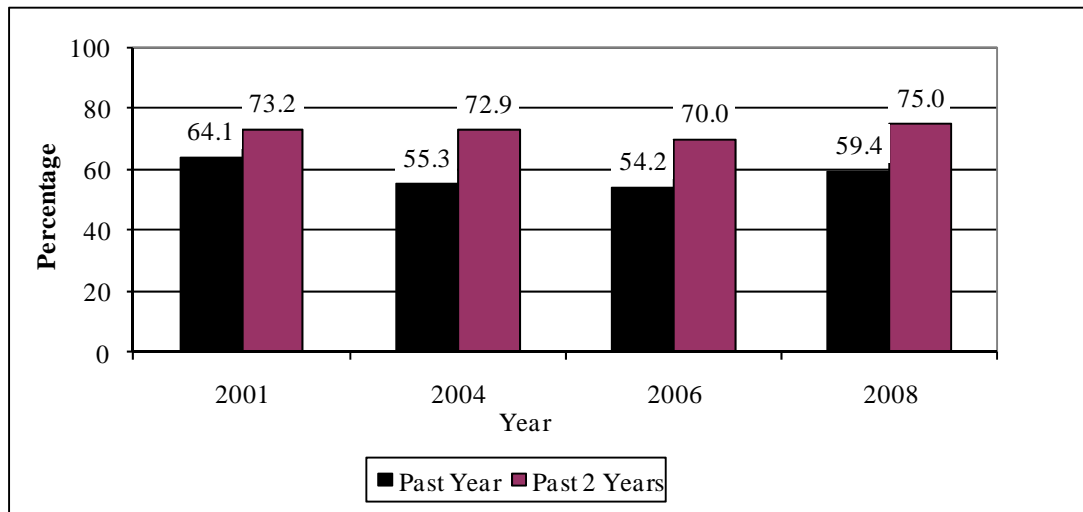
¹ *The Cancer Burden in Michigan: Selected Statistics — 1991-2009*. Okemos, MI: September 2009. Available at: www.michigancancer.org/PDFs/MCCReports/CancerBurden-Sept2009/CancerBurdenInMichigan-Sept09-AllSections.pdf.

² SEER Cancer Statistics Review, 1975-2006, National Cancer Institute. Bethesda, MD, http://seer.cancer.gov/csr/1975_2006/, posted to the SEER web site, 2009.

women 50 years of age and older were included in the 2001 SCBRFS. For a more detailed breakdown of the one-year breast cancer screening rate by minority population groups between 2001 and 2008, refer to Appendix 1.

When extending the timeline for appropriate breast cancer screenings among women 40 years of age and older from within one year to within the past two years, the breast cancer screening rate for 2008 increases to 75.0% ($\pm 3.7\%$). While this rate is still below the MCC recommended rate of 80%, the gap has narrowed. The two year breast cancer screening rate for 2008 is also higher than each of the previous years when the SCBRFS was conducted, including 2001 which only focused on individuals 50 years of age and older.

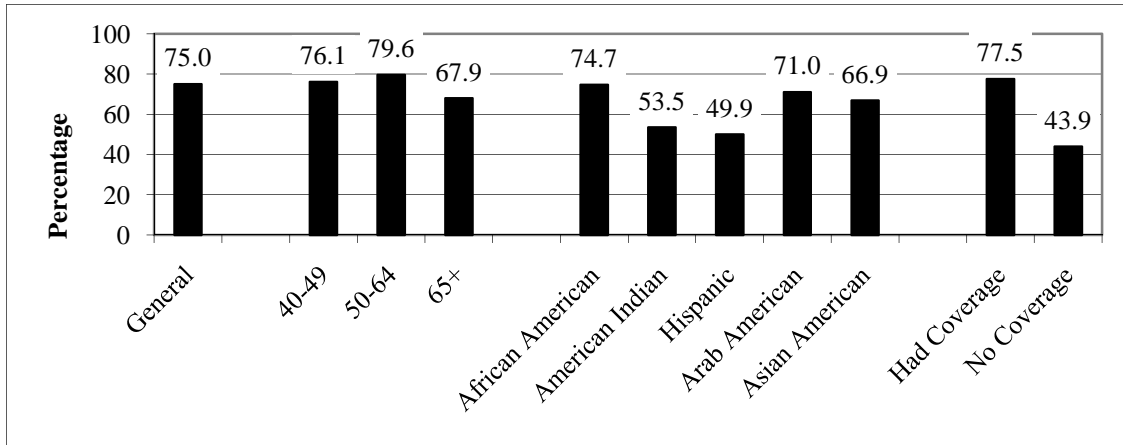
Figure 1: Women Who Had a Mammogram and Clinical Breast Exam within the Past 1 & 2 Years, 2001-2008*



* The 2001 survey included women age 50 years and older; 2004, 2006, and 2008 survey years included women age 40 years and older.

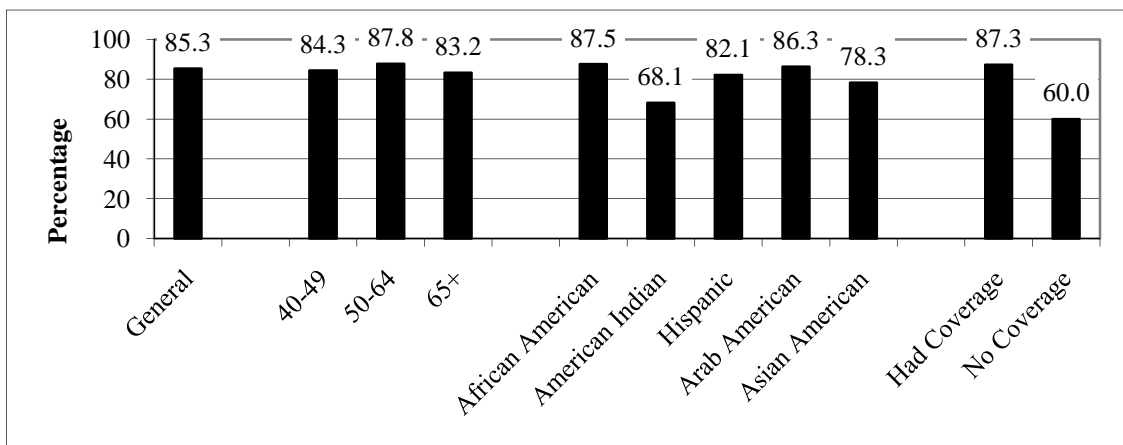
The appropriate breast cancer screening (mammogram and CBE) rate increases from 76.1% ($\pm 5.3\%$) among women 40 to 49 years of age to 79.6% ($\pm 5.0\%$) among women 50-64 years of age, before falling to its lowest point of 67.9% ($\pm 6.8\%$) among women 65 years of age and older (Figure 2). While African American women age 40 years and older reported receiving a mammogram and CBE within the past two years at a rate similar to the general population, appropriate two year breast screening rates for each of the other minority population groups were below the general population rate with Hispanic women having the lowest rate at 49.9%. Whether or not a woman had health care coverage had a major impact on the two year breast cancer screening rate as women with health care coverage had a two year rate of 77.5%, while women without coverage had a rate of 43.9%.

Figure 2: Women 40+ Years Who Had a Mammogram and CBE within the Past Two Years by Selected Demographic Characteristics, 2008



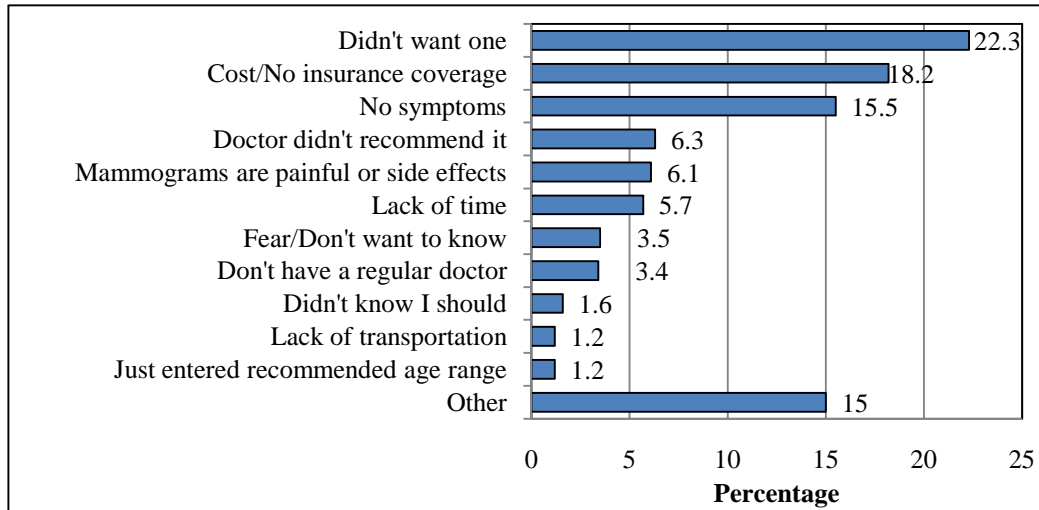
When examining the utilization of mammography separately, the vast majority of women age 40 years and older had ever had a mammogram ($95.4\% \pm 2.4\%$). The percentage of women who reported having had a mammogram within the past two years was $85.3\% (\pm 3.3\%)$ and the percentage of women who reported having a mammogram within the past year was $70.1\% (\pm 4.5\%)$. Focusing on the two year mammogram rate by age shows that women 50 to 64 years of age had the highest mammogram rate at $87.8\% (\pm 4.3\%)$ compared to women 40 to 49 years of age ($84.3\% \pm 6.9\%$) and 65 years of age and older ($83.2\% \pm 6.3\%$) (Figure 3). While African American, Hispanic, and Arab American women each had two year mammogram rates comparable to the general population, Asian (78.3%) and especially American Indian (68.1%) women had notably lower rates. Women 40 years of age and older who did not have health care coverage had a two year mammogram rate (60.0%) about twenty-five percentage points below the general population.

Figure 3: Women Age 40+ Who Had a Mammogram within the Past Two Years by Selected Demographic Characteristics, 2001-2008



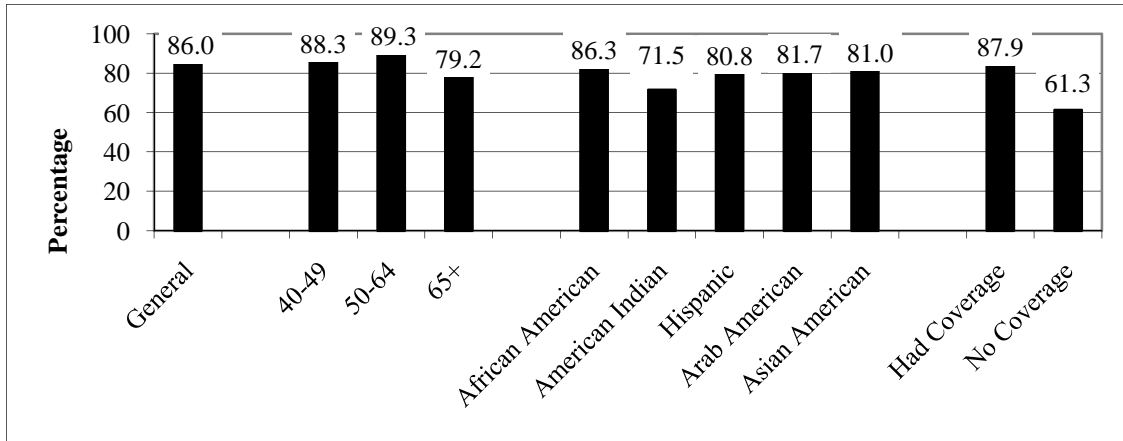
The most common reason given by women 40 years of age and older for not having a mammogram in the past two years or for never having had a mammogram was that they didn't want one (22.3%) (Figure 4). The next most common reasons given were related to cost or not having insurance coverage (18.2%) and women were not experiencing any symptoms (15.5%).

Figure 4: Specified Reasons for Not Having a Mammogram within the Past Two Years Among Women Age 40+ Years, 2008



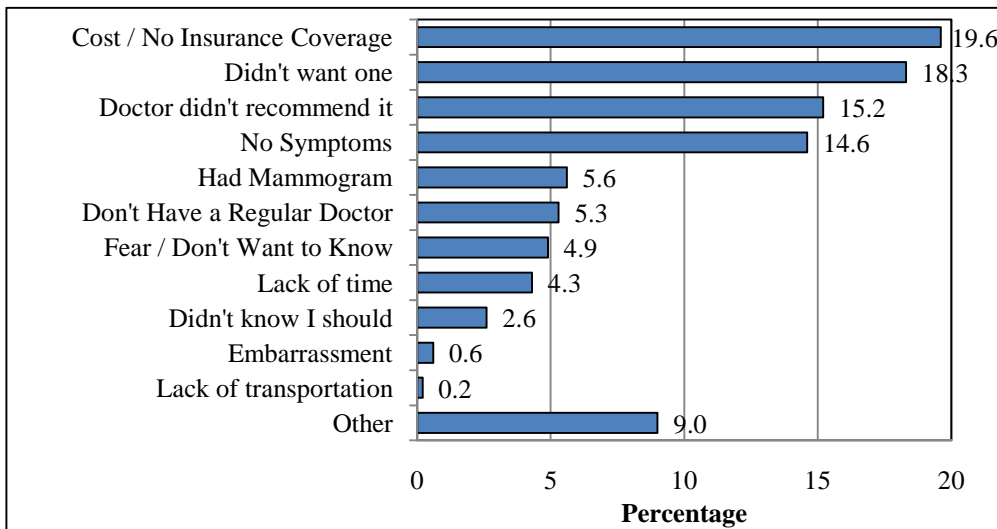
The percentage of women 40 years of age and older who had a CBE in the past two years was 86.0% ($\pm 2.5\%$). Similar to the two year mammogram rate, the two year CBE rate increase between women 40 to 49 years of age (88.3% $\pm 5.3\%$) and women 50 to 64 years of age (89.3% $\pm 3.3\%$) before falling to 79.2% ($\pm 4.7\%$) among women 65 years of age and older (Figure 5). Comparable two year CBE rates when compared to the general population were found for women in each of the minority population groups except American Indian women whose rate was 71.5%. Women age 40 years and older with the lowest two year CBE rate (61.3%) were those who were without health care coverage.

Figure 5: Women Age 40+ Years Who Had a Clinical Breast Exam within the Past Two Years by Selected Demographic Characteristics, 2008



When asked why they had not received a CBE within the past two year or why they never received a CBE, the most common reason given by women 40 years of age and older was related to the cost or the lack of insurance coverage to pay for this exam (19.6%). Other common reasons provided by these women include they didn't want one (18.3%), the doctor didn't recommend it (15.2%), and no symptoms were experienced (14.6%).

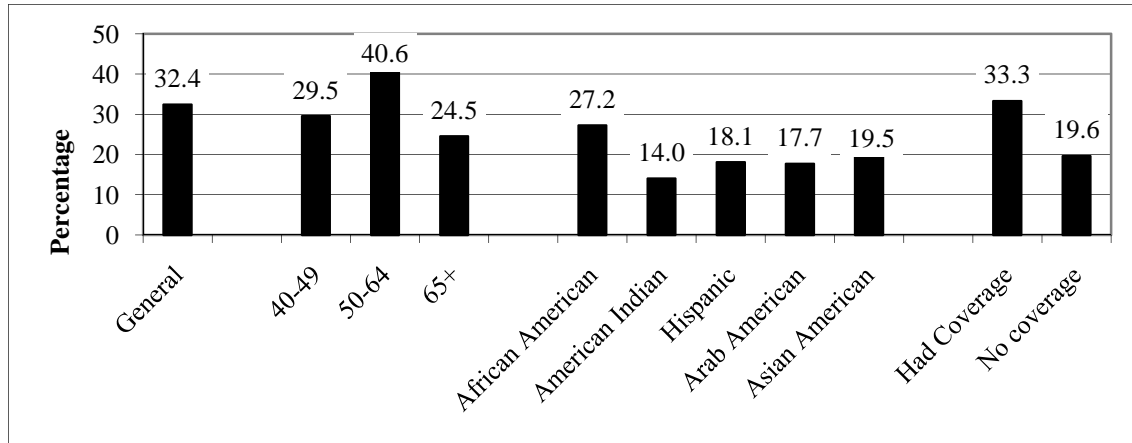
Figure 6: Specified Reasons for Not Having a CBE Within the Past Two Years Among Women Age 40+ Years, 2008



Nearly one-third (32.4% \pm 4.3%) of women age 40 years and older had a mammogram or CBE within the past 10 years that showed a problem that required further testing. The highest proportion of abnormal findings when stratified by age was found among women 50 to 64 years of age (40.6% \pm 7.6%) before falling to the lowest age-adjusted rate of 24.5% (\pm 6.9%) among women 65 years of age and older (Figure 7). When compared to

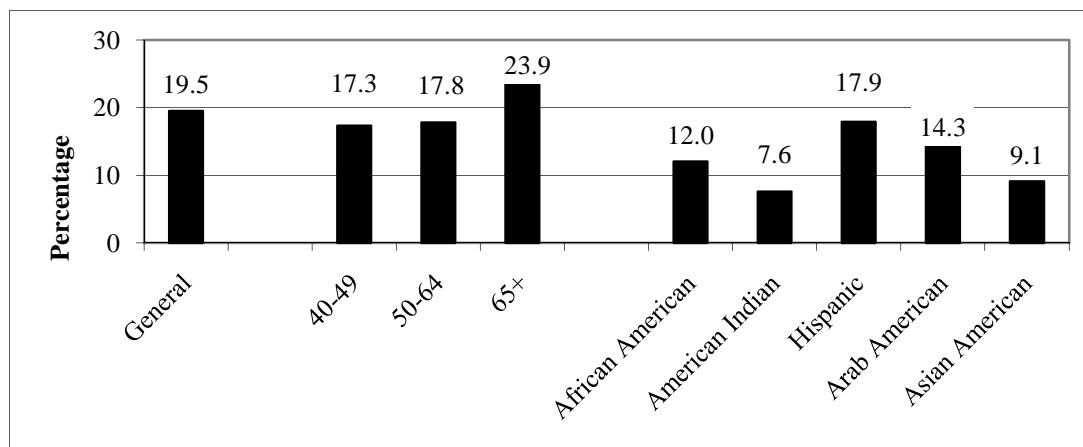
the general population of Michigan women 40 years of age and older, the abnormal breast screening rates for each minority population group was lower. Women without health care coverage also had abnormal breast screening rate (19.6%) well below the general population.

Figure 7: Women Age 40+ Years Who Had an Abnormal Mammogram or CBE Finding Within the Past 10 Years, 2008



Women age 40 years and older were asked how many first degree relatives were diagnosed with breast cancer at some point in their lives. Among these women, 19.5% ($\pm 3.4\%$) reported that they had at least one first degree relative who was diagnosed with breast cancer. This rate increased steadily with age ranging from a low of 17.3% ($\pm 7.8\%$) among women 40 to 49 years of age to a high of 23.9% ($\pm 6.5\%$) among women 65 years of age and older (Figure 8). Women 40 years of age and older categorized within each minority population group reported having a one or more first degree relative who was diagnosed with breast cancer at a level below the percentage found among the general population. Men 40 years of age and older were also asked about their family history of breast cancer. Altogether, men (16.9% $\pm 4.6\%$) reported having at least one first degree relative diagnosed with breast cancer, about fifteen percent (15.4%) less often than women (19.5%).

Figure 8: Women Age 40+ Years Who Had a Family History of Breast Cancer* by Selected Demographic Characteristics, 2008

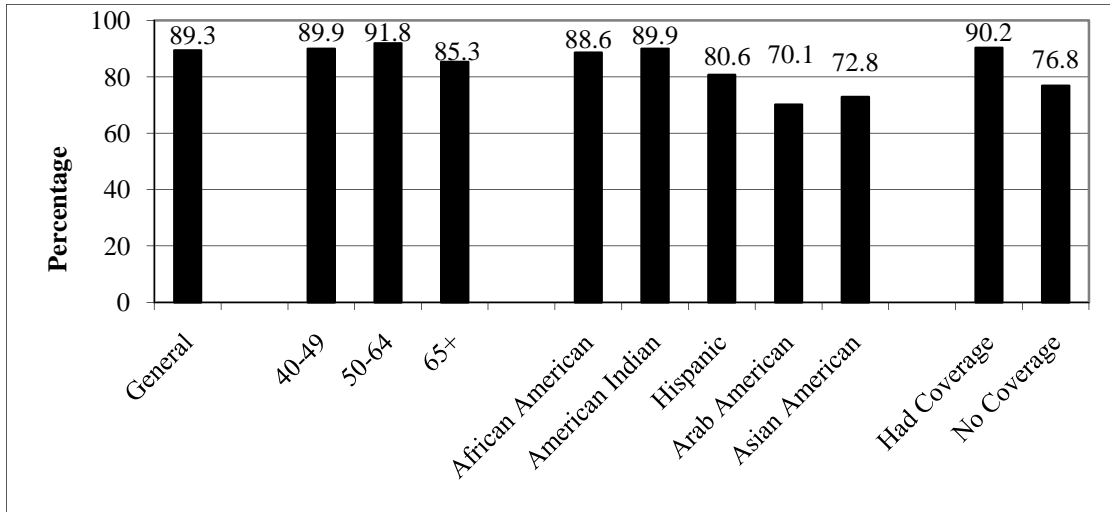


*Family history of breast cancer was defined by one or more biological parents, siblings, children, or grandparents had breast cancer sometime during their lives.

Nearly 9 out of 10 (89.3% \pm 2.5%) women 40 years of age and older indicated that a doctor or other health care provider had ever asked if anyone in your family ever had breast cancer, including times when they were asked to fill out a form. The highest proportion of women who responded positively to this question were those between the ages of 50 and 64 years (91.8% \pm 3.3%) before falling 6.5 percentage points among women 65 years and older (85.3% \pm 4.7%) (Figure 9). While African American and American Indian women age 40 years and older responded at a rate similar to the general population of women 40 years of age and older, Hispanic, Arab American, and Asian American women reported being asked about family history of breast cancer well below the general population. Women age 40 years and older with health care coverage (90.2%) reported being asked about a family history of breast cancer 17.4% more often than women without health care coverage (76.8%). Men 40 years of age and older were also asked if a doctor or other health care professional had ever asked about their family history of breast cancer. Altogether, 53.5% (\pm 5.9%) of men indicated that they had been asked about family history of breast cancer at some point in the past.

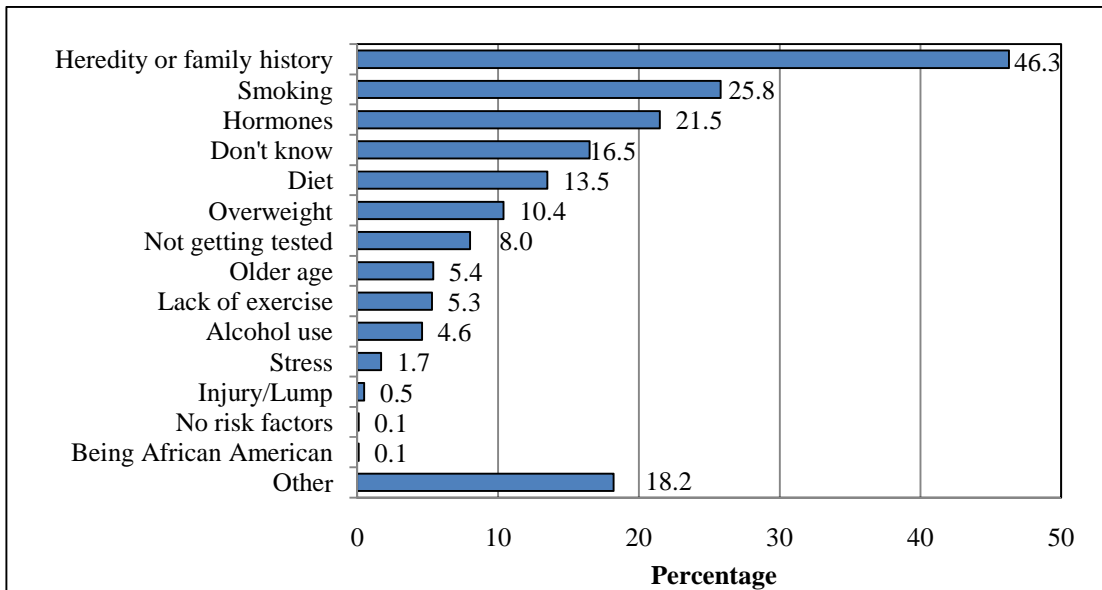
Women who were identified as being at-risk for developing breast cancer were asked if their doctor ever discussed chemoprevention with them. At-risk women were defined as those who had previously been diagnosed with breast cancer or who had at least one first degree relative who had been diagnosed with breast cancer. Of the 21.9% (\pm 4.8%) of women 40 years of age and older, 19.5% (\pm 7.2%) indicated that they did have a discussion with their doctor regarding chemopreventative medications.

Figure 9: Women Age 40+ Years Who Discussed Family History of Breast Cancer With Doctor by Selected Demographic Characteristics, 2008



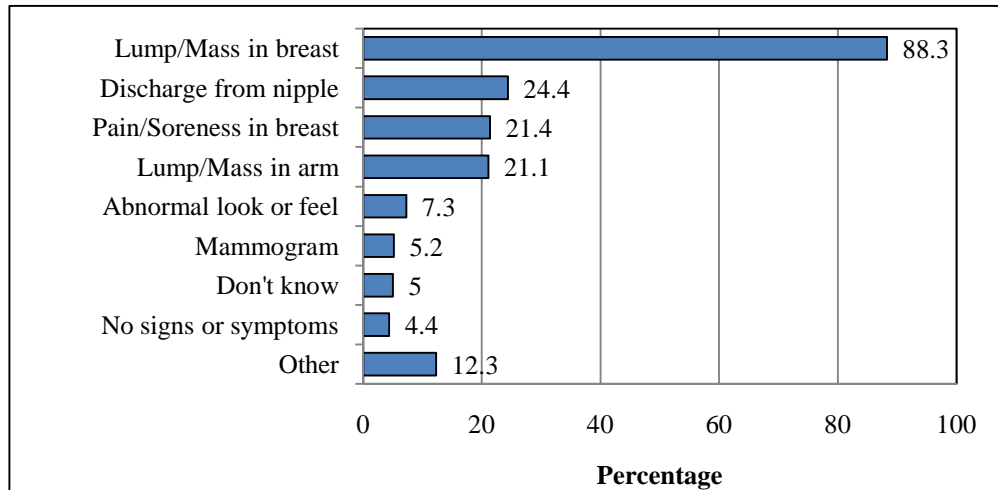
Women age 40 years and older were asked to provide up to four factors that might increase a women’s likelihood of developing breast cancer. Among these women, heredity or family history was the most common risk factor provided at a rate of 46.3% (Figure 10). Other common risk factors named by women age 40 years and older included smoking (25.8%), hormones or hormone-related medications (21.5%), and diet (13.5%). Altogether, 16.5% of women 40 years of age and older were unable to name any potential breast cancer risk factors.

Figure 10: Knowledge About Risk Factors Associated with Breast Cancer Among Women Age 40+ Years, 2008



Women age 40 years and older were also asked to provide up to four warning signs or symptoms associated with breast cancer. An overwhelming majority (88.3%) of these women indicated that a lump or mass found in the breast was a common warning sign or symptom of breast cancer (Figure 11). Other less common warning signs or symptoms included discharge from the nipple (24.4%), pain or soreness in the breast (21.4%), and lump or mass in the arm (21.1%).

Figure 11: Knowledge About Warning Signs & Symptoms Associated with Breast Cancer Among Women Age 40+ Years, 2008



Cervical Cancer

MCC Priority Objective:

By 2010, the incidence of invasive cervical cancer in Michigan women will be reduced by 50 percent. Along with this 97% of women over age 21, or 3 years after the onset of sexual activity, will have had a Pap test at least once in their lifetime and 90% of women over age 21 will have had a Pap test within the last 2 years.

Background

Experts believe that virtually all cervical cancer deaths could be prevented by a combination of safe sex practices, routine Pap smears, and appropriate follow-up of abnormal screening results. An estimated total number of 320 new cervical cancer cases occurred in Michigan in 2009.¹ A total of 108 Michigan women died of the disease in 2007.¹ Since 1999, there has been a decline in the incidence of invasive cervical cancer in Michigan. Incidence rates decreased from 8.7 cases per 100,000 women in 1999 to 7.3 cases in 2006.² When cervical cancer is diagnosed at a localized stage, the five years survival rate is 91.5%. However when diagnosed at a distant stage the 5-year survival rate falls to 17.2%.³ Despite the proven effectiveness of Pap smears, there is a disproportionate utilization of the test among minorities.⁴

The Michigan Cancer Consortium's (MCC) recommendation for cervical cancer screening is an annual Pap test among women aged 21 years and older and/or three years after the onset of sexual activity. Women who are not considered high-risk may increase their screening interval to every two years after three consecutive annual negative Pap smears. By 2010, the goal of the MCC is to increase the proportion of women over the age of 21 years, or 3 years after onset of sexual activity, who ever had a Pap test to 97% and increase the proportion of women having a Pap test in the past two years to 90%. Through obtaining these goals the MCC hopes to reduce the incidence of invasive cervical cancer in Michigan women by 50%.

¹ *The Cancer Burden in Michigan: Selected Statistics — 1991-2009*. Okemos, MI: September 2009. Available at: www.michigancancer.org/PDFs/MCCReports/CancerBurden-Sept2009/CancerBurdenInMichigan-Sept09-AllSections.pdf.

² *United States Cancer Statistics: 1999–2006 Incidence and Mortality Web-based Report*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2010. Available at: <http://www.cdc.gov/uscs>.

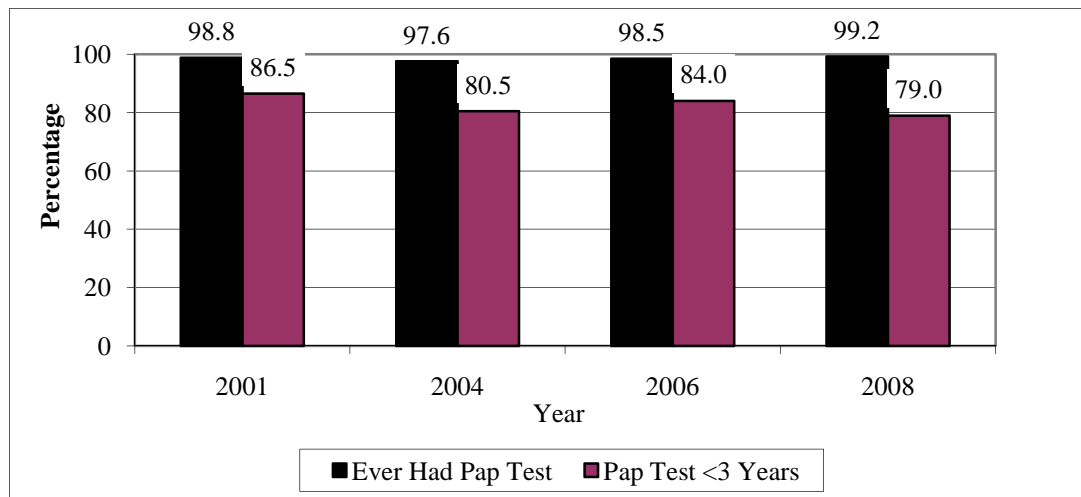
³ SEER Cancer Statistics Review, 1975-2006, National Cancer Institute. Bethesda, MD, http://seer.cancer.gov/csr/1975_2006/, posted to the SEER web site, 2009.

⁴ M. G. del Carmen: The Burden of Cervical Cancer in Minority Populations: Effective Strategies in Reducing Disparity. *The Internet Journal of Gynecology and Obstetrics*. 2009 Volume 10 Number 2.

Summary of Results

In 2008, the percentage of Michigan women 40 years of age or older who had ever received a Pap test was 99.2% ($\pm 0.3\%$), which was a slight increase over the percentages found for 2004 and 2006 (Figure 1). Among women of the same age range who had an appropriately timed Pap test (i.e., within the past three years), the Pap test rate was 79.0% ($\pm 4.3\%$), slightly less than the 2004 and 2006 rates. It should be noted that the rates shown in Figure 1 for 2001 were based on women 50 years of age and older and are, therefore, not directly comparable. For a more detailed breakdown of the one and two year Pap test screening rates for each population group between 2001 and 2008, refer to Appendix 2.

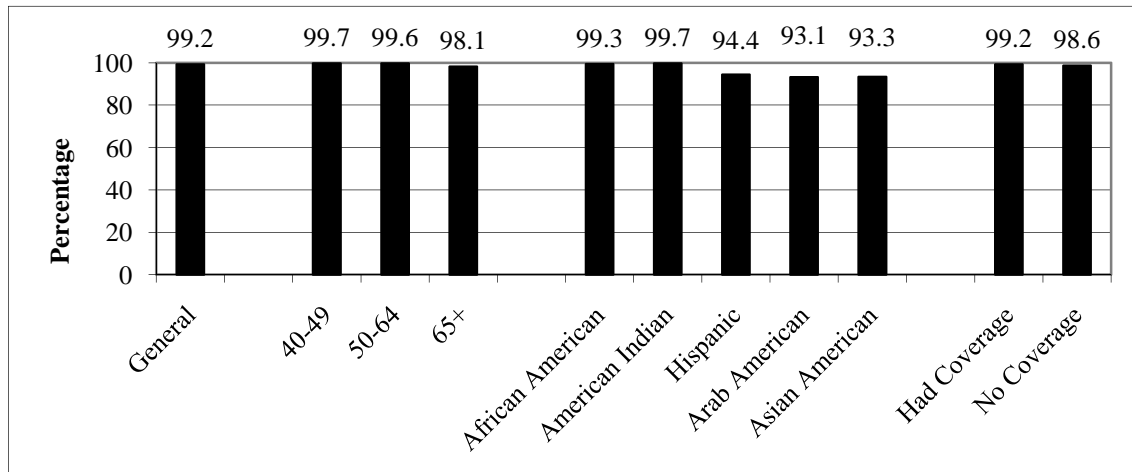
Figure 1: Women Who Had a Pap Test Screening, 2001-2008*



*The 2001 survey included women age 50 years and older; 2004, 2006 and 2008 survey years included women age 40 years and older.

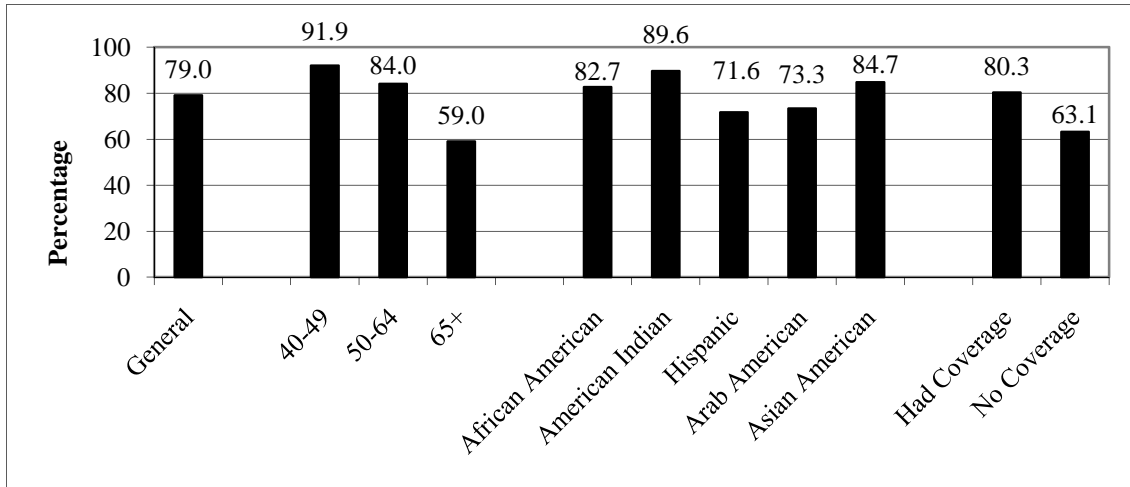
Comparing the percentage of women 40 years of age and older who ever had a Pap test by selected demographic characteristics shows a slight decrease in percentages with increasing age, ranging from 99.7% ($\pm 0.3\%$) among women 40 to 49 years of age to 98.1% ($\pm 0.9\%$) among those 65 and older (Figure 2). Additionally, lower than average percentages were found among Hispanic, Arab American, and Asian American women. Women without health insurance coverage reported receiving a Pap test sometime in their life only about a half of a percentage point lower than those with health care coverage.

Figure 2: Women Age 40+ Years Who Ever Had a Pap Test Screening by Selected Demographic Characteristics, 2008



When focusing on women who received an appropriately timed Pap test (within the past three years), age was found to have a rather large effect. For example, the appropriately timed Pap testing rates dropped from 91.9 (\pm 5.9%) among women 40 to 49 years of age to 84.0% (\pm 5.8%) for women aged 50 to 64 and 59.0% (8.4%) for those 65 years and older (Figure 3). While the appropriately timed Pap test screening rates for African American, American Indian, and Asian American women were each above the statewide rate for women 40 years of age and older of 79.0%, Hispanic and Arab American women had rates (71.6% \pm 15.8% and 73.3% \pm 18.8%, respectively) well below this mark. Having health care coverage also had a large impact on these Pap testing rates as women with health care coverage had a rate of 80.3% (\pm 4.0%), while women without coverage had a rate of 63.1% (\pm 20.1%).

Figure 3: Women Age 40+ Years Who Had a Pap Test Screening Within the Past Three Years by Selected Demographic Characteristics, 2008



Among Michigan women 40 years of age and older who ever received a Pap test, 14.6% ($\pm 3.2\%$) had an abnormal Pap test finding in the past 10 years (Figure 4). This rate drops substantially with age from 20.7% ($\pm 5.8\%$) among women 40 to 49 years of age to 3.6% ($\pm 1.4\%$) for those 65 years and older. While Asian American women reported an abnormal Pap test findings (8.8% $\pm 12.1\%$) within the past 10 years well below the general population of Michigan women 40 years of age or older, Hispanic women (32.3% $\pm 23.8\%$) reported abnormal findings by more than twice the general population. Abnormal Pap test findings were also more commonly reported among women with health care coverage compared to those without coverage.

Figure 4: Women Age 40+ Who Had an Abnormal Pap Test Result within the Past 10 Years by Selected Demographic Characteristics, 2008

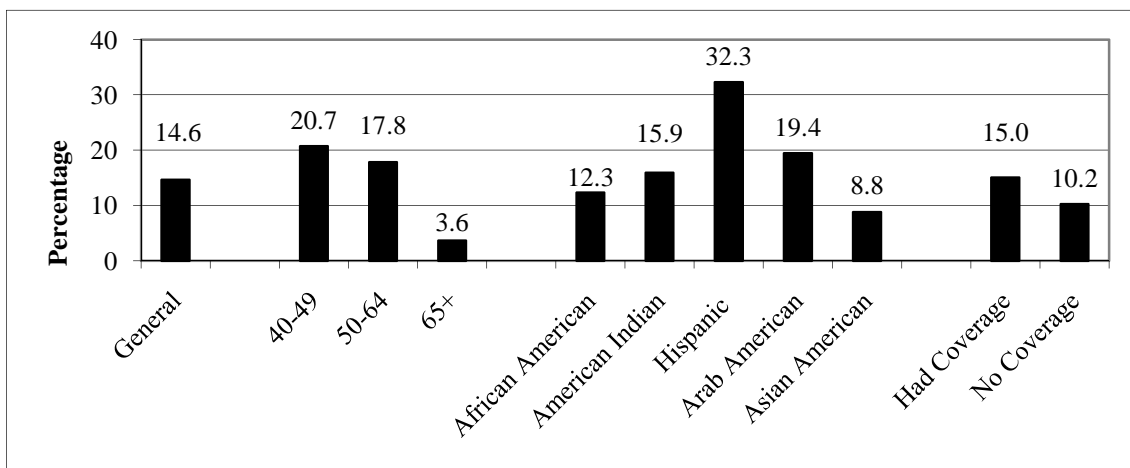
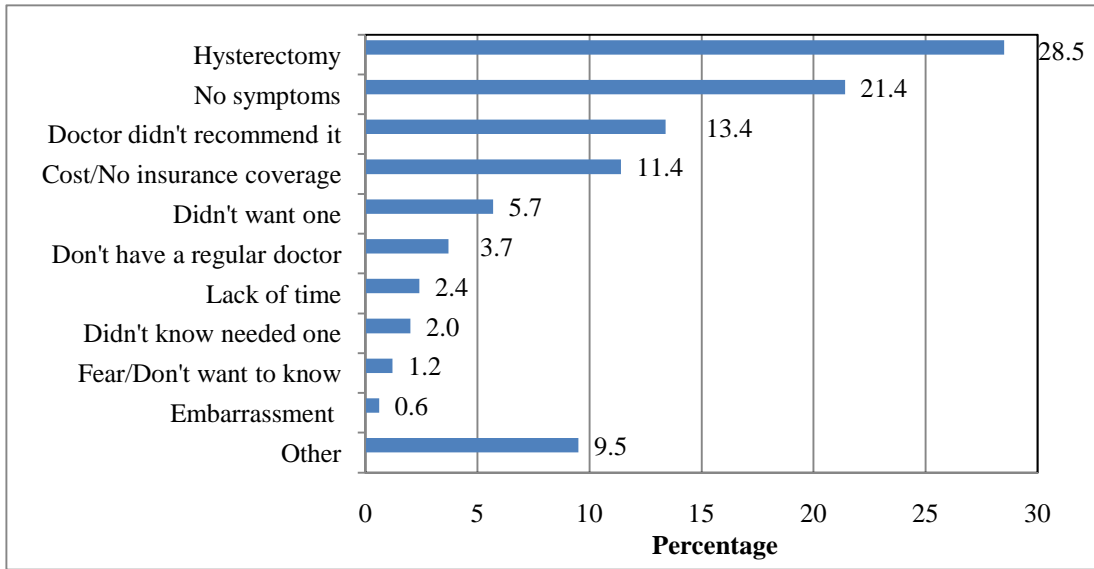


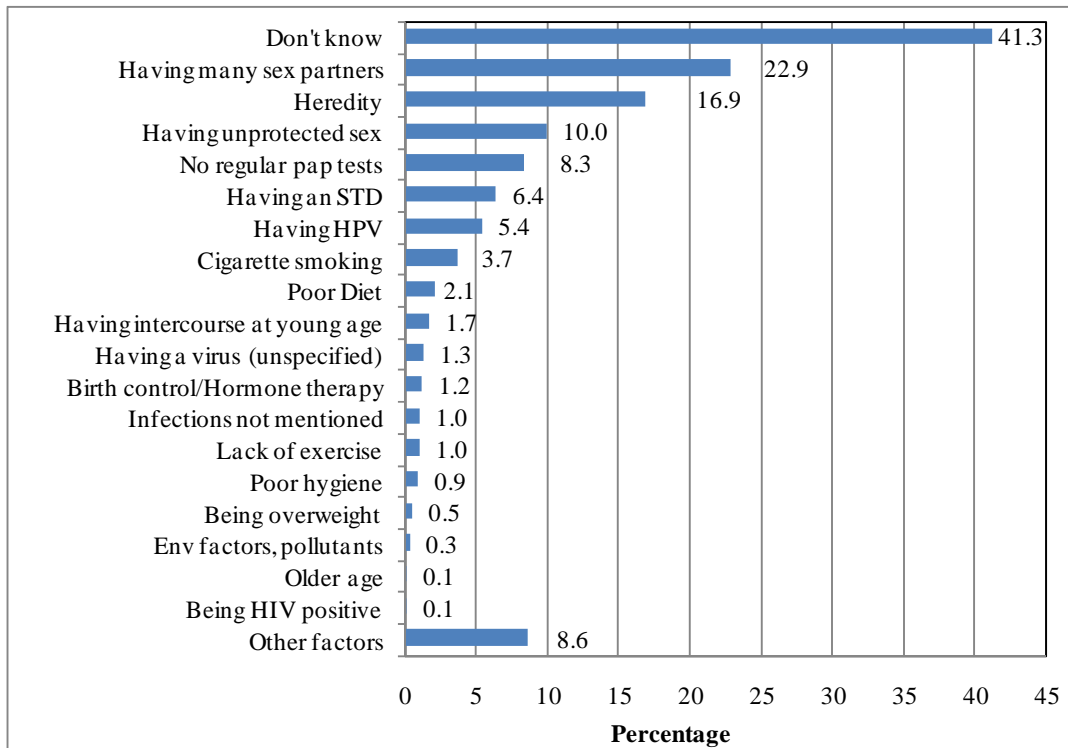
Figure 5 displays the reasons given by women 40 years of age and older for not having had a Pap test within the past three years. The most common reasons given by these women were that they had a hysterectomy (28.5%) or that they did not experience any symptoms (21.4%). Other notable reasons included their doctor didn't recommend it (13.4%) and the cost or lack of health insurance coverage (11.4%).

Figure 5: Specified Reasons Among Women Aged 40+ Years for NOT having a Pap Test in the Past Three Years, 2008



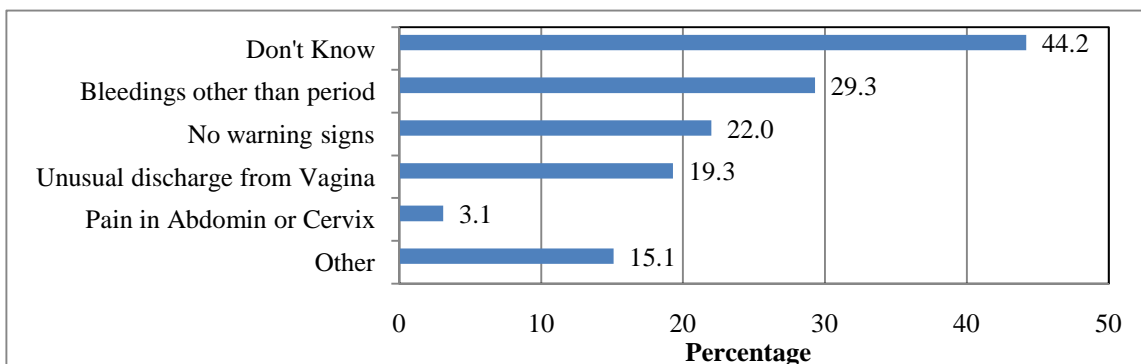
Women were asked to identify the most important risk factors associated with developing cervical cancer. Forty-one percent of women 40 years of age or older were unable to provide one risk factor (Figure 6). Cervical cancer risk factors that were identified include having many sex partners (22.9%), heredity (16.9%), and having unprotected sex (10.0%). Only 5.4% of women 40 years and older correctly identified the human papillomavirus (HPV) as a risk factor for cervical cancer.

Figure 6: Knowledge About Risk Factors Associated with Cervical Cancer Among Women Age 40+ Years, 2008



When asked to identify warning signs and symptoms associated with cervical cancer, 44.2% of women 40 years of age and older indicated that they didn't know while 22.0% reported that there are no signs or symptoms associated with cervical cancer (Figure 7). Women were also asked whether they agreed or disagreed with the statement that all women should be screened for cervical cancer regardless of age. Agreement was reported among 79.5% of women 40 years of age and older. In addition, 53.7% of these women agreed with the statement that all females 9 to 26 years of age should receive HPV vaccine.

Figure 7: Knowledge About Warning Signs & Symptoms Associated with Cervical Cancer Among Women Age 40+ Years, 2008



Colorectal Cancer

MCC Priority Objective:

By 2010, increase to 75 percent the proportion of average-risk people in Michigan who report having received appropriate colorectal cancer screening and follow-up of abnormal screening results.

Background

Colorectal cancer is the third leading cause of cancer-related death in Michigan. An estimated total number of 5,020 men and women were diagnosed with invasive colorectal cancer and 1,720 men and women died from the disease in 2009 in Michigan.¹

Treatment for colorectal cancer is more effective if the cancer is detected in the early stages of development. Of individuals diagnosed with colorectal cancer at a localized stage, 90.8% will survive at least five years, whereas the five year survival rate for cancer detected at the distant stage is only 11.3%.² Five-year survival rates vary by race and ethnicity. When detected at the localized stage, the five-year survival rate for African-Americans is 5% lower than that for Caucasians.²

The Michigan Cancer Consortium's (MCC) recommendation for colorectal cancer screening is for average risk individuals age 50 years or older to have either a yearly fecal occult blood test (FOBT) or a sigmoidoscopy every five years or a yearly FOBT combined with a sigmoidoscopy every five years or to have a colonoscopy every ten years or a double contrast barium enema (DCBE) every five years. The MCC seeks to increase to 75% the proportion of average risk men and women who are receiving appropriately timed colorectal cancer screening, as well as appropriate follow-up of abnormal screening findings.

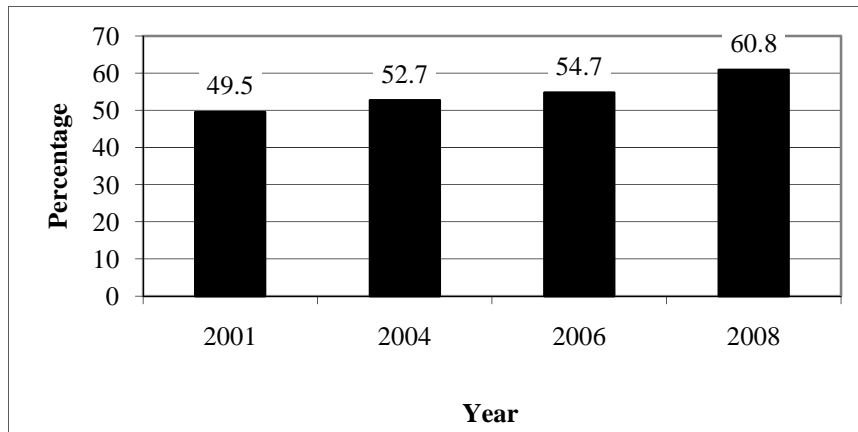
Summary of Results

Among Michigan residents (men and women) 50 years of age and older, the percentage of those who received an appropriately timed colorectal cancer screening in 2008 was 60.8% (\pm 4.1%). Figure 1 shows steady increase in the appropriately timed colorectal cancer screening rates between 2001 and 2008. For a more detailed breakdown of colorectal cancer screening rates by population group and year, refer to Appendix 3.

¹ *The Cancer Burden in Michigan: Selected Statistics — 1991-2009*. Okemos, MI: September 2009. Available at: www.michigancancer.org/PDFs/MCCReports/CancerBurden-Sept2009/CancerBurdenInMichigan-Sept09-AllSections.pdf.

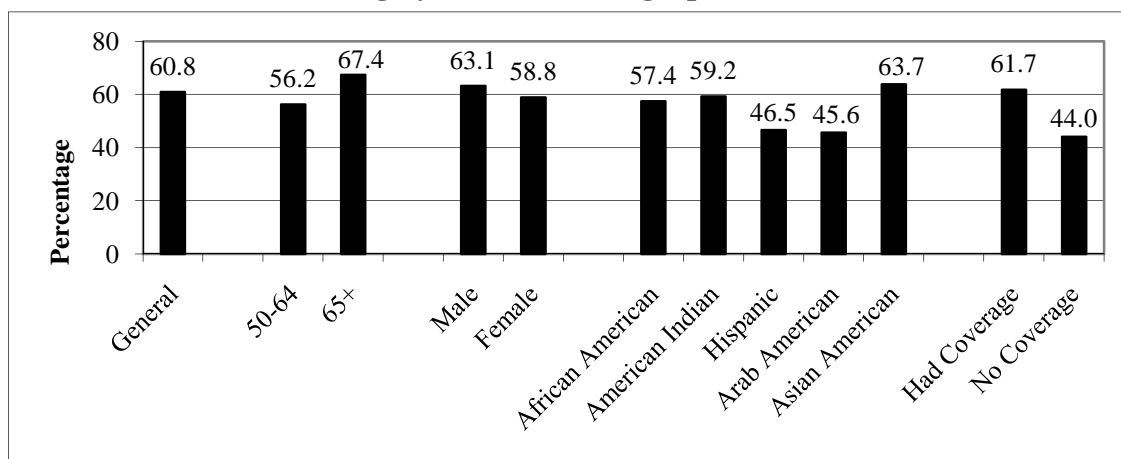
² SEER Cancer Statistics Review, 1975-2006, National Cancer Institute. Bethesda, MD, http://seer.cancer.gov/csr/1975_2006/, posted to the SEER web site, 2009.

Figure 1: Men and Women Age 50+ Years Who Had Any Appropriately Timed* Colorectal Cancer Screening by Year, 2008



When comparing the appropriately timed colorectal cancer screening rates among gender, men and women 65 years of age or older (67.4% \pm 5.8%) had a rate 11.2 percentage points higher than those 50 to 64 years of age (56.2% \pm 5.6%) (Figure 2). While the screening rates were below the general population for each of the minority population groups except Asian Americans (63.7% \pm 15.0%), rates were exceptionally low for Hispanics (46.5% \pm 15.4%) and Arab Americans (45.6% \pm 21.9%). In addition, men and women without health care coverage also were found to have appropriately timed colorectal cancer screening rates well below the general population 50 years of age and above.

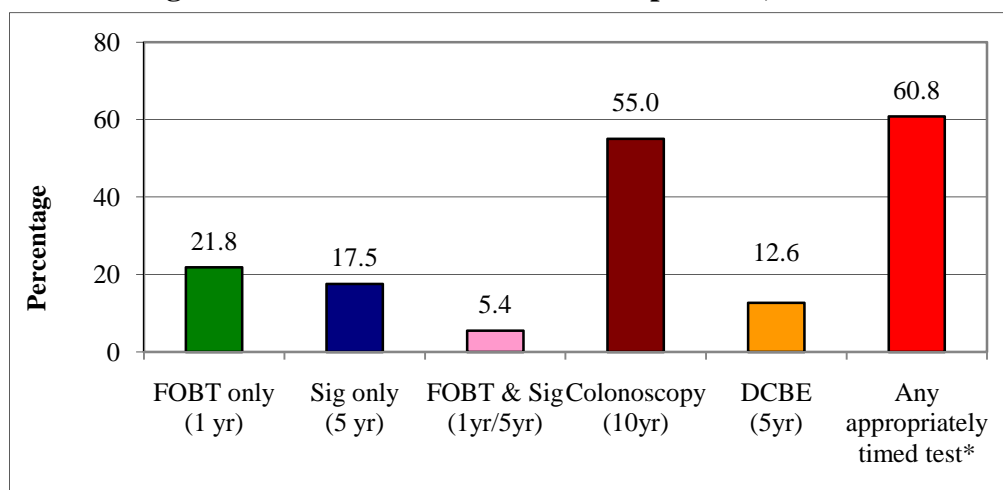
Figure 2: Men and Women Age 50+ Years Who Had Any Appropriately Timed* Colorectal Cancer Screening by Selected Demographic Characteristics, 2008



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

Among the four recommended colorectal cancer screening options, the most common procedure received among men and women 50 years of age or older was a colonoscopy within the past ten years (55.0% \pm 4.5%) (Figure 3). A fecal occult blood test was the second most common procedure (21.8% \pm 3.7%), followed by a flexible sigmoidoscopy every five years (17.5% \pm 3.3%) and DCBE every five years (12.6% \pm 2.5%). The percentage of men and women 50 years of age and older who reported having an annual FOBT combined with a five year sigmoidoscopy was 5.4% (\pm 1.8%).

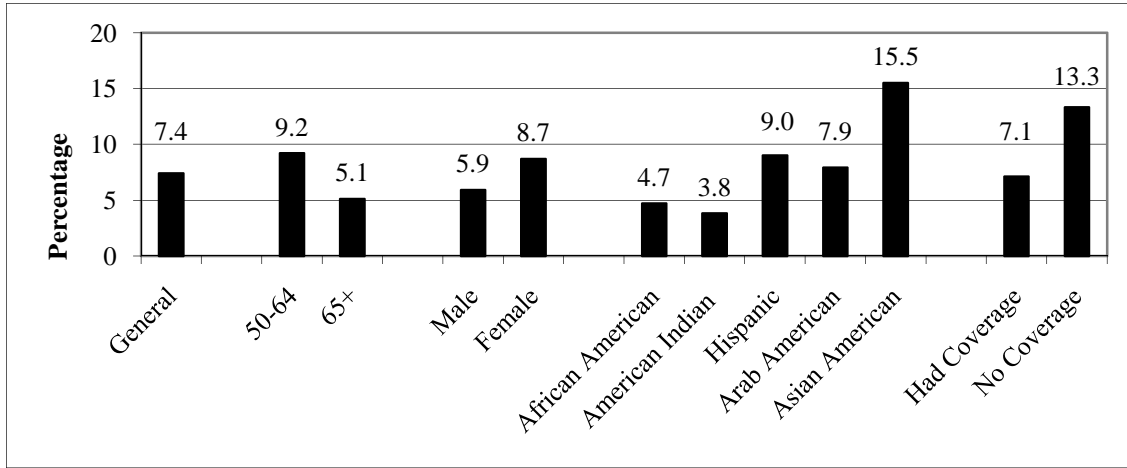
Figure 3: Utilization of Colorectal Cancer Screening Tests among Men and Women Age 50+ Years within the General Population, 2008



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

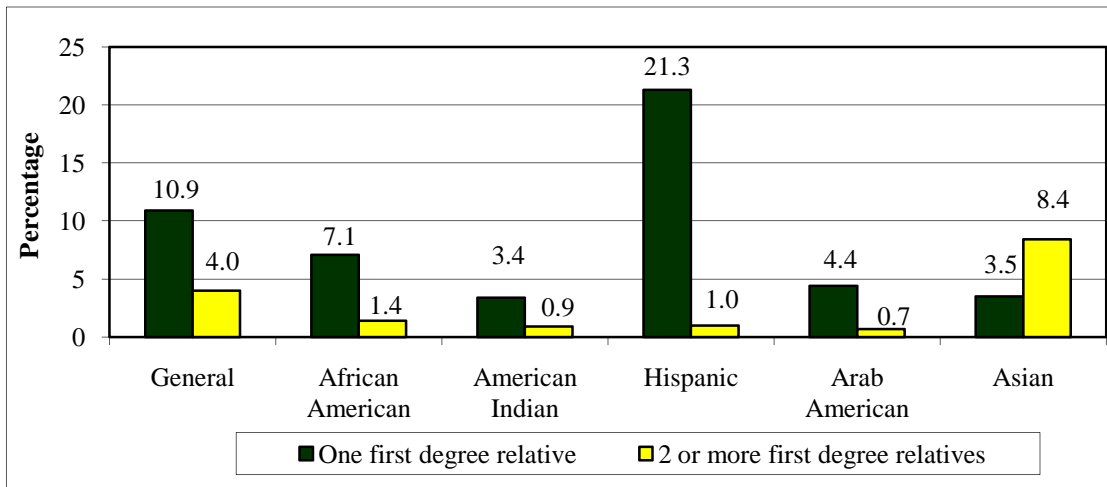
Among men and women 50 years of age or older who ever had any of the four recommended colorectal cancer screening procedures, 7.4% (\pm 2.4%) had an abnormal result within the past ten years (Figure 4). Persons 50 to 64 years of age more frequently reported having had an abnormal colorectal cancer screening result in the past 10 years (9.2% \pm 3.8%) compared to those 65 years or older (5.1% \pm 1.5%). Similarly, females reported receiving abnormal screening results in the past ten years (8.7% \pm 3.6%) when compared with males (5.9% \pm 2.2%). While four of the five minority population groups reported receiving abnormal screening results at levels below the general population, Asian Americans reported abnormal results (15.5% \pm 4.6%) nearly two times higher than the general population. Men and women 50 years of age or older who did not have health care coverage also reported higher abnormal results much more often than those with health care coverage. Men and women who had a follow-up procedure (i.e., FOBT, sigmoidoscopy, colonoscopy, polypectomy, or biopsy) was 59.5% (\pm 18.1%).

Figure 4: Men and Women Age 50+ Years Who Had a Abnormal Colorectal Screening Result in the Past 10 Years by Selected Demographic Characteristics, 2008



Of men and women age 50 years and older, 10.9% ($\pm 2.4\%$) reported having one first degree relative who had been diagnosed with colorectal cancer, and 4.0% ($\pm 2.2\%$) reported having two or more first degree relatives diagnosed with colorectal cancer (Figure 5). Hispanics reported having a first degree relative who was diagnosed with colorectal cancer at a rate much higher than other population groups.

Figure 5: Men and Women Age 50+ Years Who Reported a Family History* of Colorectal Cancer by Population Group, 2008

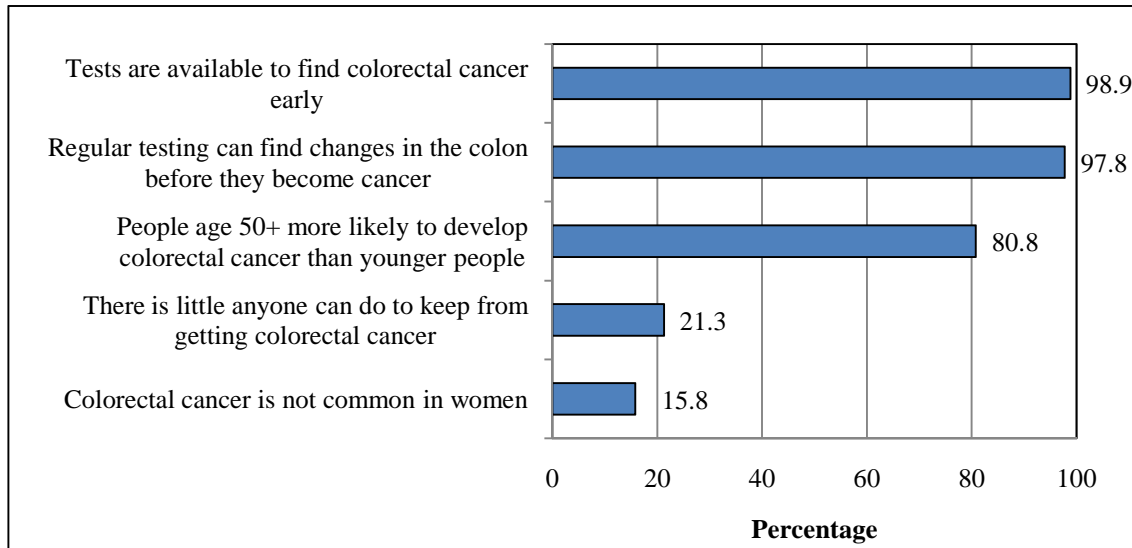


*A report of a family history of colorectal cancer indicates that one or more biological parent, sibling, child, or grandparent previously had colorectal cancer.

Men and women 50 years of age and older were asked if they agreed or disagreed with a series of statements related to colorectal cancer. Nearly everyone in this population agreed with the statements "Tests are available to find colorectal cancer early" (98.9%)

and "Regular testing can find changes in the colon before they become cancer" (97.8), while about 4 out of five people agreed with the statement "People older than 50 years are more likely to get colorectal cancer than people younger than 50 years" (80.8%) (Figure 6). A substantial level of agreement was also found among two false statements. For the statement "There is little anyone can do to keep from getting colorectal cancer" agreement was indicated among 21.3% of men and women 50 years and older, while for the statement "Colorectal cancer is not common in women" agreement was indicated at a rate of 15.8%. In a separate follow-up question, men and women 50 years of age and older were asked to rate the likelihood colorectal cancer could be cured when detected early. Less than half (45.4%) of this population indicated that the likelihood was good or excellent.

Figure 6: General Knowledge about Colorectal Cancer Among Men and Women Age 50+ Years, 2008



When asked to identify factors that may increase a person's likelihood of developing colorectal cancer, men and women 50 years of age most commonly selected a high fat, low fiber diet (33.4% ± 3.9%) and other dietary-related factors (19.2% ± 2.9%) (Figure 7). Family history (17.2% ± 3.5%) and not getting tested or checked by a physician (14.2% ± 3.1%) were also notable risk factors identified as potential colorectal cancer risk factors. However, 30.9% (± 3.9%) of men and women 50 years of age or older were unable to identify any possible risk factors.

Figure 7: Knowledge About Risk Factors Associated with Colorectal Cancer Among Men and Women Age 50+ Years, 2008

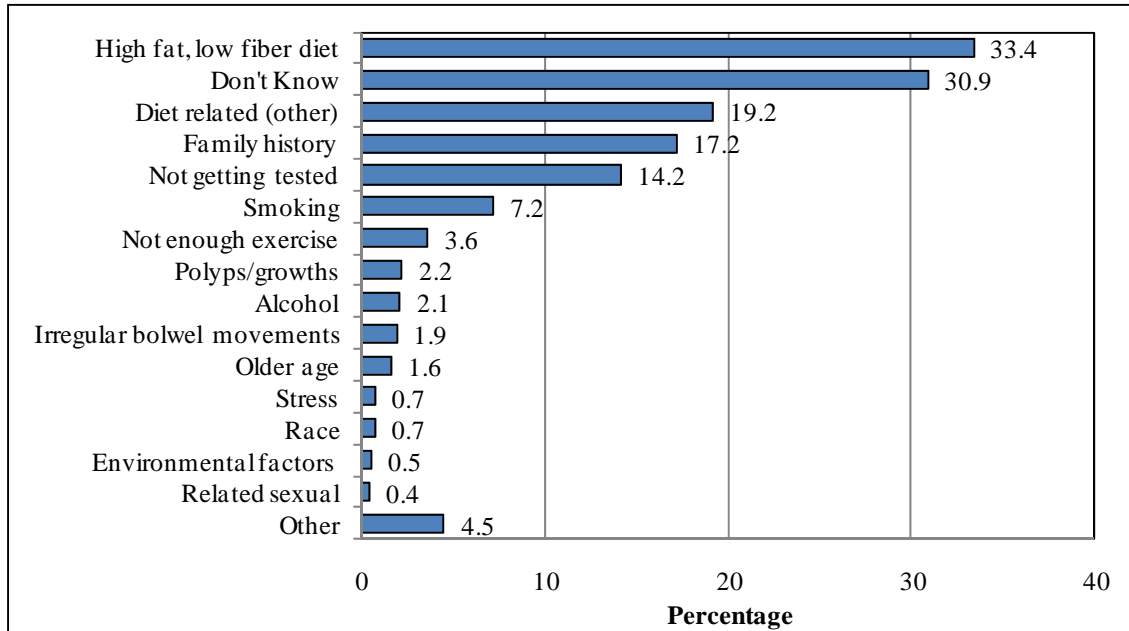
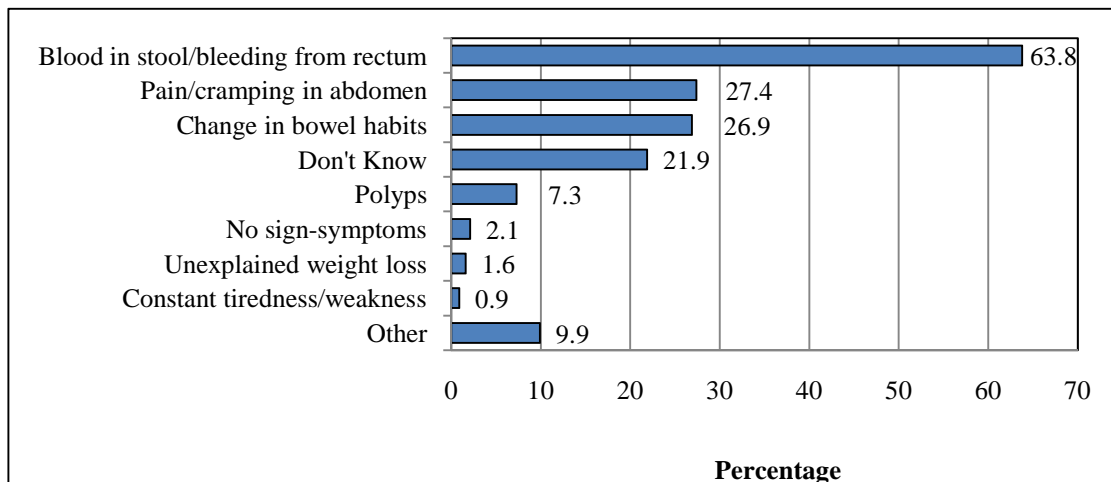


Figure 8 shows the warning signs and symptoms associated with colorectal cancer as reported by men and women 50 years of age and older. Nearly two-thirds (63.8% \pm 4.1%) of this population identified blood in stool or bleeding from rectum as the most common warning sign or symptom of colorectal cancer. Pain or cramping in abdomen (27.4% \pm 3.9%) and change in bowel habits (26.9% \pm 3.7%) were the next most common warning signs or symptoms. Twenty-two percent of men and women 50 years of age and older did not know of any colorectal warning signs or symptoms.

Figure 8: Knowledge About Warning Signs & Symptoms Associated with Colorectal Cancer Among Men and Women Age 50+ Years, 2008



Lung Cancer

MCC Priority Objective:

By 2010, reduce the overall Michigan adult (18 years and older) cigarette smoking prevalence from the 2003 level of 25.8 percent to 15.0 percent and reduce the proportion of Michigan youth (grades 9-12) who report smoking cigarettes during the past 30 days from the 2003 level of 22.6 percent to 16.0 percent.

Background

Lung cancer is the leading cause of cancer-related death in Michigan and in the United States.¹ In 2009, a total of 8,190 men and women in Michigan were estimated to have been diagnosed with lung cancer, and an estimated total number of 5,840 men and women died of the disease.²

Tobacco use accounts for at least 30% of all cancer deaths and 87% of lung cancer deaths.³ Early detection of lung cancer is difficult because many lung cancers do not cause noticeable symptoms until they are advanced and have spread to other parts of the body. However, the risk of having lung cancer and other smoking-related illnesses can be reduced through discontinued use of tobacco products, primarily cigarettes.

The Michigan Cancer Consortium seeks to reduce the overall adult cigarette smoking prevalence to 15.0% and reduce the proportion of Michigan youth who report smoking cigarettes within the past 30 days to 16.0%. The progress toward these goals for adults aged 40 years and older is directly measured through data generated from the SCBRFS.

Summary of Results

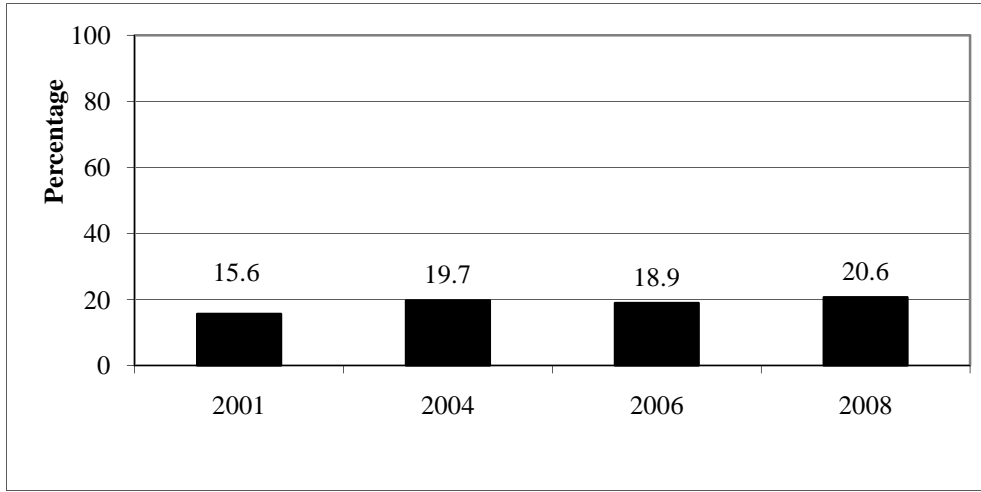
Among Michigan residents aged 40 years and above, the proportion of respondents within the general population that reported being current smokers in 2008 was 20.6% (\pm 3.3%) which was slightly higher than the percentages reported for 2004 and 2006 (Figure 1). For a more detailed breakdown of current smoking rates within each population group over time, refer to Appendix 4.

¹ SEER Cancer Statistics Review, 1975-2006, National Cancer Institute. Bethesda, MD, http://seer.cancer.gov/csr/1975_2006/, posted to the SEER web site, 2009.

² *The Cancer Burden in Michigan: Selected Statistics — 1991-2009*. Okemos, MI: September 2009. Available at: www.michigancancer.org/PDFs/MCCReports/CancerBurden-Sept2009/CancerBurdenInMichigan-Sept09-AllSections.pdf.

³ American Cancer Society. *Cancer Facts & Figures 2009*. Atlanta: American Cancer Society; 2009.

Figure 1: Current Smokers, 2001-2008*



* The 2001 survey included men and women aged 50 years and older; 2004, 2006 and 2008 survey years included men and women aged 40 years and older.

Analysis of the proportion of current smokers by selected demographic characteristics showed that there is a steady decline in the current smoking rates with increasing age, and that 23.4% of male respondents as compared to 18.0% of female respondents reported being current smokers (Figure 2). Hispanics (24.2%) and African Americans (24.1%) had higher proportions of current smokers than other racial/ethnic groups, while the lowest proportion of current smokers was found among Asian Americans at 6.7%. A striking finding is the high proportion of adults 40 years of age or older without health coverage who reported being current smokers (54.9%).

Figure 2: Adults Aged 40+ Years Who Are Current Smokers by Selected Demographic Characteristics, 2008

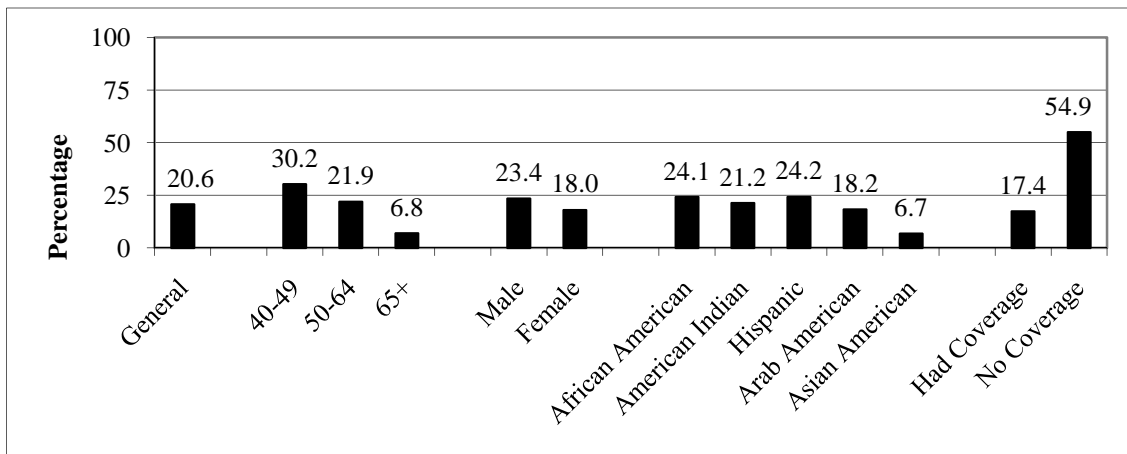
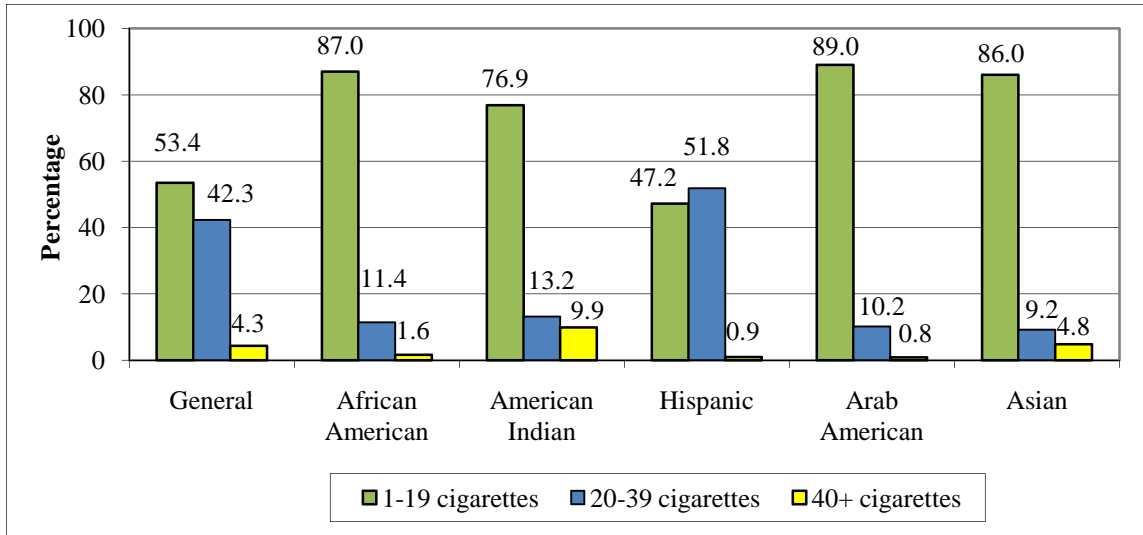


Figure 3 displays the average number of cigarettes smoked per day among current smokers 40 years of age and older. More than half of the current smokers in the general population

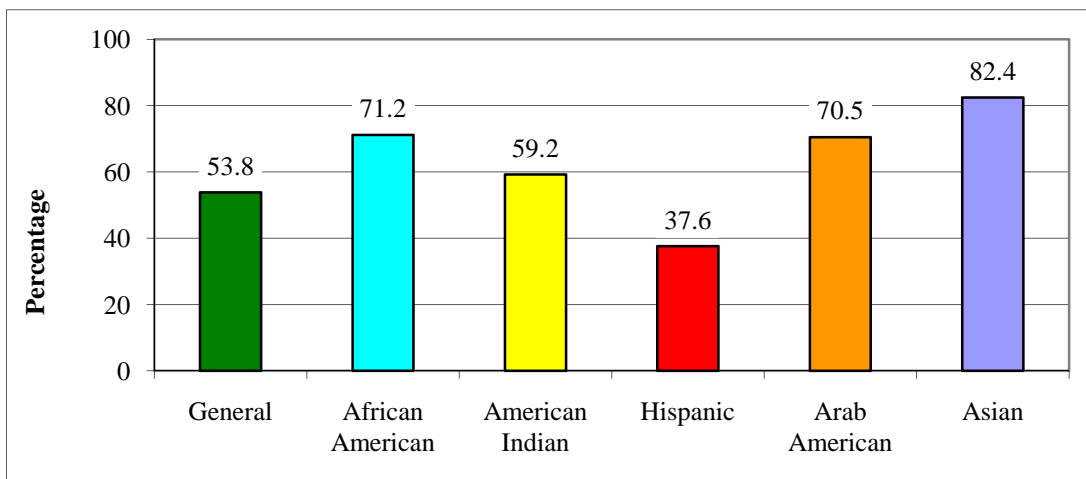
(53.4% ± 10.0%) reported smoking less than 20 cigarettes per day. Majority of the current smokers in each of the minority population groups also smoked less than 20 cigarettes a day, except for Hispanics. Majority of Hispanics current smokers smoked more than 20 cigarettes a day.

Figure 3: Average Number of Cigarettes Smoked Per Day among Current Smokers Aged 40+ Years by Population Group, 2008



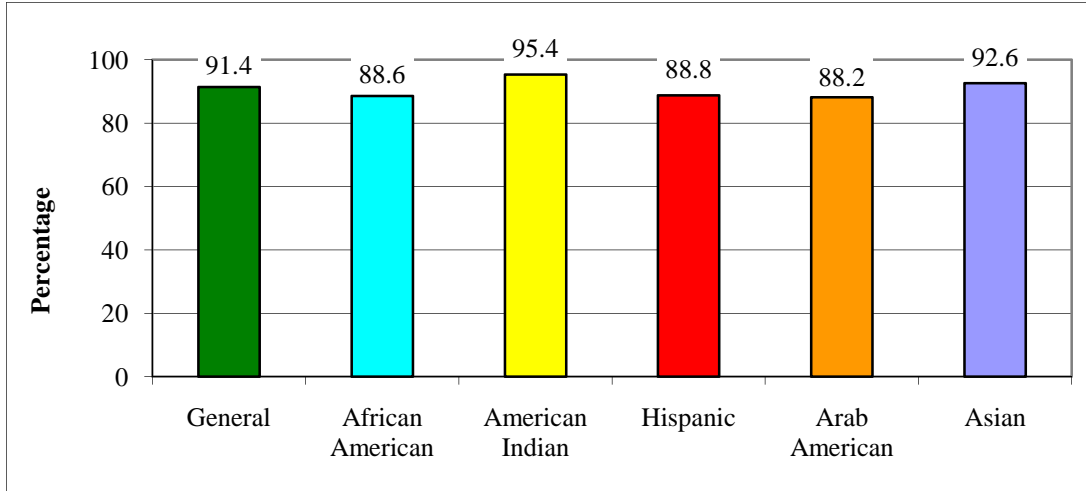
Among current smokers aged 40 years and older, 53.8% (± 11.4%) reported trying to quit for one day or more within the past year (Figure 4). Higher percentages of current smokers who tried to quit smoking within the past year were seen within the Asian American (82.4%), African American (71.2%), and Arab American (70.5%) populations. Only 37.6% of Hispanic current smokers reported trying to quit within the past year.

Figure 4: Current Smokers Aged 40+ Years Who Attempted to Quit for One Day or More in the Past 12 Months by Population Group, 2008



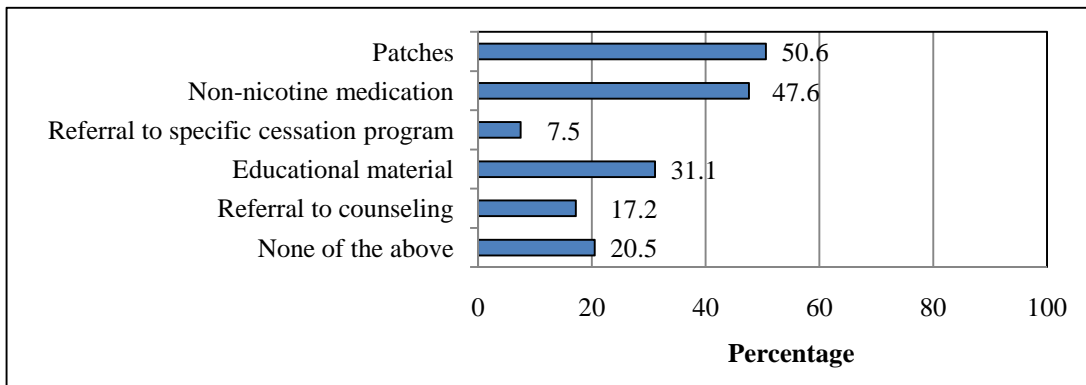
Among current smokers 40 years of age and older, 91.4% ($\pm 4.5\%$) had been advised by their doctor or other health care professional to quit smoking (Figure 5). This percentage ranged among the specific race/ethnicity population groups from 88.2% for Arab Americans to 95.4% for American Indian.

Figure 5: Current Smokers Aged 40+ Years Whose Doctor or Other Health Care Professional Advised Them to Quit Smoking by Population Group, 2008



Tobacco cessation services or aid reported by current smokers to have been offered to them by their doctor or other health care professionals include patches (50.6%), non-nicotine medication (47.6%), and educational materials (31.1%); 17.2% received referrals to counseling while 7.5% received referrals to specific cessation programs (Figure 6).

Figure 6: Tobacco Cessation Services/Aid Offered by Doctor or Other Health Care Professional to Current Smokers Aged 40+ Years, 2008



Among Michigan residents aged 40 years and above, 30.9% reported being former smokers in 2008. More than half of these former smokers 40 years of age and older reported that it has been more than 15 years since they last smoked cigarettes regularly

(58.1%) while only 7.4% reported smoking their last cigarettes within the past year (Figure 7). A former smoker is a respondent who reported having smoked at least 100 cigarettes in their entire life but reported in a follow-up question that they do not smoke at all anymore.

Figure 7: Time Since Last Smoked Cigarettes Regularly Among Former Smokers Aged 40+ Years, 2008

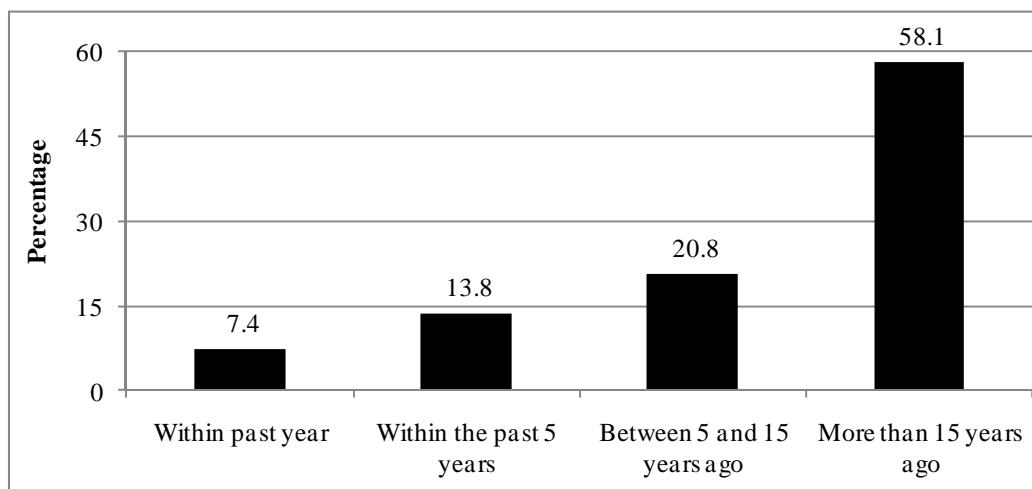
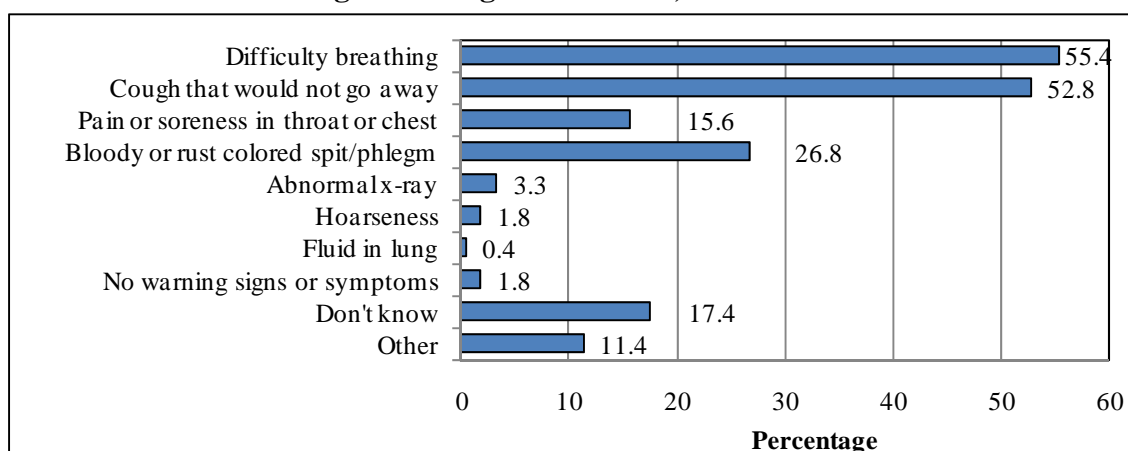


Figure 8 shows what Michigan residents aged 40 years and older reported would be the warning signs and symptoms of lung cancer. Difficulty breathing (55.4%) and coughs that would not go away (52.8%) were the most common warning signs or symptoms that they cited. Other warning signs and symptoms reported by the respondents were bloody or rust colored spit or phlegm (26.8%) and pain or soreness in throat or chest (15.6%). Less than one-fifth (17.4%) did not know any warning sign or symptom of lung cancer.

Figure 8: Knowledge About Warning Signs & Symptoms Associated with Lung Cancer Among Adults Aged 40+ Years, 2008



Prostate Cancer

MCC Priority Objective:

By 2010, practice guidelines and educational materials will be available for professionals and survivors/families that address prostate cancer symptom management across the survivor continuum to decrease morbidity.

Background

Prostate cancer is the most frequently diagnosed cancer in men.¹ An estimated total number of 7,010 men were newly diagnosed with prostate cancer and 820 men died from the disease in 2009 in Michigan.² Age and race are strong risk factors for prostate cancer. The chance of getting prostate cancer goes up quickly after a man reaches age 50. About 2 out of every 3 prostate cancers are found in men over the age of 65.¹ Prostate cancer is not only more common among African-American men than among men of other races, but African-American men are also more likely to have a more advanced disease when it is found and are more likely to die of the disease.^{1,3}

Through previous efforts of the Michigan Cancer Consortium (MCC), a patient education treatment decision aid designed to improve knowledge among men who are newly diagnosed with prostate cancer of treatment options and related side effects was developed and disseminated. Efforts to maintain the integrity of content and availability of the decision aid will continue through 2010. An additional 2010 goal of the MCC is to make available practice guidelines and educational materials for professionals and survivors/families that address prostate cancer symptom management across the survivor continuum to decrease morbidity.

Summary of Results

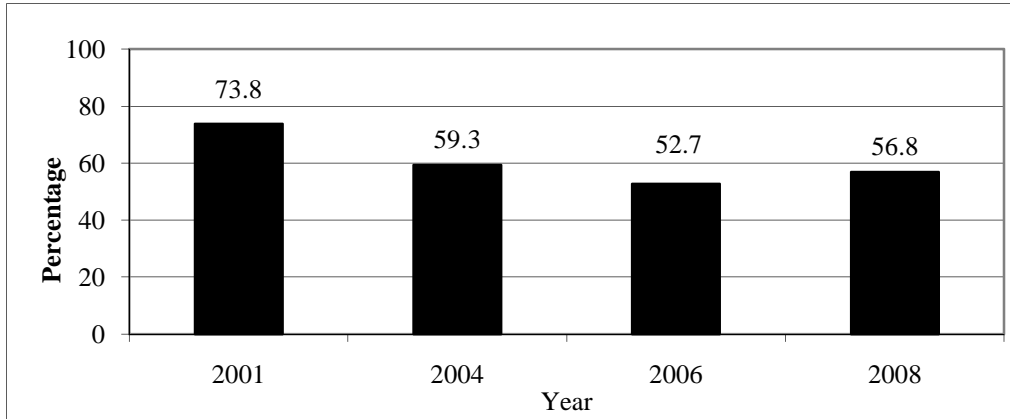
Among Michigan males age 40 years and older, the percentage of those who ever had a prostate specific antigen (PSA) was 56.8% (\pm 6.1%) in 2008. Although this rate is approximately four percentage points higher than the rate for 2006 (52.7%), it was lower than both of the rates for 2001 (73.8%) and 2004 (59.3%) (Figure 1). It should be noted that only men 50 years of age and older were included in 2001. More detailed information about PSA rates by population groups over time can be found in Appendix 5.

¹ American Cancer Society, *Cancer Facts & Figures 2009*. Atlanta: American Cancer Society; 2009.

² *The Cancer Burden in Michigan: Selected Statistics — 1991-2009*. Okemos, MI: September 2009. Available at: www.michigancancer.org/PDFs/MCCReports/CancerBurden-Sept2009/CancerBurdenInMichigan-Sept09-AllSections.pdf.

³ SEER Cancer Statistics Review, 1975-2006, National Cancer Institute. Bethesda, MD, http://seer.cancer.gov/csr/1975_2006/, posted to the SEER web site, 2009.

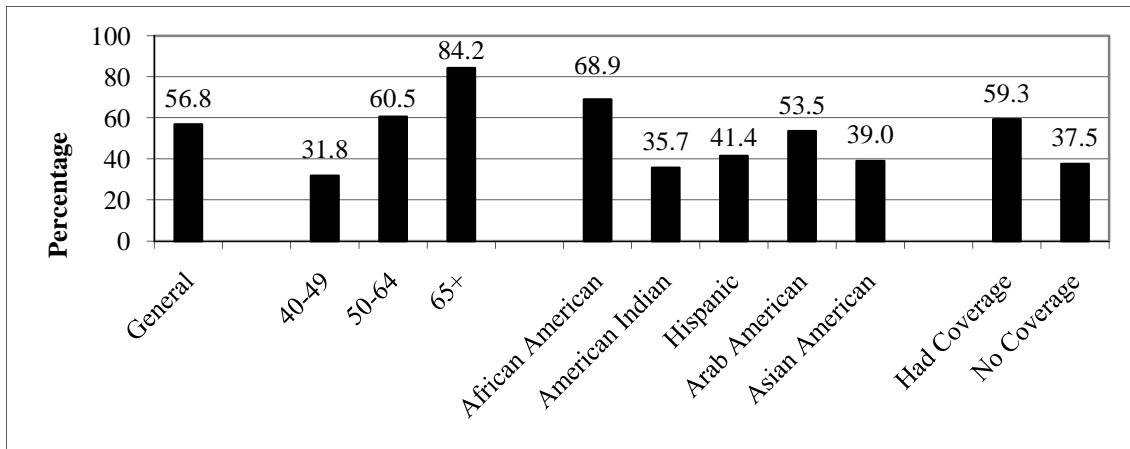
Figure 1: Men Who Ever Had a Prostate Specific Antigen (PSA) Test, 2001-2008*



* The 2001 survey included men age 50 years and older; 2004, 2006 and 2008 survey years included men age 40 years and older.

The 2008 PSA testing rates increased substantially with age, ranging from 31.8% (\pm 10.4%) among males 40 to 49 years of age to 60.5% (\pm 9.6%) among males 50 to 64 years of age and 84.2% (\pm 5.9%) among males 65 years of age and older (Figure 2). For each minority population group except African American males, the PSA testing rates for males 40 years of age and older were well below the general population's PSA testing rate. The PSA testing rate for males 40 years of age and without health care coverage was also well below the PSA testing rate for the general population.

Figure 2: Men Age 40+ Years Who Have Ever Had a PSA Test by Selected Demographic Characteristics, 2008



Among males 40 years of age or older who ever had a PSA test, the majority (69.3% \pm 6.7%) indicated that they had received a PSA test within the past year, and another 14.2% (\pm 6.1%) of these males received a PSA test between one and two years ago (Figure 3).

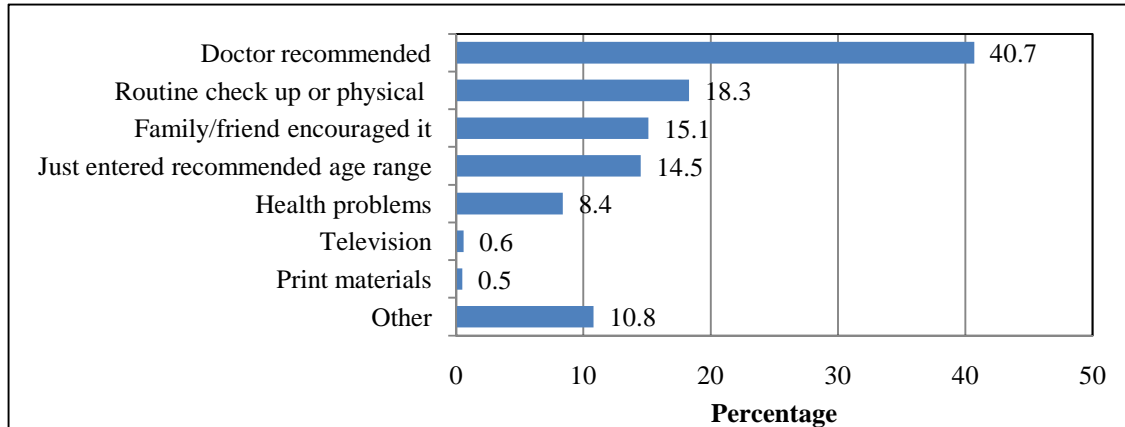
Less than ten percent ($8.3\% \pm 5.5\%$) of males 40 years or older who ever received a PSA test reported receiving the test five or more years ago.

Figure 3: Timeliness of Last PSA Test Among Men Age 40+ Years, 2008



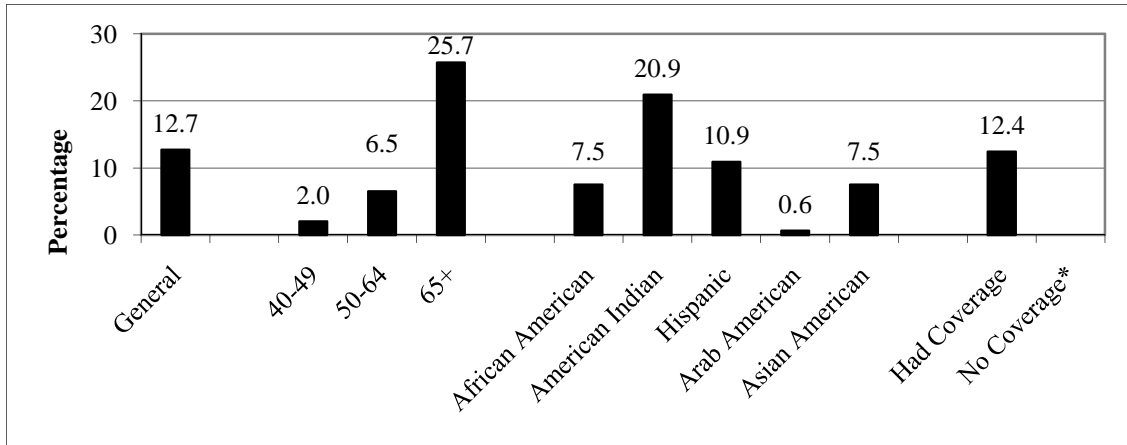
Twenty-three percent (23.2%) of males 40 years of age and older indicated that their last PSA test was the first time they ever had a PSA test. Figure 4 displays the reasons given by men for having received their first PSA test. The most common reason given was that their doctor recommended it (40.7%), followed by getting a routine check up or physical (18.3%), a family or friend encouraged it (15.1%), and they just entered the recommended age range (14.5%).

Figure 4: Reasons for Getting First PSA Test Among Men Age 40+ Years, 2008



The percentage of males who ever had a PSA test that resulted in an abnormal finding was 12.7% ($\pm 5.1\%$). However, when stratifying by age, abnormal findings jump sharply from 2.0% ($\pm 2.3\%$) and 6.5% ($\pm 2.7\%$) among males 40 to 49 and 50 to 64 years of age, respectively, to 25.7% ($\pm 11.8\%$) among males 65 years of age and older (Figure 5). American Indian males 40 years of age and older showed the highest percentage of abnormal PSA test findings at a rate of 20.9% ($\pm 32.9\%$) while Arab American males had abnormal findings at a rate below one percent (0.6%).

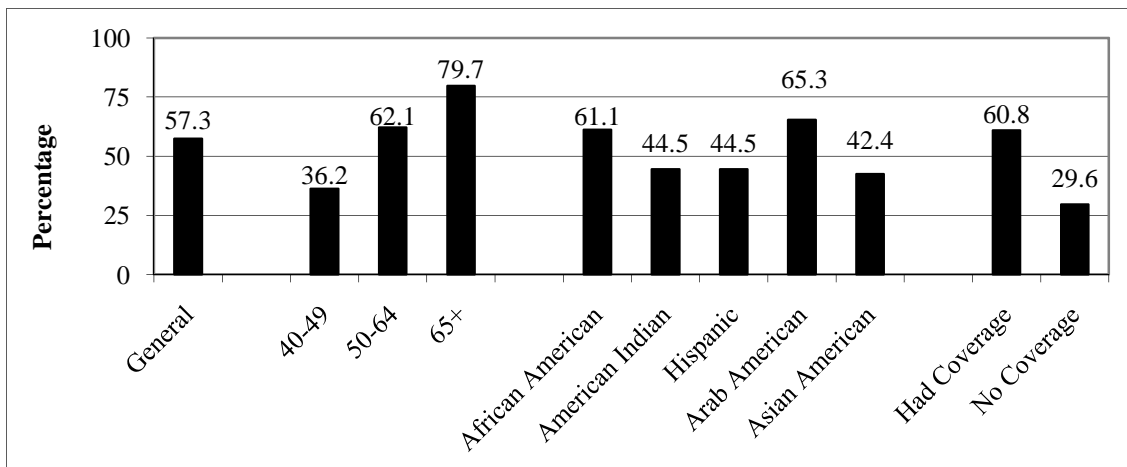
Figure 5: Men Age 40+ Years Who Had an Abnormal PSA Testing in the Past 10 Years, 2008



* No respondents without health care coverage reported having an abnormal PSA result.

The percentage of males 40 years or older who discussed PSA testing with their doctor was 57.3% ($\pm 6.1\%$). The likelihood of men discussing PSA testing with their doctor increased sharply with age ranging from 36.2% ($\pm 10.9\%$) among men 40 to 49 years of age to 62.1% ($\pm 9.5\%$) among men 50 to 64 years and 79.7% ($\pm 7.1\%$) among men 65 years of age and older (Figure 6). Arab American males 40 years of age and older had the highest rate (65.3% $\pm 18.2\%$) among the minority population groups, followed by African American males (61.1% $\pm 15.7\%$). Men aged 40 years and older who had health care coverage (60.8%) discussed PSA testing with their doctors about twice as often as men without health care coverage.

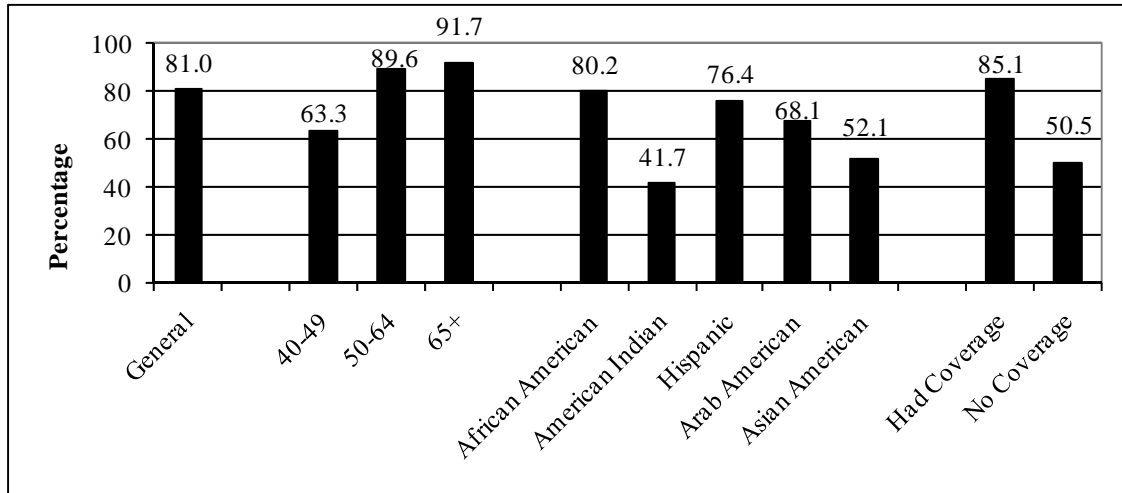
Figure 6: Men Age 40+ Years Who Have Ever Talked with Doctor about PSA Testing by Selected Demographic Characteristics, 2008



In 2008, the percentage of males 40 years of age and older who ever had a digital rectal exam (DRE) was 81.0% ($\pm 5.1\%$) (Figure 7). The DRE rates for males increased with age ranging from 63.3% ($\pm 11.2\%$) among males 40 to 49 years of age to 91.7% ($\pm 5.1\%$)

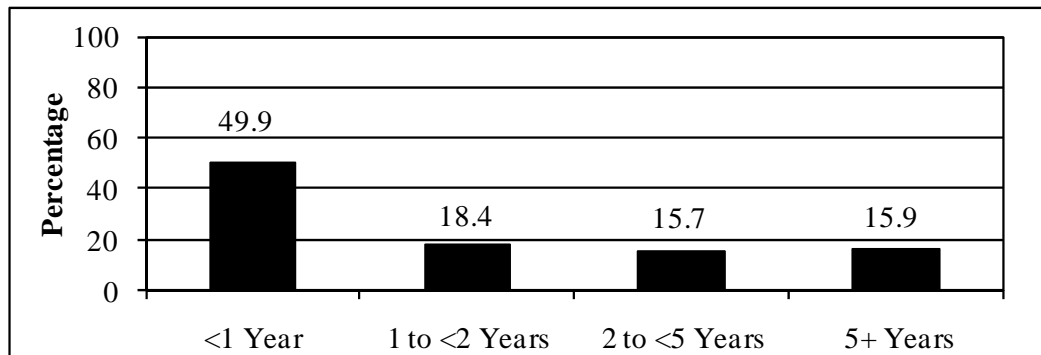
for males 65 years of age or older. While DRE rates were lower for each of the minority population groups compared to all Michigan males 40 years of age and older, the rate for American Indian males (41.7%) was about half of the statewide rate. Males 40 years of age and older with health care coverage had a DRE rate (85.1%) nearly 70% higher than those without health care coverage.

Figure 7: Men Age 40+ Years Who Ever Had a Digital Rectal Exam by Selected Demographic Characteristics, 2008



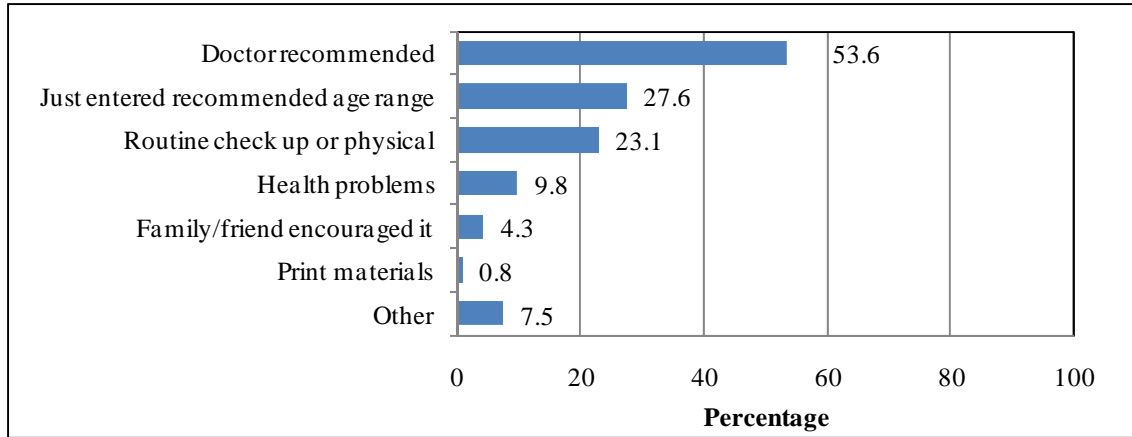
Half of all males 40 years of age and older (49.9% ± 6.3%) who ever had a DRE reported receiving the exam within the past year, and another 18.4% (± 6.1%) received a DRE between 1 and 2 years ago (Figure 8). Sixteen percent (15.9% ± 5.5%) had a DRE five or more years ago.

Figure 8: Timeline of Last DRE Among Men Age 40+ Years, 2008



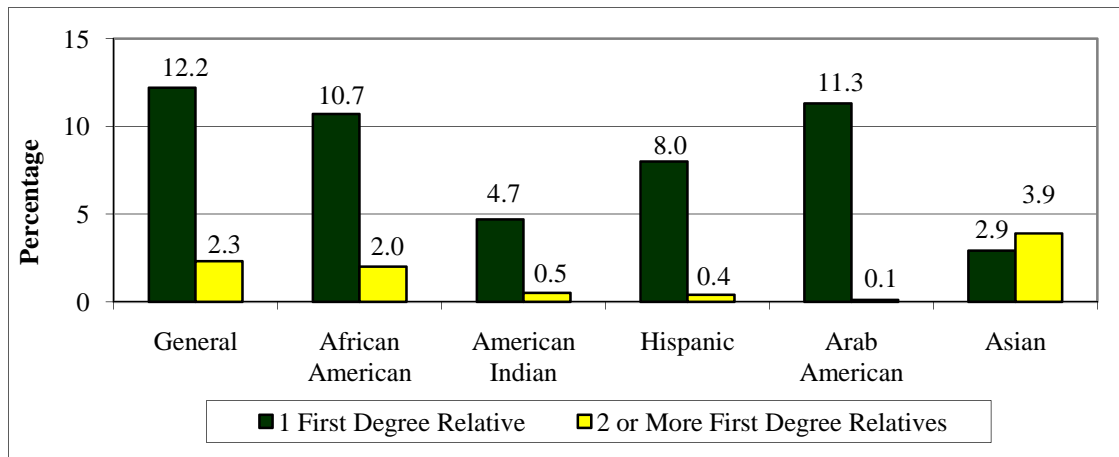
Among males 40 years of age and older, 11.9% (± 4.0%) reported that their last DRE was their first DRE. Figure 9 shows the reasons for having their first DRE. The most common reasons given were that the doctor recommended it (53.2%) and went for a routine check up or physical (21.3%).

Figure 9: Reasons for First DRE Among Men 40+ Years, 2008



Among men age 40 years and older, 12.2% ($\pm 2.5\%$) reported having one first degree relative who had been diagnosed with prostate cancer, and 2.3% ($\pm 1.6\%$) reported having two or more first degree relatives who were diagnosed with prostate cancer (Figure 10).

Figure 10: Men Age 40+ Years Who Reported a Family History* of Prostate Cancer by Population Group, 2008

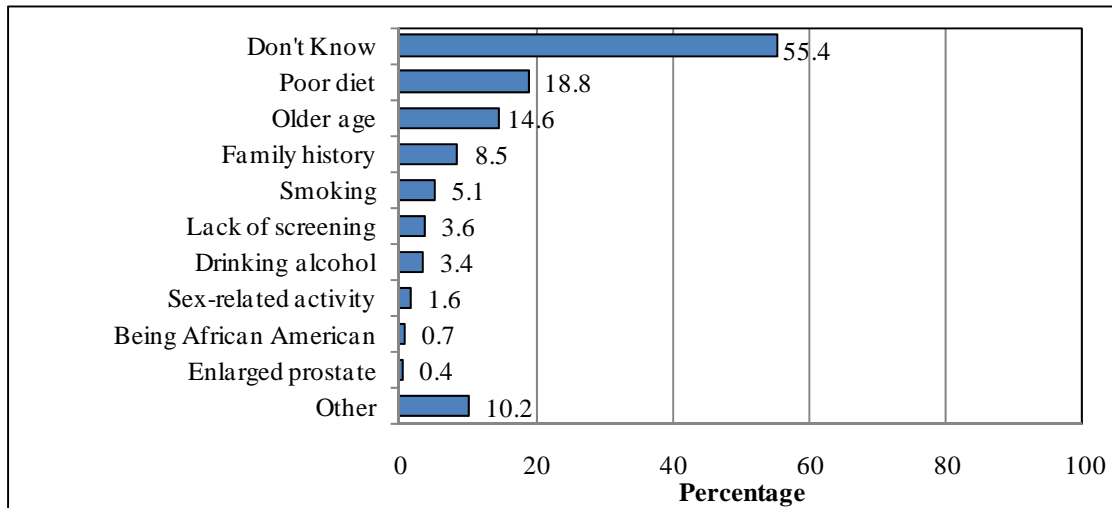


*A report of a family history of prostate cancer indicates that one or more biological parent, sibling, child, or grandparent previously had prostate cancer.

Males 40 years of age and older were asked whether they agreed or disagreed with two general statements about prostate cancer. For the first statement, 96.4% ($\pm 1.9\%$) of these males agreed that all men of all races and ethnic backgrounds are at risk for prostate cancer. For the second statement, “African American men have a higher chance than white men of getting prostate cancer,” 56.3% ($\pm 6.8\%$) of males 40 years and older agreed with the statement.

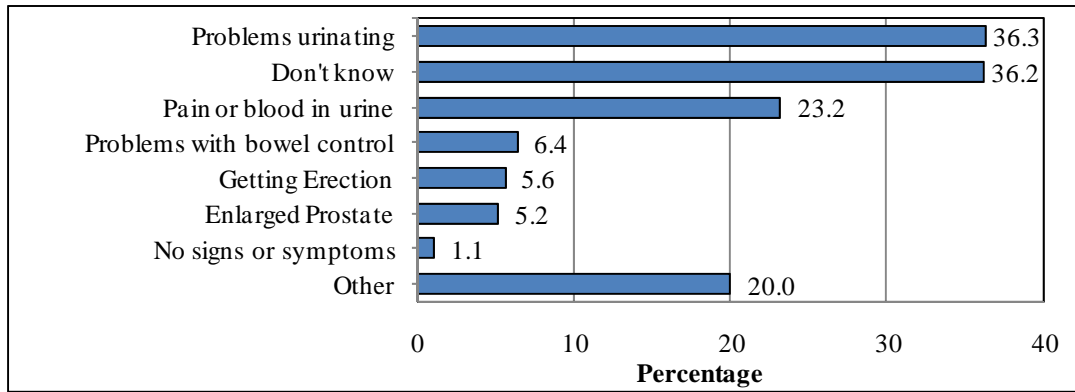
When asked to identify up to four risk factors that increase the likelihood of a man developing prostate cancer, more than half (55.4%) of males 40 years of age and older could not identify a potential risk factor (Figure 11). Among the risk factors that were provided, poor diet (18.8%), older age (14.6%), and family history (8.5%) were the three most common risk factors provided by males 40 years of age and older.

Figure 11: Knowledge About Risk Factors Associated with Prostate Cancer Among Men 40+ Years, 2008



Males 40 years and older were also asked to provide up to four warning signs or symptoms typically associated with prostate cancer. The most common sign or symptom provided was problems urinating (36.3%) (Figure 12). This refers primarily to a man's inability to control urination or having the feeling that they continually need to urinate. The second most common warning sign or symptom provided also related to urinating. However, the category pain or blood in urine (23.2%) refers to experiencing pain or discomfort while urinating or noticing blood in the urine. More than one-third (36.2%) of males 40 years and older indicated that they did not know of any prostate cancer warning signs or symptoms.

Figure 12: Knowledge About Warning Signs & Symptoms Associated with Prostate Cancer Among Men 40+ Years, 2008



Many of the responses captured within the Other category were related to risk factors associated with developing prostate cancer, not necessarily warning signs or symptoms.

End-Of-Life Care

MCC Priority Objective:

By 2010, prevent and reduce avoidable suffering up to and during the last phase of life for persons with cancer.

Background

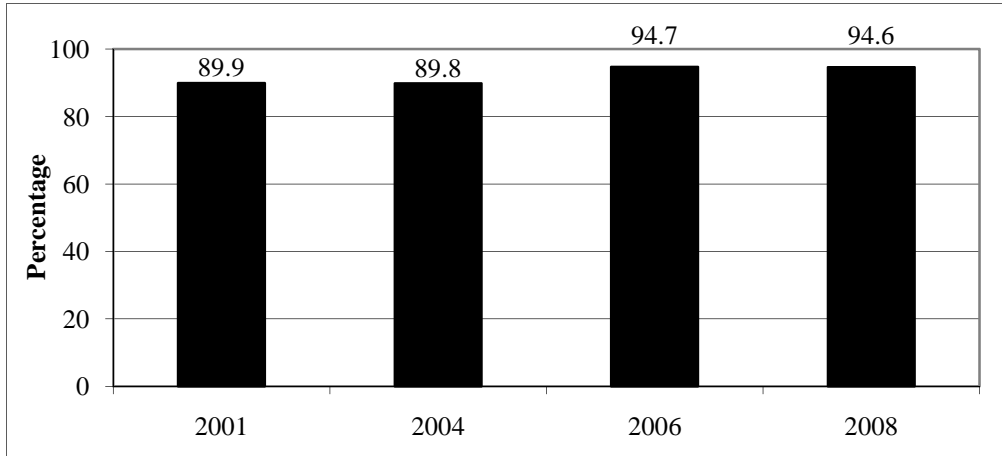
End-life-care aims to reduce avoidable suffering and improve the quality of life for terminally ill patients by addressing the management of pain and other physical symptoms, as well as provide emotional and spiritual support for patients and their families. The timeliness of referral to end of life services is crucially important so that medical, spiritual, and psychological professionals can provide assistance to patients and families within the limited timeframe between terminal diagnoses and death.

To ensure that terminally ill cancer patients receive the benefits of multidisciplinary end of life care and are given a peaceful end of life experience, the Michigan Cancer Consortium seeks to reduce avoidable suffering during the last phase of life for persons with cancer. The module on end of life care within the SCBRFS includes detailed questions regarding end of life care awareness, pain management, satisfaction with hospice services, and the experiences of patients in their last days as described by the main caregiver.

Summary of Results

As an introduction into the End-of-Life module in the 2008 SCBRFS, respondents were asked if they had ever heard of Hospice care. Altogether, 94.6% ($\pm 1.4\%$) of men and women 40 years of age and older indicated that they had heard of Hospice. This percentage was comparable to the proportion of men and age 40 years and older who heard of Hospice in the 2006 SCBRFS (94.7%), and higher than the proportions found for 2004 (89.8%) and 2001 (89.9%) (Figure 1). A breakdown of the percentage of men and women who ever heard of hospice by specific minority population groups can be found in Appendix 6. In a separate question, 18.4% ($\pm 2.9\%$) of men and women age 40 years and older indicated that they heard of palliative care.

Figure 1: Men and Women* Who Ever Heard of Hospice, 2001-2008**

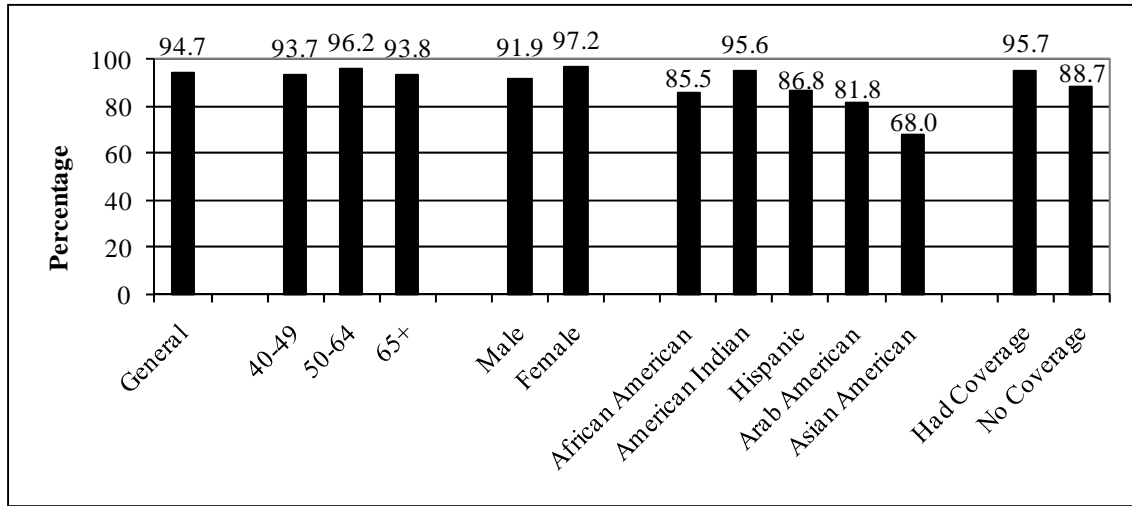


*The 2001 survey included men and women 50 years of age and older; 2004, 2006 and 2008 survey years included men and women 40 years of age and older.

**2001, 2004, and 2008 survey question was "Have you ever heard of Hospice care?"; 2006 survey question was "Name at least one end-of-life care service available to someone dying of a terminal illness."

Figure 2 shows the percentages of men and women who heard of Hospice or palliative care by selected demographic characteristics. Altogether, 94.7% ($\pm 1.4\%$) of the targeted population heard of either Hospice or palliative care, only a slight increase of 0.1 percentage points higher than those who reported hearing of Hospice alone. Age appeared to have only a minor impact on whether or not a person heard of either end of life service. Men and women between the ages of 50 and 64 years reported hearing of Hospice or palliative care at a rate of 96.2% ($\pm 1.8\%$), slightly higher than those 40 to 49 years of age (93.7% $\pm 3.1\%$) and 65 years of age and older (93.8% $\pm 2.4\%$). Females (97.2% $\pm 0.8\%$) reported hearing of Hospice or palliative care about 6% more often than males (91.9% $\pm 2.9\%$). With the exception of the American Indian population 40 years of age and older (95.6% $\pm 3.1\%$), each of the other minority population groups reported hearing about these services at levels well below the general population 40 years of age and above. Having health care coverage also appeared to influence whether or not a person heard of Hospice or palliative care as men and women age 40 years of age and older were about 8% more likely to have heard of these services compared to those without health care coverage. A breakdown of those who reported hearing of Hospice or palliative care separately can be found in Appendix 6.

Figure 2: Men and Women Age 40+ Years Who Heard of Hospice or Palliative Care by Selected Demographic Characteristics, 2008



Respondents were asked if they had prepared any documents such as an advance directive that could help their family make health care decisions for them if they became unable to make decisions for themselves. SCBRFS results for 2008 showed that 48.9% ($\pm 3.7\%$) of men and women 40 years of age had prepared such a document. Results also showed that older individuals were much more likely to have prepared an advance directive compared to younger individuals. For example, 70.1% ($\pm 5.5\%$) of those over 65 years of age reported having an advance directive compared to only 34.9% ($\pm 7.1\%$) of those 40 to 49 years of age (Figure 3). Females 40 years of age and older reported preparing an advance directive more than 12 percentage points higher than males within the same age range (54.9% vs. 42.3%, respectively). In addition, men and women 40 years of age and older within each minority population group prepared an advance directive proportionately less often than the general population. Men and women age 40 years and older who had health care coverage were about twice as likely to have prepared an advance directive compared to those without health care coverage.

Figure 3: Men and Women Age 40+ Years Who Prepared an Advance Directive by Selected Demographic Characteristics, 2008

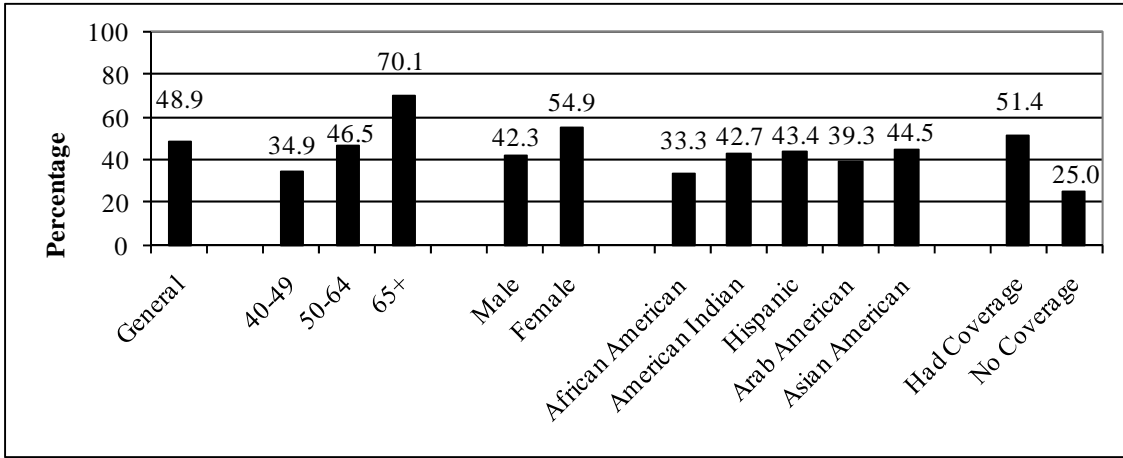
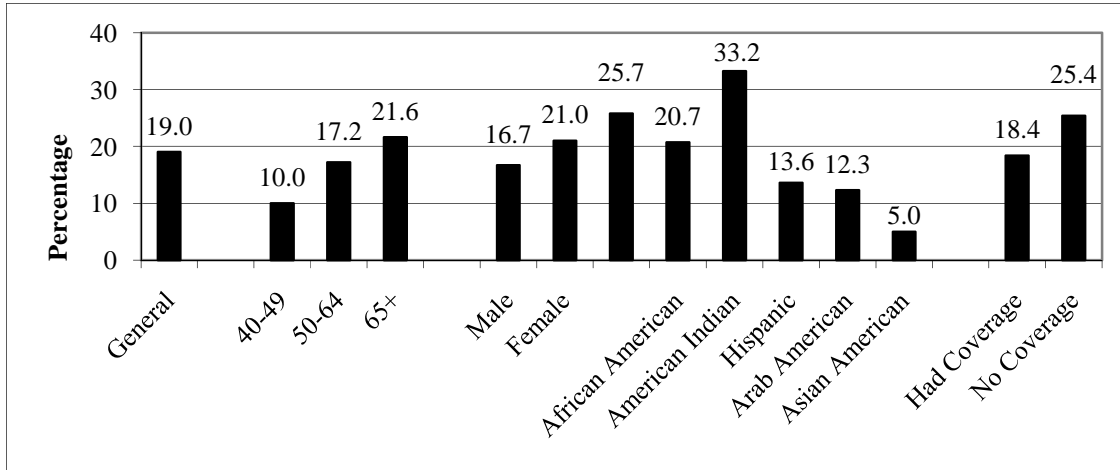


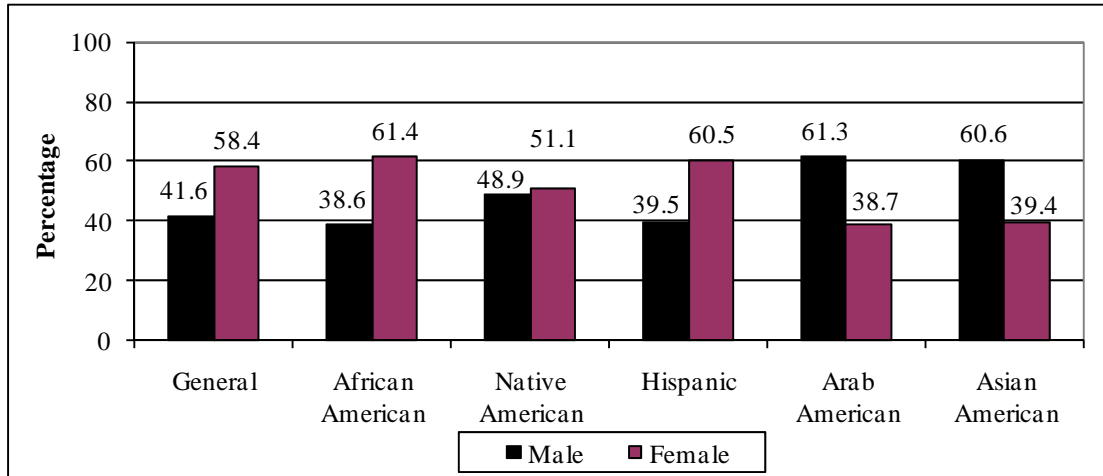
Figure 4 shows information about Michigan residents who were the main caregiver for a family member or friend who died of a terminal illness during the past five years. Overall, 19.0% ($\pm 2.9\%$) of men and women 40 years of age and older indicated they had been a primary caregiver of a terminally ill person within the past five years. The likelihood of being a caregiver increased with age ranging from 10.0% ($\pm 7.1\%$) among persons 40 to 49 years of age to 21.6% ($\pm 4.5\%$) among persons 65 years of age and older. Females age 40 years and older (21.0% $\pm 3.5\%$) were 26% more likely to be a caregiver compared to males of this same age range (16.7% $\pm 5.1\%$). American Indian men and women 40 years of age and older had the highest percentage (33.2%) of caregivers compared to the other minority population groups and was well above the percentage found for the general population. Conversely, Hispanic (13.6%), Arab American (12.3%), and Asian American (5.0%) men and women 40 years of age and older reported being a caregiver in the past five years at rates well below the general population. Persons 40 years of age and older who were without health care coverage (25.4%) reported being a caregiver during the past five years 38% more often than those with health care coverage (18.4%).

Figure 4: Men and Women 40+ Years Who Were a Primary Caregiver of a Terminally Ill Person Within the Past Five Years by Selected Demographic Characteristics, 2008



In the general population of persons 40 years of age and older, females (58.4% ± 9.2%) were much more likely to have been a caregiver of a terminally ill person compared to males (41.6% ± 9.2%) (Figure 5). This trend was consistent within the African American, Native American, and Hispanic populations. However, within the Arab and Asian American populations 40 years of age and older, males were more likely to have been a caregiver compared to females.

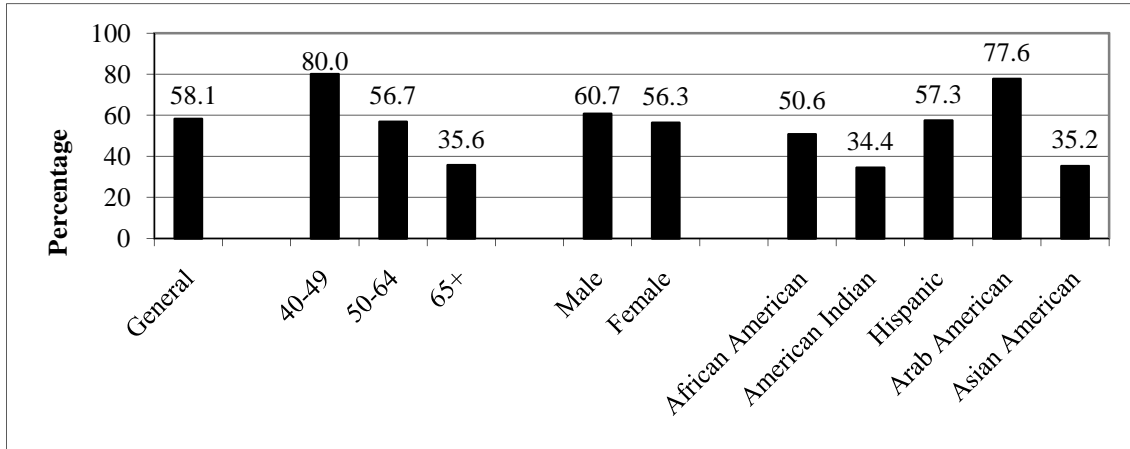
Figure 5: Primary Caregivers of Terminally Ill Persons by Gender and Population Group, 2008



Persons who reported being a main caregiver of a terminally ill family member or friend in the past five years were then asked if the terminally ill person died from cancer. For 58.1% (± 8.2%) of these caregivers, the terminally ill person did die from cancer. Figure 6 shows the percentages of persons who died from cancer according to their caregiver's demographic characteristics. For example, among caregivers who were 40 to 49 years of

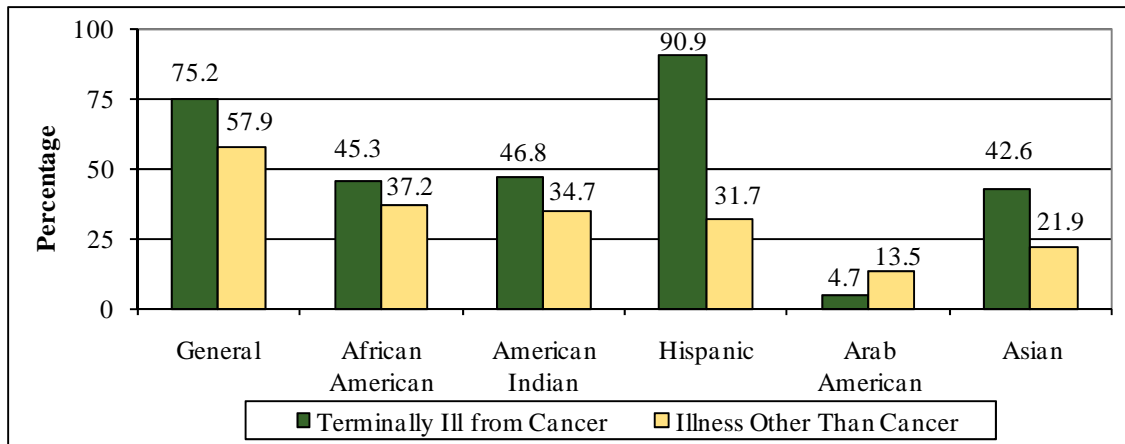
age, 80.0% of the people they were caring for died from cancer as opposed to non-cancer-related illness. On the other hand, 35.6% of terminally ill persons died from cancer when cared for by someone 65 years of age or older.

Figure 6: Terminally Ill Persons Who Died from Cancer by Selected Caregiver Demographic Characteristics, 2008



Altogether, 68.0% ($\pm 7.6\%$) of all terminally ill persons received end of life service through Hospice during their last three months of life. After stratifying by illness type, it was determined that terminally ill persons who died from cancer (75.2%) received Hospice care during their last three months of life compared to persons who died from an illness other than cancer (57.9%) (Figure 7). Although at varying levels, persons who died from cancer received Hospice care during their last three months of life more often than persons who died from other illnesses within each minority population group with the exception of Arab Americans.

Figure 7: Terminally Ill Persons Who Received Care through Hospice during the Last Three Months* of Life by Population Group and Type of Illness, 2008



*As reported by the caregiver

The most common reason caregivers reported for Hospice not being used for end of life care was that the terminally ill person died before entering Hospice (35.0), followed closely by the person not wanting or needing it (33.8%) (Figure 8). Other less frequently reported reasons for not using Hospice was that the person did not accept their terminal illness (14.7%) and a family member or friend cared for the person (12.0%).

Figure 8: Specified Reasons Why Hospice Was Not Used for Terminally Ill Persons, 2008

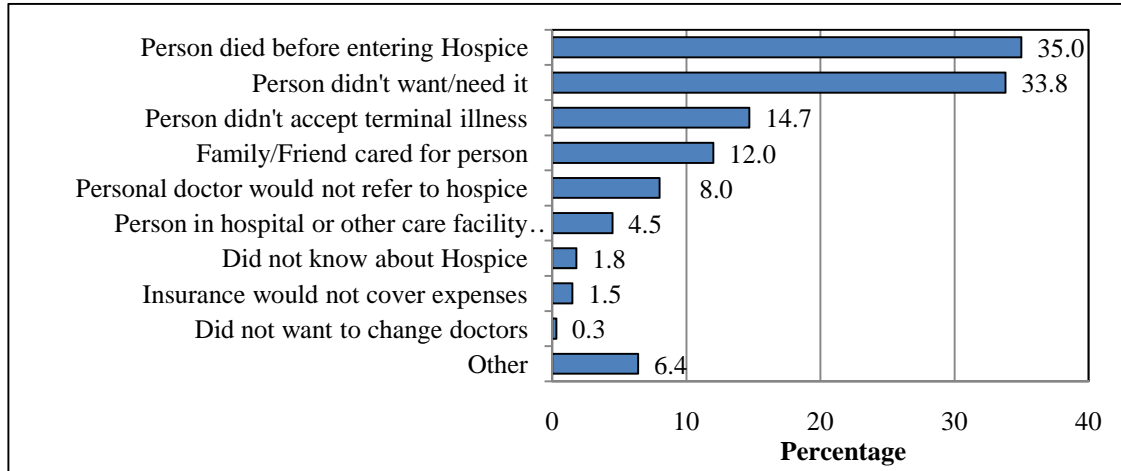
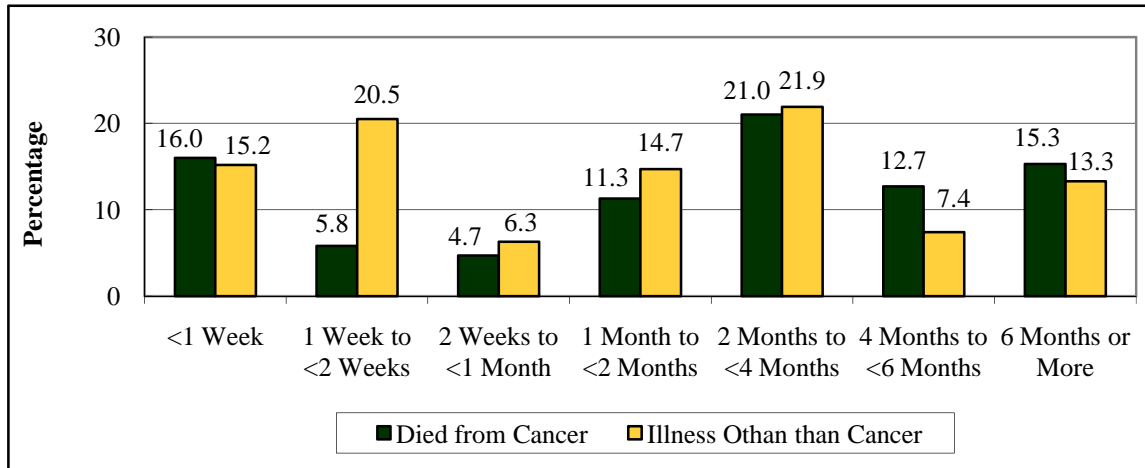


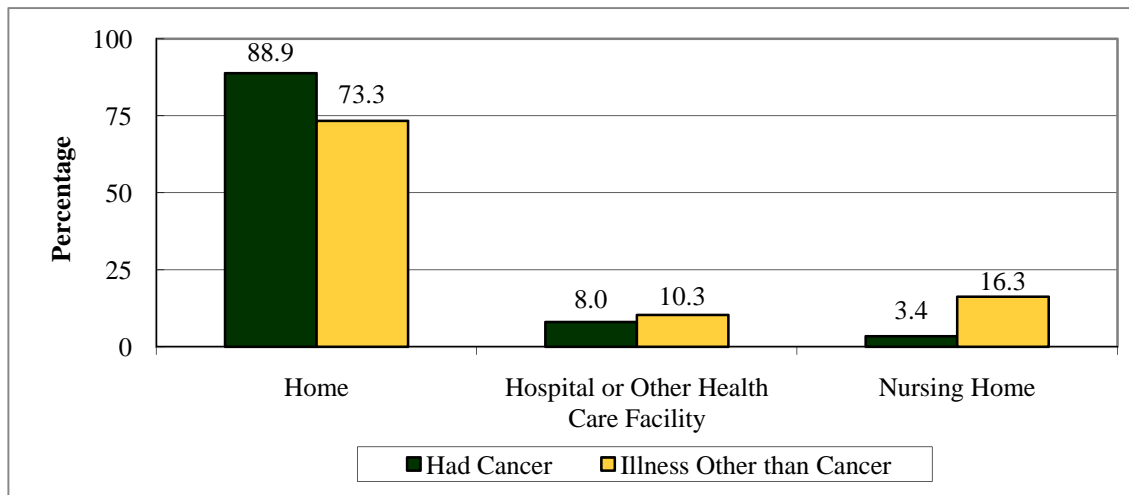
Figure 9 shows a comparison between the length of time spent in Hospice between persons who died from cancer and persons who died from some other illness. Overall, persons who died as a result of cancer tended to receive Hospice for longer periods of time. For example, 12.7% of persons who died from cancer received Hospice care for 4 to 6 months with an additional 15.7% of these individuals receiving Hospice for 6 months or longer. Conversely, 7.4% of persons who died from an illness other than cancer received Hospice for 4 to 6 months and 13.3% receiving Hospice for 6 months or longer.

Figure 9: Length of Time Terminally Ill Person Received Hospice, 2008



When caregivers were asked where the terminally ill person primarily resided during their last three months of life, 88.9% of persons who died from cancer resided in their homes or homes of a family or friend. Persons who died from an illness other than cancer resided in a home 73.3% of the time (Figure 10). Conversely, persons who died from illness other than cancer resided in hospitals or other health care facility and nursing homes more often than persons who died as a result of cancer.

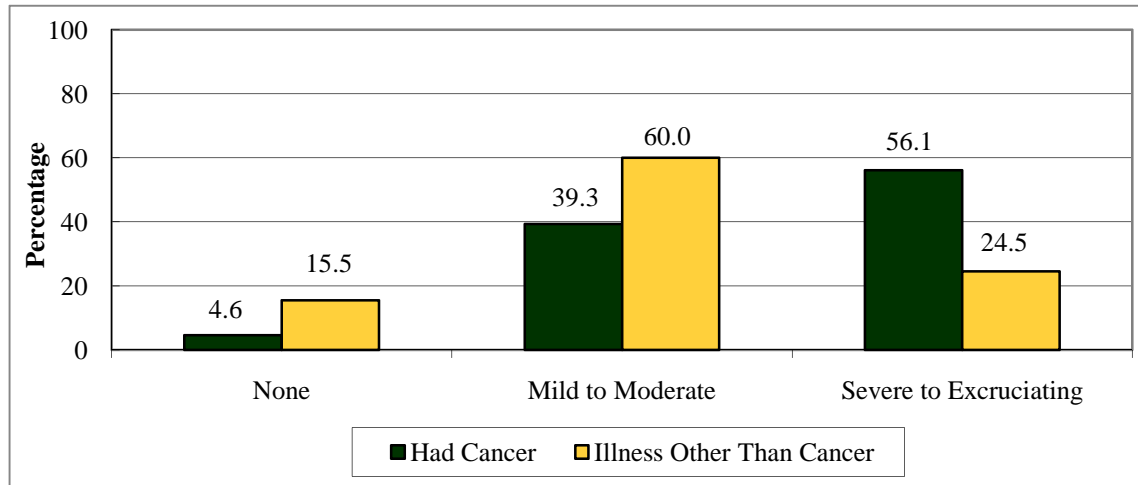
Figure 10: Place of Residence of Terminally Ill Person During Last Three Months of Life, 2008



Among all terminally ill persons, 47.9% ($\pm 9.0\%$) of caregivers rated the pain experienced by the person during the last three months of life as mild to moderate and 43.0% ($\pm 9.2\%$) rated the person's pain as severe to excruciating. However, when comparing persons who died from cancer to persons who died from some other illness, caregivers of persons who died from cancer rated the pain as severe to excruciating 56.1% of the time compared to 24.5% of the time for persons who died from some other

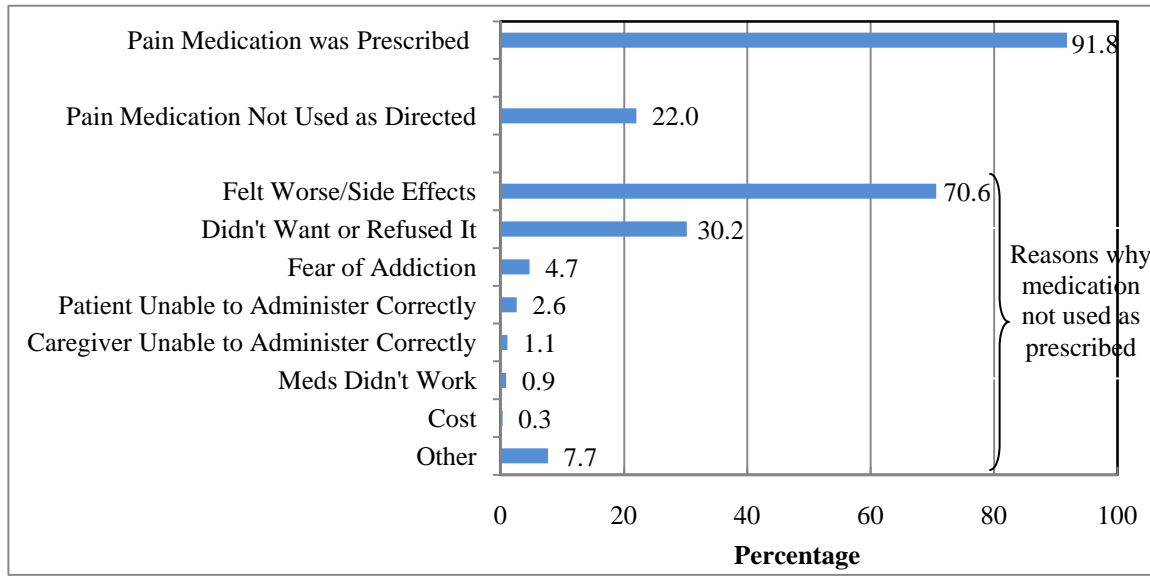
illness (Figure 11). No pain was reported for persons who died from a non-cancer illness (15.5%) about three and a half times more often than among persons who did die from cancer (4.6%).

Figure 11: Pain Experienced by Terminal Ill Persons During Last Three Months of Life As Reported by Caregiver, 2008



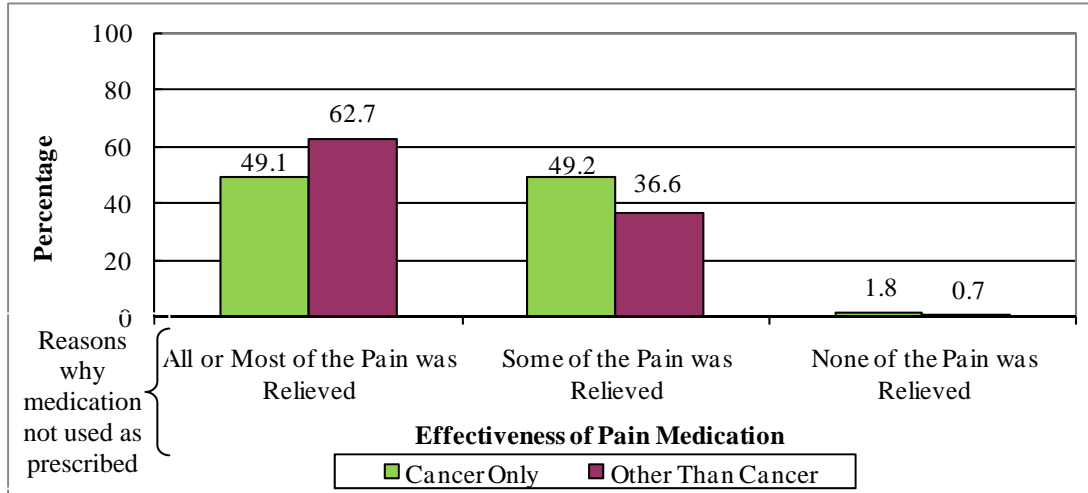
Pain medication was prescribed for most terminally ill patients (91.8% ± 3.7%), and 22.0% (± 11.0%) of these individuals did not use their medications as they were directed to do so (Figure 12). The primary reason given by caregivers for why terminally ill persons did not take their pain medications as prescribed was that the medication made them feel worse or had side effects (70.6%), followed by the person did not want or refused to take them (30.2%).

Figure 12: Use of Pain Medication by All Terminally Ill Persons, 2008



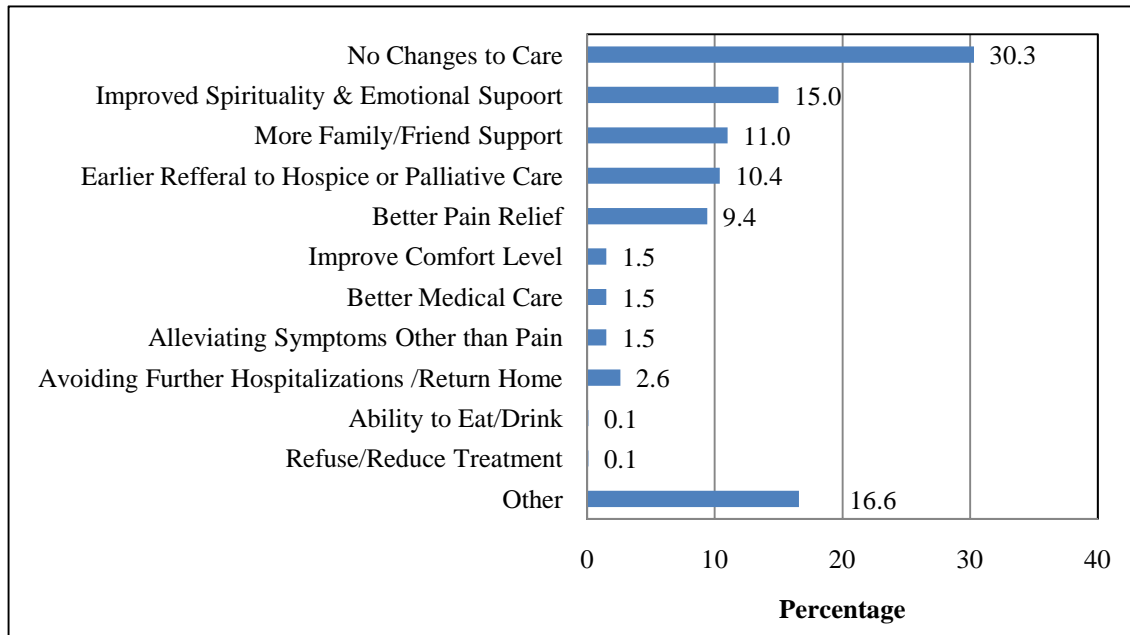
Caregivers were also asked how well the medication prescribed to the terminally ill person relieved their pain. Overall, 54.2% (9.8%) of caregivers of all terminally ill persons said the medication relieved pain all or most of the time, while 1.3% ($\pm 0.7\%$) said the medication relieved none of the pain. However, when looking at caregivers of persons who died from cancer and non-cancer illnesses separately, pain medications appeared to be more effective among persons who did not die from cancer. For example, 62.7% of caregivers of persons who did not die from cancer reported that the prescribed medication relieved all or most of the pain compared to 49.1% of caregivers of persons who died from cancer (Figure 13). Conversely, caregivers reported that the pain medications relieved none of the pain about two and a half times more often for persons who died from cancer compared to those who died from some other illness (1.8% vs. 0.7%, respectively).

Figure 13: Effectiveness of Pain Medications Among Terminally Ill Persons, 2008



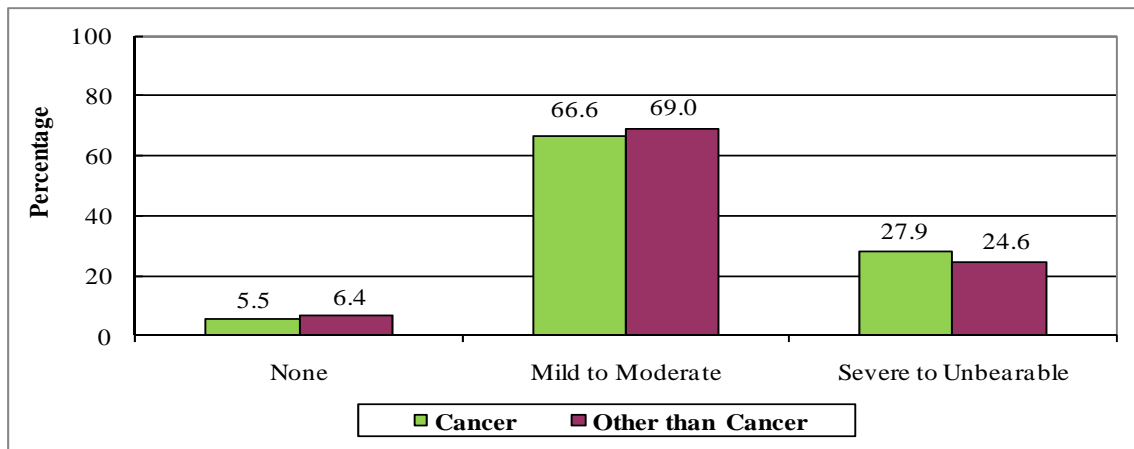
Caregivers were asked if they could change anything in the overall care that the terminally ill person received to ease their physical, spiritual, or emotional suffering during the last 3 months of their life, what you would change. Thirty percent (30.3%) of caregivers said that they would not have changed anything about the person’s care. As shown in Figure 14, changes that caregivers identified include improved spirituality and emotional support (15.0%), more family or friend support (11.0%), and earlier referral to Hospice or palliative care (10.4%).

Figure 14: Changes Caregivers Reported Improve the Care Terminally Ill Persons Received, 2008



More than one-quarter (26.5% \pm 6.4%) of all caregivers reported experiencing severe to unbearable stress while caring for a terminally ill person. Only 6.0% (\pm 1.9%) reported that they experienced no stress. As shown in Figure 15, severe to unbearable stress was reported at slightly higher rates among caregivers of persons who died from cancer (27.9%) compared to caregivers of persons who died from some other illness (24.6%). In addition, fewer caregivers of persons who died from cancer reported experiencing no stress compared to caregivers of persons who did not die from cancer (6.4%).

Figure 15: Stress Experienced by Caregivers While Caring for Terminally Ill Persons, 2008



Acknowledgements and Data Inquiry Information

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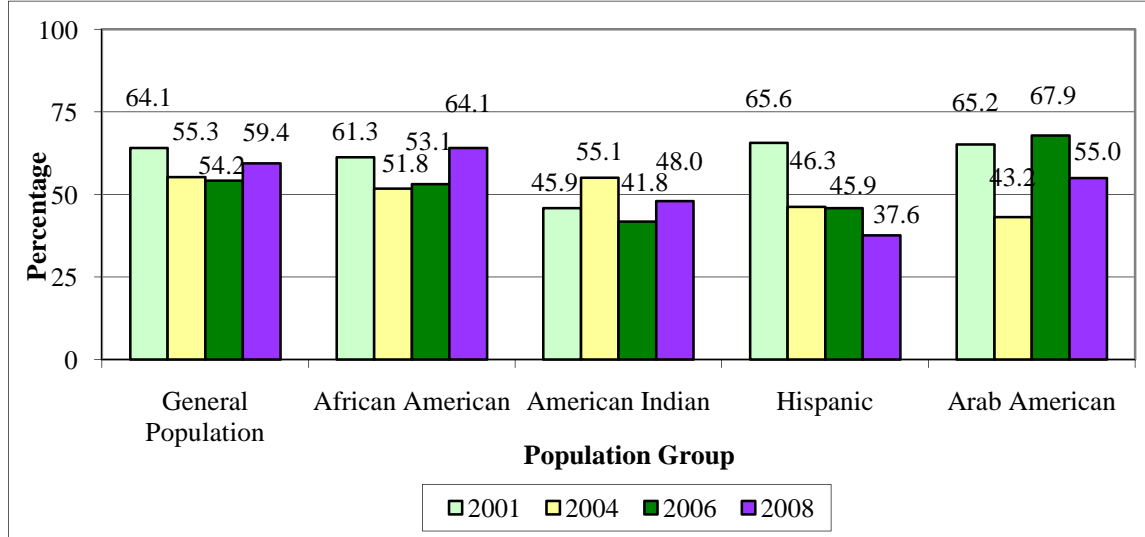
Survey data were collected by the Institute for Public Policy and Social Research, Office of Survey Research, Michigan State University, under the direction of Larry Hembroff, PhD.

Data are not to be used for publications, presentations or other report production without approval from the Principal Investigator. Please direct all data inquiries to:

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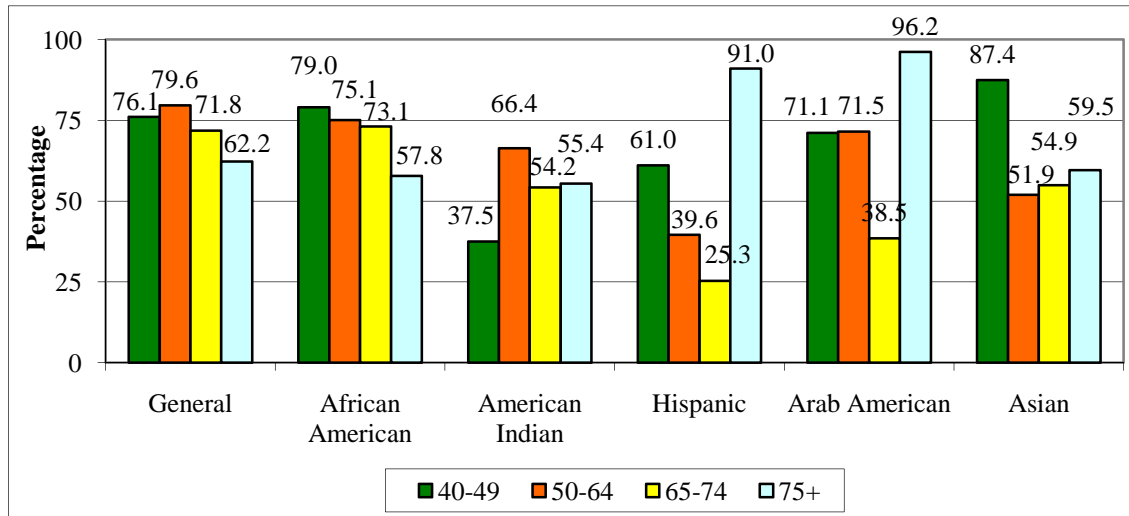
Appendix 1

Figure 1: Women Who Had a Mammogram and Clinical Breast Exam within the Past Year by Population Group, 2001-2008*



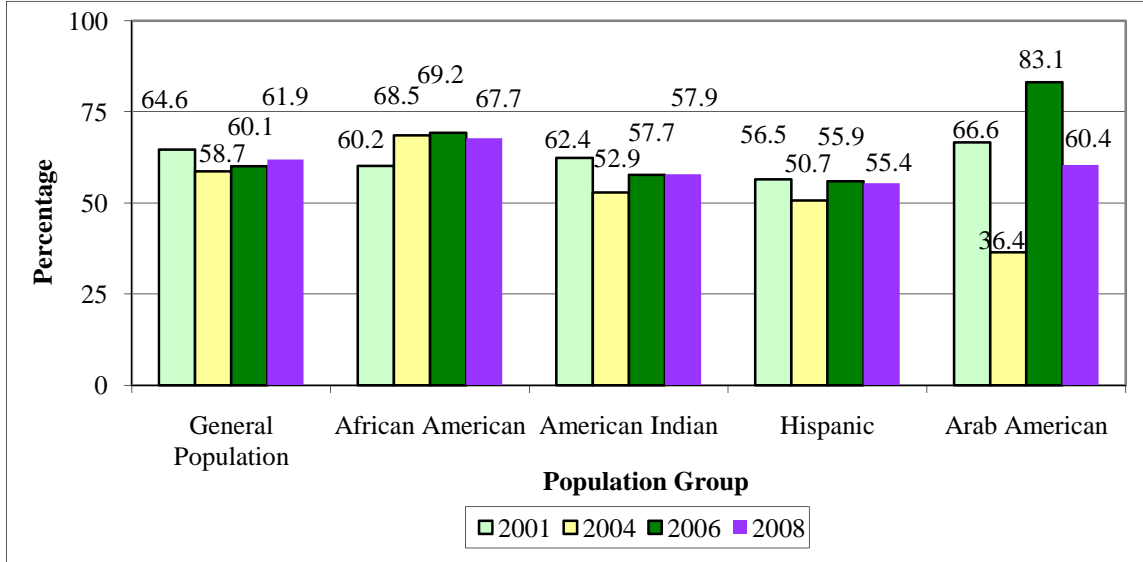
*The 2001 survey included women 50 years of age and older; 2004, 2006 and 2008 survey years included women 40 years of age and older.

Figure 2: Women Age 40+ Years Who Had a Mammogram and Clinical Breast Exam within the Past Two Years by Age and Population Group, 2008



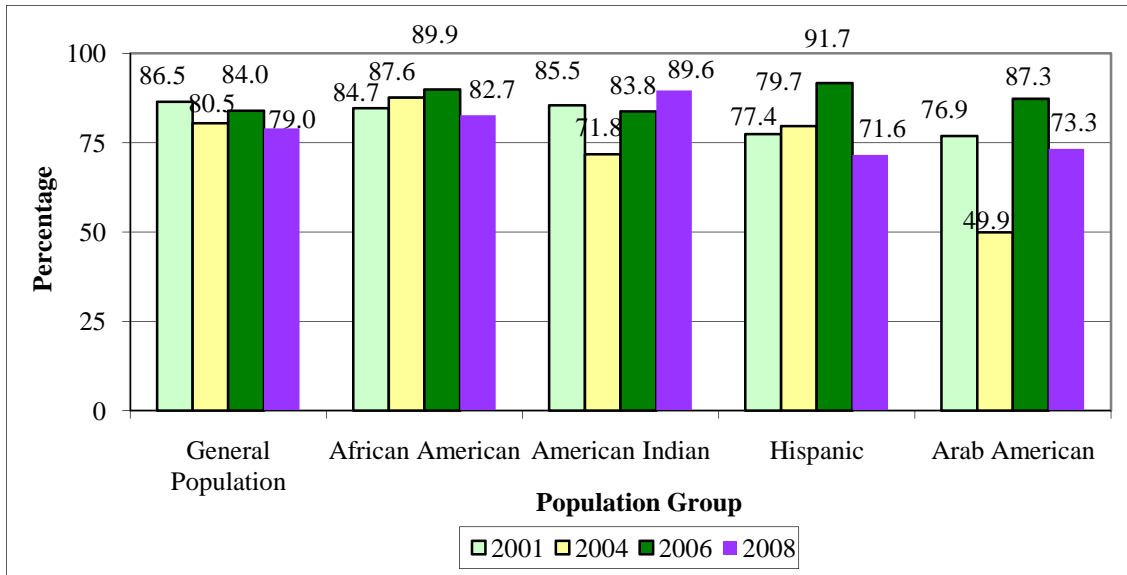
Appendix 2

Figure 1: Women Who Had a Pap Test Screening within the Past Year by Population Group, 2001-2008*



*The 2001 survey included women age 50 years and older; 2004, 2006 and 2008 survey years included women age 40 years and older.

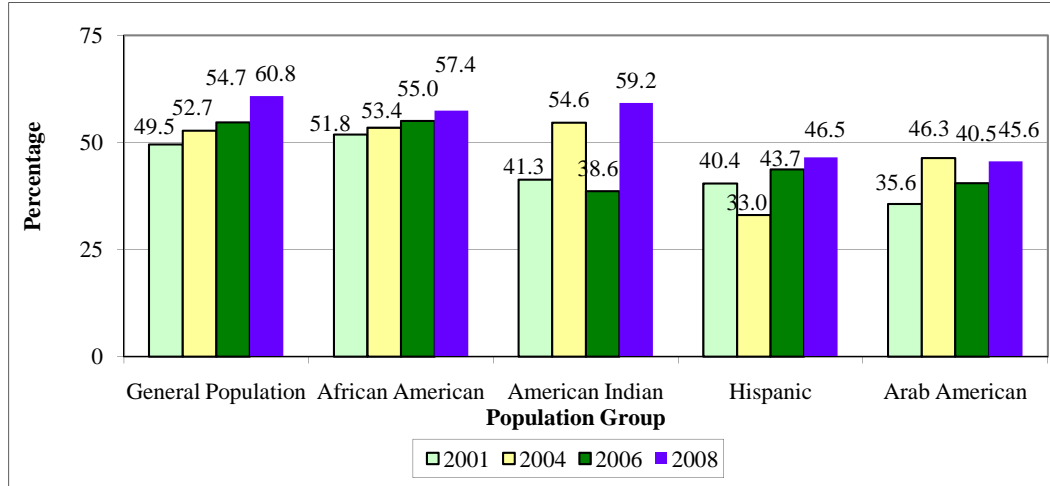
Figure 2: Women Who Had a Pap Test Screening within the Past Three Years by Population Group, 2001-2008*



*The 2001 survey included women 50 years of age and older; 2004, 2006 and 2008 survey years included women 40 years of age and older.

Appendix 3

Figure 1: Men and Women Age 50+ Years Who Had Any Appropriately Timed* Colorectal Cancer Screening by Population Group, 2001-2008



*Any timely colorectal cancer screening can be either a yearly FOBT or a sigmoidoscopy every 5 years or a yearly FOBT combined with a sigmoidoscopy every 5 years or a colonoscopy every 10 years or a DCBE every 5 years

Figure 2: Annual FOBT Utilization Among Men and Women Age 50+ Years by Population Group, 2001-2008

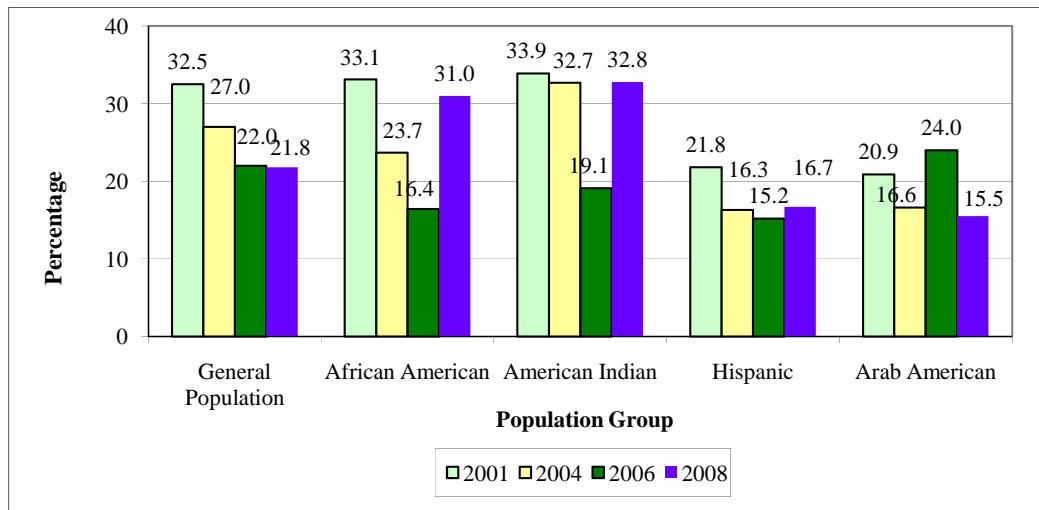


Figure 3: Utilization of Sigmoidoscopy Every Five Years Among Men and Women Age 50+ Years by Population Group, 2001-2008

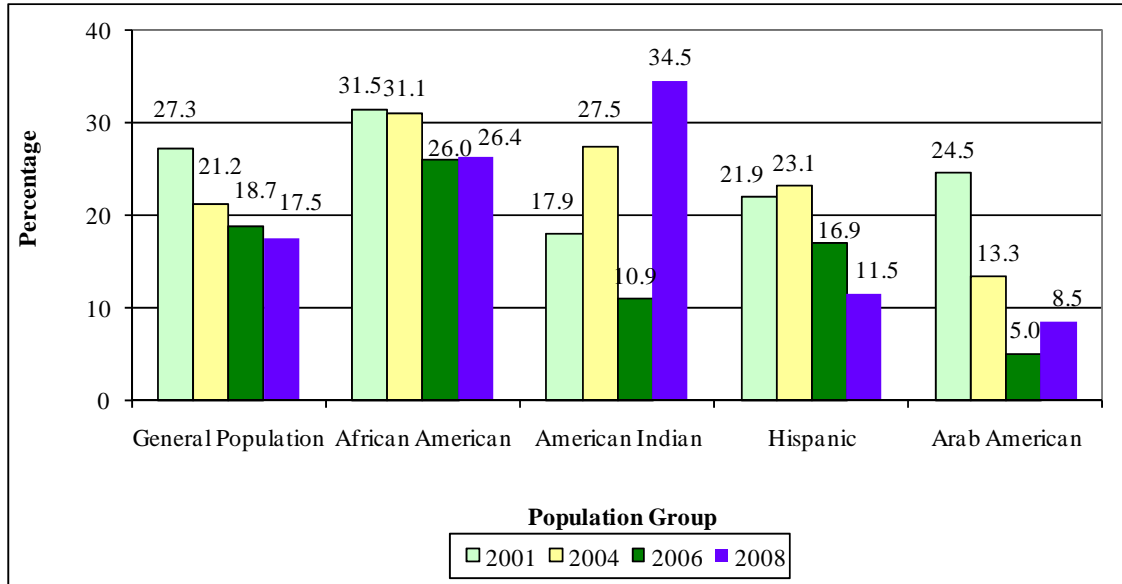
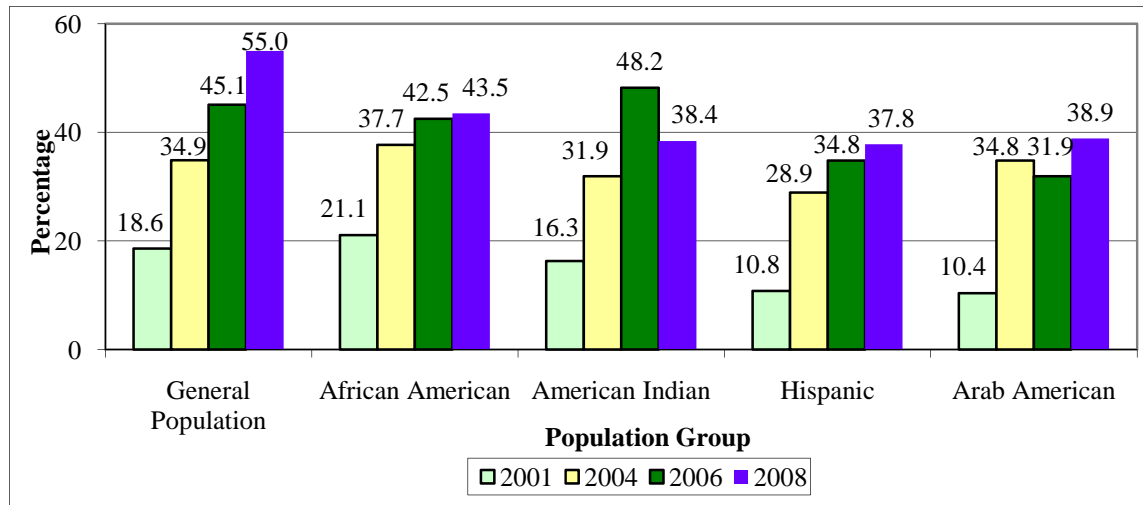
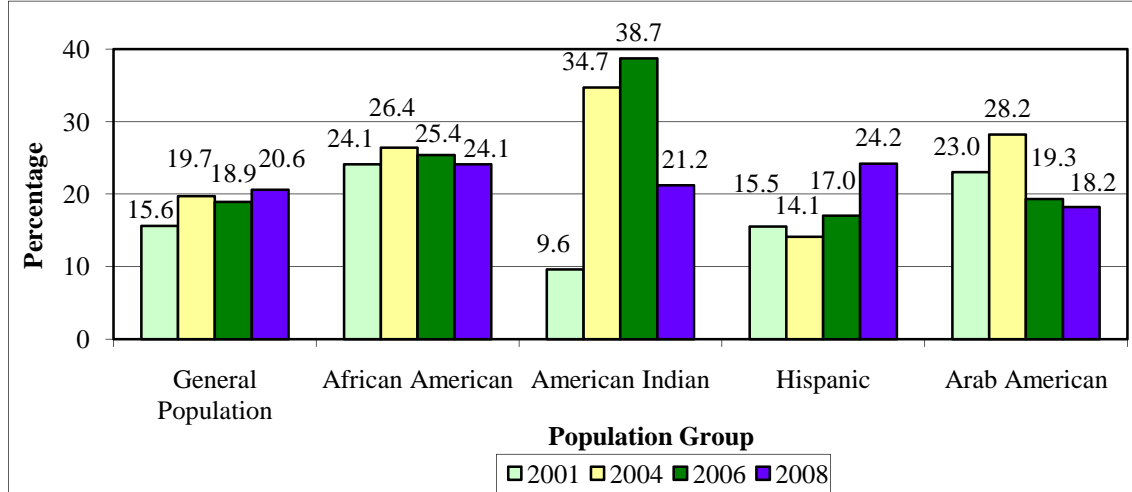


Figure 4: Utilization of Colonoscopy Every Ten Years Among Men and Women Age 50+ Years by Population Group, 2001-2008



Appendix 4

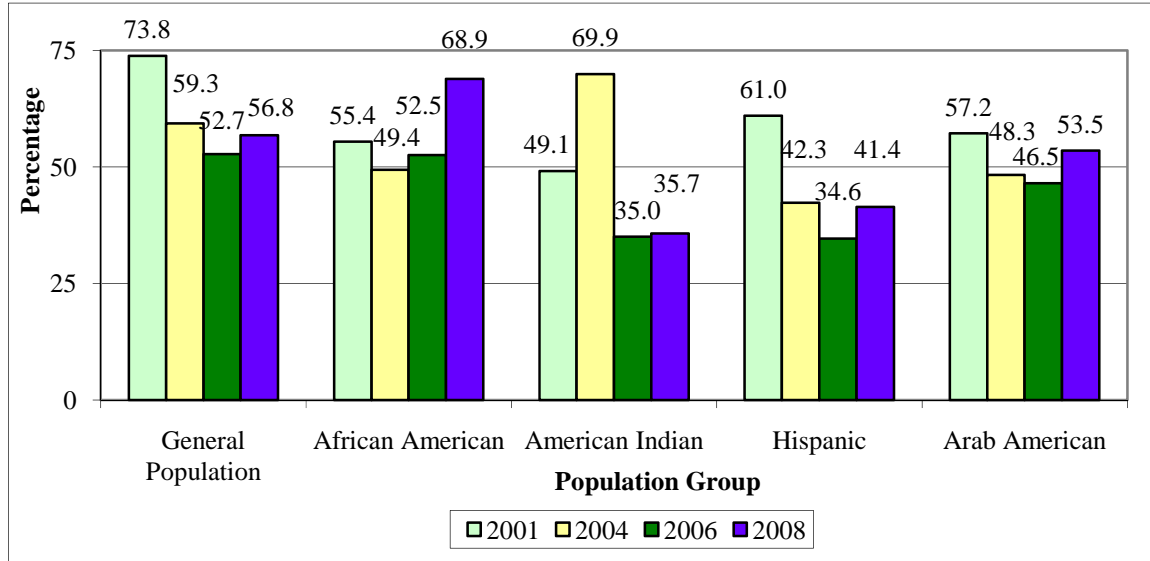
Figure 1: Current Smokers by Population Group, 2001-2008*



*The 2001 survey included men and women 50 years of age and older; 2004, 2006 and 2008 survey years included men and women 40 years of age and older.

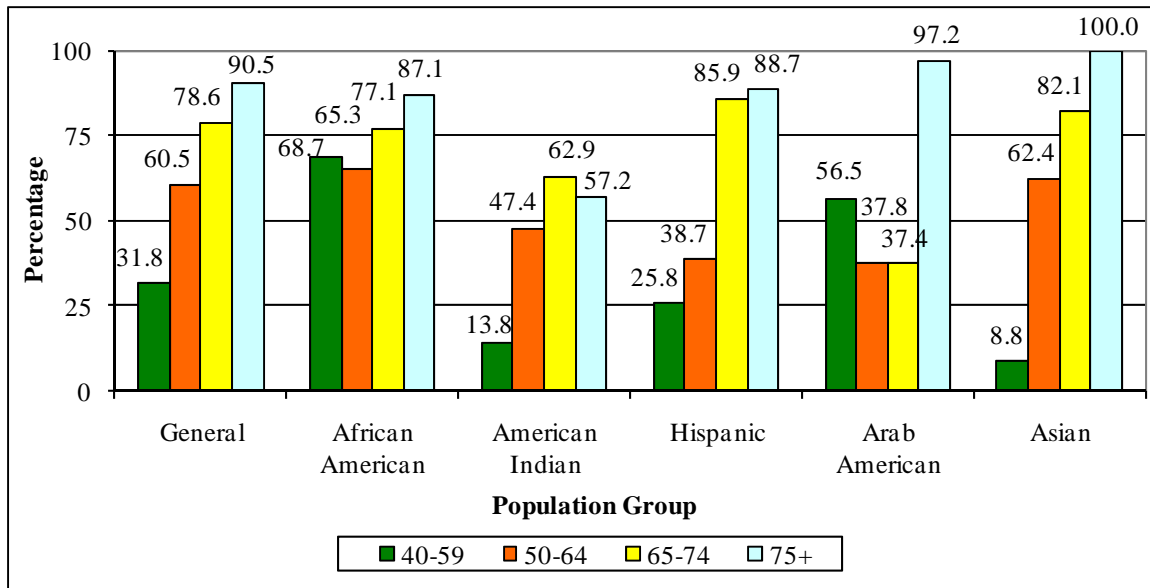
Appendix 5

Figure 1: Men Who Ever Had a Prostate Specific Antigen (PSA) Test by Population Group, 2001-2008*



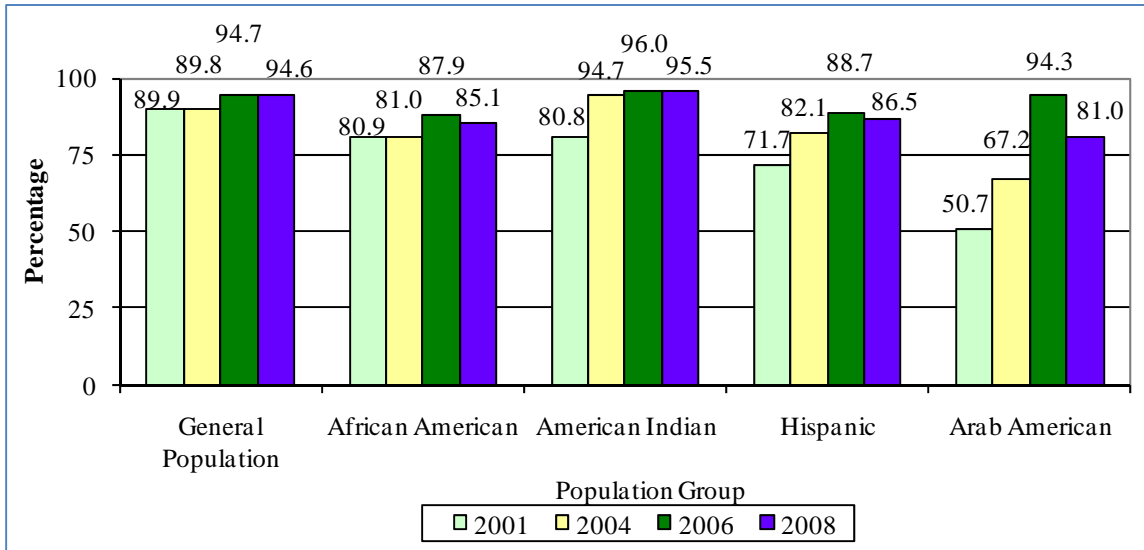
* The 2001 survey included men age 50 years and older; 2004, 2006 and 2008 survey years included men age 40 years and older.

Figure 2: Men Age 40+ Years Who Ever Had a PSA Test by Age and Population Group, 2008



Appendix 6

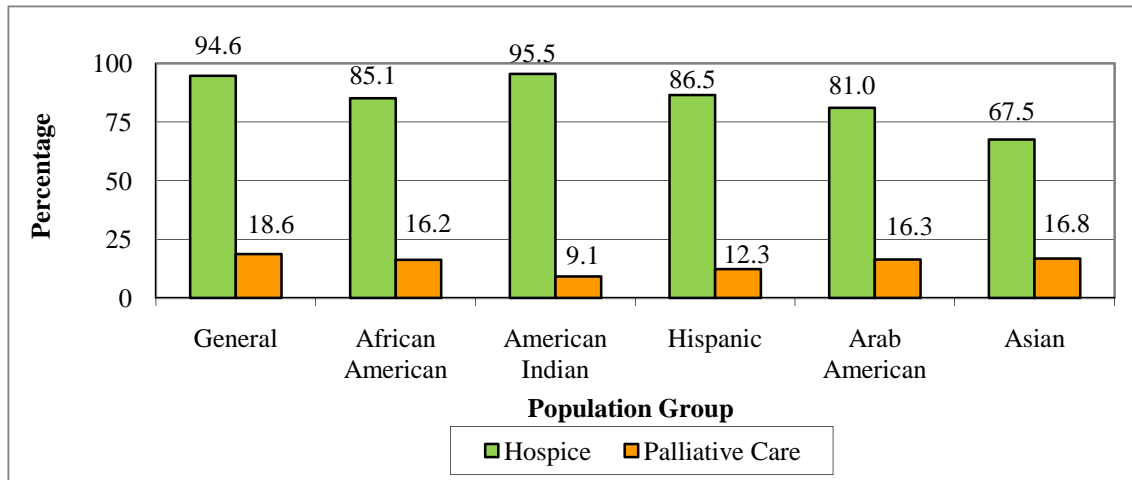
Figure 1: Men and Women* Who Ever Heard of Hospice by Population Group, 2001-2008**



*The 2001 survey included men and women 50 years of age and older; 2004, 2006 and 2008 survey years included men and women 40 years of age and older.

**2001, 2004, and 2008 survey question was "Have you ever heard of Hospice care?"; 2006 survey question was "Name at least one end of life care service available to someone dying of a terminal illness."

Figure 2: Men and Women Age 40+ Years Who Heard of Hospice or Palliative Care by Population Group, 2008



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Data are not to be used for publications, presentations or other report production without approval from the Principal Investigator. Please direct all data inquiries to:

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