Maryland Cancer Survey, 2006

A Population-Based Statewide Survey on Cancer Screening and Behavioral Risk Factors

Funded by the Cigarette Restitution Fund
Cancer Prevention, Education, Screening and Treatment Program

Maryland Department of Health and Mental Hygiene

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Dedication

We dedicate this report to the staff working at the Local Health Departments throughout Maryland. Without their tireless efforts to promote education about cancer screening and prevention among all Marylanders and their work to screen uninsured and low income individuals, the results highlighted in this report would not be possible.

Citation

Carolyn F. Poppell[1], Fatma Shebl[1], Annette Hopkins[1], Min Zhan[1], Eileen K. Steinberger[1], Carmela Groves[2], and Diane M. Dwyer [2]. Maryland Cancer Survey 2006. [1]Department of Epidemiology and Preventive Medicine, University of Maryland, Baltimore, MD and [2]Center for Cancer Surveillance and Control, Maryland Department of Health and Mental Hygiene, Baltimore, MD, 2002. The project is supported by the Maryland Cigarette Restitution Fund Program.

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Highlights

Maryland residents continue to make significant progress in increasing both awareness and utilization of cancer screening tests. Marylanders are, as a group, knowledgeable about cancer screening tests and are being tested at rates comparable to or better than the national baselines. However, our data suggest disparities in the prevalence of some screening tests based on race and other demographic factors, including age, education, employment status, and income. Other factors also have a significant influence on cancer screening prevalence in Maryland, including health insurance status, whether or not people have had a recent physical examination, and whether or not the health care provider recommends the test be done. Also, while Marylanders have been successful in meeting or exceeding several Healthy People (HP) 2010 targets related to cancer screening, they have been less successful in attaining targets for some behavioral and lifestyle goals aimed at reducing risk of cancer and other chronic diseases.

<u>Comparison to HP 2010 targets</u>

- Maryland **exceeds** the HP 2010 targets for the following cancer screening tests and cancer risk factors:
  - **Colonoscopy or sigmoidoscopy:** 69% of Marylanders age 50 years and older reported ever having at least one of these procedures, compared to the HP 2010 target of 50%.
  - **Mammogram in the past 2 years:** 83% of Maryland women age 40 years and older reported having a mammogram in the past 2 years, compared to the HP 2010 target of 70%.
  - **Pap test:** 98% of Maryland women age 40 years and older reported ever having a Pap test, compared to the HP 2010 target of 97%. (HP 2010 target based on women age 18 years and older.)
  - **Oral cancer screening:** 37% of Marylanders age 40 years and older reported having had an oral cancer screening in the past year, compared to the HP 2010 target of 20%.

- Marylanders **approach** the HP 2010 targets for the following cancer screening tests and cancer risk factors:
  - **Fecal Occult Blood Test (FOBT) in the past 2 years:** 32% of Marylanders age 50 years and older reported having a recent FOBT, compared to the HP 2010 target of 33%.
  - **Pap test in the past 3 years:** 88% of Maryland women age 40 years and older said they had a Pap test in the past 3 years, compared to the target of 90%.
  - **Smoking:** 16% of Marylanders age 40 years and older reported current cigarette use, compared to target of 12%.
  - **Physical Activity:** Almost half (46%) of Marylanders age 40 years and older reported engaging in regular physical activity – either 20

minutes of vigorous activity 3 or more days per week or 30 minutes of moderate activity 5 or more days a week, compared to a target of 50%.

- Marylanders do **not** meet the 2010 targets for the following measures:
  - **Health insurance:** 94% of Marylanders age 40 years and older reported having health insurance, compared to the HP 2010 target of 100%.
  - **Fruit and vegetable consumption:** Only 27% of Marylanders age 40 years and older reported eating the recommended 3 or more servings of vegetables per day, compared to the target of 50%; only 60% reported eating 2 or more daily servings of fruit, compared to the target of 75%.
  - **Vigorous exercise:** Only 24% of Marylanders age 40 years and older reported engaging in vigorous activity 3 or more days per week for at least 20 minutes per occasion, compared to the HP 2010 target of 30%.
  - **"Healthy" body mass index:** Only 31% of Marylanders age 40 years and older were in the healthy weight category compared to the HP 2010 target of 60%.

Additional Comparisons

There are no HP 2010 objectives related to routine prostate cancer screening for men. However, the prevalence of prostate cancer screening among age-eligible Maryland men surveyed in the MCS 2006 compared favorably with national averages for prostate-specific antigen (PSA) testing and digital rectal exam (DRE).[1] In Maryland, 57% of men had a PSA or a DRE within the past year, compared with national averages of 52% for PSA testing and 50% for DRE within the past year among men age 50 years and older. (Maryland figures include African American men age 45-49 years.)

Racial differences in prevalence were found for several types of cancer screening. Among those of appropriate age for screening, African Americans were **statistically significantly less likely** than the White population to report having:

- Ever had colonoscopy or sigmoidoscopy (63% vs. 71%)
- Ever had a prostate-specific antigen (PSA) test (65% vs. 79%)
- Had a PSA test in the past year (49% vs. 61%)
- Ever had a digital rectal examination (DRE) (82% vs. 92%)
- Ever had oral cancer screening (31% vs. 53%)
- Had an oral cancer exam in the past year (21% vs. 43%)

Cancer screenings generally increased with:

- increasing age
- higher education level
- higher income level

[1] American Cancer Society. Cancer Prevention and Early Detection Facts & Figures 2006. Atlanta; 2006. Available at http://www.cancer.org/downloads/STT/CPED2006PWSecured.pdf. Last accessed July 12, 2007.

- having health insurance
- having a primary health care provider
- having had a physical exam in the past year

- Screening rates were higher when a health care provider recommended screening

- "The doctor did not order the test" was a prominent reason for not being screened among people who had not been screened for colorectal cancer and prostate cancer

Comparison between MCS 2002, 2004, and 2006

- Overall, it appears that Marylanders are moving away from CRC screening by FOBT and sigmoidoscopy, in favor of colonoscopy.
  - While the percentage of Marylanders age 50 years and older who reported ever performing an FOBT has remained fairly steady, the proportion who reported having the test in the past 2 years continues to decline (44% in MCS 2002, 36% in 2004 and 32% in 2006).
  - An increasing percentage of people age 50 years and older are reporting to have ever had lower GI endoscopic exams (58% in 2002, 63% in 2004, and 69% in 2006).

- As a result of the increases in prevalence of colonoscopy, the proportion of people never tested for CRC has dropped from 26% in 2002 to 20% in 2006.

- The prevalence of up-to-date colonoscopy has increased from 41% in 2002 to 59% in 2006.

- Screening prevalence for prostate cancer (PSA or DRE), breast cancer (mammography), and cervical cancer (Pap test) did not change significantly between 2002 and 2006 surveys.

- A significant increase occurred in the prevalence of ever having oral cancer screening, rising from 43% in both 2002 and 2004 to 47% in 2006. The percent of Marylanders reporting to have had an oral cancer exam in the past year has also increased steadily over time, to a high of 37% in 2006.

- The prevalence of overweight varied little between 2004 and 2006 (38% and 39%, respectively) and the percent of obese individuals in Maryland remained steady at 29%.

- The prevalence of current cigarette smoking did not change significantly between the 2002 and 2006 surveys.

Strengths and Limitations of the MCS 2006

- Strengths of the MCS include:
  - Population-based sample, weighted to the Maryland population, using methods similar to the national Behavioral Risk Factor Surveillance System
  - Large sample size focusing on Marylanders who were 40 years of age and older
  - Responses taken from those who spoke English or Spanish

- Limitations of the MCS include:
  - Telephone survey using only land-line numbers, not including cellular telephones
  - Only surveyed those who lived in residences and not the institutionalized population

Chapter 1. Introduction

This document contains the results of the third Maryland Cancer Survey (MCS), conducted in 2006. The Surveillance and Evaluation Unit of the Center for Cancer Surveillance and Control, Maryland Department of Health and Mental Hygiene (DHMH) commissioned the MCS as part of an ongoing surveillance project to provide information on cancer screening rates, knowledge of cancer and cancer screening, and lifestyle factors related to cancer screening among Maryland residents age 40 years and older. The Department of Epidemiology and Preventive Medicine at the University of Maryland, Baltimore (UMB), School of Medicine conducted the survey. In addition to overall cancer screening prevalence, the MCS reports the percentage of respondents up-to-date with certain screening tests. These estimates are based on screening intervals recommended by the American Cancer Society (where available). Prevalence of ever having a particular type of cancer screening and of up-to-date screening are compared to the results obtained in the MCS 2002[1] and MCS 2004[2]; national targets established in Healthy People 2010 (HP 2010)[3]; and to other national estimates or baselines (e.g., the National Health Interview Survey or the Behavioral Risk Factor Surveillance System survey).

In 2000, the Maryland State Legislature established the Cigarette Restitution Fund (CRF) with monies received from the tobacco settlement, which in turn led to the establishment of the Cancer Prevention, Education, Screening, and Treatment (CPEST) Program. Under this program, the Surveillance and Evaluation Unit is charged with collecting, analyzing, and monitoring data related to the seven cancers targeted by DHMH and with measuring and evaluating the results of cancer prevention and education in Maryland. The MCS helps to meet this need by providing information on the factors associated with primary and secondary prevention of cancer.

The State of Maryland has made great headway in its fight against cancer, dropping from third highest cancer mortality rate in the nation for the time period 1986-1990 to 18th for the period 2000-2003.[4] Even with these improvements, over 23,000 cases of cancer (excluding non-melanoma skin cancer) were reported in 2001 and cancer remains the second leading cause of death, accounting for 24% of all deaths in Maryland.[5]

Gaining knowledge about the factors that are associated with cancer screening and with cancer risk behaviors will allow policies to be made and programs to be implemented which promote cancer prevention and screening among populations currently at risk. With a greater

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[1] Maryland Department of Health and Mental Hygiene. Report of the Maryland Cancer Survey, 2002. Baltimore, MD. Available at http://fha.state.md.us/cancer/surveillance/html/data_reports.cfm Last accessed July 12, 2007.
[2] Maryland Department of Health and Mental Hygiene. Report of the Maryland Cancer Survey, 2004. Baltimore, MD. Available at http://fha.state.md.us/cancer/surveillance/html/data_reports.cfm Last accessed July 12, 2007.
[3] U.S. Department of Health and Human Services. Healthy People 2010: Understanding and Improving Health. Washington, DC; U.S. Government Printing Office, November 2000. Available at http://www.healthypeople.gov. Last accessed July 12, 2007.
[4] Ries LAG et al. (eds). *SEER Cancer Statistics Review, 1975-2003*, National Cancer Institute. Bethesda, MD. Available at http://seer.cancer.gov/csr/1975_2003. Last accessed July 12, 2007.
[5] Maryland Department of Health and Mental Hygiene. Cancer Report 2004. Baltimore, MD; September 2004. Available at http://fha.state.md.us/cancer/surveillance/html/data_reports.cfm. Last accessed July 12, 2007.

emphasis on cancer prevention and screening, the age-adjusted cancer mortality rates are anticipated to decline in Maryland.

Changes made to the Maryland Cancer Survey for 2006 from previous surveys include:

- In an effort to reach a larger proportion of respondents who spoke only Spanish, participants were given the opportunity to complete the interview entirely in Spanish through use of bilingual interviewers.
- The section related to health care access was expanded.
- The section on sun prevention was excluded.
- New questions were added to ascertain participant efforts in weight control.
- New questions were added on tobacco use to provide an indication of tobacco addiction.

Chapter 2. Methods for Survey Design, Data Collection, and Analysis

Sample Design

The Maryland Cancer Survey (MCS) 2006 was conducted as a population-based, random-digit-dial, computer-assisted telephone interview (CATI), using list-assisted disproportionate stratified sampling. This method is similar to the Behavioral Risk Factor Surveillance System (BRFSS) survey conducted annually in each state and funded by the Centers for Disease Control and Prevention (CDC).[1] The MCS respondents were limited to persons age 40 years and older, residing in private households in the state of Maryland. People not eligible for the survey included those who were less than 40 years of age, those who were unable to communicate because of a physical or mental impairment, and those living in group homes or institutions. Potential respondents who spoke only Spanish were offered participation in Spanish by a bilingual interviewer.

Maryland was divided into two geographic strata: urban (consisting of Baltimore City and the seven counties in the Metropolitan Baltimore-Washington, DC area) and rural (consisting of the remaining 16 counties in Western and Southern Maryland and the Eastern Shore of Maryland). Genesys - Market Systems Group (MSG) provided a pool of 70,020 random telephone numbers. The rural area was oversampled, making up 40% of the telephone number pool, whereas the rural population represents only 21.5% of the Maryland population.

Each geographic stratum has two types of telephone number 'blocks': 'listed one-plus' and 'not listed one-plus' blocks. Each one-plus block contains 100 consecutive phone numbers, at least one of which is known to be a residential phone number. The 'listed one-plus' blocks contain all the listed telephone numbers from the one-plus block of numbers and is known as the high density stratum. The "not listed one-plus" blocks are the remaining one-plus numbers after the listed numbers are removed and constitute the medium density block. Not listed one-plus phone numbers were sampled at two-thirds the rate of the listed one-plus telephone numbers.

MCS 2006 Questionnaire

The MCS 2006 questionnaire was based on the MCS 2002 and 2004 questionnaires, with validated questions from national and state surveys such as the BRFSS, the National Health Interview Survey (NHIS), the National Health and Nutrition Examination Survey (NHANES) and the Department of Health and Mental Hygiene (DHMH) Oral Health Survey, as well as some questions newly developed for MCS. Using these questionnaires as the basis for the 2006 survey, staff from DHMH and the University of Maryland, Baltimore (UMB) revised, added, and deleted some questions. While the majority of questions remained the same to allow comparison between the previous surveys and 2006, we based the decisions to modify some questions on the results of the previous analyses and changes in focused subject matter areas. Institutional Review Board (IRB) approval was received from the University of Maryland School of Medicine IRB and from the DHMH IRB. The MCS 2006 questionnaire is included at the end of this report.

[1] Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System, User Guide, Version 3.0. Atlanta, GA; 2005. Available at http://www.cdc.gov/brfss/pdf/userguide.pdf. Last accessed July 12, 2007.

Data Collection

As in 2002 and 2004, REDA International, Inc., a survey and research firm located in Wheaton, Maryland, conducted the MCS 2006 using CATI technology. To reach a final disposition for each telephone number, 15 calling attempts were made on various days of the week and at different times of the day. If someone answered the telephone, the number was confirmed to be a residential phone number. (Cell phones and non-residential numbers were excluded.) If REDA determined that there was at least one person age 40 years or older living in the household, he or she was invited to participate in the survey. If two or more age-eligible persons lived there, one was randomly selected to be interviewed. An anonymous questionnaire was administered, lasting an average of 20 minutes. Interviewers asked questions about demographics, cancer screening behaviors, health risk factors, and access to health care.

Sixty-one thousand two hundred seventy-three (61,273) telephone numbers were screened or called. Of these, 8.5% (5,187 phone numbers) resulted in completed interviews; 29.6% were non-working numbers; 13.6% were phone numbers of a business or institution; and 4.3% were a dedicated fax/modem. Approximately 0.4% of the numbers were ineligible due to a language barrier, other than Spanish. The remaining phone numbers (43.6%) were ineligible for a variety of reasons. The Council of American Survey Research Organizations (CASRO) response rate, defined as Completed Interviews/(Known Eligible + Presumed Eligible), was 39.7%. The completion rate, defined as Completed Interviews/Known Eligible, was 75.1%.

Data Analysis

A final weight was assigned to each respondent, according to the BRFSS weighting protocol.[2] Respondents who refused to report race (n=38) were omitted from the analysis, since race (in addition to age and gender) was required for weighting, resulting in a final analytic sample of 5,149 persons. For 40 respondents who did not report their age, we imputed an age based on the mean age of other respondents in the same geographic stratum who had the same race and gender. Pre-stratification weighting was based on the sampling probability by geographic region (urban vs. rural), residential telephone sampling among the two density strata of phone numbers ('listed one-plus' and 'not listed one-plus'), the number of adults age 40 years and older in the respondent's household, and the inverse of the number of residential telephone numbers in each household. Post-stratification weighting was calculated as the number of adults age 40 years and older in an age-race-gender category in the population of the urban or rural region divided by the sum of the pre-stratification weights for the respondents in that same age-race-gender category. Respondents were asked to list their race as one of the following: White; Black or African American; Asian; Native Hawaiian or Other Pacific Islander; American Indian or Alaska Native; or Other. Because of small numbers of respondents in some race groups, people who reported their race as something different from White or Black or African American were grouped together as people of Other Races. The age strata consisted of 5-year age groups (e.g., 40-44, 45-49, etc.) ranging from 40 through 69 years of age. Those aged 70 years and older were combined into one age stratum because of small sample size in the older age-race-gender strata. A final weight was calculated based on the pre- and post-stratification weights. We did not age adjust the data to the 2000 United States standard population.

[2] Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System. Technical Information and Data. BRFSS Weighting Formula. Atlanta, GA. Available at http://www.cdc.gov/brfss/technical_infodata/weighting.htm Last accessed July 12, 2007.

For all demographic variables except income, there was a small number of responses of "don't know/not sure" and "refused"; these responses were set to "missing" and do not contribute to the tabulated frequencies. An exception is for reported annual household income, where the categories of "don't know/not sure" and "refused" are included in the tabulations. For purposes of the tabular analyses, groupings were made for the following categorical variables. Marital status was grouped into four categories: married or the partner of an unmarried couple; divorced or separated; widowed; and never married. Education levels were combined into five categories: less than high school; high school graduate or General Equivalency Diploma (GED); some college (1-3 years); college graduate; and advanced degree. Employment was grouped into four categories: employed for wages; self-employed; retired; and "other" employment status. (Persons unemployed for either less than or greater than one year, homemakers, students, and those unable to work were all combined in the "other" category.) Reported annual household income categories were grouped into five categories: <$25,000; $25,000-<$35,000; $35,000-<$50,000; $50,000-<$75,000; and $75,000 or greater. Results in the tables are based on the number of respondents that answered a question.

Respondents were asked whether they had ever received various tests for cancer screening. The results in this report are based on responses that the test was performed, whether or not it was specifically done for cancer screening. For instance, an asymptomatic woman can have a mammogram for screening, or a symptomatic woman can have a diagnostic mammogram because she feels a lump in her breast. In both cases, the answer to the question "have you ever had a mammogram?" is "yes" and both answers would be reported in the same manner. The time period since the last screening episode was asked for each screening test so we could determine whether respondents were up-to-date with screening recommendations. If the respondent did not report the length of time since the last screening or refused to answer, that respondent was considered to be NOT up-to-date with screening.

"Current smokers" were defined as those who smoked at least 100 cigarettes or more in their entire life and, at the time of the survey, smoked every day or some days. "Former smokers" were those who smoked at least 100 cigarettes in their life but were not smoking cigarettes at the time of the survey. "Non-smokers" were those who smoked less than 100 cigarettes in their life or who had never smoked. Alcohol consumption was categorized according to use in the last 30 days: no alcohol use (in the last 30 days); low-risk drinking; and high-risk drinking. Binge drinking is defined as five or more drinks on the same occasion at least one day in the past 30 days.[3] For women, low-risk drinking was defined as having no more than seven drinks a week and not engaging in binge drinking. Low-risk drinking for men was defined as having no more than 14 drinks a week and not engaging in binge drinking. High-risk drinking was defined as engaging in binge drinking or consuming more than 14 drinks a week for men and more than seven drinks a week for women. Daily fruit and vegetable intake was calculated by summing the responses from questions about daily or weekly consumption of fruits, fruit juice, leafy salad greens, and vegetables.

[3] U.S. Department of Health and Human Services. Healthy People 2010: Understanding and Improving Health. Vol.II. Substance Abuse. Washington, DC: U.S. Government Printing Office, November 2000. Available at http://www.healthypeople.gov/document/HTML/Volume2/26Substance.htm. Last accessed July 12, 2007.

The following table describes the specific segment of the sample for which questions on the different survey topics were analyzed.

Survey topic/question	Men	Women	Age category
Oral cancer screening	✔	✔	40 years and older
Breast cancer screening		✔	40 years and older
Cervical cancer screening		✔ (only women who did not have a hysterectomy)	40 years and older
Colorectal cancer (CRC) screening	✔	✔	50 years and older
Knowledge of CRC screening	✔	✔	40 years and older
Prostate cancer screening (PSA, DRE)	✔		• Black or African American men, age 45 years and older • All other men, age 50 years and older
Discussed prostate screening with health professional	✔		40 years and older

Statistical analyses (population-based numbers and percentages) were performed with weighted data using SAS Version 9.1. Unless otherwise stated, results in the tables of the report have the following values: "N" is the number of people in the sample who responded to a survey question; "n" represents the number of persons in the survey answering "yes" to that question or the number of people who had that characteristic; the "wt %" (weighted percent) is the percent of the Maryland population based on the weighted sample who answered "yes" to the question or had that characteristic; and the "95% CI" is the 95% confidence interval around the weighted percent. All percentages are based on the number of respondents answering the question, and exclude missing, "don't know/not sure," and "refused" answers (except for income and time since last screening episode, as previously described). No results are suppressed in this report because of the small number of respondents in some sub-groups. Prevalence estimates derived from samples with less than 50 observations are included in the tables, but may be unreliable due to small numbers. Caution should be exercised when making comparisons based on a small number of respondents.

In the tables, the heading "Stat Sig" stands for statistical significance. Statistical significance for a selected characteristic is explained by the symbol appearing in the "Stat Sig" column opposite the specific survey question. The symbol "**" in this column shows that there is a statistically significant difference with a p-value ≤ 0.05 for the selected characteristic. The symbol "*" indicates a marginally significant difference with a p-value >0.05 and $\underline{\leq}0.1$. The symbol "^" shows that the differences were not statistically significant (i.e., p-value > 0.1). When reviewing the tables, it is important to remember that, while a difference may be

"statistically significant," the clinical or practical importance of the difference may not be significant.

Throughout the report, comparisons are made between MCS results and national targets established in Healthy People 2010 and to other national estimates or baselines (e.g., the National Health Interview Survey or the Behavioral Risk Factor Surveillance System survey). Comparisons to HP 2010 have been revised, where necessary, to reflect changes found in the HP 2010 mid-course review (December 2006).[4] HP 2010 targets for smoking, alcohol consumption, and physical activity are intended for the adult population age 18 years and older, and fruit and vegetable consumption targets are based on persons age 2 years and older. These HP 2010 targets are included in this report as a basis for general comparison with the MCS results, which reflect Maryland adults age 40 years and older.

[4] U.S. Department of Health and Human Services. Healthy People 2010 Midcourse Review. Washington, DC; 2006. Available at http://www.healthypeople.gov/data/midcourse/default.htm#pubs. Last accessed July 12, 2007.

Chapter 3. The Survey Sample

A total of 5,187 people were interviewed for the survey. The entire records for 38 people who refused to give their race were omitted from the dataset for analysis, leaving 5,149 respondents in the analytic dataset. We weighted the sample to match the Maryland population by age, race, gender, and area of residence (urban vs. rural). Table 3-1 shows the sample and weighted percentages for the respondents in the MCS 2006 by area of residence; 59.6% of the survey respondents lived in urban areas of Maryland and 40.4% lived in rural areas. Urban respondents were weighted to 78.3% of the Maryland population and rural respondents were weighted to 21.7%.

Table 3-1. Sample percentage and weighted percentage of the urban and rural strata for the Maryland Cancer Survey, 2006.

	Sample N	Sample %	Weighted %
Total	5,149	100.0%	100.0%
Urban	3,071	59.6%	78.3%
Rural	2,078	40.4%	21.7%

Table 3-2 shows the demographics of the sample, and the demographics after being weighted to the Maryland population. Whites comprised 80.1% of the sample, Blacks or African Americans made up 16.2%, Asians comprised 1.4%, Native Hawaiians or Other Pacific Islanders made up 0.2%, American Indians or Alaska Natives made up 0.7%, and other responses comprised 1.5% of the sample. (The term "African American" is used in the report to represent people who called their race African American or Black. In the analysis, "Other" race refers to people who called their race something different from White or African American, and includes Asian, Native Hawaiian or Other Pacific Islander, American Indian or Alaska Native, and any other responses to the race question.) Whites were weighted to 70.2% of the population, African Americans were weighted to 25.3%, and people of other races were weighted to 4.7% of the population. Women made up 62.8% of the sample, and are weighted to 53.9%, the percent of women in the Maryland population.

Charts 3-1 and 3-2 compare the race/gender groups and the age of the survey respondents to the Maryland population, which equals their final weighted percents. White women made up 49.0% of the sample, whereas they account for 37.1% of the Maryland population (Chart 3-1). African American men made up 4.7% of the sample and are weighted to match 11.0% of the population. People age 65 years and older made up 32.9% of the sample, and are weighted to 25.1% of the population (Chart 3-2).

The number of people who were surveyed in each jurisdiction, by gender and race, based on self-report of their jurisdiction of residence, is shown in Table 3-3.

Chart 3-1. Comparison of the 2006 survey sample to Maryland's population by race and gender

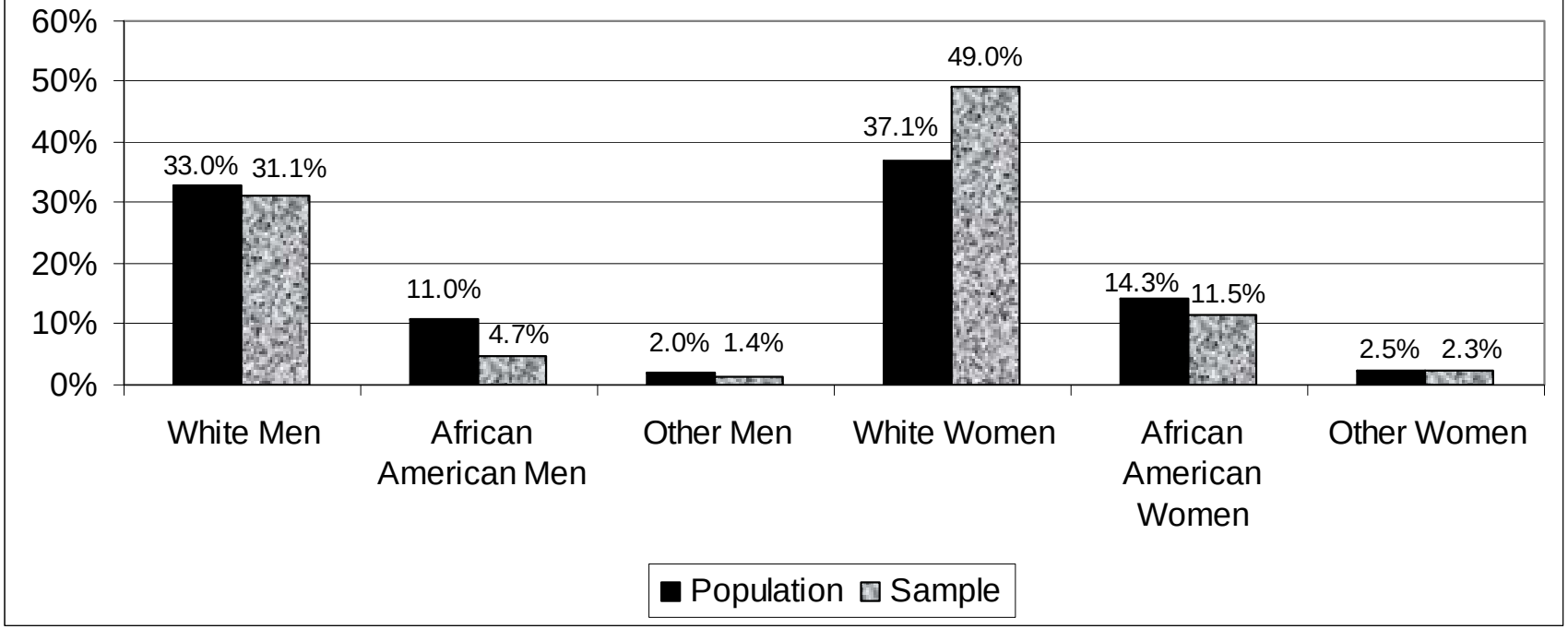

Chart 3-2. Comparison of the 2006 survey sample to Maryland's population by age

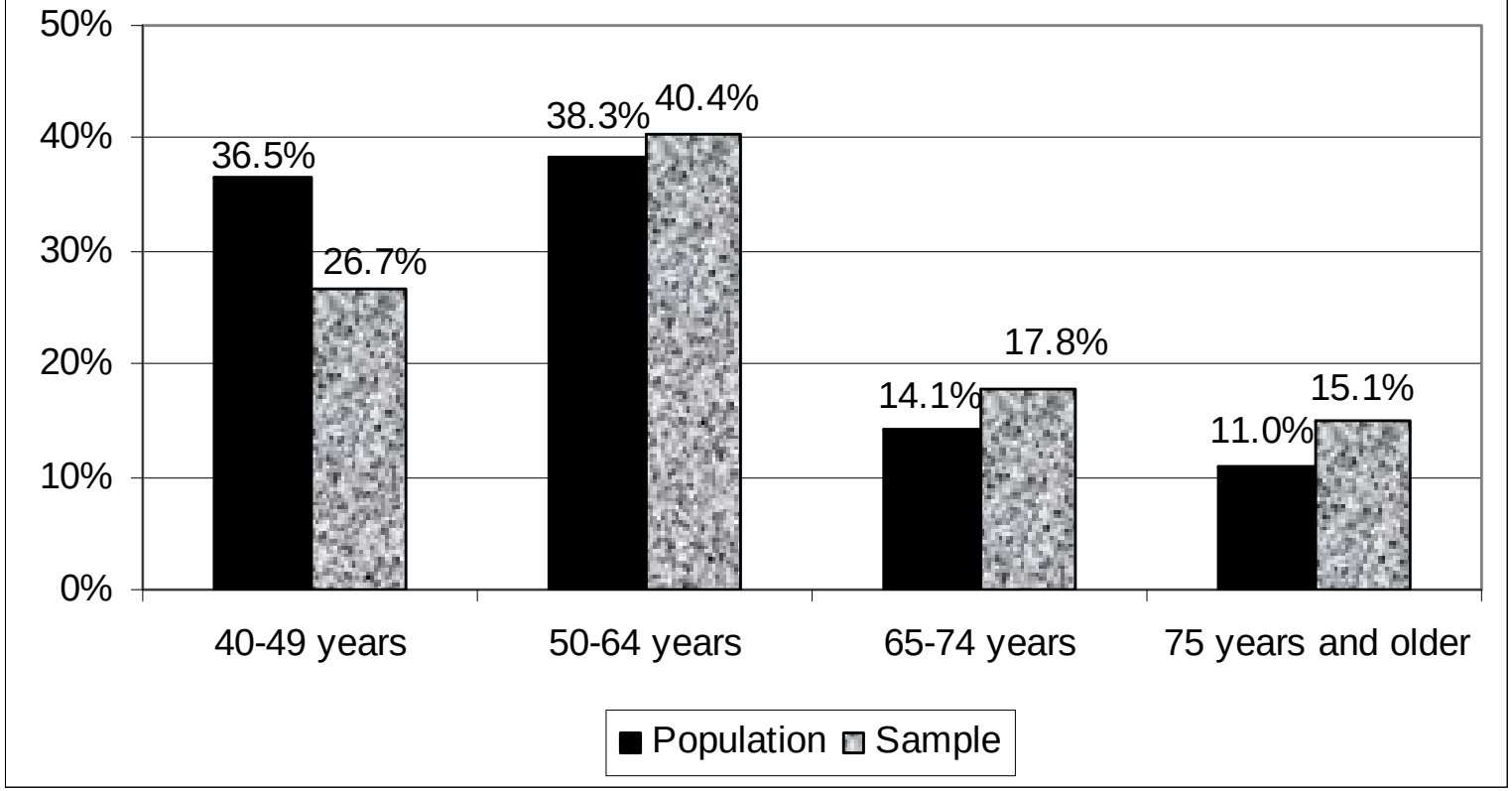

TABLE 3-2. DEMOGRAPHICS OF THE SURVEY SAMPLE, AGE 40 YEARS AND OLDER, WEIGHTED TO THE MARYLAND POPULATION, AGE 40 YEARS AND OLDER

	TOTAL				URBAN				RURAL			
Selected Characteristic	**Sample N**	**Sample %**	**wt %**	**95% CI**	**Sample N**	**Sample %**	**wt %**	**95% CI**	**Sample N**	**Sample %**	**wt %**	**95% CI**
Gender												
Male	1914	37.2%	46.1%		1108	36.1%	45.7%		806	38.8%	47.5%	
Female	3235	62.8%	53.9%		1963	63.9%	54.3%		1272	61.2%	52.5%	
Age												
40-49 years	1373	26.7%	36.5%		840	27.4%	36.7%		533	25.6%	35.8%	
50-64 years	2078	40.4%	38.3%		1253	40.8%	38.6%		825	39.7%	37.3%	
65 -74 years	918	17.8%	14.1%		526	17.1%	13.9%		392	18.9%	15.0%	
75 years and older	780	15.1%	11.0%		452	14.7%	10.8%		328	15.8%	11.9%	
Race												
White	4125	80.1%	70.2%		2254	73.4%	65.4%		1871	90.0%	87.1%	
African American or Black	834	16.2%	25.3%		677	22.0%	29.2%		157	7.5%	11.3%	
Asian	70	1.4%	1.8%		56	1.8%	2.2%		14	0.7%	0.4%	
Native Hawaiian/Other Pacific Islander	8	0.2%	0.3%		8	0.3%	0.3%		0	0.0%	0.0%	
American Indian/Alaska Native	36	0.7%	0.8%		19	0.6%	0.8%		17	0.8%	0.5%	
Other	76	1.5%	1.8%		57	1.9%	2.1%		19	0.9%	0.7%	
Gender and Race												
White male	1601	31.1%	33.1%		861	28.0%	30.7%		740	35.6%	41.6%	
African American male	241	4.7%	11.0%		198	6.4%	12.6%		43	2.1%	5.2%	
Other male	72	1.4%	2.0%		49	1.6%	2.4%		23	1.1%	0.7%	
White female	2524	49.0%	37.1%		1393	45.4%	34.7%		1131	54.4%	45.5%	
African American female	593	11.5%	14.3%		479	15.6%	16.6%		114	5.5%	6.1%	
Other female	118	2.3%	2.5%		91	3.0%	3.0%		27	1.3%	0.9%	
Hispanic Ethnicity												
Yes	117	2.3%	2.5%	1.9-3.0%	77	2.5%	2.6%	2.0-3.3%	40	1.9%	1.9%	1.2-2.6%
No	5021	97.7%	97.5%	97.0-98.1%	2988	97.5%	97.4%	96.7-98.0%	2033	98.1%	98.1%	97.4-98.8%
Marital Status												
Married	3011	58.7%	67.3%	65.7-68.8%	1733	56.7%	66.1%	64.2-68.0%	1278	61.5%	71.6%	69.5-73.7%
Divorced	738	14.4%	11.2%	10.3-12.2%	457	14.9%	11.5%	10.3-12.7%	281	13.5%	10.2%	8.8-11.6%
Widowed	770	15.0%	8.9%	8.1-9.6%	438	14.3%	8.7%	7.8-9.6%	332	15.9%	9.5%	8.4-10.6%
Separated	148	2.9%	2.7%	2.2-3.3%	93	3.0%	2.8%	2.1-3.5%	55	2.6%	2.4%	1.6-3.2%
Never married	404	7.9%	8.4%	7.4-9.4%	295	9.7%	9.3%	8.1-10.5%	109	5.2%	5.3%	4.0-6.5%
Partner of unmarried couple	61	1.2%	1.5%	1.0-1.9%	39	1.3%	1.6%	1.0-2.2%	22	1.1%	1.1%	0.6-1.5%

Sample N -respondents in the sample with that characteristic
Sample % -percent in the sample with that characteristic

TABLE 3-2. DEMOGRAPHICS OF THE SURVEY SAMPLE, AGE 40 YEARS AND OLDER, WEIGHTED TO THE MARYLAND POPULATION, AGE 40 YEARS AND OLDER

	TOTAL				URBAN				RURAL			
Selected Characteristic	**Sample N**	**Sample %**	**wt %**	**95% CI**	**Sample N**	**Sample %**	**wt %**	**95% CI**	**Sample N**	**Sample %**	**wt %**	**95% CI**
Education												
Kindergarten or less	4	0.08%	0.08%	0.0-0.2%	3	0.1%	0.1%	0.0-0.2%	1	0.05%	0.03%	0-0.1%
Grades 1-8	106	2.1%	1.9%	1.4-2.3%	64	2.1%	1.9%	1.3-2.4%	42	2.0%	1.9%	1.3-2.5%
Grades 9-11	302	5.9%	5.8%	5.0-6.7%	142	4.6%	5.3%	4.2-6.3%	160	7.7%	7.6%	6.2-9.0%
High school grad or GED	1421	27.7%	26.0%	24.5-27.4%	687	22.4%	23.1%	21.4-24.9%	734	35.4%	36.1%	33.6-38.5%
College 1-3 years	1240	24.1%	23.6%	22.1-25.1%	712	23.2%	23.1%	21.3-24.9%	528	25.5%	25.4%	23.2-27.6%
College grad	1109	21.6%	22.8%	21.4-24.3%	753	24.6%	24.5%	22.7-26.3%	356	17.2%	16.9%	15.1-18.7%
Master's degree	649	12.6%	13.3%	12.1-14.4%	458	14.9%	14.5%	13.1-15.9%	191	9.2%	8.9%	7.6-10.3%
Doctoral or advanced professional degree	306	6.0%	6.6%	5.7-7.4%	244	8.0%	7.5%	6.5-8.6%	62	3.0%	3.1%	2.2-4.0%
Employment Status												
Employed for Wages	2295	44.7%	50.0%	48.3-51.8%	1417	46.3%	50.5%	48.5-52.6%	878	42.3%	48.2%	45.7-50.8%
Self Employed	438	8.5%	9.1%	8.2-10.1%	272	8.9%	9.3%	8.1-10.5%	166	8.0%	8.6%	7.2-10.0%
Unemployed > 1 year	91	1.8%	2.6%	1.8-3.4%	61	2.0%	2.8%	1.8-3.8%	30	1.4%	1.9%	1.1-2.8%
Unemployed < 1 year	62	1.2%	1.6%	1.1-2.1%	39	1.3%	1.7%	1.1-2.3%	23	1.1%	1.4%	0.7-2.0%
Homemaker	280	5.5%	5.2%	4.5-5.9%	162	5.3%	5.1%	4.3-6.0%	118	5.7%	5.5%	4.4-6.6%
Student	17	0.3%	0.4%	0.2-0.6%	13	0.4%	0.5%	0.2-0.8%	4	0.2%	0.2%	0-0.4%
Retired	1730	33.7%	26.8%	25.4-28.2%	978	32.0%	26.1%	24.4-27.8%	752	36.2%	29.2%	27.1-31.3%
Unable to work	221	4.3%	4.2%	3.5-4.9%	117	3.8%	4.0%	3.2-4.8%	104	5.0%	5.0%	3.9-6.1%
Household Income												
Less than $10,000	150	2.9%	2.4%	1.9-2.9%	80	2.6%	2.3%	1.7-2.9%	70	3.4%	2.7%	1.9-3.4%
$10,000-<$15,000	179	3.5%	2.7%	2.2-3.3%	82	2.7%	2.4%	1.8-3.1%	97	4.7%	3.7%	2.9-4.6%
$15,000-<$20,000	234	4.5%	3.9%	3.3-4.6%	127	4.1%	3.8%	3.0-4.6%	107	5.1%	4.2%	3.3-5.1%
$20,000-<$25,000	306	5.9%	5.4%	4.6-6.1%	173	5.6%	5.3%	4.4-6.2%	133	6.4%	5.6%	4.5-6.7%
$25,000-<$35,000	453	8.8%	8.0%	7.1-9.0%	251	8.2%	7.8%	6.7-8.9%	202	9.7%	8.8%	7.4-10.2%
$35,000-<$50,000	621	12.1%	11.3%	10.2-12.3%	355	11.6%	10.9%	9.7-12.1%	266	12.8%	12.7%	11.0-14.3%
$50,000-<$75,000	748	14.5%	14.7%	13.5-15.9%	423	13.8%	14.0%	12.6-15.4%	325	15.6%	17.0%	15.0-19.0%
$75,000 or greater	1682	32.7%	37.8%	36.1-39.5%	1119	36.4%	39.7%	37.7-41.8%	563	27.1%	31.0%	28.6-33.3%
Don't know/not sure	320	6.2%	5.3%	4.6-6.0%	175	5.7%	5.0%	4.2-5.8%	145	7.0%	6.5%	5.2-7.7%
Refused	456	8.9%	8.5%	7.5-9.5%	286	9.3%	8.6%	7.4-9.9%	170	8.2%	7.9%	6.5-9.4%

The "wt %" for gender, age, race, and gender/race is equal to the actual population percent because the sample was weighted to match the Maryland population by these characteristics

Sample N -respondents in the sample with that characteristic
Sample % -percent in the sample with that characteristic

TABLE 3-3. TOTAL NUMBER AND PERCENT OF PEOPLE INTERVIEWED IN EACH JURISDICTION, BY GENDER AND RACE

	Males		Females		Whites		African Americans/ Blacks		Other Race		Total	
Jurisdiction	n	%	n	%	n	%	n	%	n	%	n	% of sample
Allegany	56	40.0%	84	60.0%	137	97.9%	2	1.4%	1	0.7%	140	2.7%
Anne Arundel	158	37.5%	263	62.5%	371	88.1%	34	8.1%	16	3.8%	421	8.2%
Baltimore City	113	33.3%	226	66.7%	151	44.5%	174	51.3%	14	4.1%	339	6.6%
Baltimore	211	33.8%	413	66.2%	505	80.9%	100	16.0%	19	3.0%	624	12.2%
Calvert	67	43.2%	88	56.8%	130	83.9%	19	12.3%	6	3.9%	155	3.0%
Caroline	17	33.3%	34	66.7%	44	86.3%	6	11.8%	1	2.0%	51	1.0%
Carroll	57	39.3%	88	60.7%	139	95.9%	2	1.4%	4	2.8%	145	2.8%
Cecil	59	39.1%	92	60.9%	143	94.7%	4	2.6%	4	2.6%	151	2.9%
Charles	67	37.6%	111	62.4%	132	74.2%	37	20.8%	9	5.1%	178	3.5%
Dorchester	15	27.8%	39	72.2%	49	90.7%	3	5.6%	2	3.7%	54	1.1%
Frederick	126	38.1%	205	61.9%	315	95.2%	13	3.9%	3	0.9%	331	6.5%
Garrett	32	39.5%	49	60.5%	79	97.5%	0	0.0%	2	2.5%	81	1.6%
Harford	68	40.2%	101	59.8%	150	88.8%	17	10.1%	2	1.2%	169	3.3%
Howard	85	39.9%	128	60.1%	174	81.7%	26	12.2%	13	6.1%	213	4.2%
Kent	19	32.2%	40	67.8%	50	84.7%	8	13.6%	1	1.7%	59	1.2%
Montgomery	273	38.5%	437	61.5%	594	83.7%	74	10.4%	42	5.9%	710	13.9%
Prince George's	148	33.6%	293	66.4%	166	37.6%	246	55.8%	29	6.6%	441	8.6%
Queen Anne's	34	45.3%	41	54.7%	67	89.3%	8	10.7%	0	0.0%	75	1.5%
St. Mary's	59	39.6%	90	60.4%	134	89.9%	10	6.7%	5	3.4%	149	2.9%
Somerset	12	34.3%	23	65.7%	28	80.0%	7	20.0%	0	0.0%	35	0.7%
Talbot	28	38.4%	45	61.6%	68	93.2%	4	5.5%	1	1.4%	73	1.4%
Washington	108	38.6%	172	61.4%	266	95.0%	9	3.2%	5	1.8%	280	5.5%
Wicomico	51	37.5%	85	62.5%	115	84.6%	15	11.0%	6	4.4%	136	2.7%
Worcester	43	39.4%	66	60.6%	95	87.2%	12	11.0%	2	1.8%	109	2.1%

Jurisdiction was not specified by 30 respondents.

Maryland Cancer Survey, 2006

Chapter 4. Colorectal Cancer Screening

Cancer of the colon and rectum (referred to as colorectal cancer or CRC) was chosen as one of the seven cancers targeted for intervention by the Cigarette Restitution Fund Program, because of its incidence in Maryland and because CRC is amenable to prevention though screening and early detection. CRC is the fourth most common cancer (excluding non-melanoma skin cancer) in Maryland, behind prostate, female breast, and lung cancer. In 2002, it was the second leading cause of cancer deaths in Maryland.[1] For the period 2000 – 2004, Maryland had the 12th highest mortality rate for CRC among the 50 states and the District of Columbia.[2] This represents a considerable change in ranking since the period 1997 – 2001, when Maryland had the 5th highest CRC mortality rate in the nation.

The most commonly used tests for detecting pre-malignant lesions (i.e., benign adenomas) and invasive CRC are the fecal occult blood test (FOBT), the fecal immunochemical test (FIT), sigmoidoscopy, and colonoscopy (sigmoidoscopy and colonoscopy are both "lower gastrointestinal (GI) endoscopies"). For people at average risk for developing CRC, the American Cancer Society (ACS) recommends one of the following screening modalities:

- Annual FOBT or FIT;
- Sigmoidoscopy every 5 years;
- Sigmoidoscopy every 5 years with annual FOBT or FIT; or
- Colonoscopy every 10 years or double contrast barium enema (DCBE) every 5 years.[3]

(Although the ACS recommendations include DCBE as a screening option for CRC, this method was not included in the MCS questionnaire or analysis.)

Public health programs were implemented during fiscal year (FY) 2001 for education about and screening for CRC by all local health departments in Maryland, except Baltimore City. In FY 2004, Anne Arundel County stopped CRC screening but continued to educate its population. In summer 2006, Baltimore City began CRC screening for a limited number of residents under a demonstration project funded by the Centers for Disease Control and Prevention (CDC).

Familiarity with CRC Screening Tests

Before being given any information about CRC screening tests, respondents were asked about their familiarity with screening tests for CRC.

- Ninety-four percent (94%) of all respondents age 40 years and older reported knowing there are screening tests for CRC (Table 4-1).

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[1] Maryland Department of Health and Mental Hygiene. Cancer Report 2006. Baltimore, MD; 2006. Available at http://www.fha.state.md.us/cancer/surveillance/pdf/CRF_Can_Rpt_2006_Final_PNO_v9u.pdf. Last accessed July 11, 2007.

[2] Ries LAG et al. (eds). *SEER Cancer Statistics Review, 1975-2003*, National Cancer Institute. Bethesda, MD; Available at http://seer.cancer.gov/csr/1975_2003 (based on November 2005 SEER data submission). Last accessed July 13, 2006..

[3] American Cancer Society, Cancer Detection Guidelines. Available at http://www.cancer.org/docroot/PED/content/PED_2_3X_ACS_Cancer_Detection_Guidelines_36.asp?sitearea=PED Last accessed July 11, 2007.

- Without any prompting by the interviewer, 61% of respondents were able to name colonoscopy, 16% named FOBT, and 9% identified sigmoidoscopy as CRC screening tests. Far fewer respondents (less than 4%) named barium enema, digital rectal exam, proctoscopy, or radiologic scans as screening tests for CRC. One in four respondents (26%) could not name any tests for CRC detection. (Respondents could give more than one answer; Table 4-2.)

After hearing a description of the fecal occult blood test (FOBT), sigmoidoscopy, and colonoscopy, participants were asked whether they had heard of these specific tests (Table 4-3):

- Seventy-seven percent (77%) of all respondents age 40 years and older had heard of the home kit for the FOBT.
- Ninety-two percent (92%) of respondents had heard of lower GI endoscopy as a means of examining the colon.
- Familiarity with CRC screening tests was statistically significantly lower among males, younger respondents (under age 50 years), and non-White respondents.
- Eighty-six percent (86%) of all respondents have seen or heard CRC screening promoted (e.g., in the media, at a health care facility, or some other place). Only 25% reported having heard that the local health departments had no-cost screening for low-income individuals (Table 4-4).

<u>Prevalence of CRC Screening with FOBT</u>

Hidden blood in the stool is often an early warning sign of colorectal disease, including CRC. There are two types of home kits used to detect small amounts of blood in the stool. The older Fecal Occult Blood Test (FOBT) is a guaiac-based test that detects peroxidase activity found in hemoglobin. However, in addition to detecting human hemoglobin, the FOBT test can also detect animal hemoglobin in the stool (from consumption of red meat), which can potentially lead to false-positive results. A newer, more sensitive test for detecting blood in the stool is the fecal immunochemical test (FIT), which is specific for human hemoglobin. Health care providers (HCPs) often recommend either of these home tests to their patients as an initial CRC screening measure. In the home test, a person smears a small amount of stool on a card for 2 or 3 successive days, and mails the card to a laboratory for analysis.

Among Maryland Cancer Survey (MCS) respondents age 50 years and older,

- Fifty-seven percent (57%) have <u>ever</u> performed a home FOBT (Table 4-5 and Chart 4-1).
    - Screening prevalence was significantly higher among persons age 65 years and older (66%), compared to those age 50-64 years (51%).
    - Whites (58%) and African-Americans (57%) were more likely to have ever had an FOBT than persons of other races (35%).
    - The proportion of people that have ever had an FOBT generally increased as level of education increased.
    - Respondents in the lowest income group had a significantly lower prevalence of ever having an FOBT, compared with respondents in higher income groups.

According to the American Cancer Society (ACS), if the home FOBT is the primary test being used for CRC screening, the test should be performed each year.

- Twenty-one percent (21%) of survey respondents age 50 years and older said they have performed a home FOBT in the last year. (Data not shown in tables.)

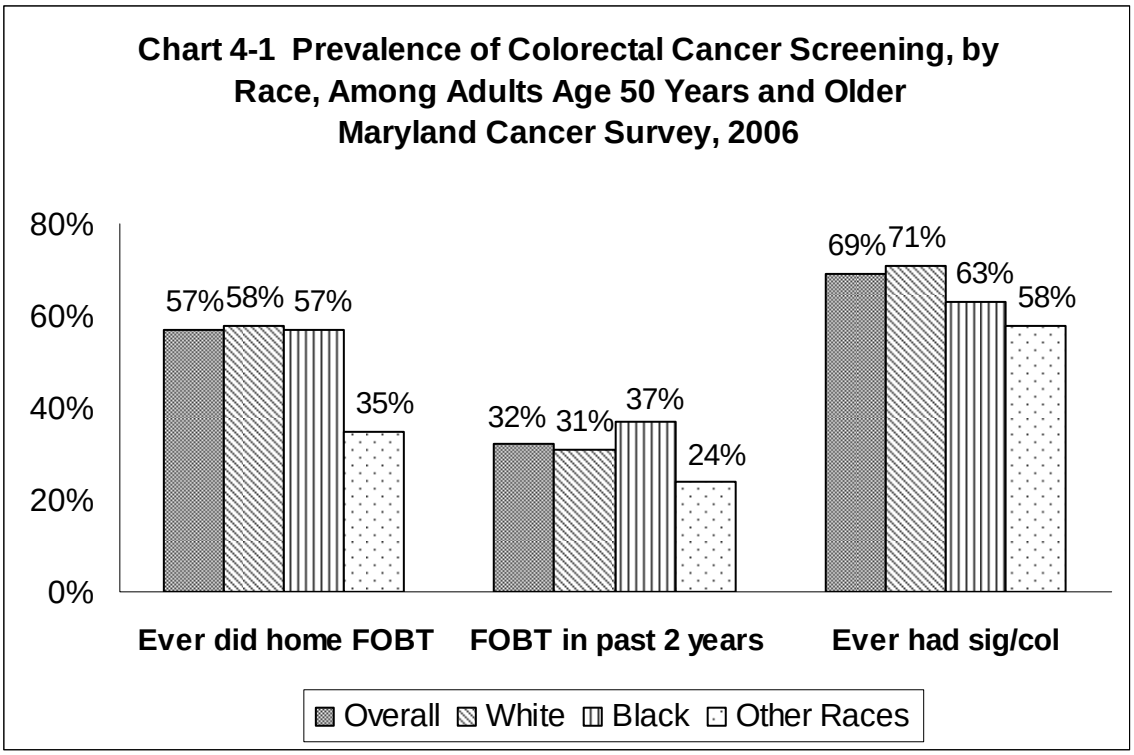
Among those age 50 and older who have never done a home FOBT or had not done a home FOBT in the past year, the most frequently cited reasons were (Table 4-6; more than one response could be given per respondent):

- The doctor had not ordered the test or didn't say they needed it (29%)
- No reason, or the respondent never thought about it (20%)
- The respondent had another type of CRC screening test (19%)
- Respondent didn't know he/she needed this type of test (16%)
- Respondent reported he/she wasn't having any problems (8%)

The HP 2010 goal is for 33% of people age 50 years and older to have an FOBT in the last 2 years.[4]

- Thirty-two percent (32%) of Marylanders age 50 years and older reported having an FOBT within the preceding 2 years (Table 4-7 and Chart 4-1). Significant differences were noted by gender, age, race, and employment status.
- People age 65 years and older were more likely to have performed a home FOBT in the past 2 years than those age 50-64 years (38% vs. 28%).
- A higher proportion of African Americans than persons of all other races reported performing the home FOBT in the past 2 years.

[4] U.S. Department of Health and Human Services. Healthy People 2010 Midcourse Review. Washington, DC; 2006. Available at http://www.healthypeople.gov/data/midcourse/default.htm#pubs. Last accessed July 11, 2007.



Prevalence of CRC Screening with Lower GI Endoscopy

Sigmoidoscopy and colonoscopy are tests in which the large bowel is examined with a narrow, lighted tube inserted in the rectum. During a sigmoidoscopy, only the lower third of the colon (closest to the rectum) is examined; during a colonoscopy the entire colon is examined. These tests are generally referred to as "lower GI endoscopy." HP 2010 has set 50% as the goal for the adult population age 50 years and older to have ever received a lower GI endoscopy.[5]

Among MCS respondents age 50 years and older,

- Sixty-nine percent (69%) reported that they have ever had a lower GI endoscopy (Table 4-8 and Chart 4-1).
- Respondents age 50 to 64 years less frequently reported ever having a lower GI endoscopic examination than those age 65 years and older (63% vs. 76%).
- Whites were significantly more likely to have ever had lower GI endoscopy (71%) than either African Americans (63%) or people of Other races (58%).
- Higher educational levels were statistically significantly associated with higher proportions of ever having a lower GI endoscopic examination.
- Prevalence of lower GI endoscopy was significantly higher among respondents at higher annual income levels.

[5] U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. Understanding and Improving Health; Objectives for Improving Health. Vol. I. Cancer. Washington, DC: U.S. Government Printing Office, November 2000. http://www.healthypeople.gov/Document/HTML/Volume1/03Cancer.htm. Last accessed July 9, 2007.

- Of those reporting they had ever had lower GI endoscopy, the vast majority of people (almost 98%) knew which test they had received most recently. Of those who could name their test, 10% reported their most recent exam was a sigmoidoscopy and 90% replied it was a colonoscopy. (Data not shown in tables.)

Respondents age 50 and older who never had a lower GI endoscopy or who were not up-to-date with endoscopic screening were asked the reason why (Table 4-9; more than one response could be given per respondent). The most frequently cited reasons were:

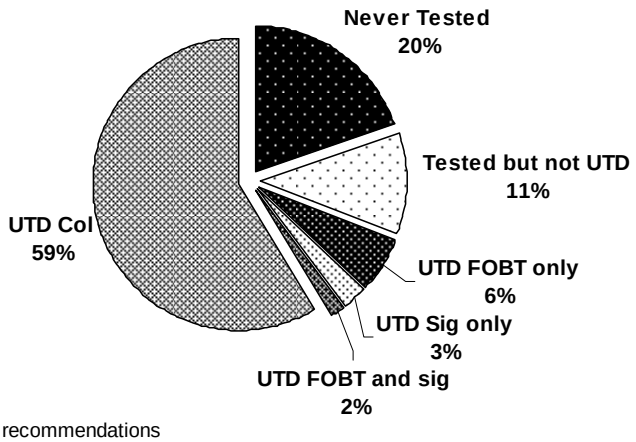
- The doctor did not order the test or say it was need (23%)
- No reason or the respondent never thought about it (19%)
- The respondent didn't know the test was needed (17%)
- The respondent has not had any problems (13%)

Compliance with CRC Screening Guidelines

The following is a summary of CRC screening frequency found in the MCS 2006. (Chart 4-2; data are not in tables.)

- Twenty percent (20%) of Marylanders over the age of 50 years reported never being screened by FOBT, sigmoidoscopy, or colonoscopy.
- Eleven percent (11%) have been tested with either FOBT and/or lower GI endoscopy, but are not up-to-date by ACS guidelines.
- Of those who have had CRC testing and knew the types of procedures they had and the time elapsed since the most recent tests:
    - Six percent (6%) were up-to-date with FOBT only;
    - Three percent (3%) were up-to-date with sigmoidoscopy only;
    - Two percent (2%) had an FOBT in the last year and a sigmoidoscopy in the last 5 years; and
    - Fifty-nine percent (59%) had a colonoscopy within the last 10 years (with or without ever having an FOBT).

Chart 4-2 Summary of Up-to-Date (UTD)* CRC Screening Among Respondents Age 50 Years and Older -- Maryland Cancer Survey, 2006

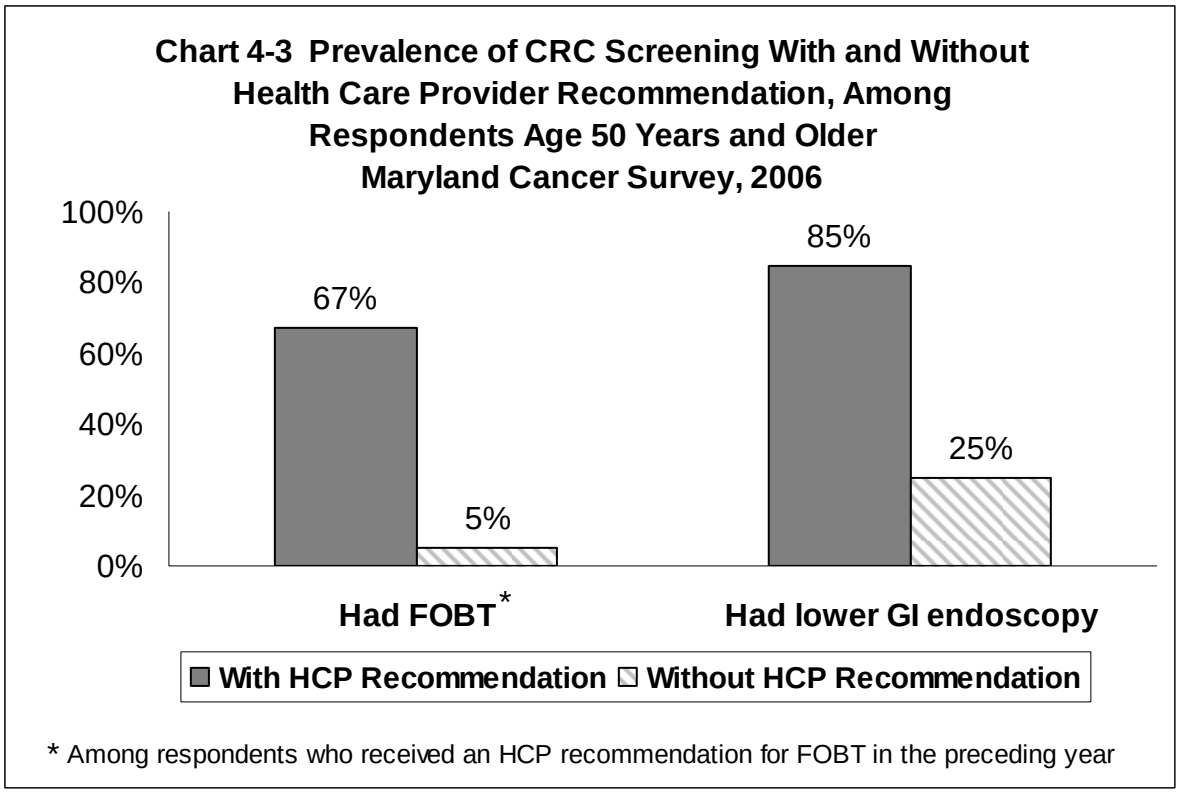


* UTD by American Cancer Society recommendations

HCP Recommendations and CRC Screening

Receiving a recommendation from an HCP is a critical first step in having CRC screening performed. The following is a summary of responses to questions about HCP recommendations for CRC screening among MCS participants age 50 years and older. (Data not shown in tables.)

- Of those who had visited a doctor in the preceding 12 months, 26% reported receiving a recommendation to perform the home FOBT.
    - When in the preceding year an HCP recommended that the respondent have an FOBT, 67% had the exam, compared to only 5% having the exam when no recommendation was made (Chart 4-3).
- Seventy-three percent (73%) of those age 50 years and older have ever received a recommendation to have lower GI endoscopy.
    - Among people who reported ever receiving a provider recommendation for lower GI endoscopy, 85% had the exam. Among those who said they did not receive a recommendation from an HCP, only 25% had the exam (Chart 4-3).
- Of the 31% of Marylanders age 50 years and older who have never had a lower GI endoscopy, 76% have had a routine check-up in the past year and 86% have had a routine check-up in the past 2 years.
- Of the 20% of Marylanders age 50 years and older who have never been tested by FOBT or lower GI endoscopy, 70% had a routine check-up in the past year and 81% had a routine check-up in the past 2 years.



Receiving a recommendation from an HCP is only the first step in having CRC screening. Respondents age 50 years and older who had received a recommendation from their HCP were asked whether the provider did anything else to help facilitate the scheduling or performance of the endoscopy (Table 4-10; more than one response could be given per respondent).

- Sixty-three percent (63%) said the HCP referred them to a doctor or place where the procedure could be done.
- Nineteen percent (19%) said the HCP's office called to make the appointment for them.
- Fourteen percent (14%) said the HCP only made a recommendation and did not do anything else.
- Thirteen percent (13%) said the HCP did the lower GI endoscopy exam him/herself.
- Seven percent (7%) said the HCP sent a letter or postcard or called the respondent to tell them to get the test done.

Family History of CRC and Prevalence of Screening Compliance

Having a first-degree relative (FDR) (e.g., brother, sister, parent, or child) diagnosed with CRC or adenomas puts one at increased risk for developing CRC and necessitates earlier and possibly more frequent screening with colonoscopy. The following summarizes CRC screening prevalence among MCS respondents, based on reported family history of CRC. (Data not shown in tables.)

- Eleven percent (11%) of people age 40 years and older reported they had an FDR who had been diagnosed with colon cancer. Among respondents age 50 years and older, 12% reported having a family history of CRC.

- Among people age 50 years and older who reported having an FDR with CRC, 83% have ever had a lower GI endoscopic examination. This figure was significantly lower among people who did not have an FDR with CRC; 67% of those without a family history of CRC reported ever having lower GI endoscopy.
- Of people age 50 years and older who reported having an FDR with CRC, who have ever had a lower GI endoscopy, and who knew the specific type of exam, 93% said their most recent exam was a colonoscopy.
- Among people between the ages of 40 and 49 years, only 39% of those who reported having an FDR with CRC have ever had a lower GI endoscopy; of these respondents, 88% reported having a colonoscopy as their most recent exam.

TABLE 4-1. RESPONDENTS REPORTING TO KNOW THAT THERE ARE SCREENING TESTS FOR COLON CANCER, AMONG THOSE AGE 40 YEARS AND OLDER ~

Selected Characteristic	N	n	wt %	95% CI	Stat Sig
Total Population	5133	4861	94%	93-95%	
Area of Residence					**
Urban	3062	2874	94%	93-95%	
Rural	2071	1987	95%	94-97%	
Gender					^
Male	1907	1793	93%	92-95%	
Female	3226	3068	95%	94-96%	
Age					**
40-49 years	1368	1274	93%	91-94%	
50-64 years	2077	2002	96%	95-97%	
65 years and older	1688	1585	94%	92-95%	
Race					**
White	4115	3944	96%	95-96%	
African American or Black	830	758	91%	88-93%	
Other	188	159	88%	82-93%	
Gender and Race					**
White male	1595	1517	95%	94-96%	
African American male	241	216	89%	85-94%	
Other male	71	60	87%	77-96%	
White female	2520	2427	96%	95-97%	
African American female	589	542	92%	89-94%	
Other female	117	99	88%	82-95%	
Marital Status					**
Married or partner of unmarried couple	3065	2930	95%	94-96%	
Divorced or separated	885	837	94%	93-96%	
Widowed	765	710	92%	89-95%	
Never married	401	369	91%	87-94%	
Education					**
Less than high school	411	355	87%	83-91%	
High school grad or GED	1413	1325	93%	91-95%	
College 1-3 years	1239	1184	95%	93-96%	
College grad	1105	1066	96%	94-98%	
Advanced degree	953	922	96%	94-97%	
Employment Status					^
Employed for wages	2291	2193	95%	93-96%	
Self-employed	436	417	95%	92-97%	
Retired	1724	1624	94%	93-95%	
Other	667	613	92%	89-94%	
Household Income					**
<$25,000	863	775	90%	87-92%	
$25,000-<$35,000	450	419	92%	88-95%	
$35,000-<$50,000	621	592	93%	91-96%	
$50,000-<$75,000	748	720	95%	92-97%	
$75,000 or greater	1679	1631	97%	95-98%	
Don't know/not sure	317	289	91%	87-95%	
Refused	455	435	95%	92-97%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

TABLE 4-2. RESPONSES TO THE QUESTION, "CAN YOU THINK OF ANY TESTS THAT FIND OR DETECT COLON CANCER?" AMONG PARTICIPANTS AGE 40 YEARS AND OLDER *

Selected Response	wt %
Colonoscopy	61%
No/nothing	26%
Fecal occult blood test	16%
Sigmoidoscopy	9%
Blood test	3%
Digital rectal exam	3%
MRI/scans/CAT scans	2%
Barium enema	1%
Proctoscopy	1%
Invalid response	1%
Other	2%

* More than one response could be given per respondent.

TABLE 4-3. RESPONSES TO QUESTIONS ABOUT AWARENESS OF TESTS FOR COLORECTAL CANCER SCREENING, AMONG PARTICIPANTS AGE 40 YEARS AND OLDER

	Heard of the home kit to test for blood in the stool ~					Heard of tests called sigmoidoscopy or colonoscopy ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Total Population	5115	4045	77%	76-79%		5126	4778	92%	91-93%	
Area of Residence					^					^
Urban	3050	2434	78%	76-79%		3059	2850	92%	91-93%	
Rural	2065	1611	75%	73-78%		2067	1928	93%	91-94%	
Gender					**					**
Male	1900	1425	73%	71-76%		1904	1736	91%	89-93%	
Female	3215	2620	80%	79-82%		3222	3042	93%	92-94%	
Age					**					**
40-49 years	1363	889	65%	62-68%		1369	1228	88%	86-90%	
50-64 years	2064	1718	83%	81-85%		2073	1974	95%	93-96%	
65 years and older	1688	1438	86%	84-88%		1684	1576	94%	93-95%	
Race					**					**
White	4096	3317	80%	78-81%		4107	3923	96%	95-96%	
African American or Black	832	610	72%	68-76%		831	711	85%	82-88%	
Other	187	118	65%	56-73%		188	144	78%	71-85%	
Gender and Race					**					**
White male	1590	1225	76%	73-79%		1591	1490	94%	93-96%	
African American male	240	162	68%	61-75%		241	195	83%	78-88%	
Other male	70	38	60%	45-74%		72	51	75%	63-88%	
White female	2506	2092	83%	81-85%		2516	2433	97%	96-98%	
African American female	592	448	75%	71-79%		590	516	87%	84-90%	
Other female	117	80	68%	59-78%		116	93	80%	71-89%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 4-3. RESPONSES TO QUESTIONS ABOUT AWARENESS OF TESTS FOR COLORECTAL CANCER SCREENING, AMONG PARTICIPANTS AGE 40 YEARS AND OLDER

	Heard of the home kit to test for blood in the stool ~					Heard of tests called sigmoidoscopy or colonoscopy ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Marital Status					**					**
Married or partner of unmarried couple	3052	2450	78%	77-80%		3068	2905	94%	93-95%	
Divorced or separated	882	674	74%	70-78%		882	806	89%	86-92%	
Widowed	764	628	83%	80-86%		759	706	93%	90-95%	
Never married	402	280	64%	58-70%		401	348	84%	79-89%	
Education					**					**
Less than high school	409	273	66%	59-72%		407	321	77%	71-83%	
High school grad or GED	1411	1073	74%	72-77%		1413	1296	90%	88-92%	
College 1-3 years	1230	991	79%	76-82%		1232	1159	93%	91-95%	
College grad	1102	888	77%	74-81%		1107	1065	95%	94-97%	
Advanced degree	951	809	82%	78-85%		955	927	96%	95-98%	
Employment Status					**					**
Employed for wages	2279	1746	74%	72-76%		2290	2147	92%	91-94%	
Self-employed	436	322	72%	67-77%		437	411	93%	90-96%	
Retired	1719	1477	86%	84-88%		1717	1625	95%	93-96%	
Other	666	487	73%	69-77%		667	582	87%	84-90%	
Household Income					**					**
<$25,000	863	638	73%	69-77%		858	750	86%	83-89%	
$25,000-<$35,000	451	353	72%	66-78%		453	406	85%	79-90%	
$35,000-<$50,000	615	491	77%	73-82%		619	578	92%	89-94%	
$50,000-<$75,000	744	580	77%	73-80%		748	710	92%	90-95%	
$75,000 or greater	1673	1369	80%	77-82%		1680	1630	97%	96-98%	
Don't know/not sure	318	239	73%	66-79%		313	271	84%	78-90%	
Refused	451	375	81%	76-86%		455	433	94%	91-97%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 4-4. RESPONSES TO QUESTIONS ON AWARENESS OF MEDIA PROMOTION OF CRC SCREENING AND NO-COST SCREENING PROGRAMS, AMONG PARTICIPANTS AGE 40 YEARS AND OLDER

	Saw or heard colon cancer screening being promoted on TV, radio, in a health care facility, or in a magazine, newspaper or some place else ~					Awareness of no cost colon cancer screening programs at health department ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Total Population	5047	4359	86%	85-87%		5090	1376	25%	24-27%	
Area of Residence					^					**
Urban	3003	2580	86%	84-87%		3029	754	24%	22-26%	
Rural	2044	1779	87%	86-89%		2061	622	28%	26-31%	
Gender					**					**
Male	1860	1537	83%	81-85%		1888	438	23%	21-26%	
Female	3187	2822	89%	87-90%		3202	938	27%	25-28%	
Age					*					**
40-49 years	1354	1163	85%	82-87%		1361	284	19%	16-21%	
50-64 years	2041	1809	88%	86-89%		2058	540	26%	24-28%	
65 years and older	1652	1387	85%	83-87%		1671	552	33%	30-36%	
Race					**					^
White	4036	3504	86%	85-88%		4082	1117	25%	23-26%	
African American or Black	826	719	87%	84-90%		821	223	26%	22-30%	
Other	185	136	75%	68-83%		187	36	21%	14-29%	
Gender and Race					**					^
White male	1554	1286	83%	80-85%		1579	371	22%	20-25%	
African American male	235	201	85%	79-90%		238	55	26%	19-33%	
Other male	71	50	77%	65-88%		71	12	23%	10-37%	
White female	2482	2218	90%	88-91%		2503	746	27%	25-29%	
African American female	591	518	89%	86-91%		583	168	26%	22-30%	
Other female	114	86	74%	64-83%		116	24	19%	11-28%	

~ Some data missing for marital status, education, and employment status

** p-value $\leq$ 0.05

* p-value > 0.05 - 0.1

^ p-value > 0.1

TABLE 4-4. RESPONSES TO QUESTIONS ON AWARENESS OF MEDIA PROMOTION OF CRC SCREENING AND NO-COST SCREENING PROGRAMS, AMONG PARTICIPANTS AGE 40 YEARS AND OLDER

	Saw or heard colon cancer screening being promoted on TV, radio, in a health care facility, or in a magazine, newspaper or some place else ~					Awareness of no cost colon cancer screening programs at health department ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Marital Status					^					**
Married or partner of unmarried couple	3011	2622	86%	84-88%		3047	790	24%	23-26%	
Divorced or separated	875	754	87%	84-90%		874	220	23%	19-26%	
Widowed	754	639	85%	81-88%		756	270	36%	32-40%	
Never married	392	334	87%	83-91%		397	93	23%	18-28%	
Education					**					**
Less than high school	407	337	84%	80-89%		407	134	29%	23-34%	
High school grad or GED	1398	1205	86%	84-88%		1407	434	29%	26-32%	
College 1-3 years	1215	1088	90%	87-92%		1228	340	28%	24-31%	
College grad	1081	919	83%	80-86%		1092	257	21%	18-24%	
Advanced degree	936	803	85%	83-88%		945	208	19%	16-22%	
Employment Status					^					**
Employed for wages	2259	1998	87%	85-89%		2275	556	23%	20-25%	
Self-employed	425	359	84%	80-88%		433	86	19%	14-24%	
Retired	1689	1440	86%	84-88%		1700	548	32%	29-35%	
Other	661	552	84%	80-88%		667	183	25%	20-30%	
Household Income					^					**
<$25,000	858	714	82%	79-86%		859	281	29%	25-33%	
$25,000-<$35,000	444	376	87%	83-91%		449	132	28%	23-34%	
$35,000-<$50,000	609	532	87%	84-90%		611	175	29%	25-34%	
$50,000-<$75,000	736	655	88%	86-91%		738	209	26%	22-29%	
$75,000 or greater	1643	1435	87%	84-89%		1669	341	19%	17-21%	
Don't know/not sure	314	264	85%	80-89%		315	92	30%	23-36%	
Refused	443	383	85%	80-89%		449	146	34%	27-41%	

~ Some data missing for marital status, education, and employment status

** p-value $\leq$ 0.05

* p-value > 0.05 - 0.1

^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 4-5. PEOPLE REPORTING TO HAVE EVER PERFORMED A HOME FOBT, AMONG PARTICIPANTS AGE 50 YEARS AND OLDER

	TOTAL ~					URBAN ~					RURAL ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Total Population	3742	2148	57%	55-59%		2209	1314	58%	56-61%		1533	834	52%	50-55%	
Gender					^					^					^
Male	1370	781	58%	54-61%		787	476	60%	56-64%		583	305	50%	46-55%	
Female	2372	1367	57%	54-59%		1422	838	57%	54-60%		950	529	54%	51-58%	
Age					**					**					**
50-64 years	2061	1055	51%	49-54%		1241	651	52%	49-56%		820	404	47%	43-51%	
65 years and older	1681	1093	66%	63-69%		968	663	67%	64-71%		713	430	60%	56-64%	
Race					**					**					^
White	3076	1794	58%	56-60%		1672	1026	60%	57-63%		1404	768	53%	50-56%	
African American or Black	560	316	57%	52-62%		457	261	58%	53-64%		103	55	49%	36-61%	
Other	106	38	35%	24-46%		80	27	34%	22-45%		26	11	49%	25-73%	
Gender and Race					**					**					^
White male	1179	677	58%	55-61%		633	392	61%	57-65%		546	285	50%	46-55%	
African American male	151	89	60%	51-69%		128	76	61%	52-71%		23	13	51%	26-76%	
Other male	40	15	33%	14-51%		26	8	31%	12-51%		14	7	50%	17-83%	
White female	1897	1117	58%	56-61%		1039	634	59%	56-62%		858	483	55%	52-59%	
African American female	409	227	55%	50-61%		329	185	56%	50-62%		80	42	47%	34-60%	
Other female	66	23	36%	23-50%		54	19	36%	22-50%		12	4	48%	13-82%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 4-5. PEOPLE REPORTING TO HAVE EVER PERFORMED A HOME FOBT, AMONG PARTICIPANTS AGE 50 YEARS AND OLDER

	TOTAL ~					URBAN ~					RURAL ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Marital Status					*					^					**
Married or partner of unmarried couple	2111	1218	58%	55-60%		1203	729	60%	56-63%		908	489	52%	48-55%	
Divorced or separated	653	358	51%	47-56%		407	227	52%	47-58%		246	131	47%	40-55%	
Widowed	738	444	60%	55-64%		421	257	59%	54-65%		317	187	61%	56-67%	
Never married	231	123	55%	47-63%		169	96	56%	47-65%		62	27	49%	34-64%	
Education					**					**					**
Less than high school	339	151	42%	36-49%		174	80	43%	34-51%		165	71	42%	34-51%	
High school grad or GED	1072	575	54%	51-58%		507	290	57%	52-62%		565	285	48%	44-53%	
College 1-3 years	884	539	61%	57-65%		509	324	63%	58-68%		375	215	54%	48-60%	
College grad	726	440	59%	55-64%		497	297	59%	54-64%		229	143	62%	56-69%	
Advanced degree	711	438	60%	56-64%		515	318	61%	56-65%		196	120	59%	51-67%	
Employment Status					**					**					**
Employed for wages	1321	673	50%	47-54%		824	441	52%	48-56%		497	232	44%	39-49%	
Self-employed	280	150	53%	46-60%		175	90	53%	44-61%		105	60	55%	45-65%	
Retired	1699	1107	67%	64-69%		959	654	68%	65-72%		740	453	61%	57-65%	
Other	433	213	48%	42-54%		243	125	50%	43-57%		190	88	44%	35-52%	
Household Income					**					**					^
<$25,000	708	367	49%	45-54%		370	195	49%	43-55%		338	172	51%	45-57%	
$25,000-<$35,000	361	223	61%	54-67%		198	123	61%	53-69%		163	100	60%	52-68%	
$35,000-<$50,000	470	276	59%	53-64%		263	170	62%	55-69%		207	106	49%	42-57%	
$50,000-<$75,000	512	289	55%	49-60%		295	171	57%	50-63%		217	118	48%	40-56%	
$75,000 or greater	1044	621	59%	56-63%		700	425	61%	57-65%		344	196	54%	48-60%	
Don't know/not sure	273	144	56%	49-63%		148	81	58%	49-67%		125	63	51%	41-61%	
Refused	374	228	60%	54-66%		235	149	61%	54-68%		139	79	57%	46-68%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 4-6. RESPONSES TO THE QUESTION "WHAT WAS THE MOST IMPORTANT REASON YOU HAVE NEVER DONE/NOT DONE A HOME FOBT IN THE PAST YEAR?" *

Selected Response	wt %
Doctor didn't order it/didn't say I needed it	29%
No reason, never thought about it	20%
Had another type of colorectal exam	19%
Didn't need it/ didn't know I needed this type of test	16%
Haven't had any problems	8%
Never heard of the test	5%
Had blood stool test done at doctor's office	4%
Put it off/didn't get around to it	4%
Too painful, unpleasant, or embarrassing	2%
Other reasons	7%

*Question asked of 2,949 participants age 50 years or older who reported they have never had or had not done a home blood stool test in the past year. More than one response could be given per respondent.

TABLE 4-7. PEOPLE REPORTING TO HAVE PERFORMED A HOME FOBT WITHIN PAST 2 YEARS, AMONG PARTICIPANTS AGE 50 YEARS AND OLDER

	TOTAL ~					URBAN ~					RURAL ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Total Population	3742	1166	32%	30-34%		2209	726	33%	31-35%		1533	440	28%	25-30%	
Gender					**					**					^
Male	1370	463	35%	32-38%		787	290	37%	33-41%		583	173	29%	24-33%	
Female	2372	703	29%	27-32%		1422	436	30%	27-33%		950	267	27%	24-30%	
Age					**					**					**
50-64 years	2061	559	28%	26-31%		1241	360	30%	27-33%		820	199	24%	20-27%	
65 years and older	1681	607	38%	35-41%		968	366	39%	35-42%		713	241	34%	30-37%	
Race					**					**					^
White	3076	943	31%	29-33%		1672	547	32%	30-35%		1404	396	27%	25-30%	
African American or Black	560	197	37%	32-42%		457	161	38%	32-43%		103	36	34%	21-47%	
Other	106	26	24%	14-34%		80	18	23%	13-34%		26	8	31%	10-52%	
Gender and Race					**					**					^
White male	1179	385	33%	30-36%		633	227	35%	31-39%		546	158	27%	23-31%	
African American male	151	66	44%	35-54%		128	56	45%	35-54%		23	10	41%	16-66%	
Other male	40	12	29%	11-47%		26	7	29%	9-48%		14	5	39%	7-71%	
White female	1897	558	29%	27-31%		1039	320	30%	27-33%		858	238	27%	24-30%	
African American female	409	131	32%	27-38%		329	105	33%	27-38%		80	26	29%	18-40%	
Other female	66	14	20%	10-30%		54	11	20%	9-31%		12	3	25%	0-53%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 4-7. PEOPLE REPORTING TO HAVE PERFORMED A HOME FOBT WITHIN PAST 2 YEARS, AMONG PARTICIPANTS AGE 50 YEARS AND OLDER

	TOTAL ~					URBAN ~					RURAL ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Marital Status					^					^					^
Married or partner of unmarried couple	2111	664	33%	30-35%		1203	406	34%	31-37%		908	258	28%	25-31%	
Divorced or separated	653	189	29%	24-33%		407	118	30%	25-35%		246	71	24%	18-30%	
Widowed	738	243	33%	29-37%		421	144	33%	29-38%		317	99	32%	26-38%	
Never married	231	68	33%	25-41%		169	56	34%	25-43%		62	12	22%	10-35%	
Education					^					^					^
Less than high school	339	90	26%	20-33%		174	46	27%	18-35%		165	44	26%	18-34%	
High school grad or GED	1072	304	30%	26-33%		507	161	32%	27-37%		565	143	25%	21-29%	
College 1-3 years	884	292	34%	30-37%		509	175	35%	30-39%		375	117	30%	25-35%	
College grad	726	244	35%	30-39%		497	166	35%	30-40%		229	78	33%	27-40%	
Advanced degree	711	232	33%	29-37%		515	174	34%	29-38%		196	58	29%	22-36%	
Employment Status					**					**					**
Employed for wages	1321	368	28%	25-31%		824	244	29%	25-32%		497	124	24%	20-29%	
Self-employed	280	82	28%	21-35%		175	48	28%	20-36%		105	34	30%	21-39%	
Retired	1699	598	38%	35-41%		959	364	40%	37-44%		740	234	32%	28-36%	
Other	433	116	27%	22-32%		243	68	28%	22-35%		190	48	23%	17-30%	
Household Income					^					^					^
<$25,000	708	216	30%	26-34%		370	120	31%	26-36%		338	96	27%	22-33%	
$25,000-<$35,000	361	127	37%	30-43%		198	69	37%	29-45%		163	58	35%	27-43%	
$35,000-<$50,000	470	139	32%	27-38%		263	91	35%	29-42%		207	48	22%	16-28%	
$50,000-<$75,000	512	153	30%	25-34%		295	89	31%	25-37%		217	64	27%	20-33%	
$75,000 or greater	1044	334	33%	29-36%		700	228	33%	29-37%		344	106	29%	24-34%	
Don't know/not sure	273	76	32%	25-39%		148	46	34%	25-43%		125	30	25%	16-35%	
Refused	374	121	33%	28-39%		235	83	34%	27-41%		139	38	31%	20-43%	

~ Some data missing for marital status, education, and employment status

** p-value $\leq$ 0.05

* p-value > 0.05 - 0.1

^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 4-8. PEOPLE REPORTING TO HAVE EVER HAD A SIGMOIDOSCOPY OR COLONOSCOPY, AMONG PARTICIPANTS AGE 50 YEARS AND OLDER

	TOTAL ~					URBAN ~					RURAL ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Total Population	3748	2583	69%	67-70%		2216	1564	69%	67-72%		1532	1019	66%	63-69%	
Gender					^					^					^
Male	1376	961	69%	66-72%		792	574	70%	66-74%		584	387	66%	61-70%	
Female	2372	1622	68%	66-70%		1424	990	69%	66-71%		948	632	66%	63-69%	
Age					**					**					**
50-64 years	2068	1321	63%	61-66%		1249	798	64%	61-67%		819	523	63%	59-67%	
65 years and older	1680	1262	76%	74-79%		967	766	78%	75-81%		713	496	70%	67-74%	
Race					**					**					^
White	3085	2174	71%	69-73%		1681	1230	72%	70-75%		1404	944	67%	64-69%	
African American or Black	559	352	63%	58-68%		456	290	64%	59-69%		103	62	59%	46-72%	
Other	104	57	58%	46-69%		79	44	57%	45-69%		25	13	65%	43-87%	
Gender and Race					**					**					^
White male	1185	855	73%	70-76%		637	486	75%	71-79%		548	369	67%	63-71%	
African American male	152	86	58%	49-67%		129	74	59%	49-68%		23	12	52%	27-77%	
Other male	39	20	60%	41-78%		26	14	59%	39-79%		13	6	62%	31-92%	
White female	1900	1319	69%	67-71%		1044	744	70%	67-73%		856	575	66%	63-70%	
African American female	407	266	67%	62-72%		327	216	68%	62-73%		80	50	64%	52-76%	
Other female	65	37	56%	42-70%		53	30	55%	41-70%		12	7	68%	38-98%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 4-8. PEOPLE REPORTING TO HAVE EVER HAD A SIGMOIDOSCOPY OR COLONOSCOPY, AMONG PARTICIPANTS AGE 50 YEARS AND OLDER

	TOTAL ~					URBAN ~					RURAL ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Marital Status					**					**					**
Married or partner of unmarried couple	2115	1511	70%	68-73%		1211	877	71%	68-74%		904	634	68%	64-72%	
Divorced or separated	657	425	63%	59-68%		407	265	63%	58-69%		250	160	62%	55-69%	
Widowed	737	508	69%	65-74%		420	309	71%	66-77%		317	199	63%	57-68%	
Never married	229	133	58%	50-66%		168	107	60%	51-69%		61	26	45%	30-60%	
Education					**					**					**
Less than high school	334	183	53%	46-60%		168	95	53%	44-62%		166	88	53%	43-62%	
High school grad or GED	1071	706	66%	63-70%		506	341	68%	64-73%		565	365	62%	57-67%	
College 1-3 years	886	620	68%	64-72%		513	362	67%	63-72%		373	258	69%	64-75%	
College grad	733	526	72%	68-75%		502	363	72%	67-76%		231	163	71%	65-78%	
Advanced degree	716	546	76%	72-80%		521	401	76%	72-80%		195	145	74%	67-81%	
Employment Status					**					**					**
Employed for wages	1326	863	64%	61-67%		830	550	65%	62-69%		496	313	60%	55-66%	
Self-employed	283	176	61%	54-68%		178	110	60%	52-68%		105	66	65%	56-75%	
Retired	1701	1288	77%	74-79%		960	757	78%	75-81%		741	531	72%	69-76%	
Other	429	250	58%	52-64%		240	142	58%	51-65%		189	108	58%	49-66%	
Household Income					**					**					**
<$25,000	703	422	60%	55-65%		364	224	61%	55-67%		339	198	58%	52-64%	
$25,000-<$35,000	360	235	66%	59-72%		199	128	66%	58-74%		161	107	65%	57-73%	
$35,000-<$50,000	468	319	67%	62-73%		262	180	67%	61-74%		206	139	67%	60-75%	
$50,000-<$75,000	520	369	70%	65-75%		300	221	72%	66-78%		220	148	65%	57-72%	
$75,000 or greater	1048	795	74%	71-78%		705	537	75%	71-78%		343	258	74%	68-79%	
Don't know/not sure	273	168	60%	52-67%		149	95	60%	50-69%		124	73	60%	50-70%	
Refused	376	275	71%	65-77%		237	179	72%	65-79%		139	96	66%	55-78%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 4-9. REASONS GIVEN BY PARTICIPANTS AGE 50 AND OLDER FOR NEVER HAVING/NOT BEING UP-TO-DATE WITH SIGMOIDOSCOPY OR COLONOSCOPY FOR COLORECTAL CANCER SCREENING *

Selected Response	wt %
Doctor didn't order it/didn't say I needed it	23%
No reason/ never thought about it	19%
Didn't need it/ didn't know I needed this type of test	17%
Haven't had any problems	13%
Put it off/didn't get around to it	11%
Too painful, unpleasant, or embarrassing	10%
Too young or not old enough	4%
Too expensive/no insurance/cost of test	3%
Other reason	7%

*Question asked of 1,340 participants age 50 years or older who reported they have: never had either a sigmoidoscopy or colonoscopy; have not had a sigmoidoscopy in the last 5 years; or have not had a colonoscopy in the last 10 years. More than one response could be given per respondent.

TABLE 4-10. RESPONSES TO THE QUESTION, "WHICH OF THE FOLLOWING DID THE DOCTOR OR HEALTH CARE PROFESSIONAL DO TO HELP YOU GET A SIGMOIDOSCOPY OR COLONOSCOPY?" *

Selected Response	wt %
Refer you to a place or doctor where the test could be done	63%
Call the office and set up appointment for you	19%
Do nothing other than make the recommendation	14%
Do the sigmoidoscopy or colonoscopy him/herself	13%
Send you a letter/postcard or call to tell you where to get the test	7%
Do something else	2%

*Question asked of 2743 participants age 50 years or older who reported that a doctor or other health professional had ever recommended they have a sigmoidoscopy or colonoscopy. More than one response could be given per respondent.

Chapter 5. Prostate Cancer Screening

Cancer of the prostate is the most common cancer (excluding non-melanoma skin cancer) among men in Maryland, accounting for 4,294 cases in 2002.[1] It is the second leading cause of statewide cancer deaths among men after lung cancer.[1] Maryland had the 14th highest mortality rate for prostate cancer among the 50 states and the District of Columbia for the period 2000 to 2003.[2]

Serum prostate-specific antigen (PSA) and the digital rectal exam (DRE) are the two tests most commonly used to screen for prostate cancer. Whether men should be screened for prostate cancer and at what age screening should begin are controversial issues. There is no recommendation for prostate cancer screening in Healthy People 2010. The American Cancer Society (ACS) recommends offering annual screening beginning at age 50 years for men of average risk and earlier, at age 45 years for men at higher risk (e.g., African Americans and men who have an FDR with prostate cancer).[3] The ACS recommends that men with more than one first-degree relative with prostate cancer could begin testing at age 40.[3,4] On the other hand, the United States Preventive Services Task Force (USPSTF) stated that there is insufficient evidence for or against routine screening for prostate cancer using PSA testing or DRE.[5] The USPSTF, as well as other groups, recommend that a man and his health care provider discuss the pros and cons of screening and make a shared decision before a man chooses to undergo testing.

Familiarity with the PSA Screening Test (among all men age 40 years and older; Table 5-1)

- Seventy-six percent (76%) of men age 40 years and older reported they had heard of the PSA test for prostate cancer screening.
  - A higher proportion of men age 65 years and older were familiar with the PSA test (93%), compared with younger men.
  - Compared with White men (78%), a lower proportion of African American men (70%) and men of other races (64%) reported having heard of the PSA test.
  - The proportion of men familiar with the PSA test generally increased with increasing level of education.

[1] Maryland Department of Health and Mental Hygiene. Cancer Report 2006. Baltimore, MD; 2006. Available at http://www.fha.state.md.us/cancer/surveillance/pdf/CRF_Can_Rpt_2006_Final_PNO_v9u.pdf. Last accessed July 13, 2007.

[2] Ries LAG et al. (eds). *SEER Cancer Statistics Review, 1975-2003*, National Cancer Institute. Bethesda, MD; Available at http://seer.cancer.gov/csr/1975_2003 (based on November 2005 SEER data submission). Last accessed July 13, 2006.

[3] American Cancer Society, Cancer Detection Guidelines (available at http://www.cancer.org/docroot/PED/content/PED_2_3X_ACS_Cancer_Detection_Guidelines_36.asp?sitearea=PED Last accessed July 13, 2007) and DHMH Prostate Cancer Medical Advisory Committee, Minimal Elements 2002.

[4] American Cancer Society. Detailed guide: Prostate Cancer "Can Prostate Cancer Be Found Early?" Available at http://www.cancer.org/docroot/CRI/content/CRI_2_4_3X_Can_prostate_cancer_be_found_early_36.asp. Last accessed July 13, 2007.

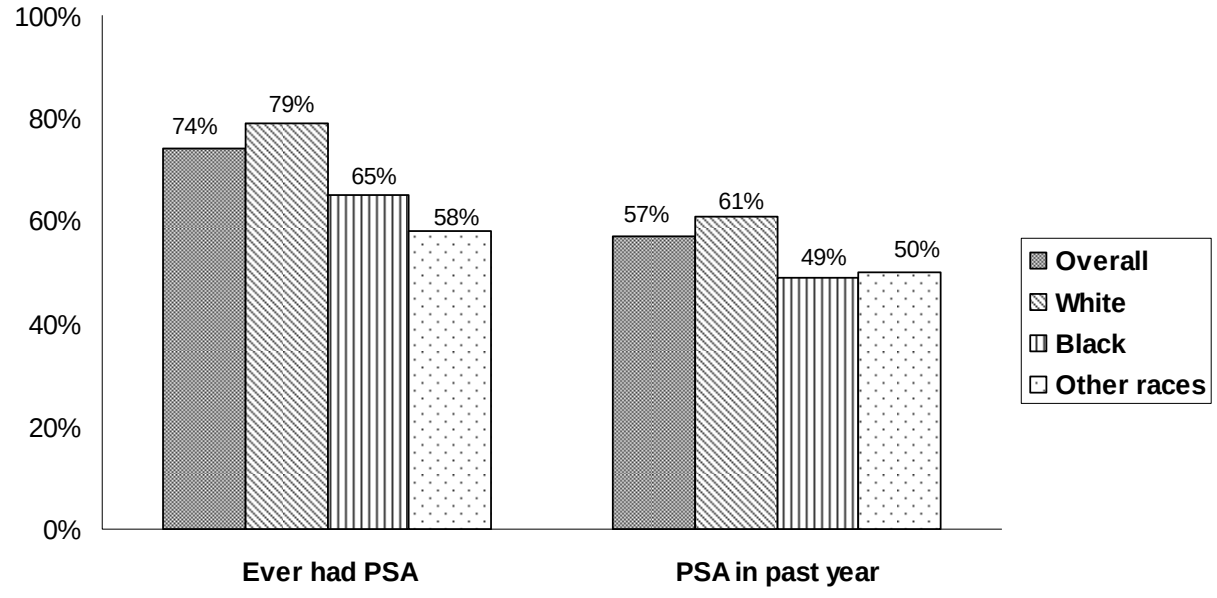
[5] U.S. Preventive Services Task Force. 2002. Screening for Prostate Cancer. Available at http://www.ahrq.gov/clinic/uspstf/uspsprca.htm. Last accessed July 13, 2007.

Prevalence of Ever Having a PSA Test (among African American men age 45 years and older and all other men age 50 years and older; Table 5-2 and Chart 5-1)

- Seventy-four percent (74%) of age-eligible men reported ever having the PSA test.
- Among men of all races age 50 and older, the prevalence of ever having a PSA test was lower among those in the 50 to 64 year age group (70%) than for men age 65 years and older (86%).
- White men had statistically significantly higher prevalence of ever having a PSA test (79%), compared to African American men (65%) and men of other races (58%). (In these age groups, the number of men of other races was small, which can result in unstable estimates of PSA testing prevalence.)
- The prevalence of PSA testing increased with increasing level of education.
- The percentage of men who ever had a PSA test did not differ significantly by urban vs. rural area of residence.

The prevalence of PSA testing was much lower among men (of all races) under the age of 50 years. Only 19% of all men age 40 to 44 years and 38% of men age 45 to 49 years had ever been screened. African American men age 45 to 49 years were significantly more likely to have ever had a PSA test (58%) compared to White men (33%) or men of other races (24%) in the same age group. (Data not in tables.)

Chart 5-1 Prevalence of Prostate-Specific Antigen (PSA) Screening Among Age-Eligible Men*, by Race Maryland Cancer Survey, 2006



* African American men age 45 years and older; others age 50 years and older

Prevalence of PSA Testing in the Past Year

- Fifty-seven percent (57%) of men in age- and race-eligible groups reported having a PSA test within the year prior to the survey (Table 5-3 and Chart 5-1).
  - Among men of all races, the prevalence of testing within the preceding year increased with age, from 52% of men age 50 to 64 years to 69% of men age 65 years and older.
  - The prevalence of testing in the past year was significantly higher among Whites (61%) compared to African Americans (49%).
  - PSA testing within the last year increased with increasing educational level.

Reasons for Never Having a PSA Test or Not Having a PSA Test in the Past Year (among African American men age 45 years and older and all other men age 50 years and older)

- Age- and race-eligible men who reported never having a PSA test or not having a PSA test in the past year were asked to name the most important reason why they have not been tested (Table 5-4).
  - Almost one-third (31%) reported the doctor did not order the test or say it was needed.
  - Nineteen percent (19%) gave no reason or said they never thought about it.
  - Eighteen percent (18%) said they didn't need the test or didn't know they needed the test.
  - Ten percent (10%) reported they haven't had any problems.
  - Only 2% cited cost of the test or lack of insurance as reasons for not having the test.

Health Care Provider (HCP) Discussions and PSA Testing

Several professional groups recommend that HCPs talk with their male patients about prostate cancer screening, using a shared decision-making approach to testing. To assess the extent of this practice, male respondents to the MCS were asked whether an HCP had ever discussed prostate cancer screening with them.

- Sixty percent (60%) of men age 40 years and older reported that a doctor or other HCP had ever discussed prostate cancer screening with them (Table 5-5).
  - This proportion was significantly lower among men age 40 to 49 years (42%) compared to men in older age categories (68% of men age 50 to 64 years and 77% of men age 65 years and older).
  - The proportion of men who reported discussing prostate cancer screening with an HCP increased with education level and household income.
  - Men least likely to report discussions of PSA testing were those who were never married (36%) and men with less than a high school education (38%).
  - Of age- and race-eligible men who reported discussing prostate cancer screening with their HCP, 89% reported having a PSA test, compared to only 39% of men who had not had such discussions. (Data not in tables.)

Family History of Prostate Cancer and Prevalence of PSA Testing (data not in tables)

- Among MCS respondents, 12% of all men age 40 years and older reported a family history of prostate cancer in an FDR.
- Among men with a family history of prostate cancer,
  - Seventy-nine percent (79%) of those age 40 years and older have ever had a PSA test.

- Ninety-two percent (92%) of those age 50 years and older reported ever having a PSA test. By comparison, only 73% of men age 50 years and older without a family history of prostate cancer reported ever having a PSA test.

Prevalence of Prostate Cancer Screening by DRE (Table 5-6)

- Among Maryland men in the age groups recommended by the ACS for prostate screening, 89% reported ever having a DRE.
- As with PSA testing, a higher proportion of men age 65 years and older reported ever having a DRE (94%) compared to men in younger age groups (87% of men ages 50 to 64 and 79% of African American men age 45 to 49 years).
- The prevalence of ever having DRE screening was significantly lower among African American men (82%) and men of other races (77%) compared with White men (92%).
- The prevalence of screening by DRE increased with increasing level of education and with increasing annual household income.

Prevalence of DRE in the Past Year (Table 5-7)

Among age-eligible men (African American men age 45 years and older and all other men age 50 years and older),

- Fifty-seven percent (57%) reported having a DRE in the past year.
- Higher prevalence of screening by DRE was found among men age 65 years and older (compared to younger men), men who are married or partnered (compared to men in other marital status categories), men with higher levels of education, and men with higher annual household income.
- Only 45% reported they had received both a PSA and DRE in the past year. (Data not in tables.)

TABLE 5-1. RESPONDENTS REPORTING HAVING HEARD OF PROSTATE-SPECIFIC ANTIGEN (PSA) TEST, AMONG MEN AGE 40 YEARS AND OLDER

	Ever heard of the Prostate-Specific Antigen test ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Male Population	1882	1481	76%	73-78%	
Area of Residence					^
Urban	1087	869	76%	73-80%	
Rural	795	612	73%	69-77%	
Age					**
40-49 years	522	307	59%	54-64%	
50-64 years	781	645	82%	79-85%	
65 years and older	579	529	93%	91-95%	
Race					**
White	1572	1267	78%	76-81%	
African American or Black	238	172	70%	63-77%	
Other	72	42	64%	50-77%	
Marital Status					**
Married or partner of unmarried couple	1324	1074	79%	76-82%	
Divorced or separated	267	190	60%	52-68%	
Widowed	133	109	83%	75-91%	
Never married	155	106	63%	53-73%	
Education					**
Less than high school	145	94	68%	58-79%	
High school grad or GED	463	318	65%	59-70%	
College 1-3 years	407	326	77%	71-82%	
College grad	440	369	79%	74-84%	
Advanced degree	424	371	85%	80-90%	
Employment Status					**
Employed for wages	898	661	72%	69-76%	
Self-employed	217	165	70%	62-78%	
Retired	630	570	91%	88-94%	
Other	133	81	57%	45-69%	
Household Income					**
<$25,000	238	160	62%	53-71%	
$25,000-<$35,000	155	119	70%	59-81%	
$35,000-<$50,000	238	185	76%	69-82%	
$50,000-<$75,000	300	230	74%	68-80%	
$75,000 or greater	754	629	80%	76-84%	
Don't know/not sure	72	50	65%	52-79%	
Refused	125	108	84%	75-93%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

TABLE 5-2. MEN REPORTING TO HAVE EVER HAD A PROSTATE- SPECIFIC ANTIGEN (PSA) TEST, AMONG MEN OF ALL RACES AGE 50 YEARS AND OLDER AND AFRICAN AMERICAN MEN AGE 45-49 YEARS

	TOTAL ~					URBAN ~					RURAL ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Male Population	1328	1025	74%	71-78%		771	601	74%	71-78%		557	424	74%	70-79%	
Age					**					**					**
45-49 (AA only)	42	24	58%	41-74%		35	22	60%	42-78%		7	2	41%	0-83%	
50-64 years	733	523	70%	66-74%		422	306	70%	65-75%		311	217	69%	63-75%	
65 years and older	553	478	86%	82-90%		314	273	85%	80-91%		239	205	87%	83-92%	
Race					**					**					^
White	1110	881	79%	76-82%		595	484	80%	77-84%		515	397	76%	72-80%	
African American or Black	182	123	65%	57-73%		152	104	65%	56-73%		30	19	66%	47-85%	
Other	36	21	58%	39-78%		24	13	59%	38-80%		12	8	52%	17-87%	
Marital Status					**					^					**
Married or partner of unmarried couple	934	747	76%	73-80%		529	425	76%	72-80%		405	322	77%	73-82%	
Divorced or separated	192	137	68%	59-76%		109	77	67%	57-78%		83	60	69%	56-81%	
Widowed	120	91	74%	63-85%		71	57	75%	61-88%		49	34	71%	57-85%	
Never married	79	48	63%	50-76%		59	40	68%	54-82%		20	8	24%	6-41%	
Education					**					**					**
Less than high school	107	59	56%	43-69%		58	33	53%	38-69%		49	26	64%	49-79%	
High school grad or GED	305	210	69%	63-76%		135	97	73%	64-81%		170	113	62%	52-71%	
College 1-3 years	293	229	75%	68-81%		156	118	73%	65-81%		137	111	80%	72-88%	
College grad	309	251	75%	68-82%		208	166	73%	65-81%		101	85	85%	77-93%	
Advanced degree	313	275	85%	80-90%		213	186	85%	79-91%		100	89	85%	76-95%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 5-2. MEN REPORTING TO HAVE EVER HAD A PROSTATE- SPECIFIC ANTIGEN (PSA) TEST, AMONG MEN OF ALL RACES AGE 50 YEARS AND OLDER AND AFRICAN AMERICAN MEN AGE 45-49 YEARS

	TOTAL ~					URBAN ~					RURAL ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Employment Status					**					**					**
Employed for wages	506	365	70%	65-75%		318	233	71%	65-77%		188	132	67%	59-75%	
Self-employed	145	111	73%	64-83%		83	63	72%	60-83%		62	48	79%	68-90%	
Retired	597	502	83%	78-87%		328	278	82%	77-88%		269	224	84%	79-89%	
Other	78	45	57%	43-70%		40	25	57%	40-75%		38	20	54%	35-74%	
Household Income					**					**					^
<$25,000	172	103	58%	48-69%		80	46	56%	43-70%		92	57	64%	53-75%	
$25,000-<$35,000	122	90	71%	60-82%		65	49	73%	59-87%		57	41	65%	49-80%	
$35,000-<$50,000	179	130	66%	57-75%		105	72	64%	54-75%		74	58	73%	61-85%	
$50,000-<$75,000	209	160	72%	63-80%		118	92	71%	61-82%		91	68	73%	62-85%	
$75,000 or greater	497	420	82%	78-87%		308	263	83%	78-88%		189	157	81%	74-87%	
Don't know/not sure	51	39	70%	53-86%		28	21	68%	48-89%		23	18	74%	52-96%	
Refused	98	83	85%	75-94%		67	58	84%	73-96%		31	25	86%	74-99%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 5-3. MEN REPORTING TO HAVE HAD A PROSTATE-SPECIFIC ANTIGEN (PSA) TEST IN THE PAST YEAR, AMONG MEN OF ALL RACES AGE 50 YEARS AND OLDER AND AFRICAN AMERICAN MEN AGE 45-49 YEARS

	TOTAL ~					URBAN ~					RURAL ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Male Population	1328	784	57%	54-60%		771	467	58%	53-62%		557	317	55%	50-60%	
Age					**					**					**
45-49 (AA only)	42	18	46%	29-62%		35	16	46%	28-64%		7	2	41%	0-83%	
50-64 years	733	382	52%	47-56%		422	228	52%	47-58%		311	154	49%	42-56%	
65 years and above	553	384	69%	64-74%		314	223	69%	63-76%		239	161	66%	59-73%	
Race					**					**					^
White	1110	676	61%	57-64%		595	378	62%	58-66%		515	298	57%	52-62%	
African American or Black	182	90	49%	40-57%		152	78	49%	40-58%		30	12	42%	21-64%	
Other	36	18	50%	30-71%		24	11	51%	29-73%		12	7	46%	13-80%	
Marital Status					**					^					**
Married or partner of unmarried couple	934	577	59%	56-63%		529	336	60%	55-65%		405	241	57%	52-63%	
Divorced or separated	192	100	48%	40-57%		109	57	49%	38-59%		83	43	48%	34-61%	
Widowed	120	70	52%	41-63%		71	42	51%	37-64%		49	28	56%	41-72%	
Never married	79	36	46%	31-60%		59	31	50%	34-66%		20	5	14%	1-27%	
Education					**					**					**
Less than high school	107	42	41%	29-53%		58	25	42%	27-57%		49	17	37%	20-54%	
High school grad or GED	305	162	54%	47-61%		135	77	57%	48-67%		170	85	46%	37-55%	
College 1-3 years	293	179	56%	49-63%		156	91	54%	45-63%		137	88	63%	53-72%	
College grad	309	191	56%	49-63%		208	127	54%	46-62%		101	64	66%	56-76%	
Advanced degree	313	210	67%	61-74%		213	147	69%	63-76%		100	63	58%	47-69%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 5-3. MEN REPORTING TO HAVE HAD A PROSTATE-SPECIFIC ANTIGEN (PSA) TEST IN THE PAST YEAR, AMONG MEN OF ALL RACES AGE 50 YEARS AND OLDER AND AFRICAN AMERICAN MEN AGE 45-49 YEARS

	TOTAL ~					URBAN ~					RURAL ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Employment Status					**					**					**
Employed for wages	506	262	52%	47-57%		318	172	53%	47-59%		188	90	48%	39-57%	
Self-employed	145	87	53%	43-63%		83	48	52%	39-64%		62	39	59%	46-72%	
Retired	597	399	65%	60-70%		328	224	65%	59-72%		269	175	65%	58-71%	
Other	78	35	48%	34-61%		40	22	53%	36-71%		38	13	31%	14-49%	
Household Income					**					**					^
<$25,000	172	79	46%	36-56%		80	38	46%	33-60%		92	41	46%	34-57%	
$25,000-<$35,000	122	73	57%	45-68%		65	39	58%	44-73%		57	34	52%	37-67%	
$35,000-<$50,000	179	98	49%	40-58%		105	54	47%	36-58%		74	44	56%	44-68%	
$50,000-<$75,000	209	121	54%	46-63%		118	70	55%	44-65%		91	51	54%	41-67%	
$75,000 or greater	497	321	64%	59-69%		308	206	65%	59-71%		189	115	58%	51-66%	
Don't know/not sure	51	27	46%	29-63%		28	14	42%	21-63%		23	13	57%	34-81%	
Refused	98	65	64%	52-76%		67	46	64%	51-78%		31	19	61%	36-87%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 5-4. RESPONSES TO THE QUESTION "WHAT WAS THE MOST IMPORTANT REASON YOU HAVE NEVER HAD A PROSTATE SPECIFIC ANTIGEN TEST OR HAVE NOT HAD A PSA TEST IN THE LAST 12 MONTHS?" *

Selected Response	wt %
Doctor didn't order it/didn't say I needed it	31%
No reason/never thought about it	19%
Didn't need it, didn't know I needed the test	18%
Haven't had any problems	10%
Never heard of the test	7%
Put it off / Didn't get around to it	5%
Too expensive/ no insurance /cost of test	2%
Felt to be too young/ too old for the test	2%
Unsure if had test	2%
Other reasons	11%

*Question asked of 647 men who were (a) age 50 years or older or age 45-49 years and African American and (b) who reported they had either never had a PSA test or had not had a PSA test in the last 12 months. More than one response could be given per respondent.

TABLE 5-5. RESPONDENTS REPORTING HAVING DISCUSSED PROSTATE CANCER SCREENING WITH A HEALTH CARE PROVIDER, AMONG MEN AGE 40 YEARS AND OLDER

	Has had a health care provider discussed prostate cancer screening ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Male Population	1884	1185	60%	57-63%	
Area of Residence					*
Urban	1097	700	61%	58-64%	
Rural	787	485	57%	52-61%	
Age					**
40-49 years	523	218	42%	37-48%	
50-64 years	784	531	68%	64-72%	
65 years and older	577	436	77%	73-81%	
Race					^
White	1576	1015	62%	59-65%	
African American or Black	237	135	56%	48-63%	
Other	71	35	53%	38-67%	
Marital Status					**
Married or partner of unmarried couple	1329	888	64%	61-67%	
Divorced or separated	267	151	52%	44-60%	
Widowed	132	83	61%	50-72%	
Never married	153	62	36%	27-46%	
Education					**
Less than high school	145	56	38%	27-49%	
High school grad or GED	468	246	51%	45-56%	
College 1-3 years	402	263	64%	57-70%	
College grad	444	309	65%	59-71%	
Advanced degree	423	310	69%	64-75%	
Employment Status					**
Employed for wages	893	525	57%	53-61%	
Self-employed	217	132	57%	48-65%	
Retired	635	466	73%	69-78%	
Other	136	60	42%	30-55%	
Household Income					**
<$25,000	240	113	45%	37-54%	
$25,000-<$35,000	154	96	55%	44-66%	
$35,000-<$50,000	237	141	58%	50-66%	
$50,000-<$75,000	296	186	60%	53-67%	
$75,000 or greater	756	525	65%	61-69%	
Don't know/not sure	75	41	50%	35-64%	
Refused	126	83	66%	55-78%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 5-6. MEN REPORTING TO HAVE EVER HAD A DIGITAL RECTAL EXAM (DRE), AMONG MEN OF ALL RACES AGE 50 YEARS AND OLDER AND AFRICAN AMERICAN MEN AGE 45-49 YEARS

	TOTAL ~					URBAN ~					RURAL ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Male Population	1420	1273	89%	87-91%		828	740	89%	86-91%		592	533	89%	85-92%	
Age					**					**					**
45-49 (AA only)	46	35	79%	67-91%		39	31	84%	72-95%		7	4	45%	6-84%	
50-64 years	791	694	87%	84-90%		460	400	87%	83-90%		331	294	88%	84-93%	
65 years and above	583	544	94%	92-96%		329	309	94%	91-97%		254	235	94%	91-97%	
Race					**					**					**
White	1184	1083	92%	90-94%		635	582	92%	90-94%		549	501	92%	89-94%	
African American or Black	196	161	82%	76-88%		167	138	84%	78-90%		29	23	67%	46-89%	
Other	40	29	77%	62-92%		26	20	79%	63-95%		14	9	56%	23-89%	
Marital Status					**					*					**
Married or partner of unmarried couple	989	911	90%	88-93%		564	512	90%	88-93%		425	399	91%	87-95%	
Divorced or separated	211	173	82%	75-88%		119	102	83%	75-91%		92	71	77%	66-87%	
Widowed	127	111	87%	79-96%		75	69	89%	78-100%		52	42	82%	72-93%	
Never married	90	75	81%	71-91%		67	54	80%	69-91%		23	21	87%	67-100%	
Education					**					**					**
Less than high school	119	87	76%	66-85%		63	45	74%	62-87%		56	42	81%	70-91%	
High school grad or GED	333	296	88%	84-93%		147	129	88%	82-94%		186	167	89%	83-95%	
College 1-3 years	311	278	87%	82-92%		167	148	89%	83-95%		144	130	83%	73-93%	
College grad	323	298	92%	88-95%		221	205	92%	87-96%		102	93	92%	87-97%	
Advanced degree	333	313	92%	88-96%		229	212	91%	87-96%		104	101	98%	96-100%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 5-6. MEN REPORTING TO HAVE EVER HAD A DIGITAL RECTAL EXAM (DRE), AMONG MEN OF ALL RACES AGE 50 YEARS AND OLDER AND AFRICAN AMERICAN MEN AGE 45-49 YEARS

	TOTAL ~					URBAN ~					RURAL ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Employment Status					**					**					**
Employed for wages	544	488	89%	86-92%		345	308	89%	86-93%		199	180	87%	80-94%	
Self-employed	150	128	83%	76-91%		88	73	81%	72-91%		62	55	91%	84-98%	
Retired	633	584	93%	90-95%		347	322	93%	90-96%		286	262	93%	90-96%	
Other	91	71	75%	63-86%		46	35	76%	62-90%		45	36	72%	53-91%	
Household Income					**					**					**
<$25,000	196	156	79%	71-86%		93	73	79%	69-88%		103	83	79%	70-89%	
$25,000-<$35,000	132	114	84%	76-92%		68	57	84%	74-93%		64	57	85%	71-98%	
$35,000-<$50,000	185	166	87%	81-93%		108	94	85%	78-93%		77	72	93%	86-99%	
$50,000-<$75,000	221	195	87%	81-93%		127	116	90%	83-96%		94	79	76%	63-90%	
$75,000 or greater	526	499	95%	93-97%		332	312	94%	92-97%		194	187	97%	95-99%	
Don't know/not sure	59	49	80%	66-94%		30	23	74%	56-93%		29	26	95%	88-100%	
Refused	101	94	91%	82-100%		70	65	90%	80-100%		31	29	96%	90-100%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 5-7. MEN REPORTING TO HAVE HAD A DIGITAL RECTAL EXAM (DRE) IN THE PAST YEAR, AMONG MEN OF ALL RACES AGE 50 YEARS AND OLDER AND AFRICAN AMERICAN MEN AGE 45-49 YEARS

	TOTAL ~					URBAN ~					RURAL ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Male Population	1420	804	57%	54-60%		828	482	58%	54-62%		592	322	53%	48-58%	
Age					**					**					*
45-49 (AA only)	46	22	54%	38-69%		39	20	58%	41-74%		7	2	22%	0-52%	
50-64 years	791	406	51%	47-56%		460	236	51%	46-56%		331	170	52%	46-58%	
65 years and above	583	376	68%	64-73%		329	226	71%	66-77%		254	150	58%	51-65%	
Race					^					^					**
White	1184	686	59%	56-62%		635	380	60%	56-64%		549	306	56%	52-61%	
African American or Black	196	101	54%	46-62%		167	90	56%	48-65%		29	11	32%	13-50%	
Other	40	17	49%	29-68%		26	12	51%	30-72%		14	5	19%	0-38%	
Marital Status					**					**					**
Married or partner of unmarried couple	989	610	61%	58-65%		564	357	63%	58-67%		425	253	57%	51-62%	
Divorced or separated	211	89	40%	32-48%		119	48	38%	28-48%		92	41	44%	31-57%	
Widowed	127	63	44%	34-55%		75	42	47%	34-60%		52	21	35%	22-49%	
Never married	90	40	48%	35-62%		67	33	50%	36-65%		23	7	33%	9-57%	
Education					**					**					**
Less than high school	119	41	41%	29-54%		63	22	45%	29-60%		56	19	32%	17-46%	
High school grad or GED	333	180	54%	48-61%		147	82	55%	46-65%		186	98	52%	44-61%	
College 1-3 years	311	166	51%	44-58%		167	84	51%	42-59%		144	82	52%	43-62%	
College grad	323	201	62%	56-69%		221	144	63%	56-71%		102	57	58%	47-68%	
Advanced degree	333	215	66%	60-72%		229	149	66%	59-73%		104	66	63%	53-73%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 5-7. MEN REPORTING TO HAVE HAD A DIGITAL RECTAL EXAM (DRE) IN THE PAST YEAR, AMONG MEN OF ALL RACES AGE 50 YEARS AND OLDER AND AFRICAN AMERICAN MEN AGE 45-49 YEARS

	TOTAL ~					URBAN ~					RURAL ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Employment Status					**					*					**
Employed for wages	544	292	55%	50-60%		345	189	56%	50-61%		199	103	51%	43-60%	
Self-employed	150	85	53%	43-63%		88	48	52%	40-64%		62	37	56%	43-69%	
Retired	633	387	63%	59-68%		347	222	65%	59-71%		286	165	59%	52-65%	
Other	91	38	45%	32-57%		46	21	50%	33-66%		45	17	31%	16-46%	
Household Income					**					**					**
<$25,000	196	83	46%	37-55%		93	42	49%	37-61%		103	41	37%	27-48%	
$25,000-<$35,000	132	76	54%	43-65%		68	36	53%	39-66%		64	40	59%	44-73%	
$35,000-<$50,000	185	97	52%	43-61%		108	54	51%	40-61%		77	43	57%	45-69%	
$50,000-<$75,000	221	124	56%	48-64%		127	77	60%	50-70%		94	47	43%	31-56%	
$75,000 or greater	526	339	65%	60-70%		332	217	65%	60-71%		194	122	64%	57-71%	
Don't know/not sure	59	23	36%	21-51%		30	10	30%	12-48%		29	13	52%	31-74%	
Refused	101	62	60%	48-72%		70	46	63%	50-76%		31	16	43%	22-65%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

Maryland Cancer Survey, 2006

Chapter 6. Women's Health: Breast and Cervical Cancer Screening

Female breast cancer remains the most common reportable cancer and the second leading cause of cancer deaths (after lung cancer) among Maryland women. In 2002, breast cancer accounted for 3,574 newly diagnosed cases and 879 deaths among Maryland women.[1] In the same year, a total of 73 women died of cervical cancer in Maryland.[2] Among the 50 states and the District of Columbia for the period 1998 to 2002, Maryland women ranked 5th highest in breast cancer mortality and 26th highest in cervical cancer mortality.[1]

6.1 Breast cancer screening

Mammography and clinical breast exam (CBE) are the recommended tests to screen for breast cancer. The U.S. Preventive Services Task Force (USPSTF) recommends screening mammography every 1-2 years for women age 40 years and older.[3] The American Cancer Society (ACS) guidelines recommend yearly mammograms for women starting at age 40 years.[4] For women at increased risk for breast cancer (e.g., family history, genetic tendency, past breast cancer), the ACS recommends that they should talk with their doctors about starting mammography screening earlier, having additional tests, or having more frequent exams. The ACS recommends that women between the ages of 20 to 39 years should undergo a CBE every 3 years, and annually after age 40 years.

Prevalence of Mammography Screening

Among Maryland women age 40 years and older:

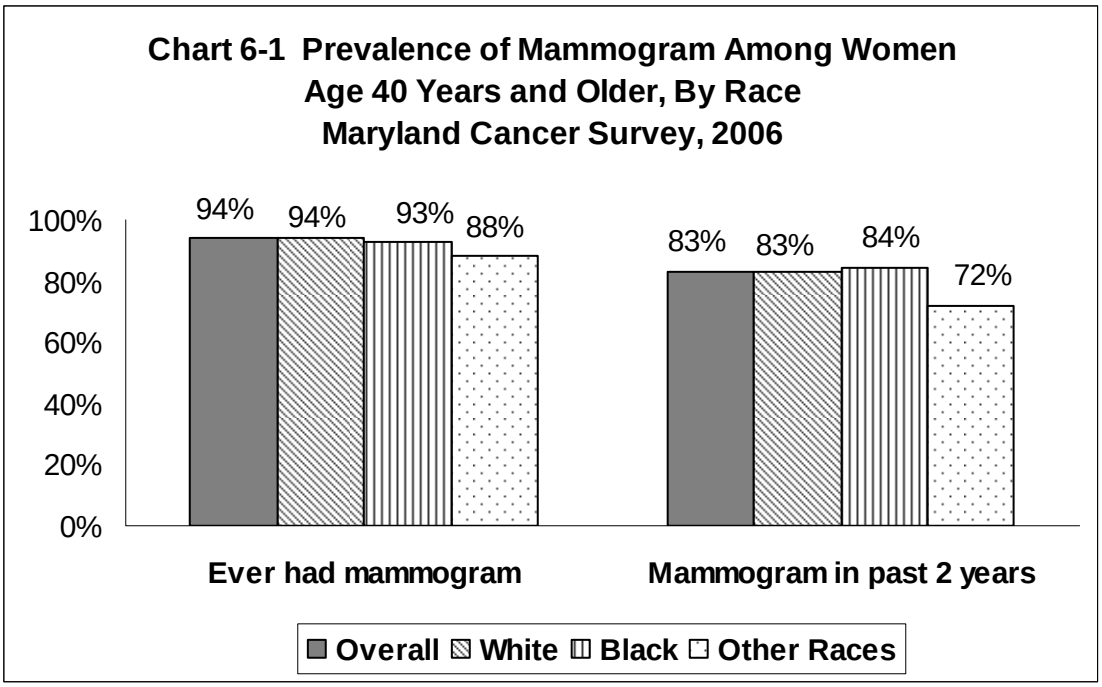
- Ninety-four percent (94%) reported ever having a mammogram (Table 6-1 and Chart 6-1).
- Although overall prevalence of breast cancer screening is high, the proportion of women ever having a mammogram was statistically significantly lower among those age 40 to 49 years (compared to older age groups), women who were not White or African American (compared to White women), or women who were never married (compared to married or widowed).
- Sixty-eight percent (68%) of all female respondents reported having a mammogram in the past year. (Data not shown in tables.)

[1] Maryland Department of Health and Mental Hygiene. Cancer Report 2006. Baltimore, MD; 2006. Available on-line at http://www.fha.state.md.us/cancer/surveillance/pdf/CRF_Can_Rpt_2006_Final_PNO_v9u.pdf. Last accessed July 11, 2007.

[2] Cervical cancer incidence data for 2002 not available as of June 2007.

[3] U.S. Preventive Services Task Force. Screening for Breast Cancer. February 2002. Available on-line at http://www.ahrq.gov/clinic/uspstf/uspsbrca.htm. Last accessed July 11, 2007.

[4] American Cancer Society Cancer Detection Guidelines. Available at http://www.cancer.org/docroot/PED/content/PED_2_3X_ACS_Cancer_Detection_Guidelines_36.asp?sitearea=PED Last accessed July 11, 2007.



The HP 2010 has established a target of increasing to 70% the proportion of women age 40 years and older who have received a mammogram within the preceding 2 years.[5]

- Eighty-three percent (83%) of women surveyed reported having a mammogram in the last 2 years, surpassing the Healthy People 2010 target of 70%. (Table 6-2 and Chart 6-1).
  - Women living in rural areas who had less than a high school education had the lowest prevalence of having a mammogram in the 2 years preceding the survey (64%).
  - Statistically significantly lower rates of mammogram screening within the past 2 years were also found among:
    - urban women of races other than White or African American (71%);
    - women ages 40-49 years (77%);
    - women who reported their employment status as self-employed or "other" (76% and 77%, respectively); and
    - women with a household income less than $25,000 (73%).
- Female respondents who have never had a mammogram or have not had one in the past 2 years were asked to name the most important reason for lack of screening (Table 6-3). The most frequently cited reason was that the respondent put it off or didn't get around to it (20%). Other frequently cited reasons include: they had no reason or never thought about it (17%); the doctor didn't order the test or didn't say it was needed (12%); and the respondent didn't think she needed the test (11%).

[5] U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. Understanding and Improving Health; Objectives for Improving Health. Vol. I. Cancer. Washington, DC: U.S. Government Printing Office, November 2000. http://www.healthypeople.gov/Document/HTML/Volume1/03Cancer.htm. Last accessed July 11, 2007.

HCP Recommendations and Mammography Screening

Among Maryland women age 40 years and older who had seen a physician in the last year:

- Eighty-six percent (86%) of all women reported that within the past year, they had received a recommendation from their HCP to have a mammogram (Table 6-4).
- Overall, the following groups of women were more likely to report receiving a mammogram recommendation from their HCP:
    - between the ages of 50 and 74 years;
    - with a high school education or higher; and
    - with annual household incomes of $35,000 or more compared to an income of less than $25,000.
- Among the women who reported that a health care provider recommended a mammogram in the last year, 77% reported having the test within the last year. Among women who did not have an HCP recommendation, only 22% reported having a mammogram within the last year. (Data not shown in tables.)
- Ninety-three percent (93%) of women with a family history of breast cancer reported receiving an HCP recommendation to have mammography within the past year. (Data not shown in tables.)

Family History of Breast Cancer and Mammography Screening Compliance

Having a first-degree relative (FDR; e.g., mother, sister, or daughter) diagnosed with breast cancer increases a woman's risk for developing breast cancer. In the MCS 2006, female respondents with a family history of breast cancer had a significantly higher prevalence of mammography screening than women without a family history. (Data not shown in tables.)

- Sixteen percent (16%) of women age 40 years and older reported they had an FDR who had been diagnosed with breast cancer.
- Ninety-six percent (96%) of those reporting an FDR with breast cancer have ever had a mammogram. This figure was significantly higher than the mammography rate of 93% among women without an FDR with breast cancer.
- When looking at mammography in the preceding year, 73% of women with an FDR with breast cancer reported having the test compared to 68% of women without that history.

6.2 Cervical cancer screening

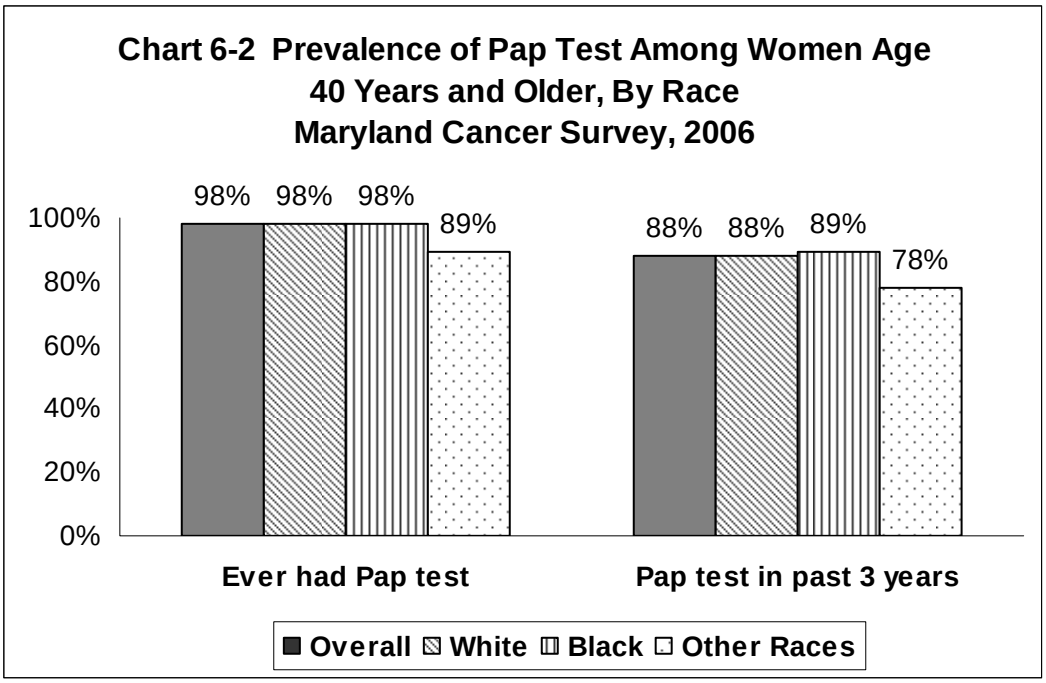
Cervical cytology (or the Pap test) is the screening test that is recommended for the early detection of pre-malignant and malignant changes of the cervix. The ACS recommends that women should begin cervical cancer screening no later than the age of 21 years, and that screening should be done every year with the regular Pap test or every 2 years using the newer liquid-based Pap test.[4] Beginning at age 30 years, women who have had three normal Pap test results in a row may get screened every 2 to 3 years. According to ACS guidelines, women 70 years of age or older who have had three or more normal Pap tests in a row and no abnormal Pap test results in the last 10 years may choose to stop having cervical cancer screening. Screening after total hysterectomy (removal of the uterus and cervix) is not necessary unless the woman has had cervical cancer or pre-cancer. Women who have had a hysterectomy but still have an intact cervix are advised to continue to be screened according to the guidelines.

HP 2010 has established the following targets for cervical cancer screening among women age 18 years and older:

- Increase to 97% the proportion of women who have ever had a Pap test; and
- Increase to 90% the proportion of women who received a Pap test within the preceding 3 years.

Prevalence of Pap Test Screening

- Among Maryland women age 40 years and older who have an intact cervix, 98% reported ever having a Pap test (Table 6-5 and Chart 6-2).
- While the vast majority of women surveyed have had a Pap test at least once in their life, there were statistically significant differences in prevalence of screening by age and race (Table 6-5):
    - Women age 75 years and older reported lower prevalence of ever having a Pap test (95%) than women age 50 to 64 years; and
    - Women of other races had a significantly lower prevalence of ever having a Pap test (89%) compared to White or African American women.
- Seventy-two percent (72%) of women had a Pap test within the past year. (Data not shown in tables.)
- Eighty-eight percent (88%) of Maryland women age 40 years and older had a Pap test within the last 3 years (Table 6-6 and Chart 6-2), slightly below the HP 2010 target of 90%. However, the HP 2010 target was written before guidelines changed to allow longer intervals for certain women or certain tests.
- The prevalence of having a Pap test in the last 3 years was significantly lower among the following groups of women (Table 6-6):
    - Age 75 years and older;
    - Race other than White or African American;
    - Less than a high school education; and
    - Annual household income less than $50,000.
- Among women who reported having a Pap test in the preceding 3 years, 94% reported having their previous Pap test no more than 3 years prior. Of all women surveyed, 83% were following the recommendation to have repeat Pap testing at least as frequently as 3 year intervals. (Data not shown in tables.)
- Of women who said they never had a Pap test or have not had a Pap test in the last 3 years, almost one-fourth (24%) said they had no reason or they never thought about having the test. Other commonly cited reasons included: the doctor didn't order it (18%), the respondent put if off or didn't get around to it (11%); or they didn't know they needed the test (10%) (Table 6-7).



HCP Recommendations and Pap Test Screening

Among Maryland women age 40 years and older who had seen a physician in the last year:

- Seventy-nine percent (79%) reported they received a recommendation to have a Pap test (Table 6-8). While the majority of women in all age groups reported that an HCP recommended a Pap test in the last year, such recommendations were less prevalent among women age 65 years and older, those with less than a high school education, retirees, and women at lower income levels.
- Among women who said that a health care provider had recommended a Pap test in the last year, 86% reported having the test within the last year.
- In comparison, 21% of women who did not receive an HCP recommendation reported having a Pap test within the last year. (Data not shown in tables.)

TABLE 6-1. WOMEN REPORTING TO HAVE EVER HAD A MAMMOGRAM, AMONG THOSE AGE 40 YEARS AND OLDER

	TOTAL ~					URBAN ~					RURAL ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Female Population	3233	3048	94%	93-95%		1963	1858	94%	93-95%		1270	1190	93%	92-95%	
Age					**					**					**
40-49 years	844	741	88%	85-90%		527	460	87%	84-91%		317	281	89%	85-93%	
50-64 years	1281	1237	97%	96-98%		790	766	97%	96-98%		491	471	96%	95-98%	
65-74 years	598	582	97%	96-99%		343	336	97%	96-99%		255	246	97%	94-99%	
75 years and older	510	488	97%	96-98%		303	296	99%	97-100%		207	192	91%	87-96%	
Race					**					**					^
White	2523	2392	94%	93-96%		1393	1330	95%	93-96%		1130	1062	94%	92-95%	
African American or Black	592	559	93%	91-96%		479	452	93%	90-96%		113	107	92%	85-98%	
Other	118	97	88%	81-94%		91	76	88%	81-94%		27	21	83%	69-98%	
Marital Status					**					**					**
Married or partner of unmarried couple	1724	1638	95%	93-96%		1008	960	95%	93-96%		716	678	94%	92-96%	
Divorced or separated	616	571	92%	90-95%		400	376	93%	90-96%		216	195	90%	85-95%	
Widowed	634	612	97%	95-98%		360	349	97%	95-99%		274	263	96%	93-98%	
Never married	245	216	86%	80-92%		182	162	86%	79-93%		63	54	86%	76-96%	
Education					^					^					^
Less than high school	262	238	91%	87-95%		134	121	91%	86-96%		128	117	92%	87-97%	
High school grad or GED	947	894	94%	92-96%		471	441	93%	90-96%		476	453	96%	94-98%	
College 1-3 years	828	777	93%	91-95%		489	465	94%	92-97%		339	312	90%	86-94%	
College grad	659	628	95%	93-97%		456	437	95%	93-97%		203	191	94%	90-98%	
Advanced degree	528	503	94%	91-97%		407	389	94%	91-97%		121	114	93%	87-99%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 6-1. WOMEN REPORTING TO HAVE EVER HAD A MAMMOGRAM, AMONG THOSE AGE 40 YEARS AND OLDER

	TOTAL ~					URBAN ~					RURAL ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Employment Status					**					**					^
Employed for wages	1385	1294	93%	91-95%		872	815	93%	91-95%		513	479	93%	91-96%	
Self-employed	218	202	89%	83-95%		139	128	87%	80-95%		79	74	95%	90-100%	
Retired	1085	1053	98%	97-99%		625	616	99%	98-100%		460	437	95%	92-97%	
Other	534	489	91%	89-94%		318	291	92%	88-95%		216	198	90%	85-95%	
Household Income					**					**					^
<$25,000	624	570	90%	87-93%		344	311	89%	85-93%		280	259	93%	90-96%	
$25,000-<$35,000	297	282	95%	92-98%		171	164	95%	91-99%		126	118	93%	88-98%	
$35,000-<$50,000	381	357	92%	88-96%		222	208	92%	87-97%		159	149	93%	87-98%	
$50,000-<$75,000	444	423	94%	92-97%		254	241	94%	91-98%		190	182	95%	91-99%	
$75,000 or greater	916	873	95%	94-97%		633	610	96%	94-98%		283	263	92%	89-96%	
Don't know/not sure	243	229	94%	91-98%		139	132	95%	91-99%		104	97	91%	85-98%	
Refused	328	314	95%	92-98%		200	192	95%	91-99%		128	122	95%	91-99%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 6-2. WOMEN REPORTING TO HAVE HAD A MAMMOGRAM IN THE LAST TWO YEARS, AMONG THOSE AGE 40 YEARS AND OLDER

	TOTAL ~					URBAN ~					RURAL ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Female Population	3233	2670	83%	81-84%		1963	1627	83%	81-85%		1270	1043	82%	79-84%	
Age					**					**					**
40-49 years	844	650	77%	74-80%		527	404	77%	73-81%		317	246	76%	71-82%	
50-64 years	1281	1089	85%	83-88%		790	668	85%	82-88%		491	421	87%	84-90%	
65-74 years	598	527	90%	87-93%		343	309	91%	88-95%		255	218	85%	80-90%	
75 years and older	510	404	81%	78-85%		303	246	83%	79-88%		207	158	76%	69-82%	
Race					**					**					^
White	2523	2088	83%	81-84%		1393	1162	83%	81-85%		1130	926	82%	79-84%	
African American or Black	592	501	84%	81-88%		479	404	85%	81-88%		113	97	82%	73-91%	
Other	118	81	72%	63-81%		91	61	71%	61-81%		27	20	81%	65-96%	
Marital Status					**					**					*
Married or partner of unmarried couple	1724	1471	85%	83-87%		1008	860	85%	82-87%		716	611	84%	80-87%	
Divorced or separated	616	485	78%	74-82%		400	317	78%	74-83%		216	168	77%	70-83%	
Widowed	634	514	83%	80-86%		360	299	85%	81-89%		274	215	77%	71-82%	
Never married	245	189	76%	69-83%		182	140	75%	68-83%		63	49	81%	70-92%	
Education					**					*					**
Less than high school	262	188	73%	67-79%		134	101	76%	69-84%		128	87	64%	54-74%	
High school grad or GED	947	784	83%	80-86%		471	385	82%	78-86%		476	399	85%	82-89%	
College 1-3 years	828	666	80%	77-83%		489	396	81%	77-85%		339	270	78%	73-83%	
College grad	659	566	86%	83-89%		456	387	86%	82-89%		203	179	88%	82-93%	
Advanced degree	528	459	86%	82-89%		407	354	86%	82-90%		121	105	84%	76-92%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 6-2. WOMEN REPORTING TO HAVE HAD A MAMMOGRAM IN THE LAST TWO YEARS, AMONG THOSE AGE 40 YEARS AND OLDER

	TOTAL ~					URBAN ~					RURAL ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Employment Status					**					**					**
Employed for wages	1385	1166	84%	81-86%		872	724	83%	80-86%		513	442	86%	82-89%	
Self-employed	218	173	76%	69-83%		139	111	75%	67-84%		79	62	80%	70-90%	
Retired	1085	914	87%	85-89%		625	541	89%	86-91%		460	373	81%	77-85%	
Other	543	410	77%	72-81%		318	245	77%	72-82%		216	165	74%	67-81%	
Household Income					**					**					**
<$25,000	624	457	73%	69-77%		344	247	72%	67-78%		280	210	75%	69-81%	
$25,000-<$35,000	297	235	78%	73-84%		171	137	79%	72-86%		126	98	78%	69-86%	
$35,000-<$50,000	381	311	80%	74-85%		222	179	79%	73-86%		159	132	82%	75-89%	
$50,000-<$75,000	444	382	85%	81-89%		254	218	86%	81-90%		190	164	84%	78-90%	
$75,000 or greater	916	801	87%	85-90%		633	558	88%	85-91%		283	243	84%	79-89%	
Don't know/not sure	243	200	84%	79-89%		139	117	86%	81-92%		104	83	77%	67-86%	
Refused	328	284	86%	82-91%		200	171	85%	80-91%		128	113	89%	83-95%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 6-3. RESPONSES TO THE QUESTION "WHAT WAS THE MOST IMPORTANT REASON YOU HAVE NEVER HAD/NOT HAD A MAMMOGRAM IN THE LAST TWO YEARS?" *

Selected Response	wt %
Put it off/didn't get around to it	20%
No reason, never thought about it	17%
Doctor didn't order it/didn't say I needed it	12%
Didn't need/ didn't know I needed this type of test	11%
Other reasons (unspecified)	10%
Too painful, unpleasant, or embarrassing	9%
Haven't had any problems	8%
Too expensive/no insurance/cost of test	8%
Don't have a doctor	3%
Didn't want to know I had cancer	1%

*Question asked of 565 female respondents, age 40 years or older, who reported they have never had a mammogram or have not had a mammogram in the last 2 years. More than one response could be given per respondent.

TABLE 6-4. WOMEN REPORTING THAT A HEALTH CARE PROVIDER RECOMMENDED BREAST CANCER SCREENING WITH MAMMOGRAM IN THE PAST YEAR, AMONG THOSE AGE 40 YEARS AND OLDER WHO SAW A PROVIDER IN THE PAST YEAR

Selected Characteristic	N	n	wt %	95% CI	Stat Sig
Female Population	3192	2745	86%	85-88%	
Area of Residence					^
Urban	1937	1671	86%	84-88%	
Rural	1255	1074	87%	85-89%	
Age					**
40-49 years	832	714	85%	82-88%	
50-64 years	1262	1112	89%	87-91%	
65-74 years	588	516	88%	85-91%	
75 years and above	510	403	81%	77-85%	
Race					^
White	2496	2150	86%	85-88%	
African American or Black	582	505	87%	83-90%	
Other	114	90	83%	75-91%	
Marital Status					**
Married or partner of unmarried couple	1706	1516	88%	86-90%	
Divorced or separated	601	498	82%	78-86%	
Widowed	630	524	85%	81-88%	
Never married	242	195	81%	74-87%	
Education					**
Less than high school	258	199	77%	71-83%	
High school grad or GED	934	804	86%	83-89%	
College 1-3 years	820	694	86%	84-89%	
College grad	653	576	88%	85-91%	
Advanced degree	519	467	89%	85-92%	
Employment Status					**
Employed for wages	1369	1209	88%	85-90%	
Self-employed	213	183	86%	80-91%	
Retired	1077	920	87%	85-89%	
Other	523	425	82%	78-85%	
Household Income					**
<$25,000	602	466	78%	74-82%	
$25,000-<$35,000	293	244	84%	79-89%	
$35,000-<$50,000	375	329	86%	81-91%	
$50,000-<$75,000	440	393	87%	84-91%	
$75,000 or greater	910	822	90%	88-92%	
Don't know/not sure	245	200	83%	78-89%	
Refused	327	291	89%	85-93%	

~ Some data missing for marital status, education, and employment status

** p-value $\leq$ 0.05

* p-value > 0.05 - 0.1

^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 6-5. WOMEN REPORTING TO HAVE EVER HAD A PAP TEST, AMONG THOSE AGE 40 YEARS AND OLDER WHO HAVE NOT HAD A HYSTERECTOMY

	TOTAL ~					URBAN ~					RURAL ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Female Population	2146	2102	98%	97-99%		1325	1296	98%	97-99%		821	806	98%	97-99%	
Age					**					*					**
40-49 years	701	688	98%	97-99%		448	438	98%	96-99%		253	250	99%	98-100%	
50-64 years	855	846	99%	98-100%		531	525	99%	98-100%		324	321	99%	98-100%	
65-74 years	321	312	96%	93-99%		188	183	96%	93-100%		133	129	96%	93-100%	
75 years and above	269	256	95%	92-98%		158	150	95%	92-99%		111	106	94%	89-100%	
Race					**					**					^
White	1718	1690	98%	97-99%		972	956	98%	97-99%		746	734	98%	98-99%	
African American or Black	344	336	98%	97-100%		284	278	99%	97-100%		60	58	97%	92-100%	
Other	84	76	89%	81-97%		69	62	89%	80-97%		15	14	97%	92-100%	
Marital Status					**					*					*
Married or partner of unmarried couple	1228	1210	98%	97-99%		736	724	98%	97-99%		492	486	99%	98-100%	
Divorced or separated	393	387	99%	98-100%		254	250	99%	97-100%		139	137	98%	95-100%	
Widowed	336	323	95%	91-98%		191	183	94%	90-99%		145	140	96%	92-100%	
Never married	180	173	97%	94-99%		135	130	97%	94-100%		45	43	94%	85-100%	
Education					*					*					^
Less than high school	138	131	95%	91-99%		68	63	94%	89-99%		70	68	96%	91-100%	
High school grad or GED	579	563	97%	95-99%		283	274	96%	93-99%		296	289	98%	97-100%	
College 1-3 years	528	518	98%	97-99%		317	310	98%	96-100%		211	208	98%	96-100%	
College grad	501	495	99%	98-100%		347	343	99%	97-100%		154	152	99%	97-100%	
Advanced degree	399	394	99%	97-100%		309	305	99%	97-100%		90	89	99%	97-100%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 6-5. WOMEN REPORTING TO HAVE EVER HAD A PAP TEST, AMONG THOSE AGE 40 YEARS AND OLDER WHO HAVE NOT HAD A HYSTERECTOMY

	TOTAL ~					URBAN ~					RURAL ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Employment Status					^					^					**
Employed for wages	1020	1007	99%	98-99%		651	639	98%	97-99%		369	368	100%	100%	
Self-employed	177	174	98%	95-100%		115	114	98%	94-100%		62	60	97%	93-100%	
Retired	576	560	97%	95-99%		327	318	97%	95-99%		249	242	97%	94-99%	
Other	363	352	97%	96-99%		224	218	98%	96-100%		139	134	97%	94-100%	
Household Income					**					**					**
<$25,000	359	341	94%	91-97%		199	186	93%	89-97%		160	155	97%	95-100%	
$25,000-<$35,000	174	169	96%	92-100%		97	95	96%	91-100%		77	74	96%	91-100%	
$35,000-<$50,000	240	236	98%	95-100%		141	138	98%	94-100%		99	98	98%	95-100%	
$50,000-<$75,000	314	314	100%	100%		175	175	100%	100%		139	139	100%	100%	
$75,000 or greater	708	701	99%	98-100%		496	491	99%	98-100%		212	210	99%	99-100%	
Don't know/not sure	150	141	94%	90-98%		86	81	95%	90-99%		64	60	92%	83-100%	
Refused	201	200	99%	98-100%		131	130	99%	98-100%		70	70	100%	100%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 6-6. WOMEN REPORTING TO HAVE HAD A PAP TEST IN THE LAST THREE YEARS, AMONG THOSE AGE 40 YEARS AND OLDER WHO HAVE NOT HAD A HYSTERECTOMY

	TOTAL ~					URBAN ~					RURAL ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Female Population	2146	1848	88%	86-89%		1325	1151	88%	86-90%		821	697	86%	84-89%	
Age					**					**					**
40-49 years	701	646	92%	90-95%		448	416	93%	90-95%		253	230	91%	87-95%	
50-64 years	855	767	90%	88-92%		531	473	90%	87-92%		324	294	91%	88-95%	
65-74 years	321	270	84%	79-89%		188	162	85%	79-91%		133	108	81%	74-89%	
75 years and above	269	165	64%	57-70%		158	100	66%	58-74%		111	65	57%	48-67%	
Race					**					**					^
White	1718	1481	88%	87-90%		972	848	89%	87-91%		746	633	86%	84-89%	
African American or Black	344	301	89%	85-92%		284	249	89%	85-93%		60	52	86%	77-96%	
Other	84	66	78%	67-88%		69	54	77%	66-88%		15	12	88%	74-100%	
Marital Status					**					**					**
Married or partner of unmarried couple	1228	1118	91%	89-93%		736	673	91%	89-94%		492	445	90%	87-93%	
Divorced or separated	393	331	87%	83-91%		254	220	88%	84-92%		139	111	80%	73-88%	
Widowed	336	244	73%	68-79%		191	139	74%	67-81%		145	105	72%	64-80%	
Never married	180	146	80%	72-88%		135	110	80%	72-88%		45	36	79%	65-94%	
Education					**					**					**
Less than high school	138	91	68%	59-77%		68	47	72%	61-83%		70	44	58%	44-71%	
High school grad or GED	579	485	85%	82-88%		283	233	84%	80-89%		296	252	87%	82-91%	
College 1-3 years	528	449	87%	84-90%		317	271	87%	83-91%		211	178	86%	81-91%	
College grad	501	454	93%	90-95%		347	315	93%	90-95%		154	139	93%	89-97%	
Advanced degree	399	368	92%	88-95%		309	284	91%	87-95%		90	84	94%	90-99%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 6-6. WOMEN REPORTING TO HAVE HAD A PAP TEST IN THE LAST THREE YEARS, AMONG THOSE AGE 40 YEARS AND OLDER WHO HAVE NOT HAD A HYSTERECTOMY

	TOTAL ~					URBAN ~					RURAL ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Employment Status					**					**					**
Employed for wages	1020	934	92%	90-94%		651	593	91%	89-94%		369	341	93%	91-96%	
Self-employed	177	161	91%	86-96%		115	106	92%	86-98%		62	55	89%	80-98%	
Retired	576	443	79%	75-83%		327	257	81%	76-85%		249	186	74%	68-80%	
Other	363	303	86%	82-90%		224	189	87%	82-91%		139	114	83%	76-90%	
Household Income					**					**					**
<$25,000	359	247	72%	66-77%		199	136	72%	66-79%		160	111	70%	61-78%	
$25,000-<$35,000	174	141	82%	75-89%		97	80	82%	73-91%		77	61	81%	71-91%	
$35,000-<$50,000	240	209	86%	80-92%		141	124	86%	79-94%		99	85	85%	77-93%	
$50,000-<$75,000	314	291	94%	91-97%		175	161	94%	91-97%		139	130	93%	88-98%	
$75,000 or greater	708	666	94%	92-96%		496	465	94%	92-96%		212	201	95%	92-98%	
Don't know/not sure	150	110	73%	65-81%		86	63	74%	64-84%		64	47	70%	57-83%	
Refused	201	184	93%	90-97%		131	122	94%	89-98%		70	62	91%	85-98%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 6-7. RESPONSES TO THE QUESTION "WHAT WAS THE MOST IMPORTANT REASON YOU HAVE NEVER HAD/NOT HAD A PAP TEST IN THE LAST THREE YEARS?" *

Selected Response	wt %
No reason, never thought about it	24%
Doctor didn't order it/didn't say I needed it	18%
Put it off/didn't get around to it	11%
Didn't need/ didn't know I needed this type of test	10%
Haven't had any problems	9%
Don't have a doctor/ Have not visted a doctor	7%
Too expensive/no insurance/cost of test	5%
Too painful, unpleasant, or embarrassing	5%
Did not want to know if I had cancer	3%
Other reasons	4%

*Question asked of 307 female respondents, age 40 years or older (who have not had a hysterectomy), who reported they have never had a Pap test (n=44) or have not had a Pap test in the last three years (n=263). More than one response could be given per

TABLE 6-8. WOMEN REPORTING THAT A HEALTH CARE PROVIDER RECOMMENDED CERVICAL CANCER SCREENING WITH PAP TEST IN THE PAST YEAR, AMONG THOSE AGE 40 YEARS AND OLDER WHO HAVE NOT HAD A HYSTERECTOMY AND WHO SAW A PROVIDER IN THE PAST YEAR

Selected Characteristic	N	n	wt %	95% CI	Stat Sig
Female Population	2116	1646	79%	77-81%	
Area of Residence					^
Urban	1309	1026	79%	77-82%	
Rural	807	620	79%	76-82%	
Age					**
40-49 years	687	591	85%	82-88%	
50-64 years	840	696	84%	81-87%	
65-74 years	314	219	69%	63-75%	
75 years and above	275	140	51%	44-58%	
Race					^
White	1695	1317	79%	77-82%	
African American or Black	339	266	79%	74-84%	
Other	82	63	77%	66-87%	
Marital Status					**
Married or partner of unmarried couple	1212	1002	83%	80-85%	
Divorced or separated	382	283	74%	68-79%	
Widowed	335	216	65%	59-71%	
Never married	179	138	79%	72-86%	
Education					**
Less than high school	134	80	62%	52-71%	
High school grad or GED	569	423	75%	71-79%	
College 1-3 years	522	401	79%	75-83%	
College grad	497	405	82%	78-86%	
Advanced degree	393	337	87%	83-91%	
Employment Status					**
Employed for wages	1000	860	86%	84-89%	
Self-employed	175	138	81%	75-88%	
Retired	574	375	66%	62-71%	
Other	358	267	74%	69-80%	
Household Income					**
<$25,000	348	208	60%	54-67%	
$25,000-<$35,000	170	124	74%	65-82%	
$35,000-<$50,000	235	188	80%	74-86%	
$50,000-<$75,000	310	266	86%	81-91%	
$75,000 or greater	702	603	86%	83-89%	
Don't know/not sure	152	100	69%	60-77%	
Refused	199	157	80%	73-86%	

~ Some data missing for marital status, education, and employment status

** p-value $\leq$ 0.05

* p-value > 0.05 - 0.1

^ p-value > 0.1

Maryland Cancer Survey, 2006

Chapter 7. Oral Cancer Screening

Oral cancer is cancer that develops in the oral cavity or pharynx. Tobacco use (smoking cigarettes, pipes, or cigars and using smokeless tobacco) and heavy alcohol use are the greatest risk factors for developing oral cancer. In 2002, there were 529 new cases and 158 deaths from oral cancer among Maryland residents.[1] Among the 50 states and the District of Columbia, Maryland ranked 19th highest for oral cancer mortality during 2000-2003.[2]

The screening examination for oral cancer consists of visual inspection of the oral cavity and pharynx (mouth and throat) for lesions or discolorations, and palpation (feeling) of oral structures (such as the tongue) for masses. This exam is usually performed by a dentist or dental hygienist during a routine dental examination, or by a physician, nurse practitioner, or physician's assistant during a physical exam.

Prevalence of Oral Cancer Screening

- Among Marylanders age 40 years and older, just under half (47%) report that they have ever had an oral cancer screening exam (Table 7-1 and Chart 7-1).
- Looking at results for the entire state, significantly lower prevalence of ever having an oral cancer screening exam was seen among:
    - Younger respondents (ages 40 to 49 years compared to those ages 50 to 64 years);
    - Non-White respondents (31% among African Americans and 39% among those of other races);
    - Respondents with a high school education or less (25% to 37% prevalence range); and
    - Persons with an annual household income of less than $50,000 (28% to 38% prevalence range).
- Eighty-one percent (81%) of those who have ever had oral cancer screening reported that the examination was performed by a dentist or dental specialist, 12% by a dental hygienist, and 7% by a physician. (Data not shown in tables.)

One target of the HP 2010 program is to increase to 20% the proportion of adults age 40 years and older who have had an oral cancer screening exam in the last 12 months.[3]

- Thirty-seven percent (37%) of MCS respondents age 40 years and older reported they had an oral cancer exam within the preceding year (Table 7-2 and Chart 7-1), exceeding the Healthy People 2010 target.

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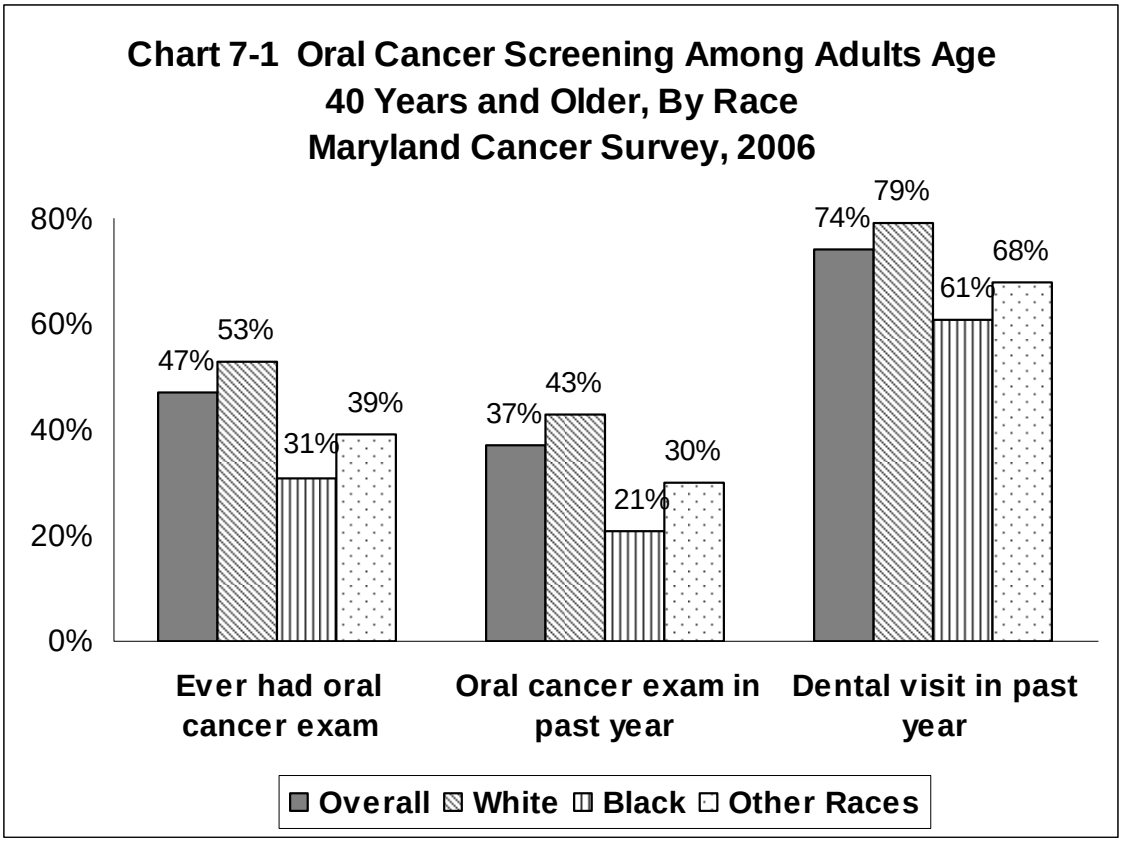
[1] Maryland Department of Health and Mental Hygiene. Cancer Report 2006. Baltimore, MD; 2006. Available on-line at http://www.fha.state.md.us/cancer/surveillance/pdf/CRF_Can_Rpt_2006_Final_PNO_v9u.pdf. Last accessed July 11, 2007.

[2] Ries LAG et al. (eds). *SEER Cancer Statistics Review, 1975-2003*, National Cancer Institute. Bethesda, MD, http://seer.cancer.gov/csr/1975_2003/ based on November 2005 SEER data submission, posted to the SEER web site, 2006. Last accessed July 11, 2007.

[3] U.S. Department of Health and Human Services. Healthy People 2010.2nd ed. Understanding and Improving Health; Objectives for Improving Health. Volume II, Part B. Oral Health. Washington, DC: U.S. Government Printing Office, November 2000. Available on-line at http://www.healthypeople.gov/document/HTML/Volume2/21Oral.htm. Last accessed July 11, 2007.

- Although prevalence of oral cancer screening in the past year exceeded the HP 2010 target for the survey overall, prevalence rates were below the HP 2010 target for the following groups:
    - African American women living in urban areas (19%);
    - Respondents with less than a high school education (15%); and
    - Persons with annual household income less than $25,000 (18%).

- Differences in the prevalence of having oral cancer screening within the preceding year were seen based on gender, race, level of education, and income level (Table 7-2).
    - Only 34% of males reported oral cancer screening in the past year, compared to 39% of females.
    - Only 21% of African Americans and 30% of persons of other non-White races had been screened for oral cancer in the past year, compared to 43% of Whites.
    - Respondents with less than a high school education (15%) and high school graduates (28%) had significantly lower prevalence of oral cancer screening in the past year than persons with higher education.
    - Oral cancer screening in the past year was less common among persons with an annual household income of less than $50,000 compared to respondents with higher income levels.



Access to Dental Care and Oral Cancer Screening

Visits to the dentist for routine care are very important predictors of oral cancer screening, since 93% of Marylanders age 40 years or older who had been screened reported that their oral cancer screening tests were performed by a dentist or dental hygienist. The HP 2010 has set a target to increase to 56% the proportion of children and adults (all ages) who use the oral care system each year.[3]

Among respondents to the MCS (age 40 years and older),

- Seventy-four percent (74%) reported that they had visited a dentist or dental clinic in the last year for any reason (Table 7-3 and Chart 7-1).
- Dental visits in the last year were less frequently reported among older respondents (age 65 years and older); non-White respondents; respondents with a high school education or less; and persons with household income less than $35,000.

While 74% of Marylanders have visited a dentist in the last year (for any reason) and 81% saw an HCP for a routine check-up in the last year, only about one-third (37%) of MCS respondents reported having an oral cancer screening exam in that time. It is not known whether these dental visits in the last year were for acute care or for preventive care (visits which are more likely to include an oral cancer exam). Alternatively, dental providers may be performing oral cancer screening and not making a point of discussing the exam with their patients.

The percentage of people who ever had an oral cancer screening exam fell dramatically as the number of years since the last dental visit increased. (Data not shown in tables.)

- Fifty-five percent (55%) of people who visited a dentist in the last year reported they have ever had an oral cancer screening exam, compared to 29% who saw a dentist more than 3 but less than 5 years before, and 15% who had a dental visit 5 or more years ago.
- Of the people who visited a dentist in the last year for any reason, only 49% reported they had received an oral cancer exam in the past year.

TABLE 7-1. PEOPLE REPORTING THEY HAVE EVER HAD AN ORAL CANCER SCREENING EXAM, AMONG THOSE AGE 40 YEARS AND OLDER

	TOTAL ~					URBAN ~					RURAL ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Total Population	4902	2407	47%	45-49%		2927	1461	47%	45-49%		1975	946	47%	44-49%	
Gender					^					^					^
Male	1809	864	46%	43-49%		1054	515	46%	42-49%		755	349	45%	41-49%	
Female	3093	1543	48%	46-50%		1873	946	48%	45-51%		1220	597	48%	45-52%	
Age					**					**					^
40-49 years	1313	611	44%	41-47%		799	369	44%	40-48%		514	242	46%	41-51%	
50-64 years	1982	1023	50%	48-53%		1201	625	50%	47-54%		781	398	50%	46-54%	
65 years and above	1607	773	46%	43-49%		927	467	47%	43-51%		680	306	43%	39-47%	
Race					**					**					**
White	3921	2093	53%	51-55%		2143	1213	55%	52-57%		1778	880	49%	46-52%	
African American or Black	800	246	31%	27-35%		652	199	31%	27-36%		148	47	31%	22-41%	
Other	181	68	39%	30-47%		132	49	39%	30-48%		49	19	35%	19-50%	
Gender and Race					**					**					**
White male	1509	753	49%	46-52%		818	427	50%	46-54%		691	326	47%	43-51%	
African American male	232	82	36%	28-43%		191	69	36%	28-44%		41	13	30%	14-46%	
Other male	68	29	44%	29-59%		45	19	45%	29-61%		23	10	36%	12-59%	
White female	2412	1340	57%	55-59%		1325	786	59%	56-62%		1087	554	51%	48-54%	
African American female	568	164	28%	23-32%		461	130	27%	23-32%		107	34	32%	22-43%	
Other female	113	39	34%	25-44%		87	30	35%	24-45%		26	9	33%	13-54%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 7-1. PEOPLE REPORTING THEY HAVE EVER HAD AN ORAL CANCER SCREENING EXAM, AMONG THOSE AGE 40 YEARS AND OLDER

	TOTAL ~					URBAN ~					RURAL ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Marital Status					**					**					**
Married or partner of unmarried couple	2916	1541	50%	48-53%		1682	903	51%	48-53%		1234	638	50%	47-53%	
Divorced or separated	848	371	40%	35-44%		527	226	39%	34-44%		321	145	41%	35-48%	
Widowed	731	329	44%	39-48%		417	208	46%	40-51%		314	121	36%	31-42%	
Never married	390	161	35%	30-41%		285	119	35%	29-42%		105	42	34%	23-45%	
Education					**					**					**
Less than high school	398	106	25%	20-31%		200	58	27%	19-34%		198	48	22%	15-28%	
High school grad or GED	1355	529	37%	34-41%		657	259	37%	33-41%		698	270	39%	34-43%	
College 1-3 years	1180	605	48%	44-52%		683	336	47%	42-51%		497	269	52%	47-58%	
College grad	1051	597	52%	48-56%		717	395	51%	47-55%		334	202	59%	53-65%	
Advanced degree	907	565	61%	57-65%		663	409	61%	56-65%		244	156	63%	56-70%	
Employment Status					**					*					**
Employed for wages	2188	1118	49%	46-51%		1347	693	49%	46-52%		841	425	48%	45-52%	
Self-employed	422	212	48%	42-53%		261	133	47%	40-54%		161	79	49%	40-57%	
Retired	1638	815	48%	45-51%		932	476	47%	44-51%		706	339	48%	44-52%	
Other	640	256	40%	34-45%		376	154	40%	34-47%		264	102	37%	30-43%	
Household Income					**					**					**
<$25,000	833	255	28%	24-32%		439	135	28%	23-33%		394	120	28%	23-33%	
$25,000-<$35,000	431	183	35%	29-41%		240	104	35%	28-42%		191	79	35%	28-43%	
$35,000-<$50,000	600	261	38%	34-43%		343	135	35%	29-41%		257	126	49%	42-56%	
$50,000-<$75,000	710	381	50%	46-55%		402	210	49%	44-55%		308	171	52%	45-59%	
$75,000 or greater	1594	961	57%	54-60%		1063	651	57%	54-61%		531	310	57%	53-62%	
Don't know/not sure	298	120	39%	33-46%		169	71	40%	32-49%		129	49	36%	27-46%	
Refused	436	246	56%	49-62%		271	155	57%	49-64%		165	91	51%	42-60%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 7-2. PEOPLE REPORTING THEY HAVE HAD AN ORAL CANCER EXAM IN THE PAST YEAR, AMONG THOSE 40 YEARS AND OLDER

	TOTAL ~					URBAN ~					RURAL ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Total Population	4902	1902	37%	35-38%		2927	1151	37%	35-39%		1975	751	37%	34-39%	
Gender					**					*					**
Male	1809	667	34%	32-37%		1054	399	35%	31-38%		755	268	34%	30-38%	
Female	3093	1235	39%	37-41%		1873	752	39%	36-41%		1220	483	39%	36-42%	
Age					^					^					^
40-49 years	1313	490	35%	32-38%		799	292	34%	30-38%		514	198	36%	32-41%	
50-64 years	1982	796	39%	36-41%		1201	483	38%	35-41%		781	313	39%	35-43%	
65 years and above	1607	616	37%	34-40%		927	376	38%	35-42%		680	240	34%	30-38%	
Race					**					**					**
White	3921	1686	43%	41-45%		2143	986	44%	42-47%		1778	700	38%	36-41%	
African American or Black	800	165	21%	18-25%		652	129	21%	17-25%		148	36	24%	15-32%	
Other	181	51	30%	21-38%		132	36	30%	21-39%		49	15	27%	12-41%	
Gender and Race					**					**					**
White male	1509	592	38%	35-41%		818	342	39%	36-43%		691	250	35%	31-39%	
African American male	232	55	24%	17-31%		191	45	24%	17-32%		41	10	22%	8-37%	
Other male	68	20	31%	16-45%		45	12	31%	15-47%		23	8	31%	8-55%	
White female	2412	1094	47%	45-49%		1325	644	49%	46-52%		1087	450	41%	38-45%	
African American female	568	110	19%	15-23%		461	84	19%	15-23%		107	26	25%	15-35%	
Other female	113	31	29%	19-39%		87	24	29%	19-40%		26	7	23%	6-41%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 7-2. PEOPLE REPORTING THEY HAVE HAD AN ORAL CANCER EXAM IN THE PAST YEAR, AMONG THOSE 40 YEARS AND OLDER

	TOTAL ~					URBAN ~					RURAL ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Marital Status					**					**					**
Married or partner of unmarried couple	2916	1259	41%	39-43%		1682	742	41%	39-44%		1234	517	40%	37-43%	
Divorced or separated	848	281	29%	26-33%		527	173	29%	25-33%		321	108	30%	24-36%	
Widowed	731	248	31%	27-35%		417	154	32%	27-37%		314	94	28%	23-33%	
Never married	390	110	22%	17-26%		285	78	21%	16-26%		105	32	26%	16-35%	
Education					**					**					**
Less than high school	398	69	15%	11-19%		200	36	14%	9-20%		198	33	16%	10-22%	
High school grad or GED	1355	396	28%	25-31%		657	198	29%	25-32%		698	198	28%	24-31%	
College 1-3 years	1180	464	36%	32-40%		683	252	35%	30-39%		497	212	41%	36-46%	
College grad	1051	506	44%	40-48%		717	331	43%	38-47%		334	175	51%	45-57%	
Advanced degree	907	465	50%	46-54%		663	332	49%	45-54%		244	133	52%	45-59%	
Employment Status					**					^					**
Employed for wages	2188	898	38%	36-41%		1347	550	38%	35-41%		841	348	38%	35-42%	
Self-employed	422	167	37%	31-43%		261	104	37%	30-43%		161	63	38%	30-47%	
Retired	1638	646	38%	35-41%		932	373	37%	34-41%		706	273	39%	35-43%	
Other	640	186	30%	25-36%		376	120	32%	26-38%		264	66	24%	18-30%	
Household Income					**					**					**
<$25,000	833	163	18%	15-21%		439	86	18%	14-22%		394	77	18%	13-22%	
$25,000-<$35,000	431	138	25%	20-30%		240	77	24%	18-30%		191	61	26%	20-32%	
$35,000-<$50,000	600	206	30%	25-34%		343	109	28%	23-34%		257	97	34%	27-40%	
$50,000-<$75,000	710	306	40%	36-44%		402	165	39%	34-45%		308	141	42%	36-49%	
$75,000 or greater	1594	800	47%	44-50%		1063	537	47%	43-50%		531	263	48%	43-53%	
Don't know/not sure	298	91	30%	24-36%		169	55	31%	23-38%		129	36	29%	19-38%	
Refused	436	198	44%	37-50%		271	122	44%	36-52%		165	76	42%	34-51%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 7-3. PEOPLE REPORTING DENTAL VISITS DURING THE PAST YEAR, AMONG THOSE 40 YEARS AND OLDER

	TOTAL ~					URBAN ~					RURAL ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Total Population	5104	3724	74%	72-75%		3048	2302	75%	73-77%		2056	1422	69%	66-71%	
Gender					^					^					**
Male	1896	1372	73%	70-75%		1100	835	75%	72-78%		796	537	66%	62-70%	
Female	3208	2352	75%	73-76%		1948	1467	76%	74-78%		1260	885	71%	68-74%	
Age					**					**					**
40-49 years	1369	1044	77%	74-79%		836	658	78%	75-81%		533	386	71%	66-75%	
50-64 years	2064	1538	74%	72-77%		1247	942	75%	72-78%		817	596	72%	68-76%	
65 years and above	1671	1142	69%	66-72%		965	702	71%	68-75%		706	440	61%	57-65%	
Race					**					**					**
White	4092	3126	79%	77-80%		2241	1810	82%	80-83%		1851	1316	71%	69-74%	
African American or Black	826	476	61%	57-65%		670	398	62%	58-67%		156	78	50%	40-60%	
Other	186	122	68%	59-76%		137	94	68%	60-77%		49	28	58%	41-75%	
Gender and Race					**					**					**
White male	1585	1194	77%	75-80%		855	684	80%	77-83%		730	510	70%	66-74%	
African American male	239	138	61%	54-69%		196	120	64%	56-72%		43	18	40%	23-57%	
Other male	72	40	64%	50-77%		49	31	66%	51-80%		23	9	42%	17-67%	
White female	2507	1932	80%	79-82%		1386	1126	83%	81-85%		1121	806	73%	70-76%	
African American female	587	338	61%	56-65%		474	278	61%	56-66%		113	60	59%	48-69%	
Other female	114	82	71%	61-81%		88	63	71%	60-81%		26	19	71%	48-94%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 7-3. PEOPLE REPORTING DENTAL VISITS DURING THE PAST YEAR, AMONG THOSE 40 YEARS AND OLDER

	TOTAL ~					URBAN ~					RURAL ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Marital Status					**					**					**
Married or partner of unmarried couple	3057	2417	79%	77-81%		1766	1443	81%	78-83%		1291	974	74%	71-77%	
Divorced or separated	878	570	64%	60-69%		544	359	66%	61-70%		334	211	60%	54-67%	
Widowed	755	471	60%	55-64%		432	290	62%	56-67%		323	181	53%	47-59%	
Never married	399	254	61%	55-68%		292	198	64%	57-71%		107	56	44%	33-56%	
Education					**					**					**
Less than high school	405	159	41%	34-47%		206	90	44%	35-52%		199	69	32%	25-40%	
High school grad or GED	1399	908	66%	63-69%		677	446	68%	64-72%		722	462	63%	59-67%	
College 1-3 years	1231	890	73%	70-77%		708	516	74%	70-78%		523	374	72%	67-76%	
College grad	1106	922	81%	78-85%		750	626	81%	77-85%		356	296	84%	79-88%	
Advanced degree	954	837	88%	85-90%		701	619	88%	85-91%		253	218	86%	82-91%	
Employment Status					**					**					**
Employed for wages	2286	1785	78%	76-80%		1415	1122	79%	77-82%		871	663	75%	71-78%	
Self-employed	438	338	77%	72-82%		272	215	77%	71-83%		166	123	76%	69-83%	
Retired	1707	1204	72%	69-74%		965	716	74%	71-77%		742	488	65%	61-69%	
Other	660	386	60%	55-65%		386	241	63%	57-69%		274	145	51%	44-58%	
Household Income					**					**					**
<$25,000	854	402	48%	43-52%		455	225	49%	44-55%		399	177	43%	37-49%	
$25,000-<$35,000	450	289	62%	56-68%		249	166	64%	57-72%		201	123	55%	47-63%	
$35,000-<$50,000	617	456	73%	69-78%		354	265	75%	69-80%		263	191	70%	63-76%	
$50,000-<$75,000	745	592	79%	75-83%		421	338	79%	74-84%		324	254	78%	73-84%	
$75,000 or greater	1679	1455	86%	84-88%		1118	983	87%	84-89%		561	472	83%	80-87%	
Don't know/not sure	311	184	57%	50-64%		170	103	59%	50-67%		141	81	52%	42-62%	
Refused	448	346	77%	71-82%		281	222	79%	73-85%		167	124	69%	58-79%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

Maryland Cancer Survey, 2006

Chapter 8. Access to Health Care and Cancer Screening

Health Care Coverage

Increasing the proportion of people under age 65 who have health care insurance is one of the goals of HP 2010.[1] The HP 2010 target is to increase the proportion of persons with health insurance coverage from a national baseline of 83% (National Health Interview Survey, 1997) to 100%.

Among MCS 2006 respondents age 40 years and older:

- Ninety-four percent (94%) reported they have some form of health insurance (Table 8-1). Based on these results, Maryland has not yet attained the HP 2010 target of 100% for health insurance coverage.

Statistically significant differences in health insurance status were observed by several demographic characteristics. The proportion of respondents with health insurance was statistically significantly lower among:

- Younger respondents (age 40-49 years) compared to those in the older age groups;
- Non-White respondents;
- Those who were never married, or were divorced or separated compared to married or widowed;
- Respondents with less than a high school education;
- Persons who were self-employed or had employment status of "other"; and
- Those with an annual household income less than $35,000 per year.

People who currently have health insurance were asked whether there was a time in the last 12 months when they did not have insurance (Table 8-2).

- Three percent (3%) of those who reported they currently had insurance reported that they had been without health insurance sometime during the past year. (Because survey responses in some cells are very small, these estimates may be unstable.)

As shown in Table 8-2, respondents who were without health insurance sometime in the last year were more likely to be:

- Under the age of 65 years;
- Of race other than White or African American;
- Never married or divorced or separated;
- Self-employed or to have an employment status of "other"; or
- In lower income group (annual household income of less than $25,000).

People who do not currently have any kind of health care coverage (6% of the survey population) were asked how long they have been without coverage. (Data not shown in tables.)

- Of those without insurance at the time of the survey, 20% reported losing their insurance in the last year, while 67% reported having been without insurance for one

[1] U.S. Department of Health and Human Services. Healthy People 2010: Understanding and Improving Health. Volume I. Access to Quality Health Services. Washington, DC: U.S. Government Printing Office, November 2000. Available at http://www.healthypeople.gov/document/HTML/Volume1/01Access.htm. Last accessed July 11, 2007.

year or longer. Thirteen percent (13%) said they never had health insurance coverage.

- More than one-fourth (27%) of rural respondents currently without insurance reported never having coverage, compared to 10% of urban residents without insurance.

The Maryland Health Insurance Plan (MHIP) is a state administered health insurance program for Maryland residents who do not have access to health insurance. Participants in the MCS 2006 were asked whether they had ever heard of the MHIP (Table 8-2).

- Less than one-third (31%) of all respondents were familiar with the MHIP.
- In comparison with other respondents, a lower proportion of men (27%) and self-employed respondents (26%) said they have heard of the MHIP.

Health Care Access

Access to health care (primarily health insurance coverage and having a usual source of care) is a strong predictor of recent cancer screening.[2] Across all racial and ethnic groups, those who lack health insurance or have inadequate access to care typically have higher cancer incidence and mortality rates, and lower rates of cancer survival.[3]

MCS 2006 respondents were asked how long it had been since they last visited a doctor for a routine checkup. (Data not shown in tables.)

- Eighty-one percent (81%) of respondents age 40 years and older said they had a routine checkup in the last year.
- A significantly higher proportion of African American men (86%) reported a routine checkup within the past year, compared with White men (75%).
- Eighty-eight percent (88%) of all men and 92% of all women reported having a routine checkup within the past 2 years.
- Less than 1% said they have never visited a doctor for a routine checkup.

When asked whether they have one person they think of as their personal doctor or primary HCP, MCS participants responded as follows (Table 8-3):

- Ninety-three percent (93%) said they have at least one person they think of as their HCP.
- This proportion was statistically significantly lower among respondents with the following characteristics:
  - Male gender
  - Younger age (ages 40 to 49 years)
  - Never married or divorced or separated
  - Less than a high school education
  - Self-employed or "other" employment status, and
  - Annual household income of less than $25,000.

[2] Smith RA, Cokkinides V, Hammon JE. American Cancer Society Guidelines for Early Detection of Cancer, 2006. CA Cancer J Clin 2006; 56:11-25.

[3] Institute of Medicine. The Unequal Burden of Cancer: An Assessment of NIH Research and Programs for Ethnic Minorities and the Medically Underserved. Washington, D.C., National Academy Press; 1999.

When asked where they go most often when sick or in need of advice about their health, 84% of respondents said they go to a doctor's office or health maintenance organization (HMO), 7% go to a clinic or health center, 3% go to a hospital emergency room, and 2% go to a hospital outpatient department (Table 8-4).

Health Care Access and Cancer Screening

Research has found that the people who are uninsured or underinsured are less likely to be screened for cancer.[4, 5] In the MCS 2006, we sought to determine whether having health insurance was associated with higher prevalence of cancer screening among Maryland residents (Table 8-5).

- For every type of cancer screening except the Pap test, the prevalence of cancer screening was significantly higher among respondents with health insurance than among those without insurance.
- Differences in screening prevalence by health insurance status were greatest for ever having an FOBT, sigmoidoscopy or colonoscopy, PSA test, and oral cancer screening.
- The prevalence of ever having a mammogram was statistically significantly lower among women who were without health insurance for part of the past year compared to those who had insurance coverage during the entire year.
- Among respondents who did not have health insurance at the time of the survey, prevalence of ever having lower GI endoscopy (sigmoidoscopy or colonoscopy) was significantly lower among those who were without insurance for a year or more (29%) and among those who never had health insurance (8%), compared to respondents who have been without insurance for less than one year (52%).
- The prevalence of cancer screening generally declined with increasing length of time since the last routine medical checkup.
- For every type of screening test except Pap test, the prevalence of ever being screened was significantly lower among respondents who did not have a primary HCP, compared to those who did.

The MCS 2006 also examined the timeliness of cancer screening tests, relative to various measures of health care access. In this analysis, up-to-date screening is based on frequencies recommended by the ACS or those incorporated in HP 2010 objectives. As shown in Table 8-6, the prevalence of up-to-date cancer screening among MCS 2006 respondents varied significantly with some measures of health care access.

- For every type of cancer screening, the prevalence of being up-to-date was significantly higher among respondents who had health insurance compared to those who did not.
- Women who were without health insurance some time in the past year had a significantly lower prevalence of being up-to-date with Pap testing and mammography, compared to women who had continuous health insurance coverage throughout the year.

[4] Swan, J et. al. Progress in cancer screening practices in the United States: Results from the 2000 National Health Interview Survey. Cancer. 2003 Mar 15;97(6):1528-40.
[5] Ross JS, Bradley EH, Busch SH. Use of health care services by lower-income and higher-income uninsured adults. JAMA. 2006; 295(17) :2027-36.

- Among respondents who did not have health insurance at the time of the survey, women who had been without coverage for a year or more had a significantly lower prevalence of being up-to-date with breast and cervical cancer screening than women who lost their insurance only within the past year.
- For all cancer screening types, the proportion of people who were up-to-date decreased significantly with increasing length of time since the last routine medical checkup.
- For every type of screening test, the prevalence of being up-to-date with screening was significantly lower among respondents who did not have a primary HCP, compared to those who did.

TABLE 8-1. PEOPLE REPORTING TO HAVE HEALTH INSURANCE, AMONG THOSE AGE 40 YEARS AND OLDER

	TOTAL ~					URBAN ~					RURAL ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Total Population	5144	4858	94%	93-95%		3067	2908	94%	93-95%		2077	1950	94%	92-95%	
Gender					^					^					^
Male	1914	1802	93%	92-95%		1108	1045	93%	91-95%		806	757	94%	92-96%	
Female	3230	3056	94%	93-95%		1959	1863	95%	94-96%		1271	1193	93%	92-95%	
Age					**					**					**
40-49 years	1371	1253	91%	89-93%		839	762	90%	88-93%		532	491	92%	90-95%	
50-64 years	2076	1923	94%	92-95%		1251	1176	94%	93-96%		825	747	91%	88-93%	
65 years and above	1697	1682	99%	99-100%		977	970	99%	98-100%		720	712	99%	98-100%	
Race					**					**					*
White	4124	3945	95%	94-96%		2254	2180	96%	95-97%		1870	1765	94%	92-95%	
African American or Black	830	751	91%	89-94%		673	608	91%	89-93%		157	143	94%	90-97%	
Other	190	162	86%	81-92%		140	120	87%	81-93%		50	42	82%	68-96%	
Gender and Race					**					**					**
White male	1601	1517	94%	93-96%		861	823	95%	93-97%		740	694	93%	91-95%	
African American male	241	221	92%	88-96%		198	179	91%	87-95%		43	42	98%	93-100%	
Other male	72	64	86%	76-97%		49	43	86%	74-97%		23	21	92%	80-100%	
White female	2523	2428	96%	95-97%		1393	1357	97%	96-98%		1130	1071	94%	93-96%	
African American female	589	530	91%	88-93%		475	429	91%	88-94%		114	101	90%	85-96%	
Other female	118	98	87%	80-93%		91	77	88%	81-94%		27	21	74%	51-96%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 8-1. PEOPLE REPORTING TO HAVE HEALTH INSURANCE, AMONG THOSE AGE 40 YEARS AND OLDER

	TOTAL ~					URBAN ~					RURAL ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Marital Status					**					**					**
Married or partner of unmarried couple	3070	2967	96%	96-97%		1771	1718	97%	96-98%		1299	1249	96%	95-97%	
Divorced or separated	884	780	87%	84-90%		548	492	88%	85-91%		336	288	83%	77-88%	
Widowed	770	745	95%	93-98%		438	425	95%	91-98%		332	320	97%	95-99%	
Never married	403	353	84%	79-89%		294	260	85%	80-90%		109	93	78%	67-89%	
Education					**					**					**
Less than high school	410	343	82%	77-87%		208	171	82%	75-88%		202	172	82%	75-89%	
High school grad or GED	1420	1321	92%	90-94%		686	642	92%	90-95%		734	679	92%	89-94%	
College 1-3 years	1239	1178	94%	93-96%		711	676	94%	92-96%		528	502	95%	94-97%	
College grad	1109	1068	96%	95-97%		753	725	96%	94-98%		356	343	97%	95-99%	
Advanced degree	955	938	98%	96-99%		702	688	98%	96-99%		253	250	99%	98-100%	
Employment Status					**					**					**
Employed for wages	2295	2200	96%	94-97%		1417	1362	96%	94-97%		878	838	96%	94-97%	
Self-employed	438	378	87%	83-91%		272	240	87%	83-92%		166	138	84%	78-90%	
Retired	1729	1706	99%	99-100%		977	970	99%	99-100%		752	736	98%	97-99%	
Other	668	563	83%	79-87%		390	327	83%	78-88%		278	236	83%	77-88%	
Household Income					**					**					**
<$25,000	867	727	81%	78-85%		460	381	81%	76-85%		407	346	83%	78-88%	
$25,000-<$35,000	453	417	88%	84-93%		251	230	87%	82-93%		202	187	92%	87-96%	
$35,000-<$50,000	621	599	95%	93-97%		355	343	95%	92-98%		266	256	95%	91-99%	
$50,000-<$75,000	748	716	96%	94-97%		423	406	95%	93-98%		325	310	96%	93-98%	
$75,000 or greater	1682	1668	99%	98-100%		1119	1108	99%	98-99%		563	560	100%	99-100%	
Don't know/not sure	320	288	88%	84-93%		175	162	92%	86-97%		145	126	80%	70-89%	
Refused	453	443	98%	96-99%		284	278	98%	96-100%		169	165	98%	96-100%	

~ Some data missing for marital status, education, and employment status

** p-value $\leq$ 0.05

* p-value > 0.05 - 0.1

^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 8-2. PEOPLE CURRENTLY WITH HEALTH INSURANCE WHO WERE WITHOUT HEALTH INSURANCE SOMETIME IN THE LAST 12 MONTHS, AMONG THOSE AGE 40 YEARS AND OLDER

	Persons reporting there was a time they were without health insurance sometime in the last 12 months ~					Persons reporting they have heard of the Maryland Health Insurance Plan				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Total Population	4854	155	3%	3-4%		5037	1579	31%	30-33%	
Area of Residence					^					^
Urban	2905	91	3%	3-4%		3006	927	31%	29-33%	
Rural	1949	64	3%	2-4%		2031	652	32%	29-34%	
Gender					^					**
Male	1799	58	3%	2-4%		1876	505	27%	24-29%	
Female	3055	97	3%	2-4%		3161	1074	35%	33-37%	
Age					**					^
40-49 years	1252	54	4%	3-5%		1344	444	33%	30-36%	
50-64 years	1920	68	4%	3-5%		2032	662	32%	29-34%	
65 years and above	1682	33	2%	1-3%		1661	473	28%	26-31%	
Race					**					^
White	3943	99	2%	2-3%		4034	1265	31%	29-33%	
African American or Black	749	36	5%	3-6%		815	255	32%	28-36%	
Other	162	20	10%	5-16%		188	59	29%	21-37%	
Gender and Race					**					**
White male	1516	36	2%	1-3%		1570	425	27%	25-30%	
African American male	219	16	6%	3-9%		234	56	24%	18-31%	
Other male	64	6	11%	1-20%		72	24	29%	16-42%	
White female	2427	63	3%	2-3%		2464	840	35%	33-37%	
African American female	530	20	4%	2-6%		581	199	37%	33-42%	
Other female	98	14	10%	4-16%		116	35	29%	20-38%	
Marital Status					**					^
Married or partner of unmarried couple	2966	81	3%	2-3%		3015	985	32%	30-34%	
Divorced or separated	779	36	5%	3-7%		865	260	31%	27-35%	
Widowed	745	20	3%	1-5%		748	218	28%	24-31%	
Never married	351	15	5%	2-7%		395	114	30%	24-35%	
Education					^					^
Less than high school	341	11	4%	1-7%		403	106	28%	22-34%	
High school grad or GED	1321	54	4%	3-5%		1386	421	31%	28-34%	
College 1-3 years	1177	41	3%	2-5%		1209	409	33%	30-37%	
College grad	1068	31	3%	2-5%		1089	343	31%	28-35%	
Advanced degree	937	15	2%	1-3%		938	297	30%	27-34%	
Employment Status					**					**
Employed for wages	2199	60	2%	2-3%		2257	755	33%	31-36%	
Self-employed	378	23	7%	4-10%		430	115	26%	20-31%	
Retired	1706	32	2%	1-3%		1686	502	29%	26-32%	
Other	560	39	7%	4-9%		649	202	31%	27-36%	
Household Income					**					^
<$25,000	725	52	8%	6-11%		848	251	31%	27-35%	
$25,000-<$35,000	417	14	4%	1-6%		444	140	28%	23-33%	
$35,000-<$50,000	598	19	4%	2-6%		605	190	32%	28-37%	
$50,000-<$75,000	716	11	1%	1-2%		737	259	35%	31-40%	
$75,000 or greater	1668	37	2%	1-3%		1649	532	31%	28-34%	
Don't know/not sure	287	10	5%	1-8%		313	80	27%	21-33%	
Refused	443	12	2%	0-4%		441	127	29%	24-35%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

TABLE 8-3. PEOPLE REPORTING TO HAVE ONE OR MORE PERSONS THEY THINK OF AS THEIR PERSONAL DOCTOR OR PRIMARY HEALTH CARE PROVIDER, AMONG RESPONDENTS AGE 40 YEARS AND OLDER ~

Selected Characteristic	N	n	wt %	95% CI	Stat Sig
Total Population	5136	4852	93%	92-94%	
Area of Residence					*
Urban	3065	2882	93%	92-94%	
Rural	2071	1970	94%	93-96%	
Gender					**
Male	1909	1773	91%	89-93%	
Female	3227	3079	95%	94-96%	
Age					**
40-49 years	1369	1239	89%	86-91%	
50-64 years	2073	1954	95%	93-96%	
65 years and above	1694	1659	98%	97-99%	
Race					^
White	4114	3908	94%	93-95%	
African American or Black	832	776	92%	90-94%	
Other	190	168	91%	86-96%	
Gender and Race					**
White male	1596	1494	92%	90-94%	
African American male	241	218	89%	84-94%	
Other male	72	61	88%	80-97%	
White female	2518	2414	96%	95-97%	
African American female	591	558	94%	92-96%	
Other female	118	107	93%	88-98%	
Marital Status					**
Married or partner of unmarried couple	3067	2935	94%	93-96%	
Divorced or separated	881	799	90%	87-93%	
Widowed	768	746	97%	95-99%	
Never married	403	358	85%	81-90%	
Education					**
Less than high school	409	359	81%	75-87%	
High school grad or GED	1419	1335	93%	91-95%	
College 1-3 years	1238	1177	94%	93-96%	
College grad	1107	1057	95%	94-97%	
Advanced degree	952	915	95%	93-97%	
Employment Status					**
Employed for wages	2291	2161	93%	92-94%	
Self-employed	437	390	89%	86-93%	
Retired	1725	1684	98%	96-99%	
Other	669	605	89%	86-92%	
Household Income					**
<$25,000	866	776	86%	83-90%	
$25,000-<$35,000	451	426	90%	85-95%	
$35,000-<$50,000	620	593	95%	93-97%	
$50,000-<$75,000	748	713	95%	93-97%	
$75,000 or greater	1679	1611	95%	94-96%	
Don't know/not sure	319	300	93%	90-97%	
Refused	453	433	95%	92-98%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

TABLE 8-4. RESPONSES TO THE QUESTION, "WHAT KIND OF PLACE DO YOU GO TO MOST OFTEN WHEN YOU ARE SICK OR YOU NEED ADVICE ABOUT YOUR HEALTH?" AMONG THOSE AGE 40 YEARS AND OLDER *

Selected Response	wt %
A doctor's office or HMO	84%
A clinic or health center	7%
A hospital emergency room	3%
A hospital outpatient department	2%
An urgent care center	1%
Some other kind of place	2%

* Only one answer was recorded from 5093 respondents

TABLE 8-5. PREVALENCE OF CANCER SCREENING AND ACCESS TO HEALTH CARE

	Ever had FOBT ~					Ever had sigmoidoscopy or colonoscopy ~					Ever had Prostate Specific Antigen Test #				
Selected characteristic	**N**	**n**	**wt%**	**95%CI**	**Stat Sig**	**N**	**n**	**wt%**	**95%CI**	**Stat Sig**	**N**	**n**	**wt%**	**95%CI**	**Stat Sig**
Do you have health insurance?					**					**					**
Yes	3572	2086	58%	56-60%		3580	2530	70%	68-72%		1277	1009	76%	73-79%	
No	167	60	31%	23-40%		166	52	31%	22-40%		51	16	30%	15-46%	
Was there a time you were without health insurance in the last 12 months?					^					*					^
Yes	101	50	53%	41-65%		100	59	60%	49-72%		33	23	68%	49-87%	
No	3468	2035	58%	56-60%		3477	2470	71%	69-72%		1241	984	76%	73-80%	
How long have you been without health insurance or coverage, among those who did not currently have health care coverage?					^					**					^
Less than a year	35	12	33%	16-51%		35	18	52%	33-71%		7	2	26%	0-62%	
One year or longer	108	40	32%	21-43%		106	29	29%	18-40%		33	11	35%	14-56%	
Never had insurance	22	9	32%	8-56%		22	4	8%	0-17%		11	3	15%	0-35%	
How long has it been since you last visited a doctor for a routine checkup?					**					**					**
Within the past year (less than one year)	3180	1925	60%	58-62%		3188	2310	72%	70-74%		1081	892	79%	76-83%	
Within at least one year but less than two	247	123	50%	43-58%		249	146	54%	46-62%		109	77	66%	55-77%	
Within at least two years but less than five	135	58	41%	31-50%		133	70	53%	43-62%		70	34	46%	32-59%	
Five years or more (including never)	155	38	22%	14-29%		153	46	30%	22-39%		59	18	26%	14-39%	
Do you have one person you think of as your primary health care provider?					**					**					**
At least one health care provider	3580	2097	58%	56-60%		3590	2531	70%	68-72%		1263	1002	77%	74-80%	
No health care provider	153	47	25%	16-33%		150	45	28%	19-36%		63	23	32%	18-46%	

~ Age $\geq$ 50 years
# Men $\geq$ 50 years and African American men 45-49 years
~~ Age $\geq$ 40 years
#~ Women $\geq$ 40 years with an intact uterus
** p-value $\leq$ 0.05
* p-value >0.05 - 0.1
^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 8-5. PREVALENCE OF CANCER SCREENING AND ACCESS TO HEALTH CARE

	Ever had a mammogram ~~					Ever had a Pap test #~					Ever had oral cancer screening ~~				
Selected characteristic	**N**	**n**	**wt%**	**95%CI**	**Stat Sig**	**N**	**n**	**wt%**	**95%CI**	**Stat Sig**	**N**	**n**	**wt%**	**95%CI**	**Stat Sig**
Do you have health insurance?					**					^					**
Yes	3055	2905	95%	94-96%		2026	1989	98%	97-99%		4626	2338	49%	47-50%	
No	173	138	79%	72-86%		117	111	96%	93-100%		272	67	23%	17-29%	
Was there a time you were without health insurance in the last 12 months?					**					^					^
Yes	97	78	82%	74-91%		68	66	98%	94-100%		149	63	45%	35-55%	
No	2957	2826	95%	94-96%		1957	1922	98%	97-99%		4473	2274	49%	47-51%	
How long have you been without health insurance or coverage, among those who did not currently have health care coverage?					^					^					^
Less than a year	37	30	81%	66-95%		22	22	100%	100-100%		52	15	33%	17-50%	
One year or longer	117	93	78%	68-87%		79	75	96%	92-100%		178	44	22%	14-29%	
Never had insurance	19	15	86%	71-100%		15	13	93%	81-100%		39	8	16%	4-28%	
How long has it been since you last visited a doctor for a routine checkup?					**					**					**
Within the past year (less than one year)	2737	2619	95%	94-96%		1781	1750	98%	98-99%		4037	2030	48%	46-50%	
Within at least one year but less than two	230	212	90%	85-95%		167	163	98%	95-100%		394	186	44%	38-50%	
Within at least two years but less than five	118	100	86%	79-93%		93	90	95%	89-100%		213	98	48%	40-56%	
Five years or more (including never)	127	99	81%	73-89%		89	83	93%	85-100%		231	85	36%	28-44%	
Do you have one person you think of as your primary health care provider?					**					^					**
At least one health care provider	3078	2926	94%	93-95%		2033	1996	98%	97-99%		4619	2317	48%	46-50%	
No health care provider	147	114	80%	73-88%		109	102	96%	93-99%		271	83	29%	23-36%	

~ Age $\geq$ 50 years
# Men $\geq$ 50 years and African American men 45-49 years
~~ Age $\geq$ 40 years
#~ Women $\geq$ 40 years with an intact uterus
** p-value $\leq$ 0.05
* p-value >0.05 - 0.1
^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 8-6. PREVALENCE OF UP-TO-DATE CANCER SCREENING (ACCORDING TO HEALTHY PEOPLE 2010 OBJECTIVES OR AMERICAN CANCER SOCEITY GUIDELINES) AND ACCESS TO HEALTH CARE

	*Had FOBT in the last 2 years ~					~* Had Prostatic Specific Antigen Test in the last year #					~*Had a Digital Rectal Exam in the last year #				
Selected characteristic	**N**	**n**	**wt%**	**95%CI**	**Stat Sig**	**N**	**n**	**wt%**	**95%CI**	**Stat Sig**	**N**	**n**	**wt%**	**95%CI**	**Stat Sig**
Do you have Health Insurance?					**					**					**
Yes	3572	1133	33%	31-35%		1277	776	59%	55-62%		1361	789	59%	55-62%	
No	167	32	16%	10-23%		51	8	15%	3-28%		59	15	24%	10-38%	
Was there a time you were without health insurance in the last 12 months?					^					^					^
Yes	101	30	30%	19-41%		33	15	48%	28-68%		40	17	47%	28-65%	
No	3468	1102	33%	31-35%		1241	759	59%	55-62%		1318	770	59%	56-62%	
How long have you been without health insurance or coverage, among those who did not currently have health care coverage?					^					^					^
Less than a year	35	7	20%	5-34%		7	2	26%	0-62%		9	2	21%	0-52%	
One year or longer	108	17	14%	6-23%		33	4	15%	0-33%		38	8	24%	5-42%	
Never had insurance	22	8	24%	5-44%		11	2	9%	0-23%		11	4	19%	0-41%	
How long has it been since you last visited a doctor for a routine checkup?					**					**					**
Within the past year (less than one year)	3180	1108	36%	34-38%		1081	748	67%	63-70%		1158	766	67%	63-70%	
Within at least one year but less than two	247	43	20%	13-27%		109	19	15%	7-23%		118	19	16%	7-25%	
Within at least two years, but less than five	135	8	4%	1-8%		70	7	9%	2-16%		73	6	7%	1-12%	
Five years or more (including never)	155	6	4%	0-8%		59	7	12%	2-21%		62	9	11%	3-18%	
Do you have one person you think of as your primary health care provider?					**					**					**
At least one health care provider	3580	1146	33%	31-35%		1263	773	59%	56-63%		1352	794	59%	56-63%	
No health care provider	153	19	12%	5-20%		63	11	16%	5-26%		66	10	14%	4-25%	

* HP 2010 objectives
~* American Cancer Society recommendation
~ Age ≥ 50 years
# Men ≥ 50 years and African American men 45-49 years
~~ Age ≥ 40 years
#~ Women ≥ 40 years with an intact uterus
** p-value ≤ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

TABLE 8-6. PREVALENCE OF UP-TO-DATE CANCER SCREENING (ACCORDING TO HEALTHY PEOPLE 2010 OBJECTIVES OR AMERICAN CANCER SOCEITY GUIDELINES) AND ACCESS TO HEALTH CARE

	*Had a mammogram in the last two years ~~					*Had a Pap test within the past three years #~					*Had oral cancer screening in the past year ~~				
Selected characteristic	**N**	**n**	**wt%**	**95%CI**	**Stat Sig**	**N**	**n**	**wt%**	**95%CI**	**Stat Sig**	**N**	**n**	**wt%**	**95%CI**	**Stat Sig**
Do you have Health Insurance?					**					**					**
Yes	3055	2577	84%	83-86%		2026	1764	89%	87-90%		4626	1865	38%	37-40%	
No	173	90	52%	43-61%		117	82	72%	62-81%		272	36	12%	7-17%	
Was there a time you were without health insurance in the last 12 months?					**					**					^
Yes	97	63	69%	58-80%		68	51	77%	65-89%		149	47	37%	27-46%	
No	2957	2513	85%	83-87%		1957	1712	89%	88-91%		4473	1818	38%	37-40%	
How long have you been without health insurance or coverage, among those who did not currently have health care coverage?					**					*					^
Less than a year	37	25	72%	55-88%		22	20	92%	79-100%		52	9	22%	7-37%	
One year or longer	117	53	43%	32-54%		79	50	64%	52-77%		178	22	10%	5-16%	
Never had insurance	19	11	66%	42-90%		15	11	80%	58-100%		39	5	9%	1-18%	
How long has it been since you last visited a doctor for a routine checkup?					**					**					**
Within the past year (less than one year)	2737	2391	87%	86-89%		1781	1582	90%	89-92%		4037	1642	39%	37-41%	
Within at least one year but less than two	230	162	71%	64-78%		167	150	91%	86-96%		394	132	31%	25-36%	
Within at least two years, but less than five	118	52	46%	36-57%		93	62	67%	56-78%		213	64	33%	25-40%	
Five years or more (including never)	127	55	44%	33-55%		89	43	52%	39-65%		231	58	23%	16-30%	
Do you have one person you think of as your primary health care provider?					**					**					**
At least one health care provider	3078	2593	84%	83-86%		2033	1776	89%	87-91%		4619	1844	38%	36-40%	
No health care provider	147	70	50%	41-60%		109	68	68%	57-78%		271	53	18%	12-23%	

* HP 2010 objectives
~* American Cancer Society recommendation
~ Age $\geq$ 50 years
# Men $\geq$ 50 years and African American men 45-49 years
~~ Age $\geq$ 40 years
#~ Women $\geq$ 40 years with an intact uterus
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

Chapter 9. Lifestyle Factors

Tobacco use and high-risk alcohol consumption are modifiable lifestyle risk factors that have been shown to influence the incidence of several diseases, including cancer.[1, 2] Cigarette smoking is causally related to cancer of the lung, mouth, larynx, esophagus, bladder, kidney, and pancreas.[1] Smoking cessation has been shown to decrease the risk of developing smoking-related cancers compared to current smoking. High-risk alcohol consumption is also related to cancers of the liver, esophagus, oral cavity, and larynx.[2] Tobacco use and alcohol abuse are among the leading health indicators targeted by HP 2010. In the MCS 2006, Marylanders age 40 years and older were asked about their use of cigarettes and other forms of tobacco, as well as their alcohol consumption patterns.

9.1 Tobacco Use

The HP 2010 target is to reduce the proportion of adult cigarette smokers (18 years of age and older) from the U.S. 1998 baseline of 24% to 12%.[3]

Among Marylanders age 40 years and older:

- Sixteen percent (16%) report that they currently smoke, 32% have smoked in the past, and 51% have never smoked (Table 9-1).
- Significant differences were found between cigarette smoking status and all of the demographic characteristics (Table 9-1).
    - A significantly higher percentage of rural residents currently smoke cigarettes (19%) compared urban residents (15%).
    - A higher proportion of men than women are current smokers (18% vs. 15%).
    - With increasing age, the percent of current smokers declines (ranging from 22% in 40 to 49 year olds to 17% among those age 50 to 64 years to only 7% of those age 65 years and older).
    - A higher proportion of African Americans compared to Whites are current smokers (19% vs. 15%).
    - As education level increased, the percent of current smokers declined. The prevalence of current smoking was almost four times higher among respondents with less than a high school education compared to those with advanced degrees (27% vs. 7%).
    - As income level increased, the percent of those who never smoked increased and the percent of current smokers decreased.

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[1] U.S. Department of Health and Human Services. The health consequences of smoking: a report of the Surgeon General. Washington, DC; 2004. Available at http://www.cdc.gov/tobacco/sgr/sgr_2004/index.htm. Last accessed July 11, 2007.

[2] Centers for Disease Control and Prevention. Quick Stats: General Information on Alcohol Use and Health. Centers for Disease Control and Prevention. Available at http://www.cdc.gov/alcohol/quickstats/general_info.htm. Last accessed July 11, 2007.

[3] U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. Understanding and Improving Health; Objectives for Improving Health. Vol.II, Tobacco Use. Washington, DC: U.S. Government Printing Office, November 2000. Available at http://www.healthypeople.gov/Document/HTML/Volume2/27Tobacco.htm. Last accessed July 11, 2007.

Current smokers were asked how many cigarettes they smoke, on average, each day (Table 9-2).

- About one third (34%) reported they smoke at least one pack of cigarettes a day (20 or more cigarettes); 27% smoke from 10 to 19 cigarettes a day; and 39% smoke less than 10 cigarettes per day.
- Among smokers, a higher proportion of those who live in rural areas, or are White males, or are 50 to 64 years of age smoke one or more packs of cigarettes a day.

As an indicator of cigarette addiction level, smokers were asked how soon they have their first cigarette after waking up (Table 9-3).

- More than half (56%) of all smokers said they have their first cigarette within 30 minutes after waking.
- Twenty-nine percent (29%) of smokers said they typically have their first cigarette more than one hour after waking.

MCS 2006 respondents were asked whether and how frequently they currently use chewing tobacco, snuff, or dip. (Data not shown in tables.)

- Among Marylanders age 40 years and older, 0.5% report using smokeless tobacco every day and 0.4% report using these products some days.
- While the prevalence of everyday use of smokeless tobacco was very low in this survey, it was significantly higher among men (compared to women) and rural respondents (compared to urban respondents).

Smoking Cessation

A number of HP 2010 objectives address smoking cessation. One objective is to increase the proportion of adult smokers who have been counseled by a physician in the past year about smoking cessation. The specific target for this objective is to increase this proportion from the 2001 baseline of 66% to 72%.[4]

- Among Marylanders age 40 years and older who currently smoke cigarettes, 66% reported having been told to stop smoking by a doctor, nurse, or other health care provider during the past 12 months (Table 9-4).
- Compared with younger respondents, a significantly higher proportion of respondents age 50 years and older reported being told to stop smoking.

Another HP 2010 objective is to increase the smoking cessation attempts made by adult smokers (that is, to increase the number adult smokers who stop smoking for one day or longer because they were trying to quit) from a baseline of 41% to a target of 75% (for adults 18 years and older).[3] In the MCS 2006, current smokers were asked whether they had stopped smoking at least one day during the previous 12 months because they were trying to quit smoking (Table 9-4).

- Half (50%) of all current smokers reported they had at least one smoking cessation attempt during the past year.

[4] U.S. Department of Health and Human Services. Healthy People 2010 Midcourse Review. Washington, DC; 2006. http://www.healthypeople.gov/data/midcourse/html/focusareas/FA01Objectives.htm. Last accessed July 6, 2007.

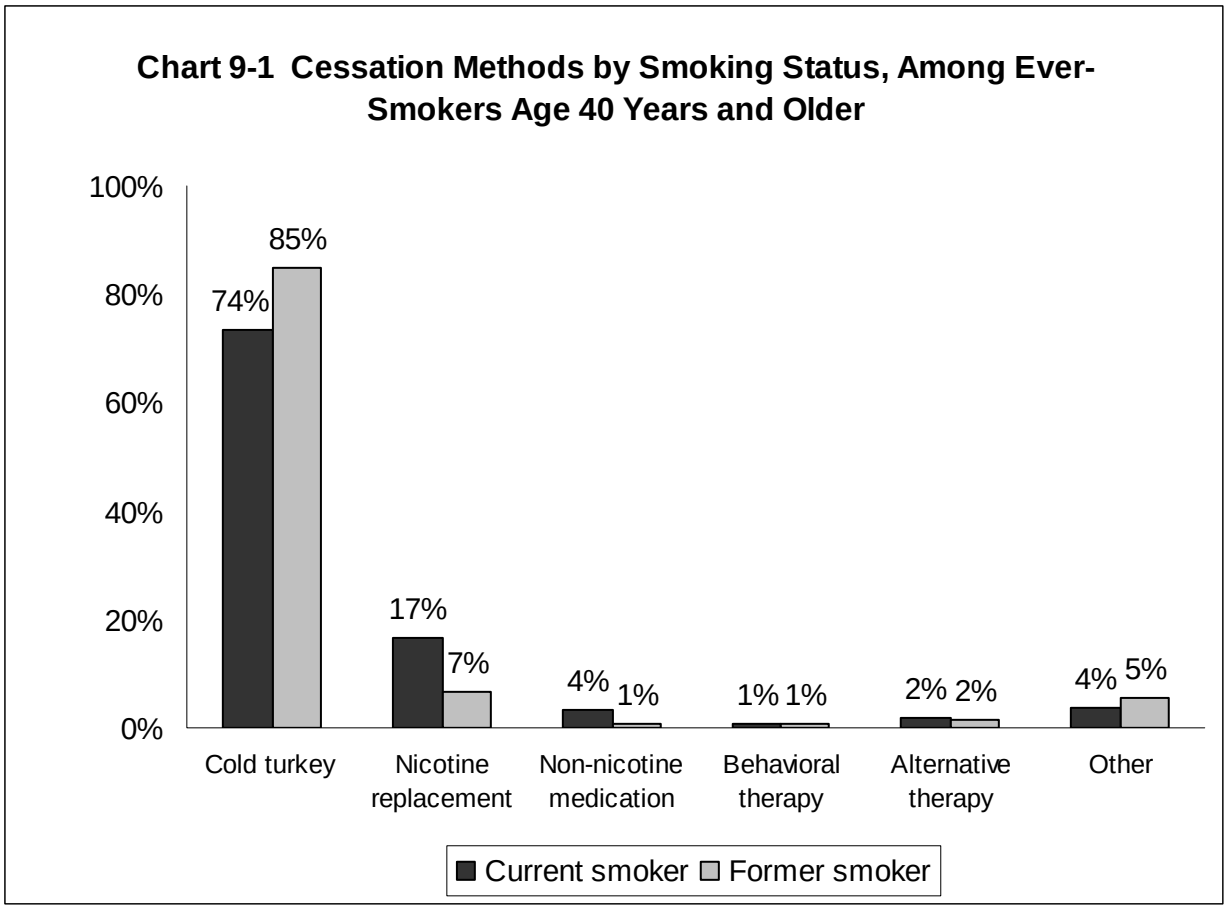
- African American smokers were most likely (61%) to attempt smoking cessation relative to other race groups.
- The proportion of respondents who attempted smoking cessation in the past year did not differ significantly by gender, age, marital status, education level, employment status, or household income.

Current and former smokers were asked which cessation methods they used during their last attempt to stop smoking such as "cold turkey" or quitting on their own without help, nicotine replacement, non-nicotine medication, behavioral therapy, etc. Figure 9-1 shows the distribution of cessation methods used by current and former smokers during their last cessation attempt. It is notable that 85% of the former smokers used "cold turkey" (or quit on their own without help) as a successful cessation method. (Data not shown in tables.)

- Among current smokers, 74% reported quitting on their own without help (or "cold turkey") on their last cessation attempt (Table 9-4).
- The proportion of current smokers who reported quitting on their own as a smoking cessation method differed significantly by age and race. A higher proportion of younger respondents (ages 40 to 49 years) and African Americans said they tried quitting on their own, compared with persons in other age and race groups.

Former smokers were asked how long it has been since they last smoked cigarettes regularly (Table 9-5).

- The vast majority (83%) reported quitting more than 5 years ago.
- Among former smokers, those who were older (65 years of age or older), White, or have higher education were more likely to report having quit smoking 5 or more years ago.
- Those who were younger (age 40 to 49 years), African American, or have less than a high school education were more likely to stop smoking within the preceding year.



Smoking Status and Cancer Screening

Smoking status was examined in relation to the various types of cancer screening (Table 9-6).

- Current smokers age 50 years and older were significantly less likely than non-smokers (i.e., never and former smokers) to have ever been screened for CRC by FOBT or by lower GI endoscopy.
- Male smokers in the age groups recommended for PSA testing were less likely than non-smokers to have ever had a PSA test or a DRE.
- While female smokers at least 40 years of age were least likely to have ever been screened for breast cancer by mammogram, no significant differences by smoking status were found in the percent of women screened for cervical cancer by Pap test.
- Current smokers were less likely to have ever been screened for oral cancer than former and never smokers.

9.2 Alcohol Consumption

According to current guidelines of the National Institute on Alcohol Abuse and Alcoholism (NIAAA), men are considered to be at high risk for alcohol-related problems if they consume more than 14 drinks per week or engage in binge drinking, while women are considered

to be at high risk if they consume more than 7 drinks per week or engage in binge drinking.[5] (Note that there are different criteria for men and women because women have proportionally less body water than men, and therefore reach higher blood alcohol levels after drinking the same amount.[5]) The NIAAA has defined binge drinking as a blood alcohol concentration corresponding to consuming 5 drinks or more for men and 4 drinks or more for women in a period of about 2 hours.[6] The definition of binge drinking used by HP 2010 to establish a national baseline (based on the 2002 National Survey on Drug Use and Health) is 5 or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on at least one day in the past 30 days.[7,8]

Two HP 2010 objectives related to alcohol consumption include:

1. To reduce the proportion of adults age 18 years and older who engage in binge drinking, from a national baseline in 2002 of 24.3% to a target of 13.4%[7]; and
2. To reduce the proportion of adults who exceed guidelines for low-risk drinking from 1992 baselines of 72% and 74% for females and males, respectively, to a target of 50% for both sexes.[9]

The MCS 2006 included a series of survey questions about the frequency and amount of alcohol consumed during the past 30 days. Based on the survey results, respondents were divided into three groups: non-drinkers, those at low risk for alcohol-related problems, and those at high risk (Table 9-7). For this analysis, high-risk drinking was defined in accordance with NIAAA guidelines, as more than 14 drinks in a week for a man and more than 7 drinks in a week for a woman, or engaging in binge drinking. We have defined low-risk alcohol drinkers as those who consume some alcohol, but less than high-risk drinkers. The MCS questionnaire and analyses define binge drinking as consuming 5 or more drinks on one occasion, consistent with the definition used by HP 2010.

Binge Drinking

MCS respondents were asked how many times in the past month they had consumed 5 or more drinks on any one occasion. Among all respondents age 40 years and older:

- Nine percent (9%) meet the criteria for binge drinking. (Data not shown in tables.) This prevalence is less than the HP 2010 target of 13.4%.

[5] Dawson DA, Grant BF, Li T. Quantifying the risks associated with exceeding recommended drinking limits. Alcohol Clin Exp Res 2005; 29(5):902-908.
[6] National Institute on Alcohol Abuse and Alcoholism, National Advisory Council on Alcohol Abuse and Alcoholism. Summary of Meeting, February 2004. Available at http://www.niaaa.nih.gov/AboutNIAAA/AdvisoryCouncil/CouncilMinutes/min2-04.htm. Last accessed July 11, 2007.
[7] U.S. Department of Health and Human Services. Healthy People 2010 Midcourse Review. Washington, DC; 2006. Available at http://www.healthypeople.gov/data/midcourse/default.htm#pubs. Last accessed July 11, 2007.
[8] U.S. Department of Health and Human Services. National Survey on Drug Use and Health, 2002. Substance Abuse and Mental Health Services Administration (SAMSHA). Washington, DC. Available at http://www.oas.samhsa.gov/nhsda/2k2nsduh/Results/appD.htm. Last accessed July 11, 2007.
[9] U.S. Department of Health and Human Services. Healthy People 2010: Understanding and Improving Health. Vol. II. Substance Abuse. Washington, DC: U.S. Government Printing Office, November 2000. Available at http://www.healthypeople.gov/document/HTML/Volume2/26Substance.htm. Last accessed July 11, 2007.

- The highest prevalence of binge drinking was found among males, younger respondents, those who were employed, and persons in higher income groups. (Data not shown in tables.)

High- and Low-Risk Drinking (Table 9-7)

Among all MCS respondents age 40 years and older:

- Eleven percent (11%) were classified as high-risk drinkers, 45% were low-risk drinkers, and 44% were classified as non-drinkers during the previous 30 days. Based on these findings, this population of Marylanders age 40 years and older has attained the HP 2010 target of reducing the proportion of all adults who are high-risk drinkers to 50% or less.
- A higher proportion of men than women reported they consumed alcohol in the 30 days prior to the survey (62% compared to 51% of women).
- Approximately 16% of men and 7% of women were classified as high-risk drinkers.
- The proportion of high-risk alcohol intake decreased with age; a higher percentage of those under the age of 50 years were high-risk drinkers, compared to older respondents.
- High-risk drinking was more prevalent among Whites than African Americans or respondents of other races.
- Respondents with less than a high school education and those with low income were more likely to be non-drinkers.
- The prevalence of low-risk drinking increased with increasing education or increasing income. The percent of high-risk drinkers was fairly stable across education and income levels.

Alcohol Consumption and Cancer Screening

Level of alcohol consumption was examined in relation to the prevalence of various types of cancer screening (Table 9-8). Significant differences in screening prevalence based on alcohol consumption were seen for ever having lower GI endoscopy, ever having a DRE (men), ever having a Pap test (women), and ever having oral cancer screening. Low-risk drinkers had the highest prevalence of ever having endoscopy, DRE, or oral cancer screening. Women who reported drinking (low- and high-risk) had a significantly higher prevalence of ever having a Pap test than non-drinkers, though the difference was small. No significant differences were seen among the other screening tests.

TABLE 9-1. CIGARETTE SMOKING STATUS BY DEMOGRAPHIC CHARACTERISTICS, AMONG RESPONDENTS AGE 40 YEARS AND OLDER

		Never Smoked ~			Previous Smoker ~			Current Smoker ~			
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**n**	**wt %**	**95% CI**	**n**	**wt %**	**95% CI**	**Stat Sig**
Total Population	5117	2592	51%	50-53%	1751	32%	31-34%	774	16%	15-18%	
Area of Residence											**
Urban	3050	1602	52%	50-54%	1027	32%	30-34%	421	15%	14-17%	
Rural	2067	990	47%	45-50%	724	33%	31-36%	353	19%	17-21%	
Gender											**
Male	1899	820	45%	42-48%	773	37%	34-40%	306	18%	16-20%	
Female	3218	1772	56%	54-58%	978	29%	27-31%	468	15%	13-16%	
Age											**
40-49 years	1367	764	56%	53-59%	312	22%	20-25%	291	22%	19-24%	
50-64 years	2069	997	47%	45-50%	715	36%	33-38%	357	17%	15-19%	
65 years and above	1681	831	50%	47-53%	724	43%	40-46%	126	7%	6-9%	
Race											**
White	4102	2043	51%	49-52%	1459	34%	32-36%	600	15%	14-17%	
African American or Black	826	434	51%	47-55%	248	30%	26-33%	144	19%	16-23%	
Other	189	115	61%	52-69%	44	24%	17-32%	30	15%	9-21%	
Gender and Race											**
White male	1587	674	45%	42-48%	668	38%	36-41%	245	16%	14-19%	
African American male	240	104	43%	36-51%	85	34%	27-41%	51	23%	17-29%	
Other male	72	42	55%	40-69%	20	31%	17-44%	10	15%	4-25%	
White female	2515	1369	55%	53-58%	791	30%	28-32%	355	14%	13-16%	
African American female	586	330	57%	53-62%	163	26%	22-31%	93	16%	13-20%	
Other female	117	73	65%	56-75%	24	19%	11-27%	20	16%	8-23%	

~ Some data missing for marital status, education, and employment status

** p-value $\leq$ 0.05

* p-value > 0.05 - 0.1

^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 9-1. CIGARETTE SMOKING STATUS BY DEMOGRAPHIC CHARACTERISTICS, AMONG RESPONDENTS AGE 40 YEARS AND OLDER

		Never Smoked ~			Previous Smoker ~			Current Smoker ~			
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**n**	**wt %**	**95% CI**	**n**	**wt %**	**95% CI**	**Stat Sig**
Marital Status											**
Married or partner of unmarried couple	3057	1595	53%	51-55%	1075	34%	32-36%	387	13%	12-15%	
Divorced or separated	883	376	43%	38-47%	285	31%	28-35%	222	26%	22-30%	
Widowed	762	405	53%	48-57%	281	35%	31-39%	76	12%	9-16%	
Never married	400	209	49%	42-55%	105	22%	18-27%	86	29%	23-35%	
Education											**
Less than high school	410	171	38%	32-45%	145	35%	28-41%	94	27%	21-33%	
High school grad or GED	1412	670	47%	43-50%	443	30%	27-33%	299	23%	20-26%	
College 1-3 years	1235	580	49%	45-53%	458	34%	31-37%	197	17%	14-20%	
College grad	1102	591	54%	50-57%	389	34%	31-38%	122	12%	9-14%	
Advanced degree	946	576	62%	59-66%	308	31%	27-34%	62	7%	5-9%	
Employment Status											**
Employed for wages	2280	1223	55%	52-57%	681	29%	27-31%	376	17%	15-18%	
Self-employed	438	221	49%	43-54%	141	32%	27-37%	76	20%	15-25%	
Retired	1713	817	48%	45-51%	733	43%	40-46%	163	10%	8-11%	
Other	671	321	48%	43-53%	191	26%	22-30%	159	26%	22-30%	
Household Income											**
<$25,000	865	394	44%	40-48%	279	30%	26-34%	192	26%	22-30%	
$25,000-<$35,000	448	211	45%	39-51%	153	33%	27-39%	84	22%	16-27%	
$35,000-<$50,000	617	285	45%	40-50%	208	33%	28-37%	124	22%	18-26%	
$50,000-<$75,000	746	381	49%	45-54%	246	34%	30-38%	119	17%	13-20%	
$75,000 or greater	1672	914	56%	53-59%	594	33%	31-36%	164	10%	9-12%	
Don't know/not sure	317	163	52%	46-59%	104	30%	24-36%	50	18%	13-24%	
Refused	452	244	58%	52-64%	167	32%	26-37%	41	11%	7-15%	

~ Some data missing for marital status, education, and employment status

** p-value $\leq$ 0.05

* p-value > 0.05 - 0.1

^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 9-2. NUMBER OF CIGARETTES SMOKED PER DAY, AMONG CURRENT SMOKERS AGE 40 YEARS AND OLDER ~

		Less than 10 cigarettes per day			10 to 19 cigarettes per day			20 or more cigarettes per day			
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**n**	**wt %**	**95% CI**	**n**	**wt %**	**95% CI**	**Stat Sig**
Total Population	764	267	39%	34-43%	205	27%	23-31%	292	34%	30-38%	
Area of Residence											**
Urban	414	164	42%	36-47%	112	28%	22-33%	138	31%	26-36%	
Rural	350	103	32%	25-38%	93	27%	21-32%	154	42%	36-48%	
Gender											**
Male	302	88	35%	28-42%	66	24%	18-30%	148	41%	34-48%	
Female	462	179	43%	38-49%	139	31%	26-36%	144	26%	22-31%	
Age											**
40-49 years	286	95	39%	32-46%	90	32%	25-38%	101	29%	23-35%	
50-64 years	355	117	36%	29-43%	83	23%	17-28%	155	41%	35-48%	
65 years and above	123	55	48%	38-59%	32	26%	16-35%	36	26%	17-35%	
Race											**
White	592	175	29%	24-33%	157	28%	23-33%	260	43%	38-48%	
African American or Black	142	78	59%	50-69%	42	27%	19-36%	22	13%	7-20%	
Other	30	14	54%	31-77%	6	17%	0-35%	10	29%	9-49%	
Gender and Race											**
White male	242	57	22%	16-28%	50	25%	17-32%	135	54%	46-62%	
African American male	50	27	62%	47-76%	14	24%	12-36%	9	15%	5-25%	
Other male	10	4	47%	7-87%	2	22%	0-58%	4	31%	0-66%	
White female	350	118	36%	30-42%	107	32%	26-37%	125	32%	27-38%	
African American female	92	51	57%	45-69%	28	31%	20-42%	13	12%	5-19%	
Other female	20	10	59%	34-84%	4	13%	0-29%	6	28%	5-51%	

~ Some data missing for marital status, education, and employment status

** p-value $\leq$ 0.05

* p-value > 0.05 - 0.1

^ p-value > 0.1

TABLE 9-2. NUMBER OF CIGARETTES SMOKED PER DAY, AMONG CURRENT SMOKERS AGE 40 YEARS AND OLDER ~

		Less than 10 cigarettes per day			10 to 19 cigarettes per day			20 or more cigarettes per day			
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**n**	**wt %**	**95% CI**	**n**	**wt %**	**95% CI**	**Stat Sig**
Marital Status											**
Married or partner of unmarried couple	383	138	40%	34-46%	99	25%	20-30%	146	35%	29-41%	
Divorced or separated	220	62	28%	20-36%	66	34%	25-43%	92	38%	30-46%	
Widowed	74	34	58%	44-73%	18	20%	10-31%	22	21%	10-32%	
Never married	84	32	43%	29-56%	22	29%	18-41%	30	28%	16-40%	
Education											*
Less than high school	91	29	36%	23-50%	16	18%	8-29%	46	45%	32-58%	
High school grad or GED	294	99	37%	30-44%	87	29%	23-36%	108	34%	27-41%	
College 1-3 years	196	62	32%	24-41%	52	30%	21-38%	82	38%	29-46%	
College grad	121	49	47%	35-58%	34	29%	19-39%	38	24%	16-33%	
Advanced degree	62	28	55%	39-71%	16	22%	10-34%	18	23%	11-35%	
Employment Status											^
Employed for wages	373	127	39%	32-45%	109	30%	24-35%	137	32%	26-38%	
Self-employed	74	21	31%	17-45%	22	31%	16-46%	31	38%	24-52%	
Retired	160	65	44%	34-54%	40	23%	15-30%	55	34%	24-43%	
Other	157	54	40%	30-50%	34	24%	15-32%	69	36%	27-45%	
Household Income											^
<$25,000	190	58	35%	26-44%	55	31%	22-40%	77	33%	25-42%	
$25,000-<$35,000	84	34	41%	27-56%	21	26%	13-38%	29	33%	20-46%	
$35,000-<$50,000	122	42	38%	27-49%	33	28%	19-38%	47	34%	24-44%	
$50,000-<$75,000	119	38	36%	24-48%	32	26%	16-36%	49	38%	27-48%	
$75,000 or greater	163	61	42%	32-52%	48	29%	20-37%	54	30%	21-38%	
Don't know/not sure	45	21	53%	35-71%	7	15%	1-28%	17	32%	16-49%	
Refused	41	13	35%	15-55%	9	20%	5-35%	19	45%	25-65%	

~ Some data missing for marital status, education, and employment status

** p-value $\leq$ 0.05

* p-value > 0.05 - 0.1

^ p-value > 0.1

TABLE 9-3. RESPONSES TO THE QUESTION "HOW SOON AFTER YOU WAKE UP DO YOU SMOKE YOUR FIRST CIGARETTE?" AMONG CURRENT SMOKERS AGE 40 YEARS AND OLDER ~

		Within 30 minutes after waking			31 to 60 minutes after waking			More than 60 minutes after waking			
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**n**	**wt %**	**95% CI**	**n**	**wt %**	**95% CI**	**Stat Sig**
Total Population	744	421	56%	51-60%	114	15%	12-19%	209	29%	25-33%	
Area of Residence											*
Urban	405	211	54%	48-59%	69	17%	12-21%	125	30%	25-35%	
Rural	339	210	62%	56-69%	45	12%	8-16%	84	26%	20-32%	
Gender											^
Male	292	163	57%	50-64%	48	15%	10-21%	81	27%	21-34%	
Female	452	258	54%	49-60%	66	15%	11-19%	128	30%	25-35%	
Age											^
40-49 years	282	169	58%	51-65%	34	13%	8-18%	79	29%	22-35%	
50-64 years	343	196	57%	50-63%	58	17%	12-21%	89	27%	21-33%	
65 years and above	119	56	41%	30-51%	22	21%	12-31%	41	38%	27-48%	
Race											^
White	578	329	55%	50-60%	90	16%	12-19%	159	29%	25-34%	
African American or Black	137	80	60%	50-70%	18	14%	6-22%	39	26%	18-35%	
Other	29	12	45%	22-68%	6	20%	3-37%	11	35%	13-57%	
Gender and Race											^
White male	234	129	56%	48-64%	40	15%	10-20%	65	29%	22-36%	
African American male	48	29	60%	44-76%	6	17%	4-30%	13	23%	10-36%	
Other male	10	5	59%	20-98%	2	5%	0-13%	3	36%	0-75%	
White female	344	200	54%	48-60%	50	16%	12-21%	94	30%	24-36%	
African American female	89	51	59%	48-71%	12	11%	4-17%	26	30%	19-41%	
Other female	19	7	34%	8-60%	4	31%	6-57%	8	35%	10-59%	

~ Some data missing for marital status, education, and employment status

** p-value $\leq$ 0.05

* p-value > 0.05 - 0.1

^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 9-3. RESPONSES TO THE QUESTION "HOW SOON AFTER YOU WAKE UP DO YOU SMOKE YOUR FIRST CIGARETTE?" AMONG CURRENT SMOKERS AGE 40 YEARS AND OLDER ~

		Within 30 minutes after waking			31 to 60 minutes after waking			More than 60 minutes after waking			
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**n**	**wt %**	**95% CI**	**n**	**wt %**	**95% CI**	**Stat Sig**
Marital Status											^
Married or partner of unmarried couple	371	192	52%	45-58%	67	18%	13-23%	112	30%	25-36%	
Divorced or separated	212	134	63%	55-71%	31	14%	9-20%	47	23%	16-30%	
Widowed	74	40	57%	42-72%	8	12%	0-24%	26	31%	18-45%	
Never married	84	52	59%	47-72%	8	10%	2-18%	24	31%	19-43%	
Education											^
Less than high school	92	66	74%	64-85%	9	10%	2-18%	17	15%	7-24%	
High school grad or GED	290	167	54%	47-62%	47	17%	11-22%	76	29%	22-36%	
College 1-3 years	188	100	51%	42-60%	28	15%	9-21%	60	34%	25-42%	
College grad	115	58	50%	38-62%	19	17%	7-27%	38	34%	22-45%	
Advanced degree	59	30	59%	43-74%	11	16%	6-27%	18	25%	12-38%	
Employment Status											^
Employed for wages	362	201	56%	49-62%	54	16%	11-21%	107	29%	23-34%	
Self-employed	72	42	53%	38-68%	14	18%	8-28%	16	29%	15-44%	
Retired	156	81	53%	43-63%	27	18%	10-25%	48	30%	21-39%	
Other	154	97	60%	51-70%	19	12%	5-18%	38	28%	19-37%	
Household Income											**
<$25,000	186	122	61%	52-70%	18	10%	5-16%	46	28%	20-37%	
$25,000-<$35,000	82	45	62%	49-76%	17	23%	11-35%	20	15%	7-23%	
$35,000-<$50,000	120	67	57%	46-68%	20	13%	7-19%	33	30%	20-41%	
$50,000-<$75,000	118	61	47%	35-59%	20	21%	10-31%	37	32%	21-43%	
$75,000 or greater	153	72	46%	36-56%	25	17%	10-24%	56	37%	28-47%	
Don't know/not sure	46	32	75%	60-89%	7	9%	1-16%	7	17%	3-30%	
Refused	39	22	65%	47-83%	7	15%	1-29%	10	19%	6-33%	

~ Some data missing for marital status, education, and employment status

** p-value $\leq$ 0.05

* p-value > 0.05 - 0.1

^ p-value > 0.1

TABLE 9-4. SMOKING CESSATION DURING THE PAST 12 MONTHS BY DEMOGRAPHIC CHARACTERISTICS, AMONG RESPONDENTS AGE 40 YEARS AND OLDER

	Current smokers who were told to stop smoking by a health care professional during the past 12 months ~					Current smokers who attempted to stop smoking during the past 12 months ~					Current smokers who went "cold turkey" during their last attempt at smoking cessation during the past 12 months ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Total Population	771	517	66%	62-71%		769	359	50%	45-54%		356	249	74%	68-79%	
Area of Residence					^					^					^
Urban	421	294	67%	61-72%		420	204	50%	45-56%		201	144	74%	67-81%	
Rural	350	223	65%	59-71%		349	155	49%	42-55%		155	105	72%	63-80%	
Gender					*					^					^
Male	304	189	62%	56-69%		303	131	51%	44-58%		131	96	77%	68-86%	
Female	467	328	70%	65-75%		466	228	49%	44-55%		225	153	70%	62-77%	
Age					**					^					**
40-49 years	290	176	59%	52-66%		291	142	51%	44-58%		142	110	80%	72-88%	
50-64 years	355	250	73%	67-79%		353	163	50%	43-57%		162	103	66%	56-75%	
65 years and above	126	91	74%	64-83%		125	54	44%	33-54%		52	36	70%	55-85%	
Race					^					**					*
White	597	405	66%	62-71%		596	262	46%	41-51%		260	177	71%	65-78%	
African American or Black	144	93	65%	56-75%		143	82	61%	52-71%		82	65	80%	69-90%	
Other	30	19	70%	49-91%		30	15	38%	18-59%		14	7	45%	13-77%	
Gender and Race					^					**					**
White male	243	152	61%	54-69%		243	99	46%	38-54%		99	71	75%	64-85%	
African American male	51	32	65%	50-79%		50	31	66%	51-80%		31	25	82%	67-97%	
Other male	10	5	62%	23-100%		10	1	6%	0-19%		1	0	0%		
White female	354	253	72%	66-77%		353	163	45%	39-51%		161	106	68%	60-76%	
African American female	93	61	66%	55-77%		93	51	57%	45-68%		51	40	77%	62-92%	
Other female	20	14	77%	55-98%		20	14	63%	37-89%		13	7	49%	15-82%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 9-4. SMOKING CESSATION DURING THE PAST 12 MONTHS BY DEMOGRAPHIC CHARACTERISTICS, AMONG RESPONDENTS AGE 40 YEARS AND OLDER

	Current smokers who were told to stop smoking by a health care professional during the past 12 months ~					Current smokers who attempted to stop smoking during the past 12 months ~					Current smokers who went "cold turkey" during their last attempt at smoking cessation during the past 12 months ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Marital Status					**					^					^
Married or partner of unmarried couple	386	278	73%	67-78%		385	179	50%	44-56%		178	124	71%	63-79%	
Divorced or separated	221	144	61%	53-70%		220	105	52%	43-60%		103	69	75%	66-85%	
Widowed	76	52	69%	55-84%		75	37	52%	38-67%		37	27	83%	70-96%	
Never married	85	41	48%	35-61%		86	37	47%	34-60%		37	28	76%	59-93%	
Education					^					^					^
Less than high school	93	54	52%	38-65%		93	47	58%	46-71%		47	30	79%	67-90%	
High school grad or GED	297	203	69%	63-76%		298	136	48%	41-55%		134	94	74%	65-84%	
College 1-3 years	197	139	70%	62-78%		194	88	47%	38-56%		87	55	62%	48-76%	
College grad	122	81	64%	52-75%		122	60	49%	37-60%		60	46	78%	67-90%	
Advanced degree	62	40	69%	53-84%		62	28	57%	41-73%		28	24	81%	61-100%	
Employment Status					^					^					^
Employed for wages	374	251	67%	61-73%		373	169	47%	41-54%		168	116	74%	66-82%	
Self-employed	76	45	61%	46-75%		76	32	50%	36-65%		32	23	79%	63-94%	
Retired	162	121	75%	66-83%		161	70	44%	34-54%		69	47	61%	44-78%	
Other	159	100	61%	51-70%		159	88	59%	50-69%		87	63	77%	66-87%	
Household Income					*					^					^
<$25,000	191	115	57%	47-66%		191	95	54%	45-63%		93	65	75%	64-86%	
$25,000-<$35,000	84	53	69%	56-81%		83	36	39%	24-53%		36	28	75%	51-98%	
$35,000-<$50,000	123	93	73%	63-84%		124	52	51%	40-61%		52	37	69%	53-86%	
$50,000-<$75,000	119	78	70%	60-80%		119	48	39%	28-50%		48	33	67%	50-84%	
$75,000 or greater	164	115	65%	56-75%		163	84	57%	47-66%		84	56	74%	64-84%	
Don't know/not sure	49	32	62%	46-79%		49	24	48%	31-65%		23	12	65%	43-87%	
Refused	41	31	82%	68-96%		40	20	56%	37-76%		20	18	96%	91-100%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 9-5. RESPONSES TO THE QUESTION "ABOUT HOW LONG HAS IT BEEN SINCE YOU LAST SMOKED CIGARETTES DAILY?" AMONG FORMER SMOKERS AGE 40 AND OLDER ~

		Within the past year			1 to 5 years ago			More than 5 years ago			
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**n**	**wt %**	**95% CI**	**n**	**wt %**	**95% CI**	**Stat Sig**
Total Population	1741	88	6%	4-8%	169	11%	9-13%	1484	83%	81-86%	
Area of Residence											^
Urban	1022	46	6%	4-8%	97	11%	8-13%	879	84%	81-87%	
Rural	719	42	7%	5-9%	72	11%	8-14%	605	82%	79-85%	
Gender											^
Male	768	39	7%	4-10%	76	12%	9-15%	653	81%	78-85%	
Female	973	49	5%	4-7%	93	10%	7-12%	831	85%	82-88%	
Age											**
40-49 years	312	35	11%	7-16%	44	15%	10-20%	233	74%	67-80%	
50-64 years	708	36	5%	3-7%	74	11%	8-14%	598	84%	80-87%	
65 years and above	721	17	3%	1-5%	51	7%	5-9%	653	90%	87-93%	
Race											**
White	1451	57	4%	3-5%	125	9%	7-11%	1269	87%	85-89%	
African American or Black	246	26	14%	8-20%	36	15%	9-21%	184	71%	64-79%	
Other	44	5	7%	0-15%	8	15%	3-28%	31	78%	63-92%	
Gender and Race											**
White male	663	26	4%	2-6%	59	10%	7-13%	578	86%	83-90%	
African American male	85	12	18%	7-28%	13	16%	6-26%	60	66%	54-79%	
Other male	20	1	2%	0-7%	4	24%	2-45%	15	74%	52-96%	
White female	788	31	3%	2-5%	66	9%	6-11%	691	88%	85-91%	
African American female	161	14	10%	4-15%	23	13%	8-19%	124	77%	69-84%	
Other female	24	4	13%	0-30%	4	4%	0-10%	16	83%	65-100%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

TABLE 9-5. RESPONSES TO THE QUESTION "ABOUT HOW LONG HAS IT BEEN SINCE YOU LAST SMOKED CIGARETTES DAILY?" AMONG FORMER SMOKERS AGE 40 AND OLDER ~

		Within the past year			1 to 5 years ago			More than 5 years ago			
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**n**	**wt %**	**95% CI**	**n**	**wt %**	**95% CI**	**Stat Sig**
Marital Status											**
Married or partner of unmarried couple	1072	47	6%	3-8%	94	9%	7-12%	931	85%	82-88%	
Divorced or separated	281	24	12%	6-17%	33	14%	8-20%	224	74%	67-81%	
Widowed	280	11	3%	1-5%	25	11%	6-16%	244	86%	81-91%	
Never married	104	6	5%	0-10%	16	17%	8-25%	82	78%	68-87%	
Education											**
Less than high school	144	10	13%	3-23%	17	20%	8-31%	117	67%	54-80%	
High school grad or GED	441	31	7%	4-10%	56	15%	10-19%	354	78%	73-83%	
College 1-3 years	457	26	7%	4-10%	53	12%	8-16%	378	81%	77-86%	
College grad	387	14	5%	1-9%	25	6%	4-9%	348	89%	84-93%	
Advanced degree	304	6	3%	0-5%	17	6%	3-8%	281	92%	88-96%	
Employment Status											**
Employed for wages	676	42	6%	4-9%	81	13%	10-17%	553	80%	76-84%	
Self-employed	139	4	2%	0-4%	13	10%	4-16%	122	88%	82-95%	
Retired	730	20	4%	1-6%	49	7%	5-9%	661	90%	86-93%	
Other	191	22	16%	8-23%	25	13%	7-19%	144	72%	63-80%	
Household Income											**
<$25,000	276	20	13%	6-21%	36	15%	9-20%	220	72%	64-80%	
$25,000-<$35,000	153	7	7%	1-13%	17	16%	5-27%	129	77%	66-89%	
$35,000-<$50,000	208	5	2%	0-5%	19	9%	4-13%	184	89%	84-94%	
$50,000-<$75,000	244	21	9%	5-13%	23	10%	5-15%	200	81%	75-87%	
$75,000 or greater	592	23	4%	1-7%	51	9%	6-12%	518	87%	83-90%	
Don't know/not sure	102	6	6%	1-11%	11	14%	5-24%	85	80%	70-90%	
Refused	166	6	3%	0-6%	12	8%	3-12%	148	89%	83-94%	

~ Some data missing for marital status, education, and employment status

** p-value $\leq$ 0.05

* p-value > 0.05 - 0.1

^ p-value > 0.1

TABLE 9-6. CANCER SCREENING PRACTICES BY SMOKING STATUS, AMONG RESPONDENTS AGE 40 YEARS AND OLDER

	Never Smokers				Former Smokers				Current Smokers				
Screening Test	**N**	**n**	**wt%**	**95%CI**	**N**	**n**	**wt%**	**95%CI**	**N**	**n**	**wt%**	**95%CI**	**Stat Sig**
Persons reporting to have ever had a fecal occult blood test (Age ≥ 50 years)	1815	1027	56%	53-59%	1422	875	60%	57-64%	481	235	52%	46-57%	**
Persons reporting to have ever had a sigmoidoscopy or colonoscopy (lower GI endoscopy) (Age ≥ 50 years)	1817	1256	68%	66-71%	1428	1055	73%	70-76%	478	255	57%	51-62%	**
Men reporting to have ever had a Prostate Specific Antigen test (African American men age 45-49 years and all men age ≥50 years)	520	420	79%	75-83%	614	487	75%	70-79%	179	108	62%	52-71%	**
Men reporting to have ever had a digital rectal examination (African American men age 45-49 years and all men age ≥50 years)	550	491	89%	85-92%	659	606	91%	88-94%	196	162	82%	75-89%	**
Women reporting to have ever had a mammogram (Age ≥ 40 years)	1771	1681	94%	93-96%	977	939	96%	95-98%	468	413	87%	82-91%	**
Women reporting to have ever had a Pap test (Age ≥ 40 years with an intact uterus)	1167	1146	98%	97-99%	647	632	98%	96-99%	317	310	98%	96-100%	^
Persons reporting to have ever had oral cancer screening (Age ≥ 40 years)	2458	1233	49%	46-51%	1668	857	50%	47-53%	747	302	36%	32-40%	**

** p-value ≤ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 9-7. ALCOHOL CONSUMPTION DURING THE PAST 30 DAYS BY DEMOGRAPHIC FACTORS, AMONG RESPONDENTS AGE 40 YEARS AND OLDER

		Non-drinkers			Low-risk drinkers *			High-risk drinkers~			
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**n**	**wt %**	**95% CI**	**n**	**wt %**	**95% CI**	**Stat Sig**
Total Population	5080	2342	44%	42-46%	2227	45%	43-47%	511	11%	10-12%	
Area of Residence											**
Urban	3026	1305	43%	41-45%	1428	46%	44-49%	293	11%	9-12%	
Rural	2054	1037	48%	46-51%	799	39%	37-42%	218	13%	11-15%	
Gender											**
Male	1887	719	38%	35-41%	883	46%	43-49%	285	16%	14-18%	
Female	3193	1623	49%	47-51%	1344	44%	42-46%	226	7%	6-8%	
Age											**
40-49 years	1357	512	38%	35-42%	648	47%	44-50%	197	15%	12-17%	
50-64 years	2052	884	42%	39-45%	954	47%	45-50%	214	11%	9-12%	
65 years and above	1671	946	56%	53-59%	625	38%	35-41%	100	6%	5-8%	
Race											**
White	4064	1715	38%	36-40%	1907	50%	48-52%	442	12%	11-13%	
African American or Black	828	518	59%	55-63%	255	32%	28-36%	55	8%	6-11%	
Other	188	109	52%	43-61%	65	40%	32-49%	14	8%	3-13%	
Gender and Race											**
White male	1575	555	33%	30-36%	777	51%	48-54%	243	16%	14-19%	
African American male	240	134	55%	47-62%	75	31%	24-38%	31	14%	9-19%	
Other male	72	30	34%	21-48%	31	51%	36-65%	11	15%	4-25%	
White female	2489	1160	43%	40-45%	1130	49%	47-51%	199	8%	7-10%	
African American female	588	384	63%	58-67%	180	33%	29-38%	24	4%	2-6%	
Other female	116	79	66%	56-76%	34	32%	22-41%	3	2%	0-5%	

* Men ≤14 drinks/week or < 5 drinks/occasion
Females ≤7 drinks/week or <4 drinks/occasion.
~ High-risk drinking exceeds these criteria.
** p-value ≤ 0.05
* p-value >0.05 - 0.1
^ p-value > 0.1

TABLE 9-7. ALCOHOL CONSUMPTION DURING THE PAST 30 DAYS BY DEMOGRAPHIC FACTORS, AMONG RESPONDENTS AGE 40 YEARS AND OLDER

		Non-drinkers			Low-risk drinkers *			High-risk drinkers~			
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**n**	**wt %**	**95% CI**	**n**	**wt %**	**95% CI**	**Stat Sig**
Marital Status											**
Married or partner of unmarried couple	3036	1228	40%	38-42%	1487	49%	46-51%	321	11%	10-13%	
Divorced or separated	874	428	48%	44-53%	358	42%	37-46%	88	10%	8-12%	
Widowed	757	480	66%	61-70%	231	29%	25-33%	46	6%	4-8%	
Never married	399	200	48%	41-54%	144	37%	31-43%	55	15%	11-20%	
Education											**
Less than high school	403	304	70%	64-76%	65	20%	14-25%	34	10%	6-15%	
High school grad or GED	1404	834	58%	55-61%	433	32%	29-35%	137	10%	8-12%	
College 1-3 years	1222	577	46%	43-50%	528	43%	39-46%	117	11%	8-13%	
College grad	1093	357	33%	29-36%	612	55%	51-59%	124	12%	10-15%	
Advanced degree	946	262	26%	23-30%	585	63%	59-66%	99	11%	9-14%	
Employment Status											**
Employed for wages	2275	870	37%	35-39%	1129	50%	47-53%	276	13%	11-15%	
Self-employed	430	152	34%	28-39%	212	50%	45-56%	66	16%	12-20%	
Retired	1699	926	54%	51-57%	668	39%	37-42%	105	7%	5-8%	
Other	661	386	58%	53-63%	211	33%	29-38%	64	9%	6-12%	
Household Income											**
<$25,000	858	588	67%	63-72%	204	25%	21-29%	66	8%	6-10%	
$25,000-<$35,000	446	251	55%	49-61%	156	37%	31-42%	39	8%	5-11%	
$35,000-<$50,000	613	284	48%	44-53%	267	40%	35-45%	62	11%	8-15%	
$50,000-<$75,000	740	319	43%	39-47%	340	45%	41-50%	81	12%	9-15%	
$75,000 or greater	1669	484	29%	26-31%	973	58%	55-61%	212	13%	11-15%	
Don't know/not sure	310	210	67%	61-74%	83	27%	21-33%	17	6%	3-9%	
Refused	444	206	44%	37-51%	204	44%	38-51%	34	12%	7-16%	

* Men ≤14 drinks/week or < 5 drinks/occasion
Females ≤7 drinks/week or <4 drinks/occasion.
~ High-risk drinking exceeds these criteria.
** p-value ≤ 0.05
* p-value >0.05 - 0.1
^ p-value > 0.1

TABLE 9-8. CANCER SCREENING PRACTICES BY RISK LEVEL OF ALCOHOL CONSUMPTION DURING THE PAST 30 DAYS, AMONG RESPONDENTS AGE 40 YEARS AND OLDER

	Non-drinkers				Low-risk drinkers *				High-risk drinkers~				
Screening Test	**N**	**n**	**wt%**	**95%CI**	**N**	**n**	**wt%**	**95%CI**	**N**	**n**	**wt%**	**95%CI**	**Stat Sig**
Persons reporting to have ever had a fecal occult blood test (Age ≥ 50 years)	1813	1005	55%	52-58%	1563	948	60%	57-63%	314	168	55%	48-62%	*
Persons reporting to have ever had a sigmoidoscopy or colonoscopy (Age ≥ 50 years)	1808	1176	65%	63-68%	1575	1164	73%	70-75%	313	207	65%	58-72%	**
Men reporting to have ever had a Prostate Specific Antigen test (African American men age 40-49 years and all men age ≥ 50 years)	514	385	73%	68-78%	620	506	78%	73-82%	171	117	67%	58-76%	*
Men reporting to have ever had a digital rectal examination (African American men age 40-49 years and all men age ≥ 50 years)	558	481	85%	81-89%	664	621	93%	91-96%	175	150	83%	76-91%	**
Women reporting to have ever had a mammogram (Age ≥ 40 years)	1621	1514	94%	92-95%	1344	1280	94%	92-96%	226	215	93%	89-98%	^
Women reporting to have ever had a Pap test (Age ≥ 40 years with an intact uterus)	991	958	97%	95-98%	971	963	99%	98-100%	160	159	100%	99-100%	**
Persons reporting to have ever had oral cancer screening (Age ≥ 40 years)	2228	905	39%	36-41%	2114	1224	55%	53-58%	493	250	48%	43-54%	**

* Men ≤14 drinks/week or < 5 drinks/occasion
Females ≤7 drinks/week or <4 drinks/occasion
~ High-risk drinking exceeds these criteria.
** p-value ≤ 0.05
* p-value >0.05 - 0.1
^ p-value > 0.1

Chapter 10. Weight, Dietary Practices, and Physical Activity

Overweight and obesity are major health concerns in the United States (U.S.). Scientific evidence has established clear associations between overweight/obesity and the leading causes of morbidity and mortality in the U.S., including cardiovascular disease, cancer, and diabetes.[1] Overweight and obesity are clearly associated with increased risk of developing cancer of the breast (in postmenopausal women), colon, endometrium, esophagus, and kidney. Highly suggestive evidence also indicates that obesity increases risk for cancers of the gallbladder, prostate, ovary, pancreas, thyroid, and cervix, and for multiple myeloma and Hodgkin lymphoma.[2] One recent study estimates that in the U.S., overweight and obesity could account for as much as 14% of cancer deaths in men and 20% of all cancer-related deaths in women.[3]

Aside from tobacco use, body weight, dietary practices, and levels of physical activity are the most important determinants of cancer risk. Because of their critical importance in overall health, these factors are leading health indicators used by HP 2010 to measure the health of the nation. The MCS examines these indicators through a series of questions related to body weight and height, fruit and vegetable consumption, meat consumption (as an indicator of saturated fat intake), and frequency and intensity of physical activity. Findings were used to assess the prevalence of risk factors among respondents, and to examine whether body mass index (BMI), dietary practices, and physical activity levels are associated with cancer screening behaviors.

10.1 Body Mass Index

BMI is widely used as an indicator of total body fat, based on an individual's height and weight. BMI is calculated as body weight in kilograms divided by height in meters, squared (kg/m^2). The table below shows the BMI ranges generally used as a measure of whether an individual is underweight, at a healthy weight, overweight, or obese.

	BMI range (kg/m^2)
Underweight	Less than 18.5
Healthy	18.5 – 24.9
Overweight	25.0 – 29.9
Obese	30.0 or higher

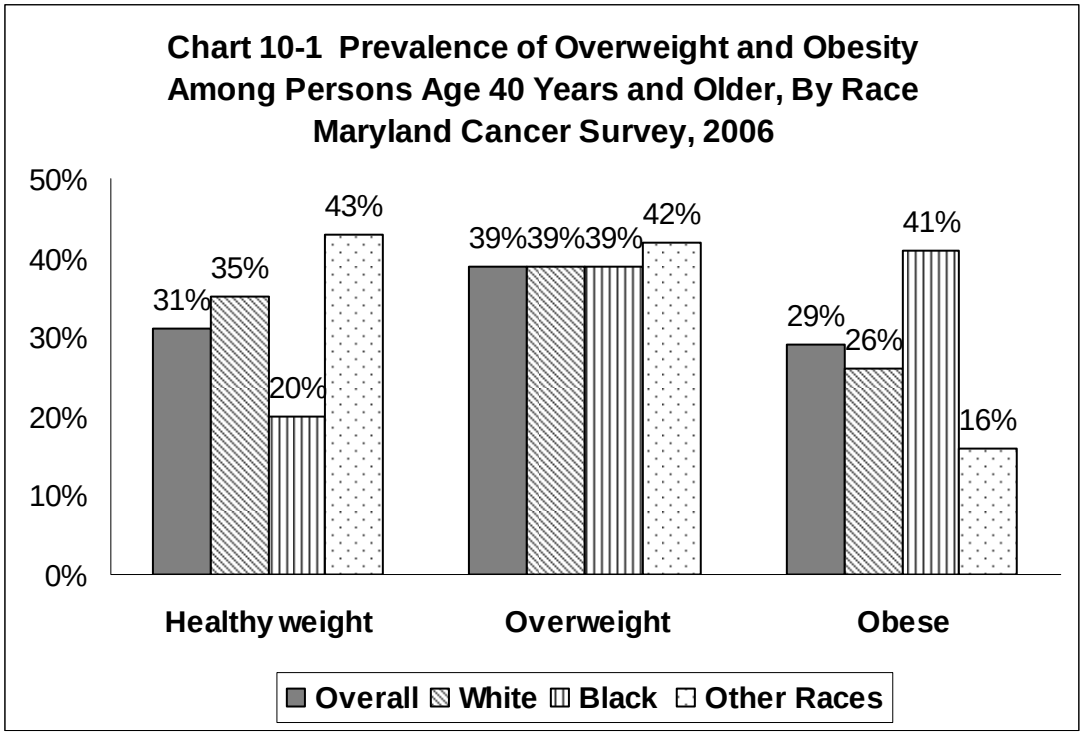
Reducing the percentage of Americans who are overweight or obese is among the leading health indicators used by HP 2010. One specific HP 2010 target is to reduce the proportion of American adults age 20 years and older who are obese, from a national baseline of 23% to 15%.

[1] Eyre H, Kahn R, and Robertson RM. Preventing cancer, cardiovascular disease, and diabetes. Diabetes Care 2004; 27(7): 1812-1824.
[2] Kushi LH et al. American Cancer Society Guidelines on Nutrition and Physical Activity for Cancer Prevention: Reducing the Risk of Cancer with Healthy Food Choices and Physical Activity. CA Cancer J Clin 2006; 56:254-281.
[3] Calle EE et al. Overweight, obesity, and mortality from cancer in a prospectively studies cohort of U.S. adults. N Engl J Med 2003; 348:1625-1638.

Another HP 2010 target is to increase the proportion of adults age 20 years and older that has a healthy weight, from a national baseline of 42% to 60%.[4]

In the MCS, participants were asked to provide their height and weight, which was then used to estimate BMI. The following is a summary of BMI distribution among Marylanders age 40 years and older, based on results of the MCS (Table 10-1 and Chart 10-1).

- Thirty-one percent (31%) of Marylanders age 40 years and older had a BMI in the healthy range, 39% had a BMI in the overweight range and 29% had a BMI in the obese range. (Fifty-nine persons with a BMI in the "underweight" range were excluded from analysis due to small sample size, as were the 145 who did not report a height and/or weight.)
- More than two-thirds (68%) of Marylanders age 40 years and older can be considered as overweight or obese.



BMI differed significantly among respondents, based on several demographic characteristics (Table 10-1).

- A lower percentage of men than women had a BMI in the healthy weight range (24% vs. 38%, respectively). Although the prevalence of overweight was significantly higher among men, 47% compared to 32% for women; the prevalence of obesity was comparable for men and women (29% vs. 30%).

[4] U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. Understanding and Improving Health; Objectives for Improving Health. Vol. II, Nutrition and Overweight. Washington, DC: U.S. Government Printing Office, November 2000. Available at http://www.healthypeople.gov/document/HTML/Volume2/19Nutrition.htm. Last accessed January 23, 2007.

- The proportion of respondents with a BMI in the healthy range was significantly lower among respondents age 50 to 64 years compared with other age groups.
- African Americans had a significantly greater percentage with a BMI in the obese range than did either Whites or those of other races (41%, 26%, and 16%, respectively). Among all race-sex categories, African American females had the highest proportion of obesity (45%).
- Education appears to be strongly associated with BMI in Marylanders age 40 years and older. As level of education increased, the proportion of respondents who were obese decreased. The prevalence of obesity is highest among those with less than a high school education (40%) and lowest among those with an advanced degree (19%). The proportion of respondents in the healthy BMI range increased with higher levels of education.
- As household income increased, the proportion of persons in the healthy BMI range generally increased while the prevalence of obesity decreased.

MCS participants were asked whether, at the time of the survey, they were trying to either lose weight or keep from gaining weight, and if so, what method they were using. Among all respondents age 40 and older:

- Forty-nine percent (49%) said they are trying to lose weight (Table 10-2).
- Twenty-four percent (24%) said that in the past 12 months, a health professional had advised them to lose weight (data not shown in tables). Of those with a BMI in the obese range, 52% reported that a health professional had advised them to lose weight.

Among respondents who said they were trying to lose weight or keep from gaining weight:

- The most common approach was eating fewer calories and less fat (37%; data not shown in tables).
- Seventeen percent (17%) said they were following a particular diet plan (Table 10-2).
- Of those who reported using a diet plan, the one most commonly cited was Weight Watchers. (Data not shown in tables.)
- Almost three-fourths (67%) said they were using physical activity or exercise in their weight control efforts.

10.2 Dietary Practices

Epidemiological studies have shown that eating a diet high in vegetables and fruits and low in animal fat and meat reduces the risk of some of the most common types of cancer.[1,2] Although questions remain about the role of nutrition in cancer, current recommendations for overall health are to consume a diet that includes at least five servings of vegetables and fruits each day, to choose whole grain foods, and to limit consumption of saturated fats, alcohol, and excess calories.[5]

[5] U.S. Department of Health and Human Services (HHS) and U.S. Department of Agriculture (USDA). Dietary Guidelines for Americans 2005. Available at http://www.healthierus.gov/dietaryguidelines. Last accessed January 25, 2007.

Fruit and Vegetable Consumption

Two HP 2010 objectives concern the consumption of fruits and vegetables in the American population age 2 years and older:

1. To increase the proportion of persons age 2 years and older who consume at least two daily servings of fruit from a national baseline of 28% to 75%; and
2. To increase the proportion of those who consume at least three daily servings of vegetables from 3% to 50%.[4]

In the MCS 2006, Marylanders were asked about their average daily consumption of a variety of fruits and vegetables. Using these survey results, we estimated the number of daily servings of fruits and vegetables by summing the responses from specific questions about consumption of fruits, fruit juice, leafy salad greens, and vegetables (other than potatoes). The results show that Marylanders do not yet meet the HP 2010 targets for either fruit or vegetable consumption. Only 60% of Marylanders reported eating 2 or more servings of fruit (compared to HP 2010 target of 75%) and only 27% reported that they consume 3 or more daily servings of vegetables (compared to target of 50%).

The benefits of the HP 2010 objectives are encompassed in the goal of the Centers for Disease Control and Prevention (CDC) National 5-A-Day for Better Health Program, namely to increase the consumption of fruits and vegetables in the U.S. to five to nine servings every day. This program strives to inform Americans that eating fruits and vegetables can improve their health and reduce the risk of cancer and various cardiovascular diseases.[6] Table 10-3 presents the findings for respondents eating at least five servings of fruits and vegetables daily.

- Overall, approximately 38% of Marylanders age 40 years and older reported eating five or more servings of fruits and vegetables per day.
- The proportion of respondents who reported consuming five or more servings of fruits and/or vegetables per day ("five-a-day") differed significantly with respect to several demographic characteristics (Table 10-3).
- More women reported eating five-a-day than did men (44% vs. 30%, respectively).
- As education level increased, so did adherence to the five-a-day recommendation, ranging from 25% of those with less than high school education to 46% of those possessing an advanced degree.
- The proportion of respondents eating five-a-day was somewhat lower among those with annual household income less than $50,000 (33-34%) compared to respondents with incomes of $50,000 or more (39-40%).
- Marylanders with a BMI in the healthy range were significantly more likely to consume at least five daily servings of fruits and/or vegetables than persons who were overweight or obese (43% compared to 37% of overweight respondents and 33% of those classified as obese).
- Adherence to the five-a-day recommendation did not differ significantly by age, race, or employment status.

[6] CDC. National 5-A-Day for Better Health Program. Available at http://www.5aday.gov. Last accessed January 25, 2007.

Red Meat Consumption

One of the primary dietary concerns in the U.S. is consuming too much saturated fat and total fat. Cheese and beef are the leading sources of saturated fat in the American diet, comprising almost one-fourth of total saturated fat consumed.[5] Large amounts of saturated fat in the diet contribute to the risk of heart disease, and high levels of meat consumption could increase the risk of cancer of the colon and rectum,[7, 8] stomach,[9] and pancreas.[10, 11] Both the *Dietary Guidelines for Americans*[5] and the National Cholesterol Education Program[12] recommend a diet that contains less than 10% of calories from saturated fat and no more than 30% of calories from total fat. A related goal of the HP 2010 initiative is to increase the proportion of persons age 2 years and older who consume less than 10 percent of calories from saturated fat.[4]

As an indicator of saturated fat intake, MCS participants were asked about their frequency of meat consumption (such as beef, pork, lamb or veal, but excluding seafood and poultry) on a weekly basis (Table 10-4).

- Overall, 21% of Marylanders age 40 years and older eat one or fewer servings of meat a week; 49% eat two to six servings of meat per week; and 30% report eating seven or more servings of meat weekly.
- Respondents living in rural areas reported eating meat more frequently than persons living in urban areas.
- A higher proportion of men reported eating seven or more servings of meat per week (34%) compared to women (26%); a higher proportion of women ate one or fewer servings of meat a week (25%) compared to men (17%).
- Almost one-third (30%) of non-White respondents (African Americans and persons of other races) reported the lowest meat consumption (one or fewer servings of meat per week), compared to only 17% of White respondents.
- The highest levels of meat consumption (at least seven servings weekly) were inversely associated with years of education and with annual household income. That is, as education level and income increased, the proportion of respondents reporting meat consumption at this highest level generally decreased.
- A higher proportion of respondents in the obese weight range (34%) reported eating seven or more servings of meat a week compared to those who are overweight (30%) or healthy weight (26%). A higher proportion of respondents in the healthy weight range reported eating meat one or fewer times per week (24%) compared to those who are overweight (20%) or obese (19%).

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[7] Chao A, Thun MJ et al. Meat consumption and risk of colorectal cancer. JAMA 2005; 293(2): 172-82.
[8] Larson S, Wolk A. Meat consumption and risk of colorectal cancer: A meta-analysis of prospective studies. Int J Cancer 2006; 119(11):2657-2664.
[9] Gonzalez CA et al. Meat intake and risk of stomach and esophageal adenocarcinoma within the European Prospective Investigation Into Cancer and Nutrition (EPIC). J Natl Cancer Inst. 2006; 98(5):345-54.
[10] Tavani A, La Vecchia C. et al. Red meat intake and cancer risk: a study in Italy. International Journal of Cancer 2000; 86(3):425-8.
[11] Nothlings U, Wilkens LR et al. Meat and fat intake as risk factors for pancreatic cancer: the multiethnic cohort study. J Natl Cancer Inst. 2005; 97(19): 1458-65.
[12] National Institutes of Health. National Cholesterol Education Program. Available at http://www.nhlbi.nih.gov/guidelines/cholesterol . Last accessed January 25, 2007.

10.3 Physical Activity

In addition to known benefits in reducing cardiovascular disease risk, physical activity may also reduce the risk of developing several types of cancer, including cancer of the breast,[13, 14] colon,[15, 16, 17] prostate (aggressive cancer),[18] and endometrium.[19] Physical activity is one of the leading health indicators used by HP 2010. Two related HP 2010 goals are:

1. To increase the proportion of adults 18 years and older who engage in moderate physical activity for at least 30 minutes per day 5 or more days per week or vigorous physical activity for at least 20 minutes per day, 3 or more days per week to a target of 50%[20]; and
2. To increase the proportion of adults who engage in vigorous physical activity three or more days per week for at least 20 minutes per occasion to a target of 30%.[20]

Moderate Physical Activity

Moderate physical activity causes small increases in breathing and/or heart rate (e.g., brisk walking, bicycling, vacuuming, gardening). MCS participants were asked about the frequency and duration of their moderate physical activity in a typical week (Table 10-5).

- Approximately one-third of all respondents (34%) reported little or no moderate physical activity (do **not** engage in at least 30 minutes of moderate physical activity at least one day a week).
- Eight percent (8%) of respondents reported doing 30 minutes or more of moderate physical activity 1-2 days per week.
- Almost one-fourth (24%) reported doing 30 minutes or more of moderate physical activity 3-4 days per week.
- One in three respondents (33%) reported doing at least 30 minutes of moderate activity 5-7 days per week, exceeding the HP 2010 target of 30% for all adults 18 years and older.
- Respondents over the age of 64 years tended to do less moderate physical activity than those in younger age groups.

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[13] McTiernan A. et al. Recreational physical activity and the risk of breast cancer in postmenopausal women: The Women's Health Initiative Cohort Study. JAMA 2003; 290(10): 1331-6.
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[17] Colditz GA et al. Physical activity and reduced risk of colon cancer: implications for prevention. Cancer Causes Control 1997; 8:649-667.
[18] Patel AV et al. Recreational physical activity and risk of prostate cancer in a large cohort of US men. Cancer Epidemiol Biomarkers Prev 2005; 14(1):275-9.
[19] Friberg E et al. Physical activity and risk of endometrial cancer: a population-based prospective cohort study. Cancer Epidemiol Biomarkers Prev 2006; 15(11): OF1-5.
[20] Healthy People 2010, Midcourse review. Available at http://www.healthypeople.gov/data/midcourse/default.htm#pubs. Last accessed April 2, 2007.

- The frequency of moderate physical activity generally increased with increasing education level. Conversely, the likelihood of being sedentary (not engaging in moderate activity at least once a week) decreased with increasing education level.
- Respondents with an annual household income less than $25,000 were more likely to be sedentary than those with higher household incomes.

Vigorous Physical Activity

MCS participants were asked about the frequency and duration of vigorous physical activity (non-occupational), such as running, aerobics, heavy yard work, or other activities that cause large increases in breathing or heart rate (Table 10-6). Among MCS respondents age 40 and older:

- Almost one-fourth (24%) reported they engage in vigorous physical activity at least three days per week for 20 minutes or more.

The percentage of respondents reporting that they engaged in vigorous physical activity at least 3 days per week differed significantly by almost all the demographic characteristics under consideration, except area of residence.

- More men than women reported vigorous activity (27% vs. 22%).
- The proportion of those engaging in vigorous physical activity decreased significantly with age, dropping from 32% of those age 40 to 49 years to 15% of those age 65 years and older.
- There was a strong positive association between vigorous activity and education level (i.e., as education level increased, the percentage of respondents who engage in regular vigorous activity also increased).
- The proportion of respondents engaging in regular vigorous activity increased significantly with increasing levels of household income.

Responses to the questions about moderate and vigorous physical activity were combined to achieve an overall picture of activity performed (Table 10-7).

- Almost half (46%) of Marylanders age 40 years and older engage in regular physical activity--either 20 minutes of vigorous physical activity 3 or more days per week or 30 minutes of moderate physical activity 5 or more days a week.
- The higher proportions of respondents achieving these activity levels were found among the youngest age group (40 to 49 years), Whites, those with at least a college degree, employed persons, and those with household incomes of $50,000 or more.
- People who were age 65 and older, African American (compared to Whites), widowed, had less than a high school education, retired, or in the lowest income level had the lowest prevalence of achieving these levels of physical activity.

Respondents who did not engage in either 20 minutes of vigorous activity 3 or more days per week or at least 30 minutes of moderate physical activity 5 or more days per week were asked the reason *why* they were not physically active. (Data not shown in tables.)

- 30% reported a physical disability or other health limitation
- 29% reported a lack of motivation
- 32% reported a lack of time

- Other miscellaneous reasons were reported less frequently, including the perception that the respondent is already getting sufficient physical activity during his or her daily routine.

One objective of HP 2010 is to increase the proportion of people who have been counseled by a physician in the past year about physical activity or exercise, from a 2001 baseline of 45% to a target of 54%.[21] All MCS participants were asked whether, in the past year, a doctor or other health care professional had recommended that they begin or continue to do exercise or physical activity (Table 10-8).

- Almost half (46%) of respondents said that exercise/activity had been recommended to them.
- Those receiving such recommendations in highest proportions included urban respondents, women, persons age 50 years and older, non-Whites, those with at least a high school education, and persons in higher income groups.

10.4 Cancer Screening Practices by BMI, Dietary Practices, and Physical Activity

Undergoing or performing cancer screening tests can be thought of as a healthy behavior, much like engaging in physical activity or eating a balanced diet. Physical activity, diet, and BMI were examined in relation to each of the cancer screening questions to see whether people who practice other healthy behaviors are also more likely to undergo cancer screening (Table 10-9).

Physical Activity and Cancer Screening

For each type of cancer screening, the prevalence of ever being screened was examined for respondents who engage in regular physical activity (vigorous and moderate levels) compared to those who do not.

- Only in the case of oral cancer screening was the prevalence of screening significantly different between those who engaged in vigorous physical activity and those who did not. Fifty-two percent (52%) of persons who said they got regular vigorous exercise reported ever having oral cancer screening, compared to 45% of respondents who did not engage in vigorous exercise.
- Those who did not engage in moderate physical activity, even one day a week, had a significantly lower prevalence of ever having an FOBT.

Dietary Practices and Cancer Screening

Dietary practices, specifically the number of servings of fruit, vegetables, and meat consumed, were associated with whether a respondent was ever screened for most types of cancer addressed in the survey.

- For all types of cancer screening except Pap testing for cervical cancer, there was a direct relationship between the daily number of servings of fruits and vegetables and the percentage of respondents who had ever been screened. Respondents who ate at

[21] U.S. Department of Health and Human Services. Healthy People 2010, Midcourse review. Available at http://www.healthypeople.gov/data/midcourse/html/focusareas/FA01Objectives.htm. Last accessed July 6, 2007.

least three servings of fruits and vegetables per day had a significantly higher prevalence of ever being screened compared to those who ate fewer servings.
- Compared with respondents who reported eating seven or more servings of red meat per week, those who ate two to six servings had a significantly higher prevalence of ever having CRC screening, a PSA test, or oral cancer screening.

Body Mass Index and Cancer Screening

- Respondents who had a BMI in the healthy range had the highest prevalence (54%) of ever having an oral cancer screening.
- A significantly higher percentage of overweight respondents reported ever having an FOBT (61%), compared with respondents who had a BMI in the healthy range (55%).
- Men who were categorized as obese had a significantly higher prevalence of ever having a DRE (92%) compared to healthy weight men (87%).

TABLE 10-1. BODY MASS INDEX BY DEMOGRAPHIC CHARACTERISTICS, AMONG RESPONDENTS AGE 40 YEARS AND OLDER ~

		Healthy Weight (BMI 18.5 - 24.9)			Overweight (BMI 25.0 - 29.9)			Obese (BMI ≥ 30.0)			
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**n**	**wt %**	**95% CI**	**n**	**wt %**	**95% CI**	**Stat Sig**
Total Population	4945	1651	31%	30-33%	1850	39%	38-41%	1444	29%	28-31%	
Area of Residence											^
Urban	2926	983	31%	29-33%	1123	40%	38-42%	820	29%	27-31%	
Rural	2019	668	31%	29-34%	727	37%	35-40%	625	31%	29-34%	
Gender											**
Male	1892	487	24%	22-27%	869	47%	44-50%	536	29%	26-31%	
Female	3053	1164	38%	36-40%	981	32%	30-34%	908	30%	28-32%	
Age											**
40-49 years	1319	484	34%	31-37%	467	38%	34-41%	368	29%	26-32%	
50-64 years	2003	598	28%	26-30%	736	40%	37-43%	669	32%	30-34%	
65 years and above	1623	569	32%	30-35%	647	41%	38-44%	407	27%	24-30%	
Race											**
White	3960	1422	35%	33-36%	1481	39%	37-41%	1057	26%	25-28%	
African American or Black	803	155	20%	17-23%	299	39%	35-43%	349	41%	37-45%	
Other	182	74	43%	34-51%	70	42%	33-51%	38	16%	10-21%	
Gender and Race											**
White male	1586	411	24%	22-27%	733	48%	45-50%	442	28%	25-31%	
African American male	235	52	22%	16-28%	99	43%	36-51%	84	34%	27-41%	
Other male	71	24	33%	20-47%	37	57%	43-72%	10	9%	2-17%	
White female	2374	1011	44%	42-47%	748	31%	29-33%	615	25%	23-27%	
African American female	568	103	18%	15-22%	200	36%	32-41%	265	45%	41-50%	
Other female	111	50	50%	40-61%	33	29%	19-38%	28	21%	13-29%	

~ Some data missing for marital status, education, and employment status

** p-value ≤ 0.05

* p-value > 0.05 - 0.1

^ p-value > 0.1

TABLE 10-1. BODY MASS INDEX BY DEMOGRAPHIC CHARACTERISTICS, AMONG RESPONDENTS AGE 40 YEARS AND OLDER ~

		Healthy Weight (BMI 18.5 - 24.9)			Overweight (BMI 25.0 - 29.9)			Obese (BMI ≥ 30.0)			
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**n**	**wt %**	**95% CI**	**n**	**wt %**	**95% CI**	**Stat Sig**
Marital Status											**
Married or partner of unmarried couple	2949	990	32%	30-34%	1159	41%	39-43%	800	27%	25-29%	
Divorced or separated	864	283	29%	26-33%	298	35%	31-39%	283	35%	31-39%	
Widowed	741	269	35%	31-39%	257	34%	30-38%	215	31%	27-35%	
Never married	379	104	25%	20-31%	133	39%	32-45%	142	36%	30-42%	
Education											**
Less than high school	392	105	24%	19-30%	131	36%	29-43%	156	40%	33-46%	
High school grad or GED	1369	388	26%	23-28%	522	39%	36-43%	459	35%	32-38%	
College 1-3 years	1193	370	29%	25-32%	442	39%	35-42%	381	33%	29-36%	
College grad	1064	418	35%	32-39%	389	39%	36-43%	257	25%	22-29%	
Advanced degree	920	367	40%	36-43%	363	41%	37-45%	190	19%	16-23%	
Employment Status											**
Employed for wages	2215	706	30%	28-32%	827	39%	37-42%	682	30%	28-33%	
Self-employed	424	144	32%	26-37%	181	44%	38-50%	99	24%	19-29%	
Retired	1656	568	32%	29-34%	645	40%	37-43%	443	28%	25-31%	
Other	638	227	34%	30-39%	193	33%	29-38%	218	33%	28-37%	
Household Income											**
<$25,000	829	246	28%	24-32%	283	35%	31-40%	300	37%	32-41%	
$25,000-<$35,000	442	152	32%	26-37%	149	32%	26-37%	141	37%	30-43%	
$35,000-<$50,000	612	161	23%	19-27%	240	43%	39-48%	211	34%	29-38%	
$50,000-<$75,000	731	258	32%	28-36%	267	40%	36-45%	206	28%	24-32%	
$75,000 or greater	1632	576	34%	32-37%	643	40%	37-43%	413	26%	23-28%	
Don't know/not sure	299	110	33%	26-39%	105	40%	33-47%	84	27%	21-33%	
Refused	400	148	33%	27-38%	163	41%	35-47%	89	26%	20-32%	

~ Some data missing for marital status, education, and employment status

** p-value ≤ 0.05

* p-value > 0.05 - 0.1

^ p-value > 0.1

TABLE 10-2. RESPONSES TO QUESTIONS REGARDING WEIGHT CONTROL, AMONG RESPONDENTS AGE 40 AND OLDER WHO REPORTED NOW TRYING TO LOSE WEIGHT ~

	Trying to lose weight					Following a particular diet plan					Using physical exercise to lose weight				
Selected Characteristic	**N**	**n**	**%**	**95% CI**	**Stat Sig**	**N**	**n**	**%**	**95% CI**	**Stat Sig**	**N**	**n**	**%**	**95% CI**	**Stat Sig**
Total Population	5134	2513	49%	47-51%		2512	429	17%	15-19%		2508	1637	67%	64-69%	
Area of Residence					^					^					^
Urban	3036	1544	49%	47-51%		1543	258	17%	15-19%		1542	1013	66%	64-69%	
Rural	2071	969	47%	45-50%		969	171	18%	15-21%		966	624	67%	64-71%	
Gender					**					**					^
Male	1907	815	42%	39-45%		815	110	14%	11-17%		814	560	69%	65-73%	
Female	3227	1698	55%	53-57%		1697	319	19%	17-21%		1694	1077	65%	62-68%	
Age					**					**					**
40-49 years	1370	698	49%	46-52%		698	131	17%	14-21%		697	513	72%	68-77%	
50-64 years	2072	1152	54%	52-57%		1151	210	19%	16-22%		1148	761	67%	64-70%	
65 years and above	1692	663	41%	38-44%		663	88	13%	10-16%		663	363	55%	51-60%	
Race					^					^					^
White	4114	2007	49%	48-51%		2006	348	17%	15-19%		2004	1318	68%	65-70%	
African American or Black	831	419	48%	44-53%		419	68	17%	13-22%		417	267	65%	59-70%	
Other	189	87	43%	34-51%		87	13	15%	6-24%		87	52	63%	51-75%	
Gender and Race					**					^					^
White male	1595	694	44%	42-47%		694	93	14%	11-16%		694	482	70%	66-74%	
African American male	240	89	36%	28-43%		89	12	15%	6-25%		88	60	66%	54-78%	
Other male	72	32	39%	25-52%		32	5	11%	0-24%		32	18	61%	41-82%	
White female	2519	1313	54%	52-56%		1312	255	20%	17-22%		1310	836	66%	63-69%	
African American female	591	330	58%	54-63%		330	56	18%	13-23%		329	207	64%	58-70%	
Other female	117	55	46%	35-56%		55	8	17%	5-29%		55	34	64%	49-78%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

TABLE 10-2. RESPONSES TO QUESTIONS REGARDING WEIGHT CONTROL, AMONG RESPONDENTS AGE 40 AND OLDER WHO REPORTED NOW TRYING TO LOSE WEIGHT ~

	Trying to lose weight					Following a particular diet plan					Using physical exercise to lose weight				
Selected Characteristic	**N**	**n**	**%**	**95% CI**	**Stat Sig**	**N**	**n**	**%**	**95% CI**	**Stat Sig**	**N**	**n**	**%**	**95% CI**	**Stat Sig**
Marital Status					**					^					**
Married or partner of unmarried couple	3064	1550	49%	47-51%		1549	282	18%	16-20%		1547	1055	69%	66-72%	
Divorced or separated	885	450	53%	48-57%		450	68	16%	12-21%		448	277	62%	56-68%	
Widowed	768	293	40%	35-44%		293	45	16%	10-21%		293	163	57%	50-64%	
Never married	400	212	49%	43-56%		212	33	13%	8-18%		212	138	66%	58-73%	
Education					**					^					**
Less than high school	412	165	42%	35-48%		165	18	12%	5-18%		165	77	51%	40-61%	
High school grad or GED	1416	667	47%	44-50%		667	113	17%	14-21%		666	409	61%	56-66%	
College 1-3 years	1237	639	51%	47-54%		638	123	20%	16-23%		638	410	64%	60-69%	
College grad	1104	551	52%	48-55%		551	89	16%	12-20%		550	382	71%	66-75%	
Advanced degree	953	489	49%	45-53%		489	86	16%	13-20%		488	358	77%	73-81%	
Employment Status					**					^					**
Employed for wages	2289	1231	53%	50-55%		1231	240	19%	16-21%		1228	866	71%	68-74%	
Self-employed	437	222	47%	42-53%		222	34	13%	9-18%		222	155	68%	61-75%	
Retired	1723	722	43%	40-46%		721	99	14%	11-18%		721	413	58%	54-63%	
Other	670	331	48%	43-53%		331	56	18%	13-24%		330	196	63%	56-69%	
Household Income					**					**					**
<$25,000	868	378	45%	41-50%		378	49	15%	10-20%		378	191	55%	49-62%	
$25,000-<$35,000	451	198	47%	41-53%		198	19	8%	4-13%		198	128	67%	58-76%	
$35,000-<$50,000	618	303	49%	44-54%		303	38	10%	6-14%		302	194	63%	57-70%	
$50,000-<$75,000	744	373	48%	44-53%		373	67	20%	14-25%		372	260	72%	67-78%	
$75,000 or greater	1679	908	52%	49-55%		908	189	20%	17-23%		906	649	71%	67-74%	
Don't know/not sure	319	128	41%	34-47%		128	26	19%	11-27%		128	75	55%	44-65%	
Refused	455	225	49%	42-55%		224	41	18%	12-24%		224	140	65%	58-73%	
Body Mass Index					**					**					**
Healthy Weight (BMI 18.5-24.9)	1651	408	24%	22-27%		408	41	10%	7-14%		406	291	73%	68-78%	
Overweight (BMI 25.0-29.9)	1846	955	50%	47-53%		954	143	15%	12-18%		954	653	71%	67-74%	
Obese (BMI $\geq$ 30.0)	1435	1037	73%	70-76%		1037	228	21%	18-24%		1036	624	61%	57-65%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

TABLE 10-3. ADHERENCE TO DIETARY RECOMMENDATIONS FOR FRUIT AND VEGETABLE CONSUMPTION, AMONG RESPONDENTS AGE 40 YEARS AND OLDER

	Persons reporting they eat five or more servings of fruits and vegetables per day ~#				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Total Population	5142	1962	38%	36-40%	
Area of Residence					**
Urban	3066	1229	39%	37-41%	
Rural	2076	733	35%	32-37%	
Gender					**
Male	1910	565	30%	28-33%	
Female	3232	1397	44%	42-47%	
Age					^
40-49 years	1373	532	38%	35-42%	
50-64 years	2077	765	37%	35-40%	
65 years and above	1962	665	39%	36-41%	
Race					^
White	4120	1575	38%	37-40%	
African American or Black	833	313	36%	32-40%	
Other	189	74	38%	30-47%	
Gender and Race					**
White male	1598	477	30%	28-33%	
African American male	240	71	31%	23-38%	
Other male	72	17	24%	12-37%	
White female	2522	1098	46%	43-48%	
African American female	593	242	41%	36-45%	
Other female	117	57	50%	39-60%	
Marital Status					**
Married or partner of unmarried couple	3068	1181	38%	36-40%	
Divorced or separated	886	298	31%	28-35%	
Widowed	769	311	42%	38-46%	
Never married	402	164	41%	35-47%	
Education					**
Less than high school	409	111	25%	20-31%	
High school grad or GED	1421	442	31%	28-34%	
College 1-3 years	1238	487	39%	36-43%	
College grad	1107	471	41%	38-45%	
Advanced degree	955	447	46%	43-50%	
Employment Status					^
Employed for wages	2293	849	37%	34-39%	
Self-employed	437	175	40%	35-46%	
Retired	1726	671	38%	35-41%	
Other	671	260	40%	35-45%	
Household Income					**
<$25,000	867	291	33%	29-37%	
$25,000-<$35,000	452	174	34%	29-40%	
$35,000-<$50,000	620	214	33%	28-37%	
$50,000-<$75,000	746	279	39%	35-43%	
$75,000 or greater	1682	701	40%	38-43%	
Don't know/not sure	320	120	38%	32-45%	
Refused	455	183	44%	37-50%	
Body Mass Index					**
Healthy Weight (BMI 18.5-24.9)	1650	711	43%	40-46%	
Overweight (BMI 25.0-29.9)	1848	691	37%	35-40%	
Obese (BMI $\geq$ 30)	1441	481	33%	30-36%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value >0.05 - 0.1
^ p-value > 0.1
# derived variable-see text for explanation

TABLE 10-4. FREQUENCY OF MEAT[#] CONSUMPTION BY DEMOGRAPHIC FACTORS, AMONG RESPONDENTS AGE 40 YEARS AND OLDER ~

		One or fewer servings of meat per week			2 to 6 servings of meat per week			7 or more servings of meat per week			
Selected Characteristic	**N**	**n**	**%**	**95% CI**	**n**	**%**	**95% CI**	**n**	**%**	**95% CI**	**Stat Sig**
Total Population	5105	1065	21%	20-23%	2546	49%	47-51%	1494	30%	28-31%	
Area of Residence											**
Urban	3041	725	23%	21-25%	1501	49%	47-51%	815	28%	26-30%	
Rural	2064	340	14%	13-16%	1045	51%	48-53%	679	35%	32-37%	
Gender											**
Male	1898	286	17%	15-19%	943	49%	46-52%	669	34%	32-37%	
Female	3207	779	25%	23-27%	1603	49%	47-52%	825	26%	24-28%	
Age											*
40-49 years	1370	274	20%	18-23%	649	47%	44-51%	447	32%	29-35%	
50-64 years	2069	417	21%	19-23%	1051	49%	47-52%	601	30%	27-32%	
65 years and above	1666	374	23%	20-25%	846	51%	48-54%	446	26%	23-29%	
Race											**
White	4094	742	17%	16-19%	2172	54%	52-55%	1180	29%	27-31%	
African American or Black	825	261	30%	26-34%	307	39%	35-43%	257	31%	27-35%	
Other	186	62	30%	22-37%	67	39%	30-48%	57	31%	23-39%	
Gender and Race											**
White male	1588	201	13%	11-15%	821	52%	49-55%	566	35%	33-38%	
African American male	238	62	27%	20-34%	99	41%	34-49%	77	32%	25-38%	
Other male	72	23	25%	14-37%	23	42%	27-56%	26	33%	20-47%	
White female	2506	541	21%	19-23%	1351	55%	53-57%	614	24%	22-25%	
African American female	587	199	33%	28-37%	208	37%	32-41%	180	31%	26-35%	
Other female	114	39	34%	24-43%	44	37%	27-47%	31	29%	20-39%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value >0.05 - 0.1
^ p-value > 0.1
# - Beef, pork, lamb, or veal

TABLE 10-4. FREQUENCY OF MEAT[#] CONSUMPTION BY DEMOGRAPHIC FACTORS, AMONG RESPONDENTS AGE 40 YEARS AND OLDER ~

		One or fewer servings of meat per week			2 to 6 servings of meat per week			7 or more servings of meat per week			
Selected Characteristic	**N**	**n**	**%**	**95% CI**	**n**	**%**	**95% CI**	**n**	**%**	**95% CI**	**Stat Sig**
Marital Status											**
Married or partner of unmarried couple	3058	523	19%	17-20%	1635	52%	50-31%	900	29%	27-31%	
Divorced or separated	883	244	28%	24-31%	390	42%	38-46%	249	31%	27-35%	
Widowed	750	185	26%	22-30%	350	46%	42-51%	215	28%	24-32%	
Never married	397	107	25%	20-31%	165	41%	35-47%	125	33%	28-39%	
Education											**
Less than high school	397	100	24%	19-30%	157	38%	32-44%	140	38%	31-45%	
High school grad or GED	1409	246	18%	15-20%	687	48%	45-51%	473	34%	31-37%	
College 1-3 years	1230	241	20%	17-23%	629	50%	47-54%	360	30%	26-33%	
College grad	1107	246	22%	19-25%	576	51%	47-54%	285	27%	24-30%	
Advanced degree	953	229	24%	21-28%	494	52%	48-55%	230	24%	21-28%	
Employment Status											^
Employed for wages	2286	469	21%	19-23%	1121	48%	46-51%	696	31%	29-33%	
Self-employed	437	78	20%	15-24%	234	50%	44-56%	125	30%	25-36%	
Retired	1703	354	22%	20-25%	867	51%	48-53%	482	27%	25-30%	
Other	664	158	21%	18-25%	318	49%	44-54%	188	30%	25-34%	
Household Income											**
<$25,000	851	220	25%	22-29%	341	39%	34-43%	290	36%	32-40%	
$25,000-<$35,000	450	97	18%	14-22%	200	44%	38-50%	153	38%	32-44%	
$35,000-<$50,000	619	114	19%	15-23%	317	51%	47-56%	188	29%	25-33%	
$50,000-<$75,000	746	145	21%	17-25%	377	47%	43-52%	224	31%	27-36%	
$75,000 or greater	1680	324	20%	18-22%	909	53%	51-56%	447	27%	24-29%	
Don't know/not sure	311	77	27%	20-33%	159	47%	40-54%	75	27%	20-33%	
Refused	448	88	22%	16-27%	243	54%	48-61%	117	24%	19-29%	
Body Mass Index											**
Healthy Weight (BMI 18.5-24.9)	1641	390	24%	21-26%	828	50%	47-53%	423	26%	24-29%	
Overweight (BMI 25.0-29.9)	1834	372	20%	18-23%	917	50%	47-53%	545	30%	27-32%	
Obese (BMI $\geq$ 30.0)	1431	255	19%	16-22%	699	47%	43-50%	477	34%	31-37%	

~ Some data missing for marital status, education, and employment status

** p-value $\leq$ 0.05

* p-value >0.05 - 0.1

^ p-value > 0.1

- Beef, pork, lamb, or veal

TABLE 10-5. LEVEL OF MODERATE PHYSICAL ACTIVITY BY DEMOGRAPHIC CHARACTERISTICS, AMONG RESPONDENTS AGE 40 YEARS AND OLDER

		Do not engage in moderate physical activity for at least 30 minutes a day, at least one day per week ~			Engage in moderate physical activity for at least 30 minutes a day, 1-2 days per week ~			Engage in moderate physical activity for at least 30 minutes a day, 3-4 days per week ~			Engage in moderate physical activity for at least 30 minutes a day, 5-7 days per week ~			
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**n**	**wt %**	**95% CI**	**n**	**wt %**	**95% CI**	**n**	**wt %**	**95% CI**	**Stat Sig**
Total Population	4956	1730	34%	33-36%	385	8%	7-9%	1142	24%	23-26%	1699	33%	32-35%	
Area of Residence														**
Urban	2955	1028	34%	32-36%	249	8%	7-9%	705	25%	23-27%	973	32%	30-34%	
Rural	2001	702	35%	33-38%	136	7%	5-8%	437	22%	19-24%	726	37%	34-39%	
Gender														^
Male	1855	633	35%	32-37%	149	9%	7-10%	431	25%	22-27%	642	32%	29-35%	
Female	3101	1097	34%	32-36%	236	7%	6-8%	711	24%	22-26%	1057	34%	32-36%	
Age														**
40-49 years	1346	413	32%	29-35%	93	7%	5-9%	317	25%	22-27%	523	36%	33-40%	
50-64 years	2011	676	33%	31-36%	172	9%	8-11%	488	25%	23-27%	675	32%	30-35%	
65 years and above	1599	641	40%	37-43%	120	7%	6-9%	337	23%	20-25%	501	30%	27-33%	
Race														**
White	3968	1335	32%	30-34%	299	8%	7-9%	900	24%	22-25%	1434	36%	35-38%	
African American or Black	805	331	40%	36-44%	69	8%	6-10%	196	26%	22-30%	209	26%	22-29%	
Other	183	64	39%	30-48%	17	7%	3-11%	46	24%	17-32%	56	30%	22-38%	
Gender and Race														**
White male	1549	513	31%	28-34%	118	9%	7-10%	366	26%	23-28%	552	35%	32-38%	
African American male	235	97	44%	37-52%	26	10%	6-14%	53	23%	17-29%	59	23%	17-29%	
Other male	71	23	42%	27-56%	5	4%	0-10%	12	16%	5-27%	31	38%	24-52%	
White female	2419	822	33%	31-35%	181	7%	6-8%	534	22%	20-24%	882	38%	36-40%	
African American female	570	234	37%	32-41%	43	7%	5-9%	143	28%	24-33%	150	28%	23-32%	
Other female	112	41	36%	26-47%	12	9%	4-15%	34	31%	21-41%	25	23%	14-32%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

TABLE 10-5. LEVEL OF MODERATE PHYSICAL ACTIVITY BY DEMOGRAPHIC CHARACTERISTICS, AMONG RESPONDENTS AGE 40 YEARS AND OLDER

		Do not engage in moderate physical activity for at least 30 minutes a day, at least one day per week ~			Engage in moderate physical activity for at least 30 minutes a day, 1-2 days per week ~			Engage in moderate physical activity for at least 30 minutes a day, 3-4 days per week ~			Engage in moderate physical activity for at least 30 minutes a day, 5-7 days per week ~			
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**n**	**wt %**	**95% CI**	**n**	**wt %**	**95% CI**	**n**	**wt %**	**95% CI**	**Stat Sig**
Marital Status														**
Married or partner of unmarried couple	2974	937	33%	31-35%	224	8%	7-9%	749	26%	24-28%	1064	33%	31-35%	
Divorced or separated	857	313	34%	30-38%	77	9%	7-11%	171	21%	17-24%	296	36%	32-41%	
Widowed	716	316	44%	39-48%	54	8%	5-10%	137	19%	16-23%	209	29%	25-33%	
Never married	393	159	38%	32-44%	27	9%	5-13%	83	22%	17-27%	124	32%	26-38%	
Education														**
Less than high school	392	202	48%	41-55%	23	6%	3-9%	53	17%	11-22%	114	29%	23-36%	
High school grad or GED	1348	500	37%	34-41%	102	8%	6-10%	301	23%	20-25%	445	32%	29-36%	
College 1-3 years	1197	415	34%	31-38%	104	9%	7-11%	263	24%	20-27%	415	33%	30-37%	
College grad	1077	316	30%	27-34%	72	6%	5-8%	283	29%	26-33%	406	35%	31-38%	
Advanced degree	931	293	31%	27-34%	82	10%	7-12%	239	24%	21-28%	317	35%	31-39%	
Employment Status														**
Employed for wages	2239	733	33%	30-35%	192	9%	7-10%	547	25%	23-27%	767	33%	31-36%	
Self-employed	421	113	28%	23-34%	25	6%	3-9%	101	25%	20-30%	182	41%	35-46%	
Retired	1638	612	37%	34-39%	128	8%	6-10%	369	24%	22-27%	529	31%	28-34%	
Other	644	269	42%	36-47%	37	5%	3-8%	121	20%	16-24%	217	33%	29-38%	
Household Income														**
<$25,000	837	380	44%	39-48%	62	8%	6-11%	141	18%	14-21%	254	30%	26-34%	
$25,000-<$35,000	440	172	39%	33-45%	31	6%	3-8%	94	22%	17-27%	143	33%	28-39%	
$35,000-<$50,000	595	218	38%	33-43%	52	9%	6-11%	128	23%	19-27%	197	30%	26-35%	
$50,000-<$75,000	724	217	29%	25-33%	49	7%	5-10%	195	27%	23-32%	263	37%	32-41%	
$75,000 or greater	1646	469	29%	26-32%	142	9%	7-11%	422	27%	24-30%	613	35%	32-38%	
Don't know/not sure	296	124	44%	37-51%	21	6%	3-9%	60	22%	16-28%	91	28%	22-34%	
Refused	418	150	38%	31-45%	28	6%	4-9%	102	24%	19-29%	138	32%	26-38%	

~ Some data missing for marital status, education, and employment status

** p-value $\leq$ 0.05

* p-value > 0.05 - 0.1

^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 10-6. PARTICIPATION IN VIGOROUS PHYSICAL ACTIVITY THREE OR MORE DAYS PER WEEK BY DEMOGRAPHIC CHARACTERISTICS, AMONG RESPONDENTS AGE 40 YEARS AND OLDER

	Engage in vigorous physical activity for three or more days per week for 20 or more minutes per occasion ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Total Population	5094	1151	24%	23-26%	
Area of Residence					^
Urban	3044	699	24%	22-26%	
Rural	2050	452	24%	22-26%	
Gender					**
Male	1894	505	27%	25-30%	
Female	3200	646	22%	20-23%	
Age					**
40-49 years	1363	415	32%	29-35%	
50-64 years	2057	477	23%	21-25%	
65 years and above	1674	259	15%	13-17%	
Race					*
White	4082	958	25%	24-27%	
African American or Black	826	150	21%	17-25%	
Other	186	43	23%	16-31%	
Gender and Race					**
White male	1586	431	28%	26-31%	
African American male	238	58	25%	19-32%	
Other male	70	16	23%	11-35%	
White female	2496	527	23%	21-25%	
African American female	588	92	18%	14-21%	
Other female	116	27	24%	15-32%	
Marital Status					**
Married or partner of unmarried couple	3039	789	26%	24-28%	
Divorced or separated	876	187	22%	19-26%	
Widowed	760	88	12%	9-15%	
Never married	403	83	21%	16-27%	
Education					**
Less than high school	407	37	10%	6-15%	
High school grad or GED	1408	244	18%	16-21%	
College 1-3 years	1230	239	19%	16-22%	
College grad	1096	324	31%	28-35%	
Advanced degree	942	306	35%	32-39%	
Employment Status					**
Employed for wages	2276	607	29%	26-31%	
Self-employed	435	134	30%	25-35%	
Retired	1707	295	17%	15-19%	
Other	663	112	18%	15-22%	
Household Income					**
<$25,000	862	104	13%	9-16%	
$25,000-<$35,000	444	93	22%	17-27%	
$35,000-<$50,000	617	119	19%	15-23%	
$50,000-<$75,000	741	180	25%	21-28%	
$75,000 or greater	1674	519	33%	30-35%	
Don't know/not sure	313	34	10%	6-14%	
Refused	443	102	23%	18-28%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 10-7. PARTICIPATION IN EITHER VIGOROUS PHYSICAL ACTIVITY THREE OR MORE DAYS OR MODERATE ACTIVITY FIVE TO SEVEN DAYS PER WEEK BY DEMOGRAPHIC CHARACTERISTICS, AMONG RESPONDENTS AGE 40 YEARS AND OLDER

	Engage in vigorous physical activity on ≥ 3 days per week for ≥ 20 minutes per occasion OR in moderate physical activity on 5-7 days per week for ≥ 30 minutes a day ~				
Selected Characteristic	**N**	**n**	**wt %**	**95% CI**	**Stat Sig**
Total Population	4952	2247	46%	44-48%	
Area of Residence					^
Urban	2958	1331	46%	43-48%	
Rural	1994	916	47%	44-49%	
Gender					*
Male	1854	900	47%	45-50%	
Female	3098	1347	44%	42-47%	
Age					**
40-49 years	1344	708	52%	49-56%	
50-64 years	2008	901	44%	42-47%	
65 years and above	1600	638	38%	36-41%	
Race					**
White	3964	1871	49%	47-50%	
African American or Black	806	300	39%	35-43%	
Other	182	76	42%	34-51%	
Gender and Race					**
White male	1547	766	50%	47-53%	
African American male	236	96	40%	32-47%	
Other male	71	38	49%	35-64%	
White female	2417	1105	47%	45-50%	
African American female	570	204	38%	34-43%	
Other female	111	38	36%	26-47%	
Marital Status					**
Married or partner of unmarried couple	2972	1446	47%	45-50%	
Divorced or separated	853	374	46%	41-50%	
Widowed	717	255	36%	32-40%	
Never married	394	165	43%	37-49%	
Education					**
Less than high school	392	131	35%	28-41%	
High school grad or GED	1348	549	40%	37-44%	
College 1-3 years	1197	523	42%	39-46%	
College grad	1076	552	52%	48-55%	
Advanced degree	928	489	54%	51-58%	
Employment Status					**
Employed for wages	2235	1076	49%	47-52%	
Self-employed	422	233	54%	49-60%	
Retired	1635	676	39%	37-42%	
Other	646	256	40%	35-45%	
Household Income					**
<$25,000	834	297	36%	32-41%	
$25,000-<$35,000	438	191	44%	38-50%	
$35,000-<$50,000	596	252	41%	36-45%	
$50,000-<$75,000	721	353	50%	45-54%	
$75,000 or greater	1653	870	52%	49-55%	
Don't know/not sure	296	104	33%	26-39%	
Refused	414	180	43%	36-49%	

~ Some data missing for marital status, education, and employment status
** p-value ≤ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

Table 10-8. RESPONDENTS REPORTING THAT, IN THE PAST 12 MONTHS, A HEALTH CARE PROFESSIONAL RECOMMENDED THEY BEGIN OR CONTINUE TO ENGAGE IN EXERCISE OR PHYSICAL ACTIVITY ~

Selected Characteristic	N	n	wt %	95% CI	Stat Sig
Total Population	5134	2352	46%	44-47%	
Area of Residence					**
Urban	3063	1469	47%	45-49%	
Rural	2071	883	42%	39-44%	
Gender					**
Male	1907	812	43%	40-46%	
Female	3227	1540	48%	46-50%	
Age					**
40-49 years	1370	584	42%	39-45%	
50-64 years	2075	1021	50%	47-52%	
65 years and above	1689	747	45%	42-48%	
Race					**
White	4115	1847	44%	43-46%	
African American or Black	830	418	49%	45-53%	
Other	189	87	46%	37-54%	
Gender and Race					**
White male	1597	676	43%	40-45%	
African American male	238	103	43%	36-51%	
Other male	72	33	48%	34-62%	
White female	2518	1171	46%	44-48%	
African American female	592	315	53%	48-58%	
Other female	117	54	44%	33-54%	
Marital Status					^
Married or partner of unmarried couple	3064	1425	46%	44-48%	
Divorced or separated	882	412	45%	41-49%	
Widowed	767	322	44%	39-48%	
Never married	404	186	44%	38-50%	
Education					**
Less than high school	408	142	36%	30-43%	
High school grad or GED	1419	605	43%	40-47%	
College 1-3 years	1237	581	46%	43-50%	
College grad	1106	540	49%	46-53%	
Advanced degree	953	479	47%	44-51%	
Employment Status					^
Employed for wages	2290	1077	46%	43-48%	
Self-employed	438	184	41%	36-47%	
Retired	1723	798	48%	45-51%	
Other	669	288	44%	39-49%	
Household Income					**
<$25,000	867	329	39%	34-43%	
$25,000-<$35,000	451	199	44%	38-50%	
$35,000-<$50,000	619	290	48%	43-53%	
$50,000-<$75,000	748	359	47%	42-51%	
$75,000 or greater	1680	839	48%	46-51%	
Don't know/not sure	318	131	40%	33-47%	
Refused	451	205	44%	39-50%	

~ Some data missing for marital status, education, and employment status
** p-value $\leq$ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

Maryland Cancer Survey, 2006

TABLE 10-9. CANCER SCREENING PRACTICES BY PHYSICAL ACTIVITY, DIET, AND BODY MASS INDEX

	Persons reporting to have ever had a fecal occult blood test ~					Persons reporting to have ever had a sigmoidoscopy or colonoscopy ~					Men reporting to have ever had a Prostate-Specific Antigen Test #					Men reporting to have ever had a digital rectal examination #				
Selected characteristic	**N**	**n**	**wt%**	**95%CI**	**Stat Sig**	**N**	**n**	**wt%**	**95%CI**	**Stat Sig**	**N**	**n**	**wt%**	**95%CI**	**Stat Sig**	**N**	**n**	**wt%**	**95%CI**	**Stat Sig**
Do you engage in vigorous physical activity for 3 or more days per week for 20 or more minutes per occasion?					^					^					^					^
Yes	729	432	58%	54-62%		733	525	72%	68-75%		319	254	75%	69-82%		341	309	91%	88-94%	
No	2970	1691	57%	55-59%		2971	68	68%	66-70%		992	760	74%	71-78%		1061	952	90%	88-92%	
In a typical week, how many days do you engage in moderate physical activity for at least 30 minutes a day?					**					^					*					^
0 days/week	1308	710	54%	51-57%		1302	874	67%	64-70%		432	343	76%	70-81%		481	424	88%	85-91%	
1-2 days/week	287	170	58%	51-65%		289	194	65%	59-72%		306	254	80%	74-87%		110	96	87%	81-94%	
3-4 days/week	816	481	62%	57-66%		823	584	72%	68-75%		103	76	70%	59-81%		317	295	93%	90-96%	
5-7 days/week	1166	694	57%	53-60%		1170	817	68%	65-72%		440	314	69%	64-75%		460	411	89%	87-92%	
How many total servings of fruits and vegetables do you eat each day?					**					**					**					**
0-2 fruits/vegetables per day	852	426	51%	47-55%		855	533	62%	58-66%		370	251	64%	58-71%		406	350	86%	83-90%	
3-4 fruits/vegetables per day	1465	876	60%	56-63%		1468	1034	71%	68-74%		556	453	79%	75-84%		593	539	91%	89-93%	
5+ fruits/vegetables per day	1418	843	58%	55-61%		1418	1010	70%	67-73%		398	318	77%	71-83%		417	381	91%	89-94%	
How many servings of red meat do you eat each week?					**					**					**					^
0-1 servings per week	787	430	56%	52-61%		786	520	66%	62-71%		207	160	72%	64-81%		222	196	88%	84-93%	
2-6 servings per week	1880	1135	60%	57-63%		1886	1369	72%	70-75%		685	550	79%	75-83%		728	665	91%	89-93%	
7+ servings per week	1035	570	53%	49-57%		1038	675	65%	61-68%		423	306	69%	63-75%		455	402	88%	85-91%	
Body Mass Index					**					^					^					**
Healthy weight (BMI 18.5 - 24.9)	1156	650	55%	51-58%		1158	780	67%	64-70%		333	250	73%	67-79%		361	314	87%	84-90%	
Overweight (BMI 25.0 - 29.9)	1371	833	61%	58-64%		1373	978	70%	67-73%		615	493	75%	71-80%		647	581	90%	87-92%	
Obese (BMI ≥ 30.0)	1066	596	56%	52-60%		1070	745	70%	67-74%		365	273	74%	68-80%		395	365	92%	90-95%	
Are you now trying to lose weight?					^					**					^					*
Yes	1794	1038	57%	54-60%		1807	1295	71%	69-74%		576	462	77%	73-82%		617	563	91%	89-93%	
No	1936	1105	57%	54-60%		1929	1283	66%	64-69%		746	560	72%	68-77%		796	705	89%	86-91%	

~ Age ≥ 50 years
# African American men 45-49 years and all men ≥ 50 years
~~ Age ≥ 40 years
#~ Women ≥ 40 years with an intact uterus
** p-value ≤ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

TABLE 10-9. CANCER SCREENING PRACTICES BY PHYSICAL ACTIVITY, DIET, AND BODY MASS INDEX

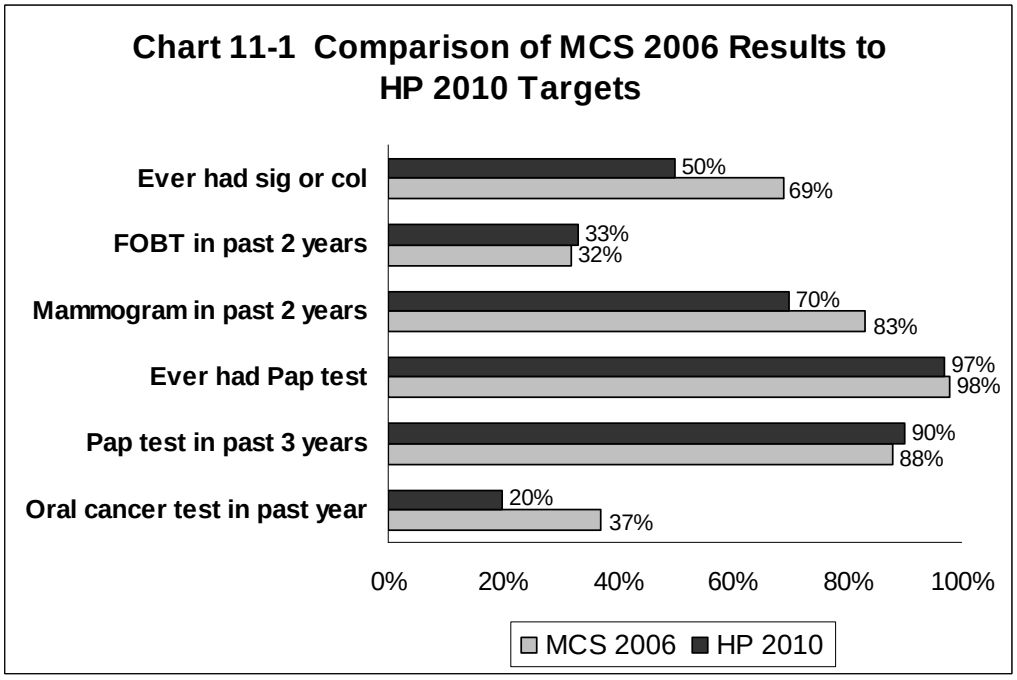
	Women reporting to have ever had a mammogram ~~					Women reporting to have ever had a Pap test #~					Persons reporting to have ever had oral cancer screening ~~				
Selected characteristic	**N**	**n**	**wt%**	**95%CI**	**Stat Sig**	**N**	**n**	**wt%**	**95%CI**	**Stat Sig**	**N**	**n**	**wt%**	**95%CI**	**Stat Sig**
Do you engage in vigorous physical activity for 3 or more days per week for 20 or more minutes per occasion?					^					^					**
Yes	646	611	94%	92-96%		496	487	98%	97-100%		1104	623	52%	48-56%	
No	2552	2406	94%	92-95%		1626	1593	98%	97-99%		3746	1756	45%	43-47%	
In a typical week, how many days do you engage in moderate physical activity for at least 30 minutes a day?					**					^					^
0 days/week	1097	1024	92%	90-95%		688	668	97%	96-99%		1641	744	45%	42-48%	
1-2 days/week	235	224	96%	93-99%		163	161	99%	97-100%		372	180	45%	39-51%	
3-4 days/week	710	687	97%	95-98%		475	466	97%	95-99%		1090	560	48%	44-51%	
5-7 days/week	1057	987	92%	90-94%		744	733	98%	97-99%		1623	845	50%	47-53%	
How many total servings of fruits and vegetables do you eat each day?					**					^					**
0-2 fruits/vegetables per day	657	604	91%	88-94%		433	423	97%	96-99%		1161	453	36%	33-40%	
3-4 fruits/vegetables per day	1178	1126	95%	93-97%		776	760	98%	97-99%		1869	910	46%	43-49%	
5+ fruits/vegetables per day	1395	1315	94%	93-96%		934	917	98%	97-99%		1865	1043	55%	52-58%	
How many servings of red meat do you eat each week?					^					^					**
0-1 servings per week	779	739	94%	92-96%		511	496	97%	95-99%		1015	473	45%	41-49%	
2-6 servings per week	1602	1517	94%	92-95%		1090	1075	98%	97-99%		2416	1276	51%	49-54%	
7+ servings per week	824	768	94%	92-96%		525	514	98%	96-99%		1429	645	42%	39-45%	
Body Mass Index					^					^					**
Healthy weight (BMI 18.5 - 24.9)	1163	1089	93%	92-95%		855	839	98%	96-99%		1572	865	54%	51-57%	
Overweight (BMI 25.0 - 29.9)	980	931	94%	92-96%		645	632	98%	97-99%		1758	888	48%	45-51%	
Obese (BMI ≥ 30.0)	908	864	95%	93-97%		527	519	99%	98-100%		1379	568	39%	36-42%	
Are you now trying to lose weight?					**					*					^
Yes	1697	1620	95%	94-96%		1146	1128	98%	98-99%		2389	1191	47%	45-50%	
No	1528	1420	92%	90-94%		996	970	97%	96-98%		2499	1209	47%	44-49%	

~ Age ≥ 50 years
# African American men 45-49 years and all men ≥ 50 years
~~ Age ≥ 40 years
#~ Women ≥ 40 years with an intact uterus
** p-value ≤ 0.05
* p-value > 0.05 - 0.1
^ p-value > 0.1

Chapter 11. Summary of the MCS 2006 and Comparison between MCS 2002, 2004, and 2006

11.1 Summary of MCS 2006

The residents in Maryland continue to make significant progress in increasing both awareness and utilization of cancer screening tests. According to the results of the MCS 2006, Maryland adults exceeded the HP 2010 targets for colorectal cancer (CRC) screening with lower GI endoscopy (sigmoidoscopy and colonoscopy), having had a mammogram in the last 2 years, ever having a Pap test, and having oral cancer screening in the last year (Chart 11-1). Marylanders also came very close to meeting the HP 2010 targets for having an FOBT within the last 2 years (32% among those age 50 years and older compared to the Healthy People target of 33%) and for having a Pap test in the past 3 years (88% of women age 40 and older compared to HP 2010 target of 90%). There are no HP 2010 objectives related to routine prostate cancer screening, and the United States Preventive Services Task Force has not recommended such screening.[1] National screening data from the 2004 BRFSS, published by the American Cancer Society,[2] showed that 52% of men age 50 years and older have had a PSA test and 50% have had a DRE within the past year. By comparison, 57% of Maryland men in the MCS 2006 had a PSA or a DRE within the past year. (Maryland figures include African American men, age 45-49 years.)



[1] U.S. Preventive Services Task Force. 2002. Screening for Prostate Cancer. Available at http://www.ahrq.gov/clinic/uspstf/uspsprca.htm. Last accessed August 30, 2007.
[2] American Cancer Society. Cancer Prevention and Early Detection Facts & Figures 2006. Atlanta: American Cancer Society, 2006. Available at http://www.cancer.org/downloads/STT/CPED2006PWSecured.pdf. Last accessed February 7, 2007.

As was noted in 2002 and 2004, the results of the MCS 2006 showed important differences in cancer screening prevalence across demographic groups, including gender, race, age, education, income, and health insurance status. In the current survey, differences were noted between men and women only for oral cancer screening in the past year. As age increased, the percentage of people who report having cancer screening generally increased; both FOBT and lower GI endoscopy increased with age, as did prostate cancer screening (both PSA and DRE). The prevalence of breast cancer screening (mammography) within the last 2 years increased with age until women reach age 75 years, when it decreased. Women in the younger age groups (40 to 49 years and 50 to 64 years) reported a higher prevalence of ever having a Pap test as well as having had a Pap test in the last 3 years. Generally, cancer screening increased with higher educational levels and higher annual incomes.

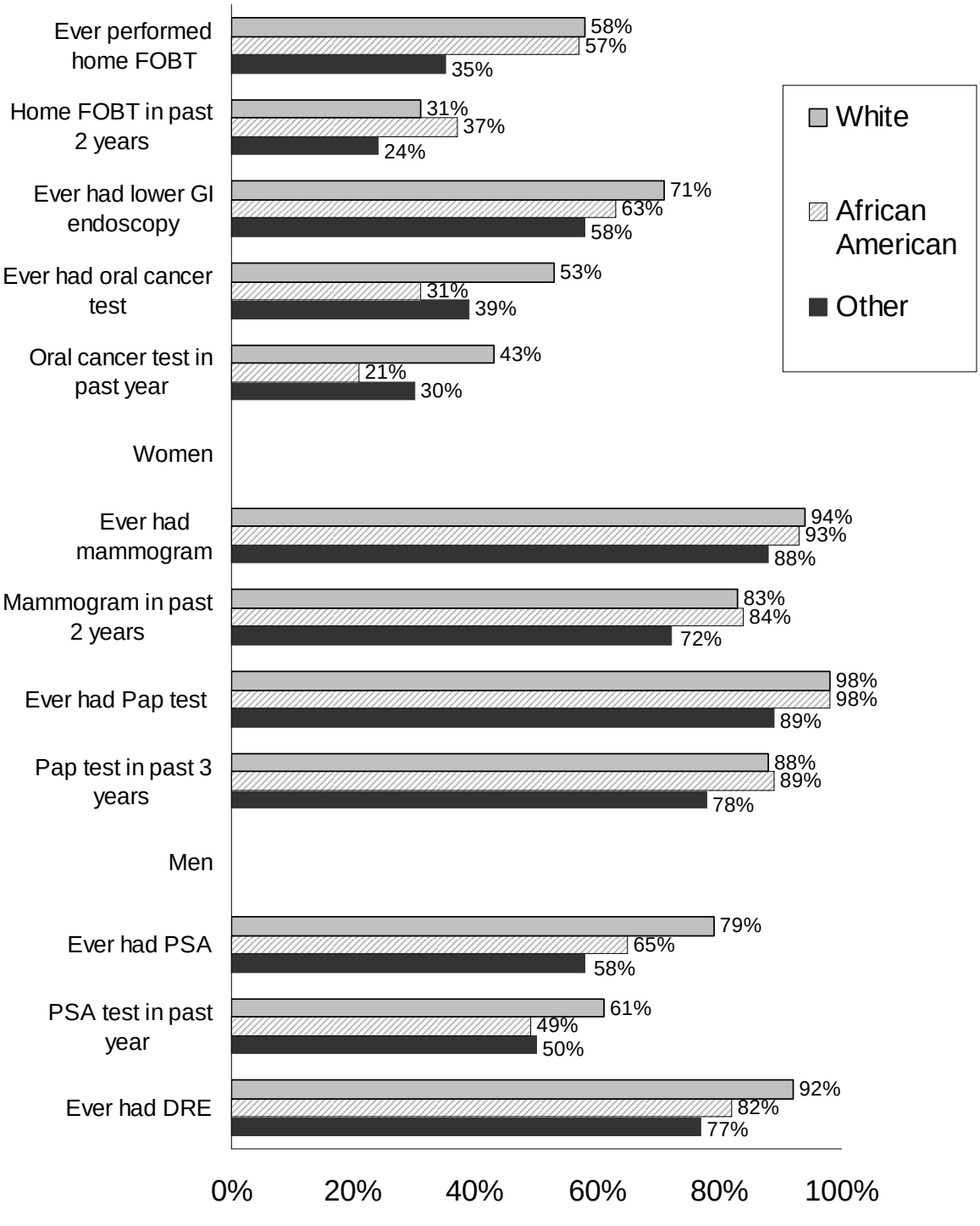
Racial differences in prevalence were found for several types of cancer screening (Chart 11-2). Non-White respondents (those who were African American or of other races) had a significantly lower prevalence of ever having lower GI endoscopy, of ever having oral cancer screening, and of having oral cancer screening in the past year, compared with White respondents. Non-White men were also less likely to have ever had a PSA, to have had a PSA test in the past year, or to have ever had a DRE test. Compared with White and African American respondents, people of other races had a significantly lower prevalence of ever performing a home FOBT or having an FOBT in the past 2 years. Women of other races had a lower prevalence of ever having a mammogram or Pap test, and of having a recent mammogram or Pap test.

MCS 2006 respondents who had health insurance reported higher rates of screening for all tests except ever having a Pap test among women. Those who reported being without health insurance sometime within the past year had lower screening rates for ever having lower GI endoscopy or mammography, and lower prevalence of mammography in the past 2 years and Pap test in the past 3 years.

Receiving a recommendation from a health care provider for cancer screening is a very important factor in whether a cancer screening test is done. When a health care provider recommended a mammogram or Pap test to female respondents, the prevalence rates of these screening tests were much higher than when no recommendation was made. For these and most other cancer screening tests examined in the MCS 2006, the lack of a doctor's recommendation was often a prominent reason cited by respondents for not having the test.

While Marylanders have been successful in meeting or exceeding several HP 2010 objectives related to cancer screening, they have been less successful in attaining objectives for some behavioral and lifestyle goals aimed at reducing risk of cancer and other chronic diseases. When asked the question, "How many fruits and vegetables do you eat per day," only 27% reported eating three or more servings of vegetables (compared to the HP 2010 target of 50%) and only 60% reported at least two daily servings of fruit (compared to the target of 75%). The MCS 2006 found that 16% of Marylanders age 40 years and older currently smoke cigarettes, which approaches but does not meet the HP 2010 target for adults of 12%. With respect to the physical activity objectives highlighted in HP 2010, 46% of Marylanders age 40 years and older reported engaging in either moderate activity for 30 minutes a day, 5-7 days a week, or vigorous activity for 20 minutes a day, 3 days a week, slightly below the HP 2010 target of 50%.

Chart 11-2 Prevalence of cancer screening, by race, among MCS 2006 respondents



Among Marylanders age 40 years and older, 29% are considered obese (based on self-reported height and weight), far higher than the HP 2010 target of 15%.

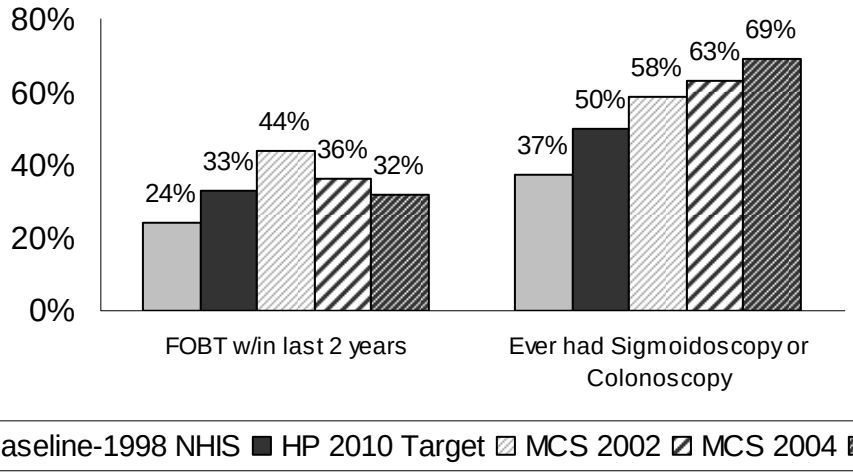
In summary, Marylanders are, as a group, knowledgeable about cancer screening tests and are being tested at rates comparable to or better than the national baselines. However, our data suggest disparities in prevalence of some screening tests based on race and other demographic factors, including age, education, employment status, and income. Other factors also have a significant influence on screening prevalence, including health insurance status, whether or not people have had a recent physical examination, and whether or not the health care provider recommends the test be done.

11.2 Comparison between MCS 2002, 2004, and 2006

Table 11-1 displays comparisons between the results of the current MCS survey and those from the MCS 2002 and 2004. For comparisons in this report and in Table 11-1 we analyzed prostate screening questions for all men 50 years and older and for African American men age 45 to 49 years. We have not made comparisons between dietary and physical activity measures because the questions were not identical in all surveys.

A high percentage of Marylanders are familiar with CRC screening procedures, particularly sigmoidoscopy/colonoscopy. In the MCS 2006, 92% of Marylanders said they had heard of these tests, up from 91% in 2004 and 88% in 2002. While the percentage of Marylanders age 50 years and older who ever performed an FOBT has remained fairly steady, the proportion who reported having the test in the past 2 years continues to decline (44% in MCS 2002, 36% in 2004 and 32% in 2006; Chart 11-3). However, an increasing percentage of people age 50 years and older are reporting to have ever had lower GI endoscopic exams (58% in 2002, 63% in 2004, and 69% in 2006; Chart 11-3). Overall, it appears that Marylanders are moving away from CRC screening by FOBT and sigmoidoscopy, in favor of colonoscopy. As a result of the increases in prevalence of colonoscopy, the proportion of people never tested for CRC has dropped from 26% in 2002 to 20% in 2006. The prevalence of up-to-date colonoscopy has increased from 41% in 2002 to 59% in 2006.

Chart 11-3 Prevalence of CRC Screening Among MCS 2006 Respondents Age 50 Years and Older, Compared to U.S. Baseline, Healthy People 2010 Targets, and Results of MCS 2002 and MCS 2004



Screening rates for prostate cancer, cervical cancer, and breast cancer remained fairly stable between 2002, 2004, and 2006 surveys. The proportion of men reporting to have ever had a PSA test or a DRE did not change significantly from 2002 to 2006, nor did the proportion of men reporting prostate cancer screening in the past year. Similarly, the proportion of women reporting to have ever had a mammogram or Pap test, and the proportion of women who were up-to-date with breast or cervical cancer testing, did not change significantly from 2002 to 2006.

A statistically significant increase occurred in the prevalence of ever having oral cancer screening, rising from 43% in both 2002 and 2004 to 47% in 2006. The percent of Marylanders reporting to have had an oral cancer exam in the past year has also increased significantly, from 33% in 2002 to 37% in 2006.

The prevalence of overweight varied little between 2004 and 2006 (38% and 39%, respectively) and the percent of obese individuals in Maryland remained steady at 29%. The prevalence of current cigarette smoking did not change significantly between the 2002 and 2006 surveys.

TABLE 11-1. COMPARISON OF POPULATION SCREENING AND RISK BEHAVIOR CHARACTERISTICS MEASURED IN THE MCS 2002, 2004, AND 2006 TO UNITED STATES BASELINE MEASUREMENTS AND HEALTHY PEOPLE 2010 OBJECTIVES

	MCS 2002		MCS 2004		MCS 2006		US Baseline	HP 2010 Target
Selected Population Screening Characteristic	**wt %**	**95% CI**	**wt %**	**95% CI**	**wt %**	**95% CI**	**%**	**%**
Colorectal Cancer Screening								
Heard of sigmoidoscopy/ colonoscopy (≥ 40 years)	88%	87-89%	91%	90-92%	92%	91-93%		
Awareness of no-cost colon screening at local health department (≥ 40 years)	27%	26-29%	24%	23-26%	25%	24-27%		
Ever performed a home FOBT (≥ 50 years)	57%	56-59%	54%	52-56%	57%	55-59%		
Performed a home FOBT in the last two years (≥ 50 years)	44%	42-46%	36%	34-38%	32%	30-34%	24%*	33%*
Ever had a sigmoidoscopy/colonoscopy (≥ 50 years)	58%	56-60%	63%	61-65%	69%	67-70%	37%*	50%*
Of those who had lower GI endoscopy, most recent endoscopy was a sigmoidoscopy (≥ 50 years)	24%	22-26%	16%	15-19%	10%	9-11%		
Of those who had lower GI endoscopy, most recent endoscopy was a colonoscopy (≥ 50 years)	76%	74-78%	84%	81-85%	90%	89-91%		
Up-to-Date Colorectal Cancer Testing (≥ 50 years)								
Never tested	26%	24-28%	23%	21-25%	20%	18-21%		
Tested by not up to date	10%	9-12%	10%	9-11%	11%	10-12%		
Up-to-date with only FOBT in the last year	11%	10-13%	9%	8-10%	6%	5-7%		
Up-to-date with only sigmoiodoscopy in the last 5 years	6%	5-7%	5%	4-6%	3%	2-3%		
Up-to-date with FOBT in the last year and sigmoidoscopy in the last 5 years	5%	4-6%	3%	2-4%	2%	1-2%		
Up-to-date with colonoscopy in the last 10 years +/- FOBT	41%	39-43%	50%	48-52%	59%	57-61%		
Prostate Cancer Screening (all men ≥ 50 years and African American men ≥ 45 years)								
Ever had a PSA test among the PSA eligible group	73%	70-75%	77%	74-80%	74%	71-78%		
Had a PSA test in the last year in PSA eligible group	58%	55-61%	60%	57-63%	57%	54-60%		
Ever had a DRE among the PSA eligible group	88%	86-90%	86%	83-88%	89%	87-91%		
Had a DRE in the last year among PSA eligible group	60%	57-63%	58%	55-62%	57%	54-60%		
Had both a PSA and DRE in the last year	47%	44-50%	47%	44-50%	45%	41-48%		
Breast and Cervical Cancer Screening (women ≥ 40 years)								
Health care provider recommended a mammogram in the last year	86%	84-87%	84%	83-86%	86%	85-88%		
Health care provider recommended a Pap test in the last year, among women who have not had a hysterectomy	98%	97-98%	77%	75-79%	79%	77-81%		
Ever had a mammogram	93%	92-94%	93%	91-94%	94%	93-95%		
Had a mammogram in the last two years	84%	82-85%	83%	82-85%	83%	81-84%	67%**	70%**
Ever had a clinical breast exam	94%	93-95%	96%	95-96%	--			
Ever had a Pap test, among women who have not had a hysterectomy	97%	96-98%	98%	98-99%	98%	97-99%	92%^*	97%^*
Had a Pap test in the last three years, among women who have not had a hysterectomy	89%	88-91%	90%	88-91%	88%	86-89%	79%^*	90%^*

* Adults ≥ 50 years
** Women ≥ 40 years
^* Women ≥ 18 years
^~ Persons ≥ 2 years
^^ Adults ≥ 40 years
^ Adults ≥ 18 years
~ Persons < 65 years
` Adults ≥ 20 years

TABLE 11-1. COMPARISON OF POPULATION SCREENING AND RISK BEHAVIOR CHARACTERISTICS MEASURED IN THE MCS 2002, 2004, AND 2006 TO UNITED STATES BASELINE MEASUREMENTS AND HEALTHY PEOPLE 2010 OBJECTIVES

	MCS 2002		MCS 2004		MCS 2006		US Baseline	HP 2010 Target
Selected Population Screening Characteristic	**wt %**	**95% CI**	**wt %**	**95% CI**	**wt %**	**95% CI**	**%**	**%**
Oral Cancer Screening (≥ 40 years)								
Had a dental visit during the past year	76%	75-77%	76%	74-77%	74%	72-75%	44%^~	56%^~
Ever had an oral cancer exam	43%	41-44%	43%	42-45%	47%	45-49%		
Had an oral cancer exam in the last year	33%	32-35%	34%	32-35%	37%	35-38%	13%^^	20%^^
Access to Health Care (≥ 40 years)								
Has health insurance	94%	93-94%	93%	92-94%	94%	93-95%	83%~	100%~
Had no health insurance sometime in the last 12 months	3%	2-3%	5%	4-6%	3%	3-4%		
Life style Factors (≥ 40 years)								
Body mass index								
Healthy weight individuals BMI (18.5-24.9)	36%	35-38%	33%	31-35%	31%	30-33%	42%^	60%^
Overweight individuals (BMI 25.0-29.9)	35%	33-36%	38%	37-40%	39%	38-41%		
Obese individuals (BMI ≥ 30.0)	25%	24-27%	29%	27-31%	29%	28-31%	23%^	15%^
Current smoking status								
Never smokers	48%	47-50%	50%	48-52%	51%	50-53%		
Former smokers	33%	32-35%	33%	31-34%	32%	31-34%		
Current smokers	18%	17-20%	17%	16-19%	16%	15-18%	24%`	12%`

* Adults ≥ 50 years
** Women ≥ 40 years
^* Women ≥ 18 years
^~ Persons ≥ 2 years
^^ Adults ≥ 40 years
^ Adults ≥ 18 years
~ Persons < 65 years
` Adults ≥ 20 years

Questionnaire for the Maryland Cancer Survey, 2006

Hello, my name is _____. I'm calling for the Maryland State Health Department and the University of Maryland. We're conducting a survey on cancer prevention and screening for Maryland residents. Your phone number has been chosen randomly for participation in this important survey. This call may be monitored for quality assurance purposes.

Have I reached you on a cell phone or a regular phone line (land line)?

If cell phone – Thank you very much. We are only talking to people on landlines for this survey.

If land line - Is this a private residence? READ ONLY IF NECESSARY (That is, a home as opposed to a business or an institution.)

IF "NO": Thank you very much. We are only talking to people in private residences. This number will not be included in the survey.

IF "YES": I need to randomly select one person who lives in your household to be interviewed.

How many members of your household, including yourself, are 40 years of age or older?
___ (1) NUMBER OF ADULTS AGED 40 OR GREATER. (If there is at least one person age 40 years and older, continue with survey for people 40 years and above)

IF "0" Thank you very much for your time. As we are only interviewing people aged 40 or older, we will not be interviewing anyone in your household for this survey. **STOP**

IF "1": Are you the individual who is at least 40 years of age?

IF "YES": Then you are the person I need to speak with. ENTER 1 MAN OR 1 WOMAN BELOW. (ASK GENDER IF NECESSARY).

IF "NO": Is the adult a man or a woman? ENTER 1 MAN OR 1 WOMAN BELOW,

May I speak with (him/her)? GO TO "CORRECT RESPONDENT"

IF ">1" In order to choose the person I need to speak to I need to know how many of these adults are men and how many are women.

___ NUMBER OF MEN
___ NUMBER OF WOMEN

IF 1 MAN AND 1 WOMAN GO TO RANDOM SELECTION.

IF MORE THAN ONE OF EITHER GENDER

The person in your household that I need to speak with is _____.

TO CORRECT RESPONDENT: Hello, my name is _____. I'm calling for the Maryland State Health Department and the University of Maryland. We're conducting a survey on cancer screening for Maryland residents aged 40 years or older. Your phone number has been chosen randomly for participation in this important survey.

The information collected in this survey will assist the health department in designing cancer education and screening programs for Maryland residents.

I won't ask for your name, address, or other personal information that can identify you. You don't have to answer any question you don't want to, and you can end the interview at any time. The survey takes about *15* minutes and any information you give us will be confidential. If you have any questions about this survey, I will provide a toll free telephone number for you to call to get more information. This call may be monitored for quality assurance purposes.

SECTION 1: HEALTH STATUS

I'd like to start with a question about your general health.

1.1 Would you say that in general your health is:

1 Excellent
2 Very good
3 Good
4 Fair
5 Poor
7 DON'T KNOW/NOT SURE
8 REFUSED

SECTION 2: HEALTH CARE ACCESS

Now I'll ask you some questions about how you get your health care.

2.1 Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare or Medical Assistance?

1 YES
2 NO
7 DON'T KNOW/NOT SURE
8 REFUSED

GO TO 2.3 ←

2.2 During the past 12 months, was there any time that you did **not** have any health insurance or coverage?

1 YES
2 NO
7 DON'T KNOW/NOT SURE
8 REFUSED
9 NA

GO TO 2.4 ←

2.3 About how long has it been since you had health insurance or coverage? READ ONLY IF NECESSARY

1 Within the past 6 months (ANYTIME < 6 MONTHS AGO)
2 Within the past year (≥6 MONTHS BUT < 12 MONTHS AGO)
3 Within the past 2 years (≥1 YEAR BUT < 2 YEARS)
4 Within the past 5 years (≥2 YEARS BUT <5 YEARS)
5 5 or more years ago
6 Have never had health insurance
7 DON'T KNOW/NOT SURE
8 REFUSED
9 NA

2.4. Have you ever heard of the Maryland Health Insurance Plan (MHIP), a state administered health insurance program for Maryland residents who do not have access to health insurance?

1 YES
2 NO
7 DON'T KNOW/NOT SURE
8 REFUSED

2.5 About how long has it been since you last visited a doctor for a routine checkup? A routine checkup is a general physical exam, not an exam for a specific injury, illness or condition. READ ONLY IF NECESSARY

1 Within the past year (ANYTIME <12 MONTHS AGO)
2 Within the past 2 years (≥1 YEAR BUT < 2 YEARS)
3 Within the past 5 years (≥2 YEARS BUT < 5 YEARS)
4 5 or more years ago
5 Never visited the doctor for a routine checkup
7 DON'T KNOW/NOT SURE
8 REFUSED

2.6 Do you have one person you think of as your personal doctor or *primary* health care provider?

1 Yes, only one
2 More than one
3 No → IF "NO" ASK: Is there more than one or is there no person who you think of?
7 DON'T KNOW/NOT SURE
8 REFUSED

2.7 What kind of place do you go to most often when you're are sick or your need advice about your health? Is it . . . .

1 A doctor's office or HMO
2 A clinic or health center
3 A hospital outpatient department
4 A hospital emergency room
5 An urgent care center, or
6 Some other kind of place
7 DON'T KNOW/NOT SURE
8 REFUSED

SECTION 3: COLON CANCER SCREENING

Now some questions about different kinds of cancer. We'll start with colon or bowel cancer which includes cancer of the rectum.

3.1 How likely do you think it is that you will develop colon cancer in the future? Would you say your chance of getting colon cancer is. . . .

1 Very low
2 Somewhat low
3 Moderate
4 Somewhat high
5 Very high
7 DON'T KNOW/NOT SURE
8 REFUSED

3.2 Has a parent, brother, sister or child of yours ever been diagnosed with colon cancer? (WE ARE INTERESTED IN FIRST DEGREE BLOOD RELATIVES ONLY DO NOT INCLUDE FAMILY MEMBERS RELATED ONLY THROUGH MARRIAGE SUCH AS STEPFATHER, STEPSISTER OR FAMILY MEMBERS WHO WERE ADOPTED).

1 YES
2 NO
7 DON'T KNOW/NOT SURE
8 REFUSED

3.3 Did you know that there are screening tests for colon cancer?

1 YES
2 NO
7 DON'T KNOW/NOT SURE
8 REFUSED

3.4 Can you think of any tests that find or detect colon cancer? Anything else? [DO NOT READ CHOICES, CODE ALL THAT APPLY]

1 BARIUM ENEMA
2 BIOPSY
3 STOOL BLOOD TEST/FECAL OCCULT BLOOD TEST
4 COLONOSCOPY
5 DIGITAL RECTAL EXAM
6 PROCTOSCOPY
7 SIGMOIDOSCOPY
8 LOWER GI
9 MRI/SCANS/CAT SCANS
10 BLOOD TEST
11 OTHER (SPECIFY) _____
12 NO/NOTHING
77 DON'T KNOW/NOT SURE
88 REFUSED

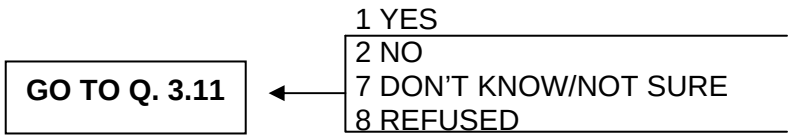
3.5 There are several tests used to screen for colon cancer. The first one we'll talk about is the fecal occult blood test or blood stool test. This is a test that may use a special kit, at home, to determine whether the stool contains blood. Have you ever heard of this test?

1 YES
2 NO
7 DON'T KNOW/NOT SURE
8 REFUSED

3.6 In the PAST 12 MONTHS, has a doctor or other health professional RECOMMENDED that you have a HOME blood stool test?

1 Yes
2 No
3 No doctor's visit in the past twelve months
7 DON'T KNOW/NOT SURE
8 REFUSED

3.7 Have you ever done this test using a home kit?



3.8 How long has it been since you did your last blood stool test using a home kit? (READ ONLY IF NECESSARY)

1 Within the past year (<12 MONTHS AGO)
2 Within the past 2 years (≥1 YEAR BUT < 2 YEARS AGO)
3 Within the past 3 years (≥2 YEARS BUT < 3 YEARS AGO)
4 Within the past 5 years (≥3 YEARS BUT < 5 YEARS AGO)
5 5 or more years ago
6 Never
7 DON'T KNOW/NOT SURE
8 REFUSED
9 NA

3.9 What was the MAIN reason you did this exam? Was it . . . . (READ CHOICES)

1 Part of a routine physical exam/screening test
2 Because of a symptom or health problem
3 Follow-up test of an earlier abnormal test
4 Family history
5 Other
7 DON'T KNOW/NOT SURE
8 REFUSED
9 NA

3.10 You said your most recent stool blood test was {INSERT TIME FRAME FROM 3.8}. How long before that stool test was the previous one?

1 A year or less before
2 More than 1 but not more than 2 years before
3 More than 2 but not more than 5 years before
4 Over 5 years before
5 None before the most recent
7 DON'T KNOW/NOT SURE
8 REFUSED
9 NA

IF RESPONSE TO 3.8 WAS "WITHIN PAST YEAR " SKIP TO Q 3.12

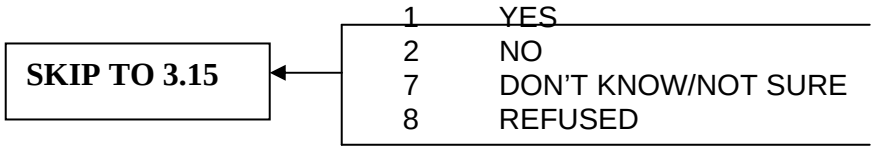
3.11 What is the most important reason you have {NEVER done /NOT done a HOME blood stool test in the PAST YEAR}? (READ ONLY IF NECESSARY – RECORD ALL RESPONSES NOTED BY RESPONDENT).

01 No reason/never thought about it
02 Didn't need it/didn't know I needed this type of test
03 Doctor didn't order it/didn't say I needed it
04 Haven 't had any problems
05 Put it off/didn't get around to it
06 Too expensive/no insurance/cost
07 Too painful, unpleasant, or embarrassing
08 Had another type of colorectal exam like a colonoscopy, sigmoidoscopy or Barium enema.
09 Don't have doctor
10 Never heard of the test
11 Had stool blood test done at doctor's office
12 Age/too young
13 Other , SPECIFY: _____
77 DON'T KNOW/NOT SURE
88 REFUSED
99 NA

3.12 Sigmoidoscopy and colonoscopy are two other tests to screen for colon cancer. Both tests examine the bowel. A narrow, lighted tube is inserted in the rectum to look for growths in the colon. Sigmoidoscopy uses a shorter tube that just reaches the **lower** part of the colon. Colonoscopy uses a long tube and examines the **entire** colon. Before a colonoscopy is done, you are usually given medication through a needle in your arm to make you sleepy. Have you ever heard of these exams?

1 YES
2 NO
7 DON'T KNOW/NOT SURE
8 REFUSED

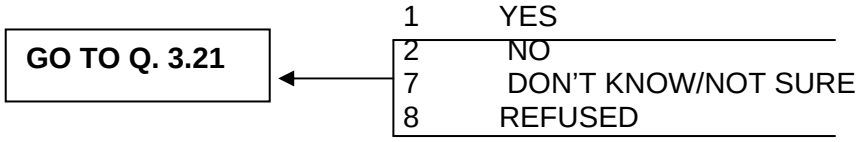
3.13 Has a doctor or other health professional ever RECOMMENDED that you have a sigmoidoscopy or colonoscopy?



3.14. In addition to the recommendation which of the following did the doctor or health care professional do to help you get the test? Did the doctor or health care professional . . . . . (MARK ALL THAT APPLY)

1 Send you a letter or postcard or call to tell you to get the test
2 Refer you to a place or doctor where the test could be done.
3 Call the office and set up the appointment for you
4 Do the sigmoidoscopy or colonoscopy him/herself
5 Do something else, specify: _____
6 Do nothing other than make the recommendation
7 DON'T KNOW/NOT SURE
8 REFUSED
9 NA

3.15 Have you ever had a sigmoidoscopy or colonoscopy?



3.16 What was this MOST RECENT exam called: a sigmoidoscopy or a colonoscopy, or something else?

1 Sigmoidoscopy
2 Colonoscopy
3 Something else: Specify _____
7 DON'T KNOW/NOT SURE
8 REFUSED
9 NA

3.17 How long has it been since you had your last sigmoidoscopy or colonoscopy? (READ ONLY IF NECESSARY)

1 Within the past year (<12 MONTHS AGO)
2 Within the past 2 years (≥1 YR BUT < 2 YRS AGO)
3 Within the past 5 years (≥2 YRS BUT < 5 YRS AGO)
4 Within the past 10 years (≥5 YRS BUT < 10 YRS AGO)
5 10 years ago
6 More than 10 years ago
7 DON'T KNOW/NOT SURE
8 REFUSED
9 NA

3.18 What was the MAIN reason you had this exam? Was it . . . (READ ALL CHOICES)

1 Part of a routine physical exam/screening test
2 Because of a symptom or health problem
3 Follow-up test of an earlier abnormal test (Fecal Occult Blood Test or sigmoidoscopy)
4 Family history
5 Other
7 DON'T KNOW/NOT SURE
8 REFUSED
9 NA

3.19 You said your most recent {sigmoidoscopy/colonoscopy} was {INSERT TIME FRAME FROM 3.17}. How long before that {sigmoidoscopy/colonoscopy} was the previous sigmoidoscopy or colonoscopy?

1 A year or less before
2 More than 1 but not more than 5 years before
3 More than 5 but not more than 10 years before
4 10 years before
5 More than 10 years before
6 None before the most recent
7 DON'T KNOW/NOT SURE
8 REFUSED
9 NA

GO to 3.21

3.20 IF HAD PREVIOUS TEST: Was this exam: a sigmoidoscopy or a colonoscopy?

1 Sigmoidoscopy
2 Colonoscopy
3 Something else: Specify _____
7 DON'T KNOW/NOT SURE
8 REFUSED
9 NA

3.21 **IF RESPONDENT HAS HAD COLONOSCOPY WITHIN PAST 10 YEARS OR SIGMOIDOSCOPY WITHIN PAST 5 YEARS SKIP TO Q 3.22**

What is the most important reason you have [NEVER had/NOT had} one of these exams in the LAST (**5** YEARS if last exam was a sigmoidoscopy or something else in 3.16) (**10** years if last exam was a colonoscopy in 3.16)]? (READ ONLY IF NECESSARY– RECORD ALL RESPONSES NOTED BY RESPONDENT).

01 No reason/never thought about it
02 Didn't need it/didn't know I needed this type of test
03 Doctor didn't order it/didn't say I needed it
04 Haven 't had any problems
05 Put it off/didn't get around to it
06 Too expensive/no insurance/cost
07 Too painful, unpleasant, or embarrassing
08 Had a barium enema
09 Don't have doctor
10 Didn't want to know if I had cancer
11 Didn't have childcare or respite care if adult caregiver
12 Too young or not old enough
13 Other , SPECIFY: _____
77 DON'T KNOW/NOT SURE
88 REFUSED
99 NA

3.22 Have you seen or heard colon cancer screening being promoted on TV or radio, at a health care facility or in magazine *or* newspaper or some other place?

1 YES
2 NO
7 DON'T KNOW/NOT SURE
8 REFUSED

3.23 Are you aware that most health departments in Maryland have a no cost colon cancer screening program for low income individuals?

1 YES
2 NO
7 DON'T KNOW/NOT SURE
8 REFUSED

At this point we ask questions about cancer screening that are specific to men or women.

3.24 Can you please tell me if you are male or female. (ASK ONLY IF NECESSARY. RECORD GENDER)

1 MALE
2 FEMALE → **GO TO SECTION 5**
8 REFUSED

SECTION 4: PROSTATE CANCER SCREENING

Now I'm going to ask you about prostate cancer screening.

4.1 Has your father, or a brother or son of yours ever been diagnosed with prostate cancer? (WE ARE INTERESTED IN FIRST DEGREE BLOOD RELATIVES ONLY, DO NOT INCLUDE FAMILY MEMBERS RELATED ONLY THROUGH MARRIAGE SUCH AS STEPFATHER, STEPBROTHER OR ADOPTED BROTHERS OR SONS)

1 YES
2 NO
7 DON'T KNOW/NOT SURE
8 REFUSED
9 NA

4.2 Has a doctor or other health care professional ever discussed prostate cancer screening with you?

1 YES
2 NO
7 DON'T KNOW/NOT SURE
8 REFUSED
9 NA

4.3 A Prostate-Specific Antigen test, also called a PSA test, is a blood test used to check men for prostate cancer. Have you ever heard of this test?

1 YES
2 NO
7 DON'T KNOW/NOT SURE
8 REFUSED
9 NA

4.4 Have you ever **had** a PSA test?

1 YES
2 NO
7 DON'T KNOW/NOT SURE
8 REFUSED
9 NA

GO TO Q. 4.7

4.5 How long has it been since you had your last PSA test? (READ ONLY IF NECESSARY)

1 Within the past year (<12 MONTHS AGO)
2 Within the past 2 years (≥1 YEAR BUT < 2 YEARS AGO)
3 Within the past 3 years (≥2 YEARS BUT < 3 YEARS AGO)
4 Within the past 5 years (≥3 YEARS BUT < 5 YEARS AGO)
5 5 or more years ago
6 Never
7 DON'T KNOW/NOT SURE
8 REFUSED
9 NA

4.6 You said your last PSA test was {INSERT TIME FRAME FROM 4.5}. How long before that PSA test was the previous one?

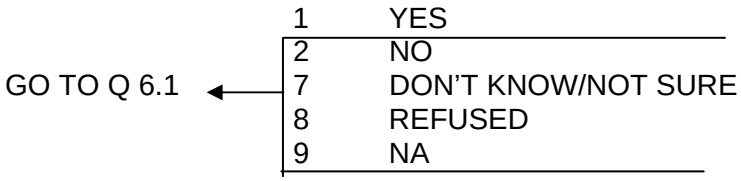
1 A year or less before
2 More than 1 but not more than 2 years before
3 More than 2 but not more than 5 years before
4 Over 5 years before
5 None before the most recent
7 DON'T KNOW/NOT SURE
8 REFUSED
9 NA

IF RESPONDENT HAS NEVER HAD A PSA TEST OR HAS NOT HAD ONE IN THE PAST YEAR (Q. 4.5) ASK 4.7. ALL OTHERS SKIP TO 4.8.

4.7 What is the most important reason you have [**never** had a PSA test /NOT had a PSA test in the last 12 months]? (READ ONLY IF NECESSARY-RECORD ALL RESPONSES NOTED BY RESPONDENT).

01 No reason/never thought about it
02 Didn't need it/didn't know I needed this type of test
03 Doctor didn't order it/didn't say I needed it
04 Haven 't had any problems
05 Put it off/didn't get around to it
06 Too expensive/no insurance/cost
07 Didn't want to know the results
08 Don't have doctor
09 Too young or not old enough
10 Never heard of the test
11 Other, SPECIFY: _____
77 DON'T KNOW/NOT SURE
88 REFUSED
99 NA

4.8 A digital rectal exam is an exam in which a doctor, nurse, or other health professional places a gloved finger into the rectum to feel the size, shape, and hardness of the prostate gland. Have you ever had a digital rectal exam?



4.9 How long has it been since your last digital rectal exam?

1 Within the past year (<12 MONTHS AGO)
2 Within the past 2 years (≥1 YEAR BUT < 2 YEARS AGO)
3 Within the past 3 years (≥2 YEARS BUT < 3 YEARS AGO)
4 Within the past 5 years (≥3 YEARS BUT < 5 YEARS AGO)
5 5 or more years ago
6 Never
7 DON'T KNOW/NOT SURE
8 REFUSED
9 NA

IF RESPONDENT IS MALE, GO TO SECTION 6

SECTION 5: WOMEN'S HEALTH

Now for some questions about screening tests for women.

5.1 Has your mother or a sister or daughter of yours ever been diagnosed with breast cancer? (WE ARE INTERESTED IN FIRST DEGREE BLOOD RELATIVES ONLY, DO NOT INCLUDE FAMILY MEMBERS RELATED ONLY THROUGH MARRIAGE SUCH AS STEPMOTHER, STEPSISTER OR ADOPTED SISTERS OR DAUGHTERS)

1 YES
2 NO
7 DON'T KNOW/NOT SURE
8 REFUSED
9 NA

5.2 A mammogram is an x-ray of each breast to look for breast cancer. In the PAST YEAR, has a doctor or other health professional recommended breast cancer screening such as a mammogram or a breast exam?

1 Yes
2 No
3 No doctor visit in past twelve months
7 DON'T KNOW/NOT SURE
8 REFUSED
9 NA

5.3 Have you ever had a mammogram?

	1	YES
GO TO 5.7	2	NO
	7	DON'T KNOW/NOT SURE
	8	REFUSED
	9	NA

5.4 How long has it been since you had your last mammogram? (READ ONLY IF NECESSARY)

1 Within the past year (<12 MONTHS AGO)
2 Within the past 2 years (≥1 YEAR BUT < 2 YEARS AGO)
3 Within the past 3 years (≥2 YEARS BUT < 3 YEARS AGO)
4 Within the past 5 years (≥3 YEARS BUT < 5 YEARS AGO)
5 5 or more years ago
6 Never
7 DON'T KNOW/NOT SURE
8 REFUSED
9 NA

5.5 Was your (most recent) mammogram done as part of a routine checkup, because of a breast problem other than cancer, or because you've already had breast cancer?

1 ROUTINE CHECKUP
2 BREAST PROBLEM OTHER THAN CANCER
3 HAD BREAST CANCER
4 OTHER REASON _____
7 DON'T KNOW/NOT SURE
8 REFUSED
9 NA

5.6 You said your most recent mammogram was {INSERT TIME FRAME FROM 5.4}. How long before that mammogram was the previous one?

1 A year or less before
2 More than 1 but not more than 2 years before
3 More than 2 but not more than 5 years before
4 Over 5 years before
5 None before the most recent
7 DON'T KNOW/NOT SURE
8 REFUSED
9 NA

IF RESPONDENT HAS HAD TEST IN PAST TWO YEARS (Q 5.4) SKIP TO Q5.8.

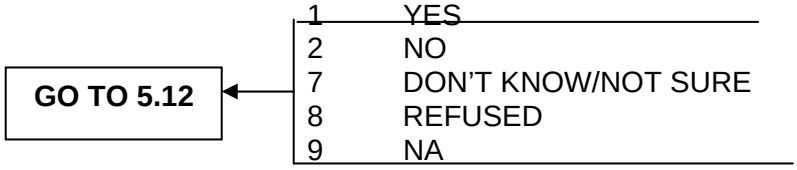
5.7 What it the most important reason why you have NEVER had /NOT had a mammogram in the past two years? (READ ONLY IF NECESSARY– RECORD ALL RESPONSES NOTED BY RESPONDENT.)

01	No reason/never thought about it
02	Didn't need it/didn't know I needed this type of test
03	Doctor didn't order it/didn't say I needed it
04	Haven 't had any problems
05	Put it off/didn't get around to it
06	Too expensive/no insurance/cost
07	Too painful, unpleasant, or embarrassing
08	Don't have doctor
09	Didn't want to know if I had cancer
10	Other , SPECIFY: _____
77	DON'T KNOW/NOT SURE
88	REFUSED
99	NA

5.8 A Pap test is a routine test for cancer of the cervix in which the doctor examines the cervix, takes a cell sample from the cervix with a small stick or brush, and sends it to the lab. In the PAST YEAR, has a doctor or other health professional RECOMMENDED that you have a Pap test?

1	Yes
2	No
3	No doctor visit in the past 12 months
7	DON'T KNOW/NOT SURE
8	REFUSED
9	NA

5.9 Have you ever had a Pap test?



5.10 How long has it been since you had your last Pap test? (READ ONLY IF NECESSARY)

1	Within the past year (<12 MONTHS AGO)
2	Within the past 2 years (≥1 YEAR BUT < 2 YEARS AGO)
3	Within the past 3 years (≥2 YEARS BUT < 3 YEARS AGO)
4	Within the past 5 years (≥3 YEARS BUT < 5 YEARS AGO)
5	5 or more years ago
6	Never
7	DON'T KNOW/NOT SURE
8	REFUSED
9	NA

5.11. You said your most recent Pap test was {INSERT TIME FRAME FROM 5.10}. How long before that Pap test was the previous one?

1 A year or less before
2 More than 1 but not more than 2 years before
3 More than 2 but not more than 3 years before
4 More than 3 but not more than 5 years before
5 Over 5 years before
6 None before the most recent
7 DON'T KNOW/NOT SURE
8 REFUSED
9 NA

IF RESPONDENT HAS HAD PAP IN PAST 3 YEARS (Q 5.10) SKIP TO Q5.13.

5.12 What is the most important reason you have {NEVER had a Pap test /NOT had a Pap test in the last 3 years}? (READ ONLY IF NECESSARY– RECORD ALL RESPONSES NOTED BY RESPONDENT.)

01 No reason/never thought about it.
02 Didn't need/didn't know I needed this type of test
03 Doctor didn't order it/didn't say I needed it
04 Haven 't had any problems
05 Put it off/didn't get around to it
06 Too expensive/no insurance/cost
07 Too painful, unpleasant, or embarrassing
08 Had hysterectomy
09 Don't have doctor
10 Didn't want to know if I had cancer
11 Other , SPECIFY: _____
77 DON 'T KNOW /NOT SURE
88 REFUSED
99 NA

5.13 Have you had a hysterectomy, that is an operation to remove the uterus (womb)?

1 YES
2 NO
7 DON'T KNOW/NOT SURE
8 REFUSED
9 NA

SECTION 6: ORAL HEALTH/ORAL CANCER

Next we'll talk about your dental care and oral cancer.

6.1 How long has it been since you last visited a dentist or a dental clinic for any reason? (READ ONLY IF NECESSARY)

INCLUDE VISITS TO DENTAL SPECIALISTS SUCH AS ORTHODONTISTS

1 Within the past year (<12 MONTHS AGO)
2 Within the past 2 years (≥1 YEAR BUT < 2 YEARS AGO)
3 Within the past 3 years (≥2 YEARS BUT < 3 YEARS AGO)
4 Within the past 5 years (≥3 YEARS BUT < 5 YEARS AGO)
5 5 or more years ago
6 Never
7 DON'T KNOW/NOT SURE
8 REFUSED

6.2 Have you ever had a test or exam for oral or mouth cancer in which the doctor or dentist pulls on your tongue, sometimes with gauze wrapped around it, and feels under the tongue and inside the cheeks?

1 I THINK SO
2 YES
3 NO
7 DON'T KNOW/NOT SURE
8 REFUSED

GO TO Q 7.1 ←

6.3 When did you have your most recent oral or mouth cancer exam?

1 Within the past year (<12 MONTHS AGO)
2 Within the past 2 years (≥1 YEAR BUT < 2 YEARS AGO)
3 Within the past 3 years (≥2 YEARS BUT < 3 YEARS AGO)
4 Within the past 5 years (≥3 YEARS BUT < 5 YEARS AGO)
5 5 or more years ago
6 Never
7 DON'T KNOW/NOT SURE
8 REFUSED
9 NA

6.4 What type of medical care person examined you when you had your last check-up for oral cancer? (READ CHOICES)

1 Doctor/physician
2 Nurse/Nurse Practitioner
3 Dentist
4 Dental Hygienist
5 Other, (SPECIFY _____)
7 DON'T KNOW/NOT SURE
8 REFUSED
9 NA

SECTION 7: DEMOGRAPHICS

7.1 What is your age?

___ ___ ___(Code age in years)

7 7 7 DON'T KNOW/NOT SURE
8 8 8 REFUSED

7.2 Are you Hispanic and/or Latino?

1 YES
2 NO
7 DON'T KNOW/NOT SURE
8 REFUSED

7.3 Which one or more of the following would you say is your race? (MARK ALL THAT APPLY).

1 White
2 Black or African American
3 Asian
4 Native Hawaiian or Other Pacific Islander
5 American Indian, Alaska Native or
6 Other (SPECIFY _____)
7 DON'T KNOW/NOT SURE
8 REFUSED

IF MORE THAN ONE RESPONSE TO O 7.3. CONTINUE. OTHERWISE. GO TO O 7.5

7.4 Which one of these groups would you say **best** represents your race?

1 White
2 Black or African American
3 Asian
4 Native Hawaiian or Other Pacific Islander
5 American Indian, Alaska Native or
6 Other (SPECIFY _____)
7 DON'T KNOW/NOT SURE
8 REFUSED
9 NA

7.5 Are you:

1 Married
2 Divorced
3 Widowed
4 Separated
5 Never Married
6 A partner of an unmarried couple
7 DON'T KNOW
8 REFUSED

7.6 How many members of your household, **including yourself,** are 18 years of age or older?

___ ___ NUMBER OF ADULTS
7 7 DON'T KNOW
8 8 REFUSED

7.7 How many children less than 18 years of age live in your household ?

___ ___ NUMBER OF CHILDREN

0 0 NONE
7 7 DON'T KNOW
8 8 REFUSED

7.8 What is the highest grade or year of school you completed?
(READ ONLY IF NECESSARY)

01 Never attended school or only attended kindergarten
02 Grades 1 through 8 (Elementary)
03 Grades 9 through 11 (Some high school)
04 Grade 12 or GED (High school graduate)
05 College 1 year to 3 years (Some college or technical school)
06 College 4 years (College graduate)
07 Master's Degree
08 Advanced professional or doctoral degree
77 DON'T KNOW
88 REFUSED

7.9 Are you currently:

01 Employed for wages
02 Self-employed
03 Out of work for more than 1 year
04 Out of work for less than 1 year
05 A Homemaker
06 A Student
07 Retired or
08 Unable to work
77 DON'T KNOW
88 REFUSED

7.10 Is your annual household income from all sources . . . .
IF RESPONDENT REFUSES AT ANY INCOME LEVEL, CODE '99 REFUSED'
READ AS APPROPRIATE

0 4 Less than $25,000 **[IF "NO," ASK 05; IF "YES," ASK 03]**
($20,000 TO LESS THAN $25,000)
0 3 Less than $20,000 [**IF "NO," CODE 04; IF "YES," ASK 02]**
($15,000 TO LESS THAN $20,000)
0 2 Less than $15,000 **[IF "NO," CODE 03; IF "YES," ASK 01]**
($10,000 TO LESS THAN $15,000)
0 1 Less than $10,000 **[IF "NO," CODE 02]**

0 5 Less than $35,000 **[IF "NO," ASK 06]**
($25,000 TO LESS THAN $35,000)
0 6 Less than $50,000 [**IF "NO," ASK 07]**
($35,000 TO LESS THAN $50,000)
0 7 Less than $75,000 **[IF "NO," CODE 08]**
($50,000 TO LESS THAN $75,000)
0 8 $75,000 or more

7 7 DON'T KNOW/NOT SURE
8 8 REFUSED

7.11 About how much do you weigh without shoes? ROUND FRACTIONS UP

__ __ __ pounds OR __ __ __ kilos

7 7 7 DON'T KNOW/NOT SURE
8 8 8 REFUSED

7.12 About how tall are you without shoes? ROUND FRACTIONS DOWN

__ __/__ __ ft/inches OR __ __ __ centimeters

7 7 7 7 DON'T KNOW/NOT SURE
8 8 8 8 REFUSED

7.13 What county do you live in? _____ CODE ___ ___ ___

IF RESPONSE IS "BALTIMORE" PROBE FOR COUNTY OR CITY.

7 7 7 DON'T KNOW/NOT SURE
8 8 8 REFUSED

7.14 Do you have more than one telephone number in your household? Do not include cell phones or numbers that are only used by a computer or fax machine.

	1	YES
GO TO Q7.16 ←	2	NO
	7	DON'T KNOW/NOT SURE
	8	REFUSED

7.15 How many of these are residential numbers?

__ RESIDENTIAL TELEPHONE NUMBERS [6=6 OR MORE]
7 DON'T KNOW/NOT SURE
8 REFUSED
9 NA

FEMALES ONLY: IF RESPONDENT IS 49 YEARS OLD OR OLDER SKIP TO NEXT SECTION

7.16 To your knowledge, are you now pregnant?

1 YES
2 NO
7 DON'T KNOW/NOT SURE
8 REFUSED
9 NA

SECTION 8: EXERCISE/PHYSICAL ACTIVITY

The next series of questions are about exercise and physical activities

IF "EMPLOYED" OR "SELF-EMPLOYED" TO Q 7.9, CONTINUE. OTHERWISE GO TO Q 8.2

8.1 When you are at work, which of the following best describes what you do? Would you say . . . (IF RESPONDENT HAS MULTIPLE JOBS, INCLUDE ALL JOBS.)

1 Mostly sitting or standing
2 Mostly walking or
3 Mostly heavy labor or physically demanding work
7 DON'T KNOW/NOT SURE
8 REFUSED
9 NOT APPLICABLE

8.2 We are interested in two types of physical activity: vigorous and moderate. Vigorous activities cause large increases in breathing or heart rate while moderate activities cause small increases in breathing or heart rate.

Now, thinking about the moderate physical activities you do **[FILL IN (when you are not working) IF "EMPLOYED" OR "SELF-EMPLOYED" TO CORE Q7.9]** in a usual week, do you do moderate activities for 10 or more minutes at a time, such as brisk walking, bicycling, vacuuming, gardening, or anything else that causes small increases in breathing or heart rate?

1 YES
2 NO
7 DON'T KNOW/NOT SURE
8 REFUSED

SKIP TO 8.5

8.3. How many days per week do you do these moderate activities for 10 or more minutes at a time?

___ Days per week

66 DO NOT DO ANY MODERATE PHYSICAL ACTIVITY FOR 10 OR MORE MINUTES AT A TIME **GO TO 8.5**
77 DON'T KNOW/NOT SURE
88 REFUSED
99 NA

8.4. On days when you do moderate activities for 10 or more minutes at a time, how much total time per day do you spend doing these activities?

__ __: __ __ Hours and minutes per day

7 7 7 7 DON'T KNOW/NOT SURE
8 8 8 8 REFUSED
9 9 9 9 NA

8.5 Now thinking about the vigorous physical activities you do **[FILL IN (when you are not working) IF "EMPLOYED" OR "SELF-EMPLOYED" TO CORE Q7.9]** in a usual week, do you do vigorous activities for 20 or more minutes at a time, such as running, aerobics, heavy yard work, or anything else that causes large increases in breathing or heart rate?

1 YES
2 NO
7 DON'T KNOW/NOT SURE
8 REFUSED

SKIP TO 8.8

8. 6. How many days per week do you do these vigorous activities for 20 or more minutes at a time?

___ DAYS PER WEEK

66 DO NOT DO ANY VIGOROUS PHYSICAL ACTIVITY FOR 20 OR MORE MINUTES AT A TIME (GO TO 8.8 IF APPROPRIATE)
77 DON'T KNOW/NOT SURE
88 REFUSED
99 NA

8.7. On days when you do vigorous activities for 20 or more minutes at a time, how much total time per day do you spend doing these activities?

__ __: __ __ HOURS AND MINUTES PER DAY

7 7 77 DON'T KNOW/NOT SURE
8 8 88 REFUSED
9 9 99 NA

IF TOTAL FOR MODERATE PHYSICAL ACTIVITY IS LESS THAN 30 MINUTES/DAY/5 DAYS/WK AND 20 MINUTES OF VIGOROUS PHYSICAL ACTIVITY LESS THAN 3 DAYS/WEEK ASK 8.8. ALL OTHERS SKIP TO 8.9.

8.8 I'm going to read you a list of reasons people give for not being physically active. Please tell me what is the **main** thing which prevents you most from doing more physical activity than you are currently doing:

1 A lack of motivation
2 A lack of time
3 A physical disability or other health limitation
4 There's no place to exercise
5 The cost is too high
6 Some other reason. (SPECIFY: _____)
7 DON'T KNOW/NOT SURE
8 REFUSED
9 NA

8.9 During the PAST 12 MONTHS, did a doctor or other health care professional RECOMMEND that you BEGIN or CONTINUE to do any type of exercise or physical activity?

1 Yes
2 No
3 No doctor visit in past twelve months
7 DON'T KNOW/NOT SURE
8 REFUSED

SECTION 9: FRUITS AND VEGETABLES

Now I'm going to ask you some questions about the foods you eat.

How many servings of the following foods do you eat per week or per day?

9.1 How many servings of fruit juices such as orange, grapefruit, or tomato do you drink per week or per day?(A serving is ¾ cup or 6 ounces of juice.)

1 ___ ___ PER DAY
2 ___ ___ PER WEEK

4 4 4 LESS THAN ONCE PER WEEK
5 5 5 NEVER
7 7 7 DON'T KNOW/NOT SURE
8 8 8 REFUSED

9.2 How many servings of fruit (not including juices) do you eat per week or per day? (A serving is on piece of fruit or a ½ cup of fruit)

1 ___ ___ PER DAY
2 ___ ___ PER WEEK

4 4 4 LESS THAN ONCE PER WEEK
5 5 5 NEVER
7 7 7 DON'T KNOW/NOT SURE
8 8 8 REFUSED

9.3 How many servings of leafy salad greens do you eat per week or per day? (A serving is 1 cup of leafy salad greens)

1 ___ ___ PER DAY
2 ___ ___ PER WEEK

4 4 4 LESS THAN ONCE PER WEEK
5 5 5 NEVER
7 7 7 DON'T KNOW/NOT SURE
8 8 8 REFUSED

9.4 How many servings of vegetables (not including salad or potatoes) do you eat per week or per day? (A serving is ½ cup of vegetables)

1 ___ ___ PER DAY
2 ___ ___ PER WEEK

4 4 4 LESS THAN ONCE PER WEEK
5 5 5 NEVER
7 7 7 DON'T KNOW/NOT SURE
8 8 8 REFUSED

9.5 Not including seafood or poultry, how many servings of meat such as beef, pork, lamb or veal do you eat per day or per week. Please include foods that are made with meat such as soups, stews, sandwiches, lunch meats, and casseroles. (a serving size of meat is about the size of a deck of cards.)

1 ___ ___ PER DAY
2 ___ ___ PER WEEK

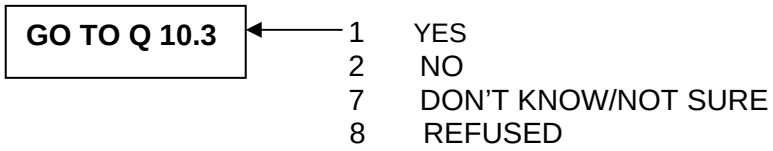
4 4 4 LESS THAN ONCE PER WEEK
5 5 5 NEVER
7 7 7 DON'T KNOW/NOT SURE
8 8 8 REFUSED

9.6 How many total servings of fruits and vegetables do you eat each day?

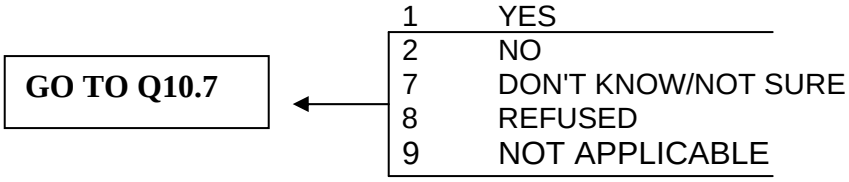
|___|___| NUMBER OF SERVINGS/DAY
5 5 NEVER
7 7 DON'T KNOW/NOT SURE
8 8 REFUSED

SECTION 10: Weight Control

10.1 Are you now trying to lose weight?



10.2 Are you now trying to maintain your current weight, that is to keep from gaining weight?

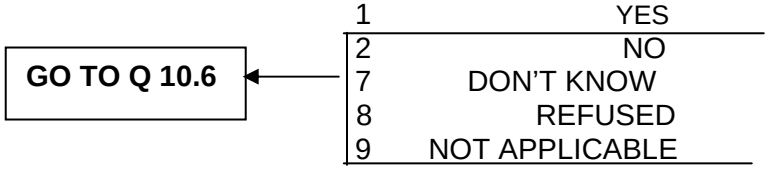


10.3 To lose weight (if "Yes" on Q10.1) OR
To keep from gaining weight (if "Yes" on Q10.2)
Are you . . . .

1 Eating fewer calories
2 Eating less fat
3 Eating fewer calories and less fat
4 Neither
7 DON'T KNOW
8 REFUSED
9 NOT APPLICABLE

10.4 Are you following a particular diet plan to . . . .

lose weight? [if "Yes" on Q10.1]
keep from gaining weight? [if "Yes" on Q10.2]



10.5 Which of the following best describes the diet plan you are currently following?

01 Atkins diet
02 DASH diet
03 Zone diet
04 Pritikin diet
05 South Beach diet
06 Diabetic diet
07. Weight watchers
08 Other: Specify _____

77 DON'T KNOW
88 REFUSED
99 NOT APPLICABLE

10.6 Are you using physical activity or exercise to...

lose weight? [if "Yes" on Q10.1]
keep from gaining weight? [if "Yes" on Q10.2]

1 YES
2 NO
7 DON'T KNOW
8 REFUSED
9 NOT APPLICABLE

10.7 How much would you like to weigh?

pounds	OR	kilos

DON'T KNOW = 777
REFUSED = 888

10.8 In the past 12 months, has a doctor, nurse, or other health professional given you advice about your weight?

1 Yes, lose weight
2 Yes, gain weight
3 Yes, maintain current weight
4 No
7 DON'T KNOW
8 REFUSED

SECTION 11: ALCOHOL CONSUMPTION

11.1 A drink of alcohol is 1 can or bottle of beer, 1 glass of wine, 1 can or bottle of wine cooler, 1 cocktail, or 1 shot of liquor. During the past 30 days, how many days per week or per month did you have at least one drink of any alcoholic beverage?

1 __ __ Days per week
2 __ __ Days in past 30

0 0 NO DRINKS IN PAST 30 DAYS
7 7 DON'T KNOW/NOT SURE
8 8 REFUSED

→ **GO TO Q 12.1**

11.2 On the days when you drank, about how many drinks did you drink on the average?

___ ___ Number of drinks
7 7 DON'T KNOW/NOT SURE
8 8 REFUSED
9 9 NA

11.3 Considering all types of alcoholic beverages, how many times during the past 30 days did you have 5 or more drinks on an occasion?

___ ___ Number of times

0	0	NONE
7	7	DON'T KNOW/NOT SURE
8	8	REFUSED
9	9	NA

SECTION 12: TOBACCO USE

12.1 Have you smoked at least 100 cigarettes in your entire life?
(5 Packs = 100 cigarettes)

	1	YES
GO TO 13.1	2	NO
	7	DON'T KNOW/NOT SURE
	8	REFUSED

12.2 Do you now smoke cigarettes every day, some days, or not at all?

GO TO 12.3	1	EVERY DAY
	2	SOME DAYS
GO TO 12.6	3	NOT AT ALL
	7	DON'T KNOW/NOT SURE
	8	REFUSED
	9	NA

12.3. On the average, about how many cigarettes do you now smoke per day, per week, or per month?

INTERVIEWER NOTE: 1 PACK = 20 CIGARETTES. IF 76 OR MORE CIGARETTES REPORTED, ENTER 76.

___	___	NUMBER OF CIGARETTES	1	per day
7	7	DON'T KNOW/NOT SURE	2	per week
8	8	REFUSED	3	per month
9	9	NA		

12.4. How soon after you wake up do you smoke your first cigarette?

1	Within 5 minutes
2	6-30 minutes
3	31 minutes – 60 minutes
4	After 60 minutes
7	DON'T KNOW
8	REFUSED
9	NA

12.5 During the past 12 months, have you stopped smoking for one day or longer because you were trying to quit smoking?

GO TO 12.7	1 YES
GO TO 12.8	2 NO 7 DON'T KNOW/NOT SURE 8 REFUSED 9 NA

12.6 About how long has it been since you last smoked cigarettes regularly, that is, daily?

(READ ONLY IF NECESSARY)

GO TO 12.7 & 12.8	1 Within the past month (anytime less than 1 month) 2 Within the past 3 months (1 mo. to less than 3 mo) 3 Within the past 6 months (3 mo. to less than 6 mo.) 4 Within the past year (6 mo. but less than 12 mo.)
GO TO Q.12.7 &13.1	5 Within the past 5 years (1 yr but less than 5 yrs) 6 Within the past 15 years (5 yrs but less than 15 yrs) 7 15 years ago or more 77 DON'T KNOW 88 REFUSED 99 NA

12.7 Which of the following methods did you use to stop smoking the last time you stopped? (IF MORE THAN ONE ASK TO SPECIFY ONE THAT WAS MOST EFFECTIVE).

1 "Cold Turkey", quit on your own without help
2 Nicotine replacement (patch, gum, inhaler or nasal spray).
3 Non-nicotine medication (Zyban or Bupropion)
4 Behavioral therapy alone, no medication
5 Alternative therapy such as acupuncture, hypnosis or an herbal remedy
6 Other: Specify _____
7 DON'T KNOW/NOT SURE
8 REFUSED
9 NA

12.8. (ASK ALL CURRENT SMOKERS {Q12.2} AND ALL PAST SMOKERS WHO QUIT WITHIN THE PAST YEAR {12,6}) In the past 12 months, did a doctor, nurse, or other health professional advise you to quit smoking?

1 YES
2 NO
7 DON'T KNOW/NOT SURE
8 REFUSED
9 NA

SECTION 13: OTHER TOBACCO PRODUCTS

13.1 Do you currently use chewing tobacco, snuff or dip every day, some days, or not at all?

1 EVERY DAY
2 SOME DAYS
3 NOT AT ALL
7 DON'T KNOW/NOT SURE
8 REFUSED

CLOSING STATEMENT

That completes the interview. Everyone's answers will be combined to give us information about the health practices of people aged 40 and over in the state of Maryland. Thank you very much for participating in this important survey.