Maryland Cancer Survivor Report, 2011

An Analysis of Behavioral Risk Factor Surveillance System Data

Cigarette Restitution Fund Program
Cancer Prevention, Education, Screening, and Treatment Program

Center for Cancer Prevention and Control
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Dedication

We dedicate this report to the cancer survivors in Maryland and their families in the hopes that the information found here will help to highlight the impact that cancer has on their lives. By addressing issues raised in this report on a statewide level, the quality of life and health care can be improved for all cancer survivors.

Acknowledgements

We would like to acknowledge and thank Helio Lopez, MS, the former Behavioral Risk Factor Surveillance System (BRFSS) Program Coordinator, Vital Statistics Administration, Maryland Department of Health and Mental Hygiene (DHMH), for his consultation, data results, and support during the preparation of this report.

We also acknowledge the Centers for Disease Control and Prevention (CDC). *Behavioral Risk Factor Surveillance System Survey Data*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention.

Citation

Kelly Richardson[1], Eileen Steinberger[1], Carmela Groves[2], Courtney Lewis[2], and Diane M. Dwyer[2]. Maryland Cancer Survivor Report, 2011. [1]Department of Epidemiology and Public Health, University of Maryland, Baltimore, MD and [2]Center for Cancer Prevention and Control, Maryland Department of Health and Mental Hygiene, Baltimore, MD. The report is supported by the Maryland Cigarette Restitution Fund Program.

Section 1
Highlights of the Maryland Cancer Survivor Report, 2011

Cancer survivorship has been defined as 'the process of living with, through, and beyond cancer.'[1] Cancer survivorship begins at diagnosis and includes people who are free of cancer and those who live with cancer as a chronic disease, undergoing continued treatment and surveillance. In 2012, it is estimated that over 13 million cancer survivors are living in the United States.[2] Cancer survivors may face an array of difficulties related to their cancer diagnosis and treatment. They are at risk for developing a recurrence of their original cancer or a second primary cancer. Depending on the treatment they received for their cancer, they may be at risk for long-term treatment effects including cardiovascular disease, osteoporosis, musculoskeletal complaints, decreased sexual or reproductive function, bladder dysfunction, second primary cancers, pain, and fatigue. Cancer survivors may also experience psychological effects including depression and anxiety related to their diagnosis and treatment.

The purpose of this report is to examine health status, mental and physical quality of life, access to health care, and lifestyle behaviors of cancer survivors in Maryland. Cancer survivors are also compared in each of these domains to persons who have never experienced cancer. This report is based on data obtained from the Maryland Behavioral Risk Factor Surveillance System (BRFSS). In 2011, approximately half of all BRFSS respondents in Maryland were asked questions about cancer survivorship. Those who answered 'Yes' to the question, 'Have you ever been told by a doctor, nurse, or other health care professional that you have cancer?' were then asked how many different types of cancer they had, at what age they were first diagnosed with cancer, and what type of cancer was the most recent diagnosis. Respondents who answered 'yes' to the first question were included in the cancer survivor group unless they reported their most recent cancer to be a non-melanoma skin cancer (usually a squamous or basal cell skin cancer). Survivors were also asked questions specific to their cancer treatment and health care.

Survey Sample and Demographics

- Of 4,412 BRFSS respondents from Maryland who answered the question about whether they ever had cancer, 538 self-identified as cancer survivors.
- When weighted to the Maryland population, age 18 years and older
    - 8.9% of the Maryland adults reported they were cancer survivors.
    - The proportion of cancer survivors increased with age from 3.4% in the 18-49 years age group to 28.6% in the 75 years and older age group.
    - A higher proportion of whites were cancer survivors (10.9%) compared to African Americans or blacks (6.6%).
- Among Maryland cancer survivors, the most common types of cancer reported were (percents are weighted to the Maryland population):
    - Men: prostate cancer (31.0%); melanoma skin cancer (12.1%); colon or rectum cancer (8.9%); and cancer of the head and neck (4.4%).
    - Women: breast cancer (34.8%); cancer of the female reproductive tract (26.5%); melanoma skin cancer (5.8%); and cancer of the colon or rectum (4.5%).

Health Status and Health-Related Quality of Life

"Health-Related Quality of Life" (HRQOL) refers to a person's perceived physical and mental health and physical functioning.

- Compared to persons not reporting a history of cancer, a higher proportion of cancer survivors reported their general health status as fair or poor (31.6% vs. 12.2%, respectively).
- Compared to persons who never had cancer, survivors reported worse physical health.
    - A lower proportion of cancer survivors reported no days in the last 30 days when their physical health was not good.
    - A higher proportion of survivors reported 8-29 days and 30 days (in the last 30 days) when their physical health was not good.
- Cancer survivors were different from persons without a history of cancer in the number of days when mental health was not good (due to stress, depression, or problems with emotions), but no consistent patterns were seen.

Health Care Access

Continuity of care following primary cancer treatment is a key determinant of long-term health outcomes for cancer survivors.

- Almost ninety-three percent (92.5%) of cancer survivors in Maryland have some form of health care coverage. Cancer survivors in Maryland appear to be no less likely to have health insurance coverage than persons without a cancer history.
- Among cancer survivors, health insurance status did not differ significantly by any demographic characteristic.
- Cancer survivors in Maryland were significantly more likely than persons without a cancer history to have at least one health care provider (93.9 vs. 84.7%, respectively) and to have had a routine physical checkup in the past year (87.7% vs. 76.9%, respectively).
- Cancer survivors in Maryland were more likely than persons without a cancer history to have received an influenza vaccine in the past year (56.1% vs. 39.3%, respectively).

Lifestyle Behaviors

In addition to developing a recurrence of their cancer, cancer survivors are at increased risk for developing a second cancer, and may also be at increased risk for other chronic diseases. Lifestyle behaviors such as smoking, excessive alcohol consumption, and lack of physical activity can have adverse impacts on survival and quality of life for cancer survivors.

- A significantly higher proportion of cancer survivors reported they had smoked cigarettes at some time in their life compared to people without a history of cancer (55.6% vs. 38.7%, respectively).
- The proportion of cancer survivors who currently smoke was similar to that of persons without a history of cancer (16.6% vs. 17.9%, respectively).
- In Maryland, cancer survivors were significantly more likely to be nondrinkers than persons without a history of cancer (55.1% vs. 44.5%, respectively).

- The prevalence of high-risk drinking was lower among cancer survivors than among persons without a history of cancer (11.9% vs. 18.9%, respectively).
- Cancer survivors did not differ from persons without cancer in meeting Healthy People 2020 targets for regular moderate or vigorous physical activity (47.5% vs. 47.4%, respectively).

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[1] Clark EJ, Stovall EL, Leigh S, Siu AL, Austin DK, Rowland JH. Imperatives for quality cancer care: access, advocacy, action, and accountability, Silver Spring, MD: National Coalition for Cancer Survivorship; 1996.

[2] American Cancer Society. Cancer Treatment and Survivorship Facts and Figures 2012-2013. Atlanta: American Cancer Society; 2012. Available at http://www.cancer.org/acs/groups/content/@epidemiologysurveilance/documents/ document/acspc-033876.pdf . Accessed February 7, 2013.

Section 2
Introduction

This report contains information on cancer survivorship in Maryland, as analyzed from the Behavioral Risk Factor Surveillance System (BRFSS) survey, conducted in 2011.

Cancer survivorship has been defined as 'the process of living with, through, and beyond cancer.'[1] Cancer survivorship begins at diagnosis and includes people who are free of cancer and those who live with cancer as a chronic disease (i.e., undergoing continued treatment and surveillance). According to estimates from the American Cancer Society (ACS) in 2012, over 13 million cancer survivors are currently living in the United States.[2] The number of cancer survivors living in the U.S. has quadrupled since the early 1970s, due to the increase in screening and early detection of some cancers (breast, cervical, colorectal, and prostate), advances in cancer treatment, and the increase in the elderly population in the U.S.[3] The prevalence of cancer survivors rises with increasing age; this is because the risk of developing cancer increases with age and because people diagnosed with cancer at an early age are long-term survivors of the disease.[3] It is estimated that in 2012, 12% of survivors are less than 50 years of age, 17% are between 50-59 years, 26% are 60-69 years, 25% are 70-79 years and 20% are 80 years or older.[2] Half of cancer survivors have been diagnosed with cancers of the breast, prostate, or colon and rectum.[2]

In 2006, the Institute of Medicine (IOM) and National Research Council of the National Academies released the report *From Cancer Patient to Cancer Survivor: Lost in Transition*, a monograph devoted to physical, psychological, social, and economic concerns of cancer survivors.[4] Cancer survivors may face an array of difficulties related to their cancer diagnosis and treatment. They are at risk for developing a recurrence of their original cancer or a second primary cancer. Depending on the treatment they received for their cancer, they may be at risk for long-term treatment effects including cardiovascular disease, osteoporosis, musculoskeletal complaints, decreased sexual or reproductive function, bladder dysfunction, secondary cancers, pain, and fatigue. Cancer survivors may also experience psychological effects, including depression and anxiety, related to their diagnosis and treatment. Physical and psychological well being are important components of 'quality of life,' a term used to describe an individual's assessment of his own general well being. The transition from active cancer treatment to post-treatment care is an important time for the long-term health of cancer survivors.

According to the IOM report, essential components of survivorship care include: 1) prevention of recurrent cancers, new cancers, and other late effects; 2) surveillance for new or recurrent cancers, and the medical and psychological effects of treatment; 3) intervention for the consequences of cancer and its treatment; and 4) coordination between specialists and primary care providers to better ensure health needs are being met. Integral to achieving these components is the cancer survivor's in-depth knowledge of his cancer and its treatment, continued health care (related to both the cancer and general well being), and ongoing preventive care. The IOM report has made recommendations concerning all of these areas.

In 2011, the Maryland BRFSS survey repeated the cancer survivor questions that were originally asked in 2009, asking about one-half of all respondents whether they had ever been told they had

cancer; if respondents answered 'Yes,' they were asked about the type of cancer and several questions specific to their cancer treatment and care. All respondents, including cancer survivors, were asked questions about access to health care, risk and preventive behaviors, and quality of life. By analyzing these questions, this report hopes to cast light on the health care of cancer survivors as they transition from active treatment to the post-cancer treatment phase of their health care. It also hopes to compare cancer survivors to those who have never experienced cancer in areas of access to health care and preventive behaviors.

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[1] Clark EJ, Stovall EL, Leigh S, Siu AL, Austin DK, Rowland JH. Imperatives for quality cancer care: access, advocacy, action, and accountability, Silver Spring, MD: National Coalition for Cancer Survivorship; 1996.
[2] American Cancer Society. Cancer Treatment and Survivorship Facts and Figures 2012-2013. Atlanta: American Cancer Society; 2012. Available at http://www.cancer.org/acs/groups/content/@epidemiologysurveilance /documents/ document/acspc-033876.pdf . Accessed February 7, 2013.
[3] Centers for Disease Control and Prevention. Cancer Survivorship—United States, 2007. Available at http://www.cdc.gov/cancer/survivorship/what_cdc_is_doing/research/survivors_article.htm. Accessed April 1, 2013.
[4] Hewitt M, Greenfield S, Stovall E, eds. From Cancer Patient to Cancer Survivor: Lost in Transition. Washington, DC: The National Academies Press, 2006.

Section 3
Methods

The Behavioral Risk Factor Surveillance System (BRFSS) is an annual state-based system of health surveys funded by the Centers for Disease Control and Prevention (CDC). It is a population-based, random-digit-dial telephone survey which uses disproportionate stratified sampling. The BRFSS is administered to adults, age 18 years and older, residing in private households and focuses on behavioral risk factors, preventive health measures, and health care access. In Maryland, the survey is overseen by the Vital Statistics Administration (VSA) at the Maryland Department of Health and Mental Hygiene (DHMH). The results presented in this report were obtained by special request from the VSA.

Sampling and Technical Information[1]

The sampling scheme for BRFSS can be found on the BRFSS website at http://www.cdc.gov/brfss/annual_data/annual_2011.htm. A pool of 100,320 landline and 11,520 cellular telephone numbers of Marylanders were provided by Genesys – Market Systems Group (MSG) for this survey. Telephone numbers are divided into three groups, or strata, and are sampled separately. Within each strata, there are the high-density (listed one-plus) and medium-density (unlisted one-plus) blocks. Each 'block' of telephone numbers consists of one hundred consecutive phone numbers that contain the same area code, prefix, and first two digits of the suffix and all possible combinations of the last two digits. Telephone numbers that come from hundred blocks with at least one listed household telephone number are put in the either the high-density stratum (listed one-plus blocks) or the medium-density stratum (unlisted one-plus blocks). The two strata provide a probability sample of all households in Maryland with landline telephones, such that each household has an equal chance of being selected for the survey. For the 2011 survey, 444 cell phone interviews were conducted. Cell phone numbers were selected as part of a random sample of cell phone numbers. In order to be eligible for the survey, cell phone respondents had to report that they receive 100% of their phone calls via the cell phone.

Data Collection

The survey was administered by Abt SRBI, a research and data collection firm, using computer assisted telephone interview (CATI) technology. To reach a final disposition for each telephone number, up to 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. Non-residential numbers were ineligible. If the interviewer determined that there was only one person age 18 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 approximately of 20 minutes. In 2011 interviewers asked questions about a variety of topics including demographics, chronic disease, health risk factors, and access to health care. The Council of American Survey Research Organizations (CASRO) response rate, defined as Completed Interviews/(Known Eligible + Presumed Eligible), was 54.7%.

Questionnaire and Sample

This report focuses on cancer survivorship and the differences found in topics related to health status, health care access, and preventive and health behaviors when comparing adults who reported having a previous diagnosis of cancer and those who reported never having been diagnosed with cancer. All respondents are asked the questions in the BRFSS core sections; those questions that are asked of all respondents all over the country. One-half of the respondents, randomly selected from the total number of respondents with land-line telephones only, are designated split 1; the other half are split 2. Adults in split 1 are asked about half of the remaining questions from the optional modules and the state-added questions; those in split 2 are asked the other half of the questions. The Maryland questionnaire for the 2011 BRFSS is available at http://www.marylandbrfss.org/pdf/MD_BRFSS_Questionnaire_2011.pdf. Respondents in split 2 were asked whether they had ever been told by a health professional that they had cancer. These respondents are the basis for the sample in this report. Adults who responded that they had a diagnosis of cancer in the past were asked the type of cancer they had most recently, their age when they were first diagnosed with cancer, and several questions specific to cancer treatment and post-treatment care.

Data Analysis

A final weight was assigned to each respondent according to the BRFSS Raking weighting methodology, which was new for the 2011 survey and is determined from the design weight and the raking.[2] The design weight was based on the sampling probability among six strata, residential telephone sampling among the two density strata of phone numbers (listed one-plus and not listed one-plus), the number of adults age 18 years and older in the respondent's household, and the inverse of the number of residential telephone numbers in each household. For the final weight, the design weight is 'raked' to take into account age group by gender, race/ethnicity, education, marital status, home owner vs. renter (tenure), gender by race/ethnicity, age group by race/ethnicity, and phone ownership. As geographic regions are included for Maryland, four additional margins (region, region by age group, region by gender, region by race/ethnicity) are included. The final weights were calculated so that the responses are representative of the Maryland population 18 years and older. Since the respondents who answered the questions on cancer survivorship were in split 2, the weighting used in this analysis reflected the split 2 weights. We did not age adjust the data to the 2000 United States standard population.

For the purposes of this report, a cancer survivor answered 'Yes' when asked 'Have you ever been told by a doctor, nurse, or other health care professional that you have cancer?' Respondents were asked how many different types of cancer they had and could answer one, two, or three. Respondents were asked at what age they were first diagnosed with cancer and what type of cancer was the most recent diagnosis. ***Persons who reported their most recent cancer to be a non-melanoma skin cancer were not included among the cancer survivor group, but rather included with the respondents without cancer.*** Non-melanoma skin cancers are usually superficial basal or squamous cell carcinomas and not among the cancers reported either nationally or to the Maryland Cancer Registry and therefore are included with the respondents without cancer Respondents who answered "Don't know/not sure", refused to

answer, or had missing information for their most recent diagnosis were included with the 'other' type of cancer.

Respondents were asked to report their ethnicity as either Hispanic or non-Hispanic and 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, people who reported their race as something different from white or black/African American or their ethnicity as Hispanic, regardless of race, were grouped together as people of "other race." In the data tables where responses are examined by race and compared only among cancer survivors, whites were compared to non-whites, grouping African Americans with Hispanic, Asians, Native Hawaiian or Other Pacific Islanders, American Indian or Alaska Natives, and other races.

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 are excluded from the tabulated frequencies. An exception is for reported annual household income, where almost 16% of respondents answered 'Don't know/not sure' and 'Refused.' Information on household income is included only in tables that describe the sample in Section 4. For purposes of the tabular analyses, groupings were made for the following categorical variables. In the stratified results tables, urban or rural area of residence was determined by self-reported county of residence, where urban counties included Anne Arundel, Baltimore, Carroll, Harford, Howard, Montgomery, and Prince George's counties, and Baltimore City; rural counties included the remaining 16 counties in Southern and Western Maryland and on the Eastern Shore. The ages of the respondents were grouped into four categories; 18-49 years; 50-64 years; 65-74 years, and 75 years and older. Marital status was grouped into four categories: married or a partner of an unmarried couple; divorced or separated; widowed; and never married. Education levels were combined into four categories: less than high school; high school graduate or General Equivalency Diploma (GED); some college (1-3 years) or technical school; and college graduate or higher. Reported annual household income categories were grouped into six categories: <$25,000; $25,000-<$35,000; $35,000-<$50,000; $50,000-<$75,000; $75,000 or greater; and don't know/not sure or refused. Results in the tables are based on the number of respondents that answered a question.

'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. 'Never 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; high-risk drinking, low-risk drinking, or non-drinkers. For women, high-risk drinking was defined as having more than seven drinks a week or engaging in binge drinking (having four or more drinks on one occasion). High-risk drinking for men was defined as consuming more than 14 drinks a week or engaging in binge drinking (having five or more drinks on one occasion.) Low-risk drinking was defined as reporting alcohol consumption in the last 30 days but did not meet the criteria for high-risk drinking. Non-drinkers reported zero alcohol consumption in the last 30 days.

Weekly physical activity performance was examined a using measure already calculated in the BRFSS dataset. Respondents were considered to be physically active if, by their responses, they participated in 30 minutes of moderate physical activity five or more times a week or 25 minutes of vigorous physical activity three or more times a week

All respondents in split 2 who reported they were cancer survivors were eligible to answer the survivor specific questions about health care which are reported in in Section 8. Not all questions were answered by the entire sub-sample. Report results reflect respondents who answered 'Yes' or 'No' to each question.

Statistical analyses (population-based numbers and percentages) were performed with weighted data using SAS Version 9.2. 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;
- 'Sample %' is the unweighted percent of the sample that had that characteristic;
- '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
- '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 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 'P-value' gives the measure of statistical significance. Using standard convention, p-values < 0.05 are considered to be statistically significant. If a statistically significant difference is present for a given characteristic and there are more than two levels of that characteristic (for instance, the four levels of education), a statistically significant difference is present between at least two levels of that characteristic, but not necessarily between every pairwise comparison among the levels. 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.

It is also important to note that the size of the sample plays a part in determining statistical significance. For some measures there may appear to be important differences between groups, but because the number of respondents is small the p-value is > 0.05. This means that we do not know if the difference seen is a real and consistent difference between the groups, or whether the difference seen is due to a random variation of small numbers and there is no real difference between the groups.

[1] Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System, Annual Survey Data, 2011 BRFSS Overview. Atlanta, Georgia: U.S. Department of Health and Human Services. Available at http://www.cdc.gov/brfss/annual_data/annual_2011.htm. Accessed April 1, 2013.

[2] Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System. Technical Information and Data. BRFSS Weighting Formula. Atlanta, GA. U.S. Department of Health and Human Services. Available at http://www.cdc.gov/brfss/annual_data/2011/2011_weighting.htm. Accessed April 1, 2013.

Section 4
Description of the Study Sample

Of the 10,117 adults who responded to the BRFSS in Maryland in 2011, 4,738 were assigned to split 2 and eligible for questions about cancer survivorship. Of those, 4,412 respondents answered the question about ever having cancer and serve as the basis for this report. Seven hundred thirty-eight (738) respondents reported they had cancer; 200 reported having non-melanoma skin cancer as their most recent cancer and are included in the persons *without* a history of cancer, leaving 538 respondents in the cancer survivor group. Four hundred forty (440) respondents reported having one type of cancer and 98 reported more than one type of cancer.

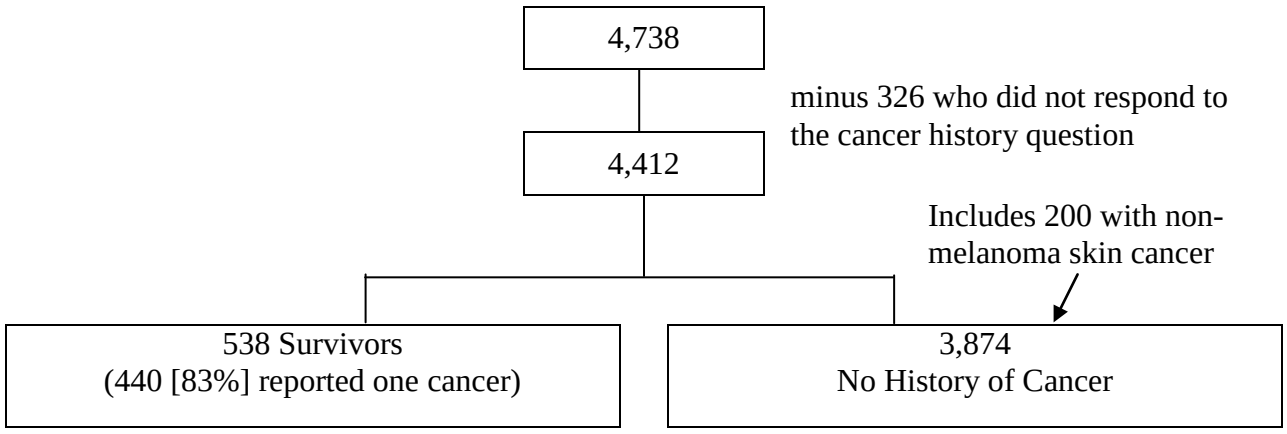

Table 4-1 shows the demographics of the sample and the demographics after being weighted to the Maryland population. Males comprised 36.9% of the sample, and were weighted to reflect 47.6% of the population. White non-Hispanics comprised 73.4% of the sample, African American or black non-Hispanics were 20.1%, and persons of other races (including Hispanic ethnicity) made up 6.4%. Whites were weighted to 59.2%, African Americans or blacks were weighted to 29.5%, and persons of other race, including Hispanic ethnicity were weighted to 11.3%.

When examining the ages of respondents weighted to the Maryland population (Table 4-1), 36.8% were 18-39 years, 20.2% were 40-49 years, 26.3% were 50-64 years, 9.5% were 65-74 years, and 7.2% were 75 years and older. When examining marital status, 53.6% of the weighted population were married or the partner of an unmarried couple compared to 11.6% that were divorced or separated; 7.6% were widowed; and 27.1% reported they had never married. In the weighted population, 33.6% reported they had at least graduated from college, 27.8% had some college education or had gone to technical school, 26.6% were high school graduates or received their general equivalency diploma (GED), and 12.0% had not graduated from high school.

In 2011, 8.9% of the adult population in Maryland reported they were cancer survivors. Significant differences were identified when examining cancer survivorship by several demographic characteristics (Table 4-2).

- As age increased, the proportion of survivors increased from 3.4% of the 18-49 year age group to 28.6% of the 75 years and older age group.
- A higher proportion of whites were cancer survivors (10.9%) compared to African Americans or blacks (6.6%) or people of other races (4.1%).
- A higher proportion of those who had not completed high school were cancer survivors (12.9%) compared to those with college degrees or higher (6.7%).
- Differences in income distribution were seen by cancer survivor status.
    - A higher proportion of those who reported earning less than $25,000 were cancer survivors (12.5%) compared to the proportion of those earning $75,000 or more (6.3%).

Table 4-3 compares demographic characteristics between cancer survivors and the population in Maryland without a history of cancer.

- There was no difference by sex or area of residence.
- Cancer tends to be a disease of older age.
    - 77.7% of survivors reported their age as 50 years and older; in contrast, the majority of the non-cancer population (60.3%) was younger than 50 years of age.
- Differences by race were seen between survivors and the non-cancer population.
    - While the proportion of whites in the non-cancer population was 57.9%, the proportion among cancer survivors was 72.7%.
    - 22.2% of survivors reported their race as African American or black compared to 30.2% in the non-cancer population, though this difference was not statistically significant.
- Differences by education status were seen between cancer survivors and the non-cancer population.
    - The proportion of people with a college degree or higher was lower in cancer survivors (25.4%) compared with the non-cancer population (34.4%).
- While differences by income were seen between survivors and the non-cancer population, the number of respondents who reported ‘don’t know/not sure’ or ‘refused’ was approximately16%, making interpretation of these results difficult.

Table 4-4 lists the specific types of cancer, most recently diagnosed, reported by sex and weighted to the Maryland population; 200 were reported by men and 338 reported by women.

- Examining weighted percentages among men, 31.0% of cancer survivors reported a history of prostate cancer, 12.1% had melanoma skin cancer, 8.9% had cancer of the colon or rectum, and 4.4% had cancer of the head and neck.
- Among women, 34.8% were breast cancer survivors, 26.5% reported cancer of the female reproductive tract, 5.8% had melanoma skin cancer, and 4.5% reported cancer of the colon or rectum.

Age at diagnosis of the first cancer ranged from 2 years to 99 years. As a weighted percentage, 1.0% of cancer survivors were diagnosed with cancer in childhood (younger than 18 years of age; Table 4-5). Over 48% of the cancer survivors have been diagnosed within the previous 5

years; 13.5% are long-term survivors, reporting that at least 21 years had elapsed since their diagnosis (Table 4-6).

TABLE 4-1. CHARACTERISTICS OF THE SURVEY SAMPLE, THAT RESPONDED TO THE QUESTION ABOUT HAVING CANCER, AGE 18 YEARS AND OLDER

	Total Sample			
	N	**sample %**	**wt %**	**95% CI**
Total Population	4412	100.0%	100.0%	
Area of Residence (82 missing)				
Urban	2398	54.4%	76.7%	75.4-78.0%
Rural	2014	45.6%	23.3%	22.0-24.6%
Sex				
Male	1627	36.9%	47.6%	45.1-50.2%
Female	2785	63.1%	52.4%	49.8-54.9%
Age (68 missing)				
18-39 years	708	16.3%	36.8%	34.0-39.7%
40-49 years	817	18.8%	20.2%	18.3-22.0%
50-64 years	1501	34.6%	26.3%	24.4-28.1%
65-74 years	755	17.4%	9.5%	8.5-10.6%
75 years and older	563	13.0%	7.2%	6.4-8.1%
Race (53 missing)				
White	3200	73.4%	59.2%	56.6-61.7%
African American or Black	878	20.1%	29.5%	27.1-31.9%
Other	281	6.4%	11.3%	9.4-13.3%
Race and Sex (53 missing)				
White male	1225	28.1%	28.4%	26.0-30.7%
African American male	268	6.1%	14.0%	11.8-16.2%
Other male	110	2.5%	5.2%	3.8-6.7%
White female	1975	45.3%	30.8%	28.7-32.9%
African American female	610	14.0%	15.5%	13.9-17.2%
Other female	171	3.9%	6.1%	4.6-7.6%
Marital Status (22 missing)				
Married or partner of unmarried couple	2652	60.4%	53.6%	51.0-56.2%
Divorced or separated	664	15.1%	11.6%	10.3-13.0%
Widowed	557	12.7%	7.6%	6.7-8.6%
Never married	517	11.8%	27.1%	24.3-29.9%
Education (11 missing)				
Less than high school	259	5.9%	12.0%	10.2-13.9%
High school grad or GED	1124	25.5%	26.6%	24.3-28.8%
College 1-3 years	1079	24.5%	27.8%	25.4-30.2%
College grad or more	1939	44.1%	33.6%	31.4-35.8%
Household Income				
<$25,000	692	15.7%	18.1%	16.0-20.1%
$25,000-<$35,000	323	7.3%	6.6%	5.4-7.8%
$35,000-<$50,000	460	10.4%	10.1%	8.7-11.6%
$50,000-<$75,000	592	13.4%	14.3%	12.4-16.1%
$75,000 or greater	1652	37.4%	35.8%	33.4-38.2%
Don't know/not sure or refused	693	15.7%	15.1%	13.2-17.0%

Total number of responses may not equal sample total due to missing data for some characteristics

TABLE 4-2. COMPARISON OF DEMOGRAPHIC CHARACTERISTICS BY CANCER SURVIVORSHIP STATUS

	Cancer Survivors			Respondents without Cancer			
Selected Characteristic	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**P-value**
Total Population	538	8.9%	7.7-10.1%	3874	91.1%	89.9-92.3%	
Area of Residence							0.5
Urban	278	8.7%	7.2-10.2%	2120	91.3%	89.8-92.8%	
Rural	260	9.4%	7.9-10.9%	1754	90.6%	89.1-92.1%	
Sex							0.07
Male	200	7.7%	6.0-9.4%	1427	92.3%	90.6-94.0%	
Female	338	9.9%	8.2-11.6%	2447	90.1%	88.4-91.8%	
Age							<0.0001
18-49 years	59	3.4%	2.0-4.9%	1466	96.6%	95.1-98.0%	
50-64 years	171	10.6%	8.5-12.6%	1330	89.4%	87.4-91.5%	
65-74 years	148	20.9%	16.4-25.4%	607	79.1%	74.6-83.6%	
75 years and older	153	28.6%	23.3-34.0%	410	71.4%	66.0-76.7%	
Race							0.007
White	446	10.9%	9.4-12.4%	2754	89.1%	87.6-90.6%	
African American or Black	68	6.6%	4.3-9.0%	810	93.4%	91.0-95.7%	
Other	18	4.1%	0.3-7.8%	263	95.9%	92.2-99.7%	
Race and Sex							0.004
White male	171	9.4%	7.4-11.5%	1054	90.6%	88.5-92.6%	
African American male	25	6.6%	2.7-10.6%	243	93.4%	89.4-97.3%	
Other male	2	1.0%	0.0-2.5%	108	99.0%	97.5-100%	
White female	275	12.2%	10.0-14.4%	1700	87.8%	85.6-90.0%	
African American female	43	6.6%	4.1-9.2%	567	93.4%	90.8-95.9%	
Other female	16	6.6%	0.0-13.4%	155	93.4%	86.6-100%	
Marital Status							<0.0001
Married or partner of unmarried couple	304	8.6%	7.3-9.9%	2348	91.4%	90.1-92.7%	
Divorced or separated	82	11.8%	7.6-16.0%	582	88.2%	84.0-92.4%	
Widowed	117	19.6%	14.9-24.3%	440	80.4%	75.7-85.1%	
Never married	34	5.0%	2.3-7.8%	483	95.0%	92.2-97.7%	
Education							0.01
Less than high school	41	12.9%	8.2-17.7%	218	87.1%	82.3-91.8%	
High school grad or GED	160	10.2%	7.7-12.8%	964	89.8%	87.2-92.3%	
College 1-3 years	127	8.5%	5.9-11.0%	952	91.5%	89.0-94.1%	
College grad or more	210	6.7%	5.5-7.9%	1729	93.3%	92.1-94.5%	
Household Income							0.0001
<$25,000	108	12.5%	8.8-16.2%	584	87.5%	83.8-91.2%	
$25,000-<$35,000	48	12.0%	7.6-16.5%	275	88.0%	83.5-92.4%	
$35,000-<$50,000	53	6.1%	3.9-8.3%	407	93.9%	91.7-96.1%	
$50,000-<$75,000	68	7.2%	4.3-10.1%	524	92.8%	89.9-95.7%	
$75,000 or greater	155	6.3%	5.0-7.7%	1497	93.7%	92.3-95.0%	
Don't know/not sure or refused	106	12.5%	8.2-16.8%	587	87.5%	83.2-91.8%	

Total number of responses may not equal sample total due to missing data for some characteristics

TABLE 4-3. COMPARISON OF CANCER SURVIVORS IN MARYLAND TO THOSE WITHOUT CANCER BY DEMOGRAPHIC CHARACTERISTICS

	Cancer Survivors			Respondents without Cancer			
Selected Characteristic	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**P-value**
Area of Residence							0.5
Urban	278	75.4%	71.1-79.7%	2120	76.8%	75.4-78.2%	
Rural	260	24.6%	20.3-28.9%	1754	23.2%	21.8-24.6%	
Sex							0.07
Male	200	41.4%	34.6-48.3%	1427	48.2%	45.5-51.0%	
Female	338	58.6%	51.7-65.4%	2447	51.8%	49.0-54.5%	
Age							<0.0001
18-49 years	59	22.3%	14.4-30.2%	1466	60.3%	57.9-62.7%	
50-64 years	171	31.5%	25.7-37.3%	1330	25.8%	23.8-27.7%	
65-74 years	148	22.7%	17.5-27.9%	607	8.3%	7.3-9.3%	
75 years and older	153	23.5%	18.4-28.6%	410	5.6%	4.9-6.4%	
Race							0.007
White	446	72.7%	65.3-80.0%	2754	57.9%	55.1-60.6%	
African American or Black	68	22.2%	15.5-28.8%	810	30.2%	27.7-32.8%	
Other	18	5.2%	0.5-9.9%	263	11.9%	9.8-14.0%	
Race and Sex							0.004
White male	171	30.2%	24.3-36.1%	1054	28.2%	25.7-30.7%	
African American male	25	10.5%	4.6-16.4%	243	14.3%	12.0-16.6%	
Other male	2	0.6%	0.0-1.5%	108	5.7%	4.1-7.3%	
White female	275	42.5%	35.8-49.1%	1700	29.7%	27.5-31.9%	
African American female	43	11.7%	7.3-16.1%	567	15.9%	14.2-17.6%	
Other female	16	4.6%	0.0-9.2%	155	6.2%	4.7-7.8%	
Marital Status							<0.0001
Married or partner of unmarried couple	304	52.2%	45.2-59.3%	2348	53.8%	51.0-56.5%	
Divorced or separated	82	15.5%	10.2-20.9%	582	11.3%	9.9-12.6%	
Widowed	117	16.8%	12.5-21.1%	440	6.7%	5.8-7.7%	
Never married	34	15.4%	7.9-22.8%	483	28.2%	25.2-31.3%	
Education							0.01
Less than high school	41	17.5%	11.7-23.4%	218	11.5%	9.5-13.4%	
High school grad or GED	160	30.6%	24.1-37.0%	964	26.2%	23.8-28.6%	
College 1-3 years	127	26.5%	19.9-33.2%	952	27.9%	25.4-30.5%	
College grad or more	210	25.4%	20.8-29.9%	1729	34.4%	32.0-36.8%	
Household Income							0.0001
<$25,000	108	25.4%	18.9-32.0%	584	17.3%	15.2-19.5%	
$25,000-<$35,000	48	9.0%	5.8-12.2%	275	6.4%	5.1-7.7%	
$35,000-<$50,000	53	7.0%	4.5-9.4%	407	10.4%	8.9-12.0%	
$50,000-<$75,000	68	11.6%	7.1-16.1%	524	14.5%	12.5-16.5%	
$75,000 or greater	155	25.7%	20.6-30.8%	1497	36.8%	34.2-39.4%	
Don't know/not sure or refused	106	21.4%	14.8-27.9%	587	14.5%	12.5-16.5%	

Total number of responses may not equal sample total due to missing data for some characteristics

TABLE 4-4. MOST RECENT TYPE OF CANCER* REPORTED BY CANCER SURVIVORS IN MARYLAND, BY SEX

Cancer Type	Total (N=538)			Men (N=200)			Women (N=338)		
	N	Sample %	wt%	N	Sample %	wt%	N	Sample %	wt%
Breast	129	24.0%	22.3%				128	37.9%	34.8%
Colon and rectum	28	5.2%	6.4%	13	6.5%	8.9%	15	4.4%	4.5%
Other GI^	9	1.7%	1.4%	4	2.0%	1.1%	5	1.5%	1.6%
Lung	14	2.6%	4.1%	5	2.5%	3.8%	9	2.7%	4.3%
Lymph node and bone marrow	15	2.8%	3.2%	9	4.5%	4.1%	6	1.8%	2.5%
Female reproductive~	58	10.8%	15.5%				58	17.2%	26.5%
Prostate	53	9.9%	12.9%	53	26.5%	31.0%			
Head and neck[#]	27	5.0%	4.4%	8	4.0%	4.4%	19	5.6%	4.3%
Urinary (bladder + renal)	15	2.8%	2.5%	11	5.5%	3.9%	4	1.2%	1.5%
Melanoma skin cancer	63	11.7%	8.4%	33	16.5%	12.1%	30	8.9%	5.8%
Other[&]	97	18.0%	14.8%	50	25.0%	26.1%	48	14.2%	9.9%
Unknown/refused	30	5.6%	4.4%	14	7.0%	4.6%	16	4.7%	4.2%

* Does not include non-melanoma skin cancers (see methods)

^ Includes esophagus, stomach, pancreas, and liver

~ Includes cervix, uterine, and ovarian

[#] Includes oral, pharyngeal, and thyroid

[&] Includes bone, brain, male breast, testicular, and cancers not listed above

TABLE 4-5. AGE AT FIRST CANCER DIAGNOSIS

Age at Diagnosis	N	sample %	wt %
Less than 18 years	4	0.8%	1.0%
18-39 years	94	18.6%	24.0%
40-49 years	76	15.0%	15.1%
50-64 years	195	38.5%	34.9%
65-74 years	90	17.8%	15.4%
75 years and older	47	9.3%	9.5%

TABLE 4-6. YEARS ELAPSED SINCE FIRST CANCER DIAGNOSIS

Years since Diagnosis	N	sample %	wt %
Less than 2 years	94	18.8%	26.5%
3-5 years	93	18.6%	21.7%
6-10 years	106	21.2%	17.5%
11-15 years	67	13.4%	13.6%
16-20 years	43	8.6%	7.2%
21 years or more	98	19.6%	13.5%

Total number of responses may not equal sample total due to missing data for some characteristics

Section 5
Health Status and Health-Related Quality of Life

This section presents comparisons between cancer survivors and persons without cancer on self-reported health status and health-related quality of life measures. 'Quality of life' is a general term that imparts a sense of well-being and satisfaction of life as a whole. 'Health-related Quality of Life' (HRQOL) refers to a person's perceived physical and mental health, and physical functioning. They are indicators of community service needs and can be measured as intervention outcomes. Since 1993, the BRFSS has been collecting HRQOL information as part of the state-based full sample, using four questions (called 'Healthy Days' measures): one question on self-rated general health status and three questions to ascertain the number of days in the last 30 days in which physical health was not good, mental health was not good, and poor physical or mental health kept one from doing (i.e., prevented) usual activity. HRQOL data reflect the prevalence of disability associated with health problems and can be used to evaluate the effects of changes in policies and health programs.[1,2]

Self-reported Health Status

According to the World Health Organization (WHO), health is defined as 'a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.'[3,4] Self-reported health status has been shown to be related to mortality; compared with persons who reported their health status as excellent, the relative risk for all-cause mortality was higher when health status was reported as good, fair, or poor.[5]

When examining the self-reported health status of the Maryland population, differences were seen between cancer survivors and those who had never had cancer (Table 5-1).

- A lower proportion of cancer survivors, compared to adults who never had cancer, reported their health as excellent (6.6% vs. 22.9%) or very good (25.7% vs. 34.4%).
- A higher proportion of cancer survivors reported their health as fair or poor (31.6% vs. 12.2%).
- When stratified by age group, differences in self-reported health status between cancer survivors and persons without cancer were seen for those age 18-49 years, 50-64 years, and 75 years and older.
- As shown in Table 5-2, in most demographic categories examined, a higher proportion of cancer survivors reported their health as only fair or poor, compared to those who never had cancer. This was true for men and women, persons of white and African American or black race, all levels of education, and both urban and rural areas of residence.
- Among Maryland cancer survivors only, self-reported health status did not differ significantly by sex, age, race, or area of residence (Table 5-3).
    - The proportion of cancer survivors reporting excellent, very good, or good health status was lowest among those with less than a high school education (42.4%) and highest among survivors with a college degree or higher (82.7%).
    - When examining only cancer survivors, self-reported health status was not significantly associated with years since diagnosis (Table 5-4).

Healthy Days Measures

Each of the Healthy Days measures in the BRFSS asks for how many days during the past 30 days: (1) was your physical health not good; (2) was your mental health not good; and (3) did poor physical or mental health keep you from doing (i.e., prevented) your usual activities. Respondents could answer that their health was not good or usual activities were not performed from 0 (zero) days to 30 days.

For the analyses in this section, five categories were created for examining the Healthy Days relationship by age: 0 (zero) days, 1-2 days, 3-7 days, 8-29 days, and 30 days. Three categories were used (0 [zero] days, 1-7 days, and 8-30 days) when examining the relationship of the Healthy Days measures with other demographic characteristics.

Physical Health

When comparing the physical health measure between cancer survivors and those who never had cancer, differences were seen by age and other demographic characteristics.

- For the group as a whole, cancer survivors report lower physical quality of life than people without cancer. A lower proportion of survivors reported 0 (zero) days when their physical health was not good (54.9% vs. 67.1% for those without a history of cancer). A higher proportion of survivors reported more days (8-29 days and 30 days) when their physical health was not good (Table 5-5).
- These differences in the physical health measure were significant only among survivors in the 18-49 year age group.
- In both men and women, persons of white and African American or black race, and urban and rural residents, a higher proportion of cancer survivors reported more days (8-30 days) when their physical health was not good (Table 5-6).
- When examining the physical health measure for cancer survivors only, no statistically significant differences were found by sex, age, race, or area of residence (Table 5-7).
- Among cancer survivors, no significant difference in the physical health measure was found by years since cancer diagnosis (Table 5-8).

Mental Health

When comparing the mental health measure between cancer survivors and those who never had cancer, some differences were seen by age and other demographic characteristics.

- Significant differences between cancer survivors and people without cancer were seen for the mental health measure for the entire sample, but there was no clear pattern (Table 5-9).
    - When examined by age, a difference in the measure was seen for all age groups except those 75 years and older (Table 5-9).
- Significant differences were seen between survivors and people without cancer on only one demographic characteristic, those reporting an education level of some college (Table 5-10).
- When examining the mental health measure of cancer survivors only, no statistically significant differences were found by race or area of residence (Table 5-11). Differences were seen for the following characteristics.

- A higher proportion of males reported 0 (zero) days of poor mental health than females.
- Self-reported mental health of cancer survivors was lowest in adults 18-49 years and highest in the oldest age group (75 years and older).
- A higher proportion of cancer survivors in the youngest age group (age 18-49 years) reported the highest number of days (8-30 days) when their mental health was not good, compared to the two oldest age groups.
- Among cancer survivors, no significant difference in the mental health measure was seen by years since cancer diagnosis (Table 5-12).

Performing Usual Activities

When comparing the inability to perform usual activities when physical or mental health was not good, differences were seen between cancer survivors and those who never had cancer.

- Significant differences between cancer survivors and those without a history of cancer were seen in all age groups except those 75 years and older, but no consistent pattern was identified (Table 5-13).
- Differences between cancer survivors and those without a history of cancer were found by several demographic characteristics including female gender, African American or black race, level of education (high school graduates and those with some college), and area of residence (Table 5-14).
    - Where statistical differences were seen by demographic characteristics, a higher proportion of survivors generally reported more days of limited activity compared to persons without cancer.
- When examining the number of days of limited physical activity due to poor mental or physical health for cancer survivors only, no statistically significant differences were found by sex, education level, or area of residence (Table 5-15).
    - When examined by age, the youngest age group (18-49 years) reported the greatest limitation in activity due to poor mental or physical health.
    - Among cancer survivors, no significant difference in the number of days of limited physical activity was seen by years since cancer diagnosis (Table 5-16).

Summary

Compared to persons without a history of cancer, a higher proportion of cancer survivors reported their general health status as fair to poor. This was most evident among the younger age groups (below age 65 years) and also held true across most other demographic characteristics examined. Physical health was lower among cancer survivors, compared to people without a history of cancer. A lower proportion of cancer survivors reported 0 days in the last 30 days when their physical health was not good and a higher proportion reported 8-29 days and 30 days when their physical health was not good.

As a group, cancer survivors were different from persons without a history of cancer in reporting the number of days in a month when mental health was not good, but no clear pattern was identified. Where poor physical or mental health prevented usual activities, a higher proportion of cancer survivors generally reported more days of decreased activity than persons without cancer.

[1] Hennessy CH, Moriarty DG, Zack MM, et al. Measuring health-related quality of life for public health surveillance. Pub Health Rep 1994;109(5):665-672.
[2] Centers for Disease Control and Prevention. Measuring Healthy Days. Atlanta, Georgia: U.S. Department of Health and Human Services , November 2000**.** Available at http://www.cdc.gov/hrqol/pdfs/mhd.pdf. Accessed February 7, 2013.
[3] Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19-22 June, 1946; signed on 22 July 1946 by the representatives of 61 States (Official Records of the World Health Organization, no. 2, p. 100) and entered into force on 7 April 1948.
[4] World Health Organization. Public Health Classics. The Preamble to the Constitution of the World Health Organization. Available at http://www.who.int/bulletin/archives/80(12)981.pdf. Last accessed February 8, 2013.
[5] Desalvo KB, Bloser N, Reynolds K, et al. Mortality prediction with a single general self-rated health question. A meta-analysis. J Gen Intern Med 2006;21(3):267-75.

TABLE 5-1. RESPONSES TO QUESTION ABOUT GENERAL HEALTH, BY CANCER SURVIVOR STATUS AND AGE GROUP

	Total Sample			Cancer Survivors			Respondents without Cancer			
	N	wt %	95% CI	N	wt %	95% CI	N	wt %	95% CI	P-value
Total Sample*										<0.0001
Excellent	887	21.5%	19.3-23.7%	51	6.6%	4.1-9.0%	836	22.9%	20.5-25.3	
Very good	1547	33.6%	31.3-36.0%	156	25.7%	19.8-31.6%	1391	34.4%	31.9-36.9%	
Good	1316	31.0%	28.6-33.4%	182	36.1%	29.3-42.9%	1134	30.5%	28.0-33.0%	
Fair or poor	650	13.9%	12.3-15.5%	148	31.6%	25.1-38.0%	502	12.2%	10.6-13.8%	
18-49 years										0.0003
Excellent	419	27.5%	23.9-31.2%	6	4.5%	0.3-8.7%	413	28.3%	24.6-32.1%	
Very good	593	36.5%	32.7-40.3%	24	35.3%	14.8-55.9%	569	36.6%	32.7-40.4%	
Good	392	28.2%	24.4-31.9%	14	32.9%	10.6-55.3%	378	28.0%	24.2-31.8%	
Fair or poor	119	7.8%	5.8-9.8%	15	27.2%	9.4-45.0%	104	7.1%	5.1-9.1%	
50-64 years										0.005
Excellent	280	15.5%	13.2-17.8	17	7.4%	3.1-11.6%	263	16.5%	14.0-19.0%	
Very good	539	32.3%	29.1-35.4%	54	28.2%	19.8-36.6%	485	32.7%	29.3-36.1%	
Good	447	33.6%	30.0-37.2%	55	34.8%	25.4-44.3%	392	33.5%	29.6-37.4%	
Fair or poor	232	18.6%	15.6-21.6%	45	29.6%	19.5-39.8%	187	17.3%	14.1-20.4%	
65-74 years										0.48
Excellent	122	12.3%	9.4-15.2%	17	8.2%	3.5-12.9%	105	13.4%	10.0-16.9%	
Very good	244	28.3%	23.9-32.8%	43	25.4%	16.0-34.8%	201	29.1%	24.0-34.2%	
Good	250	36.4%	31.2-41.5%	56	42.2%	30.1-54.3%	194	34.8%	29.2-40.5%	
Fair or poor	135	23.0%	17.8-28.2%	32	24.2%	11.7-36.7%	103	22.7%	17.0-28.3%	
75 years and older										0.04
Excellent	55	8.0%	5.0-11.0%	11	6.6%	0.1-13.0%	44	8.5%	5.2-11.9%	
Very good	153	25.8%	20.9-30.8%	33	14.9%	9.1-20.7%	120	30.2%	23.9-36.4%	
Good	197	33.5%	28.2-38.9%	56	37.6%	26.1-49.0%	141	31.9%	26.0-37.8%	
Fair or poor	155	32.7%	27.1-38.3%	52	41.0%	29.7-52.2%	103	29.4%	23.1-35.7%	

* Sample by age does not equal the total sample, due to some respondents with missing age

TABLE 5-2. SELF-REPORTED HEALTH STATUS BY CANCER SURVIVOR STATUS AND DEMOGRAPHIC CHARACTERISTICS

	Total Sample			Cancer Survivors			Respondents without Cancer			
Selected Characteristic	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**P-value**
Sex										
Male										<0.0001
Excellent, very good, or good	1413	87.9%	85.4-90.4%	154	69.7%	58.6-80.8%	1259	89.4%	86.9-91.9%	
Fair or poor	208	12.1%	9.6-14.6%	45	30.3%	19.2-41.4%	163	10.6%	8.1-13.1%	
Female										<0.0001
Excellent, very good, or good	2337	84.5%	82.5-86.5%	235	67.5%	59.7-75.3%	2102	86.3%	84.3-88.3%	
Fair or poor	442	15.5%	13.5-17.5%	103	32.5%	24.7-40.3%	339	13.7%	11.7-15.7%	
Race										
White										<0.0001
Excellent, very good, or good	2742	86.7%	84.8%-88.6	326	70.4%	63.9-76.9%	2416	88.7%	86.8-90.6%	
Fair or poor	449	13.3%	11.4-15.2%	119	29.6%	23.1-36.1%	330	11.3%	9.4-13.2%	
African American or Black										0.0004
Excellent, very good, or good	715	83.2%	79.8-86.7%	46	59.9%	41.9-77.8%	669	84.9%	81.6-88.2%	
Fair or poor	162	16.8%	13.3-20.2%	22	40.1%	22.2-58.1%	140	15.1%	11.8-18.4%	
Other										0.72
Excellent, very good, or good	247	90.1%	85.1-95.0%	14	87.2%	70.1-100.0%	233	90.2%	85.0-95.3%	
Fair or poor	33	9.9%	5.0-14.9%	4	12.8%	0.0-29.9%	29	9.8%	4.7-15.0%	
Education										
Less than high school										0.02
Excellent, very good, or good	152	63.2%	55.3-71.1%	17	42.4%	23.7-61.1%	135	66.3%	57.9-74.8%	
Fair or poor	105	36.8%	28.9-44.7%	24	57.6%	38.9-76.3%	81	33.7%	25.2-42.1%	
High school grad or GED										0.02
Excellent, very good, or good	858	81.8%	78.6-85.1%	104	71.9%	62.5-81.3%	754	83.0%	79.5-86.4%	
Fair or poor	262	18.2%	14.9-21.4%	56	28.1%	18.7-37.5%	206	17.0%	13.6-20.5%	
Some college 1-3 years										<0.0001
Excellent, very good, or good	935	89.3%	86.7-91.9%	91	68.0%	53.1-82.9%	844	91.3%	88.9-93.6%	
Fair or poor	140	10.7%	8.1-13.3%	36	32.0%	17.1-46.9%	104	8.7%	6.4-11.1%	
College grad or more										<0.0001
Excellent, very good, or good	1795	94.8%	93.6-96.0%	177	82.7%	75.7-89.7%	1618	95.7%	94.6-96.8%	
Fair or poor	142	5.2%	4.0-6.4%	32	17.3%	10.3-24.3%	110	4.3%	3.2-5.4%	
Area of Residence										
Urban										<0.0001
Excellent, very good, or good	2056	86.2%	84.2-88.1%	208	69.5%	61.3-77.6%	1848	87.8%	85.8-89.7%	
Fair or poor	337	13.8%	11.9-15.8%	69	30.5%	22.4-38.7%	268	12.2%	10.3-14.2%	
Rural										<0.0001
Excellent, very good, or good	1694	85.8%	83.7-87.9%	181	65.2%	57.3-73.1%	1513	87.9%	85.8-90.0%	
Fair or poor	313	14.2%	12.1-16.3%	79	34.8%	26.9-42.7%	234	12.1%	10.0-14.2%	

Total number of responses may not equal sample total due to missing data for some characteristics

TABLE 5-3. CANCER SURVIVOR RESPONSES TO QUESTION ABOUT GENERAL HEALTH, BY DEMOGRPAHIC CHARACTERISTICS

Selected Characteristic	N	wt %	95% CI	P-value
Sex				0.76
Male				
Excellent, very good, or good	154	69.7%	58.5-80.8%	
Fair or poor	45	30.3%	19.2-41.5%	
Female				
Excellent, very good, or good	235	67.5%	59.7-75.4%	
Fair or poor	103	32.5%	24.6-40.3%	
Age				0.36
18-49				
Excellent, very good, or good	44	72.8%	54.9-90.7%	
Fair or poor	15	27.2%	9.3-45.1%	
50-64				
Excellent, very good, or good	126	70.4%	60.1-80.6%	
Fair or poor	45	29.6%	19.4-39.9%	
65-74				
Excellent, very good, or good	116	75.8%	63.2-88.3%	
Fair or poor	32	24.2%	11.7-36.8%	
75 years and older				
Excellent, very good, or good	100	59.0%	47.7-70.3%	
Fair or poor	52	41.0%	29.7-52.3%	
Race				0.54
White				
Excellent, very good, or good	326	70.4%	63.8-77.0%	
Fair or poor	119	29.6%	23.0-36.2%	
Non-white				
Excellent, very good, or good	60	65.0%	48.8-81.2%	
Fair or poor	26	35.0%	18.8-51.2%	
Education				0.0008
Less than high school				
Excellent, very good, or good	17	42.4%	23.6-61.2%	
Fair or poor	24	57.6%	38.8-76.4%	
High school grad or GED				
Excellent, very good, or good	104	71.9%	62.5-81.4%	
Fair or poor	56	28.1%	18.6-37.5%	
Some college 1-3 years				
Excellent, very good, or good	91	68.0%	53.0-83.0%	
Fair or poor	36	32.0%	17.0-47.0%	
College grad or more				
Excellent, very good, or good	177	82.7%	75.7-89.7%	
Fair or poor	32	17.3%	10.3-24.3%	
Area of Residence				0.46
Urban				
Excellent, very good, or good	208	69.5%	61.3-77.7%	
Fair or poor	69	30.5%	22.3-38.7%	
Rural				
Excellent, very good, or good	181	65.2%	57.2-73.2%	
Fair or poor	79	34.8%	26.8-42.8%	

Total number of responses may not equal sample total due to missing data for some characteristics

TABLE 5-4. SELF-REPORTED HEALTH STATUS AMONG CANCER SURVIVORS, BY YEARS SINCE CANCER DIAGNOSIS

	Total			0-5 Years since Diagnosis			6-10 Years since Diagnosis			11 Years or More since Diagnosis			
Health Status	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**P-value**
Excellent	50	7.0%	4.4-9.6%	18	6.9%	2.4-11.4%	6	4.5%	0.4-8.6%	26	8.4%	4.6-12.2%	0.29
Very good	148	26.1%	19.9-32.4%	51	23.3%	12.7-34.0%	41	40.9%	27.9-53.8%	56	22.5%	15.6-29.5%	
Good	172	37.2%	30.0-44.4%	69	37.4%	24.9-49.9%	36	30.4%	19.5-41.2%	67	40.4%	30.6-50.3%	
Fair or poor	130	29.6%	23.0-36.3%	48	32.3%	20.5-44.2%	23	24.3%	14.1-34.5%	59	28.6%	20.2-37.1%	

TABLE 5-5. NUMBER OF DAYS DURING PAST 30 DAYS THAT PHYSICAL HEALTH WAS REPORTED AS 'NOT GOOD,' BY CANCER SURVIVOR STATUS AND AGE GROUP

	Total Sample			Cancer Survivors			Respondents without Cancer			
	N	wt %	95% CI	N	wt %	95% CI	N	wt %	95% CI	P-value
Total Sample*										<0.0001
0 (zero) days	2874	66.1%	63.6-68.5%	312	54.9%	47.7-62.2%	2562	67.1%	64.5-69.7%	
1-2 days	458	11.3%	9.6-13.0%	48	8.0%	4.6-11.4%	410	11.6%	9.8-13.5%	
3-7 days	419	10.3%	8.7-11.9%	50	12.6%	7.0-18.3%	369	10.1%	8.4-11.8%	
8-29 days	288	6.7%	5.4-8.0%	51	12.8%	7.0-18.6%	237	6.1%	4.8-7.5%	
30 days	285	5.6%	4.6-6.6%	57	11.6%	7.0-16.3%	228	5.0%	4.1-6.0%	
18-49 years										0.0001
0 (zero) days	1037	67.7%	63.9-71.6%	34	41.0%	20.4-61.7%	1003	68.7%	64.9-72.6%	
1-2 days	194	13.1%	10.3-15.9%	4	6.5%	0.0-15.9%	190	13.4%	10.5-16.3%	
3-7 days	163	11.3%	8.7-13.9%	7	20.0%	0.0-40.2%	156	11.0%	8.4-13.5%	
8-29 days	72	5.6%	3.6-7.6%	6	22.5%	2.0-43.0%	66	5.0%	3.1-6.9%	
30 days	40	2.2%	1.4-3.1%	8	9.9%	1.9-17.9%	32	1.9%	1.1-2.8%	
50-64 years										0.37
0 (zero) days	962	62.7%	59.2-66.2%	100	56.5%	46.1-66.9%	862	63.4%	59.7-67.2%	
1-2 days	169	10.8%	8.8-12.8%	15	10.1%	3.5-16.7%	154	10.9%	8.8-13.0%	
3-7 days	129	9.2%	7.1-11.2%	11	8.5%	2.5-14.6%	118	9.2%	7.1-11.4%	
8-29 days	109	8.4%	6.3-10.5%	17	10.0%	3.9-16.2%	92	8.2%	6.0-10.4%	
30 days	118	9.0%	6.5-11.4%	25	14.8%	6.2-23.5%	93	8.3%	5.7-10.8%	
65-74 years										0.99
0 (zero) days	499	68.3%	63.2-73.3%	97	67.2%	54.2-80.1%	402	68.5%	63.1-73.9%	
1-2 days	51	6.8%	4.4-9.2%	12	7.6%	1.8-13.5%	39	6.6%	4.0-9.2%	
3-7 days	71	8.1%	5.7-10.5%	15	8.5%	2.5-14.6%	56	8.0%	5.4-10.6%	
8-29 days	56	6.6%	4.4-8.9%	12	6.6%	2.2-11.1%	44	6.7%	4.1-9.2%	
30 days	55	10.2%	6.0-14.4%	7	10.0%	0.0-22.8%	48	10.2%	6.1-14.3%	
75 years and older										0.15
0 (zero) days	331	60.9%	55.1-66.6%	80	59.0%	47.6-70.4%	251	61.6%	54.8-68.3%	
1-2 days	40	5.4%	3.5-7.4%	17	7.7%	3.5-12.0%	23	4.6%	2.4-6.7%	
3-7 days	50	10.5%	6.7-14.2%	16	15.0%	6.8-23.2%	34	8.8%	4.6-12.9%	
8-29 days	46	8.9%	5.6-12.2%	13	9.9%	2.7-17.2%	33	8.6%	4.9-12.2%	
30 days	67	14.3%	9.9-18.6%	15	8.3%	3.5-13.2%	52	16.5%	10.9-22.1%	

* Sample by age does not equal the total sample, due to some respondents with missing age

TABLE 5-6. NUMBER OF DAYS DURING PAST 30 DAYS THAT PHYSICAL HEALTH WAS REPORTED AS 'NOT GOOD,' BY CANCER SURVIVOR STATUS AND DEMOGRAPHIC CHARACTERISTICS

	Total Sample			Cancer Survivors			Respondents without Cancer			
Selected Characteristic	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**P-value**
Sex										
Male										0.0004
0 (zero) days	1138	69.7%	65.8-73.5%	127	56.8%	45.0-68.6%	1011	70.7%	66.7-74.8%	
1-7 days	283	18.5%	15.2-21.8%	32	16.0%	8.8-23.3%	251	18.7%	15.2-22.2%	
8-30 days	184	11.8%	9.1-14.6%	34	27.2%	14.6-39.7%	150	10.6%	7.9-13.3%	
Female										0.005
0 (zero) days	1736	62.7%	59.7-65.7%	185	53.6%	44.4-62.8%	1551	63.7%	60.5-66.9%	
1-7 days	594	24.5%	21.7-27.4%	66	24.0%	15.0-33.0%	528	24.6%	21.6-27.6%	
8-30 days	389	12.8%	11.0-14.5%	74	22.5%	15.6-29.4%	315	11.7%	9.9-13.5%	
Race										
White										0.005
0 (zero) days	2062	63.9%	60.9-66.8%	268	57.1%	49.5-64.6%	1794	64.7%	61.5-67.9%	
1-7 days	645	23.0%	20.2-25.7%	76	20.8%	13.3-28.3%	569	23.2%	20.3-26.2%	
8-30 days	435	13.2%	11.2-15.1%	90	22.1%	16.0-28.3%	345	12.1%	10.1-14.1%	
African American or Black										0.0004
0 (zero) days	577	67.1%	62.4-71.9%	34	44.0%	26.2-61.9%	543	68.7%	63.9-73.6%	
1-7 days	173	20.2%	16.1-24.3%	16	20.7%	8.5-32.9%	157	20.1%	15.9-24.4%	
8-30 days	109	12.7%	9.3-16.1%	13	35.3%	14.9-55.7%	96	11.1%	8.0-14.3%	
Other										0.73
0 (zero) days	195	73.5%	65.2-81.8%	8	70.7%	39.3-100.0%	187	73.6%	65.1-82.2%	
1-7 days	51	18.5%	11.2-25.7%	4	15.2%	0.0-34.7%	47	18.6%	11.1-26.1%	
8-30 days	26	8.0%	2.9-13.1%	5	14.2%	0.0-32.1%	21	7.8%	2.5-13.0%	

Total number of responses may not equal sample total due to missing data for some characteristics

TABLE 5-6. NUMBER OF DAYS DURING PAST 30 DAYS THAT PHYSICAL HEALTH WAS REPORTED AS 'NOT GOOD,' BY CANCER SURVIVOR STATUS AND DEMOGRAPHIC CHARACTERISTICS

	Total Sample			Cancer Survivors			Respondents without Cancer			
Selected Characteristic	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**P-value**
Education										
Less than high school										0.51
0 (zero) days	131	54.7%	46.3-63.2%	19	46.9%	27.8-66.1%	112	55.9%	46.6-65.1%	
1-7 days	36	15.3%	8.9-21.6%	8	23.1%	6.9-39.3%	28	14.1%	7.2-21.0%	
8-30 days	80	30.0%	22.3-37.7%	12	30.0%	11.7-48.4%	68	30.0%	21.6-38.4%	
High school grad or GED										0.02
0 (zero) days	692	64.9%	60.2-69.6%	84	55.6%	42.2-69.0%	608	65.9%	60.9-70.9%	
1-7 days	199	19.8%	15.7-23.9%	29	16.9%	9.0-24.8%	170	20.1%	15.7-24.6%	
8-30 days	201	15.2%	12.0-18.5%	37	27.5%	14.6-40.3%	164	13.9%	10.7-17.2%	
Some college 1-3 years										0.0006
0 (zero) days	704	66.5%	61.5-71.5%	66	46.6%	31.6-61.5%	638	68.3%	63.1-73.5%	
1-7 days	224	23.1%	18.5-27.7%	26	23.8%	7.6-40.0%	198	23.0%	18.2-27.8%	
8-30 days	133	10.5%	7.5-13.4%	33	29.6%	14.6-44.6%	100	8.7%	5.8-11.5%	
College grad or more										0.01
0 (zero) days	1340	70.6%	67.1-74.1%	143	68.7%	60.5-77.0%	1197	70.7%	67.0-74.4%	
1-7 days	415	23.9%	20.5-27.4%	35	19.9%	12.6-27.2%	380	24.2%	20.6-27.8%	
8-30 days	159	5.5%	4.3-6.6%	26	11.3%	5.8-16.9%	133	5.0%	3.8-6.3%	
Area of Residence										
Urban										0.002
0 (zero) days	1580	66.6%	63.6-69.6%	167	55.6%	46.3-64.9%	1413	67.6%	64.5-70.8%	
1-7 days	495	21.7%	19.0-24.4%	54	21.7%	13.8-29.7%	441	21.7%	18.8-24.5%	
8-30 days	280	11.7%	9.8-13.7%	44	22.7%	14.0-31.3%	236	10.7%	8.8-12.6%	
Rural										<0.0001
0 (zero) days	1294	64.2%	60.8-67.6%	145	52.8%	44.6-61.1%	1149	65.4%	61.7-69.0%	
1-7 days	382	21.4%	18.4-24.5%	44	17.4%	10.9-23.9%	338	21.9%	18.6-25.2%	
8-30 days	293	14.3%	11.9-16.8%	64	29.8%	22.0-37.6%	229	12.8%	10.2-15.3%	

Total number of responses may not equal sample total due to missing data for some characteristics

TABLE 5.7 AMONG CANCER SURVIVORS, NUMBER OF DAYS DURING PAST 30 DAYS THAT PHYSICAL HEALTH WAS REPORTED AS 'NOT GOOD,' BY DEMOGRAPHIC CHARACTERISTICS

Selected Characteristic	N	wt %	95% CI	P-value
Sex				0.41
Male				
0 (zero) days	127	56.8%	45.0-68.6%	
1-7 days	32	16.0%	8.7-23.4%	
8-30 days	34	27.2%	14.6-39.7%	
Female				
0 (zero) days	185	53.6%	44.3-62.8%	
1-7 days	66	24.0%	14.9-33.0%	
8-30 days	74	22.5%	15.5-29.4%	
Age				0.37
18-49				
0 (zero) days	34	41.0%	20.5-61.5%	
1-7 days	11	26.6%	5.7-47.5%	
8-30 days	14	32.4%	11.7-53.1%	
50-64				
0 (zero) days	100	56.5%	46.1-66.9%	
1-7 days	26	18.6%	10.2-27.1%	
8-30 days	42	24.9%	15.1-34.6%	
65-74				
0 (zero) days	97	67.2%	54.1-80.2%	
1-7 days	27	16.2%	8.0-24.4%	
8-30 days	19	16.7%	3.9-29.4%	
75 years and older				
0 (zero) days	80	59.0%	47.6-70.5%	
1-7 days	33	22.7%	13.6-31.8%	
8-30 days	28	18.3%	9.8-26.7%	
Race				0.53
White				
0 (zero) days	268	57.1%	49.5-64.6%	
1-7 days	76	20.8%	13.3-28.4%	
8-30 days	90	22.1%	16.0-28.3%	
Non-white				
0 (zero) days	42	49.2%	31.4-66.9%	
1-7 days	20	19.7%	8.9-30.4%	
8-30 days	18	31.2%	13.1-49.3%	

Total number of responses may not equal sample total due to missing data for some characteristics

TABLE 5.7 AMONG CANCER SURVIVORS, NUMBER OF DAYS DURING PAST 30 DAYS THAT PHYSICAL HEALTH WAS REPORTED AS 'NOT GOOD,' BY DEMOGRAPHIC CHARACTERISTICS

Selected Characteristic	N	wt %	95% CI	P-value
Education				0.26
Less than high school				
0 (zero) days	19	46.9%	27.6-66.2%	
1-7 days	8	23.1%	6.9-39.3%	
8-30 days	12	30.0%	11.7-48.3%	
High school grad or GED				
0 (zero) days	84	55.6%	42.1-69.1%	
1-7 days	29	16.9%	9.0-24.8%	
8-30 days	37	27.5%	14.6-40.4%	
Some college 1-3 years				
0 (zero) days	66	46.6%	31.6-61.6%	
1-7 days	26	23.8%	7.6-40.1%	
8-30 days	33	29.6%	14.6-44.6%	
College grad or more				
0 (zero) days	143	68.7%	60.5-77.0%	
1-7 days	35	19.9%	12.5-27.3%	
8-30 days	26	11.3%	5.8-16.9%	
Area of Residence				0.42
Urban				
0 (zero) days	167	55.6%	46.3-64.9%	
1-7 days	54	21.7%	13.8-29.7%	
8-30 days	44	22.7%	14.0-31.3%	
Rural				
0 (zero) days	145	52.8%	44.5-61.1%	
1-7 days	44	17.4%	10.9-23.9%	
8-30 days	64	29.8%	21.9-37.7%	

Total number of responses may not equal sample total due to missing data for some characteristics

TABLE 5-8. AMONG CANCER SURVIVORS, NUMBER OF DAYS DURING PAST 30 DAYS THAT PHYSICAL HEALTH WAS REPORTED AS 'NOT GOOD,' BY YEARS SINCE CANCER DIAGNOSIS

	Total			0-5 Years since Diagnosis			6-10 years since Diagnosis			11 Years or More since Diagnosis			
Days	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**P-value**
0 (zero) days	297	55.9%	48.3-63.5%	106	47.9%	35.2-60.5%	71	63.6%	49.9-77.3%	120	63.6%	54.7-72.6%	0.11
1-7 days	93	21.1%	14.6-27.6%	36	21.9%	10.6-33.2%	14	21.1%	7.3-34.9%	43	20.0%	12.6-27.3%	
8-30 days	95	23.0%	16.0-30.0%	41	30.3%	17.6-42.9%	16	15.3%	6.8-23.8%	38	16.4%	10.0-22.8%	

TABLE 5-9. NUMBER OF DAYS DURING PAST 30 DAYS THAT MENTAL HEALTH WAS REPORTED AS 'NOT GOOD,' BY CANCER SURVIVOR STATUS AND AGE GROUP

	Total Sample			Cancer Survivors			Respondents without Cancer			
	N	wt %	95% CI	N	wt %	95% CI	N	wt %	95% CI	P-value
Total Sample*										0.02
0 (zero) days	3094	68.1%	65.7-70.6%	368	67.4%	60.6-74.3%	2726	68.2%	65.6-70.8%	
1-2 days	353	8.7%	7.2-10.3%	34	4.3%	2.6-6.1%	319	9.2%	7.5-10.8%	
3-7 days	367	8.4%	7.0-9.9%	44	8.2%	5.2-11.2%	323	8.5%	6.9-10.0%	
8-29 days	322	9.2%	7.6-10.9%	48	14.4%	7.8-21.1%	274	8.7%	7.0-10.4%	
30 days	205	5.5%	4.3-6.6%	31	5.6%	3.2-8.0%	174	5.5%	4.2-6.7%	
18-49 years										0.002
0 (zero) days	981	64.4%	60.5-68.3%	29	49.0%	26.6-71.3%	952	64.9%	60.9-68.9%	
1-2 days	154	9.7%	7.2-12.1%	2	1.6%	0.0-4.0%	152	9.9%	7.4-12.5%	
3-7 days	160	9.9%	7.5-12.3%	11	9.0%	1.9-16.1%	149	9.9%	7.5-12.4%	
8-29 days	141	10.7%	8.0-13.5%	8	29.0%	5.6-52.4%	133	10.1%	7.5-12.8%	
30 days	74	5.3%	3.6-7.0%	8	11.5%	2.7-20.3%	66	5.1%	3.4-6.8%	
50-64 years										0.004
0 (zero) days	1006	65.7%	62.3-69.2%	103	58.7%	48.4-68.9%	903	66.6%	63.0-70.2%	
1-2 days	135	10.2%	7.9-12.4%	16	7.3%	2.9-11.7%	119	10.5%	8.0-13.0%	
3-7 days	132	7.6%	6.0-9.2%	15	8.5%	3.5-13.6%	117	7.5%	5.8-9.2%	
8-29 days	121	8.8%	6.7-10.9%	22	19.1%	9.4-28.8%	99	7.6%	5.6-9.5%	
30 days	92	7.7%	5.6-9.8%	13	6.4%	1.9-11.0%	79	7.8%	5.5-10.1%	
65-74 years										0.01
0 (zero) days	592	80.1%	75.9-84.3%	109	76.3%	66.4-86.2%	483	81.1%	76.4-85.8%	
1-2 days	31	3.3%	1.7-4.9%	6	2.2%	0.3-4.1%	25	3.6%	1.6-5.5%	
3-7 days	48	6.4%	4.0-8.9%	13	13.7%	4.9-22.6%	35	4.5%	2.6-6.4%	
8-29 days	45	7.2%	4.1-10.2%	11	5.7%	1.4-10.0	34	7.6%	3.9-11.3%	
30 days	22	3.0%	1.3-4.7%	5	2.1%	0.0-4.3%	17	3.2%	1.2-5.3%	
75 years and older										0.3
0 (zero) days	462	87.7%	84.6-90.7%	121	86.1%	80.1-92.2%	341	88.3%	84.8-91.8%	
1-2 days	28	4.0%	2.4-5.5%	10	5.3%	1.8-8.9%	18	3.4%	1.7-5.1%	
3-7 days	25	3.5%	1.9-5.2%	4	1.8%	0.0-3.7%	21	4.2%	2.0-6.4%	
8-29 days	13	2.4%	0.9-3.9%	7	4.0%	0.6-7.4%	6	1.7%	0.2-3.3%	
30 days	16	2.4%	1.0-3.9%	5	2.7%	0.0-5.7%	11	2.3%	0.7-3.9%	

* Sample by age does not equal the total sample, due to some respondents with missing age

TABLE 5-10. NUMBER OF DAYS DURING PAST 30 DAYS THAT MENTAL HEALTH WAS REPORTED AS 'NOT GOOD,' BY CANCER SURVIVOR STATUS AND DEMOGRAPHIC CHARACTERISTICS

	Total Sample			Cancer Survivors			Respondents without Cancer			
Selected Characteristic	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**P-value**
Sex										
Male										0.18
0 (zero) days	1274	74.5%	70.7-78.4%	160	81.3%	71.8-90.8%	1114	74.0%	69.9-78.1%	
1-7 days	195	14.0%	10.8-17.1%	16	6.7%	2.9-10.5%	179	14.5%	11.2-17.9%	
8-30 days	133	11.5%	8.7-14.4%	17	12.0%	2.8-21.2%	116	11.5%	8.5-14.5%	
Female										0.05
0 (zero) days	1820	62.3%	59.2-65.4%	208	57.9%	48.8-67.0%	1612	62.8%	59.5-66.1%	
1-7 days	525	20.1%	17.6-22.6%	62	16.6%	11.3-21.9%	463	20.5%	17.8-23.2%	
8-30 days	394	17.6%	15.0-20.2%	62	25.5%	16.3-34.7%	332	16.7%	14.0-19.4%	
Race										
White										0.08
0 (zero) days	2233	66.0%	62.9-69.1%	303	65.9%	58.6-73.3%	1930	66.0%	62.6-69.3%	
1-7 days	537	18.5%	15.9-21.1%	65	13.4%	9.4-17.5%	472	19.1%	16.3-21.9%	
8-30 days	380	15.5%	13.0-18.1%	68	20.6%	13.3-28.0%	312	14.9%	12.2-17.6%	
African American or Black										0.23
0 (zero) days	605	68.2%	63.5-72.9%	48	67.6%	49.8-85.3%	557	68.2%	63.4-73.1%	
1-7 days	149	18.8%	14.7-22.8%	9	10.9%	2.6-19.2%	140	19.4%	15.1-23.6%	
8-30 days	109	13.0%	10.0-16.1%	9	21.5%	3.9-39.2%	100	12.4%	9.4-15.4%	
Other										0.8
0 (zero) days	214	78.0%	70.2-85.9%	12	81.5%	60.1-100.0%	202	77.9%	69.7-86.0%	
1-7 days	31	7.7%	3.5-12.0%	4	9.6%	0.0-22.1%	27	7.6%	3.2-12.0%	
8-30 days	32	14.2%	7.1-21.4%	2	8.9%	0.0-22.9%	30	14.5%	7.1-21.9%	

Total number of responses may not equal sample total due to missing data for some characteristics

TABLE 5-10. NUMBER OF DAYS DURING PAST 30 DAYS THAT MENTAL HEALTH WAS REPORTED AS 'NOT GOOD,' BY CANCER SURVIVOR STATUS AND DEMOGRAPHIC CHARACTERISTICS

	Total Sample			Cancer Survivors			Respondents without Cancer			
Selected Characteristic	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**P-value**
Education										
Less than high school										0.17
0 (zero) days	173	66.9%	58.7-75.0%	29	78.8%	64.9-92.6%	144	65.1%	56.1-74.2%	
1-7 days	21	10.7%	5.2-16.2%	5	11.9%	0.8-22.9%	16	10.5%	4.4-16.6%	
8-30 days	53	22.4%	15.2-29.7%	5	9.4%	0.4-18.3%	48	24.3%	16.2-32.5%	
High school grad or GED										0.36
0 (zero) days	778	67.8%	63.1-72.5%	111	71.4%	61.6-81.3%	667	67.3%	62.2-72.5%	
1-7 days	154	16.4%	12.4-20.3%	21	11.0%	5.3-16.7%	133	17.0%	12.6-21.4%	
8-30 days	171	15.9%	12.5-19.3%	26	17.6%	9.6-25.6%	145	15.7%	12.0-19.4%	
Some college 1-3 years										<0.001
0 (zero) days	756	68.6%	63.6-73.6%	79	54.6%	38.2-71.0%	677	69.9%	64.7-75.1%	
1-7 days	171	16.4%	12.5-20.3%	17	7.9%	2.5-13.3%	154	17.2%	13.0-21.3%	
8-30 days	139	15.0%	10.9-19.1%	28	37.5%	19.9-55.2%	111	12.9%	9.0-16.9%	
College grad or more										0.97
0 (zero) days	1380	68.3%	64.5-72.1%	149	68.7%	60.6-76.9%	1231	68.2%	64.2-72.3%	
1-7 days	373	20.8%	17.5-24.1%	35	19.9%	13.0-26.8%	338	20.9%	17.4-24.3%	
8-30 days	162	10.9%	8.1-13.7%	20	11.4%	5.4-17.4%	142	10.9%	7.9-13.9%	
Area of Residence										
Urban										0.13
0 (zero) days	1668	67.7%	64.6-70.7%	186	67.9%	59.2-76.7%	1482	67.7%	64.4-70.9%	
1-7 days	401	17.3%	14.8-19.7%	45	12.1%	7.8-16.3%	356	17.7%	15.1-20.4%	
8-30 days	286	15.1%	12.6-17.5%	36	20.0%	11.3-28.7%	250	14.6%	12.1-17.1%	
Rural										0.07
0 (zero) days	1426	69.6%	66.4-72.8%	182	66.0%	58.1-74.0	1244	69.9%	66.5-73.4%	
1-7 days	319	16.9%	14.2-19.6%	33	14.0%	8.2-19.7%	286	17.2%	14.3-20.1%	
8-30 days	241	13.5%	11.2-15.8%	43	20.0%	13.1-27.0%	198	12.8%	10.4-15.3%	

Total number of responses may not equal sample total due to missing data for some characteristics

TABLE 5-11. AMONG CANCER SURVIVORS, NUMBER OF DAYS DURING PAST 30 DAYS THAT MENTAL HEALTH WAS REPORTED AS 'NOT GOOD,' BY DEMOGRAPHIC CHARACTERISTICS

Selected Characteristic	N	wt %	95% CI	P-value
Sex				0.003
Male				
0 (zero) days	160	81.3%	71.8-90.8%	
1-7 days	16	6.7%	2.8-10.5%	
8-30 days	17	12.0%	2.8-21.3%	
Female				
0 (zero) days	208	57.9%	48.8-67.1%	
1-7 days	62	16.6%	11.2-21.9%	
8-30 days	62	25.5%	16.3-34.7%	
Age				<0.0001
18-49				
0 (zero) days	29	49.0%	26.6-71.3%	
1-7 days	13	10.6%	2.9-18.3%	
8-30 days	16	40.5%	17.8-63.1%	
50-64				
0 (zero) days	103	58.7%	48.3-69.0%	
1-7 days	31	15.8%	9.3-22.3%	
8-30 days	35	25.5%	15.5-35.6%	
65-74				
0 (zero) days	109	76.3%	66.3-86.2%	
1-7 days	19	16.0%	6.9-25.0%	
8-30 days	16	7.8%	2.9-12.7%	
75 years and older				
0 (zero) days	121	86.1%	80.0-92.2%	
1-7 days	14	7.1%	3.0-11.2%	
8-30 days	12	6.8%	2.2-11.3%	
Race				0.86
White				
0 (zero) days	303	65.9%	58.5-73.3%	
1-7 days	65	13.4%	9.4-17.5%	
8-30 days	68	20.6%	13.2-28.0%	
Non-white				
0 (zero) days	60	70.2%	54.5-85.9%	
1-7 days	13	10.6%	3.4%-17.9%	
8-30 days	11	19.1%	4.0-34.2%	
Education				0.0005

Total number of responses may not equal sample total due to missing data for some characteristics

TABLE 5-11. AMONG CANCER SURVIVORS, NUMBER OF DAYS DURING PAST 30 DAYS THAT MENTAL HEALTH WAS REPORTED AS 'NOT GOOD,' BY DEMOGRAPHIC CHARACTERISTICS

Selected Characteristic	N	wt %	95% CI	P-value
Sex				0.003
Less than high school				
0 (zero) days	29	78.8%	64.9-92.7%	
1-7 days	5	11.9%	0.7-23.0%	
8-30 days	5	9.4%	0.4-18.3%	
High school grad or GED				
0 (zero) days	111	71.4%	61.5-81.4%	
1-7 days	21	11.0%	5.3-16.7%	
8-30 days	26	17.6%	9.5-25.7%	
Some college 1-3 years				
0 (zero) days	79	54.6%	38.1-71.0%	
1-7 days	17	7.9%	2.5-13.3%	
8-30 days	28	37.5%	19.8-55.3%	
College grad or more				
0 (zero) days	149	68.7%	60.5-76.9%	
1-7 days	35	19.9%	12.9-26.8%	
8-30 days	20	11.4%	5.4-17.4%	
Area of Residence				0.9
Urban				
0 (zero) days	186	67.9%	59.1-76.7%	
1-7 days	45	12.1%	7.7-16.4%	
8-30 days	36	20.0%	11.3-28.7%	
Rural				
0 (zero) days	182	66.0%	58.0-74.0	
1-7 days	33	14.0%	8.2-19.7%	
8-30 days	43	20.0%	13.1-26.9%	

Total number of responses may not equal sample total due to missing data for some characteristics

TABLE 5-12. AMONG CANCER SURVIVORS, NUMBER OF DAYS DURING PAST 30 DAYS THAT MENTAL HEALTH WAS REPORTED AS 'NOT GOOD,' BY YEARS SINCE CANCER DIAGNOSIS

	Total			0-5 Years since Diagnosis			6-10 Years since Diagnosis			11 Years or More since Diagnosis			
Days	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**P-value**
0 (zero) days	345	67.6%	60.4-74.8%	127	63.7%	51.0-76.4%	73	74.9%	64.9-84.8%	145	69.9%	61.1-78.6%	0.19
1-7 days	71	11.9%	8.3-15.5%	26	10.5%	5.4-15.6%	14	9.5%	3.9-15.0%	31	15.1%	8.3-21.9%	
8-30 days	75	20.5%	13.4-27.6%	31	25.8%	13.0-38.7%	15	15.7%	6.7-24.6%	29	15.1%	8.4-21.7%	

TABLE 5-13. NUMBER OF DAYS DURING PAST 30 DAYS THAT POOR PHYSICAL OR MENTAL HEALTH PREVENTED USUAL ACTIVITIES, BY CANCER SURVIVOR STATUS AND AGE GROUP

	Total Sample			Cancer Survivors			Respondents without Cancer			
	N	wt %	95% CI	N	wt %	95% CI	N	wt %	95% CI	P-value
Total Sample*										0.0009
0 (zero) days	3499	79.3%	77.2-81.4%	409	75.3%	68.9-81.6%	3090	79.7%	77.5-81.9%	
1-2 days	252	5.6%	4.5-6.8%	15	1.8%	0.7-2.8%	237	6.0%	4.8-7.2%	
3-7 days	238	5.9%	4.7-7.1%	32	6.8%	3.9-9.7%	206	5.8%	4.5-7.1%	
8-29 days	202	5.5%	4.2-6.8%	39	9.1%	3.7-14.6%	163	5.1%	3.9-6.4%	
30 days	161	3.6%	2.7-4.6%	29	7.0%	3.6-10.5%	132	3.3%	2.3-4.3%	
18-49 years										<0.0001
0 (zero) days	1219	79.5%	76.3-82.7%	38	59.0%	37.3-80.7%	1181	80.2%	77.0-83.4%	
1-2 days	115	6.4%	4.6-8.1%	3	1.6%	0.0-3.8%	112	6.5%	4.7-8.3%	
3-7 days	98	6.7%	4.7-8.6%	6	10.1%	1.1-19.1%	92	6.5%	4.6-8.5%	
8-29 days	56	5.2%	3.3-7.2%	5	21.8%	0.5-43.1%	51	4.7%	2.8-6.5%	
30 days	27	2.3%	0.9-3.6%	6	7.5%	0.7-14.4%	21	2.1%	0.7-3.5%	
50-64 years										0.003
0 (zero) days	1155	76.1%	72.8-79.4%	126	74.5%	64.9-84.1%	1029	76.3%	72.8-79.7%	
1-2 days	93	6.2%	4.5-7.9%	4	1.7%	0.0-3.7%	89	6.7%	4.9-8.6%	
3-7 days	83	5.6%	4.0-7.2%	9	4.7%	1.3-8.2%	74	5.7%	4.0-7.4%	
8-29 days	81	6.6%	4.4-8.8%	15	5.9%	2.6-9.3%	66	6.7%	4.3-9.0%	
30 days	74	5.5%	3.6-7.4%	14	13.1%	3.9-22.4%	60	4.6%	2.8-6.4%	
65-74 years										0.046
0 (zero) days	610	82.5%	78.5-86.4%	123	86.5%	79.2-93.9%	487	81.4%	76.8-86.0%	
1-2 days	27	2.9%	1.3-4.4%	3	1.5%	0.0-3.2%	24	3.3%	1.4-5.1%	
3-7 days	38	4.4%	2.5-6.3%	8	7.5%	1.0-13.9%	30	3.6%	1.8-5.3%	
8-29 days	37	5.0%	2.5-7.5%	8	2.9%	0.4-5.5%	29	5.6%	2.5-8.7%	
30 days	30	5.2%	2.9-7.6%	3	1.6%	0.0-3.6%	27	6.2%	3.3-9.1%	
75 years and older										0.21
0 (zero) days	458	83.8%	79.6-88.0%	117	79.9%	71.0-88.8%	341	85.3%	80.6-90.0	
1-2 days	14	1.8%	0.7-3.0%	4	1.3%	0.0-2.7%	10	2.0%	0.5-3.5%	
3-7 days	18	3.8%	1.2-6.3%	8	5.9%	0.6-11.2%	10	2.9%	0.1-5.8%	
8-29 days	27	4.9%	2.4-7.4%	11	8.5%	1.7-15.2%	16	3.5%	1.3-5.7%	
30 days	28	5.7%	3.3-8.2%	6	4.4%	0.7-8.1%	22	6.3%	3.1-9.4%	

* Sample by age does not equal the total sample, due to some respondents with missing age

TABLE 5-14. NUMBER OF DAYS DURING PAST 30 DAYS THAT POOR PHYSICAL OR MENTAL HEALTH PREVENTED USUAL ACTIVITIES, BY CANCER SURVIVOR STATUS AND DEMOGRAPHIC CHARACTERISTICS

	Total Sample			Cancer Survivors			Respondents without Cancer			
Selected Characteristic	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**P-value**
Sex										
Male										0.068
0 (zero) days	1340	81.4%	78.1-84.8%	160	77.1%	65.4-88.7%	1180	81.8%	78.3-85.3%	
1-7 days	150	9.2%	6.9-11.4%	16	5.8%	2.4-9.1%	134	9.4%	7.0-11.9%	
8-30 days	118	9.4%	6.7-12.1%	18	17.2%	5.3-29.1%	100	8.8%	6.0-11.5%	
Female										0.011
0 (zero) days	2159	77.4%	74.8-79.9%	249	74.0%	66.7-81.3%	1910	77.8%	75.0-80.5%	
1-7 days	340	13.7%	11.5-15.9%	31	10.5%	5.9-15.2%	309	14.0%	11.7-16.4%	
8-30 days	245	8.9%	7.3-10.5%	50	15.5%	9.5-21.5%	195	8.2%	6.5-9.9%	
Race										
White										0.15
0 (zero) days	2533	78.1%	75.5-80.7%	342	78.0%	72.7-83.3%	2191	78.1%	75.3-81.0%	
1-7 days	367	13.2%	11.0-15.4%	42	10.4%	6.4-14.3%	325	13.5%	11.1-15.9%	
8-30 days	269	8.7%	6.9-10.4%	55	11.7%	7.8-15.5%	214	8.3%	6.4-10.2%	
African American or Black										<0.0001
0 (zero) days	687	79.7%	75.8-83.6%	51	64.0%	43.5-84.4%	636	80.7%	76.9-84.5%	
1-7 days	96	10.0%	7.4-12.6%	4	3.6%	0.0-7.4%	92	10.4%	7.6-13.2%	
8-30 days	73	10.4%	7.2-13.5%	9	32.4%	11.4-53.4%	64	8.9%	6.0-11.7%	
Other										**
0 (zero) days	233	83.2%	76.0-90.3%	12	84.5%	64.3-100.0%	221	83.1%	75.7-90.5%	
1-7 days	23	7.7%	3.3-12.0%	0	0.0%		23	8.0%	3.5-12.5%	
8-30 days	21	9.2%	3.0-15.3%	4	15.5%	0.0-35.7%	17	8.9%	2.6-15.3%	

Total number of responses may not equal sample total due to missing data for some characteristics

** p-value not given when there are no responses in a cell

TABLE 5-14. NUMBER OF DAYS DURING PAST 30 DAYS THAT POOR PHYSICAL OR MENTAL HEALTH PREVENTED USUAL ACTIVITIES, BY CANCER SURVIVOR STATUS AND DEMOGRAPHIC CHARACTERISTICS

	Total Sample			Cancer Survivors			Respondents without Cancer			
Selected Characteristic	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**P-value**
Education										
Less than high school										0.35
0 (zero) days	185	72.1%	64.3-79.8%	27	76.8%	61.9-91.6%	158	71.4%	62.9-80.0%	
1-7 days	19	8.9%	4.3-13.5%	5	13.0%	1.4-24.7%	14	8.4%	3.4-13.3%	
8-30 days	43	19.0%	12.0-26.0%	6	10.2%	0.1-20.3%	37	20.2%	12.4-28.0%	
High school grad or GED										0.03
0 (zero) days	869	78.8%	75.0-82.7%	121	71.2%	58.7-83.6%	748	79.7%	75.6-83.7%	
1-7 days	101	8.9%	6.4-11.4%	10	6.2%	1.4-10.9%	91	9.2%	6.5-11.9%	
8-30 days	139	12.3%	9.1-15.5%	27	22.7%	10.4-34.9%	112	11.1%	7.9-14.4%	
Some college 1-3 years										0.001
0 (zero) days	877	81.9%	78.0-85.9%	94	72.8%	58.0-87.7%	783	82.8%	78.7-86.8%	
1-7 days	111	10.3%	7.3-13.2%	10	5.8%	1.2-10.3%	101	10.7%	7.5-13.9%	
8-30 days	81	7.8%	4.9-10.7%	19	21.4%	6.6-36.2%	62	6.6%	3.8-9.3%	
College grad or more										0.3
0 (zero) days	1560	80.2%	77.0-83.4%	167	81.9%	75.5-88.4%	1393	80.1%	76.6-83.5%	
1-7 days	257	15.4%	12.4-18.4%	22	11.7%	6.1-17.2%	235	15.7%	12.5-18.9%	
8-30 days	100	4.4%	2.9-5.9%	16	6.4%	2.7-10.1%	84	4.2%	2.7-5.8%	
Area of Residence										
Urban										0.03
0 (zero) days	1890	79.1%	76.6-81.7%	209	76.2%	68.0-84.4%	1681	79.4%	76.7-82.1%	
1-7 days	286	11.8%	9.8-13.7%	28	8.3%	4.6-12.0%	258	12.1%	10.0-14.2%	
8-30 days	187	9.1%	7.2-11.0%	30	15.5%	7.6-23.3%	157	8.5%	6.6-10.4%	
Rural										0.003
0 (zero) days	1609	79.9%	77.0-82.9	200	72.5%	64.9-80.2%	1409	80.7%	77.5-83.9%	
1-7 days	204	10.8%	8.5-13.1%	19	9.2%	4.0-14.5%	185	11.0%	8.5-13.5%	
8-30 days	176	9.2%	7.0-11.5%	38	18.2%	11.6-24.8%	138	8.3%	5.9-10.7%	

Total number of responses may not equal sample
total due to missing data for some characteristics
** p-value not given when there are no responses in a cell

TABLE 5-15. AMONG CANCER SURVIVORS, NUMBER OF DAYS DURING PAST 30 DAYS THAT POOR PHYSICAL OR MENTAL HEALTH PREVENTED USUAL ACTIVITIES, BY DEMOGRAPHIC CHARACTERISTICS

Selected Characteristic	N	wt %	95% CI	P-value
Sex				0.5
Male				
0 (zero) days	160	77.1%	65.4-88.7%	
1-7 days	16	5.8%	2.4-9.1%	
8-30 days	18	17.2%	5.3-29.1%	
Female				
0 (zero) days	249	74.0%	66.7-81.3%	
1-7 days	31	10.5%	5.8-15.2%	
8-30 days	50	15.5%	9.5-21.5%	
Age				0.02
18-49				
0 (zero) days	38	59.0%	37.3-80.7%	
1-7 days	9	11.7%	2.3-21.2%	
8-30 days	11	29.3%	8.0-50.6%	
50-64				
0 (zero) days	126	74.5%	64.9-84.2%	
1-7 days	13	6.4%	2.5-10.4%	
8-30 days	29	19.1%	9.7-28.4%	
65-74				
0 (zero) days	123	86.5%	79.2-93.9%	
1-7 days	11	8.9%	2.3-15.6%	
8-30 days	11	4.5%	1.2-7.8%	
75 years and older				
0 (zero) days	117	79.9%	71.0-88.9%	
1-7 days	12	7.2%	1.7-12.7%	
8-30 days	17	12.9%	5.3-20.4%	
Race				0.004
White				
0 (zero) days	342	78.0%	72.7-83.3%	
1-7 days	42	10.4%	6.4-14.3%	
8-30 days	55	11.7%	7.8-15.5%	
Non-white				
0 (zero) days	63	67.9%	49.6-86.2%	
1-7 days	4	2.9%	0.0-6.0%	
8-30 days	13	29.2%	10.7-47.7%	

Total number of responses may not equal sample total due to missing data for some characteristics

TABLE 5-15. AMONG CANCER SURVIVORS, NUMBER OF DAYS DURING PAST 30 DAYS THAT POOR PHYSICAL OR MENTAL HEALTH PREVENTED USUAL ACTIVITIES, BY DEMOGRAPHIC CHARACTERISTICS

Selected Characteristic	N	wt %	95% CI	P-value
Education				0.1
Less than high school				
0 (zero) days	27	76.8%	61.9-91.7%	
1-7 days	5	13.0%	1.3-24.7%	
8-30 days	6	10.2%	0.1-20.3%	
High school grad or GED				
0 (zero) days	121	71.2%	58.7-83.6%	
1-7 days	10	6.2%	1.5-10.9%	
8-30 days	27	22.7%	10.4-34.9%	
Some college 1-3 years				
0 (zero) days	94	72.8%	57.9-87.8%	
1-7 days	10	5.8%	1.2-10.3%	
8-30 days	19	21.4%	6.5-36.3%	
College grad or more				
0 (zero) days	167	81.9%	75.5-88.4%	
1-7 days	22	11.7%	6.1-17.2%	
8-30 days	16	6.4%	2.7-10.1%	
Area of Residence				0.81
Urban				
0 (zero) days	209	76.2%	68.0-84.4%	
1-7 days	28	8.3%	4.6-12.0%	
8-30 days	30	15.5%	7.6-23.4%	
Rural				
0 (zero) days	200	72.5%	64.8-80.3%	
1-7 days	19	9.2%	3.9-14.6%	
8-30 days	38	18.2%	11.6-24.9%	

Total number of responses may not equal sample total due to missing data for some characteristics

TABLE 5-16. AMONG CANCER SURVIVORS, NUMBER OF DAYS DURING PAST 30 DAYS THAT POOR PHYSICAL OR MENTAL HEALTH PREVENTED USUAL ACTIVITIES, BY YEARS SINCE CANCER DIAGNOSIS

	Total			0-5 Years since Diagnosis			6-10 Years since Diagnosis			11 Years or More since Diagnosis			
Days	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**P-value**
0 (zero) days	385	75.3%	68.6-82.0%	144	72.5%	60.3-84.6%	82	78.4%	68.8-88.0	159	77.7%	70.0-85.4	0.08
1-7 days	42	8.0%	4.9-11.1%	15	5.4%	2.1-8.8%	9	8.6%	2.4-14.8%	18	11.4%	4.8-18.1%	
8-30 days	64	16.7%	10.2-23.1%	24	22.1%	9.9-34.3%	12	13.0%	5.0-21.0%	28	10.9%	6.2-15.6%	

Section 6
Health Care Access

Coordination of care between specialists and primary care providers following primary cancer treatment is a key component of survivorship care.[1] The following aspects of health care access for cancer survivors in Maryland are examined in this chapter:

- Health care coverage
- Having a personal doctor or health care provider (HCP)
- Routine checkup in the past year
- Influenza vaccination in the past year

Health Care Coverage

Costs for continuing care after initial cancer treatment can be substantial. While most Marylanders have health insurance coverage, 7.5% of cancer survivors and 10.9% of adults without a history of cancer in the 2011 Maryland BRFSS reported having no health care insurance (Table 6-1). The lack of health care coverage can have serious consequences for cancer survivors and their families. It has been shown that the uninsured, as a group, have poorer health and are more likely to die early than persons with coverage.[2] As cited in the IOM report *From Cancer Patient to Cancer Survivor: Lost in Transition,* several studies show an association between lack of health insurance and poorer cancer outcomes, including survival.[1]

The following summarizes Maryland BRFSS findings related to health insurance coverage by cancer survivors.

- In Maryland, 92.5% cancer survivors and 89.1% of persons without a history of cancer reported having some form of health insurance coverage at the time of the survey, but this difference was not significant (Table 6-1).
- Statistically significant differences in health insurance coverage between cancer survivors and persons without a history of cancer were found only for adults with a college degree or higher (99.0% compared to 94.9%, respectively) (Table 6-2).
    - No statistically significant differences were found for health insurance coverage between cancer survivors and those without a history of cancer by age, gender, or area of residence (urban/rural) (Tables 6-1 and 6-2).
- Among cancer survivors, health insurance coverage did not differ significantly by any demographic characteristic (Table 6-3).
- Among cancer survivors, health insurance coverage did not differ significantly by number of years since cancer diagnosis (Table 6-4).

Having a Primary Health Care Provider

One of the key barriers to health care access faced by cancer survivors is the lack of a focal point for follow-up care. While survivorship care can be provided by either specialists or primary HCPs, and different models exist for delivering this care, optimally the cancer survivor has a

designated provider within the health care system responsible for coordinating their care. In the 2011 Maryland BRFSS,

- 93.9% of cancer survivors reported having at least one person they think of as their personal doctor or HCP, compared to 84.7% of persons without a history of cancer. This difference between cancer survivors and others was statistically significant (Table 6-5).
    - A higher proportion of cancer survivors 18-49 years reported having a personal doctor or HCP (93.2%) compared to persons without a history of cancer (79.7%).
    - A **lower** proportion of survivors age 75 years and older reported having a personal doctor or HCP (92.4%) compared to persons without a history of cancer (97.5%).
- For many demographic characteristics, a higher proportion of cancer survivors (compared to persons without cancer) reported having a personal doctor or HCP (Table 6-6). This was true for males, females, persons of all races, persons of all educational levels except those with less than high school, and persons living in urban areas.
    - The differences in having a personal doctor or primary HCP between cancer survivors and others were not statistically significant for persons with less than a high school education, those living in a rural area, or those 50-64 years old and 65-74 years old.
- Among cancer survivors, the proportion that reported having a personal doctor or HCP did not differ by sex, age, race, education, or area of residence (Table 6-7).
- Among cancer survivors, the proportion who responded that they have at least one personal doctor or HCP did not differ significantly by number of years since cancer diagnosis (Table 6-8).

Time since Last Routine Checkup (General Physical Exam)

In addition to cancer-related follow-up care, cancer survivors also need routine physical examinations for prevention and treatment of other chronic conditions. Cancer survivors are living longer after their initial diagnosis, and are at increased risk for conditions such as osteoporosis, heart disease, and diabetes.[2]

A recent study on use of preventive health services by cancer survivors (with one year of follow up) in the U.S. population found that a large majority (78%) had undergone a routine physical examination in the past year.[3] In the 2011 Maryland BRFSS, 87.7% of cancer survivors stated they had visited a doctor within the past year for a routine checkup (Table 6-9).

In addition, the Maryland BRFSS found that:

- As a group, cancer survivors were significantly more likely to have visited a doctor within the past year for a routine checkup than persons without cancer (87.7% vs. 76.9%, respectively).
    - When stratified by age, the difference between survivors and those without a history of cancer was statistically significant only for persons age 65 to 74 years.

    - This difference between cancer survivors and others was statistically significant among males and females, all race groups examined, and both urban and rural residents (Table 6-10).
        - The difference was also significant for high school graduates or those with a GED.
- Among cancer survivors, the proportion reporting having a routine checkup within the past year did not differ statistically by sex, education level, or area of residence (Table 6-11).
    - The lowest proportions of cancer survivors who reported having a routine checkup within the last year were in the 18-49 and 50-64 year age groups.
    - A higher proportion of non-white cancer survivors reported having a routine checkup within the last year compared to whites (97.1% vs. 83.7%, respectively).
- Among cancer survivors, the proportion having a routine checkup in the past year did not differ significantly by number of years since cancer diagnosis (Table 6-12).

Influenza Immunization

While it is not known whether cancer survivors are at greater risk of infection with the influenza virus, it is known that cancer survivors (and cancer patients) are at increased risk for developing influenza-related complications, possibly leading to hospitalization and death.[4] Beginning with the 2010-2011 influenza season, the CDC and Advisory Committee on Immunization Practices (ACIP) recommended annual vaccination against influenza for all persons age 6 months and older.[5] According to ACIP, this expansion of vaccination recommendations reflects the need to remove potential barriers to receipt of influenza vaccine, including lack of awareness about vaccine indications among persons at higher risk for influenza complications and their close contacts. Although cancer patients and cancer survivors are known to be at increased risk of complications from influenza, recent studies have shown conflicting evidence on whether higher rates of influenza vaccination among cancer survivors are seen when compared to persons without a history of cancer.[6, 7]

- The Maryland BRFSS found that the rate of self-reported influenza vaccination in the past 12 months was significantly higher among cancer survivors than among persons without a history of cancer (56.1% vs. 39.3%; Table 6-13). Significant differences in vaccination prevalence were also observed across some demographic groups.
    - Statistically significant differences between cancer survivors and persons without cancer were seen for males, whites, high school graduates or GED, college graduates or higher education, and urban residents, with survivors reporting higher influenza vaccination prevalence (Table 6-14).
- Among cancer survivors only, no statistically significant differences for reporting receiving influenza vaccine were found by sex, race, or area of residence (Table 6-15).
    - The percentage of cancer survivors who reported receiving the influenza vaccination increased with age, from 29.4% for those 18-49 years to 72.2% among those 75 years and older.
    - A lower proportion of cancer survivors with an education level of some college reported receiving the influenza vaccination than any other education level.

- Among cancer survivors, the proportion receiving an influenza vaccine did not differ significantly by number of years since cancer diagnosis (Table 6-16).

Summary

According to the 2011 BRFSS, 93% of cancer survivors in Maryland have some form of health care coverage. Cancer survivors appear to be as likely to have health care coverage as persons without a cancer history.

Cancer survivors in Maryland were more likely than persons without a cancer history to have at least one HCP (93.9 vs. 84.7%, respectively) and to have had a routine checkup in the past year (87.7% vs. 76.9%, respectively). Among cancer survivors, those who were not white (African American or other non-white race) were more likely to report having had a routine checkup in the past year than whites.

The time elapsed since cancer diagnosis did not have a significant impact on the proportion of cancer survivors who had health insurance, a primary HCP, or a routine checkup in the past year.

Cancer survivors in Maryland were more likely than persons without a cancer history to have received an influenza vaccine in the past 12 months. The proportion of cancer survivors vaccinated increased with increasing age, ranging from 29.4% for those age 18-49 years to 72.2% among those age 75 years and older.

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[1] Hewitt M, Greenfield S, Stovall E, eds. From Cancer Patient to Cancer Survivor: Lost in Transition. Washington, DC: The National Academies Press, 2006.
[2] Committee on Health Insurance Status and Its Consequences, Institute of Medicine. America's uninsured crisis: consequences for health and health care. Washington, DC: The National Academies Press; 2009.
[3] Findley PA and U. Sambamoorthi. Preventive health services and lifestyle practices in cancer survivors: a population health investigation. J Cancer Surviv. 2009;3:43-58.
[4] Centers for Disease Control and Prevention. Cancer, the Flu, and You. Available at http://www.cdc.gov/cancer/flu/#. Accessed February 7, 2013.
[5] Centers for Disease Control and Prevention. MMWR Recommendations and Reports. Prevention and control of influenza with vaccines. Recommendations of the Advisory Committee on Immunization Practices (ACIP). August 6, 2010 / 59(rr08);1-62. Available at http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5908a1.htm. Accessed February 7, 2013.
[6] Shih Y and Pan I. Influenza vaccination among individuals with cancer and their family members. Am J Prev Med 2010;38(1):61-69.
[7] Snyder CF, Frick KD, Peairs KS, et al. Comparing care for breast cancer survivors to non-cancer control: a five-year longitudinal study. J Gen Intern Med 2009;24(4):469-74.

TABLE 6-1. HEALTH CARE COVERAGE, BY CANCER SURVIVOR STATUS AND AGE GROUP

	Total Sample			Cancer Survivors			Respondents without Cancer			
	N	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**P-value**
Total Sample*										0.23
Yes	4138	89.4%	87.5-91.3%	516	92.5%	88.0-97.0%	3622	89.1%	87.0-91.2%	
No	268	10.6%	8.7-12.5%	21	7.5%	3.0-12.0%	247	10.9%	8.8-13.0%	
18-49 years										0.93
Yes	1397	87.1%	84.0-90.3%	54	86.4%	70.5-100.0%	1343	87.1%	83.9-90.4%	
No	127	12.9%	9.7-16.0%	5	13.6%	0.0-30.0%	122	12.9%	9.6-16.1%	
50-64 years										0.94
Yes	1380	88.6%	85.9-91.2%	159	88.8%	81.5-96.1%	1221	88.5%	85.7-91.4%	
No	119	11.4%	8.8-14.1%	12	11.2%	3.9-18.5%	107	11.5%	8.6-14.3%	
65-74 years										0.87
. Yes	746	98.5%	97.3-99.7%	146	98.4%	95.8-100.0%	600	98.6%	97.2-99.9%	
No	8	1.5%	0.3-2.7%	2	1.6%	0.0-4.2%	6	1.4%	0.1-2.8%	
75 years and older										0.89
Yes	551	97.3%	95.2-99.4%	150	97.0%	91.6-100.0%	401	97.4%	95.4-99.4%	
No	11	2.7%	0.6-4.8%	2	3.0%	0.0-8.4%	9	2.6%	0.6-4.6%	

* Sample by age does not equal the total sample, due to some respondents with missing age

TABLE 6-2. HEALTH CARE COVERAGE, BY CANCER SURVIVOR STATUS AND DEMOGRAPHIC CHARACTERISTICS

	Total Sample			Cancer Survivors			Respondents without Cancer			
Selected Characteristic	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**P-value**
Sex										
Male										0.72
Yes	1522	88.4%	85.0-91.7%	192	90.1%	80.8-99.4%	1330	88.2%	84.7-91.7%	
No	101	11.6%	8.3-15.0%	7	9.9%	0.6-19.2%	94	11.8%	8.3-15.3%	
Female										0.1
Yes	2616	90.4%	88.3-92.4%	324	94.2%	90.5-97.9%	2292	90.0%	87.7-92.2%	
No	167	9.6%	7.6-11.7%	14	5.8%	2.1-9.5%	153	10.0%	7.8-12.3%	
Race										
White										0.48
Yes	3038	91.8%	89.7-94.0%	427	93.3%	89.6-97.0%	2611	91.7%	89.3-94.0%	
No	158	8.2%	6.0-10.3%	18	6.7%	3.0-10.4%	140	8.3%	6.0-10.7%	
African American or Black										0.84
Yes	802	86.0%	81.7-90.4%	65	87.8%	71.9-100.0%	737	85.9%	81.4-90.4%	
No	75	14.0%	9.6-18.3%	3	12.2%	0.0-28.1%	72	14.1%	9.6-18.6%	
Other										**
Yes	251	85.6%	79.2-92.0%	18	100.0%	100.0-100.0%	233	85.0%	78.3-91.6%	
No	30	14.4%	8.0-20.8%	0	0.0%		30	15.0%	8.4-21.7%	
Education										
Less than high school										0.28
Yes	222	81.3%	74.3-88.3%	36	88.3%	77.5-99.2%	186	80.3%	72.4-88.1%	
No	37	18.7%	11.7-25.7%	5	11.7%	0.8-22.5%	32	19.7%	11.9-27.6%	
High school grad or GED										0.06
Yes	1023	87.1%	83.4-90.9%	154	94.0%	88.8-99.2%	869	86.4%	82.2-90.5%	
No	100	12.9%	9.1-16.6%	6	6.0%	0.8-11.2%	94	13.6%	9.5-17.8%	
Some college 1-3 years										0.89
Yes	1001	88.1%	84.0-92.3%	118	87.3%	73.8-100.0%	883	88.2%	83.9-92.6%	
No	76	11.9%	7.7-16.0%	8	12.7%	0.0-26.2%	68	11.8%	7.4-16.1%	
College grad or more										0.03
Yes	1883	95.1%	92.7-97.5%	208	99.0%	97.4-100.0%	1675	94.9%	92.3-97.4%	
No	54	4.9%	2.5-7.3%	2	1.0%	0.0-2.6%	52	5.1%	2.6-7.7%	
Area of Residence										
Urban										0.3
Yes	2252	89.2%	86.8-91.6%	267	92.7%	87.0-98.3%	1985	88.9%	86.3-91.5%	
No	142	10.8%	8.4-13.2%	10	7.3%	1.7-13.0%	132	11.1%	8.5-13.7%	
Rural										0.54
Yes	1886	90.1%	87.7-92.6%	249	92.0%	86.2-97.8%	1637	89.9%	87.3-92.5%	
No	126	9.9%	7.4-12.3%	11	8.0%	2.2-13.8%	115	10.1%	7.5-12.7%	

Total number of responses may not equal sample total due to missing data for some characteristics

** p-value not calculated due to cell with 0 value

TABLE 6-3. HEALTH CARE COVERAGE AMONG CANCER SURVIVORS, BY DEMOGRAPHIC CHARACTERISTICS

Selected Characteristic	N	wt %	95% CI	P-value
Sex				0.35
Male				
Yes	192	90.1%	80.8-99.5%	
No	7	9.9%	0.5-19.2%	
Female				
Yes	324	94.2%	90.5-97.9%	
No	14	5.8%	2.1-9.5%	
Age				0.11
18-49				
Yes	54	86.4%	70.4-100.0%	
No	5	13.6%	0.0-29.6%	
50-64				
Yes	159	88.8%	81.5-96.2%	
No	12	11.2%	3.8-18.5%	
65-74				
Yes	146	98.4%	95.8-100.0%	
No	2	1.6%	0.0-4.2%	
75 years and older				
Yes	150	97.0%	91.6-100.0%	
No	2	3.0%	0.0-8.4%	
Race				0.59
White				
Yes	427	93.3%	89.6-97.0%	
No	18	6.7%	3.0-10.4%	
Non-white				
Yes	83	90.1%	76.9-100.0%	
No	3	9.9%	0.0-23.1%	
Education				0.09
Less than high school				
Yes	36	88.3%	77.4-99.2%	
No	5	11.7%	0.8-22.6%	
High school grad or GED				
Yes	154	94.0%	88.8-99.3%	
No	6	6.0%	0.7-11.2%	
Some college 1-3 years				
Yes	118	87.3%	73.8-100.0%	
No	8	12.7%	0.0-26.2%	
College grad or more				
Yes	208	99.0%	97.4-100.0	
No	2	1.0%	0.0-2.6%	
Area of Residence				0.88
Urban				
Yes	267	92.7%	87.0-98.3%	
No	10	7.3%	1.7-13.0%	
Rural				
Yes	249	92.0%	86.2-97.9%	
No	11	8.0%	2.1-13.8%	

Total number of responses may not equal sample total due to missing data for some characteristics

TABLE 6-4. HEALTH CARE COVERAGE AMONG CANCER SURVIVORS, BY YEARS SINCE CANCER DIAGNOSIS

	Total			0-5 Years since Diagnosis			6-10 Years since Diagnosis			11 Years or More since Diagnosis			
Has Health Care Coverage	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**P-value**
Yes	480	92.0%	87.3-96.8%	179	91.4%	82.9-99.9%	104	96.3%	90.4-100.0%	197	90.7%	84.4-97.1%	0.64
No	21	8.0%	3.2-12.7%	8	8.6%	0.1-17.1%	2	3.7%	0.0-9.6%	11	9.3%	2.9-15.6%	

TABLE 6-5. PEOPLE REPORTING TO HAVE AT LEAST ONE PERSON THEY THINK OF AS THEIR PERSONAL DOCTOR OR HEALTH CARE PROVIDER, BY CANCER SURVIVOR STATUS AND AGE GROUP

	Total Sample			Cancer Survivors			Respondents without Cancer			
	N	wt %	95% CI	N	wt %	95% CI	N	wt %	95% CI	P-value
Total Sample*										<0.0001
Yes	4001	85.5%	83.4-87.6%	508	93.9%	91.0-96.8%	3493	84.7%	82.4-87.0%	
No	401	14.5%	12.4-16.6%	28	6.1%	3.2-9.0%	373	15.3%	13.0-17.6%	
18-49 years										0.009
Yes	1288	80.2%	76.7-83.6%	52	93.2%	87.0-99.3%	1236	79.7%	76.2-83.3%	
No	231	19.8%	16.4-23.3%	7	6.8%	0.7-13.0%	224	20.3%	16.7-23.8%	
50-64 years										0.16
Yes	1380	89.5%	86.9-92.1%	162	93.9%	88.9-98.8%	1218	89.0%	86.2-91.8%	
No	120	10.5%	7.9-13.1%	9	6.1%	1.2-11.1%	111	11.0%	8.2-13.8%	
65-74 years										0.18
Yes	729	97.2%	95.8-98.6%	146	98.8%	97.0-100.0%	583	96.7%	95.0-98.5%	
No	26	2.8%	1.4-4.2%	2	1.2%	0.0-3.0%	24	3.3%	1.5-5.0%	
75 years and older										0.04
Yes	540	96.1%	93.8-98.3%	142	92.4%	85.9-98.9%	398	97.5%	95.7-99.3%	
No	21	3.9%	1.7-6.2%	9	7.6%	1.1-14.1%	12	2.5%	0.7-4.3%	

* Sample by age does not equal the total sample, due to some respondents with missing age

TABLE 6-6. PEOPLE REPORTING TO HAVE AT LEAST ONE PERSON THEY THINK OF AS THEIR PERSONAL DOCTOR OR HEALTH CARE PROVIDER, BY CANCER SURVIVOR STATUS AND DEMOGRAPHIC CHARACTERISTICS

Selected Characteristic	Total Sample			Cancer Survivors			Respondents without Cancer			
	N	wt %	95% CI	N	wt %	95% CI	N	wt %	95% CI	P-value
Sex										
Male										0.02
Yes	1441	82.9%	79.4-86.4%	187	92.3%	86.7-97.9%	1254	82.1%	78.4-85.9%	
No	183	17.1%	13.6-20.6%	11	7.7%	2.1-13.3%	172	17.9%	14.1-21.6%	
Female										0.001
Yes	2560	87.9%	85.5-90.3%	321	95.0%	92.0-97.9%	2239	87.1%	84.5-89.7%	
No	218	12.1%	9.7-14.5%	17	5.0%	2.1-8.0%	201	12.9%	10.3-15.5%	
Race										
White										0.008
Yes	2935	86.9%	84.4-89.4%	422	93.2%	89.7-96.8%	2513	86.2%	83.4-88.9%	
No	260	13.1%	10.6-15.6%	22	6.8%	3.2-10.3%	238	13.8%	11.1-16.6%	
African American or Black										0.04
Yes	783	84.4%	80.2-88.7%	64	94.9%	88.6-100.0%	719	83.7%	79.2-88.2%	
No	92	15.6%	11.3-19.8%	4	5.1%	0.0-11.4%	88	16.3%	11.8-20.8%	
Other										0.02
Yes	234	79.9%	72.2-87.6%	16	96.6%	90.4-100.0%	218	79.2%	71.2-87.1%	
No	45	20.1%	12.4-27.8%	2	3.4%	0.0-9.6%	43	20.8%	12.9-28.8%	
Education										
Less than high school										0.36
Yes	224	84.6%	78.2-91.0%	38	90.6%	79.8-100.0%	186	83.7%	76.6-90.9%	
No	34	15.4%	9.0-21.8%	3	9.4%	0.0-20.2%	31	16.3%	9.1-23.4%	
High school grad or GED										0.002
Yes	1012	82.8%	78.3-87.4%	149	93.9%	89.5-98.3%	863	81.6%	76.6-86.6%	
No	110	17.2%	12.6-21.7%	10	6.1%	1.7-10.5%	100	18.4%	13.4-23.4%	
Some college 1-3 years										0.08
Yes	989	86.3%	82.0-90.5%	120	93.8%	87.8-99.8%	869	85.6%	81.0-90.1%	
No	85	13.7%	9.5-18.0%	6	6.2%	0.2-12.2%	79	14.4%	9.9-19.0%	
College grad or more										0.0005
Yes	1767	87.3%	84.4-90.3%	201	96.1%	93.3-98.9%	1566	86.7%	83.6-89.8%	
No	170	12.7%	9.7-15.6%	9	3.9%	1.1-6.7%	161	13.3%	10.2-16.4%	
Area of Residence										
Urban										0.0005
Yes	2166	85.0%	82.4-87.6%	262	94.3%	90.9-97.8%	1904	84.1%	81.3-87.0%	
No	226	15.0%	12.4-17.6%	15	5.7%	2.2-9.1%	211	15.9%	13.0-18.7%	
Rural										0.09
Yes	1835	87.1%	84.4-89.7%	246	92.4%	87.3-97.5%	1589	86.5%	83.6-89.4%	
No	175	12.9%	10.3-15.6%	13	7.6%	2.5-12.7%	162	13.5%	10.6-16.4%	

Total number of responses may not equal sample total due to missing data for some characteristics

TABLE 6-7. CANCER SURVIVORS REPORTING TO HAVE AT LEAST ONE PERSON THEY THINK OF AS THEIR PERSONAL DOCTOR OR HEALTH CARE PROVIDER, BY DEMOGRAPHIC CHARACTERISTICS

Selected Characteristic	N	wt %	95% CI	P-value
Sex				0.37
Male				
Yes	187	92.3%	86.7-97.9%	
No	11	7.7%	2.1-13.3%	
Female				
Yes	321	95.0%	92.0-97.9%	
No	17	5.0%	2.1-8.0%	
Age				0.29
18-49				
Yes	52	93.2%	87.0-99.4%	
No	7	6.8%	0.6-13.0%	
50-64				
Yes	162	93.9%	88.9-98.9%	
No	9	6.1%	1.1-11.1%	
65-74				
Yes	146	98.8%	97.0-100.0%	
No	2	1.2%	0.0-3.0%	
75 years and older				
Yes	142	92.4%	85.9-98.9%	
No	9	7.6%	1.1-14.1%	
Race				0.57
White				
Yes	422	93.2%	89.7-96.8%	
No	22	6.8%	3.2-10.3%	
Non-white				
Yes	80	95.2%	90.0-100.0%	
No	6	4.8%	0.0-10.0%	
Education				0.67
Less than high school				
Yes	38	90.6%	79.8-100.0%	
No	3	9.4%	0.0-20.2%	
High school grad or GED				
Yes	149	93.9%	89.6-98.3%	
No	10	6.1%	1.7-10.4%	
Some college 1-3 years				
Yes	120	93.8%	87.8-99.8%	
No	6	6.2%	0.2-12.2%	
College grad or more				
Yes	201	96.1%	93.3-99.0%	
No	9	3.9%	1.0-6.7%	
Area of Residence				0.53
Urban				
Yes	262	94.3%	90.9-97.8%	
No	15	5.7%	2.2-9.1%	
Rural				
Yes	246	92.4%	87.3-97.5%	
No	13	7.6%	2.5-12.7%	

Total number of responses may not equal sample total due to missing data for some characteristics

TABLE 6-8. CANCER SURVIVORS REPORTING TO HAVE AT LEAST ONE PERSON THEY THINK OF AS THEIR PERSONAL DOCTOR OR HEALTH CARE PROVIDER, BY YEARS SINCE CANCER DIAGNOSIS

	Total			0-5 Years since Diagnosis			6-10 Years since Diagnosis			11 Years or More since Diagnosis			
Has a personal doctor or health care provider	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**P-value**
Yes	475	94.8%	92.1-97.4%	180	96.2%	92.4-99.9%	101	95.6%	91.4-99.7%	194	92.4%	87.2-97.6%	0.39
No	24	5.2%	2.6-7.9%	7	3.8%	0.1-7.6%	5	4.4%	0.3-8.6%	12	7.6%	2.4-12.8%	

TABLE 6-9. PEOPLE REPORTING TO HAVE VISITED A DOCTOR IN THE PAST YEAR FOR A ROUTINE CHECKUP, BY CANCER SURVIVOR STATUS AND AGE

	Total Sample			Cancer Survivors			Respondents without Cancer			
	N	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**P-value**
Total Sample*										<0.0001
Yes	3547	77.8%	75.6-80.0%	464	87.7%	83.9-91.4%	3083	76.9%	74.5-79.3%	
No	827	22.2%	20.0-24.4%	68	12.3%	8.6-16.1%	759	23.1%	20.7-25.5%	
18-49 years										0.35
Yes	1111	72.8%	69.2-76.4%	40	79.2%	66.8-91.6%	1071	72.6%	68.9-76.3%	
No	398	27.2%	23.6-30.8%	18	20.8%	8.4-33.2%	380	27.4%	23.7-31.1%	
50-64 years										0.35
Yes	1193	80.3%	77.4-83.2%	139	83.8%	76.7-91.0%	1054	79.8%	76.7-83.0%	
No	294	19.7%	16.8-22.6%	30	16.2%	9.0-23.3%	264	20.2%	17.0-23.3%	
65-74 years										0.03
Yes	667	87.8%	84.5-91.1%	136	93.7%	89.5-98.0%	531	86.2%	82.3-90.2%	
No	84	12.2%	8.9-15.5%	10	6.3%	2.0-10.5	74	13.8%	9.8-17.7%	
75 years and older										0.83
Yes	515	92.4%	89.4-95.5%	142	93.0%	86.5-99.5%	373	92.2%	88.8-95.6%	
No	44	7.6%	4.5-10.6%	10	7.0%	0.5-13.5%	34	7.8%	4.4-11.2%	

* Sample by age does not equal the total sample, due to some respondents with missing age

TABLE 6-10. PEOPLE REPORTING TO HAVE VISITED A DOCTOR IN THE PAST YEAR FOR A ROUTINE CHECKUP, BY CANCER SURVIVOR STATUS AND DEMOGRAPHIC CHARACTERISTICS

	Total Sample			Cancer Survivors			Respondents without Cancer			
Selected Characteristic	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**P-value**
Sex										
Male										0.0008
Yes	1275	75.8%	72.2-79.5%	179	89.6%	83.8-95.4%	1096	74.7%	70.7-78.6%	
No	336	24.2%	20.5-27.8%	20	10.4%	4.6-16.2%	316	25.3%	21.4-29.3%	
Female										0.02
Yes	2272	79.6%	77.1-82.2%	285	86.2%	81.4-91.0%	1987	78.9%	76.2-81.7%	
No	491	20.4%	17.8-22.9%	48	13.8%	9.0-18.6%	443	21.1%	18.3-23.8%	
Race										
White										0.0004
Yes	2515	73.3%	70.4-76.2%	379	83.7%	78.9-88.6%	2136	72.1%	69.0-75.3%	
No	656	26.7%	23.8-29.6%	61	16.3%	11.4-21.1%	595	27.9%	24.7-31.0%	
African American or Black										0.002
Yes	762	86.9%	83.7-90.1%	63	96.8%	93.5-100.0%	699	86.2%	82.8-89.6%	
No	110	13.1%	9.9-16.3%	5	3.2%	0.0-6.5%	105	13.8%	10.4-17.2%	
Other										<0.0001
Yes	226	76.5%	68.1-84.9%	16	98.5%	95.9-100.0%	210	75.6%	66.8-84.3%	
No	53	23.5%	15.1-31.9%	2	1.5%	0.0-4.1%	51	24.4%	15.7-33.2%	
Education										
Less than high school										0.07
Yes	217	82.7%	76.4-89.1%	39	94.1%	86.2-100.0%	178	81.0%	73.9-88.2%	
No	42	17.3%	10.9-23.6%	2	5.9%	0.0-13.8%	40	19.0%	11.8-26.1%	
High school grad or GED										0.0014
Yes	902	78.4%	74.2-82.6%	134	89.8%	84.7-94.9%	768	77.1%	72.5-81.7%	
No	209	21.6%	17.4-25.8%	24	10.2%	5.1-15.3%	185	22.9%	18.3-27.5%	
Some college 1-3 years										0.15
Yes	862	76.3%	71.5-81.2%	110	84.5%	75.0-94.0%	752	75.6%	70.5-80.8%	
No	203	23.7%	18.8-28.5%	15	15.5%	6.0-25.0%	188	24.4%	19.2-29.5%	
College grad or more										0.1
Yes	1560	77.0%	73.8-80.3%	181	83.5%	76.7-90.3%	1379	76.6%	73.1-80.1%	
No	368	23.0%	19.7-26.2%	27	16.5%	9.7-23.3%	341	23.4%	19.9-26.9%	
Area of Residence										
Urban										0.0005
Yes	1949	78.8%	76.1-81.5%	242	88.9%	84.4-93.3%	1707	77.9%	74.9-80.8%	
No	435	21.2%	18.5-23.9%	34	11.1%	6.7-15.6%	401	22.1%	19.2-25.1%	
Rural										0.01
Yes	1598	74.6%	71.4-77.8%	222	84.1%	77.6-90.6%	1376	73.6%	70.2-77.1%	
No	392	25.4%	22.2-28.6%	34	15.9%	9.4-22.4%	358	26.4%	22.9-29.8%	

Total number of responses may not equal sample total due to missing data for some characteristics

TABLE 6-11. CANCER SURVIVORS REPORTING TO HAVE VISITED A DOCTOR IN THE PAST YEAR FOR A ROUTINE CHECKUP, BY DEMOGRAPHIC CHARACTERISTICS

Selected Characteristic	N	wt %	95% CI	P-value
Sex				0.4
Male				
Yes	179	89.6%	83.7-95.5%	
No	20	10.4%	4.5-16.3%	
Female				
Yes	285	86.2%	81.4-91.0%	
No	48	13.8%	9.0-18.6%	
Age				0.03
18-49				
Yes	40	79.2%	66.7-91.7%	
No	18	20.8%	8.3-33.3%	
50-64				
Yes	139	83.8%	76.7-91.0%	
No	30	16.2%	9.0-23.3%	
65-74				
Yes	136	93.7%	89.5-98.0%	
No	10	6.3%	2.0-10.5%	
75 years and older				
Yes	142	93.0%	86.5-99.6%	
No	10	7.0%	0.4-13.5%	
Race				<0.0001
White				
Yes	379	83.7%	78.8-88.6%	
No	61	16.3%	11.4-21.2%	
Non-white				
Yes	79	97.1%	94.3-99.9%	
No	7	2.9%	0.1-5.7%	
Education				0.26
Less than high school				
Yes	39	94.1%	86.1-100.0%	
No	2	5.9%	0.0-13.9%	
High school grad or GED				
Yes	134	89.8%	84.7-94.9%	
No	24	10.2%	5.1-15.3%	
Some college 1-3 years				
Yes	110	84.5%	74.9-94.1%	
No	15	15.5%	5.9-25.1%	
College grad or more				
Yes	181	83.5%	76.7-90.3%	
No	27	16.5%	9.7-23.3%	
Area of Residence				0.22
Urban				
Yes	242	88.9%	84.4-93.3%	
No	34	11.1%	6.7-15.6%	
Rural				
Yes	222	84.1%	77.5-90.6%	
No	34	15.9%	9.4-22.5%	

Total number of responses may not equal sample total due to missing data for some characteristics

TABLE 6-12. CANCER SURVIVORS REPORTING TO HAVE VISITED A DOCTOR IN THE PAST YEAR FOR A ROUTINE CHECKUP, BY YEARS SINCE CANCER DIAGNOSIS

	Total			0-5 Years since Diagnosis			6-10 Years since Diagnosis			11 Years or More since Diagnosis			
Had a routine checkup in the past year	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**P-value**
Yes	431	87.6%	83.6-91.5%	163	91.3%	86.4-96.3%	94	88.6%	80.8-96.5%	174	82.0%	74.3-89.6%	0.08
No	64	12.4%	8.5-16.4%	21	8.7%	3.7-13.6%	11	11.4%	3.5-19.2%	32	18.0%	10.4-25.7%	

TABLE 6-13. PEOPLE REPORTING TO HAVE RECEIVED INFLUENZA VACCINE (FLU SHOT OR NASAL SPRAY) WITHIN THE PAST YEAR, BY CANCER SURVIVOR STATUS AND AGE

	Total Sample			Cancer Survivors			Respondents without Cancer			
	N	wt %	95% CI	N	wt %	95% CI	N	wt %	95% CI	P-value
Total Sample*										<0.0001
Yes	2129	40.8%	38.4-43.2%	315	56.1%	49.1-63.0%	1814	39.3%	36.8-41.9%	
No	2273	59.2%	56.8-61.6%	222	43.9%	37.0-50.9%	2051	60.7%	58.1-63.2%	
18-49 years										0.83
Yes	550	31.6%	28.0-35.2%	19	29.4%	9.5-49.2%	531	31.7%	28.0-35.3%	
No	969	68.4%	64.8-72.0%	40	70.6%	50.8-90.5%	929	68.3%	64.7-72.0%	
50-64 years										0.24
Yes	716	45.5%	41.9-49.1%	87	51.3%	41.2-61.4%	629	44.8%	41.0-48.7%	
No	783	54.5%	50.9-58.1%	84	48.7%	38.6-58.8%	699	55.2%	51.3-59.0%	
65-74 years										0.06
Yes	457	61.7%	56.6-66.8%	98	70.6%	60.8-80.3%	359	59.4%	53.6-65.2%	
No	297	38.3%	33.2-43.4%	50	29.4%	19.7-39.2%	247	40.6%	34.8-46.4%	
75 years and older										0.23
Yes	368	67.0%	61.7-72.3%	107	72.2%	62.6-81.7%	261	65.0%	58.6-71.3%	
No	194	33.0%	27.7-38.3%	45	27.8%	18.3-37.4%	149	35.0%	28.7-41.4%	

* Sample by age does not equal the total sample, due to some respondents with missing age

TABLE 6-14. PEOPLE REPORTING TO HAVE RECEIVED INFLUENZA VACCINE (FLU SHOT OR NASAL SPRAY) WITHIN THE PAST YEAR, BY CANCER SURVIVOR STATUS AND DEMOGRPAHIC CHARACTERISTICS

	Total Sample			Cancer Survivors			Respondents without Cancer			
Selected Characteristic	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**P-value**
Sex										
Male										<0.0001
Yes	754	37.6%	33.8-41.4%	129	63.6%	52.3-74.8%	625	35.4%	31.4-39.4%	
No	867	62.4%	58.6-66.2%	70	36.4%	25.2-47.7%	797	64.6%	60.6-68.6%	
Female										0.1
Yes	1375	43.7%	40.8-46.7%	186	50.8%	41.9-59.7%	1189	43.0%	39.8-46.1%	
No	1406	56.3%	53.3-59.2%	152	49.2%	40.3-58.1%	1254	57.0%	53.9-60.2%	
Race										
White										0.0002
Yes	1616	44.2%	41.3-47.2%	272	57.8%	50.5-65.1%	1344	42.6%	39.4-45.7%	
No	1577	55.8%	52.8-58.7%	173	42.2%	34.9-49.5%	1404	57.4%	54.3-60.6%	
African American or Black										0.1
Yes	354	33.8%	29.3-38.3%	33	47.4%	29.8-65.0%	321	32.8%	28.1-37.5%	
No	522	66.2%	61.7-70.7%	35	52.6%	35.0-70.2%	487	67.2%	62.5-71.9%	
Other										0.17
Yes	135	41.4%	32.2-50.5%	6	65.7%	31.1-100.0%	129	40.3%	31.1-49.5%	
No	145	58.6%	49.5-67.8%	12	34.3%	0.0-68.9%	133	59.7%	50.5-68.9%	
Education										
Less than high school										0.08
Yes	128	46.8%	38.6-55.0%	23	62.2%	44.6-79.8%	105	44.5%	35.6-53.5%	
No	130	53.2%	45.0-61.4%	18	37.8%	20.2-55.4%	112	55.5%	46.5-64.4%	
High school grad or GED										<0.0001
Yes	498	37.8%	33.2-42.4%	96	63.5%	51.3-75.7%	402	34.9%	30.1-39.7%	
No	623	62.2%	57.6-66.8%	64	36.5%	24.3-48.7%	559	65.1%	60.3-69.9%	
Some college 1-3 years										0.53
Yes	470	34.5%	29.8-39.2%	62	38.6%	25.2-52.0%	408	34.1%	29.1-39.1%	
No	607	65.5%	60.8-70.2%	65	61.4%	48.0-74.8%	542	65.9%	60.9-70.9%	
College grad or more										0.0007
Yes	1031	46.5%	42.8-50.2%	134	61.3%	53.1-69.5%	897	45.4%	41.5-49.3%	
No	904	53.5%	49.8-57.2%	75	38.7%	30.5-46.9%	829	54.6%	50.7-58.5%	
Area of Residence										
Urban										<0.0001
Yes	1200	41.2%	38.2-44.1%	172	59.0%	50.1-67.9%	1028	39.4%	36.3-42.6%	
No	1194	58.8%	55.9-61.8%	106	41.0%	32.1-49.9%	1088	60.6%	57.4-63.7%	
Rural										0.06
Yes	929	39.7%	36.4-42.9%	143	47.2%	39.2-55.1%	786	38.9%	35.4-42.4%	
No	1079	60.3%	57.1-63.6%	116	52.8%	44.9-60.8%	963	61.1%	57.6-64.6%	

Total number of responses may not equal sample total due to missing data for some characteristics

TABLE 6-15. CANCER SURVIVORS REPORTING TO HAVE RECEIVED INFLUENZA VACCINE (FLU SHOT OR NASAL SPRAY) WITHIN THE PAST YEAR, BY DEMOGRPAHIC CHARACTERISTICS

Selected Characteristic	N	wt %	95% CI	P-value
Sex				0.09
Male				
Yes	129	63.6%	52.4-74.8%	
No	70	36.4%	25.2-47.6%	
Female				
Yes	186	50.8%	41.8-59.7%	
No	152	49.2%	40.3-58.2%	
Age				<0.0001
18-49				
Yes	19	29.4%	9.5-49.2%	
No	40	70.6%	50.8-90.5%	
50-64				
Yes	87	51.3%	41.1-61.5%	
No	84	48.7%	38.5-58.9%	
65-74				
Yes	98	70.6%	60.8-80.4%	
No	50	29.4%	19.6-39.2%	
75 years and older				
Yes	107	72.2%	62.6-81.7%	
No	45	27.8%	18.3-37.4%	
Race				0.46
White				
Yes	272	57.8%	50.5-65.1%	
No	173	42.2%	34.9-49.5%	
Non-white				
Yes	39	50.9%	33.8-67.9%	
No	47	49.1%	32.1-66.2%	
Education				0.02
Less than high school				
Yes	23	62.2%	44.5-79.9%	
No	18	37.8%	20.1-55.5%	
High school grad or GED				
Yes	96	63.5%	51.4-75.5%	
No	64	36.5%	24.5-48.6%	
Some college 1-3 years				
Yes	62	38.6%	25.1-52.0%	
No	65	61.4%	48.0-74.9%	
College grad or more				
Yes	134	61.3%	53.0-69.5%	
No	75	38.7%	30.5-47.0%	
Area of Residence				0.06
Urban				
Yes	172	59.0%	50.1-67.9%	
No	106	41.0%	32.1-49.9%	
Rural				
Yes	143	47.2%	39.1-55.2%	
No	116	52.8%	44.8-60.9%	

Total number of responses may not equal sample total due to missing data for some characteristics

TABLE 6-16. CANCER SURVIVORS REPORTING TO HAVE RECEIVED INFLUENZA VACCINE (FLU SHOT OR NASAL SPRAY) WITHIN THE PAST 12 MONTHS, BY YEARS SINCE CANCER DIAGNOSIS

	Total			0-5 Years since Diagnosis			6-10 Years since Diagnosis			11 Years or More since Diagnosis			
Had an influenza vaccine in past 12 months	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**P-value**
Yes	298	56.4%	49.1-63.7%	94	49.3%	36.7-61.8%	71	60.7%	47.9-73.6%	133	64.2%	55.4-73.1%	0.09
No	202	43.6%	36.3-50.9%	93	50.7%	38.2-63.3%	35	39.3%	26.4-52.1%	74	35.8%	26.9-44.6%	

Section 7
Lifestyle Behaviors

Cancer survivors are at increased risk for cancer recurrence and development of a second cancer, and may also be at increased risk for other chronic diseases as a result of their cancer treatment.[1] Lifestyle behaviors such as smoking, excessive alcohol consumption, and lack of physical activity can have adverse impacts on survival and quality of life for cancer survivors. This section describes the prevalence of these lifestyle factors among cancer survivors in Maryland.

Tobacco Use

Tobacco use remains the leading preventable cause of morbidity and mortality in the U.S., having been implicated causally in a variety of diseases.[2,3] Cigarette smokers are estimated to die 10 years earlier than those who do not smoke, and approximately half of smokers will die of a smoking related cause.[3] According to the 2004 Surgeon General's report on the health consequences of smoking, there is sufficient evidence to infer a causal relationship between smoking and several different types of cancer, including lung, laryngeal, bladder, esophageal, pancreatic, stomach, kidney, oral/pharyngeal, cervical, and acute myeloid leukemia.[2] There is evidence to suggest liver and colorectal cancer may also be associated with smoking. There is some evidence that occasional smokers, defined as those who have never smoked daily, may have an increased risk of developing smoking-related cancers.[4]

For cancer survivors, health risks associated with continued smoking are amplified for several reasons. [5]

- Smoking can increase the risk of recurrence of the original malignancy.
- Smoking can increase their risk of a second primary neoplasm.
- Survivors who have been treated for Hodgkin's lymphoma with alkylating agents and radiation therapy have an increased risk of lung cancer; tobacco use increases their risk of lung cancer by more than 20-fold.[6]
- Cancer survivors who have been treated with certain types of chemotherapy (e.g., bleomycin or carmustine) or with chest radiotherapy are at increased risk of respiratory problems. Smoking increases the risk of serious respiratory disease and/or restrictive lung disease among cancer patients.
- Cancer patients treated with anthracyclines are more likely to develop congestive heart failure if they are long-term smokers.

The following points summarize information on smoking prevalence among cancer survivors in Maryland:

- A significantly higher proportion of cancer survivors (55.6%) reported they were either current or former cigarette smokers compared to people without a history of cancer (38.7%) (data not shown in tables).
- The prevalence of current smoking among cancer survivors is similar to those without a history of cancer (16.6% vs. 17.9%, respectively) (Table 7-1).
- Cancer survivors differed significantly in their smoking status from persons without a history of cancer on most demographic characteristics examined.

    - It was generally seen that a higher proportion of persons without cancer reported they had never smoked cigarettes and a higher proportion of cancer survivors were former smokers (Table 7-2).
- Among cancer survivors, the lowest proportion of current smokers was seen among non-whites and those with a college education or more (Table 7-3).
- Among cancer survivors, the proportion who were current smokers or former smokers did not differ significantly when stratified by years elapsed since cancer diagnosis (Table 7-4).

Cancer survivors represent a particularly important target for smoking cessation programs because of their vulnerability to the health effects of continued smoking. Following the diagnosis of cancer, survivors have increased interest in cessation, providing many 'teachable moments.'[7] Success of smoking cessation interventions has been varied, however strong and frequent messages from health care providers, combined with counseling and nicotine replacement therapy, may have an impact on cessation rates among cancer survivors.[8,9]

Current Alcohol Consumption

Alcohol consumption is a modifiable lifestyle risk factor that has been shown to influence the incidence of several diseases, including cancer.[10] There is solid evidence that alcohol consumption is associated with an increased risk of oral, esophageal, and breast cancer in a dose-dependent fashion. There is evidence that alcohol is probably associated with liver cancer and colorectal cancer in women.[11]

According to current guidelines of the National Institute on Alcohol Abuse and Alcoholism (NIAAA), men are considered to be at high risk for a variety of 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 seven drinks per week or engage in binge drinking.[12] (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.) The NIAAA has defined binge drinking as a blood alcohol concentration corresponding to consuming five drinks or more for men and four drinks or more for women in a period of about 2 hours.[10] For the BRFSS, respondents are asked about their alcohol consumption in the last 30 days.

- In Maryland, cancer survivors were more likely to be current non-drinkers than persons without a history of cancer (55.1% vs. 44.5%, respectively; Table 7-5).
- The prevalence of high-risk drinking among cancer survivors was lower than among persons without a cancer history (11.9% vs. 18.9%, respectively; Table 7-5).
    - Among cancer survivors, high-risk drinking was most prevalent among younger persons (age 18-49 years, 24.4%). This proportion was comparable to the prevalence among persons without a cancer history (25.4%).
- Table 7-6 compares alcohol consumption between cancer survivors and persons without a history of cancer by several demographic characteristics.

    - The prevalence of high-risk alcohol use was significantly lower among cancer survivors (compared to persons without a history of cancer) who were white or had completed a high school education or GED.
- Among cancer survivors, drinking status did not differ significantly by years since cancer diagnosis (Table 7-8).

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] colon,[14] and endometrium.[15] Increasing physical activity among all Americans continues to be an important objective of Healthy People (HP) 2020.[16] One of the HP 2020 goals is to increase the proportion of adults 18 years and older who engage in either (1) moderate physical activity for at least 30 minutes per day, 5 or more days per week, or (2) vigorous physical activity for at least 25 minutes per day, 3 or more days per week, to a target of 47.9%.[17] Evidence suggests that physical activity improves self-reported quality of life measures among cancer survivors.[18,19]

The following summarizes findings related to physical activity among cancer survivors in Maryland.

- Overall, cancer survivors did not differ from those without cancer in meeting either goal for physical activity (47.5% vs. 47.4%, respectively; Table 7-9). Both groups are very close to meeting the HP 2020 goals.
- When comparing cancer survivors to persons without cancer by demographic characteristics, there were no significant differences in meeting physical activity goals for any characteristic (Table 7-10).
- Among cancer survivors only, no significant differences in meeting physical activity goals were found among any demographic characteristics (Table 7-11).
- Among cancer survivors, the proportion meeting physical activity goals did not differ significantly by years since cancer diagnosis (Table 7-12).

Summary

While smoking poses significant health risks for everyone, people who continue to smoke after a cancer diagnosis are at higher risk for smoking-related illnesses. The prevalence of current smoking among cancer survivors in Maryland is 16.6% compared to 17.9% among persons without a history of cancer.

The prevalence of high-risk drinking was found to be lower among cancer survivors than in persons without a history of cancer (11.9% vs. 18.9%, respectively). Cancer survivors were also more likely to be current non-drinkers than persons without a cancer history (55.1% vs. 44.5%, respectively).

Cancer survivors were no more or less likely than persons without cancer to meet HP 2020 targets for regular moderate or vigorous physical activity (47.5% vs. 47.4%, respectively).

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TABLE 7-1. CIGARETTE SMOKING STATUS OF RESPONDENTS, BY CANCER SURVIVOR STATUS AND AGE

	Total Sample			Cancer Survivors			Respondents without Cancer			
	N	wt %	95% CI	N	wt %	95% CI	N	wt %	95% CI	P-value
Total Sample*										<0.0001
Never	2483	59.8%	57.4-62.2%	236	44.4%	37.3-51.4%	2247	61.3%	58.7-63.9%	
Former	1318	22.4%	20.6-24.2%	234	39.0%	32.5-45.5%	1084	20.8%	19.0-22.7%	
Current	588	17.8%	15.7-19.9%	64	16.6%	11.5-21.7%	524	17.9%	15.6-20.1%	
18-49 years										0.45
Never	1012	67.5%	63.8-71.2%	32	59.7%	39.5-79.9%	980	67.7%	64.0-71.5%	
Former	256	12.4%	10.2-14.5%	11	20.3%	2.5-38.0%	245	12.1%	9.9-14.2%	
Current	256	20.2%	16.8-23.6%	16	20.0%	8.0-32.1%	240	20.2%	16.7-23.7%	
50-64 years										0.02
Never	798	51.9%	48.3-55.5%	70	38.2%	28.4-48.0%	728	53.5%	49.7-57.4%	
Former	474	30.4%	27.1-33.7%	71	37.6%	28.2-47.0%	403	29.5%	26.0-33.0%	
Current	224	17.7%	14.9-20.5%	30	24.2%	14.9-33.6%	194	16.9%	14.0-19.9%	
65-74 years										0.74
Never	352	44.8%	39.6-50.0%	65	46.7%	34.4-59.0%	287	44.2%	38.5-50.0%	
Former	334	43.5%	38.1-48.8%	70	39.1%	28.0-50.3%	264	44.6%	38.6-50.6%	
Current	63	11.8%	7.5-16.0%	11	14.2%	1.2-27.2%	52	11.1%	7.0-15.2%	
75 years and older										0.16
Never	275	45.2%	39.6-50.8%	68	38.4%	28.0-48.7%	207	47.9%	41.3-54.6%	
Former	238	46.1%	40.3-51.9%	77	55.4%	44.4-66.4%	161	42.4%	35.7-49.1%	
Current	41	8.7%	5.1-12.3%	6	6.3%	0.2-12.3%	35	9.7%	5.3-14.1%	

* Sample by age does not equal the total sample, due to some respondents with missing age

TABLE 7-2. CIGARETTE SMOKING STATUS OF RESPONDENTS, BY CANCER SURVIVOR STATUS AND DEMOGRPAHIC CHARACTERISTICS

	Total Sample			Cancer Survivors			Respondents without Cancer			
Selected Characteristic	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**P-value**
Sex										
Male										<0.0001
Never	831	57.8%	53.8-61.8%	77	32.8%	22.7-42.8%	754	59.8%	55.6-64.0%	
Former	563	24.1%	21.0-27.1%	104	53.2%	42.1-64.2%	459	21.7%	18.6-24.7%	
Current	223	18.2%	14.8-21.6%	17	14.1%	5.4-22.7%	206	18.5%	14.9-22.1%	
Female										0.03
Never	1652	61.7%	58.8-64.6%	159	52.5%	43.7-61.2%	1493	62.7%	59.6-65.8%	
Former	755	21.0%	18.9-23.0%	130	29.2%	22.4-35.9%	625	20.0%	17.9-22.2%	
Current	365	17.4%	14.8-20.0%	47	18.4%	12.1-24.6%	318	17.3%	14.5-20.0%	
Race										
White										0.001
Never	1685	53.2%	50.2-56.2%	190	41.4%	34.2-48.5%	1495	54.7%	51.4-57.9%	
Former	1065	26.9%	24.6-29.3%	196	37.8%	31.3-44.3%	869	25.6%	23.1-28.1%	
Current	438	19.8%	17.1-22.6%	58	20.8%	14.5-27.2%	380	19.7%	16.8-22.7%	
African American or Black										<0.0001
Never	581	69.0%	64.5-73.6%	28	43.7%	25.4-62.0%	553	70.8%	66.2-75.4%	
Former	177	16.3%	13.0-19.5%	33	49.6%	31.3-67.9%	144	14.0%	10.9-17.0%	
Current	113	14.7%	11.0-18.4%	5	6.8%	0.0-13.7%	108	15.3%	11.3-19.2%	
Other										0.04
Never	190	70.5%	62.2-78.9%	15	92.3%	80.7-100.0%	175	69.6%	61.0-78.2%	
Former	58	14.7%	9.3-20.1%	2	5.8%	0.0-16.0%	56	15.1%	9.4-20.7%	
Current	32	14.8%	7.6-22.0%	1	1.9%	0.0-6.0%	31	15.3%	7.8-22.8%	

Total number of responses may not equal sample total due to missing data for some characteristics

TABLE 7-2. CIGARETTE SMOKING STATUS OF RESPONDENTS, BY CANCER SURVIVOR STATUS AND DEMOGRPAHIC CHARACTERISTICS

	Total Sample			Cancer Survivors			Respondents without Cancer			
Selected Characteristic	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**P-value**
Education										
Less than high school										0.14
Never	107	40.9%	32.6-49.3%	13	24.8%	10.4-39.3%	94	43.2%	34.0-52.4%	
Former	84	31.8%	24.3-39.4%	18	46.7%	27.4-65.9%	66	29.7%	21.7-37.7%	
Current	66	27.3%	19.8-34.7%	9	28.5%	10.1-47.0%	57	27.1%	18.9-35.2%	
High school grad or GED										0.0007
Never	525	51.9%	47.0-56.8%	66	41.1%	27.9-54.3%	459	53.1%	47.9-58.4%	
Former	363	21.9%	18.7-25.1%	69	40.5%	28.1-52.9%	294	19.8%	16.7-22.9%	
Current	232	26.2%	21.7-30.7%	25	18.4%	10.0-26.8%	201	27.1%	22.2-32.0%	
Some college 1-3 years										0.28
Never	560	59.9%	55.0-64.9%	47	50.2%	34.7-65.6%	513	60.8%	55.6-66.1%	
Former	338	21.5%	18.2-24.8%	55	29.4%	18.0-40.9%	283	20.8%	17.3-24.3%	
Current	173	18.6%	14.3-22.8%	23	20.4%	10.0-30.8%	150	18.4%	13.8-23.0%	
College grad or more										<0.0001
Never	1282	72.4%	69.2-75.7%	110	55.4%	47.1-63.7%	1172	73.6%	70.2-77.1%	
Former	533	20.4%	17.8-23.0%	92	42.1%	33.9-50.4%	441	18.8%	16.2-21.5%	
Current	116	7.2%	4.7-9.6%	7	2.5%	0.2-4.8%	109	7.5%	4.9-10.1%	
Area of Residence										
Urban										<0.0001
Never	1435	61.8%	58.8-64.8%	132	46.5%	37.6-55.4%	1303	63.3%	60.1-66.5%	
Former	665	21.3%	19.1-23.4%	114	38.2%	29.9-46.4%	551	19.7%	17.5-21.9%	
Current	285	16.9%	14.3-19.5%	29	15.3%	9.1-21.5%	256	17.0%	14.3-19.8%	
Rural										0.0002
Never	1048	53.1%	49.7-56.5%	104	37.9%	30.3-45.6%	944	54.7%	51.0-58.3%	
Former	653	26.3%	23.6-29.0%	120	41.6%	33.8-49.4%	533	24.7%	21.9-27.5%	
Current	303	20.6%	17.5-23.7%	35	20.5%	12.7-28.3%	268	20.6%	17.3-23.9%	

Total number of responses may not equal sample total due to missing data for some characteristics

TABLE 7-3. CIGARETTE SMOKING STATUS OF CANCER SURVIVORS, BY DEMOGRPAHIC CHARACTERISTICS

Selected Characteristic	N	wt %	95% CI	P-value
Sex				0.002
Male				
Never	77	32.8%	22.7-42.8%	
Former	104	53.2%	42.1-64.3%	
Current	17	14.1%	5.4-22.7%	
Female				
Never	159	52.5%	43.7-61.2%	
Former	130	29.2%	22.4-35.9%	
Current	47	18.4%	12.1-24.6%	
Age				0.02
18-49				
Never	32	59.7%	39.4-79.9%	
Former	11	20.3%	2.5-38.1%	
Current	16	20.0%	8.0-32.1%	
50-64				
Never	70	38.2%	28.3-48.0	
Former	71	37.6%	28.2-47.1%	
Current	30	24.2%	14.8-33.7%	
65-74				
Never	65	46.7%	34.4-59.0%	
Former	70	39.1%	27.9-50.3%	
Current	11	14.2%	1.2-27.2%	
75 years and older				
Never	68	38.4%	28.0-48.7%	
Former	77	55.4%	44.3-66.4%	
Current	6	6.3%	0.2-12.3%	
Race				0.05
White				
Never	190	41.4%	34.2-48.6%	
Former	196	37.8%	31.3-44.3%	
Current	58	20.8%	14.4-27.2%	
Non-white				
Never	43	53.2%	35.9-70.4%	
Former	35	41.0%	24.2-57.9%	
Current	6	5.8%	0.0-11.6%	
Education				0.004
Less than high school				
Never	13	24.8%	10.3-39.4%	
Former	18	46.7%	27.3-66.0%	
Current	9	28.5%	10.0-47.0%	
High school grad or GED				
Never	66	41.1%	27.8-54.3%	
Former	69	40.5%	28.0-53.0%	
Current	25	18.4%	10.0-26.8%	
Some college 1-3 years				
Never	47	50.2%	34.6-65.7%	
Former	55	29.4%	18.0-40.9%	
Current	23	20.4%	10.0-30.8%	
College grad or more				
Never	110	55.4%	47.0-63.7%	
Former	92	42.1%	33.8-50.4%	
Current	7	2.5%	0.2-4.8%	
Area of Residence				0.33
Urban				
Never	132	46.5%	37.5-55.5%	
Former	114	38.2%	29.9-46.5%	
Current	29	15.3%	9.1-21.6%	
Rural				
Never	104	37.9%	30.2-45.6%	
Former	120	41.6%	33.7-49.4%	
Current	35	20.5%	12.6-28.4%	

Total number of responses may not equal sample total due to missing data for some characteristics

TABLE 7-4. CIGARETTE SMOKING STATUS OF CANCER SURVIVORS, BY YEARS SINCE CANCER DIAGNOSIS

	Total			0-5 Years since Diagnosis			6-10 Years since Diagnosis			11 Years or More since Diagnosis			
Smoking Status	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**P-value**
Never	226	45.6%	38.3-53.0%	79	47.6%	34.7-60.5%	56	44.5%	32.4-56.5%	91	43.5%	34.0-52.9%	0.48
Former	211	37.3%	30.6-44.1%	76	31.9%	21.1-42.7%	41	40.5%	27.7-53.3%	94	43.3%	33.7-52.9%	
Current	61	17.0%	11.7-22.4%	31	20.5%	11.2-29.8%	9	15.0%	4.8-25.2%	21	13.2%	6.1-20.4%	

TABLE 7-5. ALCOHOL CONSUMPTION BY RESPONDENTS DURING THE PAST 30 DAYS, BY CANCER SURVIVOR STATUS AND AGE

	Total Sample			Cancer Survivors			Respondents without Cancer			
	N	wt %	95% CI	N	wt %	95% CI	N	wt %	95% CI	P-value
Total Sample*										0.009
None	1978	45.5%	42.9-48.0%	267	55.1%	48.2-61.9%	1711	44.5%	41.8-47.2%	
Low risk	1802	36.2%	33.9-38.6%	207	33.1%	27.0-39.1%	1595	36.5%	34.0-39.1%	
High risk	564	18.3%	16.0-20.6%	57	11.9%	7.0-16.7%	507	18.9%	16.5-21.4%	
18-49 years										0.56
None	569	39.1%	35.1-43.1%	28	49.4%	27.5-71.3%	541	38.7%	34.7-42.7%	
Low risk	637	35.5%	31.8-39.3%	19	26.2%	8.4-44.0%	618	35.9%	32.1-39.7%	
High risk	297	25.4%	21.6-29.2%	11	24.4%	6.1-42.7%	286	25.4%	21.5-29.3%	
50-64 years										0.7
None	647	48.9%	45.2-52.5%	68	46.5%	36.2-56.8%	579	49.1%	45.3-53.0%	
Low risk	646	39.7%	36.3-43.2%	75	43.4%	33.5-53.2%	571	39.3%	35.6-43.0%	
High risk	185	11.4%	9.4-13.4%	25	10.1%	5.3-15.0%	160	11.5%	9.3-13.7%	
65-74 years										0.52
None	389	57.7%	52.6-62.9%	80	60.6%	48.9-72.3%	309	56.9%	51.2-62.6%	
Low risk	303	35.3%	30.4-40.1%	52	30.3%	19.5-41.1%	251	36.6%	31.2-41.9%	
High risk	52	7.0%	4.2-9.8%	14	9.1%	2.8-15.4%	38	6.5%	3.4-9.6%	
75 years and older										0.68
None	339	65.9%	60.6-71.1%	87	67.0%	57.4-76.7%	252	65.4%	59.2-71.6%	
Low risk	192	29.6%	24.5-34.6%	58	27.1%	18.6-35.5%	134	30.6%	24.4-36.7%	
High risk	28	4.6%	2.3-6.8%	7	5.9%	0.0-11.8%	21	4.0%	2.0-6.1%	

*Sample by age does not equal the total sample, due to some respondents with missing age

TABLE 7-6. ALCOHOL CONSUMPTION BY RESPONDENTS DURING THE PAST 30 DAYS, BY CANCER SURVIVOR STATUS AND DEMOGRPAHIC CHARACTERISTICS

	Total Sample			Cancer Survivors			Respondents without Cancer			
Selected Characteristic	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**P-value**
Sex										
Male										0.33
None	622	40.5%	36.4-44.6%	83	47.4%	36.5-58.4%	539	39.9%	35.6-44.3	
Low risk	731	36.8%	33.0-40.7%	94	36.7%	26.5-46.9%	637	36.8%	32.7-40.9%	
High risk	253	22.7%	18.8-26.6%	22	15.8%	6.0-25.7%	231	23.2%	19.1-27.4%	
Female										0.01
None	1356	50.0%	46.9-53.1%	184	60.5%	52.3-68.6%	1172	48.8%	45.6-52.1%	
Low risk	1071	35.7%	32.8-38.5%	113	30.5%	23.1-37.8%	958	36.3%	33.2-39.3%	
High risk	311	14.3%	11.8-16.8%	35	9.1%	5.0-13.1%	276	14.9%	12.2-17.6%	
Race										
White										<0.0001
None	1326	41.8%	38.8-44.8%	211	54.9%	48.0-61.8%	1115	40.2%	37.0-43.4%	
Low risk	1386	37.2%	34.5-39.9%	179	33.7%	27.7-39.8%	1207	37.6%	34.7-40.6%	
High risk	443	21.0%	18.0-24.0%	51	11.4%	7.1-15.7%	392	22.2%	18.9-25.5%	
African American or Black										0.97
None	489	48.9%	43.8-54.0%	43	51.2%	33.0-69.3%	446	48.8%	43.4-54.1%	
Low risk	285	34.9%	29.9-39.8%	19	33.6%	16.1-51.0%	266	35.0%	29.8-40.1%	
High risk	87	16.2%	11.9-20.5%	5	15.3%	0.0-31.5%	82	16.3%	11.8-20.8%	
Other										**
None	135	53.6%	44.1-63.0%	11	79.9%	56.2-100.0%	124	52.4%	42.8-62.1%	
Low risk	113	35.7%	26.7-44.6%	7	20.1%	0.0-43.8%	106	36.3%	27.1-45.5%	
High risk	30	10.8%	5.1-16.4%	0	0.0%		30	11.2%	5.4-17.1%	

Total number of responses may not equal sample total due to missing data for some characteristics

** p-value not calculated due to cell with 0 value

TABLE 7-6. ALCOHOL CONSUMPTION BY RESPONDENTS DURING THE PAST 30 DAYS, BY CANCER SURVIVOR STATUS AND DEMOGRPAHIC CHARACTERISTICS

	Total Sample			Cancer Survivors			Respondents without Cancer			
Selected Characteristic	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**P-value**
Education										
Less than high school										0.32
None	193	74.4%	67.2-81.7%	32	77.1%	62.0-92.3%	161	74.0%	66.0-82.1%	
Low risk	39	13.9%	8.3-19.5%	3	6.2%	0.0-13.2%	36	15.1%	8.7-21.5%	
High risk	22	11.6%	6.2-17.1%	6	16.6%	2.6-30.7%	16	10.9%	5.0-16.8%	
High school grad or GED										0.04
None	675	54.0%	49.0-59.1%	109	65.5%	52.7-78.4%	566	52.7%	47.3-58.1%	
Low risk	299	29.6%	24.8-34.3%	37	28.4%	15.6-41.1%	262	29.7%	24.6-34.8%	
High risk	130	16.4%	12.4-20.4%	10	6.1%	1.8-10.4%	120	17.6%	13.2-22.0%	
Some college 1-3 years										0.42
None	507	44.3%	39.1-49.6%	62	52.3%	37.0-67.6%	445	43.6%	38.1-49.2%	
Low risk	403	35.3%	30.4-40.1%	51	35.8%	22.8-48.9%	352	35.2%	30.1-40.4%	
High risk	153	20.4%	15.5-25.3%	13	11.9%	0.0-24.8%	140	21.1%	15.9-26.4%	
College grad or more										0.41
None	597	29.3%	26.1-32.5%	64	29.9%	22.4-37.5%	533	29.2%	25.8-32.6%	
Low risk	1060	50.3%	46.5-54.1%	116	54.6%	46.2-63.0%	944	50.0%	46.0-54.0%	
High risk	256	20.4%	16.4-24.4%	28	15.5%	8.6-22.4%	228	20.8%	16.6-25.0%	
Area of Residence										
Urban										0.04
None	982	43.5%	40.4-46.7%	130	53.1%	44.4-61.8%	852	42.6%	39.3-45.9%	
Low risk	1057	37.6%	34.6-40.5%	119	35.5%	27.7-43.3%	938	37.8%	34.6-40.9%	
High risk	323	18.9%	16.0-21.8%	25	11.4%	5.2-17.5%	298	19.6%	16.5-22.7%	
Rural										0.08
None	996	51.9%	48.5-55.3%	137	61.0%	53.3-68.7%	859	51.0%	47.3-54.6%	
Low risk	745	31.7%	28.8-34.7%	88	25.6%	19.1-32.1%	657	32.4%	29.2-35.6%	
High risk	241	16.4%	13.6-19.1%	32	13.4%	7.7-19.2%	209	16.7%	13.7-19.6%	

Total number of responses may not equal sample total due to missing data for some characteristics

** p-value not calculated due to cell with 0 value

TABLE 7-7. ALCOHOL CONSUMPTION BY CANCER SURVIVORS DURING THE PAST 30 DAYS, BY DEMOGRPAHIC CHARACTERISTICS

Selected Characteristic	N	wt %	95% CI	P-value
Sex				0.12
Male				
None	83	47.4%	36.5-58.4%	
Low risk	94	36.7%	26.5-46.9%	
High risk	22	15.8%	6.0-25.7%	
Female				
None	184	60.5%	52.3-68.7%	
Low risk	113	30.5%	23.1-37.8%	
High risk	35	9.1%	5.0-13.1%	
Age				0.02
18-49				
None	28	49.4%	27.4-71.4%	
Low risk	19	26.2%	8.3-44.1%	
High risk	11	24.4%	6.1-42.8%	
50-64				
None	68	46.5%	36.2-56.8%	
Low risk	75	43.4%	33.4-53.3%	
High risk	25	10.1%	5.3-14.9%	
65-74				
None	80	60.6%	49.0-72.3%	
Low risk	52	30.3%	19.4-41.2%	
High risk	14	9.1%	2.8-15.3%	
75 years and older				
None	87	67.0%	57.4-76.7%	
Low risk	58	27.1%	18.6-35.5%	
High risk	7	5.9%	0.0-11.8%	
Race				0.96
White				
None	211	54.9%	47.9-61.8%	
Low risk	179	33.7%	27.6-39.8%	
High risk	51	11.4%	7.1-15.7%	
Non-white				
None	54	56.7%	39.4-73.9%	
Low risk	26	31.0%	15.5-46.5%	
High risk	5	12.4%	0.0-25.9%	
Education				<0.0001
Less than high school				
None	32	77.1%	61.9-92.4%	
Low risk	3	6.2%	0.0-13.3%	
High risk	6	16.6%	2.5-30.8%	
High school grad or GED				
None	109	65.5%	52.7-78.4%	
Low risk	37	28.4%	15.6-41.2%	
High risk	10	6.1%	1.8-10.4%	
Some college 1-3 years				
None	62	52.3%	36.9-67.6%	
Low risk	51	35.8%	22.8-48.9%	
High risk	13	11.9%	0.0-24.8%	
College grad or more				
None	64	29.9%	22.4-37.5%	
Low risk	116	54.6%	46.1-63.0%	
High risk	28	15.5%	8.5-22.5%	
Area of Residence				0.24
Urban				
None	130	53.1%	44.4-61.9%	
Low risk	119	35.5%	27.6-43.4%	
High risk	25	11.4%	5.2-17.5%	
Rural				
None	137	61.0%	53.2-68.8%	
Low risk	88	25.6%	19.0-32.1%	
High risk	32	13.4%	7.6-19.2%	

Total number of responses may not equal sample total due to missing data for some characteristics

TABLE 7-8. ALCOHOL CONSUMPTION BY CANCER SURVIVORS DURING THE PAST 30 DAYS, BY YEARS SINCE CANCER DIAGNOSIS

	Total			0-5 Years since Diagnosis			6-10 Years since Diagnosis			11 Years or More since Diagnosis			
Drinking Status	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**P-value**
None	244	54.7%	47.5-61.9%	91	57.8%	45.6-70.0%	51	48.3%	35.7-60.9%	102	53.5%	44.0-63.0%	0.45
Low risk	197	33.2%	26.9-39.6%	70	28.3%	18.0-38.6%	42	36.8%	25.0-48.7%	85	38.3%	29.2-47.5%	
High risk	54	12.1%	7.0-17.2%	25	13.9%	5.0-22.9%	11	14.9%	2.4-27.3%	18	8.2%	3.6-12.8%	

TABLE 7-9. ADULTS THAT MEET THE HEALTHY PEOPLE 2020 GOALS FOR EITHER WEEKLY MODERATE OR VIGOROUS PHYSICAL ACTIVITY^ BY CANCER SURVIVOR STATUS AND AGE

	Total Sample			Cancer Survivors			Respondents without Cancer			
	N	wt %	95% CI	N	wt %	95% CI	N	wt %	95% CI	P-value
Total Sample*										0.98
Yes	2161	47.4%	44.8-50.0%	267	47.5%	40.4-54.5%	1894	47.4%	44.6-50.1%	
No	2081	52.6%	50.0-55.2%	252	52.5%	45.5-60.0%	1829	52.6%	49.9-55.4%	
18-49 years										0.52
Yes	741	48.4%	44.4-52.5%	33	55.6%	33.5-77.6%	708	48.2%	44.0-52.3%	
No	751	51.6%	47.5-55.6%	23	44.4%	22.4-66.5%	728	51.9%	47.7-56.0%	
50-64 years										0.7
Yes	759	45.9%	42.3-49.4%	86	47.8%	37.7-57.8%	673	45.6%	41.9-49.4%	
No	707	54.1%	50.6-57.7%	82	52.2%	42.2-62.3%	625	54.4%	50.6-58.1%	
65-74 years										0.11
Yes	378	47.5%	42.1-52.9%	73	39.2%	27.9-50.6%	305	49.8%	43.7-55.8%	
No	347	52.5%	47.1-57.9%	72	60.8%	49.4-72.1%	275	50.2%	44.2-56.3%	
75 years and older										0.56
Yes	283	47.3%	41.5-53.2%	75	50.2%	38.5-61.8%	208	46.2%	39.5-52.9%	
No	260	52.7%	46.8-58.5%	72	49.8%	38.2-61.5%	188	53.8%	47.1-60.5%	

^ Reports engaging in either 30 minutes of moderate physical activity 5 times/week or 25 minutes of vigorous physical activity 3 times/week

*Sample by age does not equal the total sample, due to some respondents with missing age

TABLE 7-10 ADULTS THAT MEET THE HEALTHY PEOPLE 2020 GOALS FOR EITHER WEEKLY MODERATE OR VIGOROUS PHYSICAL ACTIVITY^ BY CANCER SURVIVOR STATUS AND DEMOGRAPHIC CHARACTERISTICS

	Total Sample			Cancer Survivors			Respondents without Cancer			
Selected Characteristic	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**P-value**
Sex										
Male										0.58
Yes	842	49.0%	44.8-53.2%	102	45.9%	34.9-56.9%	740	49.2%	44.8-53.7%	
No	720	51.0%	46.8-55.2%	93	54.1%	43.1-65.1%	627	50.8%	46.3-55.2%	
Female										0.55
Yes	1319	46.0%	42.9-49.1%	165	48.6%	39.5-57.7%	1154	45.7%	42.4-49.0%	
No	1361	54.0%	50.9-57.1%	159	51.4%	42.3-60.5%	1202	54.3%	51.0-57.6%	
Race										
White										0.66
Yes	1625	47.7%	44.7-50.8%	229	46.2%	39.1-53.2%	1396	47.9%	44.6-51.2%	
No	1457	52.3%	49.2-55.3%	202	53.8%	46.8-60.9%	1255	52.1%	48.8-55.4%	
African American or Black										0.76
Yes	379	44.0%	39.0-49.1%	26	46.8%	28.5-65.2%	353	43.8%	38.6-49.1%	
No	473	56.0%	50.9-61.0%	39	53.2%	34.8-71.5%	434	56.2%	50.9-61.4%	
Other										0.28
Yes	139	55.6%	46.2-65.1%	10	73.0%	44.2-100.0%	129	54.9%	45.2-64.6%	
No	128	44.4%	34.9-53.8%	8	27.0%	0.0-55.8%	120	45.1%	35.4-54.8%	
Education										
Less than high school										0.14
Yes	72	33.5%	25.3-41.6%	15	46.8%	27.8-65.9%	57	31.4%	22.5-40.3%	
No	172	66.5%	58.4-74.7%	25	53.2%	34.1-72.3%	147	68.6%	59.7-77.5%	
High school grad or GED										0.79
Yes	443	41.2%	36.1-46.2%	63	39.4%	25.9-52.8%	380	41.4%	36.0-46.7%	
No	630	58.8%	53.8-63.9%	90	60.6%	47.2-74.1%	540	58.6%	53.3-64.0%	
Some college 1-3 years										0.94
Yes	535	48.5%	43.2-53.8%	60	47.9%	32.4-63.3%	475	48.5%	42.9-54.1%	
No	510	51.5%	46.2-56.8%	62	52.1%	36.7-67.6%	448	51.5%	45.9-57.1%	
College grad or more										0.79
Yes	1108	56.0%	52.2-59.9%	129	57.2%	48.7-65.7%	979	55.9%	51.9-60.0%	
No	764	44.0%	40.1-47.8%	75	42.8%	34.3-51.3%	689	44.1%	40.0-48.1%	
Area of Residence										
Urban										0.91
Yes	1184	47.9%	44.7-51.0%	136	47.4%	38.5-56.2%	1048	47.9%	44.5-51.3%	
No	1135	52.1%	49.0-55.3%	136	52.6%	43.8-61.5%	999	52.1%	48.7-55.5%	
Rural										0.65
Yes	977	45.8%	42.4-49.3%	131	47.8%	39.4-56.1%	846	45.6%	42.0-49.3%	
No	946	54.2%	50.7-57.6%	116	52.2%	43.9-60.6%	830	54.4%	50.7-58.0%	

^ Reports engaging in either 30 minutes of moderate physical activity 5 times/week or 25 minutes of vigorous physical activity 3 times/week

Total number of responses may not equal sample total due to missing data for some characteristics

TABLE 7-11 AMONG CANCER SURVIVORS, ADULTS THAT MEET THE HEALTHY PEOPLE 2020 GOALS FOR EITHER WEEKLY MODERATE OR VIGOROUS PHYSICAL ACTIVITY^ BY DEMOGRAPHIC CHARACTERISTICS

Selected Characteristic	N	wt %	95% CI	P-value
Sex				0.71
Male				
Yes	102	45.9%	34.8-56.9%	
No	93	54.1%	43.1-65.2%	
Female				
Yes	165	48.6%	39.5-57.7%	
No	159	51.4%	42.3-60.5%	
Age				0.5
18-49				
Yes	33	55.6%	33.5-77.6%	
No	23	44.4%	22.4-66.5%	
50-64				
Yes	86	47.8%	37.7-57.8%	
No	82	52.2%	42.2-62.3%	
65-74				
Yes	73	39.2%	27.8-50.6%	
No	72	60.8%	49.4-72.2%	
75 years and older				
Yes	75	50.2%	38.4-61.9%	
No	72	49.8%	38.1-61.6%	
Race				0.54
White				
Yes	229	46.2%	39.0-53.3%	
No	202	53.8%	46.7-61.0%	
Non-white				
Yes	36	51.9%	34.6-69.2%	
No	47	48.1%	30.8-65.4%	
Education				0.36
Less than high school				
Yes	15	46.8%	27.7-66.0%	
No	25	53.2%	34.0-72.3%	
High school grad or GED				
Yes	63	39.4%	25.8-52.9%	
No	90	60.6%	47.1-74.2%	
Some college 1-3 years				
Yes	60	47.9%	32.3-63.4%	
No	62	52.1%	36.6-67.7%	
College grad or more				
Yes	129	57.2%	48.6-65.8%	
No	75	42.8%	34.2-51.4%	
Area of Residence				0.95
Urban				
Yes	136	47.4%	38.5-56.3%	
No	136	52.6%	43.7-61.5%	
Rural				
Yes	131	47.8%	39.4-56.2%	
No	116	52.2%	43.8-60.6%	

^ Reports engaging in either 30 minutes of moderate physical activity 5 times/week or 25 minutes of vigorous physical activity 3 times/week

Total number of responses may not equal sample total due to missing data for some characteristics

TABLE 7-12. AMONG CANCER SURVIVORS, ADULTS THAT MEET THE HEALTHY PEOPLE 2020 GUIDELINE FOR EITHER WEEKLY MODERATE OR VIGOROUS PHYSICAL ACTIVITY^ BY YEARS SINCE CANCER DIAGNOSIS

	Total			0-5 Years since Diagnosis			6-10 Years since Diagnosis			11 Years or More since Diagnosis			
Meet Goals	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**N**	**wt %**	**95% CI**	**P-value**
Yes	253	48.4%	41.1-55.8%	92	45.3%	32.7-58.0%	45	40.0%	26.7-53.2%	116	57.0%	47.6-66.4%	0.15
No	233	51.6%	44.2-58.9%	91	54.7%	42.0-67.3%	54	60.0%	46.8-73.3%	88	43.0%	33.6-52.4%	

^ Reports engaging in either 30 minutes of moderate physical activity 5 times/week or 25 minutes of vigorous physical activity 3 times/week

Section 8
Health Care after the Cancer Diagnosis

As cancer patients leave the active treatment phase and enter post-treatment care, it is essential that they have continued coordinated care to optimize their well being. Survivors need routine medical care, not only to monitor for recurrent or new primary cancers, but also for surveillance and treatment of chronic medical diseases, to enhance discussions about healthy lifestyles, and to treat the potential side effects of cancer treatment. It is critical that survivors understand all aspects of their cancer and its treatment.

Toward this end the IOM report *From Cancer Patient to Cancer Survivor* has made several recommendations for patient care, some of which were examined in the 2011 BRFSS survey.

Survivorship Care Plan

One IOM recommendation is that following cancer treatment patients should receive a detailed treatment summary and a follow-up care plan that is clearly explained.[1] These can be provided as two documents or incorporated into one. Previous research has shown that cancer patients whose information needs are fulfilled or who report fewer information barriers have a better health-related quality of life (HRQOL) and less anxiety and depression.[2] It is hoped the treatment summary and the follow-up care plan fulfill some of these information needs. The written treatment summary should include the cancer type, tumor characteristics, treatments utilized, support services provided, and the contact information of treating institutions and health providers. The follow-up care plan outlines what follow-up is needed and when it should take place, including tests for cancer surveillance, recommended cancer-specific and general health behaviors, and information about possible long term and late effects of treatment. These summaries should be written by the provider(s) who coordinated the cancer treatment.

The following points summarize information from cancer survivors in Maryland on the receipt of information in accordance with a Survivorship Care Plan (Table 8-1).

- When asked whether they had ever received a written summary from their health care provider of the all cancer treatments received, 39.0% replied 'Yes.'
    - The percentage of cancer survivors reporting receiving written summaries of their treatments is higher among those who reported a shorter time since their cancer diagnosis; 47.2% of those diagnosed within the last 2 years received a written summaries compared to 33.1% of those diagnosed 21 or more years ago, though the increase was not statistically significant.
- Seventy-eight percent (78.0%) of cancer survivors reported they had received instructions from a health care professional about where to return or who to see for routine cancer check-ups following treatment completion.
    - The percentage of survivors receiving instructions for routine cancer check-ups following treatment is higher among those who reported a

shorter time since their cancer diagnosis; 85.4% of those diagnosed within the last 2 years received instructions compared to 71.2% of those diagnosed 21 or more years ago, though this increase was not statistically significant.

- Of those who received instructions for routine cancer check-ups following treatment, 70.5% said they were written down or printed on paper.
    - Among those diagnosed within the last 2 years, 73.4% reported receiving instructions in written form compared to 62.7% of those diagnosed 21 or more years ago, though this increase was not statistically significant.

Health Insurance

The cost of cancer care can be staggering for those receiving acute treatment and for cancer survivors. Cancer is cited as one of the three most expensive conditions to live with in the U.S.[3] and about half of all families that file for bankruptcy in the U.S. cite medical causes.[4] Although the majority of Americans do have health insurance, those without insurance often delay seeking medical care or receive inferior services, which has been shown to lead to overall poor outcomes for a variety of different cancers.[5,6,7,8] A lack of adequate insurance coverage among cancer survivors may lead to greater delays in care or unmet medical care needs when compared to adults without cancer.[9,10]

The following points summarize the responses on health insurance.

- With their most recent cancer diagnosis, 12.9% of cancer survivors did not have health insurance that paid for all or part of their cancer treatment.
- 6.4% of survivors reported ever being denied health or life insurance coverage because of the cancer diagnosis.

Clinical Trials

The use of clinical trials is one key way to advance cancer research. Nationally, 3% of adult cancer patients participate in clinical trials, although up to 20% are eligible.[11] Patients in the state of Maryland are in a unique position to participate in clinical trials due to proximity to large government medical centers such as National Institutes of Health (including the National Cancer Institute) and numerous academic medical institutions in the Baltimore-Washington metropolitan area. In the state of Maryland,

- 6.0% of cancer survivors reported in the BRFSS survey that they had participated in a clinical trial as part of the cancer treatment.

Pain Management

Chronic pain is a significant problem noted by many cancer survivors and can be related to the cancer itself and/or to cancer treatment. Pain management is vital to improving quality of life for survivors.

In the state of Maryland,

- 14.6% of cancer survivors reported they currently have pain due to their cancer or cancer treatment.
    - When stratified by time since diagnosis, those diagnosed within the last 2 years had the greatest proportion with current pain (36.2%); 14.5% of persons diagnosed 3-5 years ago reported having current pain, and 4.3-8.3% of those diagnosed 6 or more years ago reported current pain.
- Of all cancer survivors who reported current pain, only 75.6% said their pain is under control.

Summary

There are numerous factors that contribute to the overall health care of patients after a cancer diagnosis. After diagnosis and initiation of treatment, great care should be taken to keep survivors connected to health care resources, and to provide opportunities to address their subsequent medical issues.

One method for maintaining continuous health care for cancer survivors is to provide them with a follow-up care plan following completion of treatment. In Maryland, less than half (39.0%) of cancer survivors reported receiving a written summary of treatments and 78.0% received instructions on their follow-up care. While these proportions appear to be increasing over time, the changes were not statistically significant.

One in every eight cancer survivors in Maryland (12.9%) did not have health insurance coverage that paid for all or part of the treatment with their last cancer diagnosis. . Furthermore, 6.4% of Maryland cancer survivors reported having been denied health or life insurance because of their cancer.

In Maryland, 6.0% of cancer survivors reported participation in clinical trials for their cancer treatment, which is higher than the national average for cancer patients. However, this still falls far short of the percentage of people with cancer who would be eligible to participate in clinical trials.

Current physical pain caused by cancer or cancer treatment was reported by 14.6% of cancer survivors in Maryland, and 24.4% of those patients reported that their pain was not currently under control.

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TABLE 8-1. QUESTIONS SPECIFIC TO CANCER SURVIVORS CONCERNING CANCER TREATMENT AND POST-TREATMENT CARE, BY YEARS SINCE DIAGNOSIS

	N	n	wt %	95% CI	P-value
Survivors currently receiving treatment for cancer					0.17
Total*	528	52	10.9%	6.5-15.3%	
0-2 years since diagnosis	93	21	18.5%	7.0-30.1%	
3-5 years since diagnosis	92	8	7.4%	0.0-15.4%	
6-10 years since diagnosis	106	9	8.5%	2.1-14.9%	
11-20 years since diagnosis	110	7	14.0%	0.7-27.3%	
21 years or more since diagnosis	98	6	3.8%	0.4-7.3%	
Survivors who received a written summary by a doctor, nurse, or other HCP of all the cancer treatments they received					0.26
Total*	451	154	39.0%	31.4-46.6%	
0-2 years since diagnosis	66	29	47.2%	27.7-66.7%	
3-5 years since diagnosis	81	35	49.5%	28.6-70.4%	
6-10 years since diagnosis	91	26	28.7%	16.6-40.8%	
11-20 years since diagnosis	98	33	33.0%	20.3-45.6%	
21 years or more since diagnosis	90	27	33.1%	20.3-45.9%	
Survivors who received instructions from a doctor, nurse, or other HCP about *where* they should return or *who they* should see for routine cancer check-ups after completing treatment for cancer					0.47
Total*	467	340	78.0%	72.9-83.1%	
0-2 years since diagnosis	71	55	85.4%	75.5-95.3%	
3-5 years since diagnosis	83	60	81.0%	69.0-93.0%	
6-10 years since diagnosis	96	74	79.1%	68.9-89.3%	
11-20 years since diagnosis	102	78	75.1%	63.5-86.8%	
21 years or more since diagnosis	89	58	71.2%	60.2-82.2%	
Among survivors who received instructions, those reporting the instructions were written down or printed on paper					0.046
Total*	317	217	70.5%	61.8-79.2%	
0-2 years since diagnosis	53	43	73.4%	49.0-97.7%	
3-5 years since diagnosis	55	44	89.5%	80.3-98.7%	
6-10 years since diagnosis	69	39	53.3%	37.2-69.4%	
11-20 years since diagnosis	72	48	65.4%	49.9-80.8%	
21 years or more since diagnosis	54	34	62.7%	46.4-79.1%	
Survivors who had health insurance that paid all or part of their cancer treatment with their most recent diagnosis of cancer					0.38
Total*	470	428	87.1%	81.0-93.1%	
0-2 years since diagnosis	72	66	91.3%	83.2-99.3%	
3-5 years since diagnosis	83	77	78.3%	55.9-100.0%	
6-10 years since diagnosis	96	88	89.4%	81.4-97.4%	
11-20 years since diagnosis	102	94	90.8%	82.7-99.0%	
21 years or more since diagnosis	90	80	88.6%	80.5-96.7%	

* Sample by years since diagnosis does not equal total, due to missing data

** p-value not calculated due to cell with 0 value

TABLE 8-1. QUESTIONS SPECIFIC TO CANCER SURVIVORS CONCERNING CANCER TREATMENT AND POST-TREATMENT CARE, BY YEARS SINCE DIAGNOSIS

	N	n	wt %	95% CI	P-value
Survivors who were denied health insurance or life insurance coverage because of their cancer					0.67
Total*	471	33	6.4%	3.6-9.1%	
0-2 years since diagnosis	71	3	4.5%	0.0-10.6%	
3-5 years since diagnosis	83	9	6.9%	1.3-12.5%	
6-10 years since diagnosis	97	6	7.7%	0.7-14.6%	
11-20 years since diagnosis	101	10	10.4%	2.3-18.5%	
21 years or more since diagnosis	91	5	4.2%	0.0-8.5%	
Survivors who participated in a clinical trial as part of their cancer treatment					0.58
Total*	471	26	6.0%	3.0-9.0%	
0-2 years since diagnosis	72	4	7.1%	0.0-15.4%	
3-5 years since diagnosis	83	5	4.9%	0.0-10.2%	
6-10 years since diagnosis	97	2	1.8%	0.0-5.0%	
11-20 years since diagnosis	101	9	9.1%	1.6-16.6%	
21 years or more since diagnosis	91	5	8.9%	0.0-18.2%	
Survivors who currently have physical pain caused by their cancer or cancer treatment					0.0005
Total*	472	39	14.6%	6.9-22.3%	
0-2 years since diagnosis	72	10	36.2%	14.3-58.2%	
3-5 years since diagnosis	82	6	14.5%	0.0-32.5%	
6-10 years since diagnosis	96	4	4.3%	0.0-9.1%	
11-20 years since diagnosis	103	9	6.9%	0.4-13.3%	
21 years or more since diagnosis	91	10	8.3%	2.4-14.2%	
Among survivors who reported physican pain, those whose pain is currently under control					**
Total*	39	33	75.6%	47.3-100.0%	
0-2 years since diagnosis	10	8	66.1%	20.9-100.0%	
3-5 years since diagnosis	6	6	100.0%	100.0-100.0%	
6-10 years since diagnosis	4	2	38.6%	0.0-91.7%	
11-20 years since diagnosis	9	8	96.6%	89.2-100.0%	
21 years or more since diagnosis	10	9	79.7%	43.5-100.0%	

* Sample by years since diagnosis does not equal total, due to missing data

** p-value not calculated due to cell with 0 value