

Michigan Behavioral Risk Factor Survey:
Supplemental Cancer Questions Analysis
2009-2010

August, 2011



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Breast/Ovarian Cancer Risk

Table 1: Lifetime Prevalence of Breast Cancer, Ovarian Cancer, or Either, among Adult Women						
2009 Michigan BRFSS						
	Ever Diagnosed with Breast Cancer¹		Ever Diagnosed with Ovarian Cancer²		Ever Diagnosed with Either	
	%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval
Total	3.3	(2.6-4.1)	0.5	(0.2-1.2)	3.7	(2.9-4.6)
Age						
18-44	0.5	(0.2-1.6)	0.4	(0.1-2.6)	0.9	(0.3-2.7)
45-54	1.5	(0.7-3.5)	0.4	(0.1-2.9)	1.9	(0.9-4.1)
55-64	5.7	(3.6-8.9)	0.9	(0.3-2.9)	6.2	(4.0-9.4)
65-74	8.8	(5.8-13.1)	0.0	---	8.8	(5.8-13.1)
75 +	10.3	(7.1-14.5)	1.0	(0.4-2.8)	10.8	(7.6-15.1)
Race/Ethnicity						
White	3.3	(2.6-4.3)	0.3	(0.1-0.8)	3.6	(2.8-4.6)
Black	1.7	(0.8-3.6)	1.5	(0.2-9.9)	3.2	(1.2-8.4)
Other	5.3	(2.3-11.6)	3.0	(0.4-3.8)	6.0	(2.8-12.4)
Education						
Less than high school	6.0	(3.2-10.9)	0.4	(0.1-3.0)	6.0	(3.2-10.9)
High school graduate	4.3	(3.0-6.3)	1.1	(0.3-3.7)	5.2	(3.5-7.6)
Some college	2.6	(1.6-4.1)	0.5	(0.2-1.6)	3.1	(2.0-4.7)
College graduate	2.4	(1.4-3.9)	0.0	---	2.4	(1.4-4.0)
Household Income						
< \$20,000	4.1	(2.4-6.9)	2.2	(0.7-7.1)	5.7	(3.2-9.9)
\$20,000 - \$34,999	3.6	(2.3-5.6)	0.0	---	3.6	(2.3-5.6)
\$35,000 - \$49,999	3.9	(2.1-6.9)	0.7	(0.1-4.7)	4.5	(2.5-8.0)
\$50,000 - \$74,999	2.3	(1.0-5.4)	0.2	(0.0-0.8)	2.5	(1.1-5.6)
\$75,000 +	1.5	(0.7-3.3)	0.2	(0.0-1.4)	1.7	(0.8-3.5)

¹ Responded “yes” to the question, “Have you ever been diagnosed with breast cancer?”

² Responded “yes” to the question, “Have you ever been diagnosed with cancer of the ovaries?” (N = 1,852)

Table 2: Percentage of Family History of Breast Cancer, Ovarian Cancer, or Either among Adults Never Diagnosed with Breast or Ovarian Cancer
2009 Michigan BRFS

	Family History of Breast Cancer ¹		Family History of Ovarian Cancer ²		Family History of Either	
	%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval
Total	21.2	(19.3-23.3)	7.2	(6.0-8.6)	25.0	(23.0-27.2)
Age						
18-24	15.0	(9.0-24.2)	6.0	(2.5-13.6)	17.1	(10.6-26.5)
25-34	23.9	(17.8-31.4)	9.9	(6.1-15.7)	27.8	(21.2-35.5)
35-44	21.8	(17.4-26.9)	7.9	(5.4-11.4)	25.4	(20.7-30.8)
45-54	22.4	(18.9-26.4)	6.4	(4.5-9.0)	27.0	(23.1-31.2)
55-64	21.2	(18.0-24.8)	6.0	(4.2-8.5)	25.1	(21.6-28.9)
65-74	22.3	(18.4-26.7)	7.0	(4.9-10.0)	26.3	(22.2-30.9)
75 +	19.7	(15.9-24.2)	6.2	(3.9-9.7)	24.1	(19.8-29.0)
Gender						
Male	13.9	(11.5-16.7)	4.2	(2.9-6.0)	16.3	(13.7-19.3)
Female	28.1	(25.3-31.1)	10.0	(8.2-12.2)	33.3	(30.4-36.4)
Race/Ethnicity						
White	22.5	(20.4-24.9)	7.1	(5.8-8.6)	26.2	(23.9-28.6)
Black	14.4	(10.6-19.3)	5.5	(3.2-9.3)	18.3	(13.9-23.8)
Other	15.5	(8.8-25.9)	11.8	(5.9-22.2)	21.4	(13.1-32.9)
Education						
Less than high school	15.9	(9.3-25.7)	10.6	(5.6-19.2)	22.9	(15.1-33.1)
High school graduate	21.0	(17.5-24.9)	6.9	(4.9-9.7)	23.7	(20.0-27.7)
Some college	22.5	(19.0-26.5)	9.3	(7.0-12.3)	28.5	(24.6-32.9)
College graduate	21.2	(18.1-24.6)	5.0	(3.5-7.1)	23.6	(20.4-27.1)
Household Income						
< \$20,000	22.7	(17.2-29.3)	10.1	(6.5-15.3)	27.7	(21.9-34.4)
\$20,000 - \$34,999	18.9	(14.9-23.7)	9.8	(6.9-13.8)	23.9	(19.4-29.1)
\$35,000 - \$49,999	21.0	(16.4-26.3)	6.0	(3.6-9.9)	24.8	(19.9-30.4)
\$50,000 - \$74,999	24.0	(19.1-29.7)	7.9	(4.9-12.4)	28.7	(23.3-34.9)
\$75,000 +	20.7	(17.1-25.0)	5.6	(3.6-8.5)	22.9	(19.0-27.2)

¹ Response to the question, "Have any of your biological family members, including yourself, ever been diagnosed with either breast cancer or cancer of the ovaries?" Respondents who reported "yes" to either of the following questions were excluded from the analysis: "Have you ever been diagnosed with breast cancer?" and "Have you ever been diagnosed with cancer of the ovaries?" (N = 2,874)

Table 3: Percentage of Having at Least One First Degree Family Member with Breast Cancer and Prevalence of at Least One First Degree Family Member with Early Onset Breast Cancer, among Michigan Adults
2009 Michigan BRFSS

	Has ≥ 1 First Degree Relative with Breast Cancer ¹		Has ≥ 1 First Degree Relative with Early Onset Breast Cancer ²	
	%	95% Confidence Interval	%	95% Confidence Interval
Total	10.3	(9.1-11.8)	4.5	(3.6-5.5)
Age				
18-24	4.6	(1.8-11.2)	2.1	(0.6-6.7)
25-34	8.4	(4.9-14.0)	5.6	(2.9-10.5)
35-44	7.7	(5.1-11.3)	2.7	(1.4-5.0)
45-54	12.4	(9.7-15.7)	4.6	(3.0-7.0)
55-64	12.7	(10.2-15.6)	4.8	(3.3-6.8)
65-74	13.7	(10.6-17.5)	6.2	(4.3-9.1)
75 +	15.4	(12.2-19.3)	6.9	(4.8-9.9)
Gender				
Male	7.6	(6.0-9.7)	4.0	(2.8-5.6)
Female	12.7	(10.9-14.8)	4.8	(3.8-6.2)
Race				
White	10.6	(9.2-12.2)	4.3	(3.4-5.4)
Black	9.0	(6.0-13.4)	5.4	(3.0-9.6)
Other	6.2	(2.6-14.0)	4.6	(1.6-12.7)
Education				
Less than high school	9.7	(5.3-17.1)	4.0	(1.8-8.4)
High school graduate	10.2	(8.1-12.8)	5.8	(4.1-8.1)
Some college	10.4	(8.2-13.1)	4.4	(3.1-6.2)
College graduate	10.5	(8.3-13.1)	3.4	(2.2-5.1)
Household Income				
< \$20,000	14.2	(9.8-20.1)	9.1	(5.7-14.2)
\$20,000 - \$34,999	8.2	(6.2-10.8)	4.4	(3.1-6.4)
\$35,000 - \$49,999	11.6	(8.4-15.7)	5.2	(3.2-8.3)
\$50,000 - \$74,999	11.6	(8.2-16.1)	3.8	(2.1-6.6)
\$75,000 +	8.7	(6.6-11.4)	3.1	(1.9-5.2)

¹ Proportion of all respondents who reported one or more to the question, “How many of your biological children, parents, brothers, or sisters were diagnosed with breast cancer? For brothers and sisters, please only include those who share your same mother and father.”

² Proportion of all respondents who reported one or more to the follow-up question, “And how many of them were diagnosed before the age of 50?” (N = 2,974)

Table 4: Percent Distribution of Number of First Degree Family Members with Breast Cancer and Early Onset Breast Cancer, among Adults with This Family History, Respectively
2009 Michigan BRFSS

	Number of First Degree Family Members Diagnosed					
	1 Member		2 Members		≥3 Members	
	%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval
Any Breast Cancer¹	85.5	(80.6-89.3)	12.9	(9.3-17.6)	1.6	(0.6-4.3)
Early Onset Breast Cancer²	87.5	(79.9-92.5)	11.3	(6.6-18.8)	1.2	(0.3-4.9)

¹ Responded one, two, or three or more to the question, “How many of your biological children, parents, brothers, or sisters were diagnosed with breast cancer? For brothers and sisters, please include those who share your same mother and father.” (N = 374)

² Responded one, two, or three or more to the follow-up question, “And how many of them were diagnosed before the age of 50?” (N = 160)

Table 5: Prevalence of Having at Least One Second Degree Family Member with Breast Cancer and Prevalence of at Least One Second Degree Family Member with Early Onset Breast Cancer, among Adults

2009 Michigan BRFSS

	Has ≥1 Second Degree Relative with Breast Cancer ¹		Has ≥1 Second Degree Relative with Early Onset Breast Cancer ²	
	%	95% Confidence Interval	%	95% Confidence Interval
Total	14.2	(12.5-16.1)	5.6	(4.5-6.9)
Age				
18-24	12.3	(6.9-20.8)	4.1	(1.7-9.6)
25-34	22.4	(16.3-29.8)	9.8	(5.9-15.9)
35-44	17.3	(13.4-21.9)	8.0	(5.4-11.6)
45-54	13.8	(11.0-17.1)	3.9	(2.6-5.8)
55-64	10.0	(7.8-12.8)	4.4	(2.9-6.5)
65-74	10.1	(7.6-13.2)	4.3	(2.7-6.8)
75 +	8.0	(5.7-11.2)	2.4	(1.2-4.5)
Gender				
Male	7.1	(5.2-9.6)	2.8	(1.7-4.5)
Female	20.7	(18.2-23.4)	8.2	(6.6-10.2)
Race				
White	15.3	(13.4-17.5)	5.7	(4.6-7.2)
Black	8.6	(5.5-13.2)	5.7	(3.2-10.1)
Other	10.0	(4.9-19.2)	3.1	(1.1-8.4)
Education				
Less than high school	11.6	(5.8-21.9)	5.0	(1.8-13.3)
High school graduate	13.6	(10.6-17.2)	5.6	(3.8-7.0)
Some college	15.4	(12.3-19.0)	7.0	(4.8-10.0)
College graduate	14.2	(11.6-17.2)	4.5	(3.1-6.3)
Household Income				
< \$20,000	16.0	(11.0-22.7)	6.6	(3.7-11.5)
\$20,000 - \$34,999	13.4	(9.9-18.1)	5.9	(3.5-9.6)
\$35,000 - \$49,999	12.0	(8.4-16.8)	3.2	(1.7-5.8)
\$50,000 - \$74,999	16.1	(12.1-21.0)	6.7	(4.2-10.7)
\$75,000 +	13.9	(10.9-17.6)	5.3	(3.5-7.9)

¹ Proportion of all respondents who reported one or more to the question, “How many of your grandparents, aunts, uncles, nieces, or nephews were diagnosed with breast cancer?” (N = 2,926)

² Proportion of all respondents who reported one or more to the follow-up question, “And how many of them were diagnosed before the age of 50?”

Table 6: Percent Distribution of Number of Second Degree Family Members with Breast Cancer and Early Onset Breast Cancer, among Adults with This Family History, Respectively
2009 Michigan BRFS

	Number of Second Degree Family Members Diagnosed					
	1 Member		2 Members		≥3 Members	
	%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval
Any Breast Cancer¹	70.8	(64.5-76.4)	17.5	(13.1-22.8)	11.7	(8.0-16.9)
Early Onset Breast Cancer²	71.8	(61.3-80.3)	18.3	(11.4-28.1)	9.9	(5.1-18.3)

¹ Responded one, two, or three or more to the question, “How many of your grandparents, aunts, uncles, nieces, nephews, half brothers, half sisters, or grandchildren were diagnosed with breast cancer?” (N = 382)
² Responded one, two, or three or more to the follow-up question, “And how many of them were diagnosed before the age of 50?” (N = 143)

Table 7: Prevalence of Any First and Prevalence of Any Second Degree Family Members Diagnosed with Ovarian Cancer
2009 Michigan BRFSS

	Any First Degree Relative with Ovarian Cancer ¹		Any Second Degree Relative with Ovarian Cancer ²	
	%	95% Confidence Interval	%	95% Confidence Interval
Total	3.9	(3.0-4.9)	3.7	(2.8-4.7)
Age				
18-24	2.8	(0.9-8.8)	3.7	(1.4-9.5)
25-34	5.1	(2.5-9.9)	5.5	(2.9-10.3)
35-44	3.7	(2.1-6.7)	5.1	(3.1-8.2)
45-54	3.4	(2.1-5.6)	3.9	(2.5-6.1)
55-64	4.3	(2.8-6.6)	2.4	(1.4-4.1)
65-74	4.2	(2.6-6.5)	1.8	(0.8-3.7)
75 +	3.3	(1.9-5.6)	0.8	(0.3-2.3)
Gender				
Male	2.7	(1.7-4.3)	1.4	(0.8-2.7)
Female	5.0	(3.8-6.5)	5.7	(4.3-7.5)
Race				
White	3.9	(3.0-5.1)	3.5	(2.6-4.6)
Black	3.4	(1.6-7.0)	3.5	(1.6-7.5)
Other	4.6	(1.6-12.6)	7.4	(3.2-16.3)
Education				
Less than high school	6.0	(2.8-12.6)	7.8	(3.5-16.5)
High school graduate	3.7	(2.3-5.7)	3.8	(2.4-6.0)
Some college	5.8	(3.9-8.4)	3.3	(2.1-5.1)
College graduate	2.1	(1.3-3.4)	3.1	(1.9-5.2)
Household Income				
< \$20,000	4.6	(2.7-7.7)	6.8	(3.7-12.2)
\$20,000 - \$34,999	5.5	(3.4-8.8)	5.4	(3.2-9.0)
\$35,000 - \$49,999	4.0	(2.1-7.7)	2.1	(1.1-4.3)
\$50,000 - \$74,999	4.9	(2.5-9.2)	3.0	(1.6-5.5)
\$75,000 +	2.3	(1.3-4.2)	3.1	(1.8-5.3)

¹ Proportion of all respondents who reported one or more to the question, "How many of your biological children, parents, brothers, or sisters were diagnosed with cancer of the ovaries? For brothers and sisters, please only include those who share your same mother and father?" (N = 2,968)

² Proportion of all respondents who reported one or more to the question, "How many of your grandparents, aunts, uncles, nieces, or nephews were diagnosed with cancer of the ovaries?" (N = 2,790)

Table 8: Percent Distribution of Number of First and Second Degree Family Members with Cancer of the Ovaries
2009 Michigan BRFSS

	Number of Second Degree Family Members Diagnosed					
	1 Member		2 Members		≥3 Members	
	%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval
Ovarian Cancer among First Degree Family Members¹	89.0	(78.7-94.7)	4.9	(2.3-10.0)	6.1	(1.9-18.2)
Ovarian Cancer among Second Degree Family Members²	82.1	(71.0-89.6)	12.8	(6.6-23.5)	5.1	(2.0-12.3)

¹ Responded one, two, or three or more to the question, “How many of your biological children, parents, brothers, or sisters were diagnosed with cancer of the ovaries? For brothers and sisters, please only include those who share your same mother and father?” (N = 117)

² Responded one, two, or three or more to the follow-up question, “How many of your grandparents, aunts, uncles, nieces, nephews, half sisters, half brothers, or grandchildren were diagnosed with cancer of the ovaries?” (N = 92)

Table 9: Prevalence of Being At-Risk Based on Family History of Breast and/or Ovarian Cancer among Adults with No Personal History of Either (Based on U.S. Preventive Services Task Force Guidelines)

2009 Michigan BRFS

	At-Risk ¹ for Breast and/or Ovarian Cancer	
	%	95% Confidence Interval
Total	5.7	(4.7-7.0)
Age		
18-24	4.4	(1.7-11.0)
25-34	8.3	(4.9-13.7)
35-44	7.2	(4.8-10.9)
45-54	4.9	(3.3-7.1)
55-64	4.8	(3.3-6.9)
65-74	5.0	(3.2-7.6)
75 +	3.7	(2.1-6.3)
Gender		
Male	3.3	(2.2-5.0)
Female	7.9	(6.3-10.0)
Race/Ethnicity		
White	6.0	(4.8-7.4)
Black	3.2	(1.8-5.9)
Other	7.0	(2.9-16.2)
Education		
Less than high school	13.1	(7.0-23.0)
High school graduate	5.7	(3.9-8.2)
Some college	5.7	(4.1-7.9)
College graduate	4.5	(2.9-6.7)
Household Income		
< \$20,000	8.5	(5.1-13.7)
\$20,000 - \$34,999	7.0	(4.5-10.6)
\$35,000 - \$49,999	5.4	(3.2-9.0)
\$50,000 - \$74,999	5.0	(2.9-8.4)
\$75,000 +	4.6	(3.0-7.1)

¹ Among those who had personally never been diagnosed with either breast or ovarian cancer (N = 2,806), at-risk was defined as having:

- a) ≥ 2 first degree relatives diagnosed with breast cancer, one of whom was diagnosed with early-onset breast cancer (<50 years), or
- b) ≥ 3 first or second degree relatives diagnosed with breast cancer at any age, or
- c) ≥ 2 first or second degree relatives diagnosed with ovarian cancer at any age, or
- d) ≥ 1 first or second degree relative diagnosed with breast cancer at any age and ≥ 1 first or second degree relative diagnosed with ovarian cancer at any age.

*Note that no information on BRCA mutation was available and thus was not included in the algorithm.

Table 10: Prevalence of Being At-Risk Based on Family History of Breast and/or Ovarian Cancer among Women with No Personal History of Either (Based on U.S. Preventive Services Task Force Guidelines)
2009 Michigan BRFS

	At-Risk ¹ for Breast and/or Ovarian Cancer	
	%	95% Confidence Interval
Total	8.0	(6.4-10.1)
Age		
18-24	8.3	(3.1-20.8)
25-34	12.4	(7.0-20.8)
35-44	9.4	(5.9-14.7)
45-54	5.9	(3.8-9.0)
55-64	7.9	(5.3-11.6)
65-74	5.9	(3.5-9.8)
75 +	4.8	(2.7-8.4)
Race/Ethnicity		
White	8.3	(6.4-10.6)
Black	5.7	(3.0-10.5)
Other	8.4	(3.5-18.8)
Education		
Less than high school	20.5	(10.9-35.2)
High school graduate	6.8	(4.3-10.5)
Some college	6.5	(4.4-9.4)
College graduate	8.4	(5.5-12.8)
Household Income		
< \$20,000	11.0	(5.9-19.5)
\$20,000 - \$34,999	7.7	(4.6-12.4)
\$35,000 - \$49,999	6.9	(4.2-11.1)
\$50,000 - \$74,999	9.7	(5.6-16.4)
\$75,000 +	7.4	(4.5-12.1)

¹ Among women who had personally never been diagnosed with either breast or ovarian cancer (N = 1,711), at-risk was defined as having:

- a) ≥ 2 first degree relatives diagnosed with breast cancer, one of whom was diagnosed with early-onset breast cancer (<50 years), or
- b) ≥ 3 first or second degree relatives diagnosed with breast cancer at any age, or
- c) ≥ 2 first or second degree relatives diagnosed with ovarian cancer at any age, or
- d) ≥ 1 first or second degree relative diagnosed with breast cancer at any age and ≥ 1 first or second degree relative diagnosed with ovarian cancer at any age.

*Note that no information on BRCA mutation was available and thus was not included in the algorithm.

**Table 11: Access to Health Care Indicators by At-Risk Status Based on Family History of Breast and/or Ovarian Cancer¹ among Adults with No Personal History of Breast or Ovarian Cancer (Based on U.S. Preventive Services Task Force Guidelines)
2009 Michigan BRFS**

	<u>At-Risk</u>		<u>Not At-Risk</u>	
	%	95% Confidence Interval	%	95% Confidence Interval
Health Care Access (among adults aged 18+)				
Has health insurance	87.6	(78.8-93.1)	87.9	(85.8-89.8)
Has personal health care provider	89.4	(81.0-94.3)	85.6	(83.0-87.8)
Needed to see a doctor in past year but could not because of cost	22.1	(14.3-32.6)	12.2	(10.5-14.1)
Had routine checkup in past year	64.1	(53.4-73.5)	66.8	(64.0-69.5)

¹ Among those who had personally never been diagnosed with either breast or ovarian cancer (N = 2,806), at-risk was defined as having:

- ≥ 2 first degree relatives diagnosed with breast cancer, one of whom was diagnosed with early onset breast cancer (< 50 years), or
- ≥ 3 first or second degree relatives diagnosed with breast cancer at any age, or
- ≥ 2 first or second degree relatives diagnosed with ovarian cancer at any age, or
- ≥ 1 first or second degree relative diagnosed with breast cancer at any age and ≥ 1 first or second degree relative diagnosed with ovarian cancer at any age.

*Note that no information on BRCA mutation was available and thus was not included in the algorithm.

Table 12: Access to Health Care Indicators by At-Risk Status Based on Family History of Breast and/or Ovarian Cancer¹ among Women with No Personal History of Breast or Ovarian Cancer
(Based on U.S. Preventive Services Task Force Guidelines)
2009 Michigan BRFSS

	At-Risk		Not At-Risk	
	%	95% Confidence Interval	%	95% Confidence Interval
Health Care Access (among adults aged 18+)				
Has health insurance	86.4	(75.0-93.1)	88.1	(85.3-90.5)
Has personal health care provider	93.5	(86.4-97.0)	90.3	(87.3-92.7)
Needed to see a doctor in past year but could not because of cost	23.0	(14.3-34.9)	13.7	(11.5-16.2)
Had routine checkup in past year	68.6	(56.8-78.4)	73.9	(70.7-77.0)

¹ Among those who had personally never been diagnosed with either breast or ovarian cancer (N = 1,711), at-risk was defined as having:

- a) ≥ 2 first degree relatives diagnosed with breast cancer, one of whom was diagnosed with early onset breast cancer (< 50 years), or
- b) ≥ 3 first or second degree relatives diagnosed with breast cancer at any age, or
- c) ≥ 2 first or second degree relatives diagnosed with ovarian cancer at any age, or
- d) ≥ 1 first or second degree relative diagnosed with breast cancer at any age and ≥ 1 first or second degree relative diagnosed with ovarian cancer at any age.

*Note that no information on BRCA mutation was available and thus was not included in the algorithm.

Table 13: Percentage of Women Who Reported Ever Being Asked by a Health Care Provider About Their Family History of Breast and/or Ovarian Cancer¹
2009 Michigan BRFSS

	<u>Breast</u>		<u>Ovarian</u>		<u>Breast & Ovarian</u>		<u>Neither</u>	
	%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval
Total	81.3	(78.6-83.7)	67.6	(64.4-70.6)	66.2	(63.0-69.2)	17.3	(14.9-19.9)
Age								
18-24	70.1	(54.5-82.1)	53.3	(38.0-68.1)	51.3	(36.2-66.2)	27.9	(16.3-43.4)
25-34	86.6	(79.1-91.7)	73.1	(63.6-80.9)	71.4	(61.8-79.3)	11.7	(7.0-18.8)
35-44	83.6	(77.1-88.5)	73.2	(66.3-79.0)	71.4	(64.5-77.5)	14.6	(10.1-20.8)
45-54	87.7	(83.2-91.1)	74.4	(69.0-79.2)	72.5	(66.9-77.5)	10.4	(7.4-14.3)
55-64	83.5	(78.8-87.4)	69.3	(63.8-74.3)	68.6	(63.0-73.6)	15.7	(12.0-20.3)
65-74	81.5	(76.5-85.7)	63.7	(57.5-69.5)	63.4	(57.2-69.2)	18.2	(14.0-23.3)
75 +	63.8	(57.2-70.0)	52.0	(45.5-58.5)	51.0	(44.5-57.5)	35.2	(29.1-41.8)
Race								
White	81.6	(78.5-84.4)	69.2	(65.9-72.4)	67.9	(64.5-71.1)	17.0	(14.4-20.0)
Black	75.9	(68.8-81.8)	58.9	(50.8-66.5)	56.2	(48.1-64.0)	21.4	(16.0-28.1)
Other	89.4	(77.4-95.5)	63.0	(41.6-80.2)	62.8	(41.5-80.1)	10.4	(4.4-22.5)
Education								
Less than high school	64.7	(51.0-76.4)	54.5	(41.2-67.3)	53.5	(40.3-66.3)	34.3	(22.7-48.1)
HS graduate	74.2	(69.0-78.8)	64.9	(59.6-69.9)	62.4	(57.0-67.6)	23.3	(19.0-28.2)
Some college	82.8	(77.3-87.2)	66.5	(60.2-72.4)	65.4	(59.1-71.3)	16.1	(11.8-21.5)
College graduate	89.2	(85.3-92.1)	73.9	(68.9-78.3)	72.9	(67.9-77.4)	9.9	(7.2-13.5)
Household Income								
< \$20,000	77.1	(70.1-82.9)	63.5	(55.4-70.8)	61.4	(53.3-68.9)	20.8	(15.3-27.6)
\$20,000 - \$34,999	72.7	(64.6-79.5)	61.7	(53.0-69.7)	59.2	(50.6-67.2)	24.8	(18.2-32.8)
\$35,000 - \$49,999	80.9	(73.6-86.6)	67.2	(59.5-74.1)	64.1	(56.1-71.4)	16.0	(11.1-22.3)
\$50,000 - \$74,999	93.4	(88.5-96.3)	77.3	(70.1-83.3)	76.4	(69.0-82.5)	5.7	(3.1-10.2)
\$75,000 +	90.1	(85.2-93.6)	77.3	(71.1-82.5)	76.7	(70.4-81.9)	9.3	(6.0-14.1)

¹ Based on response to the question, "Has a doctor or other health care provider ever asked you about your family history of breast or ovarian cancer, including times when you were asked to fill out a form?" *If yes, for which type of cancer or both.*
(N = 1,794)

Table 14: Percentage of Women (with No Personal History of Breast or Ovarian Cancer) Who Reported Ever Being Asked by a Health Care Provider About Their Family History of Breast and Ovarian Cancer¹ by At-Risk Status²
(Based on U.S. Preventive Services Task Force Guidelines)
2009 Michigan BRFS

	Provider Asked About Family History of Breast and/or Ovarian Cancer	
	%	95% Confidence Interval
At-risk from family history of breast and/or ovarian cancer	87.5	(77.1-93.6)
Not at-risk from family history of breast and/or ovarian cancer	80.6	(77.6-83.2)

¹ Based on response to the question, “Has a doctor or other health care provider ever asked you about your family history of breast or ovarian cancer, including times when you were asked to fill out a form?” *If yes, probe for which type of cancer or both.* (N = 1,654)

² At-risk was defined as having:

- a) ≥ 2 first degree relatives diagnosed with breast cancer, one of whom was diagnosed with early onset breast cancer (< 50 years), or
- b) ≥ 3 first or second degree relatives diagnosed with breast cancer at any age, or
- c) ≥ 2 first or second degree relatives diagnosed with ovarian cancer at any age, or
- d) ≥ 1 first or second degree relative diagnosed with breast cancer at any age and ≥ 1 first or second degree relative diagnosed with ovarian cancer at any age.

*Note that no information of BRCA mutation was available and thus was not included in the algorithm.

Table 15: Percentage of Adults with a Family History, but No Personal History, of Breast or Ovarian Cancer¹ Who Have Received Genetic Counseling² or Testing³

2009 Michigan BRFSS

	Received Genetic Counseling		Received Genetic Testing	
	%	95% Confidence Interval	%	95% Confidence Interval
Total	15.7	(12.5-19.5)	3.7	(2.4-5.7)
Age				
18-34	16.5	(8.9-28.4)	4.6	(1.6-12.7)
35-44	18.3	(11.7-27.5)	2.0	(0.5-8.0)
45-54	15.1	(10.2-21.9)	1.9	(0.7-4.7)
55-64	14.3	(9.1-21.7)	4.3	(1.9-9.4)
65-74	14.5	(9.0-22.4)	5.4	(2.5-11.3)
75 +	12.4	(7.1-20.7)	7.3	(2.9-16.9)
Gender				
Male	4.4	(2.1-8.8)	3.2	(1.4-7.0)
Female	20.9	(16.6-25.9)	3.9	(2.3-6.6)
Race				
White	14.7	(11.4-18.8)	3.4	(2.0-5.7)
Black	19.8	(11.3-32.4)	8.9	(4.2-17.6)
Other	--- ⁴	--- ⁴	--- ⁴	--- ⁴
Education				
Less than high school	--- ⁴	--- ⁴	--- ⁴	--- ⁴
High school graduate	17.7	(11.5-26.3)	5.2	(2.8-9.5)
Some college	17.6	(12.4-24.3)	2.2	(1.1-4.2)
College graduate	13.4	(8.8-19.8)	4.1	(1.5-10.3)
Household Income				
< \$20,000	21.5	(12.7-34.0)	5.6	(2.3-12.9)
\$20,000 - \$34,999	13.4	(8.1-21.3)	2.5	(1.0-6.0)
\$35,000 - \$49,999	7.8	(4.2-14.2)	2.9	(1.1-7.7)
\$50,000 - \$74,999	15.9	(9.2-26.2)	6.2	(2.2-16.6)
\$75,000 +	20.7	(13.5-30.4)	1.9	(0.5-6.9)

¹ Based on response to the question, "Have any of your biological family members, including yourself, ever been diagnosed with either breast cancer or cancer of the ovaries?" and excluding those who have ever been diagnosed with breast or ovarian cancer themselves (N = 767)

² Response to the question, "Have you ever received genetic counseling for breast or ovarian cancer? This would include a conversation with an expert about your hereditary risk of breast and ovarian cancer."

³ Response to the question, "Have you ever had a blood test to determine your hereditary risk for breast or ovarian cancer? A doctor would have ordered this test and you would have received the results."

⁴ Cell size < 50.

Table 16: Percentage of Adults Who Have Received Genetic Counseling¹ or Testing² for Breast or Ovarian Cancer by At-Risk Status³, among Those With a Family History but No Personal History of Breast or Ovarian Cancer⁴
(Based on U.S. Preventive Services Task Force)
2009 Michigan BRFSS

	Genetic Counseling		Genetic Testing	
	%	95% Confidence Interval	%	95% Confidence Interval
At-risk from family history of breast and/or ovarian cancer	28.2	(19.8-38.5)	9.7	(5.0-18.1)
Not at-risk from family history of breast and/or ovarian cancer	12.3	(9.3-16.8)	1.3	(0.7-2.4)

¹ Response to the question, “Have you ever received genetic counseling for breast or ovarian cancer? This would include a conversation with an expert about your hereditary risk of breast and ovarian cancer.” (N = 703)

² Response to the question, “Have you ever had a blood test to determine your hereditary risk for breast or ovarian cancer? A doctor would have ordered this test and you would have received the results.” (N = 690)

³ At-risk was defined as having:

- a) ≥ 2 first degree relatives diagnosed with breast cancer, one of whom was diagnosed with early onset breast cancer (< 50 years), or
- b) ≥ 3 first or second degree relatives diagnosed with breast cancer at any age, or
- c) ≥ 2 first or second degree relatives diagnosed with ovarian cancer at any age, or
- d) ≥ 1 first or second degree relative diagnosed with breast cancer at any age and ≥ 1 first or second degree relative diagnosed with ovarian cancer at any age.

* Based on response to the question, “Have any of your biological family members, including yourself ever been diagnosed with either breast cancer or cancer of the ovaries?” and excluding those who have ever been diagnosed with breast or ovarian cancer themselves.

Skin Cancer

Table 35: Use of Sun Protection Methods
2009 Michigan BRFS

	Rarely or Never Use Sun Protection Methods¹	
	%	95% Confidence Interval
Total	38.0	(35.6-40.5)
Age		
18-24	46.4	(36.0-57.0)
25-34	42.2	(34.1-50.8)
35-44	37.0	(31.4-42.9)
45-54	34.5	(30.2-39.1)
55-64	33.3	(29.5-37.4)
65-74	34.5	(29.8-39.5)
75 +	38.2	(33.4-43.2)
Gender		
Male	46.1	(42.2-50.0)
Female	30.3	(27.4-33.3)
Race/Ethnicity		
White non-Hispanic	34.6	(32.0-37.3)
Black non-Hispanic	55.2	(47.5-62.7)
Other non-Hispanic	42.0	(28.8-56.4)
Hispanic	40.3	(26.0-56.5)
Education		
Less than high school	52.1	(41.2-62.8)
High school graduate	44.6	(40.2-49.1)
Some college	36.3	(31.8-41.0)
College graduate	30.0	(26.1-34.2)
Household Income		
< \$20,000	45.8	(39.2-52.6)
\$20,000 - \$34,999	39.3	(33.6-45.5)
\$35,000 - \$49,999	41.2	(34.5-48.2)
\$50,000 - \$74,999	34.0	(28.2-40.2)
\$75,000 +	31.4	(26.8-36.4)
¹ Among all adults, the proportion who reported either “Rarely” or “Never” to the following question: “When you are going to be outside during the day for more than one hour, how often do you protect yourself from the sun by using sunscreen with an SPF of 15 or higher, avoiding the sun between 10 am and 4 pm, or wearing sun protective clothing?” (N = 3,028)		

Table 36: Sun Lamp/Tanning Bed Use: Average Number of Days per Week
2009 Michigan BRFSS

	Sun Lamp/Tanning Bed Use ¹	
	Mean # of Days per Week	95% Confidence Interval
Total	0.1	(0.1-0.2)
Age		
18-24	0.3	(0.0-0.5)
25-34	0.2	(0.0-0.3)
35-44	0.1	(0.0-0.2)
45-54	0.2	(0.1-0.3)
55-64	0.0	---
65-74	0.0	---
75 +	0.0	---
Gender		
Male	0.1	(0.0-0.2)
Female	0.2	(0.1-0.3)
Race/Ethnicity		
White non-Hispanic	0.1	(0.1-0.3)
Black non-Hispanic	0.0	---
Other non-Hispanic	0.0	---
Hispanic	0.2	(0.0-0.5)
Education		
Less than high school	0.1	(0.0-0.2)
High school graduate	0.1	(0.0-0.2)
Some college	0.2	(0.1-0.3)
College graduate	0.0	---
Household Income		
< \$20,000	0.2	(0.0-0.3)
\$20,000 - \$34,999	0.1	(0.0-0.2)
\$35,000 - \$49,999	0.1	(0.0-0.3)
\$50,000 - \$74,999	0.0	---
\$75,000 +	0.1	(0.0-0.2)

¹ Among all adults, the average number of days per week (over the past 12 months) in which sun lamps or tanning beds were used. (N = 3,042)

Cervical Cancer

Table 17: Prevalence of Reported Risk Factors for Cervical Cancer by Adult Women 2009-2010 Michigan BRFSS		
Risk Factors	2009¹	2010²
Did not know of any risk factors	45.3	46.7
Heredity	23.6	28.5
No regular Pap tests or checkups	16.3	21.3
Having had many sex partners	15.1	23.7
Unprotected sex	11.6	17.7
Having had Human Papilloma Virus (HPV) or genital/venereal warts	9.0	8.2
Having had a sexually-transmitted disease (STD)	7.9	13.9
Cigarette smoking	7.1	9.9
Hormone therapy, estrogen, or birth control pills	2.9	1.2
First intercourse at a young age	2.2	2.4
Not getting the vaccine	0.9	1.8
Other	16.8	24.6
<p>¹ Response to the question, "From what you understand about cervical cancer, what do you think are the two most important things that increase a woman's risk of getting cancer of the cervix?" A maximum of 2 responses were recorded: percents sum to greater than 100%</p> <p>² Response to the question, "From what you understand about cervical cancer, what do you think are the most important things that increase a woman's risk of getting cancer of the cervix?" A maximum of 4 responses were recorded, percents sum to greater than 100%.</p>		

Cancer Genomics/Family History

Table 18: Estimate Proportion of Adults Ever Asked by a Health Care Provider about Their Family History of Cancer in General
 2010 Michigan BRFS

	Provider Asked about Family History of Cancer ¹	
	%	95% Confidence Interval
Total	83.4	(81.1-85.5)
Age		
18-24	57.6	(45.6-68.9)
25-34	85.0	(76.9-90.7)
35-44	89.0	(84.3-92.4)
45-54	88.8	(85.4-91.5)
55-64	90.7	(87.9-93.0)
65-74	86.4	(82.7-89.5)
75 +	70.5	(65.4-75.2)
Gender		
Male	77.7	(73.7-81.2)
Female	88.8	(86.2-90.9)
Race/Ethnicity		
White non-Hispanic	84.5	(82.0-86.8)
Black non-Hispanic	81.1	(73.4-87.0)
Other non-Hispanic	68.2	(52.2-80.9)
Hispanic	---	---
Education		
Less than high school	74.2	(63.0-82.9)
High school graduate	75.8	(70.9-80.2)
Some college	82.8	(78.1-86.7)
College graduate	91.9	(88.7-94.2)
Household Income		
< \$20,000	76.4	(69.1-82.4)
\$20,000 - \$34,999	76.5	(70.1-81.9)
\$35,000 - \$49,999	87.8	(82.2-91.8)
\$50,000 - \$74,999	90.4	(85.3-93.9)
\$75,000 +	90.6	(96.9-93.4)

¹ Among all adults, the proportion who responded “yes” to the question, “Has a doctor or other health care provide ever asked you about your family history of cancer, including times when you were asked to fill out a form?” (N = 2,744)

Table 19: Importance of Family Health History to Your Personal Health among Adults
2010 Michigan BRFSS

	Family's Health History is Very or Somewhat Important to Your Personal Health ¹	
	%	95% Confidence Interval
Total	94.8	(93.5-95.9)
Age		
18-24	92.2	(81.7-96.9)
25-34	97.9	(93.2-99.4)
35-44	97.0	(93.7-98.6)
45-54	96.6	(94.0-98.1)
55-64	94.7	(92.0-96.5)
65-74	91.4	(88.1-93.8)
75 +	87.7	(83.9-90.8)
Gender		
Male	93.1	(90.9-94.8)
Female	96.5	(94.6-97.7)
Race/Ethnicity		
White non-Hispanic	94.6	(93.1-95.8)
Black non-Hispanic	97.8	(95.8-98.9)
Other non-Hispanic	92.7	(81.0-97.4)
Hispanic	---	---
Education		
Less than high school	92.1	(84.6-96.1)
High school graduate	95.0	(92.3-96.7)
Some college	92.9	(89.4-95.4)
College graduate	96.8	(95.3-97.9)
Household Income		
< \$20,000	90.9	(84.7-94.8)
\$20,000 - \$34,999	94.1	(90.1-96.6)
\$35,000 - \$49,999	95.0	(90.6-97.4)
\$50,000 - \$74,999	93.4	(89.3-96.0)
\$75,000 +	97.5	(95.4-98.6)

¹ Among all adults, the proportion who responded "very important" or "somewhat important" to the question "How important do you think your family's health history is to your personal health?" (N = 2,756)

Table 20: Active Collection of Family Health History among Adults
2010 Michigan BRFSS

	Actively Collected a Family Health History ¹	
	%	95% Confidence Interval
Total	29.1	(26.8-31.5)
Age		
18-24	17.7	(10.5-28.2)
25-34	24.5	(17.4-33.4)
35-44	34.4	(28.8-40.5)
45-54	36.3	(31.7-41.2)
55-64	31.2	(27.4-35.4)
65-74	25.4	(21.4-29.9)
75 +	18.5	(14.7-23.0)
Gender		
Male	21.2	(18.1-24.8)
Female	26.5	(33.4-39.8)
Race/Ethnicity		
White non-Hispanic	30.0	(27.4-32.6)
Black non-Hispanic	29.4	(23.0-36.8)
Other non-Hispanic	15.4	(8.7-25.9)
Hispanic	18.7	(8.3-36.9)
Education		
Less than high school	22.9	(14.7-33.7)
High school graduate	23.4	(19.6-27.8)
Some college	32.4	(28.1-37.0)
College graduate	32.1	(28.3-36.3)
Household Income		
< \$20,000	29.9	(23.9-36.3)
\$20,000 - \$34,999	24.2	(19.4-29.8)
\$35,000 - \$49,999	28.9	(23.2-35.4)
\$50,000 - \$74,999	30.2	(24.7-36.4)
\$75,000 +	33.6	(29.1-38.5)

¹ Among all adults, the proportion who responded “yes” to the question, “Have you ever actively collected health information from your relatives for the purposes of developing a family health history?” (N = 2,763)

Table 21: Recording of Family Health History among Adults
 2010 Michigan BRFSS

	Ever Recorded a Family Health History ¹	
	%	95% Confidence Interval
Total	15.6	(13.8-17.5)
Age		
18-24	7.8	(3.8-15.4)
25-34	18.0	(11.8-26.5)
35-44	17.6	(13.4-22.8)
45-54	20.2	(16.6-24.3)
55-64	15.6	(12.8-19.0)
65-74	12.8	(9.9-16.4)
75 +	9.4	(6.7-13.1)
Gender		
Male	10.4	(8.2-13.2)
Female	20.5	(17.9-23.3)
Race/Ethnicity		
White non-Hispanic	16.4	(14.4-18.6)
Black non-Hispanic	14.2	(9.8-20.2)
Other non-Hispanic	10.0	(4.6-20.2)
Hispanic	1.4	(0.3-5.9)
Education		
Less than high school	10.6	(5.1-20.7)
High school graduate	11.5	(8.8-14.8)
Some college	17.7	(14.4-21.7)
College graduate	18.1	(15.1-21.6)
Household Income		
< \$20,000	17.6	(12.8-23.6)
\$20,000 - \$34,999	11.6	(8.4-15.9)
\$35,000 - \$49,999	12.7	(9.0-17.7)
\$50,000 - \$74,999	16.3	(12.0-21.8)
\$75,000 +	18.8	(15.3-22.9)
¹ Among all adults, the proportion who responded “yes” to the question, “Have you ever recorded your family health history for future reference? Examples would include writing it down on paper or saving it to your computer.” (N = 2,763)		

Table 22: Sharing of Family Health History with a Provider among Adults
 2010 Michigan BRFSS

	Ever Shared a Family Health History With a Doctor ¹	
	%	95% Confidence Interval
Total	26.8	(24.6-29.1)
Age		
18-24	14.3	(7.9-24.5)
25-34	21.5	(14.9-30.0)
35-44	32.5	(27.0-38.6)
45-54	34.4	(29.9-39.2)
55-64	29.0	(25.2-33.0)
65-74	24.1	(20.2-28.6)
75 +	15.0	(11.6-19.1)
Gender		
Male	19.3	(16.3-22.7)
Female	33.8	(30.8-37.0)
Race/Ethnicity		
White non-Hispanic	27.6	(25.1-30.2)
Black non-Hispanic	27.2	(21.1-34.3)
Other non-Hispanic	13.6	(7.3-23.9)
Hispanic	18.7	(8.3-36.9)
Education		
Less than high school	20.1	(12.5-30.8)
High school graduate	21.6	(17.8-25.8)
Some college	29.8	(25.6-34.2)
College graduate	29.8	(26.0-33.9)
Household Income		
< \$20,000	27.2	(21.5-33.7)
\$20,000 - \$34,999	21.8	(17.1-27.3)
\$35,000 - \$49,999	27.3	(21.7-33.7)
\$50,000 - \$74,999	29.1	(23.7-35.3)
\$75,000 +	31.6	(27.1-36.4)

¹Among all adults, the proportion who responded “yes” to the question, “Have you ever shared your collected family health history with a doctor or other health care provider?” (N = 2,763)

Table 23: Genetic Counseling for Cancer in General among Adults
2010 Michigan BRFS

	Ever Received Genetic Counseling for Cancer ¹	
	%	95% Confidence Interval
Total	7.7	(6.4-9.1)
Age		
18-24	1.5	(0.2-9.6)
25-34	6.8	(3.3-13.8)
35-44	9.1	(6.1-13.4)
45-54	8.7	(6.2-12.2)
55-64	9.1	(6.8-12.1)
65-74	7.2	(5.1-10.1)
75 +	8.9	(6.4-12.3)
Gender		
Male	6.7	(5.0-8.9)
Female	8.6	(6.9-10.7)
Race/Ethnicity		
White non-Hispanic	7.5	(6.2-9.1)
Black non-Hispanic	9.1	(5.7-14.1)
Other non-Hispanic	3.6	(1.5-8.3)
Hispanic	15.8	(5.7-36.8)
Education		
Less than high school	5.8	(2.9-11.4)
High school graduate	5.9	(4.2-8.3)
Some college	8.1	(5.8-11.1)
College graduate	9.1	(6.9-12.0)
Household Income		
< \$20,000	5.8	(3.9-8.6)
\$20,000 - \$34,999	8.8	(5.9-13.0)
\$35,000 - \$49,999	5.8	(3.7-9.0)
\$50,000 - \$74,999	6.3	(3.9-10.0)
\$75,000 +	9.3	(6.7-12.9)

¹ Among all adults, the proportion who responded “yes” to the question, “Have you ever received genetic counseling for cancer? This would include a conversation with an expert about your hereditary risk of cancer.” (N = 2,763)

Table 24: Genetic Testing for Cancer in General among Adults
2010 Michigan BRFS

	Ever Received Genetic Testing for Cancer ¹	
	%	95% Confidence Interval
Total	4.7	(3.6-6.1)
Age		
18-24	7.9	(3.2-18.2)
25-34	0.9	(0.1-6.1)
35-44	3.7	(1.8-7.4)
45-54	4.0	(2.3-6.9)
55-64	5.3	(3.7-7.7)
65-74	4.6	(2.9-7.0)
75 +	8.8	(6.2-12.3)
Gender		
Male	5.9	(4.1-8.4)
Female	3.5	(2.4-5.1)
Race/Ethnicity		
White non-Hispanic	3.8	(2.7-5.3)
Black non-Hispanic	6.6	(4.4-9.7)
Other non-Hispanic	11.5	(5.1-23.9)
Hispanic	17.9	(6.7-39.8)
Education		
Less than high school	6.1	(3.2-11.6)
High school graduate	4.4	(2.4-7.9)
Some college	5.6	(3.6-8.5)
College graduate	3.9	(2.5-6.0)
Household Income		
< \$20,000	7.5	(4.6-12.0)
\$20,000 - \$34,999	6.2	(3.3-11.3)
\$35,000 - \$49,999	3.0	(1.6-5.5)
\$50,000 - \$74,999	4.0	(2.0-7.8)
\$75,000 +	5.0	(3.0-8.2)

¹ Among all adults, the proportion who responded “yes” to the question “Have you ever had a blood test to determine your hereditary risk for cancer? A doctor would have ordered this test and you would have received the results.”
(N = 2,763)

Cancer Survivorship

Table 25: Prevalence of Cancer among Adults
2010 Michigan BRFSS

	Ever Told Cancer ¹	
	%	95% Confidence Interval
Total	10.8	(9.6-12.1)
Age		
18-24	1.0	(0.1-6.5)
25-34	1.8	(0.6-5.4)
35-44	4.5	(2.6-7.8)
45-54	8.6	(6.4-11.5)
55-64	14.4	(11.5-17.9)
65-74	25.3	(21.3-29.8)
75 +	37.8	(32.8-43.2)
Gender		
Male	9.9	(8.3-11.8)
Female	11.7	(10.0-13.5)
Race/Ethnicity		
White non-Hispanic	11.7	(10.3-13.2)
Black non-Hispanic	6.7	(4.4-9.9)
Other non-Hispanic	2.0	(0.7-5.4)
Hispanic	6.0	(1.9-17.2)
Education		
Less than high school	9.0	(5.7-13.8)
High school graduate	13.1	(10.7-15.9)
Some college	8.8	(7.0-11.0)
College graduate	11.0	(9.0-13.3)
Household Income		
< \$20,000	9.2	(6.8-12.3)
\$20,000 - \$34,999	14.9	(11.8-18.7)
\$35,000 - \$49,999	13.9	(10.3-18.4)
\$50,000 - \$74,999	10.6	(7.9-14.1)
\$75,000 +	7.1	(5.3-9.5)

¹ Among all adults, the proportion who responded “yes” to the question, “Have you EVER been told by a doctor, nurse, or other health professional that you had cancer?” (N = 2,788)

Table 26: Adult Cancer Survivors Who Reported Having Received a Written Summary of Cancer Treatments They Have Completed
2010 Michigan BRFSS

	Ever Received Written Summary of Cancer Treatments ¹	
	%	95% Confidence Interval
Total	30.9	(25.2-37.4)
Age		
18-24	---	---
25-34	---	---
35-44	---	---
45-54	32.7	(19.3-49.8)
55-64	21.0	(12.8-32.4)
65-74	34.5	(25.1-45.3)
75 +	24.3	(17.3-33.0)
Gender		
Male	35.7	(26.8-45.8)
Female	27.2	(20.1-35.7)
Race/Ethnicity		
White non-Hispanic	29.4	(23.4-36.1)
Black non-Hispanic	38.7	(23.7-56.5)
Other non-Hispanic	---	---
Hispanic	---	---
Education		
Less than high school	---	---
High school graduate	37.7	(26.9-50.0)
Some college	27.5	(17.5-40.3)
College graduate	28.5	(20.2-38.7)
Household Income		
< \$20,000	34.5	(20.5-51.9)
\$20,000 - \$34,999	40.1	(27.9-53.6)
\$35,000 - \$49,999	33.7	(20.3-50.5)
\$50,000 - \$74,999	21.2	(11.4-35.8)
\$75,000 +	21.5	(12.3-34.8)

¹ Among adult cancer survivors that have completed their cancer treatment, the proportion who responded “yes” to the question, “Did a doctor, nurse or other health professional EVER give you a written summary of all the cancer treatments that you received?” (N = 381)

Table 27: Adult Cancer Survivors Who Reported Having Received a Written Cancer Care Plan Following Completion of Their Cancer Treatment
2010 Michigan BRFSS

	Ever Received Written Cancer Care Plan ¹	
	%	95% Confidence Interval
Total	42.0	(35.6-48.6)
Age		
18-24	---	---
25-34	---	---
35-44	---	---
45-54	47.3	(31.7-63.4)
55-64	37.7	(25.5-51.6)
65-74	35.5	(25.6-46.9)
75 +	36.7	(27.9-46.5)
Gender		
Male	45.8	(36.2-55.7)
Female	38.9	(30.7-47.9)
Race/Ethnicity		
White non-Hispanic	42.2	(35.5-49.2)
Black non-Hispanic	49.1	(32.0-66.4)
Other non-Hispanic	---	---
Hispanic	---	---
Education		
Less than high school	---	---
High school graduate	40.0	(29.1-52.1)
Some college	35.3	(24.3-48.0)
College graduate	49.1	(38.1-60.1)
Household Income		
< \$20,000	30.9	(18.6-46.8)
\$20,000 - \$34,999	40.4	(28.3-53.7)
\$35,000 - \$49,999	50.5	(34.2-66.7)
\$50,000 - \$74,999	43.7	(28.4-60.4)
\$75,000 +	46.8	(32.0-62.2)

¹ Among adult cancer survivors that have completed their cancer treatment, the proportion who responded “yes” to the question, “Have you EVER received instructions from a doctor, nurse, or other health professional about where you should go or who you should see for your routine cancer check-ups after completing treatment for cancer?” (N = 381)

Table 28: Health Insurance Coverage for Cancer Treatment among Adult Cancer Survivors
2010 Michigan BRFSS

	Had Health Insurance to Pay for All or Part of Cancer Treatment¹	
	%	95% Confidence Interval
Total	94.5	(89.3-97.3)
Age		
18-24	---	---
25-34	---	---
35-44	---	---
45-54	95.6	(86.2-98.7)
55-64	96.4	(90.2-98.7)
65-74	99.0	(96.1-99.8)
75 +	93.8	(85.2-97.5)
Gender		
Male	97.0	(93.3-98.7)
Female	92.6	(83.4-96.9)
Race/Ethnicity		
White non-Hispanic	94.4	(88.7-97.3)
Black non-Hispanic	91.0	(74.5-97.2)
Other non-Hispanic	---	---
Hispanic	---	---
Education		
Less than high school	---	---
High school graduate	93.1	(77.4-98.1)
Some college	96.1	(85.6-99.0)
College graduate	94.8	(88.6-97.7)
Household Income		
< \$20,000	93.6	(85.3-97.4)
\$20,000 - \$34,999	97.1	(89.6-99.2)
\$35,000 - \$49,999	99.1	(93.8-99.9)
\$50,000 - \$74,999	99.1	(94.0-99.9)
\$75,000 +	94.2	(84.8-97.9)

¹Among adult cancer survivors that have completed their cancer treatment, the proportion who responded “yes” to the question, “With your most recent diagnosis of cancer, did you have health insurance that paid for all or part of your cancer treatment?” (N = 381)

Table 29: Adult Cancer Survivors Who Reported Being Denied Health or Life Insurance Due to Cancer Diagnosis
2010 Michigan BRFSS

	Denied Health or Life Insurance Due to Cancer Diagnosis ¹	
	%	95% Confidence Interval
Total	7.6	(4.4-13.0)
Age		
18-24	---	---
25-34	---	---
35-44	---	---
45-54	9.3	(3.6-22.1)
55-64	5.5	(2.2-13.0)
65-74	3.9	(1.5-9.8)
75 +	2.9	(0.6-12.1)
Gender		
Male	9.8	(4.5-20.2)
Female	5.9	(2.7-12.6)
Race/Ethnicity		
White non-Hispanic	8.0	(4.5-13.9)
Black non-Hispanic	5.7	(1.5-15.7)
Other non-Hispanic	---	---
Hispanic	---	---
Education		
Less than high school	---	---
High school graduate	7.8	(3.1-18.2)
Some college	6.4	(2.6-15.1)
College graduate	9.3	(3.5-22.2)
Household Income		
< \$20,000	5.7	(1.0-26.3)
\$20,000 - \$34,999	7.7	(2.3-22.4)
\$35,000 - \$49,999	8.6	(1.8-32.2)
\$50,000 - \$74,999	4.9	(1.0-20.8)
\$75,000 +	13.3	(5.0-31.0)

¹ Among adult cancer survivors that have completed their cancer treatment, the proportion who responded “yes” to the question, “Were you EVER denied health insurance or life insurance coverage because of your cancer?” (N = 381)

Table 30: Cancer Clinical Trial Participation among Adult Cancer Survivors
2010 Michigan BRFSS

	Participated in a Clinical Trial as Part of Cancer Treatment ¹	
	%	95% Confidence Interval
Total	7.4	(4.4-12.2)
Age		
18-24	---	---
25-34	---	---
35-44	---	---
45-54	4.5	(0.9-18.8)
55-64	10.6	(4.9-21.3)
65-74	4.7	(2.0-10.6)
75 +	3.9	(1.6-9.4)
Gender		
Male	7.5	(3.3-16.5)
Female	7.3	(3.7-13.8)
Race/Ethnicity		
White non-Hispanic	7.6	(4.4-12.8)
Black non-Hispanic	10.3	(3.4-27.0)
Other non-Hispanic	---	---
Hispanic	---	---
Education		
Less than high school	---	---
High school graduate	6.4	(2.1-18.3)
Some college	8.2	(4.1-15.7)
College graduate	8.8	(3.8-18.9)
Household Income		
< \$20,000	2.4	(0.3-15.4)
\$20,000 - \$34,999	3.4	(1.3-8.9)
\$35,000 - \$49,999	15.1	(5.5-35.3)
\$50,000 - \$74,999	6.1	(2.2-15.9)
\$75,000 +	11.9	(3.9-31.2)

¹Among adult cancer survivors that have completed their cancer treatment, the proportion who responded “yes” to the question, “Did you participate in a clinical trial as part of your cancer treatment?” (N = 381)

Table 31: Current Physical Pain Due to Cancer or Cancer Treatment among Adult Cancer Survivors
2010 Michigan BRFSS

	Current Physical Pain Due to Cancer or Cancer Treatment ¹	
	%	95% Confidence Interval
Total	6.1	(3.5-10.4)
Age		
18-24	---	---
25-34	---	---
35-44	---	---
45-54	10.7	(3.5-48.2)
55-64	7.8	(3.1-17.6)
65-74	4.4	(1.9-10.2)
75 +	2.9	(1.0-8.6)
Gender		
Male	5.7	(2.1-14.4)
Female	6.5	(3.4-12.0)
Race/Ethnicity		
White non-Hispanic	6.5	(3.7-11.1)
Black non-Hispanic	5.2	(1.1-21.7)
Other non-Hispanic	---	---
Hispanic	---	---
Education		
Less than high school	---	---
High school graduate	10.7	(4.8-22.2)
Some college	5.4	(2.3-12.4)
College graduate	2.7	(1.0-7.1)
Household Income		
< \$20,000	5.7	(2.0-15.3)
\$20,000 - \$34,999	6.7	(2.0-19.6)
\$35,000 - \$49,999	13.0	(4.1-33.9)
\$50,000 - \$74,999	0.0	---
\$75,000 +	4.1	(1.3-12.7)

¹ Among adult cancer survivors that have completed their cancer treatment, the proportion who responded “yes” to the question, “Do you currently have physical pain caused by your cancer or cancer treatment?” (N = 381)

Table 32: Primary Health Care Provider Type among Adult Cancer Survivors in Michigan Who Have Completed Their Cancer Treatment
 2010 Michigan BRFSS

	%	95% Confidence Interval
Family Practitioner	62.1	(55.8-68.1)
Internist	18.4	(13.8-24.1)
Gynecologic Oncologist	3.6	(1.6-8.0)
Cancer Surgeon	2.3	(1.1-5.0)
Medical Oncologist	2.3	(1.0-5.1)
General Surgeon	2.1	(1.1-4.0)
Urologist	2.1	(1.0-4.2)
Radiation Oncologist	0.4	(0.1-2.6)
Plastic Surgeon, Reconstructive Surgeon	0.2	(0.0-1.1)
Other	6.5	(4.2-10.1)

^a Among adult cancer survivors that have completed their cancer treatment, the distribution for the type of doctor that provides the majority of their health care. (N = 381)

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