



# MICHIGAN BRFS SURVEILLANCE BRIEF

*A NEWSLETTER FROM THE CHRONIC DISEASE EPIDEMIOLOGY UNIT, MDCH*

## Survivorship among Michigan Adults Diagnosed with Cancer

**Background.** As of January 1, 2012, there were an estimated 513,400 cancer survivors in Michigan. A cancer survivor is defined as any person who has received a diagnosis with cancer, from the time of diagnosis through the end of life. However, the concept of survivorship is most often practiced as being the period after active treatment ends.<sup>1</sup> Cancer survivors have unique healthcare needs that include follow-up care for long-term effects of cancer treatment and surveillance for cancer recurrence. Little guidance is available for survivors and their healthcare providers regarding medical and psychosocial problems that may arise post treatment.<sup>2</sup> It is unclear what ongoing role, if any, the oncologist will play in the future care of the patient once active treatment ends. Without clear communication between physicians and other health professionals care can become uncoordinated and the needs of the cancer survivor may not be met.<sup>3</sup> Formal guidance from oncologists to primary care physicians could help reduce the risk of reoccurrence, co-morbidities, psychosocial issues and long term effects such as chronic pain. Formal guidance can take the shape of a survivorship care plan, which has been identified as a way to improve the communication between oncologists, primary care physicians, and the patient. The IOM states there should be five elements to a survivorship care plan: type of cancer, treatment and it's potential effects, timing of recommended follow-up, preventative healthcare for cancer survivors, information on employment and health insurance, and the availability of community-based psychosocial services.<sup>2</sup>

**Methods.** Two questions related to lifetime cancer prevalence were included within the CDC core portion of the 2011 Michigan Behavioral Risk Factor Survey (MiBRFS). In addition, the MDCH Cancer Prevention and Control Section and the Department of Licensing and Regulatory Affairs, Bureau of Health Professions provided financial support for the inclusion of a 15-question cancer survivorship module on one split of the 2011 MiBRFS.

The cancer prevalence questions included within the 2011 core questionnaire were asked of all survey respondents and thus were analyzed using the combined landline and cell phone raking weight provided by the CDC. The CDC did not provide this combined weight for questions that were included on only a portion of the survey, thus all analyses involving the cancer survivorship state-added questions used data and weights for landline respondents only.

These data were used to assess the prevalence of cancer survivorship among Michigan adults and to evaluate the utilization of survivor care plans among these Michigan adult cancer survivors. Demographic subpopulations were compared to determine if significant differences existed in cancer survivorship and survivor care plan utilization. Due to inadequate sample sizes, race/ethnicity was excluded from all analyses involving the state-added cancer survivorship questions.

**Results.** In 2011, an estimated 11.8% of Michigan adults reported that they had ever been diagnosed with skin cancer or some other type of cancer (Table 1). The lifetime prevalence of cancer increased significantly with age ( $p < 0.01$ ) and was significantly higher for females (13.3%) than males (10.3%) [ $p < 0.01$ ]. Furthermore, Black, non-Hispanics (5.1%,  $p < 0.01$ ) and Hispanics (5.1%,  $p < 0.01$ ) reported significantly lower lifetime cancer prevalence than White, non-Hispanics (13.6%). Lifetime cancer prevalence was similar by education and household income level.

**Table 1. Ever Told Cancer among Michigan Adults, 2011 Michigan BRFS (N=11,008)**

	%	95% CI
<b>Total</b>	<b>11.8</b>	<b>(11.1-12.6)</b>
<b>Age</b>		
18-34	2.3	(1.5-3.5)
35-44	3.9	(2.8-5.5)
45-54	8.3	(6.8-10.2)
55-64	17.6	(15.6-19.8)
65-74	27.7	(25.0-30.7)
75+	38.9	(35.4-42.5)
<b>Gender</b>		
Male	10.3	(9.3-11.4)
Female	13.3	(12.2-14.5)
<b>Race/Ethnicity</b>		
White, non-Hispanic	13.6	(12.7-14.5)
Black, non-Hispanic	5.1	(3.8-6.8)
Other, non-Hispanic	7.1	(4.2-11.8)
Hispanic	5.1	(2.4-10.4)
<b>Education</b>		
Less than high school	14.5	(11.4-18.2)
High school graduate	12.4	(11.1-13.8)
Some college	11.0	(9.8-12.3)
College graduate	11.0	(9.9-12.2)
<b>Household Income</b>		
< \$20,000	11.0	(9.3-13.0)
\$20,000 - \$34,999	13.7	(12.0-15.6)
\$35,000 - \$49,999	12.7	(10.7-15.0)
\$50,000 - \$74,999	11.5	(9.6-13.7)
\$75,000+	9.8	(8.4-11.4)

### MiBRFSS News

- The 2011 Michigan BRFS Annual Report, which includes the new MiBRFSS combined landline and cell phone estimates based on the new raking weighting methodology, was released on the MiBRFSS website ([www.michigan.gov/brfs](http://www.michigan.gov/brfs)) in October 2012.
- 2011 MiBRFSS regional and race/ethnicity estimates can also be found on the MiBRFSS website.
- Did you miss an issue of *Michigan BRFS Surveillance Brief*? Back issues are available on our website.

Among Michigan adult cancer survivors in 2011, an estimated 31.5% received a written summary of all their cancer treatments (Table 2). Cancer survivors 18-64 years of age (40.5%) were more likely to have received a written cancer treatment summary than cancer survivors 65 years of age and older (23.3%) [p = 0.04]. Furthermore, an estimated 52.3% of Michigan adult cancer survivors reported that they used a family practitioner as their primary care provider after cancer treatment.

In 2011, an estimated 33.3% of Michigan adult cancer survivors reported receiving a written survivorship care plan from their doctor (Table 2). Female cancer survivors (40.7%) were more likely to have received a written care plan than male cancer survivors (24.1%) [p = 0.04]. Among these cancer survivors, an estimated 6.9% reported that they currently had physical pain as a result of their cancer or cancer treatment. Furthermore, an estimated 6.7% of Michigan adult cancer survivors reported ever being denied health insurance or life insurance as a result of their cancer diagnosis. All demographic subpopulations not mentioned above reported similar prevalence estimates for the survivor care plan indicators included within Table 2.

**Conclusions.** Life expectancy is increasing for many types of cancer due to improved cancer treatment options. The current underutilization of survivorship care plans among Michigan cancer survivors can be explained, in part, by these plans being relatively new and not currently being adopted by every cancer facility.<sup>1</sup> Survivorship care plans are needed to assist cancer survivors and primary care physicians in understanding the long term effects of cancer and its treatment. A large

**Table 2. Survivor Care Plans among Michigan Adult Cancer Survivors, 2011 Michigan BRFSS (N=402)**

	Received a Written Cancer Treatment Summary	Received a Written Care Plan	Current Physical Pain Due to Cancer Treatment	Denied Health Insurance Due to Cancer Diagnosis
<b>Total</b>	31.5% (24.2-39.9)	33.3% (25.8-41.7)	6.9% (2.6-17.2)	6.7% (4.1-10.9)
<b>Age</b>				
18-64	40.5% (27.9-54.4)	38.5% (25.9-52.8)	11.5% (3.5-32.1)	11.0% (6.0-19.3)
65+	23.3% (17.1-31.0)	28.6% (21.4-37.2)	2.7% (1.1-6.8)	2.8% (1.2-6.5)
<b>Gender</b>				
Male	24.8% (16.3-36.0)	24.1% (15.3-35.9)	1.8% (0.5-6.7)	6.3% (2.6-14.5)
Female	36.9% (26.5-48.7)	40.7% (30.2-52.2)	10.9% (3.7-27.9)	7.1% (3.9-12.4)
<b>Household Income</b>				
< \$35,000	36.4% (23.7-51.4)	37.0% (24.4-51.8)	12.3% (3.6-34.7)	4.5% (2.0-10.0)
≥ \$35,000	31.1% (21.9-41.9)	34.5% (24.8-45.6)	3.3% (1.1-9.1)	7.3% (3.3-15.2)

percentage of survivors report they are in need of assistance with pain, neuropathy, concentration and fatigue on top of their physical concerns.<sup>4</sup> Studies have shown that survivors and primary care physicians find benefit in having a survivorship care plan to help coordinate the long-term care of cancer survivors. Oncologists also see the benefit to survivorship care plans in reducing patient anxiety and improving communication with other providers. However, there are many challenges in implementing survivorship care plans, including time, staffing, and resources.<sup>3</sup> There are state and national level initiatives currently underway to identify solutions for the barriers limiting the utilization of survivorship care plans. Several survivorship care plan templates have been created for patients and providers to use, such as LIVESTRONG, Journey Forward, and the American Society of Clinical Oncology. LiveStrong provides a resource for cancer survivors interested in developing their own care plans at [www.livestrongcareplan.org](http://www.livestrongcareplan.org).

**References**

- <sup>1</sup> American Cancer Society. (2012). *Cancer Treatment and Survivorship Facts and Figures 2012-2013*. Atlanta: American Cancer Society.
- <sup>2</sup> Hewitt, M., Greenfield, S., Stovall, E., eds. (2005) *From Cancer Patient to Cancer Survivor: Lost in Transition*. Washington DC: Institute of Medicine and National Research Council.
- <sup>3</sup> Salz, T., Oeffinger, K., McCabe, M., Layne, T., Bach, P. (2012) Survivorship care plans in research and practice, *CA: Cancer Journal for Clinicians* 62(2):101-117.
- <sup>4</sup> LiveStrong (2010) *How cancer has affected post-treatment survivors: A LiveStrong report*. Retrieved on November 17, 2011 from <http://www.livestrong.org/pdfs/3-0/LSSurvivorSurveyReport>.

**The Michigan Behavioral Risk Factor Surveillance System (MiBRFSS)**  
 The MiBRFSS comprises annual, statewide telephone surveys of Michigan adults aged 18 years and older and is part of the national BRFSS coordinated by the CDC. The annual Michigan Behavioral Risk Factor Surveys (MiBRFS) follow the CDC BRFSS protocol and use the standardized English core questionnaire that focuses on various health behaviors, medical conditions, and preventive health care practices related to the leading causes of mortality, morbidity, and disability. Landline and cell phone interviews are conducted across each calendar year. Data are weighted to adjust for the probabilities of selection and a raking weighting factor that adjusts for the distribution of the Michigan adult population based on eight demographic variables. All analyses are performed using SAS-callable SUDAAN<sup>®</sup> to account for the complex sampling design.

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