



Cancer Survivorship in South Dakota

SD BRFSS DATA 2016, 2017, & 2018

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Background

Methodology

The South Dakota Behavioral Risk Factor Surveillance System (BRFSS) is a telephone survey of residents aged 18 and older and is conducted as a combined effort between the South Dakota Department of Health (DOH) and the Centers for Disease Control and Prevention (CDC). Further details on the BRFSS methodology can be found at <https://doh.sd.gov/Statistics/2016BRFSS/Methodology.pdf>. The full thirteen-question [CDC cancer survivorship optional module](#) was included on the 2016, 2017, and 2018 SD BRFSS.

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Additional Information

For more information about this report, please contact the South Dakota Department of Health Comprehensive Cancer Control Program at 605-773-3737.

Executive Summary

This report utilizes SD BRFSS data to evaluate demographics, cancer type, age at diagnosis, health status, quality of life indicators, and other relevant cancer survivorship indicators.

Key findings among adult cancer survivors in SD:

- 12% reported being diagnosed with cancer, including skin cancer
- 19% reported having two or more types of cancer
- 52% received their first cancer diagnosis between the ages of 40-64
- Skin cancer was the most prevalent cancer type (39.3%), followed by breast cancer (13.3%), male reproductive cancers (12.3%), and female reproductive cancers (8%)
- Significantly higher prevalence of self-reported fair or poor health (25.8% vs. 11.9%) than those with no cancer history
- Significantly higher prevalence of being physically unhealthy for ≥ 14 days in the past 30 days (18.6% vs. 9.1%) than those with no cancer history
- Significantly higher prevalence of not seeing a doctor because of cost (23.9% vs. 10.2%) than those with no cancer history
- 77% reported completing cancer treatment
- 77.3% reported that the majority of their health care was provided by family or general practitioners
- 45.6% received a written summary of all the cancer treatments received
- 75.3% received instructions from a health professional about where to return or who to see for routine cancer check-ups
- With their most recent cancer diagnosis, 92.9% of cancer survivors had health insurance that paid for all or part of their cancer treatment
- 4.3% of cancer survivors reported participating in a clinical trial as part of their cancer treatment
- 7.2% of cancer survivors reported currently experiencing physical pain caused by their cancer or cancer treatment
- Of those reporting pain, 84.4% reported that their pain was currently under control

Cancer Survivor Demographics

SD BRFSS data from 2016, 2017, and 2018 was combined to provide more stable estimates for this report. 12% of South Dakota adults age 18 years and older stated that they had ever been told by a doctor or other health professional that they had cancer, including skin cancer. These respondents are termed cancer survivors for the purposes of this report. Table 1 shows the prevalence rates for cancer survivors in SD by socio-demographic groups.

Table 1: Cancer Survivors Ages 18 Years and Older by Socio-demographic Groups, SD BRFSS 2016-2018

Sociodemographic Groups		Weighted Percentage	95% Confidence Interval
Overall		12.0	11.3-12.7
Gender	Male	10.2	9.0-11.3
	Female	12.9	11.7-14.1
Age Groups	18-39 years	1.8	1.2-2.4
	40-49 years	6.1	4.6-7.7
	50-64 years	13.8	12.3-15.3
	65-74 years	27.5	25.2-29.8
	75 + years	36.2	33.1-39.4
Race	White	13.1	12.3-13.8
	American Indian	5.8	3.6-8.0
	Other	4.7	2.6-6.7
Education	Less than high school	12.1	8.9-15.3
	High school graduate/G.E.D	12.4	11.1-13.7
	Some college	10.9	9.7-12.0
	College graduate	12.9	11.7-14.1
Annual Household Income	Less than \$15,000	12.1	9.0-15.3
	\$15,000-\$24,999	11.7	9.8-13.7
	\$25,000-\$34,999	12.6	10.5-14.8
	\$35,000-\$49,999	13.2	11.1-15.2
	\$50,000 or more	11.2	10.2-12.2
Employment Status	Employed for wages/Self-employed	7.7	6.9-8.4
	Out of work	7.9	4.2-11.5
	Homemaker/student	4.7	6.5-5.9
	Retired	29.4	27.3-31.4
	Unable to work	18.9	14.4-23.4

Type of Cancer and Age at Diagnosis

Type of Cancer

81% of adult cancer survivors in SD had one type of cancer. 16% had two types of cancers, and 3% percent had three or more types of cancer.

Age at Diagnosis

52% of adults were told they had cancer between the ages of 40-64 years old, 19% between the ages of 65-74, 15% between the ages of 20-39, 11% age 75 or older, and 3% between the ages of 1-19.

Figure 1: Types of Cancer Among Adult Cancer Survivors, SD BRFSS 2016-2018

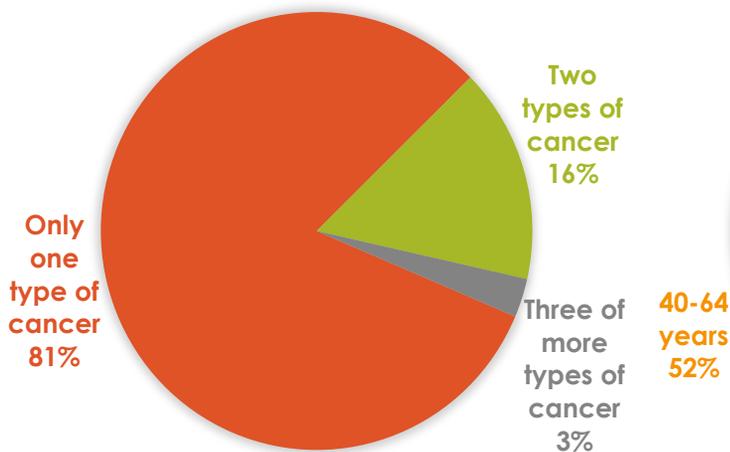
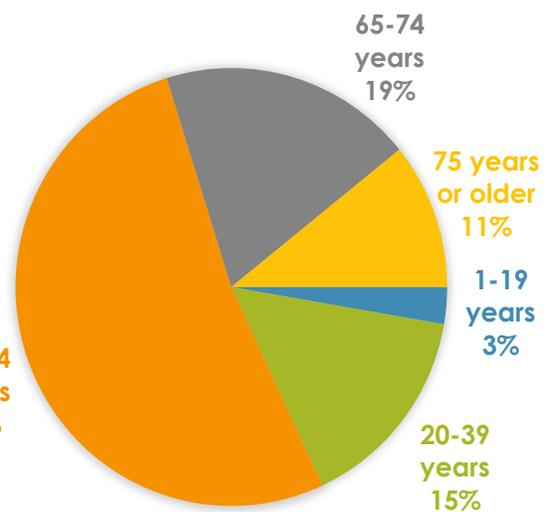


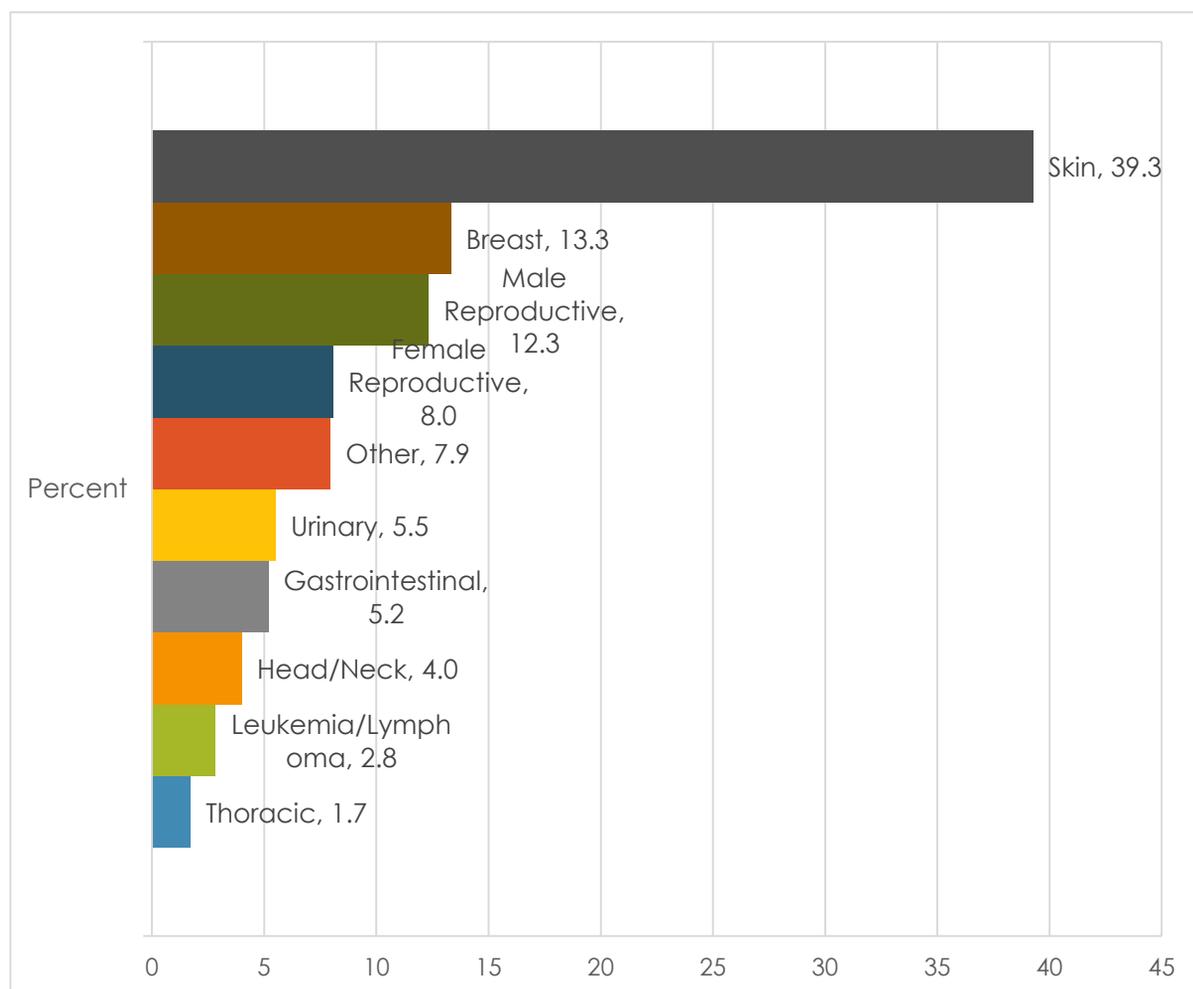
Figure 2: Age at Diagnosis Among Adult Cancer Survivors, SD BRFSS 2016-2018



Cancer Type

Using 2016, 2017, and 2018 combined data, skin cancer (39.3%) was the most prevalent cancer type among South Dakota cancer survivors. The second most prevalent cancer type was breast cancer (13.3%), followed by male reproductive cancers (12.3%), and female reproductive cancers (8%).

Figure 3: Prevalence of Cancer Type Among South Dakota Adults, SD BRFSS 2016-2018



Health Status of Cancer Survivors

No significant difference was seen among cancer survivors compared to those with no cancer history when comparing the age-adjusted prevalence rates for the following health status indicators: current smoker, binge drinking, heavy drinking, not being physically active in the past 30 days, and being overweight or obese. Approximately one in five cancer survivors reported being a current smoker; no physical activity in the past 30 days was reported by one in five cancer survivors. About one in three cancer survivors reported being obese.

Table 2: Age-adjusted Prevalence of Health Risk Factors Among South Dakota Adults, SD BRFSS 2016-2018

	Current Smoker Percent (95% CL)	Binge Drinking Percent (95% CL)	Heavy Drinking Percent (95% CL)
Cancer Survivors	21.9 (14.9-30.9)	15.2 (10.0-22.5)	5.9 (3.8-8.9)
No Cancer History	20.0 (18.8-21.3)	21.0 (19.8-22.3)	6.9 (6.1-7.7)

	No physical activity in past 30 days Percent (95% CL)	Overweight/obese (BMI \geq25 kg/m²) Percent (95% CL)	Obese (BMI \geq30 kg/m²) Percent (95% CL)
Cancer Survivors	20.7 (15.8-26.7)	68.9 61.5-75.5)	32.6 (25.8-40.2)
No Cancer History	22.0 (20.8-23.2)	67.4 (65.9-68.8)	30.5 (29.2-31.8)

Health Status of Cancer Survivors, cont.

Prevalence rates were age-adjusted to compare health status between cancer survivors and those with no cancer history in South Dakota. After adjusting for age, cancer survivors, compared to those with no cancer history, had a significantly higher prevalence of:

- Self-reported fair or poor health (25.8% vs. 11.9%)
- Being physically unhealthy for ≥ 14 days in the past 30 days (18.6% vs. 9.1%)
- Not seeing a doctor because of cost (23.9% vs. 10.2%).

Those with no cancer history were significantly more likely to not have a personal health care provider (26.7% vs. 15.8%).

Table 3: Age-adjusted Prevalence of Health Status Among South Dakota Adults, SD BRFSS 2016-2018

	Self-reported fair/poor health* Percent (95% CL)	Physically unhealthy for ≥ 14 days in past 30 days* Percent (95% CL)	Emotionally unhealthy for ≥ 14 days in the past 30 days Percent (95% CL)
Cancer Survivors	25.8 (19.3-33.7)	18.6 (12.6-26.5)	11.5 (7.9-16.4)
No Cancer History	11.9 (11.1-12.8)	9.1 (8.3-9.9)	9.0 (8.2-9.9)

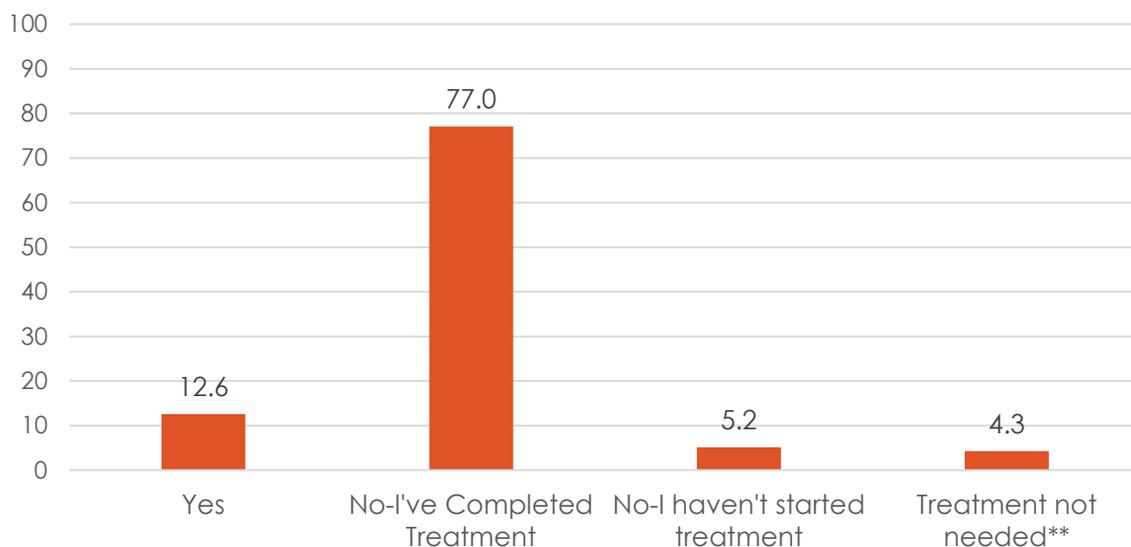
	Do not have a personal health care provider* Percent (95% CL)	Could not see the doctor because of cost* Percent (95% CL)
Cancer Survivors	15.8 (9.8-24.4)	23.9 (17.1-32.3)
No Cancer History	26.7 (25.4-28.0)	10.2 (9.2-11.2)

*Indicates statistically significant differences between groups

Course of Treatment

77% of South Dakota cancer survivors reported that they completed their cancer treatment (surgery, radiation therapy, chemotherapy, or chemotherapy pills). 12.6% of survivors reported currently receiving treatment for cancer, and 5% reported not starting treatment. Survivors refusing treatment had too few respondents and therefore is not included in the figure below. On the 2017 survey only, treatment not needed was also a response option, 4.3% of survivors selected this response in 2017.

Figure 5: Adult Cancer Survivors Currently Receiving Cancer Treatment, SD BRFSS 2016-2018

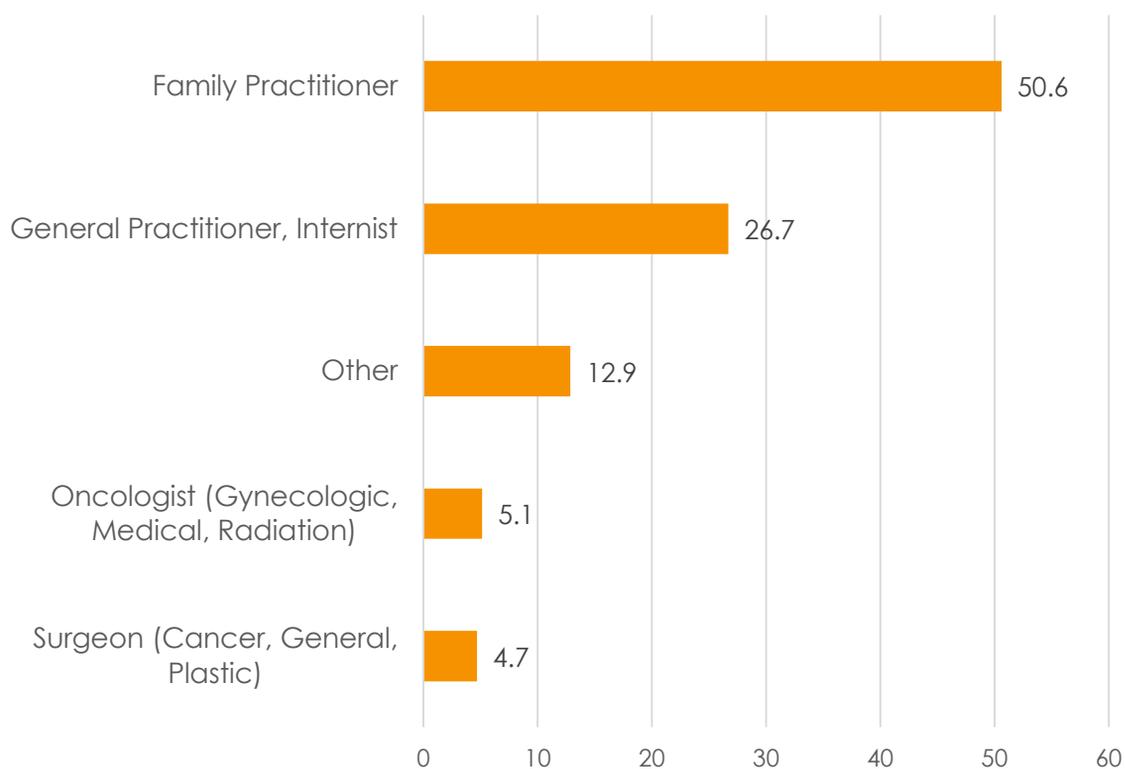


**Treatment not needed was only a response option in 2017

Source of Health Care

77.3% of cancer survivors reported that the majority of their health care was provided by family (50.6%) or general (26.7%) practitioners.

Figure 4‡: Type of Doctor Providing the Majority of Health Care Among South Dakota Cancer Survivors, SD BRFSS 2016-2018



‡Excludes respondents reporting they are currently receiving treatment for cancer

Follow-up Care

Less than half of cancer survivors (45.6%), ever received a written summary of all the cancer treatments that they received. 75.3% of cancer survivors received instructions from a doctor, nurse, or other health professional about where to return or who to see for routine cancer check-ups. Among those receiving instructions, 77.8% received them in writing.

Figure 6‡: Received a Written Summary of All the Cancer Treatments They Received, SD BRFSS 2016-2018

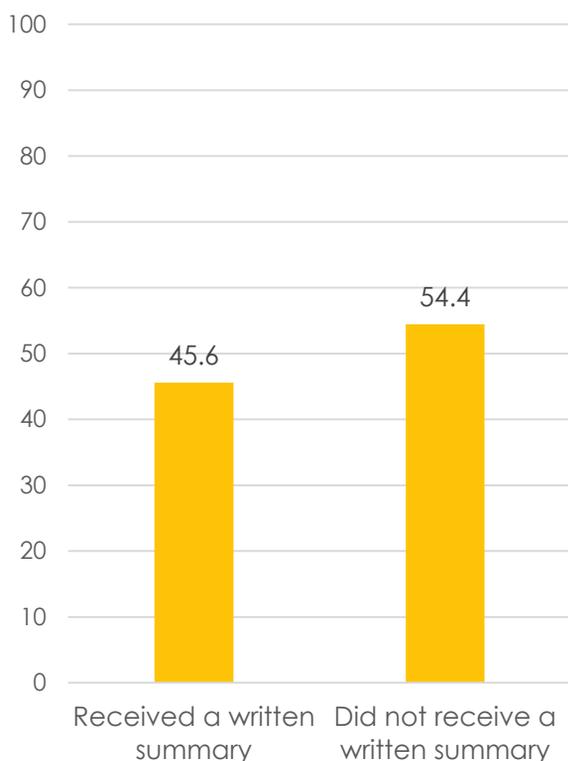
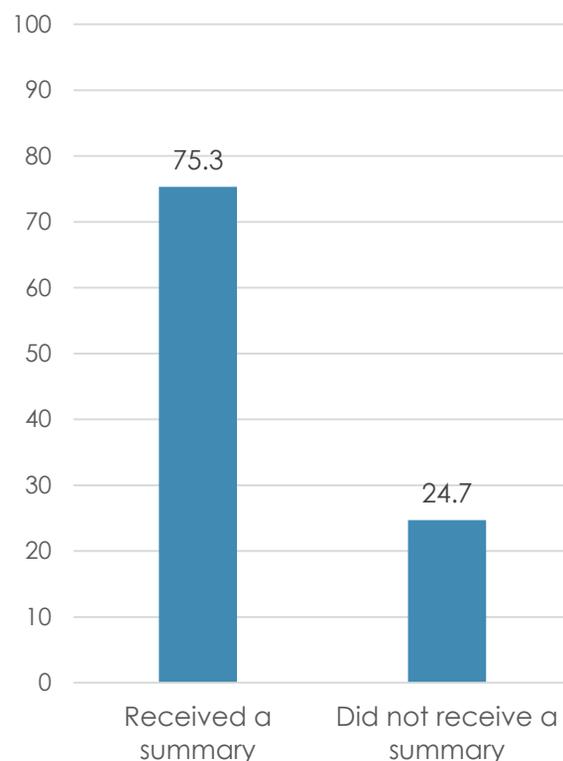


Figure 7‡: Received Instructions About Where to Return or Who to See for Routine Cancer Check-ups, SD BRFSS 2016-2018



‡Excludes respondents reporting they are currently receiving treatment for cancer

Health Insurance, Clinical Trial Participation, and Pain Management

Health Insurance

92.9% of cancer survivors, excluding respondents reporting they are currently receiving cancer treatment, had health insurance that paid for all or part of their cancer treatment, with their most recent cancer diagnosis. 7.8% of respondents reported being denied health or life insurance because of their cancer.

Clinical Trial Participation

4.3% of cancer survivors, excluding respondents reporting they are currently receiving cancer treatment, reported participating in a clinical trial as part of their cancer treatment.

Pain Management

7.2% of cancer survivors, excluding respondents reporting they are currently receiving cancer treatment, reported currently experiencing physical pain caused by their cancer or cancer treatment. Of those reporting pain, 84.4% reported that their pain was currently under control (42.4% with medication or treatment and 42.0% without medication or treatment).