



# Cancer Survivorship in South Dakota

SD BRFSS DATA 2018, 2019, & 2020

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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/2020BRFSS/03\\_Methodology.pdf](https://doh.sd.gov/statistics/2020BRFSS/03_Methodology.pdf). Components of the [CDC cancer survivorship optional modules](#) were included on the 2018 and 2020 SD BRFSS. SD BRFSS data from 2018, 2019, and 2020 using crude percentages was combined to provide more stable estimates for this report. The BRFSS does not allow differentiation between basal and squamous cell carcinomas of the skin and melanoma of the skin. Since basal and squamous cell carcinomas of the skin are not reportable by law to the SD Cancer Registry, this report considers respondents who indicated having been told by a doctor, nurse, or other health professional that they had any other type(s) of cancer, other than skin cancer, as cancer survivors.

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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:**

A total of 7.8% of survey respondents reported being diagnosed with cancer, excluding skin cancer. Of those, 18.1% reported having two or more types of cancer. 48.5% of survivors received their first cancer diagnosis between the ages of 40 to 64. Breast cancer was the most prevalent cancer type at 21.1%, followed by male reproductive cancer at 18.1%, gastrointestinal cancers at 12.3% and female reproductive cancers at 11.3%.

Cancer survivors had a higher prevalence of self-reported fair or poor health than those with no cancer history (31.6% vs. 12.4%). There was a higher prevalence of being physically unhealthy for 14 or more days in the past 30 days than those with no cancer history (20.3% vs. 8.3%).

55.3% of survivors received a written summary of all the cancer treatments received and 78.1% received instructions from a health professional about where to return or who to see for routine cancer check-ups. Finally, 60.7% reported completing their cancer treatment.

# Cancer Survivor Demographics

7.8% of South Dakota adults aged 18 years and older stated that they had ever been told by a doctor or other health professional that they had cancer, excluding skin cancer. These respondents are termed cancer survivors for the purposes of this report. Table 1 shows the percentage of cancer survivors within specific populations in SD by socio-demographic groups.

**Table 1: Cancer Survivors Ages 18 Years and Older by Socio-demographic Groups, SD BRFSS 2018, 2019, & 2020**

Sociodemographic Groups		Weighted Percent	95% Confidence Interval
Overall		7.8%	7.2-8.5
Gender	Male	6.8%	5.7-7.8
	Female	8.9%	8.1-9.8
Age Groups	18-39 years	1.4%	0.5-2.4
	40-49 years	3.7%	2.3-5.3
	50-64 years	8.5%	7.1-9.9
	65-74 years	19.0%	16.7-21.3
	75 + years	22.8%	20.1-25.6
Race	White	8.3%	7.6-9.0
	American Indian	6.5%	1.5-11.5
	Other	4.4%	2.3-6.6
Education	Less than high school	7.4%	4.9-9.8
	High school graduate/G.E.D	8.5%	7.1-10.1
	Some college	7.3%	6.2-8.3
	College graduate	8.2%	7.1-9.3
Annual Household Income	Less than \$15,000	8.7%	5.5-12.0
	\$15,000-\$24,999	10.6%	7.3-13.9
	\$25,000-\$34,999	7.5%	5.5-9.4
	\$35,000-\$49,999	9.3%	7.4-11.2
	\$50,000 or more	6.4%	5.5-7.3
Employment Status	Employed for wages/Self-employed	4.6%	3.9-5.3
	Out of work	5.3%	2.5-8.0
	Homemaker/student	5.3%	1.3-9.2
	Retired	18.6%	16.9-20.4
	Unable to work	17.1%	11.8-22.3

# Type of Cancer and Age at Diagnosis

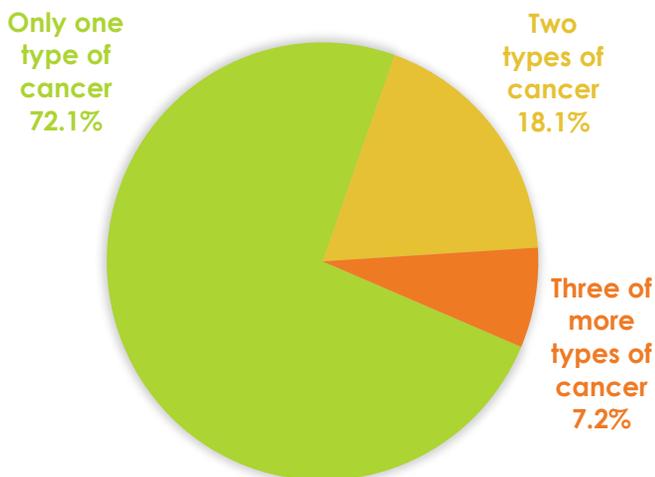
## Type of Cancer

72.1% of adult cancer survivors in SD had one type of cancer. 18.1% had two types of cancer, and 7.2% percent had three or more types of cancer.

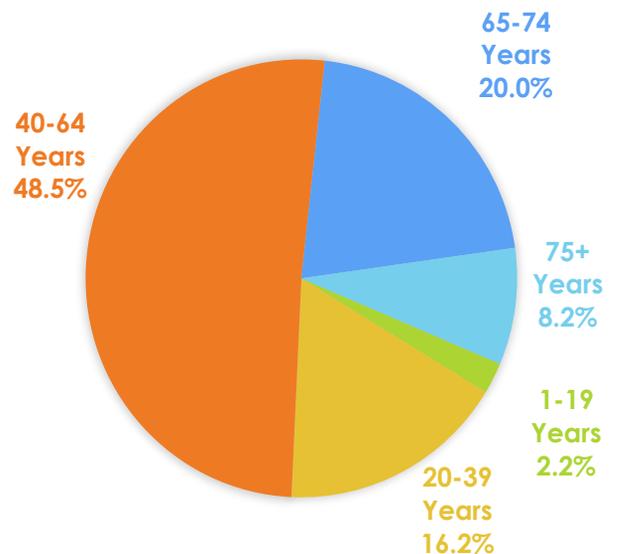
## Age at Diagnosis

48.5% of cancer survivors were told they had cancer between the ages of 40-64 years old, 20.0% between the ages of 65-74, 16.2% between the ages of 20-39, 8.2% age 75 or older, and 2.2% between the ages of 1-19.

**Figure 1\*: Types of Cancer Among Adult Cancer Survivors, SD BRFSS 2018-2020**



**Figure 2\*: Age at Diagnosis Among Adult Cancer Survivors, SD BRFSS 2018 & 2020**

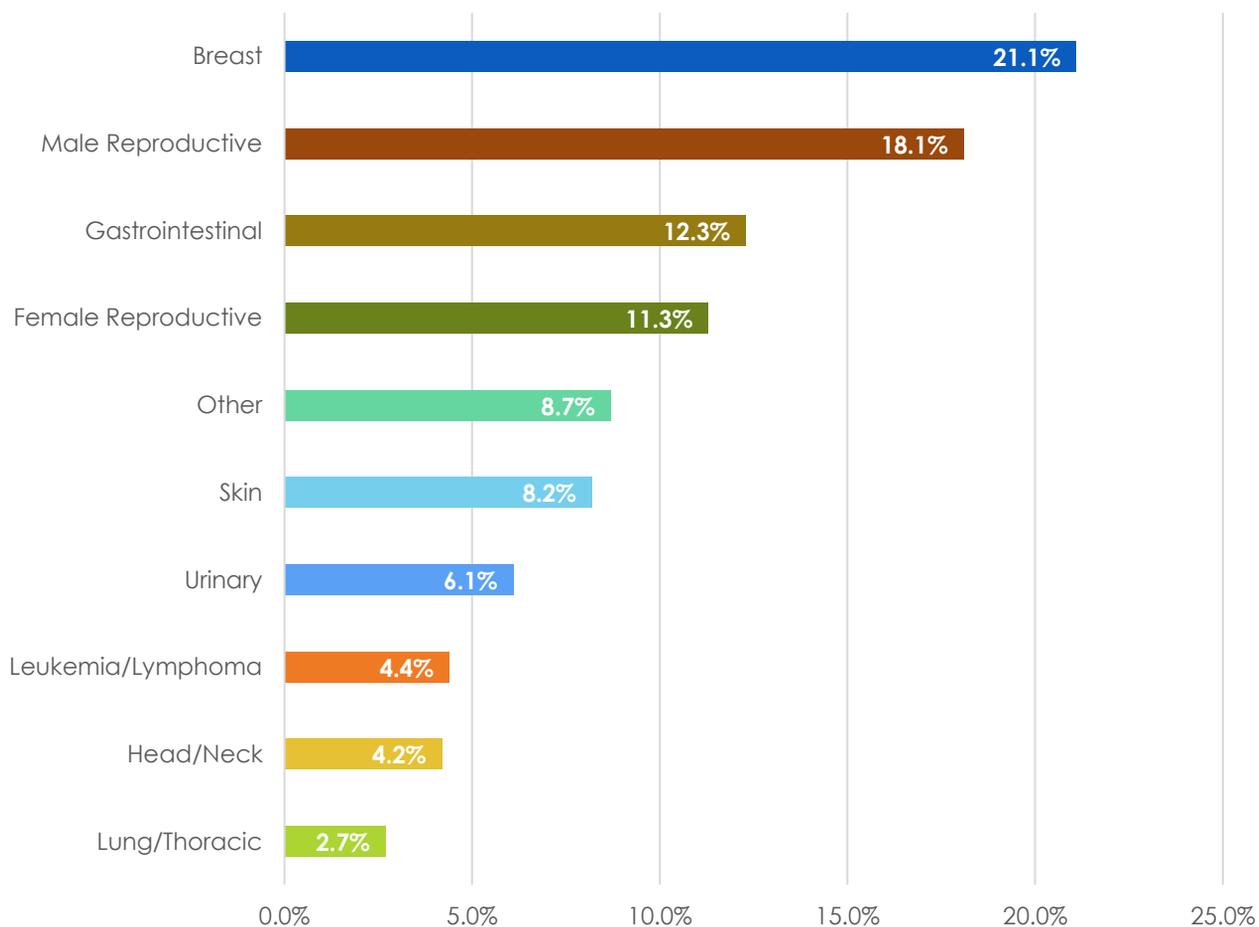


\*Figures may not add up to 100% due to declined or unknown responses

# Cancer Type

Using 2018 and 2020 combined data, breast cancer (21.1%) was the most prevalent cancer type among South Dakota cancer survivors. The second most prevalent cancer type was male reproductive cancer (18.1%), followed by gastrointestinal cancers (12.3%), and female reproductive cancers (11.3%).

**Figure 3: Prevalence of Cancer Type Among South Dakota Adults, SD BRFSS 2018 & 2020**



# Health Status of Cancer Survivors

Cancer survivors had a lower prevalence of binge drinking than those with no cancer history (10% vs. 20%). Conversely, cancer survivors had a higher prevalence of not being physically active in the past 30 days than those with no cancer history (31.3% vs. 24.6%). No difference was seen when comparing percentages of current smoking, heavy drinking, and being overweight or obese by cancer survivor status. The BRFSS survey defined binge drinking as males having five or more drinks on one occasion and females having 4 or more drinks on one occasion. Heavy drinking was defined as males having 14 or more drinks per week and women having 7 or more drinks per week.

**Table 2: Prevalence of Health Risk Factors Among South Dakota Adults, SD BRFSS 2018, 2019, & 2020**

	Current Smoker Percent (95% CL)	Binge Drinking Percent (95% CL)	Heavy Drinking Percent (95% CL)
Cancer Survivors	<b>15.1%</b> (10.5-19.6)	<b>10%</b> (7.2-12.9)	<b>6.1%</b> (3.7-8.4)
No Cancer History	<b>18.1%</b> (16.8-19.3)	<b>20%</b> (18.7-21.3)	<b>6.9%</b> (6.1-7.7)

	No physical activity in past 30 days Percent (95% CL)	Overweight/obese (BMI $\geq 25$ kg/m <sup>2</sup> ) Percent (95% CL)	Obese (BMI $\geq 30$ kg/m <sup>2</sup> ) Percent (95% CL)
Cancer Survivors	<b>31.3%</b> (27.4-35.2)	<b>67.5%</b> (63.5-71.6)	<b>30.7%</b> (26.7-34.7)
No Cancer History	<b>24.6%</b> (23.4-25.9)	<b>62.7%</b> (61.3-64.3)	<b>32.2%</b> (30.7-33.6)

## Health Status of Cancer Survivors, cont.

Cancer survivors, compared to those with no cancer history, had a higher prevalence of self-reported fair or poor health (31.6% vs. 12.4%). They also reported being physically unhealthy for 14 or more days in the past 30 days (20.3% vs. 8.3%). The BRFSS survey defined being physically unhealthy as having a physical illness and/or physical injury.

Those with no cancer history were more likely to not have a personal health care provider (25.1% vs. 8.8%). There was no difference when comparing the prevalence of emotional health or the inability to see a doctor due to cost by cancer survivor status.

**Table 3: Prevalence of Health Status Among South Dakota Adults, SD BRFSS 2018, 2019, & 2020**

	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	<b>31.6%</b> (27.6-35.6)	<b>20.3%</b> (16.9-23.5)	<b>9.8%</b> (7.4-12.3)
No Cancer History	<b>12.4%</b> (11.4-13.3)	<b>8.3%</b> (7.5-9.0)	<b>9.6%</b> (8.6-10.5)

	Do not have a personal health care provider Percent (95% CL)	Could not see the doctor because of cost Percent (95% CL)
Cancer Survivors	<b>8.8%</b> (6.2-11.4)	<b>10.3%</b> (7.5-13.2)
No Cancer History	<b>25.1%</b> (23.6-26.5)	<b>9.4%</b> (8.4-10.4)

## Health Status of Cancer Survivors, cont.

Those with no cancer history were more likely to not have any kind of health care coverage (11.1% vs. 4.4%) and to not have visited a doctor for a routine checkup within the past year (24.5% vs. 9.8%). Cancer survivors, compared to those with no cancer history, were more likely to report ever being diagnosed with a depressive disorder (20.9% vs. 16.1%).

Cancer survivors were more likely to be up-to-date on colorectal cancer screening (83.4% vs. 71.1%). Those with no cancer history were more likely to be up-to-date with breast cancer screening rates than cancer survivors (81.7% vs. 76.4%).

**Table 3: Prevalence of Health Status Among South Dakota Adults, SD BRFSS 2018, 2019, & 2020**

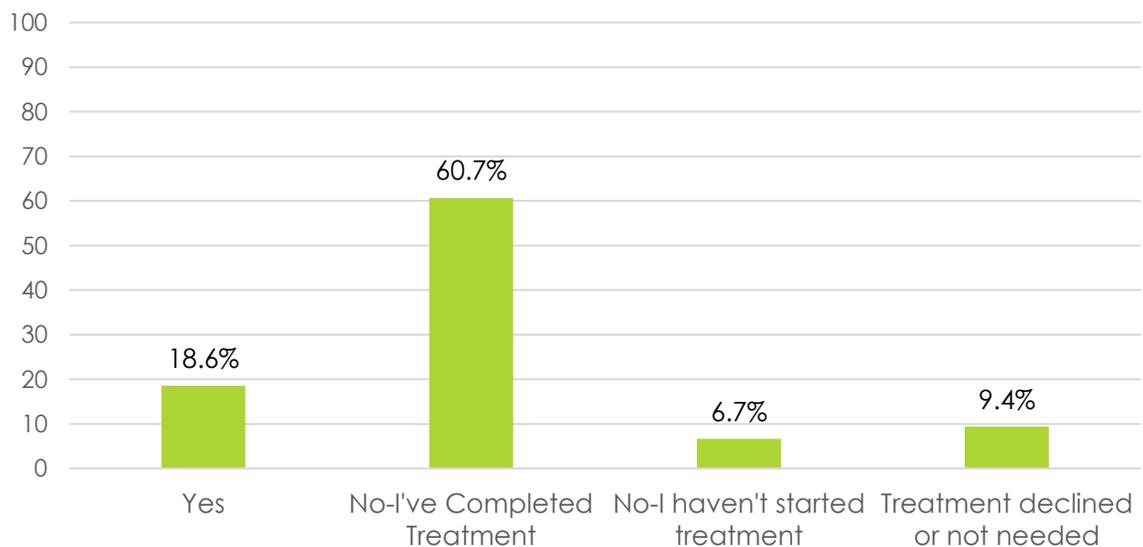
	Does not have any kind of health care coverage (insurance, HMOs, Medicare, IHS, etc.) Percent (95% CL)	Have not visited a doctor for a routine checkup within the last one year Percent (95% CL)	Has ever been diagnosed with a depressive disorder (major depression, minor depression, dysthymia, etc.) Percent (95% CL)
Cancer Survivors	<b>4.4%</b> (2.0-6.8)	<b>9.8%</b> (7.4-12.3)	<b>20.9%</b> (16.3-25.6)
No Cancer History	<b>11.1%</b> (9.8-12.5)	<b>24.5%</b> (23.2-25.8)	<b>16.1%</b> (14.9-17.2)

	Up-to-date for colorectal cancer screening Percent (95% CL)	Up-to-date for breast cancer screening Percent (95% CL)
Cancer Survivors	<b>83.4%</b> (78.5-88.4)	<b>76.4%</b> (69.4-83.4)
No Cancer History	<b>71.1%</b> (68.8-73.4)	<b>81.7%</b> (79.2-84.3)

# Course of Treatment

60.7% of South Dakota cancer survivors reported that they completed their cancer treatment (surgery, radiation therapy, chemotherapy, or immunotherapy). 18.6% of survivors reported currently receiving treatment for cancer, and 6.7% reported not starting treatment. 9.4% of survivors indicated that they had declined treatment or that it was not needed.

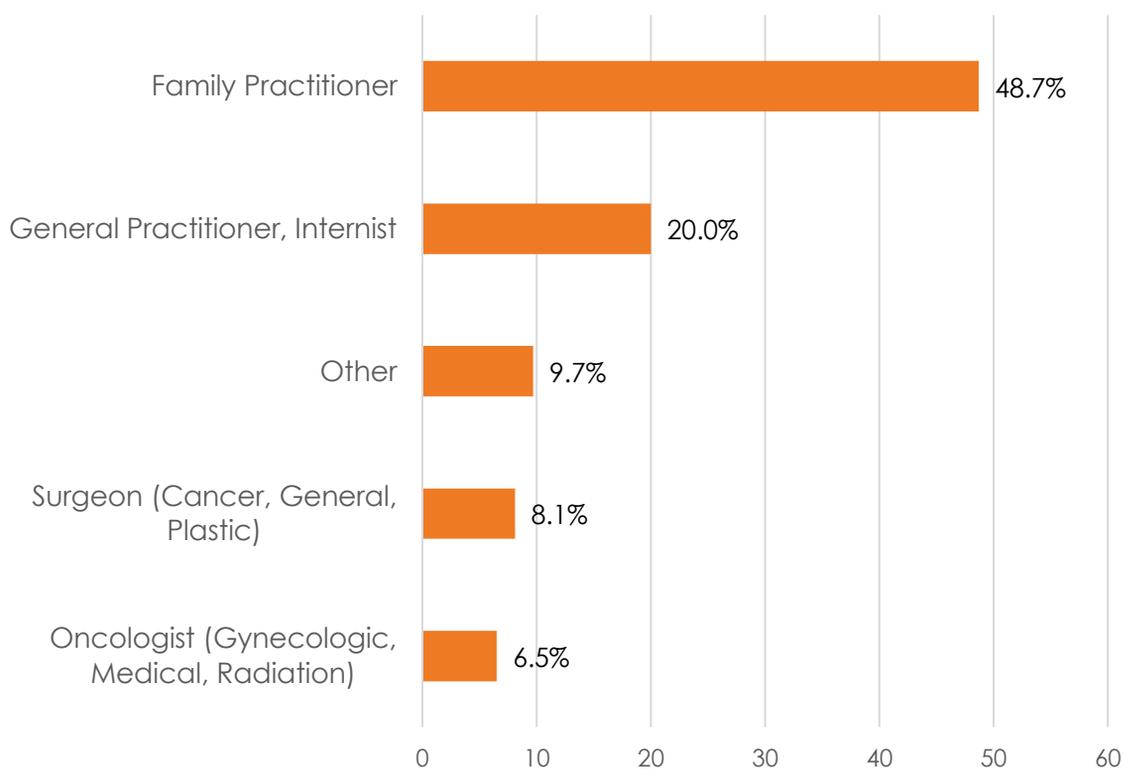
**Figure 5: Adult Cancer Survivors Currently Receiving Cancer Treatment, SD BRFSS 2018 & 2020**



## Source of Health Care

68.7% of cancer survivors reported that most of their health care was provided by family (48.7%) or general (20.0%) practitioners.

**Figure 4: Type of Doctor Providing the Majority of Health Care Among South Dakota Cancer Survivors, SD BRFSS 2018 & 2020**



# Follow-up Care, Health Insurance, and Clinical Trial Participation

## **Follow-up Care**

Approximately half of cancer survivors (55.3%), ever received a written summary of all the cancer treatments they received. 78.1% 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.

## **Health Insurance**

85.9% of cancer survivors had health insurance that paid for all or part of their cancer treatment, with their most recent cancer diagnosis. 12% of respondents reported being denied health or life insurance because of their cancer.

## **Clinical Trial Participation**

4.3% of cancer survivors reported participating in a clinical trial as part of their cancer treatment.