

II. INTRODUCTION

A limited cancer data collection system was established in 1992 under South Dakota Codified Laws, SDCL 1-43-1 to 1-43-18, and Administrative Rules ARSD 44:22:01 to 44:22:05, inclusive. The South Dakota Cancer Registry (SDCR) was established in 2001 to develop a statewide, population-based cancer surveillance system. However, the state legislature amended the law to expand reporting to reflect statewide surveillance. SDCL 1-43-14 has been in effect since July 1, 2005:

Any hospital licensed pursuant to chapter 34-12, physician licensed pursuant to chapter 36-4, physician assistant licensed pursuant to chapter 36-4A, nurse practitioner or nurse midwife licensed pursuant to chapter 36-9A, pathology laboratory, or free-standing radiology center that detects, diagnoses, or treats a cancer case in South Dakota shall submit a report to the Department of Health as required by § 1-43-11 to 1-43-17, inclusive.

Reportable cancers for 2017 include benign brain, benign central nervous system and all malignant neoplasms except basal and squamous cell carcinomas of the skin and *in situ* cervical cancers. In addition to receiving cases from hospital cancer registries the SDCR actively follows back pathology reports and abstracts cases from facilities without tumor registries.

The SDCR performs many quality assurance procedures to assure that the data are valid. The data are run through numerous edits and consolidated if received from more than one reporting source. In addition, the SDCR links the incidence data with mortality files to identify persons whose death records show cancer as a cause of death, but these cancers were not reported to the central registry. The SDCR also links the incidence file with the Indian Health Service database to identify any American Indian South Dakotan who was misclassified as another race.

The SDCR uses the cancer incidence data reported as well as the mortality data and health behavior surveys collected by the department's Health Statistics Office and Vital Records to provide useful information for cancer control and prevention programs, researchers, clinicians, and policy makers. The SDCR is able to answer several epidemiological questions such as:

- How many South Dakotans are diagnosed or die from cancer each year?
- What are the most common cancers?
- When are cancers being diagnosed, i.e. at what stage?
- Which cancers are the deadliest?
- Who is most affected by cancer?
- What are the trends in cancer incidence and mortality?
- Where are cancers occurring?
- Where and what are the disparities?
- Are screening efforts working?

Every life is touched by cancer in some way whether one is diagnosed with the disease or has a family member or friend with the disease. Although cancer is primarily a disease of people over 50 years old, the younger a person dies from cancer, the greater the impact on societal and economic costs. Cancer concerns voiced by South Dakotans are a priority for the SDCR.

As the SDCR continues to collect population based data and as more health care entities and providers report cases, more questions can be answered with the data. For example, SDCR can look at modifiable risk factors such as obesity and exercise. The Harvard Report on Cancer Prevention in 1996 researched the risk factors for cancer. The estimated percentages (which are still relevant today) of total cancer deaths attributed to established causes of cancer were:

Risk Factor	Percentage
Tobacco	30%
Adult diet/obesity	30%
Sedentary lifestyle	5%
Occupational factors	5%
Family history of cancer	5%
Viruses/biological agents	5%
Perinatal factors/growth	5%
Reproductive factors	3%
Alcohol	3%
Socioeconomic status	3%
Environmental pollution	2%
Ionizing /UV radiation	2%
Prescription drugs/medical	1%
Salt/food additives/contaminants	1%

The most successful way to prevent cancer is to limit the number of modifiable risk factors by following these guidelines:

- Do not smoke
- Maintain a healthy weight
- Get at least 30 minutes of physical activity every day
- Eat a healthy diet
- Limit alcohol intake to less than one drink a day
- Protect yourself from the sun

Some risk factors for cancer can be avoided, but many cannot. For example, both smoking and inheriting certain genes are risk factors for some types of cancer, but only smoking can be avoided. Risk factors that a person can control are called modifiable risk factors.

Source: National Cancer Institute

The SDCR continuously expands data collection. This will help prevention and control programs to target at risk populations as well as support epidemiologic studies. The end goal is to reduce the cancer burden by producing valid and accurate data reflecting the complete assessment of cancer in South Dakota, and to disseminate the information in a timely manner.