

2013-2021 South Dakota Pediatric Cancer Report

SD VITAL STATISTICS DATA & SD
CANCER REGISTRY

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Background

Methodology

Data in this report is from the South Dakota's Vital Records dataset, which summarizes the death occurrences within South Dakota in any given year, and from the South Dakota Cancer Registry, a database of all the cancer incidence occurrences among South Dakota residents.

Project Funding

The South Dakota Comprehensive Cancer Control Program (SD CCCP) in partnership with the CDC funds this publication. The content is solely the responsibility of the authors and does not represent the official views of the Centers for Disease Control and Prevention or the Department of Health and Human Services.

Additional Information

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

Executive Summary

This report utilizes data from the SD Vital Records and the SD Cancer Registry to evaluate gender, race, and rates of cancer in pediatric patients. The SD Vital Records and the SD Cancer Registry data is from the years 2013 through 2021 to provide better visualization on the rates of pediatric cancer. Pediatric cancer cases include all malignant cancers for ages 19 and younger.

Key findings among pediatric cancer in SD:

- There were a total of 366 new cancer cases in pediatric patients from 2013-2021.
- There were a total of 39 deaths in pediatric cancer patients from 2013-2021.
- The five-year cancer incidence crude rate decreased from 17.5 per 100,000 children (2013-2017) to 16.6 per 100,000 children (2017-2021).
- The five-year cancer mortality crude rate decreased from 2.2 per 100,000 children (2013-2017) to 1.3 per 100,000 children (2017-2021).
- The most prominent ages for new cancer cases was 0-4 years old (133 cases).
- The most prominent ages for cancer deaths was 5-9 years old (13 cases).

Introduction to Pediatric Cancer Data

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The South Dakota Comprehensive Cancer Control Program (SD CCCP) is committed to collaborating with pediatric cancer partners. These partnerships will have support networks which offer group psychosocial support for cancer survivors, management of disease-related emotions, increased social support, enhanced relationships with family and physicians, and improved symptom control.

The SD CCCP has worked with the SD Cancer Coalition to update the SD Cancer Plan with language supporting the monitoring and analysis of pediatric cancer data. They have also partnered with health systems and organizations to implement support networks for childhood cancer survivors and their families.

Gender and Race Status on Pediatric Cancer

From years 2013 through 2021 there were 366 total pediatric cancer cases and of those cancer cases 189 of them were males, 177 of them were females. Regarding race, 300 of these pediatric cancer cases were White individuals and 46 were American Indian individuals.

During this time frame there were 39 total pediatric cancer deaths. Of these cancer deaths, 25 of them were male and 14 of them were female. Regarding race, 31 of these pediatric cancer deaths were White individuals and 8 were American Indian individuals.

Figure 6: Pediatric Cancer Incidence & Mortality Case Counts by Gender, SD Cancer Registry & Vital Records 2013-2021

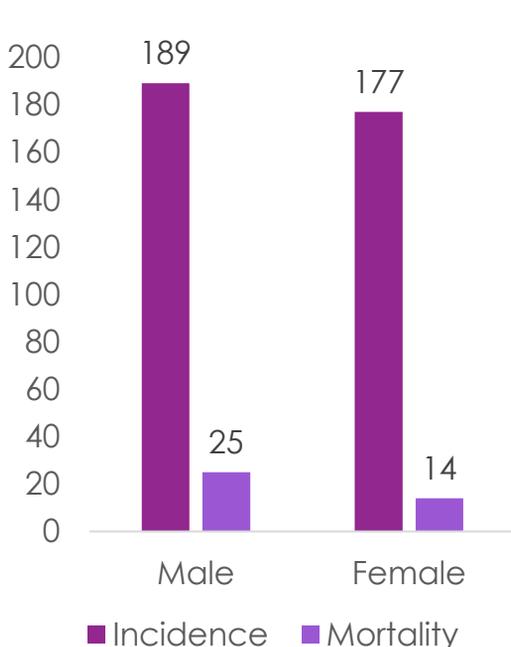
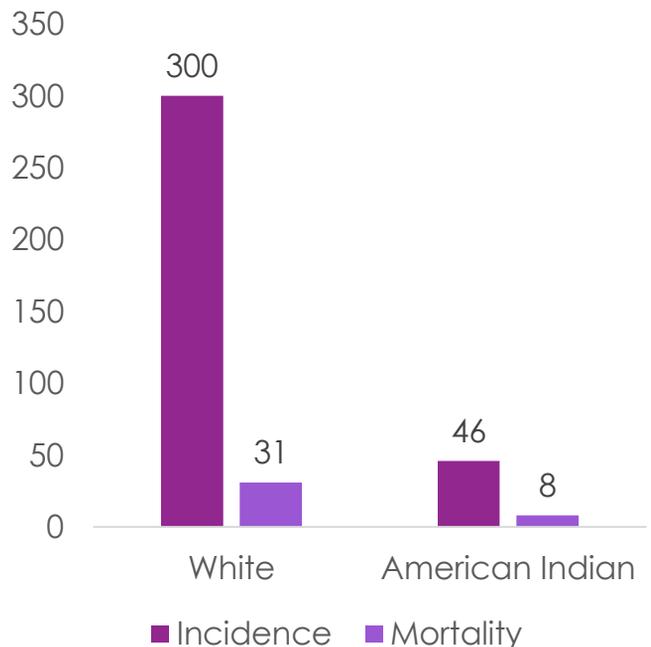


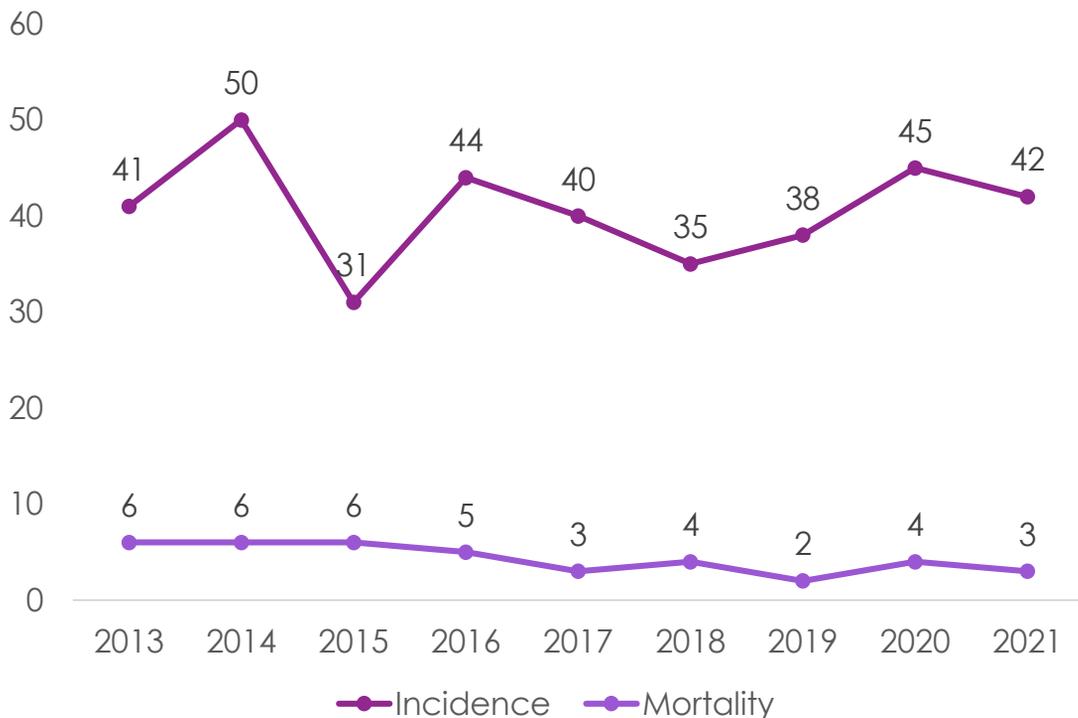
Figure 7: Pediatric Cancer Incidence & Mortality Case Counts by Race, SD Cancer Registry & Vital Records 2013-2021



Pediatric Cancer Counts by Year

This pediatric cancer data shows a decreasing trend in the number of pediatric cancer deaths per year (6 deaths, 2013, to 3 deaths, 2021) and a consistent trend in the number of new pediatric cancer cases per year (41 new cases, 2013, to 42 new cases, 2021).

Figure 8: Pediatric Cancer Incidence & Mortality Case Counts by Year, SD Cancer Registry & Vital Records 2013-2021



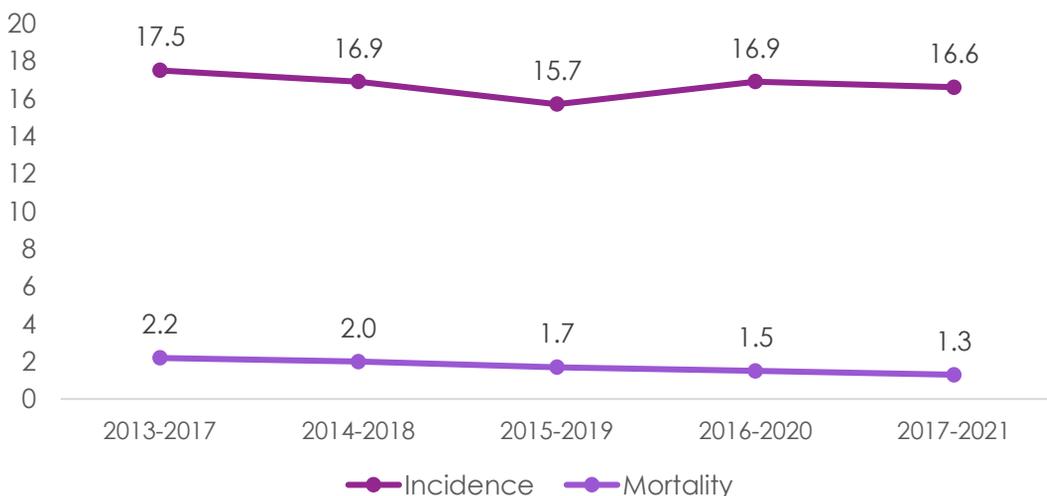
Pediatric Cancer Crude Rates

Grouping together five years of data can be helpful when there is not much data available, like pediatric cancer data in South Dakota. Since the data from single years is usually small and irregular, grouping together five years of data is helpful to create reliable rates. When the data spans to five-year groups it allows for the crude rates to be more accurate and stable since we can include more data.

The five-year crude rate data shows a decreasing trend in both pediatric cancer incidence and mortality. The total crude rate for incidence is 17.1 per 100,000 children and the total crude rate for mortality is 1.8 per 100,000 children.

This emphasizes that although pediatric cancer is still a burden to South Dakota residents, the crude rates for both incidence and mortality are extremely low, which is a positive conclusion.

Figure 9: Pediatric Cancer Incidence & Mortality Crude Rates by Five-Year Groups, SD Cancer Registry & Vital Records 2013-2021

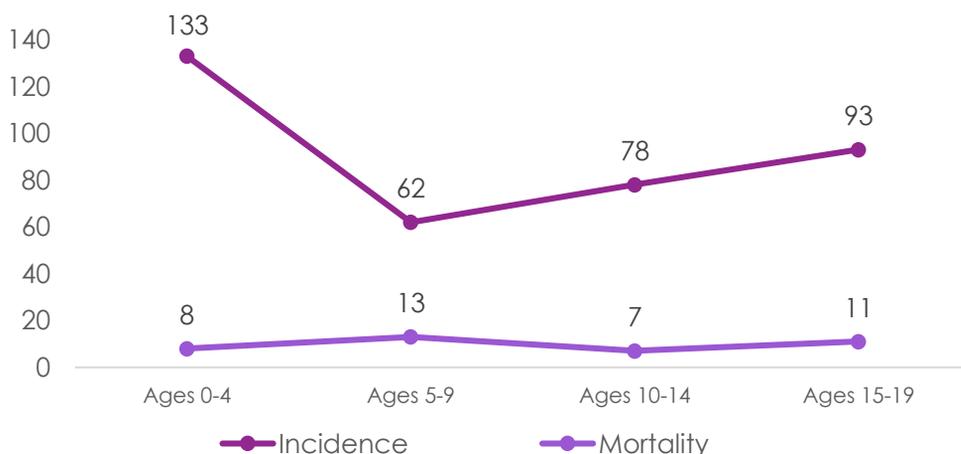


Pediatric Cancer by Age

The American Cancer Society defines children with cancer as children who are in the US and under the age of 15 (1-2). They record that since 2015, overall cancer case rates in children have stabilized (American Cancer Society 1). Also, the five-year survival rate of children with cancer increased to 85% in 2021, compared to 58% in the 1970s (American Cancer Society 1). This is similar to the cancer death rate in children, which has fallen by more than half from the 1970s to 2021 (American Cancer Society 1). Although, cancer is the second leading cause of death in children ages 1-14 (American Cancer Society 1).

This data shows which ages have the most cases and deaths of cancer throughout 2013-2021.

Figure 10: Pediatric Cancer Incidence & Mortality Case Counts by Five-Year Age Groups, SD Cancer Registry & Vital Records 2013-2021

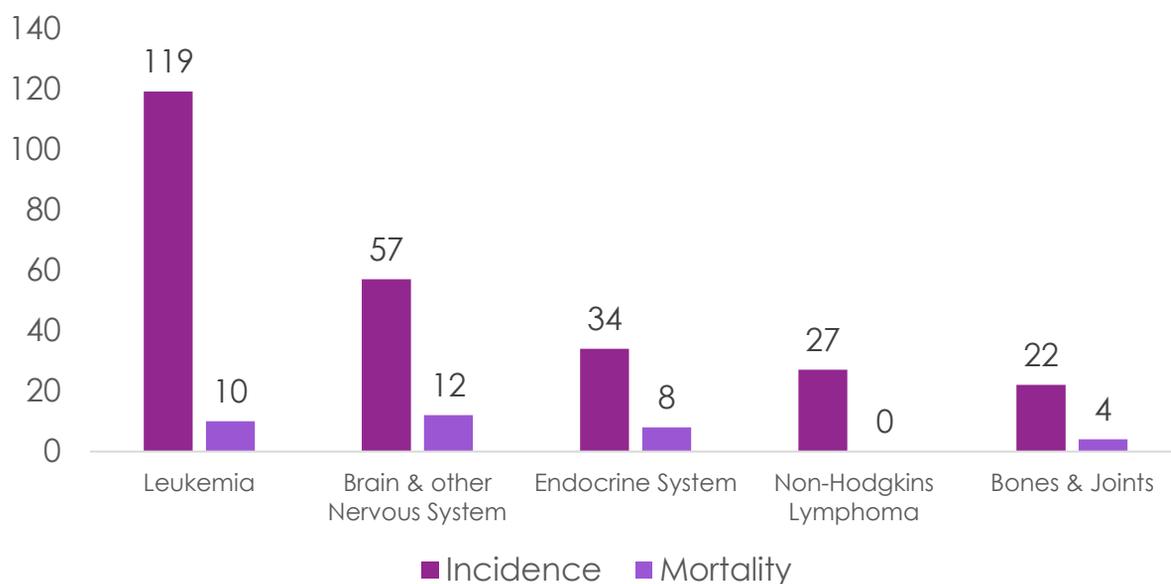


Pediatric Cancer by Type of Cancer

The National Cancer Institute (NCI) defines cancer in children as children and adolescents aged 0-19 (2). The NCI reports that the top five most common cancer sites in children and adolescents from 2016-2020 are leukemias, lymphomas, central nervous system neoplasms, neuroblastomas, and retinoblastomas (NCI 2). The NCI also reports that from 2017-2021, the incidence rate of leukemia is around two times higher in American Indians/Alaska Natives (NCI 2).

The decreasing cancer death rate in children and adolescents is due to advanced treatments and participation in clinical trials for common cancers like leukemia (American Cancer Society Cancer Facts and Figures 2024 12-13).

Figure 11: Pediatric Cancer Incidence & Mortality Case Counts by Most Prominent Cancer Sites, SD Cancer Registry & Vital Records 2013-2021



Pediatric Cancer Conclusion

Although the rates in both incidence and mortality are decreasing for pediatric cancer, there is still a lot of work to be done to improve the outcomes of pediatric cancer. While new causes of cancer are continually being discovered, we know of prominent risk factors already. Some of these risk factors include radiation exposure, parental smoking, and inherited DNA changes (American Cancer Society 1). It is also important to bring children in for routine checkups so any signs of pediatric cancer can be brought to the attention of a physician. The burden of pediatric cancer stretches across the entire state and nation and we all must play a role to keep children cancer free.

Sources

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