

2018—2022

# CANCER IN MONTANA

FEATURING PHYSICAL INACTIVITY-ASSOCIATED CANCERS IN MONTANA



MONTANA CENTRAL TUMOR REGISTRY ANNUAL REPORT

*July 2025*  
*Helena, Montana*



This publication is funded in part by the Montana State General Fund and in part by Cooperative Agreement DP22-2202 from the Centers for Disease Control and Prevention-National Program of Cancer Registries of the U.S. Department of Health and Human Services. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of CDC.

Full citations for national data:

United States Cancer Statistics: National Program of Cancer Registries and Surveillance, Epidemiology and End Results Program SEER\*Stat Database: NPCR and SEER Incidence - U.S. Cancer Statistics Public Use Research Database, 2023 Submission (2001-2021). United States Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute. Released June 2023. Accessed at [www.cdc.gov/cancer/uscs/public-use](http://www.cdc.gov/cancer/uscs/public-use).

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All-site Cancer in Montana  
Quick Stats

**6,645**  
**MONTANANS**

DIAGNOSED WITH CANCER EACH YEAR BETWEEN 2018-2022

**NUMBER**  
**TWO**

CAUSE OF DEATH AMONG MONTANANS EACH YEAR  
AFTER HEART DISEASE

**ONE**  
**IN TWO**

MEN WILL BE DIAGNOSED WITH CANCER IN THEIR LIFETIME

**ONE**  
**IN THREE**

WOMEN WILL BE DIAGNOSED WITH CANCER IN THEIR LIFETIME



# All-site Cancer in Montana

Cancer is a common disease; 2 in 5 people (40%) will be diagnosed with cancer in their lifetime.<sup>1</sup> This report describes the burden of cancer among Montanans and includes a special feature on cancers associated with physical inactivity.

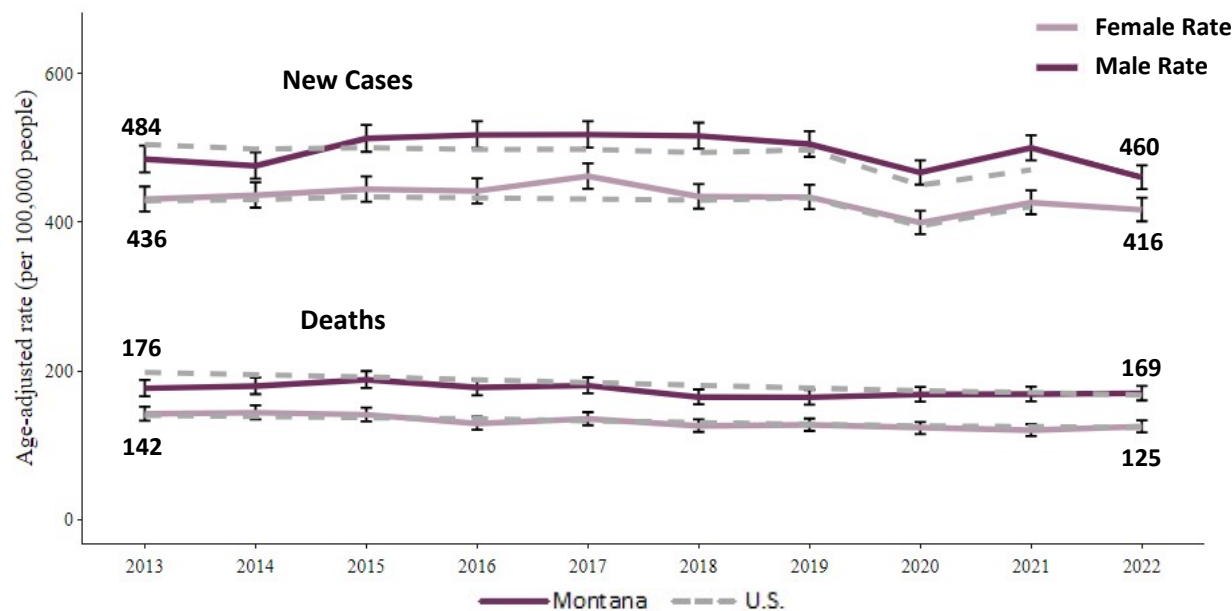
A total of 39,124 incident cancer cases were reported to the Montana Central Tumor Registry (MCTR) between 2018—2022, including invasive and in-situ cancers, benign tumors, and tumors of uncertain behavior. Invasive cancers accounted for 33,224 cases (85%); carcinoma in-situ accounted for 5,900 cases (15%). An average of 6,645 invasive cancers were diagnosed each year among Montana residents between 2018 and 2022.

Over half (54%) of invasive cancers diagnosed in Montana occurred among

men. The cancer incidence rate was higher among males compared to females in Montana and the U.S. from 2018—2022 (Figure 1).

Cancer incidence stayed relatively constant over the past 10 years. Following a significant decrease in cancer diagnoses among both men and women in 2020 likely due to the disruption of health care services caused by the Covid pandemic, cancer rates in Montana returned to normal rates in 2021 and 2022 (Figure 1). The male incidence rate observed a drop in 2022, to levels significantly lower than what was observed in pre-pandemic years. Fluctuations in incidence do occur over time, suggesting that it's too early to determine if this decline is a genuine shift or a random fluctuation.

Figure 1. Trends in age-adjusted cancer incidence (new cases) and mortality (deaths) rates in Montana and the U.S., 2013—2022.



Data Source: Montana Central Tumor Registry, 2013—2022; Montana Death Records, 2013—2022; United States Cancer Statistics, 2013—2021

<sup>1</sup> American Cancer Society. Lifetime Probability of Developing and Dying from Cancer, 2018-2022 (Cancer Facts & Figures 2023 Supplemental Data). 2024. Accessed at <https://www.cancer.org/cancer/risk-prevention/understanding-cancer-risk/lifetime-probability-of-developing-or-dying-from-cancer.html> on June 7th, 2024.

Cancer was the second leading cause of death in Montana from 2018—2022, following heart disease. There were a total of 10,866 cancer deaths from 2018—2022 for an average of 2,174 cancer deaths each year over this time period. The cancer mortality (death) rate among Montana residents was not significantly different than the U.S. (Figure 1). Four types of cancer accounted for 50% of all new cancers diagnosed in Montana from 2018—2022. These cancers were prostate (16%), female breast (15%), lung (11%), and colorectal (8%).

Nearly one in four cancer-related deaths in Montana were due to lung cancer (23%), followed by colorectal (9%), pancreatic (8%), prostate (7%) and female breast (7%), (Table 1).

Between 2018 and 2022 there was no difference between the incidence rate of all cancer sites combined in Montana and the U.S. as a whole. The incidence rate of lung and uterine cancers were statistically significantly lower in Montana compared to the U.S. (Figure 2). In contrast, the incidence rates of lymphomas, leukemia, bladder, melanoma, and prostate cancers were statistically significantly higher than the U.S. rates (Figure 2).

The cancer mortality rate for all-site cancer in Montana was 7% lower than that of the U.S. a significant difference (Figure 3). Six cancer sites: lung, breast, liver, Non-Hodgkin Lymphoma, pancreas, and colorectal had significantly lower mortality rates than the U.S. (Figure 3). Mortality in Montana was statistically higher for prostate cancer compared to the U.S. (Figure 3).

**Table 1. Number and percent of new cancer cases (incidence) and cancer-related deaths (mortality) among the 15 most common cancers in Montana over the 5-year period 2018 through 2022.**

New Cancers				Deaths			
Rank	Site	Avg. # per year	Percent	Rank	Site	Avg. # per year	Percent
1	Prostate	1080	16%	1	Lung	447	23%
2	Female Breast	966	15%	2	Colorectal	182	9%
3	Lung	712	11%	3	Pancreas	160	8%
4	Colorectal	511	8%	4	Prostate	138	7%
5	Melanoma	374	6%	5	Breast	142	7%
6	Bladder	325	5%	6	Liver	95	5%
7	Non-Hodgkin Lymphoma	286	4%	7	Brain and other CNS	74	4%
8	Kidney	244	4%	8	Leukemias	82	4%
9	Leukemias	217	3%	9	Myeloma	50	3%
10	Pancreas	195	3%	10	Kidney	63	3%
11	Uterus	186	3%	11	Esophagus	64	3%
12	Thyroid	160	2%	12	Bladder	65	3%
13	Liver	115	2%	13	Lymphoma	67	3%
14	Myeloma	104	2%	14	Uterus	35	2%
15	Brain and other CNS	97	1%	15	Melanoma	36	2%
	<b>All new cancers (total)</b>	<b>6,645</b>	<b>100%</b>		<b>All cancer related deaths (total)</b>	<b>2,174</b>	<b>100%</b>

Data Source: Montana Central Tumor Registry, 2018—2022; Montana Death Records, 2018—2022

Figure 2. Comparison of Montana and U.S. incidence rates for the select cancer sites, 2018—2022.

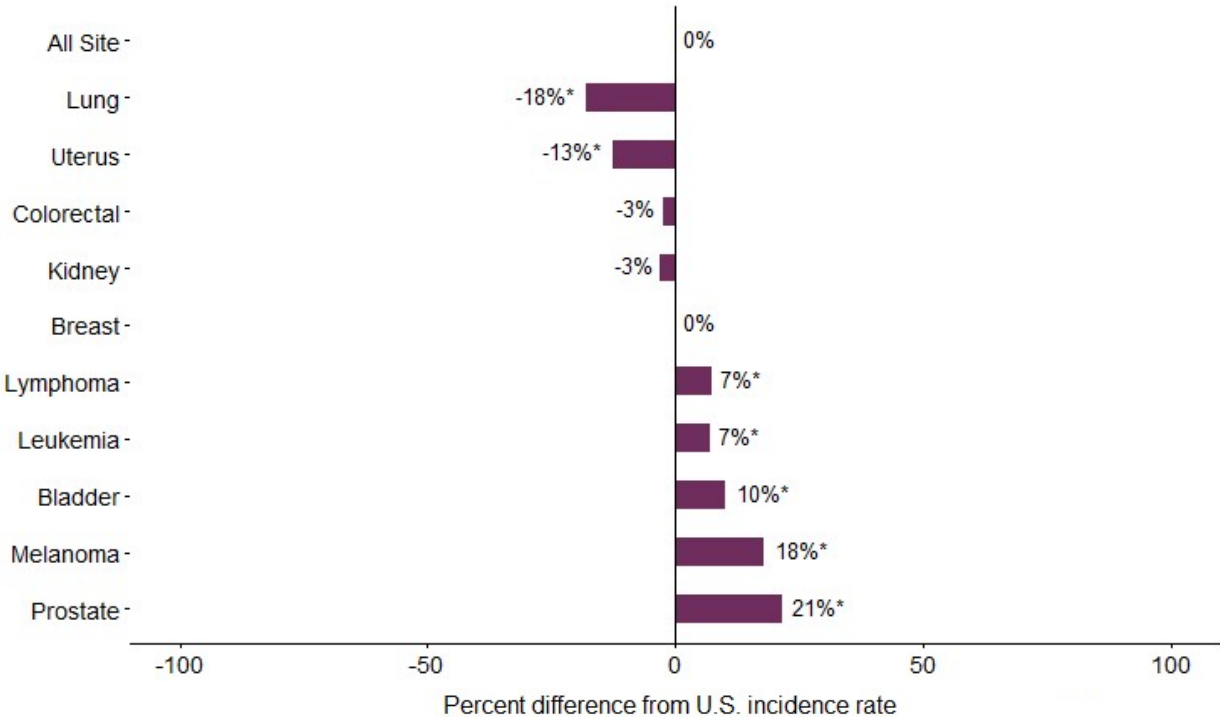
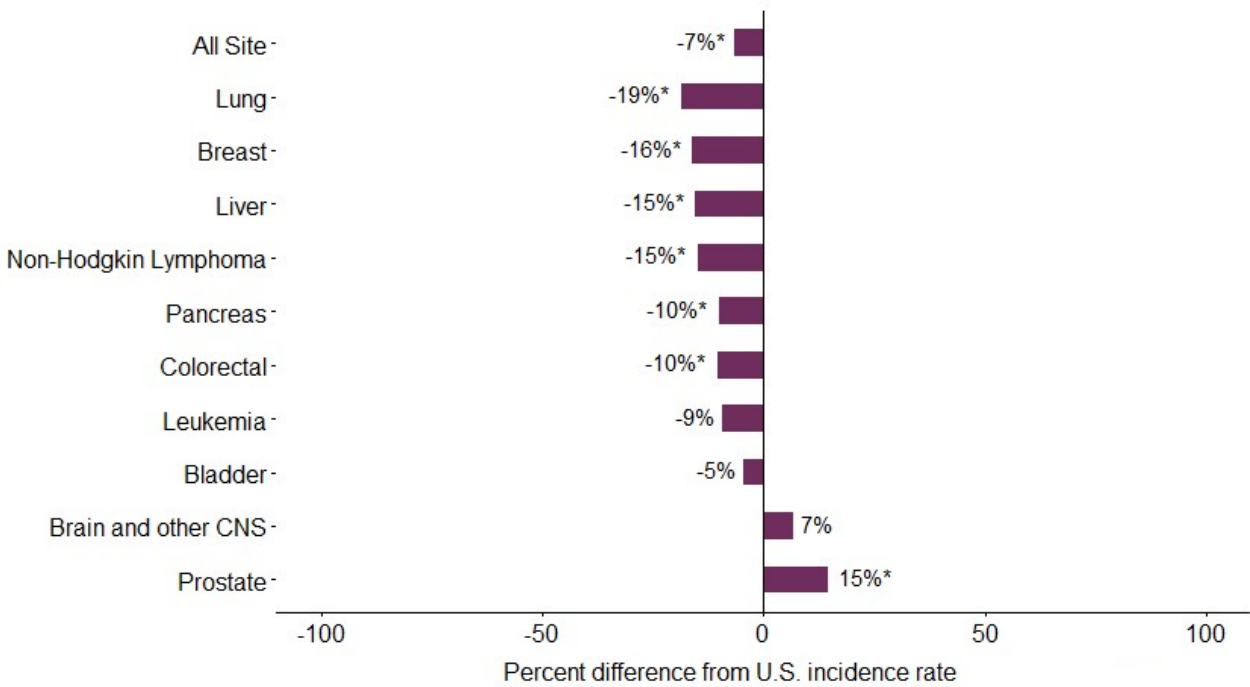


Figure 3. Comparison of Montana and U.S. mortality rates for the select cancer sites, 2018—2022.



Figures 2 and 3 depict the Montana-U.S. Standardized Incidence Rate Ratio (SIRR) and Standardized Mortality Rate Ratio (SMRR). The SIRR and SMRR indicate which types of cancers among Montanans were above or below the U.S. age-adjusted incidence rate or mortality rate, respectively. This information is important in understanding the unique burden cancer presents to Montana.

\*Statistically significantly different rates between Montana and the U.S

Data Source: Montana Central Tumor Registry, 2018—2022; Montana Death Records, 2018—2022; United States Cancer Statistics, 2017—2021

Cancer Among Montana American Indians  
Quick Stats

**345  
NEW CASES**

OF CANCER DIAGNOSED EACH YEAR

CANCER INCIDENCE RATE AMONG MT AI WAS

**35 PERCENT  
HIGHER**

THAN AMONG MONTANA WHITES

**114  
DEATHS**

DUE TO CANCER EACH YEAR AMONG MONTANA  
AMERICAN INDIANS

**6 CANCER SITES**

ACCOUNT FOR THE HIGHER CANCER INCIDENCE AND MORTALITY  
AMONG MONTANA AMERICAN INDIANS



# Cancer among American Indians in Montana

## Cancer presents a significant burden to American Indian communities in Montana.

From 2018—2022, there were a total of 1,725 Montana American Indians (MT AI) diagnosed with cancer for an average of 345 each year.

Female breast and lung cancer were the most commonly diagnosed cancers among MT AI followed by prostate and colorectal cancers (Table 2). These four types of cancer accounted for 50% of all cancers diagnosed among MT AI.

American Indian men and women in Montana had about the same cancer incidence rate from 2018—2022 (621 new cases per 100,000 men and 555 new cases per 100,000 women). The average age at diagnosis was 63 years old among MT AI men and 62 years old among MT AI women.

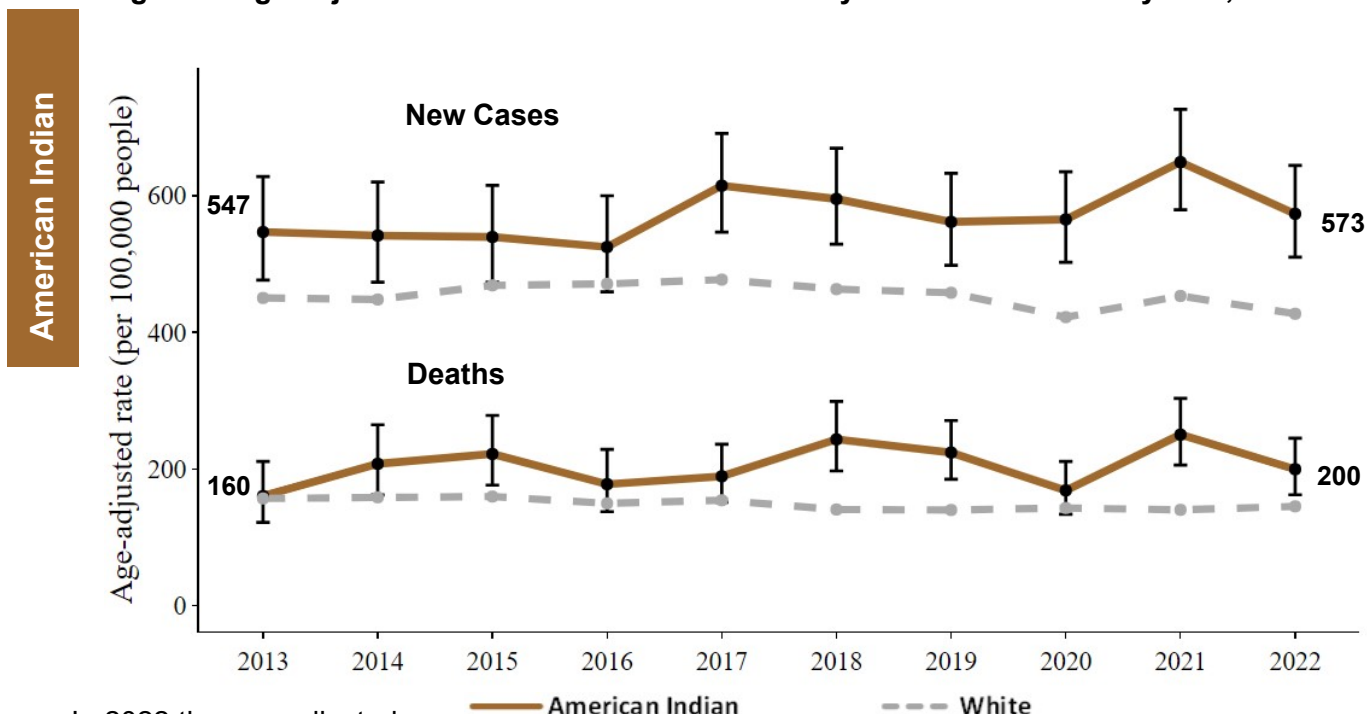
From 2018—2022, cancer was the second leading cause of death with 570 cancer related deaths among MT AI. On average, there were 114 cancer deaths each year. Lung cancer accounted for 25% of cancer related deaths among MT AI (Table 2).

**Table 2. Number and percent of new cancer cases and cancer-related deaths among American Indians for the 10 most common cancers in Montana from 2018—2022.**

New Cancers				Deaths			
Rank	Site	Avg # per year	Percent	Rank	Site	Avg # per year	Percent
1	Breast	53	15%	1	Lung	26	25%
2	Lung	49	14%	2	Colorectal	12	11%
3	Prostate	38	11%	3	Liver	8	8%
4	Colorectal	33	10%	4	Female Breast	8	8%
5	Kidney	24	7%	5	Pancreas	7	7%
6	Liver	15	4%	6	Prostate	5	5%
7	Lymphoma	11	3%	7	Kidney	5	4%
8	Pancreas	11	3%	8	Leukemia	4	3%
9	Thyroid	11	3%	9	Non-Hodgkin Lymphoma	3	3%
10	Leukemia	9	3%	10	Stomach	3	3%
	All Cancer Sites Combined	345	100%		All cancer-related deaths (total)	114	100%

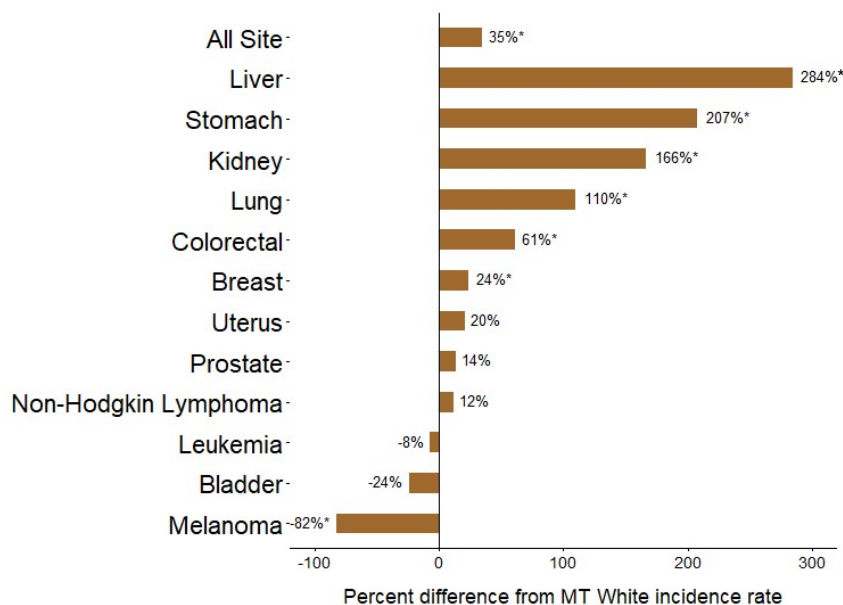
Data Source: Montana Central Tumor Registry, 2018—2022; Montana Death Records, 2018—2022

**Figure 4. Age-adjusted cancer incidence and mortality trends in Montana by race, 2013—2022.**



- In 2022 the age-adjusted incidence rate for all cancer sites among Montana American Indians (573.4 cases per 100,000 people) remained significantly higher than among Whites in Montana (427.2 cases per 100,000 people). Overall, cancer incidence has remained relatively steady over the last decade among Montana American Indians.
- In 2022 the overall cancer-related death rate (mortality) was also significantly greater among MT AI (199.7 deaths per 100,000 people) compared to MT Whites (145.3 deaths per 100,000) (Figure 4).
- There were six types of cancer which occurred at significantly greater incidence rates among MT AI compared to MT Whites. These cancers were liver, kidney, stomach, lung, colorectal, and breast (Figure 5).
- Cancer mortality rates were significantly greater among MT AI for

**Figure 5. Comparison of American Indian and White incidence for select cancer sites in Montana, 2018—2022.**



Figures 5 and 6 present the Montana American Indian-White Incidence Rate Ratio (IRR) and Mortality Rate Ratio (MRR) respectively. The IRR and MRR indicate which types of cancers among American Indians were above or below the age-adjusted rate of MT White population. This information is important in understanding the unique burden cancer presents to MT AI.

\* Statistically significantly different. Data Source: Montana Central Tumor Registry, 2018—2022; Montana Death Records, 2018—2022

stomach, colorectal, and lung cancers compared to MT Whites (Figure 6).

- Melanoma occurred at significantly lower rates among MT AI compared to MT Whites (Figure 5).

### Reducing Cancer Burden in American Indian Communities in Montana

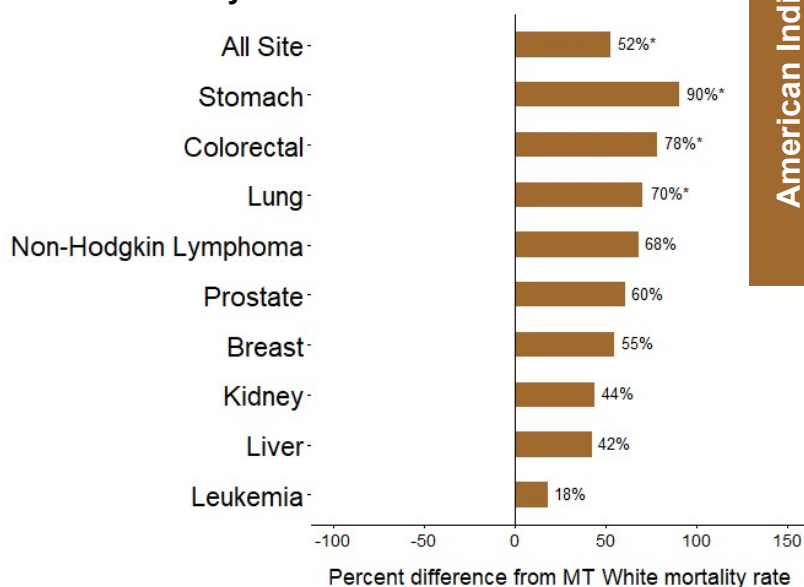
The cancer sites with higher incidence and mortality rates among MT AI have many behavioral risk factors in common. Commercial tobacco use increases the risk of all six sites which we observe significantly greater incidence rates among MT AI populations; being obese increases the risk of kidney, liver, stomach, and colorectal cancers; and heavy alcohol use increases the risk of liver, breast and colorectal cancers among others. More than twice as many AI adults reported current commercial tobacco use than White adults in 2022 (Figure 7).

The cancer disparity between MT AI and MT Whites could be reduced by reducing tobacco use and obesity and by increasing physical activity. Interventions focused on creating communities that support healthy behaviors with easy access to healthy food and safe physical activity and restrictions on unhealthy behaviors (like smoke-free policies) are an important step to reducing cancer risk.

### Identifying American Indian patients in the Montana Central Tumor Registry (MCTR)

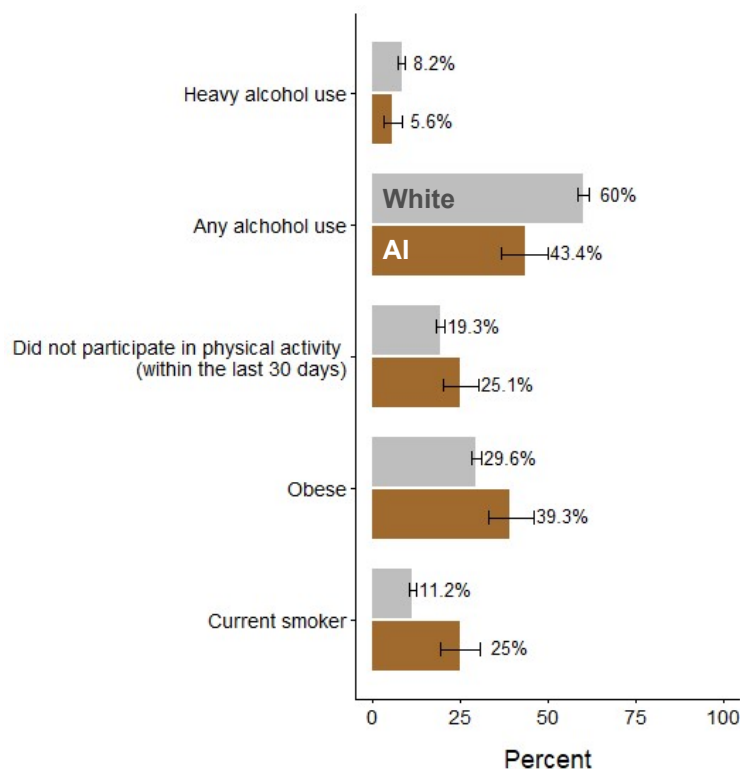
American Indians are often misclassified in health record systems. To better identify MT AI patients the MCTR links with Indian Health Services (IHS) administrative files of enrolled recipients of IHS services from 1990 forward each year. This record linkage allows MCTR to identify additional AI patients in the registry. The addition of these patients greatly improves MCTR's ability to describe the cancer burden among MT AI.

**Figure 6. Comparison of American Indian and White mortality for select cancer sites in Montana**



\* Statistically significantly different. Data Source: Montana Central Tumor Registry, 2018—2022; Montana Death Records, 2018—2022

**Figure 7. Percent of Adults who report select risk behaviors by race, Montana, 2022.**



Data Source: Montana Behavioral Risk Factor Surveillance System, 2023

Female Breast Cancer in  
Montana Quick Stats

966  
WOMEN

WERE DIAGNOSED WITH BREAST CANCER EACH  
YEAR

NUMBER  
ONE

TYPE OF CANCER DIAGNOSED AMONG  
WOMEN

NUMBER  
TWO

CAUSE OF CANCER DEATH AMONG  
WOMEN

68  
PERCENT

DIAGNOSED AT THE LOCAL STAGE

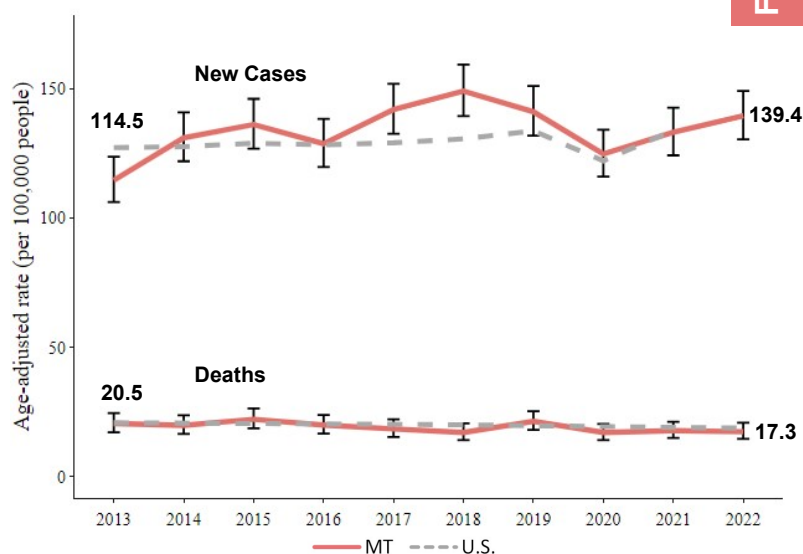


# Female Breast Cancer Incidence and Mortality in Montana

Breast cancer was the most common cancer diagnosed among Montana women, accounting for 33% of new cancers.

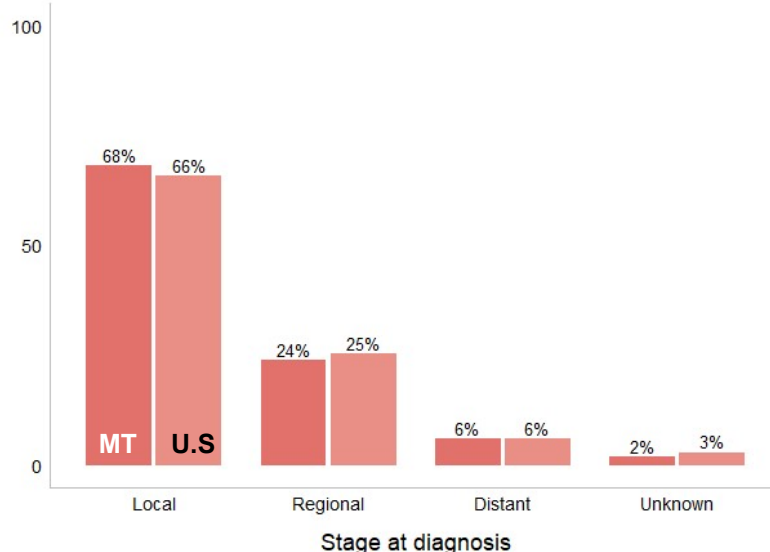
- 4,830 women in Montana were diagnosed with invasive breast cancer between 2018 and 2022, for an average of 966 women each year.
- 701 women died of breast cancer in Montana between 2018 and 2022 for an average of 140 women each year.
- In 2022, the age-adjusted incidence rate of breast cancer in Montana was 139.4 new cases per 100,000 women and the mortality rate was 17.3 deaths per 100,000 women (Figure 8).
- Over the past 10 years the incidence and mortality rates of breast cancer among Montana women were similar to U.S. women (Figure 8). Incidence rates dropped in 2020 due to decreased screening during the Covid pandemic, but have since returned to pre-pandemic levels.
- In Montana, 68% of breast cancers were diagnosed at the local stage. Stage at diagnosis in Montana was similar to the U.S. (Figure 9).
- Post-menopausal women are most likely to be diagnosed with breast cancer, with women on average being 64 years old at the time of diagnosis (data not shown).
- 15% of female breast cancer cases were diagnosed in women under the age of 50 (data not shown).

**Figure 8. Trends in age-adjusted female breast cancer incidence and mortality in Montana and the U.S., 2013—2022.**



Data Source: Montana Central Tumor Registry, 2013—2022; Montana Death Records, 2013—2022; United States Cancer Statistics, 2013—2021

**Figure 9. Stage at diagnosis of female breast cancer.**



Data Source: Montana Central Tumor Registry, 2018—2022; United States Cancer Statistics, 2017—2021

Prostate Cancer in  
Montana Quick Stats

**1080  
NEW CASES**

OF PROSTATE CANCER WERE DIAGNOSED EACH YEAR

**SECOND  
LEADING**

CAUSE OF CANCER RELATED DEATH AMONG MEN

**138  
DEATHS**

DUE TO PROSTATE CANCER EACH YEAR

**74  
PERCENT**

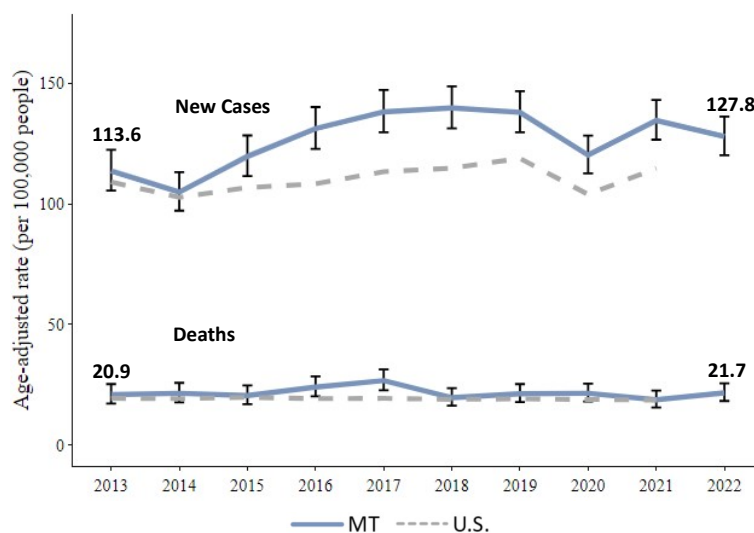
DIAGNOSED AT LOCAL STAGE

# Prostate Cancer Incidence & Mortality in Montana

Prostate cancer was the most common cancer diagnosed among men, accounting for 31% of new cancers among Montana men.

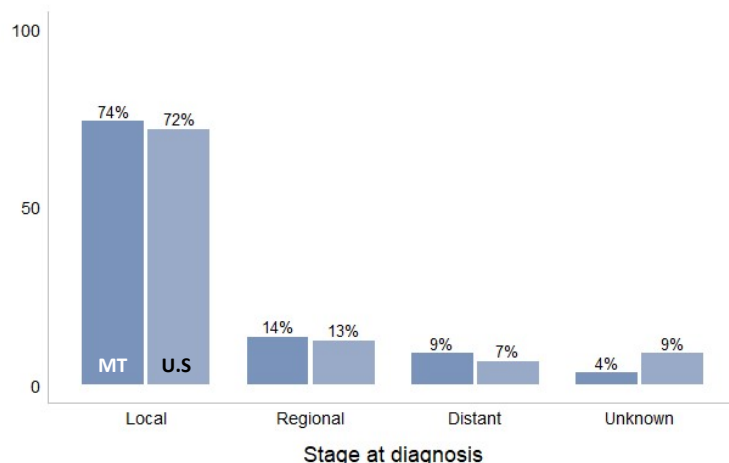
- 5,399 Montanans were diagnosed with prostate cancer from 2018 to 2022, for an average 1,080 new cases each year.
- 962 men died of prostate cancer between 2018-2022 for an average of 138 deaths each year in Montana.
- Prostate cancer was the second leading cause of cancer-related deaths among Montana men from 2018-2022.
- In 2022, the age-adjusted incidence rate of prostate cancer in Montana was 127.8 cases per 100,000 men and the mortality rate was 21.7 deaths per 100,000 men (Figure 10).
- Over the past ten years (2013—2022) the incidence rate of prostate cancer in Montana has statistically significantly increased\* (Figure 10).
- The prostate cancer incidence rate in Montana was higher than that of the U.S. in recent years. Prostate cancer mortality rates in Montana were similar to the U.S. (Figure 10).
- 74% of prostate cancers were diagnosed at the local stage. Stage at diagnosis in Montana was similar to the U.S. (Figure 11).
- In Montana the average age at diagnosis was 69 years (data not shown).

**Figure 10. Trends in age-adjusted prostate cancer incidence and mortality rates in Montana and the U.S., 2013—2022.**



Data Source: Montana Central Tumor Registry, 2013—2022; Montana Death Records, 2013—2022; United States Cancer Statistics, 2013—2021

**Figure 11. Stage at diagnosis of prostate cancer in Montana and the U.S., 2018—2022.**



Data Source: Montana Central Tumor Registry, 2018—2022; United States Cancer Statistics, 2017—2021

\* Much of the increase in prostate cancer incidence is likely due to the changes in prostate cancer screening recommendations. Visit <https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/prostate-cancer-screening> for more information.

Lung Cancer in Montana  
Quick Stats

**712**  
**NEW CASES**

OF LUNG CANCER DIAGNOSED EACH YEAR

**42**  
**PERCENT**

OF LUNG CANCER CASES DIAGNOSED AT DISTANT STAGE

**NUMBER**  
**ONE**

CAUSE OF CANCER-RELATED DEATHS

**447**  
**DEATHS**

DUE TO LUNG CANCER EACH YEAR

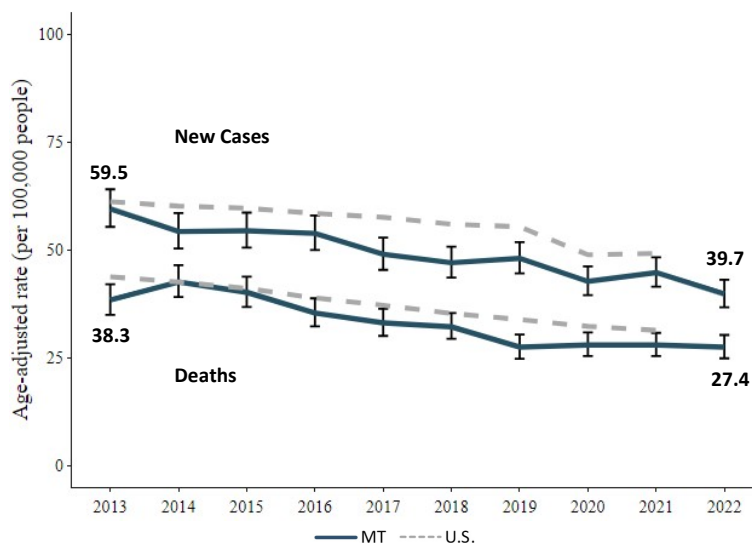


# Lung Cancer Incidence and Mortality in Montana

Lung cancer was the third most common cancer among all Montanans accounting for about 11% of all cancer cases. It is also one of the most deadly cancers and is the leading cause of cancer-related death.

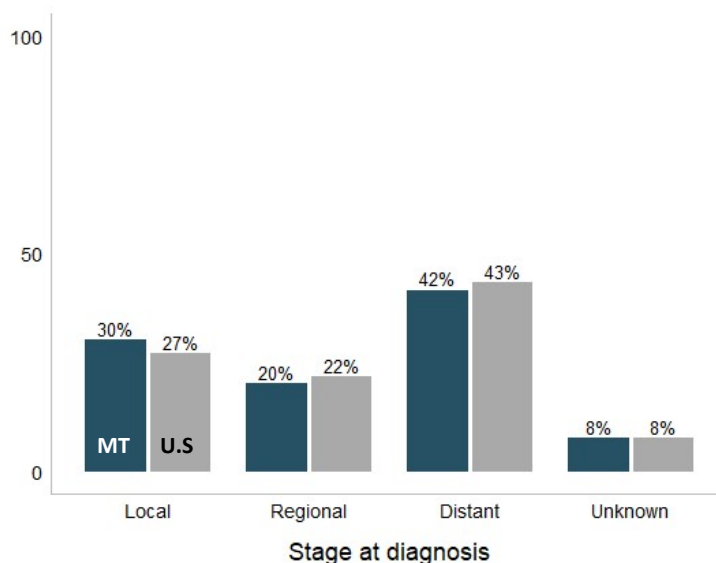
- 3,560 Montanans were diagnosed with lung cancer from 2018 to 2022, for an average of 712 new cases each year.
- 2,233 Montanans died of lung cancer from 2018 to 2022 for an average of 447 deaths each year.
- Lung cancer was the leading cause of cancer-related deaths from 2018—2022, accounting for 21% of cancer-related deaths.
- In 2022 the age-adjusted incidence rate of lung cancer in Montana was 39.7 new cases per 100,000 people and the mortality rate was 27.4 deaths per 100,000 people (Figure 12).
- Lung cancer incidence and mortality rates continue to decrease in Montana and the U.S. (Figure 12)
- In Montana, 42% of lung cancers were diagnosed at the distant stage while only 30% were diagnosed at the local stage. Stage at diagnosis in Montana was similar to the U.S. (Figure 13).
- The average age at diagnosis was 71 years for both men and women (data not shown).

**Figure 12. Trends in age-adjusted lung cancer incidence and mortality rates in Montana and the U.S., 2013—2022.**



Data Source: Montana Central Tumor Registry, 2013—2022; Montana Death Records, 2013—2022; United States Cancer Statistics, 2013—2020

**Figure 13. Stage at diagnosis of lung cancer, Montana and U.S., 2018—2022.**



Data Source: Montana Central Tumor Registry, 2018—2022; SEER, 2017—2021

Colorectal Cancer in Montana  
Quick Stats

**SECOND  
MOST COMMON**

TYPE OF CANCER-RELATED DEATH

**182  
DEATHS**

DUE TO COLORECTAL CANCER EACH YEAR

**511  
NEW CASES**

OF COLORECTAL CANCER ARE DIAGNOSED EACH YEAR

**32  
PERCENT**

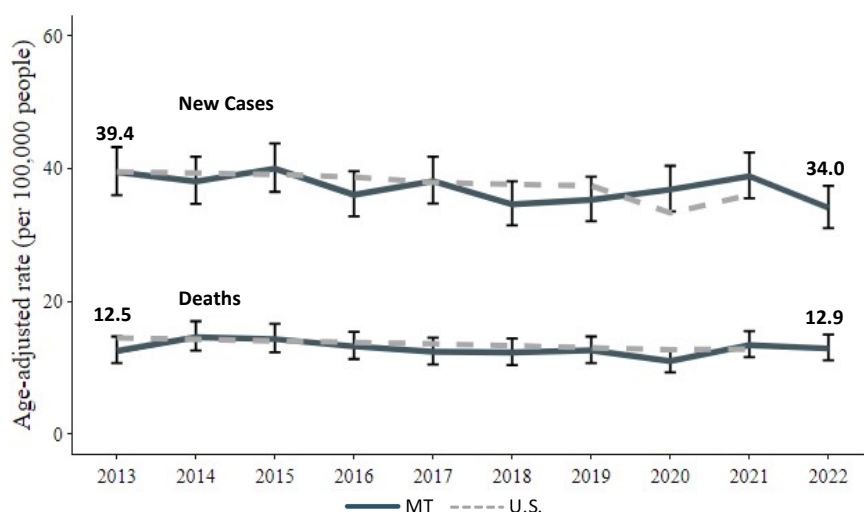
OF CASES ARE DIAGNOSED AT THE LOCAL STAGE

# Colorectal Cancer Incidence and Mortality in Montana

Colorectal cancer (CRC) is the fourth most common type of cancer diagnosed and the second most common cause of cancer-related death among men and women in Montana.

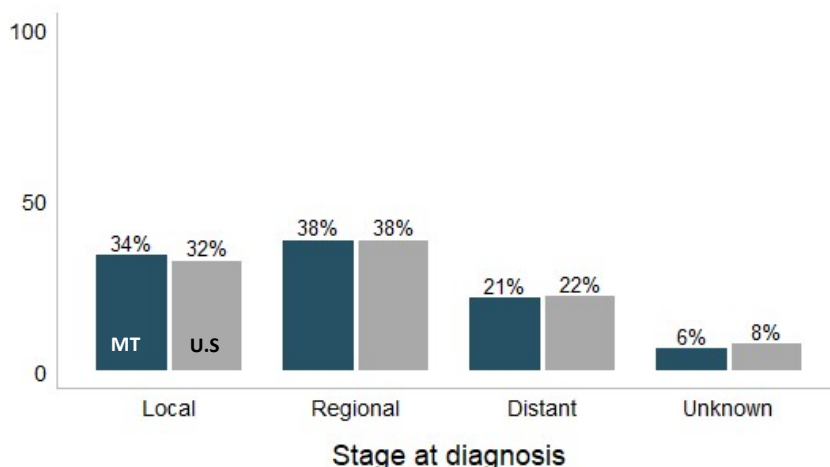
- 2,557 Montanans were diagnosed with CRC from 2018 to 2022 for an average of 508 cases each year.
- 908 Montanans died of CRC from 2018 to 2022 for an average of 182 deaths each year.
- In 2022 the age-adjusted incidence rate of colorectal cancer in Montana was 34.0 cases per 100,000 people and the mortality rate was 12.9 deaths per 100,000 people (Figure 14).
- CRC incidence and mortality in Montana has been about the same as in the U.S. since 2013 (Figure 15).
- 55% of CRC cases occurred among men and 45% among women (data not shown).
- From 2018-2022, the average age at diagnosis was 66 years among men and 68 years among women (data not shown).
- 59% of CRC cases in Montana were diagnosed at the regional or distant stage (Figure 15).

**Figure 14. Trends in age-adjusted colorectal cancer incidence and mortality rates in Montana and the U.S., 2013—2022.**



Data Source: Montana Central Tumor Registry, 2013—2022; Montana Death Records, 2013—2022; United States Cancer Statistics, 2013—2021

**Figure 15. Stage at diagnosis of colorectal cancer in Montana and the U.S., 2018-2022.**



Data Source: Montana Central Tumor Registry, 2018—2022; SEER, 2017—2021

Melanoma in Montana  
Quick Stats

**374**  
**NEW CASES**

OF MELANOMA DIAGNOSED EACH YEAR

**92 PERCENT**  
**OF CASES**

ARE CAUSED BY EXPOSURE TO ULTRAVIOLET (UV) LIGHT<sup>2</sup>

**THIRD**  
**MOST COMMON**

CAUSE OF CANCER AMONG TEENS AND YOUNG ADULTS (AGED 15 TO 39) IN MONTANA

**85**  
**PERCENT**

DIAGNOSED AT THE LOCAL STAGE

<sup>2</sup> Islami F, Goding Sauer A, Miller KD, et al. Proportion and number of cancer cases and deaths attributable to potentially modifiable risk factors in the United States. ICA Cancer J Clin 2018;68:31-54



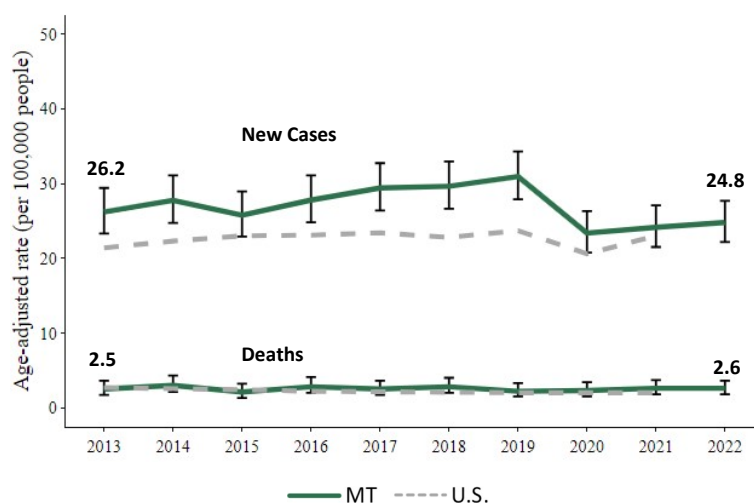
# Melanoma

## Incidence in Montana

**Melanoma is the most dangerous form of skin cancer and is the most likely to spread to other areas of the body. Melanoma is the fifth most common type of cancer in Montana.**

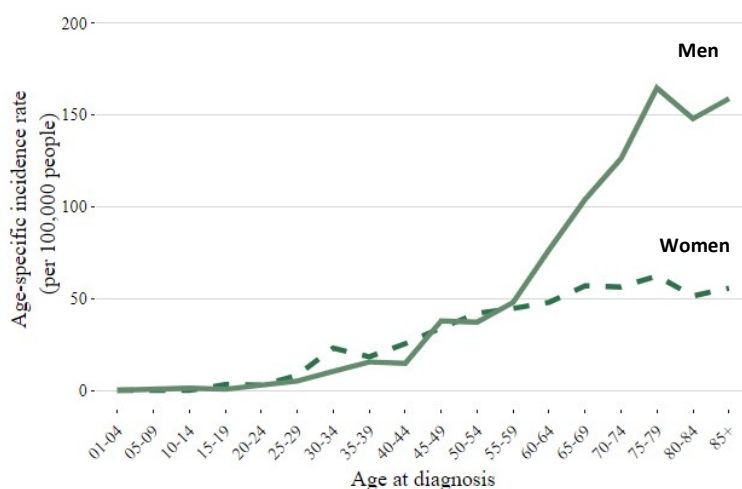
- 1,872 Montanans were diagnosed with melanoma from 2018 to 2022, for an average 374 new cases each year.
- 174 Montanans died of melanoma from 2018 to 2022 for an average of 36 deaths each year.
- Melanoma was the third leading cause of cancer among teens and young adults aged 15 to 39 (behind thyroid and testicular cancer), accounting for 12% of cases in that age group from 2018-2022 (data not shown).
- In 2022, the age-adjusted incidence rate of melanoma in Montana was 24.8 cases per 100,000 people and the mortality rate was 2.6 deaths per 100,000 people (Figure 16).
- Melanoma incidence in 2022 remained significantly lower than rates immediately prior to the Covid pandemic.
- The melanoma incidence in Montana was significantly higher than in the U.S. over the last 10 years, but mortality was similar in Montana and the U.S. (Figure 16).
- In Montana the average age at diagnosis was 66 years for men and 60 years for women (data not shown).
- The incidence rate of melanoma is higher among men than women, largely due to high incidence of among older men (Figure 17).

**Figure 16. Trends in age-adjusted melanoma incidence and mortality rates in Montana and the U.S., 2013—2022.**



Data Source: Montana Central Tumor Registry, 2013—2022; Montana Death Records, 2013—2022; United States Cancer Statistics, 2013—2021

**Figure 17. Melanoma incidence rates by age group among males and females in Montana, 2018—2022.**



Data Source: Montana Central Tumor Registry, 2018—2022;

## Physical Inactivity-associated Cancers in Montana

### Quick Stats

# ONE THIRD

OF ALL CANCERS DIAGNOSED IN MONTANA ARE ASSOCIATED WITH  
PHYSICAL ACTIVITY LEVELS

# 190

CANCER DIAGNOSES A YEAR IN MONTANA ARE ATTRIBUTABLE  
TO LOW PHYSICAL ACTIVITY LEVELS

# 43 PERCENT

HIGHER RATE OF PHYSICAL INACTIVITY-ASSOCIATED CANCERS AMONG  
AMERICAN INDIANS

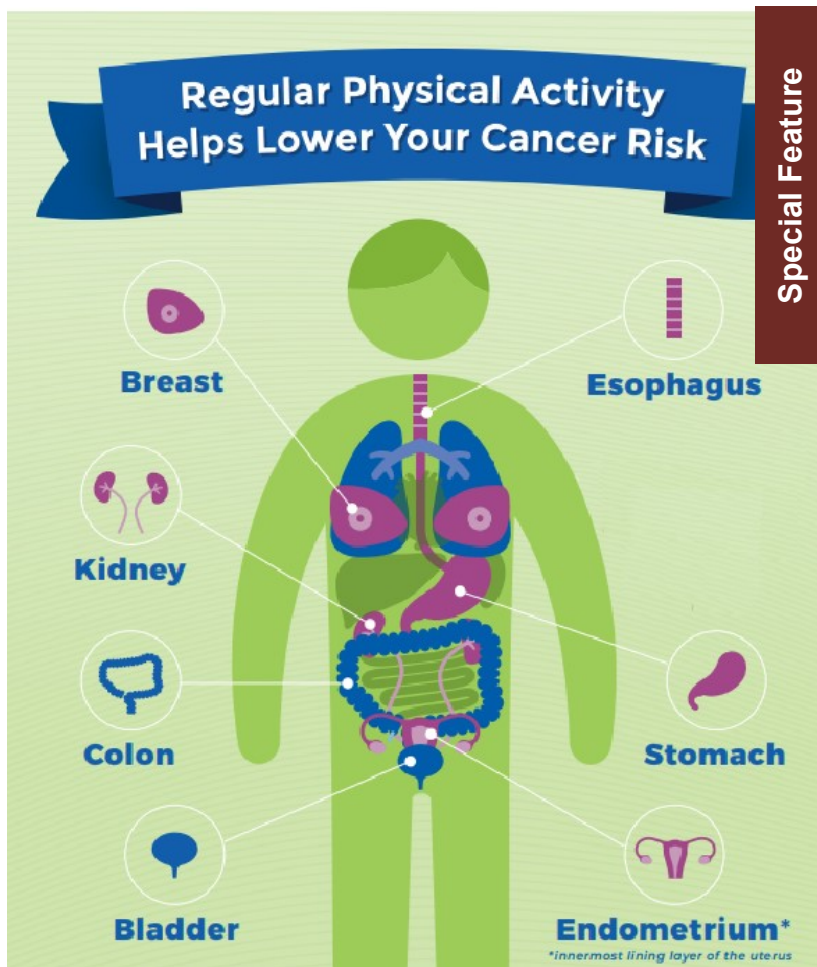
# MONTANA

REPORTED THE 6TH HIGHEST PERCENTAGE OF ADULTS MEETING PHYSICAL  
ACTIVITY GUIDELINES OF ANY STATE

## Special Feature: Physical Inactivity- Associated Cancers

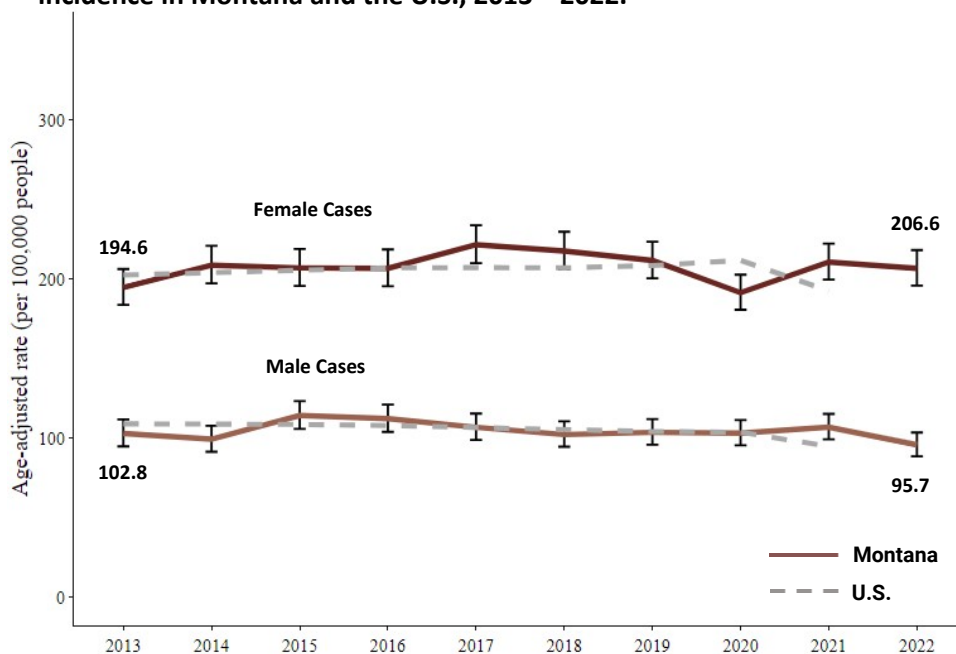
While there are many factors which impact a person's chances of developing cancer, levels of physical activity are an important one. Physical activity can significantly lower the risk of developing seven different cancer types. Physical activity is generally defined as adherence to the American Cancer Society guidelines of at least 150 minutes of moderate to vigorous physical activity a week (at least 30 minutes a day, five days a week).

- There is strong evidence that increased physical activity can lower the risk of seven types of cancer: breast, bladder, colon, endometrial, esophageal, kidney and stomach. In addition to physical activity levels, there are many other factors that also impact your risk of developing these cancers.
- Physical activity-associated cancer incidence in Montana is about the same as in the United States overall (Figure 18).
- Physical inactivity appears to have a more significant impact on cancers risk among women because two of the most strongly linked cancers—breast and endometrial—are far more common in women (Figure 18).



[Physical Activity Guidelines for Americans, 2nd edition](#)

**Figure 18: Trends in age-adjusted physical inactivity associated\* cancer incidence in Montana and the U.S., 2013–2022.**



Data Source: Montana Central Tumor Registry, 2013–2022; United States Cancer Statistics, 2013–2021

\*Includes: Female Breast, Colon, Esophageal, Bladder, Endometrial, Kidney, and Stomach cancer

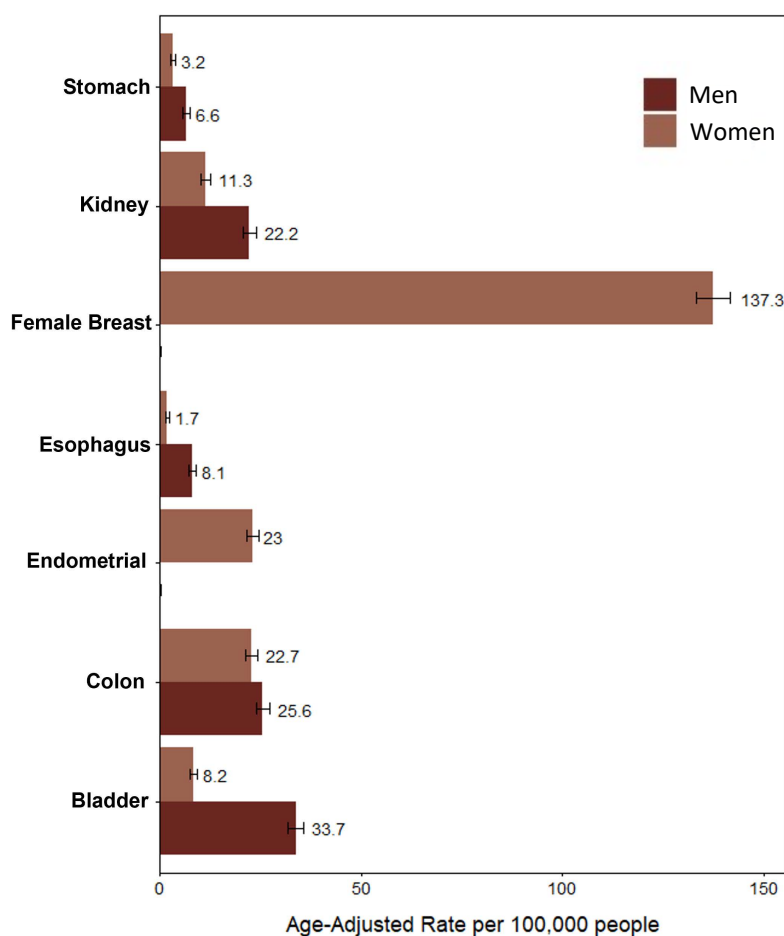
**Table 3. Number of cases estimated to be attributable to physical inactivity in Montana by cancer site**

Cancer Type	Population Attributable Fraction <sup>2</sup>	Avg. # of Attributable cases per year in Montana
Bladder	4.0% (0.0–8.3)	14
Female Breast	7.0% (4.6–9.2)	68
Colon	9.8% (6.9–12.7)	34
Endometrial	13.0% (7.9–18.1)	23
Esophageal	12.5% (0.6–25.0)	10
Kidney	11.5% (6.2–17.5)	28
Stomach	18.1% (4.2–30.7)	13
<b>Total</b>	<b>3.1%</b>	<b>190</b>

<sup>2</sup>Proportion and number of cancer cases and deaths attributable to potentially modifiable risk factors in the United States, 2019

Data Sources: Montana Central Tumor Registry, 2018–2022

**Figure 19. Age-adjusted incidence of physical inactivity-associated cancers by sex, 2018–2022.**



Data Sources: Montana Central Tumor Registry, 2018–2022

- Other types of cancer not shown may also be impacted by physical activity<sup>3</sup> but there is less evidence of the direct effect of exercise on those cancers.
- Montana is a physically active state reporting the sixth lowest rate of adults reporting no leisure time physical activity of any state 19.6% (BRFSS 2023).
- Montana had the sixth highest percentage of adults who report meeting recommendations for weekly aerobic activity of any state at 66% (BRFSS 2023).
- Female breast cancer is the most common cancer in Montana associated with physical activity levels (Figure 19).
- American Indians in Montana have a significantly higher incidence rate of physical-inactivity associated cancers (190 per 100,000) than Whites in Montana (155 per 100,000) (data not shown).
- In Montana approximately 190 cancer cases diagnosed every year are estimated to be attributable to physical inactivity (Table 3). This indicates the number of cancer cases which would be prevented if all adults in Montana met recommendations for physical activity levels.

<sup>3</sup>[Physical Activity and Cancer Fact Sheet - NCI \(Feb. 2018\)](#)



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