



## Key Messages

1,700 new cases of alcohol-associated cancers are diagnosed in Montana each year.

Men had significantly higher incidence of all alcohol-associated cancers except breast cancer.

The incidence of alcohol-associated cancers among American Indian Montanans was more than 40% higher than among White Montanans.

Alcohol-associated cancers have many risk factors in addition to alcohol use. Preventing these cancers requires a comprehensive approach:

- Minimize alcohol use
- Don't use tobacco
- Exercise and eat a healthy diet
- Prevent HPV, Hepatitis B, and Hepatitis C infections

## Montana Cancer Control

### Programs

1400 E Broadway

Helena, Montana 59260-2951

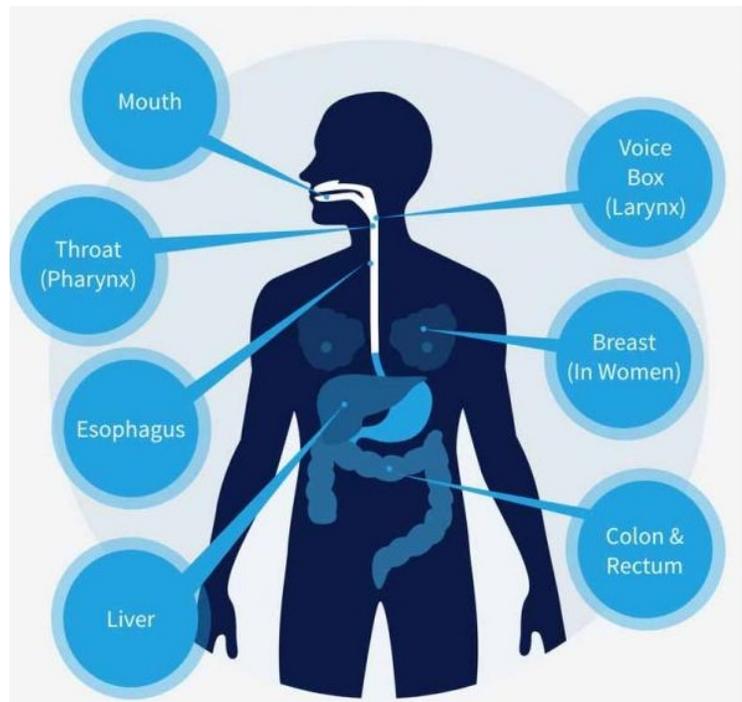
(406) 444-2732

<https://dphhs.mt.gov/publichealth/cancer>

## Alcohol Use Increases the Risk of Cancer

Alcohol use causes cancer throughout the body (Figure 1). Globally, about 32% of esophageal cancers, 22% of throat cancers, 20% of mouth cancers, 17% of liver cancers, 15% of voice box cancers, 9% of rectal cancers, 8% of colon cancers, and 4% of breast cancers are caused by alcohol consumption.<sup>1</sup> The more alcohol a person drinks—particularly the more alcohol a person drinks regularly over time—the higher his or her risk of developing an alcohol-associated cancer.<sup>2</sup> However even moderate alcohol use, as little as one drink a day on average, increases the risk of cancer.<sup>2</sup>

**Figure 1:** Sites of Alcohol-associated Cancer



### How common are alcohol-associated cancers?

In Montana, an average of **1,700** new cases of alcohol-associated cancers are diagnosed each year, about 26% of all new cancers. The rate of alcohol-associated cancers was about the same in Montana compared to the United States (131.9 vs. 132.6 new cases per 100,000 people; data not shown) from 2015 to 2019.<sup>3</sup>

1) Runggay, H., Shield, K., Charvat H., et al. *Global burden of cancer in 2020 attributable to alcohol consumption: a population-based study*. The Lancet Oncology, July 13, 2021, DOI:[https://doi.org/10.1016/S1470-2045\(21\)00279-5](https://doi.org/10.1016/S1470-2045(21)00279-5)

2) National Cancer Institute, *Alcohol and Cancer Risk Factsheet*, updated on July 14, 2021. Access on Nov 2, 2022 at <https://www.cancer.gov/about-cancer/causes-prevention/risk/alcohol/alcohol-fact-sheet#r3>

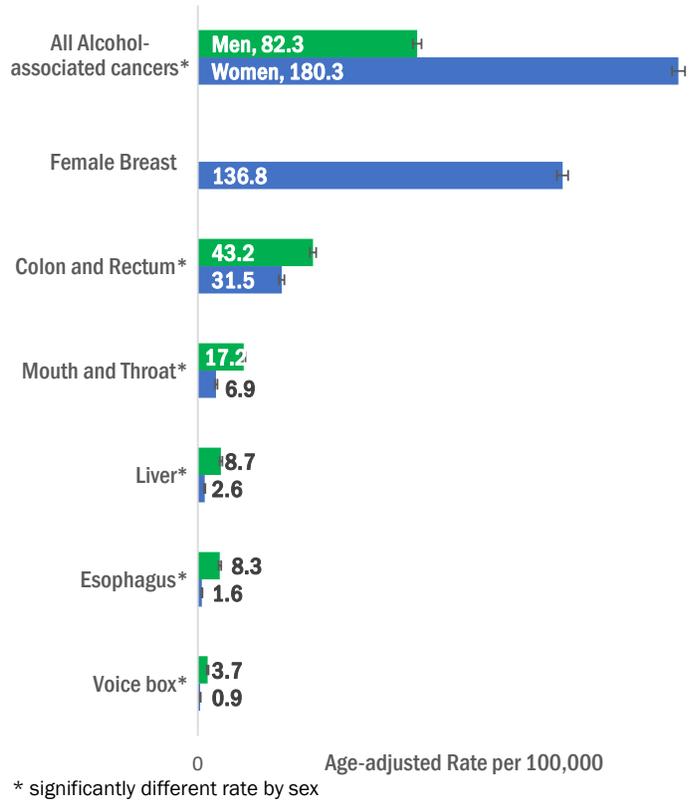
Female breast cancer was the most common type of alcohol-associated cancer among women (Figure 2). Cancer of the colon and rectum is the most common alcohol-associated cancer among men.

Women had higher incidence of all alcohol-associated cancers combined compared to men (Figure 2). But this difference is only because female breast cancer is very common and only occurs in women. Men had significantly higher incidence of all other alcohol-associated cancers: colon and rectum, mouth and throat, liver, esophagus, and voice box. The rate of esophageal cancer among Montana men from 2015 to 2019 was **5 times higher** than among Montana women.

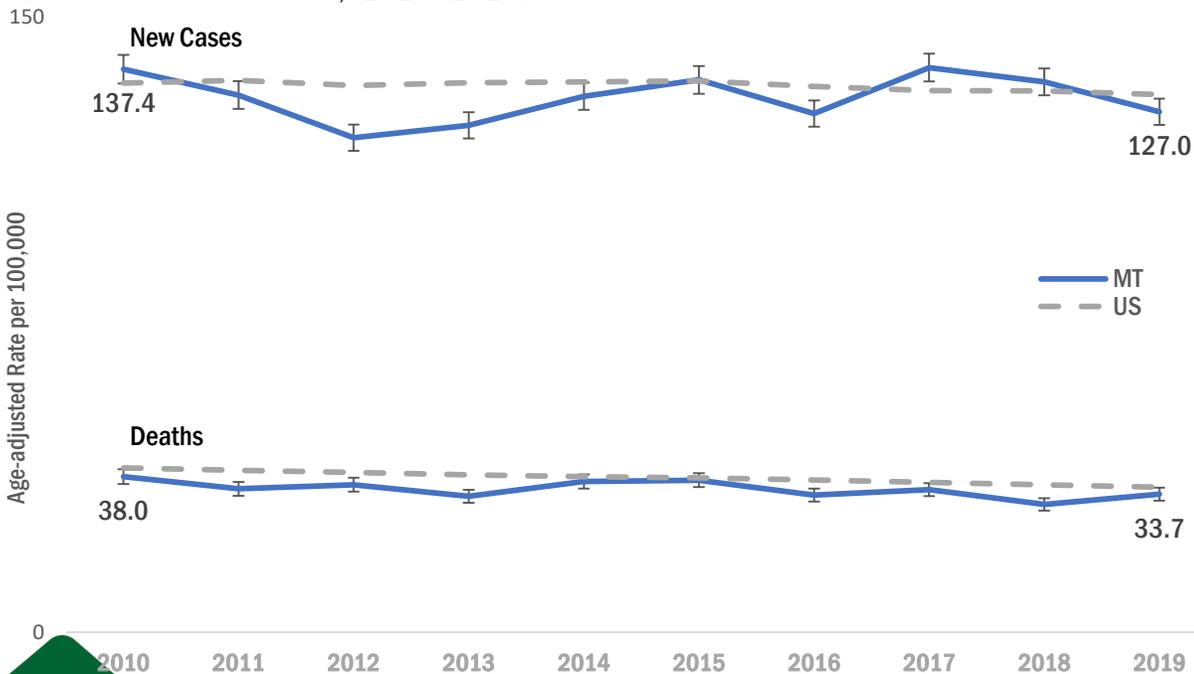
**What are the trends in alcohol-associated cancers?**

Incidence and mortality of alcohol-associated cancers has stayed about the same since 2010 both in Montana and in the US overall (Figure 3).

**Figure 2:** Incidence of Alcohol-Associated Cancers among **Women** and **Men** in Montana, 2015–2019



**Figure 3:** Trends in Alcohol-Associated Cancer Incidence (New Cases) and Mortality (Deaths) in **Montana** and the **United States**,<sup>3</sup> 2010–2019.



3) National Program of Cancer Registries and Surveillance, Epidemiology and End Results Program SEER\*Stat Database: U.S. Cancer Statistics Public Use Research Database, 2021 Submission (2001-2019). Released June 2022. Accessed at [www.cdc.gov/cancer/uscs/public-use](http://www.cdc.gov/cancer/uscs/public-use).

The rate of alcohol-associated cancers among American Indian Montanans was more than 40% higher than among White Montanans from 2015 to 2019 (Figure 4). The increased rate among American Indians is due to significantly higher rates of cancers of the colon and rectum, liver, and esophagus. The largest difference in rates between American Indian Montanans and White Montanans was in liver cancer where the rate was almost **3 times higher** among American Indians.

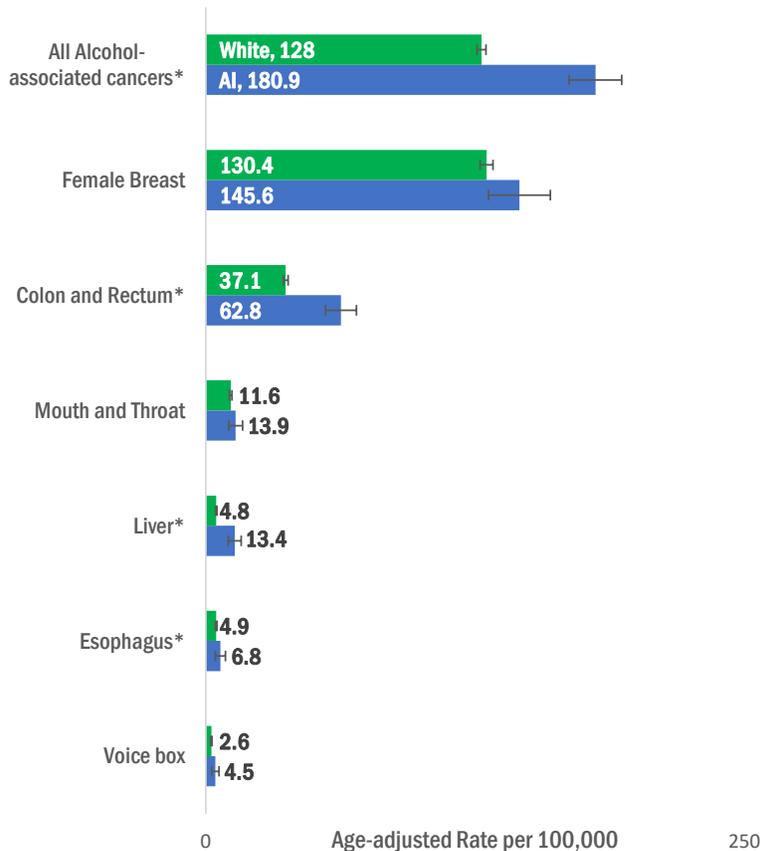
### Alcohol use is very common in Montana

In 2021, **60%** of Montana adults reported having at least one alcoholic drink in the past 30 days (Figure 5). Alcohol use is more common among men than among women (67% vs 53%). Alcohol use is less common among American Indian Montanans than among White Montanans (40% vs 61%, Figure 6). About one in five adults (21%) reported binge drinking (males having five or more drinks on one occasion, females having four or more drinks on one occasion) in the past 30 days. Eight percent of adults reported heavy drinking (adult men having more than 14 drinks per week and adult women having more than 7 drinks per week) in the past 30 days. Binge drinking and heavy drinking were each more common among men than women but there was no significant difference between American Indian and White Montanans (Figures 5 and 6).

### Conclusions

Alcohol-associated cancers can be prevented. If you don't drink, don't start drinking. Drinking less alcohol is better for health than drinking more.<sup>4</sup> If you choose to drink do so in moderation: two drinks

**Figure 4:** Incidence of Alcohol-Associated Cancers among American Indian (AI) and White Montanans, 2015–2019



\*Rate among American Indians is significantly higher than the rate among Whites

4) U.S. Department of Agriculture and U.S. Department of Health and Human Services. *Dietary Guidelines for Americans, 2020-2025*. 9th Edition. December 2020. Available at [DietaryGuidelines.gov](https://www.dietaryguidelines.gov).

5) Division of Cancer Prevention and Control, Centers for Disease Control and Prevention, *Obesity and Cancer Factsheet*. Last reviewed July 13, 2022, access on Nov 3, 2022 at <https://www.cdc.gov/cancer/obesity/index.htm>

6) Division of Cancer Prevention and Control, Centers for Disease Control and Prevention, *HPV and Oropharyngeal Cancer Factsheet*. Last reviewed Oct 3, 2022, access on Nov 3, 2022 at [https://www.cdc.gov/cancer/hpv/basic\\_info/hpv\\_oropharyngeal.htm](https://www.cdc.gov/cancer/hpv/basic_info/hpv_oropharyngeal.htm)

7) National Cancer Institute, *Liver Cancer Causes, Risk Factors, and Prevention*. Updated May 18, 2022, access on Nov 2, 2022 at <https://www.cancer.gov/types/liver/what-is-liver-cancer/causes-risk-factors>

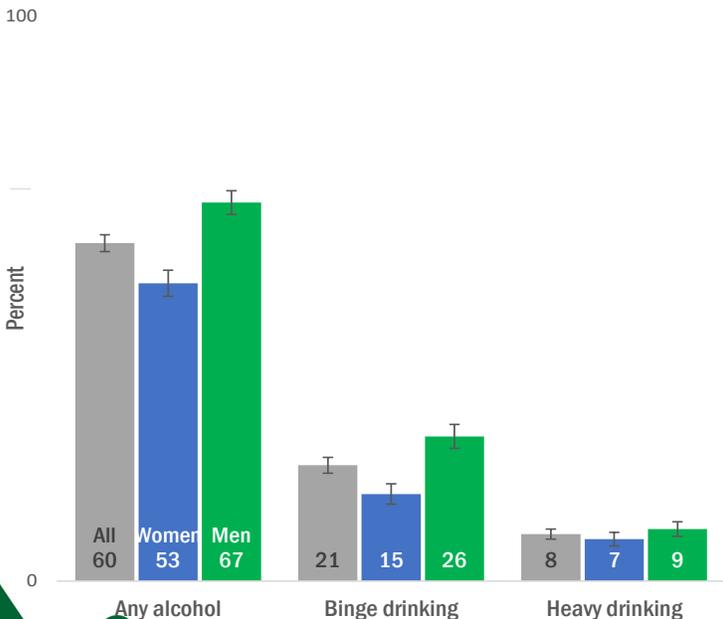


or less in a day for men or one drink or less in a day for women.<sup>4</sup>

People who use both alcohol and tobacco have a much greater risk of developing cancers of the mouth and throat, voice box, and esophagus.<sup>2</sup> Stopping tobacco use will reduce that risk as well as the risk of many other cancers. Quit Lines are telephone-based programs for helping tobacco users quit and they have been proven to be effective. The Montana Tobacco Quit Line is a free service, available to all Montanans. Call 1-800-QUIT-NOW (1-800-784-8669) to get started on your quit.

Lack of exercise and being overweight or obese are risk factors for female breast, colon and rectum, and liver cancers.<sup>5</sup> Additionally, because alcoholic drinks are generally high in calories, alcohol consumption often makes it hard to maintain a healthy weight. Getting regular exercise and eating a healthy balanced diet along with limiting alcohol consumption will help to prevent these cancers.

**Figure 5:** Prevalence of Alcohol Use among **All Adults**, **Women**, and **Men** in Montana, BRFSS, 2021

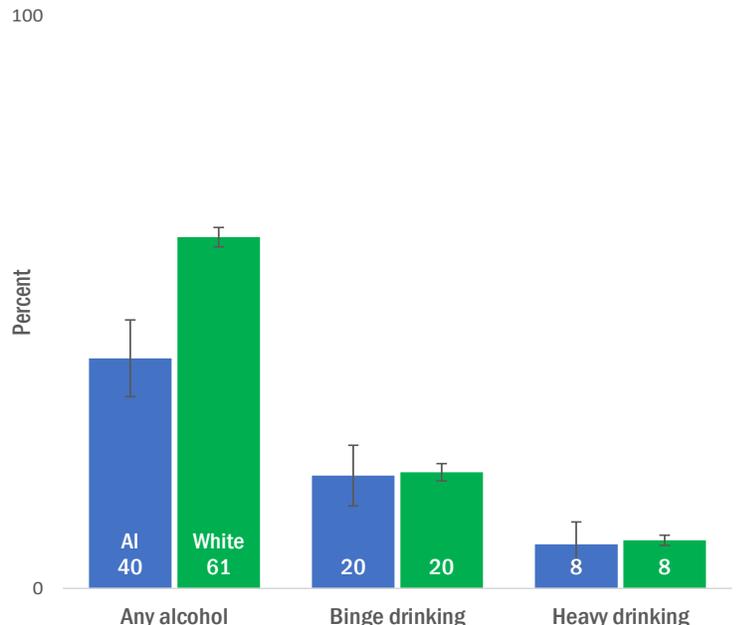


Some infections also increase the risk of alcohol-associated cancers. Certain types of Human Papillomavirus (HPV) can cause cancer of the mouth and throat.<sup>6</sup> Hepatitis B and C infections can cause liver cancer.<sup>7</sup> HPV and Hepatitis B infections can be prevented with vaccination and Hepatitis C infections can be treated if caught early.

### Limitations

Many different risk factors contribute to the development of alcohol-associated cancers such as genetic mutations, chronic infections, obesity, and tobacco use. This report does not measure what proportion of cancer cases are attributable to alcohol use. It only reports on the incidence of cancers that are known to be associated with alcohol use. Differences in the incidence of alcohol-associated cancers are affected by all of these risk factors combined and this report cannot determine how much of the difference is due to alcohol use.

**Figure 6:** Prevalence of Alcohol Use among **American Indian (AI)** and **White** Montanans, BRFSS, 2021



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