

August 2025

Alcohol Use and Cancer in Ohio 2025



Executive Summary

- Alcohol use is the third-leading preventable risk factor for cancer, following tobacco use and obesity. Alcohol use accounts for approximately 100,000 cancer cases and 20,000 cancer deaths per year in the United States.¹
- Alcohol use is primarily associated with increased risk of developing cancers of the breast, colon and rectum, esophagus, larynx, liver and intrahepatic bile duct, and oral cavity and pharynx (excluding lips). Risk increases as the quantity of alcohol consumed increases.^{1,2}
- In 2023 among adults age 18 and older, one in five males (19.8%) and one in seven females (14.0%) in Ohio reported excessive drinking.
- The prevalence of excessive drinking in Ohio was highest among Ohioans ages 18-54, compared with those age 55 and older; those with an annual household income of \$75,000 or more, compared with those with incomes between \$15,000 and \$74,999, and among college graduates, compared with those with a high school diploma or less education.
- The prevalence of excessive drinking declined 21% in Ohio from 2011 to 2023.
- The 2018-2022 incidence rate of all alcohol-associated cancer sites combined among adults age 30 and older was slightly higher in Ohio than the United States.
- The 2018-2022 incidence rates for each of the alcohol-associated cancer sites in Ohio were higher among males, compared with females, with the exception of breast cancer.
- Incidence rates for alcohol-associated cancer sites were higher among White people than Black people for esophageal and oral cavity and pharyngeal cancers, and slightly higher among Black people than White people for liver and intrahepatic bile duct cancer. Incidence rates among Asians/Pacific Islanders were less than half the rates of White and Black people for cancers of the female breast, colon and rectum, and liver and intrahepatic bile duct.
- Among both males and females, the average annual number of cases for alcohol-associated cancer sites from 2018 to 2022 by age group was highest among those ages 65 to 69 years.
- The average annual number of deaths for alcohol-associated cancer sites from 2018 to 2022 was highest among males ages 65 to 69 years and among females age 85 years and older.
- The following increases in incidence rates for alcohol-associated cancer sites were observed: breast cancer incidence increased 0.4% per year from 2004 to 2022; liver and intrahepatic bile duct cancer incidence increased 4.3% per year from 1996 to 2017; and oral cavity and pharyngeal cancer incidence increased 1.9% per year from 2000 to 2022.
- The following increases in mortality rates for alcohol-associated cancer sites were observed: laryngeal cancer mortality increased 2.2% per year from 2018 to 2022; liver and intrahepatic bile duct cancer mortality increased 2.8% per year from 1996 to 2017; and oral cavity and pharyngeal cancer mortality increased 1.8% per year from 2011 to 2022.

Introduction

Alcohol use is the third-leading preventable risk factor for cancer, following tobacco use and obesity.¹ According to a 2019 survey by the American Institute for Cancer Research, only 45% of Americans are aware that alcohol use increases cancer risk.¹ Alcohol use accounts for approximately 100,000 cancer cases and 20,000 cancer deaths per year in the United States.¹ Alcohol use has been associated with increased risk of cancers of the breast (both female and male), colon and rectum, esophagus, larynx, liver and intrahepatic bile duct, and oral cavity and pharynx (excluding lips). For each of these cancer sites, risk increases with increasing alcohol consumption.^{1,2} Compared to non-drinkers, heavy drinkers have five times the risk of developing cancers of the oral cavity and pharynx and esophagus, and two to 2.5 times the risk of developing colon and rectum, female breast, larynx, and liver and intrahepatic bile duct cancers.^{3,4,5} For some cancer sites, such as breast and oral cavity and pharynx, consuming even small amounts of alcohol increases risk.¹ While emerging research suggests alcohol might slightly increase the risk of other cancers including brain, lung and bronchus, melanoma of the skin, and pancreas, these associations have yet to be firmly established. This report focuses on cancers with well-documented links to alcohol use.

For each of the cancer sites associated with alcohol use, only a proportion of incident (new) cancer cases or deaths are actually attributable to alcohol. It is difficult to estimate these proportions because the factors that result in cancer are multifactorial and complex. As a result, there are no uniformly accepted estimates of population attributable proportions (also known as population attributable fractions and population attributable risks) for alcohol use and the risk of specific cancers. A widely used set of population attributable proportions according to cancer site and sex is shown in Table 1.² The highest population attributable proportion for alcohol use and cancer is for oral cavity cancer; more than two in five (41.7%) oral cavity cancers are associated with alcohol use. The proportions of incident cancers attributed to alcohol use are greater for males for each cancer site, with the exception of esophageal cancer. For males, the proportions are highest for oral cavity and pharyngeal cancers, followed by cancers of the larynx and liver and intrahepatic bile duct. For females, the proportions are highest for oral cavity, esophageal, and pharyngeal cancers, followed by female breast cancer.

The purpose of this report is to describe alcohol-associated cancer sites in Ohio. Specifically, this report details demographic differences and trends in Ohio incidence and mortality rates of alcohol-associated cancer sites. In addition, demographic and socioeconomic differences in excessive drinking in Ohio are presented. It is important to note that this report highlights alcohol-associated cancer sites, rather than alcohol-associated cancer cases or deaths as only a fraction of the cases and deaths described in this report are associated with alcohol use.

Table 1. Alcohol-Associated Cancer Sites: Population Attributable Risks/Fractions by Cancer Site and Sex Among Adults 30 Years and Older

Cancer Site	Males	Females	Males & Females
Oral Cavity	49.9%	25.1%	41.7%
Pharynx	44.6%	22.5%	40.4%
Larynx	29.5%	14.3%	26.4%
Liver & Intrahepatic Bile Duct	22.6%	7.7%	18.8%
Esophagus	17.2%	24.2%	18.7%
Female Breast*		16.4%	
Colon & Rectum	18.0%	6.8%	12.8%

Source: Islami F, Marlow EC, Thomson B, et al. Proportion and number of cancer cases and deaths attributable to potentially modifiable risk factors in the United States, 2019. *CA Cancer J Clin.* 2024; 74(5): 405-432. doi:[10.3322/caac.21858](https://doi.org/10.3322/caac.21858).

*Population attributable risk for breast cancer is available for females only.

How Alcohol Increases Cancer Risk

The mechanisms by which alcohol consumption increases cancer risk are not fully understood and may be indirect. There are multiple ways that alcohol may increase the risk of cancer. The recent report, “Alcohol and Cancer Risk: U.S. Surgeon General’s Advisory,”¹ describes the following four primary mechanisms governing how alcohol causes cancer:

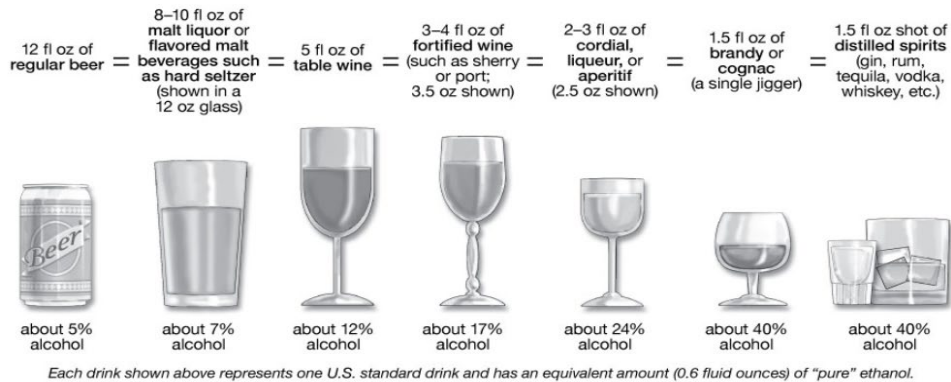
- Alcohol breaks down into acetaldehyde in the body. Acetaldehyde is a metabolite that causes cancer by binding to DNA and damaging it. When DNA is damaged, a cell can begin to grow uncontrollably and create a cancerous tumor.
- Reactive oxygen species (chemically reactive molecules that contain oxygen) can be generated from alcohol consumption, and these can damage DNA, proteins, and lipids (fats) through a process called oxidation.
- Alcohol alters hormone levels (including estrogen), which can play a role in the development of breast cancer.
- Carcinogens from other sources can dissolve in alcohol, making it easier for them to be absorbed into the body. One example of this is particles of tobacco smoke which, when used with alcohol, increases the risk for cancers of the esophagus, larynx, and oral cavity and pharynx.

In addition, alcohol can cause cancer by the following mechanisms:

- Impairing the ability to break down and absorb nutrients that may be associated with cancer risk, including vitamins A, C, D, and E, vitamin B nutrients (including folate), and carotenoids.
- Damaging the liver, leading to inflammation and scarring (cirrhosis). As liver cells try to repair the damage, they can end up with mistakes in their DNA, which could lead to cancer.
- Causing irritation, especially in the mouth and throat. Damaged cells may try to repair themselves, which could lead to DNA changes that can be a step toward cancer.
- Introducing a variety of carcinogenic contaminants that are created during fermentation and production, such as nitrosamines, asbestos fibers, phenols, and hydrocarbons.
- Consuming excess calories can lead to overweight and obesity, which increases the risk of many cancers.

Excessive Drinking

A standard alcoholic drink contains 14.0 grams (0.6 ounces) of pure alcohol. Each beverage below represents one standard drink. According to the U.S. government's Dietary Guidelines for Americans 2020-2025, adults of legal drinking age are recommended not to drink or drink in moderation, defined as up to one drink per day for women and up to two drinks per day for men.



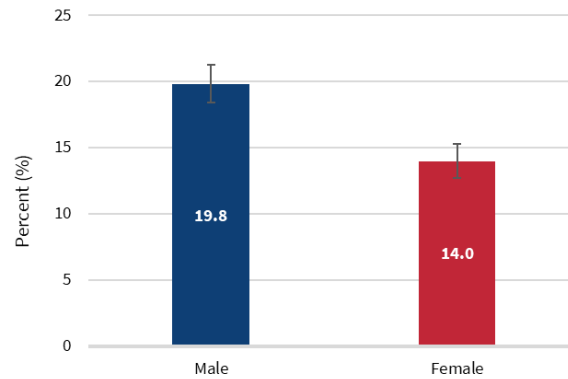
Source: [Alcohol's Effects on Health. National Institute on Alcohol Abuse and Alcoholism.](#)

Alcohol use data among Ohio adults (age 18+) was obtained from the 2023 Ohio Behavioral Risk Factor Surveillance System (BRFSS). The BRFSS collects data on disease and risk factor prevalence, which is an estimate of the proportion of people with a certain disease or risk factor at a given time. The difference between prevalence estimates is determined to be statistically significant if the 95% confidence intervals (CIs) associated with the estimates do not overlap.

Heavy alcohol use is defined as men having more than two drinks per day and women having more than one drink per day, and binge drinking is defined as having five or more drinks per occasion (men) or four or more drinks per occasion (women) in the past 30 days. In 2023, 15.6% of Ohio adults reported binge drinking and 6.3% reported heavy drinking, both of which were similar to the U.S. prevalences (15.2% and 5.7%, respectively). The term excessive drinking refers to heavy drinking and/or binge drinking. In 2023, 16.8% of Ohio adults and 16.4% of U.S. adults reported to be excessive drinkers. Figures 1-5 present the 2023 estimated prevalence of excessive drinking among Ohio adults by demographics and include error bars to show the upper and lower bounds of the 95% CIs. Figure 6 shows the trend in excessive drinking from 2011 to 2023.

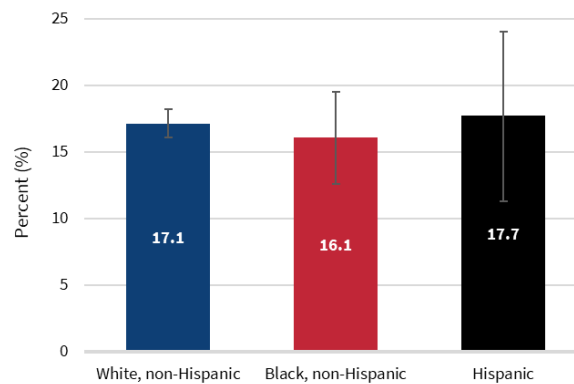
- In 2023, the prevalence of excessive drinking in the past 30 days was significantly higher among males (19.8%), compared with females (14.0%) in Ohio (Figure 1).
- The prevalence of excessive drinking did not significantly differ by race/ethnicity (Figure 2).
- The prevalence of excessive drinking was significantly higher among Ohioans ages 18-54, compared with those age 55 and older (Figure 3).
- Ohio adults with an annual household income of \$75,000 or more had the highest prevalence of excessive drinking (23.0%) (Figure 4).
- The prevalence of excessive drinking was significantly higher among college graduates (19.9%), compared with those with a high school diploma or less education (Figure 5).
- The trend in the prevalence of excessive drinking declined 21% in Ohio from 2011 to 2023 (Figure 6).

Figure 1. Estimated Prevalence (%) of Adults (Age 18+) Who Report Excessive Drinking by Sex, Ohio, 2023



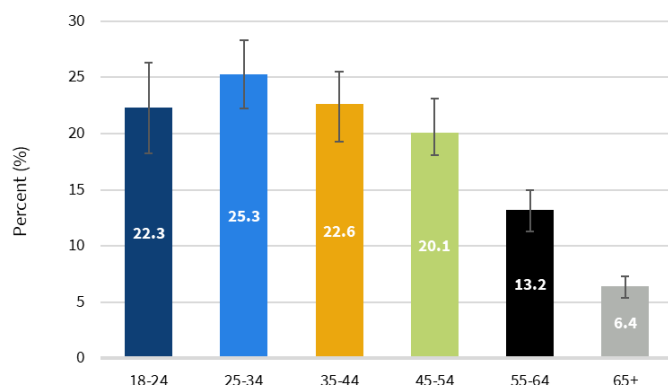
Source: 2023 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2025.

Figure 2. Estimated Prevalence (%) of Adults (Age 18+) Who Report Excessive Drinking by Race/Ethnicity, Ohio, 2023



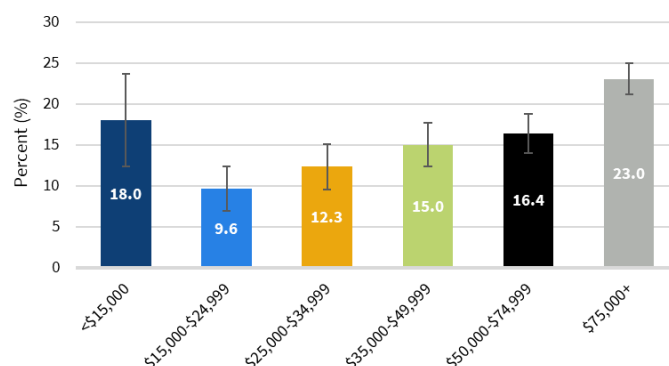
Source: 2023 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2025.

Figure 3. Estimated Prevalence (%) of Adults (Age 18+) Who Report Excessive Drinking by Age Group, Ohio, 2023



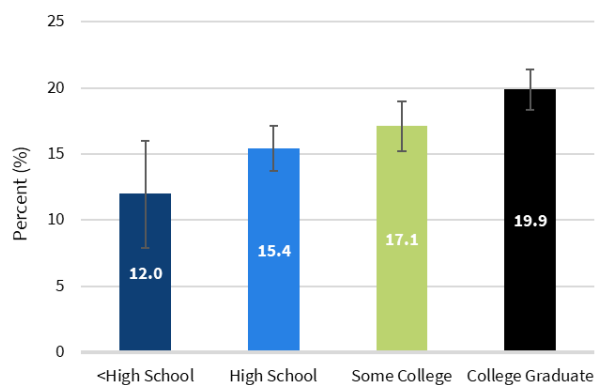
Source: 2023 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2025.

Figure 4. Estimated Prevalence (%) of Adults (Age 18+) Who Report Excessive Drinking by Annual Household Income, Ohio, 2023



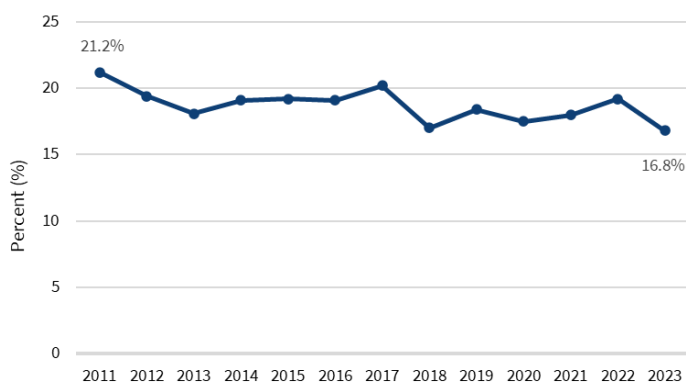
Source: 2023 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2025.

Figure 5. Estimated Prevalence (%) of Adults (Age 18+) Who Report Excessive Drinking by Level of Education, Ohio, 2023



Source: 2023 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2025.

Figure 6. Estimated Prevalence (%) of Adults (Age 18+) Who Report Excessive Drinking by Year, Ohio, 2011-2023



Source: 2011-2023 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2025.

Alcohol-Associated Cancer Incidence (Age 30+) by Sex and Race

Cancer incidence data for Ohio were provided by the Ohio Cancer Incidence Surveillance System (OCISS) at the Ohio Department of Health (ODH). OCISS is the central cancer registry for the state of Ohio and collects data regarding every reportable cancer case diagnosed among Ohio residents.

It should be noted that differences in alcohol-associated cancer incidence and mortality rates in Tables 2-3 and Figures 7-10 are not entirely attributable to alcohol. Because cancer is due to a combination of multiple factors and alcohol use is associated with other behaviors including tobacco use, poor diet, and physical inactivity, it is difficult to distinguish the impact of alcohol use on cancer risk alone.

Table 2 shows:

- From 2018 to 2022, the incidence rate of all alcohol-associated cancer sites combined for adults age 30 and older was 3.6% higher in Ohio than the rate for the United States (235.3 and 227.2 per 100,000, respectively).
- Ohio incidence rates for each of the six alcohol-associated cancer sites were higher than those for the United States, with the exception of cancer of the liver and intrahepatic bile duct.
- The incidence rate for each alcohol-associated cancer site was higher for males, compared with females, except for breast cancer. For all alcohol-associated cancer sites combined, the incidence rate among females (309.0 per 100,000) was almost twice that for males (155.3 per 100,000) because of the high incidence of breast cancer among women, compared with men.
- For all alcohol-associated cancer sites combined, the incidence rate among Black people (233.1 per 100,000) was similar to the rate for White people (234.7 per 100,000). The incidence rate among Asians/Pacific Islanders (98.6 per 100,000) was less than half the rates among White and Black people.

Table 2. Alcohol-Associated Cancer Sites: Average Annual Number of Cases and Age-Adjusted Incidence Rates per 100,000 Adults Age 30 and Older, by Cancer Site, Sex, and Race, Ohio and the United States, 2018-2022

	Sex				Race						Total		
	Male		Female		White		Black		A/PI		Ohio		U.S.
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Rate
All Alcohol-Associated Sites	6,440	155.3	13,962	309.0	17,765	234.7	2,155	233.1	27	98.6	20,402	235.3	227.2
Breast	83	2.0	10,110	227.0	8,850	119.8	1,104	121.2	14	52.6	10,194	120.1	118.0
Colon & Rectum	2,954	74.4	2,622	56.4	4,847	64.3	585	64.3	6	19.8	5,576	64.7	62.8
Esophagus	732	17.3	178	3.6	839	10.4	58	6.2	1	5.5	911	9.9	7.2
Larynx	444	10.2	128	2.7	495	6.1	70	7.3	<1	*	572	6.2	4.3
Liver & Intrahepatic Bile Duct	847	19.1	373	7.5	995	12.0	193	18.8	2	6.1	1,221	12.8	16.0
Oral Cavity & Pharynx**	1,379	32.3	550	11.8	1,738	22.2	145	15.4	3	12.1	1,929	21.5	18.9

Source: Ohio Cancer Incidence Surveillance System, Ohio Department of Health, 2025; Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov) SEER*Stat Database: Incidence, released April 2025, based on the November 2024 submission.

A/PI = Asian/Pacific Islander.

*Incidence rate not calculated when the average annual case count is less than one.

**Excluding lips.

Alcohol-Associated Cancer Mortality (Age 30+) by Sex and Race

Cancer mortality data for Ohio was obtained from the Surveillance, Epidemiology, and End Results (SEER) Program SEER*Stat mortality database, with the underlying mortality data being provided by the National Center for Health Statistics. Mortality data presented here is based on the underlying cause of death.

Table 3 shows:

- From 2018 to 2022, the mortality rate of all alcohol-associated cancer sites combined for adults age 30 and older in Ohio was 7.5% higher than the rate for the United States (68.7 and 63.9 per 100,000 population, respectively).
- Ohio mortality rates for alcohol-associated cancer sites were higher than those for the United States (except for liver and intrahepatic bile duct).
- For all alcohol-associated cancer sites combined, the mortality rate among males (70.5 per 100,000) was similar to the rate among females (67.3 per 100,000).
- The mortality rate for each alcohol-associated cancer site was higher for males, compared with females, except for breast cancer.
- For all alcohol-associated cancer sites combined, the mortality rate among Black people (81.2 per 100,000) was 19.6% higher than the rate for White people (67.9 per 100,000), and almost two times the rate for Asians/Pacific Islanders (41.2 per 100,000).

Table 3. Alcohol-Associated Cancer Sites: Average Annual Number of Deaths and Age-Adjusted Mortality Rates per 100,000 Adults Age 30 and Older, by Cancer Site, Sex, and Race, Ohio, 2018-2022

	Sex				Race						Total		
	Male		Female		White		Black		A/PI		Ohio		U.S.
	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Rate
All Alcohol-Associated Sites	2,889	70.5	3,285	67.3	5,362	67.9	746	81.2	58	41.2	6,174	68.7	63.9
Breast	21	0.6	1,652	34.5	1,424	18.5	232	26.1	16	10.8	1,673	19.2	18.2
Colon & Rectum	1,133	28.9	979	19.7	1,851	23.7	243	27.0	16	11.5	2,112	23.8	22.0
Esophagus	612	14.8	140	2.8	698	8.7	49	5.4	4	3.4	752	8.2	6.4
Larynx	145	3.4	37	0.8	157	1.9	24	2.6	<2	*	182	1.9	1.5
Liver & Intrahepatic Bile Duct	652	15.2	339	6.8	819	10.0	155	15.7	16	11.0	991	10.6	11.3
Oral Cavity & Pharynx**	324	7.7	138	2.8	412	5.1	43	4.4	6	3.9	461	5	4.4

Source: Surveillance, Epidemiology, and End Results (SEER) Program SEER*Stat Database: Mortality, released April 2024. Underlying mortality data provided by the National Center for Health Statistics.

A/PI = Asian/Pacific Islander.

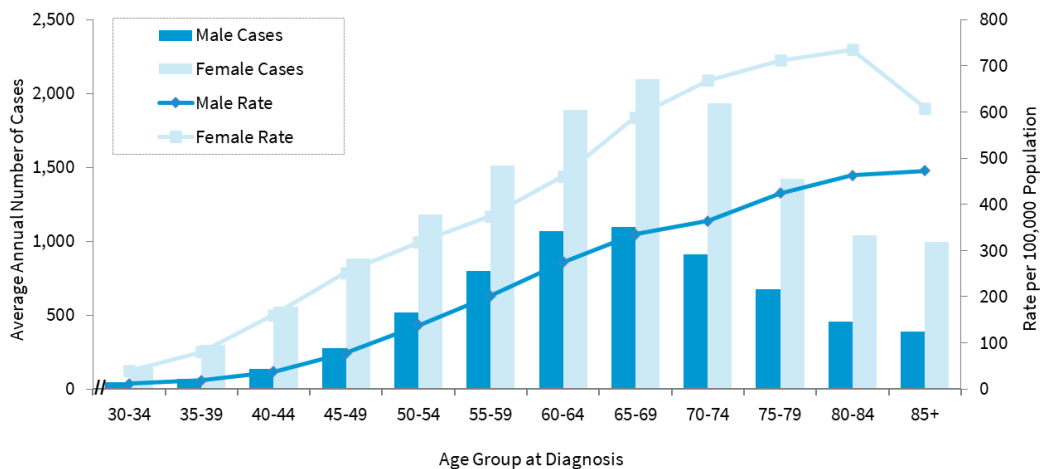
*Mortality rate not calculated when the average annual death count is less than two.

**Excluding lips.

Alcohol-Associated Cancer Incidence and Mortality (Age 30+) by Age Group

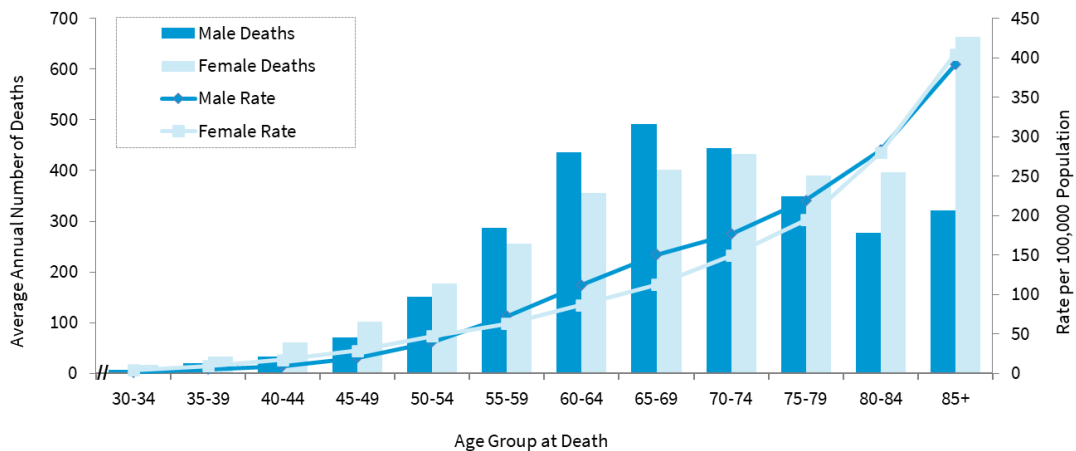
- The average annual number of cases for alcohol-associated cancer sites in 2018-2022 by age group was highest among both males and females ages 65 to 69 years (Figure 7).
- For males, the age-specific incidence rate for all alcohol-associated cancer sites combined increased with advancing age through age 85 years and older. For females, the incidence rate increased with advancing age to ages 80 to 84 years and then decreased among females age 85 years and older (Figure 7).
- The average annual number of deaths for alcohol-associated cancer sites in 2018-2022 by age group was highest among males ages 65 to 69 years and among females age 85 years and older (Figure 8).
- The age-specific mortality rate for all alcohol-associated cancer sites combined increased with advancing age for both males and females through age 85 years and older (Figure 8).

Figure 7. All Alcohol-Associated Cancer Sites Combined: Average Annual Number of Cancer Cases and Age-Specific Incidence Rates per 100,000 Adults Age 30 and Older by Age Group, Ohio, 2018-2022



Source: Ohio Cancer Incidence Surveillance System, Ohio Department of Health, 2025.

Figure 8. All Alcohol-Associated Cancer Sites Combined: Average Annual Number of Cancer Deaths and Age-Specific Mortality Rates per 100,000 Adults Age 30 and Older by Age Group, Ohio, 2018-2022



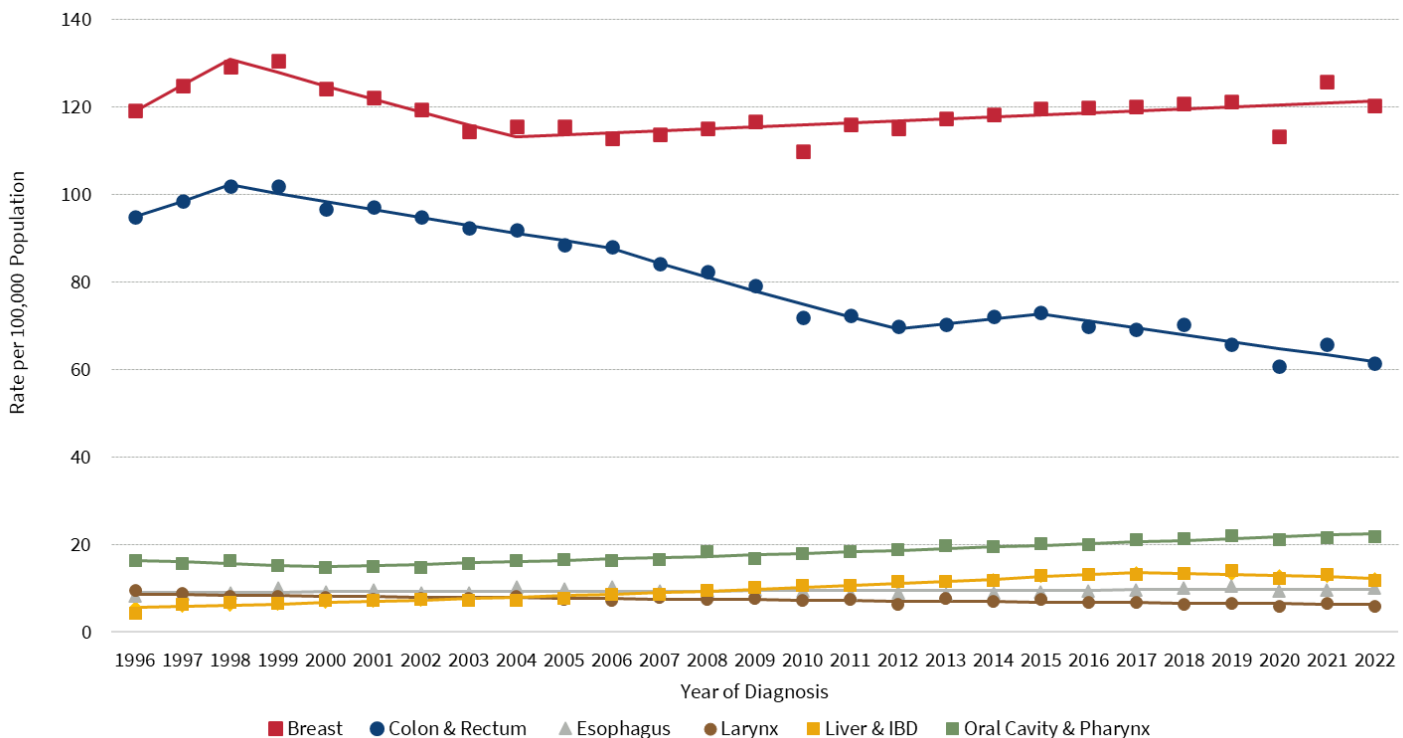
Source: Surveillance, Epidemiology, and End Results (SEER) Program SEER*Stat Database: Mortality, released April 2024. Underlying mortality data provided by the National Center for Health Statistics.

Alcohol-Associated Cancer Incidence and Mortality (Age 30+) by Year

Figure 9 shows trends in incidence rates for each of the six alcohol-associated cancer sites. Only those trend segments with significant changes are described.

- The female breast cancer incidence rate increased 4.9% per year from 1996 to 1998, decreased 2.4% per year from 1998 to 2004, and increased slightly (0.4% per year) from 2004 to 2022.
- The colon and rectum cancer incidence rate increased 3.8% per year from 1996 to 1998, decreased 1.9% per year from 1998 to 2006, decreased 3.9% per year from 2006 to 2012, and decreased 2.3% per year from 2015 to 2022.
- The laryngeal cancer incidence rate decreased 1.2% per year from 1996 to 2022.
- The liver and intrahepatic bile duct cancer incidence rate increased 4.3% per year from 1996 to 2017.
- The oral cavity and pharyngeal cancer incidence rate increased 1.9% per year from 2000 to 2022.

Figure 9. Alcohol-Associated Cancer Sites: Age-Adjusted Incidence Rates per 100,000 Adults Age 30 and Older, by Cancer Site and Year, 1996-2022



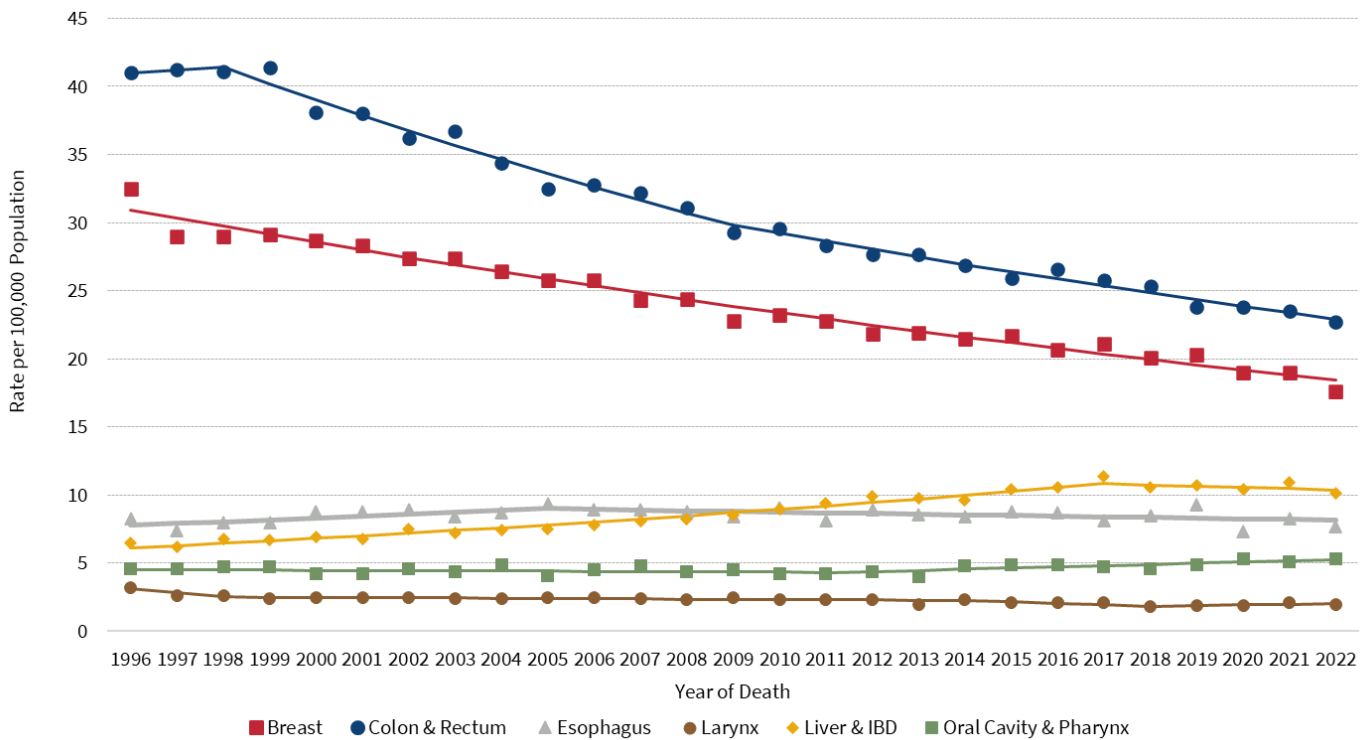
Source: Ohio Cancer Incidence Surveillance System, Ohio Department of Health, 2025.

IBD = Intrahepatic Bile Duct.

Figure 10 shows trends in mortality rates for each of the six alcohol-associated cancer sites/types. Only those trend segments with significant changes are described.

- The female breast cancer mortality decreased 2.0% per year from 1996 to 2022.
- The colon and rectum cancer mortality rate decreased 2.9% per year from 1996 to 2009 and decreased 2.0% per year from 2009 to 2022.
- The esophageal cancer mortality rate increased 1.6% per year from 1996 to 2005 and decreased 0.6% per year from 2005 to 2022.
- The laryngeal cancer mortality rate decreased 9.9% per year from 1996 to 1998, decreased 5.0% per year from 2014 to 2018, and increased 2.2% per year from 2018 to 2022.
- The liver and intrahepatic bile duct cancer mortality rate increased 2.8% per year from 1996 to 2017.
- The oral cavity and pharyngeal cancer mortality rate increased 1.8% per year from 2011 to 2022.

Figure 10. Alcohol-Associated Cancer Sites: Age-Adjusted Mortality Rates per 100,000 Adults Age 30 and Older, by Cancer Site and Year, Ohio, 1996-2022



Source: Surveillance, Epidemiology, and End Results (SEER) Program SEER*Stat Database: Mortality, released April 2024. Underlying mortality data provided by the National Center for Health Statistics.

IBD = Intrahepatic Bile Duct.

Technical Notes

Age-Adjusted Rate: A summary rate that is a weighted average of age-specific rates, where the weights represent the age distribution of a standard population (direct adjustment). The incidence and mortality rates presented in this report were standardized to the age distribution of the 2000 U.S. Standard Population. Using the direct method, the population was first divided into 19 five-year age groups, i.e., <1, 1-4, 5-9, 10-14, 15-19...85+, and the age-specific rate was calculated for each age group. Each age-specific rate was then multiplied by the standard population proportion for the respective age group.

Population Attributable Risk/Population Attributable Proportion/Population Attributable Fraction: An estimate of the proportion of cancer cases in a population that occurred as a result of some known cause (e.g., alcohol use).

Average Annual Number: The number of cases or deaths diagnosed per year, on average, for the time period of interest (e.g., 2018-2022). Average annual numbers are calculated by summing the number of cases or deaths for a given time period, dividing by the number of years that comprise the time period, and rounding to the nearest whole number.

Confidence Interval (CI): A range of values for a measure or estimate (e.g., prevalence) constructed so that the range has a specified probability of including the true value of the measure in the population.

Excessive Drinking: Heavy drinking and/or binge drinking.

- **Binge Drinking:** Having five or more drinks per occasion (men) or four or more drinks per occasion (women) in the past 30 days.
- **Heavy Drinking:** Men having more than two drinks per day and women having more than one drink per day.

Incidence: The number of cases diagnosed during a specified time period (e.g., 2018-2022).

Invasive Cancer: Cancer that has spread beyond the layer of tissue in which it developed and is growing into surrounding, healthy tissues. Invasive cancers consist of those diagnosed at the local, regional, distant, and unstaged/unknown stages. Only invasive cancers, except for *in situ* bladder cancers, were included in the calculation of incidence rates in this document.

Mortality: The number of deaths during a specified time period (e.g., 2018-2022).

Population Data: Populations were provided by the National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER) Program, using the county-level population file - 19 age groups: 1990-2022 County-level: Expanded Races (White, Black, American Indian/Alaska Native, Asian/Pacific Islander) by Origin (Hispanic, Non-Hispanic).

<https://seer.cancer.gov/popdata.thru.2022/download.html>.

Prevalence: The proportion of people with a certain disease or characteristic at a given time.

Rate: The number of cases or deaths per unit of population (e.g., per 100,000 population) during a specified time period (e.g., 2018-2022).

Statistical Significance: A mathematical measure of difference between groups. The difference is said to be statistically significant if it is greater than what might be expected to happen by chance alone. In this document, statistical significance was determined by comparing 95% CIs; if the 95% CIs do not overlap, the difference is determined to be statistically significant.

Data Sources

Cancer Incidence

Ohio cancer incidence data are from OCISS at ODH. OCISS, the central cancer registry for Ohio, collects cancer incidence data for all Ohio residents diagnosed with cancer. Due to the complexity of the cancer data collection and quality control process, there is typically a 24-month delay between the time a new cancer is diagnosed and the time the data is ready for analysis. Therefore, the most recent incidence data is for cancer cases diagnosed through Dec. 31, 2022. U.S. cancer incidence data were obtained from the Surveillance, Epidemiology and End Results (SEER) Program SEER*Stat Database: Incidence - SEER Research Plus Limited-Field Data, 21 Registries, Nov. 2024 Submission (2000-2022) - Linked To County Attributes - Total U.S., 1969-2023 Counties, National Cancer Institute, released April 2025.

Cancer Mortality

Ohio and U.S. mortality data were obtained from the Surveillance, Epidemiology, and End Results (SEER) Program SEER*Stat Database: Mortality - All Cause of Death, Aggregated With State, Total U.S. (1990-2022) <Katrina/Rita Population Adjustment> National Cancer Institute, April 2024. Underlying mortality data were provided by the National Center for Health Statistics (www.cdc.gov/nchs).

Behavioral Risk Factor Surveillance System (BRFSS)

ODH, in conjunction with the Centers for Disease Control and Prevention (CDC), annually conducts the Ohio BRFSS through landline and cell phone interviews of randomly selected adults age 18 and older to collect data regarding diseases/conditions, risk factors, and health practices among Ohioans. To ensure that prevalence estimates are representative of Ohio's population, data from 2011-present were weighted by age, sex, race/ethnicity, geography, marital status, education, home ownership, and telephone source using an iterative proportional fitting (raking) method. Respondents who answered "don't know/not sure" or refused the question were excluded from the analyses for that question. <https://odh.ohio.gov/know-our-programs/behavioral-risk-factor-surveillance-system/welcome-to>.

References

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