

Cancers Associated with Alcohol in New York State

2018–2022



**Department
of Health**

Introduction

Alcohol consumption is the third leading preventable cause of cancer in the United States.¹ In New York State, more than half of adults consume alcohol.² In addition, 16.2% of adults report binge or heavy drinking, two forms of excessive alcohol use.³ However, about one in six New Yorkers are unaware that drinking alcohol increases a person's risk of cancer.⁴

- Epidemiologic studies have demonstrated a causal relationship between alcohol use and cancers of the lip, oral cavity, and pharynx; esophagus; colon and rectum; liver; larynx; and female breast.^{5,6}
- The risk of alcohol-associated cancers varies by type of cancer and level of alcohol consumption. For oral cavity and pharyngeal, esophageal, and female breast cancers, even light drinking is associated with an increased risk of developing cancer.⁶
- The association between drinking alcohol and cancer risk has been observed across different types of alcoholic beverages—wine, beer, and spirits/liquor.⁷
- Alcohol reduction or cessation, particularly long-term cessation, has been shown to be associated with a decreased risk of oral and esophageal cancers.⁸

This report uses data collected by the New York State Cancer Registry and provides an overview of the latest five-year (2018-2022) average rates of incidence and mortality, including disparities in incidence by demographics and geography, of alcohol-associated cancers and incidence trends from 2008 to 2022. **Please note:** The data for alcohol-associated cancers are based only on cancer site⁹ and do not estimate the proportion of cancers caused by alcohol consumption. Lastly, this report highlights major initiatives the New York State Department of Health has launched to reduce alcohol consumption and promote cancer prevention and control.

Results

Table 1. Incidence and Mortality of Alcohol-Associated Cancers, New York State 2018-2022*

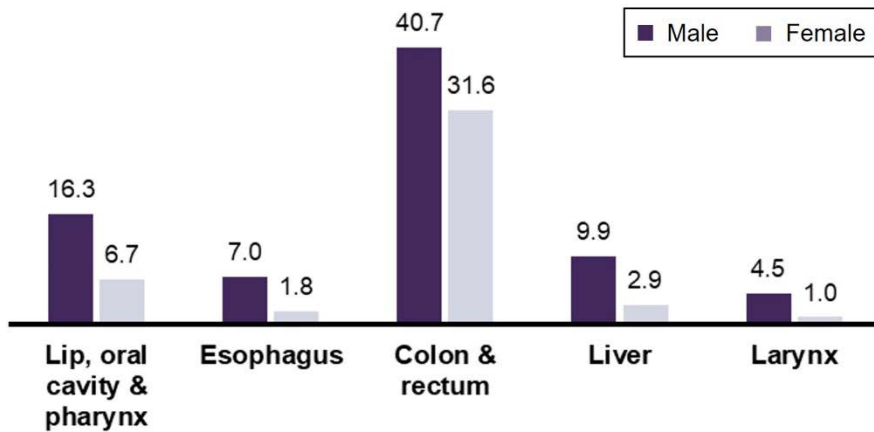
Cancer Site	Incidence		Mortality	
	Cases ^a	Rate ^b	Deaths ^c	Rate ^b
All alcohol-associated cancers	32,400	131.6	7,593	29.6
Lip, oral cavity, and pharynx	2,845	11.1	554	2.1
Esophagus	1,094	4.1	800	3.0
Colon and rectum	8,828	35.8	2,769	10.9
Liver	1,619	6.1	906	3.4
Larynx	688	2.6	193	0.7
Breast (female only)	17,327	135.5	2,372	17.0
All cancers combined	117,656	466.8	32,608	126.6

^a Average number of new cases per year; ^b per 100,000 persons; ^c Average deaths per year.

- On average, 32,400 cases of alcohol-associated cancers were diagnosed each year in New York State, representing 28% of the nearly 117,700 cancer cases diagnosed annually.
- About 7,600 individuals died from an alcohol-associated cancer each year, accounting for 23% of the 32,600 cancer deaths in the State.
- The largest contributors to new cancer cases and deaths were female breast cancer and colorectal cancer, respectively.

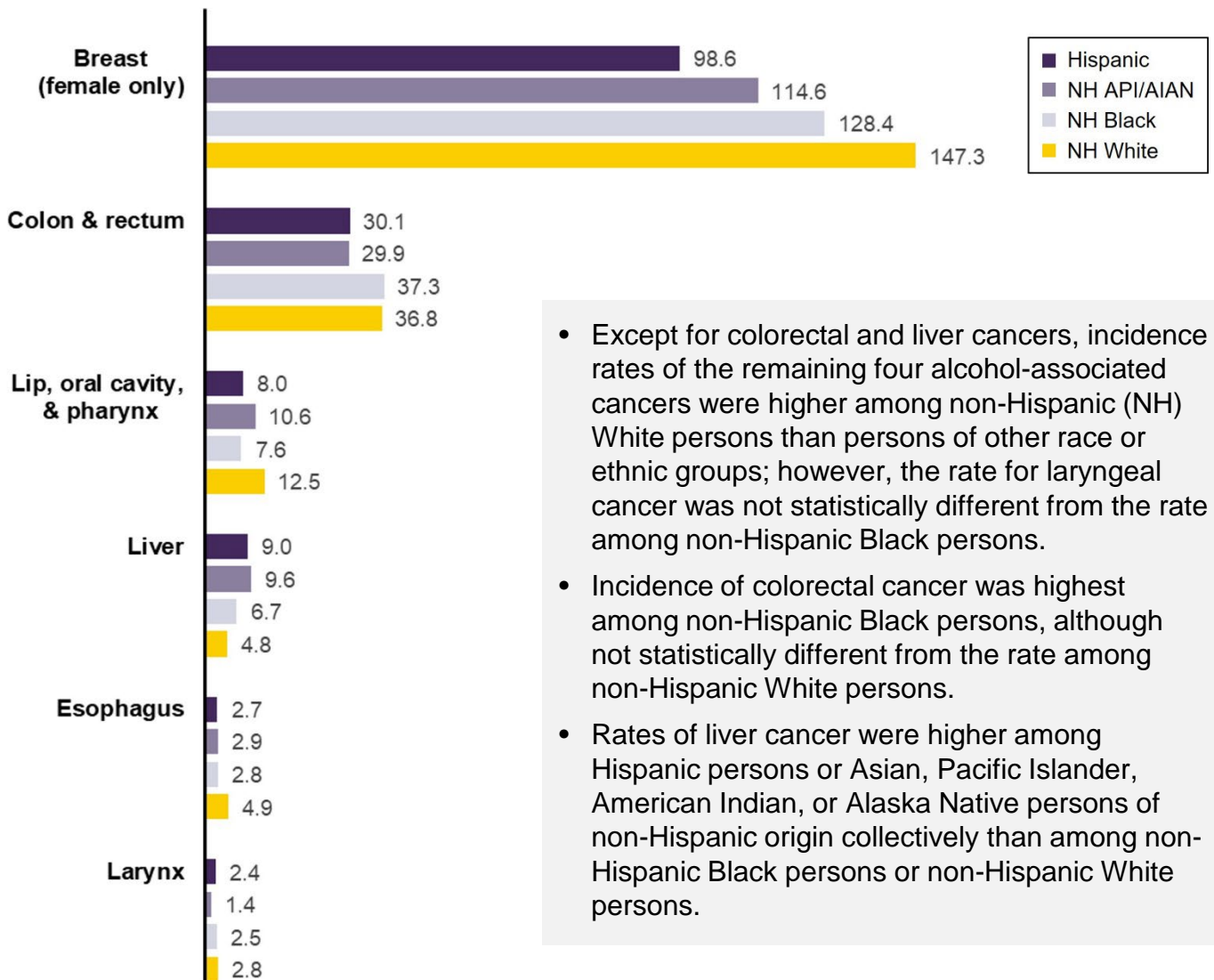
Figure 1. Incidence Rates (per 100,000 persons) of Alcohol-Associated Cancers by Demographics, New York State 2018-2022*

(A) Sex



- Incidence rates for cancers of the five non-sex-specific sites were higher among males than females.

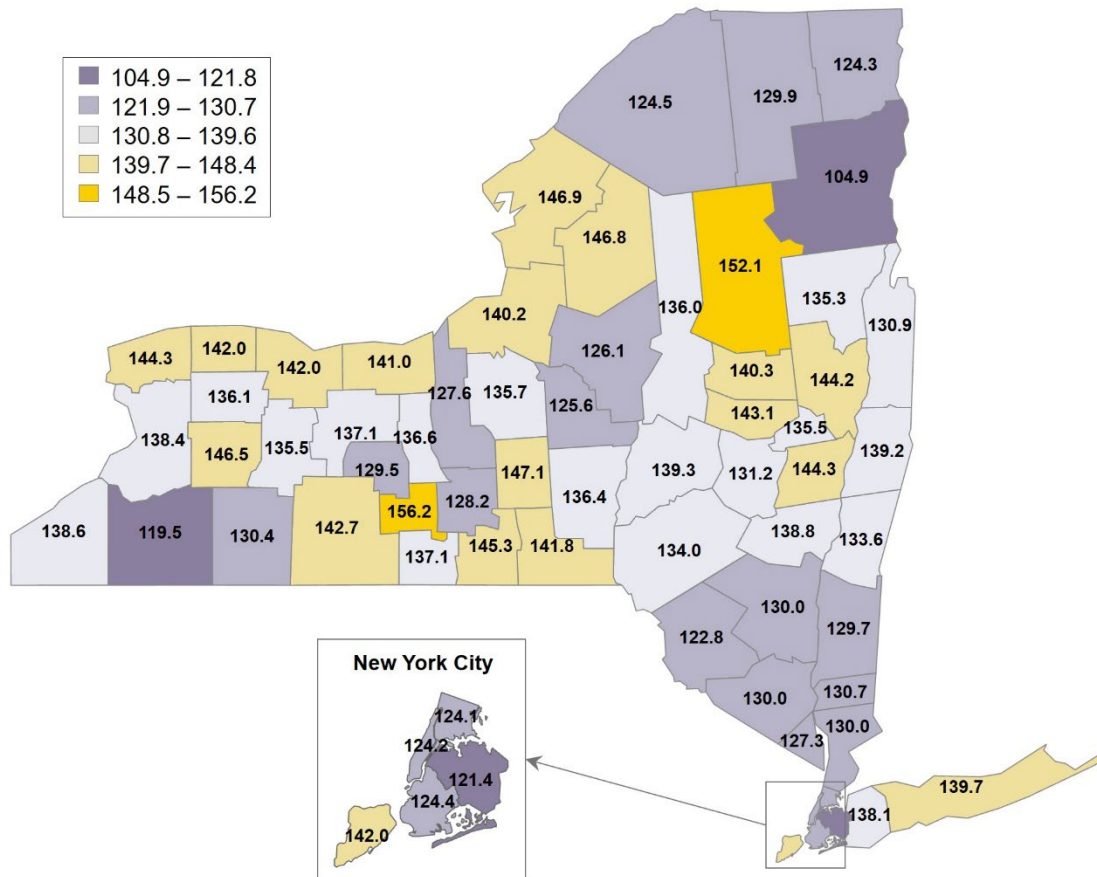
(B) Race and Ethnicity†



- Except for colorectal and liver cancers, incidence rates of the remaining four alcohol-associated cancers were higher among non-Hispanic (NH) White persons than persons of other race or ethnic groups; however, the rate for laryngeal cancer was not statistically different from the rate among non-Hispanic Black persons.
- Incidence of colorectal cancer was highest among non-Hispanic Black persons, although not statistically different from the rate among non-Hispanic White persons.
- Rates of liver cancer were higher among Hispanic persons or Asian, Pacific Islander, American Indian, or Alaska Native persons of non-Hispanic origin collectively than among non-Hispanic Black persons or non-Hispanic White persons.

Figure 2. Incidence Rates (per 100,000 persons) of Alcohol-Associated Cancers by Geography, New York State 2018-2022*

(A) County, all alcohol-associated cancers combined[‡]

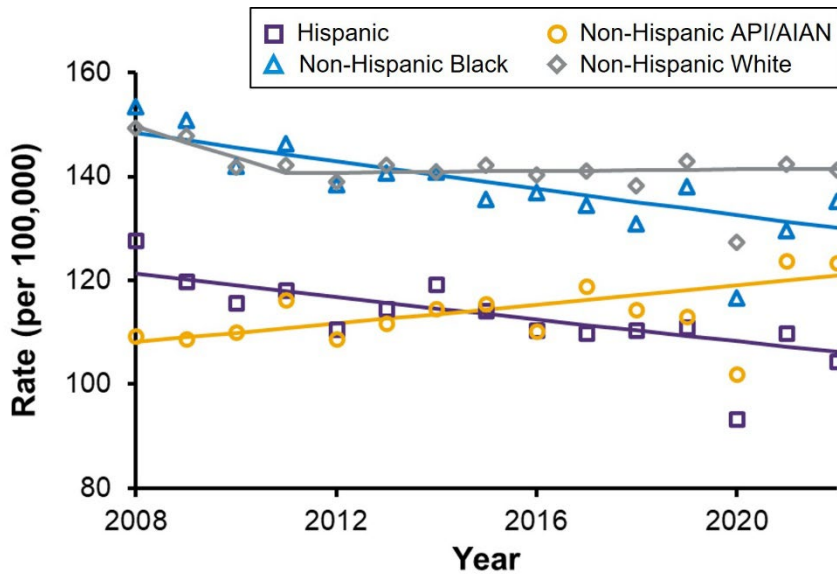


(B) Region by Site

Region	Lip, oral cavity, & pharynx	Esophagus	Colon & rectum	Liver	Larynx	Breast (female)	6 Sites Combined
New York City	9.2	2.9	34.3	7.0	2.2	127.5	124.6
Rest of state	12.4	5.0	36.8	5.5	2.9	141.2	136.3

- There are five levels of shading in the map with the grayish violet representing lower incidence rates and the gold representing higher rates.
- When all alcohol-associated cancers were combined, incidence rates ranged from 104.9 to 156.2 per 100,000 persons across the 62 counties in New York State.
- Incidence rates were lower in New York City than in the rest of the state except for liver cancer, which was higher in New York City.

Figure 3. Trends in Incidence Rates of Alcohol-Associated Cancers by Race and Ethnicity, New York State 2008-2022^{*,†,§}



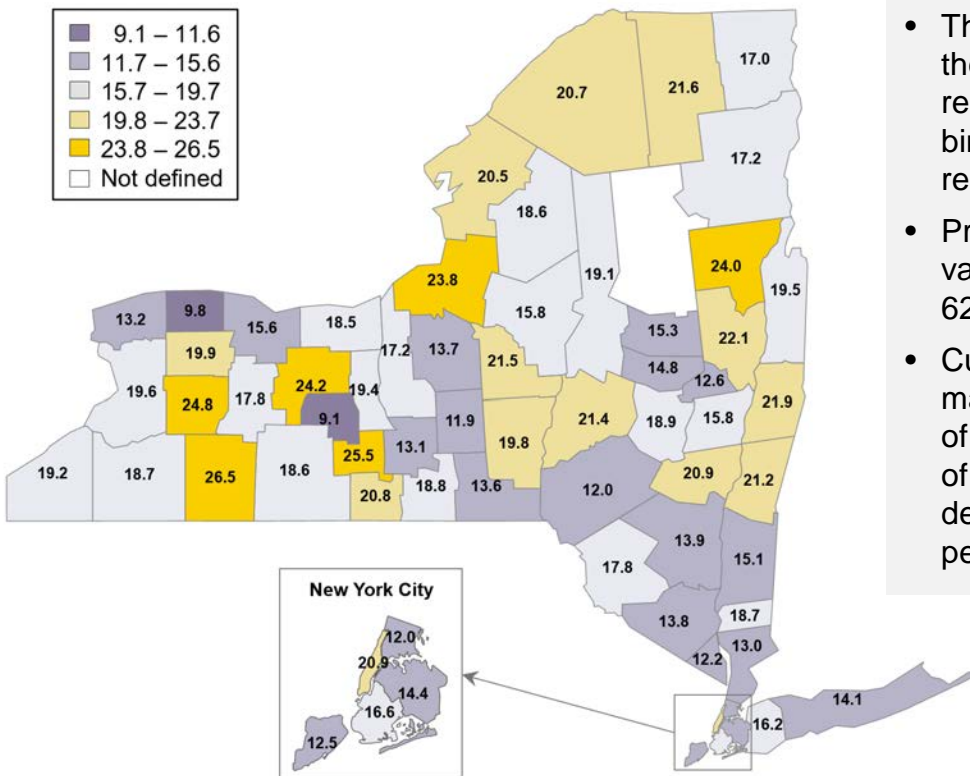
Average Annual Percent Change 2008-2022

Race and Ethnicity	Estimate
Hispanic	-0.9 [^]
Non-Hispanic API/AIAN	0.8 [^]
Non-Hispanic Black	-0.9 [^]
Non-Hispanic White	-0.4 [^]

[^] Significantly different from zero at the $\alpha = 0.05$ level.

- Rates decreased among most racial and ethnic groups from 2008 to 2022, although among non-Hispanic White persons, the decrease was due to the steep decline until 2011 before stabilizing.
- Among Asian, Pacific Islander, American Indian, or Alaska Native persons of non-Hispanic origin collectively, incidence rates rose by 0.8% per year from 2008 to 2022.

Figure 4. Prevalence of Binge Drinking Among Adults by County, New York State Behavioral Risk Factor Surveillance System 2021^{†,‡,#}



New York State Department of Health Programs and Initiatives

New York State's 2025-2030 Prevention Agenda and Health Equity¹⁰

The Prevention Agenda is New York State's Health Improvement Plan. The [2025-2030 Prevention Agenda](#) serves as a framework for coordinated state and local actions to reduce health disparities and promote health equity with a strong emphasis on prevention.

Across domains, there are priorities that address alcohol use. The goals of two priorities that focus specifically on alcohol use are to (1) reduce excessive alcohol use and associated harms and (2) reduce substance use, misuse, overdose and/or associated harms. Evidence-informed strategies include, but are not limited to, the following:

- Assist health care organizations and provider groups in establishing policies, procedures, and workflows to facilitate the delivery of in-person or electronic alcohol screening, brief intervention and referral to treatment.
- Develop and/or disseminate educational materials and resources to communicate with the public about the harms associated with excessive alcohol use.
- Make alcohol less available, harder to access, and higher in price.
- Collaborate with local and statewide organizations to implement safety programs to reduce binge drinking.
- Reduce youth exposure to alcohol marketing.

Comprehensive Cancer Control Plan

The [New York State Comprehensive Cancer Control Plan](#) is a guide to identify and address the cancer burden in New York State. Since 2003, the Plan has been developed by the [New York State Cancer Consortium](#), a statewide network of over 400 members from the public and private sectors. The New York State Department of Health is a major partner in and facilitator of/for the Consortium. The [New York State Comprehensive Cancer Control Plan Dashboard](#) displays progress on key indicators and measurable objectives on various priority areas of the Plan. The [2018-2023 Plan Final Progress Report](#) summarizes the progress made toward the goals and objectives of the 2018-2023 Comprehensive Cancer Control Plan.

The 2025-2030 New York State Comprehensive Cancer Control Plan is in development and will include measurable objectives and suggested strategies spanning the cancer continuum, including cancer-related health equity, health promotion and cancer prevention, early detection, treatment, and survivorship. The goal of the "Excessive Alcohol Use" section will be to increase awareness about the impact of excessive alcohol use on cancer risk and build support for population-based policy and environmental changes that prevent excessive alcohol use and related harm across populations disproportionately impacted. Once released, the 2025-2030 Plan will be available on the New York State Cancer Consortium website.

Alcohol Surveillance and Epidemiology Program

The New York State [Alcohol Surveillance and Epidemiology Program](#) works in partnership with the New York State Office of Addiction Services and Supports (OASAS) and conducts public health surveillance on excessive alcohol use and its related harms in New York State. The program is also guided by the Alcohol Surveillance and Epidemiology Workgroup (ASEW), a network of data experts and prevention partners brought together to examine the patterns, context, and impact of excessive alcohol use in New York State

Conclusion

Alcohol-associated cancers contribute substantially to the cancer burden in New York State. However, incidence rates for all alcohol-associated cancers combined decreased or remained stable among most racial and ethnic groups from 2008 to 2022. It is important to recognize that alcohol consumption is just one of the many factors that may contribute to the development of these cancers and that trends in cancer incidence may not reflect recent risk exposures. Nonetheless, as a leading preventable cause of cancer, alcohol consumption has important implications for public health.

In New York State, the Department of Health works with the New York State Cancer Consortium and other external partners and contractors to raise awareness of the association between alcohol consumption and cancer risk, reduce alcohol use/misuse, and ultimately to alleviate the burden of cancer and other harms associated with alcohol among all New Yorkers.

Endnotes

- * New York State Cancer Registry. Rates are per 100,000 persons, age-adjusted to the 2000 U.S. standard population. Data provisional, November 2024. www.health.ny.gov/statistics/cancer/registry
- † Non-Hispanic API/AIAN refers to Asian, Pacific Islander, American Indian or Alaska Native persons of non-Hispanic origin. Due to low case counts, these persons were included in an aggregated race and ethnicity category.
- ‡ Counties are classified into 5 categories based on the mean and standard deviation (SD): (1) $\text{min} \leq \text{rate} < \text{mean} - 1.5 \text{ SD}$ (dark purple); (2) $\text{mean} - 1.5 \text{ SD} \leq \text{rate} < \text{mean} - 0.5 \text{ SD}$ (light purple); (3) $\text{mean} - 0.5 \text{ SD} \leq \text{rate} < \text{mean} + 0.5 \text{ SD}$ (gray); (4) $\text{mean} + 0.5 \text{ SD} \leq \text{rate} < \text{mean} + 1.5 \text{ SD}$ (yellow); and (5) $\text{mean} + 1.5 \text{ SD} \leq \text{rate} \leq \text{max}$ (gold).
- § Trend analysis was conducted using the Joinpoint Regression Program, Version 5.4.0.0 April 2025; Statistical Research and Applications Branch, National Cancer Institute. surveillance.cancer.gov/joinpoint. The 2020 incidence rate is displayed but not used in the estimation of the trend line. seer.cancer.gov/data/covid-impact
- ¶ New York State Behavioral Risk Factor Surveillance System (BRFSS) Health Indicators by County and Region. health.data.ny.gov/Health/Behavioral-Risk-Factor-Surveillance-System-BRFSS-H/jsy7-eb4n/about_data. Prevalence is age-adjusted to the 2000 U.S. standard population and not defined due to age-adjustment cells with less than two observations.
- # Binge drinking is defined as consuming 4 or more drinks for women and 5 or more drinks for men on a single occasion.

References

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