Miami County Cancer Profile

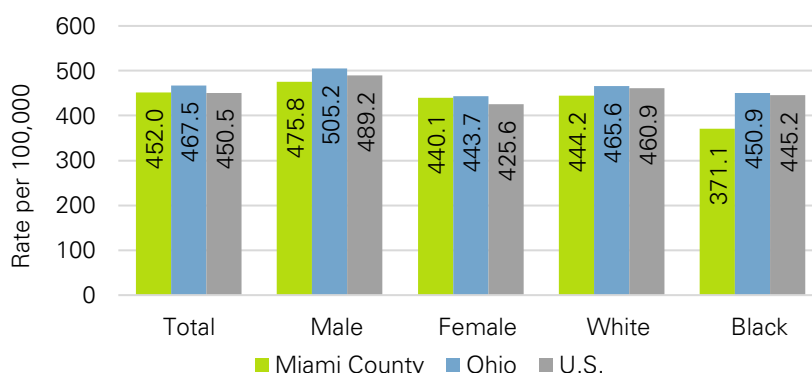Ohio | Department of Health

Introduction

Approximately four out of 10 Ohioans will be diagnosed with cancer at some point during their lifetime. Cancer is the second leading cause of death, accounting for nearly one in four deaths in Ohio and the United States. This report provides an overview of cancer in Miami County, Ohio, including data on cancer incidence (new cases) and mortality (deaths), Ohio and U.S. comparisons, trends, early detection, and risk factors. Cancer disparities may be associated with lifestyle factors, lack of access to healthcare, later stage at diagnosis, inadequate treatment, or other risk factors that could be addressed through cancer prevention, early detection, and control initiatives. This information can be used to increase awareness about the burden of cancer in Miami County and to develop targeted cancer programs in the community.

Incidence and Mortality

- An average of 617 new invasive cancer cases and 242 deaths occurred each year among Miami County residents in 2014-2018.

- In 2014-2018, the cancer incidence rate for all sites/types combined in Miami County was 452.0 per 100,000 residents, compared with the Ohio rate of 467.5 per 100,000 and the U.S. rate of 450.5 per 100,000.

- The 2014-2018 cancer mortality rate in Miami County was 172.0 per 100,000 residents, compared with the Ohio rate of 172.3 per 100,000 and the U.S. rate of 155.5 per 100,000.

- Cancer incidence and mortality rates among males were higher than the rates among females in Miami County, Ohio, and the United States in 2014-2018.

- White people had higher cancer incidence rates than Black people in Miami County, Ohio, and the United States, while Black people had higher cancer mortality rates than white people in Ohio and the United States.

Figure 1. Average Annual Age-Adjusted Cancer Incidence Rates by Sex and Race in Miami County, Ohio, and the United States, 2014-2018

Source: Ohio Cancer Incidence Surveillance System, Ohio Department of Health, 2021; Surveillance, Epidemiology, and End Results Program, National Cancer Institute, 2021. Rates are per 100,000 people and age-adjusted to the 2000 U.S. standard population.

Figure 2. Average Annual Age-Adjusted Cancer Mortality Rates by Sex and Race in Miami County, Ohio, and the United States, 2014-2018
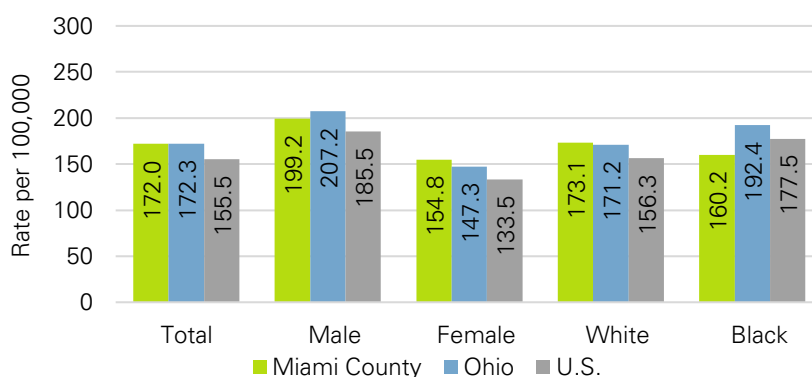
Source: Bureau of Vital Statistics, Ohio Department of Health, 2021; Surveillance, Epidemiology, and End Results Program, National Cancer Institute, 2021. Rates are per 100,000 people and age-adjusted to the 2000 U.S. standard population.
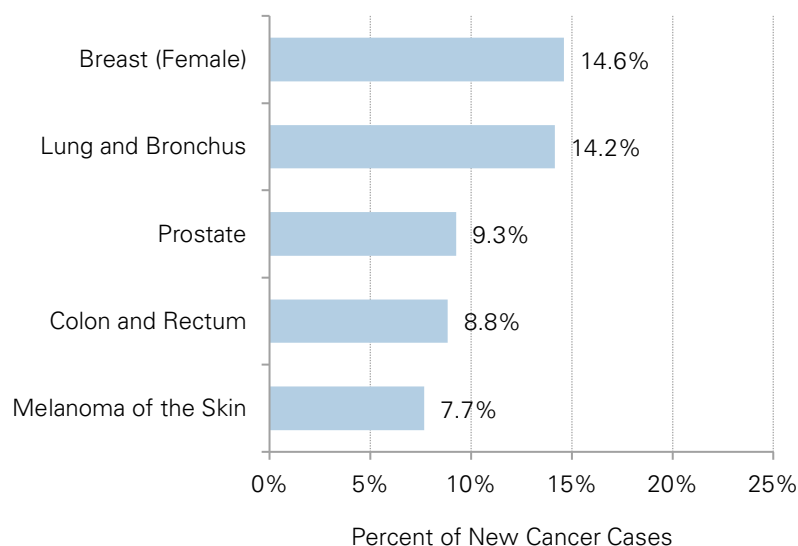
Top Five Cancers by Percentage of New Cancer Cases

Figure 3. Percentage of New Invasive Cancer Cases by Site/Type for the Top Five Cancers in Miami County, 2014-2018

Breast (Female) — 14.6%
Lung and Bronchus — 14.2%
Prostate — 9.3%
Colon and Rectum — 8.8%
Melanoma of the Skin — 7.7%
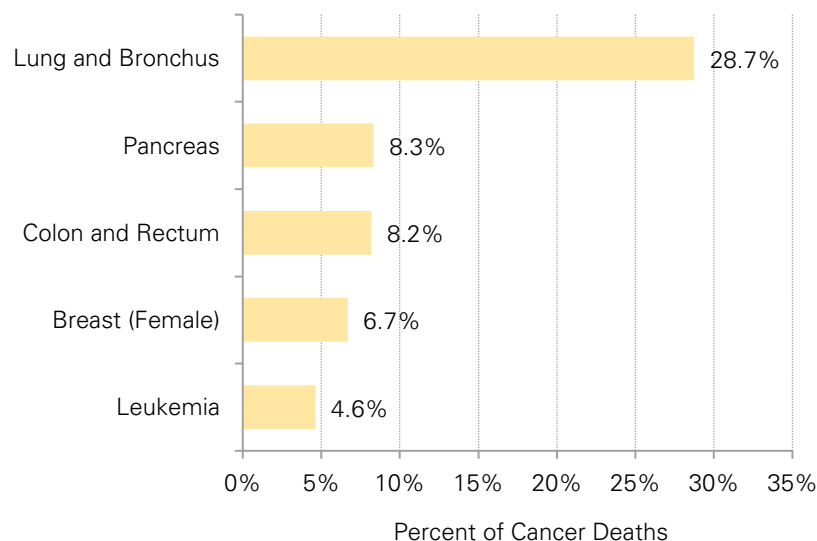
Percent of New Cancer Cases

- The leading sites/types of cancer incidence in Miami County in 2014-2018 were female breast, lung and bronchus, prostate, colon and rectum, and melanoma of the skin, accounting for 55% of all new invasive cancer cases.

Source: Ohio Cancer Incidence Surveillance System, Ohio Department of Health, 2021.

Top Five Cancers by Percentage of Cancer Deaths

Figure 4. Percentage of Cancer Deaths by Site/Type for the Top Five Cancers in Miami County, 2014-2018

Lung and Bronchus — 28.7%
Pancreas — 8.3%
Colon and Rectum — 8.2%
Breast (Female) — 6.7%
Leukemia — 4.6%

Percent of Cancer Deaths

- The leading sites/types of cancer mortality in Miami County in 2014-2018 were lung and bronchus, pancreas, colon and rectum, female breast, and leukemia, accounting for 57% of all cancer deaths.

Source: Bureau of Vital Statistics, Ohio Department of Health, 2021.

- Female breast cancer was the leading cause of cancer incidence in Miami County in 2014-2018, accounting for 14.6% of cancer cases. Lung and bronchus cancer was the leading cause of cancer mortality in Miami County in 2014-2018, accounting for 28.7% of cancer deaths.

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Cancer Sites/Types

Table 1. Average Annual Number and Age-adjusted Cancer Incidence and Mortality Rates by Site/Type in Miami County, Ohio, and the United States, 2014-2018

	Incidence				Mortality			
	Miami County		Ohio	U.S.	Miami County		Ohio	U.S.
	Cases	Rate	Rate	Rate	Deaths	Rate	Rate	Rate
All Sites/Types	617	452.0	467.5	450.5	242	172.0	172.3	155.5
Bladder	32	22.8	21.8	19.7	6	4.3	5.0	4.3
Brain and Other CNS	10	8.2	7.0	6.4	7	5.5	4.6	4.4
Breast (Female)	90	128.4	129.6	129.1	16	22.1	21.9	20.1
Cervix	4	6.5	7.9	7.5	<2	*	2.3	2.2
Colon and Rectum	55	40.5	41.3	37.8	20	14.3	15.1	13.7
Esophagus	8	5.4	5.4	4.2	8	5.1	4.9	3.9
Hodgkin Lymphoma	2	1.9	2.7	2.6	<2	*	0.3	0.3
Kidney and Renal Pelvis	28	21.2	17.6	16.4	7	5.0	3.9	3.6
Larynx	5	3.0	3.9	2.8	<2	*	1.2	0.9
Leukemia	16	12.6	12.4	14.3	11	8.3	6.7	6.3
Liver and Intrahepatic Bile Duct	9	6.2	7.3	9.0	6	4.7	6.1	6.6
Lung and Bronchus	87	60.6	67.3	53.1	70	48.3	46.7	38.5
Melanoma of the Skin	47	37.3	24.8	22.8	5	4.1	2.7	2.3
Multiple Myeloma	4	3.0	6.2	7.1	3	2.4	3.5	3.2
Non-Hodgkin Lymphoma	26	18.5	19.2	19.6	9	6.3	6.0	5.4
Oral Cavity and Pharynx	17	11.8	12.2	11.5	2	1.5	2.8	2.5
Ovary	7	9.4	10.3	10.9	6	8.1	6.8	6.7
Pancreas	19	13.3	13.4	13.2	20	13.8	12.0	11.0
Prostate	57	80.7	107.2	111.3	11	19.0	19.3	19.0
Stomach	9	7.1	6.1	7.2	4	3.1	2.6	3.0
Testis	2	5.5	5.8	6.0	<2	*	0.3	0.3
Thyroid	16	14.4	15.2	15.5	<2	*	0.5	0.5
Uterus	20	26.9	31.1	28.1	3	3.4	5.3	4.9

Source: Ohio Cancer Incidence Surveillance System and the Bureau of Vital Statistics, Ohio Department of Health, 2021; Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute, 2021.
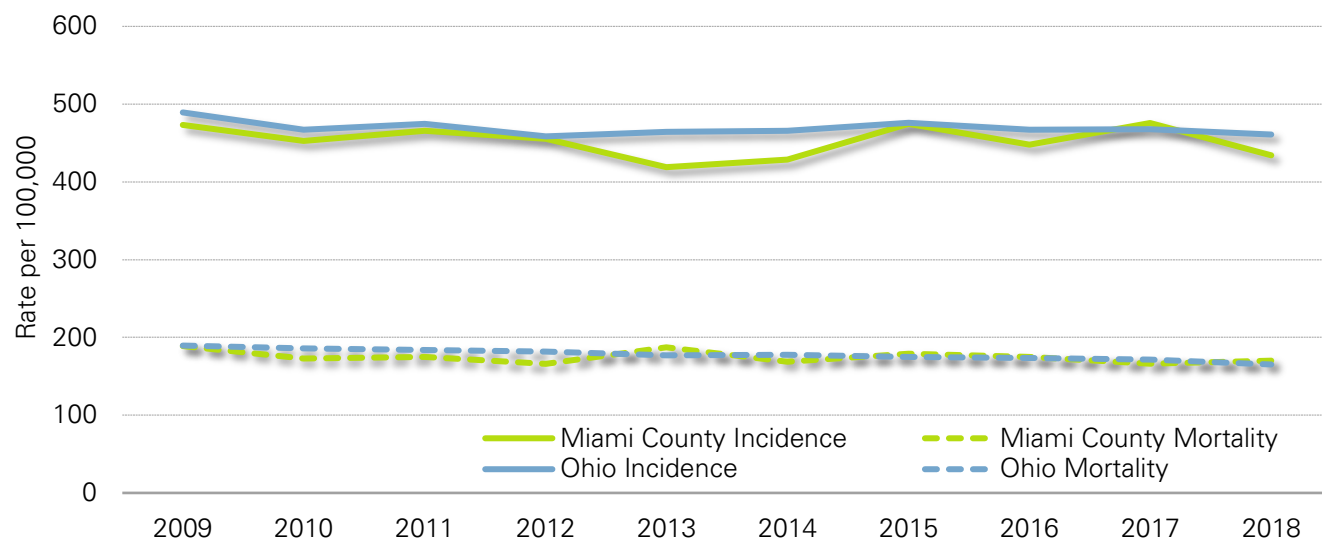
Rates are per 100,000 people and age-adjusted to the 2000 U.S. standard population. Rates are sex-specific for cancers of the breast, cervix, ovary, prostate, testis, and uterus.

CNS = Central Nervous System.

* Rates may be unstable and are not presented when the total count for 2014-2018 is less than five (incidence) or 10 (mortality).

Trends

Figure 5. Age-adjusted Cancer Incidence and Mortality Rates for All Cancers Combined in Miami County and Ohio by Year, 2009-2018

Source: Ohio Cancer Incidence Surveillance System and Bureau of Vital Statistics, Ohio Department of Health, 2021.
Rates are per 100,000 people and age-adjusted to the 2000 U.S. Standard Population.
Note: Cancer incidence and mortality rates at the county level are often variable over time, particularly for counties with small populations.

- Cancer incidence rates were variable in Miami County and decreased 6% in Ohio from 2009 to 2018.
- Cancer mortality rates decreased 10% in Miami County and 13% in Ohio from 2009 to 2018.

Cancer Stage

Cancer stage at diagnosis is the extent or spread of the tumor from the site of origin. According to a system of summary staging (SEER Summary Stage), the stages, in order of increasing spread, are *in situ*, local, regional, and distant. Early stage cancers are those diagnosed at the *in situ* or local stages, where the cancer has not spread to other parts of the body. Late stage cancers are those diagnosed at the regional stage (cancer has spread to the lymph nodes) or distant stage (cancer has spread to other organs). Cancers may also be reported as unstaged/missing when information is not sufficient to assign a stage. (See Glossary on page 8.) Please note that the percentage of unstaged/missing cases can vary by cancer site/type and region and may impact the percentage distribution of early and late stage cases; therefore, comparisons between the county and the state should be interpreted with caution when the proportion of unstaged/missing cases in the county is considerably different than the state. Screening can result in the detection of certain cancers (including lung and bronchus, cervix, colon and rectum, breast, and prostate) at earlier stages, when treatment is more likely to be successful.

Figure 6. Proportion of Cases (%) by Stage Group for Select Cancers in Miami County and Ohio, 2014-2018
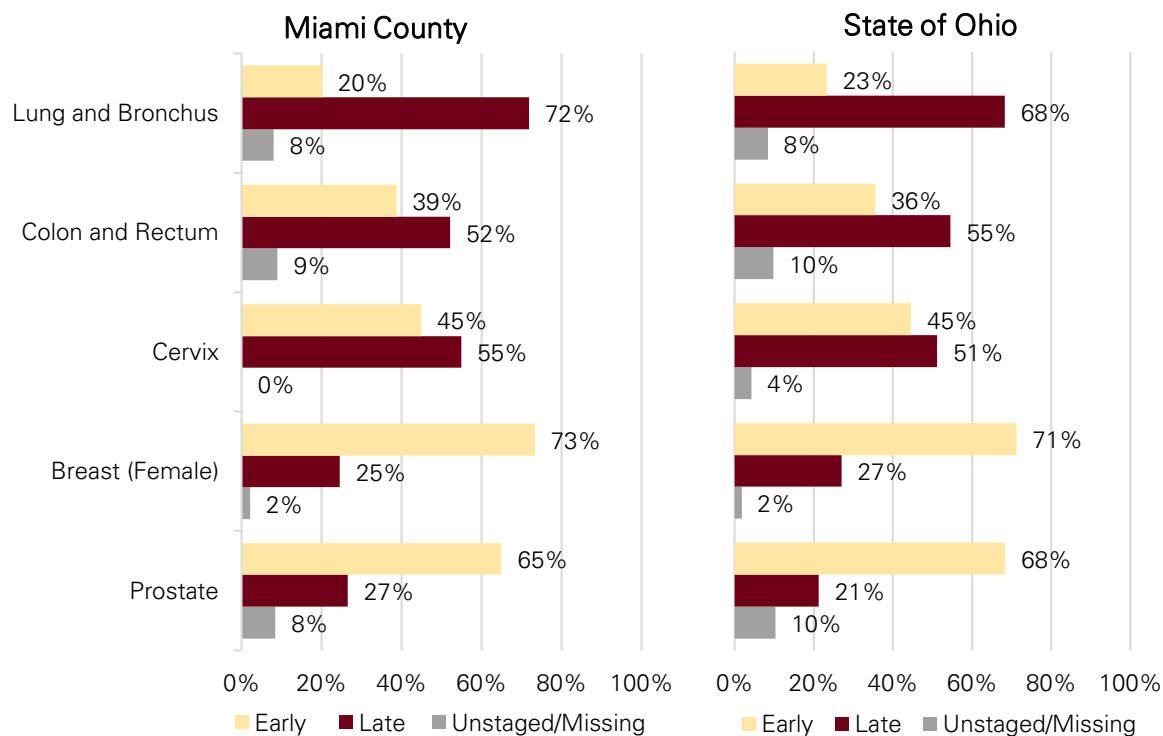
Source: Ohio Cancer Incidence Surveillance System, Ohio Department of Health, 2021.
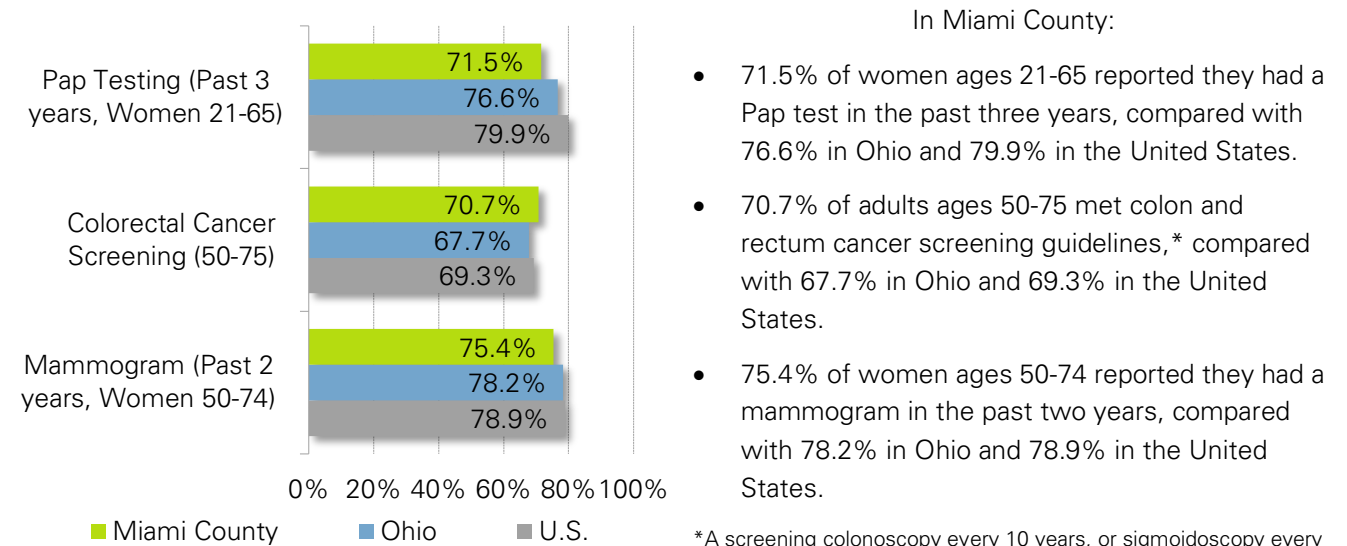
- Among the select cancers, those with the highest proportions of late-stage tumors in Ohio in 2014-2018 were lung and bronchus cancer (68%), followed by colon and rectum cancer (55%), and cervical cancer (51%).

- There were higher proportions of lung and bronchus (72%), cervical (55%), and prostate (27%) cancer cases diagnosed at a late stage in Miami County, compared with Ohio (68%, 51%, and 21%, respectively).

Early Detection

Cancer screening can detect some cancers early when treatment is often less intensive and more successful. Screening is known to reduce mortality for cancers of the breast, colon and rectum, cervix, and lung (among people who smoke, or used to smoke). Screening can help prevent colon and rectum and cervical cancers by detecting precancerous lesions that can be removed.

Prevalence refers to the proportion of people with a certain disease or characteristic at a given time. Figure 7 shows the prevalence of adults in Miami County who reported having a recommended cancer screening test, compared with Ohio and the United States. However, there has been a dramatic reduction in cancer screening in 2020 due to the COVID-19 pandemic, and its full impact on cancer prevention and early detection may not be known until more data becomes available in the years to come.

Figure 7. Prevalence of Adults Who Reported Having a Recommended Cancer Screening Test in Miami County, Ohio, and the United States

In Miami County:

- 71.5% of women ages 21-65 reported they had a Pap test in the past three years, compared with 76.6% in Ohio and 79.9% in the United States.

- 70.7% of adults ages 50-75 met colon and rectum cancer screening guidelines,* compared with 67.7% in Ohio and 69.3% in the United States.

- 75.4% of women ages 50-74 reported they had a mammogram in the past two years, compared with 78.2% in Ohio and 78.9% in the United States.
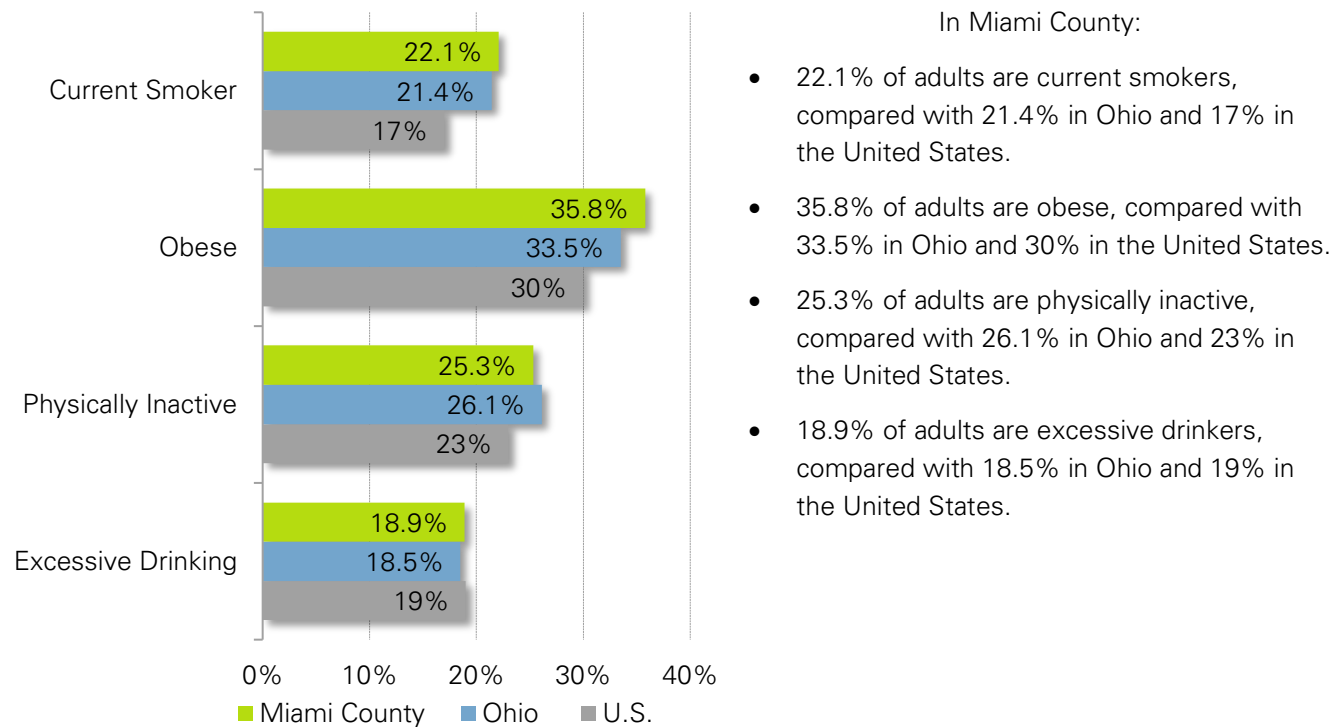
*A screening colonoscopy every 10 years, or sigmoidoscopy every five years with high-sensitivity fecal occult blood test (FOBT) every three years, or screening with high-sensitivity FOBT every year.

Source: 2016, 2018, and 2019 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2021; 2018 Behavioral Risk Factor Surveillance System, Centers for Disease Control and Prevention, 2021.

Risk Factors

A cancer risk factor is anything that increases a person's risk of developing cancer. Modifiable cancer risk factors include health behaviors and lifestyle factors (e.g., tobacco use, obesity, physical inactivity, and excessive drinking). It is often not just one factor that increases a person's risk of developing cancer; rather, cancer most often results from a complex interaction of multiple factors.

Figure 8. Prevalence of Adults Who Are Current Smokers, Obese, Physically Inactive, or Excessive Drinkers in Miami County With Comparison to Ohio and the United States, 2017, 2018

In Miami County:

- 22.1% of adults are current smokers, compared with 21.4% in Ohio and 17% in the United States.

- 35.8% of adults are obese, compared with 33.5% in Ohio and 30% in the United States.

- 25.3% of adults are physically inactive, compared with 26.1% in Ohio and 23% in the United States.

- 18.9% of adults are excessive drinkers, compared with 18.5% in Ohio and 19% in the United States.

Source: 2021 County Health Rankings, www.countyhealthrankings.org, 2021. Current smoker and excessive drinking data are from 2018, and obesity and physical inactivity data are from 2017.
Current Smoker = Percentage of adults who are current smokers.
Obese = Percentage of adults (age 20+) with a body mass index (BMI) ≥ 30 kg/m^2.
Physically Inactive = Percentage of adults (age 20+) who reported no leisure-time physical activity in the past 30 days.
Excessive Drinking = Percentage of adults reporting binge or heavy drinking. Binge drinking = Five or more drinks per occasion (men) or four or more drinks per occasion (women) in the past 30 days. Heavy drinking = More than two drinks per day (men) or more than one drink per day (women).

Did You Know?

- Tobacco use is associated with 12 types of cancer. Nearly one-third of all cancer deaths could be prevented by eliminating tobacco use.

- Overweight and obesity are associated with at least 13 types of cancer. Nearly one-fifth of cancer deaths could be prevented by adopting healthy diet and exercise practices.

Glossary

Age adjustment: A statistical method used to compare rates among groups of people with different age compositions. This method applies a standard age composition to the groups being compared to remove the effect of age. Rates presented in this report are age-adjusted to the 2000 U.S. standard population.

Incidence rate: The number of new cases of a disease that occur in a defined population per 100,000 during a specified period of time. Incidence counts and rates in this report were based on newly diagnosed invasive cancers and *in situ* (non-invasive) bladder cancer cases.

Invasive cancer: Cancer that has spread beyond the layer of cells where it first developed to involve adjacent tissues. Invasive cancer excludes basal and squamous cell carcinomas of the skin, benign and borderline brain and central nervous system tumors, and *in situ* cancers except urinary bladder.

Mortality rate: The number of deaths that occur in a defined population per 100,000 during a specified period of time.

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

Stage at diagnosis: The degree to which a tumor has spread from its site of origin at the time of diagnosis. A system of summary staging is often used to group cases into the following stages:

  in situ – Noninvasive cancer that has not penetrated surrounding tissue.

  Local – A malignant tumor confined entirely to the organ of origin.

  Regional – A malignant tumor that has extended beyond the organ of origin directly into surrounding organs or tissues or into regional lymph nodes.

  Distant – A malignant tumor that has spread to parts of the body (distant organs, tissues, and/or lymph nodes) remote from the primary tumor.

  Unstaged/Missing – Insufficient information is available to determine the stage or extent of the disease at diagnosis.

Stage Group: Cancer stages are further collapsed into the following stage groupings:

  Early stage – Cancers diagnosed at the *in situ* or local stage.

  Late stage – Cancers diagnosed at the regional or distant stage.

Tumor: An abnormal lump or mass of tissue. Tumors can be benign (noncancerous) or malignant (cancerous).

Sources of Data and Additional Information

Ohio Cancer Incidence Surveillance System (OCISS)
Cancer incidence data were provided by OCISS, the central cancer registry for Ohio, and accessed through the Ohio Public Health Data Warehouse. OCISS is supported in part by the State of Ohio and the Centers for Disease Control and Prevention (CDC), National Program of Cancer Registries, cooperative agreement number NU58DP006284. The contents of this report are the sole responsibility of the Ohio Department of Health (ODH) and do not necessarily represent the official views of the CDC.

OCISS website: https://odh.ohio.gov/wps/portal/gov/odh/know-our-programs/ohio-cancer-incidence-surveillance-system/welcome-to
Phone: 614-752-2689
Email: ociss@odh.ohio.gov

Ohio Public Health Data Warehouse
The Ohio Public Health Information Warehouse is a self-service online tool where anyone can obtain the most recent public health data available about Ohio. The application allows for the creation of custom reports, charts, and maps from a variety of data sources.
http://publicapps.odh.ohio.gov/EDW/DataCatalog

Ohio Vital Statistics
Cancer mortality data were provided by the Bureau of Vital Statistics and accessed through the Ohio Public Health Data Warehouse.

County Health Rankings
Risk factor data were obtained from *County Health Rankings Key Findings 2020*, University of Wisconsin Population Health Institute, available at https://www.countyhealthrankings.org/.

U.S. Statistics
Cancer statistics for the United States were obtained from the Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute, and the National Center for Health Statistics, available at: https://seer.cancer.gov/. Data sources include the *SEER Cancer Statistics Review, 1975-2018*, and the SEER*Stat Database, SEER 21 Registries Research Data, released April 2021, based on the November 2020 submission.

Other Sources of Information

American Cancer Society
https://www.cancer.org/

National Cancer Institute
https://www.cancer.gov/

Evidence-Based Interventions for Cancer Control
https://ebccp.cancercontrol.cancer.gov/index.do
https://www.thecommunityguide.org/