

Ohio Annual Cancer Report 2025

Summary of cancer incidence and mortality in Ohio for 2022 and cancer trends from 2013 to 2022.



Department of
Health

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The Ohio Annual Cancer Report 2025 presents a summary of cancer incidence (new cases) and mortality (deaths) for the state of Ohio, with a focus on cancer diagnoses and deaths during 2022. Cancer data by sex, age group, race/ethnicity, stage at diagnosis, and county of residence in 2022 are provided. The collection and analysis of population-based cancer data help determine the burden of cancer in Ohio's communities, which can be used by public health professionals, policymakers, researchers, and others to develop, implement, and evaluate cancer prevention and control activities, support cancer-related research, and inform Ohioans of the cancer burden in the state.

Ohio Cancer Incidence Surveillance System

The source of cancer incidence data for Ohio is the Ohio Cancer Incidence Surveillance System (OCISS), the central cancer registry for Ohio at the Ohio Department of Health (ODH). All Ohio medical providers who diagnose or treat patients with cancer are required by Ohio Revised Code (ORC) 3701.262 and ORC Rule 3701-4-02 to report each case of cancer to OCISS within six months of diagnosis or first contact. A reportable cancer case is any primary malignancy, with the exception of basal and squamous cell carcinoma of the skin and carcinoma in situ (non-invasive) of the cervix. A primary malignancy is the first occurrence of a cancer, not a recurring cancer. A person can be diagnosed with one or more primary malignancies during their lifetime. Benign brain tumors are also reportable.

Due to the complexity of the cancer data collection and quality control process, there is a delay between the time a new cancer is diagnosed and the time the data is ready for analysis. The typical delay is about 24 months after the end of the calendar year of diagnosis, at which time cancer registries across the nation officially report data to national cancer programs. Incidence data presented in this report are for cancer cases diagnosed through Dec. 31, 2022.

OCISS data quality, completeness of reporting, and timeliness are evaluated annually by the Centers for Disease Control and Prevention (CDC) National Program of Cancer Registries (NPCR) and by the North American Association of Central Cancer Registries (NAACCR). OCISS data routinely meets national data quality standards.

Incidence counts and rates in this report were calculated using invasive cancers only (cancers that can invade nearby tissues and spread to other parts of the body), with the addition of in situ bladder cases. Rates are per 100,000 population and age-adjusted to the 2000 U.S. standard population using 19 age groups.

Basic Facts About Cancer

Cancer is a group of diseases characterized by the uncontrolled growth and spread of abnormal cells. Cancer is much more common than most people realize – according to the National Cancer Institute, nearly 40% of Americans will develop cancer at some point in their lives. Cancer is not one disease but many – there are more than 100 different types of cancer, many of which have different causes and risk factors. Although cancer may strike at any age, 88% of people diagnosed with cancer in the United States are 50 years old or older. In 2022, cancer remained the second most common cause of death in Ohio and the United States, accounting for nearly one of every five deaths.

Key Findings

New Cases

- In Ohio, 71,417 new invasive cancer cases were diagnosed in 2022 among males and females.
- Breast cancer had the highest number of new cases diagnosed in 2022 (10,267 cases), followed by lung and bronchus cancer (9,891 cases), prostate cancer (9,834 cases), and colon and rectum cancer (5,377 cases).
- Men had a higher overall age-adjusted cancer incidence rate (503.3 per 100,000 population) than women (437.2 per 100,000) and higher incidence rates for every cancer site/type except breast cancer and thyroid cancer.

Deaths

- Cancer claimed the lives of 24,616 Ohioans in 2022.
- Lung and bronchus cancer was the leading cause of cancer death (6,067 deaths) in Ohio in 2022, followed by colon and rectum cancer (2,050 deaths), pancreatic cancer (1,918 deaths), and breast cancer (1,567 deaths).
- Men had a higher overall age-adjusted cancer mortality rate (185.6 per 100,000 population) than women (133.3 per 100,000) and higher mortality rates for every cancer site/type except breast cancer.
- Counties in the southern region of Ohio tended to have higher age-adjusted mortality rates for all cancers combined during the five-year period from 2018 to 2022.

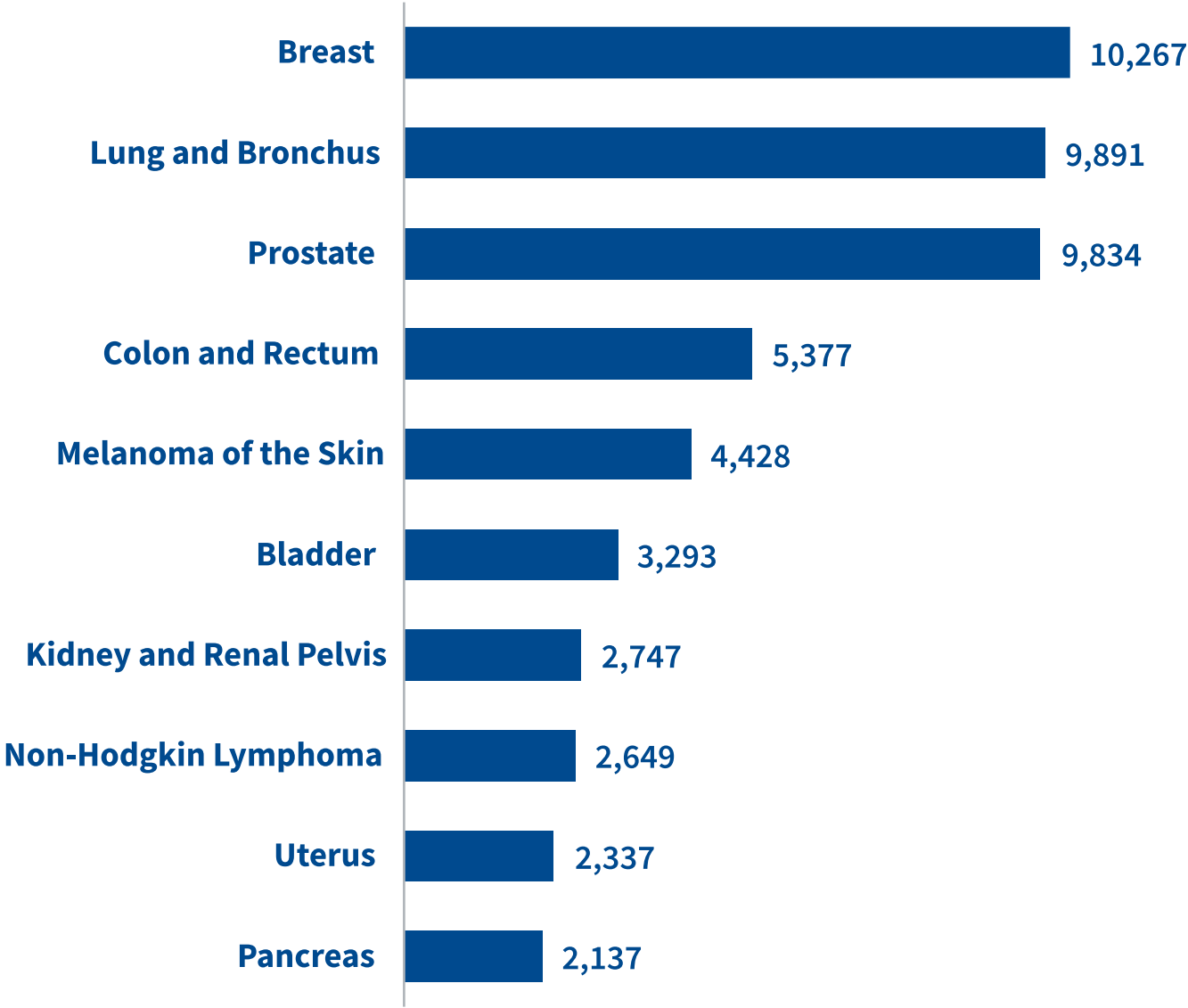
Survival

- Estimated five-year relative survival for all cancers combined was 69.9% in Ohio. Cancers with the highest five-year relative survival included prostate cancer and breast cancer, while cancers with the lowest five-year relative survival included pancreatic cancer and esophageal cancer. Overall, cancer survival has steadily improved over time in Ohio.

New Cancer Cases

The most diagnosed cancers in Ohio in 2022 were breast cancer, followed by lung and bronchus cancer, prostate cancer, and colon and rectum cancer. These leading four cancer types made up nearly half of all new invasive cancers in Ohio in 2022. (Figure 1).

Figure 1. Top 10 Cancers by Number of New Invasive Cancer Cases, Ohio, 2022



Source: Ohio Cancer Incidence Surveillance System, Ohio Department of Health, 2024.

New Cancer Cases (Continued)

In Ohio, 71,417 new invasive cancer cases were diagnosed in 2022 among males and females, corresponding to an age-adjusted rate of 462.8 per 100,000 population.

Overall, males had a 15% higher cancer incidence rate (503.3 per 100,000) than females (437.2 per 100,000) in Ohio in 2022. Males had higher rates for every cancer site/type except breast cancer and thyroid cancer. (Table 1).

Table 1. New Invasive Cancer Cases and Incidence Rates by Cancer Site / Type and Sex, Ohio, 2022

PRIMARY CANCER SITE / TYPE	MALE		FEMALE		TOTAL	
	Cases	Rate	Cases	Rate	Cases	Rate
All Cancer Sites / Types	36,883	503.3	34,534	437.2	71,417	462.8
Bladder	2,523	35.6	770	8.7	3,293	20.4
Brain and Other CNS	469	7.2	359	5.1	828	6.1
Breast	78	1.1	10,189	133.3	10,267	70.2
Cervix	*	*	498	8.2	*	*
Colon and Rectum	2,856	41.4	2,521	31.7	5,377	36.2
Esophagus	759	10.2	197	2.3	956	5.9
Hodgkin Lymphoma	165	2.8	131	2.2	296	2.4
Kidney and Renal Pelvis	1,732	24.2	1,015	12.7	2,747	18.0
Larynx	452	5.9	118	1.4	570	3.4
Leukemia	1,115	16.4	748	9.7	1,863	12.8
Liver and Intrahepatic Bile Duct	816	10.4	343	4.0	1,159	6.9
Lung and Bronchus	5,038	66.6	4,853	54.7	9,891	59.7
Melanoma of the Skin	2,490	35.9	1,938	26.4	4,428	30.2
Myeloma	568	7.9	462	5.4	1,030	6.5
Non-Hodgkin Lymphoma	1,486	21.4	1,163	14.1	2,649	17.4
Oral Cavity and Pharynx	1,435	19.4	605	7.5	2,040	13.1
Ovary	*	*	721	9.5	*	*
Pancreas	1,089	15.0	1,048	12.0	2,137	13.4
Prostate	9,834	123.3	*	*	*	*
Stomach	544	7.6	348	4.2	892	5.7
Testis	325	6.0	*	*	*	*
Thyroid	476	7.2	1,209	19.2	1,685	13.2
Uterus	*	*	2,337	28.7	*	*
Other Sites/Types	2,633	**	2,961	**	5,594	**

Source: Ohio Cancer Incidence Surveillance System, Ohio Department of Health, 2024.

* Not applicable; sex-specific cancer.

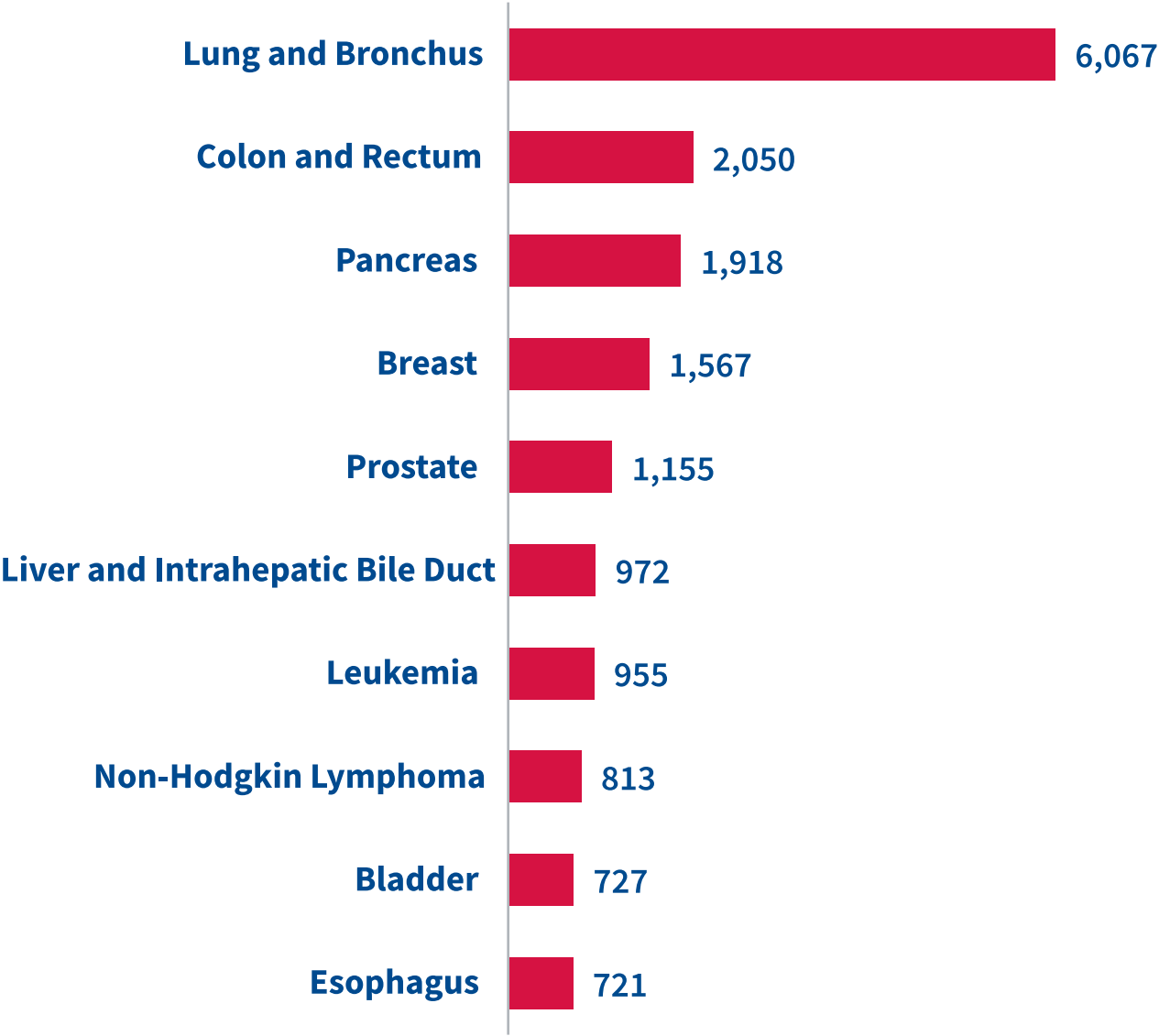
** Rates are not calculated due to multiple cancer sites/types in this category.

CNS = Central Nervous System.

The counts in this table exclude 17 total cases where sex was not male, not female, or unknown.

Lung and bronchus cancer was the leading cause of cancer death in Ohio in 2022, representing nearly one quarter of all cancer deaths, followed by colon and rectum cancer, pancreatic cancer, and breast cancer. These leading four cancer types accounted for almost half (47.1%) of all cancer deaths in Ohio in 2022. (Figure 2).

Figure 2. Top 10 Cancers by Number of Cancer Deaths, Ohio, 2022



Source: All Cause of Death, Aggregated With State, Total U.S. (1990-2022) SEER*Stat Database, National Cancer Institute, April 2024.
Underlying mortality data provided by the National Center for Health Statistics.

Cancer Deaths (Continued)

Cancer claimed the lives of 24,616 Ohioans in 2022, corresponding to an age-adjusted rate of 154.9 per 100,000 population. The age-adjusted cancer mortality rate for males (185.6 per 100,000) in Ohio was 39% higher than the rate for females (133.3 per 100,000) in 2022. Among the cancers affecting both males and females, males had higher mortality rates than females for every cancer site/type except breast cancer and thyroid cancer. (Table 2).

Table 2. Cancer Deaths and Mortality Rates by Cancer Site/Type and Sex, Ohio, 2022

PRIMARY CANCER SITE / TYPE	MALE		FEMALE		TOTAL	
	Deaths	Rate	Deaths	Rate	Deaths	Rate
All Cancer Sites / Types	13,025	185.6	11,591	133.3	24,616	154.9
Bladder	531	8.3	196	2.2	727	4.6
Brain and Other CNS	346	4.9	309	3.8	655	4.3
Breast	15	0.2	1,552	18.5	1,567	10.3
Cervix	*	*	159	2.2	159	1.2
Colon and Rectum	1,122	16.3	928	10.8	2,050	13.2
Esophagus	577	7.8	144	1.7	721	4.5
Hodgkin Lymphoma	27	0.4	20	0.3	47	0.3
Kidney and Renal Pelvis	382	5.3	211	2.4	593	3.7
Larynx	149	2.0	42	0.5	191	1.1
Leukemia	556	8.5	399	4.6	955	6.3
Liver and Intrahepatic Bile Duct	622	8.3	350	3.9	972	5.9
Lung and Bronchus	3,260	44.3	2,807	31.3	6,067	36.9
Melanoma of the Skin	228	3.4	119	1.4	347	2.3
Myeloma	243	3.6	222	2.4	465	2.9
Non-Hodgkin Lymphoma	488	7.3	325	3.6	813	5.2
Oral Cavity and Pharynx	350	4.7	144	1.7	494	3.1
Ovary	*	*	490	5.6	490	3.1
Pancreas	993	13.7	925	10.3	1,918	11.9
Prostate	1,155	17.8	*	*	1,155	7.2
Stomach	210	3.1	114	1.4	324	2.1
Testis	16	0.3	*	*	16	0.1
Thyroid	32	0.4	38	0.4	70	0.4
Uterus	*	*	527	5.9	527	3.2
Other Sites/Types	1,723	**	1,570	**	3,293	**

Source: All Cause of Death, Aggregated With State, Total U.S. (1990-2022) SEER*Stat Database, National Cancer Institute, April 2024. Underlying mortality data provided by the National Center for Health Statistics.

* Not applicable; sex-specific cancer.

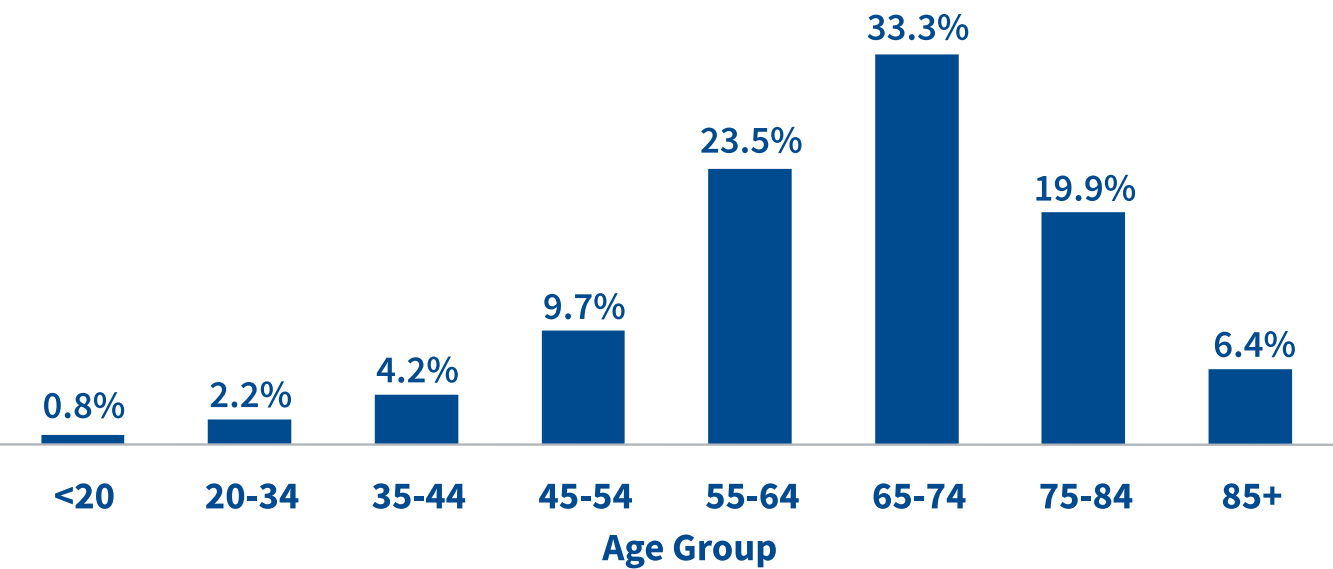
** Rates are not calculated due to multiple cancer sites/types in this category.

CNS = Central Nervous System.

Cancer by Age Group

Cancer (all sites combined) was most frequently diagnosed among people 65-74 years old (33.3%), followed by those aged 55-64 years old (23.5%) in Ohio in 2022. Less than 1% of cases were diagnosed among Ohioans younger than 20 years of age. (Figure 3).

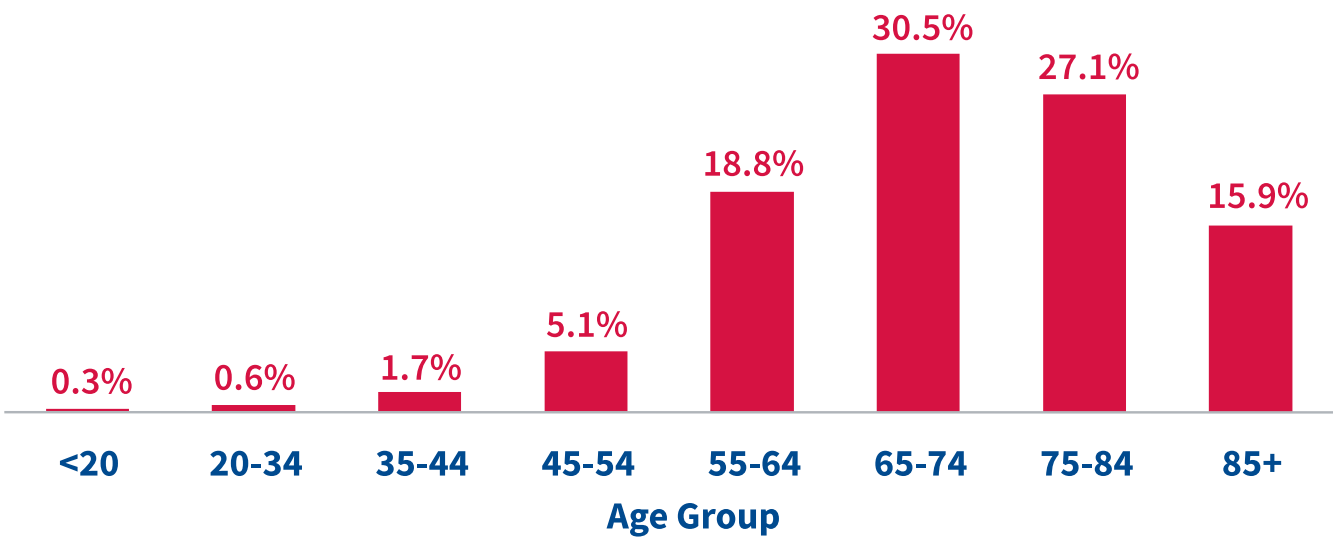
Figure 3. Percent of New Invasive Cancer Cases by Age Group, Ohio, 2022



Source: Ohio Cancer Incidence Surveillance System, Ohio Department of Health, 2024.

The percentage of cancer deaths was highest among people 65-74 years old (30.5%), followed by those 75-84 years old (27.1%) in Ohio in 2022. Less than 1% of cancer deaths were among Ohioans younger than 35 years of age. (Figure 4).

Figure 4. Percent of Cancer Deaths by Age Group, Ohio, 2022



Source: All Cause of Death, Aggregated With State, Total U.S. (1990-2022) SEER*Stat Database, National Cancer Institute, April 2024. Underlying mortality data provided by the National Center for Health Statistics.

Cancer by Race and Ethnicity

In 2022, the overall age-adjusted cancer incidence rate among White Ohioans was 458.3 per 100,000 population, compared with 433.8 per 100,000 among Black Ohioans, 261.5 per 100,000 among Asians/Pacific Islanders, and 283.4 per 100,000 among Hispanics. Incidence rates were 2.3 times higher among Black Ohioans than White Ohioans for myeloma and 1.6 times higher for prostate cancer and stomach cancer. White Ohioans had incidence rates that were at least 1.5 times higher for cancers of the bladder, brain and other CNS, esophagus, oral cavity and pharynx, testis, and thyroid, along with non-Hodgkin lymphoma and melanoma of the skin. Asians/Pacific Islanders had the highest rate of ovarian cancer, and Hispanics had the highest rates for cervical, liver and intrahepatic bile duct, and stomach cancer. (Table 3).

Table 3. New Invasive Cancer Cases and Incidence Rates by Cancer Site/Type, Race, and Ethnicity, Ohio, 2022

PRIMARY CANCER SITE / TYPE	WHITE		BLACK		A/PI		HISPANIC	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
All Cancer Sites / Types	61,518	458.3	7,236	433.8	781	261.5	974	283.4
Bladder	2,972	20.9	203	12.5	26	9.5	38	13.4
Brain and Other CNS	742	6.4	62	3.5	12	3.6	11	2.5
Breast (Female)	8,839	133.3	1,137	127.2	181	106.3	143	80.2
Cervix	411	8.2	65	8.1	13	7.5	19	9.8
Colon and Rectum	4,649	35.9	584	36.9	69	23.6	82	22.6
Esophagus	871	6.1	69	4.2	6	2.4	13	4.2
Hodgkin Lymphoma	249	2.5	36	2.2	3	*	12	2.2
Kidney and Renal Pelvis	2,415	18.2	281	17.0	20	6.4	42	12.2
Larynx	493	3.4	70	3.9	3	*	5	1.5
Leukemia	1,632	12.9	163	10.1	23	7.0	35	8.7
Liver and Intrahepatic Bile Duct	966	6.6	162	9.1	19	7.1	40	12.5
Lung and Bronchus	8,746	60.1	1,016	59.8	80	29.5	66	21.5
Melanoma of the Skin	3,782	29.8	7	0.5	2	*	21	5.4
Myeloma	780	5.6	208	13.1	14	4.9	22	6.7
Non-Hodgkin Lymphoma	2,368	17.8	191	11.5	37	13.6	36	10.5
Oral Cavity and Pharynx	1,848	13.6	147	8.9	18	5.6	30	8.3
Ovary	621	9.6	74	8.1	21	12.5	12	7.0
Pancreas	1,836	13.0	264	16.2	20	7.6	32	9.9
Prostate	7,883	111.9	1,417	179.6	72	57.4	109	73.4
Stomach	723	5.3	135	8.4	22	7.6	29	9.6
Testis	291	6.6	14	1.9	2	*	14	5.1
Thyroid	1,495	13.9	127	8.1	34	9.6	42	9.8
Uterus	2,049	29.4	234	24.0	25	14.1	36	18.7
Other Sites/Types	4,857	**	570	**	59	**	85	**

Source: Ohio Cancer Incidence Surveillance System, Ohio Department of Health, 2024.

Rates are sex-specific for cancers of the breast, cervix, ovary, prostate, testis, and uterus.

* Rates may be unstable and are not presented when the count is less than five.

** Rates are not calculated due to multiple cancer sites/types in this category.

CNS = Central Nervous System.

A/PI = Asian/Pacific Islander.

Cancer by Race and Ethnicity (Continued)

In 2022, the overall age-adjusted cancer mortality rate among Black Ohioans was 162.0 per 100,000 population, compared with 155.8 per 100,000 among White Ohioans, 83.9 per 100,000 among Asians/Pacific Islanders, and 88.0 per 100,000 among Hispanics. Mortality rates were nearly two times higher among Black Ohioans than White Ohioans for myeloma, prostate cancer, and uterine cancer, and 2.6 times higher for stomach cancer. (Table 4).

Table 4. Cancer Deaths and Mortality Rates by Cancer Site/Type, Race, and Ethnicity, Ohio, 2022

PRIMARY CANCER SITE / TYPE	WHITE		BLACK		A/PI		HISPANIC	
	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate
All Cancer Sites / Types	21,761	155.8	2,610	162.0	222	83.9	267	88.0
Bladder	654	4.7	70	4.5	*	*	*	*
Brain and Other CNS	608	4.7	40	2.4	*	*	*	*
Breast (Female)	1,327	18.0	207	23.2	18	11.8	18	11.0
Cervix	133	2.2	21	2.5	*	*	*	*
Colon and Rectum	1,796	13.2	229	14.2	22	8.1	23	6.8
Esophagus	675	4.8	42	2.6	*	*	*	*
Hodgkin Lymphoma	43	0.4	*	*	*	*	*	*
Kidney and Renal Pelvis	537	3.8	56	3.7	*	*	*	*
Larynx	166	1.1	25	1.5	*	*	*	*
Leukemia	880	6.6	72	4.5	*	*	12	3.3
Liver and Intrahepatic Bile Duct	825	5.7	132	7.7	11	4.0	18	6.0
Lung and Bronchus	5,402	37.3	604	37.0	55	21.8	32	11.9
Melanoma of the Skin	341	2.5	*	*	*	*	*	*
Myeloma	377	2.7	82	5.1	*	*	*	*
Non-Hodgkin Lymphoma	751	5.4	53	3.4	*	*	11	4.0
Oral Cavity and Pharynx	433	3.1	53	3.0	*	*	*	*
Ovary	441	5.8	36	3.8	13	9.0	*	*
Pancreas	1,678	11.8	218	13.5	21	7.3	29	9.4
Prostate	985	17.1	167	29.6	*	*	*	*
Stomach	243	1.8	72	4.6	*	*	13	3.7
Testis	15	0.3	*	*	*	*	*	*
Thyroid	64	0.5	*	*	*	*	*	*
Uterus	422	5.5	100	9.9	*	*	*	*
Other Sites/Types	2,965	**	317	**	24	**	36	**

Source: All Cause of Death, Aggregated With State, Total U.S. (1990-2022) SEER*Stat Database, National Cancer Institute, April 2024. Underlying mortality data provided by the National Center for Health Statistics.

Rates are sex-specific for cancers of the breast, cervix, ovary, prostate, testis, and uterus.

* Rates may be unstable and are not presented when the count is less than 10.

** Rates are not calculated due to multiple cancer sites/types in this category.

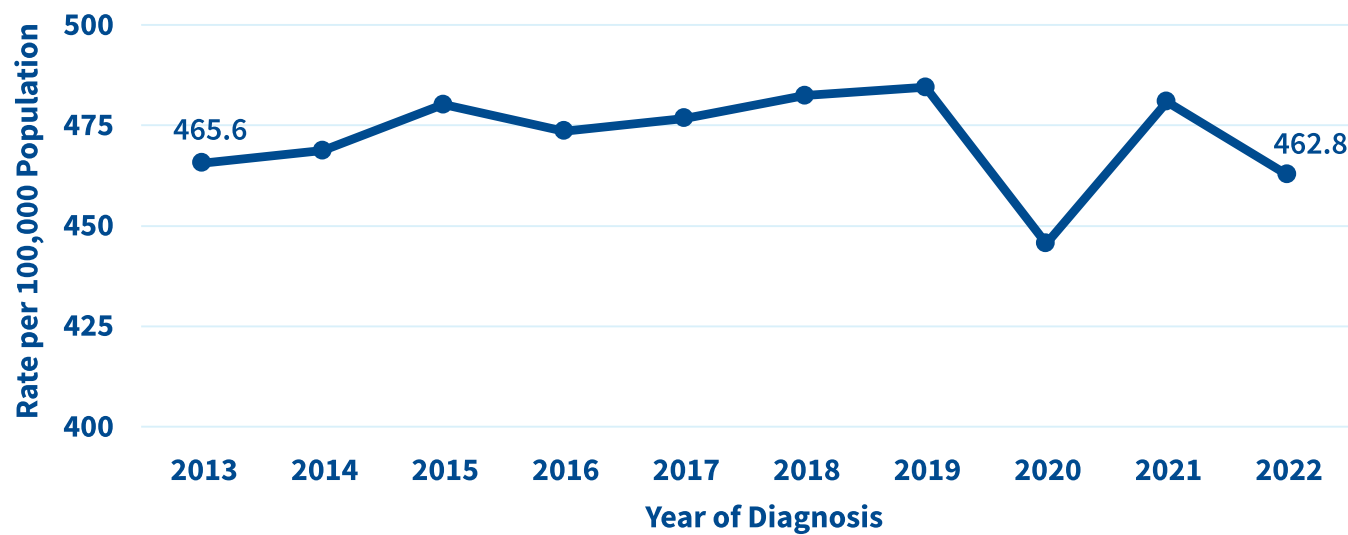
CNS = Central Nervous System.

A/PI = Asian/Pacific Islander.

Trends in Ohio Cancer Rates

The age-adjusted cancer incidence rate for all cancers combined was relatively stable in Ohio from 2013 to 2019 but decreased sharply in 2020, likely due to disruptions in cancer screenings and diagnoses during the first year of the COVID-19 pandemic. The number of new cases per 100,000 population then increased to previous levels. (Figure 5).

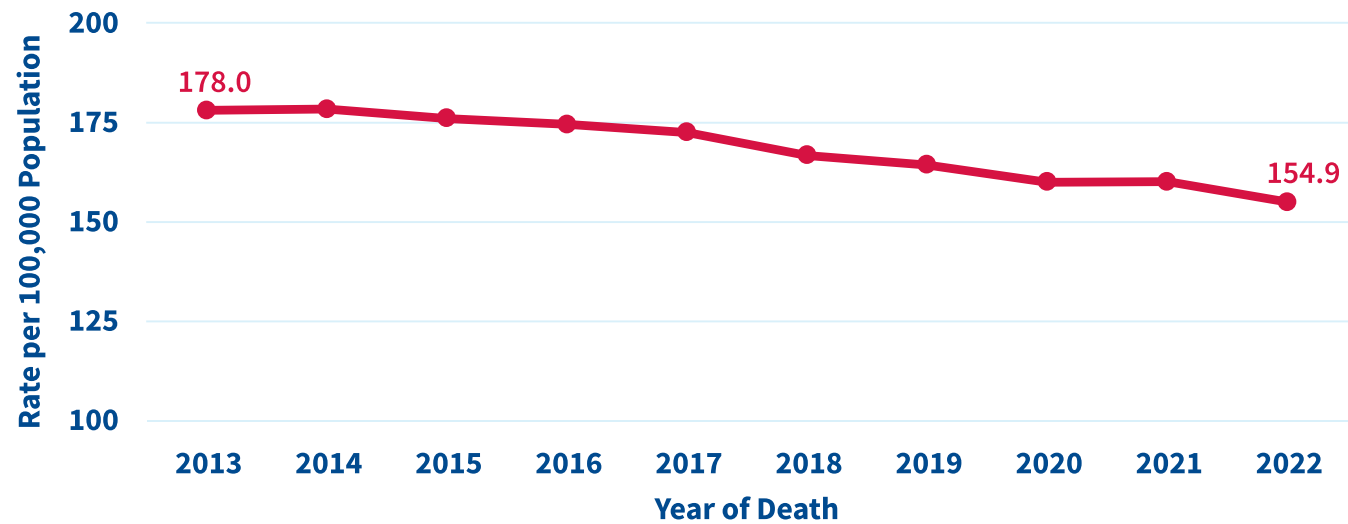
Figure 5. Overall Trends in Cancer Incidence Rates, Ohio, 2013-2022



Source: Ohio Cancer Incidence Surveillance System, Ohio Department of Health, 2024.

The age-adjusted cancer mortality rate for all cancers combined decreased 13% in Ohio from 2013 (178.0 per 100,000 population) to 2022 (154.9 per 100,000). (Figure 6).

Figure 6. Overall Trends in Cancer Mortality Rates, Ohio, 2013-2022



Source: All Cause of Death, Aggregated With State, Total U.S. (1990-2022) SEER*Stat Database, National Cancer Institute, April 2024. Underlying mortality data provided by the National Center for Health Statistics.

Cancer Incidence Trends Among Males

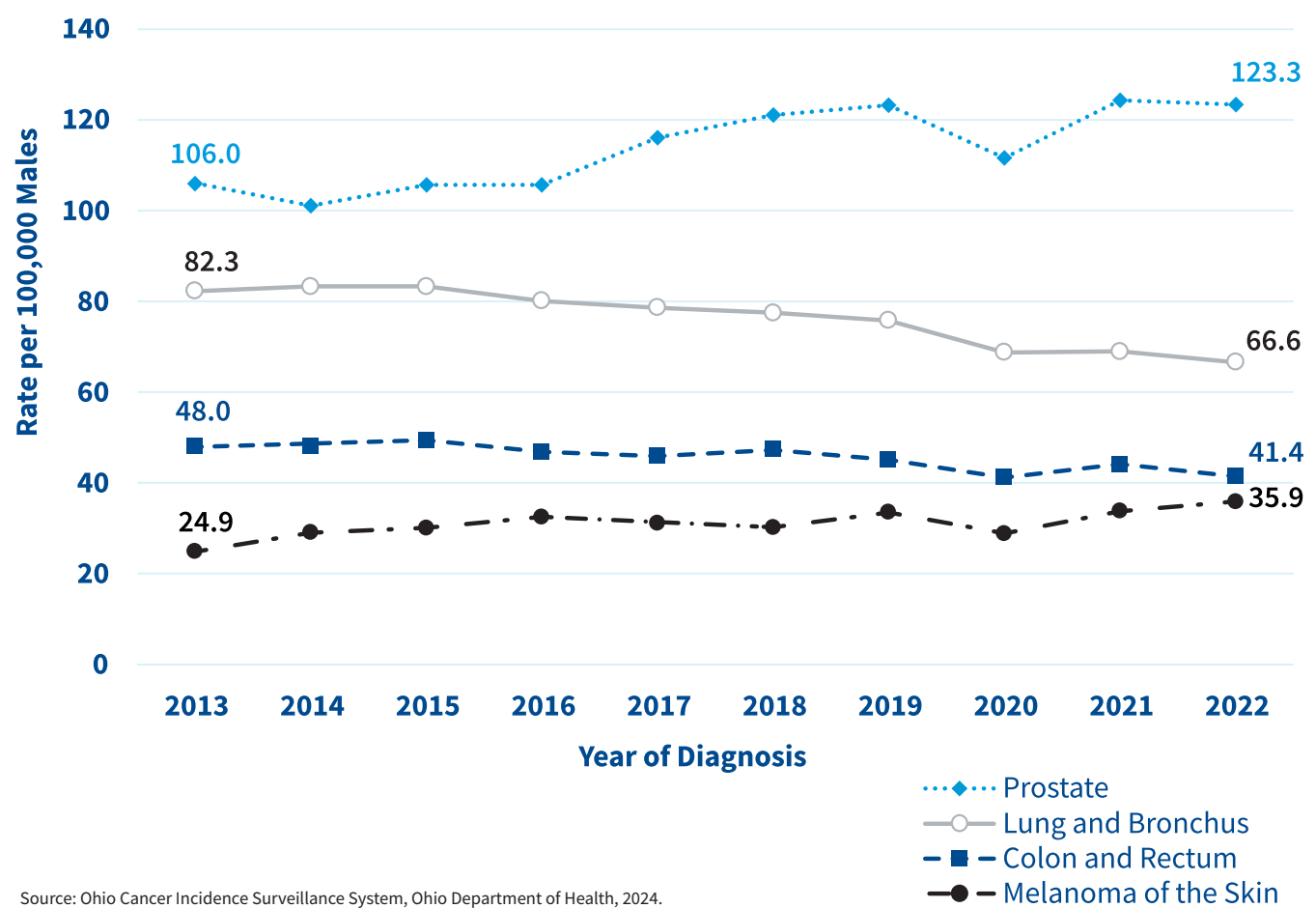
Prostate cancer is the most frequently diagnosed cancer among males in Ohio. Prostate cancer diagnoses increased 16% in Ohio from 2013 (106.0 per 100,000 males) to 2022 (123.3 per 100,000). There was a noticeable drop in 2020, likely due to disruptions in cancer screenings and diagnoses during the first year of the COVID-19 pandemic.

Lung and bronchus cancer incidence rates among Ohio males declined 19% from 2013 (82.3 per 100,000) to 2022 (66.6 per 100,000).

Colon and rectum cancer incidence rates in Ohio declined 14% from 2013 (48.0 per 100,000) to 2022 (41.4 per 100,000) among males.

Among Ohio males, incidence rates for melanoma of the skin increased 44% from 2013 (24.9 per 100,000) to 2022 (35.9 per 100,000). (Figure 7).

Figure 7. Trends in Cancer Incidence Rates Among Males for Selected Cancers, Ohio, 2013-2022



Cancer Incidence Trends Among Females

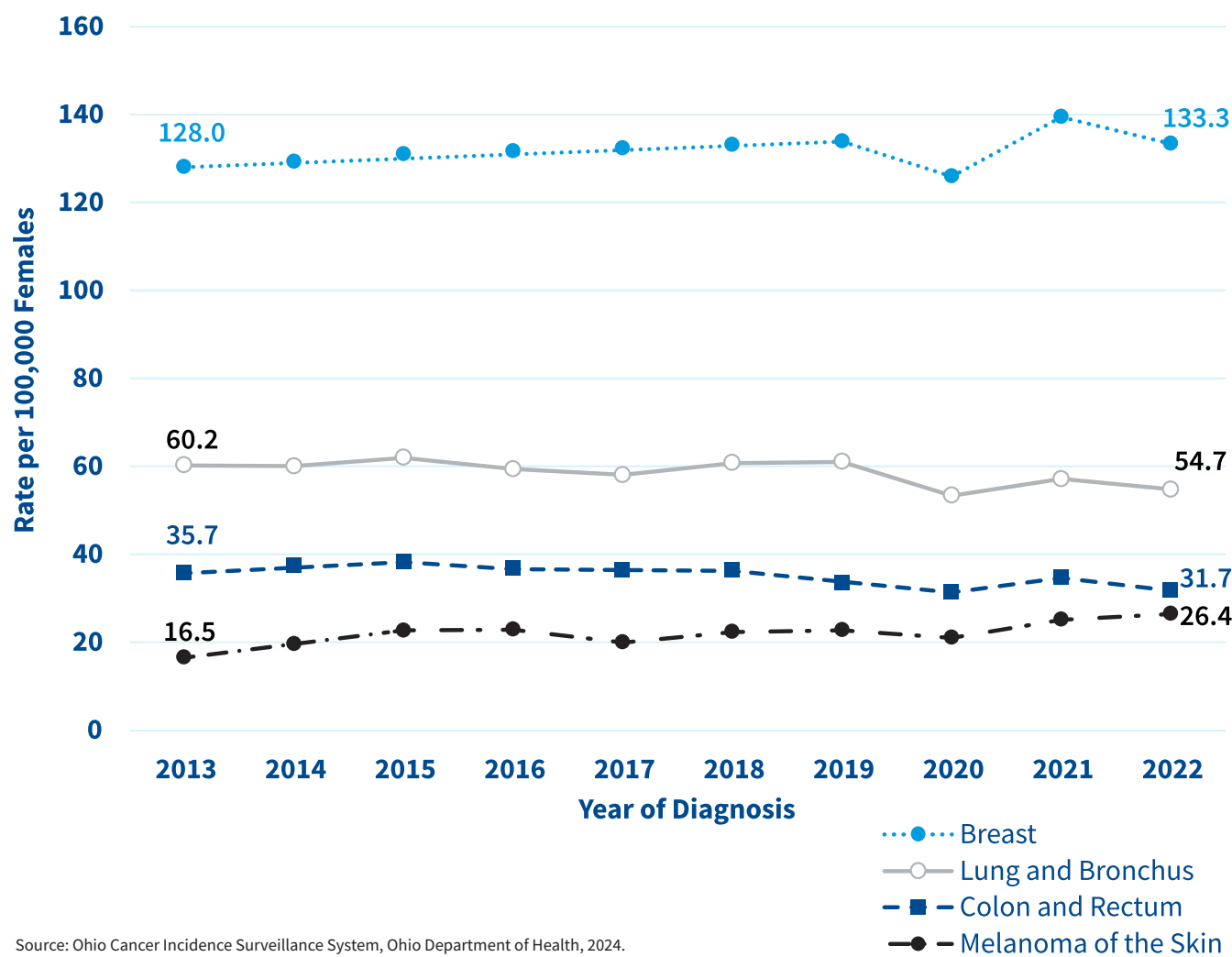
Breast cancer is the most frequently diagnosed cancer among females in Ohio. Breast cancer incidence rates in Ohio increased slightly (4%) from 2013 (128.0 per 100,000 females) to 2022 (133.3 per 100,000). There was a noticeable decrease in 2020, likely due to disruptions in cancer screenings and diagnoses during the first year of the COVID-19 pandemic, followed by a rebound in 2021 and 2022.

Lung and bronchus cancer incidence rates among Ohio females decreased slightly (3%) from 2013 (60.2 per 100,000) to 2022 (54.7 per 100,000), with a notable decrease in 2020 (53.3 per 100,000).

Among females in Ohio, colon and rectum cancer incidence rates declined 11% from 2013 (35.7 per 100,000) to 2022 (31.7 per 100,000).

Incidence rates of melanoma of the skin increased 60% among Ohio females from 2013 (16.5 per 100,000) to 2022 (26.4 per 100,000). (Figure 8).

Figure 8. Trends in Cancer Incidence Rates Among Females for Selected Cancers, Ohio, 2013-2022



Cancer Mortality Trends Among Males

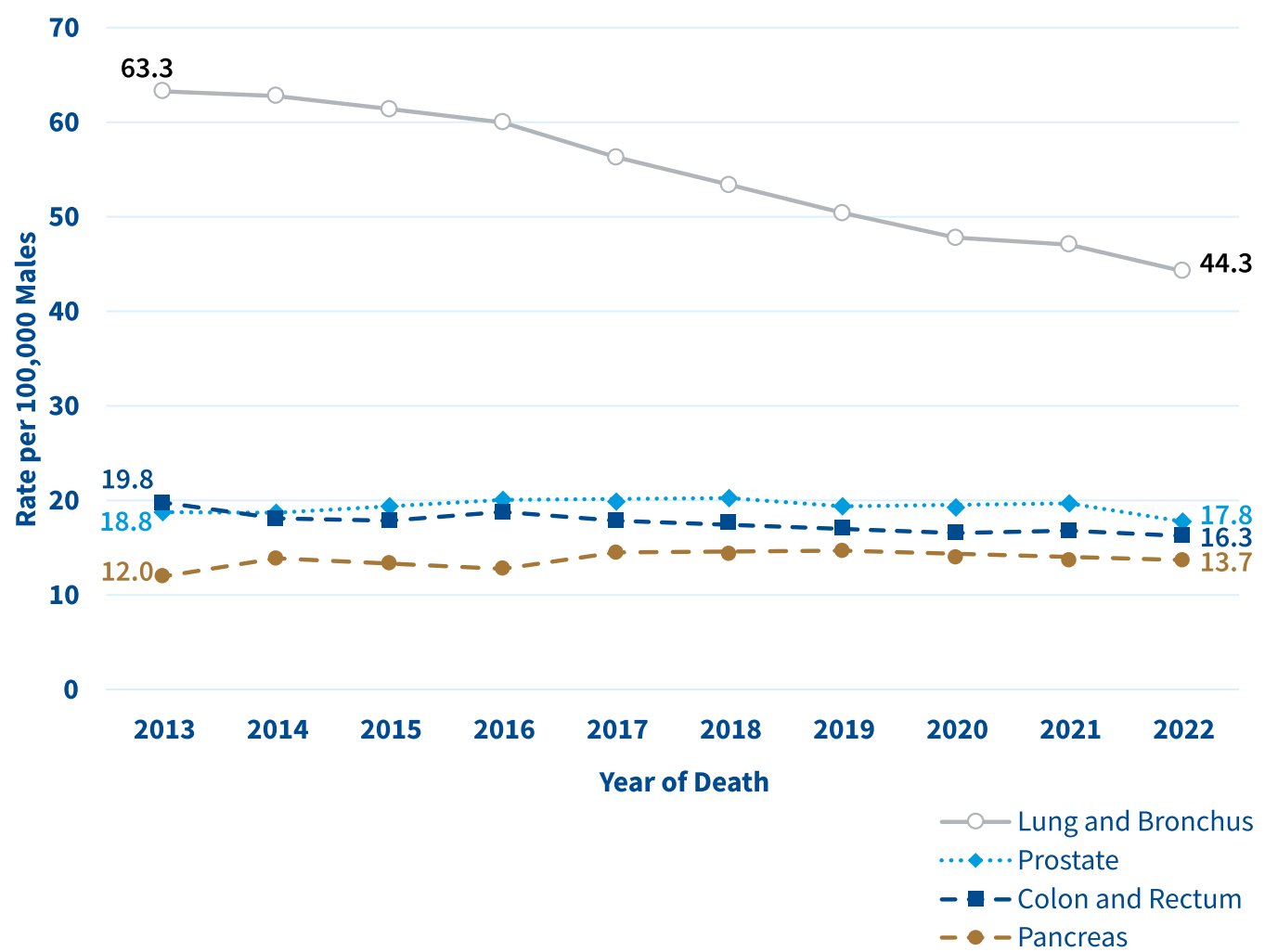
Lung and bronchus cancer is the leading cause of cancer death among males in Ohio. Lung and bronchus cancer mortality rates among Ohio males declined 30% from 2013 (63.3 per 100,000 males) to 2022 (44.3 per 100,000).

Prostate cancer mortality rates declined 5% among males in Ohio from 2013 (18.8 per 100,000) to 2022 (17.8 per 100,000).

Colon and rectum cancer mortality rates declined 18% in Ohio from 2013 (19.8 per 100,000) to 2022 (16.3 per 100,000) among males.

Pancreatic cancer mortality rates increased 14% among males in Ohio from 2013 (12.0 per 100,000) to 2022 (13.7 per 100,000). (Figure 9).

Figure 9. Trends in Cancer Mortality Rates Among Males for Selected Cancers, Ohio, 2013-2022



Source: All Cause of Death, Aggregated With State, Total U.S. (1990-2022) SEER*Stat Database, National Cancer Institute, April 2024. Underlying mortality data provided by the National Center for Health Statistics.

Cancer Mortality Trends Among Females

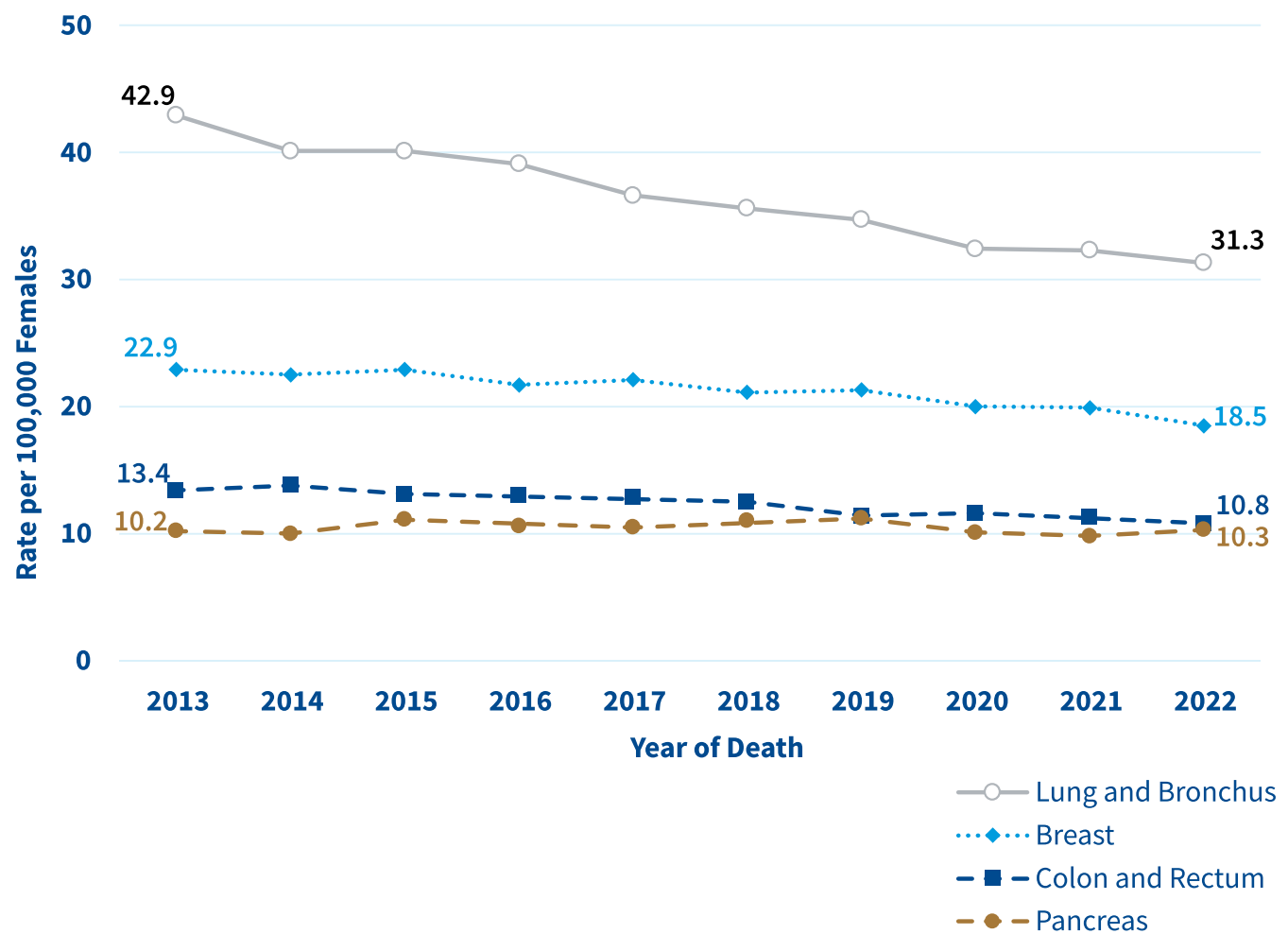
Lung and bronchus cancer is the leading cause of cancer death among females in Ohio. Lung and bronchus cancer mortality rates among Ohio females declined 27% from 2013 (42.9 per 100,000 females) to 2022 (31.3 per 100,000).

Breast cancer mortality rates among Ohio females decreased 19%, from 22.9 per 100,000 in 2013 to 18.5 per 100,000 in 2022.

Colon and rectum cancer mortality rates declined 19% in Ohio from 2013 (13.4 per 100,000) to 2022 (10.8 per 100,000) among females.

Pancreatic cancer mortality rates were stable among females in Ohio from 2013 (10.2 per 100,000) to 2022 (10.3 per 100,000). (Figure 10).

Figure 10. Trends in Cancer Mortality Rates Among Females for Selected Cancers, Ohio, 2013-2022

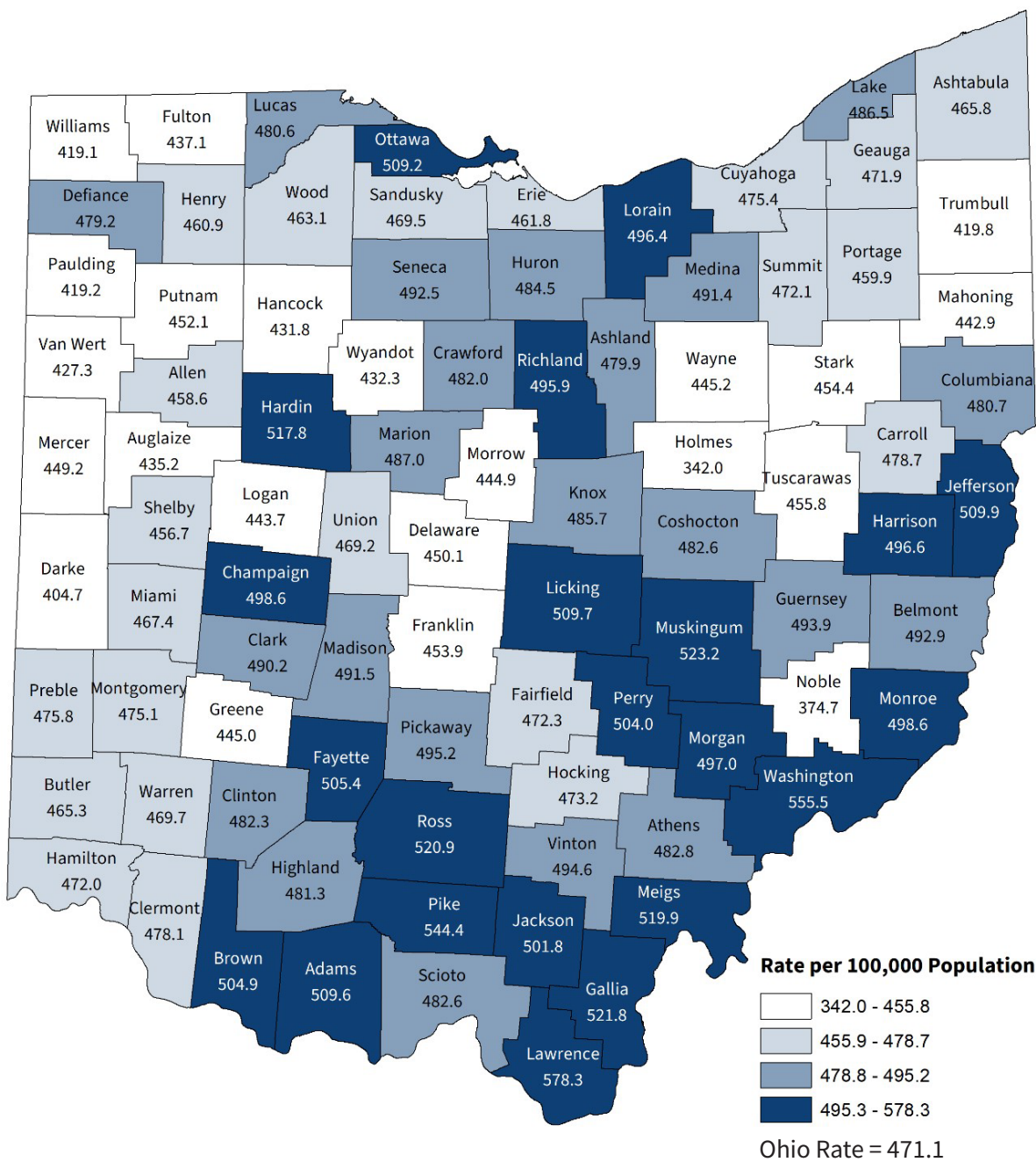


Source: All Cause of Death, Aggregated With State, Total U.S. (1990-2022) SEER*Stat Database, National Cancer Institute, April 2024. Underlying mortality data provided by the National Center for Health Statistics.

Cancer by County

During the five-year period 2018 through 2022, the Ohio county with the highest average annual age-adjusted cancer incidence rate (Lawrence County, 578.3 per 100,000) had a rate 1.7 times higher than the county with the lowest rate (Holmes County, 342.0 per 100,000). (Figure 11).

Figure 11. Incidence Rates for All Cancers Combined by County of Residence, Ohio, 2018-2022

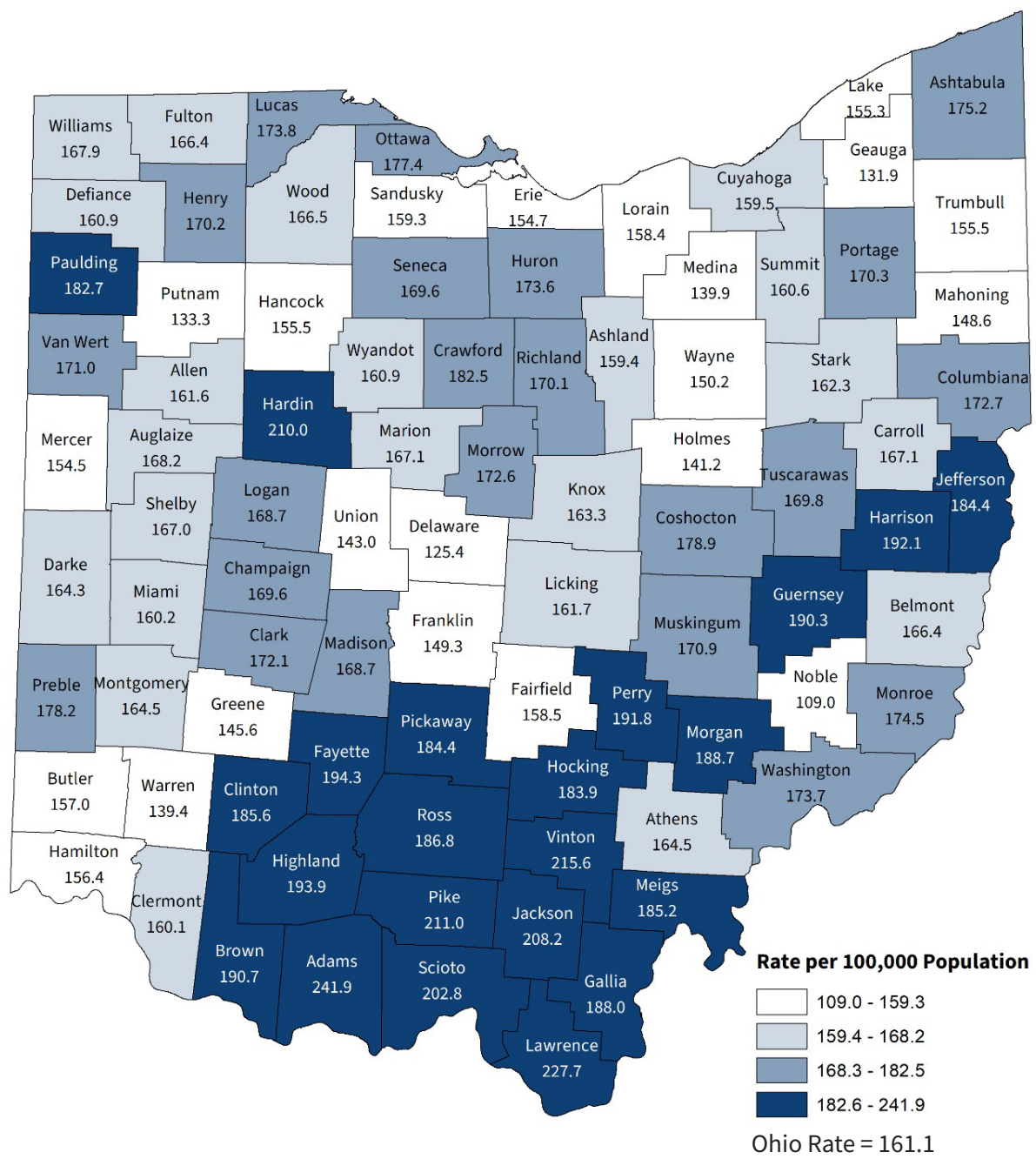


Source: Ohio Cancer Incidence Surveillance System, Ohio Department of Health, 2024.
Each category represents approximately 25% of the 88 Ohio counties.

Cancer by County (Continued)

Counties in the southern region of Ohio tended to have higher average annual age-adjusted mortality rates for all cancers combined from 2018 to 2022. The county with the highest age-adjusted cancer mortality rate (Adams County, 241.9 per 100,000) had a rate more than two times higher than the county with the lowest rate (Noble County, 109.0 per 100,000). (Figure 12).

Figure 12. Mortality Rates for All Cancers Combined by County of Residence, Ohio, 2018-2022



Source: All Cause of Death, Aggregated With State, Total U.S. (1990-2022) SEER*Stat Database, National Cancer Institute, April 2024.
Underlying mortality data provided by the National Center for Health Statistics.
Each category represents approximately 25% of the 88 Ohio counties.

Cancer by County (Continued)

Table 5. Number of Invasive Cancer Cases and Cancer Deaths by County of Residence, Ohio, 2022

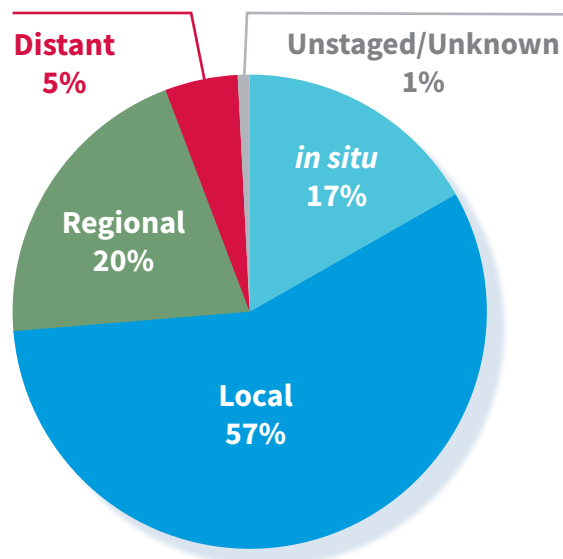
County	Cases	Deaths	County	Cases	Deaths	County	Cases	Deaths
Adams	176	85	Hamilton	4,781	1,537	Noble	85	18
Allen	664	212	Hancock	434	171	Ottawa	363	114
Ashland	367	122	Hardin	198	85	Paulding	90	40
Ashtabula	642	244	Harrison	105	47	Perry	240	90
Athens	323	117	Henry	201	71	Pickaway	395	131
Auglaize	262	111	Highland	266	120	Pike	196	79
Belmont	468	184	Hocking	179	65	Portage	995	374
Brown	321	125	Holmes	159	64	Preble	236	88
Butler	2,152	729	Huron	380	149	Putnam	219	73
Carroll	201	78	Jackson	209	76	Richland	867	334
Champaign	287	99	Jefferson	468	189	Ross	533	213
Clark	918	351	Knox	419	139	Sandusky	375	119
Clermont	1,336	420	Lake	1,625	561	Scioto	507	210
Clinton	234	99	Lawrence	485	200	Seneca	356	108
Columbiana	773	272	Licking	1,265	364	Shelby	311	110
Coshocton	232	100	Logan	287	111	Stark	2,319	800
Crawford	331	115	Lorain	2,277	698	Summit	3,581	1,196
Cuyahoga	7,868	2,650	Lucas	2,521	883	Trumbull	1,188	482
Darke	271	126	Madison	267	86	Tuscarawas	533	231
Defiance	243	82	Mahoning	1,457	501	Union	351	104
Delaware	1,176	305	Marion	429	156	Van Wert	139	59
Erie	549	172	Medina	1,241	369	Vinton	83	37
Fairfield	923	330	Meigs	176	52	Warren	1,334	418
Fayette	191	69	Mercer	263	83	Washington	544	170
Franklin	6,168	1,863	Miami	644	244	Wayne	702	245
Fulton	255	97	Monroe	113	45	Williams	180	85
Gallia	214	73	Montgomery	2,772	1,106	Wood	701	281
Geauga	711	199	Morgan	118	44	Wyandot	130	54
Greene	769	287	Morrow	222	84			
Guernsey	242	108	Muskingum	636	199			

Source: Incidence - Ohio Cancer Incidence Surveillance System, Ohio Department of Health, 2024; Mortality - All Cause of Death, Aggregated With State, Total U.S. (1990-2022) SEER*Stat Database, National Cancer Institute, April 2024. Underlying mortality data provided by the National Center for Health Statistics.

Stage at Diagnosis for Selected Cancers

Cancer stage at diagnosis refers to the extent or spread of a cancer in the body. If cancer cells are present only in the layer of cells where they developed and have not spread, the stage is in situ. If cancer cells have penetrated beyond the original layer of tissue, the cancer has become invasive and is categorized as local (confined to the site of origin), regional (spread to adjacent lymph nodes, organs, or tissues), or distant (spread to distant organs or tissues).

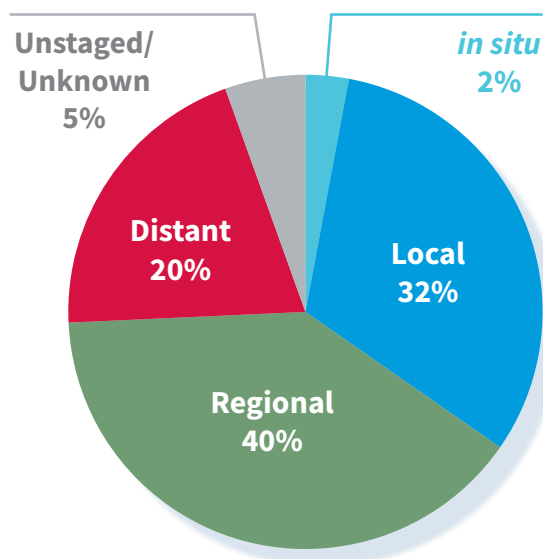
Figure 13. Breast Cancer (Female) by Stage at Diagnosis, Ohio, 2022



- In 2022, 74% of female breast cancers were diagnosed early (in situ or at a local stage).
- Regional stage female breast cancers accounted for 20% of cases.
- Nearly 5% of Ohio females diagnosed with breast cancer in 2022 were diagnosed at a distant stage, where the cancer had spread (metastasized) to other parts of the body. (Figure 13).

Source: Ohio Cancer Incidence Surveillance System, Ohio Department of Health, 2024.

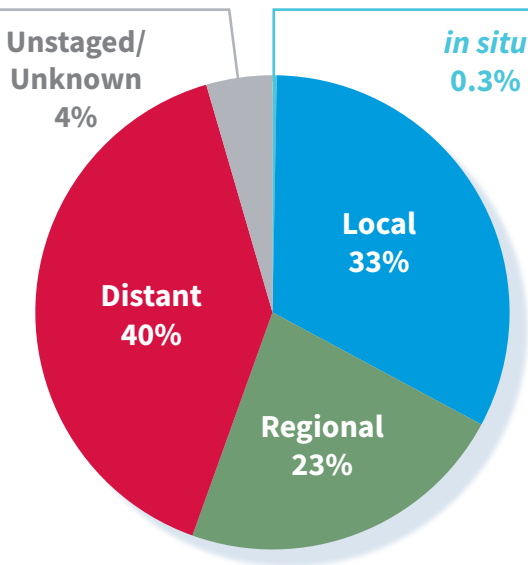
Figure 14. Colon and Rectum Cancer by Stage at Diagnosis, Ohio, 2022



- In 2022, 32% of colon and rectum cancers in Ohio were diagnosed at a local stage.
- Two in five (40%) colon and rectum cancers spread regionally to nearby organs or lymph nodes at the time of diagnosis.
- Among Ohioans diagnosed with colon and rectum cancer in 2022, 20% were diagnosed at a distant stage. (Figure 14).

Source: Ohio Cancer Incidence Surveillance System, Ohio Department of Health, 2024.

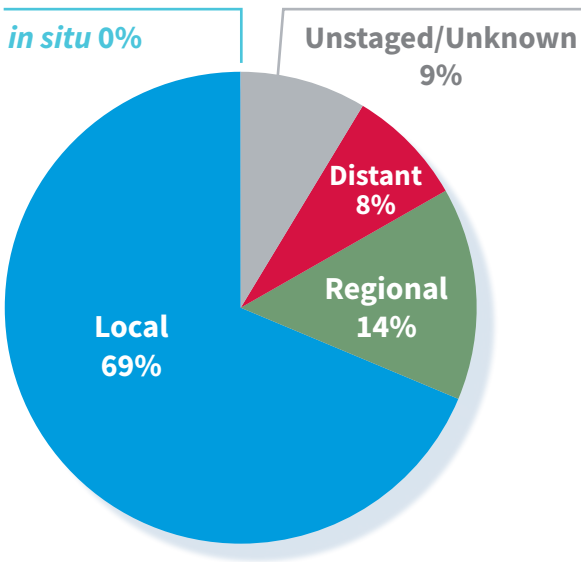
Figure 15. Lung and Bronchus Cancer by Stage at Diagnosis, Ohio, 2022



- In Ohio in 2022, 33% of lung and bronchus cancers were diagnosed at a local stage, where the cancer was confined to the lung or bronchus.
- In Ohio, 23% of lung and bronchus cancers were diagnosed at a regional stage in 2022.
- Two in five (40%) lung and bronchus cancer cases in Ohio in 2022 were diagnosed at a distant stage. (Figure 15).

Source: Ohio Cancer Incidence Surveillance System, Ohio Department of Health, 2024.

Figure 16. Prostate Cancer by Stage at Diagnosis, Ohio, 2022

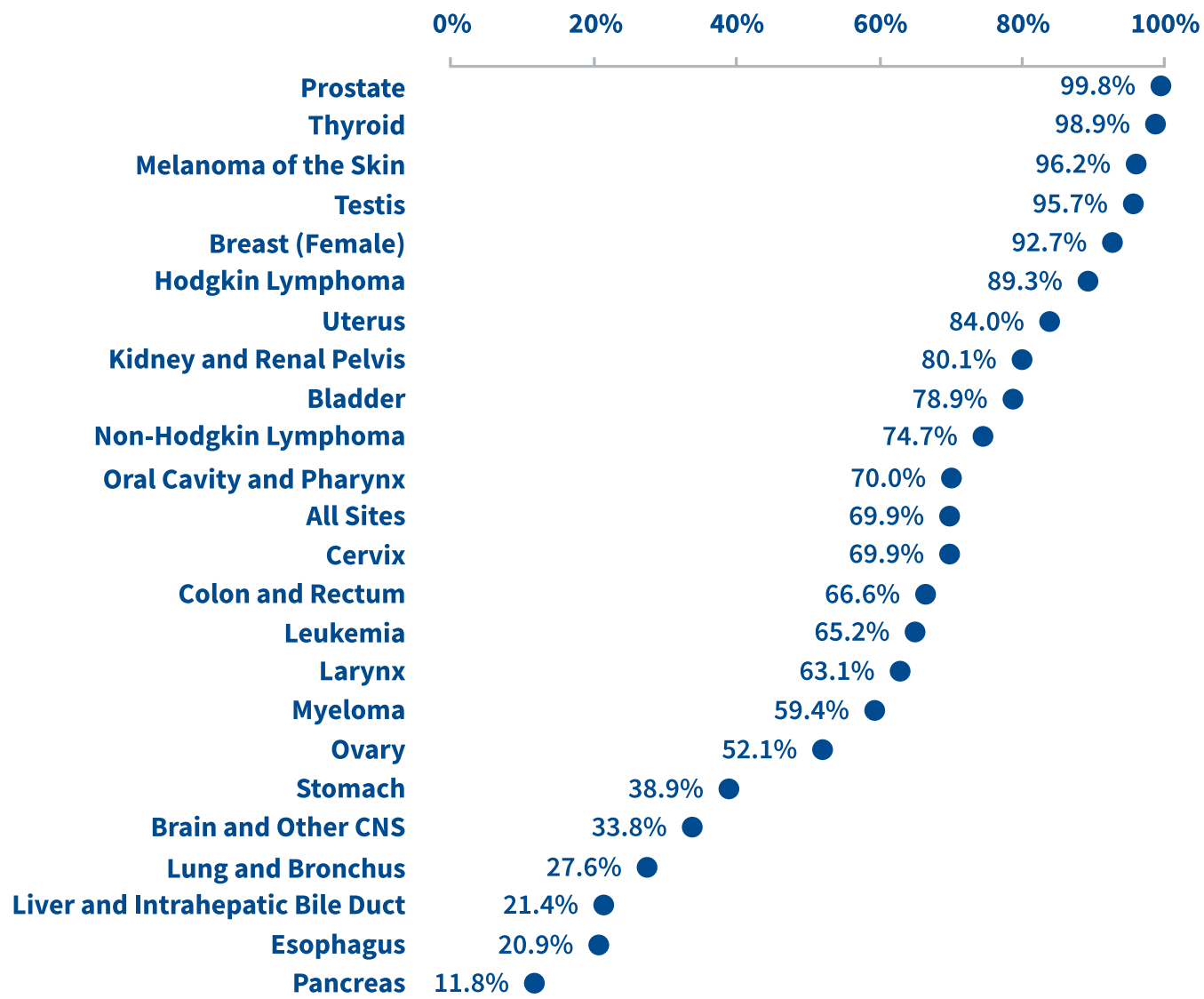


- Most prostate cancers in Ohio in 2022 were diagnosed at a local stage (69%).
- Regional stage prostate cancers accounted for 14% of cases.
- Men in Ohio whose prostate cancer had spread to distant parts of the body accounted for 8% of cases in 2022. (Figure 16).

Source: Ohio Cancer Incidence Surveillance System, Ohio Department of Health, 2024.

Relative survival compares the survival of people diagnosed with cancer with the survival of people who do not have cancer. The five-year relative survival was 69.9% for all cancer sites/types combined in Ohio, based on cases diagnosed from 2015 to 2021 and followed through 2022. The five cancers with the highest five-year relative survival were prostate (99.8%), thyroid (98.9%), melanoma of the skin (96.2%), testicular (95.7%), and female breast (92.7%), while the five cancers with the lowest five-year relative survival were pancreatic (11.8%), esophageal (20.9%), liver and intrahepatic bile duct (21.4%), lung and bronchus (27.6%), and brain and other CNS (33.8%). (Figure 17). Overall, cancer survival has steadily improved over time in Ohio.

Figure 17. Five-Year Relative Survival by Cancer Site/Type, Ohio, 2015-2021



Source: Ohio Cancer Incidence Surveillance System, Ohio Department of Health, 2024.
Based on Ohio cases diagnosed from 2015 to 2021 and followed through 2022.
CNS = Central Nervous System.

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 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.

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 cancer cases 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.

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

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/download.html#19>.

Relative Survival: The percentage of people who are alive at a designated time period (usually five years) after a cancer diagnosis divided by the percentage expected to be alive in the absence of cancer based on normal life expectancy.

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

Sources of Information

Ohio Department of Health:

<https://odh.ohio.gov/know-our-programs/ohio-cancer-incidence-surveillance-system/welcome>

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

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

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