

All Sites/Types Combined

Definition: Cancer is a group of more than 100 diseases in which cells in a part of the body begin to grow uncontrollably.¹ Cancer cells continue to grow and form new, abnormal cells that can also invade tissues.¹ Cancers that are untreated can cause serious illness and even death.¹

Background: From 2002 to 2006, there was a yearly average of approximately **57,110** newly diagnosed cases of cancer in Ohio.² During this same time period, Ohio experienced approximately **24,870** deaths each year due to cancer.²

The lifetime risk of developing invasive cancer for men is 1 in 2 and for women is 1 in 3.³ Age is a very important risk factor in developing cancer, as around 78% of all cancers are diagnosed at age 55 and older.⁴

The risk of developing cancer may be reduced by changing lifestyle behaviors including; quitting smoking, limiting sun exposure, being physically active, and eating a healthy diet.¹ Cancer prognosis is generally better, the sooner a cancer is found and treated.¹

Cuyahoga County Data:

- The average annual number of newly diagnosed cancer cases from 2002-2006 was **7,541**, with an age-adjusted incidence rate of **477.1** per 100,000 people.
- This is **higher** than the **466.4** incidence rate for Ohio and **higher** than the **462.9** incidence rate for the Nation.
- The average annual number of cancer deaths from 2002-2006 was **3,353**, with an age-adjusted mortality rate of **204.3** per 100,000 people.
- This is **higher** than the **201.4** mortality rate for Ohio and **higher** than the **186.9** mortality rate for the Nation.

Table 1a All Sites/Types

Average Annual Number of Cancer Cases and Age-Adjusted Incidence Rates* for 2002-2006

Incidence	Male		Female		Total	
	Cases	Rate	Cases	Rate	Cases	Rate
Cuyahoga County	3,752	570.7	3,789	420.6	7,541	477.1
Ohio	28,988	544.9	28,121	415.4	57,110	466.4
National SEER		541.8		408.5		462.9

* Rate is calculated per 100,000 people.

Table 1b All Sites/Types

Average Annual Number of Cancer Cases and Age-Adjusted Mortality Rates* 2002-2006

Mortality	Male		Female		Total	
	Cases	Rate	Cases	Rate	Cases	Rate
Cuyahoga County	1,688	261.8	1,665	170.5	3,353	204.3
Ohio	12,802	250.8	12,067	169.5	24,870	201.4
National SEER		229.9		157.9		186.9

* Rate is calculated per 100,000 people.

Figure 1a

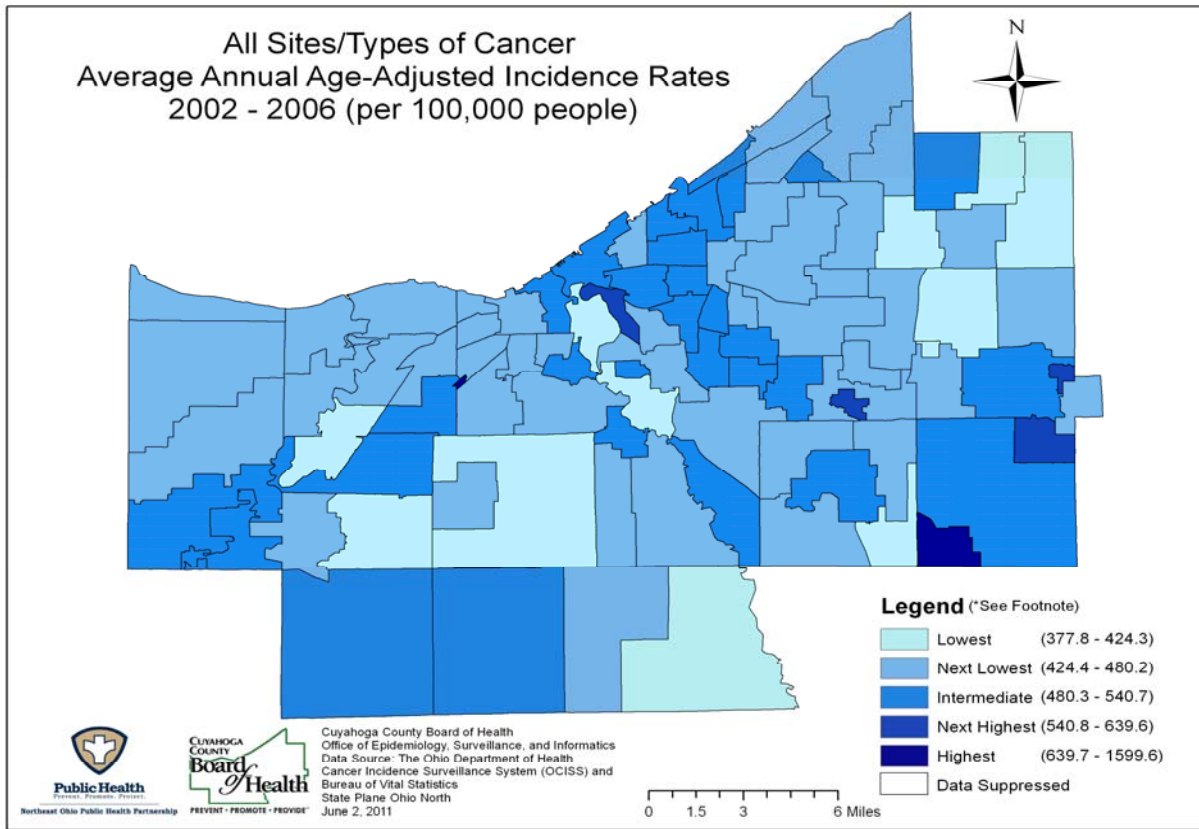
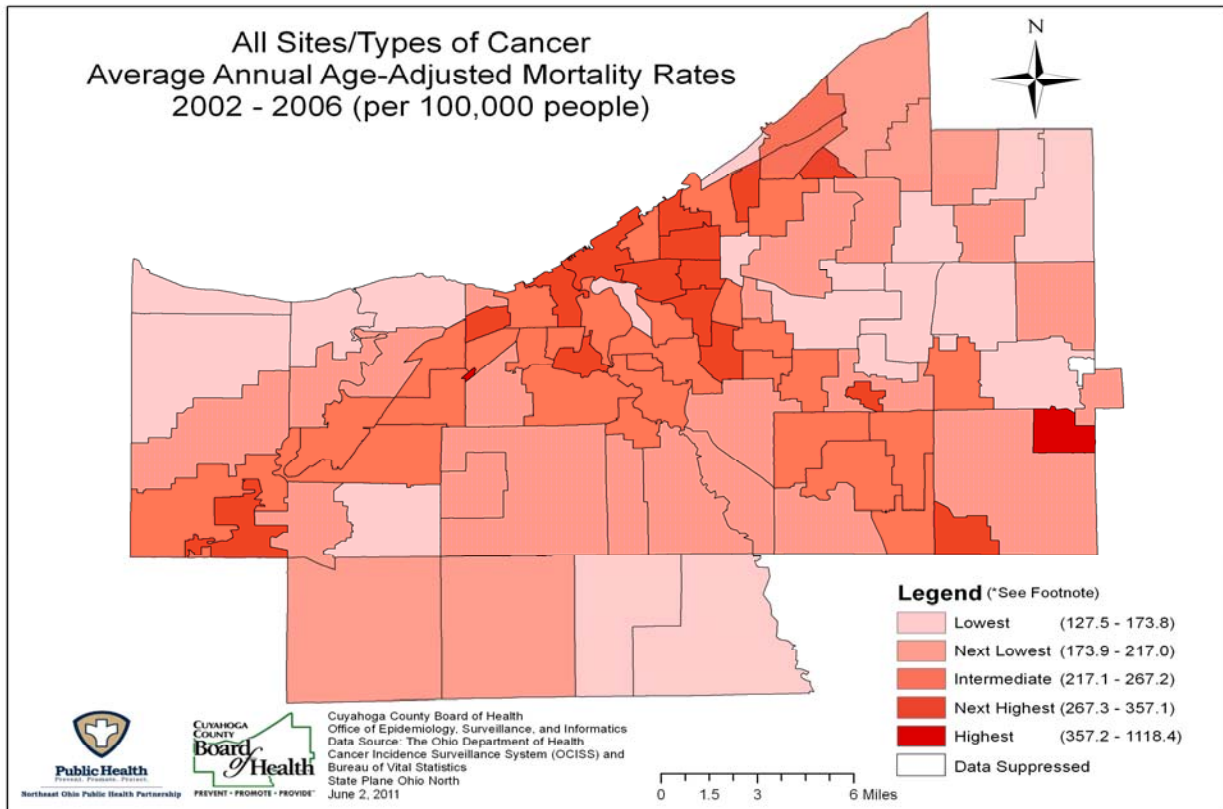


Figure 1b



*Data were suppressed to help maintain confidentiality and /or due to concerns over unstable numbers. See methods/limitations section for additional details.

Chart 1a

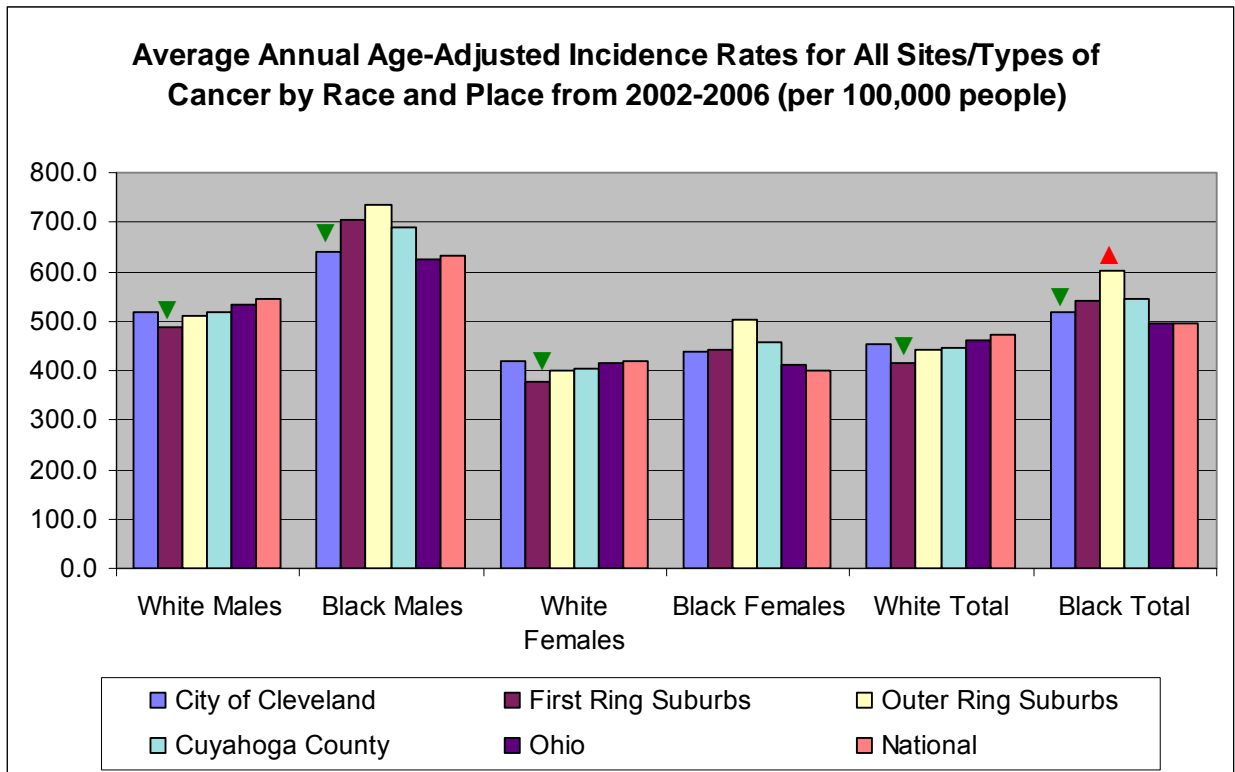
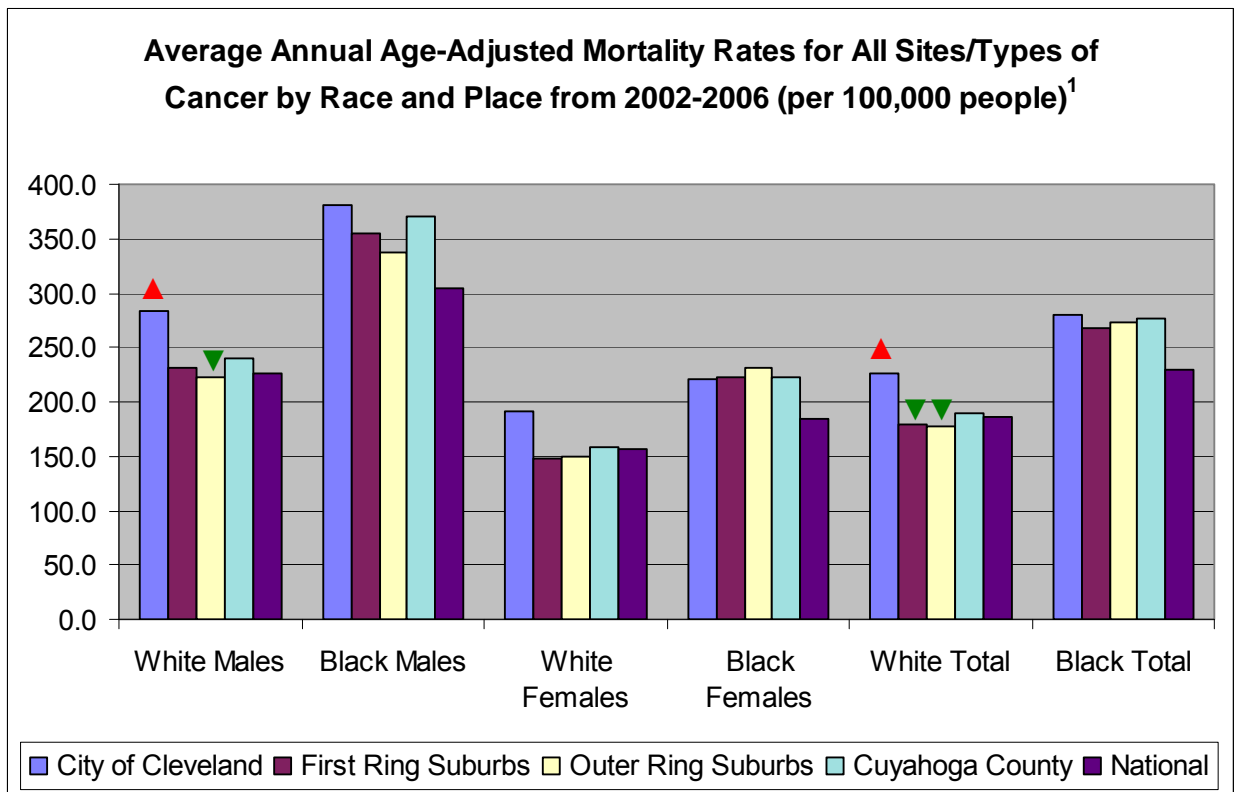


Chart 1b



¹Mortality Rates were unavailable and not presented for the State of Ohio from 2003-2005

▲ Rates are statistically significantly higher when compared to Cuyahoga County.

▼ Rates are statistically significantly lower when compared to Cuyahoga County.

■ Rates are not compared to Cuyahoga County when there are <20 cases total for 2002-2006 due to instability.

Risk Factors

Males: In the United States, 1 in 2 males will develop cancer in their lifetime and 1 in 4 males will die from cancer in their lifetime.³

Females: In the United States, 1 in 3 females will develop cancer in their lifetime and 1 in 5 females will die from cancer in their lifetime.³

Several risk factors may contribute to the development of cancer. They include:⁵

- **Growing older**
- **Tobacco use**
- **Sunlight exposure**
- **Ionizing radiation**
- **Certain chemicals or substances**
- **Some viruses and bacteria**
- **Certain hormones**
- **Family history of cancer**
- **Alcohol**
- **Poor diet**
- **Physical inactivity**
- **Obesity/Overweight**

Symptoms¹

General symptoms of cancer include:

- Unexplained weight loss
- Fever
- Fatigue
- Pain
- Skin changes

These symptoms may be caused by something other than cancer; however, it is important to speak with a physician regarding any of these symptoms.

Screening, Prevention and Early Detection^{5,6}

Screening:

Screening tests are used to check for cancer or pre-cancerous conditions in people who have no symptoms. When cancer is found early, treatment is generally more effective.

The most widely used screening tests are for breast, cervical, colon, and rectum cancers.

- **Breast Cancer-** Mammograms are recommended every 1 to 2 years after age 40, modified by discussion with a physician for special clinical conditions or family history.

- **Cervical Cancer-** Pap smear tests are recommended at least every 3 years after a woman turns 21 or three years after a woman begins having sexual intercourse. Administration of HPV vaccine is recommended for adolescents and young adults, girls/young women and boys/young men.
- **Colon and Rectum-** Adults aged 50 and older should be screened using one or multiple methods below:
 - Fecal Occult Blood Test annually
 - Sigmoidoscopy, every 3 years
 - Colonoscopy every 10 years starting at age 50, more frequently if polyps are detected, or with a family history of polyps or colon cancer.
 - Stool DNA test
- **Skin Cancer-** Annual screening for anyone with a history or family history of skin cancer, or sunburns as a child

Prevention:

It is not possible to prevent all cancers. The best way to reduce the risk of cancer is to reduce the known risk factors for cancer.

Some ways to decrease the risk of cancer overall include:

- Avoid tobacco use and exposure to secondhand smoke.
- Limit sun exposure and use sun screen with an SPF of at least 15.
- Avoid any use of sun tanning salons.
- Follow safety tips when using pesticides, solvents, paints, and petrochemicals at work and home.
- Do not have unprotected sex or share needles.
- Discuss risks and benefits of menopausal hormone therapy with your physician.
- Talk with your physician about genetic testing if there is a strong family history (two or more members) of any cancer.
- Drink alcohol only in moderation- No more than one drink a day for women and two drinks a day for men.
- Consume a healthy diet low in fat and high in vegetables, nuts, and berries.
- Maintain a healthy weight with a BMI less than 27.
- Engage in physical activity for at least 45 minutes, 4 or more times a week.

Staging

Stage at Diagnosis describes the severity of a person's cancer and the extent to which it has or has not spread throughout the body.⁷ Cancer staging is important in helping physicians plan appropriate treatment, as well as to estimate a patient's prognosis.⁷ Cancer diagnosed in the *in situ* and localized stages are generally referred to as early-stage tumors, whereas regional and distant tumors are referred to as late-stage tumors.² Detecting cancers at an early stage may increase long-term survival and can lead to a reduction in mortality.²

The National Cancer Institute groups staging into five main categories:⁷

- ***In situ*:** Abnormal cells are present only in the layer of cells in which they developed. In this report, *in situ* cases are only included for bladder cancer.

- **Localized:** Cancer is limited to the organ in which it began, without evidence of spread.
- **Regional:** Cancer has spread beyond the primary site to nearby lymph nodes or organs and tissues.
- **Distant:** Cancer has spread from the primary site to distant organs or distant lymph nodes.
- **Unstaged/Unknown:** There is not enough information to determine the stage.

Chart 1c

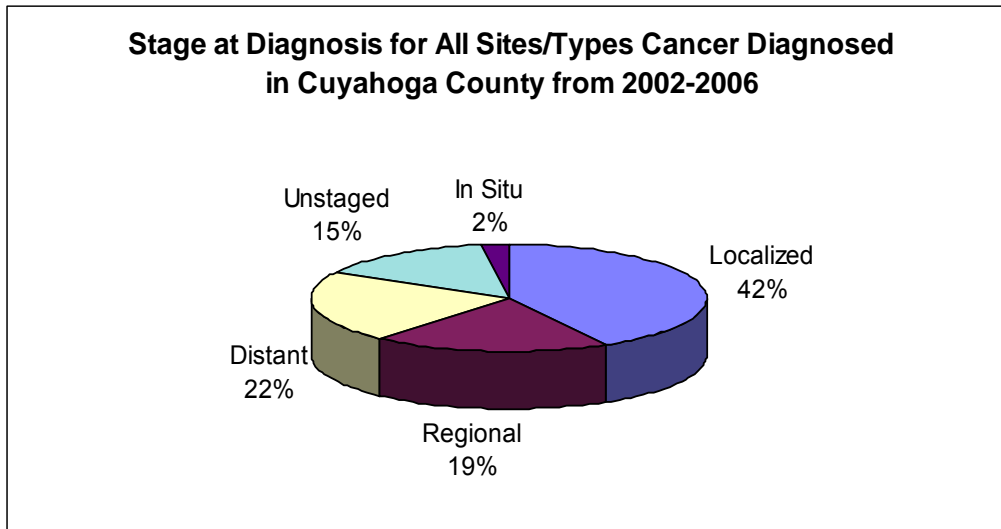


Table 1c

5-year Relative Survival* at Diagnosis for All Sites/Types of Cancer in the United States for 1999-2006 by Race and Sex⁸	Survival Rate (%)
White Males	66.8
White Females	67.0
Black Males	60.6
Black Females	54.9
Overall	66.0

*Relative survival compares observed survival for those with cancer to the expected survival for those without cancer.

More Information

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

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

Ohio Department of Health <http://www.odh.ohio.gov/>

Resources

1. The American Cancer Society. Learn about cancer.
<http://www.cancer.org/Cancer/CancerBasics/what-is-cancer>. (Accessed December 13, 2010).
2. *Cancer Incidence and Mortality among Ohio Residents, 2002-2006*. Ohio Cancer Incidence Surveillance System, Ohio Department of Health and The Ohio State University, Columbus, Ohio, December 2009.
http://www.odh.ohio.gov/ASSETS/79F9E92E210F477D885F8EAC864E2F27/0206Monograph_Final.pdf.
3. The American Cancer Society. Lifetime Risk of Developing or Dying From Cancer.
<http://www.cancer.org/Cancer/CancerBasics/lifetime-probability-of-developing-or-dying-from-cancer>. (Accessed January 10, 2011).
4. The Ohio Department of Health. Cancer Program. Cancer Types.
<http://www.odh.ohio.gov/odhPrograms/pmlt/cancer/canctypes/canctype1.aspx>. (Accessed December 13, 2010).
5. National Cancer Institute. What you need to know about cancer.
<http://www.cancer.gov/cancertopics/wyntk/cancer>. (Accessed December 13, 2010).
6. Case Comprehensive Cancer Center <http://cancer.case.edu/> and Seidman Cancer Center Recommendations <http://www.uhhospitals.org/irelandcancer/tabid/800/uhseidmancancercenter.aspx> (February, 2011).
7. National Cancer Institute. Cancer Staging.
<http://www.cancer.gov/cancertopics/factsheet/Detection/staging>. (Accessed December 23, 2010).
8. Surveillance Epidemiology and End Results. SEER Stat Fact Sheets: All Sites.
<http://seer.cancer.gov/statfacts/html/all.html>. (Accessed December 13, 2010).

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