Geographic Patterns of Cancer Incidence in Ohio: 1996-2006
Frequently Asked Questions

Ohio Cancer Incidence Surveillance System

- **What do these maps show?**
  The maps presented in this document show geographic patterns of cancer incidence (new cancer cases) in Ohio. Darker shades on the map represent areas with higher cancer incidence rates compared to other areas of Ohio, whereas lighter shades represent areas with lower incidence rates. In the United States, men and women have about a 1-in-3 lifetime risk of developing invasive cancer; thus, every community in Ohio is affected by cancer, even those areas with the lightest shades. Ohio and U.S. incidence rates are displayed next to the legend of each map to show how regions of Ohio compare to the statewide and national cancer burden.

- **How can these maps be used?**
  These maps can be used to identify areas of Ohio with high rates of a particular type of cancer or related cancers for implementation of cancer prevention, early detection and control programs. These maps can also be used to generate questions about the factors that may contribute to higher cancer rates in a particular area. In addition, information from the maps can be used in conjunction with cancer mortality, health behavior, socioeconomic, environmental and other health-related data to conduct health assessments at the community level.

- **What factors contribute to the variation in cancer incidence rates across the state?**
  Cancer incidence rates vary across the state for many reasons, including those listed below:
  - *Differences in known risk factors such as tobacco use and obesity*. For example, higher rates of lung and other smoking-related cancers are likely found in areas with a higher smoking prevalence.
  - *Differences in racial/ethnic distribution*. Some cancers are more common among certain racial/ethnic populations such as prostate cancer among African Americans.
  - *Prevalence of cancer screening*. Screening tests such as mammograms, Pap smears and colonoscopies are of great benefit to early cancer detection. However, a higher prevalence of cancer screening in an area may lead to higher incidence rates, if invasive cancers are detected.
  - *Complete case reporting*. The accuracy of Ohio's central cancer registry, the Ohio Cancer Incidence Surveillance System (OCISS), is dependent on complete reporting of all cancer cases diagnosed among Ohio residents. Reporting varies by geographic area and type of cancer; thus, lower incidence rates in a particular area or for a specific type of cancer may be due to incomplete reporting.
  - *Chance*. The distribution of cancer incidence rates in Ohio may be due to chance. Chance plays a role in who develops cancer, the type of cancer, if and when the cancer will be diagnosed, where the cancer case resides at the time of diagnosis and why the cancer developed.

- **If a person lives in an area with a higher cancer rate, are they more likely to develop cancer?**
  Multiple factors (many of which are unknown) affect a person's risk of developing cancer. These factors include health behaviors, genetics and history of exposure to cancer-causing substances. Regions with higher cancer rates represent the average risk of all residents of the region, not individual risk. Thus, an individual living in an area with a higher cancer rate is NOT at greater risk of developing cancer.

- **Can cancer clusters be identified from these images?**
  No. A cancer cluster usually involves: multiple cases of one type of cancer, unusual types of cancer in a particular population, an unusual space or time distribution of cases and/or a known exposure to a cancer-causing substance. Cancer clusters are often identified through specific statistical tests. The methods used to create these maps did not apply these tests or account for the factors involved in cancer clusters.

- **Why are the rates in this document different from other rates published by the OCISS?**
  The rates in this document may differ from other rates published by the OCISS for two main reasons: different time periods and different methodologies for calculating the rates. Rates presented in this document are for an 11-year period (1996-2006) and were adjusted using rates from neighboring counties.

- **Are the maps adjusted for the age distribution of the population?**
  Yes. The risk of developing cancer increases with age. To allow for the comparison of populations with different age distributions, rates are adjusted for age using a national standard.