

ANSWERS TO COMMUNITY HEALTH CONCERNS

1. What were the results from this investigation for each county?

The main findings from this analysis that were statistically significant are as follows:

- In Anderson County, melanomas occurred less often than expected among males and females, and bladder cancer occurred more often than expected among males.
- In Blount County, lung, thyroid, and corpus uteri cancer occurred less often than expected among females, and melanomas occurred more often than expected among females.
- In Knox County, no type of cancer occurred more often than expected among females or males.
- In Loudon County, no type of cancer occurred more often than expected among females or males.
- In Meigs County, colon cancer occurred less often than expected among females.
- In Morgan County, colon and prostate cancer occurred less often than expected among males, and breast cancer occurred less often than expected among females.
- In Rhea County, cancer of the floor of the mouth and cancer of the small intestine occurred more often than expected among males, and cervical cancer occurred more often than expected among females.
- In Roane County, melanomas and prostate cancer occurred less often than expected among males, and pancreatic cancer occurred less often than expected among females. Kidney cancer occurred more often than expected among females.

2. Should the community be worried about these findings? What do they mean?

Although higher rates of certain cancers were found in several of the counties for which data were analyzed, no consistent pattern was observed in cancer occurrence. For this analysis, data on 42 cancer types were evaluated for the eight counties surrounding the Oak Ridge Reservation during the period 1991–2000. Given the large number of statistical analyses performed, it is not unusual to find some increases and some decreases in rates of occurrence.

These findings provide a picture of cancer in the population living in the eight counties surrounding the Oak Ridge Reservation. Although incidence rates of certain cancers were higher in several counties than would be expected, the reasons for these increases are

unknown and could be simply because of increased awareness and screening in these areas.

Also, community residents should be aware that scientific studies have identified a number of factors for various cancers which may increase an individual's risk of developing a specific type of cancer. These risk factors include such things as diet, age (cancer risk increases with age), family history, exposure to certain chemicals (only a limited number of chemicals show definite evidence of human carcinogenicity), exposure to radiation, alcohol use, and tobacco smoke. Appendix A contains information regarding the 10 most commonly reported cancers. Additional information on prevention, genetics, and causes of cancer can be found on the Web site of the National Cancer Institute (<http://www.cancer.gov/cancertopics/prevention-genetics-causes>).

3. Could the Oak Ridge Reservation be the cause of the higher number of cancers observed?

This analysis could not determine why people living in the eight counties surrounding the Oak Ridge Reservation developed cancer, because (1) information on individual exposure data or risk factors is not available, (2) cancer takes time to develop, usually 20–40 years, (3) different types of cancer have different causes, and (4) we do not know the causes of most types of cancer. Scientific studies have identified risk factors for developing various cancers. Cancer risk factors include heredity, geographic area of residence, diet, environmental causes, tobacco smoke, sexual practices, and alcohol consumption.

4. Why did you standardize?

The reason for standardizing is to take into account differences among people in the population such as age, race, ethnicity, or sex to see if there are still elevated rates of a disease. In this analysis, we wanted to standardize because the counties we were concerned with may be very different demographically from the State of Tennessee as a whole, which was the comparison population, and we wanted to account for these differences. If we had not standardized, we would not have been able to draw meaningful conclusions from our analysis. For example, if we were to examine the cancer rates in a community predominantly of older people, we would expect higher rates because cancer is more common in older people. However, if our comparison population was predominantly younger, we would not expect much cancer. To get an accurate cancer rate, we must make adjustments for differences in age and/or other characteristics between the groups being compared.

5. Why do the results for Loudon County presented in this report differ from those presented in the public health assessment?

(<http://www2.state.tn.us/health/CEDS/list.htm>)

The cancer analysis in the Loudon County public health assessment examined the crude rates of cancer incidence in the area and did not take into account differences due to age or race/ethnicity.

6. Why were the 49 census tracts surrounding the Oak Ridge Reservation not included in the analysis as requested by the Oak Ridge Reservation Health Effects Subcommittee?

Though we had hoped to conduct a census tract analysis, the Tennessee Cancer Registry collects cancer data at the county level and is not intended for census-tract level analysis. Although an attempt was made to geocode addresses, the quality of address data was insufficient to guarantee reliable census tract data, rendering any results uninterpretable. The reason for this was that a high percentage of the addresses for several counties were for either post office boxes or rural routes, which could not be geocoded to the census tract level.

7. Who can I contact if I have additional questions about cancer?

If you are concerned about your risk of developing cancer, you should discuss this with your physician. If you want more information about cancer, you can contact the following agencies:

American Cancer Society
1-800-227-2345 (or 1-866-228-4327 for TTY)
www.cancer.org

National Cancer Institute
1-800-422-6237 (or 1-800-332-8615 TTY)
www.cancer.gov