Do Cancer Incidence and Death Rates Vary by State?

Table 4 and Table 5 provide average annual incidence (new diagnoses) and death rates for selected cancer types by state. Lung cancer rates vary the most by state, reflecting historical differences in smoking prevalence that continue today.

Who Is at Risk of Developing Cancer?

Cancer usually develops in older people; 80% of all cancers in the United States are diagnosed in people 55 years of age or older. Certain behaviors also increase risk, such as smoking, having excess body weight, and drinking alcohol. In the US, an estimated 40 out of 100 men and 39 out of 100 women will develop cancer during their lifetime (Table 6). These estimates are based on cancer occurrence in the general population and may differ for individuals because of exposures (e.g., smoking), family history, and/or genetic susceptibility.

For many types of cancer, risk is higher with a family history of the disease. This is thought to result primarily from the inheritance of genetic variations that confer low or moderate risk and/or similar exposures to lifestyle/environmental risk factors among family members. Inheritance of genetic alterations that confer a very high risk occurs much more rarely.

Relative risk is the strength of the relationship between exposure to a given risk factor and cancer. It is measured by comparing the rate of cancer in a group of people with a certain exposure or trait to the rate in a group of people without this characteristic. For example, men and women who smoke are about 25 times more likely to develop lung cancer than nonsmokers, so the relative risk of lung cancer among smokers is 25. Most relative risks are not this large. For example, the relative risk of breast cancer among women who have a mother, sister, or daughter with a history of breast cancer is about 2.

Figure 1. Trends in Age-adjusted Cancer Death Rates* by Site, Males, US, 1930-2017

*Per 100,000, age adjusted to the 2000 US standard population. †Mortality rates for pancreatic and liver cancers are increasing.

*Note: Due to changes in ICD coding, numerator information has changed over time. Rates for cancers of the liver, lung and bronchus, and colon and rectum are affected by these coding changes.


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