Certain behaviors also increase risk, such as smoking, eating an unhealthy diet, or not being physically active. Cancer researchers use the word “risk” in different ways, most commonly expressing risk as lifetime risk or relative risk. Lifetime risk refers to the probability that an individual will develop or die from cancer over the course of a lifetime. In the US, the lifetime risk of developing cancer is 42% (1 in 2) in men and 38% (1 in 3) in women (Table 6, page 14). These probabilities are estimated based on the overall experience of the general population and may overestimate or underestimate individual risk because of differences in exposures (e.g., smoking), family history, and/or genetic susceptibility.

Relative risk is a measure of the strength of the relationship between a risk factor and cancer. It compares the risk of developing cancer in people with a certain exposure or trait to the risk in people who do not have this characteristic. For example, men and women who smoke are about 25 times more likely to develop lung cancer than nonsmokers, so their relative risk of lung cancer is 25. Most relative risks are not this large. For example, women who have a mother, sister, or daughter with a history of breast cancer are about twice as likely to develop breast cancer as women who do not have this family history; in other words, their relative risk is about 2. For most types of cancer, risk is higher with a family history of the disease. It is now thought that many familial cancers arise from the interplay between common gene variations and lifestyle/environmental risk factors. Only a small proportion of cancers are strongly hereditary, that is, caused by an inherited genetic alteration that confers a very high risk.

**What Percentage of People Survive Cancer?**

The 5-year relative survival rate for all cancers diagnosed during 2005-2011 was 69%, up from 49% during 1975-1977 (Table 7, page 18). Improvement in survival reflects both the earlier diagnosis of certain cancers and improvements in treatment. Survival statistics vary greatly by cancer type and stage at diagnosis (Table 8, page 21).

Relative survival is the percentage of people who are alive a designated time period (usually 5 years) after a cancer diagnosis divided by the percentage expected to be alive in the absence of cancer based on normal life expectancy. It does not distinguish between patients who have no evidence of cancer and those who have relapsed or are still in treatment. The 5-year relative survival rate does not represent the proportion of people who are cured because cancer deaths occur beyond 5 years after diagnosis. For information about how survival rates were calculated for this report, see "Sources of Statistics" on page 64.