What Percentage of People Survive Cancer?

The 5-year relative survival rate for all cancers diagnosed in 2004-2010 was 68%, up from 49% in 1975-1977 (see page 18). The 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. Relative survival is the percentage of people who are alive a designated time period after a cancer diagnosis (usually 5 years) 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. While 5-year relative survival is useful in monitoring progress in the early detection and treatment of cancer, it does not represent the proportion of people who are cured because cancer deaths can occur beyond 5 years after diagnosis. In addition, although relative survival provides some indication about the average survival experience of cancer patients in a given population, it may not predict individual prognosis and should be interpreted with caution. First, because 5-year relative survival rates for the most recent time period are based on patients who were diagnosed from 2004 to 2010, they do not reflect the most recent advances in detection and treatment. Second, factors that influence individual survival, such as treatment protocols, other illnesses, and biological or behavioral differences in cancers or people, cannot be taken into account. Third, survival rates may be misleading for cancers detected before symptoms arise if early diagnosis does not extend lifespan. This occurs when cancer is diagnosed that would have gone undetected in the absence of screening (over-diagnosis) or when early diagnosis does not alter the course of disease. In other words, increased time living after a cancer diagnosis does not always translate into progress against cancer. For more information about survival rates, see "Sources of Statistics” on page 50.

How Is Cancer Staged?

Staging describes the extent or spread of cancer at the time of diagnosis. Proper staging is essential in determining the choice of therapy and in assessing prognosis. A cancer’s stage is based on the size or extent of the primary tumor and whether it has spread to nearby lymph nodes or other areas of the body. A number of different staging systems are used to classify cancer. A system of summary staging is used for descriptive and statistical analysis of tumor registry data and is particularly useful for looking at trends over time. According to this system, if cancer cells are present only in the layer of cells where they developed and have not spread, the stage is in situ. If cancer cells have penetrated beyond the original layer of tissue, the cancer has