*8) Cancer survival*

Cancer patients have higher mortality than the general population, but they do not all die of cancer. The relative survival rate is the ratio of the survival rate actually observed among the cancer patients and the survival that would have been expected if they had only had the same overall mortality rates as the general population. Thus if five year survival is 60% among a group of cancer patients of whom 90% would have been expected to survive that long, the relative survival is 67% (60/90). By convention, relative survival is described as a rate, although strictly it is a ratio of two percentages.

**8.1 Numerator:** The observed survival rate derived from the distribution of survival times from the date of diagnosis of the specified cancer to the earliest date among the date of death, the date of emigration and the cut-off date of follow up, for cancer patients who were diagnosed during the specified period. Follow up for all cancer patients is complete up to 31 December 2001. It should be noted therefore that the five year relative survival rates for breast and prostate cancer for 1997 (Table 2), and all the specified cancers for 1996-99 (Table 3) are based on incomplete follow up. Source: ONS, derived from NHS regional cancer registries and the National Health Service Central Register.

**8.2 Denominator:** The expected survival rate among the specified cancer patients, derived from the mortality rates of residents of the appropriate Government Office Region (age-sex-period specific life-tables) for the period covered by the survival estimates. Source: Government Actuaries Department.

The relative survival rates are directly age standardised. The standard population used is the number of persons who were diagnosed with the particular cancer under consideration in England and Wales during the period 1986-90.