BACKGROUND: The Italian register of cardiovascular diseases is a surveillance system of fatal and nonfatal cardiovascular events in the general population aged 35-74 years. It was launched in Italy at the end of the 1990s with the aim of estimating periodically the occurrence and case fatality rate of coronary and cerebrovascular events in the different geographical areas of the country. This paper presents data for cerebrovascular events.

METHODS: Current events were assessed through record linkage between two sources of information: death certificates and hospital discharge diagnosis records. Events were identified through the ICD codes and duration. To calculate the number of estimated events, current events were multiplied by the positive predictive value of each specific mortality or discharge code derived from the validation of a sample of suspected events. Attack rates were calculated by dividing estimated events by resident population, and case fatality rate at 28 days was determined from the ratio of estimated fatal to total events.

RESULTS: Attack rates were found to be higher in men than in women: mean age-standardized attack rate was 21.9/10,000 in men and 12.5/10,000 in women; age-standardized 28-day case fatality rate was higher in women (17.1%) than in men (14.5%). Significant geographical differences were found in attack rates of both men and women. Case fatality was significantly heterogeneous in both men and women.

CONCLUSIONS: Differences still exist in the geographical distribution of attack and case fatality rates of cerebrovascular events, regardless of the north-south gradient. These data show the feasibility of implementing a population-based register using a validated routine database, necessary for monitoring cardiovascular diseases.