



## Scottish Stroke Statistics

### Background

Cerebrovascular disease develops as a result of problems with the blood vessels supplying oxygen rich blood to the brain.

Scotland has a high prevalence of the risk factors associated with cerebrovascular disease such as smoking and high blood pressure. Despite a substantial decrease in rates of death over the last decade, treating and preventing stroke is a national clinical priority for Scotland as outlined in the Stroke Improvement Plan.

The Information Services Division (now PHS) provides an annual update on cerebrovascular disease in Scotland, including stroke, brain haemorrhage and 'mini-stroke'

### Main points

The incidence rate for cerebrovascular disease decreased over the last decade by 12%. Incidence rates were consistently 20% higher in males than females.

There were 3,835 deaths in Scotland in 2018 where cerebrovascular disease, including stroke, was the underlying cause. In the last decade, the death rate for cerebrovascular disease decreased by 34%.

The death rate for cerebrovascular disease in the most deprived areas was 52% higher than in the least deprived areas in 2018.

The percentage of people surviving 30 days or more following their first emergency admission to hospital with a stroke improved slightly over the last ten years from 83% in 2009/10 to 86% in 2018/19.

The number of patients receiving prescriptions for drugs to treat diseases of the circulation increased by 12.5% in the last ten years. Despite this increase, the cost of prescriptions dispensed for these drugs has fallen by 21% over the last ten years to £139.7 million in 2018/19, reflecting falls in drug prices for these conditions.

## The Data

The data we have on the NHS open data site is a summary of discharges from hospital and deaths in Scotland resulting from a cerebrovascular disease (including stroke and subarachnoid haemorrhage). All the data can be found [here](#)

The data dictionaries for each dataset can be found by clicking on the preview page. Here is an example.

## General Questions

We would like gain more understanding about stroke occurrences in Scotland. Some specific questions:

- What is the most common stroke diagnosis in Scotland?
- Are there any differences in stroke diagnoses between different demographics (e.g. sex, age group)?
- Are there differences if you look at number of cases by health board vs by local authority?
- Are there differences in mortality rates for different types of stroke? Does this vary with demographics?
- Is there any way to predict upcoming diagnoses/mortality rates for future years?