

A stroke is a serious disease and a common cause of death and disability. A stroke involves an interruption of the blood flow to an area of the brain caused either by a blood clot (cerebral infarction) or by cerebral haemorrhage. The most common symptoms of a stroke are paralysis of one side of the face and/or the arm or leg on one side and/or speech difficulties. Most people who suffer after-effects of a stroke will have a great need for health services in the time after the stroke. Swift and targeted emergency treatment can reduce the degree of disability as well as mortality.

### Background

It is important that patients who show symptoms of a stroke are taken quickly to hospital. It is a well-documented fact that clot-busting treatment administered within 4.5 hours of the onset of symptoms helps to reduce disability.

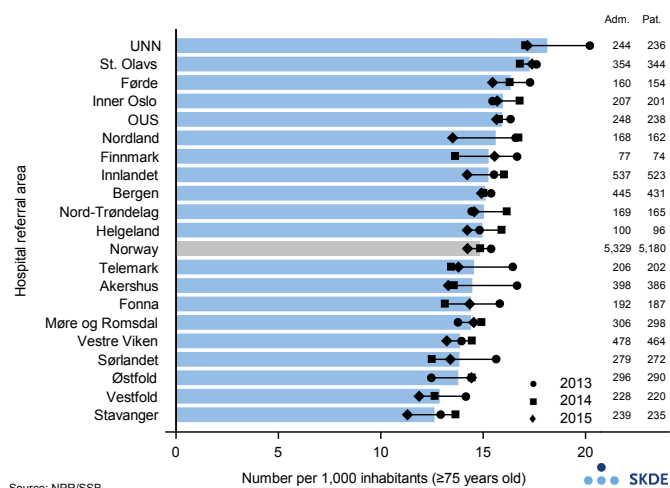
It has also been documented that treatment at a stroke unit with an interdisciplinary team reduces disability, mortality and the need for nursing home care. Stroke unit treatment is the single most important component of the treatment chain for stroke patients, and national guidelines recommend that all patients with an acute stroke should be treated at a stroke unit.

### Results

Strokes among the elderly result in just over 5,300 emergency admissions each year. There were 40% more admissions for strokes among residents of UNN hospital referral area than in the Stavanger area. The number of admissions for strokes decreased during the period 2013–2015.

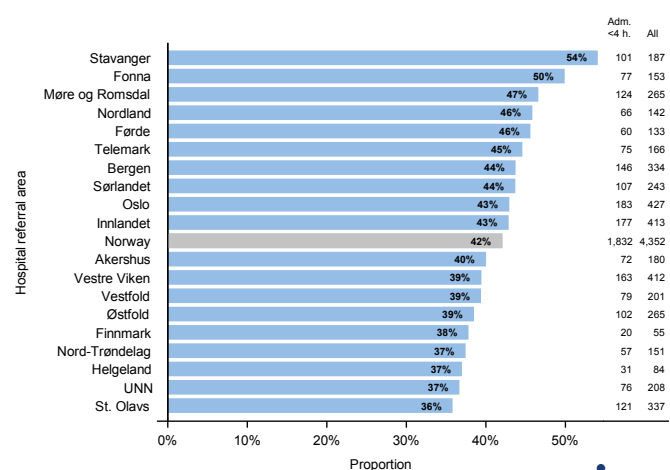
For Norway as a whole, 42% of patients are admitted within four hours of the onset of symptoms. In Stavanger hospital referral area (54%), 50% more patients are admitted within four hours than in the St. Olavs area (36%).

Nationally, 90% of stroke patients are treated at stroke units. In Stavanger hospital referral area (99%), nearly 50% more patients are treated at stroke units than in the Førde area (67%).



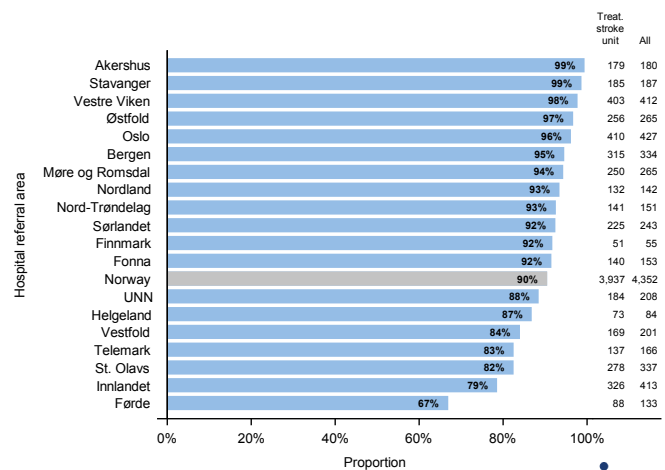
Source: NPR/SSB

Number of admissions per 1,000 population, average for 2013–2015, adjusted for gender and age. Av. number of admissions and patients per year.



Source: The Norwegian Stroke Register

Proportion of patients admitted within 4 hours of onset of symptoms, 2014–2015, adjusted for gender and age. Av. admitted within 4 hours and candidates for admission per year.



Source: The Norwegian Stroke Register

Number of patients treated at stroke units, 2014–2015, adjusted for gender and age. Av. number treated and candidates for treatment at a stroke unit per year.

### Comments

There is little variation in admissions for strokes between hospital referral areas, which could indicate that there are no geographical differences in the incidence of the disease.

Despite considerable differences between hospital referral areas in the distances to hospital, the proportion of patients who arrive at a hospital within four hours is relatively even between areas.

It is a national goal that at least 90% of stroke patients should be treated at stroke units. Seven out of 20 hospital referral areas fail to reach this goal.

Some hospitals have reported fewer than 70% of the stroke cases they have treated to the Norwegian Stroke Register. The results for the hospital referral areas in question (Akershus, Bergen, Innlandet and Finnmark) must therefore be interpreted with caution.