Recent trends in stroke in Sweden

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Nearly 6 million deaths every year from stroke worldwide
Deaths (millions) due to IHD and stroke by country income group (low, middle and high)
Deaths (millions) due to IHD and stroke among people 15-59 years by country income group (low, middle and high)

WHO Global Burden of Disease 2004
Proportion deaths by cause in EU men and women, all ages, latest available year

Sweden 2007:
IHD 16804
Stroke 7930
Age-standardized mortality from stroke in European regions (men; age group 45–74 years; year 2000)
Age-standardized mortality from stroke in European regions (women; age group 45–74 years; year 2000)
Things to consider in stroke epidemiology

- Stroke is heterogeneous with varying patophysiology and risk factors
- Trends for different forms of stroke may not follow the same pattern
- Mortality does not adequately capture the burden of stroke

Stroke mortality per 100,000 in Sweden 1997-2011. Men and women aged 20 to 44.

Data from the Swedish Board of Health and Welfare
Stroke mortality per 100,000 in Sweden 1997-2011. Men and women aged 45 to 64.

Data from the Swedish Board of Health and Welfare
Stroke mortality per 100,000 in Sweden 1997-2011. Men and women aged 65 to 84.

Data from the Swedish Board of Health and Welfare
Age-specific stroke incidence for 3 different study periods in southern Sweden.

Hallström B et al. Stroke 2008;39:10-15
Kaplan–Meier graph of survival after stroke for the 3 study periods (P<0.0001; log rank test between the 3 different study periods).

Hallström B et al. Stroke 2008;39:10-15
Age-standardized incidence rates of first-ever stroke per 100,000 among men and women in Sweden aged 30 to 65 years reported to the SHDR between 1989 and 2000

Medin J et al. Stroke 2004;35:1047-1051
The variation in reported subtypes of stroke (cerebral infarction=CI, intracerebral hemorrhage=ICH, undetermined pathological type=UND) in the SHDR between 1989 and 2000 among men and women in Sweden aged 30 to 65 years (crude numbers %).

Medin J et al. Stroke 2004;35:1047-1051
Age-standardized incidence of stroke in Sweden, men and women aged 30 to 64, between 1989 and 2000

Conclusion

Sweden occupies a low to intermediate position with respect to global stroke mortality

Stroke incidence in Sweden peaked in the late 90s and rates are now decreasing, particularly among the elderly

Among the small fraction of patients <45 (2%) an increase in NH stroke incidence is evident at least from the late 80s.