HPR223

Estimating the Fiscal Cost of Stroke in the United Kingdom

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Key findings from the analysis:

In 2025

103,575 stroke-related working-age claimants

153,505 stroke-related pension-age claimants

A total fiscal cost of £2.36 billion

In 2035

A projected increase in total fiscal costs of 23%

Background

- Stroke has a profound and lasting impact on people's lives. It can affect physical and mental wellbeing, independence, family life and employment, while also creating substantial demand for health, social care and community support services.
- Stroke imposes a substantial health and economic burden, yet evidence of its fiscal consequences for government budgets remains limited. This study aimed to estimate the current and projected fiscal cost of stroke in the UK, disaggregated by age group and country.

Objective

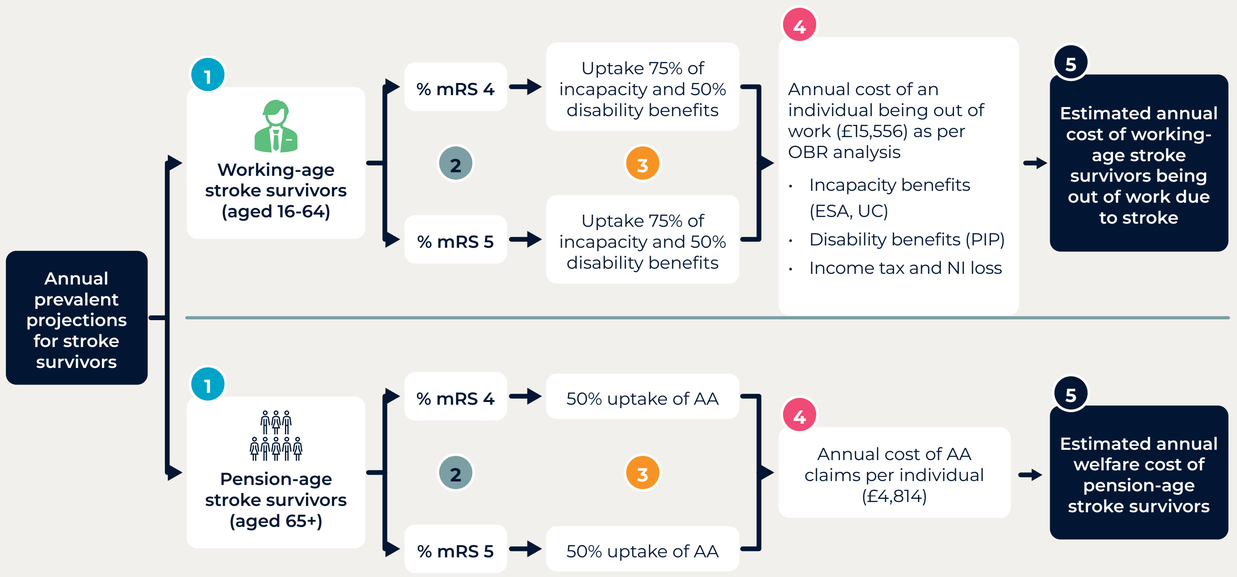
- We conducted a fiscal impact analysis, from a public finance perspective, to estimate the impact of stroke on government revenues and expenditures over the period 2025 to 2035.

  Specifically, we aimed to:

1. Capture both welfare expenditure and, for working-age stroke survivors, the impact of reduced employment on income tax and National Insurance revenues.
2. Produce estimates for England, Scotland, Wales and Northern Ireland, as well as for the UK overall.
3. Assess how fiscal costs may change over time in response to projected changes in stroke prevalence and post-stroke disability severity.

Methods

- A population-based costing framework was applied, combining projections of the number of people affected by stroke with assumptions regarding benefit eligibility, uptake, and per-person fiscal costs.
- Disability was measured using the modified rankin scale (mRS). Individuals with more severe disability (mRS 4 or 5) following a stroke were assumed to have a higher likelihood of qualifying for disability-related benefits.
- Fiscal impacts were estimated by combining the eligible claimant population with representative cost profiles that reflect both direct welfare payments and, for working-age individuals, indirect effects on tax revenues. Direct welfare payments included universal credit (UC), personal independence payment (PIP), employment support allowance (ESA), and attendance allowance (AA).



Step 1

Source stroke prevalence for each country. Prevalence is sourced from national audit datasets. Population projections were based on population forecasts and additional age-specific growth rates.[1-6]

Step 2

Estimate the 'stock' of people who may be eligible to claim each year by estimating the proportion of the prevalent stroke population who are living with mRS 4 or 5. This was used as a proxy for requiring welfare support.

Step 3

Assume a rate of uptake. The uptake rate reflects that not all who are eligible to claim will do so. The uptake rate was approximated given limited published evidence available.

Step 4

Estimate annual per-person costs

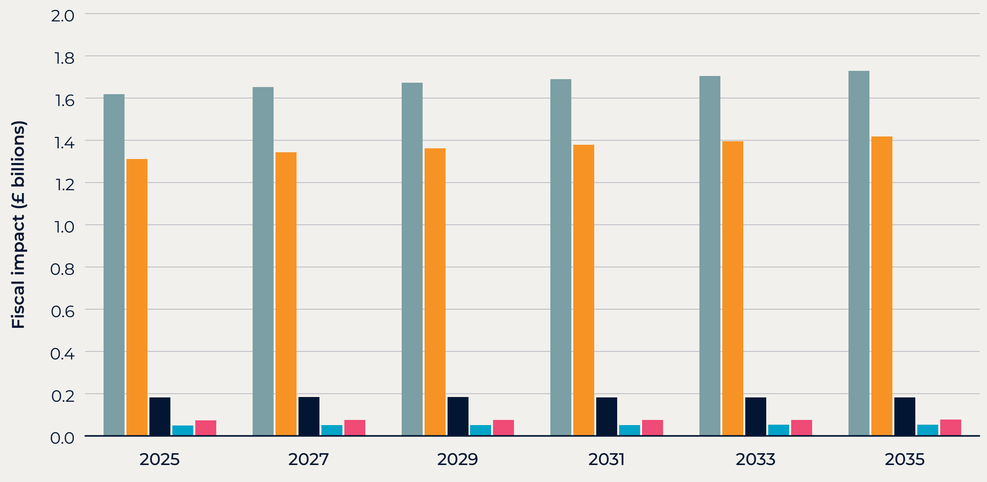
High and low-rate AA payments are reported government unit costs. The annual fiscal cost for the working-age population is sourced from an OBR report.[8] The unit costs reported are weighted by the uptake rates as per Step 3.

Step 5

Estimate total annual fiscal cost by applying the 'stock' estimate to the estimated yearly fiscal cost of stroke. Results are estimated for each country and at aggregate UK level and presented in 2025 real terms costs.

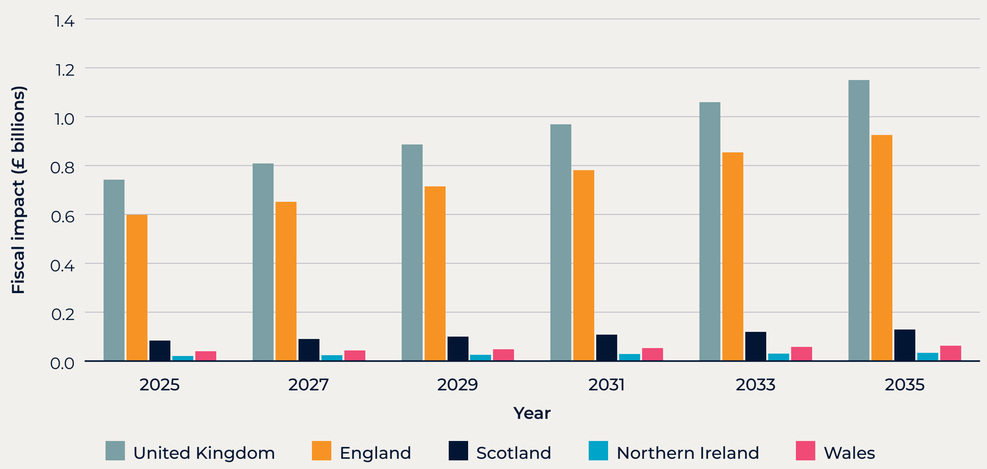
Results

Projected total fiscal costs in the working-age population, by country and calendar year



- Fiscal costs in the UK working-age population are projected to increase from £1.62 bn in 2025 to £1.73 bn in 2035.
- Costs in the UK pension-age population are projected to increase from £741.6 mn in 2025 to £1.15 bn in 2035.

Projected total welfare costs in the pension-age population, by country and calendar year



- The estimated costs for the working-age population are greater than the pension-age population, despite larger claimant numbers.
- This is due to the total annual cost per claimant in the working-age population being much larger, at £15,556 versus £4,815 in the pension-age population. This is due to the cost of the welfare claim itself, as well as the value of tax effects and national insurance contributions lost through economic inactivity.

Fiscal cost for the working-age population in 2025

Country	Estimated number of claimants	Total fiscal costs (£)
England	84,059	**£1.31 bn**
Wales	4,710	**£73.3 mn**
Scotland	11,734	**£182.5 mn**
Northern Ireland	3,072	**£49.7 mn**
United Kingdom	103,575	**£1.62 bn**

The estimated annual fiscal cost per person is £15,556. It is derived from OBR reported costs[8] and weighted according to the assumed uptake rates for relevant benefits.

Welfare cost for pension-age population in 2025

Country	Estimated number of claimants	Total welfare costs (£)
England	123,831	**£598.1 mn**
Wales	8,303	**£40.0 mn**
Scotland	17,145	**£82.5 mn**
Northern Ireland	4,227	**£20.9 mn**
United Kingdom	153,505	**£741.6 mn**

The estimated annual AA payment per person is £4,815. This estimate is derived from published government data[7] and adjusted using the assumed uptake rate.

Conclusions

- Analysis of the total fiscal cost of stroke is a new contribution to the evidence base in evaluating the economic burden of stroke in the UK. This analysis has estimated that total fiscal cost of stroke was £2.36 billion in 2025, comprising £1.62 billion for the working-age population and £741.6 million for the pension-age population.
- Total fiscal costs are estimated to increase from £2.36 billion to £2.88 billion by 2035, an increase of 23%. This rise in costs is anticipated to be attributable to the forecasted increase in the size of the stroke survivor population across the next decade.
- Stroke is associated with substantial and growing fiscal costs to the UK government, particularly among working-age people.

Abbreviations: AA - Attendance Allowance; bn - billion, ESA - Employment Support Allowance; mn – million; mRS - modified Rankin scale; NI - National Insurance; PIP - Personal Independence Payment; UC - Universal Credit.

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