

Future sight loss UK (1): The economic impact of partial sight and blindness in the UK adult population

Executive summary

Report prepared for RNIB

by Access Economics Pty Limited

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Access Economics (Australia) was commissioned by Royal National Institute of Blind People (RNIB) to estimate the economic impact of partial sight and blindness in the UK adult population. This comprised the direct and indirect costs of partial sight and blindness, and the burden of partial sight and blindness on health. In addition, Access Economics was asked to undertake an international comparison (with Australia, US, Japan, and Canada) and several cost effectiveness analyses on strategic interventions that are expected to prevent and ameliorate the impact of sight loss in the UK adult population.

The economic costs presented in this report relate to the adult UK population (≥ 18 years of age). Although prevalence of partial sight and blindness has been estimated and reported for those aged 0 to 39, this data must be used with caution. Data on the prevalence of childhood partial sight and blindness in the UK is limited and variable. More research needs to be undertaken into measuring childhood partial sight and blindness and the associated economic costs within the UK.

This report comprises the following estimates:

- prevalence of partial sight and blindness in the UK by age, gender, ethnicity, severity, major region and major cause in 2008, and future projections by decade to the year 2050.
- the direct health system costs of partial sight and blindness in the UK adult population, disaggregated by cost components (hospital, medical, pharmaceutical, optometry, diagnostics, residential care, allied health, research, other) for the year 2008, with projections to 2013.
- the indirect costs of partial sight and blindness in the UK adult population, disaggregated by cost components (including productivity losses, informal care costs, devices and modifications, and tax inefficiencies associated with transfer payments and public funding of health care), for the year 2008, with projections to 2013.
- the burden of disease, measured in terms of disability adjusted life years (DALYs), of partial sight and blindness in the UK adult population, disaggregated by years of life lost due to premature death (YLL) and healthy years of life lost due to disability (YLD), and converted into a reasonable monetary equivalent
- projection of health care system costs and indirect costs for 2009 to 2013.

- a comparison with other countries – Australia, US, Canada and Japan.
- economic evaluation and scenario analysis of four hypothetical eye care programs to inform recommendations for rational, cost-effective service delivery, development and improvement in policy and practice.

The results of the study indicate that partial sight and blindness in the adult population places a large economic cost on the UK, totalling £22 billion in 2008. Direct health care system costs amount to £2.14 billion and indirect costs amount to £4.34 billion. In addition, the loss of healthy life and the loss of life due to premature death associated with partial sight and blindness also impose a cost on society through a reduction in the stock of health capital. This reduction was estimated at £15.51 billion in 2008. A detailed breakdown of direct and indirect costs and the reduction in the stock of health capital associated with the burden of disease is shown in Table 1 overleaf.

Table 1: Summary of costs associated with partial sight and blindness in UK adults 2008

	£ million
Direct costs	
hospital recurrent expenditure	592.74
non-admitted expenditure	507.99
prescribing expenditure	158.12
general ophthalmic services (GOS)	484.04
expenditure associated with injurious falls	25.10
research and development	13.99
residential care and community care services	304.69
capital and administration	58.22
Total – direct costs	2,144.89
Indirect costs	
lower employment	1626.70
absenteeism	79.85
premature mortality	2.38
informal care costs	2,029.70
devices and modifications	336.50
deadweight loss	268.59
Total – indirect costs	4,343.72
burden of disease costs	
years of life lost due to morbidity	14,530.67
years of life lost due to premature death	978.43
Total – burden of disease costs	15,509.10
Total – costs	21,997.71

Source: Access Economics calculations.

In addition to estimating the economic cost of partial sight and blindness in the UK adult population, four hypothetical eye care interventions were evaluated to estimate their potential cost effectiveness. These focused on four areas that have been identified as most relevant for current policy, and include:

- promoting the prevention of eye injuries,
- improving access to integrated low vision and rehabilitation services.
- increasing regular eye tests for the older population (≥ 60 years).
- increasing access to eye care services for minority ethnic groups (MEGs).

The results show that the most effective campaign is expected to be one which focuses on MEGs. This is because their access to eye care services is lower than the average population and their undetected eye conditions are more likely to be severe. It was estimated that an educational campaign using media and an educational road show to ten locations heavily populated with MEGs throughout the UK could result in a cost effectiveness ratio of £1,230 per DALY avoided (90 per cent confidence interval of £1,032 per DALY avoided to £1,559 per DALY avoided).

Results of the other three economic evaluations show there are gains to be made in investing in the promotion of eye care services. In summary, the results indicated the following:

- a cost effectiveness ratio of £24,200 per DALY avoided for a campaign that targets older people (≥ 60 years) to take up regular eye examinations (90 per cent confidence interval of £17,000 per DALY avoided to £41,200 per DALY avoided).
- a cost effectiveness ratio of £100,857 per DALY avoided for a campaign that encourages those with recognised partial sight and blindness to use low vision services (90 per cent confidence interval of £73,900 per DALY avoided to £152,900 per DALY avoided).
- a benefit/cost ratio of 1.62 for a campaign that promotes the use of eye protection to avoid eye injuries (90 per cent confidence interval of 1.32 to 2.25).







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