



## **An economic model of adult smoking related costs and consequences for England**

- Smoking is a major avoidable cause of morbidity and mortality in the UK, with smoking related deaths estimated at over 100,000 per year.
- In 2005, the direct annual cost to the NHS in England due to smoking related conditions was estimated to be £4.4 billion, which was equal to 6.5% of the total health care budget for England.
- Few attempts have been made to model the long-term costs and health consequences of smoking. There is a clear need for a model for England based on population-specific data.
- The model developed for this project uses a cohort of non-smokers, smokers and ex-smokers to estimate lifetime health care costs and health consequences for the population of England.
- The model shows that smoking is associated with increased lifetime health care costs and reduced life-years lived. Smoking cessation reduces the costs of health resource use as the number of years since quitting increase. Moreover, smoking cessation results in significant gain in life years due to reduced morbidity and mortality.
- These benefits in health consequences will result in significant cost savings for the NHS.
- The model can be used to evaluate cost-effectiveness of health care interventions aimed at improving smoking cessation and reducing smoking uptake.

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