Costs of disinvesting from stop smoking services: an economic evaluation based on the NICE Tobacco Return on Investment model

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Abstract

Background WHO’s MPOWER model highlights the importance of supporting smoking cessation. Stop smoking services in England have played a key part in achieving smoking cessation. These services provide an evidence-based combination of behavioural support and medication and have been rigorously monitored since their inception. Owing to the financial pressures on local authorities in England, funding cuts are affecting many stop smoking services. The aim of this study was to assess the potential impact of disinvesting in these services.

Methods The National Institute for Health and Care Excellence (NICE) Tobacco Return on Investment tool, a Markov-based state transition model, was used to estimate the number of additional quitters that the stop smoking services produced compared with no such services. We used data of current use of services from April 1, 2013, to March 31, 2014. We estimated this benefit in terms of the impact on costs and quality-adjusted life-years (QALYs) using a lifetime horizon and 3.5% discount rate and taking a quasi-societal (health care and productivity) perspective.

Findings Of the 8456877 smokers in England in 2013–14, 583525 (6.9%) used stop smoking services. These services led to an additional 89852 quitters that year (11 per 1000 smokers) at a cost of £109 million. This investment will result in a gain of 6.8 QALYs per 1000 smokers (57619 QALYs across England). For every £1 invested, £2.37 will be saved on treating smoking-related diseases and reduced productivity, and £12.87 will be saved overall if QALY gains are valued at £20 000 per QALY.

Interpretation Disinvestment from stop smoking services in England will lead to reduced health and increased health-care expenditure as well as productivity losses to society. Two key strengths of the NICE tool are that it has the functionality to assess packages of smoking cessation interventions and the ability to model the economic returns that can be expected in different payback timescales. Limitations are the use of point-estimates, extrapolation of results over time, and the methods used to estimate economic impacts such as hospital admissions and productivity losses.

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Contributors LO had the idea for the study. SP conducted the analysis using the NICE Tobacco Return on Investment tool. All authors contributed to the writing of the abstract.

Declaration of interests SP, KC, DC, AL-G, and RW were commissioned by NICE to develop the Tobacco Return on Investment tool. LO and GL are employees of NICE. RW undertakes research and consultancy for Pfizer, GlaxoSmithKline, and Johnson & Johnson, and declares non-financial and other support from the National Centre for Smoking Cessation and Training.

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