

Financial incentives to support smoking cessation in pregnant women – size matters

Key Findings

- Women perceive that incentives to quit smoking while pregnant will increase their likelihood to quit if the value is greater than £20 per month.
- Perceived effectiveness of the quitting service increased as the value of the incentive increased but at a declining rate.
- Daily text messages or phone calls from a professional and involving a friend or relative in the intervention are also likely to contribute to effectiveness.
- These results can be used to inform the development and refinement of future trials of incentives to help women quit smoking during pregnancy.

What problem was this research addressing?

Smoking in pregnancy has considerable negative health outcomes for mother and baby as well as costs to the NHS. Evidence reviews show that interventions using incentives are effective at reducing smoking in pregnancy.¹ However, the influence of the nature, size and timing of incentives on effectiveness is not well understood. Designing better interventions requires further exploration of the characteristics of the incentives, in particular the dose response to incentives and their importance vis-à-vis other service characteristics. Trials of new interventions are expensive. Therefore this research aims to inform the design of future interventions.

What this research adds

This research provides evidence on the perceived effectiveness of different levels of financial incentive and other elements of a smoking cessation service to support women to quit during pregnancy. It has direct implications for the development and refinement of the future design of incentives to help women quit smoking during pregnancy.

Methods

We undertook a discrete choice experiment (DCE) survey to examine the potential effectiveness of a financial incentive (shopping vouchers, contingent on smoking status) and other service characteristics to support pregnant women to quit smoking. We drew on an evidence review and primary qualitative research to identify important service characteristics and levels to design the questionnaire and used econometrics to analyse the survey data. Characteristics and levels are shown in Table 1.

Female participants (320) who were current or ex-smokers aged 16-40 years were recruited via a market research company. They were asked to choose between services to support quitting smoking on the basis of which was most likely to help them quit.

Table 1 Characteristics of support for quitting service

Characteristic	Levels
Frequency of regular face-to-face meeting with quitting expert	Once a week; Once every two weeks
Method of support from quitting expert during the first week after deciding to quit	A daily visit to the clinic; A daily phone call; A daily text
Monthly financial incentive in the form of shopping vouchers	Zero; £20; £40; £80
Quitting Pal (a friend or relative who helps you to quit)	None; Your quitting pal will receive information on how to help you; Your quitting pal will receive help and information and texts on your smoking status; Your quitting pal will receive help and information and texts on your smoking status and a £20 voucher every month you stay quit

Research Findings

Women perceived the following characteristics as more likely to help them quit smoking during pregnancy:

- The reward of incentives (shopping vouchers) greater than £20 per month.
- Daily support provided by a phone call or text message in the first week after quitting.
- Having a friend or relative who receives advice on supporting them and texts on their smoking status.

The increase in the perceived effect of financial incentives begins to slow down between £40 and £80. However, lower incentives could be effective at changing behaviour when combined with the most valued other elements of the service. We can see this from Table 2. This table presents the probability that respondents perceived the new service to be more effective at supporting them to quit than the current service. The two services with the highest probability include the £80 voucher. However, the other characteristics of the service play a role in the ranking too. When lower voucher values are combined with early support by daily telephone call and a quitting pal (who receives advice and texts), they rank more highly (3rd and 8th) than some combinations which include the highest voucher value. This illustrates the importance of putting in place a combination of service characteristics that provides the best support.

Table 2 Probabilities and ranking of selected quitting service scenarios

Voucher value ¹	Method of early support ¹	Quitting pal receives advice and texts ¹	Probability ²	Ranking out of 24 possible scenarios
£80	Call	Yes	0.73	1
£80	Text	Yes	0.72	2
£40	Call	Yes	0.65	3
£40	Text	Yes	0.64	4
£80	Call	No	0.61	5
£80	Text	No	0.61	6
£80	Clinic	Yes	0.61	7
£20	Call	Yes	0.56	8
£80	Clinic	No	0.48	13
£0	Call	Yes	0.43	17
£40	Clinic	No	0.39	19
£20	Clinic	No	0.31	21

Notes:

1. Only statistically significant attributes have been included in calculating the probabilities.

2. Probability of perceiving the new service as more effective than the current service. The current service includes a first meeting with an expert advisor only.

Research Highlights

- Financial incentives, daily support in the first week after quitting and having a quitting pal increased the perceived effectiveness of the smoking cessation service.
- Including financial incentives for the 'quitting pal' did not affect the respondents' perceived effectiveness of the service.
- Although important, financial incentives did not dominate the responses and lower financial incentives could work when combined with other effective service characteristics.
- The results of the survey can be used to inform the development and refinement of future trials of incentives to help women quit smoking during pregnancy.

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For further information see the HTA paper: Morgan, H., et al. 2015. Benefits of incentives for breastfeeding and smoking cessation in pregnancy (BIBS): a mixed methods study to inform trial design.

<http://www.nets.nihr.ac.uk/projects/hta/103102>

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