

ARC BITE

Brokering Innovation Through Evidence

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Can we improve stop smoking interventions for pregnant women?



Around 10% of pregnant women in the UK smoke and this is higher amongst women from more disadvantaged circumstances.

This is linked to increased morbidity and mortality risks. The government aims to reduce this to 6% by 2023, yet the current support for expectant mothers is limited. Most women do not engage with the NHS Stop Smoking Service (SSS), and the quit rate amongst those who enrol is low.

Moreover, the majority of those who quit smoking relapse within a year. Reducing smoking during pregnancy (SDP) and postpartum smoking requires re-designing the support for pregnant women.

What was the aim of the project

We aimed to identify what characteristics were needed for the most effective intervention to help pregnant women quit smoking, and to evaluate the cost-effectiveness of such interventions.

What did we do?

We reviewed the existing evidence on interventions that aim to reduce SDP and designed a hypothetical intervention. This optimum intervention included midwife-delivered behavioural support, a partner or supporter, and financial incentives, and lasted until three months after pregnancy to prevent relapsing.

We then developed the Economics of Smoking in Pregnancy Household (ESIP.H) model to evaluate the cost-effectiveness of our hypothetical intervention. This model has a household approach, and considers a number of factors that make it more comprehensive than previous models.

What we found and what does this mean?

Our evaluation found, that one year after delivery, the hypothetical optimum intervention would increase the number of people (women and supporters) who quit by 249 per 1000 women supported. Long-term, this intervention could save the NHS around £193 per household.

Optimum interventions for pregnant women, with a household approach, could greatly extend reach, reduce smoking, and be cost-effective.

The comprehensive, state of the art ESIP.H model is available for decision-makers to design and evaluate their smoking services for pregnant women.

Recommendations

Achieving the national ambition of 6% or less SDP requires provision of more inclusive and intensive help for expectant mothers, and those who support them. The ESIP.H model has the potential to help decision-makers design optimum interventions with a household approach.

The economic evaluation suggests that there is a case for investing more resources in interventions to support women who smoke during pregnancy to quit, because of the comparatively high estimated quit rates and the cost-effectiveness evidence.

It would be important to pilot such interventions to identify potential implementation challenges, such as the availability of midwives, and to estimate the costs before scaling up. It would be possible to use the ESIP.H model to assess different versions of an intervention based on initial pilots.

What next?

Long-term interventions combining intense support and financial incentives with a household approach warrant further consideration by policymakers.

We can pilot the hypothetical optimum intervention since it offers significant health benefits and very likely to be cost-effective.

Who needs to know

Those who commission and develop interventions to support pregnant women to quit smoking.

What is NIHR ARC North Thames?

The National Institute for Health and Care Research Applied Research Collaboration North Thames (NIHR ARC NT) works to develop innovative research that can quickly be put into practice for local and national communities. We work with 6 leading universities, our Academic Health Service Network (AHSN), our region's NHS and local authority (LA) organisations and communities, industry and charities.

Find out more

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