

Evidence into Practice

Supporting partners to quit smoking

Introduction

This briefing should support the delivery of interventions to reduce smoking prevalence among pregnant women's partners or other household members. It reviews the evidence base for interventions targeting partners and includes case studies from programmes currently underway in England.

The briefing sets out:

- » Impact of smoking and exposure to secondhand smoke during pregnancy
- » Addressing partners' smoking: National guidance
- » What interventions to support partners and other household members to quit look like
- » Current evidence base for supporting partners to quit: before, during and after pregnancy
- » Creating smokefree homes
- » Conclusions

1. Impact of smoking and exposure to secondhand smoke during pregnancy

Smoking and exposure to secondhand smoke (SHS) during pregnancy increases the risk of stillbirth, miscarriage, preterm birth, heart defects, low birth weight and sudden infant death (SIDS).

	Maternal smoking	Secondhand smoke exposure
Low birth weight	Average 250g lighter	Average 30-40g lighter
Stillbirth	Double the likelihood	Increased risk
Miscarriage	24%-32% more likely	Possible increase
Preterm birth	27% more likely	Increased risk
Heart defects	50% more likely	Increased risk
Sudden Infant Death	3 times more likely	45% more likely

Source: Smoking in Pregnancy Challenge Group. Review of the Challenge 2018. July 2018.¹

The focus of most work to reduce rates of smoking in pregnancy has been on the women who smoke, not on the environments in which they live. For many women struggling to quit throughout pregnancy the home environment will play a crucial role in whether they are smoking at conception, if they are able to successfully quit, whether they relapse to smoking once the baby is born and if they and the baby are exposed to SHS.¹

Women who live with a smoker are 6 times more likely to smoke throughout pregnancy and those who live with a smoker and manage to quit are more likely to relapse to smoking once the baby is born. An estimated 20% of women are also exposed to SHS in the home throughout their pregnancy, leading to an increased risk of many of the same adverse birth outcomes experienced by women who smoke.¹

There is, therefore, an opportunity for services to intervene to support families and communities to become smokefree as part of addressing rates of smoking in pregnancy. Reaching into households and communities requires a new way of working with different kinds of professionals. There are many professionals who have regular contact with families and prospective parents who could play an important role in highlighting the need to quit smoking, the benefits to children and signpost mothers, fathers and other household members to cessation support. Such groups include maternity professionals such as midwives, health visitors, and paediatricians but also professionals in children's services, social housing providers, family planning and sexual health services, and mental health service providers.¹ Services also need to consider other, potentially more effective ways to engage fathers before, during and after pregnancy. This means trialling different types of health messaging that focuses on fathering and men's experiences and considering the role that online stop smoking and health promotion programmes can play in reaching men who are less likely to access other services.

2. Addressing partners' smoking: National guidance

NICE guidance PH26 'Smoking: stopping in pregnancy and after childbirth' and the NCSCT 'Briefing for maternity care providers' and 'Standard Treatment Programme for Pregnant Women' recommend a tailored approach to treating smoking among partners and other household members.^{2 3 4}

In line with this guidance, all pregnant women should be asked whether their partner smokes or if there are other smokers in their home. Exhaled breath carbon monoxide (CO) monitoring – which should take place at the booking and 36-week antenatal appointments and as appropriate throughout pregnancy – can help to identify if a pregnant woman has been exposed to SHS and can provide a route into conversations about household smoking. If the woman does live with a smoker, it is important that she understands that:

- » Exposure to SHS significantly reduces the chances of a healthy pregnancy.
- » Living with a smoker or being around smokers will make it harder to quit and stay smokefree.³
- » Introducing a smokefree home can increase the likelihood that their partner/household member will be able to quit smoking successfully.^{5 6}

Partners who smoke should be given clear advice about the harms of SHS to the pregnant woman and the baby, and informed that they should not smoke around the pregnant woman or baby, especially in the home or car. They should be offered a tailored intervention comprising of three or more elements (very brief advice, behavioural support and pharmacotherapy) and multiple contacts. The intervention should consider partners' preferences, the likelihood that they will follow the course of treatment, and their previous experience of stop smoking aids to ensure they are recommended the approach most likely to help them quit.²

Additionally, the NHS Long Term Plan commits to offering NHS-funded tobacco treatment services to the partners of pregnant women who smoke, as part of an adapted smokefree pregnancy pathway.⁷

3. What interventions to support partners and other household members to quit look like

Interventions to reduce smoking among partners and other household members typically have three key outcomes:

- » To protect pregnant women and children from SHS exposure by creating and maintaining a smokefree home.
- » To support partners and other household members who smoke to quit, or if they are unable to quit, moderate their smoking behaviour by smoking outside the home and away from pregnant women and children.
- » To support pregnant women who have quit or are trying to quit to have a smokefree home.

Although approaches which are effective for increasing quitting among adults in general are likely to be effective for treating smoking partners, there is currently no standardised approach for engaging partners with stop smoking interventions. Some interventions aimed at partners are delivered solely to the partner while others are delivered to both the partner and the pregnant woman. The methods and outcome measures are highly variable from one scheme to another and are heavily determined by the cultural context of the target population.^{8 9} General features of these interventions include:

- » Educational interventions, typically based in health care settings (e.g. antenatal appointment), using direct teaching or counselling, brochures, posters, role-play and/or videos;
- » Tailored approaches targeting high prevalence population groups;
- » Pharmacological and behavioural support offered to fathers and other household members. This support should address the specific barriers and facilitators for quitting among fathers;
- » Clear messaging around the harms of SHS exposure and the importance of maintaining a smokefree home. This should include advice about what works (not allowing smoking inside) and what doesn't (opening windows).

4. Preconception

Rates of smoking have a strong social and age gradient with poorer and younger women much more likely to be smokers. As women get older, they are more likely to give up smoking before getting pregnant.¹⁰ Rates of smoking for young (18-34) white women in routine and manual occupations are currently more than double (27.7%) that of women on average (12.5%).¹¹ This inequality for all women is reflected in pregnant women.¹² While some women give up smoking because of pregnancy, the data suggests that for others, particularly younger women, smoking can become entrenched during pregnancy.¹⁰

Rates of smoking among young men are similarly skewed, with 31.2% of young (18-34) white men in routine and manual occupations smoking, compared to 16.4% of men overall.¹¹ Consequently, women living with these men are more likely to be exposed to SHS and less likely to have a home environment that is facilitating quitting.

4.1 Reaching young men

Reaching these groups may require a targeted, innovative approach and working with different professionals across a broader range of settings. There is some evidence to suggest that preconception health information provided by GPs or health professionals or from other sources (including online) has the potential to increase positive pre-pregnancy health behaviour in men.¹³ Family planning and fertility services could train staff to identify smokers and deliver very brief advice (VBA) as well as specific messaging around the harms of SHS, and offer referral to stop smoking services.¹⁴

However, it is recognised that men have less direct contact with family planning services and are less likely to access healthcare in general.¹³ This is likely to be particularly salient for men working in routine and manual occupations who are less likely to be able to take time off work to attend appointments. Digital health interventions targeted at men may be effective for reaching partners from more deprived socio-economic groups, although further research is needed.¹³

Localities need to consider whether there are there particular workplaces employing lots of young men locally and whether this group is accessing other services (e.g. mental health). Partnering with social housing providers is also likely to be an effective way of reaching this cohort. Smoking rates among people living in social housing are more than double the national average at approximately 35%¹⁵ so improving reach into these communities is likely to be an effective way to reach young smokers. Localities must consider which professional groups are best placed to deliver these messages and what types of intervention are likely to be most effective. Other settings relevant to this population include primary care services and sexual health services, or education settings like further education and vocational colleges.

4.2. Ensuring consistent service provision

ASH's annual tobacco control reports detail the variation in stop smoking services available in different areas.¹⁶ In 2019, all areas responding to the survey commissioned stop smoking support for pregnant women, however this support is not necessarily available to women or their partners pre-conception. Local Maternity System's (LMS) should engage with local authority public health teams and stop smoking services to identify the service offer available to women and their partners before pregnancy and ensure that other healthcare providers are delivering consistent, evidence-based messages around the importance of quitting smoking. Reducing prevalence among all men and women in this age group through population-level and targeted interventions will be crucial to achieving specific reductions in smoking during pregnancy and pregnant women's exposure to SHS.

Useful resources

- » Smoking in Pregnancy Challenge Group. [LMS Smokefree Pregnancy Pathway](#). 2020.
- » Planning a pregnancy resources developed by [Tommy's](#) for women and families.
- » Public Health England. [Preconception care: making the case](#). 2019.

5. Intervening during pregnancy

An estimated 20% of women are exposed to SHS in the home throughout their pregnancy, leading to an increased risk of many of the same adverse birth outcomes experienced by women who smoke. Interventions to reduce both smoking and non-smoking pregnant women's exposure to SHS during pregnancy need to be further developed.

5.1 Targeting interventions at pregnant women

There is limited evidence around the effectiveness of smokefree home interventions which target fathers, because most existing research focuses on women's experiences of smoking behaviour change in these settings.^{8,9} These interventions tend to lay the responsibility for SHS avoidance/reduction on the pregnant woman, rather than focussing on the role of other smoking household members to prevent exposure to the pregnant woman.

In a systematic review of nine interventions which aimed to reduce pregnant women's exposure to SHS, seven targeted the intervention solely at the pregnant women.⁸ This was done primarily through education materials, counselling or guidance around the health effects of SHS and how best to avoid SHS exposure in the home or workplace.

However, evidence has shown that encouraging pregnant women to provide counselling and encouragement to their partners to help them quit does not increase quit rates.^{8,17} Interventions which put the onus on the woman to change the smoking behaviour of their partners are particularly problematic in households with gender power imbalances.⁹ There is consequently a need for approaches which directly encourages partners to quit smoking and engage with all members of smoking households to create a smokefree home.

5.2 Whole-family approaches

Approaches which involve partners and the wider household are likely to be more effective for reducing SHS exposure among pregnant women and children, although further research is needed.

An intervention involving 60 smoking men, based on providing education on the effects of SHS, reduced exposure among their non-smoking pregnant wives.¹⁸ The men in the intervention group received a 30-45 minute face-to-face education session based on the health belief model (HBM), which used photos to emphasise the impact SHS exposure during pregnancy has on the foetus. The HBM is based on the understanding that a person will take a health-related action if they feel greater susceptibility to the risk of experiencing negative health outcomes. Messages with educational tips were sent to the participants for the following 6 weeks.¹⁸

Participants were surveyed on their health beliefs shortly before and after the education session, and then again 6 weeks later. The researchers found that women in the intervention group reported significantly lower SHS exposure (mean number of cigarettes per week they were exposed to) 6 weeks following the intervention (35.63 compared to 12.87). However, the total number of cigarettes smoked weekly (self-report) by men was not significantly different. Although maintaining the health of the pregnancy was not sufficient motivation for men to quit smoking, it was effective for creating smokefree homes by encouraging men to smoke away from their pregnant wives.¹⁸

Research suggests that encouraging women to change the behaviour of their partners is not effective.^{8,9} Providing men with education on the impact of their smoking behaviour appears to have some impact, at least in the short term, but there is a need for further research. Future work should examine the potential effectiveness of NRT provision (both for creating a smokefree home and for cessation purposes) and/or financial incentives for partners in helping to reduce the exposure of pregnant women (both smokers and non-smokers) to SHS.^{8,19} The case studies below highlight that interventions which involve partners/family members can be an effective way to engage pregnant smokers and increase quit rates, particularly when combined with financial incentives and NRT provision.

Case study 1: Supporting a Smokefree Pregnancy (SaSFPS) in Greater Manchester (GM): The influence of Significant Other Support

Strategic aim

The GM SaSFPS includes an option for the pregnant woman to recruit 'Significant Other Support' (SOS). The inspiration to include SOS within the GM SaSFPS was initially based on research showing that the combination of reinforced social support and financial incentives significantly increased the likelihood of a higher-than-usual quit rate among high risk pregnant women.²⁰ Analysis of a previous scheme in the North West (Supporting a Smokefree Pregnancy Scheme, 2010 – 2013) found that the odds of achieving a four-week quit was increased by 55% when participants received support from a significant other, compared to those did not.²¹

Design

The significant others (SO) within the GM scheme receive £60 worth of high street vouchers if the woman they are supporting remains smokefree up to 12 weeks postpartum. If the woman relapses when on the scheme the SO receives no vouchers. The SO can be anyone the woman nominates so long as they are 16yrs or over and are CO validated as smokefree*. The SO can be someone who is also quitting and does so along with the pregnant woman. They are expected to be CO validated:

- » at time of quit commencement;
- » at the end of the 4-week quit period;
- » and there on every 4 weeks up until 12 weeks postpartum.

If the SO relapses they are no longer eligible for the vouchers, but the pregnant woman can remain on the scheme as long as she is still smokefree. The SO is required to sign a contract agreeing to the terms and conditions of the scheme.

* Scores less than 4ppm (parts per million) on a CO breath test

Outcomes

The initial outcomes are generated from participants on the original GM SaSFPS over a period of 18 months (Feb 2018 – July 2019).

54% (386/710) of the women recruited onto the scheme identified an SO. Women with SOS were almost twice as likely to achieve a 4-week quit than those without. This trend continued through to delivery and 12 weeks postpartum, although the overall numbers of women who maintained their quit decreased throughout pregnancy and postpartum.

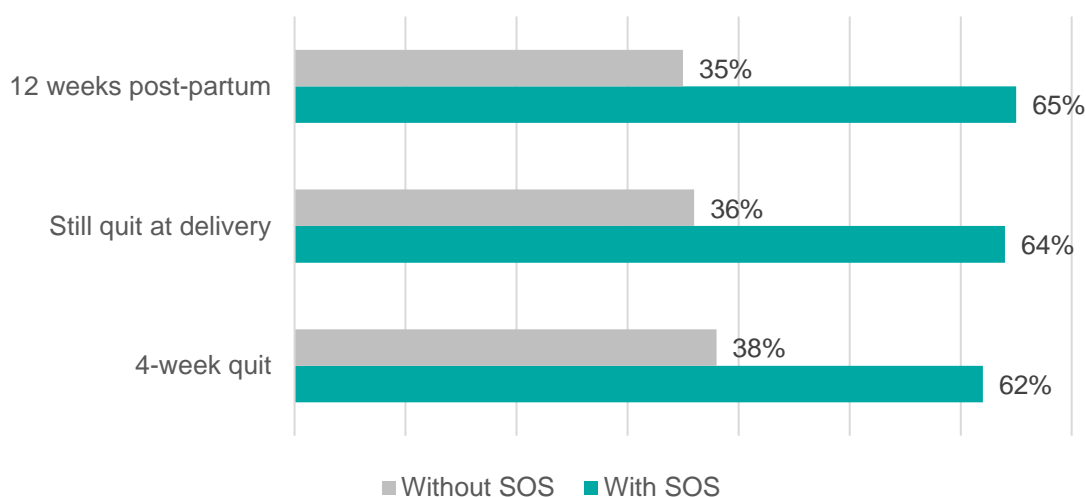


Fig 1. Percentage of women who are quit at 4 weeks, 36 week's gestation and 12 weeks postpartum with and without SOS support

Case study 2: Poole Hospital NHS Foundation Trust and Public Health Dorset: Improving Patient Care in a Tobacco Dependency Programme (IPCTD) A Quality Improvement Pilot for Smoking Cessation Support to Family Members Wishing to Quit Smoking to Improve the Quit Environment of the Smoking Pregnant Woman

Strategic aim

The key aim of the pilot was to contribute to a reduction in the prevalence of smoking in pregnancy to 6% or less by the end of 2022. This will be achieved by:

- » Increasing engagement of pregnant smokers from 52% to 75% and maintain or improve the current quit rate of 75%;
- » Increasing the partner engagement rate from 4% to 30% and increasing the quit rate from 2.2% to 30%;
- » Improving health outcomes for the 20-45 target age group who smoke and are less likely to access health care;
- » Reinforcing the simple prevention strategy that prevention is better than cure.

Design

This project is led by the Smoking in Pregnancy Midwifery services at Poole Hospital Foundation Trust. Specialist smoking in pregnancy liaison midwives provide pharmacotherapy and combined behavioural counselling sessions to the pregnant smoker and smoking partners/family members for the duration of the 12-week programme. This happens through a variety of contact methods including home visits and clinics to ensure good engagement.

The pregnant smoker, partner other household family members who smoke are seen “in tandem” to gain additional support from each other during the program. Both pregnant smokers and their smoking partners/family members are offered direct pharmacotherapy, avoiding the need for two separate pathways to be offered. Participants are CO monitored throughout the scheme to validate the quit and provide additional motivation.

Initial outcomes

1. Engagement of pregnant smokers setting a quit date has remained static at 52% (pilot target 75%) but quit rates of those engaged has increased from 75% to 82%;
2. Partner engagement rate has increased from 4% to 39% (pilot target 30%);
3. Partner quit rates have increased from 2.2% to 60% (target 30%) and interestingly 90% opted for Varenicline as their first choice of pharmacotherapy;
4. Two thirds of the partners engaged are from the targeted 20-45 age group.

5.3 Lessons for practice

- » Interventions which are delivered at the household level can be effective for engaging smoking partners, as they frame smoking as a household responsibility, with family-wide impact.
- » Significant others need to be involved not just as providers of social support but as participants with a stake in the change process.²²
- » Using financial incentives to recruit partners/significant others to support the pregnant woman’s quit attempt can be an effective way to increase quit rates.
- » Providing behavioural support and pharmacotherapy jointly to pregnant smokers and their smoking partners/family members can increase quit rates among pregnant women and partners and could be beneficial for creating a smokefree home.

6. Intervening beyond pregnancy

As of 2019, around 7% of all children in England were exposed to tobacco smoke in the home, increasing their risk of sudden infant death (SIDS), chest infections, asthma and meningitis, and making them 90% more likely to start smoking themselves.^{23 24 25} There is also emerging evidence of an association between home smoking restrictions and reduced adolescent smoking behaviours.²⁶

Evidence suggests that becoming a father is a significant transition period which provides a window of opportunity to engage and support fathers in quitting smoking or creating a smokefree home.^{27 28 29} As adults become parents, the decision to reduce or quit smoking becomes more prominent, influenced by:

- » The de-normalisation of tobacco use during pregnancy for women, and;
- » The negative effects of SHS on children.²⁷

Smoking is increasingly incongruent with fathers' views of themselves as a role model and protector to their children, with reducing and quitting smoking constructed as part of the process of engaging in fatherhood.²⁷ There are challenges in effectively engaging fathers with stop smoking interventions. A study of new fathers' narratives around reducing and quitting smoking, found that fathers are reluctant to rely on stop smoking aids and medications; instead self-reliance, willpower, and autonomy figured more prominently in their narratives.²⁷ Another study found that many men were more likely to deny or conceal their smoking rather than seek support to quit, and found that online stop smoking materials which provide anonymity and are tailored to men's experiences could be an effective method for engaging smoking fathers.³⁰

6.1 Gender appropriate approaches: reaching new fathers

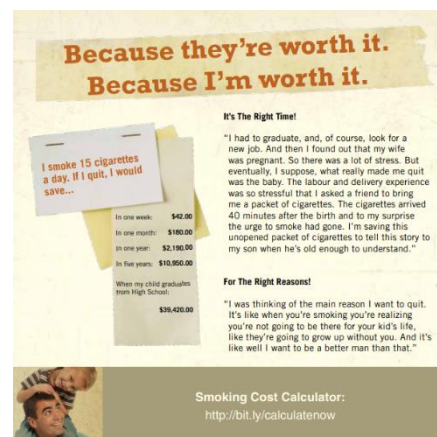
FACET (Families Controlling and Eliminating Tobacco), based at the University of British Columbia in Canada, is engaged in several programmes to find original ways to support young families in their efforts to become smokefree, including work to help new fathers quit smoking.³¹

Booklet: The right time... The right reasons... Dads talk about reducing and quitting smoking (2010)

FACET's 'The right time... The right reasons...' booklet is based on fathers' experiences of reducing and quitting smoking and is designed to provide fathers who smoke with information and advice to encourage quitting.³² It includes quotes from expectant/new fathers who smoke or have successfully reduced/quit smoking, advice about the best ways to quit, and a Q&A which highlights facts about the harms of SHS and the benefits of quitting. The booklet presents becoming a father as a key opportunity to quit smoking and emphasises the positive impact on the child/family, in terms of improved health and improved household finances. The booklet portrays the decision to quit/cut down as a way of being a responsible father who provides for his family.³²

"I actually have a kid now and my smoking is not just about me anymore. My smoking also makes it harder for my partner to quit."

"Taking my smoking outside helps my baby stay healthy. But I keep thinking about what I'm missing when I'm outside smoking. The guys at work understand that I want to be a good example for my child."



The 'Dads in Gear' (DIG) programme ^{28 33}

FACET has also trialled a 'Dads in Gear' (DIG) 8-week, gender-sensitized smoking cessation programme targeting fathers. The DIG programme design is based on three integrated components: smoking cessation, physical activity and fathering.

The programme was delivered in 5 community sites by trained male facilitators to fathers who smoked and wanted to quit. The programme consisted of weekly 2-hour face-to-face group sessions which focused on increasing men's cessation self-efficacy and providing peer and facilitator support. Materials to support the delivery of the programme, recruitment of participants, and facilitator training were provided via the DIG website.³⁴

21 fathers completed the programme, with 35.5% of participants being abstinent (self-reported) at 3-month follow up.³³

See the FACET website for more information: <http://facet.ubc.ca/>

6.2 Lessons for practice

- » Becoming a father is a significant transition period which provides a window of opportunity to engage and support fathers in quitting smoking or creating a smokefree home.
- » Evidence suggests that smoking is inextricably linked to the social relationships and environments in which it occurs.²² Positive social support from peer groups may be effective for helping fathers quit smoking i.e. messages from Dads may be more effective with Dads.
- » Peer to peer approaches which focus on increasing men's cessation self-efficacy should be explored further.

7. Creating smokefree homes

There are currently too few published studies assessing smokefree home interventions with fathers to draw conclusions regarding effective approaches. However, several interventions have been trialled which merit further exploration.

7.1 Using air quality measures to engage parents

There is some evidence to suggest that approaches which utilise feedback on air quality measures may be effective for engaging parents around household smoking, although further work is required to identify the best approach for engaging more deprived households.^{35 36 37 8}

Under the AFRESH programme researchers have specifically developed interventions aimed at supporting disadvantaged households.³⁸ This intervention consists of 6 modules, each module addressing a particular aspect of behaviour change, and is designed to be delivered face-to-face by healthcare professionals to parents and other household members who smoke. It includes up to five meetings with parents, two sets of five days' air quality monitoring for concentrations of PM_{2.5} – fine particulate matter found in tobacco smoke – with personalised feedback, and the option to involve other household members in creating a smokefree home using educational, motivational, and goal setting techniques. This intervention is based on the current evidence around smokefree homes interventions, including the REFRESH (reducing families' exposure to secondhand smoke in the home) intervention.^{35 37 38} A small-scale pilot of AFRESH found that the intervention was acceptable for the target population and may help participants to create smokefree homes, however the resources required for the delivery of AFRESH do not match with the resources typically available in third-sector organisations.³⁹

The 'First Steps 2 Smoke-free' intervention trialled the use of air quality feedback with new mothers living in deprived households, using an approach delivered as part of health professionals' routine work.⁴⁰ Women reported that the intervention had increased their awareness of SHS risks to their children, and their motivation to change home-smoking behaviours. However, the intervention was ineffective at creating actual change, as attempts to create a smokefree home were often constrained by lack of access to suitable, safe outdoor space; the challenges associated with looking after young, mobile children; and others' smoking in the home.⁴⁰ Using NRT or an e-cigarette for temporary abstinence in the home could address some of these complexities, alongside the development of smokefree home interventions that work with men and other family members, framing household smoking as a collective responsibility.⁴⁰

A 12-week smokefree homes intervention with primary caregivers of children aged under 5 years, who reported smoking in the home and were not motivated to quit found feedback on air quality could motivate quitting behaviours.⁴¹ The intervention comprised of feedback on the air quality measured in the home (PM_{2.5}); behavioural support on how to create a smokefree home; and provision of NRT for temporary abstinence or for cutting down tobacco smoking. The intervention successfully reduced children's exposure to SHS in the home, resulting in improved home air quality, lower child salivary cotinine, lower cigarette consumption in the home and increased likelihood of having made a quit attempt, compared to 'usual care'. Although the intervention did not specifically target smoking partners, this approach could be tailored for the whole household.⁴¹

Feedback on air quality (PM_{2.5}) in the home may be effective for engaging those who smoke inside the home. However, the evidence to date suggests that air quality feedback and VBA have not been sufficient to change household smoking behaviour in more deprived households.³⁷ Personalised feedback may be more effective if combined with behavioural support and perhaps with the additional provision of NRT or e-cigarettes.^{38 41}

7.2 Considering cultural contexts

A review of fathers' views and experiences of creating a smokefree home found that attitudes and knowledge, along with cultural and gender norms play a significant role in shaping fathers' beliefs and knowledge regarding the health risks of SHS exposure to children and the importance associated with creating a smokefree home.⁹ The review primarily focused on Asian countries where smoking is not the cultural norm for women, and children are largely exposed to SHS through the father. In this context, there is some evidence that community-wide interventions which aim to change smoking norms could be effective, although further research is needed.^{42 43} The authors concede that different approaches may be required in countries

with greater emphasis on gender equality compared to Asian countries – Western European countries for example – to support fathers to effectively create and maintain a smokefree home.⁹ These findings could be useful for informing smokefree homes interventions in minority ethnic communities with high rates of paternal smoking.

Case study 3: Dorset HealthCare University NHS Foundation Trust and Public Health Dorset: Exploring the use of CO screening by health visitors to support smoking cessation in pregnancy and the postpartum period

Strategic aim

Health visitors in Dorset are piloting a new project to engage with families around the harms of CO (carbon monoxide) and smoking with the aim of reducing the prevalence of smoking households.

Design

The health visitors received a three-hour training session on delivering a smoking cessation brief intervention and using a CO monitor.

When visiting a household, the health visitor offers all members of the household a personal exhaled breath CO test. Offering CO testing as part of the routine pathway enabled the conversation about smoking behaviours to be more meaningful and helps to facilitate a conversation about SHS and the risk to the baby and others in the household.

Following the CO test, household members with elevated CO levels (4ppm and above) receive Very Brief Advice (VBA) and are offered a referral to the local stop smoking service. Those declining support or indicating that they do not wish to quit, will be informed of the benefits of switching to vaping in line with the advice from Public Health England.⁴⁴

Health visitors reported that they wanted further training to cover cessation methods and e-cigarettes to support those who did not want to be referred to smoking cessation services.

Initial outcomes

Results from the early stages of the pilot found that almost half (48%) of the 33 participants managed to quit smoking during pregnancy. Of these, 69% remained smokefree up to 6-8 weeks postpartum. Health visitors reported they were able to help have more meaningful conversations with mothers and their partners using the CO monitor as an engagement tool. Those partners present during the visit were also screened for CO.

7.3 Lessons for practice

- » Interventions which combine personalised feedback on home air quality with behavioural and pharmacological support could help new parents keep a smokefree home.
- » Feedback on home air quality can be an effective way to engage women and partners around smoking cessation.
- » Evidence suggests that parents living in disadvantaged households require a tailored approach that not only acknowledges the limited opportunities that they have to take their smoking outside, but provides a practical means to overcome these limitations (e.g. NRT).
- » Carbon monoxide (CO) testing can be an effective tool for engaging and motivating smoking partners.
- » Ethnic groups with low rates of maternal smoking where children are largely exposed to SHS through the father may require tailored interventions which take into account cultural and gender norms.

8. Conclusions

- » Population level interventions to reduce smoking prevalence among young men and women from more deprived groups are likely to be effective for reducing rates smoking and exposure to SHS during pregnancy.
- » Interventions to reduce partner smoking at preconception are currently lacking and should be developed.
- » Current evidence suggests that encouraging women to change their partner's behaviour is not an effective approach to reduce exposure to SHS in the home.
- » Interventions which encourage men to take responsibility for their smoking behaviour appear to be more effective, particularly when delivered at the household level.
- » Significant others need to be involved not just as providers of social support but as participants with a stake in the change process.
- » Interventions which offer partners pharmacotherapy and financial incentives can be effective for increasing quit rates among pregnant women and partners, although further research is needed.
- » Carbon monoxide (CO) testing can be an effective tool for engaging and motivating smoking partners.
- » Peer-to-peer approaches which focus on increasing men's cessation self-efficacy as used by FACET in Canada should be explored further.
- » There is some evidence that interventions which combine personalised feedback on home air quality with behavioural and pharmacological support could help new parents keep a smokefree home.
- » Ethnic groups with low rates of maternal smoking where children are largely exposed to SHS through the father may require tailored interventions which take into account cultural and gender norms.
- » Parents living in disadvantaged households require a tailored approach that not only acknowledges the limited opportunities that they have to take their smoking outside, but provides a practical means to overcome these limitations.
- » There is a lack of agreement within published research on how best to assess non-smoking pregnant women's exposure to SHS, both pre- and post-intervention. Objective measures such as salivary cotinine or hair nicotine are expensive and time consuming whereas self-report measures of SHS exposure or partner smoking are inherently unreliable.
- » The quality of future interventions would be improved by validated questionnaire tools and a standardised measure to assess pre- and post-intervention exposure to SHS.
- » There is a need to build the evidence base and identify an effective intervention which can be replicated at a population level. The case studies included in this briefing should inform the design of future interventions to reduce partner smoking.

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